HEIDENHAIN

NC Error Messages

TNC7
TNC7 basic
NC Software
xxxxxx-19

English (en)
09/2024

NC Error Messages

Valid for:
81762x-19

Release:
09/2024

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List of All Error Messages

Error number	Description
120-0006	**Error message** Configuration of soft key not readable **Cause of error** The specified soft key is not contained in the configuration data. **Error correction** Check the configuration data.
120-0007	**Error message** Configuration of layer not readable **Cause of error** The configured soft-key row (layer) canot be read. **Error correction** Check the configuration data.
120-0008	**Error message** Cycle or query %1 unknown **Cause of error** The specified cycle or cycle dialog was not found in the configuration data. **Error correction** Check the configuration data.
120-000A	**Error message** Cannot generate menu **Cause of error** Software problem in the user interface **Error correction** Inform your service agency.

Error number	Description
120-000B	**Error message** Q Parameter %1: Cannot read or write value **Cause of error** Software problem in the user interface **Error correction** Inform your service agency.
120-000C	**Error message** Soft-key group without first element **Cause of error** In the configuration data a soft-key group is specified, but no soft key is marked as "first." **Error correction** Edit the configuration data.
120-000D	**Error message** Soft-key type is not supported **Cause of error** An illegal soft-key type was used within a cycle dialog. **Error correction** Edit the configuraiton data.
120-000E	**Error message** Invalid resource ID **Cause of error** Software problem in the user interface **Error correction** Inform your service agency.
120-000F	**Error message** Invalid configuration data for cycle **Cause of error** Too many soft keys defined in a cycle dialog **Error correction** Inform your service agency.
120-0013	**Error message** Error in the user interface **Cause of error** Software problem in the user interface. **Error correction** Inform your service agency.

Error number	Description
120-0016	**Error message** **Cause of error** Internal software error with front end/dialogs. **Error correction** Inform your service agency.
120-001E	**Error message** Can't connect to network: %1 %2 %3 **Cause of error** Unable to connect with a network drive defined in the network management. **Error correction** - Use the program manager to open the network management (NETWORK soft key) - Press the MOD key and enter the network code number NET123. - Enter all required data for the network connection (DEFINE NETWORK CONNECTN. soft key). - Check the correctness and spelling of the input data for the network connection
120-001F	**Error message** File '%1' not found **Cause of error** A required file could not be found at the specified location. **Error correction** Check the spelling of the path and file name, for example. If possible, copy the file to the required directory.
120-0027	**Error message** Unable to open configuration server queue **Cause of error** Error in the system-inherent communication. **Error correction** Inform your service agency.
120-0028	**Error message** Unable to read configuration data '%1' **Cause of error** Error in the system-inherent communication. **Error correction** Inform your service agency.

Error number	Description
120-002E	**Error message** Path '%1' not found **Cause of error** A required drive or directory was not found. **Error correction** Check the spelling of the path.
120-0041	**Error message** No files available for online help (*.CHM) **Cause of error** No context-sensitive help can be displayed because no files are available for the *.CHM online help. You have to download the *.CHM files from the HEIDENHAIN Homepage and save them on the control in the subfolder for your language. Note the information in the User's Manual. **Error correction** - Download the help files from the HEIDENHAIN homepage (www.heidenhain.de): > www.heidenhain.de > Documentation and information > User's documentation - Unpack the ZIP file and transfer the *.CHM files to the control
125-0067	**Error message** Error when saving the screen content in the file %1 **Cause of error** There was an error when saving the screen content in the file. **Error correction** Delete all unneeded files to increase memory capacity, or inform the service agency for your control.
125-0068	**Error message** Source file %1 not found **Cause of error** A file in the list of example files cannot be addressed as source **Error correction** Inform your service agency
125-0069	**Error message** Example file %1 could not be copied. Error code %2 **Cause of error** A file in the list of example files could not be copied **Error correction** Inform your service agency

Error number	Description
125-006A	**Error message** List for copying the example files not available %1 **Cause of error** The file containing the list of example files is not available **Error correction** Inform your service agency
125-006C	**Error message** Error during software update: %1 **Cause of error** **Error correction**
125-006D	**Error message** The update rules are not fulfilled **Cause of error** One or more update rules were not complied with. **Error correction** Inform your machine tool builder
125-006E	**Error message** Update file invalid or does not exist **Cause of error** The update file was not found or it does not contain a valid update. **Error correction** Inform your machine tool builder
125-006F	**Error message** Checksum error during update **Cause of error** The checksums do not match the update files. **Error correction** Inform your machine tool builder
125-0070	**Error message** Invalid signature entry during update **Cause of error** An invalid signature entry was found in the update file. **Error correction** Inform your machine tool builder

Error number	Description
125-0071	**Error message** Not enough memory. Update not possible. **Cause of error** There is not enough free memory on the data medium to save the update there. **Error correction** Vacate some memory space
125-0072	**Error message** Backup file not found **Cause of error** During the software update, the control automatically makes a backup file for restoring the previous software level. The backup file was not found on the data medium. **Error correction** Change to the directory in which the backup file was saved.
125-0075	**Error message** ZIP file contains no control setup **Cause of error** A .zip file was selected for the software update that does not contain any setup files for the control. **Error correction** - Check the .zip file
125-00D2	**Error message** Unable to write configuration data '%1' **Cause of error** Error in the system-inherent communication. **Error correction** Inform your service agency.
125-00D4	**Error message** In the configuration data, no operating times are released for editing. **Cause of error** Although the code number was entered correctly, the operating times cannot be edited because all fields of the operating times locked against editing in the configuration data. **Error correction** Release the required fields in the configuration data.

Error number	Description
125-0117	**Error message** The connection list is full **Cause of error** The maximum number of configurable connections has been reached. **Error correction** Please delete a connection before you add another one.
125-011F	**Error message** Connection setup to DNC not possible **Cause of error** Cannot connect with the DNC. **Error correction**
125-0120	**Error message** TeleService request is in error **Cause of error** Unable to send TeleService request. **Error correction** Check the network connections and retry.
125-0121	**Error message** TeleService request is in error **Cause of error** The machine parameter for TeleService is improperly configured. **Error correction** The machine parameter for TeleService, "CfgServiceRequest," must be correctly configured.
125-0149	**Error message** Traverse limits were not adopted. **Cause of error** The input for one or more traverse ranges could not be loaded. Possible cause: Value range for modulo axis was entered to be greater than 360° - An NC program is being run **Error correction** - Adapt the input values and load them again - Load the traverse limits again after program run

Error number	Description
125-014A	**Error message** Input not in effect **Cause of error** The input was not accepted. Possible causes: - You have entered an illegal character. The following characters are allowed: 1234567890.- - You have entered too many characters before or after the decimal separator. **Error correction** Check and correct the entered values.
125-014B	**Error message** Kinematic model was not switched over **Cause of error** The kinematic model was not selected. Possible causes: - An NC program is being run - Tilting of the working plane is active (3D ROT soft key, PLANE function, Cycle 19) - The kinematic model is faulty **Error correction** - Switch the kinematics again after program run - Deactivate the "Tilt Working Plane" function: - Use the 3D ROT soft key to set manual tilting to inactive, or - Use the PLANE function or Cycle 19 to deactivate tilting under program control - Inform your service agency
125-0163	**Error message** Unit of measure was not switched **Cause of error** The unit of measure for the position display could not be changed. Possible cause: - An NC program is being processed **Error correction** - Switch the unit of measure again after program run
126-0072	**Error message** Error during self-test **Cause of error** An invalid message was received during the self test. **Error correction** Inform your service agency

Error number	Description
126-0075	**Error message** Error during self-test **Cause of error** An error occurred during the self test. **Error correction** - Check the emergency-stop circuits -ES.A and -ES.B for correct wiring and proper function - Inform your service agency.
126-0076	**Error message** Error during self test **Cause of error** An error occurred during the self test. **Error correction** - Check the emergency-stop circuits -ES.A and -ES.B for correct wiring and proper function - Inform your service agency
126-007F	**Error message** Self-test cannot be started **Cause of error** Before the self-test (emergency stop test), an error occurred that prevents the test from starting: - Emergency stop error has occurred - Emergency stop button was pressed - Emergency-stop circuit is defective - Internal temperature of an HSCI component is too high - Internal temperature of an HSCI component is too low - The fan of an HSCI component is defective - The power supply to the component is missing, too low or too high - HSCI cabling is missing or defective **Error correction** - Note further messages. - Use the HSCI bus diagnostics to find out which components are reporting an error - Check the emergency-stop circuit - Check the power supply to the affected HSCI components - Check the HSCI cabling - If necessary, exchange the HSCI component - Generate the service files and inform your service agency

Error number	Description
126-010F	**Error message** The CC only runs with 500 MHz **Cause of error** IThere is at least one CC controller unit in the system that is clocked only with 500 MHz. This results in performance problems in combination with the use of adaptive control functions. **Error correction** - Check the CCs and exchange them if required. - Contact your machine tool builder
126-0110	**Error message** NC software not released for FS applications **Cause of error** - The control system (hardware) was detected as a system with functional safety (FS) from HEIDENHAIN. However, the installed NC software has not been approved for applications that use integrated functional safety (FS) from HEIDENHAIN. - The installed software is a test software or an NC software that has not been released for the application of integrated functional safety (FS) **Error correction** - Install an NC software version of your control that has been approved for applications with integrated functional safety (FS) from HEIDENHAIN. - Inform your service agency.
126-0111	**Error message** Too many switch-off ports defined **Cause of error** In the IOC file, more than one output was defined for switching the machine off after shutdown. This is not allowed. No more that one output can be defined. **Error correction** - Check the IO configuration and correct it if required
126-0112	**Error message** Switch-off port on incorrect bus system **Cause of error** The output for switching off the machine after the control shutdown was defined for the wrong bus system. The permitted bus systems are external PL assemblies with HSCI interface or internal PL assemblies. **Error correction** - Check the IO configuration and correct it if required

Error number	Description
126-0113	**Error message** PLC output for shutdown has multiple definitions **Cause of error** A PLC output for shutting down the control (switch-off port) is defined both in the IOC file as well as in the configuration data (machine parameters). Note that the entry in the configuration data has priority. **Error correction** - Check the IO configuration. - Check the configuration datum DisplaySettings/CfgShut-down (Maschinen-Parameternummer 101600) - Inform your service agency
126-0114	**Error message** Automatic switch-off not possible **Cause of error** Machine switch-off after control shutdown cannot be activated because the IO configuration does not match the actual hardware configuration. - The control will be operated in simulation mode - The IOC file does not match the hardware configuration - The options in the configuration are incorrectly set. **Error correction** - Check the hardware configuration - Check the IO configuration - Check the options - Inform your service agency
126-0115	**Error message** PLC output for switch-off is improperly defined **Cause of error** The output for switching off the machine after the control has been shutdown was incorrectly configured. - An output on the internal PL was addressed (e.g. with UEC, UMC), although no internal PL exists. - The address of the output is outside of the permissible range O0 to O30. **Error correction** Check the configuration data (machine parameter number 101600).

Error number	Description
126-0116	**Error message** PLC output for switch-off is improperly configured **Cause of error** The PLC output for switching off the machine after the control has been shutdown was incorrectly configured. - An output on an HSCI device was address, although not device is connected to the control over HSCI. - The addressed HSCI device is not a PL. - The addressed output does not exist on the PL. **Error correction** - Check the configuration data (machine parameter number 101600) - Inform your service agency
126-0117	**Error message** PLC output for switch-off is improperly configured **Cause of error** The PLC output for switching off the machine after the control has been shutdown was incorrectly configured. The settings in the configuration datum CfgShutdown are not applicable for an integrated PL (e.g. with UEC, UMC) nor for a PL connected over HSCI (e.g. PLB 62xx). Settings for output on internal PL: - powerOffDevice: Unassigned - powerOffSlot: Unassigned - powerOffPort: Number of the output on internal PL (value range: 0 to 30) Settings for output on a PL connected over HSCI: - powerOffDevice: Bus address of the PL - powerOffSlot: Slot number of the module (0 for system module and UEC11x) - powerOffPort: Number of the output to be switched **Error correction** - Check the configuration data (machine parameter number 101600) - Inform your service agency
126-0118	**Error message** PLC output for switch-off is improperly configured **Cause of error** Automatic machine switch-off after control shutdown has been selected. However, no PlC output was defined for it in the configuration file nor in the IOC file. **Error correction** - Define a PLC output for switch-off in the IOC file or in the configuration file - Inform your service agency

Error number	Description
126-0119	**Error message** Key name %1 for OEM script is too long **Cause of error** - The key name used for Python script to be started during start-up is too long. Maximum of 10 characters allowed. **Error correction** - Change the configuration datum
126-011A	**Error message** Hardware combination not permitted **Cause of error** The detected hardware configuration includes an impermissible combination of CC or PL components. Examples: - CC 6106 and CC 306 - CC 306 and UEC 112 - CC 306 and older PLB, MB, or TE (not "Gen 3 ready" or not "Gen 3 exclusive") **Error correction** - Reconfigure the hardware - Inform your machine tool builder
126-011B	**Error message** Self-test error was not detected on %2 with HSCI address %3 **Cause of error** During the device self-test, an expected message was not received. **Error correction** - Check all cable connections from and to this device - Check the device and, if necessary, exchange it - Inform your service agency
126-011C	**Error message** No reaction during self-test on %2 with HSCI address %3 **Cause of error** During the device self-test, an expected message was not received. **Error correction** - Check all cable connections from and to this device - Check the device and, if necessary, exchange it - Inform your service agency

Error number	Description
126-011D	**Error message** Self-test was not executed on %2 with HSCI address %3 **Cause of error** During the device self-test, an expected message was not received. **Error correction** - Check all cable connections from and to this device - Check the device and, if necessary, exchange it - Inform your service agency
126-011E	**Error message** Missing authorization **Cause of error** You do not have the right to execute the Commissioning mode (current controller adjustment / capturing the field angle). **Error correction** - Acquire the NC.SetupDrive right, for example by entering the password of an authorized user - Then start the function again
126-011F	**Error message** Safety not ensured **Cause of error** Configuration data relevant to safety functions of the system were changed and have not been accepted yet. **Error correction** Please pay attention to the following information about parameter sets in which configuration data was changed. Perform an acceptance test of the functional safety for this system according to the guidelines of the OEM when the respective parameter sets are active. Shut the system down; while doing so, confirm that the functional safety was successfully tested and accepted.
126-0120	**Error message** Safe configuration data %1 changed **Cause of error** Configuration data relevant to safety functions of the system were changed in the indicated parameter set and have not been accepted yet. **Error correction** Perform an acceptance test of the functional safety for this system according to the guidelines of the OEM while the indicated parameter set is active. Shut the system down; while doing so, confirm that the functional safety was successfully tested and accepted.

Error number	Description
126-0129	**Error message** Automatic switchover in simulation mode DriveSimul **Cause of error** The control was automatically switched to the "DriveSimul" simulation mode. Possible causes: - There is no controller unit (CC) in the system. - Components of drive generation 3 with external safety are being used but without a PAE module. **Error correction** - Check the hardware components installed. - Restart the control. - Set the CfgMachineSimul/MP_simMode setting to "DriveSimul". - Inform your service agency.
126-012A	**Error message** Automatic switchover in simulation mode DriveAndEmStopSimul **Cause of error** The control was automatically switched to the "DriveAndEmStopSimul" simulation mode. Possible cause: - No system PL was detected **Error correction** - Check the hardware components installed - Restart the control. - Set the CfgMachineSimul/MP_simMode setting to "DriveAndEmStopSimul". - Inform your service agency.
126-012B	**Error message** Automatic switchover in simulation mode FullSimul **Cause of error** The control was automatically switched to the "FullSimul" simulation mode. Possible causes: - Neither a PL nor a machine operating panel was detected in the system. - No devices were detected at the HSCI bus. - The CfgMachineSimul/MP_simMode setting does not match the real hardware components installed. **Error correction** - Check the hardware components - Check the HSCI cable connections - Check the voltage supply to the devices - Note further information in the control's diagnostic functions (bus diagnostics or TNCdiag) - Restart the control. - Set the CfgMachineSimul/simMode setting to "FullSimul" - Inform your service agency

Error number	Description
126-012E	**Error message** Too many UM units connected to one CC: CC index %1 **Cause of error** - Too many UM inverters are connected to the stated CC controller unit. - For each CC, the maximum number of UM inverters (or motor connections) is limited to the number of axes possible on the CC. **Error correction** - Distribute the UM inverters over other CC controller units or adapt the configuration - Remove UM inverters that aren't being used (or use one-axis modules instead of two-axis modules) - Inform your service agency
126-012F	**Error message** Component: %1 with serial number: %2 not planned in project **Cause of error** In a system with the Gen 3 generation of drives, all components connected to the HSCI bus and all power modules must be included in the IOconfig project. **Error correction** Add the missing component to your IOconfig project.
126-0130	**Error message** Project planning with IOconfig incomplete **Cause of error** In a system with the Gen 3 drives, all components connected to the HSCI bus and all power modules must be included in the IOconfig project. **Error correction** Add the missing components in your IOconfig project, and restart the control.
126-0131	**Error message** TNCdiag cannot be started **Cause of error** Internal error **Error correction** Inform your service agency

Error number	Description
126-0132	**Error message** Too many HSCI devices connected. Current: %1; permitted: %2 **Cause of error** Too many devices are connected to the HSCI bus. **Error correction** - Modify the machine configuration in order to avoid exceeding the maximum number of HSCI participants - Inform your machine manufacturer
126-0133	**Error message** Too many CC/UxC devices connected. Current: %1; permitted: %2 **Cause of error** Too many CC, UEC, or UMC units are connected to the HSCI bus. **Error correction** - Modify the machine configuration in order to avoid exceeding the maximum number of HSCI participants - Inform your machine manufacturer
126-0134	**Error message** Too many PLB/MB/TE/UxC devices connected. Current: %1; perm.: %2 **Cause of error** Too many PLB, MB, TE, UEC, or UMC units are connected to the HSCI bus. **Error correction** - Modify the machine configuration in order to avoid exceeding the maximum number of HSCI participants - Inform your machine manufacturer
126-0135	**Error message** Too many MB/TE devices connected. Current: %1; permitted: %2 **Cause of error** Too many MB or TE operating panels are connected to the HSCI bus. **Error correction** - Modify the machine configuration in order to avoid exceeding the maximum number of HSCI participants - Inform your machine manufacturer

Error number	Description
126-0136	**Error message** Too many UVR devices connected. Current: %1; permitted: %2 **Cause of error** Too many UVR devices are connected to the HSCI bus. **Error correction** - Modify the machine configuration in order to avoid exceeding the maximum number of HSCI participants - Inform your machine manufacturer
126-0137	**Error message** Too many I/O terminals present. Current: %1; permitted: %2 **Cause of error** There are too many I/O terminals present on the PLB, MB, TE, UEC, or UMC units. Functionally safe terminals count as one terminal. Perhaps more terminals were detected than are actually present on the units. Some units contain internal terminals that are included in this count for technical reasons. **Error correction** - Modify the machine configuration in order to avoid exceeding the maximum number of terminals - Inform your machine manufacturer
126-0138	**Error message** The IOCP file for projecting the hardware was not loaded **Cause of error** The system could not load the IOCP file for projecting because - the path name is not entered in the configuration data - no file was found at the configured path - the syntax in the file is bad **Error correction** - Check the configuration and the directory tree - Install the correct file

Error number	Description
126-0139	**Error message** Projected HSCI device could not be assigned **Cause of error** The device projected in the IOCP file cannot be assigned to the device found under this HSCI address. Possible causes: - Error while loading the IOCP file - Option for configuring the hardware expansion was set incorrectly - Other device is connected - Device not connected at that address, or is additionally connected - Devices connected in different sequence **Error correction** - Check projection and the options in effect - Check cabling of the HSCI chain You can use the diagnostics functions of the control for this.
126-013A	**Error message** Projected module of HSCI device could not be assigned **Cause of error** The module %1 projected for the HSCI device %2 does not match the module found at this slot. Possible causes: - Incorrect IOCP file loaded - The option relevant for evaluating the projection was set incorrectly in the configuration - Module not connected, or is additionally connected - Other module is connected - Modules connected in wrong sequence **Error correction** Check the projection and configuration of the associated options and connected modules. You can use the diagnostics functions of the control for this.
130-0001	**Error message** Processor check error **Cause of error** System error **Error correction** Inform your service agency.
130-0002	**Error message** Internal fatal system error **Cause of error** System error **Error correction** Inform your service agency.

Error number	Description
130-0066	**Error message** **Cause of error** Arithmetical error. Value too small. **Error correction** Inform your service agency.
130-0067	**Error message** **Cause of error** Arithmetical error. Value too large. **Error correction** Inform your service agency.
130-0068	**Error message** **Cause of error** System error **Error correction** Inform your service agency.
130-0069	**Error message** **Cause of error** System error **Error correction** Inform your service agency.
130-006A	**Error message** **Cause of error** System error **Error correction** Inform your service agency.
130-006B	**Error message** **Cause of error** System error **Error correction** Inform your service agency.
130-006C	**Error message** **Cause of error** System error **Error correction** Inform your service agency.

Error number	Description
130-006D	**Error message** **Cause of error** System error **Error correction** Inform your service agency.
130-006F	**Error message** **Cause of error** System error **Error correction** Inform your service agency.
130-0070	**Error message** **Cause of error** System error **Error correction** Inform your service agency.
130-0096	**Error message** **Cause of error** System error with cancellation of machining **Error correction** Inform your service agency.
130-0097	**Error message** **Cause of error** System error **Error correction** Inform your service agency.
130-0098	**Error message** **Cause of error** System error **Error correction** Inform your service agency.
130-0099	**Error message** File access was successful **Cause of error** Information for the user that file access was successful. **Error correction**

Error number	Description
130-009A	**Error message** File system error **Cause of error** 1.) The path name contains more than six subdirectories. 2.) The path name contains a directory or file name with more than 16 characters. 3.) The path name contains two or more file name extensions or a file extension with more that 3 characters. 4.) A system error occurred during file access. **Error correction** 1.) and 2.) Save the file in another directory or under another, shorter name. 3.) Save the file with only one file name extension with no more than 3 characters. 4.) Inform your service agency.
130-009B	**Error message** File not found **Cause of error** The named path has no file. **Error correction** Correct the given path name.
130-009C	**Error message** Illegal file name **Cause of error** An invalid path name was given (e.g. a path name containing illegal characters). **Error correction** Correct the given path name.
130-009D	**Error message** Too many files open **Cause of error** The file couldn't be opened because too many files are already opened. There is a limit to the number of simultaneously open files. **Error correction** Close the files that you no longer need.

Error number	Description
130-009E	**Error message** File access not possible **Cause of error** 1.) Access to the file was denied. 2.) The file is already being written to by another application. **Error correction** 1.) Check the access rights to the file and remove any existing write protection. 2.) Close the file in the application that has blocked access to the file.
130-009F	**Error message** File access not possible **Cause of error** The file was opened only for reading and cannot be written to. **Error correction** Save the files under another name.
130-00A0	**Error message** Directory could not be erased **Cause of error** The current directory cannot be deleted. **Error correction** Please select another directory first.
130-00A1	**Error message** Further file entry impossible **Cause of error** The TNC cannot save any more files. **Error correction** Delete any files that you no longer need.
130-00A2	**Error message** File access not possible **Cause of error** The drive doesn't allow positioning in the file, or the positioning is not at the begining of a line. **Error correction** Inform your service agency.

Error number	Description
130-00A3	**Error message** Drive not ready **Cause of error** Hardware error during file access. **Error correction** Check whether the device, e.g. a network adapter, is connected correctly.
130-00A4	**Error message** File access not possible **Cause of error** The file is already in use by another application. **Error correction** Close the file in the application that has access to the file.
130-00A5	**Error message** File access not possible **Cause of error** Access to a certain area of the file was blocked by another application. **Error correction** Close the file in the application that has blocked access to the file.
130-00A6	**Error message** Further file entry impossible **Cause of error** The file could not be saved because the data medium is full. **Error correction** Delete unneeded files on the data medium.
130-00A7	**Error message** Program incomplete **Cause of error** Unexpected end of file found. **Error correction** Ensure that the file is complete.
130-00A8	**Error message** Directory access not possible **Cause of error** Access to the directory was denied. **Error correction** Check the access privileges to the file and, if required, cancel an existing write protection.

Error number	Description
130-012C	**Error message** **Cause of error** The system is no longer consistent. **Error correction** Inform your service agency.
130-012D	**Error message** **Cause of error** The system cannot be started, since not all objects are available. **Error correction** Inform your service agency.
130-012E	**Error message** **Cause of error** The system cannot be started, since not all objects are available. **Error correction** Inform your service agency.
130-012F	**Error message** **Cause of error** The system cannot be started, since not all objects are available. **Error correction** Inform your service agency.
130-0130	**Error message** **Cause of error** Error in communication within the system **Error correction** Inform your service agency.
130-0131	**Error message** **Cause of error** The system cannot be started, since not all objects are available. **Error correction** Inform your service agency.

Error number	Description
130-0132	**Error message** **Cause of error** The system cannot be started, since not all objects are available. **Error correction** Inform your service agency.
130-0133	**Error message** **Cause of error** The system cannot be started, since not all objects are available. **Error correction** Inform your service agency.
130-0134	**Error message** **Cause of error** The system cannot be started, since not all objects are available. **Error correction** Inform your service agency.
130-0135	**Error message** **Cause of error** The system cannot be started because not all objects are available. **Error correction** Inform your service agency.
130-0136	**Error message** **Cause of error** The system cannot be started because not all objects are available. **Error correction** Inform your service agency.

Error number	Description
130-0137	**Error message** Error: Unexpected end of process %1 **Cause of error** A started process ended irregularly. Possible causes: - Faulty script or error in implementation - Memory assigned for script is exhausted - Other system resources are exhausted **Error correction** - Check the log files of the script for clues. If required, edit the script. - You might find further information in the log files of the control and the operating system. - Increase the memory assigned for the script.
130-0190	**Error message** ClientQueue (%1) could not be opened **Cause of error** **Error correction**
130-0191	**Error message** Log file could not be saved. **Cause of error** The log file could not be saved under the specified path/file name. **Error correction** Enter another path/file name for saving.
130-0192	**Error message** ASSERTION: Consistency condition not fulfilled **Cause of error** System error **Error correction** Inform your service agency.
130-0193	**Error message** INFO: %1 **Cause of error** **Error correction**
130-0194	**Error message** **Cause of error** Error in communication within the system **Error correction** Inform your service agency.

Error number	Description
130-0195	**Error message** **Cause of error** No further time job could be started. **Error correction** Inform your service agency.
130-0196	**Error message** **Cause of error** Not enough memory available. **Error correction** Inform your service agency.
130-0197	**Error message** Invalid event class in the following error! **Cause of error** System error **Error correction** Inform your service agency.
130-0199	**Error message** OEM error without additional information **Cause of error** Error text was not found. **Error correction** Enter the error text in the error-text file and/or save the error text file in the corresponding directory.
130-019A	**Error message** Cycle error without additional information **Cause of error** Error text was not found. **Error correction** Enter the error text in the error-text file and/or save the error-text file in the corresponding directory.
130-019B	**Error message** %1 **Cause of error** **Error correction**

Error number	Description
130-019C	**Error message** Saving service files... **Cause of error** Service files are being saved for diagnostic purposes. **Error correction** Inform your service agency.
130-019D	**Error message** The error log could not be opened. NOTE: No error messages or info messages will be logged. **Cause of error** The log is write-protected. **Error correction** Remove the write protection, or rename or delete the log.
130-01A1	**Error message** Error while saving the service file **Cause of error** An error occurred while saving the service files. **Error correction** Generate the service files again. If required, use the SAVE SERVICE FILES soft key.
130-01FA	**Error message** Incorrect condition in switch statement **Cause of error** **Error correction**
130-01FB	**Error message** No acknowledgment from application %1 **Cause of error** The application does not confirm closing the trace files for diagnostic purposes. **Error correction** No error correction possible.
130-01FC	**Error message** System error **Cause of error** An as yet unimplemented function of a server was called. **Error correction** Inform your service agency

Error number	Description
130-01FD	**Error message** System error **Cause of error** A server cannot find the sender of a message. **Error correction** Inform your service agency
130-01FE	**Error message** System error **Cause of error** A server cannot reach the sender of a message. **Error correction** Inform your service agency
130-01FF	**Error message** System error **Cause of error** A software error has occurred. **Error correction** Inform your service agency
130-0200	**Error message** Configuration datum %1 - %2 contains errors **Cause of error** The given configuration datum contains errors and was not accepted for control operation. **Error correction** Correct the given configuration data or inform your machine tool builder.
130-0201	**Error message** Configuration datum %1 - %2 contains errors **Cause of error** The given configuration datum has errors. The erroneous values were replaced by default values. **Error correction** Correct the given configuration datum or inform your machine manufacturer.

Error number	Description
130-0202	**Error message** NC program cancelled **Cause of error** The NC program was cancelled because of an error. **Error correction** Note further error messages. If no further error messages appear, inform your service agency.
130-03EE	**Error message** File exists already **Cause of error** The file cannot be generated because a file with the same name already exists. **Error correction** Save the file under another name.
130-03EF	**Error message** File access not possible **Cause of error** The file contains data in an illegible format. **Error correction** Select another file or inform your service agency.
130-03F0	**Error message** Directory not found **Cause of error** The specified directory does not exist or was deleted. **Error correction** Select another directory.
130-03F1	**Error message** Drive not found **Cause of error** The specified drive is not connected. **Error correction** Select another drive.
130-0414	**Error message** Service files could not be saved **Cause of error** An error occurred while saving the service files. **Error correction** Try to save again. If required, restart the control beforehand. Notify your service agency if the problem recurs.

Error number	Description
130-0415	**Error message** There is no online help for the error! **Cause of error** **Error correction**
130-07D0	**Error message** File not found: %1 **Cause of error** The named path has no file. **Error correction** Correct the given path name.
130-07D1	**Error message** Error when opening/closing a zip file (%1) **Cause of error** The TNC was not able to create or close the zip file. The file might be corrupt. **Error correction** Try again to create the zip file.
130-07D2	**Error message** There was an error when saving a (zip) file **Cause of error** When creating the service files, the TNC was unable to save at least one file. **Error correction** No remedy possible.
130-07D4	**Error message** Key might be jammed **Cause of error** On or more keys were pressed for more than 5 seconds. **Error correction** If the problem continues, inform your service agency. Press the keys SHIFT, CTRL and ALT.
130-07D5	**Error message** Parameter transfer not possible **Cause of error** Could not write machine parameters because the background activity blocked access to the machine configuration. **Error correction** - Conclude the background activities. - Ensure during offset adjustment that the axis is in servo control and that the control window is reached.

Error number	Description
130-07D6	**Error message** No response from drive “%1”! **Cause of error** The network drive is no longer ready or no longer reacts. **Error correction** - Check the network - Check whether the connected computer is active - Check the network cables and connectors - Check the activity of the Ethernet data interface. LEDs should light up or blink. - Have a network specialist check the network settings.
130-07D7	**Error message** Program start or program selection has failed **Cause of error** The action was prevented by a simultaneous reconfiguration or a configuration error. **Error correction** - End the current simulation in the Test Run operating mode - Correct the configuration error
130-07D8	**Error message** The application cannot be started **Cause of error** The authorization necessary in order to run the application is missing. **Error correction**
130-07E2	**Error message** Non-secure DNC connection %1 detected from %2 **Cause of error** An application has established a non-secure DNC connection to the control, or tried to do so. Note: In order to significantly increase IT security, DNC connections are by default permitted only through an SSH tunnel now. This non-secure connection could only be established because it was explicitly permitted in the machine parameter allowUnsecureRPC. In the future it will not be possible to permit non-secure connections in the machine configuration. **Error correction** - Migrate the affected application to a secure DNC connection. HEIDENHAIN offers a configuration for secure communication. - Use the newest versions of HEIDENHAIN programs (such as TNCremo) and configure a secure connection. - If the application does not come from HEIDENHAIN: Notify the manufacturer of the affected application.

Error number	Description
130-07E3	**Error message** Non-secure connection %1 detected from %2 **Cause of error** An application has established a non-secure LSV2 connection to the control, or tried to do so. Note: In order to significantly increase IT security, LSV2 connections are by default permitted only through an SSH tunnel now. This non-secure connection could only be established because it was explicitly permitted in the machine parameter allowUnsecureLsv2. In the future it will not be possible to permit non-secure connections in the machine configuration. Starting with a future version of the NC software, LSV2 will no longer be supported. **Error correction** - Migrate the affected application to a secure connection. HEIDENHAIN offers a configuration for secure communication. - Use the newest versions of HEIDENHAIN programs (such as TNCremo) and configure a secure connection. - If the application does not come from HEIDENHAIN: Notify the manufacturer of the affected application.
140-0001	**Error message** Backup copy of the configuration data cannot be created. **Cause of error** When configuration data are written, a backup copy of the parameter file is created. This file could not be created. – File is write-protected - Drive is full - Problem with the hard disk **Error correction** - Remove the write protection - Delete unneeded files on the hard disk or memory card to make space.
140-0002	**Error message** Configuration file '%1' cannot be written. **Cause of error** The file cannot be opened for writing. - File is write-protected - Drive is full - Problem with the hard disk **Error correction** - Remove the write protection. - Delete unneeded files on the hard disk to make space.

Error number	Description
140-0004	**Error message** Configuration file '%1' not found. **Cause of error** A parameter file specified in the "configfiles.cfg" file was not found. - Incorrect parameter file entered - Incorrect directory for the parameter file entered - Parameter file deleted **Error correction** - Correct the "configfiles.cfg" or "configfile.cfg" file. - Specify the correct file in the update rule. - Create a parameter file or copy it into the desired directory.
140-0005	**Error message** Data object '%1' '%2' not complete **Cause of error** A configuration object in a configuration file is incomplete. One or more configuration parameters are missing. The incomplete configuration object is designated by object name and object key. Possible causes: - The existing configuration data belong to an older software version - The data file was edited manually **Error correction** - Define the update rule or inform your service agency - Use the configuration editor to completely fill out the parameter object
140-0006	**Error message** Key of the data object '%1' not initialized. **Cause of error** The key of a parameter object is missing. **Error correction** Enter the key for all parameter objects.

Error number	Description
140-000A	**Error message** Cycle ini file '%1' not found. **Cause of error** The cycle file specified in the parameter object "CfgJhPath" or "CfgOemPath" was not found. The name of the unfound file is given. - Incorrect file entered - Incorrect object entered - File deleted If the file is present, the problem could be caused by incorrect entries. - Incorrect or incomplete entries - Incorrect cycle, parameter, or text definitions **Error correction** - Correct the file information. - Create a file or copy one into the corresponding directory. - Use CycleDesign to correct the cycle definitions.
140-000B	**Error message** Unknown code word '%1' in cycle ini file. **Cause of error** An unknown keyword was found in a cycle file. - Incorrect cycle file - Incorrect version of CycleDesign - Incomplete or incorrect cycle definition **Error correction** - Use the correct cycle file. - Use the correct version of CycleDesign. - Use CycleDesign to correct the cycle definition.
140-000D	**Error message** No text found for text name '%1' **Cause of error** In a parameter file, the text name entered for a language-dependent text was not found. - Text is not yet defined - Text file is not compiled - Text file was not copied onto the target system - Incorrect name entered **Error correction** If no text has been entered: - Define the text in a resource file - Compile the text file - Copy the text file onto the target system Otherwise, enter an existing text name or correct the text name in question.

Error number	Description
140-000F	**Error message** Module '%1' not open. **Cause of error** A module is not logged on with the configuration server. - This task requires that you be logged on. - You attempted to log off. **Error correction** Inform your service agency.
140-0010	**Error message** Module '%1' has no general write access. **Cause of error** An attempt was made to set the general write protection on the configuration server. However, the write protection is already active and cannot be set again. **Error correction** Inform your service agency.
140-0011	**Error message** '%1' has no general write access. **Cause of error** A module is trying to cancel the general write protection, which however was not reserved by this module. **Error correction** Inform your service agency.
140-0012	**Error message** Unknown message '%1' for configuration server. **Cause of error** Internal software error **Error correction** Inform your service agency.
140-0013	**Error message** Write access for '%1' '%2' not reserved. **Cause of error** Internal software error **Error correction** Inform your service agency.
140-0014	**Error message** Incorrect file type '%1' with '%2'. **Cause of error** Internal software error **Error correction** Inform your service agency.

Error number	Description
140-0015	**Error message** Character string '%1' not found in '%2'. **Cause of error** An incorrect character string was found in a cycle file. - The file is defective - Incorrect version of CycleDesign in use **Error correction** - Use CycleDesign to create a new cycle file. - Use the correct version of CycleDesign.
140-0016	**Error message** ZERO message '%1' **Cause of error** - Insufficient main memory - Internal control error **Error correction** Inform your service agency.
140-0017	**Error message** Machine parameters were changed. Shut down the control and restart. **Cause of error** Configuration files have been changed that require a control reset for the changed data to take effect. **Error correction** - Stop NC programs and all traverse. - Press the emergency stop button. - Restart the control.
140-0018	**Error message** Data object '%1' '%2' already exists in file **Cause of error** A configuration data object with the specified key already exists. **Error correction** - Check whether the correct configuration data files are being used, e.g. whether one of the files is being used twice. - Check whether a data object is already available in another file. - Change the key of one of the redundant configuration data objects. - Delete one of the redundant objects.

Error number	Description
140-0019	**Error message** Internal software error **Cause of error** Internal software error. **Error correction** Inform your service agency.
140-001A	**Error message** Configuration object '%1' / '%2' not found **Cause of error** A configuration data object that is necessary for the control start does not exist. **Error correction** – Check the configuration in use – Check the configuration data
140-001B	**Error message** No change acknowledgment obtained from '%1' **Cause of error** Internal control error. Configuration data were changed. After notification of the change not all returned an acknowledgment within the required time. The module that did not acknowledge will be listed in the additional text. **Error correction** Inform your service agency.
140-001D	**Error message** Parameter change during program run or macro run **Cause of error** You attempted to change configuration data during a program run. These data cannot be changed during a program run (applies to reset, run or ref. errors). The additional information shows the name of the data object that cannot be changed during program run. **Error correction** Select NC stop for the running programs in Program Run Single Block, Test Run and programming graphics, and then an internal stop. Then save the data again.

Error number	Description
140-001E	**Error message** Parameter locked from editing **Cause of error** There are two possible causes: 1. An attempt was made to change configuration data while a notification of change is still pending. The last change and notification is still in progress. 2. An attempt was made to start a program while a notification of configuration change is still in progress. **Error correction** 1. Try again to save. 2. Restart the program.
140-001F	**Error message** Program start: Data objects with write protection not allowed **Cause of error** An attempt was made to start a program although data objectsare still write-protected or writing access was reserved for data objects. At program start, writing access must be allowed for all objects. **Error correction** Restart the program.
140-0020	**Error message** Module name missing or unknown '%1' **Cause of error** Internal software error. During a request a module did not enter its identification or entered it incorrectly. **Error correction** Inform your service agency.
140-0021	**Error message** Data object '%1' renamed to '%2' key '%3' **Cause of error** The read configuration data belong to an older level of the control. The specified data object was renamed by the control due to a rule. **Error correction** Check the values of the specified data object. If the data object is incorrect, correct it. Then save the data.

Error number	Description
140-0022	**Error message** Data object '%1' '%2' removed **Cause of error** The read configuration data belong to an older level of the control. The data object is no longer supported and was removed by the control due to a rule. **Error correction** Save the changed data.
140-0023	**Error message** Data type changed with data object '%1' '%2' Attribute '%3' **Cause of error** The read configuration data belong to an older version of control. The data type of a data object attribute was changed by the control due to a rule. **Error correction** Check the value of the specified attribute in the data object. If the value is incorrect, correct it. Then save the data.
140-0024	**Error message** Attribute renamed in data object '%1' '%2' Attribute '%3' **Cause of error** The read configuration data belong to an older level of the control. In the specified data object, the control renamed an attribute due to a rule. **Error correction** Check the value of the specified attribute in the data object. If the value is not correct, correct it. Then save the data.
140-0025	**Error message** Attribute in data object '%1' '%2' removed Attribute '%3' **Cause of error** The read configuration data belong to an older level of the control. In the specified data object, the control removed an attribute due to a rule. **Error correction** Check the values of the specified data object. If the data object is incorrect, correct it. Then save the data.

Error number	Description
140-0026	**Error message** Attribute inserted in data object '%1' '%2' Attribute '%3' **Cause of error** The read configuration data belong to an older level of the control. The specified data object is incomplete. Due to a rule, the control control inserted the missing attribute(s). **Error correction** Check the values of the specified data object. If the data object is incorrect, correct it. Then save the data.
140-0027	**Error message** Data object '%1' '%2' removed **Cause of error** The read configuration data belong to an older level of the control. The data object is still supported by the control, but was removed due to a rule. **Error correction** Save the changed data.
140-0028	**Error message** Data object '%1' '%2' inserted **Cause of error** The read configuration data belong to an older level of the control. The data object is missing in the given configuration data and was inserted due to a rule. **Error correction** Check the values of the specified data object. If the data object is incorrect, correct it. Then save the data.
140-0029	**Error message** Incorrect insertion value in data object '%1' '%2' Attribute '%3' **Cause of error** The read configuration data belong to an older level of the control. The specified data object is incomplete. Due to a rule, the control inserted the missing attribute. The value to be inserted as specified in the rule is incorrect. **Error correction** - The attribute is initialized with a default value. Check the value and correct it if necessary. - Correct the rule.

Error number	Description
140-002B	**Error message** Data file not saved **Cause of error** This warning is issued for information and appears if: - the configuration data have uncorrected syntax errors - or the configuration data were updated but the update was not yet saved - or default data were copied or a data backup was restored but the control was not yet restarted. In this condition, no configuration data are written to the data files. **Error correction** - Manually correct the fatal errors in the configuration editor by selecting the FIX SYNTAX ERROR soft key. - Fix the errors that are corrected by an update rule by selecting the CONFIG DATA soft key in the configuration editor and then saving. - Restart the control.
140-002C	**Error message** Unknown object name '%1' **Cause of error** An object name is unkown. The name might be incorrectly written, or it might not be supported by the version. **Error correction** - If the name comes from a configuration file, correct it there. - Otherwise, inform your service agency.
140-002D	**Error message** Maximum list size exceeded **Cause of error** The maximum list size has been reached. Too many configuration data objects have been added. **Error correction** - Delete configuration data objects - If this is not possible, inform your service agency

Error number	Description
140-002E	**Error message** SIK control identification faulty: %1 **Cause of error** The SIK (System Identification Key) is not suitable for this software. With this software, the control can be operated only as a programming station. Possible causes: - Control is an export version - Wrong SIK - Incorrect or unconfigured control type - Error while accessing the SIK. **Error correction** - Inform your service agency
140-002F	**Error message** General key expired **Cause of error** The machine tool builder can use a master keyword (general key) for putting the control into service that will unlock all options for a duration of 90 days. The general key has expired and is therefore no longer valid. Now the options will be active only with the fiting keywords. **Error correction** Order the required software option(s) from your service agency.
140-0030	**Error message** General key is active **Cause of error** The machine tool builder can use a master keyword (general key) for putting the control into service that will unlock all options for a duration of 90 days. This message is displayed after every start-up if the general key is active. After the time period is over, the options can be used only with the fitting keywords. If an NC program is running when the general key expires, an NC stop is issued! **Error correction** Contact the machine manufacturer. He can check in the SIK menu how long the general key will be valid, or deactivate the general key.
140-0031	**Error message** '%1' entered as password **Cause of error** **Error correction**

Error number	Description
140-0032	**Error message** Incorrect software version **Cause of error** The export code does not match this software version. **Error correction** You have to switch from the standard version to the export version or vice versa.
140-0033	**Error message** Job cannot run **Cause of error** The configuration server cannot run a job. For more information about the job, refer to the additional information. **Error correction** - Check other entries in the log: there might be additional entries that provide more information for troubleshooting. - Check the machine parameter System/PLC/CfgPlcOptions/noConfigDataLock: if the parameter is not set or is FALSE, then parameter changes are not permissible while executing a program. Set noConfigDataLock to TRUE in order to permit changes to parameters while executing a program. Refer to the Technical Manual for more information about noConfigDataLock. - Inform your service agency
140-0034	**Error message** Data object '%1' '%2' moved to file '%3' **Cause of error** The downloaded configuration data belong to an older NC software level. The data object was saved in an incorrect file and was moved to another file according to a rule. **Error correction** Save the modified data.
140-0035	**Error message** Data object '%1' '%2' divided into '%3' **Cause of error** The downloaded configuration data belong to an old NC software level. The data object was divided into one or more data objects. **Error correction** Save the modified data.

Error number	Description
140-0036	**Error message** Value of data object '%1' '%2' was changed. Attribute '%3'. **Cause of error** The downloaded configuration data belong to an old NC software level. The control modified one or more values of a data object on the basis of a rule. **Error correction** Check the values of the given attributes in the data object. If the value is incorrect, correct it. Then save the data.
140-0037	**Error message** Attribute of data object '%1' '%2' was moved. Attribute '%3'. **Cause of error** The downloaded configuration data belong to an older NC software level. The control moved an attribute of the given data object on the basis of a rule. **Error correction** Check the values of the given data object. If the data object is incorrect, correct it. Then save the data.
140-0038	**Error message** Data object '%1': Key was changed from '%2' to '%3' **Cause of error** The downloaded configuration data belong to an older version of the control. The objekt key of a data object was changed on the basis of a rule. **Error correction** Check the values of the given data object. If the data object is incorrect, correct the object. Then save the data.
140-0042	**Error message** Faulty cycle data **Cause of error** - Too many soft keys in one level - Error in menu tree - Other error **Error correction** - Distribute the soft keys over multiple levels - Configure the menu tree correctly - Note the additional information

Error number	Description
140-0043	**Error message** Too much data **Cause of error** You changed too many data objects or loaded an MP subfile that is too large. Not all changed data objects will become effective immediately. **Error correction** - Shut down and restart the control. - Divide the MP subfile
140-0044	**Error message** Shut down and restart the control **Cause of error** The trial license was deactivated. However, the temporarily enabled options remain active until the control is shut down. **Error correction** The control must be shut down and restarted.
140-0045	**Error message** Error while opening file '%1' **Cause of error** - File does not exist - Access to file failed - File is not a valid backup file **Error correction** - Select an existing file - The file must not be opened by another file - The selected file must first be created by the control as a backup file
140-0046	**Error message** Data change without effect **Cause of error** More than one MP subfile is loaded, or parameters were changed by a PLC module. An attempt was made to edit data, but the changes have no effect during control operation because they are covered over by MP subfiles or PLC changes. **Error correction** Check the active data in the 'effective data' data record. If they do not have the desired values: - Reload the MP subfile in which the changes were made - Unload other MP subfiles - Edit the data in the 'temporary files' data record

Error number	Description
140-0047	**Error message** Error while loading the backup **Cause of error** - Program Run is active - The files belong to an older software version - A file has a syntax error - The files from the backup were restored but could not be activated because they contain reset parameters with other values. **Error correction** - Stop the program - The data must be updated. Refer to the instructions for updating configuration data. - Use the "REMOVE SYNTAX ERROR"REMOVE SYNTAX ERROR" soft key to make a manual correction - The control must be shut down and restarted. If you have to restore the old data, activate the file %OEM%:\config_LastKnownGoodConfig_.zip
140-0048	**Error message** Error while creating the backup **Cause of error** - Not allowed in this data record - File cannot be created **Error correction** - Select the basis data record - Select another file
140-0049	**Error message** The software option for OEM cycles has not yet been enabled **Cause of error** An OEM cycle tree was configured, but the software option has not been enabled. **Error correction** Order the required software option from your service agency.
140-004A	**Error message** The software option for '%1' has not been enabled **Cause of error** The language selected for the required software option is not enabled. **Error correction** Order the required software option from your service agency.

Error number	Description
140-004B	**Error message** Error in finding the current control parameters **Cause of error** There was an error in the automatic calculation of the current controller parameters. **Error correction** The current controller parameters must be acquired manually.
140-004C	**Error message** System settings deleted **Cause of error** The system settings in non-volatile memory, e.g. which programs were last opened, were deleted. When the control is started it reinitializes these system settings. **Error correction** Shut the control down and restart it.
140-004D	**Error message** Password %1 defined twice **Cause of error** The entered coder number or password already exist. The double definition is not allowed. **Error correction** - Replace the entered password in the configuration (CfgOemPassword or CfgChangePassword). Use a password that has not yet been used.
140-004E	**Error message** Password %1 replaced by machine manufacturer **Cause of error** The machine manufacturer replaced the entered password with another one. **Error correction** Use the password defined by the machine manufacturer. Refer to the machine manual or contact your machine manufacturer to receive the password.

Error number	Description
140-004F	**Error message** Update of the configuration data **Cause of error** The active machine configuration is not compatible with the current version of the NC software. The configuration files belong to an older software version. **Error correction** - After a configuration backup is loaded you have to close the control down and restart it. - The code number prompt is shown during start-up. Enter the code number for the Machine Parameter Editing operating mode. - The control implements the configuration data according to the update rules. Check the changes in the machine configuration and save the edited configuration data. - Also also read the instructions for updating configuration data in the Technical Manual.
140-0050	**Error message** Impermissible data object for file **Cause of error** The data object was saved in a impermissible location. The data object either cannot be saved in a parameter file or it has to be located in a file of the PLC: or SYS: drive. **Error correction** Remove the data object completely from the file or move it into a file on another drive. Note also which access is defined for the data object.
140-0051	**Error message** Data object "%1" is faulty **Cause of error** A configuration object in a configuration file is faulty or incomplete. Possible causes: - The existing configuration data belong to an older software version. - The data file was edited manually. **Error correction** - Reset the config version and run the update again. - Use the configuration editor to correct or completely fill out the parameter object

Error number	Description
140-0052	**Error message** Installation of setup in PLCE drive failed **Cause of error** The installation of setup files into the encrypted PLCE drive has failed. **Error correction** Possible causes: - An incorrect password was entered for encrypting the setup file in PLCdesign. Make a new setup.zip file in PLCdesign with the correct password. - A target file name or target directory was entered in PLCdesign that contains illegal characters. Use only ASCII characters for target paths in "PLCE:". Make a new setup.zip file with PLCdesign. - The image file for "PLCE:" is too small for the update. Save the contents of "PLCE:", generate a larger image file, restore the backup and try the update again. - There is no encrypted "PLCE:" partition on the control. Make an encrypted partition and retry the update. - No password was found for the encrypted partition or the incorrect password was entered. Enter a correct password in the settings for the "PLCE:" partition (PLC Programming mode).
140-0053	**Error message** Configuration data object not found **Cause of error** A configuration data object that is necessary for a software update does not exist The update of the configuration data might therefore be incomplete. **Error correction** Check the machine configuration and correct it if required.
140-0054	**Error message** Error while loading the default data **Cause of error** An error occurred while loading the default data: - One or more files are still being accessed by the control - The default data incomplete or incorrect. **Error correction** - Check whether there are any more messages in the log file that indicate the possible cause of the error. - Restart the control and stop the start-up by immediately pressing the MOD key. Then load the default data - If this does not help, inform your service agency

Error number	Description
140-0055	**Error message** Faulty update rule **Cause of error** The update rule given in the additional data is faulty. The machine configuration cannot be updated with this rule. **Error correction** - Check all settings in the update rule. - If a file is named in the rule: Check whether this file is part of the present configuration. - Correct the update rule so that the machine configuration can be updated successfully.
140-0056	**Error message** Error while saving configuration data **Cause of error** An error occurred while saving the configuration data. **Error correction** - Please note the additional section shown in the internal information. - Inform your service agency.
140-0057	**Error message** Illegal value **Cause of error** - The test of the entered value found that it is incorrect or invalid. - Whether the value is valid can also depend on other machine parameters (plausibility). **Error correction** - Check the entered value and change it if necessary. If the parameter depends on other parameters, you must consider them as well. - Inform your service agency
140-0058	**Error message** Data object '%1' does not exist **Cause of error** - Error when writing data. - Given key name does not exist. **Error correction** - Check the key name and correct if necessary, or enter an existing key name. - First create a data object with this key name. - Inform your service agency.

Error number	Description
140-0059	**Error message** Too many MP partial files **Cause of error** The maximum number of subfiles was exceeded while MP subfiles were loading. **Error correction** - Unload all MP subfiles using the config editor - Restart the control - Inform your service agency
140-005A	**Error message** Faulty data in update rule **Cause of error** The data object given in the update rule is faulty. **Error correction** Check the spelling of the data object shown under “object” and correct it if necessary: - Check the spelling of all names. - Check the syntax of parentheses for completeness. Opening parentheses must be closed again. - Check the syntax of all machine parameters or attributes. Attributes must be separated by commas. Important: A comma must not precede a parenthesis! - Check the syntax of character strings. Character strings must be enclosed by quotation marks. - If quotation marks are used, they must be preceded by a backslash. Example: \”A name\” - If there is a backslash, it must be preceded by another. Example: \\ - Inform your service agency.
140-005B	**Error message** Updating of system data not permitted **Cause of error** - You tried to use the update rules to change or overwrite write-protected data/files or configuration data. - Update rules must not change write-protected data or system data. **Error correction** - Remove the faulty update rule. You will find the faulty update rule in the error message’s additional information by pressing the INTERNAL INFO soft key or the Details button. - Inform your service agency

Error number	Description
140-005C	**Error message** Faulty value for machine parameter **Cause of error** - Syntax error in the value for a machine parameter in the update rule. - Entered value has a spelling error or in not allowed for the parameter that is to be changed by the update rule. **Error correction** - Check the spelling of the value. - Check the type of value. A numerical value can contain only one number. An enumerated list must be given an existing enumeration name. - Inform your service agency.
140-005D	**Error message** Unknown name in update rule **Cause of error** - Unknown attribute name or machine parameter entered in the update rule. **Error correction** - Check the name for spelling errors. - Check the data object for whether the attribute or machine parameter really exists. - Inform your service agency.
140-005E	**Error message** Incorrect list index **Cause of error** - No index or excessively large index entered for the list in the update rule. **Error correction** - If no index was entered, enter one. - Check whether the entered index is larger than the maximum index of the associated list. Change the index if necessary. - Inform your service agency.

Error number	Description
140-005F	**Error message** Unknown file '%1' in update rule '%2' **Cause of error** - In the update rule, a file is given that is either nonexistent or is not listed in the list of configuration files. - You can find more information on the error message by pressing the INTERNAL INFO soft key. **Error correction** - The file does not exist or is not in the list of configuration files: - The control will automatically create a file and save the new data in the file. - If you do not want to use the new file, move the data to another one and delete the existing file from the list of configuration files. - Incorrect path or file name in the update rule: - Press the UPDATE RULES soft key, then check the update rule and correct it if necessary. - Configuration file exists, but is not in the list of configuration files: - Press the CONFIG FILE LIST soft key and add the file to the list. - Inform your service agency.
140-0060	**Error message** Unit of measure “%1” not defined **Cause of error** - Unknown unit of measure given in the attribute information. **Error correction** - Check the unit for mass and change it if necessary. Use only the default units of math. Only the measuring unit’s name can be entered, not the measuring unit itself. - Note that, depending on the unit of measure, the displayed value is converted to the unit of measure used by the control. - With machine parameters CfgOemInt and CfgOemPosition, no units of measure can be used that require conversion.
140-0062	**Error message** Configuration error while logging the user on or off **Cause of error** A configuration error occurred in the operating system when logging the user on or off. **Error correction** - Ensure that all required configuration data is available to the user, particularly the data on HOME: - Stop all NC programs - Log the user off and then on again. If errors are still being reported, please contact your service agency.

Error number	Description
140-0063	**Error message** Function with encrypted data not allowed **Cause of error** If encrypted configuration files are used, no configuration backup or restore can be executed. **Error correction** Start the backup or restore with PC tools, such as TNCremo.
140-0064	**Error message** Software option '%1' is disabled by the configuration **Cause of error** - The software option is locked by configuration. The software option is therefore not available, although it has been enabled in the SIK. - Observe any changed machine behavior (for example, when DCM collision monitoring is locked)! **Error correction** - Re-enable the software option in the SIK dialog to restore the original behavior. - Inform your service agency.
140-0065	**Error message** Load subfile through NC program **Cause of error** The selected MP subfile was loaded by an NC program from one of the simulation operating modes (e.g. Test Run). Such an MP subfile is indicated with a prefixed pound sign (#). This MP subfile can only be unloaded from the same simulation operating mode. **Error correction** - Switch to the simulation operating mode from which the MP subfile was loaded. - Start an NC program there that unloads the MP subfile. - Inform your service agency.
140-0066	**Error message** Configuration files adapted as the result of an update **Cause of error** For informational purposes: At least one of the files indicated under CfgConfigUpdate/baseFiles or CfgConfigUpdate/portionFiles was automatically adapted due to a software update. **Error correction** HEIDENHAIN recommends checking the changes that were performed automatically.

Error number	Description
140-0067	**Error message** Error while re-reading the configuration data **Cause of error** Errors occurred while reloading the configuration data. Refer to the additional information in the error window opened by the INTERNAL INFO soft key: HAS_FATAL: The data that was read includes syntax errors HAS_UPD: The data must be updated Please note: the previous configuration data of the control is still active. It is no longer possible to change the configuration data. **Error correction** Restart the control
140-0068	**Error message** File '%1' listed more than once **Cause of error** A file is listed more than once in CfgConfigDataFiles. Please note: The file can also be listed under SYS: in CfgJhConfigDataFiles. **Error correction** - Change the file name and entry in CfgConfigDataFiles
140-006C	**Error message** Evaluation of SIK2 failed **Cause of error** An error occurred while evaluating the SIK2 component. **Error correction** Inform your service agency
140-006D	**Error message** Text name '%1' defined in multiple *.po files **Cause of error** The same text name is used in multiple *.po files. This is not allowed. Please note the file names indicated in the message details. **Error correction** - Change the text name: the name must be unique You could add a unique identifier as a prefix to your text names.

Error number	Description
140-006E	**Error message** po-Datei '%1' in verschiedenen Verzeichnissen definiert **Cause of error** Eine po-Datei mit dem gleichen Namen ist in verschiedenen Verzeichnissen definiert. Dies ist nicht zulässig. **Error correction** Entweder die po-Datei aus dem gleichen Verzeichnis verwenden oder eine po-Datei umbenennen.
140-006F	**Error message** Mehrere Dateien 'user.cfg' angegeben **Cause of error** In der Liste der aktiven Konfigurationsdateien (CfgConfigDataFiles/dataFiles) sind mehrere Dateien mit Namen 'user.cfg' enthalten. Der Dateiname 'user.cfg' ist reserviert für Dateien, die unter dem aktiven Benutzer gespeichert werden. **Error correction** - Die weiteren Dateien umbenennen
140-0070	**Error message** %1 für Datei auf HOME: nicht erlaubt **Cause of error** Dieses Datenobjekt darf nicht in einer Datei gespeichert werden, die sich im Home-Verzeichnis des angemeldeten Benutzers befindet. Grund: Das Datenobjekt muss jederzeit änderbar sein. **Error correction** - Datenobjekt in eine andere Datei verschieben
141-0003	**Error message** Key already exists **Cause of error** A data object with the entered key already exists. Therefore no new data object can be created with this key. **Error correction** - Delete old data object - or enter another key
141-0005	**Error message** Data was not fully saved **Cause of error** Some of the changed data could not be saved because it is locked from write access or an NC program is still running. **Error correction** - Stop NC program run - Try again to save, because the lock on write access might have been removed in the meantime.

Error number	Description
141-0006	**Error message** Value out of range %1 to %2 **Cause of error** The entered value is invalid or lies outside the permitted limit values. **Error correction** Enter another value.
141-0007	**Error message** Key non-functional **Cause of error** In this context the key has no function. **Error correction**
141-0025	**Error message** Insufficient access rights for data change '%1' '%2' **Cause of error** You do not have the access rights to change data. Perhaps you are running a cycle or NC program from a drive for which you do not have access rights. The message shows the data object for which more access rights are required. **Error correction** - The data cannot be saved. - Another code number must be entered. Run the cycle or NC program from a drive for which you do have the necessary access rights. - For a software update the system code number is required.
141-0030	**Error message** No further password entries possible **Cause of error** An incorrect password was entered repeatedly to enable an option. After 10 incorrect entries no further entry is accepted. **Error correction** Inform your service agency.
141-0048	**Error message** Selection is not an MP subfile **Cause of error** You selected a directory instead of a file. This function supports the selection of only one file. **Error correction** - Either select an MP subfile (no directory) - Or use the soft key FILE / UPDATE DIRECTORY to update all the files in the directory

Error number	Description
141-004B	**Error message** Required value missing **Cause of error** A required value was not entered. **Error correction** - Enter a value at the indicated position
141-004C	**Error message** Invalid input range or incorrect format **Cause of error** The entered value does not fit the parameter format. **Error correction** - Enter a value from the valid value range for input in the associated parameter
141-004D	**Error message** Value must not be changed **Cause of error** You have entered attribute information that cannot be changed by the machine manufacturer. This input might have happened directly in a parameter file. **Error correction** Enter only the data that are offered in the dialog window for editing attribute information.
141-004E	**Error message** No line has been selected **Cause of error** Under "Selection," you have not chosen a field from the table. **Error correction** - Use the cursor to select a line in the table under "Selection." Note: It depends on the type of parameter whether a selection can be entered!
141-004F	**Error message** Function possible only with basic data **Cause of error** TEST EN **Error correction** TEST EN

Error number	Description
141-0050	**Error message** Software option [%1] cannot be disabled **Cause of error** You tried to lock a software option listed in the SIK dialog using the LOCK OPTION soft key. The selected option belongs to the control's factory default setting. Options that are available as standard cannot be locked. **Error correction** Select a software option available for this control for the LOCK OPTION function. You can find the list of available software options in the Technical Manual.
141-0051	**Error message** MP subfile already loaded **Cause of error** An already loaded subfile cannot be opened again for writing. **Error correction** Select a different file for editing from the data record list.
141-0052	**Error message** Selected file already active as base file **Cause of error** The file selected for editing is contained in the basic data. **Error correction** Select the basic data and edit the file data with the configuration editor.
141-0141	**Error message** Copy default configuration to \\CONFIG ? **Cause of error** **Error correction**
141-0142	**Error message** Previous data are saved in \\CONFIG.BAK **Cause of error** **Error correction**
145-0001	**Error message** Circular arc not fully defined **Cause of error** The start angle of the circular arc is not defined. **Error correction**

Error number	Description
145-0002	**Error message** Circular arc not fully defined **Cause of error** The stopping angle of the circular arc is not defined. **Error correction**
145-0003	**Error message** Circular arc not fully defined **Cause of error** Starting and stopping angles of the circular arc are not defined. **Error correction**
145-0004	**Error message** System error in the geometry **Cause of error** The position of a circular spatial arc is not explicitly defined. **Error correction** Inform your service agency
145-0005	**Error message** System error in the geometry **Cause of error** Message must not contain a transformation matrix **Error correction** Inform your service agency
145-0006	**Error message** Invalid scaling factor **Cause of error** You defined different axis-specific scaling factors for the same circle. For circles, use identical axis-specific scaling factors. **Error correction**
145-0008	**Error message** Incorrect tangent **Cause of error** The specified tangent end point lies too closely to the arc. **Error correction** Correct the end point of the tangent.

Error number	Description
145-0009	**Error message** Incorrect tangent **Cause of error** The specified tangent point lies on the circular arc. **Error correction** Correct the end point of the tangent.
145-000A	**Error message** Incorrect tangent **Cause of error** The specified tangent point lies inside the circular arc. **Error correction** Correct the end point of the tangent.
145-000C	**Error message** Incorrect point **Cause of error** The given point does not line on the circular arc. **Error correction** Correct the coordinates of the point.
145-000D	**Error message** Function not yet implemented **Cause of error** Function not yet implemented. **Error correction**
145-000E	**Error message** Incorrect circular arc **Cause of error** Start point and end point of the circular arc are at different distances from the center. **Error correction** Correct the coordinates of the end point and center.
145-000F	**Error message** Incorrect circular arc **Cause of error** The distance between the start point and end point of the circular arc is too small. **Error correction** Correct the point.

Error number	Description
145-0010	**Error message** Incorrect circular arc **Cause of error** The specified radius is too small to connect the start point and end point. **Error correction** Correct the coordinates.
145-0011	**Error message** Incorrect circular arc **Cause of error** The tangents at the start poine and end point of the circular arc are parallel. **Error correction** Correct the coordinates.
145-0012	**Error message** No intersection **Cause of error** The specified curves have not intersection. **Error correction** Correct the coordinates.
145-0013	**Error message** Incorrect chamfer **Cause of error** Length of chamfer is undefined **Error correction** Enter the chamfer length
145-0014	**Error message** Incorrect chamfer **Cause of error** Chamfer too long **Error correction** Correct the chamfer length.
145-0015	**Error message** Incorrect chamfer **Cause of error** Chamfer is possible only between straight lines **Error correction** Delete the chamfer block

Error number	Description
145-0016	**Error message** Error in rounding arc (RND) **Cause of error** Radius of rounding arc is undefined **Error correction** Correct the rounding arc
145-0017	**Error message** Error in rounding arc (RND) **Cause of error** Rounding arc radius too large **Error correction** Correct the rounding arc radius
145-0018	**Error message** Incorrect approach movement (APPR) **Cause of error** Undefined length of approach movement **Error correction**
145-0019	**Error message** Incorrect approach movement (APPR) **Cause of error** Undefined side of approach **Error correction**
145-001A	**Error message** Incorrect approach movement (APPR) **Cause of error** Undefined radius of approach **Error correction**
145-001B	**Error message** Incorrect approach movement (APPR) **Cause of error** Undefined traverse angle of approach **Error correction**
145-001C	**Error message** Incorrect approach movement (APPR) **Cause of error** Radius of the transition arc in approach too large **Error correction**

Error number	Description
145-001D	**Error message** Incorrect departure movement (DEPT) **Cause of error** Length of departure movement is undefined **Error correction**
145-001E	**Error message** Incorrect departure movement (DEPT) **Cause of error** Departure side undefined **Error correction**
145-001F	**Error message** Incorrect departure movement (DEPT) **Cause of error** Radius of departure is undefined **Error correction**
145-0020	**Error message** Incorrect departure movement (DEPT) **Cause of error** Traverse angle of departure movement is undefined **Error correction**
145-0021	**Error message** Incorrect departure movement (DEPT) **Cause of error** Radius of the transitional arc in the departure movement is too large **Error correction**
145-0022	**Error message** Incorrect departure movement (DEPT) **Cause of error** End point of departure movement is undefined **Error correction**
145-0023	**Error message** System error in the geometry **Cause of error** Access to a vector component with invalid index **Error correction** Inform your service agency.

Error number	Description
145-0024	**Error message** System error in the geometry **Cause of error** An attempt was made to normalize a null vector. **Error correction** Inform your service agency.
145-0025	**Error message** System error in the geometry **Cause of error** Access to a matrix element with invalid index. **Error correction** Inform your service agency.
145-0026	**Error message** System error in the geometry **Cause of error** Access to the column of a matrix with invalid index. **Error correction** Inform your service agency.
145-0027	**Error message** System error in the geometry **Cause of error** You attempted to invert a singular matrix. **Error correction** Inform your service agency.
145-0028	**Error message** System error in the geometry **Cause of error** No conversion possible **Error correction** Inform your service agency.
145-002F	**Error message** Translation error **Cause of error** The definition of the orientation in a coordinaten transformation is incorrect. **Error correction** Correct the definition.

Error number	Description
145-0030	**Error message** Translation error **Cause of error** In a cordinaten transformation the Y direction cannot be calculated. **Error correction** Correct the definition.
145-0031	**Error message** Geometry error **Cause of error** The distance between two points is too small for one calculation. **Error correction**
145-0032	**Error message** System error in the geometry **Cause of error** Division by zero during an internal calculation **Error correction** Inform your service agency.
145-0033	**Error message** System error in the geometry **Cause of error** An internal calculation resulted in a circle with negative radius. **Error correction** Inform your service agency.
145-0034	**Error message** System error in the geometry **Cause of error** For an ellipse or an elliptical arc, a function was called that is permitted only for circles or circular arcs. **Error correction** Inform your service agency.
145-0035	**Error message** System error in the geometry **Cause of error** Internal software error. **Error correction** Inform your service agency.

Error number	Description
145-0036	**Error message** System error in the geometry **Cause of error** Two points are so close together in a geometric figure that the polar vector is too inexact. **Error correction** Inform your service agency.
145-0037	**Error message** Circle incorrectly programmed **Cause of error** No circle is defined through the given point. **Error correction** Correct the coordinates of the points.
145-0038	**Error message** System error in the geometry **Cause of error** In an internal calculation, an ellipse has degenerated into a line segment. Some operations cannot be performed for such degenerated ellipses. **Error correction** Inform your service agency.
145-0039	**Error message** Error in rounding arc (RND) **Cause of error** An attempt was made to place a rounding radius between two directionally opposed parallel lines. **Error correction** Correct the coordinates of the lines.
145-003A	**Error message** Undefined rotational direction of contour **Cause of error** You tried to learn the rotational direction of a contour that has none defined. **Error correction** Ensure that the contour is closed and free of gaps.
160-0001	**Error message** System error in interpreter **Cause of error** Internal software error **Error correction** Inform your service agency.

Error number	Description
160-0003	**Error message** Block format incorrect **Cause of error** Keyword or G function not programmed. **Error correction** Edit the NC program.
160-0004	**Error message** System error in interpreter **Cause of error** Internal software error **Error correction** Inform your service agency.
160-0007	**Error message** System error in interpreter **Cause of error** Error in internal cycle **Error correction** Inform your service agency.
160-000B	**Error message** CYCL DEF not defined **Cause of error** You have programmed a cycle call without first defining the cycle, or you tried to call a DEF-active cycle. **Error correction** Define the cycle before calling it.
160-000D	**Error message** Error when opening the file '%1' **Cause of error** An error occurred while a file was being opened. **Error correction** Ensure that the file exists, that the given path is correct, and that the file has a readable format.
160-0018	**Error message** Jump to label 0 not permitted **Cause of error** In a LBL CALL (ISO: L 0,0) block of a part program or in a jump instruction (parametric calculation) you attempted to program a jump to the label 0. **Error correction** Edit the part program.

Error number	Description
160-001A	**Error message** Block format incorrect **Cause of error** The program section repeat was incorrectly programmed. **Error correction** Edit the NC program.
160-001B	**Error message** Label number not found **Cause of error** With LBL CALL (ISO: L x,x), you tried to call a label that does not exist. **Error correction** Change the number in the LBL CALL block or insert the missing label (LBL SET).
160-001C	**Error message** Label number already assigned **Cause of error** You attempted to program the same label number in several LBL SET (ISO: G98 Lxx) blocks in a part program. **Error correction** Edit the part program.
160-001D	**Error message** Block format incorrect **Cause of error** A positioning movement was programmed without type of interpolation. **Error correction** Edit the NC program.
160-001F	**Error message** Wrong axis programmed **Cause of error** An axis programmed in the NC block is not configured. **Error correction** Edit the NC program.
160-0020	**Error message** Wrong axis programmed **Cause of error** No nominal/actual position could be found for the axis specified in the FN18 block (ISO: D18). **Error correction** Check the index of the system data.

Error number	Description
160-0021	**Error message** Pole incorrectly defined **Cause of error** In the NC program both coordinates of a pole must be programmed in the plain. Either you forgot one coordinate, entered more than two coordinates, or programmed one coordinate twice. **Error correction** Check the pole programming in the NC program.
160-0022	**Error message** Block format incorrect **Cause of error** In a linear block, you programmed the polar radius twice **Error correction** Edit the NC program
160-0023	**Error message** Block format incorrect **Cause of error** A radius was programmed in a polar circular interpolation CP (ISO:G12/G13/G15), but the radius is defined by the distance of the starting point to the pole. **Error correction** Edit the NC program.
160-0024	**Error message** Block format incorrect **Cause of error** The radius is missing for a Circle with Radius block (CR, ISO: G02, G03). **Error correction** Edit the part program.
160-0025	**Error message** Block format incorrect **Cause of error** The arc direction of rotation was incorrectly programmed. **Error correction** Edit the NC program.

Error number	Description
160-0026	**Error message** Direction of rotation missing **Cause of error** A circle was programmed without direction of rotation. **Error correction** Always program a direction of rotation (DR).
160-0028	**Error message** Invalid Q parameter **Cause of error** The given index for a Q parameter is out of range. **Error correction** Edit the NC program.
160-0029	**Error message** Block format incorrect **Cause of error** The programmed NC syntax is not supported. **Error correction** Edit the NC program.
160-002A	**Error message** Block format incorrect **Cause of error** The programmed NC syntax is not supported. **Error correction** Edit the NC program.
160-002B	**Error message** Block format incorrect **Cause of error** The programmed NC syntax is not supported. **Error correction** Edit the NC program.
160-002C	**Error message** Block format incorrect **Cause of error** A syntactically incorrect NC block was programmed. **Error correction** Edit the NC program.

Error number	Description
160-0032	**Error message** Arithmetical error **Cause of error** Incorrect Q parameter calculation: Division by 0, square root of a negative number, or similar error **Error correction** Check the input values.
160-0036	**Error message** NC block not found **Cause of error** The block specified for mid-program startup was not found. **Error correction** Enter another target for the mid-program startup.
160-003C	**Error message** CYCL DEF incomplete **Cause of error** You programmed an incomplete cycle definition or inserted other NC blocks between cycle blocks. **Error correction** Edit the NC program.
160-003D	**Error message** Block format incorrect **Cause of error** The programmed syntax element is not allowed in this NC block. **Error correction** Edit the NC program.
160-003E	**Error message** Block format incorrect **Cause of error** The programmed syntax element is not allowed in this NC block. **Error correction** Edit the NC program.
160-0048	**Error message** Block format incorrect **Cause of error** The programmed NC syntax is not supported by this control. **Error correction** Edit the NC program.

Error number	Description
160-0049	**Error message** Touch point inaccessible **Cause of error** No signal came from the touch probe within the measuring distance. **Error correction** Pre-position as appropriate and repeat the probing process.
160-0054	**Error message** Block format incorrect **Cause of error** An incorrect system data number was entered in the function FN18 ID2000. **Error correction** Edit the NC program.
160-0055	**Error message** Tool change faulty **Cause of error** An incorrect tool was enabled. **Error correction** Inform your machine tool builder.
160-0056	**Error message** Tool axis is missing **Cause of error** You programmed a positioning block with tool radius compensation without first calling a tool. **Error correction** Edit the NC program.
160-0058	**Error message** Cycle for TOOL CALL not defined **Cause of error** The tool definition cycle was not defined. **Error correction** Inform your machine tool builder.
160-0059	**Error message** Cycle for TOOL DEF not defined **Cause of error** The tool definition cycle was not defined. **Error correction** Inform your machine tool builder.

Error number	Description
160-005A	**Error message** Unknown tool type '%1' **Cause of error** An undefined tool type was found in function FN17 ID950. **Error correction** Inform your machine tool builder.
160-005D	**Error message** Block format incorrect **Cause of error** The data type of the column given in an SQL BIND command does not agree with that of the given parameter. **Error correction** Check the table definition and edit the NC program.
160-0060	**Error message** Parameter not connected with a column **Cause of error** An attempt was made to use SQL BIND to dissolve a link that does not exist. **Error correction** Edit the NC program.
160-0061	**Error message** System error in interpreter **Cause of error** Internal software error **Error correction** Inform your service agency.
160-0063	**Error message** Block format incorrect **Cause of error** The programmed syntax element is not allowed in this NC block. **Error correction** Edit the NC program.

Error number	Description
160-0064	**Error message** Table access failed **Cause of error** - The syntax of the programmed SQL statement is incorrect - The given table could not be opened - The given table is incorrectly defined - The symbolic name of the table is not defined - The table does not contain the given columns - A data record could not be read because it is locked **Error correction** Check the table definition and edit the NC program
160-0065	**Error message** Block format incorrect **Cause of error** An unfulfillable condition was given in the FN20 function. **Error correction** Edit the NC program.
160-0067	**Error message** Faulty access to table **Cause of error** An internal control error has occurred. **Error correction** Inform your service agency.
160-0068	**Error message** Block format incorrect **Cause of error** A syntactically incorrect SQL statement was programmed. **Error correction** Edit the NC program.
160-0069	**Error message** Feed rate is missing **Cause of error** No feed rate was programmed, or the feed rate 0 was programmed. **Error correction** Edit the NC program.

Error number	Description
160-006B	**Error message** Feed rate for tool is missing **Cause of error** In an NC block you programmed F AUTO, but you did not program a feed rate in the TOOL CALL block. **Error correction** - Enter the feed rate directly in the NC block - Program a TOOL CALL block with feed rate
160-0073	**Error message** SQL handles at program end not yet released **Cause of error** A program was ended although table access was still active. **Error correction** Before closing the program, end all SQL table access with SQL COMMIT or SQL ROLLBACK.
160-0082	**Error message** Axis double programmed **Cause of error** You programmed an axis twice in a single positioning block. **Error correction** Edit the part program.
160-0083	**Error message** Axis double programmed **Cause of error** You programmed an axis twice in the Mirror Image cycle. **Error correction** Edit the part program.
160-0084	**Error message** Axis double programmed **Cause of error** While defining Cycle 26 (axis-specific scaling factor) you programmed the scaling factor or the scaling datum twice in one axis. **Error correction** Edit the part program.

Error number	Description
160-0085	**Error message** Axis double programmed **Cause of error** A axis was double-programmed in an approach or departure block. **Error correction** Edit the NC program.
160-0086	**Error message** Axis double programmed **Cause of error** An axis was double-programmed in a coordinate transformation cycle. **Error correction** Edit the NC program.
160-0087	**Error message** Axis double programmed **Cause of error** In a "TCH PROBE" probing cycle an axis was double programmed. **Error correction** Edit the NC program.
160-0089	**Error message** Incorrect number for FN17/FN18 **Cause of error** The number combination for the system data (FN17/FN18) is not allowed. **Error correction** Check the number and index of the system data.
160-008A	**Error message** Incorrect axis index for FN17/FN18 **Cause of error** An incorrect axis index was specified while reading from/writing to system data (FN17/FN18). **Error correction** Check the index of the system date.
160-008B	**Error message** Block format incorrect **Cause of error** A radius was programmed at an illegal location. **Error correction** Edit the NC program.

Error number	Description
160-008C	**Error message** Block format incorrect **Cause of error** A direction of rotation was programmed at an illegal location. **Error correction** Edit the NC program.
160-008F	**Error message** Block format incorrect **Cause of error** Too many axis positions programmed in the NC block. **Error correction** Edit the NC program.
160-0091	**Error message** Block format incorrect **Cause of error** In the NC block APPR/DEP more than 3 axis positions were programmed. **Error correction** Edit the NC program.
160-0092	**Error message** Block format incorrect **Cause of error** In the FN29 block more than 8 values programmed. **Error correction** Edit the NC program.
160-0093	**Error message** Block format incorrect **Cause of error** In a datum shift cycle you programmed too many positions. **Error correction** Edit the NC program
160-0094	**Error message** Block format incorrect **Cause of error** Too many positions programmed in the axis-specific scaling cycle. **Error correction** Edit the NC program.

Error number	Description
160-0095	**Error message** Block format incorrect **Cause of error** In the axis-specific scaling factor cycle you programmed too many center coordinates. **Error correction** Edit the NC program
160-0096	**Error message** Block format incorrect **Cause of error** Too many axes programmed in the mirroring cycle. **Error correction** Edit the NC program.
160-0099	**Error message** Column already assigned to a parameter **Cause of error** In the NC program, the SQL BIND command was used to assign a column name more than once to a parameter. **Error correction** Edit the NC program.
160-009A	**Error message** Table column is not connected with a parameter **Cause of error** Before a table column can accept SQL UPDATE commands (SQL "SELECT...", SQL UPDATE, SQL FETCH), it must be connected with a value by SQL BIND, SQL SYSBIND or by corresponding configuration data. **Error correction** Edit the NC program.
160-009B	**Error message** Column not defined **Cause of error** Description missing for a table column. **Error correction** Check the definition of the table.

Error number	Description
160-009C	**Error message** Block format incorrect **Cause of error** The FN function programmed in the NC program is not supported. **Error correction** Edit the NC program.
160-009E	**Error message** Wrong axis programmed **Cause of error** Incorrect value for FN17:SYSWRITE ID 212 **Error correction** Edit the NC program.
160-009F	**Error message** Block format incorrect **Cause of error** Too many axes were programmed for setting a preset value. **Error correction** Edit the NC program.
160-00A0	**Error message** Spindle is not rotating **Cause of error** A machining cycle was called although the spindle is stopped. **Error correction** Edit the NC program.
160-00A1	**Error message** Incorrect tool index programmed **Cause of error** Invalid tool index programmed. **Error correction** Edit the NC program.
160-00A2	**Error message** Block format incorrect **Cause of error** Faulty workpiece blank definition **Error correction** Edit the NC program.

Error number	Description
160-00A3	**Error message** Axis double programmed **Cause of error** One axis was programmed twice in the workpiece blank definition. **Error correction** Edit the NC program.
160-00A4	**Error message** Wrong axis programmed **Cause of error** Invalid axis in the workpiece blank definition. **Error correction** Edit the NC program.
160-00A5	**Error message** Block format incorrect **Cause of error** The specified sytax element is not allowed in the NC block. **Error correction** Edit the NC program.
160-00A6	**Error message** Cycle is not installed **Cause of error** The programmed cycle is not installed. **Error correction** Check the installed cycles and edit the NC program.
160-00A7	**Error message** System error in interpreter **Cause of error** Internal software error. **Error correction** Inform your service agency.
160-00A8	**Error message** Recursive label call **Cause of error** Within a subprogram, you tried to call the label with which the subprogram begins. **Error correction** Correct the NC program. A subprogram cannot call itself.

Error number	Description
160-00A9	**Error message** Unsuitable touch probe **Cause of error** The desired measuring cycle cannot be performed with the currently selected probe. **Error correction** Edit the NC program.
160-00AA	**Error message** Excessive program nesting **Cause of error** Program nesting through CALL LBL or CALL PGM is too deep, presumably because of a recursive call. **Error correction** Edit the NC program.
160-00AB	**Error message** Recursive program call **Cause of error** Within an NC program, you tried to call the NC program itself as a subprogram. Maybe you tried to call one of the NC programs that called the current NC program. **Error correction** Correct the NC program. An NC program cannot call itself.
160-00AC	**Error message** Not possible on this machine **Cause of error** The desired command cannot be performed on this machine, or the configuration is faulty. **Error correction** Inform the machine tool builder or (if the error occured in an NC program), edit the NC program.
160-00AD	**Error message** Block format incorrect **Cause of error** You programmed an invalid syntax element within a contour definition. Only traversing commands are allowed with the exception of APPR/DEPT and Q parameter calculation. **Error correction** Edit the part program.

Error number	Description
160-00AE	**Error message** Invalid value **Cause of error** You attempted to assign an illegal value to a variable. **Error correction** Edit the NC program.
160-00AF	**Error message** Undeclared string variable **Cause of error** You used a string variable without first declaring it. **Error correction** Edit the NC program. Before it's first use, every string variable must be declared with DECLARE STRING.
160-00B0	**Error message** Block format incorrect **Cause of error** You concluded a contour definition improperly. **Error correction** Edit the NC program. Contours defined by label must end with label 0.
160-00B1	**Error message** Cannot write **Cause of error** You attempted to use FN17:SYSREAD or SQL SYSBIND and SQL FETCH to write to a read-only system parameter. **Error correction** Edit the NC program.
160-00B2	**Error message** String too long **Cause of error** In a table you attempted to write a string that is too long for the corresponding column. **Error correction** Edit the NC program.
160-00B3	**Error message** Block format incorrect **Cause of error** A mandatory syntax element is missing in the NC block. **Error correction** Edit the NC program.

Error number	Description
160-00B4	**Error message** Format file defective **Cause of error** The format file for FN16: F-PRINT (DIN/ISO: D16) has the wrong format. **Error correction** Correct the format file.
160-00B5	**Error message** Format file defective **Cause of error** The format file for FN16: F-PRINT (DIN/ISO: D16) has the wrong format: The Q parameters and other keywords in the specified lined do not fit to the replacement characters in the format string. Remember: - If an %% character in the format string is not to be understood as format information, you must write \%%. - Each line must begin with all keywords that generate an output (such as HOUR, Q14, ...), only then followed by those that do not generate an output (such as M_CLOSE). **Error correction** Correct the format file.
160-00B6	**Error message** Format file defective **Cause of error** The format file for FN16: F-PRINT (DIN/ISO: D16) has the wrong format: The specified line contains the keywords for several different languages. **Error correction** Correct the format file. Each line can contain no more than one keyword for a language.
160-00B7	**Error message** Format file defective **Cause of error** The format file for FN16: F-PRINT (DIN/ISO: D16) has the wrong format: The specified line contains an unknown code word. **Error correction** Correct the format file.

Error number	Description
160-00B8	**Error message** Format file defective **Cause of error** The text generated by FN16: F-PRINT (ISO: D16) is too long. Maximum permissible length: 1024 characters. **Error correction** Change the format file. If necessary, divide the output over several FN16 commands.
160-00B9	**Error message** %1 **Cause of error** **Error correction**
160-00BA	**Error message** File access not possible **Cause of error** You tried to access a file that is reserved for the control manufacture or machine tool builder. **Error correction** Edit the NC program.
160-00BB	**Error message** Faulty CFGREAD **Cause of error** Failed attempt to read a configuration datum via CFGREAD. The desired configuration datum may not exist or it has another type. **Error correction** Check that the name (TAG), key (KEY) and desired attribute (ATTR) is written correctly and that the desired datum has the correct type: In numerical formulas, enter only datum that can be converted to a numerical value (numbers and Boolean variables). In string formulas, enter only data that can be converted to a string (string, Boolean and enumeration).
160-00BC	**Error message** Tool definition is missing **Cause of error** In a TOOL CALL (ISO: T..) you entered a tool number for which there is no definition in the program. **Error correction** Edit the part program.

Error number	Description
160-00BD	**Error message** Block format incorrect **Cause of error** A coordinate is required in the specified NC block, but you did not enter one. **Error correction** Edit the NC program.
160-00BE	**Error message** Illegal probe type **Cause of error** An invalid number was entered for the touch probe model. The probe data or a cycle are probably in error. **Error correction** Correct the type of the touch probe (if necessary through your customer service).
160-00BF	**Error message** CYCL DEF faulty **Cause of error** The Q parameters entered in a cycle as calling parameters are contradictory. The cycle is probably incorrectly defined, or maybe you simply programmed it incorrectly. **Error correction** Correct the NC program with the NC editor. If this does not remedy the error, contact your machine tool builder.
160-00C0	**Error message** %1 **Cause of error** An error was provoked by the function FN14 (ISO: D14) in an NC program or cycle. **Error correction** Look for a description of the error in the machine manual. Then fix the error and restart the program.
160-00C1	**Error message** FN14 error without text **Cause of error** With the FN14 (ISO: D14) function you provoked an error in the NC program or cycle. The string variable to be shown as an error text does not exist. **Error correction** Correct the FN14 function in the NC program. Inform the machine manufacturer if an error message is generated from a cycle.

Error number	Description
160-00C2	**Error message** FN14 error without text **Cause of error** With the FN14 (ISO: D14) function you provoked an error in the NC program or cycle. The additional information is missing for the given error number. **Error correction** Correct the FN14 function in the NC program. Inform the machine manufacturer if an error message is generated from a cycle.
160-00C3	**Error message** M function not permitted **Cause of error** An M function was programmed with a number that is not permitted on this control. **Error correction** Correct the number of the M function.
160-00C4	**Error message** No program selected **Cause of error** An attempt was made to call an NC program with CALL SELECTED, although no program was selected. **Error correction** Correct the NC program.
160-00C5	**Error message** Tool not defined **Cause of error** You have called a tool that is not defined in the tool table. **Error correction** - Add the missing tool to the tool table. - Use another tool.
160-00C6	**Error message** Incorrect tool data **Cause of error** Incorrect tool data **Error correction** Correct the tool table.

Error number	Description
160-00C7	**Error message** Invalid value **Cause of error** An invalid value was entered for a parameter in a function. **Error correction** Correct the NC program.
160-00C8	**Error message** Cycle defective **Cause of error** An incorrect system jump address was entered in a cycle. **Error correction** Inform your machine tool builder.
160-00C9	**Error message** Invalid value for table **Cause of error** You tried to write an invalid value in an SQL table. **Error correction** Correct the NC program.
160-00CA	**Error message** Invalid SQL handle **Cause of error** An invalid SQL handle was entered for the transaction. Maybe the transaction was never successfully opened, or it was already ended through COMMIT or ROLLBACK. **Error correction** Correct the NC program.
160-00CB	**Error message** Error when opening a selected file **Cause of error** Error while opening a file. **Error correction** Ensure that the file exists, that the given path is correct, and that the file has a readable format.
160-00CC	**Error message** Error when opening a system file **Cause of error** Error while opening a system file. **Error correction** Inform your service agency.

Error number	Description
160-00CD	**Error message** Block format incorrect **Cause of error** In a NC program you used a syntax element that is allowed only within a contour-definition program. **Error correction** Create a contour definition program and select with SEL CONTOUR.
160-00CE	**Error message** ID for FN17/FN18 not available **Cause of error** The given ID in the system datum (FN17/FN18) is not available for this channel because the corresponding configuration data are missing. **Error correction** Check the ID of the system datum or run the NC program in another channel. If you really do need a system datum with this ID in this channel, ask your service agency.
160-00CF	**Error message** NC command not available **Cause of error** The given command is not available because the corresponding configuration data are missing. It is probably not supported on this machine. **Error correction** Change the NC program or inform your machine tool builder.
160-00D0	**Error message** M128 / M129 not allowed here **Cause of error** No switch-over of the TCPM is possible while the radius compensation is active (RR/RL, or G41/G42). **Error correction** Activate or deactivate TCPM before beginning or after end of radius compensation.
160-00D1	**Error message** 3-D tool compensation incorrect **Cause of error** LN blocks (face milling) are not possible together with simple radius compensation. **Error correction** If you want face milling, switch off the radius compensation. If you want peripheral milling, switch on TCPM (M128).

Error number	Description
160-00D2	**Error message** Only allowed in subprogram **Cause of error** The syntax used is allowed only in subprograms that are called with CALL PGM and in cycles, not in the main program. **Error correction** Correct the NC program.
160-00D3	**Error message** Variable in calling program not defined **Cause of error** In a subprogram, you tried to change a variable that is not declared in the calling program. **Error correction** Correct the NC program.
160-00D4	**Error message** Tool axis of touch probe not defined **Cause of error** You called a probing cycle without first defining the tool axis of the touch probe. **Error correction** Run the TOOL CALL with the corrent tool axis.
160-00D5	**Error message** OEM system cycle '%3' not defined **Cause of error** You tried to call a non-configured OEM system cycle. **Error correction** Complete the missing OEM system cycle configuration, or correct the NC program containing the call.
160-00D6	**Error message** No technological data available for contour pocket machining **Cause of error** A Cycle 20 must be programmed before every fixed cycle 21, 22, 23, or 24. **Error correction** Program a Cycle 20

Error number	Description
160-00D7	**Error message** Inconsistent status of the SQL server **Cause of error** Open transactions to the SQL server exist in the interpreter, even though they have already been closed. **Error correction** Check if the data in the SQL tables matches your expectations.
160-00D8	**Error message** Option not enabled **Cause of error** The function programmed is not allowed on this control or is available only as an option. **Error correction** - Enable the option - Correct the NC program
160-00D9	**Error message** Only allowed in cycle **Cause of error** The syntax used is allowed only in cycles, not in main programs or subprograms. **Error correction** Correct the NC program.
160-00DA	**Error message** Access to PLC variable has failed **Cause of error** The attempt to access a PLC variable has failed. It may be that the desired variable does not exist. **Error correction** Check that the symbolic name of the variable is spelled correctly and that the variable is defined in the PLC.
160-00DB	**Error message** Access to PLC variable has failed **Cause of error** The attempt to access a PLC variable has failed because it is not of the expected type. **Error correction** Edit the NC program.

Error number	Description
160-00DC	**Error message** Wrong rpm **Cause of error** The programmed spindle speed does not lie in the existing pattern of spindle speed stages. **Error correction** Enter the correct rotational speed.
160-00DD	**Error message** Check the depth sign **Cause of error** The cycle can only be performed in the negative direction (Cycle 204: positive direction) because the configuration parameter displayDepthErr is set to "on". **Error correction** - Enter a negative depth (Cycle 204: positive depth) in order to perform the cycle - Set the configuration parameter displayDepthErr to "off" in order to perform the cycle in positive direction (Cycle 204: negative direction) - Enter the diameter in Cycle 240 as a negative value in order to perform the operation in the negative direction of the tool axis.
160-00DE	**Error message** Program was edited **Cause of error** The current NC program was changed, or one of the NC programs that have called the current NC program. It is therefore not possible to go back into the program. **Error correction** Use the GOTO function or the mid-program startup function to select the desired location to return to in the program.
160-00DF	**Error message** R+ (G43) or R- (G44) not allowed here **Cause of error** The radius compensation R+ or R- cannot be used during active RR or RL. **Error correction** Edit the NC program.

Error number	Description
160-00E0	**Error message** FZ was programmed in conjunction with the number of teeth 0 **Cause of error** You used FZ to define a feed per tooth, although no tooth number is defined in the tool table. **Error correction** Add to the CUT column in the tool table for the active tool.
160-00E1	**Error message** Combination of FU/FZ with M136 not allowed in inch programs **Cause of error** You tried to use FU or FZ (feed rate in inch/rev or inch/tooth) in conjunction with M136 (feed rate in 0.1 inch/rev). **Error correction** Edit the NC program.
160-00E2	**Error message** PGM CALL not allowed **Cause of error** Calling subprograms over CALL PGM is not allowed in the Positioning with MDI mode of operation. **Error correction** Edit the NC program.
160-00E3	**Error message** Spindle speed S is greater than NMAX from the tool table **Cause of error** You entered a spindle speed S greater than the maximum speed defined for this tool in the tool table. **Error correction** - Enter a lower spindle speed S. - Change the maximum spindle speed in the NMAX column of the tool table.
160-00E4	**Error message** Probe cycle started with stylus already deflected **Cause of error** You tried to start a probing cycle although the stylus is still deflected. **Error correction** Increase the retraction path

Error number	Description
160-00E5	**Error message** Axis positions could not be determined **Cause of error** The position of the touch point could not be read. **Error correction** Inform your service agency
160-00E6	**Error message** Missing tool data! **Cause of error** The data for the current tool are not available; the tool is not in the table. Do not run any programs with this condition! **Error correction** - Ensure that the desired tool is entered in the tool table. If required, correct the tool table. - Acknowledge the error message - Conduct a TOOL CALL with an existing tool
160-00E7	**Error message** Incremental input not allowed **Cause of error** In the PATTERN DEF block, you used incremental coordinates to define the first position or a position after a pattern definition. **Error correction** In PATTERN DEF, always use absolute coordinates to program - the first position, - the next position after a pattern
160-00E8	**Error message** Point table has been changed **Cause of error** A pocket table defined with SEL PATTERN has changed during the program run. This is not allowed because the geometry is calculated ahead of time and the changes can then sometimes no longer be considered. **Error correction** Restart the program
160-00E9	**Error message** M function not allowed in a CYCL CALL PAT block **Cause of error** In CYCL CALL PAT block an M function was programmed that is not allowed there. **Error correction** Edit the NC program

Error number	Description
160-00EA	**Error message** CYCL CALL PAT not possible with selected cycle **Cause of error** The selected cycle is not allowed for execution with CYCL CALL PAT. **Error correction** Edit the NC program
160-00EB	**Error message** Recursive call of CYCL CALL PAT **Cause of error** Another CYCL CALL PAT block was found within a point pattern operation. **Error correction** Correct the NC program
160-00EC	**Error message** Radius compensation not allowed before CYCL CALL PAT **Cause of error** The control cannot approach the points of a pattern and compensate the tool radius. Radius compensation must not be switched on before a CYCL CALL PAT block or at the end of the cycle called by this block. **Error correction** Edit the NC program
160-00ED	**Error message** Point pattern call or definition faulty **Cause of error** A CYCL CALL PAT or PATTERN DEF block could not be executed because: - The machining plane programmed with TOOL CALL is not supported or - The point table or a pattern definition with PATTERN DEF is faulty. **Error correction** Check the NC program or point table and correct if necessary
160-00EE	**Error message** No point pattern defined **Cause of error** CYCL CALL PAT can only work if beforehand a point pattern was selected with SEL PATTERN or PATTERN DEF. **Error correction** Edit the NC program

Error number	Description
160-00EF	**Error message** M136 not allowed **Cause of error** M136 is not allowed in combination with the selected cycle. **Error correction** Correct the NC program
160-00F0	**Error message** Faulty call of READ KINEMATICS or WRITE KINEMATICS **Cause of error** You programmed the READ KINEMATICS or WRITE KINEMATICS command incorrectly. Possible causes: - The character string entered under KEY contains an unknown element or an incorrect number of elements - Writing the programmed data to the machine kinematics is not allowed or is not supported **Error correction** Edit the NC program
160-00F1	**Error message** FUNCTION PARAXCOMP or PARAXMODE is faulty **Cause of error** You programmed FUNCTION PARAXCOMP DISPLAY or FUNCTION PARAXCOMP MOVE without indicating an axis, or in FUNCTION PARAXMODE you entered fewer than three axes. **Error correction** - Enter at least one axis in FUNCTION PARAXCOMP DISPLAY or FUNCTION PARAXCOMP MOVE - Enter exactly three axes in FUNCTION PARAXMODE - Correct the NC program
160-00F2	**Error message** M118/M128 at the same time is not allowed **Cause of error** You tried to use M118 to activate a handwheel superimposition during active TCPM. **Error correction** M118 and M128 must not be active at the same time. Edit the NC program.

Error number	Description
160-00F3	**Error message** M118/M128 at the same time is not allowed **Cause of error** You tried to use M118 to activate a handwheel superimposition during active TCPM. The TNC has deactivated the handwheel superimpositioning. **Error correction** M118 and M128 must not be active at the same time. Edit the NC program.
160-00F4	**Error message** Active program was changed **Cause of error** You have changed the active NC program and not yet saved it. **Error correction** Save the unsaved NC program and restart.
160-00F5	**Error message** Called program was changed **Cause of error** You have edited and not yet saved an NC program that was called by another program during program run. **Error correction** Save the called NC program and restart the main program.
160-00F6	**Error message** NC block not allowed in milling mode **Cause of error** You programmed an NC block that is not permitted in milling mode. **Error correction** Correct the NC program.
160-00F7	**Error message** NC block not allowed in turning mode **Cause of error** You tried to execute a function that is not allowed in turning mode. - Fixed cycles for cylindrical surface - Fixed cycles that are locked for turning mode - These manual operation functions are not allowed for turning **Error correction** If necessary, correct the NC program.

Error number	Description
160-00F8	**Error message** Switching to milling or turning operation not allowed **Cause of error** You tried to switch between milling and turning mode while tool radius compensation was active. **Error correction** Cancel the tool radius compensation before switching to milling or turning mode.
160-00F9	**Error message** FUNCTION TURNDATA not allowed on active tool **Cause of error** You tried to use FUNCTION TURNDATA to activate a turning-tool compensation for a milling cutter. **Error correction** Call a turning tool before programming a FUNCTION TURNDATA.
160-00FA	**Error message** M136 not allowed **Cause of error** You attempted with active M136 to make an automatic swing-in movement in connection with Cycle 19 or the PLANE function. **Error correction** Deactivate M136 before swing-in.
160-00FB	**Error message** Spindle speed programmed without configured spindle **Cause of error** You tried to program a spindle speed, although no spindle is configured for the active kinematic configuration. **Error correction** Select a kinematic configuration with spindle, or edit the NC program.
160-00FC	**Error message** 0 rpm not permitted **Cause of error** You called a Rigid Tapping or Tapping cycle with a programmed spindle speed of 0. **Error correction** Program a spindle speed greater than 0.

Error number	Description
160-00FD	**Error message** Feed rate FT or FMAXT not allowed **Cause of error** You defined a feed rate with FT or FTMAX although that is not allowed in connection with APPR LN, LT, CT, PLN, PLT, PCT. **Error correction** Use other feed rate definitions than FT or FTMAX
160-00FE	**Error message** Global Q parameter not defined **Cause of error** A program run (test run) showed that a globally effective Q parameter is not defined. **Error correction** Check whether all required global parameters are in the program head and add more if required.
160-00FF	**Error message** M function not allowed in a CYCL CALL POS block **Cause of error** In the CYCL CALL POS block you programmed an M function that is not allowed there. **Error correction** Edit the NC program
160-0100	**Error message** CYCL CALL POS not allowed with active cycle **Cause of error** The active machining cycle is not allowed in combination with CYCL CALL POS. **Error correction** Call the cycle with M99 or CYCL CALL
160-0101	**Error message** CYCL CALL POS with radius compensation not allowed **Cause of error** You defined a CYCL CALL POS block even though tool-radius compensation is active. **Error correction** Cancel the tool-radius compensation before the CYCL CALL POS block

Error number	Description
160-0102	**Error message** CYCL CALL PAT or CYCL CALL POS: No working direction defined **Cause of error** You did not define a unique working direction in a cycle definition. **Error correction** Check the recent cycle definitions (parameters Q201, Q249, Q356 or Q358).
160-0103	**Error message** Axis angle not equal to tilt angle **Cause of error** - Datum setting inactive with tilted working plane: the position of the tilting axes is not 0°. - Datum setting active with tilted working plane: the position of the tilting axes does not agree with the active angle values. **Error correction** - Move the tilted axes into the default position. - Move the tilting axes to the correct position or adapt the angular values of the tilted axes' position.
160-0104	**Error message** Configuration data cannot be loaded or unloaded **Cause of error** This function is not supported in the Test Run operating mode or by the editor graphics. **Error correction**
160-0105	**Error message** Preset not possible with current machine state **Cause of error** The active preset contains at least one value unequal to zero, which is not allowed because of the present machine condition. The control did not activate this preset. **Error correction** Check the current preset and change if required.

Error number	Description
160-0106	**Error message** NC function not permitted **Cause of error** The block scan evaluated an NC function that cannot be used with mid-program startup (e.g. M142, M143). **Error correction** - If possible, remove the NC function from the program and then restart the block scan. - If this is a control program for calling various part programs, start the desired part program individually in the block scan.
160-0107	**Error message** Impermissible compensation for turning tools **Cause of error** You programmed M128 (TCPM) together with an RL (G41)/ RR (G42) radius compensation or an LN block. This function is not supported in connection with turning tools. **Error correction** Edit the NC program.
160-0108	**Error message** 0 rpm not allowed **Cause of error** You programmed a spindle speed of 0. **Error correction** Always define S to be greater than 0.
160-0109	**Error message** 0 rpm not allowed **Cause of error** Turning mode is active: - You programmed a spindle speed of 0 with FUNCTION TURNDATA SPIN. - You programmed a constant surface speed VC with FUNCTION TURNDATA SPIN, but did not define the cutting speed VC. - You programmed a constant rotational speed (VCONST:OFF) with FUNCTION TURNDATA, but did not define the rotational speed S. **Error correction** - Always program S to be greater than 0. - For constant surface speed (VCONST:ON), always define a surface speed VC. - For constant rotational speed (VCONST:OFF), always define a rotational speed S.

Error number	Description
160-010A	**Error message** Number of program part repeats is defined as 0 **Cause of error** In a CALL LBL statement (DIN/ISO: L x,y), you defined the number of program part repeats with 0. **Error correction** - Define a number of repeats between 1 and 9999. - Define a subprogram call without entering repetitions.
160-010B	**Error message** No turning tool is active **Cause of error** The TNC cannot execute the function with the data of the active tool. **Error correction** - Insert a turning tool. - Check the TYPE column of the lathe tool table.
160-010C	**Error message** Contradictory tool data **Cause of error** You tried to call a lathe tool with data that are allowed only for milling tools, e.g. - Spindle speed S - Oversizes DL, DR, DR2 **Error correction** Correct the NC program.
160-010D	**Error message** Tool data are contradictory during active turning operation **Cause of error** The following functions are not allowed during active turning operation (FUNCTION MODE TURN): - Definition of the spindle speed for the tool spindle (TOOL CALL S, DIN/ISO: S) - Definition of the tool axis direction (e.g. TOOL CALL Z, DIN/ISO: G17/G18/G19) **Error correction** Correct the NC program.
160-010E	**Error message** Incorrect file type **Cause of error** The type of entered data is not permissible in this application. **Error correction** Please check whether the file has the correct extension.

Error number	Description
160-010F	**Error message** Spline interpolation is not supported **Cause of error** You tried to run an NC block that was described as a spline. This block format is not supported by the control. **Error correction** Select an NC program without spline interpolation or edit the NC program.
160-0110	**Error message** FN27/FN28: No table selected **Cause of error** You attempted to use FN27 to write to a table, or FN28 to read from a table, although no table was open. **Error correction** Use FN26 to open the desired table.
160-0111	**Error message** FN27/FNF28: Field is not numerical **Cause of error** You attempted to use an FN27 or FN28 function to write to or read from a non-numerical field. **Error correction** Writing and reading operations are possible only with numerical fields.
160-0112	**Error message** MDI: Radius compensation not possible **Cause of error** No tool radius compensation is allowed in MDI mode. **Error correction** Correct the NC block
160-0113	**Error message** Label is missing **Cause of error** You used Cycle 14 to call a nonexistent label. **Error correction** Change the number or name in Cycle 14 or insert the missing label

Error number	Description
160-0114	**Error message** Label is missing **Cause of error** You used FUNCTION TURNDATA BLANK LBL to call a nonexistent label. **Error correction** Change the number or name in FUNCTION TURNDATA BLANK LBL or insert the missing label
160-0115	**Error message** Too many vertical profiles programmed **Cause of error** The selected surface profile contains too many vertical profiles. **Error correction** Edit the NC program
160-0116	**Error message** Type of interpolation invalid **Cause of error** No interpolation type or an unsupported interpolation type was programmed. **Error correction** Edit the NC program
160-0117	**Error message** Too many axes programmed **Cause of error** You programmed too many axes for paraxial interpolation. **Error correction** Edit the NC program
160-0118	**Error message** Plane profile incorrectly defined **Cause of error** The selected contour cannot be used as the plane profile of a profile surface. The plane profile must consist only of a subcontour. **Error correction** Edit the NC program

Error number	Description
160-0119	**Error message** Circle calculation failed **Cause of error** It was not possible to calculate a circle from the given coordinates. **Error correction** Edit the NC program
160-011A	**Error message** No tool touch probe active **Cause of error** You tried to switch a tool touch probe without first activating it. **Error correction** Activating the tool touch probe.
160-011B	**Error message** At least one parameter within the contour is not initialized **Cause of error** The QL parameters of this program cannot be accessed in the contour defined in the current program. **Error correction** Define the QL parameters used within the contour definition or use globally effective Q parameters.
160-011C	**Error message** Touch probe not defined **Cause of error** - You called a touch probe that is not defined in the touch probe table. - The touch probe table is write-protected or it does not exist. **Error correction** - Add the missing touch probe to the touch probe table. - Create a touch probe table or cancel the write protection.
160-011D	**Error message** Tool not defined **Cause of error** You have called a tool that is not defined in the tool table. **Error correction** - Add the missing tool to the tool table. - Use another tool.

Error number	Description
160-011E	**Error message** Turning tool incompletely defined **Cause of error** - You called a turning tool that is not defined in the turning tool table. - The turning tool table is faulty or missing. **Error correction** - Add the missing tool to the turning tool table. - Create or correct the turning tool table.
160-011F	**Error message** Range of traverse not defined **Cause of error** You tried to switch to a traverse range that was not defined in the configuration through CfgWorkingRange. **Error correction** Inform your machine tool builder
160-0120	**Error message** DATA ACCESS has failed **Cause of error** An incorrect path was used for DATA ACCESS or there are no access rights. **Error correction** - Correct the programmed path for DATA ACCESS - Move the NC program to the PLC partition
160-0121	**Error message** Label is missing **Cause of error** A workpiece blank definition (NC block: BLK FORM ROTATION) refers to a nonexistent label. **Error correction** - Correct the NC program: Change the reference to the label or insert the missing label.

Error number	Description
160-0122	**Error message** Contradictory M functions **Cause of error** In the same block, you tried to output multiple effective M functions that cancel each other. For example, you cannot program M3 and M4 in the same NC block because both go into effect at beginning of the block. On the other hand, M3 and M5 are allowed in the same block because M3 goes into effect at the block beginning and M5 at block end. The machine tool builder specifies which M functions cancel each other. **Error correction** Correct the NC program.
160-0123	**Error message** Alias strobe of type %1 not configured **Cause of error** The entered command is not available because the corresponding configuration data are missing. Presumably it is not supported on this machine. The config object CfgPlcStrobeAlias is missing or has not been entered in the CfgPlcStrobes/aliasStrobes list. **Error correction** Edit the NC program or contact your machine tool builder.
160-0124	**Error message** CFGWRITE incorrect **Cause of error** The attempt to use CFGWRITE to write a configuration datum has failed. It might have another type, or the the write axis is not allowed. **Error correction** Check the spelling of TAG, KEY, attribute (ATR) and the type of value to be written (DAT). If required, move the program from the TNC to the PLC partition.

Error number	Description
160-0125	**Error message** Demo version **Cause of error** This software is a demo version. With the demo version you can edit and run NC programs with a maximum length of 100 lines. With the demo version you are not entitled to service support from HEIDENHAIN. **Error correction** - If you would like to purchase the licensed version of the product, please contact the service agency for the control. - Check whether the keyboard of the programming station (or the dongle) is connected.
160-0126	**Error message** M90 is not supported by this NC software **Cause of error** The M90 function is no longer available with this NC software. **Error correction** Use Cycle 32 TOLERANCE in order to influence accuracy, surface quality and machining speed.
160-0127	**Error message** M105 and M106 are not supported with this NC software **Cause of error** The M105 and M106 function is not available with this NC software. **Error correction**
160-0128	**Error message** M104 is not supported with this software **Cause of error** M104 is not supported by this NC software. The datum set manually most recently is saved in row 0 of the preset table. **Error correction** - Use Cycle 247 SET DATUM to activate a preset from the preset table.
160-0129	**Error message** M112 and M113 are not supported with this NC software **Cause of error** The M115 and M113 functions are not available with this NC software. **Error correction** Use Cycle 32 TOLERANCE in order to influence accuracy, surface quality and machining speed.

Error number	Description
160-012A	**Error message** M114 and M115 are not supported with this NC software **Cause of error** M114 und M115 are not supported by this NC software. **Error correction** - Use M144/145 or M128/129 in order to take the positions of rotary and tilting axes into consideration.
160-012B	**Error message** M124 is not supported with this NC software **Cause of error** M124 is not supported by this NC software. The contour filter cannot be programmed in the NC program. **Error correction** - Use CfgStretchFilter to configure the contour filter in the machine configuration.
160-012C	**Error message** M132 is not supported with this NC software **Cause of error** M132 is not supported by this NC software. **Error correction** - Use Cycle 32 TOLERANCE in order to influence accuracy, surface quality and machining speed.
160-012D	**Error message** M134 and M135 are not supported with this NC software **Cause of error** This NC software does not support M134 and M135 for a precision stop at non-tangential transitions for positioning moves with rotary axes. **Error correction** - Use machine-specific funtions to activate or deactivate automatic clamping. - If required, contact your machine tool builder
160-012E	**Error message** M142 is not supported with this NC software **Cause of error** The deletion of modal program functions through M124 is not supported by this NC software. **Error correction**

Error number	Description
160-012F	**Error message** M150 is not supported with this NC software **Cause of error** This NC software does not support the suppression of limit-switch messages through M150. **Error correction**
160-0130	**Error message** M200 to M204 are not supported with this NC software **Cause of error** This NC software does not support M200-M204 for laser cutting. **Error correction**
160-0131	**Error message** FT and FMAXT are not supported with this NC software
160-0132	**Error message** FN15: PRINT is not supported with this NC software
160-0133	**Error message** FN25: PRESET is not supported with this NC software
160-0134	**Error message** FN31: RANGE SELECT is not supported with this NC software
160-0135	**Error message** FN32: PLC PRESET is not supported with this NC software
160-0136	**Error message** SL1 cycles are not supported with this NC software **Cause of error** The SL1 cycles 6, 15 and 16 are not supported by this NC software. **Error correction** - Adapt the NC program: Replace SL1 cycles by the new, improved SL2 cycles 20, 21, 22, 23 and 24.

Error number	Description
160-0137	**Error message** The touch probe cycle is not supported with this NC software **Cause of error** The programmed touch probe cycle is not supported by this NC software. **Error correction** - Adapt the NC program: Replace the touch probe cycle 2 or 9 by the newer cycles 461, 462 or 463.
160-0138	**Error message** Cycle 30 is not supported with this NC software **Cause of error** Cycle 30 is not supported by this NC software. **Error correction**
160-0139	**Error message** Tool must not be changed **Cause of error** A change of tool number or tool index is not allowed at present. This test was activated by the machine tool builder within the TOOL CALL macro. **Error correction** Inform your machine tool builder
160-013A	**Error message** Mid-program startup to area with active RTC function not possible **Cause of error** You tried to run a mid-program startup on an area in the NC program in which the RTC function (Real-Time Coupling) is active. This is not possible. **Error correction** - Adapt the target position for the block search - Choose a target position so that the mid-program startup ends before activation of the RTC function.
160-013B	**Error message** Function locked **Cause of error** You have programmed a function that has not been enabled by the machine manufacturer. **Error correction** - Edit the NC program or contact your machine tool builder

Error number	Description
160-013C	**Error message** Function not possible with current tool **Cause of error** A function is incompatible with the properties of the current tools. **Error correction** - Edit the NC program - Check the tool data
160-013D	**Error message** File %1 for tool carrier kinematics could not be opened **Cause of error** The given file for a tool carrier kinematic model could be found neither under TNC:\system\Toolkinematics nor under OEM:\config\Toolkinematics. **Error correction** - Add the file in one of the appropriate directories or delete the corresponding entry under “KINEMATIC” in the tool table if no tool-carrier kinematic model is to be used for the tool. - Inform your service agency.
160-013E	**Error message** Data of the tool carrier kinematics is faulty **Cause of error** The tool-carrier kinematic data for the current tool are faulty. Note: Do not run any NC programs in this condition and be careful if you move the axes manually! **Error correction** - Ensure under “KINEMATICS” that a valid file for the tool-carrier kinematics is entered for the desired tool in the tool table. - Acknowledge the error message - Run a TOOL CALL for a tool that has no tool-carrier kinematics assigned or one that has a valid tool-carrier kinematic model. - Inform your service agency.
160-0142	**Error message** Axis positioning not possible **Cause of error** - An auxiliary axis movement was moved before the last movement of this axis was completed **Error correction** Check the PLC program. - Wait explicitly for the end of the previous positioning movement or cancel it - Inform your service agency.

Error number	Description
160-0143	**Error message** Axis movement canceled **Cause of error** The positioning movement of an auxiliary axis was canceled. **Error correction** - If necessary, check other pending error messages - Check the PLC program and status marker of the axis - Inform your service agency
160-0144	**Error message** The configuration datum %2 is missing for the tool touch probe %1 **Cause of error** The appropriate configuration datum is missing for the TT tool touch probe activated with the CfgProbes/activeTT parameter. **Error correction** Add the missing configuration datum or activate another TT tool touch probe.
160-0145	**Error message** No active touch probe **Cause of error** You started a probing cycle without first activating the touch probe. **Error correction** - Insert the TS touch probe, or - switch to the TT tool touch probe.
160-0146	**Error message** Alias strobe of type %1 is incorrectly configured **Cause of error** The entered command is not available because the corresponding configuration data are faulty. Presumably it is not supported on this machine. The M function referenced in CfgPlcStrobeAlias is not configured. **Error correction** - Inform your machine tool builder

Error number	Description
160-0155	**Error message** Ambiguity: DR2 and DR2TABLE defined in the tool table **Cause of error** Ambiguous DR2 data are entered in the tool table. Only DR2 or DR2TABLE can set for a tool at any given time. **Error correction** In order to use 3-D radius compensation, enter the desired DR2 value and leave the DR2TABLE entry empty In order to use the 3D-ToolComp option, enter in DR2TABLE the file name (without extension) of the compensation value table and set DR2 to zero (0)
160-0156	**Error message** Radius compens. impossible with milling cutter (TCPM TIP-CENTER) **Cause of error** An attempt has been made to program a radius compensation using a milling tool and active TCPM REFPNT TIP CENTER. Radius compensation with this preset is possible only for turning tools. **Error correction** Insert a turning tool.
160-0157	**Error message** Activation of TCPM REFPNT TIP-CENTER is not allowed **Cause of error** An attempt was made to activate TCPM REFPNT TIP-CENTER. This is not allowed in the current program context. TCPM REFPNT TIP-CENTER cannot be used in the following program states: - Active tool radius compensation - Active 3-D tool compensation **Error correction** If necessary, deactivate the active tool radius compensation or 3-D tool compensation
160-0158	**Error message** TCPM TIP-CENTER active **Cause of error** TCPM REFPNT TIP-CENTER is active. The following functions cannot be used with this TCPM reference point: - 3-D tool compensation - Radius compensation R+ and R- **Error correction** Deactivate TCPM TIP-CENTER (using FUNCTION TCPM RESET or M129) or select TIP-TIP or CENTER-CENTER for the TCPM preset before activating the tool compensation.

Error number	Description
160-015A	**Error message** TCPM TIP-CENTER is active with tool radius compensation **Cause of error** TCPM REFPNT TIP-CENTER with tool radius compensation is active. The following functions are not possible in this state: - M128 - M129 / FUNCTION TCPM RESET - FUNCTION TCPM REFPNT: Change of TCPM preset **Error correction** Deactivate tool radius compensation first with R0
160-0160	**Error message** M2/M30 in subprogram **Cause of error** The NC program was ended by a call from M2 or M30 in a subprogram called with CALL PGM. **Error correction** - If this behavior is desired, no further measures are required. - If you want to return from the subprogram, edit the NC program and jump to the last line of the subprogram.
160-0162	**Error message** File with 3D-ToolComp compensation values not available **Cause of error** The file with the name provided in the tool-table column DR2TABLE could not be opened. **Error correction** - Check the spelling of the file name in the tool table. - Check whether the file is located in the intended folder on the control. - Inform your service agency.
160-0163	**Error message** NC command not allowed during tool-oriented machining **Cause of error** - NC command was executed that is not supported with tool-oriented machining. In this mode, for example, no change is allowed of the preset table through traverse-range switchover. **Error correction** - Correct the NC program, or - use workpiece-oriented machining

Error number	Description
160-0164	**Error message** Parameter not permissible in macro **Cause of error** In an OEM macro, TOOL CALL was programmed with invalid parameters. - With TOOL CALL, no parameters are allowed in the macro for tool-oriented pallet machining. - In the TOOL CALL, only number, step index and spindle speed are allowed in the tool change macros. **Error correction**
160-0165	**Error message** Facing slide: M148 not allowed **Cause of error** Automatic tool lift-off not allowed with an active facing slide. **Error correction** - Check the NC program and adapt it if necessary.
160-0166	**Error message** Function locked **Cause of error** The machine tool builder disabled this function with a configuration setting. **Error correction** Edit the NC program or contact your machine tool builder.
160-0167	**Error message** Cannot continue program **Cause of error** In rare cases, a program resumption with GOTO is no longer possible. **Error correction** - Restart the NC program - If required, try a mid-program startup

Error number	Description
160-0168	**Error message** Preset not allowed **Cause of error** The activated preset contains at least one value not equal to zero. This is not allowed due to a limitation defined by the machine tool builder. The limitation could have been activated by the following causes: - Globally by configuration - Dependency on a machine condition, through an NC syntax. The control did not activate the impermissible value of this preset. **Error correction** - Check the current preset and change it if required - In the Test Run operating mode, machining preset loading can be aided using the blank-in-workspace function - Inform your service agency
160-0169	**Error message** OEM offset for X, Y, or Z axis not permissible **Cause of error** You tried to define an OEM offset for one of the principal axes X, Y or Z. That is not allowed. **Error correction**
160-016A	**Error message** Automatic tool change not possible **Cause of error** An automatic tool change is supported at preset only for milling operations. **Error correction** - In the AFC settings, specify a strategy that does not have the overload response OVLD = M (macro). - Contact your service agency if this message did not occur due to an AFC overload reaction.
160-016B	**Error message** Switching the machining mode is not allowed **Cause of error** You tried to switch the operating mode while tool radius compensation was active. **Error correction** Cancel the tool radius compensation before switching the operating mode.

Error number	Description
160-016C	**Error message** NC block in grinding mode is not allowed **Cause of error** You tried to execute a function that is not allowed in grinding mode. - Machining cycles for cylindrical surface - Machining cycles that are disabled for grinding mode - Functions of manual operation that are not permitted for grinding **Error correction** - Correct the NC program
160-016D	**Error message** NC block in dressing mode is not allowed **Cause of error** You tried to execute a function that is not permitted in dressing mode. - Machining cycles for cylindrical surface - Machining cycles that are disabled for dressing mode - Functions of manual operation that are not permitted for dressing **Error correction** - Correct the NC program
160-016E	**Error message** M function not permitted **Cause of error** In the M function dialog you indicated an M function that is only permitted in the NC program. **Error correction** - Correct the number of the M function - Output the function via an MDI block.
160-016F	**Error message** Execution request for NC syntax missing **Cause of error** You do not have the rights to perform this specific function (e.g. FN22). **Error correction** Edit the NC program.

Error number	Description
160-0170	**Error message** M89 not supported in combination with FK **Cause of error** It was attempted to execute an FK block while M89 was active. This is not supported. **Error correction** - Edit the NC program. - In order to execute the selected cycle, program M99 for the respective FK blocks instead of M89.
160-0171	**Error message** FN27/FN28 type of field not supported **Cause of error** You tried to use an FN27 or FN28 function to access a field that does not match the type of parameter. **Error correction** - For numerical fields you must use a Q, QL, or QR parameter as the source or target. - A QS parameter must be used for text fields.
160-0177	**Error message** Grinding tool not defined completely **Cause of error** - You have called a griding tool that is not defined in the griding tool table, or at least not completely. - The griding tool table does not exist or is faulty. **Error correction** - Add the missing tool to the griding tool table. - Create or correct the griding tool table.
160-0179	**Error message** Traverse range not defined **Cause of error** You tried to deactivate a traverse range that is not defined in the configuration through CfgWorkingRange. **Error correction** Inform your machine tool builder.
160-017A	**Error message** Maximum number of configuration changes was exceeded **Cause of error** Too many configuration changes were buffered with WRITE CFG PREPARE. **Error correction** Write the already prepared changes with WRITE CFG COMMIT before any further PREPARE instructions.

Error number	Description
160-017B	**Error message** NC program faulty: WRITE CFG COMMIT without PREPARE **Cause of error** You programmed WRITE CFG COMMIT without a preceding WRITE CFG PREPARE, or the most recently programmed WRITE CFG PREPARE is no longer valid. **Error correction** Edit the NC program
160-017C	**Error message** Parameter type is incorrect **Cause of error** The result type in a Q parameter formula does not match the parameter on the left side: - On the left is a Q, QR, or QL parameter but the result of the formula is a string - On the left is a QS parameter but the result of the formula is a number **Error correction** Correct the formula
160-017D	**Error message** Probing movement was prevented by DCM **Cause of error** The collision monitoring function shortened the length of the probing movement to 0. **Error correction** - Check the configuration of the touch probe being used - Check whether a collision object must be deactivated for the probing operation
160-017E	**Error message** Block scan not permitted **Cause of error** You began a mid-program startup while dressing mode was active or the target of a mid-program startup is at a position in the dressing mode. This is not allowed. **Error correction** Adapt the target position for the block search

Error number	Description
160-017F	**Error message** Handwheel superimpositioning not allowed in dressing mode **Cause of error** You attempted to switch to dressing mode even though handwheel superimpositioning is still active. **Error correction** Switch off handwheel superimpositioning before switching to dressing mode.
160-030A	**Error message** No technology data record available for contour machining **Cause of error** A Cycle 271 must be programmed before every fixed cycle 272, 273, or 274. **Error correction** - Adapt the NC program - Program Cycle 271
160-030B	**Error message** Block scan not permitted **Cause of error** The target position of the mid-program startup is within an active reciprocating movement. This is not allowed. **Error correction** Adapt the target position for the block search
160-030E	**Error message** Preset not defined **Cause of error** An attempt was made to select a preset that is not defined. **Error correction** Correct the name or the preset or expand the preset table.
160-030F	**Error message** File type not permissible for the tool-model file **Cause of error** A file with a non-permitted file type was specified for the tool to be inserted. *.stl files are permitted. **Error correction** Replace the file with a permitted file.

Error number	Description
160-0310	**Error message** File with tool model is missing **Cause of error** Die in der Werkzeugtabelle angegebene Datei zur Beschreibung des Werkzeugmodells ist nicht vorhanden **Error correction** - Schreibweise des Dateinamens in der Werkzeugtabelle kontrollieren - Datei in den dafür vorgesehenen Ordner auf der Steuerung kopieren (Angaben im Benutzerhandbuch beachten)
160-0312	**Error message** No position stored for returning **Cause of error** You attempted to return to a stored liftoff point even though no such point was stored. - Function was called outside of a macro in which liftoff points are stored - No M140 is programmed in the macro **Error correction** Correct the macro
160-0313	**Error message** Invalid value for table **Cause of error** You tried to use TABDATA ADD to add a value to an empty table entry. **Error correction** - Check whether the data in the tables meet your expectations - Correct the NC program
160-0314	**Error message** Daten für Werkzeugform fehlerhaft oder Funktion gesperrt **Cause of error** The tool shape data for the current tool are faulty. Note: Do not run any NC programs in this condition and be careful if you move the axes manually! **Error correction** - Ensure under "TSHAPE" that a valid file for the 3D tool shape is entered for the desired tool in the tool table. - Acknowledge the error message. - Run a TOOL CALL for a tool that has no tool shape assigned or one that has a valid 3D tool shape file. - Inform your service agency.

Error number	Description
160-0315	**Error message** "IF" instruction missing before "ELSE (IF)" or "END IF" **Cause of error** A sequence with the instructions "IF", "ELSE IF", "ELSE" and/ or "END IF" was programmed incorrectly. **Error correction** Edit the NC program.
160-0316	**Error message** "ELSE" is not permitted after "ELSE" **Cause of error** A sequence with the instructions "IF", "ELSE IF", "ELSE" and/ or "END IF" was programmed incorrectly. **Error correction** Edit the NC program.
160-0317	**Error message** Couldn't find concluding "END IF" of an "IF" instruction **Cause of error** A sequence with the instructions "IF", "ELSE IF", "ELSE" and/ or "END IF" was programmed incorrectly. **Error correction** Edit the NC program.
160-0318	**Error message** "END IF" without preceding "IF" **Cause of error** A sequence with the instructions "IF", "ELSE IF", "ELSE" and/ or "END IF" was programmed incorrectly. **Error correction** Edit the NC program.
160-0319	**Error message** Instruction not permitted between "IF" and "END IF" **Cause of error** Within a block initiated with IF, FOR or WHILE, a jump instruction was programmed that is not permitted there. **Error correction** Edit the NC program.

Error number	Description
160-031A	**Error message** Instruction not permitted within a FOR or WHILE loop **Cause of error** Within a block initiated with IF, FOR or WHILE, a jump instruction was programmed that is not permitted there. **Error correction** Edit the NC program.
160-031B	**Error message** End of a loop (FOR or WHILE) faulty: the beginning is missing **Cause of error** A loop was programmed incorrectly. A loop begins with "FOR" or "WHILE" and ends with "END FOR" or "END WHILE". "CONTINUE" or "BREAK" may be used only within a loop. **Error correction** Edit the NC program.
160-031C	**Error message** "END FOR" not found **Cause of error** A loop was programmed incorrectly. A loop begins with "FOR" or "WHILE" and ends with "END FOR" or "END WHILE". "CONTINUE" or "BREAK" may be used only within a loop. **Error correction** Edit the NC program.
160-031D	**Error message** "END WHILE" not found **Cause of error** A loop was programmed incorrectly. A loop begins with "FOR" or "WHILE" and ends with "END FOR" or "END WHILE". "CONTINUE" or "BREAK" may be used only within a loop. **Error correction** Edit the NC program.
160-031E	**Error message** "CONTINUE" outside of a loop **Cause of error** A loop was programmed incorrectly. A loop begins with "FOR" or "WHILE" and ends with "END FOR" or "END WHILE". "CONTINUE" or "BREAK" may be used only within a loop. **Error correction** Edit the NC program.

Error number	Description
160-031F	**Error message** "BREAK" outside of a loop **Cause of error** A loop was programmed incorrectly. A loop begins with "FOR" or "WHILE" and ends with "END FOR" or "END WHILE". "CONTINUE" or "BREAK" may be used only within a loop. **Error correction** Edit the NC program.
160-0320	**Error message** Impermissible tool type for tool shape **Cause of error** 3D tool shapes can be used for milling cutters and touch probes. Note: The parameterized description of the tool takes effect. Indexed tools can also be shown only in a parameterized manner. **Error correction** - Remove the entry from the TSHAPE column - Enter a correct parametric description of the tool
160-0321	**Error message** Importing data from the digital project folder failed **Cause of error** Tools, presets and datums could not, or could not fully, be converted to the internal format necessary for machining. **Error correction** Pay attention to the additional text, and correct or regenerate the data in the digital project folder.
160-0322	**Error message** Software option for DCM v2 is missing **Cause of error** Die Software-Option für DCM v2 ist nicht freigeschaltet. **Error correction** Kundendienst benachrichtigen NC-Programm ändern Einträge in der TSHAPE-Spalte der Werkzeugtabelle entfernen

Error number	Description
160-0323	**Error message** Intervention with conversion not supported **Cause of error** Sie haben versucht, ein NC-Programm mit aktiver Konvertierung fortzusetzen. Dies ist nur im einfachen Fall einer direkten Fortsetzung nach NC-Stopp auf dem gestoppten NC-Satz ohne weitere Intervention wie z.B. GOTO-Satz möglich. **Error correction** Für eine erfolgreiche Konvertierung starten Sie das Programm ab Programmanfang und vermeiden Sie Eingriffe in die Programmausführung.
160-0325	**Error message** PLANE not permitted with SEQ **Cause of error** Es wurde mit PLANE eine Lösungsauswahl über SEQ programmiert. Auf dieser Steuerung ist SEQ gesperrt. **Error correction** NC-Programm ändern: Lösungsauswahl über Symmetriepunkt (Syntax SYM) verwenden
160-0326	**Error message** %1 **Cause of error** In einem NC-Programm oder Zyklus wurde durch die Funktion FUNCTION REPORT ein Fehler erzwungen. **Error correction** Beschreibung des Fehlers im Maschinenhandbuch suchen, Programm neu starten, nachdem Sie den Fehler beseitigt haben.
160-0327	**Error message** Konvertierung fehlgeschlagen **Cause of error** Die Konvertierung des NC-Programms konnte nicht durchgeführt werden. **Error correction** Weitere Fehlermeldungen beachten.
160-0328	**Error message** Format-String fehlerhaft **Cause of error** Das Ersetzungsfeld in einem Format-String ist fehlerhaft. **Error correction** - Ersetzungsfelder überprüfen

Error number	Description
1A0-0001	**Error message** System error in internal path calculation Invalid message %1 **Cause of error** System error **Error correction** Inform your service agency.
1A0-0002	**Error message** System error in the geometry chain: %1 **Cause of error** System error **Error correction** Inform your service agency.
1A0-0003	**Error message** Function not yet implemented: %1 **Cause of error** You tried to use a function that is not available in this version of the NC software. **Error correction** Edit the NC program.
1A0-0004	**Error message** System error in the geometry chain: %1 **Cause of error** System error in the geometry chain **Error correction** Inform your service agency.
1A0-0005	**Error message** System error in the geometry chain: %1 **Cause of error** System error in internal path calculation **Error correction** Inform your service agency

Error number	Description
1A0-0006	**Error message** System error in the geometry chain: %1 **Cause of error** System error in internal path calculation **Error correction** Inform your service agency
1A0-0007	**Error message** System error in the geometry chain: %1 **Cause of error** System error in the geometry chain **Error correction** Inform your service agency.
1A0-0008	**Error message** Axis double programmed **Cause of error** In a circle-center block or a pole block (CC, ISO: I,J,K) you programmed the same axis twice. **Error correction** Edit the NC program
1A0-0009	**Error message** Axis in CC block (ISO: I,J,K) double programmed **Cause of error** In a circle-center block or a pole block (CC, ISO: I,J,K) you programmed the same axis twice. **Error correction** Edit the NC program
1A0-000A	**Error message** No tool axis defined **Cause of error** No plane selection or tool axis direction programmed, or no default plane specified. **Error correction** Edit the NC program or specify the default working plane in the configuration.

Error number	Description
1A0-000B	**Error message** No arc end point programmed **Cause of error** Arc end point data missing **Error correction** Program at least one coordinate of the arc end point.
1A0-000C	**Error message** Arc block: No direction of rotation programmed **Cause of error** You programmed a circle without a direction of rotation. **Error correction** Always program the direction of rotation (DR).
1A0-000D	**Error message** No arc radius programmed in CR block **Cause of error** Missing arc radius in CR block **Error correction** Program a radius in the CR block.
1A0-000E	**Error message** System error in the geometry chain: %1 **Cause of error** System error in the geometry chain **Error correction** Inform your service agency.
1A0-000F	**Error message** Pole is missing **Cause of error** You tried to move with polar coordinates (LP/CP/CTP, DIN/ISO: G10/G11/G12/G13/G15/G16), without first programming a pole (CC) (ISO: I/J/K); or you did not first enter a circle center when programming a circle. **Error correction** Program the pole (CC) before the first block with polar coordinates (ISO: I, J; K), or first program a circle center (CC) when programming a circle.

Error number	Description
1A0-0010	**Error message** System error in the geometry chain: %1 **Cause of error** System error in the geometry chain **Error correction** Inform your service agency.
1A0-0011	**Error message** Programmed axis not assigned to a physical axis **Cause of error** Axis value programming with programmable axis without assigned physical axis **Error correction** - Correct the NC program. - Inform your service agency.
1A0-0012	**Error message** System error in the geometry chain: Gap in the programmed path **Cause of error** System error in the geometry chain **Error correction** Inform your service agency.
1A0-0013	**Error message** Tool radius too large **Cause of error** - Inside contour radius smaller than tool radius - Tool compensation results in contour damage (loop in the path of the tool center) - Contour offset too large **Error correction** - Edit the NC program. - Select a smaller tool. - Program a smaller contour offset.
1A0-0016	**Error message** Error in module configuration: %1 **Cause of error** Error in the module configuration (uninitialized list in configuration object) **Error correction** - Edit the configuration data. - Inform your service agency.

Error number	Description
1A0-0017	**Error message** Error in module configuration: %1 **Cause of error** Error in module configuration (list size of an attribute in configuration object is too small) **Error correction** - Edit the configuration data. - Inform your service agency.
1A0-0019	**Error message** Switch the diameter programming off before eccentric grinding **Cause of error** Diameter programming not switched off before eccentric grinding **Error correction** Edit the cycle.
1A0-001B	**Error message** Automatic pole capture not permitted **Cause of error** You programmed (automatic pole capture) a CC block (DIN/ISO: I,J,K) without coordinates. This is not possible in the current context, since the TNC cannot clearly identify the plane for the pole. **Error correction** - In the block directly before the pole-capture block, program two linear axes of the working plane. - Specify the working plane via TOOL CALL
1A0-001C	**Error message** Angle reference missing **Cause of error** In an LP/CP block (ISO: G10, G11, G12, G13) no polar angle or incremental polar angle is defined, i.e.: - The distance between the last programmed position and the pole is less than or equal to 0.1 µm. - No rotation is programmed between pole assumption and an LP/CP block. **Error correction** - Program the absolute polar angle. - Check the position of the pole. - If necessary, reset the rotation.

Error number	Description
1A0-001D	**Error message** Incorrect pole axis for selected working plane **Cause of error** - Z component with XY plane - X component with YZ plane - Y component with ZX plane **Error correction** Edit the NC program.
1A0-001E	**Error message** Chamfer/rounding arc: Subsequent line lies in the wrong plane **Cause of error** After programming a transition element (RND/CHF), you programmed a linear element that does not lie in the plane of the transition element. **Error correction** Edit the NC program.
1A0-0021	**Error message** System error in the geometry chain: %1 **Cause of error** System error in the geometry chain **Error correction** Inform your service agency.
1A0-0022	**Error message** System error in the geometry chain: %1 **Cause of error** System error in the geometry chain **Error correction** Inform your service agency.
1A0-0024	**Error message** An axis must not be locked after a contour transition element **Cause of error** Rounding or chamfer programmed immediately before axis locking **Error correction** - Correct the NC program. - Eliminate contour transition element from program, or - Program target position after contour transition element.

Error number	Description
1A0-0025	**Error message** Presetting not permitted after a contour transition element **Cause of error** Setting the base transformation immediately after contour transition element **Error correction** - Correct the NC program. - Eliminate contour transition element from program, or - Program target position after contour transition element.
1A0-0026	**Error message** Setting of axis values not permitted immediately after contour transition element. **Cause of error** Setting of axis values immediately after contour transition element **Error correction** - Edit the NC program. - Eliminate contour transition element from program or - Program target position after contour transition element.
1A0-0027	**Error message** Tool change not permitted right after contour transition element **Cause of error** Tool change immediately after contour transition element **Error correction** - Correct NC program. - Eliminate contour transition element from program, or - Program target position after contour transition element.
1A0-0028	**Error message** Probe block not permitted right after contour transition element **Cause of error** Probing block immediately after contour transition element **Error correction** - Correct the NC program. - Eliminate contour transition element from program, or - Program target position after contour transition element.

Error number	Description
1A0-002B	**Error message** Touch point inaccessible **Cause of error** In the TCH-PROBE 0 cycle (ISO: G55) or during use of the manual probing cycles, no touch point was reached within the traverse path defined in the touch probe table. **Error correction** - Preposition the touch probe closer to the workpiece. - Increase the value in the touch probe table.
1A0-002C	**Error message** Two successive APPR/DEP movements programmed **Cause of error** - Two approach/depart movements programmed in succession. - Elements with zero length were programmed between two approach/departure movements. **Error correction** Edit the NC program.
1A0-002D	**Error message** Compensation switching not permitted **Cause of error** Change of compensation without previous end of compensation **Error correction** - Edit the NC program. - Close the previous contour.
1A0-002F	**Error message** Tool definition is missing **Cause of error** The geometry chain has received no tool data before switching on the tool compensation. **Error correction** - Edit the NC program. - Inform your service agency.
1A0-0030	**Error message** Path comp wrongly started **Cause of error** You tried to activate the tool radius compensation with RL or RR (ISO: G41 or G42) in an arc block. **Error correction** Activate the tool radius compensation only with a linear block (L, ISO: G0, G1, G10, G11).

Error number	Description
1A0-0031	**Error message** Path comp wrongly ended **Cause of error** You tried to cancel the tool radius compensation with R0 (ISO: G40) in an arc block. **Error correction** Cancel the tool radius compensation only with a linear block (L, ISO: G0, G1, G10, G11).
1A0-0032	**Error message** Switching the working plane not permitted **Cause of error** - Change of working plane after RND, CHF, APPR **Error correction** - Edit the NC program.
1A0-0033	**Error message** Rounding cannot be calculated **Cause of error** - The rounding was programmed in the first positioning block of the NC program. - Before the rounding, a contour element was programmed that does not lie exclusively in the working plane. - Before the rounding, a contour element was programmed that has no geometric length. - An RND block (DIN/ISO: G25) was selected with GOTO after a program interruption. **Error correction** - At least two contour elements must be programmed before the rounding. - The contour element immediately before the rounding must be programmed exclusively in the working plane. - After a program interruption, restart at least two positioning blocks before the RND block.

Error number	Description
1A0-0034	**Error message** Chamfer cannot be calculated **Cause of error** - The chamfer was programmed in the first positioning block of the NC program. - Before the chamfer, a contour element was programmed that does not lie exclusively in the working plane. - Before the chamfer, a contour element was programmed that has no geometric length. - An CHF block (DIN/ISO: G24) was selected with GOTO after a program interruption. **Error correction** - At least two contour elements must be programmed before the chamfer. - The contour element immediately before the chamfer must be programmed exclusively in the working plane. - After a program interruption, restart at least two positioning blocks before the CHF block.
1A0-0035	**Error message** Two successive transitional elements not permitted **Cause of error** - Two transition elements were programmed in succesion - CHF after transition element - RND after transition element - APPRLT after transition element - APPRLN after transition element - APPRCT after transition element - APPRLCT after transition element - DEPLT after transition element - DEPLN after transition element - DEPCT after transition element - DEPLCT after transition element **Error correction** - Edit the NC program.
1A0-0036	**Error message** Contour transition not concluded **Cause of error** - Missing curve element after CHF/RND - E.g. program end after CHF/RND **Error correction** - Edit the NC program.

Error number	Description
1A0-0037	**Error message** General system error in the geometry chain **Cause of error** - Contradictory data. **Error correction** - Inform your service agency.
1A0-0038	**Error message** Incorrect application of Cycle 19 **Cause of error** - Before Cycle 19 was called, tilted working plane was switched off (FN17 ID210 NR6). **Error correction** Edit the NC program.
1A0-0039	**Error message** Incorrect application of Cycle 19 **Cause of error** - Before Cycle 19 was called, Cycle 8 or Cycle 10 was called. **Error correction** Edit the NC program.
1A0-003A	**Error message** Incorrect axis index for FN18 **Cause of error** - In the Read System Data function (FN18, ISO: D18), you entered an incorrect axis index. **Error correction** - Check the index of the system datum.
1A0-003B	**Error message** System error in the geometry chain: Message in wrong state %1 %2 %3 **Cause of error** - System error in the geometry chain **Error correction** - Inform your service agency.

Error number	Description
1A0-003C	**Error message** Calculation of tool center path or contour-linking operations for present contour lists failed! **Cause of error** - Internal software error **Error correction** - Change the contour definitions - Inform your service agency
1A0-003D	**Error message** System error in the geometry chain: %1 **Cause of error** - System error in the geometry chain **Error correction** - Inform your service agency.
1A0-003E	**Error message** Tool compensation must not be switched on after G27 **Cause of error** An attempt was made to switch on the radius compensation after G27. **Error correction** Remove the radius compensation.
1A0-003F	**Error message** Linear movement not allowed **Cause of error** You tried to program a linear movement after G27 before deactivating the radius compensation. **Error correction** - First switch off the radius compensation
1A0-0040	**Error message** Approach movement by means of RND not allowed right after a contour transition element **Cause of error** An approach was programmed with RND after RND or CHF. **Error correction** - Edit the NC program.

Error number	Description
1A0-0041	**Error message** G26 programmed in wrong context **Cause of error** - Radius compensation was not switched on immediately after G26. **Error correction** - Switch on the radius compensation immediately before G26.
1A0-0042	**Error message** G26 not allowed after corner rounding or chamfer **Cause of error** You programmed a G26 after RND (ISO: G25) or CHF (ISO: G24). **Error correction** - Edit the NC program
1A0-0043	**Error message** G27 not allowed when tool compensation is off **Cause of error** A G27 was programmed, although tool compensation was switched off. **Error correction** - Edit the NC program.
1A0-0044	**Error message** Radius compensation must not be switched on in a block preceding the approach block **Cause of error** You tried to switch on the tool radius compensation before an approach block. **Error correction** - Switch on the tool radius compensation only in the approach block
1A0-0045	**Error message** System error in the geometry chain: %1 %2 **Cause of error** System error: Data in a message are contradictory. **Error correction** - Inform your service agency.

Error number	Description
1A0-0046	**Error message** Pole programming with only one coordinate not allowed **Cause of error** You defined a pole in only one axis. **Error correction** - Program two axes or no axes (automatic pole transfer)
1A0-0047	**Error message** Circular arc after G27 not allowed **Cause of error** A circular arc was programmed after G27. **Error correction** - Edit the NC program.
1A0-0048	**Error message** Helix after corner rounding or chamfer not allowed **Cause of error** A helix was programmed after a contour transition element. **Error correction** - Edit the NC program.
1A0-0049	**Error message** Height of helix must not lie a circle plane **Cause of error** You programmed an incorrect axis in the direction perpendicular to the circle plane. **Error correction** - Edit the NC program
1A0-004A	**Error message** Angle of a helical path must be programmed incrementally **Cause of error** You programmed a helix without incremental data on the angle. **Error correction** - Edit the NC program

Error number	Description
1A0-004B	**Error message** The sign and direction of a circle's angle are contradictory **Cause of error** In a circular movement, you programmed a negative angle increment to a positive direction of rotation (counterclock-wise) or a positive angle increment to a negative direction of rotation (clockwise). **Error correction** - Correct the direction of the movement or the algebraic sign of the angle
1A0-004C	**Error message** Tangent at start point of element not defined **Cause of error** A geometrical element with tangential transition (e.g. CT) was programmed. However, the tangent at the start point is undefined, e.g. because of an immediately preceding verticaldeparture. or because it is the 1st block of the NC program. **Error correction** - Edit the NC program.
1A0-004D	**Error message** First geometric element after scaling is not a straight line **Cause of error** A scaling was programmed immediately before a geometric element that is not a linear element. **Error correction** - Edit the NC program.
1A0-004E	**Error message** Linear movement after tangential departure is not in circle plane **Cause of error** Immediately after a tangential departure, a linear element was programmed that contains a component perpendicular to the arc plane. **Error correction** Edit the NC program.
1A0-004F	**Error message** Tool compensation not switched off for 5-axis movement **Cause of error** You programmed a linear 5-axis movement although the tool radius compensation was active. **Error correction** - Switch off the tool radius compensation beforehand

Error number	Description
1A0-0050	**Error message** Linear 5-axis movement not allowed after transition element **Cause of error** A linear 5-axis movement was programmed after a contour transition element. **Error correction** - Edit the NC program.
1A0-0051	**Error message** Illegal axis programmed **Cause of error** You programmed an illegal axis. **Error correction** Edit the NC program: - Program another axis - Change the machining mode via FUNCTION MODE MILL/ TURN - Switch to another tool (with the appropriate tool type and tool orientation) - In the Programming mode, switch the AUTO DRAW soft key to ON and edit/check the (sub-) contour in a separate NC program - Edit/check the (sub-) contour in a separate NC program if the error with the AUTO DRAW soft key appears on ON
1A0-0052	**Error message** System error in the geometry chain: %1 **Cause of error** System error: Not all axis values were included in the message GmAxesValueSet. **Error correction** - Inform your service agency.
1A0-0053	**Error message** Programmed NC block not permitted right after a contour transition element **Cause of error** - Immediately after a transition element an attempt was made to program an NC block that is not allowed at that **Error correction** - Edit the NC program. - Inform your service agency.

Error number	Description
1A0-0054	**Error message** System error in the geometry chain: %1 **Cause of error** System error: The axis programmed in Cycle 19 is not a physical axis. **Error correction** - Inform your service agency.
1A0-0055	**Error message** System error in the geometry chain: %1 **Cause of error** System error: The axis programmed in Cycle 19 is a rotary axis. **Error correction** - Inform your service agency.
1A0-0056	**Error message** System error in the geometry chain: %1 **Cause of error** System error: The value in the message GmGeoRotWork-Plane is not absolute. **Error correction** - Inform your service agency.
1A0-0057	**Error message** Probe monitoring must not be switched on right after a contour transition element **Cause of error** The probe monitoring was switched on immediately after a contour element was programmed. **Error correction** - Complete the contour before switching on the touch probe.
1A0-0058	**Error message** TCPM must not be switched on or off right after a contour transition element **Cause of error** An attempt was made to switch the TCPM mode on or off immediately after a contour transition element. **Error correction** - Edit the NC program.

Error number	Description
1A0-0059	**Error message** %1 not allowed **Cause of error** A function was programmed that is not allowed in the current context. **Error correction** - Edit the NC program.
1A0-005A	**Error message** System error in the geometry chain: %1 **Cause of error** System error in the geometry chain. **Error correction** - Inform your service agency.
1A0-005B	**Error message** System error in the geometry chain: %1 **Cause of error** System error in the geometry chain. **Error correction** - Inform your service agency.
1A0-005C	**Error message** System error in the geometry chain: %1 %2 **Cause of error** System error in internal path calculation **Error correction** - Inform your service agency
1A0-005D	**Error message** Thread cycle not allowed right after a contour transition element **Cause of error** A thread cycle was programmed immediately after a contour transition element. **Error correction** - Edit the NC program.

Error number	Description
1A0-005E	**Error message** Tool not perpendicular to working plane **Cause of error** You tried to use a function that requires the tool to be perpendicular to the working plane (e.g. tapping) when it was not. **Error correction** - Edit the NC program - Rotate the tool to make it perpendicular to the working plane - If need be, tilt back the working plane
1A0-005F	**Error message** Thread cutting not allowed with tool compensation active **Cause of error** A tapping cycle was programmed with the tool compensation switched on. **Error correction** - First switch off the tool compensation.
1A0-0060	**Error message** Plunging depth in tapping cycle too small **Cause of error** Excessively small plunging depth was programmed in a tapping cycle. **Error correction** - Select a larger value for plunging depth.
1A0-0061	**Error message** Plunging depth in tapping cycle has wrong sign **Cause of error** In a tapping cyle the plunging depth was programmed with negative sign. **Error correction** - Edit the NC program.
1A0-0062	**Error message** Value for retraction has wrong sign **Cause of error** You programmed the retraction value with the incorrect algebraic sign. **Error correction** - Enter the algebraic sign

Error number	Description
1A0-0063	**Error message** System error in the geometry chain: %1 **Cause of error** - System error in the geometry chain. **Error correction** - Inform your service agency.
1A0-0064	**Error message** Tool change not allowed with tool compensation active **Cause of error** You programmed a tool change while the tool radius compensation was active. **Error correction** - Switch off the tool radius compensation before a tool change
1A0-0065	**Error message** Tool compensation must not be switched on before the approach block **Cause of error** You activated the tool radius compensation before the approach block. **Error correction** Switch on the tool radius compensation in the approach block
1A0-0066	**Error message** System error in the geometry chain: %1 **Cause of error** - System error in the geometry chain **Error correction** - Inform your service agency.
1A0-0067	**Error message** Departure movement not permitted immediately after activation of tool radius compensation **Cause of error** A departure was programmed immediately after switch-on of the tool compensation. **Error correction** Program a geometric element before departure.

Error number	Description
1A0-0068	**Error message** System error in the geometry chain: %1 **Cause of error** - System error in the geometry chain. **Error correction** - Inform your service agency.
1A0-006A	**Error message** System error in the geometry chain: %1 **Cause of error** - Sytem error in the geometry chain. **Error correction** - Inform your service agency.
1A0-006B	**Error message** System error in the geometry chain: %1 %2 **Cause of error** - System error in the geometry chain. **Error correction** - Inform your service agency.
1A0-006C	**Error message** System error in the geometry chain: %1 **Cause of error** - System error in the geometry chain. **Error correction** - Inform your service agency.
1A0-006D	**Error message** Approach movement not allowed before touch probe cycle **Cause of error** An approach was programmed before a probing cycle. **Error correction** - Edit the NC program.
1A0-006E	**Error message** System error in the geometry chain: %1 **Cause of error** System error in the geometry chain. **Error correction** - Inform your service agency.

Error number	Description
1A0-006F	**Error message** DEP movement not allowed right after a nonplanar movement **Cause of error** Illegal movement before a departure (DEP). **Error correction** Edit the NC program
1A0-0070	**Error message** Mid-program startup not possible **Cause of error** The target position of the mid-program startup is within a thread or measuring cycle. **Error correction** - Choose a different target position for mid-program startup
1A0-0071	**Error message** APPR/DEP CT or APPR/DEP LN not allowed with inactive tool radius compensation **Cause of error** You programmed APPR/DEP CT or APPR/DEP LN with inactive tool radius compensation. **Error correction** Edit the NC program
1A0-0072	**Error message** Approach movement cannot be calculated **Cause of error** The given geometric data do not result in a defined approach. **Error correction** Program another approach.
1A0-0073	**Error message** Departure movement cannot be calculated **Cause of error** The given geometric data do not result in a defined departure. **Error correction** Program another departure

Error number	Description
1A0-0074	**Error message** Circle tangent cannot be calculated **Cause of error** A circle was programmed with radius 0. **Error correction** Edit the NC program
1A0-0075	**Error message** After tangential departure only a line block is permitted **Cause of error** An illegal movement was programmed after a tangential departure. **Error correction** Program an L block after a tangential departure.
1A0-0076	**Error message** Rounding or chamfer cannot be calculated **Cause of error** Connecting geometrical element is too small or has the same tangent. **Error correction** Edit the NC program.
1A0-0077	**Error message** System error in the geometry chain: %1 **Cause of error** Cause is stated in the error text. **Error correction** Inform your service agency.
1A0-0078	**Error message** Illegal probe function **Cause of error** You tried to conduct a probe function during active mirroring or scaling. **Error correction** Edit the NC program

Error number	Description
1A0-0079	**Error message** No contour pockets present for fixed cycle **Cause of error** - No contour pocket geometery, or only islands defined **Error correction** - Program the missing Cycle 14 - If required, check the rotational direction and compensation direction of the individual contours
1A0-007A	**Error message** Invalid contour expression **Cause of error** Syntax error in contour expression: Missing parentheses, incorrect operands or operators, etc. **Error correction** - Check the contour expression
1A0-007B	**Error message** No technological data available for contour pocket machining **Cause of error** A Cycle 20 must be programmed before every fixed cycle 21, 22, 23, or 24. **Error correction** Program a Cycle 20
1A0-007C	**Error message** Compensation spacing of tool paths too small **Cause of error** The compensation distance of the tool center path during contour cycle machining is less than 0.1 mm. **Error correction** – Use a larger tool radius, or - Increase the path overlap (Q2) (if relevant for the called cycle).
1A0-007E	**Error message** Polar programming not possible if M91/M92 is active **Cause of error** You tried to program polar coordinates during an active M91/M92. **Error correction** Program the positions with Cartesian coordinates

Error number	Description
1A0-007F	**Error message** Pole invalid **Cause of error** The pole was not programmed in the currently valid coordinate system. The error occurs when M91/M92 is used to define or apply the pole. **Error correction** Program a new pole
1A0-0080	**Error message** Arc definition in parallel coordinate axes **Cause of error** You programmed the arc end point in parallel coordinate axes (e.g. X and U coordinate). **Error correction** Program the arc end point in two coordinate axes that define a plane (e.g. X and V coordinate).
1A0-0081	**Error message** Invalid helix definition **Cause of error** You programmed a helical path with more than one coordinate outside the plane of the arc. **Error correction** Program a helix with one coordinate perpendicular to the plane of the arc.
1A0-0082	**Error message** Circle incorrectly programmed **Cause of error** Start point and end point are the same in a programmed arc. **Error correction** Program the start point and end point with different coordinates.
1A0-0083	**Error message** Circle incorrectly programmed **Cause of error** Radius for circular arc programming too small (radius of 0 or insufficient distance between start point and end point). **Error correction** - Increase the radius - Program the start point and end point with different coordinates.

Error number	Description
1A0-0084	**Error message** Circle incorrectly programmed **Cause of error** Center or end point of CC data is incorrect. The distances from the start point to the midpoint and from the end point to the midpoint differ by more than the tolerance value. **Error correction** The starting point, end point, and midpoint do not belong to a circular segment. - Recalculate the midpoint and/or end point. - If necessary, use another type of circular arc programming.
1A0-0085	**Error message** Circle incorrectly programmed **Cause of error** The end point of a CT block lies in the extension of the tangent of the previously programmed contour element. **Error correction** Edit the coordinates of the end point
1A0-0086	**Error message** Scaling factor invalid **Cause of error** - The programmed scaling factor is outside of the permitted range. **Error correction** - Enter a scaling factor in the range of 0.000 001 to 99.999 999.
1A0-0087	**Error message** Mid-program startup not allowed **Cause of error** Mid-program startup not allowed after an approach block that was programmed immediately before the program end. **Error correction** Set the mid-program startup to the block in which the approach movement is programmed.
1A0-0088	**Error message** Working plane cannot be changed **Cause of error** You called Cycle 10 (ISO: G73) before selecting the plane. **Error correction** Edit the NC program

Error number	Description
1A0-0089	**Error message** Illegal base transformation **Cause of error** The base information applies to a nonexistent axis. **Error correction** Change the datum.
1A0-008A	**Error message** Illegal coordinate transformation **Cause of error** The coordinate transformation applies to a nonexistent axis. **Error correction** Edit the NC program.
1A0-008B	**Error message** Incorrect axis index for FN18 **Cause of error** Coordinate transformations can be used only for the principal axes X,Y,Z. **Error correction** Edit the NC program.
1A0-008C	**Error message** Illegal coordinate transformation **Cause of error** Coordinate transformations can be used only for the principal axes X,Y,Z. **Error correction** Edit the NC program.
1A0-008D	**Error message** Not enough block memory **Cause of error** The system cannot resolve the NC program due to lack of block memory. Between two tool movements only a limited number of blocks can be processed that cause no movement (e.g.comments or variable assignments). **Error correction** Edit the NC program

Error number	Description
1A0-008E	**Error message** Safety clearance for synchronization of spindles is missing **Cause of error** No safety clearance was entered for synchronizing the spindle. **Error correction** Edit the NC program.
1A0-008F	**Error message** Tool radius too large **Cause of error** The radius of the cutter is too large to machine the programmed contour pockets or contour trains. **Error correction** Use a smaller tool radius or change the geometry of the contour pockets or contour trains.
1A0-0090	**Error message** Drill radius too large **Cause of error** - The pilot drill being used causes a collision with an edge contour. **Error correction** - Use a smaller drill or larger cutter. If the drill radius is equal to or less than the cutter radius, there can be no collisions.
1A0-0091	**Error message** R0 not allowed in contour subprogram. **Cause of error** Within a contour subprogram, RL/RR controls the type of contour (pocket/island). R0 is undefined and illegal. **Error correction** Remove R0 from the contour subprogram.
1A0-0092	**Error message** Rounding radius for inside corners too large **Cause of error** The circular arcs with the inside corner rounding radius programmed in Cycle 20 are too large to be inserted between two neighboring contour elements. **Error correction** Select a smaller rounding radius in Cycle 20.

Error number	Description
1A0-0093	**Error message** No space for approach movement **Cause of error** No suitable position was found for a collision-free approach in a contour pocket cycle (stroke of reciprocation during clearance, approach arc during finishing). **Error correction** Use a smaller tool diameter, change the pocket geometry, try drilling instead of a reciprocating plunge.
1A0-0094	**Error message** Cannot calculate tool radius compensation **Cause of error** Cannot calculate a tool radius compensation for the programmed contour in the working plane. **Error correction** Circles can be corrected only in the working plane.
1A0-0095	**Error message** Cannot calculate tool radius compensation **Cause of error** Cannot make a tool radius compensation for the programmed contour. **Error correction** Edit the contour or use another tool.
1A0-0096	**Error message** Contour subprogram: Illegal axis programmed **Cause of error** You programmed an illegal axis (e.g. a rotary axis) within a contour subprogram. **Error correction** Define in the contour subprogram only coordinates of the active working plane. Edit the NC program.

Error number	Description
1A0-0097	**Error message** Clearance height lies on machining side **Cause of error** The clearance height (Q7) programmed for the called cycle lies on the machining side of the workpiece surface (Q5) specified by the algebraic sign of the milling depth (Q1). That is not allowed. Also, the (absolute) clearance height (Q7) should not be equal to the (absolute) coordinate of the workpiece surface (Q5). **Error correction** - Change the cycle parameters clearance height (Q7), milling depth (Q1) and/or the coordinate of the workpiece surface (Q5).
1A0-0098	**Error message** Limit plane: Jump/jump not allowed **Cause of error** The "jump" method of machining cannot be set for both sides of a limit plane. **Error correction** Select another machining method for the limit plane.
1A0-0099	**Error message** Limit plane: jump move in wrong direction **Cause of error** A jump auxiliary movement must go toward the jump side of the limit plane. **Error correction** Change the direction of the jump auxiliary movement or adjust the clearance height
1A0-009A	**Error message** Limit plane: Incomplete definition of limit plane **Cause of error** Cannot acivate the plane because it has not been defined completely. A point or normal vector of the plane is missing, or maybe the direction for projection or for the jump auxiliary movements. **Error correction** Program the missing information before the plane is activated.

Error number	Description
1A0-009B	**Error message** An active limit plane cannot be redefined or deleted **Cause of error** The definition of the limit plane cannot be changed or deleted as long as the limit plane is active. **Error correction** First deactivate the limit plane.
1A0-009C	**Error message** Cannot activate/deactivate limit plane now **Cause of error** The limit plane can be switched on or off only if the programmed position is on a curve side or a jump side beyond the 2nd safety clearance. **Error correction** Move to a safe position before switching the limit plane on or off.
1A0-009D	**Error message** Limit plane: Space between 2 limit planes must be set to "curve" **Cause of error** Between two limit planes (for non-parallel planes: in the work space) the curve machining method must be set. **Error correction** Adjust the machining method for one or both limit planes.
1A0-009E	**Error message** SL cycle call with active tool radius compensation **Cause of error** Before an SL cycle is called the tool radius compensation must be switched off. **Error correction** Program an R0 before the SL cycle or move the cycle call to another place.
1A0-009F	**Error message** An active zoning filter cannot be redefined or deleted **Cause of error** The definition of the zoning filter cannot be deleted or edited as long as the zoning filter is still active. **Error correction** First define the zoning filter.

Error number	Description
1A0-00A0	**Error message** Definition of the zoning filter incomplete **Cause of error** The zoning filter could not be activated because it was not fully defined. It still needs: at least one polygon (curve), a projection direction (of the length >0, if explicitly programmed), a setup clearance and a clearance height. **Error correction** Program the missing data before the zoning filter is activated.
1A0-00A1	**Error message** Definition of the zoning polygons (polygon curves) inconsistent **Cause of error** A closed zoning polygon must be defined by at least three points, an open polygon curve by at least two points. Each side of a polygon (curve) must have a component perpendicular to the direction of zoning projection. The individual polygon curves must not intersect with themselves or with the other polygon curves. An "illegal" zone must not enclose a "legal" zone. **Error correction** Check the definition of the zoning polygons (curves) and correct them.
1A0-00A2	**Error message** Incorrect sequence of vertices of a zoning polygon (polyg. curve) **Cause of error** The corner points of a polygon curve must be produced in the sequence: FirstPoint ->IntermediatePoint -> ... -> IntermediatePoint -> LastPoint(ForClose). The corresponding attributes must have the correct syntax. **Error correction** Note the correct sequence in the definition of zoning polygons.
1A0-00A3	**Error message** Invalid tool technology data **Cause of error** Technology data of the tool used, such as ANGLE or LCUTS, are not registered in the tool database or have invalid values. **Error correction** Make or correct the corresponding entries: ANGLE : Max. plunge angle in degrees, 1.0 <= ANGLE <= 90.0 LCUTS : Tooth length in mm, 0.1 <= LCUTS <= tool length

Error number	Description
1A0-00A4	**Error message** Tooth length of the tool used is too small **Cause of error** The tooth length of the tool used is smaller than the plunging depth programmed in the cycle. **Error correction** Program a smaller plunging depth or use a tool with a longer tooth.
1A0-00A5	**Error message** No contours are available under this label **Cause of error** Possible causes: - Contour labels that are be used as operands in expressions must have been assigned contours by means of DECLARE CONTOUR or by using previous expressions. - The contour can be empty, e.g. because antiparallel contour elements cancel each other. **Error correction** Check the contour declarations and expressions.
1A0-00A6	**Error message** Tool form compensation not allowed with active tool radius comp. **Cause of error** Tool form compensation (LN blocks with programmed workpiece normal) is not allowed during active tool radius compensation (RR/RL). **Error correction** Edit the NC program (e.g. R0 before first LN block).
1A0-00A7	**Error message** No machining side defined for peripheral milling **Cause of error** Before activation of the 3-D tool radius compensation (peripheral milling) no machining side was programmed with RR/RL. **Error correction** Change the NC program (e.g. RL or RR before the first LN or L block).
1A0-00A8	**Error message** Axis-specific scaling factor not allowed **Cause of error** During active tool radius compensation, axis-specific scaling factors are not allowed for circular and helical movements. **Error correction** Edit the NC program.

Error number	Description
1A0-00A9	**Error message** Operation not allowed with active radius compensation **Cause of error** A function was programmed (e.g. cycle, tool change) that is not allowed during active tool radius compensation. **Error correction** First switch off the tool radius compensation.
1A0-00AA	**Error message** Incorrect tool at start of block scan (current T%1, programmed T%2) **Cause of error** Mid-program startup with incorrect tool. **Error correction** Change to the correct tool and start again.
1A0-00AB	**Error message** Block scan cannot jump over probing functions **Cause of error** A probing function was found before the block being searched for with the block scan. **Error correction** Attempt the block scan on a different block
1A0-00AC	**Error message** Gap in non-cylindrical contour **Cause of error** The starting and end point of a non-cylindrical contour do not coincide. **Error correction** Edit the part program
1A0-00AD	**Error message** Contour intersects itself **Cause of error** The edge contour of a pocket cannot be programmed to intersect itself. **Error correction** Change the contour definition in the NC program.

Error number	Description
1A0-00AE	**Error message** Active tool larger than reference tool **Cause of error** To fully prevent collisions with the workpiece, the tool selected for machining with 3-D tool compensation must in every direction have a surface curvature that is not smaller than that of the reference tool. **Error correction** - Use a smaller tool. - Ensure that there are no collisions with the currently used tool, and use M107 to suppress this error.
1A0-00AF	**Error message** Axis-specific scaling not allowed **Cause of error** An axis-specific scaling factor is not allowed during the definition of a limit plane filter or zoning filter, or during active 3-D tool radius compensation or tool form compensation. **Error correction** Edit the NC program.
1A0-00B0	**Error message** Axis-value programming not allowed **Cause of error** Axis value programming in a linear block with 3-D tool radius compensation or tool form compensation is allowed only for rotary axes, not for translation axes. **Error correction** Use coordinate programming (remove M91)
1A0-00B1	**Error message** Rotary axes mixed with tool polar vectors **Cause of error** Rotary axis values and tool direction vectors must never be in the same NC block, and during active 3-D tool radius compensation they also must not appear alternately in successive blocks. **Error correction** - Program either only rotary axes or only one direction vector (TX, TY, TZ) to specify the tool axis direction per NC block. - During active 3-D tool radius compensation, program either only direction vectors or only rotary axes. If necessary, switch the tool radius compensation off and then on again within the program.

Error number	Description
1A0-00B2	**Error message** Programmed direction vector is zero vector **Cause of error** A programmed direction vector in an LN block must have at least one component not equal to zero. **Error correction** - Program NX, NY, NZ, TX, TY or TZ to be unequal to zero. - Remove NX, NY and NZ from the LN block (in which case there will be no tool form compensation!) or remove TX, TY and TZ (in which case the tool axis direction will not be changed).
1A0-00B3	**Error message** No spindle available for tapping **Cause of error** No spindle available for tapping **Error correction** Use a configuration with a spindle
1A0-00B4	**Error message** Missing start angle for incremental programming **Cause of error** If the end point of the last block lies on the pole, incremental angle programming is not allowed. **Error correction** Program the angle here with absolute values.
1A0-00B5	**Error message** Position logic not allowed in App/Dep movement **Cause of error** It is not allowed to switch on the "Positioning logic" during APPR/DEP movements. **Error correction** Switch off the "Positioning logic" before the APPR/DEP movement.
1A0-00B6	**Error message** Position logic not allowed in rounding/chamfer **Cause of error** It is not allowed to switch on the "Positioning logic" during rounding/chamfer movements **Error correction** Switch off the "Positioning logic" before the rounding/chamfer movement

Error number	Description
1A0-00B7	**Error message** Specified axis does not lie on "ToolSide"! **Cause of error** The specified axis does not lie on the "tool side" of the kinematic elements. **Error correction** The specified axis lies on the "tool side" of the kinematic elements.
1A0-00B8	**Error message** Specified axis does not lie on "WpSide"! **Cause of error** The specified axis does not lie on the "workpiece side" of the kinematic elements. **Error correction** Set the specified axis on the "workpiece side" of the kinematic elements.
1A0-00B9	**Error message** Specified axes inconsistent! **Cause of error** The specified axes are faulty **Error correction** Inform your service agency
1A0-00BA	**Error message** Programming of axes in the REF system is not allowed after RND/CHF or APPR/DEP **Cause of error** Programming of axes in the REF system is not allowed after RND/CHF or APPR/DEP movements **Error correction** Use RND/CHF or APPR/DEP movements without M91
1A0-00BB	**Error message** Programming together with M130 not allowed! **Cause of error** Programming together with M130 not allowed! **Error correction** This command cannot be used together with M130

Error number	Description
1A0-00BC	**Error message** Programming of axes in the REF system is not allowed **Cause of error** Polar programming is not allowed in the REF system! **Error correction** This command cannot be used together with M91
1A0-00BD	**Error message** Polar kinematics not possible! **Cause of error** Polar kinematics are not possible with the specified axes! **Error correction** The given axes cannot be used for polar kinematics
1A0-00BE	**Error message** General error in the calculation of a circle **Cause of error** No circle can be calculated from the given input data **Error correction**
1A0-00BF	**Error message** It is not possible to program a tangential connecting arc with axis-value programming. **Cause of error** - It is not possible to program a tangentially connecting arc during axis value programming **Error correction** - Program the arc with center and end point
1A0-00C0	**Error message** Pole and arc in various planes **Cause of error** The pole and end point of the arc are not programmed in the same plane **Error correction** Check the definitions of the pole and the arc
1A0-00C1	**Error message** Define the arc end point with two coordinates **Cause of error** Define the arc end point with two coordinates. **Error correction** Define the arc end point with both coordinates of the working plane.

Error number	Description
1A0-00C2	**Error message** Probe movement with length 0 **Cause of error** A probing movement must have a length not equal to zero **Error correction**
1A0-00C3	**Error message** Programming of rotary axes with circular movement is not allowed! **Cause of error** Programming of rotary axes with circular movement is not allowed! **Error correction**
1A0-00C4	**Error message** Departing movement not allowed! **Cause of error** Preceding movement is too complex **Error correction** Omit the departing movement or program the preceding movement differently
1A0-00C5	**Error message** System error in geometry chain: %1 **Cause of error** System error **Error correction** Inform your service agency
1A0-00C6	**Error message** Error in the geometry configuration. %1 **Cause of error** Indicated in English in the additional text **Error correction** Corresponding to the given cause
1A0-00C7	**Error message** Not allowed after approaching movement: %1 **Cause of error** Indicated in English in the additional text **Error correction** Corresponding to the given cause

Error number	Description
1A0-00C8	**Error message** Probing length must not be zero! **Cause of error** The probing length is zero. **Error correction** Correct the probing length (must be greater than 0)
1A0-00C9	**Error message** Nesting of pocket definitions is not allowed! **Cause of error** Nested pockets programmed **Error correction** Edit the program
1A0-00CA	**Error message** Deletion of the configuration object is not allowed! %1 **Cause of error** The type of deleted object is indicated in English in the additional text **Error correction** Use the configuration editor to reinsert the deleted object
1A0-00CB	**Error message** Contour train cannot be machined. **Cause of error** The contour description is ambiguous: The selected contour contains too many subcontours. **Error correction** Edit the NC program.
1A0-00CC	**Error message** Error in tool radius compensation **Cause of error** The tool radius compensation is missing or the entered tool radius compensation cannot be machined. **Error correction** Edit the NC program.
1A0-00CD	**Error message** Empty contour **Cause of error** An operand or intermediate result in the contour calculation is an empty contour. **Error correction** Edit the NC program.

Error number	Description
1A0-00CE	**Error message** A contour element of the slot in the cylinder surface too small **Cause of error** Possible causes: One distance is too short, or an angular length is too small. **Error correction** Edit the NC program.
1A0-00CF	**Error message** The data of the slot in the cylinder surface are faulty **Cause of error** Possible causes: A contour element of the slot is too small, the cylinder radius is too small, the slot too deep, or something similar. **Error correction** Edit the NC program.
1A0-00D0	**Error message** The position entered for the cylinder in the working plane is incorrect **Cause of error** Possible causes: Either the vectors do not have the length 1, they are not perpendicular, or there is some similar problem. **Error correction** Edit the NC program.
1A0-00D1	**Error message** Tool not perpendicular to the cylinder surface **Cause of error** The cylinder must be aligned parallel to the machine axes and be clamped at the center of the rotary table. The tool must be perpendicular to the cylinder surface. **Error correction** If needed, tilt the working plane in order to position the tool perpendicular to the cylinder surface, unless this has already been configured in the kinematics. - Program the position of the cylinder coordinate system correctly. - If required, configure the machining table system at the center over the rotary axis. The Z axis of the machine table system must point in the direction of rotary axis rotation.

Error number	Description
1A0-00D2	**Error message** No translation axis is parallel to the cylinder reference axis **Cause of error** Possible causes: The cylinder or the working plane is not in the right position. **Error correction** Edit the NC program.
1A0-00D3	**Error message** Approach not allowed **Cause of error** Possible causes: - APPR command in MDI mode - APPR command at the end of an NC program - APPR command before a coordinate transformation - Similar sequence of NC commands **Error correction** Edit the NC program.
1A0-00D4	**Error message** Reading the axis values is not allowed during block scan **Cause of error** During a block search you attempted to read the current axis values before finding the desired block. **Error correction** - Try a block scan to another block - Edit the program
1A0-00D5	**Error message** Contour subprogram for cylinder surface machining is faulty **Cause of error** Possible causes: - Programmed contour is not defined in X/Y cylinder surface coordinates. - Programmed contour contains incremental coordinates. - Programmed contour contains diameter coordinates. **Error correction** Edit the NC program.
1A0-00D6	**Error message** Contour subprogram for cylinder surface machining is faulty **Cause of error** Programmed contour is not defined in X/Y cylinder surface coordinates. **Error correction** Always program contours on a cylinder surface (regardless of the machine geometry) in X/Y cylinder surface coordinates.

Error number	Description
1A0-00D7	**Error message** No rotary axis found. **Cause of error** Possible causes: The first axis beneath the machine table must be a rollover rotary axis. **Error correction** - Change the kinematics configuration- Inform your service agency
1A0-00D8	**Error message** Cylinder axis is not parallel to rotary axis. **Cause of error** Possible causes: - The cylinder axis does not run parallel to the first axis under the machine table. The first axis under the machine table must be a rotary axis. - The cylinder is not clamped in the center. - One of the coordinate directions X, Y, or Z of the machine table system must point in the direction of the rotary axis. **Error correction** Change the kinematic configuration.
1A0-00D9	**Error message** Basic rotation not allowed **Cause of error** The rotary axis of the basic rotation during cylinder surface machining does not lie parallel to the cylinder axis. One of the coordinate directions X, Y, or Z of the machine table system must point in the direction of the rotary axis. **Error correction** - Change the basic rotation. - Change the kinematic configuration.
1A0-00DA	**Error message** Cylinder radius too small. **Cause of error** Cylinder radius too small. **Error correction** Edit the NC program.
1A0-00DB	**Error message** Cylinder slot too deep or excessive plunging depth. **Cause of error** Cylinder slot too deep or excessive plunging depth. **Error correction** Edit the NC program.

Error number	Description
1A0-00DC	**Error message** Cylinder slot too shallow or insufficient plunging depth. **Cause of error** Cylinder slot too shallow or insufficient plunging depth. **Error correction** Edit the NC program.
1A0-00DD	**Error message** Cylinder slot too narrow. **Cause of error** Cylinder slot too narrow. **Error correction** Edit the NC program.
1A0-00DE	**Error message** The programmed safety clearance is too small. **Cause of error** The clearance height must be be at least as large as the cutter radius. **Error correction** Edit the NC program.
1A0-00DF	**Error message** The precision for the slot walls is too small or too large. **Cause of error** The precision for the slot walls is too small or too large. **Error correction** Edit the NC program.
1A0-00E0	**Error message** Diameter of selected milling cutter is too small. **Cause of error** Diameter of selected milling cutter is too small. **Error correction** Insert a different tool.

Error number	Description
1A0-00E1	**Error message** Transformation not allowed **Cause of error** Possible causes: - Define datum shifts only in X/Y cylinder surface coordinates. - Contour definition with angle data: program a datum shift only within the contour definition. - Rotations and scaling are allowed only with length dimensions and only cylinder surface coordinates. - Define mirroring only in cylinder surface coordinates. - You must not change presets, basic rotations or the tilt condition during cylinder surface machining. **Error correction** Edit the NC program.
1A0-00E2	**Error message** This action is not allowed **Cause of error** Possible causes: This action is not yet implemented for cylinder surface machining. There may be a positioning block that is not programmed in the cylinder surface. Polar or axis-value programming, APPR or DEP blocks, probing blocks, thread cutting, tool change, certain cycles, 3-D tool compensation or similar things are also possible. **Error correction** Edit the NC program.
1A0-00E3	**Error message** The tool is in the wrong position **Cause of error** The tool is in an incorrect or unexpected position, e.g. too deep in the workpiece. This error also occurs during cylinder surface machining if the tool point is located too close to the cylinder axis. **Error correction** Edit the NC program, reposition the tool, or inform your service agency.
1A0-00E4	**Error message** Contour too complex **Cause of error** A pocket contour consists of more than 10000 blocks. **Error correction** Adapt the NC program: Program a simpler contour.

Error number	Description
1A0-00E5	**Error message** M103 not allowed **Cause of error** A reduction of the infeed velocity in the negative tool axis direction is not possible. Possible causes are programmed, e.g. rotary axes, 3-D radius compensation or kinematic compensation movements. **Error correction** Edit the NC program.
1A0-00E6	**Error message** Orientation not possible **Cause of error** You tried to orient the spindle through the NC, but no spindle is configured. **Error correction** Use a configuration with a spindle
1A0-00E7	**Error message** Closed contour train not allowed **Cause of error** The contour train is closed or nearly closed. **Error correction** Use pocket machining cycles for closed contour trains.
1A0-00E8	**Error message** Diameter of selected cutter is too large **Cause of error** The selected cutter does not fit in the cylinder slot. **Error correction** Insert a different tool.
1A0-00E9	**Error message** Program resumption not possible **Cause of error** The program cannot be continued from the point of interruption. **Error correction** Use GoTo to position to the start of program, or select the program again. If you are machining a pallet, then update the pallet table (perhaps set W-STATUS to BLANK). Then the program can be started.

Error number	Description
1A0-00EA	**Error message** Rounding arc and chamfer not possible with active stretch filter **Cause of error** Transition elements (rounding arcs and chamfers) are not possible when the stretch filter is active. **Error correction** Switch off the stretch filter in the configuration (CfgStretch-Filter).
1A0-00EB	**Error message** Programmed parallel axis not available **Cause of error** In the FUNCTION PARAXCOMP or FUNCTION PARAXMODE functions, you programmed parallel axes that are not available in this kinematic model. **Error correction** - Use other machine kinematics - Edit the NC program
1A0-00EC	**Error message** Position of a linear axis is overdetermined **Cause of error** You programmed two end values for the same machine axis in one NC program block. Possible causes: - You programmed the axis as coordinate and, over the syntax element POS, also as axis value - You did not switch with FUNCTION PARAXMODE to machining in minor axes or did not list the doubly defined axis in that function - With an active polar kinematic configuration you additionally assigned a target value to an axis in the three-axis kinematic configuration **Error correction** Edit the NC program.
1A0-00ED	**Error message** Syntax element POS not allowed in this block **Cause of error** You programmed the syntax element POS at an illegal place. **Error correction** Edit the NC program.

Error number	Description
1A0-00EE	**Error message** Parallel axes not allowed in this block **Cause of error** You tried to program parallel axes - in approach or departure movements - in circle center or pole definitions - in circular or helical movements - in LN blocks. **Error correction** Edit the NC program.
1A0-00EF	**Error message** Polar kinematics not allowed with parallel axis machining **Cause of error** You tried to use FUNCTION PARAXMODE although a polar kinematic configuration is active. **Error correction** Switch off the machining method before you switch another on.
1A0-00F0	**Error message** Kinematic switch-over is not allowed **Cause of error** You tried to use FUNCTION PARAXCOMP to program axis compensation values for parallel axes, although the default setting is not active. **Error correction** - Edit the NC program - Switch the kinematics only in the default condition. The default condition is configured in the config object CfgAxesPropKin in the parameter parAxComp
1A0-00F1	**Error message** Kinematic switch-over is not allowed **Cause of error** You have tried to perform a kinematics switch-over although FUNCTION PARAXMODE is active. **Error correction** Deactivate FUNCTION PARAXMODE before kinematic switch-over.

Error number	Description
1A0-00F2	**Error message** Kinematic switch-over is not allowed **Cause of error** You tried to switch the kinematics although the tilted plane function or kinematic compensation movements (e.g. M128, M144) are active. **Error correction** Before switching the kinematics, deactivate all functions that depend on them.
1A0-00F3	**Error message** Kinematic switch-over is not allowed **Cause of error** You tried to switch the kinematics although a kinematic compensation in a calling program (e.g. M128, M144, FUNCTION PARAXCOMP, FUNCTION PARAXMODE) is active. **Error correction** Before switching the kinematics, return to the default condition in all programs.
1A0-00F4	**Error message** No further axes allowed in pole plane **Cause of error** In a line block with polar coordinates you programmed further axes that lie in the working plane defined by the pole. The end position is therefore overdetermined. **Error correction** Delete additionally defined axes from the line block with polar coordinates.
1A0-00F5	**Error message** Tilting the working plane is not allowed **Cause of error** You tried to tilt the working plane although this function is not allowed with the active kinematic configuration. **Error correction** - Use another machine kinematic configuration - If required, edit the NC program - If necessary, inform your service agency

Error number	Description
1A0-00F7	**Error message** Entered angle not permitted **Cause of error** - The solid angles programmed in Cycle 19 Tilt Working Plane (DIN/ISO: G80) cannot be realized with the current attachment (e.g. universal head where only one hemisphere is accessible). - Run probing cycle only with paraxial angular position. - The point angle (T-ANGLE) defined for the active tool is 180°. **Error correction** - Edit the solid angle entered. - Run probing cycle only with paraxial angular position. - Use angular values greater than 0 and less than 180°.
1A0-00F8	**Error message** Angle cannot be calculated **Cause of error** In the tilted-working-plane function you have the spatial-angle input mode active although this mode is not supported for your machine configuration. **Error correction** Select axis-angle input in the active kinematic table. If necessary, refer to your machine tool builder.
1A0-00F9	**Error message** Coordinate transformation not allowed in the contour subprogram **Cause of error** You programmed an illegal coordinate transformation in a contour program, e.g. tilting the working plane, preset change, basic rotation or an axis offset. **Error correction** In the contour subprogram, use only the coordinate transformations rotation, datum shift, mirroring and scaling. Edit the NC program.
1A0-00FA	**Error message** Incremental tilting angle not allowed **Cause of error** You tried to tilt the working plane farther incrementally with axis angles, although you did not define the function with axis angles. **Error correction** Always define incremental tilting of the working plane with the same method as in the previous tilting. Change the type of incremental tilting or the previous absolute tilting.

Error number	Description
1A0-00FB	**Error message** Incremental tilting angle not allowed **Cause of error** You tried to tilt the working plane farther incrementally with spatial angles, although you did not define the function with spatial angles. **Error correction** Always define incremental tilting of the working plane with the same method as in the previous tilting. Change the type of incremental tilting or the previous absolute tilting.
1A0-00FC	**Error message** No solution in limited range **Cause of error** You tried to limit the range for the master axis with SEQ+ or SEQ-. In this range the control cannot tilt the working plane. **Error correction** Cancel the limitation by SEQ+ / SEQ-.
1A0-00FD	**Error message** Vectors are not perpendicular **Cause of error** You tried to define a working plane with PLANE VECTOR, entering vectors that are not perpendicular or do not intersect. **Error correction** Ensure that the vectors are perpendicular and intersect. Permit vectors that are not perpendicular to each other by changing the configuration: CfgRotWorkPlane/autoCorrectVector to TRUE.
1A0-00FE	**Error message** Points on a plane too close to each other **Cause of error** You tried to define a working plane with PLANE POINTS, entering plane points that lie too close together. **Error correction** Define plane points that are farther apart from each other.
1A0-00FF	**Error message** Points on a plane lie on a line **Cause of error** You tried to define a working plane with PLANE POINTS, entering plane points that lie one a straight line. Therefore the control cannot calculate an unambiguous plane. **Error correction** Define plane points that form a triangle.

Error number	Description
1A0-0100	**Error message** No rotary axes available **Cause of error** You attempted to tilt the working plane in a kinematic configuration without rotary axes. **Error correction** - Correct the NC program: Delete the functions for tilting the working plane. - Activate the kinematic configuration with rotary rotary axes.
1A0-0101	**Error message** Vectors are too short **Cause of error** You tried to define a working plane with PLANE VECTOR, when at least one of the vectors is too short. **Error correction** - Enter longer vectors - Adapt machine parameters (must be done by machine manufacturer): Set machine parameter CfgRotWorkPlane/autoCorrectVector to the value TRUE in order to permit basic vectors with zero length.
1A0-0102	**Error message** Infeed depth too small **Cause of error** In one of the Cycles 21, 22, 24 or 25 (DIN/ISO: G121, G122, G124, G125) you defined the plunging depth Q10 smaller than 0.1 mm. **Error correction** Define the plunging depth Q10 with a value larger than 0.1 mm.
1A0-0103	**Error message** Too many rotary axes available **Cause of error** You attempted to tilt the working plane in a kinematic configuration with more than two rotary axes. This is only possible when programming with axis values. **Error correction** - Correct the NC program: use PLANE AXIAL - Activate the kinematic configuration with two rotary rotary axes - Use M138 to select the rotational axes

Error number	Description
1A0-0104	**Error message** Combination of functions not permitted **Cause of error** You tried to tilt the working plane while a datum shift in rotational axes was active. This is only possible when programming with axis values. **Error correction** - Correct the NC program: use PLANE AXIAL - Use a reference point for this shift.
1A0-0105	**Error message** Position after G43/G44 not perpendicular to the G41/G42 contour! **Cause of error** The G43/G44 approach is not perpendicular to the next G41/G42 movement. This causes a contour error that can damage the workpiece. The contour error depends on the distance between the end position and the perpendicular distance R of the G41/G42 starting position. The distance is greater than 0.1 * tool radius R. **Error correction** - Edit the NC program: the approach from G43/G44 must be perpendicular to the contour.
1A0-0106	**Error message** & operator not applicable to active 3-axis kinematics **Cause of error** You tried to use the X, Y or Z axis with the & operator, although this axis in included in the active 3-axis kinematic configuration. The & operator is permissible only if you have used the PARAXMODE FUNCTION to take the corresponding axis out of the active 3-axis kinematic configuration. **Error correction** Use the corresponding axis without the & operator.
1A0-0107	**Error message** M128 and M144 with CYCL CALL POS not allowed **Cause of error** During an active M128 or M144 you tried to use CYCL CALL POS to call a cycle. **Error correction** Deactivate M128 and M144 before the cycle call with CYCL CALL POS.

Error number	Description
1A0-0108	**Error message** CYCL CALL POS: Incremental values without reference **Cause of error** You tried to call CYCL CALL POS with incremental coordinates, of which some are not based on coordinates that you had previously programmed with CYCL CALL POS. **Error correction** Ensure that every incrementally programmed coordinate in a cycle call with CYCL CALL POS is given with respect to coordinates in previously programmed CYCL CALL POS commands.
1A0-0109	**Error message** Resumption with M120 not allowed **Cause of error** Re-entry with GOTO during active M120 not permitted. **Error correction** Re-entry possible only via mid-program startup.
1A0-010A	**Error message** TCPM: PATHCTRL VECTOR not possible **Cause of error** You tried to move the rotary axes with PATHCTRL VECTOR so that the direction of the tool axis is always in the same plane. PATHCTRL VECTOR is not possible with the programmed direction vectors. **Error correction** - Use the TCPM function with PATHCTRL AXIS. - If required, correct the directional vector.
1A0-010B	**Error message** Spatial circular arc not allowed **Cause of error** You tried to move on a spatial circular arc, but this function is not possible. A spatial circular arc results, for example, if you have programmed a circle in the X/Z plane, and then, for example, turn with Cycle 10 in the X/Y plane. **Error correction** Edit the NC program.
1A0-010C	**Error message** Movement is nonlinear **Cause of error** You programmed an NC block that causes a counter axis to make a nonlinear movement. **Error correction** - Edit the NC program

Error number	Description
1A0-010D	**Error message** This contour is not possible in turning cycles. **Cause of error** You programmed an illegal NC block within a contour for a turning cycle. **Error correction** Edit the contour definition in the NC program.
1A0-010E	**Error message** Run-in length incorrectly programmed **Cause of error** You programmed the overrun length for tapping to be zero or a negative number. **Error correction** Enter only positive numbers for the run-in length. Recommended run-in length: at least half the pitch.
1A0-010F	**Error message** Overrun length incorrectly programmed **Cause of error** You programmed the overrun length for tapping to be zero or a negative number. **Error correction** Enter only positive numbers for the overrun length. Recommended overrun length: at least half the pitch.
1A0-0110	**Error message** Error in turning cycle **Cause of error** Possible causes: - You tried to run a turning cycle, although the active tool is not a turning tool. - You tried to run a turning cycle, although the milling mode is active. **Error correction** - Insert a turning tool. - Use FUNCTION MODE TURN to switch to the turning mode.
1A0-0111	**Error message** Error in rounding arc **Cause of error** You tried to program a rounding arc in a contour with less than two elements. **Error correction** Edit the NC program.

Error number	Description
1A0-0112	**Error message** Error in rounding arc **Cause of error** You tried to end a contour with a rounding arc. However, the contour not closed. **Error correction** Edit the NC program.
1A0-0113	**Error message** Error in contour element of a turning cycle **Cause of error** You programmed an undercut or recess at the beginning of a turning contour. **Error correction** Edit the NC program.
1A0-0114	**Error message** Error in recess **Cause of error** Possible causes: - You have programmed neither the center point of the recess (CENTER) nor the recess position (PLACE). - You have programmed both the center point of the recess (CENTER) and the recess position (PLACE). **Error correction** Edit the NC program.
1A0-0115	**Error message** Turning operation: tool position is incorrect **Cause of error** The cutting insert of the turning tool is not in the permitted working plane. **Error correction** Rotary axes and cutting inserts must lie in a working plane. - Correct the position of the tool. - If desired, adopt the rotary axis coordinates with M128 or M144.
1A0-0116	**Error message** Recessing cycle: tool position is incorrect **Cause of error** You tried to use a recessing tool, although the machine is not in the default setting. **Error correction** Cancel the tool orientation: - Move the rotary axis to the home position. - If necessary, use M128 or M144 to load the rotary axis values.

Error number	Description
1A0-0117	**Error message** Turning cycle with button tool dimensioned at center **Cause of error** You tried to run a turning cycle with a button tool dimensioned at its center. **Error correction** Button tools that are dimensioned at the center must be measured in a corner, so they have to have tool orientation 1 to 8.
1A0-0118	**Error message** Program resumption not possible **Cause of error** It is not possible to resume the program at the point of interruption. **Error correction** - Jump to the program start using the GOTO key or reselect the program over PGM MGT. - The StretchFilter must be deactivated in order to be able to continue the program at the point of interruption.
1A0-0119	**Error message** Thread not possible with inclined tool **Cause of error** You tried to cut a thread with an inclined tool and at a feed rate of 0. **Error correction** - Cancel the tool position. To do so, return the rotary axes to their home position and, if required, take over the rotary axis values with M128 or M144. - Change the type of feed rate.
1A0-011A	**Error message** Coordinate transformation in turning operation **Cause of error** You tried to change to turning mode although a coordinate transformation (rotation, mirroring and/or scaling) is active. **Error correction** Deactivate coordinate transformations (rotation, mirroring and or scaling) before you switch to turning mode.

Error number	Description
1A0-011B	**Error message** Noncylindrical contour must not begin at an inside corner **Cause of error** You tried to begin a noncylindrical contour with radius compensation at an inside corner (concave position). These are some of the possible causes of this error message: - The starting point lies on a real inside corner - The starting point lies on the transition between two arcs that are tangential, but were programmed or generated with poor accuracy - A "round" inside noncylindrical contour was resolved into nothing but straight-line segments. The starting point then lies on a tangential transition between two arcs. However, the resolution into straight line segments again results in an inside corner. **Error correction** - Correct the starting point by choosing a correct point that does not lie on an inside corner - Create/generate the noncylindrical program (especially circular movements) with higher accuracy - Avoid resolving the noncylindrical contour into straight-line segments, or manually place the starting point in the middle of a generated line segment - Have the tool-compensated path of the noncylindrical contour calculated/generated externally instead of by the control.
1A0-011C	**Error message** Side finishing: Tool radius too large **Cause of error** With the defined contour data, the tool radius is too large for side finishing or fine roughing. **Error correction** For side finishing, the sum of the side-finishing allowance (side-finishing cycle) and the finishing-tool radius must be smaller than the sum of the side-finishing allowance (contour data cycle) and the roughing-tool radius. The above calculation also applies if you run the side-finishing cycle without first having cleared the area out with the roughing tool; the radius of the roughing tool then has the value “0.” During fine roughing, the radius of the fine roughing tool must be smaller than the radius of the coarse roughing tool.

Error number	Description
1A0-011D	**Error message** Normal vector too short **Cause of error** You tried to define a working plane with PLANE VECTOR, but the normal vector is too short. **Error correction** The TNC cannot correct the normal vector automatically, enter a longer normal vector.
1A0-011E	**Error message** Workpiece blank definition: contour is not closed **Cause of error** The start point and end point do not agree in the definition for the workpiece blank contour. **Error correction** Edit the NC program. The start position must be complete, which means that it has to contain values for both coordinates.
1A0-011F	**Error message** Invalid tooth length in recessing cycle **Cause of error** You tried to run a recess turning cycle with a tool whose tooth length was zero or is not defined. **Error correction** Check the cutting length for the recess turning tool in the tool table.
1A0-0120	**Error message** No recessing tool is active **Cause of error** You tried to run a recess turning cycle although the active tool is not a recess turning tool. **Error correction** Insert a recess turning tool.
1A0-0121	**Error message** Illegal syntax element in contour subprogram for turning cycles **Cause of error** In a contour subprogram you have not specified the radius compensation in the first line of the contour description. **Error correction** Correct the contour subprogram.

Error number	Description
1A0-0123	**Error message** Radius comp. undefined **Cause of error** You programmed a radius-compensated single-axis positioning block that, without the radius compensation, does not result in tool movement (e.g. IX+0 R+, ISO: G7). **Error correction** Edit the NC program.
1A0-0124	**Error message** Cannot calculate any intersection **Cause of error** The control cannot calculate an intersection: two straight lines are parallel. **Error correction** Check the contour description.
1A0-0125	**Error message** Cannot calculate any intersection **Cause of error** The control cannot calculate an intersection: two outside circles do not intersect. **Error correction** Check the contour description.
1A0-0126	**Error message** Cannot calculate any intersection **Cause of error** The control cannot calculate an intersection: two inside circles do not intersect. **Error correction** Check the contour description.
1A0-0127	**Error message** Cannot calculate any intersection **Cause of error** The control cannot calculate an intersection: two inside circles do not intersect. **Error correction** Check the contour description.

Error number	Description
1A0-0128	**Error message** Cannot calculate any intersection **Cause of error** The control cannot calculate an intersection: a straight line and a circle do not intersect. **Error correction** Check the contour description.
1A0-0129	**Error message** Contiguous circles with opposite direction of rotation **Cause of error** Two contiguous circles illegally have opposite directions of rotation. **Error correction** Check the contour description.
1A0-012A	**Error message** Contour element with length=0 programmed **Cause of error** The starting the ending points of a profile contour are identical. **Error correction** Check the contour description.
1A0-012B	**Error message** Cannot calculate any intersection **Cause of error** The control cannot calculate an intersection: a circle has a zero radius. **Error correction** Check the contour description.
1A0-012E	**Error message** Cannot calculate any intersection **Cause of error** The control cannot calculate an intersection: two straight lines are parallel and are not superimposed. **Error correction** Check the contour description.

Error number	Description
1A0-012F	**Error message** Faulty subdivision of the vertical profiles **Cause of error** The control cannot machine the defined profile. **Error correction** Check the profile description (SEL CONTOUR PROFILE), machining parameters and data of the tool used.
1A0-0130	**Error message** The plane profile is not closed or begins at a corner **Cause of error** The start point and end point of the plane profile either do not match or they are on a corner. **Error correction** Check the programmed plane profile.
1A0-0131	**Error message** Control cannot conclude machining operation **Cause of error** Error in internal calculations. **Error correction** Check the contour description (SEL CONTOUR SURFACE and SEL CONTOUR PROFILE), machining parameters and data of the tool used.
1A0-0132	**Error message** Machining operation requires too many cycles **Cause of error** The maximum permissible number of machining runs was exceeded. **Error correction** Check the machining parameters and data of the tool used.
1A0-0133	**Error message** Error management tables are inconsistent **Cause of error** SEL CONTOUR SURFACE uses a table index that lies outside of the permissible value range. **Error correction** Inform your service agency.

Error number	Description
1A0-0134	**Error message** Cycle not suited for contour definition with APPR/DEP block. **Cause of error** The cycle you selected cannot use any contour definition that contains APPR or DEP blocks. **Error correction** Remove APPR and DEP blocks from the contour definition. For Cycle 1025, use Cycle 270 to program APPR/DEP.
1A0-0135	**Error message** APPR block in contour definition not in first line **Cause of error** In a contour description you have programmed an APPR block that is not in the first line. **Error correction** Correct the contour description.
1A0-0136	**Error message** Too many APPR/DEP blocks in contour description **Cause of error** You programmed multiple APPR or DEP blocks in a contour description. **Error correction** Contour descriptions must contain only one APPR/DEP block. Correct the contour description.
1A0-0137	**Error message** Radius compensation in contour subprogram inconsistently defined **Cause of error** In a contour subprogram, you have defined multiple radius compensation values that contradict each other. **Error correction** Edit the contour subprogram.
1A0-0138	**Error message** DEP block in contour definition not programmed in the last line **Cause of error** In a contour subprogram you have programmed an DEP block that is not in the last line of the contour description. **Error correction** Correct the contour description.

Error number	Description
1A0-0139	**Error message** CMO is not in the current kinematic description **Cause of error** You tried to activate or deactivate a collision monitored object (CMO) for monitoring. The control cannot fine the CMO in the currently selected kinematics. **Error correction** Correct the name of the CMO to be activated or deactivated.
1A0-013A	**Error message** Erroneous plane profile programmed **Cause of error** The plane profile was programmed incorrectly. **Error correction** - Ensure that for each geometric element that describes the geometry of the plain profile (which therefore excludes blocks that describe an approaching or departing motion) an appropriate vertical profile is defined. - Ensure that in each case no more than one approaching or departing motion is programmed at the beginning or end of the plane profile definition. - Ensure that at first, after each reference to a vertical profile, at least one geometric element is programmed.
1A0-013B	**Error message** Illegal transformation during execution of a profile surface **Cause of error** Programming a profile surface (Cycles 281-283) is impermissible if a mirror image along a tool axis (Cycle 8) is active at the same time. **Error correction** Rewrite the program so that the mirroring is not active during the call of the profile surface cycles (281-283).
1A0-013C	**Error message** Cycles 281 and 283 only applicable to pockets **Cause of error** Cycles 281 for roughing and 283 for floor finishing must be used only for profile surfaces that form a pocket. **Error correction** Ensure that the programmed plane profile is closed. If the plane profile is defined with Cycle 14, ensure that the combination of machining direction, radius compensation and monotonicity of the vertical profile results in a pocket.

Error number	Description
1A0-013D	**Error message** Missing radius compensation in the plane profile definition **Cause of error** If the plane profile of a profile surface (Cycles 280 to 283) is programmed using Cycle 14, a radius compensation (RL or RR) must be entered within the definition of the plane profile. **Error correction** Enter the radius compensation within the definition of the plane profile.
1A0-013E	**Error message** Invalid vertical profile defined **Cause of error** The programmed vertical profile of a profile surface(Cycles 280 – 283) is invalid. **Error correction** Ensure that the definition of the vertical profile contains at least two geometric blocks. Ensure that no radius compensation is programmed within the definition of the vertical profile. Ensure that the vertical profile increases with respect to the abscissa (usually the x coordinate) (i.e. increases monotonically). Ensure that the vertical profile either increases or decreases with respect to the ordinate (usually the y coordinate) (i.e. monotonically increases or monotonically decreases).
1A0-013F	**Error message** Radius compensation defined within plane profile **Cause of error** If the plane profile of a profile surface (Cycles 280 to 283) is specified using the syntax element CONTOUR DEF, there must be no radius compensation entered within the definition of the plane profile. **Error correction** Remove the radius compensation from the definition of the plane profile.
1A0-0140	**Error message** Profile surface cycle with active tool radius compensation **Cause of error** You tried to call a profile surface cycle (Cycles 281 – 283) with active tool radius compensation. **Error correction** Before the profile surface cycle, use R0 to cancel the tool radius compensation or program the cycle call at another location.

Error number	Description
1A0-0141	**Error message** Programmed plane profile is not closed. **Cause of error** You tried to use CONTOUR DEF to program a plane profile as a pocket. However, the plane profile does not result in a closed contour. **Error correction** Program a closed plane profile. Use Cycle 14 to define an open plane profile.
1A0-0142	**Error message** Programmable axis %1 missing in "CfgChannelAxes/progAxis" **Cause of error** The machine configuration is faulty. The affected axis is not configured as a programmable axis. **Error correction** - Inform your machine tool builder - Correct the machine configuration: Enter the axis as a programmable axis in 'CfgChannelAxes/progAxis'
1A0-0143	**Error message** Roughing cycle: Start position too close to rotary axis **Cause of error** The starting position of a roughing cycle is located too close to the rotary axis. **Error correction** Edit the NC program.
1A0-0144	**Error message** Workpiece blank definition: Contour intersects itself **Cause of error** A contour that describes the surface line of a workpiece blank (NC block BLK FORM ROTATION) intersects itself. **Error correction** Correct the NC program: Adapt the workpiece blank contour so that it no longer intersects itself.
1A0-0145	**Error message** Workpiece blank definition: Illegal axis in subprogram **Cause of error** You programmed an illegal axis in a subprogram that defines the surface line of a workpiece blank (NC block: BLK FORM ROTATION). **Error correction** - Correct the NC program: Program the coordinates in the subprogram that result from the selection of the rotation axis for the workpiece blank.

Error number	Description
1A0-0146	**Error message** Turning tool with contradictory data **Cause of error** A turning tool was inserted whose data are contradictory for the following reasons: The tool orientation does not fit the tool angle and point angle. **Error correction** Correct the data in the turning tool table
1A0-0147	**Error message** Workpiece blank definition for active coordinate transformation **Cause of error** During an active coordinate transformation (datum shift, tilting), you tried to define a workpiece blank using a surface line (NC block: BLK FORM ROTATION). **Error correction** Reset all active coordinate transformations before you define the workpiece blank.
1A0-0148	**Error message** Function not permitted **Cause of error** You tried to calculate a spindle rotation between input coordinate system and tool coordinate system (e.g. with ID210 NR8), at the same time as a transformation for scaling or mirroring was active. **Error correction** Edit the NC program
1A0-014B	**Error message** Illegal movement if FUNCTION TCPM and mirroring are active. **Cause of error** You tried to program a rotary axis motion defined with spatial angles during a circular movement (CP..., CPT...) with active TCPM FUNCTION (with AXIS SPAT) and active mirroring. **Error correction** Deactivate mirroring before the motion is processed while TCPM FUNCTION is active.

Error number	Description
1A0-014C	**Error message** Erroneous tool-carrier kinematics in the file %1 **Cause of error** - Tool-carrier kinematic model in the given file is faulty **Error correction** - For more detailed information on this error message, press the INTERNAL INFO soft key - Check the tool kinematic model in the given file and correct it if necessary - Inform your service agency
1A0-014D	**Error message** Data of the tool carrier kinematics is faulty **Cause of error** The tool-carrier kinematic data for the current tool are faulty. Note: Do not run any NC programs in this condition and be careful if you move the axes manually! **Error correction** - Ensure under “KINEMATICS” that a valid file for the tool-carrier kinematics is entered for the desired tool in the tool table. - Acknowledge the error message - Run a TOOL CALL for a tool that has no tool-carrier kinematics assigned or one that has a valid tool-carrier kinematic model. - Inform your service agency.
1A0-0151	**Error message** Illegal number of lines (%1) in the compensation value table **Cause of error** Too few (or too many) measured values were entered in the compensation value table for 3D-ToolComp. At least two values must be entered. **Error correction** - Check the compensation value table and correct it if necessary - Perform the calibration cycle again
1A0-0152	**Error message** Inconsistent (multiple) angular values in the compensation table. **Cause of error** The compensation value table contains ambiguous (multiple) angular values (ANGLE). **Error correction** Check the table and perform the calibration cycle again if necessary.

Error number	Description
1A0-0153	**Error message** Angle value (%1) is outside of the valid range. **Cause of error** An evaluation was attempted outside the boundaries of the angular range that was measured. **Error correction** Expand the compensation table in order to include the necessary angles.
1A0-0154	**Error message** Tool carrier kinematics is ignored in "%1" **Cause of error** The given kinematic model has no insertion point for tool-carrier kinematics. **Error correction** - Adjust the machine configuration for tool-carrier kinematics. To do so, please contact your machine tool builder. Please note: If you use the entered kinematic model, the machining operation will be executed without the desired tool carrier.
1A0-0155	**Error message** Starting position of noncircular contour not in workpiece system **Cause of error** - Axis-value programming is active **Error correction** - Edit the program
1A0-0156	**Error message** Starting position is programmed incrementally **Cause of error** Polar programmed starting position is programmed incrementally **Error correction** Edit the program or the cycle
1A0-0157	**Error message** Relative programming of the reciprocation starting position is not allowed **Cause of error** Starting position of the reciprocation is programmed in relative values **Error correction** Program the starting position with absolute values

Error number	Description
1A0-0158	**Error message** Absolute programming of the relief vector is not allowed. **Cause of error** - Relief vector was programmed absolutely instead of incrementally **Error correction** - Program the relief vector incrementally
1A0-0159	**Error message** Relative programming of the infeed starting position is not allowed! **Cause of error** Starting position of the infeed is programmed in relative values **Error correction** Program the starting position with absolute values
1A0-015A	**Error message** Programmed axis is not a grinding axis **Cause of error** Wrong axis selected for grinding **Error correction** Program a grinding axis
1A0-015B	**Error message** Programmed value is not interpreted as a coordinate **Cause of error** Presumably a system error **Error correction** Inform your service agency
1A0-015C	**Error message** Incremental programming of the starting position is not allowed **Cause of error** Starting position is programmed incrementally **Error correction** Program the starting position with absolute values
1A0-015D	**Error message** Polar starting position is programmed incrementally **Cause of error** The radius or angle of the polar-programmed starting position is programmed incrementally **Error correction** Edit the program or the cycle

Error number	Description
1A0-015E	**Error message** Reciprocation over zero length is not allowed **Cause of error** **Error correction** - Edit the program
1A0-0161	**Error message** Programmed rotary axis on circle not allowed (TCPM TIP-CENTER) **Cause of error** An attempt was made to program a circle with a rotary axis setting without tool radius compensation with an active TCPM REFPNT TIP CENTER. Simultaneous rotary axis adjustment on circles is permissible only with tool radius compensation. **Error correction** Activate tool radius compensation
1A0-0162	**Error message** Tool radius compensation incorrectly ended (TCPM TIP-CENTER) **Cause of error** An attempt was made to stop tool radius compensation with TCPM REFPNT TIP-CENTER in an impermissible manner. With this TCPM preset, tool radius compensation can be stopped only by means of a linear block with R0 in which both working plane coordinates are programmed. **Error correction** Stop tool radius compensation with a linear block containing both working plane coordinates.
1A0-0164	**Error message** Cannot find direction of rotation for the defined contour **Cause of error** The programmed workpiece blank contour is not closed or is without curves. It is therefore impossible to find the rotational direction or display in 3-D. **Error correction** - Change the NC program - Program a workpiece blank contour consisting of more than one point. The contour must be closed and must not lie on a single straight line.

Error number	Description
1A0-0165	**Error message** Recesses in the BLK FORM are not supported **Cause of error** A recess was programmed in the contour for the BLK FORM. **Error correction** - Edit the NC program. Remove the recess from the contour for the BLK FORM.
1A0-0166	**Error message** Undercuts in the BLK FORM are not supported **Cause of error** An undercut was programmed in the contour for the BLK FORM. **Error correction** Remove the undercut from the contour
1A0-0167	**Error message** SL cycle not allowed (TCPM REFPNT CENTER) **Cause of error** An attempt has been made to program an SL cycle while TCPM REFPNT TIP-CENTER or REFPNT CENTER-CENTER is active. No SL cycles are possible with these TCPM settings. **Error correction** Edit the NC program
1A0-0169	**Error message** M130 not allowed **Cause of error** No M130 can be programmed during active turning-tool compensation in the tilted plane's system (FUNCTION TURNDATA CORR-WPL, or columns WPL-DZL and WPL-DX-DIAM from the turning-tool table). **Error correction** - Check the NC program and adapt it if necessary.
1A0-016C	**Error message** Facing slide: Only ZK contour allowed **Cause of error** A contour was programmed that is not in the ZX plane. **Error correction** Check the NC program and adapt it if necessary.

Error number	Description
1A0-016D	**Error message** Facing slide: Transformation not allowed **Cause of error** Certain transformations are not allowed with an active facing slide: - Tilting the working plane - Scaling - Datum shift **Error correction** Check the NC program and adapt it if necessary.
1A0-016E	**Error message** Tilted working plane no allowed **Cause of error** With FUNCTION MODE TURN, tilting the working plane is allowed only with facing slide kinematics. **Error correction** Check the NC program and adapt it if necessary.
1A0-016F	**Error message** Helix with active facing slide not allowed **Cause of error** No helix is allowed with an active facing slide. **Error correction** Check the NC program and adapt it if necessary.
1A0-0170	**Error message** Facing slide: Combination with M91 not allowed **Cause of error** The combination of active facing slide and M91 are not allowed. **Error correction** Check the NC program and adapt it if necessary.
1A0-0171	**Error message** Facing slide: TCPM not allowed **Cause of error** No TCPM (M128) is allowed with an active facing slide. **Error correction** Check the NC program and adapt it if necessary.

Error number	Description
1A0-0172	**Error message** Facing slide: 3-D radius compensation not allowed **Cause of error** 3-D radius compensation is not allowed with an active facing slide. **Error correction** Check the NC program and adapt it if necessary.
1A0-0173	**Error message** Special kinematics are not allowed for facing slide machining **Cause of error** You tried to combine FUNCTION PARAXMODE with a special kinematic model: - Polar kinematics - Facing slide kinematics **Error correction** Deactivate the machining method before another is to be activated.
1A0-0174	**Error message** Facing slide: Only in turning mode **Cause of error** A facing slide can be activated only in turning mode. **Error correction** Use FUNCTION MODE TURN to switch to the turning mode.
1A0-0175	**Error message** Facing slide: Impermissible circle programmed **Cause of error** The programmed circle has a radius or arc that is too small for the facing slide **Error correction** Check the NC program and adapt it if necessary
1A0-0176	**Error message** Facing slide: Probing block not allowed **Cause of error** Probing block not allowed with an active facing slide **Error correction** Run the probing block before the facing slide is activated

Error number	Description
1A0-0177	**Error message** Facing slide: Spindle is not aligned **Cause of error** The Z axis of the input system and the spindle direction are not parallel **Error correction** Align the spindle direction before the facing slide is activated
1A0-0178	**Error message** Facing slide not possible when stretch filter is active **Cause of error** Facing slide cannot be activated when the “stretch filter” is active **Error correction** - Check the entry under CfgStrechFilter and change it if required - Inform your service agency
1A0-0179	**Error message** Facing slide: M140 not allowed **Cause of error** Tool retraction (M140) not allowed with an active facing slide **Error correction** Edit the NC program
1A0-017A	**Error message** Facing slide: PARAXCOMP not allowed **Cause of error** FUNCTION PARAXCOMP not allowed with an active facing slide **Error correction** Check the NC program and adapt it if necessary
1A0-017B	**Error message** Turning cycle is allowed only with an active facing slide **Cause of error** With facing slide kinematics, you tried to execute a turning cycle without activating the facing slide **Error correction** - Program FACING HEAD POS

Error number	Description
1A0-017C	**Error message** Tool contour missing for simultaneous turning cycle **Cause of error** The tool contour for simultaneous turning could not be read. **Error correction** The 2-D tool contour for the cycle is calculated from the corresponding 3-D tool carrier kinematics: - Ensure that a valid tool carrier kinematic model is entered in the "KINEMATIC" tool table column. - For the simultaneous rotation cycle, make particularly sure that the geometry defined in it matches the data of the tool in the tool table.
1A0-017D	**Error message** Faulty tool data for simultaneous turning cycle **Cause of error** The tool data of the tool table is not compatible with the simultaneous turning cycle. The tool data (ZL, XL, RS, TO, P-ANGLE, T-ANGLE, CUTWIDTH, CUTLENGTH and KINEMATIC) must describe a realistic tool. In particular, the following conditions must be met: - Neither the radius (RS) nor the cutting edge length (CUTLENGTH and CUTWIDTH) are zero. - Only button tools, roughing tools, and finishing tools are allowed. - TO, ZL, and XL must agree with the tool holder geometry in KINEMATIC. **Error correction** Check and correct the entries in the tool table
1A0-017E	**Error message** GS rotation with working plane not in XY **Cause of error** An attempt has been made to combine a rotation from the global program settings with a working plane in ZX or YZ. This is not allowed. Such a working plane is available in the turning mode as well as when using TOOL CALL X or TOOL CALL Y. **Error correction** Edit the NC program or, in the corresponding program section, activate no rotation via global program settings.

Error number	Description
1A0-017F	**Error message** Negative cutting edge radius **Cause of error** An attempt was made to start a turning cycle with a turning tool with negative cutting edge radius. That is not allowed. The effective cutting edge radius is the sum of the following three elements: - Value in the RS column from the turning-tool table - Value in the DRS column from the turning-tool table - through FUNCTION TURNDATA CORR-TCS: Z/X DRS programmed oversize **Error correction** The sum of the three values must be positive: adjust the NC program or tool table
1A0-0180	**Error message** Simultaneous turning: No fitting tilting axis found. **Cause of error** No appropriate tilting axis was found for the simultaneous turning cycle. **Error correction** - If the machine physically has a suitable axis: - Adapt the precession angle via Cycle 800 - Check the kinematics configuration and change it if necessary - Inform your service agency
1A0-0182	**Error message** Tilting working plane does not fit to rotary transformations **Cause of error** - An attempt has been made to activate the tilting of the machining plane while one of the rotational transformations mentioned below is active. - An attempt has been made to activate one of the rotational transformations named below while the machining plane is tilted. **Error correction** - Deactivate tilting of the machining plane or Cycle 800. If the transformation named in item 2 is active outside the turning operation, please contact the machine manufacturer. The following are affected: 1. Transformation activated by Cycle 800 2. Special transformation in turning operation, which the input system usually adapts to kinematics with the A or B table. The POS tab of the status display shows whether the transformer is active.

Error number	Description
1A0-0183	**Error message** Data for turning tool invalid **Cause of error** The data of the active turning tool are invalid. Invalid value combination: TYPE and TO do not match. The value 9 can be defined in TO only for roughing and finishing tools. **Error correction** Edit the tool data.
1A0-0184	**Error message** Simultaneous turning: Programmed tool compensations not allowed **Cause of error** Programmed tool compensations (FUNCTION TURNDATA CORR-TCS ...) are not permitted for the simultaneous turning cycle. Such compensations change the position of the indexable insert relative to the tool carrier, which can lead to collisions. **Error correction** Remove all tool compensations programmed before the cycle.
1A0-0185	**Error message** Selected TCPM mode cannot be combined with simultaneous turning **Cause of error** The simultaneous turning cycle does not support the programmed TCPM mode **Error correction** The following TCPM parameters must be set: - AXIS POS (coordinates = nominal position), - PATHCTRL AXIS (interpolation = nominal position) - REFPNT CENTER-CENTER or REFPNT TIP-CENTER (tool preset)
1A0-0188	**Error message** Function not permitted **Cause of error** - FUNCTION FACINGHEAD is programmed with active tool compensation regarding the workpiece coordinate system. - FUNCTION FACINGHEAD is not allowed in combination with FUNCTION TURNDATA CORR-WCS. **Error correction** Deactivate tool compensation with regard to the workpiece coordinate system.

Error number	Description
1A0-0189	**Error message** Impermissible interpolation of rotary axes **Cause of error** - A rotary axis was programmed that was deselected with M138 or in the machine parameter CfgAxisPropKin/MP_rotAxisForKinCalc = FALSE but, according to the machine parameter CfgAxisPropKin/MP_paraxComp = Display, must be considered. - This movement cannot be interpreted with TCPM movements. **Error correction** - Check the NC program and edit it if necessary - Inform your service agency
1A0-018A	**Error message** No physical axis available for handwheel superimpositioning **Cause of error** Handwheel superimpositioning in an axis that is not in the current kinematics **Error correction** - Deactivate the handwheel superimpositioning - Check the machine configuration - Inform your service agency
1A0-018B	**Error message** Contour preparation not possible **Cause of error** An internal error occurred while preparing the contour for the loaded noncircular program, which can therefore not be executed. **Error correction** Inform your service agency
1A0-018C	**Error message** Contour preparation cannot process a noncircular program **Cause of error** The noncircular program cannot be processed by the contour preparation. Possible causes: - The program contains contour elements whose length is extremely short (length < 1pm) - The parameter "F effective as C feed rate" is set in the program and the C axis reverses direction during the program or its speed (briefly) drops to zero **Error correction** - Edit the NC program - Inform your service agency

Error number	Description
1A0-018E	**Error message** Simultaneous turning: Pre-positioning **Cause of error** The current inclination of the tool is outside the programmed angle range. **Error correction** Adjust the inclination angle of the tool accordingly before calling the cycle.
1A0-018F	**Error message** Inclination angles could not be reached **Cause of error** The desired inclination angles are outside the valid inclination range. **Error correction** Adjust the inclination angle range or the desired inclination angle at the beginning or end of the contour.
1A0-0190	**Error message** Axis of a branched kinematics path used **Cause of error** An axis was used that is in a kinematics path that is currently branched. The following uses are not possible for such an axis: - Positioning with the PLANE function - Selecting the axis with M138 - Positioning within an LN block - Positioning within a CP block **Error correction** Edit the NC program
1A0-0191	**Error message** Impermissible axis was programmed **Cause of error** You have programmed an axis that is configured as a spindle in the selected kinematics model. **Error correction** Edit the NC program
1A0-0192	**Error message** Faulty turning tool data **Cause of error** The lathe tool is incorrectly defined. It does not have a permissible type. **Error correction** Correct the type of the turning tool

Error number	Description
1A0-0194	**Error message** The limit switches of a modulo axis are invalid **Cause of error** Please note that the following conditions apply for the limit switches/protection zones of modulo axes: - The lower limit must be greater than -360° and less than +360° - The upper limit must not be negative and must be less than +360° - The lower limit must not be greater than the upper limit - The lower limit and upper limit must be less than 360° apart Please also ensure that the set limit switches and protection zone result in a clearly defined traverse range. A missing or doubled overlap of the two ranges is not permitted. **Error correction** Correct an incorrectly set protection zone or incorrectly configured limit switches.
1A0-0195	**Error message** Faulty tool data for simultaneous turning cycle **Cause of error** The tool contour consisting of cutter and holder could not be determined. **Error correction** - TO, ZL, XL and ORI must agree with the tool holder geometry in KINEMATIC. - The faulty contours were stored in TNC:\system\Toolkinematics\
1A0-0196	**Error message** TCPM: PATHCTRL VECTOR not possible **Cause of error** You programmed TCPM with PATHCTRL VECTOR so that the tool orientation lies in the same plane during the complete movement from the start point to the end point. The current rotary axes in conjunction with the programmed start orientation and end orientation do not permit smooth motion. **Error correction** - Prefer PATHCHTRL AXIS. PATHCHTRL VECTOR is only useful during peripheral milling or if large changes of angle are programmed. - Program an additional NC data point in the symmetry position (pole) - Edit the NC program

Error number	Description
1A0-0198	**Error message** TCPM: PATHCTRL VECTOR not possible **Cause of error** You programmed TCPM with PATHCTRL VECTOR so that the tool orientation lies in the same plane during the complete movement from the start point to the end point. This is not possible because positions that cannot be approached are located along the path between the start orientation and the end orientation (e.g., limit switches or kinematic limitations). **Error correction** - If the fault is not due to a limit switch, prefer PATHCHTRL AXIS. PATHCHTRL VECTOR is only useful during peripheral milling or if large changes of angle are programmed. - Edit the NC program
1A0-0199	**Error message** TCPM: PATHCTRL VECTOR not possible **Cause of error** You programmed TCPM with PATHCTRL VECTOR so that the tool orientation lies in the same plane during the complete movement from the start point to the end point. This is not possible because a rotary axis that was not selected with M138 or a linear secondary axis was programmed. **Error correction** Edit the NC program.
1A0-019A	**Error message** Coordinate transformation not allowed in dressing mode **Cause of error** You attempted to switch to dressing mode even though a coordinate transformation (datum shift, rotation, mirroring, and/or scaling) is active. **Error correction** Deactivate the coordinate transformation (datum shift, rotation, mirroring, and/or scaling) before switching to dressing mode.
1A0-019B	**Error message** Tool-carrier kinematics not allowed **Cause of error** Grinding wheels with tool-carrier kinematics cannot be dressed. **Error correction** - For the grinding wheel to be dressed, delete the entry under "KINEMATIC" in the tool table - Inform your service agency

Error number	Description
1A0-019C	**Error message** Plunging not possible at position (%1, %2) **Cause of error** A pocket cannot be machined since plunging is not possible with this tool radius. **Error correction** - Use a smaller tool - Rework with a smaller tool
1A0-019D	**Error message** Limitation cannot be defined with Cycle 14 **Cause of error** The first defined contour cannot be interpreted as a border if Cycle 14 was used to define it. **Error correction** - Define contours with CONTOUR DEF or - Use the first contour as a pocket and set parameter Q569 to 0 in Cycle 271
1A0-019E	**Error message** Internal error in OCM contour milling cycle **Cause of error** - Contradictory data. **Error correction** - Inform your service agency.
1A0-019F	**Error message** Pocket not supported after an "open frame" **Cause of error** In the definition of the contours, a pocket (P2) is defined after a "bounding box". A "bounding box" must be followed by an island (I2). **Error correction** - Do not define a "bounding box" in Cycle 271 if a closed pocket is to be machined. - Use CONTOUR DEF to define an island after the "bounding box" if an open pocket is to be machined. - Refer to the User's Manual for more documentation.
1A0-01A0	**Error message** Plunging depth too small **Cause of error** You programmed too low a depth in Cycle 271. **Error correction** NC-Programm anpassen

Error number	Description
1A0-01A1	**Error message** No technology data record available for contour machining **Cause of error** A Cycle 271 must be programmed before every fixed cycle 272, 273, or 274. **Error correction** - Adapt the NC program - Program Cycle 271
1A0-01A3	**Error message** Plunging depth too small **Cause of error** You defined the plunging depth Q238 to be less than 0.1 mm in Cycle 274. **Error correction** - Adapt the NC program - Define the plunging depth Q238 to be greater than 0.1 mm
1A0-01A4	**Error message** Tool radius too small **Cause of error** The tool radius of the current tool is too small. **Error correction** Select a larger tool
1A0-01A5	**Error message** Roughing tool not defined **Cause of error** A roughing tool must be defined for each fixed cycle 273 and 274. **Error correction** - Adapt the NC program - Call Cycle 272 - Reference a roughing tool in parameter Q438
1A0-01A6	**Error message** Parameter 'Feed per revolution Q436' incorrectly defined **Cause of error** You entered the value 0 for the infeed per revolution parameter Q436. **Error correction** Check and correct the value in Q436

Error number	Description
1A0-01A7	**Error message** Impermissible NC block in contour **Cause of error** This NC block is not permitted in a contour (e.g. APPR or DEP blocks, LN blocks,...) **Error correction** Edit the contour
1A0-01A8	**Error message** Erroneous description of fixture in file %1 **Cause of error** The description of the fixture in the given file is faulty or the file does not exist. **Error correction** - Check the description of the fixture in the given file and correct it if necessary - Reset the fixture with FIXTURE RESET ALL - Load a valid fixture with FIXTURE SELECT - Inform your service agency
1A0-01A9	**Error message** SW limit switch for modulo axes faulty **Cause of error** Movements of modulo axes with software limit switches are not permitted in this version of the control software. **Error correction** - Edit the NC program - Do not configure limit switches for a modulo axis - Do not configure the axis as a modulo axis - Install a newer version of the NC software
1A0-01AA	**Error message** Traverse limits for modulo axes faulty **Cause of error** Movements of modulo axes with traverse limits are not permitted in this version of the control software. **Error correction** - Edit the NC program - Do not configure traverse limits for a modulo axis - Do not configure the axis as a modulo axis - Install a newer version of the NC software

Error number	Description
1A0-01AB	**Error message** Fixture not permitted **Cause of error** Fixtures are not permitted in dressing mode. **Error correction** - Remove the entry CfgKinFixSocket from the active kinematics configuration - Inform your service agency
1A0-01AC	**Error message** Configuration not suited for cylinder surface machining **Cause of error** The first machine axis under the table must be a modulo rotary axis. **Error correction** - Check the axis configuration - Inform your machine tool builder
1A0-01AD	**Error message** Fixtures ignored in "%1" **Cause of error** The indicated kinematic model has no insertion point for fixtures. **Error correction** - Adjust the machine configuration to include fixtures. To do so, please contact your machine tool builder. Please note: If you use the indicated kinematic model, the machining operation will be executed without the desired fixture.
1A0-01AE	**Error message** Island not permitted directly after a bounding block **Cause of error** In the definition of the contours, an island (I2) is defined after a "bounding block". A "bounding block" must be followed by a pocket (P2). **Error correction** - Do not define a "bounding block" in Cycle 271 if a closed pocket or stud is to be machined - Use CONTOUR DEF to define a pocket after the "bounding block" if an open pocket is to be machined. - Refer to the User's Manual for more documentation

Error number	Description
1A0-01AF	**Error message** Invalid tool technology data **Cause of error** The tool radius is the sum of the values R and DR from the tool table; in some cases a programmed oversize has been added. If the width of the indexable insert (RCUTS) equals this tool radius, then the plunge angle (ANGLE) must be 90. **Error correction** Check the tool data and correct them if required.
1A0-01B1	**Error message** Width of the indexable insert is too large **Cause of error** The tool radius results from the sum of the values R and DR from the tool table; in some cases a programmed oversize has been added. The width of the indexable insert (RCUTS) must not exceed 95% of the tool radius. **Error correction** Check the tool data and correct them if required.
1A0-01B2	**Error message** Usable length of the tool used is too small **Cause of error** The useful length of the tool being used (column LU in the tool table) is less than the machining depth programmed in the cycle. **Error correction** - Use a tool with a greater useful length
1A0-01B3	**Error message** Polar kinematics cannot be activated **Cause of error** The polar kinematics could not be activated with the programmed axes and selected solution. **Error correction** Check the selected axes and the solution: - The axes must span the three-dimensional space - The rotary axis must be built onto the table side and configured as a modulo axis (CfgAxis/isModulo = TRUE) - Exactly one rotary axis must be selected - It must be possible to reach the selected solution from the current position (MODE_POS: machine is at a positive value of the radial axis, MODE_NEG: machine is at a negative value of the radial axis)

Error number	Description
1A0-01B4	**Error message** Polar kinematics: TCPM not allowed **Cause of error** TCPM (M128) is not allowed with active polar kinematics. **Error correction** Check the NC program and adapt it if necessary
1A0-01B5	**Error message** Polar kinematics: transformation not allowed **Cause of error** Certain transformations are not permitted with active polar kinematics: - Tilt the working plane **Error correction** Check the NC program and adapt it if necessary
1A0-01B6	**Error message** Polar kinematics not possible when stretch filter is active **Cause of error** Polar kinematics cannot be activated if a "Stretch Filter" is active. **Error correction** - Check the entry under CfgStrechFilter and change it if required - Inform your service agency
1A0-01B7	**Error message** Five-axis machining is not allowed with active polar kinematics **Cause of error** Programming of linear- and rotary-axis movements in one NC block is not not permitted with active polar kinematics. **Error correction** Edit the NC program.
1A0-01B8	**Error message** Handwheel superimp. not allowed with active polar kinematics **Cause of error** Handwheel superimpositioning is not permitted with active polar kinematics **Error correction** - Deactivate handwheel superimpositioning - Deactivate polar kinematics

Error number	Description
1A0-01B9	**Error message** Polar kinematics: combination with M91 not allowed **Cause of error** The combination of active polar kinematics and M91 is not permitted. **Error correction** Check the NC program and adapt it if necessary
1A0-01BA	**Error message** Alternating machining not permitted for a closed contour **Cause of error** A value of 0 for Q15 (alternating machining direction) is not supported for a closed contour. **Error correction** Change the value for Q15 to +1 (climb) or -1 (up-cut).
1A0-F302	**Error message** APPRLT not permitted for a closed contour **Cause of error** Approaching with APPRLT is not supported for a closed contour. **Error correction** In Cycle 270 set the input parameter Q390 to 1 (APPRCT) or 3 (APPRLN).
1A0-F303	**Error message** No contours to be machined **Cause of error** After internal resolution of the contours, no (sub)contours that can be machined with OCM remain. Please note: - Pockets that are narrower than 2*R*(1+Q578) cannot be machined, due to the rounding arcs of inside corners. - Depending on R and RCUTS, no plunging is possible in narrow pockets. **Error correction** Ensure that the programmed contours are sufficiently wide, particularly concerning the dimensions stated above.
1A0-F304	**Error message** The depth will not be finished without an allowance **Cause of error** The depth will not be finished as long as no allowance is programmed for the depth (Q369). **Error correction** When defining the contour data, program an allowance for the depth in Q369.

Error number	Description
1A0-F305	**Error message** Programmed value for rotary axis too high **Cause of error** You programmed an excessive value for a rotary axis (greater than 1,000,000°). **Error correction** Check the NC program and correct it
1A0-F308	**Error message** Workpiece blank contour too complex **Cause of error** The current workpiece blank contour exceeds the maximum limit of 200 blocks. **Error correction** Adapt the workpiece blank, or export it as an STL file and include it with BLK FORM FILE.
1A0-F309	**Error message** Axis-value programming during active basic rotation **Cause of error** You programmed M128, TCPM with AXIS POS, or PLANE AXIAL. A basic rotation for the workpiece was active at the same time. This can lead to incorrect positioning on the workpiece. **Error correction** Edit the NC program
1A0-F30A	**Error message** Working plane not specified **Cause of error** The working plane must be specified before the first movement block. **Error correction** Define the working plane with TOOL CALL and a direction (such as: TOOL CALL Z) or by selecting Turning mode.
1A0-F30B	**Error message** Bounding block alone is not permitted **Cause of error** Einen Begrenzungsblock für sich alleine zu programmieren ist nicht sinnvoll und damit unzulässig. **Error correction** NC-Programm anpassen: Zu bearbeitende Tasche als zweite Kontur programmieren.

Error number	Description
1A0-F30C	**Error message** Workpiece spindle is not aligned correctly **Cause of error** The axis of the workpiece spindle is not perpendicular to the Z direction of the input coordinate system. **Error correction** - Inform your machine manufacturer - Check the configuration of the machine kinematics model, and modify it if necessary - If the home position of the workpiece spindle axis does not match the Z direction of the input coordinate system, then an appropriate configuration of the workpiece spindle in the machine kinematics model is necessary.
1A0-F30D	**Error message** Five-axis machining not allowed with active planing **Cause of error** You tried to program a rotary axis or a linear minor axis while planing was active **Error correction** Edit the NC program
1A0-F30E	**Error message** Planing: Combination with M91/M92 not allowed **Cause of error** Active planing and M91/M92 may not be combined. **Error correction** Check the NC program and adapt it if necessary
1A0-F30F	**Error message** Planing: Combination with non-permitted transformation **Cause of error** Possible causes: - You programmed mirroring or scaling while planing was active, or you activated planing while one of these transformations was active - You combined TOOL CALL X or TOOL CALL Y with planing - You changed the tilting of the working plane while planing was active **Error correction** Edit the NC program.

Error number	Description
1A0-F310	**Error message** Planing not possible with selected kinematics model **Cause of error** Possible causes: - You did not activate the kinematics model supplied by the machine manufacturer for planing - You tried to switch the kinematics model while planing was active - You selected Turning mode or Grinding mode - The axis that aligns the tool is not perpendicular to the working plane - The selected kinematics model does not have an axis suited for aligning the tool - The selected kinematics model has a spindle (the milling spindle must be available as an axis, not as a spindle) **Error correction** - Check the NC program and, if necessary, select a suitable machine kinematics model or establish a suitable tilt position - Check the machine configuration - Inform your service agency
1A0-F311	**Error message** TOOL CALL not possible during planing **Cause of error** You tried to perform a tool change while planing was active. **Error correction** Edit the NC program.
1A0-F312	**Error message** Planing not possible with selected tool **Cause of error** You tried to activate planing with an unsuitable tool. **Error correction** Insert a turning tool.
1A0-F313	**Error message** Planing not possible with active TCPM setting **Cause of error** You tried to combine planing with one of the following TCPM settings - TCPM AXIS SPAT - TCPM PATHCTRL VECTOR **Error correction** Select TCPM AXIS POS and PATHCTRL AXIS

Error number	Description
1A0-F314	**Error message** Five-axis machining not allowed with cylinder surface machining **Cause of error** You tried to program a rotary axis or a linear minor axis while cylinder surface machining was active. **Error correction** Edit the NC program.
1A0-F315	**Error message** Cylinder surface machining: Combination with M91/M92 not allowed **Cause of error** Active cylinder surface machining and M91/M92 may not be combined. **Error correction** Check the NC program and adapt it if necessary
1A0-F316	**Error message** Cylinder surface machining: Non-permitted transformations **Cause of error** Possible causes: - You activated cylinder surface machining while mirroring, scaling, rotation or a datum shift was active - You combined TOOL CALL X or TOOL CALL Y with cylinder surface machining - You changed the tilting of the working plane while cylinder surface machining was active - You entered a preset that describes a cylinder that is clamped off-center relative to the axis of rotation - You activated transformations in the Global Program Settings **Error correction** - Edit the NC program - Check the presets and offsets - Check the Global Program Settings

Error number	Description
1A0-F317	**Error message** Cylinder surface machining not possible with selected kinematics **Cause of error** Possible causes: - You tried to switch the kinematics model while cylinder surface machining was active - You selected Turning mode or Grinding mode - The selected kinematics model does not have a linear axis that is perpendicular to the cylinder axis - The selected kinematics model does not have a linear axis that is parallel to the cylinder axis - The selected kinematics model does not have a rotary axis that corresponds to the cylinder axis **Error correction** - Check the NC program and, if necessary, select a suitable machine kinematics model or establish a suitable tilt position - Check the machine configuration - Inform your service agency
1A0-F318	**Error message** Cylinder surface machining impossible with selected tool position **Cause of error** You tried to activate cylinder surface machining without first positioning the tool perpendicular to the cylinder axis. **Error correction** Edit the NC program.
1A0-F319	**Error message** TOOL CALL not possible during cylinder surface machining **Cause of error** You tried to perform a tool change while cylinder surface machining was active. **Error correction** Edit the NC program.

Error number	Description
1A0-F31A	**Error message** Cylinder surface machining not possible with kinematics setting **Cause of error** Possible causes: - You tried to combine TCPM with cylinder surface machining - You tried to combine M144 with cylinder surface machining - You tried to combine M138 with cylinder surface machining - You tried to perform WRITE KINEMATICS while cylinder surface machining was active - You tried to combine a different special machining mode (e.g., facing slide, planing or polar kinematics) with cylinder surface machining **Error correction** Edit the NC program.
1A0-F31B	**Error message** Cylinder surface machining not possible with special feed rate **Cause of error** Active cylinder surface machining and M116 or M103 may not be combined. **Error correction** Edit the NC program.
1A0-F31C	**Error message** Backwards motion not possible during cylinder surface machining **Cause of error** Active cylinder surface machining and M140 may not be combined. **Error correction** Edit the NC program.
1A0-F31D	**Error message** Handwheel superimp. impossible during cylinder surface machining **Cause of error** Handwheel superimpositioning is not permitted with active cylinder surface machining. **Error correction** Edit the NC program.

Error number	Description
1A0-F31E	**Error message** Thread machining not possible during cylinder surface machining **Cause of error** Thread cutting and thread milling are not permitted with active cylinder surface machining. **Error correction** Edit the NC program.
1A0-F31F	**Error message** Probing not possible during cylinder surface machining **Cause of error** Probing is not permitted with active cylinder surface machining. **Error correction** Edit the NC program.
1A0-F320	**Error message** Radius too small for cylinder surface machining **Cause of error** You tried to activate cylinder surface machining with an insufficiently small radius. **Error correction** Check the cylinder radius and edit the NC program.
1A0-F321	**Error message** Zylindermantelbearbeitung mit Werkzeug nicht möglich **Cause of error** Die Zylindermantelbearbeitung ist nur mit einem Fräswerkzeug möglich. **Error correction** NC-Programm ändern.
1A0-F322	**Error message** Schwenkung bei Zylindermantelbearbeitung und Grunddrehung fehlt **Cause of error** Sie haben versucht, Zylindermantelbearbeitung mit aktiver Grunddrehung zu aktivieren, ohne vorher die Ebene zu schwenken. **Error correction** - NC-Programm anpassen - Vor Aktivierung der Zylindermantelbearbeitung die Bearbeitungsebene schwenken, gegebenenfalls mit Raumwinkeln 0.

Error number	Description
1A0-F323	**Error message** Polare Kinematik: M140 nicht erlaubt **Cause of error** Ein Werkzeugrückzug mit M140 ist bei aktiver polarer Kinematik nicht erlaubt. **Error correction** - NC-Programm anpassen
1A0-F324	**Error message** FUNCTION PARAXCOMP required for cylinder surface machining **Cause of error** For cylinder surface machining with these machine kinematics, the control requires the rotary axis nearest the table and two linear axes. The third linear axis is not needed for machining, and thus becomes a secondary axis. The control requires a command in order to calculate the values of the secondary axis. **Error correction** Activate the calculation of values for the secondary axis: - In the NC program, enter FUNCTION PARAXCOMP DISPLAY with the name of the axis that will become a secondary axis during cylinder surface machining - Or set CfgAxisPropKin/parAxComp in the machine configuration to the value Display
1A0-F325	**Error message** Tool holder not permitted with transformations **Cause of error** Werkzeughalter für Schleifwerkzeuge dürfen keine Transformationen enthalten. **Error correction** - Werkzeughalter-Beschreibung ohne Transformationen verwenden
1A1-000C	**Error message** Selected kinematics not defined **Cause of error** - Attempt to use nonexisting kinematics **Error correction** - Expand the kinematics configuration. - Change the cycle. - Inform your service agency.

Error number	Description
1A1-000D	**Error message** Kinematics configuration faulty %1 **Cause of error** - System error **Error correction** - Inform your service agency.
1A1-000E	**Error message** Kinematics configuration faulty %1 **Cause of error** - System error **Error correction** - Inform your service agency.
1A1-000F	**Error message** Kinematics configuration faulty %1 **Cause of error** - System error **Error correction** - Inform your service agency.
1A1-0010	**Error message** Limit switch %1%2 **Cause of error** The calculated tool path exceeds the machine's positive traverse limits. The current machine setting was presumably not used and the workpiece is therefore in the wrong position in the working space. The positive software limit switch is defined with the configuration datum CfgPositionLimits/swLimitSwitchPos. **Error correction** - Check the programmed coordinates. If required, edit the program. - Check the reference point. If required, set a new reference point.

Error number	Description
1A1-0011	**Error message** Limit switch %1%2 **Cause of error** The calculated tool path exceeds the machine's negative traverse limits. The current machine setting was presumably not used and the workpiece is therefore in the wrong position in the working space. The negative software limit switch is defined with the configuration datum CfgPositionLimits/swLimitSwitchNeg. **Error correction** - Check the programmed coordinates. If required, edit the program. - Check the reference point. If required, set a new reference point.
1A1-0012	**Error message** Kinematics configuration faulty %1 **Cause of error** - System error **Error correction** - Inform your service agency.
1A1-0013	**Error message** Kinematics configuration faulty %1 **Cause of error** Fewer than 3 translation axes are configured in the machine kinematics. **Error correction** - Edit the configuration of the machine kinematics - Check the number of axes in the kinematic model that is defined in the config object CfgProgAxis as MainLinCoord type - When using the FUNCTION PARAXMODE: Check the number and type of axes that you have programmed in this function - Inform your service agency

Error number	Description
1A1-0014	**Error message** Kinematics configuration faulty %1 **Cause of error** More than 3 translation axes are configured in the machine kinematics. **Error correction** - Edit the configuration of the machine kinematics - Check the number of axes in the kinematic model that is defined in the config object CfgProgAxis as MainLinCoord type - When using the FUNCTION PARAXMODE: Check the number and type of axes that you have programmed in this function - Inform your service agency
1A1-0015	**Error message** Kinematics configuration faulty %1 **Cause of error** - System error **Error correction** - Inform your service agency.
1A1-0016	**Error message** Program position not accessible **Cause of error** The machine cannot reach all points in the space. The three linear axes with which the control moves to programmed positions all lie in one plane. Possible causes: - With FUNCTION PARAXMODE you selected three axes that lie in one plane - A linear axis is mounted on a rotary axes; the rotary axis has tilted the linear axis into the plane of the two other linear axes **Error correction** Edit the NC program
1A1-0017	**Error message** Kinematics configuration faulty %1 **Cause of error** - System error **Error correction** - Inform your service agency. - Edit the cycles.

Error number	Description
1A1-0018	**Error message** Kinematics configuration faulty %1 **Cause of error** - System error **Error correction** - Inform your service agency.
1A1-0019	**Error message** Kinematics configuration faulty %1 **Cause of error** - System error **Error correction** - Inform your service agency.
1A1-001A	**Error message** Kinematics configuration faulty %1 **Cause of error** - System error **Error correction** - Inform your service agency.
1A1-001B	**Error message** No accuracy specified for calculating the kinematic compensating movement. **Cause of error** - Accuracy data missing for calculation of the kinematic compensation movement **Error correction** - Edit the cycle.
1A1-001C	**Error message** Rotary axis undefined **Cause of error** - Machine kinematics incorrectly configured - Wrong kinematics selected **Error correction** - Edit the configuration of the machine kinematics. - Edit the cycle. - Inform you service agency.

Error number	Description
1A1-001D	**Error message** Kinematics configuration faulty %1 **Cause of error** - Machine kinematics incorrectly configured **Error correction** - Edit the configuration of the machine kinematics. - Inform your service agency.
1A1-001E	**Error message** Kinematics configuration faulty %1 **Cause of error** - System error **Error correction** - Inform your service agency.
1A1-0022	**Error message** Kinematics configuration faulty %1 **Cause of error** - System error **Error correction** - Choose a kinematic configuration with orthagonally arranged axes - Inform your service agency
1A1-0023	**Error message** Kinematics configuration faulty %1 **Cause of error** - System error **Error correction** - Inform your service agency.
1A1-0024	**Error message** Kinematics configuration faulty %1 **Cause of error** - System error **Error correction** - Inform your service agency.

Error number	Description
1A1-0025	**Error message** Kinematics configuration faulty %1 **Cause of error** - System error **Error correction** - Inform your service agency.
1A1-0026	**Error message** Function not yet implemented: %1 **Cause of error** - You tried to use a non-implemented function. **Error correction** - Edit the NC program
1A1-0027	**Error message** Type of grinding wheel compensation not defined **Cause of error** You have not specified the grinding wheel edge to be compensated. **Error correction** - Edit the cycle
1A1-0028	**Error message** Axis cannot be moved! %1 **Cause of error** You tried to move an axis that cannot be moved by the NC, such as a display axis, which is only displayed. **Error correction** - Check the NC program - Select suitable machine kinematics (polar)
1A1-0029	**Error message** Kinematics configuration faulty %1 **Cause of error** - System error **Error correction** - Inform your service agency.

Error number	Description
1A1-002A	**Error message** Kinematics configuration faulty %1 **Cause of error** - System error **Error correction** - Inform your service agency.
1A1-002B	**Error message** Kinematics configuration faulty %1 **Cause of error** - System error - Incorrect kinematics **Error correction** - Edit the configuration of the machine kinematics. - Inform your service agency.
1A1-003B	**Error message** Grinding wheel geometry incorrect Negative value %1 in the grinding wheel parameters **Cause of error** - Incorrect parameter settings of grinding wheel geometry **Error correction** - Correct the parameters of the grinding wheel geometry.
1A1-003C	**Error message** Grinding wheel geometry incorrect Negative value for %1 in the grinding wheel parameters **Cause of error** - Incorrect parameter settings of grinding wheel geometry **Error correction** - Correct the parameters of the grinding wheel geometry.
1A1-003D	**Error message** Grinding wheel geometry incorrect Angle %1 in the grinding wheel parameters too small **Cause of error** - Incorrect parameter settings of grinding wheel geometry **Error correction** - Correct the parameters of the grinding wheel geometry.

Error number	Description
1A1-003E	**Error message** Grinding wheel geometry incorrect Negative edge length in the grinding wheel geometry **Cause of error** - Incorrect parameter settings of grinding wheel geometry **Error correction** - Correct the parameters of the grinding wheel geometry.
1A1-003F	**Error message** Grinding wheel geometry incorrect Missing parameter %1 in grinding wheel parameters **Cause of error** - Incorrect parameter settings of grinding wheel geometry **Error correction** - Correct the parameters of the grinding wheel geometry.
1A1-0040	**Error message** System error in the geometry chain: %1 **Cause of error** - System error **Error correction** - Inform your service agency.
1A1-0042	**Error message** Kinematics configuration faulty %1 **Cause of error** Invalid attribute or list element in a view message, caused by incorrect key entries in configuration messages. Because of this, the configuration server overlooks entities, which is why elements of the output lists in the view message are set to invalid. **Error correction** - Correct the kinematic configuration. - Inform your service agency.
1A1-0043	**Error message** Kinematics configuration faulty %1 **Cause of error** Cause of error is explicitly described in the error text. **Error correction** Inform your service agency.

Error number	Description
1A1-0044	**Error message** Setting of software limits for roll-over axis not permitted **Cause of error** You tried to set values for software limit switches on a roll-over axis. **Error correction** - Change the configuration - Edit the cycle
1A1-0045	**Error message** Vertical axis direction not possible **Cause of error** It is not possible to orient the tool axis orthogonally to the working plane that you defined. **Error correction** - Edit the NC program - If possible, clamp the tool differently - Where applicable, change the limit switch setting of the rotary axes
1A1-0046	**Error message** Control cannot calculate the circle tangent **Cause of error** You defined a cirle with the radius 0. **Error correction** Edit the NC program
1A1-0047	**Error message** The control cannot change the tool orientation because no rotary axes are defined **Cause of error** Rotary axes are not defined to allow changing the tool orientation. **Error correction** - Edit the NC program - Rebuild the machine - Configure the kinematics with rotary axes
1A1-0048	**Error message** Error in the kinematic configuration: %1 **Cause of error** Indicated in English in the additional text **Error correction** - Edit the kinematic configuration - Inform your service agency

Error number	Description
1A1-0049	**Error message** No axis found for tool length compensation. **Cause of error** Possible causes: there is no axis or no clearly definable axis that can compensate the tool length. **Error correction** - Change the contour configuration - Inform your service agency
1A1-004A	**Error message** Too many axes to be interpolated **Cause of error** The maximum allowed number of simultaneously moving axes was exceeded. (In the export version the maximum is 4 axes.) **Error correction** Check the NC program
1A1-004B	**Error message** Kinematics configuration faulty **Cause of error** More than 3 translation axes are configured in the machine kinematics. **Error correction** - Edit the configuration of the machine kinematics - Check the number of axes in the kinematic model that are defined in the config object CfgAxis in the Parameter specCoordSys as additional linear axes. Together with the axes in the kinematic model, which are defined in the config object CfgProgAxis as the MainLinCoord type, exactly 3 axes must be available for the machine kinematics. - When using the FUNCTION PARAXMODE: Check the number and type of axes that you have programmed in this function - Inform your service agency
1A1-004C	**Error message** Thread cutting: Direction reversal not allowed! **Cause of error** A direction reversal of the thread reference axis is not allowed. **Error correction** - You must not change the direction of the thread reference axis. - Edit the NC program.

Error number	Description
1A1-004D	**Error message** Non-interpolating axis is exceeding the traverse range! **Cause of error** A non-interpolating axis is exceeding the traverse range limits. **Error correction** Reduce the programmed path of the non-interpolating axis.
1A1-004E	**Error message** Distance is too short to accelerate non-interpolating axis! **Cause of error** A non-interpolating axis is exceeding the maximum acceleration! **Error correction** Extend the programmed path of the non-interpolating axis.
1A1-004F	**Error message** This area cannot be machined! **Cause of error** No traverse permitted with polar kinematics in the programmed range. **Error correction** Check the height difference of the point or the position of the fixed axis. Check whether the machining operation is permitted at the pole.
1A1-0050	**Error message** Limit switch with handwheel superimpositioning %1%2 **Cause of error** The calculated tool path exceeds the machine's positive traverse limits. The current machine setting was presumably not adopted and the workpiece is therefore in the wrong position in the working space. M118 limit switch **Error correction** Reduce the handwheel traverse range (M118)
1A1-0051	**Error message** Wrong kinematic model for FACING HEAD POS **Cause of error** The active kinematic model had not facing slide. FACING HEAD POS is allowed only with facing-slide kinematics. **Error correction** Insert the facing slide and switch the kinematics

Error number	Description
1A1-0052	**Error message** Tool inclination cannot be calculated **Cause of error** There are too many or too few rotary axes present in order to calculate the tool angle of inclination **Error correction** - Use M138 to select or deselect the rotary axes - Check the configuration of the tool spindle, particularly CfgAxisPropKin/rotAxisForKinCalc - Contact your machine tool builder
1A1-0053	**Error message** Tool inclination cannot be calculated **Cause of error** The orientation of the indexable insert of the turning tool is not permissible. **Error correction** The plane of the indexable insert must be parallel or perpendicular to the tool spindle: - Check the tool data - Check the kinematics configuration, particularly the transformations (CfgKinSimpleTrans) between the tool spindle and tool - Contact your machine tool builder
1A1-0054	**Error message** Tool inclination cannot be calculated **Cause of error** Incorrect orientation of the selected rotary axes. Possible causes: - The turning spindle is parallel to the selected tilting axis - The tool direction is parallel to the selected tilting axis - The programmed inclination is not possible with the present device **Error correction** - Check the programmed inclination - Use M138 to select a different tilting axis - Check the kinematics configuration - Check the configuration of the tool spindle, particularly CfgAxisPropKin/rotAxisForKinCalc - Contact your machine tool builder
1A2-000A	**Error message** System error in the calculation of transformation: %1 **Cause of error** Ist im Fehlertext direkt angegeben **Error correction** - Kundendienst benachrichtigen

Error number	Description
1A2-000B	**Error message** Axis programmed more than once in PRESET command **Cause of error** Sie haben im PRESET-Befehl mehrfach dieselbe Achse programmiert. **Error correction** - NC-Programm bzw. Zyklus ändern
1C4-00C4	**Error message** Basis for time information **Cause of error** Year whose beginning will be used as basis for counting the seconds for the time in PLC Modules 9055 and 9195. **Error correction**
1C6-0017	**Error message** Axes for actual position capture **Cause of error** With this parameter you specify which axes are to be considered for actual position capture. **Error correction**
1C7-01F6	**Error message** Data record for the FS configuration of the SPLC program **Cause of error** Data record for the configuration of functional safety for the SPLC program **Error correction**
1C7-0205	**Error message** Max. time until the test of the motor holding-brakes **Cause of error** Axis-specific time monitoring for the execution of the brake test. - 0: No time monitoring through the SKERN **Error correction**
1C7-0206	**Error message** Maximum path with SS2 reaction **Cause of error** Maximum permissible path or spindle revolutions for SS2 reaction in SOM2 operating mode **Error correction**

Error number	Description
1C7-0207	**Error message** Maximum path with SS2 reaction **Cause of error** Maximum permissible path or revolutions of the spindle with SS2 reaction in SOM3 operating mode **Error correction**
1C7-0208	**Error message** Maximum path with SS2 reaction **Cause of error** Maximum permissible path or spindle revolutions for SS2 reaction in SOM4 operating mode **Error correction**
1C7-021B	**Error message** MC drives cannot be switched on: NN_GenSafe = 0 **Cause of error** - SPLC interface signal NN_GenSafe = 0. It is therefore impossible to switch on the drives. - SPLC program does not set the interface signal. - The machine parameter MP_skipEmStopTest has been set. **Error correction** - Check the SPLC program. - Check the entry in MP_skipEmStopTest. - Inform your service agency.
1C7-0255	**Error message** Following error monitoring for RTC coupled axes **Cause of error** Position monitoring for coupled axes. If the axis cannot follow the RTC specification and the position difference exceeds this value, an EMERGENCY STOP reaction is triggered. You can find information on braking the drives during an EMERGENCY STOP in the Technical Manual for your control. The settings in posTolerance apply only during active RTC and are independent of the settings in CfgPosControl. **Error correction**

Error number	Description
1C7-025F	**Error message** Default HSCI data rate **Cause of error** Enter the desired HSCI data rate. With the “automatic” option, the control automatically selects the highest possible data rate. If there are devices or cables in the HSCI system that are suited for only limited data rates, a manual preselection might be necessary. **Error correction**
1C7-0268	**Error message** Permit handwh. superimposition of rotary axes only with TCPM **Cause of error** **Error correction**
1C7-0350	**Error message** Mode of nominal/actual value monitoring (optional) **Cause of error** The parameter specifies the type of nominal-actual-value monitoring: - speedAndPosCompDefault: With FS spindles, the nominal-actual-value comparison is always performed for rotational speeds; with position-controlled feed axes when the guard doors are open for positions, and when the guard doors are closed for speeds. - speedAndPosCompReduced: With FS spindles, the nominal-actual-value comparison is always performed for rotational speeds; with position-controlled axes when the guard doors are open for positions and otherwise for speeds - noComp: The nominal-actual-value comparison is inactive, so neither speeds nor positions are checked - speedComp: With FS spindles, the nominal-actual-value comparison is performed for rotational speeds, and with feed axes for positions. **Error correction**
1C9-006B	**Error message** Description of a tool carrier **Cause of error** Describe here a tool carrier. **Error correction**

Error number	Description
200-0001	**Error message** Calculator **Cause of error** **Error correction**
200-0017	**Error message** Configuration of '%1' incorrect **Cause of error** The configuration data are incomplete or contain invalid values. **Error correction** Check the configuration data.
200-0018	**Error message** Configuration for axis %1 invalid **Cause of error** The configuration data for the specified axis are incomplete or contain invalid values. **Error correction** Check the configuration datum "CfgProgAxis" for this axis.
200-0019	**Error message** Configured name for axis %1 invalid **Cause of error** The configured name for an axis with the configured properties is not permissible or is already assigned to another axis. **Error correction** Change the configuration datum "CfgProgAxis/axName"
200-001A	**Error message** Configured index for axis %1 invalid **Cause of error** The configured index for an axis with the configured properties is not permissible or is already assigned to another axis. **Error correction** Change the configuration datum "CfgProgAxis/index"
200-001B	**Error message** Configured direction for axis %1 invalid **Cause of error** None of the directions XAxis, YAxis or ZAxis is configured for the axis. **Error correction** Change the configuration datum "CfgProgAxis/dir"

Error number	Description
200-001C	**Error message** Cycle %1 already defined **Cause of error** In CycleDesign, the same number or G number was assigned more than once for a cycle or query cycle. **Error correction** In CycleDesign, change the number of one of the cycles or its G number.
200-001D	**Error message** Unable to open configuration server queue **Cause of error** Error in system-inherent communication **Error correction** Inform your service agency
200-001E	**Error message** Unable to read configuration data '%1' **Cause of error** Error in system-inherent communication **Error correction** Inform your service agency.
200-001F	**Error message** No programmable axes defined for the editor **Cause of error** The configuration is faulty: CfgEditorSettings/useProgAxes is set so that the programmable axes defined through CfgChannelAxes/progAxis are to be used for the editor. CfgChannelAxes/progAxis is empty, however. **Error correction** Correct the configuration: CfgEditorSettings/useProgAxes
200-0020	**Error message** NC program is incomplete **Cause of error** No valid program end found: - File was not transmitted to the control completely - File corrupted during editing with a text editor - Error in the file system **Error correction** - Retransmit the file or restore it from an archive - Manually correct the file in the NC editor Note: The NC editor automatically appends a program end for visual purposes. Use 'Save as' to write this program end into the file.

Error number	Description
201-0800	**Error message** Key non-functional **Cause of error** In this context the key has no function. **Error correction**
201-0801	**Error message** Program memory exceeded **Cause of error** The NC program memory no longer suffices for part programs. **Error correction** Delete the programs that you no longer need.
201-0802	**Error message** Search address missing **Cause of error** In the NC program the original search address no longer exists. **Error correction** Abort search.
201-0803	**Error message** Entry value incorrect **Cause of error** - The value you entered is out-of-range. - Cycle 209 (ISO: 209): You entered the value 0 as infeed depth for chip breaking (Q257). **Error correction** - Enter the correct value. - Enter a value other than 0 in Q257.
201-0804	**Error message** Program not found **Cause of error** You attempted to call a program that is not stored in TNC memory. **Error correction** Edit the part program.

Error number	Description
201-0805	**Error message** Protected File! **Cause of error** You cannot edit or erase this program until the protection has been removed. **Error correction** Cancel the program protection.
201-0806	**Error message** Block format incorrect **Cause of error** Incorrect block format in the highlighted block. **Error correction** Edit the part program.
201-0807	**Error message** Address letter already assigned **Cause of error** You used an address letter incorrectly in an ISO block. **Error correction** Edit the highlighted block.
201-0808	**Error message** Block too long DATUM SHIFT **Cause of error** **Error correction**
201-092E	**Error message** Traverse direction not defined **Cause of error** In a probing cycle you entered 0 for the traverse direction Q267. **Error correction** For Q267, enter either +1 (for positive traverse direction) or -1 (for negative traverse direction).

Error number	Description
201-092F	**Error message** No datum table active **Cause of error** Probing cycle for datum setting: You want the TNC to write the measured point into a datum table, but you have not activated a datum table in a program run mode (status M). **Error correction** In the single block or full sequence program run mode, activate the datum table into which you want the measured point to be entered.
201-0930	**Error message** Position error: center in axis 1 **Cause of error** Probing cycle for workpiece measurement: Center of 1st axis outside of position tolerance. **Error correction** Check the workpiece and the measuring log.
201-0931	**Error message** Position error: center in axis 2 **Cause of error** Probing cycle for workpiece measurement: Center of 2st axis outside of position tolerance. **Error correction** Check the workpiece and the measuring log.
201-0932	**Error message** Hole diameter too small **Cause of error** Probing cycle for workpiece measurement: Hole diameter too small for tolerance. **Error correction** Check the workpiece and the measuring log.
201-0933	**Error message** Hole diameter too large **Cause of error** - Probing cycle for workpiece measurement: Hole diameter tolerance exceeded. - Cycle 208: The programmed hole diameter (Q335) cannot be machined with the active tool. **Error correction** - Check the workpiece and, if necessary, the measuring log. - Cycle 208: Use a larger tool. Hole diameter must not be larger than twice the tool diameter.

Error number	Description
201-0934	**Error message** Stud diameter too small **Cause of error** Probing cycle for workpiece measurement: Stud diameter too small for tolerance. **Error correction** Check the workpiece and the measuring log.
201-0935	**Error message** Stud diameter too large **Cause of error** Probing cycle for workpiece measurement: Stud diameter too large for tolerance. **Error correction** Check the workpiece and the measuring log.
201-0936	**Error message** Pocket too small: rework axis 1 **Cause of error** Probing cycle for workpiece measurement: Pocket length in 1st axis too small for tolerance. **Error correction** Check the workpiece and the measuring log.
201-0937	**Error message** Pocket too small: rework axis 2 **Cause of error** Probing cycle for workpiece measurement: Pocket width in 2nd axis too small for tolerance. **Error correction** Check the workpiece and the measuring log.
201-0938	**Error message** Pocket too large: scrap axis 1 **Cause of error** Probing cycle for workpiece measurement: Pocket length in 1st axis too large for tolerance. **Error correction** Check the workpiece and the measuring log.

Error number	Description
201-0939	**Error message** Pocket too large: scrap axis 2 **Cause of error** Probing cycle for workpiece measurement: Pocket width in 2nd axis too large for tolerance. **Error correction** Check the workpiece and the measuring log.
201-093A	**Error message** Stud too small: scrap axis 1 **Cause of error** Probing cycle for workpiece measurement: Stud length in 1st axis too small for tolerance. **Error correction** Check the workpiece and the measuring log.
201-093B	**Error message** Stud too small: scrap axis 2 **Cause of error** Probing cycle for workpiece measurement: Stud width in 2nd too small for tolerance. **Error correction** Check the workpiece and the measuring log.
201-093C	**Error message** Stud too large: rework axis 1 **Cause of error** Probing cycle for workpiece measurement: Stud length in 1st axis too large for tolerance. **Error correction** Check the workpiece and the measuring log.
201-093D	**Error message** Stud too large: rework axis 2 **Cause of error** Probing cycle for workpiece measurement: Stud width in 2nd axis too large for tolerance. **Error correction** Check the workpiece and the measuring log.

Error number	Description
201-093E	**Error message** Meas. cycle: length exceeds max **Cause of error** Probing cycle 425 or 427: The measured length exceeds the maximum permissible value. **Error correction** Check the workpiece and the measuring log.
201-093F	**Error message** Meas. cycle: length below min **Cause of error** Probing cycle 425 or 427: The measured length is below the minimum permissible value. **Error correction** Check the workpiece and the measuring log.
201-0940	**Error message** TCHPROBE 426: length exceeds max **Cause of error** Probing cycle 426: The measured length exceeds the maximum permissible value. **Error correction** Check the workpiece and the measuring log.
201-0941	**Error message** TCHPROBE 426: length below min **Cause of error** Probing cycle 426: The measured length is below the minimum permissible value. **Error correction** Check the workpiece and the measuring log.
201-0942	**Error message** TCHPROBE 430: diameter too large **Cause of error** Probing cycle 430: The measured bolt-hole-circle diameter exceeds the maximum permissible value. **Error correction** Check the workpiece and the measuring log.

Error number	Description
201-0943	**Error message** TCHPROBE 430: diameter too small **Cause of error** Probing cycle 430: The measured bolt-hole-circle diameter is below the minimum permissible value. **Error correction** Check the workpiece and the measuring log.
201-094F	**Error message** Incomplete cycle was deleted **Cause of error** Informational message that the TNC has erased an incomplete cycle. **Error correction**
201-0950	**Error message** Intermediate memory empty **Cause of error** You attempted to insert a block from an empty intermediate memory. **Error correction** before trying to insert a block from intermediate memory, put the block into memory by: - using the DEL key to delete the block to be copied, or - placing the editing cursor into the block to be copied
201-0951	**Error message** No permission to write **Cause of error** You have selected a write-protected file for editing. **Error correction** Before editing, enter the code number 86357 to cancel the write protection.
201-0952	**Error message** To delete entire context: NO ENT **Cause of error** During editing you attempted to delete a word that is a required element of a function. **Error correction** Press NO ENT to delete the entire function, or press END to cancel.

Error number	Description
201-0953	**Error message** Impermissible change of context **Cause of error** You attempted to open another context within a context dialog sequence. **Error correction** Continue the dialog, or completely erase the block and enter a new context.
201-0954	**Error message** No polar coordinates possible **Cause of error** You pressed the P key to enter polar coordinates. Polar coordinates are not programmable for the active function. **Error correction** Enter Cartesian coordinates to program the active function, or use a function that permits polar coordinate input.
201-0955	**Error message** To change context: press ENT **Cause of error** You attempted to change a context initiator to which other elements in the current block belong. **Error correction** First delete the elements, then change the context initiator.
201-0956	**Error message** Input as context not permitted **Cause of error** You entered a function that cannot initiate a context. **Error correction** Enter only permissible functions.
201-0957	**Error message** Check parentheses for pairs **Cause of error** You attempted to end a Q-parameter block containing an odd number of parentheses. Parentheses can be programmed only in pairs. **Error correction** Enter the missing parentheses.
201-099D	**Error message** Too many decimal places **Cause of error** **Error correction**

Error number	Description
201-099E	**Error message** File name not equal program name **Cause of error** **Error correction**
201-099F	**Error message** Context code name unknown **Cause of error** **Error correction**
201-09A0	**Error message** Numerical value out of range **Cause of error** **Error correction**
201-09A1	**Error message** Syntax error **Cause of error** Syntax error **Error correction**
201-09A2	**Error message** NC language unknown **Cause of error** **Error correction**
201-09A3	**Error message** File access not possible **Cause of error** **Error correction**
201-09A5	**Error message** Required value missing **Cause of error** You attempted to save an NC block although you have not entered all values required for the elements programmed in the block. **Error correction** Enter the NC block with all required data. Refer to the User's Manual if required.

Error number	Description
201-09A8	**Error message** Table data unknown **Cause of error** Table data unknown **Error correction**
201-09A9	**Error message** Syntax error in binary record **Cause of error** Syntax error in binary record **Error correction**
201-0A1F	**Error message** Entry character not allowed **Cause of error** You attempted to enter a character that is not allowed in the entry box. **Error correction** Edit the NC program.
201-0A20	**Error message** Lowercase letter not allowed **Cause of error** You attempted to enter a lowercase letter. **Error correction** Edit the NC program. Use only uppercase letters in the entry box.
201-0A21	**Error message** Letter not allowed **Cause of error** You attempted to enter a letter. **Error correction** Edit the NC program. Use only numerals in the entry box.
201-0A22	**Error message** Numeral not allowed **Cause of error** You attempted to enter a numeral. **Error correction** Edit the NC program. Use only letters in the entry box.

Error number	Description
201-0A51	**Error message** Reference to block %.6s:no DEL **Cause of error** FK programming: You have attempted to delete a part program block to which another block refers. **Error correction** First edit the referring block, then delete the reference
201-0A52	**Error message** FK reference to current block **Cause of error** You attempted in an FK program to delete a block to which another part of the program makes a reference. **Error correction** Change the FK reference.
201-0A55	**Error message** No axes selected **Cause of error** In the MOD settings of the machining modes, no axes were selected for L-block generation. **Error correction** In the MOD settings, enter the axes whose positions are to be put into an L block when the "actual-position-capture key" is pressed.
201-0A6F	**Error message** Too many characters **Cause of error** You exceeded the maximum permissible number of characters for the active input box. **Error correction** Enter fewer characters.
201-0A70	**Error message** Value out of input range **Cause of error** You attempted to enter a numerical value that lies outside the permissible range. **Error correction** Comply with the permissible input range.

Error number	Description
201-0A71	**Error message** Too many decimal places **Cause of error** You attempted to enter a value that exceeds the permissible number of decimal places. **Error correction** Comply with the permissible input range.
201-0A72	**Error message** Algebraic sign not allowed **Cause of error** You tried to enter an algebraic sign using the -/+ key. **Error correction** - The -/+ key is non-functional. - It is not necessary/possible to enter the algebraic sign.
201-0A73	**Error message** Only integers permitted **Cause of error** You tried to enter a number with decimal places. **Error correction** - The , key is non-functional. - It is not necessary/possible to enter a decimal place.
201-0A74	**Error message** Q not allowed: enter a number **Cause of error** You attempted to use a Q parameter in the active input box. **Error correction** Enter a numerical value.
201-0A75	**Error message** Incremental input not allowed **Cause of error** You attempted to enter an incremental value by pressing the I key. **Error correction** Enter an absolute value.
201-0A76	**Error message** Too many M functions **Cause of error** Too many M functions for one NC block. **Error correction** Use no more than two M functions per NC block.

Error number	Description
201-0A77	**Error message** Too many axes programmed **Cause of error** - An NC block has more than the allowed number of simultaneously movable axes. - You tried to use an NC program to make a reverse program in which more than 5 axes are programmed. **Error correction** - Standard version: Program no more than 5 axes per NC block. - Export version: Program no more than 4 axes per NC block. - The source program must not include more than a total of 5 different axes.
201-0A78	**Error message** Axis double programmed **Cause of error** You programmed the same axis more than once within one NC block. **Error correction** Program only different axes within one block.
201-0A79	**Error message** Element double / not allowed **Cause of error** - You used the same syntax element more than once within one NC block.- The current sequence of syntax elements in an NC block do not comply with requirements. **Error correction** - Do not program syntax elements more than once within one NC block.- Put the syntax elements into the required sequence.
201-0A7A	**Error message** Incomplete data input **Cause of error** Not all required data have been entered in an NC block. **Error correction** Add the missing information.
201-0A7B	**Error message** ISO: Block number N missing **Cause of error** An NC block in an ISO program begins without a block number N. **Error correction** Insert the block number.

Error number	Description
201-0A7C	**Error message** Required element missing **Cause of error** Not all required data have been entered in an NC block. **Error correction** Add the missing information.
201-0A7D	**Error message** Syntax incorrect **Cause of error** An NC block contains a syntax element that requires other syntax elements. **Error correction** Correct the NC block.
201-0A9F	**Error message** Keyword unknown **Cause of error** In an NC block, you attempted to enter a word that the TNC cannot interpret. **Error correction** Enter only valid words.
201-0AA0	**Error message** Syntax element not editable **Cause of error** You attempted to edit a syntax element in an NC block. **Error correction** Enter a new NC block with a different syntax element.
201-0AA1	**Error message** PGM header not editable **Cause of error** In a program, you attempted to edit one of the blocks BEGIN PGM (ISO: %... G71), or END PGM (ISO: N99999999%...). **Error correction** The program beginning and program end must not be edited. To change the program name, use the RENAME function in the file management.

Error number	Description
201-0AA2	**Error message** No reference system change! **Cause of error** You attempted to change the coordinate data in the present block from Cartesian to polar or vice versa. **Error correction** Move the cursor to the block initation element and press the P key to change to polar or Cartesian coordinate input.
201-0AA3	**Error message** Rotary axis not permitted here **Cause of error** You programmed a rotary axis as tool axis. **Error correction** Program only linear axes in the TOOL CALL block (ISO: T..).
201-0AA4	**Error message** Incorrect block syntax **Cause of error** A part program block contains a syntax error. **Error correction** Edit the part program.
201-0AA5	**Error message** Really delete NC block? DEL! **Cause of error** Warning before deleting an NC block. **Error correction** For complete deletion of the NC block, press DEL. To abort the delete sequence, press any other key.
201-0AA6	**Error message** Axis letter not permitted **Cause of error** An attempt was made to program an axis that is not allowed for the currently active function. **Error correction** Only program permitted axes.
201-0AA7	**Error message** Cannot cancel Block Skip **Cause of error** You attempted to cancel the Block Skip funktion with the Backspace key. **Error correction** Function is only permitted if the NC block begins with / .

Error number	Description
201-0AA8	**Error message** String incomplete **Cause of error** You attempted to enter an NC block in which a syntax element was not concluded with the required apostrophe. **Error correction** Ensure that apostrophes are entered in the correct locations. Refer to the User's Manual if required.
201-0AB4	**Error message** Cannot go past edge of screen **Cause of error** You moved the display position of the current block to the edge of the screen. **Error correction** Select the display position of the current block so that it lies within the screen limits.
201-0ADF	**Error message** Actual pos. capture not possible **Cause of error** You attempted to load the actual position into the program while the tilted working plane function was active. **Error correction** The actual position can be loaded only if the tilted working plane function is not active.
201-0AFE	**Error message** Context change only on initiat.! **Cause of error** You tried to make a major change to the format of an NC block. **Error correction** Changing the NC block format is possible only if you place the cursor on the block initiator.
201-0B31	**Error message** CANCELLATION in block %u (%u %%) **Cause of error** You have aborted the search process. **Error correction** If required, restart the search function and let it terminate the search process.

Error number	Description
201-0B67	**Error message** Line %u label name already assigned **Cause of error** You tried to assign the same label name in more than one NC block containing LBL SET. **Error correction** Use different label names.
201-0B88	**Error message** No editing while PGM is running **Cause of error** - You tried to edit a program that is now being run. - You tried to edit a table that is accessed from within the program that is now being run. **Error correction** - Make changes only in the stopped condition. - Stop the program (internal stop) and reselect it with the PGM MGT key. Then edit the AFC settings.
201-0C02	**Error message** File system I/O error **Cause of error** Error during access to a file system device. **Error correction** - For TNC drives, switch the control off and on to test the drives. Contact HEIDENHAIN if the problem recurs. - For network drives, check the network connection and the computer providing the directory. - To download a table, ensure correct table contents (for redundant lines, for example).
201-F388	**Error message** Line N%u label name already assigned **Cause of error** You tried to assign the same label name in more than one NC block containing LBL SET. **Error correction** Use different label names.
210-0001	**Error message** End of a system file, no identifier found **Cause of error** An identifier was expected in a message file, but the file end was reached. **Error correction** Inform your service agency.

Error number	Description
210-0002	**Error message** Identifier in system file expected **Cause of error** An identifier was expected in a message file, but a nonalphanumeric character was read. **Error correction** Inform your service agency.
210-0003	**Error message** End of a system file, no string found **Cause of error** A string was expected in a message file, but the file end was reached. **Error correction** Inform your service agency.
210-0004	**Error message** String in system file expected **Cause of error** A string beginning with " was expected in a message file, but another character was read. **Error correction** Inform your service agency.
210-0005	**Error message** Incompatible data types in system file **Cause of error** In a message file data were read that do not fit the data object to be read. **Error correction** Inform your service agency.
210-0006	**Error message** Unknown entity name in system file Message library incompatible or no entity instance implemented **Cause of error** An undefined message was read in a message file. **Error correction** Inform your service agency.
210-0007	**Error message** Identifier already assigned in system file **Cause of error** **Error correction**

Error number	Description
210-0008	**Error message** Integral value expected in system file **Cause of error** An integer was expected in a message file. **Error correction** Inform your service agency.
210-0009	**Error message** Floating point number expected in system file **Cause of error** A floating-point number was expected in a message file. **Error correction** Inform your service agency.
210-000A	**Error message** Invalid logical value in system file **Cause of error** A message file should contain a logical value (TRUE or FALSE, or a Q parameter with numerical value 0 or 1). **Error correction** Inform your service agency
210-000B	**Error message** Invalid list number in system file **Cause of error** A whole number was expected in a message file, but an undefined string or a Q parameter with invalid numerical value was read. **Error correction** Inform your service agency.
210-000C	**Error message** "(" expected in system file **Cause of error** A opening parenthesis "(" was expected in a message file. **Error correction** Inform your service agency.
210-000D	**Error message** Unexpected end of system file **Cause of error** More characters were expected in a message file, but the file end was reached. **Error correction** Inform your service agency.

Error number	Description
210-000E	**Error message** Unknown attribute name in system file **Cause of error** In a message file an unknown message attribute was read. **Error correction** Inform your service agency.
210-000F	**Error message** Attribute already assigned in system file **Cause of error** In a message file a message attribute was read more than once. **Error correction** Inform your service agency.
210-0010	**Error message** ":=" expected in system file **Cause of error** A colon and equal sign ":=" were expected in a message file. **Error correction** Inform your service agency.
210-0011	**Error message** ")" or "," expected in system file **Cause of error** A closing parenthesis ")" or a comma "," was expected in a message file. **Error correction** Inform your service agency.
210-0012	**Error message** "[" expected in system file **Cause of error** An opening square bracket "[" was expected in a message file. **Error correction** Inform your service agency.
210-0013	**Error message** End of a system file while reading a list **Cause of error** **Error correction**

Error number	Description
210-0014	**Error message** End of a system file while reading an array **Cause of error** In a message file the file end was reached while an array was being read. **Error correction** Inform your service agency.
210-0015	**Error message** "]" or "," expected in system file **Cause of error** A closing square bracket "]" or comma "," was expected in a message file. **Error correction** Inform your service agency.
210-0016	**Error message** List in system file too long **Cause of error** A message contains a list with more elements than allowed. **Error correction** Inform your service agency.
210-0017	**Error message** List in system file too short **Cause of error** A message contains a list with fewer elements than allowed. **Error correction** Inform your service agency.
210-0018	**Error message** Incorrect binary data in system file (string) **Cause of error** Error during binary transmission of a string in a message **Error correction** Inform your service agency.
210-0019	**Error message** Incorrect binary data in system file **Cause of error** An error occurred during the binary transfer of a binary number in a message. **Error correction** Inform your service agency

Error number	Description
210-001A	**Error message** Incorrect binary data in system file (list) **Cause of error** Error during binary transmission of a list in a message. **Error correction** Inform your service agency.
210-001B	**Error message** Incorrect binary data in system file (array) **Cause of error** Error during binary transmission of an array in a message. **Error correction** Inform your service agency.
210-001C	**Error message** Incorrect binary data in system file (entity) **Cause of error** Error during binary transmission of a message. **Error correction** Inform your service agency.
210-001D	**Error message** Error in system file **Cause of error** An error occurred during access to an internal list element. **Error correction** Inform your service agency
210-001E	**Error message** Invalid array index in system file **Cause of error** Access with an illegal index to an array. **Error correction** Inform your service agency.
210-001F	**Error message** Invalid Q parameter index in system file **Cause of error** An excessively large Q-parameter index is being used in a message file. **Error correction** Inform your service agency.

Error number	Description
210-0020	**Error message** Invalid binary data in system file **Cause of error** In a message, a binary number was supposed to be read (% followed by a combination of 0 and 1). **Error correction** Inform your service agency
210-0021	**Error message** Invalid attribute name in system file **Cause of error** An undefined attribute name was sought in a message. **Error correction** Inform your service agency.
210-0022	**Error message** No base type defined in system file **Cause of error** Nonavailable information about base types was requested in a message. **Error correction** Inform your service agency.
210-0023	**Error message** Error during access to system file **Cause of error** Basic reading error while reading a message file. **Error correction** Inform your service agency.
210-0024	**Error message** Insufficient memory **Cause of error** The message memory manager has no more memory. **Error correction** Inform your service agency.
210-0025	**Error message** System error: Insufficient memory **Cause of error** The message memory management is not receiving required resources from the system. **Error correction** Inform your service agency.

Error number	Description
210-0026	**Error message** System error: File mapping **Cause of error** The message memory management could not create global buffers. **Error correction** Inform your service agency.
210-0027	**Error message** Requested memory block too large **Cause of error** An excessively large globel message buffer was requested. **Error correction** Inform your service agency.
210-0028	**Error message** Invalid memory block returned **Cause of error** An invalid buffer was returned to the message memory management. **Error correction** Inform your service agency.
210-0029	**Error message** Memory block already returned **Cause of error** A buffer was returned repeatedly to the message memory management. **Error correction** Inform your service agency.
210-002A	**Error message** Missing type information in system file **Cause of error** The given message type is unknown. **Error correction** Inform your service agency.
210-002B	**Error message** Invalid attribute index in system file **Cause of error** Information was requested on a nonexistent message attribute. **Error correction** Inform your service agency.

Error number	Description
210-002C	**Error message** Invalid supertype index in system file **Cause of error** Information was requested on a nonexistent message supertype. **Error correction** Inform your service agency.
210-002D	**Error message** Invalid function call in system file **Cause of error** A function was called that is not allowed for Q messages. **Error correction** Inform your service agency.
210-002E	**Error message** Invalid Q message data in system file **Cause of error** Error in a message file while reading a Q message. **Error correction** Inform your service agency.
210-002F	**Error message** Invalid Q string **Cause of error** An excessively long string was assigned to a Q-String. **Error correction** Inform your service agency.
220-0001	**Error message** Undefined error **Cause of error** Internal software error **Error correction** - Inform your service agency - Check the software version
220-0002	**Error message** Internal software error **Cause of error** System error. The given message contains an attribute with illegal value. **Error correction** Inform your service agency.

Error number	Description
220-0003	**Error message** Internal software error **Cause of error** Attempt to read the same measuring position more than once with the same identifier. **Error correction** Inform your service agency.
220-0004	**Error message** Internal software error **Cause of error** System error **Error correction** Inform your service agency.
220-0005	**Error message** Internal software error **Cause of error** System error **Error correction** Inform your service agency.
220-0008	**Error message** Internal software error **Cause of error** System error **Error correction** Inform your service agency.
220-000A	**Error message** Start was not executed **Cause of error** Start of an application that cannot be run together with another. There are unacknowledged errors in the error window. **Error correction** First end the application. Delete the error message.
220-000B	**Error message** Internal software error **Cause of error** System error **Error correction** Inform your service agency.

Error number	Description
220-000C	**Error message** Message will not be handled in its present state **Cause of error** Message will not be handled in its present state. **Error correction** None
220-000E	**Error message** Error in module configuration **Cause of error** The object requested by the configuration server could not be found. **Error correction** Edit the configuration data. Inform your service agency.
220-000F	**Error message** Error in TOOL DEF or TOOL CALL cycle **Cause of error** The TOOL DEF message was followed by an incorrect TOOL CALL message. **Error correction** Inform your service agency.
220-0010	**Error message** Internal software error **Cause of error** Internal software error **Error correction** Inform your service agency.
220-0011	**Error message** Error occured in startup cycle **Cause of error** Startup cycle interrupted with error. **Error correction** Remove the cause of error and delete the error message. The cycle is restarted.
220-0013	**Error message** Configuration error occured **Cause of error** Channel name must be unambiguous **Error correction** Edit the configuration data.

Error number	Description
220-0014	**Error message** Invalid message %1 **Cause of error** The entered message contains an attribute with invalid value. **Error correction** No further action required
220-0015	**Error message** File access not possible **Cause of error** 1.) Access to the file was denied. 2.) Another application is already writing to the file. 3.) Error in path name. 4.) Data medium full. **Error correction** 1.) Check the access rights to the file and remove any existing write protection. 2.) Close the file in the application that has locked access to the file. 3.) Correct the entered path name. 4.) Delete any unneeded files on the data medium.
220-0016	**Error message** Disk full **Cause of error** Data medium full. **Error correction** Delete any unneeded files on the data medium.
220-0017	**Error message** File close failed **Cause of error** Error while closing the file. **Error correction** Ensure that the file is not being used by another application.
220-0018	**Error message** General internal communication error **Cause of error** An error has occurred in the system-inherent communication. **Error correction** Inform your service agency.

Error number	Description
220-0019	**Error message** ClientQueue (%1) could not be opened **Cause of error** Error in system-inherent communication. No access possible to the specified queue. **Error correction** Inform your service agency.
220-001A	**Error message** Cannot write to queue '%1' **Cause of error** Error in the system-inherent communication. An error occurred while writing data to the specified queue. **Error correction** Inform your service agency.
220-001B	**Error message** Cannot close queue '%1' **Cause of error** Error in the system-inherent communication. The specified queue cannot be closed. **Error correction** Inform your service agency.
220-001C	**Error message** Unknown error **Cause of error** An unknown error occurred during the execution of a program. **Error correction** - Inform your service agency.
220-001D	**Error message** Value too small in %1-%2 **Cause of error** - The entered value is below the minimum limit value. **Error correction** - Change the value. - Check the minimum limit value.

Error number	Description
220-001E	**Error message** Value too large in %1-%2 **Cause of error** - The entered value is above the maximum limit value. **Error correction** - Change the value. - Check the maximum limit value.
220-001F	**Error message** Value in %1 out of range **Cause of error** - The entered value is outside of the permitted value range. **Error correction** - Change the value. - Check the limit values.
220-0020	**Error message** System error in the channel object **Cause of error** System error in the channel object **Error correction** - Inform your service agency.
220-0021	**Error message** Invalid FN14 function **Cause of error** - Stop error not allowed within an internal cycle - Stop error not alllowed after start via soft key **Error correction** Edit the cycle or inform your service agency or machine tool builder.
220-0022	**Error message** System error in program run: Control might be inconsistent **Cause of error** An error occurred in an internal cycle. The internal data of the control might therefore be inconsistent. **Error correction** - Shut down the control as soon as possible and restart it. Until then procede with increased caution. - Inform your service agency.

Error number	Description
220-0023	**Error message** Format file defective **Cause of error** The outputs with FN16: F-PRINT (ISO: D16) have reached the maximum size. **Error correction** Change the format file. If necessary, output each text individually, concluding with M_CLOSE.
220-0024	**Error message** Function not available **Cause of error** During a block scan on a control without a history, an attempt was made to implement a PLC strobe with a macro. The function cannot be run on this control. **Error correction** - Change the machine configuration - Inform your service agency
220-0025	**Error message** Contradictory data during PLC strobe implementation **Cause of error** The data in a message are contradictory (implementation of a PLC strobe with a macro). **Error correction** - Inform your service agency
220-0026	**Error message** Mid-program startup: Simulated TOOL CALL missing **Cause of error** - You executed a block scan that makes a TOOL CALL. However, in the config object CfgSimPosition, the required axis positions after the tool change were not specified. **Error correction** - Adapt the machine configuration. Assign appropriate values to the config object CfgSimPosition. - Inform your machine tool builder.
220-0027	**Error message** Contradictory data in calculation of the position to be attained **Cause of error** When returning to the contour (mid-program startup), the control found contradictory data when calculating the position to be moved to. **Error correction** - Inform your service agency.

Error number	Description
220-0028	**Error message** OK **Cause of error** **Error correction**
220-0029	**Error message** NC program **Cause of error** **Error correction**
220-002A	**Error message** NC program changed! **Cause of error** **Error correction**
220-002B	**Error message** External tool **Cause of error** **Error correction**
220-002C	**Error message** Remaining tool life too short **Cause of error** **Error correction**
220-002D	**Error message** Tool life exceeded **Cause of error** **Error correction**
220-002E	**Error message** Radius difference exists **Cause of error** **Error correction**
220-002F	**Error message** Radius R2 greater than radius R **Cause of error** **Error correction**

Error number	Description
220-0030	**Error message** Tool not defined **Cause of error** **Error correction**
220-0031	**Error message** No fitting tool available **Cause of error** **Error correction**
220-0032	**Error message** Tool locked **Cause of error** **Error correction**
220-0033	**Error message** Warning: Tool usage file was not generated with %s! **Cause of error** **Error correction**
220-0034	**Error message** The current kinematic configuration uses a deactivated axis! **Cause of error** In the current kinematic configuration, an axis is used that is deactivated at present. When an NC program is started or after a PLC strobe is executed, the control checks whether all axes of the active kinematic configuration are also active. Axis movements are no longer allowed. **Error correction** - Activate the deactivated axis, check the machine configuration and correct it if required. - Activate another machine kinematic configuration through the NC program. - Edit the machine configuration or activate another machine kinematic configuration.

Error number	Description
220-0035	**Error message** Not all axes in necessary nominal position **Cause of error** You tried to resume the program after returning to the contour, after an NC stop, or after a mid-program startup although not all axes are on the nominal position. The nominal position after an NC stop is the stop position. The nominal position after a mid-program startup is the calculated restore position. **Error correction** - Check the configuration, CfgChannelAxes/restoreAxis - Inform your machine tool builder.
220-0036	**Error message** Incorrect operating mode for internal cycle **Cause of error** An internal cycle is running in another operating mode than intended. Therefore the internal data of the control are possibly inconsistent. **Error correction** - Shut down the control and restart. - Inform your service agency.
220-0037	**Error message** Cancel during switch between turning op. and milling operation **Cause of error** A cancelation occurred during switchover between turning and milling operation. **Error correction** Run FUNCTION MODE MILL or FUNCTION MODE TURN again for consistency.
220-0038	**Error message** Machine not initialized **Cause of error** - After the machine traversed the reference points, you tried to select a program run mode although the machine was not yet completely initialized. - You canceled the initialization process. **Error correction** - Close all open protective doors. - Unlock all emergency stop buttons. Then press the INIT MACHINE soft key (2nd soft-key row).

Error number	Description
220-0039	**Error message** Data reset due to reconfiguration of the kinematics **Cause of error** Data were set during a reconfiguration of the kinematics that are independent from the kinematics. Press the "INTERNAL INFO" soft key for more information. **Error correction** - Delete the error and do an NC start if the reset is OK. - Cancel if difficulties are expected in program continuation due to the reset.
220-003A	**Error message** Data record already locked **Cause of error** An attempt was made to update the tool life in an locked tool data record. **Error correction** Cancel the lock on the data record (e.g. exit the input with the "EDIT OFF/ON" soft key), otherwise it can result in data loss at program end when the tool life updated.
220-003B	**Error message** Cannot end the cancel system cycle %1 **Cause of error** Could not complete the cancel system cycle, perhaps because a PLC strobe was not acknowledged. **Error correction** - Shut down and restart the control (shutdown via error window, MORE FUNCTIONS soft key) - Inform your machine tool builder. He should take the following measures: - Correct the error in the cancel cycle or in the OEM cancel macro - Correct the error in the PLC program
220-003C	**Error message** Faulty configuration **Cause of error** Entry appears twice in the list **Error correction** Check the configuration data and edit them if necessary

Error number	Description
220-003D	**Error message** Tool usage time could not be calculated **Cause of error** - An error occurred in finding the application times of the tools. - Tool usage file is not available or not up to date. **Error correction** - Ensure that the tool usage test has been activated by the configuration. - Usage file for NC program: simulate the program in the Test Run operating mode. The TNC then automatically creates the tool usage file. - Usage file for pallet file: simulate the marked program in the Test Run operating mode. The TNC then automatically creates the tool usage file for each simulated program.
220-003F	**Error message** Program cannot be continued. Selection with GOTO necessary. **Cause of error** You have called for the program simulation to continue within an NC block. Changed conditions must be applied in order to continue. These can be, for example, a new position for a stop, a changed Q parameter, or a changed condition for the activation of skipped blocks. **Error correction** Starting with RESET+START is possible, as is START after GOTO. As an alternative, perform the stated changes only at a stop at the beginning of an NC block.
220-0040	**Error message** File path %1 missing in CfgConfigDataFiles or in CfgJhConfigDataFiles %2 has no effect **Cause of error** A file path is missing in the configuration data. See the error text for more information. **Error correction** Enter the missing path in CfgConfigDataFiles or in CfgJhConfigDataFiles

Error number	Description
220-0041	**Error message** Programmed variable cannot be applied **Cause of error** You tried to edit a variable (e.g. a Q parameter) even though this is not possible in the current state. For example, variables of an NC program cannot be edited while the program is running (not stopped). **Error correction** Try again under appropriate conditions.
220-0042	**Error message** Warnings are being suppressed **Cause of error** The current program run is generating many warnings. The number of warnings of the same type is limited. Further warnings of this type will be suppressed. **Error correction** Correct the NC program
221-0004	**Error message** Error in the kinematic configuration: %1 **Cause of error** List attribute not initialized **Error correction** - Change the kinematic configuration. - Inform your service agency.
221-0005	**Error message** Error in module configuration **Cause of error** The object requested by the configuration server could not be found. **Error correction** - Edit the configuration data - Inform your service agency
221-0007	**Error message** Configuration error occured **Cause of error** General error message that shows that at least one configuration error has occurred. **Error correction** - Correct the displayed configuration error - If no more configuration errors occur, the message is automatically deleted.

Error number	Description
221-0008	**Error message** Error in module configuration: %1 **Cause of error** - The individual object received by the configuration server is incorrect. **Error correction** - Change the kinematic configuration. - Inform your service agency.
221-0009	**Error message** Error in module configuration: %1 **Cause of error** - The view object received by the configuration server is incorrect. **Error correction** - Change the kinematic configuration. - Inform your service agency.
221-000A	**Error message** Error in module configuration: %1 **Cause of error** Inconsistent configuration data **Error correction** - Edit the configuration data. - Inform your service agency.
221-000B	**Error message** General system error in the geometry chain **Cause of error** Contradictory data **Error correction** Inform your service agency.
221-000C	**Error message** Incorrect condition in switch statement **Cause of error** System error during reconfiguration **Error correction** - Edit the kinematic configuration. - Inform your service agency.

Error number	Description
221-000D	**Error message** Error in module configuration: %1 **Cause of error** Uninitialized list in configuration object **Error correction** - Change the kinematic configuration. - Inform your service agency.
221-000E	**Error message** Error in module configuration: %1 **Cause of error** List size of an attributre in configuration object is too small. **Error correction** - Change the kinematic configuration. - Inform your service agency.
221-000F	**Error message** Kinematics configuration faulty %1 **Cause of error** Incorrect axis key in key list **Error correction** - Change the kinematic configuration. - Inform your service agency.
221-0010	**Error message** Kinematics configuration faulty **Cause of error** Error in the kinematic configuration **Error correction** - Change the kinematic configuration. - Inform your service agency.
221-0011	**Error message** Kinematics configuration faulty **Cause of error** Error in the kinematic configuration **Error correction** - Change the kinematic configuration. - Inform your service agency.

Error number	Description
221-0012	**Error message** Kinematics configuration faulty **Cause of error** Error in the kinematic configuration **Error correction** - Edit the kinematic configuration. - Inform your service agency.
221-0013	**Error message** Kinematics configuration faulty **Cause of error** Error in the kinematic configuration **Error correction** - Change the kinematic configuration. - Inform your service agency.
221-0014	**Error message** Kinematics configuration faulty %1 **Cause of error** Missing attribute **Error correction** - Change the kinematic configuration. - Inform your service agency.
221-0015	**Error message** Kinematics configuration faulty %1 **Cause of error** Attribute with incorrect value **Error correction** - Change the kinematic configuration. - Inform your service agency.
221-0016	**Error message** Kinematics configuration faulty %1 **Cause of error** Inconsistency in number of axes **Error correction** - Change the kinematic configuration. - Inform your service agency.

Error number	Description
221-0017	**Error message** Kinematics configuration faulty %1 **Cause of error** Inconsistent key lists in the kinematic model **Error correction** - Change the kinematic configuration. - Inform your service agency.
221-0018	**Error message** Kinematics configuration faulty %1 **Cause of error** Keys in key list already defined **Error correction** - Change the kinematic configuration. - Inform your service agency.
221-0019	**Error message** Kinematics configuration faulty %1 **Cause of error** Same key in the key lists for coordinate transformation through directions and coordinate transformation through angle. **Error correction** - Change the kinematic configuration. - Inform your service agency.
221-001A	**Error message** Kinematics configuration faulty %1 **Cause of error** Incorrect index for key list **Error correction** - Change the kinematic configuration. - Inform you service agency.
221-001B	**Error message** Kinematics configuration faulty %1 **Cause of error** Incorrect number of coordinate transformations **Error correction** - Change the kinematic configuration. - Inform your service agency.

Error number	Description
221-001C	**Error message** Kinematics configuration faulty %1 **Cause of error** Missing coordinate transformation matrix **Error correction** - Change the kinematic configuration. - Inform your service agency.
221-001D	**Error message** Kinematics configuration faulty %1 **Cause of error** Key missing in two key lists, although it should be in one of them **Error correction** - Change the kinematic configuration. - Inform your service agency.
221-001E	**Error message** Error in the kinematic configuration Function not yet implemented: %1 **Cause of error** Attempt to use a nonimplemented function **Error correction** - Edit the NC program.
221-001F	**Error message** Kinematics configuration faulty %1 **Cause of error** Coordinate system defined in two different ways **Error correction** - Change the kinematic configuration. - Inform your service agency.
221-0020	**Error message** Kinematics configuration faulty %1 **Cause of error** - Missing coordinate system definition by angle - Usually caused by an incorrect key in a coordinate transformation defined by directions **Error correction** - Change the kinematic configuration. - Inform your service agency.

Error number	Description
221-0021	**Error message** Kinematics configuration faulty %1 **Cause of error** Incorrect key in key list **Error correction** - Change the kinematic configuration. - Inform your service agency.
221-0022	**Error message** System error during reconfiguration of geometry chain: %1 **Cause of error** System error during reconfiguration **Error correction** - Inform your service agency.
221-0023	**Error message** Incorrect path parameters for look-ahead: %1 **Cause of error** Incorrect path parameter for look-ahead **Error correction** - Edit the configuration.
221-0024	**Error message** No acceleration was defined **Cause of error** No axis acceleration set **Error correction** Edit the configuration.
221-0025	**Error message** Invalid max. feed override **Cause of error** Invalid maximum feed rate override **Error correction** Edit the configuration

Error number	Description
221-0026	**Error message** Error in the general parameter configuration: %1 **Cause of error** Error in the general parameter configuration. **Error correction** - Edit/complete the parameter configuration. - Inform your service agency.
221-0027	**Error message** Kinematics configuration faulty %1 **Cause of error** A programmable axis with special properties was configured. This programmable axis was not assigned to any physical. **Error correction** – Check the axis configuration and edit/add to it if required. - Inform your service agency
221-0028	**Error message** Bad attribute info of %1 **Cause of error** Attribute information invalid or illegible **Error correction** Inform your service agency.
221-0029	**Error message** Value too small in %1-%2 **Cause of error** Programmed or configured value too small. **Error correction** - Edit the configuration. - Edit the program.
221-002A	**Error message** Value too large in %1-%2 **Cause of error** Programmed or configured value too large. **Error correction** - Edit the configuration. - Edit the program.

Error number	Description
221-002B	**Error message** No SQL column description for column %1 in table %2 **Cause of error** The SQL server does not provide a column description for the given SQL table column. It could be that the corresponding table does not exist, is incorrect in syntax, or for some other reason cannot be opened from the SQL server. Or the table has no column with the given name. **Error correction** Ensure that the corresponding table exists and that it has the matching column. Then restart the control. The interpreter needs column descriptions - For all table columns for which you have configured bonds (over CfgSqlProperties, CfgTableBinding and CfgColumn-Binding). - For all columns of some fundamental SQL tables, that are indispensable for the correct function of the system (e.g. tool table).
221-002C	**Error message** SQL column description for column %1 in table %2 inconsistent with bond **Cause of error** The column description for the specified SQL table column provided by the SQL server does not have the correct format for the bond that you have configured for this column, or the table column has a format the interpreter does not recog-nize. **Error correction** Ensure that the column description is correct.
221-002D	**Error message** CfgTableBinding with key %1 inconsistent **Cause of error** In a CfgTableBinding you listed a key for a CfgColumnBind-ing that does not exist. **Error correction** Add the missing CfgColumnBinding or delete the entry from CfgTableBinding.

Error number	Description
221-002E	**Error message** Faulty SQL column bond for column %1 **Cause of error** A faulty bond is configured for the specified column (CfgColumnBinding). **Error correction** Correct CfgColumnBinding: You can configure bonds on Q parameters (ID=0, NR0 bis 999) and bonds on the system data managed in the interpreter.
221-002F	**Error message** Inconsistent configuration for implicit SQL access in the interpreter **Cause of error** The configuration data that determine how the interpreter implicitly accesses SQL tables are inconsistent. (These configuration data are accessible only to the control manufacturer) **Error correction** Correct the configuration data: - The tables (id50Table etc.) given in CfgChannelSysData for the corresponding channel must exist. - An entity CfgSysDataTable with the corresponding key must exist for the columns (id50Columns etc.). - For every entry in the Attribute column of the entity CfgSys-DataTable, an entity CfgSysDataColumn with the corre-sponding key must exist.
221-0030	**Error message** Unknown error **Cause of error** An unknown error occurred during the execution of a program. **Error correction** - Inform your service agency.
221-0031	**Error message** Machine base not specified **Cause of error** The kinematics contain a plane (CfgCMOPlane) and rotary axes. The position of the machine base must be entered in this kinematic configuration. **Error correction** Specify the position of the machine base (in CfgKinAnchor). Use only planes between the machine base and the first rotary axis at the tool. Use only planes between the machine base and the first rotary axis at the machine table.

Error number	Description
221-0032	**Error message** Kinematics configuration faulty **Cause of error** Physical axis cannot be assigned to any programmable axis **Error correction** - Change the configuration (CfgProgAxis, CfgAxis) - Inform your service agency
221-0033	**Error message** Model not loaded "%1": CMOMesh3D "%2" **Cause of error** The M3D-file %1 could not be opened. **Error correction** Check the path to the file in the machine configuration and correct it if necessary.
221-0034	**Error message** Model not loaded "%1": CMOMesh3D "%2" **Cause of error** Error during read-in of the M3D file. The file is corrupted or not a valid M3D file. **Error correction** - Check the file path and correct it if required. - Re-install the file
221-0035	**Error message** STL model does not fulfill the quality requirements **Cause of error** STL model %1 does not fulfill the quality requirements. **Error correction** Use an STL model that fulfills the quality requirements. The following requirements are placed on STL models: - All size values in mm - No gaps between triangles ("waterproof") - No overlapping - No degenerated triangles Refer to the additional information in the Technical Manual.

Error number	Description
221-0036	**Error message** Kinematic temperature compensation incorrectly configured **Cause of error** Parameters in the machine configuration were entered incorrectly: Within the config object CfgKinSimpleTrans, both machine parameters realtimeComp and temperatureComp are set. This is not allowed. Only one of the two parameters can be set. **Error correction** Correct the machine configuration: Delete either the parameter realtimeComp or temperatureComp.
221-0037	**Error message** Model not loaded "%1": CMOMesh3D "%2" **Cause of error** Error while loading the M3D file. The file contains too many triangles. **Error correction** Model the collision objects with fewer triangles. Refer to the additional information in the Technical Manual.
221-006F	**Error message** Faulty kinematics configuration Active kinematics %1 contains an invalid insertion point. **Cause of error** The given kinematic model contains at least one invalid insertion point for a tool-carrier kinematic model (entry under CfgKinToolSocket) **Error correction** Ensure that the kinematic model contains no more than one object of the CfgKinToolSocket type. Ensure that no objects of the CfgKinSimpleAxis or CfgKinAnchor types are located between the tool (i.e. the upper end of the kinematic chain) and the insertion point for the tool carrier.
221-0071	**Error message** No facing slide axis available in the kinematic model **Cause of error** The kinematics do not include a facing slide axis. **Error correction** - Change the kinematic configuration - Inform your service agency

Error number	Description
221-0072	**Error message** Spindle or facing slide in faulty in the kinematic model **Cause of error** The spindle is not correctly configured in the kinematics: - In the kinematics configuration, the spindle is not located directly next to the facing slide - The kinematics do not include spindle **Error correction** - Inform your service agency - Adapt the kinematic configuration
221-0073	**Error message** Datum of facing slide axis is incorrect **Cause of error** The datum of the facing slide is not on the spindle axis. **Error correction** - Check the kinematic configuration and adapt it if necessary. - Inform your service agency.
221-0074	**Error message** Faulty kinematics configuration **Cause of error** Active kinematics contains an invalid insertion point for a fixture (entry under CfgKinFixSocket). The invalid entry is shown in the additional information of the error message. **Error correction** Ensure that the kinematic model contains no more than one object of the CfgKinFixSocket type. Ensure that no objects of the type CfgKinSimpleAxis or CfgKinAnchor are located between the machine table (i.e. the bottom end of the kinematics chain) and the insertion point for the fixture.
221-0075	**Error message** Faulty kinematics configuration **Cause of error** Active kinematics contains an invalid insertion point for a tool-carrier kinematic model (entry under CfgKinToolSocket). The invalid entry is shown in the additional information of the error message. **Error correction** Ensure that the kinematic model contains no more than one object of the CfgKinToolSocket type. Ensure that no objects of the type CfgKinSimpleAxis or CfgKinAnchor are located between the tool (i.e. the top end of the kinematics chain) and the insertion point for the tool carrier.

Error number	Description
225-0001	**Error message** System error while converting an NC program **Cause of error** Internal software error **Error correction** Inform your service agency
225-0002	**Error message** Could not generate output file **Cause of error** Can't generate the output file for the converted NC program. **Error correction** Ensure that a valid target file was selected.
225-0003	**Error message** Conversion not possible **Cause of error** The NC program contains functions for which there is no conversion. **Error correction** Edit the NC program.
225-0004	**Error message** Keine Daten zum Erzeugen von TOOL DEF-Anweisungen **Cause of error** Sie haben eingestellt, dass während der Konvertierung TOOL DEF-Anweisungen erzeugt werden sollen. Allerdings ist dies nicht möglich: Es sind keine oder veraltete Informationen über die TOOL CALL-Anweisungen in diesem NC-Programm vorhanden. **Error correction** - Werkzeug-Einsatzdatei für gewähltes NC-Programm erstellen
225-0005	**Error message** Klartext-Konverter: Fehler beim Erzeugen von TOOL DEF **Cause of error** Sie haben eingestellt, dass während der Konvertierung TOOL DEF Anweisungen erzeugen werden sollen. Es ist ein Fehler bei der Zuordnung von Werkzeugeinsatz-Informationen aufgetreten. Dadurch konnten vermutlich TOOL DEF-Anweisungen nur unvollständig erzeugt werden. **Error correction** - Konvertierung erneut starten

Error number	Description
230-0001	**Error message** Parameter set %2 of axis %3 does not exist **Cause of error** An undefined axis parameter block was selected. **Error correction** In the configuration data, create an additional parameter block for this axis, or select another parameter block for this axis.
230-0002	**Error message** Logical axis number %2 too large **Cause of error** The control supports a certain maximum number of axes. Here more axes were configured that permitted. **Error correction** Configure fewer axes.
230-0003	**Error message** Too many analog axes configured (more than 2) **Cause of error** The control supports a certain maximum number of analog axes. Here more axes were configured than allowed. **Error correction** Configure fewer analog axes.
230-0004	**Error message** More axes are activated than are enabled in the SIK **Cause of error** The axis options in the SIK specify how many axes can be active at the same time. You have activated more axes over the machine configuration or the PLC program than are allowed as axis options in the SIK. You can delete this error message. If the configured axis number is still too large after the drives are switched on again, the error message will reappear. **Error correction** - Check the machine configuration and PLC program. - If you need more axes, you can get a code number from HEIDENHAIN to enable them.

Error number	Description
230-0005	**Error message** External EMERGENCY STOP **Cause of error** - The PLC input for the control-is-ready signal is inactive - The EMERGENCY STOP circuit was interrupted manually or by the control. **Error correction** - Enable the EMERGENCY STOP button, switch on the control voltage, and acknowledge the error message. - Check the EMERGENCY-STOP circuit. (EMERGENCY STOP button, axis limit switches, wiring, etc.)
230-0006	**Error message** Check the parameter for the direction of spindle rotation (2)! **Cause of error** A change in the evaluation of the parameter signCorrNominalVal automatically changed the value of the parameter signCorrActualVal. **Error correction** Please check whether the spindle turns with M3 and M19 in the correct direction. If required, use parameter CfgAxisHardware/signCorrNominalVal or CfgAxisHardware/signCorrActualVal to define the direction of rotation correctly according to the data in the Technical Manual.
230-0007	**Error message** Channel number %2 too large **Cause of error** The control supports a certain maximum number of channels. Here more channels were configured than allowed. **Error correction** Configure fewer channels.
230-0008	**Error message** No reaction from CC **Cause of error** The speed and current controller was switched off due to an error. **Error correction** Check the axis cabling.

Error number	Description
230-0009	**Error message** IPO exceeds cycle time **Cause of error** The control loop exceeds the maximum permissible cycle time. **Error correction** Increase the maximum permissible cycle time in the System/MachineHardware/ipoCycle parameter.
230-000A	**Error message** Axis %2 is switched inactive **Cause of error** Command to an axis configured as inactive. **Error correction** In the parameter "Axes/PhysicalAxes/????/axisMode," switch the axis to "active." "????" designates the current axis name.
230-000B	**Error message** This is not the export version of the software **Cause of error** This is not the export version of the software. **Error correction** Inform your service agency.
230-000C	**Error message** Parameter %2 is not loaded until the control has been restarted **Cause of error** A parameter cannot be loaded for this axis without a RESET of the control. **Error correction** Restart the control.
230-000D	**Error message** Ipo-Trace started **Cause of error** IPO trace started (info) **Error correction**
230-000E	**Error message** Ipo-Trace stopped **Cause of error** IPO trace stopped (info) **Error correction**

Error number	Description
230-000F	**Error message** Drive switched off illegally %2 **Cause of error** The drive was switched off without a command from the PLC. **Error correction**
230-0010	**Error message** IPO is running in simulation mode **Cause of error** IPO is running in simulation mode (info) **Error correction**
230-0011	**Error message** This software version has not been enabled **Cause of error** Wrong software installed **Error correction** Inform your service agency
230-0012	**Error message** Only %1 KB of free memory remaining in SYS partition **Cause of error** The memory capacity of the SYS partition is almost depleted. **Error correction** Inform your service agency
230-0013	**Error message** Only %1 KB of free memory remaining in SYS partition **Cause of error** The memory capacity of the SYS partition is almost depleted. Service information recording was stopped. **Error correction** Inform your service agency
230-0014	**Error message** Parameter selection for axis %2 not allowed in this state **Cause of error** A parameter block switchover was requested in an illegal condition of the NC. **Error correction** Check the PLC program

Error number	Description
230-0015	**Error message** Initialization of counter components (G50) failed **Cause of error** The required configuration data for the counter component (G50) could not be read from the file %SYS%\config \CfgG50Init.cfg. **Error correction** Inform your service agency
230-0016	**Error message** Wrong hardware configuration **Cause of error** There are two SPI modules with various versions. **Error correction** Inform your service agency
230-0017	**Error message** Access to internal periphery failed **Cause of error** A timeout was caused during access to the internal periphery **Error correction** Inform your service agency
230-0018	**Error message** Position or speed control of axis %2 still active **Cause of error** The position, speed and current controllers of axes must be switched off before they can be activated or deactivated. **Error correction** - Check the PLC program
230-0019	**Error message** Changing a parameter requires an NC STOP **Cause of error** During reconfiguration or a parameter set switchover a parameter was changed that requires a previous NC STOP. **Error correction** - Check the PLC program

Error number	Description
230-001A	**Error message** A parameter change requires the drive to be switched off (axis %2) **Cause of error** During reconfiguration or a parameter set switchover a parameter was changed that requires that the drive be switched off beforehand. **Error correction** - Check the PLC program
230-001B	**Error message** For a parameter change the drive has to be deactivated (axis %2) **Cause of error** During reconfiguration or a parameter set switchover a parameter was changed that requires that the drive be deactivated beforehand. Note: The changed parameter or parameter set was not accepted. **Error correction** - Check the PLC program
230-001C	**Error message** Interrupt cycle greater than 3 ms **Cause of error** The cycle time of the controller interrupt exceeds the maximum permissible tolerance of 3 ms. The cause could be a hardware defect of the computer unit MC. **Error correction** - Inform your service agency
230-001D	**Error message** Control loop of axis %2 was opened **Cause of error** The position control loop was opened in order to optimize the axis (e.g. with TNCopt). **Error correction**
230-001E	**Error message** Timeout in the initial servicing of axis %2 **Cause of error** Possible cause: There is no connection to the PC initial-servicing software TNCopt. **Error correction** - Check the connection to TNCopt. (Is the network cable plugged in? Are the interface settings correct?) - Restart TNCopt

Error number	Description
230-001F	**Error message** Max. traverse range limits of axis %2 exceeded **Cause of error** When the control loop was open the traverse range limits given by TNCopt were exceeded. **Error correction** Inform your service agency
230-0020	**Error message** Failed to send internal message **Cause of error** Error in the internal system communication **Error correction** Inform your service agency
230-0021	**Error message** Axis %2 cannot be activated **Cause of error** The value configured under CfgAxis/axisHw prohibits this activation command. **Error correction** Check the configuration
230-0022	**Error message** One or more axes of the channel (%2) are deactivated **Cause of error** You have selected a machine kinematic configuration that contains deactivated axes. During NC start the control checks whether all axes of the selected kinematic configuration are also active. **Error correction** - Check the machine configuration and PLC program. - Activate deactivated axes. - Select a machine kinematic configuration that has no deactivated axes.
230-0023	**Error message** Change of the activation status of axis %2 not allowed **Cause of error** A change was requested of the activation status of an axis (activate/deactivate) in an illegal status of the NC. **Error correction** - Check the PLC program and correct if necessary.

Error number	Description
230-0024	**Error message** SPI analog module on CC%2 not recognized **Cause of error** An analog axis was configured on a CC, but no SPI analog module was detected there. **Error correction** Check the configuration. If necessary, inform your service agency.
230-0025	**Error message** Position of axis %2 stored **Cause of error** The position of this axis is to be saved (frozen) while the control loop is closed or the control loop of this axis was to be closed while the position was saved. **Error correction** Check the PLC program. If necessary, inform your service agency.
230-0026	**Error message** An HSCI participant has triggered the SS2/STOP2 stop reaction **Cause of error** - The self-test of the control could not be completed - A device reports a temperature problem - The fan of a device is defective **Error correction** - Note further messages - Use the bus diagnostics (or TNCdiag, if available) to find out which device reports the error (bit REQ.SS2 in the local S status)
230-0027	**Error message** More spindles than permitted are configured **Cause of error** You configured more spindles than allowed for the control. **Error correction** - Check the machine configuration and correct it if required Parameter: System / CfgAxes / spindleIndices
230-0028	**Error message** Internal software error **Cause of error** Internal software error **Error correction** Inform your service agency.

Error number	Description
230-0029	**Error message** IPO cycle time exceeded permissible threshold (%2 us) **Cause of error** The cycle time of the controller interrupt exceeds the default threshold in the internal parameter maxIpoTime. **Error correction** Inform your service agency.
230-002A	**Error message** Difference between ACTL and NOML spindle speed (%2) too high **Cause of error** The difference between the actual and nominal speed exceeds the tolerance. **Error correction** - Check the parameters CfgSpindle/absSpeedTolerance and CfgSpindle/relSpeedTolerance - Check whether the actual and nominal speeds have the same algebraic sign
230-002B	**Error message** Formula entered in distPerMotorTurnF is invalid **Cause of error** In the machine parameter "distPerMotorTurnF" you entered a formula that contains invalid characters. **Error correction** - Check the input value in machine parameter "distPerMotor-TurnF " and correct it
230-002C	**Error message** PLC:/ccfiles file must be deleted **Cause of error** The file PLC:/ccfiles is available, but it is needed as a directo-ry by the NC software for CC files. **Error correction** Delete the PLC:/ccfiles file and then restart the control
230-002D	**Error message** Deactivation of an active touch probe (TS or TT) not allowed **Cause of error** The PLC program tried to deactivate a touch probe activat-ed by the NC, or the NC tried to deactivate a touch probe activated by the PLC. **Error correction** Check the NC program and/or the PLC program

Error number	Description
230-002E	**Error message** Initialization of counter components (G127) failed **Cause of error** Hardware is defective **Error correction** Inform your service agency.
230-002F	**Error message** The control is still in its factory default setting **Cause of error** The parameter CfgMachineSimul/simMode is still set to the value "Delivery". The drives cannot be switched on in this mode. **Error correction** - Set parameter CfgMachineSimul/simMode to the value "FullOperation". First the parameters of the axes must be assigned with realistic values.
230-0030	**Error message** Encoder error in axis %2 **Cause of error** The encoder for this axis reports an error. Possible errors (encoder status): Bit 2 = 1: Position could not be ascertained Bit 3 = 1: CRC error during EnDat 2.2 transmission Bit 4 = 1: No position measurement with EnDat 2.2 Bit 5 = 1: Alarm 1 with EnDat 2.2 Bit 6 = 1: Alarm 2 with EnDat 2.2 Bit 7 = 1: Timeout during EnDat 2.2 transmission **Error correction** Check the connected encoder
230-0031	**Error message** RTC: Axis %2 exceeds the max. permissible velocity **Cause of error** The maximum permissible value was exceeded during the real-time coupling (RTC). **Error correction** Allow a greater share of CfgFeedLimits/maxFeed in CfgRtCoupling/maxFeed, or change the function in CfgRtCoupling/function

Error number	Description
230-0032	**Error message** RTC: Axis %2 exceeds the max. permissible acceleration **Cause of error** The real-time coupling function (RTC) causes a violation of the maximum permissible acceleration. **Error correction** Allow a greater share of CfgFeedLimits/maxAcceleration in CfgRtCoupling/maxAcc, or change the function in CfgRtCoupling/function
230-0033	**Error message** RTC: Axis %2 exceeds the max. permissible end positions **Cause of error** The real-time coupling function (RTC) causes a violation of the maximum permissible working space. **Error correction** Adjust the setting in CfgRtCoupling/function
230-0034	**Error message** RTC: Axis %2 causes a run-time error **Cause of error** The configured function for Real-Time Coupling (RTC) causes a run-time error (e.g. root(-1)). **Error correction** - Check the function in the machine parameter CfgRTCoupling/function and adapt it if required - Inform your service agency
230-0034	**Error message** The formula in limitAccSpeedCtrlF is faulty **Cause of error** In the machine parameter "distPerMotorTurnF", you entered a formula that contains invalid characters. **Error correction** Check the input value in the parameter "distPerMotorTurnF" and correct it
230-0035	**Error message** The formula in limitDecSpeedCtrlF is faulty **Cause of error** In the machine parameter "limitDecSpeedCtrlF", you entered a formula that contains invalid characters. **Error correction** Check the input value in the parameter "limitDecSpeedCtrlF" and correct it

Error number	Description
230-0036	**Error message** Voltage drop on controller unit **Cause of error** The power supplies on a device in the HSCI line are outside of the specified range. The HSCI bus diagnosis indicates which HSCI component triggered the error. Possible devices: - MC main computer - PL inputs/outputs - MB machine operating panel - Other CC in the HSCI line Possible causes: - Insufficient power supply to the devices - Short circuit in the power supply - Short circuit in PL inputs and outputs **Error correction** - Check the supply voltage in the connected devices Check the wiring for possible short circuits (e.g. PLC inputs or outputs). - If required, exchange the defective hardware - Inform your service agency
230-0037	**Error message** Impermissibly large position nominal value in axis %2 **Cause of error** - Internal software error - Faulty nominal value jump detected **Error correction** - Save the service files - Inform your service agency
230-003A	**Error message** Measuring cycle started without a touch probe **Cause of error** - Touch probe cycle started for measurement without inserted touch probe **Error correction** - Check the NC program - Insert the touch probe - Inform your service agency

Error number	Description
230-003B	**Error message** Parameter checking: %2 warnings issued **Cause of error** - Current configuration of the machine has discrepancies **Error correction** - Check the inspection results in PLC:\service\Param-Check.txt - Correct any discrepancies - Inform your service agency
230-003D	**Error message** Two-fold positioning was requested for axis %2 **Cause of error** - Double positioning started for an axis - The axis is to be moved both by the PLC as well as the NC **Error correction** - Check the PLC program and correct it if necessary - Inform your service agency
230-003E	**Error message** Disturbance of handwheel for %2 (handwheel on encoder connection) **Cause of error** The amplitude of the encoder signal is too small or the signal for contamination is active. - Encoder contaminated - Encoder defective - Penetration of humidity - Scanning head misaligned (distance, parallelism, etc.) - Encoder cabling defective - Encoder input defective on the control - Vibration - Interfering signals **Error correction** - Inform your service agency
230-003F	**Error message** Position encoder input reserved by FS (axis %2) **Cause of error** In systems with functional safety, the speed and position encoder inputs are always permanently assigned to a single axis. This means in a single-encoder system (speed encoder only) it is not possible for example to use the vacant position encoder input for another drive or a display axis. **Error correction** - Check the configuration and change it if necessary - Inform your service agency.

Error number	Description
230-0040	**Error message** Position encoder input reserved **Cause of error** In systems with functional safety, the speed and position encoder inputs are always permanently assigned to a single axis. This means in a single-encoder system it is not possible for example to use the vacant position encoder input for another drive or a handwheel. **Error correction** - Check the configuration and change it if necessary - Inform your service agency.
230-0041	**Error message** IPO cycle time has exceeded the permissible threshold (%2 µs) **Cause of error** - Internal error: Cycle time of the controller interrupt is too large. **Error correction** - Make a service file - Inform your service agency
230-0042	**Error message** The touch probe monitor is deactivated for %2 seconds **Cause of error** The probe monitoring has been deactivated by the operator for a certain time **Error correction** Retract the touch probe and/or remove it from the working space
230-0043	**Error message** Error in reference point acquisition in axis %2 **Cause of error** An error occurred during determination of the EnDat switch-on position **Error correction** Inform your service agency
230-0044	**Error message** Error in axis simulation **Cause of error** Incorrect call of the controller unit during the simulation. **Error correction** Inform your service agency.

Error number	Description
230-0045	**Error message** Error in CfgAnalogSync (key = %2) **Cause of error** No function was configured in an element. **Error correction** - Check the configuration and correct it if necessary - Inform your service agency.
230-0046	**Error message** Error in CfgAnalogSync **Cause of error** No free list element was found. **Error correction** - Check the configuration and correct it if necessary - Inform your service agency.
230-0048	**Error message** The axis (%2) cannot be traversed additionally **Cause of error** Due to the active kinematics model, this axis cannot be traversed additionally. Possible causes: - Basic rotation activated - TCPM activated - Machine with oblique axis **Error correction** Deactivate basic rotation Deactivate TCPM
230-0049	**Error message** Timeout during job acknowledgment **Cause of error** The module that assigned commands to the CC (UVR commands) can't be reached. **Error correction** Inform your service agency
230-004A	**Error message** Could not send message to PLC **Cause of error** An acknowledgment message could not be sent to the PLC. The incoming queue of the PLC is full. **Error correction** Inform your service agency

Error number	Description
230-004D	**Error message** Encoder increments faulty, %2 measured, %3 set **Cause of error** A check revealed a deviation between the set and measured increments per revolution of the position encoder. **Error correction** - Check the configuration data of the position encoder, and correct them if required - Check the position encoder being used
230-0064	**Error message** Axis %2 in channel %3 not yet configured **Cause of error** An axis unknown to the system is to be moved **Error correction** Check the NC program, and if required, configure the axes.
230-0065	**Error message** Grinding function not available **Cause of error** Grinding function was not enabled. **Error correction** Check the NC program. If necesary, configure the grinding axes.
230-0066	**Error message** Internal error in grinding functions **Cause of error** Internal error in the grinding generators for swinging and infeed **Error correction** Inform your service agency
230-0067	**Error message** Grinding command not allowed in this state **Cause of error** Command not permitted in current state of the grinding generators **Error correction** - Check sequence of grinding commands. - Inform your service agency if necessary.

Error number	Description
230-006C	**Error message** Stylus deflected in %2 outside of the probing process **Cause of error** The touch probe was triggered although the measuring procedure had not yet begun. **Error correction** Check the NC program or working space.
230-006D	**Error message** In %2 no axis polynomial available during movement **Cause of error** Timing problem in the coordination of interpolator and LookAhead. **Error correction** Inform your service agency.
230-006E	**Error message** %2 Parameter CfgLiftOff off **Cause of error** In the parameter NcChannel/????/CfgLiftOff/on, the lift-off is switched off with NC stop although it should be activated in the NC program. "????" stands for the current channel name. **Error correction** Check the NC program or activate CfgLiftOff
230-006F	**Error message** %2 Distance CfgLiftOff != Parameter **Cause of error** The lift-off height in the NC program is greater than that entered in the parameter NcChannel/????/CfgLiftOff/distance. "????" stands for the current channel name. **Error correction** Change the lift-off distance in the NC program.
230-0070	**Error message** Too many axes to be interpolated **Cause of error** The maximum allowed number of simultaneously moving axes was exceeded. (In the export version the maximum is 4 axes.) **Error correction** Check the NC program

Error number	Description
230-0071	**Error message** Spindle is not yet referenced **Cause of error** An spindle without reference is supposed to be positioned. **Error correction** - Check the NC program - Home the spindle
230-0072	**Error message** Too many labels in channel %2 during channel synchronization **Cause of error** Too many labels assigned during channel synchronization. **Error correction** - Check the NC program
230-0073	**Error message** Error in synchronization on coordinates in channel %2 **Cause of error** A channel that is supposed to be waited for before starting channel synchronization has already traversed the next synchronization mark; i.e. the synchronization is faulty. **Error correction** - Check the NC program
230-0074	**Error message** Thread with incorrect spindle **Cause of error** You tried to drill/cut threads with a spindle that does not at present belong to this channel. **Error correction** - Check the NC program
230-0075	**Error message** This function is permitted only for modulo axes (axis %2) **Cause of error** An axis was being placed in modulo limits although it was not defined as a modulo axis in the machine configuration. Only a modulo axis can be placed in modulo limits. **Error correction** - Check the NC program - Check the machine parameter CfgAxis/isModulo and correct it if required.

Error number	Description
230-0076	**Error message** No axes-movement allowed in channel %2 **Cause of error** The NC program was not started with the the NC Start key, so no axis movements are allowed. Or, one or more unreferenced axes are to be moved in one cycle. **Error correction** - Check the NC program - Move the axes over the reference marks
230-0077	**Error message** Illegal jump in the path profiles of an axis **Cause of error** The actual position of an axis does not agree with the nominal value calculated from the geometry. **Error correction** - Inform your service agency
230-0078	**Error message** Spindle synchronization is not possible! **Cause of error** The programmed starting length for synchronizing the spindle is insufficient. **Error correction** - Increase the starting length or reduce the spindle speed.
230-0079	**Error message** Spindle not synchronized at beginning/end of the thread! **Cause of error** The programmed starting length/overtravel length for synchronizing and desynchronizing the spindle is insufficient. As a result, the thread at the start/end does not have the programmed pitch! **Error correction** - Increase the starting length/overtravel length, or reduce the spindle speed.

Error number	Description
230-007A	**Error message** One or more axes do not reach the control window in channel %2 **Cause of error** At program start and during an exact stop, all axes must be in the control window.One or more axes of this channel has not fulfilled this condition. **Error correction** Check the configuration data CfgControllerTol/posTolerance and CfgControllerTol/timePosOK. Adapt the configuration data to the conditions of the machine.
230-007B	**Error message** One or more axes in channel %2 will be assigned by the PLC **Cause of error** For NC stop, the PLC must cancel all PLC positioning of this channel's axes. It has up to 10 seconds for this task. This time was exceeded. **Error correction** Check the PLC program
230-007C	**Error message** IPO internal Breakpoint reached **Cause of error** **Error correction**
230-007D	**Error message** Thread cutting canceled with NC stop **Cause of error** The NC stop button was pressed in channel %2 during thread cutting **Error correction** Restart NC program
230-007E	**Error message** Axis %2 in channel %3 has no reference **Cause of error** One axis of the active kinematic configuration has no reference. **Error correction** Reference the axis and restart the NC program.

Error number	Description
230-007F	**Error message** Retraction from thread completed **Cause of error** The retraction from the thread has been concluded. **Error correction** NC program cannot be continued. If required, restart the program.
230-0080	**Error message** Auxiliary axes are not permitted in an NC channel **Cause of error** Free auxiliary axes (e.g. from a UMC 11x), are supposed be adopted in the kinematics of an NC channel. This is not allowed. **Error correction** Check the machine configuration and correct it if required.
230-0081	**Error message** Finding the field angle **Cause of error** **Error correction**
230-0082	**Error message** Touch probe cannot be switched off **Cause of error** The control tried to switch off the touch probe but it did not react within a specified time. **Error correction** - Check the signal. – Check the transmitter/receiver and cleaned it if necessary.
230-0083	**Error message** “MoveAfterRef” is not possible with active protection zone **Cause of error** - A protection zone was defined for a modulo axis. - A configured movement is not possible after the reference run. **Error correction** - Check the axis position - After the reference run, delete the movement in the configuration - Inform your service agency

Error number	Description
230-0084	**Error message** Dual-head evaluation not permitted in the export software (%2) **Cause of error** - The dual-head evaluation function requires an export license. - The parameter MP_posEncoderTwoHead may not be set in the export software. **Error correction** - Check and correct the configuration. - Inform your service agency.
230-00C7	**Error message** Coupling for inactive axes not possible (axis %2) **Cause of error** A coupling for a deactivated axis was supposed to be closed. This is not possible. **Error correction** Check the PLC program or configuration. Inform your service agency.
230-00C8	**Error message** No configuration available for axis %2 **Cause of error** There is no configuration available for the desired axis coupling. **Error correction** A desired coupling (position coupling or torque coupling) for the respective slave axis must be entered under CfgAxisCoupling.
230-00C9	**Error message** Axis %2 is already a master axis **Cause of error** For the desired axis coupling, the slave axis is already a master axis. **Error correction** Couplings can be commanded only for axes that are not the master or slave axis of an already existing coupling.
230-00CA	**Error message** Axis %2 is already a slave axis **Cause of error** For the desired axis coupling, the slave axis is already a slave axis. **Error correction** Couplings can be commanded only for axes that are not the master or slave axis of an already existing coupling.

Error number	Description
230-00CB	**Error message** No coupling active (axis %2) **Cause of error** An attempt was made to open an axis coupling that is already active. **Error correction** Only active couplings can be opened.
230-00CC	**Error message** Coupling is modulo / non-modulo axes not allowed (axis %2) **Cause of error** Differently configured axes were supposed to be coupled. **Error correction** For axis coupling, either both or neither of the axes (master and slave) have to be modulo axes.
230-00CD	**Error message** Opening an axis coupling only allowed for slave axis (axis %2) **Cause of error** An axis coupling was supposed to be opened. The command for opening must be sent to the slave axis. **Error correction** Check the PLC or NC program
230-00CE	**Error message** Maximum position difference exceeded (axis %2) **Cause of error** The position difference configured in parameter CfgAxisCoupling/maxPosDiff was exceeded. **Error correction** Check the machine or parameters.
230-00CF	**Error message** Maximum position difference exceeded (axis %2) **Cause of error** The position difference configured in parameter CfgAxisCoupling/ultimatePosDiff was exceeded. This error is not deletable because it is a mechanical defect. **Error correction** Check the mechanical configuration or parameters.

Error number	Description
230-00D0	**Error message** Slave does not reach coupling position. (axis %2) **Cause of error** During coupling the slave axis crossed over its own software limit switch. **Error correction** Check the position of the axes (master and slave) and the parameters.
230-00D1	**Error message** Option for gantry axes not enabled **Cause of error** A gantry axis (synchronized axes with position coupling) was configured and activated, but the required software option was not yet enabled. **Error correction** - Check the parameter object CfgAxisCoupling - Enable the software option
230-00D2	**Error message** Coupling factor not equal to +1 or -1 is not allowed **Cause of error** For modulo axes, only coupling factors of +1 or -1 are allowed for a gantry coupling. **Error correction** Check the parameter object CfgAxisCoupling or the PLC program
230-00D3	**Error message** Option for spindle synchronism not enabled **Cause of error** A spindle synchronization was commanded, but the required software option was not enabled. **Error correction** Enable the software option
230-00D4	**Error message** During active synchronism, a spindle cannot be used as an axis **Cause of error** During active synchronism, a spindle is to be used as an interpolating axis **Error correction** - Check the NC or PLC program and adapt it if necessary - Inform your service agency

Error number	Description
230-00D5	**Error message** Kinematics axis not possible as slave axis. (axis %2) **Cause of error** An axis that is in the kinematics cannot be used as a slave axis of a gantry system. **Error correction** - Check the axis configuration. - Check the kinematics configuration. - Inform your service agency.
230-00FA	**Error message** Limit switch %2 + **Cause of error** The calculated tool path exceeds the machine's positive traverse limits. **Error correction** - Check the programmed coordinates. If required, edit the program. - Check the reference point. If required, set a new reference point.
230-00FB	**Error message** Limit switch %2 - **Cause of error** The calculated tool path exceeds the machine's traverse limits. **Error correction** - Check the programmed coordinates. If required, edit the program. - Check the reference point. If required, set a new reference point.
230-00FC	**Error message** Limit switch %1 - **Cause of error** The calculated tool path exceeds the machine's traverse limits. **Error correction** - Check the programmed coordinates. If required, edit the program. - Check the reference point. If required, set a new reference point.

Error number	Description
230-00FD	**Error message** Limit switch %1 + **Cause of error** The calculated tool path exceeds the machine's positive traverse limits. **Error correction** - Check the programmed coordinates. If required, edit the program. - Check the reference point. If required, set a new reference point.
230-00FE	**Error message** Pos. SW limit switch is smaller than neg. SW limit switch (%1) **Cause of error** The value of the positive SW limit switch is smaller than the value of the negative SW limit switch **Error correction** Check the parameter Axes/ParameterSets/????/CfgPosition-Limits/... "????" stands for the current parameter block name
230-00FF	**Error message** The PLC variable %1 has reached the maximum value of %2 mm **Cause of error** The variable concerned goes into the calculation of the kinematic compensation and has exceeded the maximum permissible value. The variable will be set to the maximum value. The warning will be deleted as soon as the variable has fallen below the maximum value by 0.1 mm. **Error correction** - Check the calculation for the variable's value - Inform your machine tool builder
230-0100	**Error message** %1 axis has reached the max. axis-error compensation of %2 mm **Cause of error** The calculated axis-error compensation has exceeded the max. permissible value for the axis. The compensation is set to the maximum value. The warning is deleted as soon as the axis compensation has fallen below the maximum value by 0.1 mm. **Error correction** - Check the parameters for axis error compensation. - Check the values in the axis-error compensation table.

Error number	Description
230-0104	**Error message** In %2, the load limit 1 of %3 was exceeded **Cause of error** During load monitoring the warning threshold for power was exceeded. **Error correction** - Reduce feed rate of machining - If necessary, run a reference search to reestablish the power limits
230-0105	**Error message** In %2, the load limit 2 was exceeded by %3 **Cause of error** During load monitoring (power) the threshold for program cancelation was exceeded. **Error correction** - Reduce feed rate of machining - If necessary, run a reference search to reestablish the power limits
230-0106	**Error message** In %2 the total load limit of %3 was exceeded **Cause of error** During load monitoring the warning threshold for the total load was exceeded. **Error correction** - Reduce feed rate of machining - If necessary, run a reference search to reestablish the power limits
230-0109	**Error message** Error in the real-time coupling function (RTC) of axis %2 **Cause of error** Real-time coupling function (RTC) is supposed to be opened, but no coupling function is active. **Error correction** - Check the NC program and correct if necessary - Inform your machine tool builder
230-010A	**Error message** Error in the real-time coupling function (RTC) of axis %2 **Cause of error** Real-time coupling (RTC) is supposed to be closed, but coupling function is already active. **Error correction** - Check the NC program and correct if necessary - Inform your machine tool builder

Error number	Description
230-010B	**Error message** Error in the real-time coupling function (RTC) of axis %2 **Cause of error** No valid command for closing or opening the coupling was given for the real-time coupling function. **Error correction** - Check the NC program and correct if necessary - Inform your machine tool builder
230-010C	**Error message** Error in the real-time coupling function (RTC) of axis %2 **Cause of error** The PLC program tried to open a coupling function activated by the NC, or die NC tried to open a coupling function activated by the PLC. **Error correction** - Check the NC program and correct if necessary - Inform your machine tool builder
230-010D	**Error message** Error in the real-time coupling function (RTC) of axis %2 **Cause of error** An error occurred during compilation of the function (see INTERNAL INFO soft key). **Error correction** - Check the real-time coupling function (RTC) to be activated - Inform your service agency
230-010E	**Error message** Error in the real-time coupling function (RTC) of axis %2 **Cause of error** No function was entered in the configuration for closing a real-time coupling function (RTC). **Error correction** - Check the function under CfgRtCoupling/function and adjust if necessary - Inform your machine tool builder
230-010F	**Error message** Error in the real-time coupling function (RTC) of axis %2 **Cause of error** The active real-time coupling function (RTC) has caused a run-time error. (E.g. sqrt(-1)) **Error correction** - Check the active function in the machine configuration (CfgRtCoupling/function) - Inform your machine tool builder

Error number	Description
230-0110	**Error message** Option for coupling functions not enabled **Cause of error** A coupling was commanded, but the required software option was not enabled. **Error correction** - Enable option #135 (synchronizing functions)
230-0111	**Error message** Error in the real-time coupling function (RTC) of axis %2 **Cause of error** The function entered for closing a real-time coupling function (RTC) was too long. **Error correction** - Check the function under CfgRtCoupling/function and adjust if necessary - If the formula was presented by the PLC, check the PLC program - Inform your machine tool builder
230-0112	**Error message** RTC coupling programmed with active DCM. Deactivate DCM? **Cause of error** During active DCM collision monitoring you started a real-time coupling function (RTC). Caution: DCM must be deactivated! **Error correction** Press NC start to confirm deactivation of DCM and continue editing the program
230-0113	**Error message** RTC coupling programmed with active DCM **Cause of error** During active DCM collision monitoring you started a real-time coupling function (RTC). The NC program run was aborted. **Error correction** Adapt the NC program: Deactivate DCM if the real-time coupling function (RTC) is switched on by a cycle.

Error number	Description
230-0115	**Error message** Formula is erroneous **Cause of error** Faulty formula in the entity RTCanalog. **Error correction** - Check the configuration and change it if necessary - Inform your service agency
230-0116	**Error message** Extended limit switch monitoring %2 + **Cause of error** A compensation movement traverses the extended positive limit switch **Error correction** - Check compensations - Inform your service agency
230-0117	**Error message** Extended limit switch monitoring %2 - **Cause of error** A compensation movement traverses the extended negative limit switch **Error correction** - Check compensations - Inform your service agency
230-011A	**Error message** Run-time error in the formula calculation of offsetForM19 **Cause of error** The active formula for offsetForM19 caused a run-time error, such as sqrt(-1). **Error correction** Check the active function in the machine configuration (CfgSpindle/offsetForM19)
230-011B	**Error message** Formula in offsetForM19 invalid **Cause of error** In the machine parameter "offsetForM19", you entered a formula that contains invalid characters. **Error correction** Check the input value in the parameter "offsetForM19" and correct it

Error number	Description
230-015E	**Error message** Error in initialization of touch probe **Cause of error** 3-D touch probe: Actual position capture was refused by the CC with an error message. **Error correction** - Inform your service agency
230-0190	**Error message** Excessive servo lag in %2 **Cause of error** The following error of a moving axis is greater than the value specified in the configuration datum Axes/ParameterSets/????/CfgPosControl/servoLagMin1 / servoLagMax1. "????" designates the name of the affected parameter set. **Error correction** - Reduce the contouring feed rate, increase the rotational speed. - Remove any possible sources of vibration. - Inform your service agency if the error occurs frequently.
230-0192	**Error message** Excessive servo lag in %2 **Cause of error** The following error of a moving axis is greater than the value specified in the configuration datum Axes/ParameterSets/????/CfgPosControl/servoLagMin2 / servoLagMax2. "????" designates the name of the affected parameter set. **Error correction** - Reduce the contouring feed rate, increase the rotational speed. - Remove any possible sources of vibration. - Inform your service agency if the error occurs frequently.
230-0193	**Error message** Position encoder %2: Amplitude too small **Cause of error** The amplitude of the position encoder signal is too low or the signal for contamination is active. **Error correction** Check the amplitude of the position encoder signal.

Error number	Description
230-0194	**Error message** Position encoder %2: Frequency too high **Cause of error** The maximum input frequency was exceeded at a position encoder input. **Error correction** Check the input frequency of the position encoder signal.
230-0195	**Error message** Error in zero pulse distance of encoder %2 **Cause of error** Encoder defective **Error correction** Exchange the encoder.
230-0196	**Error message** Position encoder %2 defective **Cause of error** Contradiction apparent from comparison of the absolute and incremental positions. **Error correction** Inform your service agency.
230-0197	**Error message** Error in zero pulse distance of encoder %2 **Cause of error** Contradiction in comparison of the absolute and incremental position. **Error correction** Inform your service agency.
230-0198	**Error message** Nominal speed value too high %2 **Cause of error** An excessively high nominal speed value was calculated. Analog axes: Maximum nominal value +-10 V Analog spindle: Maximum nominal value +-10 V Digital axes and spindle: Maximum nominal value = maximum motor speed - The machine does not reach the set acceleration and braking ramps - Hardware error in the control loop **Error correction** - Analog axes: Check the servo - Inform your service agency

Error number	Description
230-0199	**Error message** Movement monitoring error in %2 **Cause of error** Movement monitoring: Nominal rpm=0, actual rpm=0, feed value>0 ==> Axis physically blocked or position comparison of motor encoder does not equal external position encoder. **Error correction** Check the parameter Axes/ParameterSets/????/CfgEncoder-Monitor/movementThreshold. "????" designates the present parameter set name. - Inform your service agency
230-019A	**Error message** Standstill monitoring err. in %2 **Cause of error** The position error at standstill is greater than the parameter Axes/ParameterSets/????/CfgControllerAuxil/checkPosS-tandstill defined in the configuration datum. "????" designates the present configuration set name. **Error correction** Inform your service agency.
230-019B	**Error message** %2 does not attain the control window **Cause of error** The configuration datum Axes/ParameterSets/????/CfgCon-trollerTol/posTolerance is defined too low. "????" designates the current parameter set name **Error correction** Increase the value
230-019C	**Error message** Following error in switched-off axis (%2) is too large **Cause of error** Disconnected axis was moved. **Error correction** When an axis is switched off, it must be locked. Or Switch off the parameter Axes/ParameterSets/????/CfgCon-trollerAuxil/driveOffLagMonitor. "????" stands for the current parameter block name.

Error number	Description
230-019D	**Error message** Probe system not ready **Cause of error** - Touch probe is not connected. - Battery in touch probe is dead. - No connection between infrared probe system and receiver unit. **Error correction** - Connect the touch probe. - Exchange the battery. - Clean the receiver unit. To be able to exchange the defective touch probe: 1. In the Manual operating mode, press the "touch probe monitoring" soft key. 2. Delete the error message. 3. Call another tool. Note: The touch probe monitoring is inactive until the next tool call or measuring operation. This means that the NC will not detect a collision with the touch probe!
230-019E	**Error message** Exchange touch probe battery **Cause of error** The battery in the touch probe is dead. **Error correction** Use a fresh battery.
230-019F	**Error message** CC index for %1 too large **Cause of error** In the hardware equipment of this control, there are fewer speed controller processors than were configured for this axis. **Error correction** Check the parameters in the Axes/ParameterSets/????/CfgAxisHardware entity. "????" stands for the current parameter block name.
230-01A0	**Error message** Axis index on CC too large **Cause of error** The axis index on the CC is specified by the parameter selEncoderIn, but the CC has fewer axes than were configured. **Error correction** Distribute the axes into two or more CCs (if available).

Error number	Description
230-01A1	**Error message** Input for position encoder (%1) not found **Cause of error** The input of the position encoder in the indicated axis is configured incorrectly. **Error correction** Check the configuration of the axis: - CfgAxisHardware/posEncoderInput
230-01A2	**Error message** EnDat encoder (%2) reports error **Cause of error** Connected EnDat encoder or encoder cable is defective **Error correction** Check the EnDat encoder or encoder cable
230-01A3	**Error message** Absolute actual position of the axis (%2) not confirmed **Cause of error** Current EnDat position will not be transferred (user input) **Error correction** Check the EnDat encoder or encoder cable, exchange encoder if necessary
230-01A4	**Error message** EnDat encoder (%2) reports different resolution **Cause of error** The resolution reported by the connected EnDat encoder does not match the resolution defined in the configuration data **Error correction** Check the configuration data of the encoder
230-01A5	**Error message** EnDat encoder (%2) reports wrong position **Cause of error** Connected EnDat encoder or encoder cable is defective **Error correction** Check the EnDat encoder or the encoder cable

Error number	Description
230-01A6	**Error message** %2 does not attain the programmed speed **Cause of error** The configuration datum Axes/ParameterSets/????/CfgControllerTol/speedTolerance is defined too low. "????" designates the current name of the configuration set. **Error correction** Increase the value
230-01AB	**Error message** Drive to be moved (%2) is not switched on. **Cause of error** A drive that is supposed to be moved from an NC program or by PLC positioning is not switched on. **Error correction** Check the PLC program
230-01AC	**Error message** Drive to be moved (%2) is not in the position loop **Cause of error** Nominal position values are being generated from an NC program or by a PLC positioning command for a drive that is not in the position loop. **Error correction** Check the PLC program.
230-01AD	**Error message** Deviation in the switch-on position of axis %2 too large **Cause of error** The switch-on position of this axis deviates more than allowed from the position last saved (CfgReferencing/endatDiff). **Error correction** Check the current position. If required, increase the parameter values.
230-01AE	**Error message** Hardware description for axis %2 has changed Position might not be valid **Cause of error** Hardware description parameters of this axis have been changed. Saved positions are invalid. **Error correction** Check the current position.

Error number	Description
230-01AF	**Error message** Error in encoder configuration of axis %1 **Cause of error** Incorrect encoder configuration of the axis. **Error correction** The encoder configuration does not fit the hardware. Refer to the Technical Manual.
230-01B0	**Error message** Error in spindle positioning (%2) **Cause of error** A spindle positioning movement could not be ended properly. **Error correction** The configuration datum Axes/ParameterSets/[key of the axis]/CfgFeedLimits/m19MaxSpeed is defined too low.
230-01B1	**Error message** MC software does not match CC software **Cause of error** Incorrect combination of CC and MC software. **Error correction** Inform your service agency
230-01B2	**Error message** Configuration of digital axes not possible without CC **Cause of error** Without CC only analog axes can be configured. **Error correction** Inform your service agency or change the configuration.
230-01B3	**Error message** S-RAM contents of axis %2 are invalid. **Cause of error** The axis position values saved in S-RAM are invalid. **Error correction** Check the current position
230-01B4	**Error message** Maximum traverse range of EnDat axis was exceeded. **Cause of error** The axis must be readjusted. **Error correction** Redetermine the parameter CfgReferencing/refPosition

Error number	Description
230-01B5	**Error message** The maximum traverse range of the EnDat axis was exceeded while it was switched off **Cause of error** Check the position of the axis. **Error correction** If necessary, reenter the parameter CfgReferencing/refPosition
230-01B6	**Error message** %2 synchronous window not reached **Cause of error** The configuration datum Axes/ParameterSets/????/CfgControllerTol/syncTolerance is defined too low. "????" designates the current name of the configuration set. **Error correction** Increase the value
230-01B7	**Error message** The encoder of an axis in the position control loop must not be switched (%2). **Cause of error** Before a position encoder can be switched, the drive concerned must be switched off by the PLC. **Error correction** Check the NC program, check the PLC program.
230-01B8	**Error message** Two encoders with EnDat interface cannot be used for one axis (%2). **Cause of error** If an EnDat encoder is configured for an axis, the encoder must be entered in parameter block index 0. No more than one EnDat encoder is allowed per axis. **Error correction** - Change the configuration (sequence of parameter blocks). - Change the hardware configuration (encoders).
230-01B9	**Error message** Input X%2 for axis %3 is already assigned to another axis. **Cause of error** The CfgAxes/ParameterSets/????/posEncoderInput parameter refers to an input that is already occupied by another axis. **Error correction** - Check the encoder inputs. - If an axis does not have a position encoder, enter the value "none."

Error number	Description
230-01BA	**Error message** Input X%2 for axis %3 is already assigned to another axis. **Cause of error** The CfgAxes/ParameterSets/????/speedEncoderInput parameter refers to an input that is already occupied by another axis. **Error correction** - Check the encoder inputs. - If an axis does not have a speed encoder, enter the value "none."
230-01BB	**Error message** Input X%2 for axis %3 is already assigned to another axis. **Cause of error** The CfgAxes/ParameterSets/????/pwmSignalOutput parameter refers to an output that is already occupied by another axis. **Error correction** - Check the wiring. - If an axis does not have a PWM output, enter the value "none."
230-01BC	**Error message** Error during control of an SPI module **Cause of error** An error occurred during transfer of rotary encoder data to or from an SPI module (module %2) **Error correction** - Check the wiring - Inform your service agency
230-01BD	**Error message** Spindle (%2) has no position encoder **Cause of error** A selected function (spindle positioning, synchronism, thread, etc.) requires a position encoder of the spindle concerned, but no such encoder has been configured. **Error correction** Check the NC program

Error number	Description
230-01BE	**Error message** AxisMode and AxisHw for axis (%2) do not match **Cause of error** An illegal combination of Axes/PhysicalAxes/CfgAxis/axisMode and Axes/PhysicalAxes/CfgAxis/axisHw has been configured. Permissible combinations include: - AxisMode = NotActive => axisHw = everything allowed - AxisMode = Active => axisHw = InOutCC axisHw = AnalogMC axisHw = AnalogCC axisHw = DisplayMC axisHw = DisplayCC axisHw = ManualMC axisHw = ManualCC - AxisMode = Virtual => axisHw = None **Error correction** Check the configuration.

Error number	Description
230-01BF	**Error message** Encoder type not permitted for axis (%2) **Cause of error** An impermissible combination of Axes/PhysicalAxes/CfgAxis/axisHw and Axes/ParameterSets/CfgAxisHardware/posEncoderType is configured. Permissible combinations are: axisHw = InOutCC CC422 - Motor encoder and all position encoders connected to MC CC424 - Motor encoder and all position encoders connected to CC CC520 - Motor encoder and all position encoders connected to CC axisHw = AnalogMC All position encoders connected to MC axisHw = AnalogCC All position encoders connected to CC axisHw = DisplayMC All position encoders connected to MC axisHw = DisplayCC All position encoders connected to CC axisHw = ManualMC All position encoders connected to MC axisHw = ManualCC All position encoders connected to CC axisHw = ProfiNet Motor encoder and all position encoders connected to ProfiNet **Error correction** Check the configuration
230-01C0	**Error message** Analog output of axis %2 was assigned twice **Cause of error** More than one axis is trying to write to an analog output at one time. **Error correction** Check the PLC program. If more than one axis uses the same analog output, only one at a time can be switched on.
230-01C1	**Error message** Unknown touch probe model designation **Cause of error** An unknown touch probe model designation was selected in the touch probe table. **Error correction** Check the touch probe table.

Error number	Description
230-01C2	**Error message** Spindle (%2) has not yet been homed **Cause of error** A command has been given for a synchronous spindle run. However, not all spindles have been homed. The synchronous spindle run can be switched off only if all involved spindles have been referenced. **Error correction** — Home the spindle - Check the NC or PLC program
230-01C3	**Error message** EMERGENCY STOP defective (%2) **Cause of error** The internal or external EMERGENCY STOP circuit is defective. - Excessively long switching times of the involved relays in the chain between the control-is-ready output signal (MC.RDY, STO.A.G) and the control-is-ready acknowledgment (I3, ES.A, ES.B) during the EMERGENCY STOP or switch-on routine - Control-is-ready acknowledgement (I3, ES.A, ES.B) has a short circuit to +24 V **Error correction** Check the emergency-stop circuit: - Check / replace the applicable relays in the electrical cabinet - Check / restore the contacts / wiring - Inform your service agency
230-01C4	**Error message** Relay ext. dc voltage missing **Cause of error** Error message after power interruption. **Error correction** - Switch on the control voltage separately - Check the wiring in the electrical cabinet - Check the 'Machine control voltage ON' button
230-01C5	**Error message** After SW download, CC no longer responds **Cause of error** After a download of the controller software, an existing CC no longer answers. **Error correction** CC defective. Exchange the hardware.

Error number	Description
230-01C6	**Error message** The option for double-speed control loops has not been enabled **Cause of error** A double-speed control loop was configured, but the option was not enabled. Single-speed controller performance was activated for the control loop. **Error correction** Check the parameter CfgAxisHardware/ctrlPerformance.
230-01C7	**Error message** Communication between MC and CC is faulty **Cause of error** An error occurred in the HSCI communication between the MC computer unit and the CC controller unit. **Error correction** Inform your service agency
230-01C8	**Error message** Timeout during command processing by the CC **Cause of error** A CC was given commands and has not acknowledged them. **Error correction** - Note further messages - Correct the configuration error - If this error occurs without configuration errors: The CC controller unit might be defective. Replace the hardware.
230-01C9	**Error message** Option for master-slave torque control not enabled **Cause of error** You have configured a master-slave torque control, but you have not enabled the required software option. **Error correction** - Check the parameter CfgAxisCoupling - Enable the software option
230-01CA	**Error message** Switch off after NC stop due to error %2 **Cause of error** The machine was switched off after NC stop. Reason: CC error **Error correction** Note the information on remedies while the CC error is displayed.

Error number	Description
230-01CB	**Error message** Output of axis %2 was assigned twice **Cause of error** More than one axis is trying to write to an output at one time. **Error correction** - Check the PLC program If more than one axis uses the same output, only one at a time can be switched on.
230-01CC	**Error message** Input of axis %2 was assigned twice **Cause of error** Two or more axes are trying to read one input at the same time. **Error correction** - Check the PLC program If more than one axis uses the same input, only one at a time can be switched on.
230-01CD	**Error message** Incorrect connector assignment of the axis %2 **Cause of error** On the CC 424 or CC 61xx there is a fixed assignment of speed encoder input to PWM output. The parameters speedEncoderInput and pwmSignalOutput have an illegal connector assignment. Permissible connector assignments: X15 - X51 X16 - X52 X17 - X53 X18 - X54 X19 - X55 X20 - X56 X80 - X57 X81 - X58 X82 - X59 X83 - X60 **Error correction** Check the axis configuration and edit it if required.
230-01CE	**Error message** Machine parameters were changed through TNCOPT **Cause of error** **Error correction**

Error number	Description
230-01CF	**Error message** Switch off after NC stop due to error %2 **Cause of error** The machine was switched off after an NC stop. Reason: PLC error **Error correction** Note the further information on remedies available when the PLC error is displayed.
230-01F4	**Error message** PLC: timeout **Cause of error** PLC runtime error: - The processing of the cyclically executed program section takes too long. Check the subprogram structure for very calculation-intensive sections that you can start as SUBMIT jobs. - The displayed processing time will be increased during data transfer and in handwheel mode. In case of doubt, select handwheel mode and simultaneously start the data transfer at max. baud rate. At the same time, check "MAXIMUM PROCESSING TIME" in the PLC programming. Values should not exceed 150% (safety reserve in the event of unfavorable operating conditions!). **Error correction** Edit the PLC program.
230-01F5	**Error message** Probe cycle started with stylus already deflected **Cause of error** You tried to start a probing cycle although the stylus is still deflected. **Error correction** Increase the retraction path
230-01F6	**Error message** LookAhead: Time out **Cause of error** Run-time error in LookAhead. **Error correction** Inform your service agency
230-01F7	**Error message** High-speed inputs were incorrectly configured **Cause of error** Only inputs I0 to I31 and I128 to I152 can be used. **Error correction** Check the configuration

Error number	Description
230-0226	**Error message** Client with this thread ID is already logged on with CfgServer. **Cause of error** **Error correction** Inform your service agency.
230-0227	**Error message** Configuration server not ready **Cause of error** **Error correction** Inform your service agency.
230-0228	**Error message** Missing entity (%2) in configuration data **Cause of error** A required parameter is missing in the configuration. **Error correction** Check the configuration.
230-0229	**Error message** Missing entity (%2) in configuration data for axis %3 **Cause of error** A required parameter is missing in the configuration. **Error correction** Check the configuration. If more than one parameter block is assigned to this axis, no other block than block 0 must be complete. However, the extended parameter block key must be entered in configuration date CfgKeySynonym/key and the corresponding basis block key in configuration date CfgKeySynonym/relatedTo.
230-022A	**Error message** Power module %2 not found in table **Cause of error** The specified power module is not listed in the power module table. **Error correction** - Inform your service agency - Check the name of the motor and the power module in the table

Error number	Description
230-022B	**Error message** Power module table cannot be read **Cause of error** Cannot read or find the power module table. **Error correction** - The SQL server was given a table file with a syntactically incorrect file name. The file name of the table must begin with a letter, as in M123.D. Change the table's file name. - Check the directory of the power module table - Check the power module table.
230-022C	**Error message** Motor (%2) not found in motor table **Cause of error** The entered motor is not in the motor table. **Error correction** - Check the motor assignment of the axes - Check the entries in the motor table, especially whether the MODE column has the right value - Inform your service agency
230-022D	**Error message** Motor table (%2) cannot be read **Cause of error** The specified motor table could not be found or read. The file name specified for the motor table is syntactically incorrect. For the control's SQL server to read the file, the file name of the table must contain at least one letter at the beginning. Example: MOTOR123.MOT Observe other displayed messages on the cause of the error. **Error correction** - Correct the file name of the motor table - Check the directory of the motor table - Check the motor table - Check whether the motor table has all required columns - Inform your service agency
230-022E	**Error message** No connection to the SQL server **Cause of error** No connection to the SQL server **Error correction** Inform your service agency.

Error number	Description
230-022F	**Error message** Axis (%2) not found in compensation table **Cause of error** Data of the specified axis could not be found in the compensation table. **Error correction** - Check the compensation table. The specified axis must be available as a column in the compensation table. - Inform your service agency.
230-0230	**Error message** Syntax error in compensation table (%2) **Cause of error** The data in the specified compensation table could not be read. **Error correction** - Check the configuration table (*.cma) - Check the compensation table (*.com) The table can contain up to 1024 compensation points (lines). The AXISPOS column of the first and last line must show the beginning and end of the compensation range with respect to the machine datum. The compensation points between them are calculated internally by the control and do not need to be specified. If you enter optional position values in the AXISPOS column they must have equal spacing. If required, in the BACKLASH column enter compensation values that are measured in negative traverse direction. In the column of the associated axis, enter the values belonging to the compensation points. - Inform your service agency

Error number	Description
230-0231	**Error message** Compensation table (%2) cannot be read **Cause of error** Could not find or read the given compensation table. **Error correction** - Check the name and directory of the configuration table saved in the configuration editor through the keyword "TABCMA". - Check the directory of the compensation table saved in the configuration editor through the keyword "oemTable". - The tables assigned to the axes in the configuration table must be in the directory of the compensation tables. - The SQL server was given a table file with a syntactically incorrect file name. The file name of the table must begin with a letter, as in M123.D. Change the table's file name. - Check the configuration table (*.cma) - Check the compensation table (*.com) - Inform your service agency
230-0232	**Error message** Parameter block name (%2) for axis (%3) is already assigned **Cause of error** Two or more axes are defined with reference to the same parameter block. **Error correction** Each axis needs its own parameter block name.
230-0233	**Error message** Too many parameter blocks for axis %2 **Cause of error** More parameter blocks were requested for an axis than allowed. **Error correction** Make fewer parameter blocks for this axis.
230-0234	**Error message** Shut down the control and restart after you delete an entity **Cause of error** An axis parameter entity was deleted. **Error correction** Restart the control.

Error number	Description
230-0235	**Error message** Positioning of axis %2 was stopped due to reconfiguration. **Cause of error** An attempt was made to change a parameter for a moving axis. **Error correction** Axis was stopped.
230-0236	**Error message** Timeout while stopping axis %2 **Cause of error** An attempt was made to change a parameter for a moving axis. **Error correction** Axis was stopped.
230-0237	**Error message** A spindle must be configured as a modulo axis (axis %2) **Cause of error** An axis was defined as spindle that was not configured as a modulo axis. A spindle must always be configured as a modulo axis. **Error correction** Check and, if necessary, correct the parameter CfgAxis/isModulo
230-0238	**Error message** Fatal configuration error: Cycle machining has been stopped **Cause of error** A fatal error in the configuration has prevented normal operation of the control. **Error correction** Check the configuration
230-0239	**Error message** Name (%2) for axis (%3) is invalid **Cause of error** Two or more axes refer to the same axis key, or an invalid key was installed in System/CfgAxes/axisList. **Error correction** The names must be unambiguous and valid for each axis.

Error number	Description
230-023A	**Error message** Invalid configuration for axis %2 **Cause of error** This error can have several causes: 1. In CfgAxis/axisMode, NotAllowed is configured 2. In CfgAxis/axisMode, Active is configured, but this axis has no parameter block 3. In CfgAxis/axisMode, Virtual is configured, but something other than None is in CfgAxis/axisHw **Error correction** Check the combination of parameters
230-023B	**Error message** Fatal error in interpolator: Cyclic machining has been stopped **Cause of error** A fatal error in the interpolator has prevented normal operation of the control. **Error correction** Inform your service agency.
230-023C	**Error message** Supply module %2 not found in table **Cause of error** The specified supply module is not listed in the supply module table. **Error correction** - Inform your service agency. - Check the name of the supply module in the table
230-023D	**Error message** Supply-module table cannot be read **Cause of error** Cannot read or find the supply module table. The control cannot read or find the supply module table. The file name must begin with a letter. **Error correction** - Check the path of the supply module table under CfgTablePath (SUPPLY or SUPPLY_OEM keys) - Check the directory of the supply module table - Check the supply module table and correct the file name if required.

Error number	Description
230-02BC	**Error message** No oriented spindle stop of homed spindle **Cause of error** Oriented spindle stop should be performed with a spindle that has not yet been homed. **Error correction** - Check the NC program - Home the spindle - The parameter Axes/ParameterSets/(Spindle)/CfgReferencing/refType must be set to "without Switch and on the fly" so that the spindle automatically homes.
230-02BD	**Error message** Stylus already in contact **Cause of error** The stylus is already deflected at the start of a probing movement. **Error correction** - Get the touch probe clear and repeat the probe. - If the error frequently recurs, inspect the probe for damage. - If necessary, contact your service agency.
230-02BF	**Error message** Handwheel? **Cause of error** - The electronic handwheel is not connected. - An incorrect handwheel is configured in machine parameter System/CfgHandwheel/type. - The transmission line is defective was incorrectly chosen. **Error correction** - Connect the handwheel via cable adapter. - Check the machine parameter System/CfgHandwheel/type. - Inspect the transmission line for damage
230-02C0	**Error message** Velocity programmed for axis %2 too low **Cause of error** The velocity programmed for this axis for PLC positioning is too slow. **Error correction** Program a faster velocity or check the configuration datum Axes/ParameterSets/????/CfgFeedLimits/minFeed. "????" designates the current name of the configuration set.

Error number	Description
230-02C1	**Error message** Rotational speed programmed for spindle ("%2") too low **Cause of error** The shaft speed programmed for this axis for PLC positioning is too slow. **Error correction** Program a faster shaft speed or check the configuration datum Axes/ParameterSets/????/CfgFeedLimits/minFeed. "????" designates the current name of the configuration set.
230-02C2	**Error message** Return to contour in thread cycle not allowed. **Cause of error** In a thread cycle, you tried to return in the tilted working plane. **Error correction** In thread cycles, always return only in the tool axis direction.
230-02EE	**Error message** The option for HSC filter has not been enabled **Cause of error** An HSC filter was configured, but the option was not enabled. Now the triangle filter was activated for this axis. **Error correction** Configure another file type
230-02EF	**Error message** Software option 151 Load Monitoring not enabled **Cause of error** A load monitor (G995, G996) was programmed in the NC program, but the required software option 151 Load Monitoring is not enabled. **Error correction** - Check the NC program and adapt it if necessary - If required, enable the software option 151 Load Monitoring - Contact the machine tool builder - Inform your service agency
230-02F0	**Error message** Option for digital control loops not enabled **Cause of error** A digital control loop was configured without enabling the necessary option in the control's SIK. **Error correction** - Check the configuration and correct if necessary - Enable the option - Inform your machine tool builder

Error number	Description
230-0327	**Error message** Plug & Play (%2) Motor detected: %3 **Cause of error** The "Plug & Play" function for automatic recognition of drive components through the electronic ID label is active for this axis. A motor was recognized that differs from the current configuration. **Error correction** - Confirm the "Plug & Play" dialog, if the detected motor belongs to this combination of axis and parameter set - Deactivate "Plug & Play", if the motor was not correctly recognized - Contact your machine tool builder
230-0328	**Error message** Plug & Play (%2) Inverter detected: %3 **Cause of error** The "Plug & Play" function for automatic recognition of drive components through the electronic ID label is active for this axis. An inverter was recognized that differs from the current configuration. **Error correction** - Confirm the "Plug & Play" dialog, if the detected inverter belongs to this combination of axis and parameter set - Deactivate "Plug & Play", if the inverter was not correctly recognized - Contact your machine tool builder
230-0329	**Error message** Plug & Play (%2) Supply Module detected: %3 **Cause of error** The "Plug & Play" function for automatic recognition of drive components through the electronic ID label is active. An supply module was recognized that differs from the current configuration. **Error correction** - Confirm the "Plug & Play" dialog prompt if the supply module was correctly recognized - Deactivate "Plug & Play", if the supply module was not correctly recognized and check the configuration - Contact your machine tool builder

Error number	Description
230-032A	**Error message** Axis %1 (%2): Motor %3 detected and registered **Cause of error** The named motor was detected through plug-and-play and entered in the axis configuration under CfgServoMotor/motName. **Error correction**
230-032B	**Error message** Axis %1 (%2): Inverter %3 detected and registered **Cause of error** The named inverter was detected through plug-and-play and entered in the axis configuration under CfgPowerStage/ampName. **Error correction**
230-032C	**Error message** Axis %1 (%2): Supply module %3 detected and registered **Cause of error** The named supply module was detected through plug-and-play and entered in the axis configuration under CfgSupplyModule/name. **Error correction**
230-032D	**Error message** Axis %1 (%2): Plug & play has been deactivated for the motor **Cause of error** Plug-and-play was deactivated in the named axis for the motor. **Error correction** - Check the configuration and the motor being used - Plug-and-play can be reactivated through CfgServoMotor/plugAndPlay
230-032E	**Error message** Axis %1 (%2): Plug & play has been deactivated for the inverter **Cause of error** Plug-and-play was deactivated in the named axis for the inverter. **Error correction** - Check the configuration and the inverter being used - Plug-and-play can be reactivated through CfgPowerStage/plugAndPlay

Error number	Description
230-032F	**Error message** Axis %1 (%2): Plug & play has been deactivated for supply module **Cause of error** Plug-and-play was deactivated in the named axis for the supply module. **Error correction** - Check the configuration and the supply module being used - Plug-and-play can be reactivated through CfgSupplyModule/plugAndPlay
230-0353	**Error message** The current monitoring section will not be recorded. **Cause of error** NC program has been altered incompatibly. **Error correction** Delete all recordings of the NC program.
230-041A	**Error message** Position error (axis %2) too large **Cause of error** The difference between position measurements by the position encoder and speed encoder is too large. **Error correction** Check the position and speed encoders.
230-041B	**Error message** Axis %2 cannot be switched on **Cause of error** This axis is to be switched on by the PLC, although it was switched off by DriveOffGroup. **Error correction** Check the PLC program.
230-041C	**Error message** Error bit in safety status (S status) of the HSCI transmission **Cause of error** An error was signaled over the HSCI S status. **Error correction** - Inform your service agency. - You can find more diagnostic information in the diagnostics menu.

Error number	Description
230-041D	**Error message** TRC: Wrong control; axis %1 **Cause of error** The compensation file was generated for another control than the one now in use. Copying the compensation file from another control is not allowed. **Error correction** - Recalculate the compensation parameter with TNCopt under Optimization/Torque Ripple Compensation. - Deactivation of the compensation: Entry in configuration datum Go to "Axes/ParameterSets/[Keyname of parameter block]/CfgControllerComp/" and delete "compTorqueRipple." - Inform your service agency
230-041E	**Error message** TRC: Compensation file (%1) illegible **Cause of error** The specified compensation file could not be found or read. **Error correction** - Check the compensation file directory, which is entered in machine parameter System/Paths/CfgOemPath/oemTable - Check compensation file - To deactivate compensation: Delete the entry in machine parameter Axes/ParameterSets/[key name of parameter set]/CfgServo-Motor/motTorqueRipple - Inform your service agency
230-041F	**Error message** Error in parameter posEncoderIncr or posEncoderDist (axis %2) **Cause of error** The two machine parameters posEncoderIncr and posEn-coderDist in the configuration object CfgAxisHardware are configured incorrectly. Even if you operate the axes solely with motor encoders (without linear encoders), the two parameters must contain realistic values. **Error correction** - Enter in the machine parameters CfgAxisHardware/posEn-coderIncr and CfgAxisHardware/posEncoderDist realistic values for the position or motor encoder.

Error number	Description
230-0420	**Error message** No field angle for drive %1 **Cause of error** The field angle of a motor with an unaligned encoder has not yet been ascertained. Absolute encoder with EnDat interface: - The encoder serial number saved does not fit the encoder Incremental encoders: - The SIK serial number saved does not fit the SIK of the control **Error correction** - If required, find the field angle in the "current controller adjustment" mode (press the "FIELD ORIENT." soft key) - Check the “type of encoder” entry in the motor table and correct it if necessary - Check the machine parameter motEncType and correct it if required - Check the machine parameters motPhiRef and motEncSerialNumber. If you want to force a new field angle acquisition, enter the value 0. - Inform your service agency
230-0421	**Error message** MCU/CCU watchdog mismatch **Cause of error** MCU and CCU have different watchdog values. **Error correction** Inform your service agency.
230-0422	**Error message** Axis motion not allowed while the filter is being changed **Cause of error** All axes must remain stationary while the filter is being edited. **Error correction** Inform your service agency.

Error number	Description
230-0423	**Error message** Error in configuration of axis %2 **Cause of error** Connections were configured that are not available on this CC. **Error correction** Check the configuration of the axis: - CfgAxisHardware/posEncoderInput - CfgAxisHardware/speedEncoderInput - CfgAxisHardware/inverterInterface For analog axes via CMA-H expansion module: - Check whether the expansion module is functioning correctly
230-0424	**Error message** DCM: %1 **Cause of error** Dynamic collision monitoring (DCM) stopped all axis movements in order to avoid a collision. **Error correction**
230-0425	**Error message** Unbalance monitoring: measurement not possible **Cause of error** The measurement of the unbalance failed. The spindle could not be accelerated correctly. The programmed nominal speed was not attained. **Error correction** - Inspect the spindle for damage. - Inform your service agency.
230-0426	**Error message** Unbalance monitoring (user): unbalance too large **Cause of error** The value found by the unbalance monitor was too large. **Error correction** - Balance the signal
230-0427	**Error message** Unbalance monitoring (user): sum of unbalance too large **Cause of error** The unbalance sum calculate by the unbalance monitor was too large. **Error correction** - Balance the signal

Error number	Description
230-0428	**Error message** Unbalance monitoring (system): unbalance too large **Cause of error** The value found by the unbalance monitor was too large. **Error correction** - Balance the signal
230-0429	**Error message** Unbalance monitoring (system): sum of unbalance too large **Cause of error** The unbalance sum calculate by the unbalance monitor was too large. **Error correction** - Balance the signal
230-042A	**Error message** Unbalance monitoring: configuration missing **Cause of error** The machine parameters for configuring the unbalance monitoring are not available. **Error correction** - Check the config object CfgUnbalance and correct it if required.
230-042B	**Error message** Unbalance monitoring: invalid spindle defined **Cause of error** No value spindle index was given in the machine parameters for unbalance monitoring. **Error correction** - Check the machine parameters in the config object CfgUnbalance and correct it if required.
230-042C	**Error message** Unbalance monitoring: invalid meas. axis defined **Cause of error** An invalid measuring axis was given in the machine parameters for unbalance monitoring. **Error correction** - Check the machine parameter axisOfMeasure in the config object CfgUnbalance and correct it if required.

Error number	Description
230-042D	**Error message** Unbalance monitoring: system monitor is not active **Cause of error** The system monitor of the unbalance monitoring is not active. **Error correction** - Activate the system monitor through the turning cycle - Check the machine parameters maxUnbalanceOem and limitUnbalanceOem and correct it if required.
230-042E	**Error message** Unbalance monitoring: spindle is not configured **Cause of error** The machine parameters for configuring the spindle are missing for the unbalance monitor. **Error correction** - Check the configuration of the spindle in the config object CfgUnbalance and correct it if required.
230-042F	**Error message** Unbalance monitoring: spindle parameter or index is faulty **Cause of error** The spindle configuration or configuration of the unbalance monitor is faulty. An incorrect spindle index was given or the spindle configuration in the config object CfgUnbalance is incorrect. **Error correction** - Check the spindle index in the CfgAxes config object and correct it if required. - Check the machine parameters in the config object CfgUnbalance and correct it if required.
230-0430	**Error message** Unbalance monitoring: limit speed has been reached **Cause of error** The maximum permissible shaft speed calculated by the control for measuring the unbalance was attained. **Error correction** - Reduce the speed of the spindle and restart the measurement.
230-0431	**Error message** Unbalance trace: internal error **Cause of error** Internal error in unbalance trace: incorrect status in the IPO in unbalance monitoring **Error correction** - Inform your service agency.

Error number	Description
230-0432	**Error message** Unbalance trace: trigger timeout **Cause of error** In the unbalance trace, the trigger conditions defined in the machine configuration were not fulfilled. **Error correction** - Check the machine parameters triggerMin and triggerMax, and correct it if required.
230-0433	**Error message** Unbalance trace: internal error **Cause of error** An incorrect trace channel is active for the unbalance trace. **Error correction** - Inform your service agency.
230-0434	**Error message** Unbalance trace: spindle index refers to an incorrect axis **Cause of error** An incorrect spindle index was given for the unbalance trace. The index refers to an incorrect address. **Error correction** - Check the machine parameters in the config object CfgUnbalance and correct it if required.
230-0435	**Error message** Unbalance trace: machine parameters not defined **Cause of error** The machine parameter for configuring the unbalance traces are not available. **Error correction** - Enter machine parameters in the config object CfgUnbalance.
230-0436	**Error message** Unbalance trace: internal error **Cause of error** The OEM cycle for the unbalance trace is faulty. The shaft speed or the number of revolutions to be measured was not defined. The parameter count or speed must not have the value 0. **Error correction** - Correct the OEM cycle for the unbalance trace. The values for count or speed must not be 0.

Error number	Description
230-0437	**Error message** Unbalance trace: incorrect spindle index **Cause of error** An invalid spindle index was given for the unbalance trace. **Error correction** - Check the machine parameter for the spindle and correct if required.
230-0438	**Error message** Unbalance trace: axis for measurement not defined **Cause of error** No measuring axis was defined for the unbalance trace. **Error correction** - Check the machine parameter axisOfMeasure and correct if required.
230-0439	**Error message** Unbalance trace: spindle is not configured **Cause of error** The spindle defined for the unbalance trace was not found in the machine configuration. **Error correction** - Check the machine parameter for the spindle and correct if required.
230-043A	**Error message** Unbalance trace: specified trigger axis does not exist **Cause of error** The trigger axis defined for the unbalance trace does not exist. **Error correction** - Check the machine parameter for the spindle and correct if required.
230-043B	**Error message** Unbalance trace: trigger conditions are not fulfilled **Cause of error** The trigger conditions set for the unbalance trace are no longer fulfilled. **Error correction** - Check the machine parameters triggerMin and triggerMax, and correct it if required.

Error number	Description
230-043C	**Error message** Unbalance monitoring: permissible unbalance not defined **Cause of error** A user parameter required for the unbalance monitoring (the maximum permissible unbalance) was not defined. **Error correction** - Enter the user parameter maxUnbalanceUsr.
230-043D	**Error message** Unbalance monitoring: permissible unbalance sum not defined **Cause of error** A user parameter required for the unbalance monitoring (the maximum permissible unbalance sum) was not defined. **Error correction** - Enter the user parameter limitUnbalanceUsr.
230-043E	**Error message** Unbalance monitoring: permissible unbalance not defined **Cause of error** A machine parameter required for the unbalance monitoring, the maximum permissible unbalance (system-wide), was not defined. **Error correction** - Enter the machine parameter maxUnbalanceOem.
230-043F	**Error message** Unbalance monitoring: permissible unbalance sum not defined **Cause of error** A machine parameter required for the unbalance monitoring, the maximum permissible unbalance sum (system-wide), was not defined. **Error correction** - Enter the machine parameter limitUnbalanceOem.
230-0440	**Error message** Real-time-buffer transfer from integr. oscill. is beginning **Cause of error** **Error correction**

Error number	Description
230-0441	**Error message** Internal error in transmission of oscilloscope measured data **Cause of error** The display of measured value in the oscilloscope is incomplete because of an error in the internal data transmission between the interpolator real-time buffer and the oscilloscope. **Error correction** - Repeat the measurement - Inform your service agency if the error continues to occur
230-0442	**Error message** Progmmd. limit switch/protection zone incorrect for axis %2 **Cause of error** The following constraints apply to limit switches and protection zones for modulo axes: - The lower limit must be between –360° and +360°. - The upper limit must be between 0° and +360°. - The lower limit must be less than the upper limit. - The difference between the upper and lower limit must be less than 360°. - If the machine parameter "moveAfterRef" is configured, the axis is not moved further. A warning is output. - Both protection zones = 0 means: Monitoring is inactive **Error correction** Adjust the value for the protection zone.
230-0443	**Error message** Handwheel superimposition not allowed (M118) **Cause of error** You tried to activate the M118 function during active collision monitoring. The handwheel superimpositioning function with M118 is not allowed in combination with collision monitoring. **Error correction** Remove M118 from the NC program or deactivate the collision monitoring.
230-0444	**Error message** Collision monitoring not possible in turning mode **Cause of error** The collision monitoring cannot monitor turning tools and collision objects that rotate with the lathe spindle. **Error correction** - If necessary, remove the collision objects (CMOs) from the turning kinematics (notify the machine manufacturer). - Do not insert any turning tools during milling.

Error number	Description
230-0445	**Error message** Velocity error (axis %2) too great **Cause of error** The velocity deviation between position the position encoder and the speed encoder is too large. **Error correction** Check the coupling between the position encoder and speed encoder
230-0446	**Error message** Internal error while processing the oscilloscope measuring data **Cause of error** Internal software error: The synchronization of the oscilloscope channels is faulty. **Error correction** - Repeat the measurement - Inform your service agency if the error continues to occur
230-0447	**Error message** Internal error while processing the oscilloscope measuring data **Cause of error** Internal software error: The synchronization of the oscilloscope channels in combination with the trigger condition is faulty. **Error correction** - Repeat the measurement - Inform your service agency if the error continues to occur
230-0448	**Error message** Internal error while processing the oscilloscope measuring data **Cause of error** Internal software error: The sequence of the data to be transmitted to the oscilloscope is faulty. **Error correction** - Repeat the measurement - Inform your service agency if the error continues to occur

Error number	Description
230-0449	**Error message** Handwheel: wrong handwheel connected **Cause of error** - The electronic handwheel is not connected. - An incorrect handwheel is configured in machine parameter System/CfgHandwheel/type. **Error correction** - Connect the handwheel via cable adapter. - Check the machine parameter System/CfgHandwheel/type.
230-044A	**Error message** Handwheel: Contaminated or damaged **Cause of error** The handwheel reports a problem in signal transmission: - Rotary encoder in the handwheel is contaminated - Handwheel is defective **Error correction** - Check the emergency stop and permissive buttons for proper function - Exchange handwheel if necessary
230-044B	**Error message** Handwheel: Transmission disturbance **Cause of error** - An incorrect handwheel was configured in machine parameter System/CfgHandwheel/type. - Data transfer between the handwheel and control was disturbed. **Error correction** - Check the machine parameter System/CfgHandwheel/type. - For wireless handwheel: Reduce distance to receiver - Switch off possible sources of interference - Check the connecting cable
230-044C	**Error message** Handwheel: Transmission error **Cause of error** The transmission line is defective or faulty. **Error correction** Inspect the data transfer line for damage.

Error number	Description
230-044D	**Error message** Handwheel: Wrong parameter **Cause of error** The initialization values for the connected handwheel are invalid. **Error correction** Check the configuration datum System/CfgHandwheel/initValues.
230-044E	**Error message** Handwheel: Timeout **Cause of error** An timeout occurred during communication with the most recently connected handwheel. No stable communication with this handwheel could be established, or communication was terminated. - Battery in handwheel is dead. - The most recently connected handwheel was swapped, either intentionally (e.g., due to a defect) or by mistake. - The most recently connected handwheel is out of signal range. - The interferences on the selected radio channel are too strong. **Error correction** - Check whether the serial number of the handwheel matches that of the most recently connected handwheel. - After a handwheel is exchanged, the new handwheel must be integrated into the control system. Call the application intended for this. - Place the handwheel in the charging station. - Check the settings for the radio communication, switch to a recommended radio channel, or increase the transmission power. - Check the handwheel access point and the handwheel itself.
230-044F	**Error message** Handwheel: No connection possible **Cause of error** Cannot connect with the handwheel. The handwheel might not be in the access point (handwheel holder). **Error correction** Place the handwheel in the access point (handwheel holder).

Error number	Description
230-0450	**Error message** Axis %2: Enter CfgReferencing/doubleRefOffset: %3 **Cause of error** The reference run was performed twice. **Error correction** Enter the indicated value in the machine configuration (parameter: CfgReferencing/dblRefOffset).
230-0451	**Error message** PLC movement for axis %2 not allowed **Cause of error** The presently active NC program blocks manual axis movements by the manual direction keys or movements by the PLC program. **Error correction** Edit the PLC Program
230-0452	**Error message** DCM: No manual movement allowed during a program run **Cause of error** You tried to make a movement with axis direction keys, a handwheel or PLC command while a program run was active **Error correction** Wait until the program run has ended or change to Single Block mode
230-0453	**Error message** DCM: Program start or continuation not possible **Cause of error** You tried to start a program during an axis movement, e.g. by the axis direction key, handwheel or PLC command. **Error correction** Wait until the motion by axis direction key, handwheel or PLC command has finished
230-0454	**Error message** DCM: No TCPM allowed during active DCM **Cause of error** You tried to move in Manual mode with TCPM during active DCM **Error correction** Deactivate TCPM Deactivate DCM and move without monitoring

Error number	Description
230-0455	**Error message** DCM: Motion of the floating tap holder is not monitored **Cause of error** When DCM is active, you use the "tapping with floating tap holder" cycle. Please note that movements of the floating tap holder are not monitored by DCM. Collision monitoring observes the floating tap holder at its resting position. **Error correction**
230-0456	**Error message** DCM not possible in following error mode or semifeedforward mode **Cause of error** You tried to use DCM with a non-feedforward axes. **Error correction** Change the configuration
230-0457	**Error message** Reference mark not found **Cause of error** The reference mark was not found after covering the distance necessary for distance-coded referencing. **Error correction** - Inform your machine tool builder - Check the mounted encoder - Check the machine configuration (parameter "posEncoderRefDist")
230-0458	**Error message** DCM: Check the skipReferencing parameter **Cause of error** You have set the machine parameter "System/CfgMachineSimul/skipReferencing" to the value TRUE. The Dynamic Collision Monitoring (DCM) is not possible with this setting. **Error correction** Set the parameter "skipReferencing" to the value FALSE or activate the programming-station mode (simMode = CcAndExt)
230-0459	**Error message** S-RAM contents of axis %2 are inconsistent **Cause of error** The EnDat axis position values saved in S-RAM are invalid. The values saved in a file will be used. **Error correction** Check the current position of the axis

Error number	Description
230-045B	**Error message** DCM: Activation during a movement **Cause of error** You activated the dynamic collision monitoring (DCM) during a program run or an axis movement. **Error correction** Activate DCM when the machine is at standstill.
230-045C	**Error message** S-RAM contents of axis %2 overwritten with values from file **Cause of error** The EnDat axis position values saved in S-RAM were overwritten by the values saved in a file. **Error correction** Check the current position of the axis
230-045D	**Error message** Axis %2: CfgReferencing/doubleRefOffset: %3 was entered **Cause of error** The reference run was performed twice. **Error correction** The given value was entered in the configuration.
230-045E	**Error message** Oscilloscope active during start of reference machining **Cause of error** The oscilloscope is active and a reference operation was started at the same time. The oscilloscope cannot be used during the reference operation. **Error correction** Close the oscilloscope and repeat the reference operation
230-045F	**Error message** Programmed movement not allowed **Cause of error** No programmed movement of axes is allowed in the "Retract" operating mode. **Error correction** Do not start an NC program as long as the "Retract" operating mode is active.

Error number	Description
230-0460	**Error message** Error in configuration of axis %2 **Cause of error** The axis has been configured incorrectly. **Error correction** Check the axis configuration at the following places and correct if required: - CfgSupplyModule/name - CfgPowerStage/ampPowerSupplyType - CfgPowerStage/ampBusVoltage - CfgServoMotor/motSupply
230-0461	**Error message** Configuration of kinematic compensation is faulty **Cause of error** The configuration of the temperature compensation or the kinematic compensation is faulty. The controls traverses without compensation as long as the error is not corrected. The more exact cause is described in the additional text. **Error correction** - Acknowledge the error in order to continue without compensation - Correct the configuration
230-0462	**Error message** Temperature compensation is faulty **Cause of error** An error occurred in the calculation of the temperature compensation. The temperature compensation might no longer be working. **Error correction** Check the configuration of the temperature compensation.
230-0463	**Error message** Kinematic compensation is faulty **Cause of error** An error occurred in the calculation of the kinematic compensation. The kinematic compensations might no longer be working. **Error correction** Check the kinematic compensations and and correct them if required.

Error number	Description
230-0464	**Error message** EnDat multiturn counter of the %2 axis was corrected **Cause of error** The value for the EnDat multiturn counter saved in the configuration is not plausible. The value was automatically corrected by the control. **Error correction** Check the current position of the axis
230-0465	**Error message** EnDat multiturn counter of the %2 axis was changed **Cause of error** The value for the EnDat multiturn counter saved in the configuration was exceeded. The change does not become effective until the control is restarted. **Error correction** Restart the control.
230-0467	**Error message** The KinematicsComp option has not been enabled **Cause of error** An kinematic compensation was configured, but the KinematicsComp option was not enabled. The kinematic compensation is not in effect. **Error correction** - Correct the configuration or enable the software option.
230-0468	**Error message** Max. compensation value %2 reached in CfgKinSimpleTrans %1 **Cause of error** The value for the kinematic temperature compensation at the transformation has exceeded the maximum permissible value. The compensation is set to the maximum value. The warning is deleted as soon as the maximum value is no longer exceeded. **Error correction** - Check the calculation of the compensation, and correct it if required - Check the incoming PLC variables

Error number	Description
230-0469	**Error message** Max. compensation value %2 reached in axis %1 component %3 **Cause of error** The value for the kinematic compensation at the axis has exceeded the maximum permissible value. The compensation is set to the maximum value. The warning is deleted as soon as the maximum value is no longer exceeded. **Error correction** - Contact your machine tool builder - Check the value and correct it if required - Check the incoming PLC variables and tables and correct them if required
230-046A	**Error message** More than %2 fast PLC inputs defined **Cause of error** In the IOC file, more fast PLC inputs are defined than allowed. **Error correction** - Check the IO configuration. - Inform your service agency
230-046B	**Error message** Fast PLC input on impermissible bus system **Cause of error** - In the IOC file, a fast PLC input was defined on an illegal bus system. - Fast PLC inputs can be defined only on an HSCI-PL or the internal PL. The affected PLC input is shown in the additional information. **Error correction** - Check the IO configuration - Inform your service agency
230-046C	**Error message** Fast PLC inputs with more than one definition **Cause of error** Fast PLC inputs are defined both in the IOC file as well as in the configuration data (machine parameters). Note that the entry in the configuration data has priority. **Error correction** - Check the IO configuration - Delete the CfgPlcFastInput configuration parameter (parameter number 103700) from the configuration data, if required - Inform your service agency

Error number	Description
230-046D	**Error message** Input for axis group enabling has incorrect parameters **Cause of error** The PLC input for the axis-group release was not in the IO configuration (IOC file) or it was faulty. **Error correction** - Check the IO configuration. - Inform your service agency
230-046E	**Error message** Multiple inputs defined for axis group enabling %2 **Cause of error** - Per axis group, only one PLC input for the axis-group release was defined. - In the IOC file, multiple PLC inputs for the axis-group release were defined for one axis group. **Error correction** - Check the IO configuration. - Inform your service agency
230-046F	**Error message** Input for axis group enabling %s on impermissible bus system **Cause of error** The input for the axis-group release was defined on an illegal bus system in the IO configuration (IOC file). The input can be defined only on an HSCI-PL or an internal PL. **Error correction** - Check the IO configuration. - Inform your service agency
230-0470	**Error message** Fast input for spindle has incorrect parameters **Cause of error** The fast input for the spindle was not in the IO configuration (IOC file) or it has incorrect parameters. **Error correction** - Check the IO configuration. - Inform your service agency

Error number	Description
230-0471	**Error message** Several fast inputs defined for spindle %2 **Cause of error** More than one fast input was defined for a spindle in the IO configuration (IOC file). Only one input is allowed. **Error correction** - Check the IO configuration. - Inform your service agency
230-0472	**Error message** Fast input for spindle %1 on impermissible bus system **Cause of error** - The fast input for the spindle was defined on an illegal bus system. - The input can be defined only on an HSCI-PL or an internal PL. **Error correction** - Check the IO configuration. - Inform your service agency
230-0473	**Error message** Fast input cannot be activated **Cause of error** A fast input cannot be activated because the IO configuration does not match the actual hardware configuration. The affected input is shown in the additional information. - The control is operated in the simulation mode. - The IOC file does not match the hardware configuration. - The options in the configuration are incorrectly set. **Error correction** - Check the hardware configuration - Check the IO configuration - Check the options - Inform your service agency
230-0474	**Error message** Inputs for axis group enabling have multiple definitions **Cause of error** Inputs for axis-group release are defined both in the IOC file as well as in the configuration data (machine parameters). Note that the entry in the configuration data has priority. **Error correction** - Check the IO configuration - Delete the configuration parameter driveOffGroupInput (parameter number 100106) if necessary - Inform your service agency

Error number	Description
230-0475	**Error message** Fast input for spindle %2 already defined **Cause of error** Fast inputs are defined for the spindle both in the IOC file as well as in the configuration data (machine parameters). Note that the entry in the configuration data has priority. **Error correction** - Check the IO configuration. - If required, delete the configuration datum CfgSpindle->fastInput (parameter number 401502)
230-0479	**Error message** TRC: The identification was adapted; axis %1; file %2 **Cause of error** The compensation file for the TRC was adapted. The values were transferred to the CC controller unit and activated. **Error correction** Note further messages.
230-047A	**Error message** No fast input for spindle %2 (%3) **Cause of error** No fast input was designed for homing or stopping. **Error correction** - Check the IO configuration (IOC file)
230-047B	**Error message** Programmed position error too large. Limit to %1 mm. **Cause of error** - The configured position error is too large for KinematicsComp. - The configured value is limited. **Error correction** - Correct the corresponding value(s) in the kinematic configuration (machine parameters locErrX, locErrY, locErrZ, locErrA, locErrB, locErrC). - Inform your service agency

Error number	Description
230-047E	**Error message** Axis %2: Double reference name is active **Cause of error** A scanning cycle was started with active double reference run although the position encoder's reference mark had not yet been scanned. **Error correction** Traverse the reference mark - Check the entry for double reference run in machine parameter MP_doubleRef - Inform your service agency
230-047F	**Error message** Current actual position of the axis (%2) cannot be used **Cause of error** - The machine tool builder's configuration does not allow transfer of the current EnDat position **Error correction** - Inform your service agency
230-0480	**Error message** Max. compensation value %2 reached in axis %1 **Cause of error** The value for the kinematic compensation at the axis has exceeded the maximum permissible value. The compensation is set to the maximum value. The warning is deleted as soon as the value falls 0.1 mm below the maximum value. Both the kinematic temperature compensation and the compensation via KinematicsComp (software option) go into the kinematic compensation. **Error correction** - Check calculation of compensation values, and correct if required - Check and the PLC variables and tables going into the compensation and correct them if necessary - Inform your service agency
230-0481	**Error message** Handwheel %3: Wrong handwheel connected **Cause of error** - The electronic handwheel is not connected. - An incorrect handwheel is configured in machine parameter System/CfgHandwheel/type. **Error correction** - Connect the handwheel via cable adapter. - Check the machine parameter System/CfgHandwheel/type.

Error number	Description
230-0482	**Error message** Handwheel %3: Contaminated or damaged **Cause of error** The handwheel reports a problem in signal transmission: - Rotary encoder in the handwheel is contaminated - Handwheel is defective **Error correction** - Check the emergency stop and permissive buttons for proper function - Exchange handwheel if necessary
230-0483	**Error message** Handwheel %3: Transmission disturbance **Cause of error** - An incorrect handwheel was configured in machine parameter System/CfgHandwheel/type. - Data transfer between the handwheel and control was disturbed. **Error correction** - Check the machine parameter System/CfgHand-wheel/type. - For wireless handwheel: Reduce distance to receiver - Switch off possible sources of interference - Check the connecting cable
230-0484	**Error message** Handwheel %3: Transmission error **Cause of error** The transmission line is defective or faulty. **Error correction** Inspect the data transfer line for damage.
230-0485	**Error message** Handwheel %3: Wrong parameter **Cause of error** The initialization values for the connected handwheel are invalid. **Error correction** Check the configuration datum System/CfgHand-wheel/initValues.

Error number	Description
230-0486	**Error message** Handwheel %3: Timeout **Cause of error** An timeout occurred during communication with the most recently connected handwheel. No stable communication with this handwheel could be established, or communication was terminated. - Battery in handwheel is dead. - The most recently connected handwheel was swapped, either intentionally (e.g., due to a defect) or by mistake. - The most recently connected handwheel is out of signal range. - The interferences on the selected radio channel are too strong. **Error correction** - Check whether the serial number of the handwheel matches that of the most recently connected handwheel. - After a handwheel is exchanged, the new handwheel must be integrated into the control system. Call the application intended for this. - Place the handwheel in the charging station. - Check the settings for the radio communication, switch to a recommended radio channel, or increase the transmission power. - Check the handwheel access point and the handwheel itself.
230-0487	**Error message** Handwheel %3: No connection possible **Cause of error** Cannot connect with the handwheel. The handwheel might not be in the access point (handwheel holder). **Error correction** Place the handwheel in the access point (handwheel holder).
230-0488	**Error message** No assignment between handwheels and connections **Cause of error** - Two or more handwheels were configured (CfgHandwheel) but no connections assigned - The automatic assignment to a connection is possible only with a single handwheel **Error correction** - Reduce the number of configured handwheels to one handwheel - Assign individual handwheels to one connection each (CfgHandwheelList) - Inform your service agency

Error number	Description
230-0489	**Error message** Only one HR 550FS wireless handwheel possible **Cause of error** - More than one active HR 550FS wireless handwheel is configured **Error correction** - Check and adjust the range of action. Only one wireless handwheel can be active: Deactivate wireless handwheels (CfgHandwheel/type) or remove the assignment (CfgHandwheelList) - Inform your service agency
230-048C	**Error message** Error in acknowledging the SampleRate of the CC **Cause of error** The acknowledged SampleRate of the CC controller unit does not agree with the SampleRate of the set parameters **Error correction** - Check parameter MP_ampPwmFrq for the SampleRate - Inform your service agency
230-048D	**Error message** Handwheel superimpositioning is ignored **Cause of error** The handwheel superimpositioning cannot be changed during M140 and measuring movements. **Error correction** The handwheel superimpositioning can be changed again when no M140 or measuring movement is active.
230-048E	**Error message** Internal software error during Program Run, Single Block **Cause of error** An internal error occurred that can disturb the block display in Single Block mode. **Error correction** - Delete the error and continue as normal. In very rare cases in Single Block mode the block display might not agree with the operation. The movements are nevertheless made individually. - If the error should reoccur, please generate a service file and inform your service agency.

Error number	Description
230-048F	**Error message** Handwheel %3: Communication error **Cause of error** - Internal communication error with the handwheel **Error correction** - Save service files - Inform your service agency
230-0490	**Error message** PLC movement for axis %2 was canceled **Cause of error** - An axis movement through the manual direction keys or the PLC program was stopped by a reconfiguration or a system cycle. **Error correction** - Restart the axis movement, if required.
230-0491	**Error message** Retraction from thread completed **Cause of error** The retraction from the thread has been concluded. **Error correction** - NC program is to be continued: acknowledge message and continue NC program with NC start. - NC program is not to be continued: acknowledge message and terminate NC program with INTERNAL STOP.
230-0492	**Error message** NC software does not match UVR firmware **Cause of error** Faulty combination of NC software and UVR firmware. **Error correction** Inform your service agency
230-0493	**Error message** MCU/UVR watchdog mismatch **Cause of error** The watchdogs on the MC main computer and UVR supply unit have different values. **Error correction** Generate the service files and inform your service agency.

Error number	Description
230-0494	**Error message** Message from UVR %2 **Cause of error** The UVR supply unit reports an error **Error correction** Inform your service agency
230-0495	**Error message** Incorrect axis index in axis %1 **Cause of error** - Machine parameter CfgAxisHardware/MP_ccAxisIndex contains an invalid value. **Error correction** - Check and, if necessary, change the configuration in MP_ccAxisIndex: Valid values are 0 to N-1, where N is the number of control loops on the controller unit concerned. Example: For a CC xx06, the valid values are 0 to 5. - Inform your service agency
230-0496	**Error message** Input for speed encoder (%1) not valid **Cause of error** Faulty configuration of the speed encoder input for the axis **Error correction** Check the configuration of the axis: - CfgAxisHardware/MP_speedEncoderInput
230-0497	**Error message** Incorrect inverter or motor connection (%1, inv. %2, motor %3) **Cause of error** - The configured connection for the inverter to the controller unit is not available (CfgAxisHardware/MP_inverterInterface) - or no inverter is connected to the configured socket (CfgAxisHardware/MP_inverterInterface) - or the configured connection for the motor on the inverter is not available (CfgAxisHardware/MP_motorConnector). **Error correction** Check the following machine parameters: - CfgAxisHardware/inverterInterface - CfgAxisHardware/motorConnector - CfgAxisHardware/hsciCcIndex

Error number	Description
230-0498	**Error message** Faulty synchronization during a movement **Cause of error** A system error led to an incorrect synchronization **Error correction** Inform your service agency
230-0499	**Error message** CfgLaAxis/MP_axManualJerk (%2) missing for interpol. PLC movement **Cause of error** - Machine parameter CfgLaAxis/MP_axManualJerk must be configured for interpolating PLC movements. **Error correction** - For the PLC axes to be moved in interpolation, check the configuration in the machine parameter CfgLaAxis/MP_ax-ManualJerk. - Inform your service agency
230-049A	**Error message** Spindle speed? **Cause of error** The NC program cannot be simulated because the spindle speed for the feed per revolution is missing. A simulation is possible only with the simulation speed FMAX. **Error correction** - Check the NC program and change it if necessary - Change the simulation speed to FMAX.
230-049C	**Error message** Timeout during command processing by the UVR %2 **Cause of error** A UVR was given a command and has not acknowledged it **Error correction** Possible causes: - HSCI connection interrupted (see other error messages) - UVR defective
230-049D	**Error message** A parameter change requires switching off the drive **Cause of error** Before changing the directional bit in the parameters, the drive must be switched off. **Error correction**

Error number	Description
230-049E	**Error message** Real time coupling function (RTC) together with handwheel active **Cause of error** - Real time coupling function (RTC) is to be closed while the handwheel is active, or - the handwheel is to be activated while the real time coupling function is active. **Error correction** - Check the NC program and correct it if necessary - Activate the handwheel at a later time - Inform your service agency
230-04A0	**Error message** Test of brake %1 for axis %2 was unsuccessful **Cause of error** - Note further messages. **Error correction** - Inform your service agency
230-04A2	**Error message** Touch probe %1 is not supported by the transmitter/receiver unit **Cause of error** The transmitter/receiver unit does not support the touch probe. **Error correction** Select another touch probe Inform your service agency
230-04A3	**Error message** Collision of the touch probe **Cause of error** The touch probe collision protection has responded. **Error correction** Manually retract the touch probe.
230-04A4	**Error message** Configuration of handwheel on axis %2 is faulty **Cause of error** Connections were configured that are not available on this CC. **Error correction** Check the configuration of the axis: - CfgAxisHandwheel/hsciCcIndex - CfgAxisHandwheel/input

Error number	Description
230-04A5	**Error message** Handwheel %3: Handwheel is not supported **Cause of error** - The electronic handwheel is not supported with this NC software version **Error correction** - Check the software version - Inform your service agency - If required, use an older-model handwheel - If required, install the service pack of the NC software that supports this handwheel model
230-04A6	**Error message** Multiple handwheels on the same radio channel **Cause of error** There might be several radio handwheels operating in the environment with the same radio channel. **Error correction** - Check the channels selected for the radio handwheels - Use the configuration dialog to check the frequency spectrum - Change radio channel if required
230-04A7	**Error message** Other radio devices are disturbing radio handwheel operation **Cause of error** Other devices are disturbing radio handwheel operation **Error correction** - Use the configuration dialog to check the frequency spectrum - Change radio channel if required
230-04A8	**Error message** Could not activate or deactivate axis %2 **Cause of error** In a traverse range switchover, the position, speed and current controller of the axes to be deactivated must be switched off first. **Error correction** - Check the PLC program and adapt it if necessary. - Inform your service agency.

Error number	Description
230-04A9	**Error message** Do not set the switch-off group, parameter set %2 **Cause of error** Setting the parameter CfgAxisHardware/driveOffGroup is not permitted in controls with integrated functional safety (FS) from HEIDENHAIN. **Error correction** - Check the parameters. - The function must be implemented by the machine manufacturer via the SPLC program. - Inform your service agency.
230-04AA	**Error message** The switch-off group must be set, parameter set %2 **Cause of error** The parameter CfgAxisHardware/driveOffGroup must be set for controls without integrated functional safety (FS) from HEIDENHAIN. Refer to the Technical Manual for your control for the function and constraints of this parameter. **Error correction** - Check the parameters. - Inform your service agency.
230-04AB	**Error message** Parameter %2 not set for parameter set %3 **Cause of error** The parameter must be set for this parameter set. **Error correction** - Check the parameters. - Inform your service agency.
230-04AC	**Error message** Inputs for axis-group enabling are ignored **Cause of error** Inputs for axis-group enabling were found where the setting CfgHardware/MP_driveOffGroupInputs was defined. This machine ignores them. The safety functions STO, SBC, and SS1 can only be used via a PAE-H switch-off module. **Error correction** - Delete the setting CfgHardware/MP_driveOffGroupInputs. - Put the safety functions on terminals of a PAE module and configure them in accordance with the risk analysis of the machine. - Inform your service agency.

Error number	Description
230-04AD	**Error message** PL inputs are not allowed as axis-group enabling **Cause of error** PL inputs for axis-group enabling were defined in the IOCP file. This machine ignores them. The safety functions STO, SBC, and SS1 can only be used via a PAE-H switch-off module. **Error correction** - Delete the axis-group enabling machine function from all PL input terminals. - Put the safety functions on terminals of a PAE module and configure them in accordance with the risk analysis of the machine. - Inform your service agency.
230-04AE	**Error message** PAE module not configured in IOCP file **Cause of error** No machine functions for axis-group enabling were found in the IOCP file. The safety functions STO, SBC, and SS1 must be configured via a PAE-H switch-off module. The PAE module is presumably not configured. **Error correction** - Configure the PAE module correctly in the IOCP file. - Put the safety functions on terminals of a PAE module and configure them in accordance with the risk analysis of the machine. - Inform your service agency.
230-04AF	**Error message** Axis-group enabling machine function configured on PL module **Cause of error** The axis-group enabling machine function was defined on at least one terminal in the IOCP file even though the module is not a PAE module. The safety functions STO, SBC, and SS1 can only be used via a PAE-H switch-off module. **Error correction** - Put the safety functions on terminals of a PAE module and configure them in accordance with the risk analysis of the machine. - Inform your service agency.

Error number	Description
230-04B0	**Error message** Invalid PWM frequency configured for axis %2 **Cause of error** An incorrect or invalid PWM frequency was configured. Frequencies up to 10 kHz are possible for CC 61xx and UEC 1xx. For Gen3 devices, depending on the UM device only frequencies up to 10 kHz are possible, or even only specific individual frequencies. **Error correction** Check and correct the configuration under CfgPowerStage/ampPwmFreq.
230-04B3	**Error message** More safe axes are activated than are enabled in the SIK **Cause of error** The axis options in the SIK specify how many safe axes can be active at the same time. You have activated more safe axes over the machine configuration than are enabled as axis options in the SIK. **Error correction** - Check the machine configuration and correct it if necessary - If you need more safe axes, you can get a code number from HEIDENHAIN to enable them..
230-04B4	**Error message** SMC: Missing acknowledgment **Cause of error** SMC run-time error: - The safety-oriented software did not respond within the expected time period. - Generally high system load **Error correction** Check the system load
230-04B7	**Error message** Error in configuration of axis %2 **Cause of error** The axis is not configured correctly. **Error correction** Check the axis configuration in the following machine parameters and correct if required: - CfgSupplyModule/name - CfgPowerStage/ampPowerSupplyType - CfgPowerStage/ampBusVoltage - CfgPowerStage/supplyModule - CfgSupplyModule3xx/hsciUvIndex - CfgPowerStage/pwmPhaseShift - Inform your service agency

Error number	Description
230-04B9	**Error message** The signal cannot be recorded **Cause of error** The necessary access right to record PLC signals is missing. **Error correction**
230-04BA	**Error message** UVR%2 change of parameters requires restart. Shut down the control and restart it. **Cause of error** The UVR cannot apply the changed machine parameters without restarting. **Error correction** Restart the control
230-04BC	**Error message** Warning from EnDat speed encoder on motor in %1 axis ID: %2 SN: %3 **Cause of error** - Lower internal functional limit of the encoder has been exceeded. **Error correction** - Check the mounting of the encoder and correct it if necessary - Clean the encoder, if possible - Check whether any of the encoder specifications were not complied with, e.g. the supply voltage or ambient temperature. Ensure that the encoder is operated within the specifications. - Inform your service agency
230-04BD	**Error message** Advance warning from EnDat position encoder in %1 axis ID: %2 SN: %3 **Cause of error** - Internal functional limit of the encoder has been reached. The encoder can still be operated, but it is recommended that the encoder be checked. **Error correction** - Check the mounting of the encoder and correct it if necessary - Clean the encoder, if possible - Check whether any of the encoder specifications were not complied with, e.g. the supply voltage or ambient temperature. Ensure that the encoder is operated within the specifications. - Inform your service agency

Error number	Description
230-04BE	**Error message** Warning from EnDat position encoder in %1 axis ID: %2 SN: %3 **Cause of error** - Lower internal functional limit of the encoder has been exceeded. **Error correction** - Check the mounting of the encoder and correct it if necessary - Clean the encoder, if possible - Check whether any of the encoder specifications were not complied with, e.g. the supply voltage or ambient temperature. Ensure that the encoder is operated within the specifications. - Inform your service agency
230-04BF	**Error message** Fatal error on inverter %2 **Cause of error** - Internal error in the inverter **Error correction** - Note any further messages - Inform your service agency
230-04C0	**Error message** Emergency stop by inverter %2 **Cause of error** - Internal error in the inverter **Error correction** - Note any further messages - Inform your service agency
230-04C1	**Error message** NC stop by inverter %2 **Cause of error** - Internal error in the inverter **Error correction** - Note any further messages - Inform your service agency
230-04C2	**Error message** Brake outputs can't be read by IOCP file **Cause of error** The IOCP file was not configured or cannot be read **Error correction** Inform your service agency

Error number	Description
230-04C3	**Error message** Brake outputs are ignored **Cause of error** "Outputs for brake control" were defined in the IOCP file. These are not supported by the present machine configuration and will therefore be ignored. **Error correction** - Remove configured outputs for brake control from the IOCP file - Configure outputs for brake control through CfgBrake/MP_connection - Inform your service agency
230-04C4	**Error message** Two brake outputs refer to the same brake %1 **Cause of error** In the IOCP file, two "outputs for brake control" were configured with the same reference to one brake (CfgBrake). **Error correction** - Check the brake control configuration in the IOCP file and correct it - Inform your service agency
230-04C5	**Error message** Control of brake %2 on axis %3 incorrectly configured **Cause of error** The configured output for brake control in the IOCP file refers to a hardware terminal other than the one currently being used by the axis. **Error correction** - Configure the output for brake control in the IOCP file to the correct terminal - Inform your service agency
230-04C6	**Error message** Brake %2: MP_connection must not be configured **Cause of error** The machine parameter CfgBrake/connection is not supported by the present machine configuration. **Error correction** Use IOconfig to configure "Output for controlling the brake" through the IOCP file

Error number	Description
230-04C7	**Error message** Connection of brake %2 not configured **Cause of error** The output necessary for brake control is missing from the IOCP file **Error correction** - Configure the output for brake control for this brake in the IOCP file - Inform your service agency
230-04C8	**Error message** Braking connection for brake %2 not configured **Cause of error** Configuration of the brake connection is missing in CfgBrake/MP_connection **Error correction** - Configure the machine parameter CfgBrake/MP_connection - Inform your service agency
230-04C9	**Error message** Acceptance testing of safety-relevant parameters %1 required **Cause of error** - The hardware configuration was significantly changed, e.g. different model of inverter - The configuration of the safety-related parameters was changed - The saved configuration was changed by the hardware defects **Error correction** - Check the safety-relevant configuration for the drive (parameter set) - Have suitable persons accept the configuration again, if necessary - Inform your service agency
230-04CA	**Error message** Braking connection for brake %2 incorrectly configured **Cause of error** An incorrect value was configured for the brake connection CfgBrake/MP_connection **Error correction** - Check the entry in the machine parameter CfgBrake/MP_connection and correct it as necessary - Inform your service agency

Error number	Description
230-04CB	**Error message** Axes switched while in motion **Cause of error** - Result of emergency stop during movement - Clamping operation was switched while the axis was in motion - Axis was switched off while in motion **Error correction** - If you suspect a PLC error, contact your machine tool builder.
230-04CC	**Error message** Deactivate handwheel for axis %3 **Cause of error** The control waits for automatic clamping of this axis. The activated handwheel is preventing this clamping. **Error correction** Disable the handwheel for this axis
230-04CD	**Error message** Error during conversion of motor %1 **Cause of error** Converting the motor data from the old table 'PLC:\table \motor_oem.mot' to the table MOTOR_OEM failed. **Error correction** - Inform your service agency
230-04CE	**Error message** Communication with CC controller unit faulty **Cause of error** An error occurred during the internal communication with the CC controller unit. Internal information: error in acknowledging the SampleRate. The requested "blockSize" is not available. **Error correction**
230-04CF	**Error message** A client with this ID is already logged on **Cause of error** The data interface to the configuration server is occupied. **Error correction** Inform your service agency.

Error number	Description
230-04D0	**Error message** Configuration server is not ready **Cause of error** No readiness for communication through the data interface with the configuration server. **Error correction** Inform your service agency.
230-04D1	**Error message** The requested parameter is not available **Cause of error** A parameter that is not available was entered. **Error correction** - Check/Correct the entered parameter - If the error recurs, inform your service agency
230-04D2	**Error message** Faulty axis configuration (%2) **Cause of error** Axes that are not configured on the same CC controller unit are to be operated as torque-master-slaves. **Error correction** Check and correct the configuration
230-04D3	**Error message** Faulty monitoring of the software limit switches **Cause of error** Monitoring of the software limit switch was probably deactivated by the machine manufacturer via a macro. This is currently no longer permitted. **Error correction** - Contact the machine manufacturer - Information for machine manufacturers: check handling of the software limit switch in the OEM macro and correct as needed
230-04D4	**Error message** Emergency stop by CC, %2 **Cause of error** - Internal error in the controller unit **Error correction** - Note any further messages - Inform your service agency

Error number	Description
230-04D5	**Error message** NC stop by CC, %2 **Cause of error** - Internal error in the controller unit **Error correction** - Note any further messages - Inform your service agency
230-04D6	**Error message** Temp. of the CC too high %2 **Cause of error** Temperature sensor detects an excessively high or low temperature within the housing of the controller unit. - Insufficient heat dissipation for the controller unit - Contaminated filter pads - Defective climate control unit in the electrical cabinet - Defective fan - Defective temperature sensor - Unfavorable mounting of components **Error correction** - Clean the filter pads - Check the climate control unit, and repair it if necessary - Replace the fan - Inform your service agency
230-04D7	**Error message** Error in acknowledging the sample rate of the UVR **Cause of error** The acknowledged sample rate of the UVR drive unit does not agree with the expected sample rate **Error correction** If the error recurs, inform your service agency.
230-04D8	**Error message** Error in acknowledging the sample rate of the UVR **Cause of error** The requested "blockSize" of the UVR drive unit is not available. **Error correction**

Error number	Description
230-04DD	**Error message** Input for SBC.GLOBAL configured incorrectly **Cause of error** For the use of the SBC.GLOBAL input terminal of the PAE module, the corresponding machine function was either not configured in the IO configuration (IOC file) or it was configured incorrectly. - No PAE module was configured. - A PAE module with an outdated version of the HDD file was configured. - More than one PAE module was configured. - SBC.GLOBAL was configured on the wrong module. **Error correction** - Check the IO configuration - Inform your service agency
230-04DE	**Error message** Input for SBC.GLOBAL must not be configured **Cause of error** Do not configure the machine function SBC.GLOBAL in the IO configuration (IOC file) of systems with integrated functional safety. **Error correction** - Check the IO configuration - Inform your service agency
230-04E0	**Error message** Progmmd. limit switch/protection zone incorrect for axis %2 **Cause of error** Protection zones for modulo axes should not be used with this version of the control software. **Error correction** - Remove protection zone for modulo axis - Do not configure the axis as a modulo axis
230-04E2	**Error message** Start position of axis (%2) not permissible for block scan **Cause of error** The starting position of the axis is outside of the permissible range. **Error correction** - Check the configuration of the software limit switches - Check the starting points of the axes in the NC program

Error number	Description
230-04E3	**Error message** No complete circle was recorded **Cause of error** During evaluation of the measured data, it was found that no complete circle was recorded. **Error correction** - Check whether the configured feed rate was achieved - Check the configured trigger speed
230-04E5	**Error message** Incorrect UVR/UEC configuration: %2, index invalid: %3 **Cause of error** No valid value entered for the machine parameter CfgSupplyModule3xx/hsciUvIndex. **Error correction** Check and correct the parameter: CfgSupplyModule3xx/hsciUvIndex
230-04E6	**Error message** Incorrect UVR/UEC configuration: config. duplicated: %1 - %2 **Cause of error** The parameter CfgSupplyModule3xx/hsciUvIndex is identical in the two stated instances of CfgSupplyModule3xx. That is not allowed. **Error correction** Check the parameter in all instances and correct as necessary: CfgSupplyModule3xx/hsciUvIndex
230-04E7	**Error message** Axis movement not permitted while switching the CLP filter **Cause of error** No axis may move while the CLP filter is being switched on or off. The movement may also result from superimpositioning (e.g., swing-frame grinding). Possible causes of the filter switching: - Switch-on or -off of TCPM (also M128 / M129) - Tilting the working plane **Error correction** Edit the NC program.

Error number	Description
230-04E8	**Error message** Underlying velocity is too low **Cause of error** There were changes to the algebraic sign over the course of the actual velocity. This reduces the quality of the determined characteristic values. **Error correction** - Increase the underlying velocity - The excitation amplitude might need to be reduced
230-04E9	**Error message** Not enough RAM to evaluate the measured data **Cause of error** Not enough RAM is available to evaluate the "Measure machine status" cycle. **Error correction** - Close any unnecessary applications - Restart the control
230-04EA	**Error message** MEASURE MACHINE STATUS: memory management faulty **Cause of error** Cannot delete an internal system file for temporary processing. **Error correction** Inform your service agency
230-04EC	**Error message** Axis-group enabling disabled while in motion **Cause of error** Axis-group enabling was disabled for safety reasons. **Error correction** If no reason can be identified, inform your machine tool builder

Error number	Description
230-04ED	**Error message** Parameters of current controller are not correct %2 **Cause of error** - The current controller (CfgCurrentControl) is not parameterized correctly Mixed parameterization is not permitted: Please use only (iCtrlPropGain and iCtrlIntGain) or (iCtrlPropGainD, iCtrlIntGainD, iCtrlPropGainQ, and iCtrlIntGainQ) **Error correction** - Correct the parameterization of the current controller Set (iCtrlPropGain = 0 and iCtrlIntGain = 0) or (iCtrlPropGainD = 0, iCtrlIntGainD = 0, iCtrlPropGainQ = 0, and iCtrlIntGainQ = 0)
230-04EE	**Error message** Parameters of current controller are not correct %2 **Cause of error** - The current controller (CfgCurrentControl) is not parameterized correctly iCtrlPropGain = 0, even though iCtrlIntGain > 0 **Error correction** - Correct the parameterization of the current controller: Set iCtrlPropGain > 0 or iCtrlIntGain = 0
230-04EF	**Error message** Parameters of current controller are not correct %2 **Cause of error** - The current controller (CfgCurrentControl) is not parameterized correctly iCtrlPropGainD = 0, even though iCtrlIntGainD > 0 **Error correction** - Correct the parameterization of the current controller: Set iCtrlPropGainD > 0 or iCtrlIntGainD = 0
230-04F0	**Error message** Parameters of current controller are not correct %2 **Cause of error** - The current controller (CfgCurrentControl) is not parameterized correctly iCtrlPropGainQ = 0, even though iCtrlIntGainQ > 0 **Error correction** - Correct the parameterization of the current controller: Set iCtrlPropGainQ > 0 or iCtrlIntGainQ = 0

Error number	Description
230-04F1	**Error message** Configuration error in Monitoring **Cause of error** Die Konfiguration des Monitorings (Komponenten- und Prozessüberwachung) ist mit dem beschriebenen Fehler fehlgeschlagen. **Error correction** Konfigurationsfehler durch Maschinenhersteller beheben lassen.
230-04F2	**Error message** Run-time error during calculation **Cause of error** Laufzeitfehler bei Berechnung des Monitorings **Error correction** Kundendienst benachrichtigen
230-04F3	**Error message** Error with external modules **Cause of error** In Bezug auf eine Monitoring-Funktion ist ein schwerwiegender Fehler mit externen Komponenten auf der Steuerung aufgetreten. **Error correction** Kundendienst benachrichtigen
230-04F4	**Error message** Internal (implementation) error **Cause of error** Schwerwiegender interner (Implementierungs-)Fehler bei Monitoring-Funktion. **Error correction** Kundendienst benachrichtigen
230-04F5	**Error message** Missing rights **Cause of error** Rechte für die auszuführende Aktion fehlen **Error correction** Kundendienst benachrichtigen

Error number	Description
230-04F6	**Error message** Monitoring task results in a warning **Cause of error** Action to be performed in a monitoring task issues a warning **Error correction** Inform your service agency
230-04F7	**Error message** Error while setting up Process Monitoring **Cause of error** Beim Einrichten der Prozessüberwachung ist ein Fehler aufgetreten: "Monitoring Meta Data"-Datei fehlerhaft **Error correction** Kundendienst benachrichtigen
230-04F8	**Error message** Faulty configuration of Multicast data **Cause of error** Die Konfiguration der Beauftragung der Multicast-Daten ist mit dem beschriebenen Fehler fehlgeschlagen. **Error correction** Konfigurationsfehler durch Maschinenhersteller beheben lassen.
230-04F9	**Error message** Internal error in the Multicast data interface **Cause of error** Schwerwiegender interner (Implementierungs-)Fehler in der Multicast-Datenschnittstelle. **Error correction** Kundendienst benachrichtigen
230-04FA	**Error message** Realtime Container error in the Multicast data interface **Cause of error** Realtime Container Fehler in der Multicast-Datenschnittstelle aufgetreten. **Error correction** Kundendienst benachrichtigen.

Error number	Description
230-04FB	**Error message** Realtime Container error in monitoring tasks **Cause of error** Realtime Container Fehler im Monitoring aufgetreten. **Error correction** Kundendienst benachrichtigen.
230-04FC	**Error message** Error while calculating the indicators **Cause of error** Fehler im Zusammenhang mit den Indikatoren im Monitoring aufgetreten. **Error correction** Kundendienst benachrichtigen.
230-04FD	**Error message** Internal error in the NC reactions for monitoring tasks **Cause of error** Fehler bei den Reaktionen im Monitoring aufgetreten. **Error correction** Kundendienst benachrichtigen.
230-04FE	**Error message** Internal error in monitoring tasks **Cause of error** Schwerwiegender interner (Implementierungs-)Fehler im Monitoring. **Error correction** Kundendienst benachrichtigen.
230-04FF	**Error message** Error in the table server of monitoring tasks **Cause of error** Es sind Fehler aufgetreten, die Tabellen im Monitoring betreffen. **Error correction** Kundendienst benachrichtigen.
230-0500	**Error message** Error in the formulas used for monitoring tasks **Cause of error** Es sind Fehler in Bezug auf die im Monitoring verwendeten Formeln aufgetreten. **Error correction** Kundendienst benachrichtigen.

Error number	Description
230-0501	**Error message** Faulty configuration of the monitoring tasks **Cause of error** An error occurred while configuring a monitor. **Error correction** Inform your service agency.
230-0502	**Error message** Software option for component monitoring is not enabled **Cause of error** Die Komponentenüberwachung kann nicht verwendet werden. Die notwendige Software-Option ist nicht freigeschaltet. **Error correction** - Software-Option für die Komponentenüberwachung im SIK freischalten - Kundendienst benachrichtigen
230-0503	**Error message** Process Monitoring software option is missing **Cause of error** The software option for process monitoring is not enabled. Process monitoring cannot be used. **Error correction** Inform your service agency
230-0504	**Error message** Cancel program after NC stop because of error %2 **Cause of error** Program execution was canceled after an NC stop. Reason: The CC controller triggered an error. **Error correction** Note the information on remedies while the CC error is displayed.
230-0505	**Error message** Frequency too high for eval. slot %s in envelope curve spectrum **Cause of error** The frequency to be evaluated is beyond the Nyquist frequency. **Error correction** - Select an adequate frequency below the Nyquist frequency

Error number	Description
230-0506	**Error message** No monitoring due to an upstream error **Cause of error** Due to an upstream error, Component Monitoring and Process Monitoring were deactivated. **Error correction** Inform your service agency.
230-0507	**Error message** Error during graphical visualization of a monitoring task **Cause of error** An internal error occurred in connection with the graphical visualization of values for component or process monitoring. **Error correction** Check the configuration of the monitoring tasks and make any necessary corrections.
230-0508	**Error message** Process monitoring is deactivated **Cause of error** A monitoring section was defined in the current NC program, but process monitoring is deactivated. **Error correction** Activate process monitoring for the current NC program or adapt the NC program.
230-0509	**Error message** Process monitoring deactivated until next program start **Cause of error** The program sequence was interrupted. **Error correction** Restart execution of the NC program.
230-050A	**Error message** Returning to the contour (backtrack) not possible for tapping **Cause of error** You tried to return to the contour after a program interruption during tapping. This is not possible with the current parameterization (machine parameter backTrack = TRUE). **Error correction** -Manually retract the tool from the thread and interrupt program execution - Perhaps set the machine parameter backTrack to the value FALSE

Error number	Description
230-050B	**Error message** PLC movement for axis %2 was canceled **Cause of error** An axis movement by the PLC program was canceled because the kinematic model was activated during the movement (e.g., by switching the operating mode). **Error correction** Restart the axis movement, if required.
230-050D	**Error message** Limit switch %1 %2 (axis not referenced) **Cause of error** Software limit-switch monitoring active for non-referenced axis. Acknowledging the message permits traverse of the software limit switch. **Error correction**
230-050E	**Error message** Axis configuration for axis %2 obsolete **Cause of error** In the configuration, an entry was found that is no longer used. **Error correction** The obsolete entry should be removed from the configuration.
230-050F	**Error message** Can't activate the SIK option "FS Control Loop Qty." **Cause of error** SIK option 6-30-2 can be activated only if SIK option 6-30-1 is also enabled. **Error correction** Enable SIK option 6-30-1.
230-0511	**Error message** Test der Bremse %1 für Achse %2 von FS nicht erlaubt **Cause of error** Beachten Sie weitere anstehende Meldungen. **Error correction** - SPLC-Signal PERMISSION_BRAKE_HOLDING_TORQUE_TEST in pp_Ax-Permissions prüfen - Kundendienst benachrichtigen

Error number	Description
230-0512	**Error message** Reciprocating stroke active at program end **Cause of error** Pendelhub oder Schleifbearbeitung ist aktiv am Ende des NC-Programms. **Error correction** NC-Programm anpassen: - Pendelhub mit Zyklus 1002 beenden (Koordinaten-schleifen) - Schleifbearbeitung mit Zyklus 1040 beenden (Rundschleifen)
230-0513	**Error message** CfgLaAxis/axManualJerk (%2) fehlt für PLC-Bewegung **Cause of error** Der Maschinenparameter CfgLaAxis/axManualJerk ist nicht definiert. Er muss für PLC-Bewegungen konfiguriert sein. **Error correction** - Für die zu bewegenden PLC-Achsen die Konfiguration in Maschinenparameter CfgLaAxis/axManualJerk prüfen. - Kundendienst benachrichtigen
230-0514	**Error message** Fehler in Parameter CfgCtrlAxis/signCorrActualVal (Achse %2) **Cause of error** The machine parameter CfgCtrlAxis/signCorrActualVal is not configured correctly. If an axis is operated solely with a motor encoder (without position encoders), the parameter must be configured corresponding to the counting direction of the speed encoder (column DIR of the motor table or machine parameter CfgServoMotor/motDir). **Error correction** Check and adjust the configuration. The algebraic sign for the automatically generated value of the holding current under CfgControllerComp/compHoldingCurrent might also need to be adjusted.

Error number	Description
230-0515	**Error message** Fehler in Parameter CfgCtrlAxis/signCorrNominalVal (Achse %2) **Cause of error** Der Maschinenparameter signCorrNominalVal ist fehlerhaft konfiguriert. Für einen Momentenverbund ergibt sich das Vorzeichen aus der Formel: signCorrNominalVal(Slave) = signCorrNominalVal(Master) * signCorrActualVal(Master) * signCorrActualVal(Slave) * inverseVelocity(Slave) **Error correction** Konfiguration prüfen und ggf. anpassen
230-0516	**Error message** Fehler in Param. CfgControllerComp/compHoldingCurrent (Achse %2) **Cause of error** The machine parameter CfgControllerComp/compHoldingCurrent is not configured correctly for the %2 axis. In a torque connection, the algebraic signs of compHoldingCurrent must be the same for Master and Slave. **Error correction** Check and adjust the configuration.
230-0531	**Error message** Formel in CfgCtrlEncoder/distance ist ungültig **Cause of error** Die im Maschinenparameter CfgCtrlEncoder/distance definierte Formel ist fehlerhaft. **Error correction** - Formel in CfgCtrlEncoder/distance prüfen und korrigieren
230-0532	**Error message** CC-Index für %1 zu groß **Cause of error** In the hardware equipment of this control, there are fewer speed controller processors than were configured for this axis. **Error correction** Check the parameters in the entity Axes/ParameterSets/????/CfgCtrlAxis "????" stands for the current parameter set name

Error number	Description
230-0533	**Error message** Eingang für Lagemessgerät (%1) nicht vorhanden **Cause of error** Der Eingang des Lagemessgerätes der angegebenen Achse ist fehlerhaft konfiguriert. **Error correction** - Konfiguration der Achse unter CfgCtrlEncoder/input prüfen und ggf. korrigieren
230-0534	**Error message** Messgerätetyp für Achse (%2) nicht erlaubt **Cause of error** Eine fehlerhafte Kombination von Axes/PhysicalAxes/CfgAxis/axisHw und Axes/ParameterSets/????/CfgCtrlAxis/encKeys ist konfiguriert. Erlaubte Kombinationen sind: axisHw = InOutCC Motorgeber und alle Lagemessgeräte an CC angeschlossen axisHw = AnalogCC Alle Lagemessgeräte an CC angeschlossen axisHw = DisplayCC Alle Lagemessgeräte an CC angeschlossen axisHw = ManualCC Alle Lagemessgeräte an CC angeschlossen **Error correction** Konfiguration prüfen und ggf. korrigieren
230-0535	**Error message** Die Option für Double-Speed-Regelkreise ist nicht freigeschaltet **Cause of error** Es wurde ein Double-Speed-Regelkreis konfiguriert, die Option jedoch nicht freigeschaltet. Für den Regelkreis wurde die einfache Rechenleistung (Single-Speed) aktiviert. **Error correction** Parameter CfgCtrlOut/ctrlPerformance kontrollieren

Error number	Description
230-0536	**Error message** Fehler in Parameter increments oder distance (Achse %2) **Cause of error** Die beiden Maschinenparameter increments und distance im Konfig-Objekt CfgCtrlEncoder sind fehlerhaft konfiguriert. Auch wenn die Achsen nur mit Motorgebern (ohne Lagemessgeräte betrieben werden, müssen beide Parameter sinnvolle Werte enthalten. **Error correction** - Maschinenparameter CfgCtrlEncoder/increments und CfgCtrlEncoder/distance auf sinnvolle Werte hinsichtlich Lagemessgerät bzw. Motorgeber überprüfen
230-0537	**Error message** Konfiguration der Achse %2 fehlerhaft **Cause of error** Es wurden Anschlüsse konfiguriert, die auf dieser CC nicht vorhanden sind. **Error correction** Konfiguration der Achse prüfen: - CfgCtrlEncoder/input - CfgCtrlOut/inverterInterface Bei analogen Achsen über CMA-H-Einschubmodul: - Einschubmodul auf korrekte Funktion prüfen
230-0538	**Error message** Eingang für Drehzahlmessgerät (%1) nicht gültig **Cause of error** Die Konfiguration des Drehzahlmessgeräte-Eingangs der Achse ist fehlerhaft. **Error correction** - Konfiguration der Achse prüfen: CfgCtrlEncoder/input

Error number	Description
230-0539	**Error message** Falscher Umrichter- oder Motoranschluss (%1, Inv. %2, Motor %3) **Cause of error** Mögliche Ursachen: - Der konfigurierte Anschluss für den Umrichter an der Reglereinheit ist nicht vorhanden (CfgCtrlOut/inverterInterface) - oder am konfigurierten Anschluss ist kein Umrichter angeschlossen (CfgCtrlOut/inverterInterface) - oder der konfigurierte Anschluss für den Motor am Umrichter ist nicht vorhanden (CfgCtrlOut/motorConnector). **Error correction** Prüfen Sie folgende Maschinenparameter: - CfgCtrlOut/inverterInterface - CfgCtrlOut/motorConnector - CfgCtrlAxis/hsciCcIndex
230-053A	**Error message** Abschaltgruppe darf nicht gesetzt werden, Parametersatz %2 **Cause of error** Der Maschinenparameter CfgCtrlAxis/driveOffGroup darf bei Steuerungen mit integrierter Funktionaler Sicherheit FS nicht gesetzt werden. **Error correction** - Maschinenparameter überprüfen - Die Funktion muss vom Maschinenhersteller über das SPLC-Programm realisiert werden - Kundendienst benachrichtigen
230-053B	**Error message** Abschaltgruppe muss gesetzt werden, Parametersatz %2 **Cause of error** Der Maschinenparameter CfgCtrlAxis/driveOffGroup muss bei Steuerungen ohne integrierter Funktionaler Sicherheit FS gesetzt werden. Beachten Sie zur Funktion und den Randbedingungen dieses Parameters das Technische Handbuch Ihrer Steuerung. **Error correction** - Maschinenparameter überprüfen - Kundendienst benachrichtigen

Error number	Description
230-053C	**Error message** Falscher Umrichteranschluss (%1, Inverter %2) **Cause of error** Der konfigurierte Anschluss für den Umrichter an der Reglereinheit ist nicht vorhanden (CfgCtrlOut/inverterInterface). **Error correction** Prüfen Sie folgende Maschinenparameter: - CfgCtrlOut/inverterInterface - CfgCtrlAxis/hsciCcIndex
230-053D	**Error message** Falsche UVR/UEC-Konfiguration: Achse %1, UV Idx Soll: %2, Ist: %3 **Cause of error** Mögliche Ursachen: - Verkabelung Zwischenkreis/24 V zwischen UVR/UEC und UM falsch/defekt - Zuordnung der UM zu UVR/UEC in Konfiguration falsch - UVR/UEC-Reihenfolge an HSCI fehlerhaft **Error correction** - Verkabelung Zwischenkreis/24 V prüfen - Maschinenparameter prüfen und ggf. korrigieren: - CfgPowerStage/supplyModule - CfgSupplyModule3xx/hsciUvIndex - CfgCtrlOut/inverterInterface - Reihenfolge an HSCI der UVR/UEC-Geräte prüfen - Verkabelung CC zu UM prüfen (HFL-Lichtwellenleiter)
230-053E	**Error message** Formel in CfgCtrlEncoder/transmission fehlerhaft **Cause of error** Die im Maschinenparameter CfgCtrlEncoder/transmission definierte Formel ist fehlerhaft. **Error correction** - Formel in CfgCtrlEncoder/transmission prüfen und ggf. korrigieren
231-4003	**Error message** 4003 EMERGENCY STOP is active (emergency stop test) **Cause of error** **Error correction**
231-4004	**Error message** 4004 EMERGENCY STOP is inactive (emergency stop test) **Cause of error** **Error correction**

Error number	Description
231-4005	**Error message** 4005 Stack overflow warning **Cause of error** **Error correction**
231-4007	**Error message** 4007 No interrupt from the gate array **Cause of error** **Error correction**
231-4008	**Error message** 4008 Answer to a host command was too late **Cause of error** **Error correction**
231-4009	**Error message** 4009 False interrupt (AC failure, emergence stop) **Cause of error** **Error correction**
231-400B	**Error message** 400B Host is prompted to synchronize **Cause of error** **Error correction**
231-4011	**Error message** 4011 Axis %1: measurement interrupted by NC Stop **Cause of error** The cycle was interrupted by an NC Stop while measuring. The measurement was canceled and the data discarded. **Error correction** - Continue the cycle with NC Start - Repeat the measurement
231-4110	**Error message** 4110 Encoder contamination in axis %1 **Cause of error** **Error correction**
231-4120	**Error message** 4120 Excessive frequency in encoder for axis %1 **Cause of error** **Error correction**

Error number	Description
231-4130	**Error message** 4130 Contamination of Z1 track in encoder for axis %1 **Cause of error** **Error correction**
231-4140	**Error message** 4140 Power module warning: Heat sink temperature in axis %1 **Cause of error** **Error correction**
231-4150	**Error message** 4150 Power module warnung for axis %1 **Cause of error** **Error correction**
231-4160	**Error message** 4160 Gate array status reg. = not nicht stored (axis %1) **Cause of error** **Error correction**
231-4170	**Error message** 4170 Error in temperature measurement for axis %1 **Cause of error** **Error correction**
231-4200	**Error message** 4200 PLC: Drive is ready for operation in axis %1 **Cause of error** **Error correction**
231-4210	**Error message** 4210 PLC: Drive is not ready for operation in axis %1 **Cause of error** **Error correction**
231-4220	**Error message** 4220 Standstill recognition (V=0 with IQ_max): (axis %1) **Cause of error** **Error correction**

Error number	Description
231-4230	**Error message** 4230 End of standstill recognition in axis %1 **Cause of error** **Error correction**
231-4240	**Error message** 4240 Warning for I^2*t monitoring in axis %1 **Cause of error** **Error correction**
231-4250	**Error message** 4250 End of warning for I^2*t monitoring in axis %1 **Cause of error** **Error correction**
231-4260	**Error message** 4260 Limit through I^2*t monitoring **Cause of error** **Error correction**
231-4270	**Error message** 4270 End of limit through I^2*t monitoring in axis %1 **Cause of error** **Error correction**
231-4280	**Error message** 4280 Error during REF scan in axis %1 **Cause of error** **Error correction**
231-4290	**Error message** 4290 Drive switch-off (inactive RDY signal) in axis %1 **Cause of error** **Error correction**
231-4300	**Error message** 4300 Drive enable in axis %1 **Cause of error** **Error correction**

Error number	Description
231-4310	**Error message** 4310 Drive disabled, e.g. through emergency stop in axis %1 **Cause of error** **Error correction**
231-4400	**Error message** 4400 Excessive following error (axis: %1) **Cause of error** - The following error of an axis exceeds one of the following error limits. - The acceleration entered is too large. - The motor does not move in spite of “Drive on.” **Error correction** - Reduce the contouring feed rate, increase the rotational speed. Remove any possible sources of vibration. Inform your service agency if the error occurs frequently. - Check the acceleration (CfgFeedLimits/maxAcceleration) - Check the following error limits (CfgPosControl/servoLag-Min[1/2] or servoLagMax[1/2]) - The motor current must not be under limitation during acceleration
231-4810	**Error message** 4810 CC (log): actual current value too high %1 **Cause of error** **Error correction**
231-5100	**Error message** 5100 Endless loop: Time monitoring (value: %1) **Cause of error** **Error correction**
231-5200	**Error message** 5200 Compensated angle error alignment (value: %1) **Cause of error** **Error correction**
231-5300	**Error message** 5300 Timeout of shaft speed interrupt (value: %1) **Cause of error** **Error correction**

Error number	Description
231-5500	**Error message** 5500 Emergency stop failure **Cause of error** **Error correction**
231-6002	**Error message** 6002 Status of machine-on input = 1 after "hcSgMaschi-neEin" **Cause of error** **Error correction**
231-6003	**Error message** 6003 Status of machine-on input = 0 after "hcSgMaschi-neEin" **Cause of error** **Error correction**
231-6005	**Error message** 6005 STOP1 release due to error in T2 test **Cause of error** **Error correction**
231-6006	**Error message** 6006 Tool changer: "SHS2"-output change to open chuck **Cause of error** **Error correction**
231-6016	**Error message** 6016 STOP2 release: Incorrect power supply **Cause of error** **Error correction**
231-6017	**Error message** 6017 STOP2 release: Out of temperature range **Cause of error** **Error correction**
231-6018	**Error message** 6018 Request for test of pulse deletion **Cause of error** **Error correction**

Error number	Description
231-6100	**Error message** 6100 Cut-out channel test: Status change -STO.A.x %1 = 0->1 **Cause of error** **Error correction**
231-6140	**Error message** 6140 Negative position monitoring with stop 1 **Cause of error** **Error correction**
231-6800	**Error message** 6800 CC (Dbg): test code **Cause of error** **Error correction**
231-6810	**Error message** 6810 CC (Dbg): switch-off position invalid, outside the limit switches **Cause of error** **Error correction**
231-6820	**Error message** 6820 CC (log): autotest info **Cause of error** **Error correction**
231-6840	**Error message** 6840 CC (log): timer info for monitoring the calling of the brake test **Cause of error** **Error correction**
231-6850	**Error message** 6850 CC (log): LSV2 test command for FS error injection **Cause of error** **Error correction**

Error number	Description
231-8000	**Error message** 8000 CC%2 Warning: Temperature of controller card is high **Cause of error** - The temperature of the controller card has exceeded a warning threshold - Ambient temperature is too high **Error correction** - Check the air conditioning of the electrical cabinet - Check whether the fan is working - Inform your service agency
231-8001	**Error message** 8001 CC%2 Warning: Temperature of controller card is low **Cause of error** - The temperature of the controller card has fallen below a warning threshold - Ambient temperature is too low **Error correction** - Check the air conditioning of the electrical cabinet - Inform your service agency
231-8002	**Error message** 8002 CC%2 warning: Fan speed is low **Cause of error** - The rotational speed of the fan in the CC controller unit has exceeded a warning threshold **Error correction** - Check the fan - Inform your service agency
231-8003	**Error message** 8003 CC%2 early warning: dc-link current too high **Cause of error** - The DC-link voltage of the temperature of the supply module has exceeded a warning threshold **Error correction** - Reduce the DC-link voltage by: - Adjust the acceleration/braking ramps of the axes/ spindles - Check the "motPbrMax" and "motPMa" machine parameters - Inform your service agency

Error number	Description
231-8004	**Error message** 8004 CC test software loaded **Cause of error** - In the control there is a non-released CC test program without valid CRC program checksum - No valid CRC checksum value was entered in the binary file of the CC software - The MC software version does not support the CRC checksum comparison **Error correction** - The software can be used after the error acknowledgment for initial servicing or error diagnostics - Check the software version - Read out the log - Inform your service agency
231-8005	**Error message** 8005 Oscilloscope signal not supported **Cause of error** - At least one of the selected signals of the internal oscilloscope is not supported with this controller unit (CC422) - The following signals are not supported by the controller unit: P mech., P elec., DSP debug, DC-link P, CC DIAG, I actual, actl. Id, Iq max, U noml, int. diag., motor A and motor B **Error correction** - Please do not select the following signals: - P mech. - P elec. - DSP debug - DC-link P - CC DIAG - I actual - Actl. Id - U nominal - int. Diag. - Motor A - Motor B - Max. Iq
231-8010	**Error message** 8010 LSV2 transmission error **Cause of error** - Error in data transfer by LSV2 protocol **Error correction** - Press the CE key to acknowledge the error. - Error does not impair the control functions. - Inform your service agency.

Error number	Description
231-8040	**Error message** 8040 Heat sink temp. in UV 1xx **Cause of error** - Heat-sink temperature of UV 1xx power supply unit too high - Temperature in the electrical cabinet too high - Contaminated filter pads - Defective climate control unit in the electrical cabinet - Defective fan in the UV - Defective temperature sensor - If the heat-sink temperature continues to increase, the unit will be switched off **Error correction** - Stop the machine and let it cool down - Continue working with lower power (reduce the feed rate) - Clean the filter pads - Check the climate control unit in the electrical cabinet - Inform your service agency
231-8041	**Error message** 8041 Excessive Iz in UV 1xx **Cause of error** - DC-link current of UV 1xx power supply unit too high - Overload of the machine while machining a workpiece **Error correction** - Continue working with lower power (reduce feed rate, replace worn tool, etc.)
231-8042	**Error message** 8042 CC%2 maximum temperature of controller card exceeded **Cause of error** - The maximum temperature of the controller card (CC) was exceeded - Ambient temperature is too high **Error correction** - Check the air conditioning of the electrical cabinet - Check whether the fan is working - Inform your service agency
231-8043	**Error message** 8043 CC%2 temperature of controller card below minimum **Cause of error** - The temperature of the controller card (CC) is below the minimum - Ambient temperature is too low **Error correction** - Check the air conditioning of the electrical cabinet - Inform your service agency

Error number	Description
231-8044	**Error message** 8044 CC%2 Fan speed too low **Cause of error** - The rotational speed of the fan in the CC controller unit has exceeded a monitoring threshold **Error correction** - Check the fan - Exchange the controller unit - Inform your service agency
231-8060	**Error message** 8060 Leakage current in UV 1xx **Cause of error** - Insulation problem (e.g. defective motor, contamination of the inverter, humidity) - Check the motor connection for a ground fault **Error correction** - Isolate the cause by deselecting specific axes - Replace the motor of the affected axis or check for a ground fault - Replace the power cable of the affected axis or check for a ground fault - Replace the inverter of the affected axis or check for a ground fault - Check the motors of all selected axes - Inform your service agency
231-8061	**Error message** 8061 Power module not ready **Cause of error** - Readiness signal of the power supply module is inactive after the servo control starts. - Master contactor has opened - Error in PLC program - Power supply module, inverter defective **Error correction** - Try restarting the inverter. If the error recurs: - Inform your service agency - Check the wiring (main contactor) - Check the PLC program - Exchange the power supply module

Error number	Description
231-8062	**Error message** 8062 Limit: Uz too small **Cause of error** - The dc-link voltage from the supply unit fell below the defined limit. **Error correction** - Inform your service agency - Failure of the power supply at the supply module - Excessive power consumption by the axes->activate the power limitation of the spindle
231-8063	**Error message** 8063 CC%2 timeout in S status test **Cause of error** - The MC activates the S status evaluation too late after a test. - The maximum test switch-off time was exceeded. **Error correction** - Inform your service agency
231-8064	**Error message** 8064 AC powerfail **Cause of error** An error occurred during the AC Fail process. The line voltage was intermittently interrupted. Possible causes: - Power failure - Dropout in line power - Defective protection of the line power supply - Check the wiring of the line power supply **Error correction** - Check the line power circuit breakers - Check the power supply wiring - Check the quality of the line voltage (possible dropouts) - Inform your service agency
231-8065	**Error message** 8065 DC powerfail **Cause of error** An error occurred during the DC Fail process. The dc-link voltage is below the specified limit. **Error correction** - Check the dc-link voltage - Check the DC-link charging contactor for interruptions - Check the line power supply - Check the line power circuit breakers - Check the wiring of the line power - Check the quality of the line voltage (possible dropouts) - Inform your service agency

Error number	Description
231-8066	**Error message** 8066 CC%2 maximum temperature of controller card exceeded **Cause of error** - The maximum temperature of the controller card (CC) was exceeded - Ambient temperature is too high **Error correction** - Check the air conditioning of the electrical cabinet - Check whether the fan is working - Inform your service agency
231-8067	**Error message** 8067 CC%2 temperature of controller card below minimum **Cause of error** - The temperature of the controller card (CC) is below the minimum - Ambient temperature is too low **Error correction** - Check the air conditioning of the electrical cabinet - Inform your service agency
231-8068	**Error message** 8068 CC%2 Fan speed too low **Cause of error** - The rotational speed of the fan in the CC controller unit has exceeded a monitoring threshold **Error correction** - Check the fan - Exchange the controller unit - Inform your service agency
231-8069	**Error message** 8069 IGBT error in the supply module **Cause of error** - The supply module switched off with an IGBT error (overload). **Error correction** - Check the power consumption of axes and spindle - Exchange the power supply module - Inform your service agency

Error number	Description
231-806A	**Error message** 806A Unknown SPI expansion module **Cause of error** - The SPI plug-in module (for CC or MC) is unknown or provides an unknown code. - The SPI plug-in module is defective. **Error correction** - Remove the defective SPI plug-in module. - Exchange the defective SPI plug-in module. - Inform your service agency.
231-806B	**Error message** 806B Powerfail AC drive cntrller **Cause of error** An "AC fail" occurred during operation. This means that the line power supply was temporarily interrupted. Possible causes: - Power failure - Dropout in line power - Defective protection of the line power supply - Defective wiring of the line power supply **Error correction**
231-806C	**Error message** 806C DC powerfail **Cause of error** An error occurred during the DC Fail process. The dc-link voltage is below the specified limit. **Error correction** - Check the dc-link voltage - Check the DC-link charging contactor for interruptions - Check the line power supply - Check the line power circuit breakers - Check the wiring of the line power - Check the quality of the line voltage (possible dropouts) - Inform your service agency

Error number	Description
231-8080	**Error message** 8080 Uz UV 1xx exceeds max. **Cause of error** - DC-link voltage of the power supply unit too high - Defective braking resistor - Defective power supply unit (infeed/regenerative feedback module) - Interruption in the primary supply (fuses, wires, etc.) - Energy recovery not possible **Error correction** - Inform your service agency - Check the configuration datum (braking of the spindle) - Check the braking resistor - Replace the power supply unit - Check the fuses and wiring of the primary supply
231-8081	**Error message** 8081 Uz is too small **Cause of error** - DC-link voltage of the supply unit is too low **Error correction** - Inform your service agency - Failure of the power supply at the supply module - Excessive power consumption by the axes->activate the power limitation of the spindle - Check MP2192
231-8082	**Error message** 8082 MC shut-off signal "-STO.A.MC.WD" is active **Cause of error** - The shut-off signal "-STO.A.MC.WD" of the MC is active - Check the entry in machine parameter CfgCycle-Time/watchdogTime - Hardware defective - The drive was switched off due to an internal error of the MC **Error correction** - Inform your service agency
231-8086	**Error message** 8086 Probing already active **Cause of error** Internal software error **Error correction** - Inform your service agency - Check the software version

Error number	Description
231-8092	**Error message** 8092 Pos. contr. cyc. time error **Cause of error** - MC is providing erroneous cycle time for CC position controller - Hardware error **Error correction** - Inform your service agency - Check the configuration datum ipoCycle - Exchange the drive control board
231-8093	**Error message** 8093 CC%2 HSCI communication code=%4 address=%5 **Cause of error** - The HSCI communication monitor reports a transmission error - Hardware of an HSCI participant is defective **Error correction** - Check the HSCI cabling - Exchange the defective hardware - Inform your service agency
231-8093	**Error message** 8093 CC%2 HSCI data package not received Code=%4 Address=%5 8093 CC%2 HSCI data packet not received Code=%4 Address=%5 **Cause of error** There was an error in HSCI communication. An expected data packet with the above described HSCI address could not be received. Code 2101: Missing cyclic data 2102: Missing asynchronous data 2103: Missing asynchronous data 2 2104: Missing cyclic data of low priority - Sporadic interruption of the HSCI communication through contact problems (connector) or external EMC disturbance - Grounding problems in the HSCI system - Disturbance in the power supply of an HSCI participant - Power supply fluctuations are too low or too high Power supply of an HSCI participant - Defect of an HSCI participant **Error correction** - Check the cabling (HSCI connection) - Check the ground and power supply of the HSCI participant - Check the software version. - Inform your service agency.

Error number	Description
231-8093	**Error message** 8093 CC%2 HSCI: Wrong ID data from HSCI device Code=%4 Address=%5 **Cause of error** There was an error in HSCI communication. an HSCI device with functional safety FS sent an incorrect identification data to the HSCI device with the above described HSCI address. Code 2201: Missing cyclic telegram 2202: Data telegram contains incorrect CRC checksum 2203: Data telegram contains incorrect watchdog counter 2204: Data telegram indicates incorrect channel 2205: Data telegram contains incorrect HSCI address 2206: Data telegram contains incorrect number of inputs - Incorrect HSCI configuration (IOC file) or wiring error - Defect of an HSCI participant **Error correction** - Check the cabling (HSCI connection). - Check and, if required, correct the HSCI configuration. - Check the software version. - Inform your service agency.
231-8093	**Error message** 8093 CC%2 Error in HSCI telegram between MC-CC Code=%4 Address=%5 **Cause of error** There was an error in HSCI communication. An expected data packet with the above described HSCI address could not be received. Code 2301: Missing telegram from MC to controller unit 2302: Data telegram contains incorrect CRC checksum 2303: Data telegram contains incorrect watchdog counter - Sporadic problems of the HSCI connection or external disturbance - Defect of an HSCI participant **Error correction** - Check the cabling (HSCI connection) - Check the software version. - Inform your service agency.

Error number	Description
231-8093	**Error message** 8093 CC%2 Error in HSCI telegram between CCs Code=%4 Address=%5 **Cause of error** An error occurred in the HSCI communication between two or more CC 61xx or UEC 1xx controller units. Code 2401: Missing transmission telegram between the controller units 2402: Data telegram contains incorrect CRC checksum 2403: Data telegram contains incorrect watchdog counter 2404: Incorrect index of a controller unit - Sporadic interruption of the HSCI communication through contact problems (connector) or external disturbance - Defect of an HSCI participant **Error correction** - Check the cabling (HSCI connection) - Check the software version. - Inform your service agency.
231-8093	**Error message** 8093 CC%2 Configuration error of an HSCI device with FS Code=%4 Address=%5 **Cause of error** Errors occurred in the HSCI configuration of an HSCI component with functional safety (FS). Code 2207: Incorrect number of configuration commands received 2208: Incorrect device type configured 2209: Incorrect number of inputs configured 2210: Incorrect number of outputs configured 2211: Incorrect module ID received during configuration 2212: Wrong text ID configured 2213: Incorrect device variant configured - HSCI configuration (IOC file) does not match the connected HSCI component with FS **Error correction** - Check the cabling (HSCI connection) - Check and, if required, correct the HSCI configuration. - Check the software version. - Inform your service agency.

Error number	Description
231-8093	**Error message** 8093 CC%2 Alarm message from HSCI device Code=%4 Address=%5 8093 CC%2 Alarm message from HSCI component (FPGA) Code=%4 Address=%5 **Cause of error** The HSCI participant (component) with the above described address reported a transmission alarm. Code 2500: General FPGA alarm 2501: Cyclic Range violation Rx 2502: Async Range violation Rx 2503: Async2 Range violation Rx 2504: Low priority range violation Rx 2505: Cyclic Range violation Tx 2506: Async Range violation Tx 2507: Async2 Range violation Tx 2508: Low priority range violation Tx 2509: Data inconsistency Rx 2510: Data inconsistency Tx 2511: Frame number error 2512: Sync fail flag 2513: Sync data fail flag - Sporadic interruption of the HSCI communication through contact problems (connector) or EMC disturbance - Defect of an HSCI participant **Error correction** - Check the cabling (HSCI connection). - Check the software version. - Inform your service agency.
231-8094	**Error message** 8094 CC%2 HSCI sampling interval not transferred **Cause of error** - Internal software error **Error correction** - Inform your service agency
231-8130	**Error message** 8130 Motor brake defective %1 **Cause of error** - Motor brake defective **Error correction** - Inform your service agency - Check the motor brake control - Exchange the motor

Error number	Description
231-8150	**Error message** 8150 Field orient. successful %1 **Cause of error** - Field orientation successful **Error correction** - Press CE to acknowledge the message
231-8160	**Error message** 8160 Actual current value too high %1 **Cause of error** - The maximum permissible current of the power stage was exceeded **Error correction** - Check the current controller adjustment - Inform your service agency - Check the motor table, power stage table and configuration data - Check the system for short circuits
231-8190	**Error message** 8190 Error in TNCopt measurement %1 **Cause of error** - The TNCopt measurement was cancelled **Error correction** - Check the TNCopt version - Check whether the control is active - Inform your service agency
231-81A0	**Error message** 81A0 Invalid diagnostics channel %1 **Cause of error** - Invalid CC-diag channel is selected in the oscilloscope. **Error correction** - Select another channel
231-81A1	**Error message** 81A1 CC %2 axis %1: Invalid DSP debug channel %4 **Cause of error** - Invalid DSP debug signal selected in the oscilloscope **Error correction** - Select another signal

Error number	Description
231-81A2	**Error message** 81A2 Axis %1: Quantity of channels per inverter exceeded **Cause of error** The maximum permissible number of oscilloscope channels per device was exceeded. **Error correction** Reduce the number of oscilloscope channels for the device.
231-81A3	**Error message** 81A3 Axis %1: Quantity of channels per encoder exceeded **Cause of error** The maximum permissible number of oscilloscope channels per device was exceeded. **Error correction** Reduce the number of oscilloscope channels for the device.
231-81A4	**Error message** 81A4 Axis %1: result of weighing was deleted **Cause of error** The result of the weighing run was deleted. Cycle 239 was not deactivated. **Error correction** Deactivate Cycle 239 before switching to another setting.
231-81A5	**Error message** 81A5 CC%2 %1: Kanalanzahl des Gebers überschritten **Cause of error** The maximum permissible number of oscilloscope channels per device was exceeded. **Error correction** Reduce the number of oscilloscope channels for the device.
231-81A5	**Error message** 81A5 CC%2 encoder %1: number of oscilloscope channels exceeded **Cause of error** The maximum permissible number of oscilloscope channels for this encoder was exceeded. **Error correction** Reduce the number of oscilloscope channels for the encoder.

Error number	Description
231-81B0	**Error message** 81B0 DQ com error of inverter %1 Po=%4 Dev=%5 Error=%6 **Cause of error** - DRIVE-CLiQ communication to the inverter of the named axis is disturbed - DRIVE-CLiQ communication at the named output (Po=Port) has been interrupted - Error code (error) of the DSA link (third additional info): - Output in decimal, to be interpreted in binary, consisting of 8 bits: Bit(s) Meaning 7 Interrupt triggered 6..5 Error group: "00" Telegram reception error "01" Other reception error "10" Transmission error "11" Other errors 4 Telegram too early 3..0 More detailed information: 0x1: CRC error 0x2: Telegram too short 0x3: Telegram too long 0x4: Length byte incorrect 0x5: Wrong telegram type 0x6: Incorrect address 0x7: No SYNC telegram 0x8: Unexpected SYNC telegram 0x9: ALARM bit received 0xA: Life sign is missing 0xB: Synchronization error of the alternative cyclic data traffic **Error correction** - Inspect the DRIVE-CLiQ cabling - Exchange the inverter - Exchange the CC controller unit. - Inform your service agency.

Error number	Description
231-81C0	**Error message** 81C0 DQ com error motor encdr %1 Po=%4 Dev=%5 Error= %6 **Cause of error** - DRIVE-CLiQ communication to the speed encoder (motor encoder) of the named axis is disturbed. - DRIVE-CLiQ communication at the named output (Po=Port) has been interrupted. - Error code (error) of the DSA link (third additional info): - Output in decimal, to be interpreted in binary, consisting of 8 bits: Bit(s) Meaning 7 Interrupt triggered 6..5 Error group: "00" Telegram reception error "01" Other reception error "10" Transmission error "11" Other errors 4 Telegram too early 3..0 More detailed information: 0x1: CRC error 0x2: Telegram to short 0x3: Telegram to long 0x4: Length byte incorrect 0x5: Wrong telegram type 0x6: Incorrect address 0x7: No SYNC telegram 0x8: Unexpected SYNC telegram 0x9: ALARM bit received 0xA: Life sign is missing 0xB: Synchronization error of the alternative cyclic data traffic **Error correction** - Inspect the DRIVE-CLiQ cabling - Check the encoder connection - Exchange the speed encoder - Exchange the CC controller unit. - Inform your service agency.

Error number	Description
231-8300	**Error message** 8300 Motor brake defective %1 **Cause of error** - Motor brake defective **Error correction** Warning: Hanging axes cannot be supported under certain circumstances. The axis can fall down. Do not enter the area of danger under the axis! - Move the axis to a safe position before power-off - Inform your service agency - Check controls for motor brakes - Exchange the motor
231-8310	**Error message** 8310 No current in brake test %1 **Cause of error** - Motor is not properly connected - Inverter is incorrectly connected - Inverter is defective - Motor is defective **Error correction** - Inform your service agency - Check the wiring of the motor and inverter - Check the inverter - Check the motor

Error number	Description
231-8320	**Error message** 8320 PIC: Actual value does not equal the nominal value %1 **Cause of error** Possible cause: The measurement range of current of the inverter is not set to the range specified in the configuration. This message can appear, for example, if a new CC controller unit has been installed or there was an unexpected change to the configuration. "PIC" designates a microcontroller inside the inverter that switches and reads back the measurement range of current. - Nominal value (value in column S of the power module table) = 1, however: - There is no PIC - PIC can't be switched - Access to PIC is deactivated (machine parameter motEnc-CheckOff, Bit16=1) - Nominal value (value in column S of the power module table) = 0, however: - Access to PIC is deactivated (machine parameter motEnc-CheckOff, Bit16=1) and PIC was already switched to 1 **Error correction** - Check the power module entered in the machine configuration - Check the nominal value of the PIC (value in column S of the power module table) - Perhaps change the PWM frequency (to >= 5 kHz) - Perhaps exchange the power module
231-8330	**Error message** 8330 Brake test was canceled %1 **Cause of error** The brake test was canceled by - PLC through Module 9161 = 0 - Missing enabling signal (emergency stop, X150, ...) - Other error message **Error correction** - Check the PLC program - Check the enabling signals - Inform your service agency
231-8420	**Error message** 8420 Excessive temperature of power module %2.s **Cause of error** - Axis is being loaded too heavily (overload, temperature) - Insufficient cooling in the electrical cabinet **Error correction** - Reduce the load – Check the climate control in the electrical cabinet. - Inform your service agency

Error number	Description
231-8430	**Error message** 8430 Error during axis change %1 **Cause of error** - An axis was removed from the machine configuration while still in the closed control loop **Error correction** - Check the PLC program and edit if necessary - Check the configuration datum axisMode - Inform your service agency
231-8440	**Error message** 8440 Field orient. successful %1 **Cause of error** - Field orientation successfully completed. **Error correction** - Acknowledge the message with CE.
231-8600	**Error message** 8600 No drive-on command for %1 **Cause of error** - Speed controller is waiting for the "drive on" command; the PLC program has sent no "drive on" command. **Error correction** - Check the PLC program. - Inform your service agency. - Check the software version.
231-8610	**Error message** 8610 I2T value is too high %1 **Cause of error** - The load of the drive is too high for the duration **Error correction** - Reduce the load or the duration - Inform your service agency - Check the motor table, power stage table and configuration data - Check whether the motor and power module are designed for the load

Error number	Description
231-8620	**Error message** 8620 Load is too high %1 **Cause of error** - Drive has maximum current and cannot accelerate - Excessive load (torque, power) on the drive **Error correction** - Reduce the load on the drive - Inform your service agency - Check the motor table, power stage table and configuration data - Check whether the motor and power module are designed for the load
231-8630	**Error message** 8630 Actual current value too high %1 **Cause of error** - The maximum permissible current of the power stage was exceeded **Error correction** - Check the current controller adjustment - Inform your service agency - Check the motor table, power stage table and configuration data - Check the system for short circuits
231-8640	**Error message** 8640 I2T value of motor is too high %1 **Cause of error** - The load of the motor is too high over the duration **Error correction** - Reduce the load or the duration - Check the motor table and configuration datum - Check whether the motor is designed for the load - Inform your service agency
231-8650	**Error message** 8650 I2T value of power module is too high %1 **Cause of error** - The load of the power module is too high over the duration **Error correction** - Reduce the load or the duration - Check the power module and configuration datum - Check whether the power module is designed for the load - Inform your service agency

Error number	Description
231-8680	**Error message** 8680 DQ inverter %1: Maximum current limiting **Cause of error** - The maximum current read from the inverter is smaller than the maximum current in the inverter table. - At a PWM frequency > 4 kHz: The output current has been derated too far. - The permissible load application of the inverter was exceeded. **Error correction** - Reduce the PWM frequency - Reduce the application load of the inverter - Inform your service agency
231-8690	**Error message** 8690 Field orientation successful %1 **Cause of error** - Field orientation successful **Error correction** - Press CE to acknowledge the message
231-8800	**Error message** 8800 Signal LT-RDY inactive %1 **Cause of error** - Undesirable inverter switch-off during control of a vertical axis (caused by vertical axis). **Error correction** - Inform your service agency. - Check the PLC program. - Check the wiring of the inverter.
231-8810	**Error message** 8810 Signal LT-RDY inactive %1 **Cause of error** - Undesirable inverter switch-off during control of a vertical axis (caused by vertical axis). **Error correction** - Inform your service agency. - Check the PLC program. - Check the wiring of the inverter.

Error number	Description
231-8820	**Error message** 8820 Field angle unknown %1 **Cause of error** - The field angle of the motor on the encoder reference point has not yet been ascertained. **Error correction** - Inform your service agency - Check the entry in the configuration datum motFieldAdjust-Move - If required, find field angle in the "current controller adjust-ment" mode (press the "FIELD ORIENT." soft key) Caution: The motor must be freely rotatable (no clamping, no hanging axis, no mechanical constraints). - Check the "type of encoder" entry in the motor table
231-8830	**Error message** 8830 EnDat: no field angle %1 **Cause of error** - The field angle of a motor with unaligned EnDat encoder has not yet been ascertained- The transferred EnDat serial number does match the one saved **Error correction** - Inform your service agency - If required, find field angle in the "current controller adjust-ment" mode (press the "FIELD ORIENT." soft key) - "Type of encoder" entry in the motor table - Check the configuration datum motEncType
231-8840	**Error message** 8840 Axis not available %1 **Cause of error** - Starting command for unavailable axis. **Error correction** - Inform your service agency. - Check the software version.
231-8850	**Error message** 8850 Drive still active %1 **Cause of error** - Position measurement (Z1 track) was started although the drive is still active. **Error correction** - Inform your service agency. - Check the software version.

Error number	Description
231-8860	**Error message** 8860 Input frequency of speed encoder %1 **Cause of error** - Noise on speed encoder signals - Signal connector: Poor contact or penetration of humidity - Humidity has entered the motor **Error correction** - Inform your service agency - Check the encoder signals - Check the shielding
231-8870	**Error message** 8870 Input frequency of position encoder %1 **Cause of error** - Noise on position encoder signals - Penetration of humidity **Error correction** - Inform your service agency - Check the encoder signals - Check the shielding
231-8880	**Error message** 8880 No enabling while field angle %1 is being found **Cause of error** - Enabling is canceled while the field angle is being determined (e.g. PLC program, emergency stop, X150/X151, monitoring function). **Error correction** - Inform your service agency - Check the PLC program (most frequent cause)
231-8890	**Error message** 8890 TRC: Wrong type of motor %1 **Cause of error** - The axis for which the torque ripple compensation was activated through MP2260.x is not driven by a synchronous or linear motor. **Error correction** - Inform your service agency - To deactivate the compensation, delete the entry in MP2260.x

Error number	Description
231-88A0	**Error message** 88A0 TRC: Wrong control %1 **Cause of error** - The compensation file was generated for a different control from this. Using a compensation file copied from another control is not allowed. **Error correction** - Inform your service agency - Find again the compensation parameters with TNCopt under Optimization/Torque Ripple Compensation - To deactivate the compensation, delete the entry in MP2260.x
231-88B0	**Error message** 88B0 TRC: Wrong file – motor %1 **Cause of error** - The compensation file was generated for a motor with a different speed encoder with EnDat interface from this one. Using a compensation file copied from another control is not allowed. **Error correction** - Inform your service agency - Find again the compensation parameters with TNCopt under Optimization/Torque Ripple Compensation - To deactivate the compensation, delete the entry in MP2260.x

Error number	Description
231-88C0	**Error message** 88C0 Max. nominal motor speed %1 exceeded **Cause of error** - Axis: Maximum feed rate is greater than the maximum motor speed (N-MAX) multiplied by the configuration datum distPerMotorTurn - Spindle: Maximum spindle speed is greater than the maximum motor speed (N-MAX) multiplied by the gear transmission ratio - The relationship between the line count of the position encoder and that of the motor encoder is faulty - The N-MAX entry in the motor table is faulty - Incorrect entry in the configuration datum motName - EcoDyn: The selected feed rate exceeds the max. permissible voltage **Error correction** - Inform your service agency - Check the N-MAX entry in the motor table - Check the configuration data maxFeed, manualFeed and distPerMotorTurn - Check the configuration data for spindle speed - Check the STR column in the motor table and line count in the spindle parameter block (configuration datum from MLST 19: "CfgCtrlEncoder/increments" or to MLST 18: "posEncoderIncr") - Check all configuration data under CfgServoMotor
231-88D0	**Error message** 88D0 Kinematic compensation %1 not possible **Cause of error** Kinematic compensation via compensation file is possible only for - Double-speed axes - PWM frequencies less than or equal to 5 kHz **Error correction** - Check the machine parameter: - Check the entry in SelAxType. - Check the entry in AmpPwmFreq. - Check the compensation file. - Inform your service agency.
231-88E0	**Error message** 88E0 Brake test %1 not possible **Cause of error** - A brake test is not possible because the axis is not in a control loop. **Error correction** - Inform your service agency - Software error

Error number	Description
231-88F0	**Error message** 88F0 Inverter and supply module readiness is missing %s **Cause of error** - While the drive was still under servo control, both the Ready signal of the inverter and the Ready signal of the supply module were switched to inactive. - Possible causes: - UV was switched off over X70 - Fault clearance of the UV: - Dropout in power supply - DC-link voltage is too high - DC-link voltage is too low - DC-link current is too high - PLC or external wiring switched UV off - Noise signals on wiring CC -> UV, CC -> UM - CC controller unit is defective. **Error correction** - Check the diagnostic LEDs on the UV in the event of an error - Check the power supply of the UV - Check the enabling signal on X70 - Check whether the braking resistor is connected for a non-regenerative power supply. - Check the cable ground and shield - Exchange the supply module and the power module - Exchange the CC controller unit. - Inform your service agency.
231-8900	**Error message** 8900 Noml. speed > %5 1/min: Field weakening inactive %1 **Cause of error** - The field weakening is not activated (machine parameter ampVoltProtection = 0) - The nominal speed was higher than the rotational speed possible without field weakening **Error correction** - Activate the field weakening (set machine parameter ampVoltProtection to be unequal to 0)

Error number	Description
231-8910	**Error message** 8910 Velocity too high for rotor position measurement %1 **Cause of error** - An excessively high velocity was detected during the rotor position measurement - Cause 1: The rotor position is measured at a vertical axis without counterweight - Cause 2: The motor is in a poor switch-on position. The axis controls a certain position. **Error correction** - Regarding cause 1: Measure the rotor position with another method. Only methods that measure the rotor position at standstill are allowed. - Regarding cause 2: Restart the rotor position measurement - Inform your service agency
231-89F0	**Error message** 89F0 PLC input inactive %s **Cause of error** - A high-speed input is defined in MP4130.0 that stays inactive when the motor is switched on. - The high-speed input is not enabled over W522. **Error correction** - Inform your service agency - Check the PLC program - Check the high-speed PLC input (MP4130.5)
231-8A00	**Error message** 8A00 No inverter enabling %1 **Cause of error** - Power-on of the drive not possible due to missing enabling of the inverter via –SH1 - Charging contactor and main contactor on the supply unit is not on (e.g. connector X70 on UV) - Safety relay not on (e.g. connectors X71 and X72 of the UV, X73 of the HEIDENHAIN expansion board for Simodrive) - PWM bus cable interrupted - Interruption in the electrical cabinet (unit bus, PWM ribbon cable) - Defective inverter, (supply unit and/or power modules, compact inverter) - Defective PWM interface on the control **Error correction** - Inform your service agency - Check the wiring

Error number	Description
231-8A10	**Error message** 8A10 AC fail %1 **Cause of error** - Power-on of the drive not possible, because an AC-fail signal (power supply) is active. - At least one phase is missing at the primary connection of the supply module **Error correction** - Inform your service agency - Check the wiring of the power supply - Test the power supply
231-8A20	**Error message** 8A20 Powerfail %1 **Cause of error** - Power-on of the drive not possible, because a powerfail signal (power supply) is active **Error correction** - Inform your service agency - Check the wiring of the power supply - Test the power supply - DC-link voltage
231-8A30	**Error message** 8A30 Drive enabling (I32) %1 **Cause of error** - Power-on of the drive not possible due to missing drive enabling via I32 **Error correction** - Inform your service agency - Check the wiring of the emergency-stop loop - Check the wiring for the drive enabling conditions (e.g. door contact, permissive button) - Measure 24 V- at connector X42/pin 33
231-8A40	**Error message** 8A40 Enabling of axis group %1 **Cause of error** - Because of missing drive enabling for axis groups (X150/X151), the drive cannot be switched on. **Error correction** - Inform your service agency - Check the connector on X150/X151 for correct fit - Check the wiring of X150/X151 - Check the optional configuration datum driveOffGroup.

Error number	Description
231-8A50	**Error message** 8A50 Inverter not ready %1 **Cause of error** - Power-on of the drive not possible, because an inverter is not ready (RDY signal). - No pulse release, 24 V is missing on the terminal X71 or X72 - On interface PCBs for Siemens inverters, the second axis is not enabled - Compact inverter, inverter supply unit or power module is defective - Interruption at inverter bus cable (supply bus, unit bus, PWM bus) - Defective PWM interface on the control **Error correction** - Correct the defect in the pulse inhibitor on power supply module UV, X71/72 - Replace the defective compact inverter, supply unit or power module - Replace the defective cable - Inform your service agency
231-8A60	**Error message** 8A60 Field angle incorrect %1 **Cause of error** The drive cannot be switched on because of missing field angle information. **Error correction** - Inform your service agency - Check the entries of the motor table (measuring device) - If necessary, ascertain the field angle
231-8A70	**Error message** 8A70 Drive change active %1 **Cause of error** The drive cannot be switched on because of a head exchange or a wye/delta switchover. **Error correction** - Inform your service agency - Check the PLC program

Error number	Description
231-8A80	**Error message** 8A80 Error ack. missing %1 **Cause of error** The drive cannot be switched on because of a missing error acknowledgment. **Error correction** - Press the emergency stop and switch on again - Switch on the control voltage - Inform your service agency - Check the wiring of the emergency stop
231-8A90	**Error message** 8A90 Safety module %1 **Cause of error** - Not a safety-oriented control: - The drive cannot be switched on because the safety module is locked - Switch-off of the drive through removal of the external drive enabling at the input of the safety module - Safety module is defective (exchange) - Safety-oriented control: - Drive cannot be switched on because of the operating status of the machine - Drive was switched off because of a change to an illegal operating status of the machine **Error correction** - Inform your service agency - Safety module is connected only to CC: - Switch the external drive enabling over the corresponding input at the safety module (apply 24 V) - Safety modules are connected at MC and CC: - All drives: - Check the function of the protective door contact - Cancel the emergency stop - Only spindle drive: - Check the tool holder (closing) - Check the permissive key - Check the position of the detachable-key switch - Exchange the safety module(s)
231-8AA0	**Error message** 8AA0 Illegal reference run %1 **Cause of error** - A reference value was requested during an active touch probe cycle - Internal software error **Error correction** - Inform your service agency. - Check the software version.

Error number	Description
231-8AB0	**Error message** 8AB0 Illegal probing %1 **Cause of error** - A touch probe cycle was started during an active reference run - Internal software error **Error correction** - Inform your service agency. - Check the software version.
231-8AD0	**Error message** 8AD0 Drive enabling gone (Signal: "-STO.A.MC.WD" active) **Cause of error** - It is not possible to switch the drives on because there is no drive release - The MC does not trigger the switch-off signal '-STO.A.MC.WD' - Hardware defective - Internal software error **Error correction** - Inform your service agency

Error number	Description
231-8AE0	**Error message** 8AE0 Drive enabling missing in axis %1 (signal: %4) **Cause of error** - The switch-on procedure was canceled due to an existing error condition: 1 = Signal -ES.A (emergency stop MC) is active during switch-on (emergency stop might have been pressed during switch-on) 2 = Signal -ES.A.HW (emergency stop MC, handwheel) is active during switch-on (emergency stop might have been pressed during switch-on) 3 = Signal -ES.B (emergency stop CC) is active during switch-on (emergency stop might have been pressed during switch-on) 4 = Signal -ES.B.HW (emergency stop CC, handwheel) is active during switch-on (emergency stop might have been pressed during switch-on) 5 = Switch-on procedure not allowed because of a unacknowledged error 6 = Internal software error: addressed axis module/gate array does not exist 7 = Internal error signal -STO.B.CC.WD active during switch-on 8 = Internal error signal -N0 active during switch-on 9 = Internal error signal PWM error active during switch-on **Error correction** - Check the emergency-stop wiring - Inform your service agency
231-8AF0	**Error message** 8AF0 Encoder %1 defective **Cause of error** - Scale or scale tape contaminated or defective - Scanning head contaminated or defective - Signal cable defective - Encoder input defective on the control - Penetration of humidity - The position encoder is contaminated - Motor encoder cable defective - Motor control board defective **Error correction** - Inform your service agency - Exchange the position encoder - Check the encoder cable - Exchange the motor control board (or better, the control)

Error number	Description
231-8B10	**Error message** 8B10 Wrong traverse direction %1 **Cause of error** - DIR entry in motor table is incorrect. - Incorrect power connection of the motor. **Error correction** - Inform your service agency. - Check the DIR entry in the motor table. - Check the power connection of the motor.
231-8B20	**Error message** 8B20 Error %1 field orientation **Cause of error** - Field orientation impossible for mechanical reasons - Incorrect relation between electrical field and mechanical motor movement - Incorrect motor encoder signal - Error in motor connection - Mechanical brake not released **Error correction** - Inform your service agency - Check the configuration data for number of signal periods and distance for the number of signal periods. - Check the configuration datum for the linear distance of one motor revolution - For linear motors: check column STR of the motor table - Check the speed encoder connection - Check the motor connection - Release brakes during orientation
231-8B30	**Error message** 8B30 Motor temp. %1 too high **Cause of error** - Measured motor temperature is too high - No temperature sensor - Motor encoder cable is defective (wire broken) - Entry in motor table is incorrect - Incorrect or defective temperature sensor was installed - Signal connector: Poor contact **Error correction** - Let the motor cool down - Inform your service agency - Check the motor encoder cable - Check the entry in the motor table - Measure the temperature sensor

Error number	Description
231-8B40	**Error message** 8B40 No drive release %1 **Cause of error** - Inverter not ready - No pulse release for the power module - Uz too high - Power-fail signal active - With M controls: I32 input inactive - With P controls: Drive enabling at X50 inactive In addition, for 246 261-xx (digital current controller): - For the given axis an illegal motor model (e.g. linear motor) was selected. - The CC receives a "Drive on" command for a nonexistent axis. - The power module is not ready when the field orientation starts. Readiness of the power module is detected through the Ready signal on the PWM cable. - The power module is not ready when the current controller adjustment begins. **Error correction** - Inform your service agency - Check the activation and wiring of the pulse release - Check Uz - Check the emergency stop circuit - For a non-regenerative system: Is the braking resistor connected? - For a regenerative system: Is the energy recovery activated? - Check the cable ground and shield - Exchange the power module - For SIEMENS power converter (inverter): Exchange the interface card - Exchange the drive control board
231-8B50	**Error message** 8B50 Axis module %1 not ready **Cause of error** - Safety relay not on (e.g. connectors X71 and X72 of the UV, X73 of the HEIDENHAIN expansion board for Simodrive) - PWM bus cable interrupted - PWM interface on the control defective - Defective axis module - No pulse release for the power module **Error correction** - Inform your service agency - Exchange the power module - Exchange the HEIDENHAIN expansion board for Simodrive - Exchange the PWM bus cable

Error number	Description
231-8B60	**Error message** 8B60 Overcurrent cutoff %1 **Cause of error** - Undervoltage, temperature or short-circuit monitor of an IGBT in the inverter has responded. **Error correction** - Let the inverter cool down - Inform your service agency - Check the current controller - Check the motor connection for a short circuit - Check the motor for a short circuit in the windings - Exchange the power module
231-8B70	**Error message** 8B70 External drive lock %1 **Cause of error** - Drive switch-on is blocked by one or more external signals. **Error correction** - Inform your service agency. - Check the external enabling signal (EMERGENCY STOP, PFAIL, N0). - Check the PLC program. - Check the external wiring.
231-8B80	**Error message** 8B80 External drive stop %1 **Cause of error** - The drive is switched off by an external signal. **Error correction** - Inform your service agency. - Check the external enabling signal (EMERGENCY STOP, PFAIL, N0). - Check the PLC program. - Check the external wiring.
231-8B90	**Error message** 8B90 Current controller not ready %1 **Cause of error** - Error code: %x - The power module or current controller is not ready after switch-on. - The drive is not at a standstill when switched on. **Error correction** - Inform your service agency - Check the pulse inhibitor - Check the rotational speed input

Error number	Description
231-8BA0	**Error message** 8BA0 Incorrect reference signal or line count %1 **Cause of error** - Incorrect entry for the line count under STR in the motor table - Faulty reference signal - Noise signals - Motor encoder cable defective (break or short circuit) - Scale or scale tape contaminated or defective - Scanning head contaminated or defective - Signal cable defective - Encoder input defective on the control - Penetration of humidity **Error correction** - Inform your service agency - Check the entry in the motor table - Check the signals of the speed encoder (PWM 8) - Check the encoder cable for breaks or short circuits under mechanical load (folding, stretching, etc.) - Check the shield and its connection in the encoder cable - Exchange the encoder cable - Exchange the motor
231-8BB0	**Error message** 8BB0 Motor temperature too low %1 **Cause of error** - Measured motor temperature too low - Temperatur sensor incorrectly wired (short circuit) - Temperature sensor is defective - Incorrect temperature sensor (KTY84 required) - Hardware error on encoder input board **Error correction** - Inform your service agency - Check the wiring - Test the temperature sensor - Deselect the monitoring for low temperature limit CfgServoMotor/MotEncCheckOff bit 5 - Exchange the encoder input board

Error number	Description
231-8BC0	**Error message** 8BC0 Motor current %1 too high **Cause of error** - Incorrect motor or power module selected. - Volts-per-hertz spindle: Ramp gradient too high - Power module defective - Motor cable defective (short circuit) - Motor defective (short circuit, ground fault) - Humidity has entered the motor **Error correction** - Inform your service agency - Are the correct motor and power module selected? - Volts-per-hertz spindle: Readjust the ramp gradient (OEM) - Check the motor and motor cable for a ground circuit or short circuit - Exchange the power module
231-8BD0	**Error message** 8BD0 Excessive servo lag in %1 **Cause of error** - The following error of a moving axis is greater than the value specified in the configuration datum CfgPosControl/servoLagMax1. - Overloaded drive - Insufficient lubrication - Mechanical stiffness - Machine vibration - Hardware error in the control loop - For analog axes, servo defective **Error correction** - Reduce the contouring feed rate, increase the rotational speed - Check the lubrication - Remove mechanical stiffness - Remove any possible sources of vibration - Check the parameter CfgFeedLimits/maxAcceleration - Analog axes: Check the servo - Inform your service agency if the error occurs frequently
231-8BE0	**Error message** 8BE0 Encoder defective %1 **Cause of error** - Incorrect nominal increment between two reference marks **Error correction** - Inform your service agency. - Check the entry in the motor table or from MLST 19: CfgReferencing/posEncoderRefDist or to MLST 18: CfgAxisHardware/posEncoderRefDist. - Check whether the reference signal is disturbed.

Error number	Description
231-8BF0	**Error message** 8BF0 Velocity of the spindle is too low %1 **Cause of error** - Traversing speed of the spindle is to slow because of overload - If the milling power is too high (high power consumption), it lowers the rotational speed of the spindle **Error correction** - Reduce the plunging depth or traversing speed - Inform your service agency
231-8C00	**Error message** 8C00 Encoder on speed input %1 is defective **Cause of error** - There is no motor encoder signal - There is a break in the motor encoder cable - The signal amplitude of the motor encoder is missing or too small - The motor encoder is contaminated - Incorrect parameters of posEncoderResistor during use of an external Y cable **Error correction** - Check the motor encoder connection - Check the motor encoder for proper function - Check the amplitude of the motor encoder signal - Check configuration in machine parameter PosEncoderResistor. If an external Y cable is used, a 1 has to be entered in this machine parameter. - Inform your service agency
231-8C10	**Error message** 8C10 Encoder on speed input %1 is defective (EnDat) **Cause of error** - Position value of the motor encoder is invalid - Interruption in motor encoder cable - Motor encoder defective **Error correction** - Check the motor encoder connection - Check the motor encoder - Inform your service agency

Error number	Description
231-8C20	**Error message** 8C20 Position encoder %1 defective **Cause of error** - There is no position encoder signal - Interruption of the position encoder cable - The signal amplitude of the position encoder is missing or too small - The position encoder is contaminated - Incorrect values of the machine parameter posEncoderResistor during use of an external Y cable - Incorrect values of the machine parameter posEncoderFreq at feed rates greater than 50 kHz (counting frequency results from the encoder resolution) **Error correction** - Check the position encoder connection - Check the function of the position encoder - Check the amplitude of the position encoder. - Check settings in machine parameter PosEncoderResistor. If an external Y cable is used, a 1 has to be entered in this machine parameter. - Check the setting of the machine parameter posEncoderFreq and max. feed velocity. At feed rates greater than 50 kHz (corresponding counting frequency at the position input results from the resolution of the encoder), a 1 must be entered in posEncoderFreq. - Inform your service agency
231-8C30	**Error message** 8C30 Position encoder %1 defective (EnDat) **Cause of error** - Position value of the position encoder is invalid - Interruption in position encoder cable - Position encoder is defective **Error correction** - Check the position encoder connection - Check the position encoder - Inform your service agency
231-8C40	**Error message** 8C40 Speed input %1 measured value not saved (EnDat) **Cause of error** - Position value of the motor encoder was not latched - Interruption in motor encoder cable - Motor encoder defective **Error correction** - Check the motor encoder connection - Check the motor encoder - Inform your service agency

Error number	Description
231-8C50	**Error message** 8C50 Position input %1 measured value not saved (EnDat) **Cause of error** - Position value of the motor encoder was not stored - Interruption in position encoder cable - Position encoder is defective **Error correction** - Check the position encoder connection - Check the position encoder - Inform your service agency
231-8C60	**Error message** 8C60 Signal frequency at encoder of speed input %1 **Cause of error** - Noise on speed encoder signals **Error correction** - Check the encoder signals - Check the shielding - Inform your service agency
231-8C70	**Error message** 8C70 Signal frequency at position encoder %1 **Cause of error** - Noise on position encoder signals **Error correction** - Check the encoder signals - Check the shielding - Inform your service agency
231-8C80	**Error message** 8C80 Amplitude too high at encoder on speed input %1 **Cause of error** - The amplitude of the encoder signal is too high or the signal for contamination is active. - Noise on motor encoder signal - Short circuit in the motor encoder cable - Signal amplitude of motor too high **Error correction** - Check the motor encoder connection (ground connection) - Check the motor encoder - Inform your service agency

Error number	Description
231-8C90	**Error message** 8C90 Amplitude too high at position encoder %1 **Cause of error** - The amplitude of the position encoder signal is too high or the signal for contamination is active - Noise on the encoder signal - Short circuit in the encoder cable - Encoder signal amplitude too high - Incorrect values in the machine parameter posEncoderResistor **Error correction** - Check the encoder connection (ground connection) - Check the encoder - Check configuration in machine parameter posEncoderResistor. If a position encoder is used (no external Y cable), a 0 has to be entered in this machine parameter. - Inform your service agency
231-8CA0	**Error message** 8CA0 Incorrect reference signal or line count %1 **Cause of error** - Incorrect entry for the line count under STR in the motor table - Faulty reference signal - Noise signals - Motor encoder cable defective (break or short circuit) **Error correction** - Check the entry in the motor table - Check the signals of the speed encoder (PWM 8) - Check the encoder cable for breaks or short circuits under mechanical load (folding, stretching, etc.) - Check the shield and its connection in the encoder cable - Exchange the encoder cable - Exchange the motor - Inform your service agency
231-8CB0	**Error message** 8CB0 Commutation angle %1 missing **Cause of error** The commutation angle necessary for operating the motor is missing. **Error correction** - Determine the commutation angle again - In the machine parameters, change the procedure for determining the commutation angle - Inform your service agency

Error number	Description
231-9200	**Error message** 9200 Parameter compIpcJerkFact is faulty **Cause of error** - On the CC, the input range for the "compIpcJerkFact" parameter is 0.0 to 0.8 **Error correction** - Check the input value in machine parameter "compIpcJerk-Fact" - Inform your service agency
231-9210	**Error message** 9210 Parameter vCtrlDiffGain %1 is too large **Cause of error** - Differential factor is too large (max. value 0.5 [As^2/rev]) **Error correction** - Enter a value less than 0.5 in machine parameter "vCtrlDiff-Gain" - Inform your service agency
231-9220	**Error message** 9220 Incorrect speed encoder input **Cause of error** - Incorrect entry in the "speedEncoderInput" machine parameter - The assignment of the speed encoder input to the PWM output is incorrect **Error correction** - Check the "speedEncoderInput" machine parameter - Inform your service agency
231-9230	**Error message** 9230 Unknown motor type **Cause of error** - Incorrect motor type in the motor table - Unsupported motor type in the motor table - Incorrect motor data in the motor table **Error correction** - Inform your service agency

Error number	Description
231-9240	**Error message** 9240 Incorrect encoder type %1 **Cause of error** - Selected encoder does not match the connected one Examples: EnDat is selected, but an incremental encoder is connected EnDat 2.1 is selected, but EnDat 2.2 is connected - The selected encoder is not supported by this CC **Error correction** - Check the machine parameter "motEncType" (or SYS in the motor table) - Inform your service agency
231-9250	**Error message** 9250 Motor encoder: EnDat 2.2 not possible %1 **Cause of error** - EnDat communication error - An encoder with EnDat 2.2 interface is selected in the motor table, although no EnDat 2.2 encoder is connected - The EnDat 2.2 protocol cannot be read **Error correction** - Check whether the encoder supports EnDat 2.2 - Check the motor table (SYS column) - Check the machine parameter "motEncType" - Check the cable ground and shield - Exchange the motor control board - Check the cable (compare the cable ID number with the documentation) - Check the speed encoder cable (defective or too long) - Check the speed encoder - Inform your service agency
231-9260	**Error message** 9260 Motor parameters changed **Cause of error** - The motor type was changed without switching off the drive **Error correction** - Inform your service agency

Error number	Description
231-9261	**Error message** 9261 CC%2: algebraic signs not consistent in parameters %1 **Cause of error** The entry DIR in the motor table or machine parameter signCorrActualVal is set incorrectly **Error correction** Correct the entry DIR in the motor table or machine parameter signCorrActualVal. The following rule applies: DIR and signCorrActualVal must be set to the same value. Refer to the additional information in the Technical Manual, in the chapter "Defining the traverse direction".
231-9270	**Error message** 9270 Rated speed of motor unknown **Cause of error** - The entry in the motor table is zero **Error correction** - Inform your service agency
231-9280	**Error message** 9280 Parameter filter 1 invalid %1 **Cause of error** - Incorrect entry in machine parameter "vCtrlFiltDamping1," "vCtrlFiltFreq1," "vCtrlFiltType1" or "vCtrlFiltBandWith1" - Internal software error **Error correction** - Check the entry in machine parameter "vCtrlFiltDamping1," "vCtrlFiltFreq1," "vCtrlFiltType1" or "vCtrlFiltBandWith1" - Check the software version - Inform your service agency
231-9290	**Error message** 9290 Parameter filter 2 invalid %1 **Cause of error** - Incorrect entry in machine parameter "vCtrlFiltDamping2," "vCtrlFiltFreq2," "vCtrlFiltType2" or "vCtrlFiltBandWith2" - Internal software error **Error correction** - Check the entry in machine parameter "vCtrlFiltDamping2," "vCtrlFiltFreq2," "vCtrlFiltType2" or "vCtrlFiltBandWith2" - Check the software version - Inform your service agency

Error number	Description
231-92A0	**Error message** 92A0 Parameter filter 3 invalid %1 **Cause of error** - Incorrect entry in machine parameter "vCtrlFiltDamping3," "vCtrlFiltFreq3," "vCtrlFiltType3" or "vCtrlFiltBandWith3" - Internal software error **Error correction** - Check the entry in machine parameter "vCtrlFiltDamping3," "vCtrlFiltFreq3," "vCtrlFiltType3" or "vCtrlFiltBandWith3" - Check the software version - Inform your service agency
231-92B0	**Error message** 92B0 Parameter filter 4 invalid %1 **Cause of error** - Incorrect entry in machine parameter "vCtrlFiltDamping4," "vCtrlFiltFreq4," "vCtrlFiltType4" or "vCtrlFiltBandWith4" - Internal software error **Error correction** - Check the entry in machine parameter "vCtrlFiltDamping4," "vCtrlFiltFreq4," "vCtrlFiltType4" or "vCtrlFiltBandWith4" - Check the software version - Inform your service agency
231-92C0	**Error message** 92C0 Parameter filter 5 invalid %1 **Cause of error** - Incorrect entry in machine parameter "vCtrlFiltDamping5," "vCtrlFiltFreq5," "vCtrlFiltType5" or "vCtrlFiltBandWith5" - Internal software error **Error correction** - Check the entry in machine parameter "vCtrlFiltDamping5," "vCtrlFiltFreq5," "vCtrlFiltType5" or "vCtrlFiltBandWith5" - Check the software version - Inform your service agency
231-92D0	**Error message** 92D0 Line count of motor has changed **Cause of error** - Line count of the motor has changed, although it was not switched off. **Error correction** - Inform your service agency

Error number	Description
231-92E0	**Error message** 92E0 Line count for motor encoder incorrect %1 **Cause of error** - Encoder line count in the parameter is not equal to the EnDat line count found - The entry in machine parameter "CfgServoMotor/motStr" is incorrect - Incorrect entry under STR in motor table - EnDat 2.2 motor encoder without line count information must be defined as STR = 1 or "CfgServoMotor/motStr=1" **Error correction** - Edit the machine parameter "CfgServoMotor/motStr" - Change STR in motor table - Inform your service agency

Error number	Description
231-92F0	**Error message** 92F0 Incorrect axis assignment **Cause of error** - Incorrect axis assignment with moment master-slave operation - Master and Slave are not assigned to the same controller motherboard - Axes in master-slave torque control are permitted only at the following pairs of encoder inputs: 6-axis CC424 X15 and X17 X16 and X18 6-axis CC 6106 X15 to X20 8-axis CC424: X15 and X17 X16 and X18 X19 and X80 X20 and X81 8-axis CC 6108 X15A to X18A X15B to X18B 10 axis CC424: X15 and X17 X16 and X18 10-axis CC 6110 X15A to X18A X15B to X20B 12-axis CC424: X15 and X17 X16 and X18 X82 and X84 X83 and X85 14-axis CC424: X15 and X17 X16 and X18 X19 and X80 X20 and X81 X82 and X84 X83 and X85 16-axis CC424: X15 and X17 X16 and X18 X19 and X80 X20 and X81 X82 and X84 X83 and X85 X86 and X88 X87 and X89 **Error correction** - Change the axis assignment - Inform your service agency

Error number	Description
231-9300	**Error message** 9300 Field angle determination %1 not allowed **Cause of error** - Field angle determination is not allowed in this mode - The method selected for determining the field angle is invalid or not possible with this encoder **Error correction** - Check the entry in machine parameters "motTypeOfFieldAdjust" and "motFieldAdjustMove" and/or the entry in the SYS column of the motor table - Inform your service agency
231-9310	**Error message** 9310 Wrong input for position encoder **Cause of error** - An incorrect input was selected for the position encoder (machine parameter from MLST 19: CfgCtrlEncoder/input or to MLST 18: posEncoderInput) - Possible configuration CC61xx: PWM output <-> position encoder X51 <-> X201 X52 <-> X202 X53 <-> X203 X54 <-> X204 X55 <-> X205 X56 <-> X206 **Error correction** - Check the machine parameter from MLST 19: CfgCtrlEncoder/input or to MLST 18: posEncoderInput - Inform your service agency

Error number	Description
231-9320	**Error message** 9320 Position encoder: EnDat 2.2 not possible %1 **Cause of error** - EnDat communication is faulty - In the machine parameter CfgCtrlEncoder/protocol / CfgServoMotor/motEncType (starting with MLST 19) or posEncoderType / motEncType (up to MLST 18) an encoder with EnDat 2.2 interface is selected even though no EnDat 2.2 encoder is connected - The EnDat 2.2 protocol cannot be read **Error correction** - Check whether the position encoder supports EnDat 2.2 - Check the entries CfgCtrlEncoder/protocol / CfgServoMotor/motEncType (starting with MLST 19) or posEncoderType / motEncType (up to MLST 18) - Check the grounding and shielding of the cables - Exchange the motor drive control board - Check the cable (compare the cable ID number with the documentation) - Check the position encoder cable (defective or too long) - Check the position encoder - Inform your service agency
231-9330	**Error message** 9330 Incorrect position encoder input configured %1 **Cause of error** - The configured position encoder input does not exist **Error correction** - Check the configuration of the position encoder inputs - Inform your service agency
231-9340	**Error message** 9340 PWM frequency error %1 **Cause of error** - Entered PWM frequency in parameter "ampPwmFreq" lies outside the permissible input range - PWM frequencies that may not be combined with each other were selected **Error correction** - Check the parameter "ampPwmFreq" - Inform your service agency

Error number	Description
231-9350	**Error message** 9350 PWM frequency too high %1 **Cause of error** - PWM frequency selected over 5000 kHz for PWM output X51 or X52, although PWM output X53 or X54 is active **Error correction** - Check machine parameter ampPwmFreq for PWM output X51 or X52 - Deactivate PWM output X53 and/or X54 - Inform your service agency
231-9360	**Error message** 9360 Double speed not possible %1 **Cause of error** - Control loop on X51 or X52 is defined as 'double speed', although the control loop on X53 or X54 is active - Control loop on X55 or X56 is defined as 'double speed', although the control loop on X57 or X58 is active (only CC 4xx with 8 control loops) **Error correction** - Define the control loop on X51 or X52 as 'single speed', or deactivate the PWM output X53 or X54 - Define the control loop on X55 or X56 is defined as 'single speed', or deactivate the PWM output X57 or X58 (only CC 4xx with 8 control loops) - Inform your service agency
231-9370	**Error message** 9370 "Inverter.inv" is not supported %1 **Cause of error** - The 'Inverter.inv' file is not supported by this software **Error correction** - Replace the 'Inverter.inv' file with 'Motor.amp' - Inform your service agency
231-9380	**Error message** 9380 Voltage protection module parameter %1 **Cause of error** - Incorrect entry in machine parameter "ampVoltProtection" - Internal software error **Error correction** - Check the entry in machine parameter "ampVoltProtection" - Check the software version - Inform your service agency

Error number	Description
231-9390	**Error message** 9390 Increased current controller factors: Wrong motor type %1 **Cause of error** - In machine parameter iCtrlAddInfo, the compensation in the current control loop is activated for a motor type other than a synchronous motor (linear motor, asynchronous motor). **Error correction** - Deactivate the compensation for increased current control factors by entering the value "0" in iCtrlAddInfo.
231-93A0	**Error message** 93A0 PDT1 feedforward current contrlr: Wrong motor type **Cause of error** - In machine parameter "iCtrlDiffFreqFF," PDT1 feedforward control was activated for the current control circuit of a drive with e.g. a linear or asynchronous motor. - PDT1 feedforward control is only possible for the current control circuit of a drive with synchronous motor. **Error correction** - Deactivate the PDT1 feedforward by entering the value 0 in machine parameter "iCtrlDiffFreqFF." - Inform your service agency.
231-93B0	**Error message** 93B0 PDT1 feedforward current contrlr.: Invalid cutoff freq. **Cause of error** - Illegal maximum cutoff frequency in machine parameter "iCtrlDiffFreqFF." - The following are the maximum permissible cutoff frequencies for the respective PWM frequencies: PWM frequency Maximum cutoff frequency 3333 Hz 800 Hz 4000 Hz 960 Hz 5000 Hz 1200 Hz 6666 Hz 1600 Hz 8000 Hz 1920 Hz 10000 Hz 2400 Hz **Error correction** - Enter the permissible cutoff frequency in machine parameter "iCtrlDiffFreqFF." - Inform your service agency.

Error number	Description
231-93C0	**Error message** 93C0 INVERTER.INV is faulty %1 **Cause of error** - Incorrect entry in the power module table: INVERTER.INV - Incorrect entry for I-MAX, U-IMAX or R sensor - R sensor not identical to U-IMAX/I-MAX **Error correction** - Check the entries for I-MAX, U-IMAX and R sensor - Inform your service agency
231-93D0	**Error message** 93D0 Transmission ratio is incorrect %1 **Cause of error** The transmission ratio has incorrect parameters: - Faulty entry for from MLST 19: CfgCtrlEncoder/transmission or to MLST 18: distPerMotorTurn, i.e. distance per motor revolution - Incorrect entry in from MLST 19: CfgCtrlEncoder/increments or to MLST 18: posEncoderIncr, i.e. signal periods of position encoder - Faulty entry for distance traversed after ab MLST 19: CfgCtrlEncoder/distance or to MLST 18: posEncoderDist, i.e. parameterized signal periods of the position encoder **Error correction** - Inspection of the parameters CfgCtrlEncoder/transmission, CfgCtrlEncoder/increments and CfgCtrlEncoder/distance or to MLST 18: distPerMotorTurn, posEncoderIncr and posEncoderDist - Inform your service agency
231-93E0	**Error message** 93E0 PWM frequency greater than 5 kHz requires double speed %1 **Cause of error** - If the PWM frequency selected in the "ampPwmFreq" machine parameter is greater than 5000 Hz, the machine parameter "ctrlPerformance" must be set to Double Speed **Error correction** - Either reduce the PWM frequency in "ampPwmFreq," - or set the "ctrlPerformance" machine parameter to Double Speed - Inform your service agency

Error number	Description
231-93F0	**Error message** 93F0 Maximum computer power exceeded **Cause of error** - CC61xx: The desired computing power in the "ctrlPerformance" machine parameter is not possible. The following configurations per controller unit are allowed: Single | Double 6 | 0 4 | 1 2 | 2 0 | 3 "ctrlPerformance" machine parameter = 0 Single Speed "ctrlPerformance" machine parameter = 1 Double Speed **Error correction** - Reduce the number of axes per controller unit - Change the double-speed axes to single-speed axes ("ctrlPerformance" machine parameter from 1 to 0) - Inform your service agency
231-9400	**Error message** 9400 Encoders with 11 µA are not supported **Cause of error** - "posEncoderSignal" machine parameter is set to 11 µA **Error correction** - "posEncoderSignal" machine parameter is set to 11 Vpp - Inform your service agency
231-9410	**Error message** 9410 Relation of posEncoderDist to posEncoderIncr is faulty %1 **Cause of error** - The relation of CfgCtrlEncoder/distance to CfgCtrlEncoder/increments (starting with MLST 19) or CfgAxisHardware/posEncoderDist to CfgAxisHardware/posEncoderIncr (up to MLST 18) does not match the values from the EnDat encoder - For EnDat 2.2: See the Technical Manual of the control **Error correction** - Check the entries CfgCtrlEncoder/distance and CfgCtrlEncoder/increments (starting with MLST 19) or CfgAxisHardware/posEncoderIncr and CfgAxisHardware/posEncoderDist (up to MLST 18) - Inform your service agency

Error number	Description
231-9420	**Error message** 9420 Configuration of X150 not possible %1 **Cause of error** - The entry in GenDriveOffGroup (axis group switch-off with X150) is invalid **Error correction** - Correct the entry in GenDriveOffGroup - Inform your service agency
231-9430	**Error message** 9430 Configuration of I32 not possible %1 **Cause of error** - The entry in GenEmergencyStopFunction for drive enabling through I32 input is invalid **Error correction** - Correct the entry in GenEmergencyStopFunction - Inform your service agency
231-9440	**Error message** 9440 Configuration of powerfail is not possible %1 **Cause of error** - The entry in AmpAcFailSelection for AC fail or power fail is invalid **Error correction** - Correct the entry in AmpAcFailSelection - Inform your service agency
231-9450	**Error message** 9450 Configuration of PWM pattern not possible %1 **Cause of error** - The entry in ICtrlPwmInfo (configuration of the PWM pattern) is invalid **Error correction** - Correct the entry in ICtrlPwmInfo - Inform your service agency
231-9460	**Error message** 9460 Configuration of LIFTOFF is not possible %1 **Cause of error** - The entry in PowSupplyLimitOfDcVoltage is invalid - The entry in PowSupplyDcLinkVoltageForSpindleStop is invalid **Error correction** - Correct the entry in PowSupplyLimitOfDcVoltage - Correct the entry in PowSupplyDcLinkVoltageForSpindleStop - Inform your service agency

Error number	Description
231-9470	**Error message** 9470 Configuration of brake output is not possible %1 **Cause of error** - The entry in MotBrakeNotExist is invalid **Error correction** - Correct the entry in MotBrakeNotExist - Inform your service agency
231-9480	**Error message** 9480 Configuration of jerk feedforward is not possible %1 **Cause of error** - The jerk feedforward over CompIpcJerkFact is not possible **Error correction** - Correct the entry in CompIpcJerkFact - Recommendation: As an alternative, the torsion feedforward can be used through CompTorsionFact. - Inform your service agency
231-9490	**Error message** 9490 Configuration of active damping is not possible %1 **Cause of error** - The active damping through CompActiveDampFactor and CompActiveDampTimeConst is not possible **Error correction** - Correct the entry in CompActiveDampFactor and CompActiveDampTimeConst - Inform your service agency
231-94A0	**Error message** 94A0 Configuration of SyncAxisTorqueDistrFact impossible %1 **Cause of error** - The variable torque distribution through SyncAxisTorqueDistrFact is not possible **Error correction** - Correct the entry in SyncAxisTorqueDistrFact - Inform your service agency
231-94B0	**Error message** 94B0 Configuration of speed compensation impossible %1 **Cause of error** - The variable shaft speed compensation through SyncAxisSpeedCorrectRatio is not possible **Error correction** - Correct the entry in SyncAxisSpeedCorrectRatio - Inform your service agency

Error number	Description
231-94C0	**Error message** 94C0 DQ PWM freq. > 4 kHz requires double speed %1 **Cause of error** - If the PWM frequency selected in the "ampPwmFreq" machine parameter is greater than 4000 Hz, the machine parameter "ctrlPerformance" must be set to Double Speed **Error correction** - Either reduce the PWM frequency in "ampPwmFreq," - or set the "ctrlPerformance" machine parameter to Double Speed (software option) - Inform your service agency
231-94D0	**Error message** 94D0 DQ-ALM: Check the parameters %1 **Cause of error** - Incorrect supply module selected in CfgPowSupply. - The supply module is not entered in the supply module table Supply.Spy. **Error correction** - Select the correct supply module in CfgPowSupply. - Inform your service agency
231-94E0	**Error message** 94E0 Switching EnDat 2.2 to 1 Vpp requires reinitialization %1 **Cause of error** - The encoder was changed from EnDat 2.2 to 1 Vpp or vice versa. A reinitialization of the drive is required. **Error correction** - Re-initialize the encoder - Use the machine parameter axisMode (bit x = 0) to deselect the axis - Exit the MP editor - Reactivate the axis in the machine parameter axisMode (bit x = 1) and set from MLST 19: CfgCtrlEncoder/protocol or to MLST 18: posEncoderType to the desired value - Exit the MP editor again - or reset/restart the system

Error number	Description
231-94F0	**Error message** 94F0 Impermissible torsion compensation %1 **Cause of error** - Torsion compensation is configured, but the system is a single-encoder system. - Torsion compensation is configured, but stick-slip friction compensation is not configured. **Error correction** - Deactivate torsion compensation with machine parameter compTorsionFact. - Define the assignment between the position encoder inputs and the axes in from MLST 19: CfgCtrlEncoder/input or to MLST 18: posEncoderInput (if position encoder is present), and enter the friction compensation in machine parameter compFrictionT2. - Inform your service agency
231-9500	**Error message** 9500 DQ: Inverter not found %1 **Cause of error** - Not able to establish communication with the inverter of the displayed axis. - The DRIVE-CLiQ line is not connected, or incorrectly connected. - The supply voltage of the inverter has been interrupted. - The inverter is defective. - Machine parameter pwmSignalOutput is incorrect. **Error correction** - Check the cabling. - Check the supply voltage of the inverter. - Check the entry in machine parameter pwmSignalOutput. - Inform your service agency
231-9510	**Error message** 9510 PWM frequency change during active servo control %1 **Cause of error** - The PWM frequency in machine parameter ampPwmFreq must not be changed while the drive or a corresponding drive is still in a control loop. Corresponding axis: X51 - X52 X53 - X54 X55 - X56 X57 - X58 X80 - X81 X82 - X83 X84 - X85 **Error correction** - Deactivate the drive controller before changing machine parameter ampPwmFreq - Inform your service agency

Error number	Description
231-9520	**Error message** 9520 Erroneous input in vCtrlTimeSwitchOff %1 **Cause of error** - In machine parameter vCtrlTimeSwitchOff a time of zero was configured. The time entered must permit a safe braking process. - In order to prevent an unbraked runout of axes/spindles without mechanical braking, the time in machine parameter vCtrlTimeSwitchOff must be greater than the maximum possible braking time of the axes that can occur through electrical braking. **Error correction** - Enter an appropriate value in machine parameter vCtrlTimeSwitchOff - Inform your service agency
231-9530	**Error message** 9530 DRIVE-CLiQ axis %1 is still active **Cause of error** When an axis is deactivated in a DRIVE-CLiQ system, the associated axis must likewise be deactivated at the same port (e.g. 301). **Error correction** - Deactivate the second axis that is connected to the same connector (e.g. X301). - The axis must be deactivated through machine parameter axisMode or CfgPlcSStrobe. - Inform your service agency.

Error number	Description
231-9550	**Error message** 9550 EnDat2.2 - FS single-encoder system incorrectly configured %1 **Cause of error** It was configured that only the EnDat2.2 position encoder as well as only the EnDat2.2 speed encoder should be used for functional safety. This is not possible. **Error correction** - Check the entry in the safe machine parameter CfgAxParSafety/encoderForSafety: It should be either "speedAndPosEncoder" or "speedEncoder" or "posEncoder". - Special settings for single-encoder systems with EnDat 2.2 FS encoders: Set "posEncoder" if only the position encoder is to be used for functional safety or set "speedEncoder" if only the speed encoder is to be used for functional safety. - Default setting: Set "speedAndPosEncoder" if you want to configure a normal dual-encoder system or if the affected axis is safely operated with only one encoder (single-encoder safety).
231-9560	**Error message** 9560 MP entry erroneous: counting pulse per path %1 **Cause of error** - Value in machine parameter from MLST 19: CfgCtrlEncoder/increments or to MLST 18: posEncoderIncr lies outside the permissible range **Error correction** - Check the value in from MLST 19: CfgCtrlEncoder/increments or to MLST 18: posEncoderIncr and correct it if necessary - Inform your service agency
231-9570	**Error message** 9570 Incorrect parameter entry: path per motor revolution %1 **Cause of error** - Value in machine parameter distPerMotorTurn lies outside the permissible range **Error correction** - Check the value in MP_distPerMotorTurn and correct it if necessary - Inform your service agency

Error number	Description
231-9571	**Error message** 9571 CC%2: position resolution of the pole distance too small %1 **Cause of error** In the machine configuration, the position resolution specified for the motor encoder cannot be used to control the axis. **Error correction** - Check the "distance" parameter for the motor encoder - Check the "increments" parameter for the motor encoder - Set the "transmission" parameter for the motor encoder to 1 - Check the pole-pair width in the PPW column of the motor table - Note any further pending error messages - Inform your service agency
231-9580	**Error message** 9580 Parameter filter 6 invalid %1 **Cause of error** - Incorrect entry in machine parameter "vCtrlFiltDamping6", "vCtrlFiltFreq6", "vCtrlFiltType6" or "vCtrlBandWidth6" **Error correction** - Check the entry in machine parameter "vCtrlFiltDamping6", "vCtrlFiltFreq6", "vCtrlFiltType6" or "vCtrlBandWidth6" - Inform your service agency
231-9590	**Error message** 9590 Maximum computing power exceeded **Cause of error** -CC61xx: There is not enough computing power for the activated expanded controller functions. **Error correction** - Deactivate the expanded controller functions - Reduce the number of axes per controller unit - Change double-speed axes to single-speed axes (change the machine parameter ctrlPerformance from 1 to 0) - Inform your service agency

Error number	Description
231-9591	**Error message** 9591 TRC is not active **Cause of error** TRC is not active because not all parameters have been entered **Error correction** The following parameters are necessary in order to activate TRC: - Mass moment of inertia of the motor (from the motor table) or acceleration feedforward control CfgController-Comp/compAcc - Proportional component of the speed controller CfgSpeed-Control/vCtrlPropGain - Gear ratio CfgCtrlEncoder/transmission (starting with MLST 19) or CfgAxisHardware/distPerMotorTurn (up to MLST 18)
231-95A0	**Error message** 95A0 Entry in motor table faulty: PPW %1 **Cause of error** In the motor table, the entry in the column PPW is missing or has the value 0. **Error correction** - Enter the value from the motor manufacturer data sheet in the column PPW - Inform your service agency
231-95B0	**Error message** 95B0 Faulty parameterization in CfgAxisCoupling %1 (info: %4) **Cause of error** The parameterization for the axis coupling is faulty. The additional data "Info" gives more precise information: Info = 1: There is no valid master axis for the indicated slave axis Info = 2: The master axis assigned for the indicated slave axis is not active Info = 3: An AdvancedTorque slave is simultaneously parameterized as an AdvancedTorque master Info = 4: An AdvancedTorque slave is simultaneously parameterized as a Torque master or an AdvancedPosition master **Error correction** Info = 1: Check the CfgAxisCoupling/masterAxis parameter Info = 2: Check the CfgAxisCoupling/masterAxis parameter and the CfgAxis/axisMode or testMode parameter of the master axis Info = 3: Check the CfgAxisCoupling/masterAxis parameter of all active axes Info = 4: Check the CfgAxisCoupling/masterAxis parameter of all active axes

Error number	Description
231-9800	**Error message** 9800 CC%2 MC command unknown %1 **Cause of error** - MC command is not allowed for this hardware - MC command is not allowed at this time - 0 = error in command code > 255 1...255 = incorrect or invalid command code - Internal software error **Error correction** - Inform your service agency. - Check the software version.
231-9900	**Error message** 9900 CC%2 CC command unknown %1 **Cause of error** - CC command is not allowed for this hardware - Internal software error **Error correction** - Inform your service agency - Check the software version
231-A001	**Error message** A001 Cancelation of brake-test call monitoring **Cause of error** - Protective door(s) were opened during the brake test - No drive-ready signal during the brake-test call monitoring **Error correction** - Leave the protective door(s) closed during the brake test - Ensure the drive readiness during the brake test
231-A002	**Error message** A002 Cancelation of brake-line-test call monitoring **Cause of error** - Guard door(s) were open during the brake control test or brake line test **Error correction** - Leave the guard door(s) closed during the brake control test or brake line test

Error number	Description
231-A003	**Error message** A003 SPLC commissioning mode active **Cause of error** - CRC check of the SPLC program is deactivated (machine parameter CfgSafety/commissioning is set) **Error correction** - The commissioning mode must be deactivated before a machine is delivered (reset commissioning in the machine parameter CfgSafety) - Inform your service agency
231-A004	**Error message** A004 Short circuit on 24 V of the T.BRK.B signal **Cause of error** - Error during braking control test - Signal level = +24 V at input: -T.BRK.B of the SPL module although 0 V is expected due to the control. **Error correction** - Check the external wiring of the brakes and the T.BRK signal. - Check the relay for the brake control. - Inform your service agency.
231-A005	**Error message** A005 CC%2 Warning: Controller unit not suited for FS **Cause of error** When checking the safety kernel software SKERN-CC, the control unit detected, that this hardware (CC, UEC, UMC) is not suitable for control systems with functional safety (FS). This controller unit fulfills the safety requirements according to EN 13849 and is not approved for functional safety. **Error correction** - Exchange the affected controller unit (CC, UEC, UMC) - Inform your service agency.

Error number	Description
231-A006	**Error message** A006 SPLC-CC%2: Cross comparison failed, output %4 **Cause of error** - Error in the cross comparison of the SPLC-CC outputs. - SPLC program of the CC[x] defines the output as 0 (LOW). However, the value of the output read from the terminal is 1 (HIGH). **Error correction** - Check the wiring of the output. - Check the SPLC program: signals for setting and resetting the SPLC outputs should always stay stable for at least 2 SPLC cycles. - Inform your service agency.
231-A020	**Error message** A020 Short circuit on 24 V of the T.BRK.B signal **Cause of error** - Error during braking control test - Signal level = +24 V at input: -T.BRK.B of the SPL module although 0 V is expected due to the control. **Error correction** - Check the external wiring of the brakes and the T.BRK signal. - Check the relay for the brake control. - Inform your service agency.
231-A021	**Error message** A021 Cancelation of brake line test. Guard door open **Cause of error** - Guard door(s) were open during the brake control test or brake line test **Error correction** - Leave the guard door(s) closed during the brake control test or brake line test
231-A040	**Error message** A040 CC%2 operating mode not possible **Cause of error** The status of the operating mode switches and the protective doors is not allowed. **Error correction** - Inform your service agency - Check the setting of the operating mode switches - Check the status of the switch for the safety doors - Check the wiring

Error number	Description
231-A041	**Error message** A041 CC%2 SOM 4 not possible **Cause of error** - Keylock switch 1 not in automatic mode (BA1) – Keylock switch 1 defective - Wiring error **Error correction** - Set keylock switch 1 to automatic mode (BA1) - Inform your service agency
231-A042	**Error message** A042 CC%2 SOM 4 not released **Cause of error** The BA4 operating mode is selected by key switch but has not been released. **Error correction** - Inform your service agency.
231-A043	**Error message** A043 CC%2 SOM 2 only one axis allowed **Cause of error** The simultaneous movement of more than one axes is not allowed in operating mode BA2 with open safety doors. **Error correction** Wait until all axes are at standstill, and then start only one axis.
231-A080	**Error message** A080 CC%2 operating state not equal MC **Cause of error** - The automatic, SRG, SBH, and SH operating conditions are compared cyclically between the MC and CC. If the values remain unequal for longer than 500 ms, a Stop 1 is released. **Error correction** - Acknowledge the error message with CE - Switch on the machine - Inform your service agency - Check the software version

Error number	Description
231-A081	**Error message** A081 CC%2 cross comparison no.=%4 Var.=%5 MC=%6 CC=%7 **Cause of error** - A difference was found in the input data of the safety core software in a cross-comparison between MC and CC. The requested safety function for the axis group does not match. ("pp_AxGrpStateReq[Var.]", Var.= axis group) **Error correction** - Check the SPLC program - Inform your service agency
231-A081	**Error message** A081 CC%2 cross comparison no.=%4 Var.=%5 MC=%6 CC=%7 **Cause of error** - A difference was found in the input data of the safety core software in a cross-comparison between MC and CC. The motion request for an axis or for the axis group does not match. ("pp_AxGrpActivate[Var.]", Var.= axis group) **Error correction** - Check the SPLC program - Inform your service agency
231-A081	**Error message** A081 CC%2 cross comparison no.=%4 Var.=%5 MC=%6 CC=%7 **Cause of error** - A difference was found in the input data of the safety core software in a cross-comparison between MC and CC. The axis-specific movement release does not match. ("pp_AxFeedEnable[Var.]", Var.= axis index) **Error correction** - Check the SPLC program - Inform your service agency
231-A081	**Error message** A081 CC%2 cross comparison no.=%4 Var.=%5 MC=%6 CC=%7 **Cause of error** - A difference was found in the input data of the safety core software in a cross-comparison between MC and CC. The request of a stop reaction for the axis group does not match. ("pp_AxGrpStopReq[Var.]", Var.= axis group) **Error correction** - Check the SPLC program - Inform your service agency

Error number	Description
231-A081	**Error message** A081 CC%2 cross comparison no.=%4 Var.=%5 MC=%6 CC=%7 **Cause of error** - A difference was found in the input data of the safety core software in a cross-comparison between MC and CC. The status of the axis-group-specific permissive button does not match. ("pp_AxGrpPB[Var.]", Var.= axis group) **Error correction** - Check the SPLC program - Inform your service agency
231-A081	**Error message** A081 CC%2 cross comparison no.=%4 Var.=%5 MC=%6 CC=%7 **Cause of error** - A difference was found in the input data of the safety core software in a cross-comparison between MC and CC The reported condition of the chain of safety relays or chain of normally closed contacts does not match. ("pp_GenFB_NCC", Var.= No meaning) **Error correction** - Check the SPLC program - Inform your service agency
231-A081	**Error message** A081 CC%2 cross comparison no.=%4 Var.=%5 MC=%6 CC=%7 **Cause of error** - A difference was found in the input data of the safety core software in a cross-comparison between MC and CC. The requested or reported condition of the machine control voltage does not match. ("pp_GenCVO", Var.= No meaning) **Error correction** - Check the SPLC program - Inform your service agency

Error number	Description
231-A081	**Error message** A081 CC%2 cross comparison no.=%4 Var.=%5 MC=%6 CC=%7 **Cause of error** - A difference was found in the input data of the safety core software in a cross-comparison between MC and CC. The axis-group-specific permission for drive enable does not match. ("pp_AxGrpPermitDrvOn", Var.= axis group) **Error correction** - Check the SPLC program - Inform your service agency
231-A081	**Error message** A081 CC%2 cross comparison no.=%4 Var.=%5 MC=%6 CC=%7 **Cause of error** - A difference was found in the input data of the safety core software in a cross-comparison between MC and CC. The collective status of the machine keys does not match. ("pp_GenMKG", Var.= No meaning) **Error correction** - Check the SPLC program - Inform your service agency
231-A081	**Error message** A081 CC%2 cross comparison no.=%4 Var.=%5 MC=%6 CC=%7 **Cause of error** - A difference was found in the input data of the safety core software in a cross-comparison between MC and CC. The status of the signal for the brake-line test does not match. ("pp_GenTBRK", Var.= No meaning) **Error correction** - Check the SPLC program - Inform your service agency
231-A081	**Error message** A081 CC%2 cross comparison no.=%4 Var.=%5 MC=%6 CC=%7 **Cause of error** - A difference was found in the input data of the safety core software in a cross-comparison between MC and CC. The safety-related mode of operation SOM active in the SKERN does not match. ("pp_GenSOM", Var.= No meaning) **Error correction** - Check the SPLC program - Inform your service agency

Error number	Description
231-A081	**Error message** A081 CC%2 cross comparison no.=%4 Var.=%5 MC=%6 CC=%7 **Cause of error** - A difference was found in the input data of the safety core software in a cross-comparison between MC and CC. The status of the read-back outputs does not match. ("readBackOutputs[Var.]", Var.= index number of the output) **Error correction** - Check the SPLC program - Inform your service agency
231-A081	**Error message** A081 CC%2 cross comparison no.=%4 Var.=%5 MC=%6 CC=%7 **Cause of error** - A difference was found in the input data of the safety core software in a cross-comparison between MC and CC. The status "SPLc program active" does not match. ("running", Var.= No meaning) **Error correction** - Check the SPLC program - Inform your service agency
231-A081	**Error message** A081 CC%2 cross comparison no.=%4 Var.=%5 MC=%6 CC=%7 **Cause of error** - A difference was found in the input data of the safety core software in a cross-comparison between MC and CC. The "Stop" request does not match. ("stopReq", Var.= No meaning) **Error correction** - Check the SPLC program - Inform your service agency
231-A081	**Error message** A081 CC%2 cross comparison no.=%4 Var.=%5 MC=%6 CC=%7 **Cause of error** - A difference was found in the output data of the safety core software in a cross-comparison between MC and CC The ascertained safety status of the axis group does not match. ("NN_AxGrpState[Var.]", Var.= axis group) **Error correction** - Check the SPLC program - Inform your service agency

Error number	Description
231-A081	**Error message** A081 CC%2 cross comparison no.=%4 Var.=%5 MC=%6 CC=%7 **Cause of error** - A difference was found in the output data of the safety core software in a cross-comparison between MC and CC The axis-dependent braking control does not match. ("NN_AxBrkReleaseReq[Var.]", Var.= axis index) **Error correction** - Check the SPLC program - Inform your service agency
231-A081	**Error message** A081 CC%2 cross comparison no.=%4 Var.=%5 MC=%6 CC=%7 **Cause of error** - A difference was found in the output data of the safety core software in a cross-comparison between MC and CC The motion status of the axis group does not match. ("NN_AxGrpInMotion[Var.]", Var.= axis group) **Error correction** - Check the SPLC program - Inform your service agency
231-A081	**Error message** A081 CC%2 cross comparison no.=%4 Var.=%5 MC=%6 CC=%7 **Cause of error** - A difference was found in the output data of the safety core software in a cross-comparison between MC and CC The operating readiness for functional safety (FS) does not match. ("NN_GenSafe", Var. = No meaning) **Error correction** - Check the SPLC program - Inform your service agency
231-A081	**Error message** A081 CC%2 cross comparison no.=%4 Var.=%5 MC=%6 CC=%7 **Cause of error** - A difference was found in the output data of the SKERN in a cross-comparison between the A channel and B channel. The axis-dependent braking control for multiple brakes per axis does not match. ("NN_MultiBrkOnAxisReleaseReq[Var.]", Var.= axis index) **Error correction** - Check the SPLC program - Inform your service agency

Error number	Description
231-A081	**Error message** A081 CC%2 cross comparison no.=%4 Var.=%5 MC=%6 CC=%7 **Cause of error** - A difference was found in the input data of the SKERN in a cross-comparison between the A channel and B channel. The value for the feed rate limit does not match. ("pp_AxFeedMax[Var.]", Var.= axis index) **Error correction** - Check the SPLC program - Inform your service agency
231-A081	**Error message** A081 CC%2 cross comparison no.=%4 Var.=%5 MC=%6 CC=%7 **Cause of error** - A difference was found in the output data of the SKERN in a cross-comparison between the A channel and B channel. The axis-specific status of the safe absolute position does not match. ("NN_AxSafe[var.]", var.= axis index) **Error correction** - Check the SPLC program - Restart the control - Inform your service agency
231-A081	**Error message** A081 CC%2 cross comparison no.=%4 Var.=%5 MC=%6 CC=%7 **Cause of error** Es wurde ein Unterschied in den Ausgangsdaten von SKERN beim Kreuzvergleich zwischen A- und B-Kanal festgestellt. Die achsabhängige Achsgruppen-ID stimmt nicht überein. ("NN_AxGrpId[Var.]", Var.= Achsindex) **Error correction** - SPLC-Programm prüfen - Neustart der Steuerung durchführen - Kundendienst benachrichtigen

Error number	Description
231-A081	**Error message** A081 CC%2 cross comparison no.=%4 Var.=%5 MC=%6 CC=%7 bit=%8 **Cause of error** Es wurde ein Unterschied in den Ausgangsdaten von SKERN beim Kreuzvergleich zwischen A- und B-Kanal festgestellt. Der generische, bitcodierte Informationsstatus von SKERN stimmt nicht überein. ("NN_GenInfo") **Error correction** - SPLC-Programm prüfen - Neustart der Steuerung durchführen - Kundendienst benachrichtigen
231-A081	**Error message** A081 CC%2 cross comparison no.=%4 Var.=%5 MC=%6 CC=%7 bit=%8 **Cause of error** Es wurde ein Unterschied in den Ausgangsdaten von SKERN beim Kreuzvergleich zwischen A- und B-Kanal festgestellt. Der achsabhängige, bitcodierte Informationsstatus stimmt nicht überein. ("NN_AxInfo[Var.]", Var.= Achsindex) **Error correction** - SPLC-Programm prüfen - Neustart der Steuerung durchführen - Kundendienst benachrichtigen
231-A081	**Error message** A081 CC%2 cross comparison no.=%4 Var.=%5 MC=%6 CC=%7 bit=%8 **Cause of error** Es wurde ein Unterschied in den Eingangsdaten der SKERN-Software beim Kreuzvergleich zwischen MC und CC festgestellt. Der achsabhängige, bitcodierte Anforderungsstatus der SPLC stimmt nicht überein. ("PP_AxRequests") **Error correction** - SPLC-Programm prüfen - Neustart der Steuerung durchführen - Kundendienst benachrichtigen

Error number	Description
231-A082	**Error message** A082 CC%2 NE2 level does not change after 0 during dyn. test **Cause of error** - During the dynamic test of the 2nd emergency stop loop (every 1.5 minutes at the latest), a temporary change to 0 V level is expected at the input (NE2). If a 0 V or 24 V level remains continuously on inside the test window of 100 ms, it causes the error. - The time window for the dynamic test is too small (computing time problems, software errors) **Error correction** - Check the software version - Inform your service agency - Check the wiring - Check the emergency stop button - Exchange the hardware
231-A082	**Error message** A082 CC%2 cross comparison no.=%4 Var.=%5 MC=%6 CC=%7 **Cause of error** - A difference was found in the input data of the SKERN in a cross-comparison between the A channel and B channel. The value for the readback channels does not match. ("pp_ReadBackOutputs", Var. = Number of the SPLC output) **Error correction** - Check the voltages and wiring of the SPLC output - Check the SPLC program and correct it if necessary - Inform your service agency
231-A083	**Error message** A083 CC%2 S input not equal to 0 in dynamic test **Cause of error** - During the dynamic test of the 2nd emergency stop loop (no later than every 1.5 min), a 0 V level is expected at all safety-related door-contact keylock and switch inputs for a short period. This error appears if a 24 V level continues throughout the test window of 100 ms. - The time window for the dynamic test is too small (computing time problems, software errors) **Error correction** - Check the software version - Inform your service agency - Check the wiring - Check the door contacts and key switches - Exchange the hardware

Error number	Description
231-A084	**Error message** A084 S timeout in stop reaction SS2 %4 ObjId=%5 **Cause of error** - The maximum permissible time for a controlled stop (SS2 – braking on the contour) of the axis group (= ObjId) was exceeded. The maximum permissible time is 30 seconds. **Error correction** - Check the SPLC program and PLC program - Inform your service agency.
231-A085	**Error message** A085 SKERN-CC%2, X%4: Comm.error during EnDat encoder dynamic sampling **Cause of error** A communication error occurred during forced dynamic sampling of the EnDat encoder. Both ignore flags were set at the same time. **Error correction** Inform your service agency.
231-A086	**Error message** A086 SKERN-CC%2: Communications error during dynamic sampling of X%4 **Cause of error** The dynamic sampling of the EnDat22 encoder could not be performed within the prescribed time. **Error correction** Note further error messages. Inform your service agency.
231-A087	**Error message** A087 SKERN-CC%2: illegal Ignore bit for EnDat forced dynamic sampling **Cause of error** An active ignore bit was detected outside of an EnDat forced dynamic sampling. **Error correction** - Restart the control - If the error recurs, inform your service agency

Error number	Description
231-A090	**Error message** A090 Drive lock through safety software **Cause of error** - Emergency stop activated (by CC) - A drive is to be switched on, although the system in in the "emergency stop" condition ("-ES.B" or "-NE2" signal is active). - Internal software error **Error correction** - Check the wiring - Check the software version - Inform your service agency
231-A091	**Error message** A091 Drive lock through safety software **Cause of error** - Emergency stop activated (of MC) - A drive is to be switched on, although the system in in the "emergency stop" condition ("-ES.A" or "-NE1" signal is active). - Internal software error **Error correction** - Check the wiring - Check the software version - Inform your service agency
231-A092	**Error message** A092 Drive lock through safety software **Cause of error** - System test is active - A drive is to be switched on, although the system is still in a test program - Internal software error **Error correction** - Check the software version - Inform your service agency
231-A093	**Error message** A093 Drive lock through FS, stop 1 switch-off active **Cause of error** - Drive locked through functional safety FS - A drive was supposed to be switched on, although the CC has not yet completed a completed a running stop 1 switch-off - Internal software error **Error correction** - Check the software version - Inform your service agency

Error number	Description
231-A094	**Error message** A094 Drive lock of spindle, tool holder opened **Cause of error** - A spindle drive was supposed to be switched on while the guard door was open, although the tool holder was open. - Internal software error **Error correction** - Check the wiring - Check the software version - Inform your service agency
231-A095	**Error message** A095 Spindle drive lock, status of permissive button invalid **Cause of error** - A spindle drive was supposed to be switched on while the guard door was open, although the permissive button is not pressed or was not let go beforehand. - Internal software error **Error correction** - Check the wiring - Check the software version - Inform your service agency
231-A096	**Error message** A096 Spindle drive lock, operating mode is not allowed **Cause of error** - A spindle drive was supposed to be switched on while the guard door was open, although the keylock switch was in the 'BA1' position ('unqualified operator'). - Internal software error **Error correction** - Check the keylock switch position - Check the wiring - Check the software version - Inform your service agency
231-A097	**Error message** A097 Drive lock on spindle, SS2 reaction active **Cause of error** - A spindle drive was supposed to be switched on while the guard door was open, although a stop2 reaction is active for the spindle. - Internal software error **Error correction** - Check the software version - Inform your service agency

Error number	Description
231-A098	**Error message** A098 Drive lock on spindle, STO is active **Cause of error** - A spindle drive was supposed to be switched on while the guard door was open, although the STO safety function (safely switched-off torque) is still active. - Internal software error **Error correction** - Check the software version - Inform your service agency
231-A099	**Error message** A099 CC%2 Drive lock - non-deletable system error **Cause of error** - Drive switch-on was prevented because a non-deletable system error occurred. **Error correction** - Check the cause of the system error (see log entry) and correct if if possible. - Inform your service agency
231-A200	**Error message** A200 Brake test is not allowed %1 **Cause of error** - Drive ready signal (RDY signal) or inverter enabling signal is missing. - Protective door(s) are not closed, although the parameter settings require it. - The brake to be tested is not assigned to this drive **Error correction** - Check the inverter enabling signals (wiring, PLC program or SPLc program) - Close the protective door(s) - Check the parameter settings, and edit them if necessary. - Inform your service agency

Error number	Description
231-A210	**Error message** A210 Faulty control of brake %1: Step %4 **Cause of error** - Incorrect signal level at the FS input: "-T.BRK.B" during brake control test Test step 2 = Release brake through B channel output: +24 V detected although T.BRK should provide 0 V Test step 3 = Release brake through A channel output: +24 V detected although T.BRK should provide 0 V Test step 4 = Release brake through A and B channel outputs: 0 V detected although T.BRK should provide +24 V **Error correction** - Check external wiring of the motor brake - Generate the service files and notify the service agency
231-A800	**Error message** A800 CC limit switch %1+ **Cause of error** The permissible positive traverse range (machine parameter CfgAxParSafety/absLimitPos) was exceeded. **Error correction** - Check the value of the positive software limit switch and correct it if necessary: Machine parameter CfgPositionLimits/swLimitSwitchPos - Check the traverse direction of the axis and correct it if necessary: Machine parameters from MLST 19: CfgCtrlAxis/signCorrActualVal, CfgCtrlAxis/signCorrNomVal or to MLST 18: CfgAxisHardware/signCorrActualVal, CfgAxisHardware/signCorrNomVal and the DIR column from the motor table or machine parameter CfgServoMotor/motDir - Inform your service agency
231-A810	**Error message** A810 CC limit switch %1- **Cause of error** The permissible negative traverse range (machine parameter CfgAxParSafety/absLimitNeg) was exceeded. **Error correction** - Check the value of the negative software limit switch and correct it if necessary: Machine parameter CfgPositionLimits/swLimitSwitchNeg - Check the traverse direction of the axis and correct it if necessary: Machine parameters from MLST 19: CfgCtrlAxis/signCorrActualVal, CfgCtrlAxis/signCorrNomVal or to MLST 18: CfgAxisHardware/signCorrActualVal, CfgAxisHardware/signCorrNomVal and the DIR column from the motor table or machine parameter CfgServoMotor/motDir - Inform your service agency

Error number	Description
231-A820	**Error message** A820 CC speed greater than SRG %1 **Cause of error** The maximum permissible velocity in the SRG operating mode was exceeded. **Error correction** - Reduce the feed rate and shaft speed before opening the safety doors - Check the operating mode (setting of key-operated switch) - Inform your service agency - Check the parameter values
231-A830	**Error message** A830 CC SRG rot. speed = 0 %1 **Cause of error** - The maximum permissible velocity is 0 (as per parameter) - Only spindle drive: the parameter values for the gear ranges are 0 - An illegal operating mode was selected by keylock switch - There is a circuit error, or a disturbance at input I19 of the operator safety module - Internal software error **Error correction** - Check the operating mode version (position of keylock switch) - Check the wiring of the operator safety module inputs. - Check the parameter values - Inform your service agency
231-A840	**Error message** A840 CC SBH rot. speed too high %1 **Cause of error** - The maximal permissible velocity of the standstill monitoring was exceeded. **Error correction** - Inform your service agency - Check the drive
231-A850	**Error message** A850 CC SBH rot. speed = 0 %1 **Cause of error** - Standstill monitoring was set to 0 - Internal software error **Error correction** - Inform your service agency - Check from MLST 19: CfgCtrlEncoder/transmission or to MLST 18: CfgAxisHardware/transmission (traverse per motor revolution)

Error number	Description
231-A860	**Error message** A860 Traverse in SRG too large %1 **Cause of error** - The maximum permissible traverse in the SRG operating mode was exceeded because: - During probing with oriented spindle stop, the spindle axis was moved by more than 2 revolutions. **Error correction** - Check the probing sequence - Close the protective doors - Inform your service agency
231-A870	**Error message** A870 Brake test is not allowed %1 **Cause of error** - Drive ready signal (RDY signal) or inverter enabling signal is missing. - Protective door(s) are not closed, although the parameter settings require it. - The brake to be tested is not assigned to this drive **Error correction** - Check the inverter enabling signals (wiring, PLC program or SPLc program) - Close the protective door(s) - Check the parameter settings, and edit them if necessary. - Inform your service agency
231-A880	**Error message** A880 1st violation of positive software limit range %1 **Cause of error** The drive moved into the positive limit-switch range for the 1st time (machine parameter CfgAxParSafety/absLimitPos) **Error correction** - Move the drive out of the positive limit-switch range - Check the values of the software limit switches and correct them if necessary: Machine parameters CfgPositionLimits/swLimitSwitchNeg and CfgPositionLimits/swLimitSwitchPos - Check the traverse direction of the axis and correct it if necessary: Machine parameters from MLST 19: CfgCtrlAxis/signCorrActualVal and CfgCtrlAxis/signCorrNomVal or to MLST 18: CfgAxisHardware/signCorrActualVal and CfgAxisHardware/signCorrNomVal and the DIR column from the motor table or CfgServoMotor/motDir

Error number	Description
231-A890	**Error message** A890 1st violation of negative software limit range %1 **Cause of error** The drive moved into the negative limit-switch range for the 1st time (machine parameter CfgAxParSafety/absLimitNeg) **Error correction** - Move the drive out of the negative limit-switch range - Check the values of the software limit switches and correct them if necessary: Machine parameters CfgPositionLimits/swLimitSwitchNeg and CfgPositionLimits/swLimitSwitchPos - Check the traverse direction of the axis and correct it if necessary: Machine parameters from MLST 19: CfgCtrlAxis/signCorrActualVal and CfgCtrlAxis/signCorrNomVal or to MLST 18: CfgAxisHardware/signCorrActualVal and CfgAxisHardware/signCorrNomVal and the DIR column from the motor table or CfgServoMotor/motDir
231-A8A0	**Error message** A8A0 CC nominal-to-actual deviation of position values %1 **Cause of error** - The safety function nominal/actual value monitoring of position values has ascertained an excessive deviation. - The motor is moving while the slide is not, or vice versa - The mechanical motion transmission is interrupted - Thermal expansion of mechanical transmission components - The transmission ratio of the motor to the position encoder is incorrect (machine parameter distPerMotorTurn) - Improper installation of position encoder on ball screw - The entry in the axis-specific parameter maxPosDiff is defined too small **Error correction** - Check the mechanical motion transmission - Check the encoder fastening - Check the thermal expansion of the mechanical transmission components (e.g. recirculating ball screw) - Check the transmission ratio of the motor to the position encoder - Check the installation of the position encoder on the ball screw - Inform your service agency.

Error number	Description
231-A8C0	**Error message** A8C0 Drive lock through FS, %1 has not been checked **Cause of error** - Drive locked through functional safety FS - A non-checked drive moved in an operating mode other than "reference run" while the guard door was open. - Internal software error **Error correction** - Check the software version - Inform your service agency
231-A8D0	**Error message** A8D0 SS1 still active—switch-on not allowed %1 **Cause of error** The safety software of the controller unit (SKERN-CC) has prevented the drive from being switched back on. A triggered SS1 stop reaction was not yet fully concluded. **Error correction** - Try to switch the drive on again. - If the problem recurs: Check the process of the SPLC and PLC program and inform your service agency.
231-A8E0	**Error message** A8E0 Timeout during braking %1 **Cause of error** - The maximum permissible time for a controlled stop (SS2 – braking on the contour) was exceeded **Error correction** - Check the parameter values: timeLimitStop2: Default time for bringing axes to a controlled standstill for SS2 reaction - Inform your service agency

Error number	Description
231-A8F0	**Error message** A8F0 Drive lock %1 - safety function STO is active **Cause of error** - Drive switch-on was prevented because the safety function STO is presently active for this drive. - The STO safety function could not be exited. Exiting the STO safety function requires the following: The activation of the axis group through the SPLC program (PP_AxGrpActivate of the associated axis group) Enabling of the drive by the SPLC program (PP_AxFeedEnable of the associated axis) The switch-on command of the PLC program (PLC Module 9161) - If the message appears during the current controller adjustment of the spindle, the "spindle start" key was not pressed before the adjustment was started. **Error correction** - Press the "spindle start" key before the spindle adjustment - Press the key for moving the axis on the machine control panel for a longer time - Optimize program processes in the PLC and SPLC program - Check the SPLC program and correct if necessary - Inform your service agency
231-A900	**Error message** A900 S traverse range exceeded when braking at contour (SS2) %1 **Cause of error** - When braking at a contour (SS2), the maximum permissible path in the safety-related machine parameter distLimitStop2 was exceeded. **Error correction** - Check the parameter value: distLimitStop2: Axis-specific limit value for maximum permissible path upon SS2 reaction. - Inform your service agency

Error number	Description
231-A910	**Error message** A910 CC Speed/noml. value deviation too large %1 **Cause of error** - The actual velocity deviates for longer than the permissible duration (feed axes: machine parameter timeToleranceSpeed) by the maximum permissible deviation (feed axes: machine parameter speedDiffNom) from the nominal velocity value. - Possible causes: + Machine parameter "timeToleranceSpeed" is defined too small + Machine parameter "speedDiffNom " is defined too small. + I component of the speed controller in the machine parameter "vCtrlIntGain" is defined too small. + Is the speed encoder cable connected? + Motor encoder defective or loose **Error correction** - Check the machine parameter "timeToleranceSpeed" - Check the machine parameter "speedDiffNom" - Check the I component of the speed controller machine parameter "vCtrlIntGain" - Check the speed encoder mounting - Check the cable of the speed encoder - Exchange the speed encoder - Inform your service agency

Error number	Description
231-A920	**Error message** A920 Standstill monitoring SKERN-CC %1 **Cause of error** - SKERN-CC detected an impermissibly large axis movement in the SOS safety condition. The standstill speed (50 mm/min for feed axes or 10 rpm for spindles) was also exceeded. The maximum permissible path in the SOS condition is defined in the machine parameter "positionRangeVmin." Possible causes: - Machine parameter "positionRangeVmin" is defined too small. - The brake was deactivated before the position controller was closed. - The brake was not activated before the position controller was opened. - When an axis was switched on, some existing following error was corrected. - The brake is defective. - There was an attempt to move an axis in the SOS condition (PLC?) - The axis feed-rate enabling by the ApiToSafety datum PP_AxFeedEnable is missing. **Error correction** - Check the entry in machine parameter positionRangeVmin. - Check the sequence of deactivating the brake and closing the position controller. - Check the sequence of activating the brake and opening the position controller. - Check whether there is a following error after an axis is locked. - Check the interface signal of the SPLC PP_AxFeedEnable for the axis - Inform your service agency

Error number	Description
231-A930	**Error message** A930 Safely limited speed (SLS) exceeded %1 **Cause of error** - SKERN-CC detected an impermissibly fast axis movement above the safe reduced speed. (SLS2,SLS3,SLS4) Possible causes: - Guard door was opened (at high speed) during an axis movement. - Machine parameter for reduced speed is defined too small. **Error correction** - Check whether the guard door was opened during an axis movement. - SLS2: Check the entry in machine parameter "speedLimitSom2." - SLS3: Check the entry in machine parameter "speedLimitSom3." - SLS4: Check the entry in machine parameter "speedLimitSom4." - Inform your service agency.
231-A940	**Error message** A940 Path exceeded during restricted spindle operation %1 **Cause of error** In the limited spindle operation, the maximum permissible path of 2 revolutions was exceeded. **Error correction** - Check the path of the spindle during limited spindle operation. - Inform your service agency.

Error number	Description
231-A950	**Error message** A950 Safely limited increment (SLI) exceeded %1 **Cause of error** - The maximum permissible path was exceeded in the Safely Limited Increment (SLI) mode. - Possible causes: - The selected increment exceeds the value from the safe machine parameter distLimitJog - The drive overshoots mechanically when the limit position is reached - Drive is not optimally adjusted. **Error correction** - Enter a smaller jog increment. - Check the entry in the safe machine parameter distLimitJog. - When the jog increment end position is reached, use the control's internal oscilloscope to check the actual position value for overshooting. - Adjust the drive. - Inform your service agency.
231-AC00	**Error message** AC00 CC amplitude too high %1 **Cause of error** - The amplitude of the encoder signal is too high or the signal for contamination is active. - Incorrect adjustment between head and encoder, air gap too small (exposed encoders) - Excessive supply voltage **Error correction** - Check the amplitude of the encoder signal - Inform your service agency
231-AC10	**Error message** AC10 Motor encoder %1 defective **Cause of error** - Motor encoder contaminated or defective - Cable defective - Encoder input defective on the control - Signal connector: Poor contact or penetration of humidity - Humidity has entered the motor - No encoder signal available - Interruption in motor encoder cable - Signal amplitude of motor encoder is missing or too small **Error correction** - Inform your service agency - Check the motor encoder connection - Check the motor encoder - Check the amplitude of the encoder signal

Error number	Description
231-AC20	**Error message** AC20 CC frequency too high %1 **Cause of error** - The maximum input frequency was exceeded at an encoder input. - Noise on motor encoder signal - Vibrations on the machine **Error correction** - Inform your service agency - Check the motor encoder connection (ground connection) - Check the motor encoder - Check the encoder signal input frequency - Remove the vibrations
231-AC30	**Error message** AC30 CC ampl. too high %1 (position) **Cause of error** - The amplitude of the position encoder signal is too high - Fault in the encoder signal - Short circuit in the encoder cable - Signal amplitude of encoder is too high **Error correction** - Inform your service agency - Check the encoder connection (ground connection) - Check the encoder
231-AC40	**Error message** AC40 Position encoder %1 defective **Cause of error** - Encoder contaminated - Encoder defective - Penetration of humidity - Scanning head misaligned (distance, parallelism, etc.) - Encoder cabling defective - Encoder input defective on the control **Error correction** - Inform your service agency - Check the encoder connection - Check the encoder

Error number	Description
231-AC50	**Error message** AC50 CC freq. too high %1 (position) **Cause of error** - The maximum input frequency was exceeded at a position encoder input. - Noise on the encoder signal - Vibrations on the machine **Error correction** - Inform your service agency - Check the encoder connection (ground connection) - Check the encoder - Check the input frequency of the encoder signal. - Remove the vibrations
231-B200	**Error message** B200 CC%2 No brake test was conducted **Cause of error** - MC makes no test of the motor brake(s) although it is configured by machine parameter setting. - Cannot enable the motor-brake test(s) - An axis was deselected by PLC module and the corresponding machine parameter for running a brake test for this axis is still set. **Error correction** - Check the machine parameter for conducting a brake test - Generate the service files and notify the Service Department
231-B300	**Error message** B300 CC%2 No brake line test was conducted %1 **Cause of error** - MC (A channel) makes no test of the brake line, although the machine parameter setting requires it. - Timeout when calling for test of the brake control by the MC. - An axis was deselected by PLC module, although the corresponding machine parameter for running the brake line test is still set. **Error correction** - Check the machine parameter for testing the brake control or brake test - Generate the service files and notify the Service Department

Error number	Description
231-B400	**Error message** B400 SKERN-CC%2: watchdog error interface **Cause of error** - Internal software error (watchdog low priority cycle) **Error correction** - Inform your service agency
231-B800	**Error message** B800 CC%2 safe inputs %1 not equal **Cause of error** - A safety-related input of the CC is longer than 400 ms unequal to MC - Different levels at the safety module input: 4 = Acknowledgement of switch-off 8 = Safe reduced velocity of axes/spindle 10 = Safe reduced velocity of auxiliary axes 11 = Operating mode 3(detachable-key switch 1, Pos3) (safe controlled stop of axes/spindle) 18 = Operating mode 2 (detachable-key switch 1,Pos2) 19 = Operating mode 4 (detachable-key switch 2) - Wiring error X65, X66, (X67) – Safety module defective **Error correction** – Check the wiring X65, X66, (X67) – Exchange the safety module - Generate the service files and notify the Service Department

Error number	Description
231-B900	**Error message** B900 CC%2 supply voltage %1 **Cause of error** - The supply voltage Vcc(x) was out of range. - +4 = undervoltage Vcc(+5 V) The load from external components (e.g. encoders) is too large. - +6 = overvoltage Vcc(+5 V) The power supply unit is defective. - +14 = undervoltage Vcc(+15 V) The power supply unit is defective. - +16 = overvoltage Vcc(+15 V) The power supply unit is defective. - -14 = undervoltage Vcc(-15 V) The power supply unit is defective. - -16 = overvoltage Vcc(-15 V) The power supply unit is defective. **Error correction** - Inform your service agency. - Measure the supply voltage Vcc(x). - Vcc(+5 V) < +4.75 V Check the encoder connections. - Vcc(+5 V) > +5.50 V Exchange the power supply unit. - Vcc(+15 V) < +14.25 V Exchange the power supply unit. - Vcc(+15 V) > +16.50 V Exchange the power supply unit. - Vcc(-15 V) < -14.25 V Exchange the power supply unit. - Vcc(-15 V) > -16.50 V Exchange the power supply unit.
231-BA00	**Error message** BA00 CC%2 operating temperature %1 **Cause of error** - Temperature inside the LE was out of permissible range. (-128... 0...+127 = measured temperature value [°C]) - Temperature sensor on board is defective. - The electrical-cabinet ventilation is insufficient (fan defective). - The ambient temperature is too high or too low. **Error correction** - Check the ventilation. - Inform your service agency.
231-BB00	**Error message** BB00 CC%2 MC command %1 to CC software is not allowed **Cause of error** - MC command not permitted for this software variant of the CC - MC command not permitted at this point in time. Decimal code = low byte of the command code (0...255) - Internal software error **Error correction** - Check the software version - Inform your service agency

Error number	Description
231-C000	**Error message** C000 No data exchange with MC **Cause of error** - Communication to the MC was interrupted. - Internal software error. **Error correction** - Inform your service agency. - Check the software version.
231-C001	**Error message** C001 Undefined error **Cause of error** Internal software error **Error correction** - Inform your service agency - Check the software version
231-C002	**Error message** C002 MC command invalid **Cause of error** Internal software error **Error correction** - Inform your service agency - Check the software verion
231-C003	**Error message** C003 System clock MC not = CC%2 **Cause of error** - Hardware error (crystal generator) - Internal software error **Error correction** - Inform your service agency - Exchange the drive control board or processor board - Check the software version
231-C005	**Error message** C005 CC hardware is not supported **Cause of error** - The hardware version of the CC controller unit is not supported by installed the NC software - Power supply module (UV/UVR) interferes with I2C bus **Error correction** - Check the NC software version - Check/exchange the X69 ribbon cable - Exchange the power supply module (UV/UVR) - Inform your service agency

Error number	Description
231-C006	**Error message** C006 I-CTRL communication: TIME **Cause of error** - Communication error between speed and current controller. **Error correction** - Inform your service agency. - Check the software version.
231-C007	**Error message** C007 DC-link voltage too low **Cause of error** - Line power interrupted - Inverter defective **Error correction** - Check the line power supply - Inform your service agency - Check the inverter
231-C008	**Error message** C008 I-CTRL communication: QUEUE **Cause of error** - Communication error between speed and current controller. **Error correction** - Inform your service agency. - Check the software version.
231-C009	**Error message** C009 Stack overflow **Cause of error** - Internal software error **Error correction** - Inform your service agency - Check the software version
231-C00A	**Error message** C00A PWM triangular signal error **Cause of error** - Hardware error: Triangular signal does not oscillate, or it oscillates with incorrect frequency **Error correction** - Inform your service agency - Exchange the drive control board

Error number	Description
231-C00B	**Error message** C00B Too little main memory **Cause of error** - Internal software error **Error correction** - Inform your service agency - Check the software version
231-C00C	**Error message** C00C LSV2, incorrect number of data **Cause of error** - The number of LSV2 data to be read is incorrect - Internal software error **Error correction** - Inform your service agency - Check the software version
231-C00D	**Error message** C00D CC%2 Checksum error in the DSP program code **Cause of error** - A checksum error was discovered in the program code of the CC controller unit - Defective CC controller unit **Error correction** - Exchange the hardware - Inform your service agency
231-C00E	**Error message** C00E Controller software timeout **Cause of error** - Internal software or hardware error **Error correction** - Inform your service agency - Check the software version - Exchange the drive control board
231-C00F	**Error message** C00F Error in software timer **Cause of error** - Internal software error **Error correction** - Inform your service agency - Check the software version

Error number	Description
231-C010	**Error message** C010 Bus error in speed controller **Cause of error** - Access violation on controller periphery. **Error correction** - Inform your service agency. - Exchange the controller board.
231-C011	**Error message** C011 Softw. synchronization err. **Cause of error** - Missing hardware interrupt after DSP start (>900[ms]) - Missing synchronization command of the MC before drive switch-on - Hardware is defective (MC or CC) **Error correction** - Exchange the hardware (MC or CC) - Inform your service agency.
231-C012	**Error message** C012 Pos. control cyc. time err. **Cause of error** - MC is providing erroneous cycle time for CC position controller - Hardware error **Error correction** - Inform your service agency - Check the configuration datum ipoCycle - Exchange the drive control board
231-C013	**Error message** C013 PWM frequency error **Cause of error** - The PWM frequency entered in CfgPowerStage/ampPwm-Freq is outside the permissible input range - The selected PWM frequencies must not be combined **Error correction** - Inform your service agency - Check CfgPowerStage/ampPwmFreq

Error number	Description
231-C014	**Error message** C014 Interpolator, PWM invalid **Cause of error** - Invalid relation between interpolator clock pulse and PWM frequency. **Error correction** - Inform your service agency. - Change the ratio of interpolator clock pulse to PWM frequency. - For possible ratios see Technical Manual.
231-C015	**Error message** C015 Interpolator, PWM changed **Cause of error** - Interpolator clock pulse or PWM frequency was changed. **Error correction** - Restart the control.
231-C016	**Error message** C016 Double speed not possible **Cause of error** - Control loop on X51 or X52 is defined as 'double speed', although the control loop on X53 or X54 is active - Control loop on X55 or X56 is defined as 'double speed', although the control loop on X57 or X58 is active (only CC 4xx with 8 control loops) **Error correction** - Inform your service agency - Define the control loop on X51 or X52 as 'single speed', or deactivate the PWM output X53 or X54 - Define the control loop on X55 or X56 as 'single speed', or deactivate the PWM output X57 or X58 (only CC 4xx with 8 control loops)
231-C017	**Error message** C017 PWM frequency too high **Cause of error** - For a single-speed control loop, in configuration datum ampPwmFreq the double PWM basic frequency, and in iCtrlPwmType one-half of the current controller cycle time has been set. **Error correction** - Inform your service agency - Check the configuration datum ampPwmFreq and iCtrlP-wmType - Use a double-speed control loop instead of single-speed

Error number	Description
231-C018	**Error message** C018 Master-slave torque: Axis assignment incorrect **Cause of error** - The axis in master-slave torque control are permissible only at X15/X17 or X16/X18. **Error correction** - Inform your service agency. - Change the axis assignment.
231-C020	**Error message** C020 Faulty Include file **Cause of error** - The MC and CC software were not compiled with the same Include file. **Error correction** - Check the software version and reload if necessary - Inform your service agency
231-C021	**Error message** C021 Wrong DSP version **Cause of error** - The MC and CC software were not compiled with the same Include file. **Error correction** - Inform your service agency - Check the software version and reload if necessary
231-C022	**Error message** C022 SMB or SPL configuration error **Cause of error** - Configuration error in the HSCI system - Configuration error in the safe machine operating panel MB 6xx S or a safe PL 6xxx S - A new device type has been connected that is not yet supported by the current CC software - Error in the MC's configuration data to the CC **Error correction** - Software update - Inform your service agency
231-C023	**Error message** C023 IRQ stack overflow **Cause of error** - Internal software error **Error correction** - Inform your service agency - Check the software version

Error number	Description
231-C025	**Error message** C025 CC-CC communication, CRC error **Cause of error** - An HSCI station causes an offset error - Incorrect message size by MC **Error correction** - Software update - Inform your service agency
231-C026	**Error message** C026 CC-CC communication, watchdog error **Cause of error** - An HSCI station causes an offset error - Incorrect message size by MC - Message transmission canceled **Error correction** - Software update - Exchange the PL 6xxx S - Inform your service agency
231-C027	**Error message** C027 HSCI message is missing **Cause of error** - HSCI message (low-prio) is missing - An HSCI station causes an error - Message list in MC is faulty **Error correction** - Check the HSCI devices - Software update - Inform your service agency
231-C028	**Error message** C028 MC acknowledgment is missing **Cause of error** - An HSCI message from the CC to the MC was not acknowledged **Error correction** - Software update - Inform your service agency
231-C02B	**Error message** C02B Watchdog error for machine operating panel **Cause of error** - Watchdog of the MB 6xx S was not retriggered - Hardware error on the MB 6xx S **Error correction** - Exchange the MB 6xx S - Inform your service agency

Error number	Description
231-C02C	**Error message** C02C Watchdog error for PL / SPL assembly **Cause of error** - Watchdog module of a PL assembly was not re-triggered correctly - Firmware error in PL/SPL assembly - Hardware error in PL/SPL assembly **Error correction** - Check PL and SPL assemblies in HSCI bus diagnosis - Check the control software version - Exchange defective PL/SPL assembly (bus diagnosis) - Inform your service agency
231-C02D	**Error message** C02D Watchdog error, HSCI module **Cause of error** - HSCI module of the CC is defective -> HSCI messages cannot be received any longer -> The watchdog is not retriggered any longer - HSCI cable defective **Error correction** - Check the connection of the HSCI cable - Check/replace the HSCI cable - Exchange the CC - Inform your service agency
231-C02E	**Error message** C02E CC firmware update required **Cause of error** - An update of the firmware is required because of a hardware or software exchange **Error correction** - Inform your service agency
231-C02F	**Error message** C02F Error during control start up **Cause of error** - Internal software error in the MC, CC or an HSCI participant (RunUp) **Error correction** - Inform your service agency

Error number	Description
231-C030	**Error message** C030 Alarm with supply voltages CC%2 **Cause of error** - The internal supply voltages of the CC are outside of the specified range. Please pay attention to the diagnostic message "0xC038 voltage monitoring"! **Error correction** - Check the voltage supply to the devices - Note further information in the control's diagnostic functions (bus diagnostics or TNCdiag) - Check the supply voltages on the CC: - Check the wiring of X69 - Cable length at X69 within specification? - Exchange the cable on X69 - Exchange the hardware - Inform your service agency
231-C031	**Error message** C031 Alarm with supply voltages **Cause of error** The supply voltages on a device in the HSCI line are outside of the specified range. The HSCI bus diagnosis indicates which HSCI component triggered the error. Possible devices: - MC main computer - PL inputs/outputs - MB machine operating panel - Other CC in the HSCI line Possible causes: - Insufficient power supply to the devices - Short circuit in the power supply - Short circuit in PL inputs and outputs **Error correction** - Check the voltage supply to the devices - Note further information in the control's diagnostic functions (bus diagnostics or TNCdiag) - Check the wiring for possible short circuits (e.g., PLC inputs or outputs) - Exchange the hardware - Inform your service agency
231-C032	**Error message** C032 System clock of the MC less than CC%2 **Cause of error** - MC main computer or CC controller unit is defective. **Error correction** - Inform your service agency.

Error number	Description
231-C033	**Error message** C033 System clock of the MC greater than CC%2 **Cause of error** - MC main computer or CC controller unit is defective. **Error correction** - Inform your service agency.
231-C034	**Error message** C034 CC%2 self test in S status faulty **Cause of error** - The MC did not correctly end the the self text of the S status signals. - Internal software error **Error correction** - Check the software version - Inform your service agency
231-C035	**Error message** C035 CC%2 S status test: invalid test sequence **Cause of error** - During the S status test, the MC did not follow the operational sequence of this test - Internal MC software error **Error correction** - Inform your service agency
231-C036	**Error message** C036 CC%2 S status test: invalid signal **Cause of error** - During the S status test, the MC requested an unknown or unsupported signal - Internal MC software error **Error correction** - Inform your service agency
231-C037	**Error message** C037 CC%2 S status test with drives switched on **Cause of error** - The MC requested an S status test while axes are in closed-loop control - The PLC program initiated the self-test of the control (PLC Module 9144) while axes are still in closed-loop control. - Internal MC software error **Error correction** - Check the PLC program and correct if necessary. - Inform your service agency

Error number	Description
231-C038	**Error message** C038 Voltage monitoring CC%2 voltage ID: %4 **Cause of error** - The voltage monitoring of the CC supply voltage reports an error in the CC displayed. - The cause of the error message could be the 5 V power supply of the CCs over the power bus (X69). With large line lengths on the power bus, the 5 V power supply may have to be wired additionally over X74. (Use short line lengths and large line cross section, and check voltage drops on lines between X74.) - Defective power supply unit in the supply module (5 V power pack in the UV). **Error correction** - Establish a 5 V supply between the supply module and the CCs via X74 - Check the 5 V power supply (usually on supply module X74) - Check the 5 V power supply on all CCs (X74/CC) - Check the supply bus (X69) - Check the wiring: - Wiring of the supply bus (X69) - Wiring of the 5 V supply (X74) - Check the cable length of the supply bus (X69), if necessary use double lines - Check the 5 V supply voltage at X74 of all CCs if necessary, increase the wire cross sections or reduce the cable length - Check the voltage attenuation on the cable between X74 on the supply module and X74 on the CCs - Exchange the power supply - Exchange defective hardware (CC) - Inform your service agency, stating the alarm number and Voltage ID
231-C039	**Error message** C039 Hardware error CC%2 assembly ID: %4 **Cause of error** - Hardware error found on the CC controller unit. **Error correction** - Exchange the defective hardware/CC - Read out the log - Inform your service agency

Error number	Description
231-C03B	**Error message** C03B Watchdog error for machine operating panel **Cause of error** - Internal error: Watchdog module of machine operating panel was not re-triggered correctly - Firmware error in MB 6xx machine operating panel - Hardware error in MB 6xx machine operating panel **Error correction** - Check the information about the MB 6xx machine operating panel in the bus diagnostics - Check the version of the NC software - Exchange the machine operating panel - Inform your service agency
231-C03C	**Error message** C03C Watchdog error for PL / SPL assembly **Cause of error** - Watchdog module of a PL assembly was not re-triggered correctly - Firmware error in PL/SPL assembly - Hardware error in PL/SPL assembly **Error correction** - Check PL and SPL assemblies in HSCI bus diagnosis - Check the control software version - Exchange defective PL/SPL assembly (bus diagnosis) - Inform your service agency
231-C110	**Error message** C110 Unknown motor type %1 **Cause of error** - Error in motor table. - Internal software error. **Error correction** - Inform your service agency. - Check motor table. - Check the software version.
231-C140	**Error message** C140 Pole pair no. too large %1 **Cause of error** - Incorrect entry in motor table **Error correction** - Inform your service agency - Check the motor table

Error number	Description
231-C150	**Error message** C150 Field current error %1 **Cause of error** - Incorrect entry in motor table **Error correction** - Inform your service agency - Check the motor table
231-C160	**Error message** C160 Grating per. motor enc. %1 **Cause of error** - Measured grating period does not agree with the entry in the motor table **Error correction** - Inform your service agency - Check the motor table (line count) - Check the motor
231-C170	**Error message** C170 Rotor time constant err. %1 **Cause of error** - The rotor time constant calculated from the rotor table is invalid **Error correction** - Inform your service agency - Check the motor table
231-C180	**Error message** C180 Rated speed error %1 **Cause of error** - Incorrect entry in motor table **Error correction** - Inform your service agency - Check the motor table
231-C1D0	**Error message** C1D0 Current sensor voltage %1 **Cause of error** - Incorrect entry in power module **Error correction** - Inform your service agency - Check the power module table

Error number	Description
231-C1E0	**Error message** C1E0 Imax of power module %1 **Cause of error** - Incorrect entry in power module table **Error correction** - Inform your service agency - Check the power module table
231-C210	**Error message** C210 Tmax of motor table %1 **Cause of error** - Incorrect temperature entry in motor table **Error correction** - Inform your service agency - Check the motor table
231-C240	**Error message** C240 Rated I of power module %1 **Cause of error** - Incorrect entry in power module table **Error correction** - Inform your service agency - Check the power module table
231-C250	**Error message** C250 Rated I of motor %1 **Cause of error** - Incorrect entry in motor table **Error correction** - Inform your service agency - Check the motor table
231-C260	**Error message** C260 Imax of motor %1 error **Cause of error** - Incorrect entry in motor table **Error correction** - Inform your service agency - Check the motor table

Error number	Description
231-C270	**Error message** C270 Nmax of motor %1 error **Cause of error** - Incorrect entry in motor table **Error correction** - Inform your service agency - Check the motor table
231-C280	**Error message** C280 Field angle %1 error **Cause of error** Incorrect entry in CfgServoMotor/MotFieldAngleAdapS-tartSpeed or CfgServoMotor/MotFieldAngleAdapMaxAngle **Error correction** - Inform your service agency. Check CfgServoMotor/MotFieldAngleAdapStartSpeed or CfgServoMotor/MotFieldAngleAdapMaxAngle.
231-C290	**Error message** C290 Uz %1 error **Cause of error** - Incorrect entry in CfgPowerStage/ampBusVoltage (dc-link voltage Uz) **Error correction** - Inform your service agency. - Check the entry CfgPowerStage/ampBusVoltage.
231-C2A0	**Error message** C2A0 Encoder input %1 **Cause of error** Incorrect entry in from MLST 19: CfgCtrlEncoder/input or to MLST 18: CfgAxisHardware/selectEncoderIn (speed encoder). Internal software error. **Error correction** Inform your service agency. Check the entry in from MLST 19: CfgCtrlEncoder/input or to MLST 18: CfgAxisHardware/selectEncoderIn. Check the software version.

Error number	Description
231-C2B0	**Error message** C2B0 PWM output %1 **Cause of error** - Incorrect entry in parameter from MLST 19: CfgCtrlOutAnalog/analogOutput or to MLST 18: CfgAxisHardware/analogOutput (nominal speed value output). - Internal software error. **Error correction** - Internal software error. - Check parameter from MLST 19: CfgCtrlOutAnalog/analogOutput or to MLST 18: CfgAxisHardware/analogOutput - Check the software version.
231-C2C0	**Error message** C2C0 Band-pass parameter %1 **Cause of error** - Incorrect entry in CfgSpeedControl/vCtrlFiltDamping1. - Internal software error. **Error correction** - Inform your service agency. - Check the entry in CfgSpeedControl/vCtrlFiltDamping1. - Check the software version.
231-C2D0	**Error message** C2D0 Encoder line count %1 **Cause of error** - Encoder line count was changed **Error correction** - Restart the control
231-C2E0	**Error message** C2E0 Motor pole pair number %1 **Cause of error** - Motor pole pair number was changed **Error correction** - Restart the control
231-C2F0	**Error message** C2F0 DIR in motor table %1 **Cause of error** - DIR in the motor table was changed **Error correction** - Restart the control

Error number	Description
231-C300	**Error message** C300 Zn track %1 error **Cause of error** - Motor encoder contaminated or defective - Cable defective - Encoder input defective on the control - Signal connector: Poor contact or penetration of humidity - Humidity has entered the motor - No encoder signal available - Interruption in motor encoder cable - Signal amplitude of motor encoder is missing or too small **Error correction** - Inform your service agency - Check the motor encoder connection - Check the motor encoder - Check the amplitude of the encoder signal
231-C310	**Error message** C310 Z1 track %1 error **Cause of error** - Motor encoder contaminated or defective - Cable defective - Encoder input defective on the control - Signal connector: Poor contact or penetration of humidity - Humidity has entered the motor - No encoder signal available - Interruption in motor encoder cable - Signal amplitude of motor encoder is missing or too small **Error correction** - Inform your service agency - Check the motor encoder connection - Check the motor encoder - Check the amplitude of the encoder signal
231-C330	**Error message** C330 Motor temp. too high %1 **Cause of error** - Motor encoder cable defective - Temperature sensor defective - Signal connector: Poor contact or penetration of humidity - Humidity has entered the motor **Error correction** - Let the motor cool down - Inform your service agency - Check the motor encoder cable - Measure the temperature sensor

Error number	Description
231-C340	**Error message** C340 Unknown counter component %1 **Cause of error** - Parameter error at the active axis in machine parameter speedEncoderInput - Hardware defective (CC) - Motor encoder defective - Incorrect software version **Error correction** - Check the machine parameter (speedEncoderInput) - Check the software version - Operate the motor at another encoder input - Exchange the drive control board - Inform your service agency
231-C350	**Error message** C350 Axis module %1 not ready **Cause of error** - Safety relay not on (e.g. connectors X71 and X72 of the UV, X73 of the HEIDENHAIN expansion board for Simodrive) - PWM bus cable interrupted - Interruption in the electrical cabinet - Defective axis module - PWM interface on the control defective - No pulse release for the axis module - Uz too high - 5V power supply too weak - Inverter not ready - Motor control board defective - PWM cable defective - Noise signals **Error correction** - Inform your service agency - Check the control and cabling of the pulse release - Check Uz - If the power supply is not regenerative, is the braking resistor connected? - If the power supply is regenerative, is the energy recovery activated? - Check the cable ground and shield - Exchange the power module - For P controls, exchange the interface card - Exchange the motor control board

Error number	Description
231-C370	**Error message** C370 Angle error motor encdr. %1 **Cause of error** - Wrong commutation angle at reference position - Motor encoder defective - Motor encoder replaced - Cable of motor encoder defective - Signal connector: Poor contact or penetration of humidity - Humidity has penetrated the motor - CC controller unit is defective **Error correction** - Reset or check the commutation angle - Replace the encoder - Check motor encoder and leads - Exchange the CC controller unit - Inform your service agency
231-C380	**Error message** C380 Motor %1 not controllable **Cause of error** - Motor encoder cable defective - Motor defective - I2t monitoring has responded - Signal connector: Poor contact or penetration of humidity - Humidity has entered the motor - Motor brake is on **Error correction** - Check the motor cabling - Inform your service agency - Check the motor and the motor encoder cabling - Check the motor table entry - Check I2t monitoring
231-C390	**Error message** C390 Error in 3-D touch probe %1 **Cause of error** - Internal software error - Hardware error on drive control board **Error correction** - Check the software version - Exchange the drive control board - Inform your service agency

Error number	Description
231-C3A0	**Error message** C3A0 Incorrect ref. position %1 **Cause of error** - Incorrect motor selected - Grounding error on motor encoder cable (disturbance on reference signal line) - Motor encoder defective **Error correction** - Inform your service agency - Check the motor selection - Check the cabling of the motor encoder (grounding) - Exchange the motor
231-C3B0	**Error message** C3B0 Motor %1 does not run under max. current **Cause of error** - Motor locked or blocked - Inverter defective - Motor defective - Wrong motor addressed - Assignment of PWM outputs entered incorrectly - Motor power cables mismatched - Motor encoder cable mismatched - Incorrect motor connection - The motor is loaded with the maximum torque **Error correction** - Check the inverter and exchange it if necessary - Inspect the motor and cabling - Check the motor load - Check whether the shaft can run freely - Check the machine parameters - Inform your service agency
231-C3C0	**Error message** C3C0 Motor current %1 too high **Cause of error** - Incorrect current controller parameters - Incorrect parameters in the motor table - Power module defective - Motor cable defective - Motor defective - Humidity has entered the motor - Motor control board defective **Error correction** - Inform your service agency - Are the correct motor and power module selected? - Check the current control adjustment - Check the motor and motor cable for a short circuit - Exchange power module or drive control board

Error number	Description
231-C3D0	**Error message** C3D0 PWM component defective %1 **Cause of error** - Internal hardware error **Error correction** - Inform your service agency - Exchange the drive control board
231-C3E0	**Error message** C3E0 Err. in rated U of motor %1 **Cause of error** - Motor rated voltage outside of permitted input range **Error correction** - Inform your service agency - Check the entry in the motor table
231-C3F0	**Error message** C3F0 EnDat not found %1 **Cause of error** - EnDat communication error - Motor encoder contaminated or defective - Signal cable defective - Encoder input defective on the control - Signal connector: Poor contact or penetration of humidity - Humidity has entered the motor **Error correction** - Inform your service agency - Check the motor table (SYS column) - Exchange the motor control board (or better, the control) - Check the speed encoder cable (defective or too long) - Check the speed encoder - Check the cable ground and shield
231-C400	**Error message** C400 Line count incorrect %1 **Cause of error** - Line count from the motor table does not match the downloaded values **Error correction** - Inform your service agency - Check configuration data for linear distance of one motor revolution and distance for the number of signal periods. - Check the motor table (columns TYPE and STR). - Check the speed encoder

Error number	Description
231-C410	**Error message** C410 Rotor position %1 undefined **Cause of error** - Signal cable defective - Motor encoder contaminated or defective - Encoder input defective on the control - Signal connector: Poor contact or penetration of humidity-Humidity has entered the motor - Motor control board defective **Error correction** - Inform your service agency - Exchange the motor - Check the speed encoder cable - Exchange the motor control board (or better, the control)
231-C420	**Error message** C420 Uncontrollability %1 caused by incorrect parameters **Cause of error** - Feedforward-control parameters are set incorrectly (acceleration, friction) - Excessive acceleration - Controller parameters are set incorrectly (Ki, Kp, Kd) - Filters set incorrectly (band rejection, low pass) - Inverter is defective (IGBT) - Incorrect motor selected in motor table **Error correction** - Inform your service agency - Check the adjustment of the axes - Check the inverter
231-C430	**Error message** C430 Error of position input %1 **Cause of error** - Position encoder input does not exist. - Position encoder input is not correctly connected. - Position encoder input is defective. **Error correction** - Inform your service agency. - Install the position encoder input. - Check the connection of the position encoder input. - Exchange the position encoder input.

Error number	Description
231-C440	**Error message** C440 PWM frequency %1 incorrect **Cause of error** - PWM frequency within a control group is incorrect **Error correction** - Inform your service agency - Check configuration data (PWM frequency) - PWM frequency > 5000 Hz only with suitable hardware and only with PWM outputs X51, X52, X57 and X58. - PWM frequency <= 5000Hz must be identical within the control groups. - PWM frequency > 3200 Hz
231-C450	**Error message** C450 Wrong encoder %1 **Cause of error** - Incorrect entry in motor table column SYS. - Speed encoder cable defective. - Speed encoder defective. - Motor control board defective. **Error correction** - Inform your service agency. - Check the motor table (column SYS). - Check the motor encoder cable. - Exchange the motor. - Exchange the motor control board.
231-C460	**Error message** C460 Motor speed too high %1 **Cause of error** - Motor cannot be servocontrolled. **Error correction** - Inform your service agency. - Check the software version.
231-C470	**Error message** C470 No nominal speed values %1 **Cause of error** - Internal software error - Position controller cycle time too short **Error correction** - Inform your service agency - Check the software version - Check the configuration datum CfgCycleTimes/ipoCycle

Error number	Description
231-C480	**Error message** C480 V/Hz control mode with encoder %1 **Cause of error** - In the motor table, volts-per-hertz control mode is set (STR == 0), but a motor encoder is indicated (SYS <> 0) **Error correction** - Correct the encoder entry in the motor table - Inform your service agency
231-C4A0	**Error message** C4A0 Inverter %1 is not active **Cause of error** - Charging contactor and main contactor on the supply unit is not on (e.g. connector X70 on UV) - Safety relay not on (e.g. connectors X71 and X72 of the UV, X73 of the HEIDENHAIN expansion board for Simodrive) - PWM bus cable interrupted - Interruption in the electrical cabinet (unit bus, PWM ribbon cable) - Defective inverter, (supply unit and/or power modules, compact inverter) - Inverter switched off (PLC, SH1) - Inverter defective - Motor defective - Humidity has entered the motor - Incorrect motor selected in motor table - Motor power cables mismatched - Motor connected incorrectly **Error correction** - Inform your service agency - Check the inverter and wiring - Check the motor and wiring
231-C4C0	**Error message** C4C0 No motor current %1 **Cause of error** - Motor connected incorrectly or not at all (contactor) - Inverter defective - Motor defective - Incorrect motor selected in motor table - Motor power cables mismatched - DC-link voltage missing **Error correction** - Check the connection of the DC link - Check the motor and wiring - Check the inverter - Inform your service agency

Error number	Description
231-C4D0	**Error message** C4D0 Error in torque constant %1 **Cause of error** - If the value for the torque constant is 0 or >9999, it can have the following causes: 1) Motor.mot: No-load voltage and/or rated rpm have an invalid value (or 0) 2) Motor.sn: The entry for the torque constant is 0 or >9999 **Error correction** - Check the motor table
231-C4E0	**Error message** C4E0 Field angle determination %1 is not allowed in this mode **Cause of error** - The selected process for determining the field angle is invalid or impossible with this encoder. **Error correction** - Inform your service agency. - Check the entry in the SYS column of the motor table (see Technical Manual).
231-C4F0	**Error message** C4F0 Command not allowed **Cause of error** - Internal software error **Error correction** - Inform your service agency - Check the software version
231-C500	**Error message** C500 CfgSpeedControl/vCtrlDiffGain %1 too large **Cause of error** - Differential factor is too large (max. value 0.5 [As^2/rev]) **Error correction** - Inform your service agency
231-C510	**Error message** C510 Drive release %1 not allowed **Cause of error** - During readout of the electronic ID label the power module must not be in the "ready" status (-SH1 is inactive). **Error correction** - Inform your service agency - Check the software version

Error number	Description
231-C520	**Error message** C520 Timeout in position controller %1 **Cause of error** - Internal software error **Error correction** - Inform your service agency - Check the software version
231-C530	**Error message** C530 Timeout in speed controller %1 **Cause of error** - Internal software error **Error correction** - Inform your service agency - Check the software version
231-C540	**Error message** C540 Timeout in current controller %1 **Cause of error** - Internal software error **Error correction** - Inform your service agency - Check the software version
231-C550	**Error message** C550 Error in calculation of current %1 **Cause of error** - This is an internal software error - Incorrect parameters of the filter in the controller (e.g. bandwidth of the band-rejection filter is very large or the bandwidth = 0 at high center frequency) **Error correction** - Check the machine parameters of the filter for control - Set the bandwidth of band-rejection filter (machine parameter vCtrlFiltBandWidth) to a value unequal to 0 - Inform your service agency.

Error number	Description
231-C560	**Error message** C560 Param. filter 1 invalid %1 **Cause of error** - Incorrect entry in CfgSpeedControl/vCtrlFiltDamping1, CfgSpeedControl/vCtrlFiltFreq1 oder CfgSpeedControl/vCtrl-FiltType1 - This is an internal software error **Error correction** - Inform your service agency - Check entries in CfgSpeedControl/vCtrlFiltDamping1, CfgSpeedControl/vCtrlFiltFreq1 or CfgSpeedControl/vCtrl-FiltType1 - Check the software version
231-C570	**Error message** C570 Param. filter 2 invalid %1 **Cause of error** - Incorrect entry in CfgSpeedControl/vCtrlFiltDamping2, CfgSpeedControl/vCtrlFiltFreq2 or CfgSpeedControl/vCtrl-FiltType2 - This is an internal software error **Error correction** - Inform your service agency - Check entries in CfgSpeedControl/vCtrlFiltDamping2, CfgSpeedControl/vCtrlFiltFreq2 or CfgSpeedControl/vCtrl-FiltType2 - Check the software version
231-C580	**Error message** C580 Param. filter 3 invalid %1 **Cause of error** - Incorrect entry in CfgSpeedControl/vCtrlFiltDamping3, CfgSpeedControl/vCtrlFiltFreq3 or CfgSpeedControl/vCtrl-FiltType3 - This is an internal software error **Error correction** - Inform your service agency - Check entries in CfgSpeedControl/vCtrlFiltDamping3, CfgSpeedControl/vCtrlFiltFreq3 or CfgSpeedControl/vCtrl-FiltType3 - Check the software version

Error number	Description
231-C590	**Error message** C590 Param. filter 4 invalid %1 **Cause of error** - Incorrect entry in CfgSpeedControl/vCtrlFiltDamping4, CfgSpeedControl/vCtrlFiltFreq4 or CfgSpeedControl/vCtrl-FiltType4 - This is an internal software error **Error correction** - Inform your service agency - Check entries in CfgSpeedControl/vCtrlFiltDamping4, CfgSpeedControl/vCtrlFiltFreq4 or CfgSpeedControl/vCtrl-FiltType4 - Check the software version
231-C5A0	**Error message** C5A0 Param. filter 5 invalid %1 **Cause of error** - Incorrect entry in CfgSpeedControl/vCtrlFiltDamping5, CfgSpeedControl/vCtrlFiltFreq5 or CfgSpeedControl/vCtrl-FiltType5 - This is an internal software error **Error correction** - Inform your service agency - Check entries in CfgSpeedControl/vCtrlFiltDamping5, CfgSpeedControl/vCtrlFiltFreq5 or CfgSpeedControl/vCtrl-FiltType5 - Check the software version
231-C5B0	**Error message** C5B0 Illegal reference run of motor encoder %1 **Cause of error** - A touch-probe cycle is active while a reference value is requested by the motor encoder. **Error correction** - Inform your service agency
231-C5C0	**Error message** C5C0 Illegal reference run of position encoder %1 **Cause of error** - A touch-probe cycle is active while a reference value is requested by the position encoder. **Error correction** - Inform your service agency

Error number	Description
231-C5E0	**Error message** C5E0 Machine parameter compIpcJerkFact is faulty **Cause of error** - On the CC 424, the input range for "compIpcJerkFact" (following error in the jerk phase) is 0.0 to 0.5. **Error correction** - Inform your service agency - Check the input value in the parameter "compIpcJerkFact"
231-C5F0	**Error message** C5F0 Wrong position-encod. input **Cause of error** - An incorrect input was selected for the position encoder (from MLST 19: CfgCtrlEncoder/input or to MLST 18: posEncoderInput parameter) - Possible configurations CC424: 6 control loops: X201 to X206 8 control loops: X201 to X208 10 control loops: PWM outputs X51 to X56: X201 to X206 PWM outputs X57 to X60: X207 to X210 12 control loops: PWM outputs X51 to X56: X201 to X206 PWM outputs X59 to X64: X209 to X214 14 control loops: PWM outputs X51 to X58: X201 to X208 PWM outputs X59 to X64: X209 to X214 16 control loops: PWM outputs X51 to X58: X201 to X208 PWM outputs X59 to X66: X209 to X216 - Possible configuration CC61xx: PWM output <-> position encoder X51 <-> X201 X52 <-> X202 X53 <-> X203 X54 <-> X204 X55 <-> X205 X56 <-> X206 **Error correction** - Inform your service agency - Check the configuration datum from MLST 19: CfgCtrlEncoder/input or to MLST 18: posEncoderInput
231-C600	**Error message** C600 Current offset %1 is too large **Cause of error** - The current offset of the power stage is too large **Error correction** - Inform your service agency - Check/replace the PWM cable - Replace the power module - PWM output to CC is defective

Error number	Description
231-C610	**Error message** C610 TRC: PWM freq. too high %1 **Cause of error** - The axis for which the torque ripple compensation was activated through MP2260.x is being driven with a PWM frequency of more than 5000 Hz. **Error correction** - Inform your service agency - Adjust the PWM frequency for the axis to a value less than or equal to 5000 Hz - To deactivate the compensation, delete the entry in MP2260.x
231-C620	**Error message** C620 TRC: Invalid parameter %1 **Cause of error** - Invalid parameters in the compensation file of the axis **Error correction** - Inform your service agency - Find again the compensation parameters with TNCopt under Optimization/Torque Ripple Compensation - To deactivate the compensation, delete the entry in MP2260.x
231-C640	**Error message** C640 PIC switching not possible in %1 **Cause of error** - The nominal value(S in inverter.inv) changed - after DSP start, or - after the current controller adjustment is started, or - after the readiness of the power module is switched. **Error correction** - Check the LT entry (configuration datum ampName) in the machine configuration - Check the nominal value of the PICS (the S column in in inverter.inv) - If necessary, change the PWM frequency (to >= 5 kHz) - If necessary, replace the power module
231-C650	**Error message** C650 No ENDAT interpolation factor %1 **Cause of error** - No ENDAT interpolation factor received by MC - This is an internal software error **Error correction** - Check the software version - Inform your service agency

Error number	Description
231-C660	**Error message** C660 Timeout in position controller %1 **Cause of error** - Internal software error **Error correction** - Inform your service agency - Check the software version
231-C670	**Error message** C670 Motor encoder: EnDat 2.2 not possible %1 **Cause of error** - EnDat communication is defective - An encoder with EnDat 2.2 interface is selected in the motor table, although no EnDat 2.2 encoder is connected - The EnDat 2.2 protocol cannot be read - The EnDat measuring system has too low an interpolation rate in EnDat2.2 mode (less than 1024, e.g. EQN 1325). Operation possible only in EnDat2.1 mode **Error correction** - Check whether the encoder supports EnDat 2.2 - Check the motor table (SYS column) - Check the configuration datum motEncType - Check the cable ground and shield - Check the cable (compare the cable ID number with the documentation) - Check the speed encoder cable (defective or too long) - Check the speed encoder - Change EnDat mode (motEncType) - Exchange the motor control board - Inform your service agency

Error number	Description
231-C680	**Error message** C680 Position encoder: EnDat 2.2 not possible %1 **Cause of error** - EnDat communication is defective - An encoder with EnDat 2.2 interface is selected in from MLST 19: CfgCtrlEncoder/protocol or to MLST 18: posEncoderType, although no EnDat 2.2 encoder is connected - The EnDat 2.2 protocol cannot be read **Error correction** - Check whether the position encoder supports EnDat 2.2 - Check the configuration datum from MLST 19: CfgCtrlEncoder/protocol or to MLST 18: posEncoderType - Check the cable ground and shield - Check the cable (compare the cable ID number with the documentation) - Check the position encoder cable (defective or too long) - Check the position encoder - Change EnDat mode (from MLST 19: CfgCtrlEncoder/protocol or to MLST 18: posEncoderType) - Exchange the motor control board - Inform your service agency
231-C690	**Error message** C690 DQ communication error %1 **Cause of error** - DRIVE-CLiQ communication is disturbed- DRIVE-CLiQ communication has been interrupted **Error correction** - Inspect the DRIVE-CLiQ cabling - Inform your service agency
231-C6A0	**Error message** C6A0 Controller software timeout %1 IRQ-ID=%4 BOARD-ID=%2 **Cause of error** - The time monitor of the controller software reports an expiration. - Internal software error **Error correction** - Inform your service agency
231-C6B0	**Error message** C6B0 DQ init error %1 State=%4 ID=%5 Port=%6 **Cause of error** - DRIVE-CLiQ initialization error **Error correction** - Evaluation of additional information - Inform your service agency

Error number	Description
231-C6C0	**Error message** C6C0 DQ PWM frequency was changed %1 **Cause of error** - With DRIVE-CLiQ devices, switching the PWM frequency with AmpPwmFreq does not become effective until after a reboot. **Error correction** - Acknowledge the error and restart the control. - Inform your service agency
231-C6D0	**Error message** C6D0 Motor %1 does not react. Power stage not ready **Cause of error** - Motor does not react. Power module is not ready - The power stage release is faulty - Inverter is defective - PWM cable is defective - Wrong motor selected - Assignment of PWM outputs entered incorrectly **Error correction** - Check the inverter and exchange it if necessary - Inspect the motor and the cabling - Check the motor load - Check whether the motor can run freely - Check the machine parameters - Inform your service agency
231-C6E0	**Error message** C6E0 Amplitude test in axis %1: speed encoder is incorrect, test %4 **Cause of error** The internal test of encoder-amplitude monitoring at the speed inputs revealed an error: Test 1: The test for "Amplitude too low" failed. Test 2: The test for "Amplitude too high" failed. - The entry in pwmSignalOutput/analogOffset does not match the wiring of the speed encoders. - Incorrect entry in machine parameter motEncType (e.g. Z1-track operation selected for EnDat2.2 encoder) - Speed encoder cable is interrupted, or encoder cable is defective - Speed encoder is defective - CC controller unit is defective **Error correction** - Compare/Check the entry in MP pwmSignalOutput/analogOffset to the speed encoder cabling - Check the entry in machine parameter motEncType - Check the speed encoder cable / Exchange the cable - Exchange the speed encoder - Exchange the CC controller unit - Inform your service agency

Error number	Description
231-C6F0	**Error message** C6F0 Amplitude test in axis %1: pos. encoder is incorrect, test %4 **Cause of error** The internal test of encoder-amplitude monitoring at the position inputs revealed an error: Test 1: The test for "Amplitude too low" failed. Test 2: The test for "Amplitude too high" failed. - The entry in from MLST 19: CfgCtrlEncoder/input or to MLST 18: posEncoderInput/analogOffset does not match the wiring of the position encoder. - Incorrect entry in machine parameter from MLST 19: CfgCtrlEncoder/protocol or to MLST 18: posEncoderType (e.g. analog encoder signal selected for digital encoder) - Position encoder cable is interrupted, or encoder cable is defective - Position encoder is defective - CC controller unit is defective **Error correction** - Compare/check the entry in MP from MLST 19: CfgCtrlEncoder/input or to MLST 18: posEncoderInput/analogOffset to the position encoder cabling - Check the entry in machine parameter from MLST 19: CfgCtrlEncoder/protocol or to MLST 18: posEncoderType - Check the position encoder cable / Exchange the cable - Exchange the position encoder - Exchange the CC controller unit - Inform your service agency
231-C700	**Error message** C700 DQ-ALM: Line power failure %1 **Cause of error** - A power phase failure was detected at the DRIVE-CLiQ regenerative module ALM. - Power voltage supply is disturbed. **Error correction** - Check the protective devices of the line power voltage supply. - Check the wiring of the line power voltage supply. - Inform your service agency

Error number	Description
231-C710	**Error message** C710 Error in drive switch-off %1 **Cause of error** - The drive could not be decelerated to 0 rpm with the time configured in machine parameter vCtrlTimeSwitchOff. - Possible causes: - An IGBT of the power module switched off. - The machine parameter vCtrlTimeSwitchOff is set incorrectly. - The permissible load was exceeded. **Error correction** - Check the machine parameter vCtrlTimeSwitchOff - Check the load - Exchange the CC controller unit - Inform your service agency
231-C720	**Error message** C720 The software is not suitable for the PLASTIC_INJECTION **Cause of error** PLASTIC_INJECTION commands are not permitted **Error correction** Inform your service agency
231-C730	**Error message** C730 CC%2 CPU0 impermissible data processing **Cause of error** Internal software error: There was an attempt to access an impermissible memory area **Error correction** - Please generate a service file soon, reboot the control, and then generate another service file - Transmit both service files to the Service department for further inspections by HEIDENHAIN
231-C740	**Error message** C740 CC%2 CPU1 impermissible data processing **Cause of error** Internal software error: There was an attempt to access an impermissible memory area **Error correction** - Please generate a service file soon, reboot the control, and then generate another service file - Transmit both service files to the Service department for further inspections by HEIDENHAIN

Error number	Description
231-C750	**Error message** C750 CC%2 CPU0 impermissible instruction processing **Cause of error** Internal software error: There was an attempt to access an impermissible memory area **Error correction** - Please generate a service file soon, reboot the control, and then generate another service file - Transmit both service files to the Service department for further inspections by HEIDENHAIN
231-C760	**Error message** C760 CC%2 CPU1 impermissible instruction processing **Cause of error** Internal software error: There was an attempt to access an impermissible memory area **Error correction** - Please generate a service file soon, reboot the control, and then generate another service file - Transmit both service files to the Service department for further inspections by HEIDENHAIN
231-C770	**Error message** C770 System errors when activating a drive% 1 **Cause of error** A drive was switched on that either - is not active, meaning it is set to inactive in the kinematics configuration, or - its parameterization has not been completed **Error correction** Inform your service agency

Error number	Description
231-C780	**Error message** C780 Error while braking a drive %1 **Cause of error** It was not possible to brake the drive when switching off. An unexpected acceleration of the drive was detected during the braking procedure. Possible causes: - Switch-off time is parameterized to be too brief - Load is too high - Too much noise in the signals of the speed encoder **Error correction** Remedy: - Check the machine parameter timeLimitStop1 (system with integrated functional safety (FS)) or delayTimeSTOatSS1 (system with external safety) - Check the load - Check the speed encoder - Inform your service agency
231-CFF0	**Error message** CFF0 Alarm axis CC%2 module=%4 line=%5 **Cause of error** - This is an internal software error **Error correction** - Inform your service agency
231-D000	**Error message** D000 CC%2 DP RAM area %1 **Cause of error** - Internal software error 1...255 = area number **Error correction** - Inform your service agency. - Check the software version.
231-D100	**Error message** D100 CC%2 software error %1 **Cause of error** - Internal software error 0...255 = code for error in software module/routine **Error correction** - Inform your service agency. - Check the software version.

Error number	Description
231-D300	**Error message** D300 Data transm. SPL to CC, CRC error at HSCI addr.: %1 **Cause of error** - HSCI connecting cable is defective or not connected - Data transmission error in the HSCI system - A safe PL 6xxx FS is transmitting erroneous data - Incorrect HSCI message size (MC software) **Error correction** - Check the HSCI connecting cable - Exchange the safe PL 6xxx FS - Software update - Inform your service agency
231-D400	**Error message** D400 Data transm. SPL to CC, watchdog error at HSCI addr.: %1 **Cause of error** - Data transmission error in the HSCI system - A safe PL 6xxx FS is transmitting erroneous data - The HSCI transmission is disturbed **Error correction** - Software update - Exchange the PL 6xxx FS - Inform your service agency
231-E000	**Error message** E000 Start test of the cut-out channels not possible **Cause of error** - Start of the "tests of cutout channels" by PLC not possible because the control is not in the "AUTO" condition. - The motors of at least one axis group are not yet switched off. **Error correction** - Check the PLC program and correct if necessary. - Inform your service agency.
231-E001	**Error message** E001 Status NR1/NR2 not equal **Cause of error** - NR2 input incorrectly connected - Internal software error **Error correction** - Inform your service agency - Check the wiring - Check the software version

Error number	Description
231-E002	**Error message** E002 Status em.stop input signal not equal to test output: T2 **Cause of error** - The signal level of the test output 'T2' differs from that of the 'Emergency Stop' input of the CC. CC424: '-NE2' signal CC61xx: '-ES.B' signal **Error correction** - Check the wiring - Inform your service agency
231-E003	**Error message** E003 PLC module 9169 illegal **Cause of error** - PLC module 9169 in safety-oriented software (illegal) - Software error **Error correction** - Inform your service agency - Check the PLC program - Check the software version
231-E004	**Error message** E004 SH1 status test on active **Cause of error** - The measured status of the '-SH1' signal is 'high' level - The '-SH1' signal does not change to the 'active' ('low' level) status, although the MC is no longer triggering the corresponding watchdog. **Error correction** - Internal software error - Hardware defective - Inform your service agency
231-E005	**Error message** E005 SH1 status test on inactive **Cause of error** - The measured status of the '-SH1' signal is 'low' level - The '-SH1' signal does not change to the 'inactive' ('high' level) status, although the MC is triggering the corresponding watchdog. **Error correction** - Internal software error - Hardware defective - Inform your service agency

Error number	Description
231-E006	**Error message** E006 CC%2 input (NE2) not equal to 0 **Cause of error** Error in dynamic test of the 2nd emergency-stop loop. In the dynamic test, 0 V is expected at input NE2 after no later than 1.5 min. If a voltage of 24 V is present here, this error message appears. **Error correction** - Inform your service agency - Check the wiring - Check the emergency-stop button - Exchange the hardware
231-E007	**Error message** E007 CC%2 S input not equal 0 **Cause of error** Error in dynamic test of the 2nd emergency-stop loop. In the dynamic test, 0 V is expected at all door contacts and key-operated-switch inputs after no later than 1.5 min. If a voltage of 24 V is present here, this error message appears. **Error correction** - Inform your service agency - Check the wiring - Check the door contacts, key-operated switches - Exchange the hardware
231-E008	**Error message** E008 SRG speed too high **Cause of error** - Safe reduced rotational velocity (SRG) was exceeded - No standstill in safe controlled stop (SBH) operating mode **Error correction** Inform your service agency
231-E009	**Error message** E009 Incorrect gear range **Cause of error** - Internal software error **Error correction** - Inform your service agency - Check the software version

Error number	Description
231-E00A	**Error message** E00A Safe machine param. error **Cause of error** - Incorrect CRC checksum found and transferred over SG parameter memory - Communication error MC <-> CC - Wrong CC software - Hardware defect (memory fault) - Software error **Error correction** - Inform your service agency
231-E00B	**Error message** E00B Cutout channels test error **Cause of error** - Illegal code received for conducting the test. **Error correction** - Inform your service agency - Internal software error
231-E00C	**Error message** E00C Error in parameter transfer **Cause of error** - Incorrect parameter for analog spindle. - Software version MC. **Error correction** - Inform your service agency. - Check the parameter. - Check the software version.
231-E00D	**Error message** E00D Error in parameter transfer **Cause of error** - Incorrect parameter for analog spindle. - Software version MC. **Error correction** - Inform your service agency. - Check the parameter. - Check the software version.
231-E00E	**Error message** E00E Illegal pulse deletion test **Cause of error** - Command for pulse deletion test was received, although the previous test is not yet finished. **Error correction** - Inform your service agency - Internal software error

Error number	Description
231-E00F	**Error message** E00F Brake test not performed **Cause of error** - MC runs no test of the motor brake(s) although it is necessary according to parameter settings. - MC does not run the test of the motor brake(s) within 2 seconds. **Error correction** - Inform your service agency
231-E010	**Error message** E010 SH2 status test on active **Cause of error** - The measured status of the '-SH2' signal is 'high' level - The '-SH2' signal does not change to the 'active' ('low' level) status, although the CC is no longer triggering the corresponding watchdog. **Error correction** - Internal software error - Hardware defective - Inform your service agency
231-E011	**Error message** E011 SH2 status test on inactive **Cause of error** - The measured status of the '-SH2' signal is 'low' level - The '-SH2' signal does not change to the 'inactive' ('high' level) status, although the CC is triggering the corresponding watchdog. **Error correction** - Internal software error - Hardware defective - Inform your service agency
231-E012	**Error message** E012 N0 status test on active **Cause of error** - The measured status of the '-N0' signal is 'high' level - The '-N0' signal does not change to the 'active' ('low' level) status **Error correction** - Software error - Hardware defective - Inform your service agency

Error number	Description
231-E013	**Error message** E013 N0 status test on inactive **Cause of error** - CCU shut-off signal: -N0 does not switch to high level - The measured status of the '-N0' signal is 'low' level **Error correction** - Software error - Hardware defective - Inform your service agency
231-E014	**Error message** E014 Err. during -N0 signal test **Cause of error** - Change in the level of the CC1 switch-off signal: -N0 is not recognized by the CC0. - Internal software error - Hardware error **Error correction** - Check the software version - Inform your service agency
231-E015	**Error message** E015 CC protective door open in brake test **Cause of error** - The protective doors of the work envelope were opened during the brake test. **Error correction** - Close the protective doors. - Switch off and then restart the control. - The switch-off test and brake test will be started automatically.

Error number	Description
231-E018	**Error message** E018 CC%2 SPLC alarm ERR-ID=%4 SST0=%5 SST1=%6 OUT=%7 **Cause of error** - Error in the SPLC run-time program Meaning of the alarm ID 100, 101, 102, 104 and 200 to 206: Internal software error Meaning of alarm ID 103: The value of the read-back output with the number "OUT" is "1", although "0" was commanded by the SPLC for this output. **Error correction** - Measure for alarm ID 100, 101, 102, 104 and 200 to 206: Please inform your service agency - Measure for alarm ID 103: Check whether the output with the number "OUT" has a short circuit with +24 V. If this is not the case, please inform your service agency. - Inform your service agency.

Error number	Description
231-E019	**Error message** E019 CC%2 SPLC configuration error ERR-ID=%4 **Cause of error** Alarm ID 1: - Internal software error Alarm ID 2: - Invalid value of machine parameter CfgSafety/inverseInputNoA, CfgSafety/inverseInputNoB, or CfgSafety/testInputNo Alarm ID 3: - The version of the NC software was changed after the safety inspection and acceptance of the machine. - The version of the NC software and the version of the SplcApiMarker.def file being used that is stored in the safety-related machine parameter CfgSafety/splcApiVersion do not match. Alarm ID 4: - Permitted number of SPLC markers (1000/2000) was exceeded. Alarm ID 5: - Permitted number of SPLC DWORDs (1000/3000) was exceeded. Alarm ID 6: - Permitted number of PlcToSPLC transfer markers (64) was exceeded. Alarm ID 7: - Permitted number of PlcToSPLC transfer DWORDs (32) was exceeded. Alarm ID 8: - Marker transfer area PlcToSPLC is faulty. Alarm ID 9: - DWORDs transfer area PlcToSPLC is faulty. **Error correction** Alarm ID 1: - Inform your service agency Alarm ID 2: - Check the values of the machine parameters CfgSafety/inverseInputNoA, CfgSafety/inverseInputNoB, and CfgSafety/testInputNo. Alarm ID 3: - Transfer the 'SplcApiMarker.def' file appropriate to the installed NC software version into the SPLC project. - Enter the value of the constant SPLC_API_VERSION from this file into the safety-related machine parameter CfgSafety/splcApiVersion. - Repeat the safety inspection and acceptance of the machine with the appropriate comprehensiveness. Alarm ID 4: - Check the SPLC program and CfgPlcSafety/splcMarkers Alarm ID 5: - Check the SPLC program and CfgPlcSafety/splcDWords

Error number	Description
	Alarm ID 6 and 8: - Check the SPLC program and CfgPlcSafety/splcMarkers-FromPlc[] Alarm ID 7 and 9: - Check the SPLC program and CfgPlcSafety/splcDWords-FromPlc[]

Error number	Description
231-E01A	**Error message** E01A CC%2 FS configuration error ERR-ID=%4 ObjId=%5 Param=%6 **Cause of error** - The transferred configuration data for SKERN are faulty. The ERR ID provides information on the faulty machine parameter: 200 - Machine parameter axisGroup: Assigned axis group out of range 201 - Machine parameter axisGroup: Entered axis group not in use. 202 - Drive type and axis group type do not match. 210 - Permissible number of spindles was exceeded 300 - Machine parameter pwmSignalOutput. Input range exceeded 301 - Machine parameter pwmSignalOutput. The same value was used in two separate entries 400 - Machine parameter timeLimitStop1: Input range exceeded 401 - Machine parameter timeLimitStop2: Input range exceeded 600 - Machine parameter distPerMotorTurn: Input range exceeded 700 - Machine parameter speedLimitSom2, speedLimitSom3, speedLimitSom4, rpmLimitSom2, rpmLimitSom3, rpmLimitSom4: Permissible velocity limit exceeded 800 - An unknown additional function is activated in the config object CfgSafety 810 - Machine parameter timeToEmStopTest: Input range exceeded 820 - Machine parameter watchdogTime: Input range exceeded 900 - Machine parameter brakeAfter: Entered connective operation is not allowed 901 - Machine parameter brakeAfter: A connective operation to yourself is not allowed 1000 - Machine parameters plcCount: PLC / SPLC-MC input range of configured cycle time has been exceeded 1100 - Machine parameters idleState: Configuration of subsequent condition after a stop reaction SS2 is out of the permissible range 1200 - The drive assignment is missing for a safe axis - Faulty parameter values were entered - An internal software error has occurred **Error correction** - Check the ERR ID: 200 - Check the entered value of the axis group 201 - Enter only axis groups that are actually being used 202 - Check the axis group assignment 210 - Check the number of spindles in your system 300 - Check the entity pwmSignalOutput. Input value too large. 301 - Check entity pwmSignalOutput. The same value is in

Error number	Description
	two separate entries. 400 - Check the entered time Parameter value = maximum permissible time 401 - Check the entered time Parameter value = maximum permissible time 600 - Check the entered value 700 - Check the value entered in speedLimitSom for axes, rpmLimitSom for spindles Parameter value = 2 -> SLS_2, Parameter value = 3 -> SLS_3, Parameter value = 4 -> SLS_4 800 - Check the entered additional functions 810 - Check the entered time 820 - Check the entered time 900 - Check the input 901 - Check the input 1000 - Check the input (maximum = 30 ms) 1100 - Check the input 1200 - Check the drive assignment - Inform your service agency.
231-E01A	**Error message** E01A CC%2 FS configuration error ERR-ID=%4 ObjId=%5 Param=%6 **Cause of error** - The transferred configuration data for SKERN are faulty. The ERR ID provides information on the faulty machine parameter: 200 - Machine parameter axisGroup: Assigned axis group out of range **Error correction** - Check the ERR ID: 200 - Check the entered value of the axis group - Inform your service agency
231-E01A	**Error message** E01A CC%2 FS configuration error ERR-ID=%4 ObjId=%5 Param=%6 **Cause of error** - The transferred configuration data for SKERN are faulty. The ERR ID provides information on the faulty machine parameter: 201 - Machine parameter axisGroup: Entered axis group not in use. - Faulty parameter values were entered - An internal software error has occurred **Error correction** - Check the ERR ID: 201 - Enter only axis groups that are actually being used - Inform your service agency.

Error number	Description
231-E01A	**Error message** E01A CC%2 FS configuration error ERR-ID=%4 ObjId=%5 Param=%6 **Cause of error** - The transferred configuration data for SKERN are faulty. The ERR ID provides information on the faulty machine parameter: 202 - Drive type and axis group type do not match. - Faulty parameter values were entered - An internal software error has occurred **Error correction** - Check the ERR ID: 202 - Check the axis group assignment - Inform your service agency
231-E01A	**Error message** E01A CC%2 FS configuration error ERR-ID=%4 ObjId=%5 Param=%6 **Cause of error** - The transferred configuration data for SKERN are faulty. The ERR ID provides information on the faulty machine parameter: 210 - Permissible number of spindles was exceeded - Faulty parameter values were entered - An internal software error has occurred **Error correction** - Check the ERR ID: 210 - Check the number of spindles in your system - Inform your service agency
231-E01A	**Error message** E01A CC%2 FS configuration error ERR-ID=%4 ObjId=%5 Param=%6 **Cause of error** - The transferred configuration data for SKERN are faulty. The ERR ID provides information on the faulty machine parameter: 300 - Machine parameter pwmSignalOutput. Input range exceeded - Faulty parameter values were entered - An internal software error has occurred **Error correction** - Check the ERR ID: 300 - Check the machine parameter pwmSignalOutput. Input value too large. - Inform your service agency.

Error number	Description
231-E01A	**Error message** E01A CC%2 FS configuration error ERR-ID=%4 ObjId=%5 Param=%6 **Cause of error** - The transferred configuration data for SKERN are faulty. The ERR ID provides information on the faulty machine parameter: 301 - Machine parameter pwmSignalOutput. The same value was used in two separate entries - Faulty parameter values were entered - An internal software error has occurred **Error correction** - Check the ERR ID: 301 - Check the machine parameter pwmSignalOutput. The same value is entered in two separate entries. - Inform your service agency.
231-E01A	**Error message** E01A CC%2 FS configuration error ERR-ID=%4 ObjId=%5 Param=%6 **Cause of error** - The transferred configuration data for SKERN are faulty. The ERR ID provides information on the faulty machine parameter: 400 - Machine parameter timeLimitStop1: Input range exceeded - Faulty parameter values were entered - An internal software error has occurred **Error correction** - Check the ERR ID: 400 - Check the entered time Parameter value = maximum permissible time - Inform your service agency.
231-E01A	**Error message** E01A CC%2 FS configuration error ERR-ID=%4 ObjId=%5 Param=%6 **Cause of error** - The transferred configuration data for SKERN are faulty. The ERR ID provides information on the faulty machine parameter: 401 - Machine parameter timeLimitStop2: Input range exceeded - Faulty parameter values were entered - An internal software error has occurred **Error correction** - Check the ERR ID: 401 - Check the entered time Parameter value = maximum permissible time - Inform your service agency.

Error number	Description
231-E01A	**Error message** E01A CC%2 FS configuration error ERR-ID=%4 ObjId=%5 Param=%6 **Cause of error** - The transferred configuration data for SKERN are faulty. The ERR ID provides information on the faulty machine parameter: 600 - Machine parameter distPerMotorTurn: Input range exceeded - Faulty parameter values were entered - An internal software error has occurred **Error correction** - Check the ERR ID: 600 - Check the entered value - Inform your service agency.
231-E01A	**Error message** E01A CC%2 FS configuration error ERR-ID=%4 ObjId=%5 Param=%6 **Cause of error** - The transferred configuration data for SKERN are faulty. The ERR ID provides information on the faulty machine parameter: 700 - Machine parameter speedLimitSom2, speedLimitSom3, speedLimitSom4, rpmLimitSom2, rpmLimitSom3, rpmLimitSom4: Permissible velocity limit exceeded - Faulty parameter values were entered - An internal software error has occurred **Error correction** - Check the ERR ID: 700 - Check the value entered in speedLimitSom for axes, rpmLimitSom for spindles Parameter value = 2 -> SLS_2, Parameter value = 3 -> SLS_3, Parameter value = 4 -> SLS_4 - Inform your service agency.

Error number	Description
231-E01A	**Error message** E01A CC%2 FS configuration error ERR-ID=%4 ObjId=%5 Param=%6 **Cause of error** - The transferred configuration data for SKERN are faulty. The ERR ID provides information on the faulty machine parameter: 800 - An unknown additional function is activated in the config object CfgSafety - Faulty parameter values were entered - An internal software error has occurred **Error correction** - Check the ERR ID: 800 - Check the entered additional functions - Inform your service agency.
231-E01A	**Error message** E01A CC%2 FS configuration error ERR-ID=%4 ObjId=%5 Param=%6 **Cause of error** - The transferred configuration data for SKERN are faulty. The ERR ID provides information on the faulty machine parameter: 810 - Machine parameter timeToEmStopTest: Input range exceeded - Faulty parameter values were entered - An internal software error has occurred **Error correction** - Check the ERR ID: 810 - Check the entered time - Inform your service agency.
231-E01A	**Error message** E01A CC%2 FS configuration error ERR-ID=%4 ObjId=%5 Param=%6 **Cause of error** - The transferred configuration data for SKERN are faulty. The ERR ID provides information on the faulty machine parameter: 820 - Machine parameter watchdogTime: Input range exceeded - Faulty parameter values were entered - An internal software error has occurred **Error correction** - Check the ERR ID: 820 - Check the entered time - Inform your service agency.

Error number	Description
231-E01A	**Error message** E01A CC%2 FS configuration error ERR-ID=%4 ObjId=%5 Param=%6 **Cause of error** - The transferred configuration data for SKERN are faulty. The ERR ID provides information on the faulty machine parameter: 900 - Machine parameter brakeAfter: Entered connective operation is not allowed - Faulty parameter values were entered - An internal software error has occurred **Error correction** - Check the ERR ID: 900 - Check the input - Inform your service agency.
231-E01A	**Error message** E01A CC%2 FS configuration error ERR-ID=%4 ObjId=%5 Param=%6 **Cause of error** - The transferred configuration data for SKERN are faulty. The ERR ID provides information on the faulty machine parameter: 901 - Machine parameter brakeAfter: A connective operation to yourself is not allowed - Faulty parameter values were entered - An internal software error has occurred **Error correction** - Check the ERR ID: 901 - Check the input - Inform your service agency.
231-E01A	**Error message** E01A CC%2 FS configuration error ERR-ID=%4 ObjId=%5 Param=%6 **Cause of error** - The transferred configuration data for SKERN are faulty. The ERR ID provides information on the faulty machine parameter: 1000 - Machine parameters plcCount: Input range PLC / SPLC-MC configured Cycle time was exceeded - Faulty parameter values were entered - An internal software error has occurred **Error correction** - Check the ERR ID: 1000 - Check the input (maximum = 30 ms) - Inform your service agency.

Error number	Description
231-E01A	**Error message** E01A CC%2 FS configuration error ERR-ID=%4 ObjId=%5 Param=%6 **Cause of error** - The transferred configuration data for SKERN are faulty. The ERR ID provides information on the faulty machine parameter: 1100 - Machine parameters idleState: Configuration of subsequent condition after a stop reaction SS2 is out of the permissible range - Faulty parameter values were entered - An internal software error has occurred **Error correction** - Check the ERR ID: 1100 - Check the input - Inform your service agency.
231-E01A	**Error message** E01A CC%2 FS configuration error ERR-ID=%4 ObjId=%5 Param=%6 **Cause of error** - The transferred configuration data for SKERN are faulty. The ERR ID provides information on the faulty machine parameter: 1200 - The drive assignment is missing for a safe axis - Faulty parameter values were entered - An internal software error has occurred **Error correction** - Check the ERR ID: 1200 - Check the drive assignment - Inform your service agency.
231-E01A	**Error message** E01A CC%2 FS configuration error ERR-ID=%4 ObjId=%5 Param=%6 **Cause of error** - The transferred configuration data for SKERN are faulty. The ERR ID provides information on the faulty machine parameter: 1201 - An inactive axis is marked as active in the functional safety environment (FS). - Faulty parameter values were entered - An internal software error has occurred **Error correction** - Check the ERR ID: 1201 - Check the axis configuration - Inform your service agency.

Error number	Description
231-E01A	**Error message** E01A CC%2 FS config error SS2 reaction ObjId=%5 Param=%6 **Cause of error** The permissible value range for the safe machine parameters distLimitStop2 or rpmLimitSom3AtSS2 was exceeded. ObjID = Number of the drive with incorrect configuration Param = Transferred value **Error correction** - Check the entered value - Inform your service agency
231-E01A	**Error message** E01A CC%2 FS config error SS2 reaction ObjId=%5 Param=%6 **Cause of error** The permissible value range for the safe machine parameters distLimitStop2 or rpmLimitSom2AtSS2 was exceeded. ObjID = Number of the drive with incorrect configuration Param = Transferred value **Error correction** - Check the entered value - Inform your service agency
231-E01A	**Error message** E01A CC%2 FS config error SS2 reaction ObjId=%5 Param=%6 **Cause of error** The permissible value range for safe machine parameters distLimitStop2 or rpmLimitSom4AtSS2 was exceeded. ObjID = Number of the drive with incorrect configuration Param = Transferred value **Error correction** - Check the entered value - Inform your service agency

Error number	Description
231-E01A	**Error message** E01A CC%2 FS configuration error ERR-ID=%4 ObjId=%5 Param=%6 **Cause of error** - The transferred configuration data (safe machine parameters) for SKERN contain faulty data. The ERR-ID describes the error more precisely: 204 – Axis configured as safe axis (i.e. <axisGroup> unequal -1) But: The safety-relevant information ("safety bits") is not supported by the speed encoder although the EnDat2.2 mode of the encoder is active and it is a single-encoder system. This configuration is not permitted for a safe axis. CC: Number of the CC ObjId: Drive number (0 <=> X51, 1 <=> X52 etc.) Param: Axis group (value of the affected MP <axisGroup>) **Error correction** 204 - Check the speed encoder. It may have to be exchanged. – Check the axis configuration – Inform your service agency
231-E01A	**Error message** E01A CC%2 FS configuration error ERR-ID=%4 ObjId=%5 Param=%6 **Cause of error** - Die übertragenen Konfigurationsdaten für SKERN enthalten fehlerhafte Daten. Die ERR-ID gibt Aufschluss über den fehlerhaften Maschinen-Parameter: 302 - Maschinenparameter SParHsciCcIndex außerhalb des gültigen Wertebereichs - Es wurden fehlerhafte Parameterwerte eingegeben - Es ist ein interner Softwarefehler aufgetreten **Error correction** - Kundendienst benachrichtigen

Error number	Description
231-E01A	**Error message** E01A CC%2 FS configuration error ERR-ID=%4 ObjId=%5 Param=%6 **Cause of error** - Die übertragenen Konfigurationsdaten für SKERN enthalten fehlerhafte Daten. Die ERR-ID gibt Aufschluss über den fehlerhaften Maschinen-Parameter: 303 - Maschinen-Parameter SParDriveOnCc außerhalb des gültigen Wertebereichs - Es wurden fehlerhafte Parameterwerte eingegeben - Es ist ein interner Softwarefehler aufgetreten **Error correction** - Kundendienst benachrichtigen

Error number	Description
231-E01B	**Error message** E01B CC%2 SPLC program error ERR-ID=%4 ObjId=%5 Param=%6 **Cause of error** - The SPLC program has found an illegal value in an API marker or in an API word in the ApiToSafety (symbolic memory interface of SPLC to the safety software SKERN). The additional information provides exact information: ERR-ID = Information ObjId = Depends on the ERR-ID Param = Depends on the ERR-ID ERR_ID: 100: PP_AxGrpStateReq - Range violation SPLC-CC ObjektID = Axis group Parameter = Value of the required safety function 200: PP_AxGrpActivate - Illegal marker value ObjektID = Axis group Parameter = 1 - SPLC CC marker value illegal = 2 - SPLC MC marker value illegal 300: PP_AxFeedEnable - Illegal marker value ObjektID = Axis Parameter = 1 - SPLC CC marker value illegal = 2 - SPLC MC marker value illegal 400: PP_AxGrpStopReq - Range violation SPLC CC ObjektID = Axis group Parameter = Value of the required safety function 500: PP_AxGrpPB - Illegal marker value ObjektID = Axis group Parameter = 1 - SPLC CC marker value illegal = 2 - SPLC MC marker value illegal 600: PP_GenFB_NCC - Illegal marker value SPLC CC ObjektID = No meaning Parameter = No meaning 700: PP_GenCVO - Illegal marker value ObjektID = No meaning Parameter = 1 - SPLC CC marker value illegal = 2 - SPLC MC marker value illegal 800: PP_AxGrpPermitDrvOn - Illegal marker value ObjektID = Axis group Parameter = 1 - SPLC CC marker value illegal = 2 - SPLC MC marker value illegal 900: PP_GenMKG - Illegal marker value SPLC CC ObjektID = No meaning Parameter = No meaning 1000: PP_GenTBRK - Illegal marker value SPLC CC ObjektID = No meaning Parameter = No meaning **Error correction** - To set API words, use only the definitions of the corresponding datum in "SPlcApiMarker.def" - Check the range limits of the API word. - Check the values assigned to the API marker. - Inform your service agency.

Error number	Description
231-E01C	**Error message** E01C CC%2 Illegal FS function ERR-ID=%4 ObjId=%5 Param=%6 **Cause of error** - The SPLC program has requested an illegal safety function over PP_AxGrpStateReq in the ApiToSafety (symbolic memory interface of SPLC to the core safety software SKERN). ERR-ID = Exact information ObjId = Axis group causing the error Param = Depends on the ERR-ID ERR_ID: 100: Requested safety function is not supported Param = Requested safety function 200: The safety function SLI_S was requested for a axis group that is not of the spindle type. Param = No meaning 300: The safety function SLI_2, SLI_3 or SLI_4 was requested for an axis group that is of the spindle type. This safety function is not allowed for spindles. Param = Requested safety function 400: The safety function SLS_4 or SLI_4 was requested for a axis group and the function is not enabled. Param = Requested safety function 401: A direct change is requested from the safety function SLS_2, SLI_2, SLS_3 or SLI_3 into the safety function SLS_4 or SLI_4. This direct change is not allowed. Parameter = Requested safety function 402: A direct change is requested from the safety function SLS_4 or SLI_4 into the safety function SLS_2, SLI_2, SLS_3 or SLI_3. This direct change is not allowed. Parameter = Requested safety function 500: The SPLC requested the safety function STO or STO_O for an axis group whose drives are still in the control loop. The requested safety function can be requested only if all drives of this axis group have been switched off. Parameter = Value of the required safety function **Error correction** - Check the ERR ID: 100 - Use only safety functions that are supported with this software level. 200 - Request the safety function SLI_S only for axis groups with spindles. 300 - For spindles, request only the SLI_S function. 400 - Do not request a safety function or enable the safety related operating mode SOM 4 in machine parameter permitSom4. (Check the preconditions for enabling) 401 - Switch off the drives between the change of safety function and request SOS for at least one cycle. 402 - See 401

Error number	Description
	500 - Switch-off with the stop functions over PP_AxGrpStopReq. - Inform your service agency
231-E01C	**Error message** E01C CC%2 Illegal FS function ERR-ID=%4 ObjId=%5 Param=%6 **Cause of error** - The SPLC program has requested an illegal safety function over PP_AxGrpStateReq in the ApiToSafety (symbolic memory interface of SPLC to the core safety software SKERN). ERR-ID = Exact information ObjId = Axis group causing the error Param = Depends on the ERR-ID ERR_ID: 100: Requested safety function is not supported Param = Requested safety function **Error correction** - Check the ERR ID: 100 - Use only safety functions that are supported with this software level. - Inform your service agency
231-E01C	**Error message** E01C CC%2 Illegal FS function ERR-ID=%4 ObjId=%5 Param=%6 **Cause of error** - The SPLC program has requested an illegal safety function over PP_AxGrpStateReq in the ApiToSafety (symbolic memory interface of SPLC to the core safety software SKERN). ERR-ID = Exact information ObjId = Axis group causing the error Param = Depends on the ERR-ID ERR_ID: 200: The safety function SLI_S was requested for a axis group that is not of the spindle type. Param = No meaning **Error correction** - Check the ERR ID: 200 - Request the safety function SLI_S only for axis groups with spindles. - Inform your service agency

Error number	Description
231-E01C	**Error message** E01C CC%2 Illegal FS function ERR-ID=%4 ObjId=%5 Param=%6 **Cause of error** - The SPLC program has requested an illegal safety function over PP_AxGrpStateReq in the ApiToSafety (symbolic memory interface of SPLC to the core safety software SKERN). ERR-ID = Exact information ObjId = Axis group causing the error Param = Depends on the ERR-ID ERR_ID: 300: The safety function SLI_2, SLI_3 or SLI_4 was requested for a axis group that is not of the spindle type. This safety function is not permissible for spindles. Param = Requested safety function **Error correction** - Check the ERR ID: 300 - For spindles, request only the SLI_S function. - Inform your service agency
231-E01C	**Error message** E01C CC%2 Illegal FS function ERR-ID=%4 ObjId=%5 Param=%6 **Cause of error** - The SPLC program has requested an illegal safety function over PP_AxGrpStateReq in the ApiToSafety (symbolic memory interface of SPLC to the core safety software SKERN). ERR-ID = Exact information ObjId = Axis group causing the error Param = Depends on the ERR-ID ERR_ID: 400: The safety function SLS_4 or SLI_4 was requested for a axis group and the function is not enabled. Param = Requested safety function **Error correction** - Check the ERR ID: 400 - Do not request the safety function, or enable Bit #0 in MP560 Bit#0. (Check the preconditions for enabling) - Inform your service agency

Error number	Description
231-E01C	**Error message** E01C CC%2 Illegal FS function ERR-ID=%4 ObjId=%5 Param=%6 **Cause of error** - The SPLC program has requested an illegal safety function over PP_AxGrpStateReq in the ApiToSafety (symbolic memory interface of SPLC to the core safety software SKERN). ERR-ID = Exact information ObjId = Axis group causing the error Param = Depends on the ERR-ID ERR_ID: 401: A direct change is requested from the safety function SLS_2, SLI_2, SLS_3 or SLI_3 into the safety function SLS_4 or SLI_4. This direct change is not allowed. Parameter = Requested safety function **Error correction** - Check the ERR ID: 401 - Switch off the drives between the change of safety function and request SOS for at least one cycle. - Inform your service agency
231-E01C	**Error message** E01C CC%2 Illegal FS function ERR-ID=%4 ObjId=%5 Param=%6 **Cause of error** - The SPLC program has requested an illegal safety function over PP_AxGrpStateReq in the ApiToSafety (symbolic memory interface of SPLC to the core safety software SKERN). ERR-ID = Exact information ObjId = Axis group causing the error Param = Depends on the ERR-ID ERR_ID: 402: A direct change is requested from the safety function SLS_4 or SLI_4 into the safety function SLS_2, SLI_2, SLS_3 or SLI_3. This direct change is not allowed. Parameter = Requested safety function **Error correction** - Check the ERR ID: 401 - Switch off the drives between the change of safety function and request SOS for at least one cycle. 402 - See 401 - Inform your service agency

Error number	Description
231-E01C	**Error message** E01C CC%2 Illegal FS function ERR-ID=%4 ObjId=%5 Param=%6 **Cause of error** - The SPLC program has requested an illegal safety function over PP_AxGrpStateReq in the ApiToSafety (symbolic memory interface of SPLC to the core safety software SKERN). ERR-ID = Exact information ObjId = Axis group causing the error Param = Depends on the ERR-ID ERR_ID: 500: The SPLC requested the safety function STO or STO_O for an axis group whose drives are still in the control loop. The requested safety function can be requested only if all drives of this axis group have been switched off. Parameter = Value of the required safety function **Error correction** - Check the ERR ID: 500 - Switch-off with the stop functions over PP_AxGrpStopReq. - Inform your service agency
231-E01D	**Error message** E01D CC%2 SKERN Start requirement not fulfilled Id=%4, V=%4 **Cause of error** - The requirements for starting cyclic operation are not fulfilled. **Error correction** - ID=1: Configuration was not successful. Check the additional information of the error messages E01A or E019. - ID=2: Check whether an error message E01E occurred. - ID=3: Your hardware version does not fulfill the requirements for safe operation. - Inform your service agency
231-E01E	**Error message** E01E CC%2 SKERN Version comparison failed **Cause of error** - In the SKERN software version comparison, a difference between the MC and CC was found. **Error correction** - Check the MC and CC software versions and make sure to use identical software versions on CC and MC. - Inform your service agency

Error number	Description
231-E01F	**Error message** E01F CC%2 SPLC program requests invalid change of operating mode **Cause of error** - The SPLC program requests an illegal change of the safe operating mode via the date ApiToSafety.PP_GenSOM. **Error correction** - Check the SPLC program. The following changes are not permitted: S_MODE_SOM_2 -> S_MODE_SOM_4 S_MODE_SOM_3 -> S_MODE_SOM_4 S_MODE_SOM_4 -> S_MODE_SOM_2 S_MODE_SOM_4 -> S_MODE_SOM_3 - Inform your service agency
231-E020	**Error message** E020 CC%2 Incorrect SPLC-RTS data ID=%4 Info1=%5 Info2=%6 **Cause of error** - When the cyclic data from the SPLC were checked, an error was found. **Error correction** - Check the software versions - Inform your service agency

Error number	Description
231-E021	**Error message** E021 Cut-out signal status incorrect CC%2 Nom:%4 ErrMask: %5 Sgn:%6 **Cause of error** An error occurred in the self-test for safety. A faulty output condition was found before the cut-out channel test: At least on of the examined cut-out signals has the wrong condition. These are the meanings of the abbreviations: Nom (nominal condition of the cut-out signals, decimal notation, interpret in binary): 0: Lock / 1: Release through the corresponding cut-out signal (bits 0 to 9 of Nom) Bit0:STOS.A.MC, Bit1:STO.A.MC.WD, Bit2:STO.A.P.x, Bit3:STO.A.PIC, Bit4:STO.B.CC.WD Bit5:STO.B.P.x, Bit6:STO.A.CC, Bit7:STO.A.SPL.WD, Bit8:STOx.A.RES, Bit9:STO.A.T ErrMask (error mask, decimal notation, interpret in binary): The corresponding switch-off signal (bits 0 – 9 of ErrMask) locks although it should release, or releases although it should lock. Sgn (cut-out signal to be tested): 0: STOS.A.MC 1: STO.A.MC.WD 2: STO.A.P.x 3: STO.A.PIC 4: STO.B.CC.WD 5: STO.B.P.x 6: STO.A.CC 7: STO.A.SPL.WD 8: STOx.A.RES 9: STO.A.T **Error correction** - Check the wiring (PWM cable) - Replace the defective hardware (power module, controller unit) - Inform your service agency
231-E022	**Error message** E022 CC%2 SKERN-CC: Error in configuration data ID=%4 **Cause of error** A data error was found during cyclic checking of the configuration data. - Internal software error **Error correction** - Create a service file - Inform your service agency

Error number	Description
231-E023	**Error message** E023 CC%2 dynamic test ID=%4 Info1=%5 Info2=%6 **Cause of error** - An error was found during the dynamic test (minute test) **Error correction** - Inform your service agency.
231-E023	**Error message** E023 CC%2 Dynamic test ID=%4 aborted: Time exceeded in A channel test **Cause of error** The dynamic test of the PLC peripheral devices (PL, MB, UEC) was cancelled during the A-channel test. - Internal software error - Error in the HSCI communication between MC and HSCI peripheral device **Error correction** - Exchange the defective HSCI peripheral component. - Check the software version. - Inform your service agency.
231-E023	**Error message** E023 CC%2 Dynamic test ID=%4 aborted: CC software interrupt mask %5 **Cause of error** The CC interrupt mask was changed during the dynamic test of the B-channel peripheral devices (PL, MB, UEC). - Internal software error - Defective peripheral device - Defective CC 61xx controller unit **Error correction** - Check the software version. - Exchange the defective CC 61xx - Exchange the defective peripheral device - Inform your service agency.

Error number	Description
231-E023	**Error message** E023 CC%2 Dynamic test ID=%4 aborted: Invalid test ID %5 **Cause of error** During the dynamic test of the PLC peripheral devices (PL, MB, UEC) of the B channel, an incorrect test ID was transferred from the MC to the CC. It is possible that the connected periphery does not match the configured periphery. - Incorrect peripheral device configured - Internal software error - Disturbance of the HSCI communication **Error correction** - Use the HSCI-BUS diagnostics to check the connected periphery. - If required, correct the HSCI configuration. - Check the software version. - Exchange the peripheral device. - Inform your service agency.
231-E023	**Error message** E023 CC%2 Dynamic test ID=%4 aborted: Error in B channel PL input no. %5 **Cause of error** The dynamic test of the PLC peripheral devices (PL, MB, UEC) discovered that an input to be tested did not switch to the 0 level. - Incorrect S machine parameters SMP587 - Wiring error of the test groups/test outputs - Error in the configuration file (IOC file) - Disturbance of HSCI communication **Error correction** - Check the entry in the machine parameter SMP587 - Check the HSCI-BUS diagnostics - Check the wiring and HSCI configuration - Exchange the peripheral device. - Inform your service agency.

Error number	Description
231-E023	**Error message** E023 CC%2 Dynamic test ID=%4 aborted: -ES.B inactive test ID=%5 **Cause of error** The dynamic test of the PLC peripheral devices (PL, MB) discovered that an ES.B input was not activated or the input is defective. - Wiring error of the test groups/test outputs - Error in the configuration file (IOC file) **Error correction** - Check the HSCI-BUS diagnostics. If necessary, correct the HSCI configuration - Check/correct the wiring - Exchange the peripheral device. - Inform your service agency.
231-E023	**Error message** E023 CC%2 Dynamic test ID=%4 aborted: -ES.B.HW inactive test ID=%5 **Cause of error** The dynamic test of the PLC peripheral devices (MB, PL) discovered that an ES.B.HW input was not activated or the input is defective. - Wiring error of the test groups/test outputs - Error in the HSCI configuration file (IOC file) **Error correction** - Check the HSCI-BUS diagnostics. If necessary, correct the HSCI configuration - Check/correct the wiring - Exchange the peripheral device. - Inform your service agency.
231-E023	**Error message** E023 CC%2 Dynamic test ID=%4 aborted: Error in B channel: test ID=%5 **Cause of error** The dynamic test of the PLC peripheral devices (PL, MB, UEC) discovered an error in the test flow. An incorrect ID appeared at the end of the test. - Internal software error **Error correction** - Check the software version. - Inform your service agency.

Error number	Description
231-E023	**Error message** E023 CC%2 Dynamic test ID=%4 aborted: Error in B channel: test ID=%5 **Cause of error** The dynamic test of the PLC peripheral devices (PL, MB, UEC) was was not conducted for the given test ID. - Error in the configuration file (IOC file) - Internal software error **Error correction** - Check the HSCI-BUS diagnostics. If necessary, correct the HSCI configuration - Check the software version. - Inform your service agency.
231-E023	**Error message** E023 CC%2 Dynamic test ID=%4 aborted: Processor check error %5 **Cause of error** Error in the flow of the dynamic test - Internal software error **Error correction** - Check the software version. - Inform your service agency.
231-E023	**Error message** E023 CC%2 Dynamic test ID=%4 aborted: Error in B channel: test ID=%5 **Cause of error** The dynamic test of the PLC peripheral devices (PL, MB, UEC) was was not conducted for the given test ID. - Error in the HSCI configuration file (IOC file) - Internal software error **Error correction** - Check the HSCI-BUS diagnostics. If necessary, correct the HSCI configuration - Check the software version. - Inform your service agency.

Error number	Description
231-E023	**Error message** E023 CC%2 Dynamic test ID=%4 aborted: Error in B channel: test ID=%5 **Cause of error** Error during the dynamic test of the PLC periphery devices (PL, MB, UEC) Missing acknowledgment of the TEST.B output. - Incorrect wiring of the TEST.B output. - Short circuit of the TEST.B output - Incorrect firmware version of the peripheral device **Error correction** - Check the software version. - Check the wiring of the TEST.B output - Run a software or firmware update - Exchange the faulty device. - Inform your service agency.
231-E023	**Error message** E023 CC%2 Dynamic test ID=%4 aborted: Error in B channel: test ID=%5 **Cause of error** Error during the dynamic test of the PLC periphery devices (PL, MB, UEC). No expected switch from 1 to 0 of the test output TEST.B detected. - Incorrect wiring of the TEST.B output. - Short circuit of the TEST.B output - Incorrect firmware version of the peripheral device **Error correction** - Check the software version. - Check the wiring of the TEST.B output - Run a software or firmware update - Exchange the faulty device. - Inform your service agency.

Error number	Description
231-E023	**Error message** E023 CC%2 Dynamic test ID=%4 aborted: Error in B channel: test ID=%5 **Cause of error** Error during the dynamic test of the PLC periphery devices (PL, MB, UEC). No expected switch from 0 to 1 of the test output TEST.B detected. - Incorrect wiring of the TEST.B output. - Short circuit of the TEST.B output - Incorrect firmware version of the peripheral device **Error correction** - Check the software version. - Check the wiring of the TEST.B output - Run a software or firmware update - Exchange the faulty device. - Inform your service agency.
231-E024	**Error message** E024 CC%2 alarm self-test Addr:%4, Dev:%5, Actl:%6, Noml: %7 **Cause of error** The self-test detected an internal process error. **Error correction** - Inform your service agency.
231-E025	**Error message** E025 CC%2 error: self-test ErrId:%4, Par1:%5, Par2:%6, Par3: %7 **Cause of error** The self-test detected an internal process error. **Error correction** - Check the software versions - Inform your service agency.
231-E026	**Error message** E026 CC%2 Illegal MC software installed **Cause of error** An illegal software version of the MC software (autotest version) was detected. **Error correction** - Check the software versions - Inform your service agency.

Error number	Description
231-E027	**Error message** E027 CC%2 Error: Safety function STO AxGrp=%3 ErrId=%4 **Cause of error** The Safe Torque Off safety function (STO) was not complied with for the given axis group. **Error correction** - Check whether this is an aftereffect and, if so, correct its cause. - Inform your service agency.
231-E028	**Error message** E028 CC%2 MB/PLB does not respond. Device ID: %3 **Cause of error** - HSCI components with functional safety (FS) no longer responds (B channel): MB machine operating panel or PLB 6xxx - Component was separated during operation with the HSCI bus - 24 V NC power supply of the component was interrupted - The entered device ID provides information on the affected parameter: 5 = System module on PLB 62xx FS 7 = MB 6xx FS 15 = Expansion PLB (without system module) PLB 61xx FS, PLB 60xx FS 17 = Integrated PLB of the UEC controller unit - Faulty firmware of the PLB or the MB **Error correction** - Check the MB and PLB in the HSCI bus diagnosis - Save service files - Check the HSCI connections - Check the 24 V power supply of the MB and the PLB - Inform your service agency

Error number	Description
231-E029	**Error message** E029 CC%2 Test step not possible (ID=%3) **Cause of error** One of the following steps in the safety self-test is not possible in a drive system with DRIVE-CLiQ inverters due to the hardware. The safety self-test can be configured through safe machine parameters in the configuration datum with CfgSafety. **Error correction** The given ID number indicates the appropriate test that must be deactivated for a system with DRIVE-CLiQ inverters. ID = 100: Test of the brake control. Test the setting in machine parameter testNotBrakeLine. ID = 200: Cutout channel test via signals STO.A.G / STOS.A.G. Check the setting in machine parameter testNotStoGlobal. ID = 300: Cutout channel test via signals internal to the control. Test the setting in machine parameter testNotStoIntrnl. - Note: These settings must be changed only by the machine tool builder. - Inform your service agency.
231-E02A	**Error message** E02A CC%2 SKERN-CC: Response: norm. closed contact unequal A=%4, B=%5 **Cause of error** The acknowledgment signal of the normally closed contact chain PP_GenFB_NCC of the A channel does not match the signal of the B channel. **Error correction** - Check signals FB_NCC.A and FB_NCC.B - Check the wiring of the normally closed contact chain - Check the SPLC program - Inform your service agency

Error number	Description
231-E02B	**Error message** E02B SKERN-CC: Dynamisierungtest sicherer PL-Eingang:%5 fehlerhaft **Cause of error** The dynamic test of the PLC peripheral devices (PL, MB, UEC) discovered that an input to be tested did not switch to the 0 level. - Incorrect S machine parameters SMP587 - Wiring error of the test groups/test outputs - Error in the configuration file (IOC file) - Disturbance of HSCI communication **Error correction** - Check the entry in the machine parameter SMP587 - Check the HSCI-BUS diagnostics - Check the wiring and HSCI configuration - Exchange the peripheral device. - Inform your service agency.
231-E02C	**Error message** E02C SKERN-CC: Dynamisierungtest ES.B fehlerhaft **Cause of error** The dynamic test of the PLC peripheral devices (PL, MB) discovered that an ES.B input was not activated or the input is defective. - Wiring error of the test groups/test outputs - Error in the configuration file (IOC file) **Error correction** - Check the HSCI-BUS diagnostics. If necessary, correct the HSCI configuration - Check/correct the wiring - Exchange the peripheral device. - Inform your service agency.
231-E02D	**Error message** E02D SKERN-CC: Dynamisierungstest ES.B.HW fehlerhaft **Cause of error** The dynamic test of the PLC peripheral devices (MB, PL) discovered that an ES.B.HW input was not activated or the input is defective. - Wiring error of the test groups/test outputs - Error in the HSCI configuration file (IOC file) **Error correction** - Check the HSCI-BUS diagnostics. If necessary, correct the HSCI configuration - Check/correct the wiring - Exchange the peripheral device. - Inform your service agency.

Error number	Description
231-E030	**Error message** E030 CC%2 process error in safety self-test %4 **Cause of error** An internal process error has occurred during the self test: - Internal software error **Error correction** - Save the service file - Restart the control. - Inform your service agency.
231-E031	**Error message** E031 CC%2 FS outputs not "0" 0-31:%4 32-63:%5 **Cause of error** - In the safety self-test, the WD.B.SPL FS outputs remain set during the watchdog test, although they were supposed to be reset. 0-31: Bit-encoded status of the FS outputs 0 to 31 31-63: Bit-encoded status of the FS outputs 32 to 63 64-95: Bit-encoded status of the FS outputs 64 to 95 96-127: Bit-encoded status of the FS outputs 96 to 127 - Short circuit of an FS output on +24 V - Hardware defective **Error correction** - Check the wiring of the FS outputs. - Exchange the hardware - Generate the service files and notify the Service Department
231-E032	**Error message** E032 CC%2 power supply unit not ready for operation **Cause of error** - In the safety self-test, the supply unit does not indicate readiness for operation - The RDY.PS signal is inactive for one of the following reasons: - No release at the X70 connector of the supply unit - Short circuit of the KDR commutation reactor - Incorrect wiring of the KDR - Hardware defective **Error correction** - Check the wiring on the connector X70 - Check the KDR wiring - Exchange the hardware - Generate the service files and notify the Service Department

Error number	Description
231-E033	**Error message** E033 CC%2 FS outputs not "0" 64-95:%4 96-127:%5 **Cause of error** - In the safety self-test, the WD.B.SPL FS outputs remain set during the watchdog test, although they were supposed to be reset. 0-31: Bit-encoded status of the FS outputs 0 to 31 31-63: Bit-encoded status of the FS outputs 32 to 63 64-95: Bit-encoded status of the FS outputs 64 to 95 96-127: Bit-encoded status of the FS outputs 96 to 127 - Short circuit of an FS output on +24 V - Hardware defective **Error correction** - Check the wiring of the FS outputs. - Exchange the hardware - Generate the service files and notify the Service Department
231-E110	**Error message** E110 Timeout in current measurement %1 **Cause of error** - Current measuring during safety self-test exceeds the defined time **Error correction** - Internal software error - Inform your service agency
231-E120	**Error message** E120 CC safe function call error **Cause of error** - Internal software error **Error correction** - Inform your service agency - Check the software version

Error number	Description
231-E130	**Error message** E130 Test current is too small %1 **Cause of error** - The test current measured in the measurement of the current during the safety self-test is too small - The current control loop has not been adjusted - Drive enabling at PWM output is missing at the time of measurement of the current - The current sensor is defective **Error correction** - As a test, switch off the measurement of the current in CfgSafety via safe machine parameter testNotCurrent. The resulting error messages provide information on possibly faulty signals for drive enabling. - Adjust the current controller - Check the current sensor - Inform your service agency
231-E140	**Error message** E140 Mot. current %1 not equal 0 **Cause of error** - The current measured in the pulse deletion test is too great - One of the cutout channels "-AP1.x", "-SH1AB", "-AP2.x" or "-SH2.WD" is not effective **Error correction** - Check the wiring - Inform your service agency
231-E150	**Error message** E150 RDY.x status stays active %1 **Cause of error** - The measured status of the 'RDY.x' signal is active - The 'RDY.x' signal does not change to the 'inactive' ('low' level) status, although the MC is blocking the power module through a corresponding enabling signal. **Error correction** - Internal software error - Hardware defective - Inform your service agency

Error number	Description
231-E160	**Error message** E160 RDY.x status is inactive %1 **Cause of error** - The measured status of the 'RDY.x' signal is inactive - The 'RDY.x' signal does not change to the 'active' ('high' level) status, although the MC is blocking the power module through a corresponding enabling signal. **Error correction** - Internal software error - Hardware defective - Inform your service agency
231-E170	**Error message** E170 Pos. error too large %1 **Cause of error** - Defect in the mounting of the position encoder - Incorrect thermal, linear or nonlinear compensation - Excessive backlash **Error correction** - Check the parameter value (maximum position deviation between MC and CC during operation) - Check the parameter value in CfgAxisComp/linearComp-Value (linear axis error compensation for analog axes) - Check the parameter value in CfgAxis-Comp/backLashType1 (backlash compensation) - Check the mounting of the position encoder- Inform your service agency
231-E180	**Error message** E180 Z1-track amplitude too high %1 **Cause of error** - The amplitude of the Z1-track encoder signal for the speed encoder is too high - Noise on motor encoder signal - Short circuit in the motor encoder cable - Z1-track signal amplitude of motor encoder too high **Error correction** - Check the connection of the motor encoder - Check the cable of the speed encoder - Check the motor encoder - Inform your service agency

Error number	Description
231-E190	**Error message** E190 RDY.x status of axes stays active (safety relay) %1 **Cause of error** - Measured status of the '-STO.A.G' signals remain inactive during the test (high level) - The '-STO.A.G' signal does not change to the 'active' status (low level), even though the MC sets the corresponding signal status - The power stage (inverter) of at least 1 feed axis or auxiliary axis is not locked through the '-STO.A.G' signal. **Error correction** - Check the wiring - Hardware defective - Inform your service agency
231-E1A0	**Error message** E1A0 RDY.x status of axes stays inactive (safety relay) %1 **Cause of error** - Measured status of the '-STO.A.G' signals remain active during the test (high level) - The '-STO.A.G' signal does not change to the 'inactive' status (high level), even though the MC sets the corresponding signal status - The power stage (inverter) of at least 1 feed axis or auxiliary axis is locked through the '-STO.A.G' signal. **Error correction** - Check the wiring - Hardware defective - Inform your service agency
231-E1C0	**Error message** E1C0 RDY.x status of spindle stays active (safety relay) %1 **Cause of error** - Status of the '-STOS.A.G' signals remain inactive during the test (high level) - '-STOS.A.G' signal does not change to the 'active' status (low level), even though the MC assigns the corresponding signal status - The power stage (inverter) of the spindle is not locked through the '-STOS.A.G' signal. **Error correction** - Check the wiring - Hardware defective - Inform your service agency

Error number	Description
231-E1E0	**Error message** E1E0 CC%2 RDY.x status remains active (safety relay)%1 **Cause of error** - An error occurred during the watchdog test WD.A.STO of the PL 6xxxFS. A power stage (inverter) is not switched off through the -STOS.A.G or -STO.A.G signal. - Faulty or missing wiring of -STO.A.G, -STOS.A.G or X71, X72 of the power module (UV, UE) - Error in parameters of the control of X71, X72 through -STO.A.G, -STOS.A.G in SMP - Hardware defective **Error correction** - Check the wiring - Check SMP - Exchange the hardware - Generate the service files and notify the Service Department
231-E200	**Error message** E200 Timeout during emergency stop (SS1) %1 **Cause of error** - The maximum permissible braking time for stopping at the emergency braking ramp (SS1 reaction) was exceeded **Error correction** - Check the machine parameter: timeLimitStop1: Default time for stopping at the emergency braking ramp for SS1 reaction - Inform your service agency

Error number	Description
231-E220	**Error message** E220 Standstill monitoring SKERN-CC %1 **Cause of error** - SKERN-CC detected an impermissibly large axis movement in the SOS safety condition. The standstill speed, however, was not exceeded. The maximum permissible path is defined in the machine parameter MP positionRangeVmin . Possible causes: - Machine parameter "positionRangeVmin" is defined too small. - The brake was deactivated before the position controller was closed. - The brake was not activated before the position controller was opened. - When an axis was switched on, some existing following error was corrected. - The brake is defective. - There was an attempt to move an axis in the SOS condition (PLC?) **Error correction** - Check the entry in machine parameter positionRangeVmin. - Check the sequence of deactivating the brake and closing the position controller. - Check the sequence of activating the brake and opening the position controller. - Check whether there is a following error after an axis is locked. - Inform your service agency.
231-E230	**Error message** E230 Axis %1 STO safety function not fulfilled **Cause of error** The Safe Torque Off safety function (STO) was not complied with for the given axis. **Error correction** - Check whether this is an aftereffect and, if so, correct its cause. - Inform your service agency.

Error number	Description
231-E240	**Error message** E240 Axis %1 faulty braking process **Cause of error** - Axis was incorrectly braked during an SS1 reaction. Possible causes: - Adjusted delay time of the dv/dt monitoring (timeToleranceDvDt) is insufficient. An acceleration might occur after expiration of the delay time. - Drive is not optimally adjusted - Brake ramp in machine parameter motEmergencyStopRamp is not correctly adjusted **Error correction** - Check the entry in machine parameter timeToleranceDvDt - Check the adjusted braking ramp for emergency stops in machine parameter motEmergencyStopRamp - Check the velocity of the drive during the braking process with the control's internal oscilloscope - Adjust the drive. - Inform your service agency

Error number	Description
231-E250	**Error message** E250 Error in cut-out channel %1 Ch:%4 St:%5 St-2ndCh:%6 Sgn:%7 **Cause of error** An error occurred in the self-test for safety. The cut-out channel test detected an error. Key to abbreviations of the error message: Ch (cut-out channel concerned): 1: STO.A.x 2: STO.B.x 3: STO.A.G 4: STOS.A.G 5: STO.A.G and STOS.A.G St (actual status of the cut-out channel): 0: cut-out channel is inactive, although it is supposed to be active 1: cut-out channel is active, although it is supposed to be inactive St-2ndCh (actual status of the second cut-out channel): 0: cut-out channel is inactive 1: cut-out channel is active The second cut-out channel is STO.A.x if Ch=2 and STO.B.x if Ch=1, Ch=3, CH=4, and CH=5 Sgn (cut-out channel concerned): 0: STOS.A.MC 1: STO.A.MC.WD 2: STO.A.P.x 3: STO.A.PIC 4: STO.B.CC.WD 5: STO.B.P.x 6: STO.A.CC 7: STO.A.SPL.WD 8: STOx.A.RES 9: STO.A.T 99: no cut-out signal **Error correction** - Check the wiring (PWM cable) - Replace the defective hardware (power module, controller unit) - Inform your service agency
231-E251	**Error message** E251 SKERN-CC%2: checksum error cross-comparison data from SKERN-MC **Cause of error** A difference was found between the checksum transmitted by the MC and the checksum formed by the CC. **Error correction** - Reboot the control. - Inform your service agency

Error number	Description
231-F000	**Error message** F000 CC%2 S-function call error %1 **Cause of error** - Internal software error **Error correction** - Inform your service agency - Check the software version
231-F100	**Error message** F100 No brake test was conducted %1 **Cause of error** - MC runs no test of the motor brake(s) although it is necessary according to parameter settings. - The call for testing a motor brake lasts longer than 5 seconds. **Error correction** - Inform your service agency
231-F200	**Error message** F200 No brake line test was conducted %1 **Cause of error** - MC runs no test of the motor brake line although it is necessary according to parameter settings. - The call for testing a brake line lasts longer than 10 seconds. **Error correction** - Inform your service agency
231-F300	**Error message** F300 CC%2 Cancelation of the cutout channel test %1 **Cause of error** - The switch-off test was ended automatically because the maximum permissible delay time was exceeded. - The NC did not properly finish a test section. - The NC does not perform a certain test. **Error correction** - Check whether a previous system error of the NC led to the cancelation of the test section - Check the software version - Inform your service agency
234-0001	**Error message** Insufficient memory **Cause of error** Too many clients are configured for the Ethernet transmission. **Error correction** Inform your service agency

Error number	Description
234-0002	**Error message** HSCI Ethernet connection interrupted **Cause of error** The Ethernet transmission is disturbed. **Error correction** - Check the voltage supply to the devices - Note further information in the control's diagnostic functions (bus diagnostics or TNCdiag) - Check the wiring - Inform your service agency
234-0003	**Error message** HSCI Ethernet configuration without CC **Cause of error** If the HSCI is configured or connected, a CC must also be connected to the HSCI. **Error correction** - Check the cabling - Inform your service agency
234-0004	**Error message** Internal software error **Cause of error** Not enough memory for the job at hand **Error correction** Inform your service agency
234-0005	**Error message** Internal software error **Cause of error** HSCI initialization not completed **Error correction** Inform your service agency
234-0006	**Error message** Internal software error **Cause of error** High-speed inputs not initialized on the PLB 6xxx (HSCI). **Error correction** Inform your service agency

Error number	Description
234-0007	**Error message** Fast input does not exist **Cause of error** A high-speed input on a PLB 6xxx (HSCI) adjusted in the configuration data of the control is missing. **Error correction** - Ensure that the input has been configured with IOconfig. - Please keep in mind that the input has to be of the bit data type. - Dual-channel inputs (FS) cannot be used.
234-0008	**Error message** HSCI total amount of data too great **Cause of error** The number of permissible HSCI data telegrams or their total size was exceeded. **Error correction** Inform your service agency.
234-0009	**Error message** Too many HSCI telegrams **Cause of error** The maximum number of HSCI datagrams was exceeded. The IO configuration contains too many HSCI devices. **Error correction** Inform your service agency.
234-000A	**Error message** HSCI data has reached critical size. **Cause of error** The total number of HSCI data has reached a critical size. This increases the risk of transmission errors. **Error correction** - Reduce the number of HSCI components on the HSCI bus. - Inform your service agency.
234-000B	**Error message** HSCI data size too large for HSCI device **Cause of error** The permissible total data amount for an HSCI device has been exceeded. **Error correction** Inform your service agency.

Error number	Description
234-000C	**Error message** Impermissible HSCI device detected on X501 of the MC **Cause of error** At least one HSCI device was detected on the X501 connection of the MC that is not suited for operation on this connection. **Error correction** Check the devices connected to X501. The following devices are not allowed on this connection: - CC controller units (including UECs and UMCs) - PL 6xxx FS - More than one dual-channel machine operating panel (e.g. MB 620FS, PL 6001FS)
234-000D	**Error message** Error during initialization of the SPI module (MCU) **Cause of error** Could not create memory for the SPI inputs and outputs. **Error correction** Switch the control off and back on. If the error recurs, inform your service agency.
234-000E	**Error message** Maximum number of controller units exceeded **Cause of error** There are too many CC controller units connected to the HSCI bus. **Error correction** - Note the maximum number of the respective HSCI participants. Refer to the Technical Manual for your control for more information about this. - Check the HSCI configuration. - Inform your service agency.
234-000F	**Error message** Maximum number of PLB or MB exceeded **Cause of error** There are too many PLB 6xxx units or MB machine operating panels connected to the HSCI bus. **Error correction** - Note the maximum number of the respective HSCI participants. Refer to the Technical Manual for your control for more information about this. - Check the HSCI configuration. - Inform your service agency.

Error number	Description
234-0010	**Error message** Maximum number of HSCI devices exceeded **Cause of error** Too many HSCI devices (CC + UxC + PL 6xxx + MB) were detected on the HSCI bus. **Error correction** - Note the maximum number of the respective HSCI participants. Refer to the Technical Manual for your control for more information about this. - Check the HSCI configuration. - Inform your service agency.
234-0011	**Error message** HSCI handwheel configuration error **Cause of error** Too many handwheels were detected on HSCI devices, or the handwheels are not allowed for this control **Error correction** - Check the configuration and number of connected handwheels - Inform your service agency
234-0012	**Error message** HSCI touch probe configuration error **Cause of error** Too many touch probes were detected on HSCI devices, or the touch probes are not allowed for this control **Error correction** - Check the configuration and number of touch probes - Inform your service agency
234-0013	**Error message** Error while reading the HSCI information **Cause of error** An error occurred during the import of hardware information for HSCI initialization. **Error correction** - Restart the control - Check the voltage supply to the devices - Note further information in the control's diagnostic functions (bus diagnostics or TNCdiag) - Check the HSCI wiring - Inform your service agency

Error number	Description
234-0014	**Error message** Fault an HSCI interface X500 of the MC **Cause of error** - Problems at the X500 HSCI interface connection of the MC - Bad or missing HSCI connection at X500 **Error correction** - Check the voltage supply to the devices - Note further information in the control's diagnostic functions (bus diagnostics or TNCdiag) - Check the connecting element at X500 of the MC - Check the HSCI cable and HSCI devices connected at X500 - Check the MC main computer for defects and exchange it if necessary - Inform your service agency
234-0015	**Error message** Fault an HSCI interface X501 of the MC **Cause of error** - Problems at the X501 HSCI interface connection of the MC - Bad or missing HSCI connection at X501 **Error correction** - Check the voltage supply to the devices - Note further information in the control's diagnostic functions (bus diagnostics or TNCdiag) - Check the connecting element at X501 of the MC - Check the HSCI cable and HSCI devices connected at X501 - Check the MC main computer for defects and exchange it if necessary - Inform your service agency
234-0017	**Error message** HSCI data not updated **Cause of error** - HSCI data have not been updated since the last cycle - Internal software error **Error correction** - Check the voltage supply to the devices - Check the HSCI connecting cable - Note further information in the control's diagnostic functions (bus diagnostics or TNCdiag) If the error recurs: - Create service files and save them - Inform your service agency

Error number	Description
234-0019	**Error message** Incorrect firmware version of the HSCI master component **Cause of error** The firmware version of the HSCI master FPGAs is incompatible with the installed NC software version. **Error correction** Inform your service agency.
234-001A	**Error message** HSCI telegram list too long **Cause of error** - Too many HSCI devices are connected or configured on the HSCI bus of the main computer (MC). - Main computer (MC) is defective **Error correction** - Reduce the number of devices in the HSCI configuration or HSCI bus - If the error occurs without previous change of the HSCI configuration, then the MC has a hardware error. In this case, exchange the main computer (MC). - Inform your service agency
234-001C	**Error message** HSCI communication interrupted **Cause of error** During operation, an illegal change in the number of HSCI participants was found on the HSCI bus. You can find additional information on the error location in the bus diagnostics of the control or through the INTERNAL INFO soft key. **Error correction** - Check the HSCI cable connections - Check the voltage supply to the devices - Note further information in the control's diagnostic functions (bus diagnostics or TNCdiag) - Inform your service agency
234-001D	**Error message** Error during HSCI initialization **Cause of error** Necessary memory areas could not be created during initialization of the HSCI master component. **Error correction** - Restart the control If the error recurs: - Create service files and save them - Inform your service agency

Error number	Description
234-001E	**Error message** Initialization error of HSCI interface X500 **Cause of error** An error occurred during initialization of the interface component for the HSCI interface X500 **Error correction** - Restart the control If the error recurs: - Create service files and save them - Inform your service agency
234-001F	**Error message** Initialization error of HSCI interface X501 **Cause of error** An error occurred during initialization of the interface component for the HSCI interface X501 of the main computer (MC) **Error correction** - Restart the control If the error recurs: - Create service files and save them - Inform your service agency
234-0020	**Error message** HSCI communication error **Cause of error** The received frame number of an HSCI frame does not match the expected frame number. **Error correction** - Check the voltage supply to the devices - Note further information in the control's diagnostic functions (bus diagnostics or TNCdiag) If the error recurs: - Create service files and save them - Inform your service agency

Error number	Description
234-0021	**Error message** HSCI communication error **Cause of error** The DMA from the MC memory to the HSCI master is still active when the HSCI transfer starts. Possible causes: - Internal software error - Large number of "failed frames" **Error correction** If the error occurs together with a large number of failed frames: - Check the HSCI cable connections - Check the voltage supply to the devices - Note further information in the control's diagnostic functions (bus diagnostics or TNCdiag) The number of failed frames is shown in the bus diagnostics of the MC HSCI master. If the error recurs: - Create service files and save them - Inform your service agency
234-0022	**Error message** HSCI communication error **Cause of error** There has been no DMA from the MC memory to the HSCI master since the last HSCI data exchange. Possible causes: - Internal software error - Large number of "failed frames" **Error correction** If the error occurs together with a large number of failed frames: - Check the voltage supply to the devices - Check the HSCI cable connections - Note further information in the control's diagnostic functions (bus diagnostics or TNCdiag) The number of failed frames is shown in the bus diagnostics of the MC HSCI master. If the error recurs: - Create service files and save them - Inform your service agency

Error number	Description
234-0024	**Error message** HSCI communication error **Cause of error** The HSCI transfer jobs were not yet completed when a new DMA transfer began from the MC memory to the HSCI master. Possible causes: - Internal software error - Too many "failed frames" **Error correction** If the error occurs together with a large number of failed frames: - Check the HSCI cable connections - Check the voltage supply to the devices - Note further information in the control's diagnostic functions (bus diagnostics or TNCdiag) The number of failed frames is shown in the bus diagnostics of the MC HSCI master. If the error recurs: - Create service files and save them - Inform your service agency
234-0025	**Error message** HSCI communication error **Cause of error** - HSCI communication error (by DMA) has occurred. **Error correction** - Create service files and save them - Inform your service agency
234-0026	**Error message** HSCI communication error **Cause of error** - An HSCI communication error has occurred. **Error correction** - Check the voltage supply to the devices - Note further information in the control's diagnostic functions (bus diagnostics or TNCdiag) - Create service files and save them - Inform your service agency
235-0001	**Error message** Installation error **Cause of error** The firmware file could not be opened. It was either not found or is faulty. **Error correction** Inform your machine tool builder

Error number	Description
235-0002	**Error message** Installation error **Cause of error** The firmware file could not be opened because it is faulty. **Error correction** Inform your service agency
235-0003	**Error message** Hardware error **Cause of error** Error during download of the firmware file. Either an error occurred during data transmission of the file, or the file has a wrong firmware version. **Error correction** Inform your machine tool builder
235-0004	**Error message** Hardware error **Cause of error** Timeout when downloading the firmware file. The CCU did not respond within the expected time. CCU is defective or the firmware version is incorrect. **Error correction** Inform your machine tool builder
235-0005	**Error message** Hardware error **Cause of error** Timeout during the checksum calculation. The CCU did not respond within the expected time. CCU is defective or the firmware version is incorrect. **Error correction** Inform your machine tool builder
235-0006	**Error message** Hardware error **Cause of error** Firmware checksum check failed. Incorrect CCU checksum. CCU is defective or the firmware version is incorrect. **Error correction** Inform your machine tool builder

Error number	Description
235-0007	**Error message** Hardware error **Cause of error** Timeout after downloading the first part of the firmware. The CCU did not respond within the expected time. CCU is defective or the firmware version is incorrect. **Error correction** Inform your machine tool builder
235-0008	**Error message** Hardware error **Cause of error** Timeout after downloading the second part of the firmware. The CCU did not respond within the expected time. CCU is defective or the firmware version is incorrect. **Error correction** Inform your machine tool builder
235-0009	**Error message** Hardware error **Cause of error** Timeout when checking whether the bootcode is running. The CCU did not respond within the expected time. CCU is defective or the bootcode version is incorrect. **Error correction** Inform your machine tool builder
235-000A	**Error message** Installation error **Cause of error** The bootcode file could not be opened. It was either not found or is faulty. **Error correction** Inform your machine tool builder
235-000B	**Error message** Installation error **Cause of error** The bootcode file could not be read because it is faulty. **Error correction** Inform your service agency

Error number	Description
235-000C	**Error message** Hardware error **Cause of error** There are too many HSCI devices connected to the control. **Error correction** Remove some of the HSCI devices. Contact your machine tool builder.
235-000D	**Error message** Hardware error **Cause of error** HSCI device is not running. The CCU did not respond within the expected time. CCU is defective or the firmware version is incorrect. **Error correction** Inform your machine tool builder
235-000E	**Error message** Hardware error **Cause of error** This CCU is not supported. An unknown CCU is connected to the control. **Error correction** Inform your machine tool builder
235-000F	**Error message** Hardware error **Cause of error** Timeout when checking whether the CCU runs. The CCU did not respond within the expected time. CCU is defective or the firmware version is incorrect. **Error correction** Inform your machine tool builder
235-0010	**Error message** Installation error **Cause of error** Configuration settings for CCU422 missing **Error correction** Inform your service agency

Error number	Description
235-0011	**Error message** Installation error **Cause of error** Configuration settings for CCU422 are faulty **Error correction** Inform your service agency
235-0012	**Error message** Hardware error **Cause of error** Error during asynchronous data transfer **Error correction** Inform your machine tool builder
235-0013	**Error message** Hardware error **Cause of error** Timeout during identification of the CCU software. The CCU did not respond within the expected time. CCU is defective or the firmware version is incorrect. **Error correction** Inform your machine tool builder
235-0014	**Error message** Installation error **Cause of error** Invalid initialization parameters. The configuration settings are faulty. **Error correction** Inform your service agency
235-0015	**Error message** Hardware error **Cause of error** Incompatible security ID of the mainboard and CCU. The mainboard and CCU have different security IDs. **Error correction** Inform your machine tool builder
235-0016	**Error message** Hardware error **Cause of error** Syscon Register check failed. The Syscon registers do not have the expected values. The hardware might be defective. **Error correction** Inform your machine tool builder

Error number	Description
235-0017	**Error message** Hardware error **Cause of error** Initialization of the device failed. An error occurred during initialization of the device. **Error correction** Inform your machine tool builder
235-0018	**Error message** Installation error **Cause of error** Could not open the file for writing. Faulty configuration. **Error correction** Inform your service agency
235-0019	**Error message** Installation error **Cause of error** Could not read the file configuration. Faulty configuration file. **Error correction** Inform your service agency
235-001A	**Error message** Installation error **Cause of error** Could not write the hardware.sys file. The configuration did not give a path for hardware.sys. **Error correction** Inform your service agency
235-001B	**Error message** Hardware error **Cause of error** An error occurred during device initialization. **Error correction** Inform your machine tool builder
235-001C	**Error message** Installation error **Cause of error** The mainboard was not detected. **Error correction** Inform your machine tool builder

Error number	Description
235-001D	**Error message** Internal software error **Cause of error** Could not generate server interface **Error correction** Inform your service agency
235-001E	**Error message** Internal software error **Cause of error** Creation of the interrupt service routine failed **Error correction** Inform your service agency
235-001F	**Error message** Internal software error **Cause of error** Interrupt does not exist **Error correction** Inform your service agency
235-0020	**Error message** Internal software error **Cause of error** Cannot process any further service functions for the given interrupt (max. 3) **Error correction** Inform your service agency
235-0021	**Error message** Internal software error **Cause of error** Undefined error **Error correction** Inform your service agency
235-0022	**Error message** Internal software error **Cause of error** Mainboard is not supported by the hardware server **Error correction** Inform your service agency

Error number	Description
235-0023	**Error message** Hardware error **Cause of error** Unknown hardware configuration. The test for whether the processor system is single or dual failed. **Error correction** Inform your machine tool builder
235-0024	**Error message** Installation error **Cause of error** Software for a single-processor system is running on a dual-processor system. Wrong software. **Error correction** Inform your machine tool builder
235-0025	**Error message** Hardware error **Cause of error** Reading the HIK failed. The hardware might be defective. **Error correction** Maschinenhersteller benachrichtigen
235-0026	**Error message** Hardware error **Cause of error** Reading the glue signature failed. The hardware might be defective. **Error correction** Inform your machine tool builder
235-0027	**Error message** Installation error **Cause of error** Unknown hardware. G50 identification failed. **Error correction** Inform your machine tool builder
235-0028	**Error message** Hardware error **Cause of error** There is no network card or there is an internal software error. Reading the MAC address failed. **Error correction** Inform your machine tool builder

Error number	Description
235-0029	**Error message** Internal software error **Cause of error** There is a reading error from PCI base16 **Error correction** Inform your service agency
235-002A	**Error message** Internal software error **Cause of error** There is a reading error from PCI base32 **Error correction** Inform your service agency
235-002B	**Error message** Installation error **Cause of error** This software does not support this control. Wrong hardware or hardware is defective. **Error correction** Inform your machine tool builder
235-002C	**Error message** Installation error **Cause of error** Wrong hardware. **Error correction** Inform your machine tool builder
235-002D	**Error message** Internal software error **Cause of error** Access to DPRAM failed **Error correction** Inform your service agency
235-002E	**Error message** Hardware will be simulated **Cause of error** The control could not find a CCU and therefore switched into the simulation mode. **Error correction** - Check the CCU - Check the connection to the CCU

Error number	Description
235-002F	**Error message** PROFIBUS/PROFINET: Hardware error **Cause of error** The TNC cannot address the PROFIBUS/PROFINET interface. The interface is defective or incompatible with the TNC. **Error correction** Inform your service agency
235-0030	**Error message** Firmware on ProfiNet interface is faulty or missing **Cause of error** The ProfiNet interface does not have any firmware. **Error correction** Inform your machine tool builder
235-0031	**Error message** Firmware inspection on ProfiNet interface failed **Cause of error** The TNC cannot open the firmware file for the ProfiNet interface. **Error correction** Inform your machine tool builder
235-0032	**Error message** Firmware update on ProfiNet interface failed **Cause of error** The TNC cannot read the firmware file for the ProfiNet interface. **Error correction** Inform your machine tool builder
235-0033	**Error message** Error in firmware file for ProfiNet interface **Cause of error** The TNC found a checksum error in the firmware file for the ProfiNet interface. **Error correction** Inform your service agency
235-0034	**Error message** Firmware update on ProfiNet interface failed **Cause of error** Error during the firmware update on the ProfiNet interface. **Error correction** Inform your machine tool builder

Error number	Description
235-0035	**Error message** ProfiNet: Hardware error **Cause of error** The TNC cannot configure the ProfiNet interface. Possible causes: - The configuration data for the ProfiNet interface are incomplete or incorrect. - The firmware of the ProfiNet interface is not compatible with the control software. **Error correction** Inform your machine tool builder
235-0036	**Error message** ProfiNet: Hardware error **Cause of error** The firmware of the ProfiNet interface is not compatible with TNC. **Error correction** Inform your machine tool builder
235-0037	**Error message** Initialization of ProfiNet interface failed **Cause of error** The TNC cannot read a ProfiNet project file. **Error correction** Inform your machine tool builder
235-0038	**Error message** Initialization of ProfiNet interface failed **Cause of error** The ProfiNet interface requests unavailable project files from the TNC. **Error correction** Inform your machine tool builder
235-0039	**Error message** CBE cannot be started **Cause of error** Unsuccessful start of the ProfiNet interface CBE30. **Error correction** Inform your machine tool builder

Error number	Description
235-003A	**Error message** Error in memory locking **Cause of error** Required memory could not be reserved. **Error correction** Inform your service agency
235-003B	**Error message** Firmware update not possible **Cause of error** Internal error during firmware update! **Error correction** Inform your machine tool builder
235-003C	**Error message** Version information missing in firmware file **Cause of error** No version information was found in a firmware file. **Error correction** Inform your machine tool builder
235-003D	**Error message** Firmware could not be started **Cause of error** Unsuccessful device firmware start. **Error correction** Inform your machine tool builder
235-003E	**Error message** Error in the hardware configuration **Cause of error** An error was found in the hardware configuration. **Error correction** Inform your machine tool builder
235-003F	**Error message** Error in ProfiNet communication **Cause of error** An error occurred during communication with a unit on the ProfiNet bus. **Error correction** - Check all devices and connections - Contact your machine tool builder

Error number	Description
235-0040	**Error message** No access to the configuration **Cause of error** Required configuration data could not be requested from configuration server. **Error correction** Inform your service agency
235-0041	**Error message** No access to event server **Cause of error** Failed access to event server. **Error correction** Inform your service agency
235-0042	**Error message** CC controller unit cannot be started **Cause of error** A CC controller unit cannot be started or the firmware could not be correctly transferred. **Error correction** - CC controller unit - Contact your machine tool builder
235-0043	**Error message** HSCI watchdog could not be deleted **Cause of error** The HSCI watchdog could not be deleted. **Error correction** Inform your service agency
235-0044	**Error message** Error in HSCI communication **Cause of error** An error occurred during communication with a unit on the HSCI bus. **Error correction** - Check the voltage supply to the devices - Check all devices and connections - Note further information in the control's diagnostic functions (bus diagnostics or TNCdiag) - Inform your service agency

Error number	Description
235-0045	**Error message** HSCI connection error **Cause of error** A connection error was found on the HSCI bus. **Error correction** - Check all devices and connections - Check the connection sequence of the HSCI connecting cables (X500 -> X502 or X501 -> X502) - Check the voltage supply to the devices - Note further information in the control's diagnostic functions (bus diagnostics or TNCdiag) - Inform your service agency
235-0046	**Error message** Error in detection of CC controller unit **Cause of error** An error occurred during detection of the connected CC controller unit. **Error correction** Inform your service agency
235-0047	**Error message** Error in message from CC **Cause of error** Erroneous information was received from a CC. **Error correction** Inform your service agency
235-0048	**Error message** Error in message from PL module **Cause of error** Erroneous information was received from a PL module. **Error correction** Inform your service agency
235-0049	**Error message** PL error **Cause of error** A PL module has reported an error. **Error correction** Inform your service agency

Error number	Description
235-004A	**Error message** Software versions of PL module and MC do not match **Cause of error** The software versions of the PL module and the MC computer unit do not match. **Error correction** Inform your machine tool builder
235-004B	**Error message** PL module could not be started **Cause of error** PL program could not be started. **Error correction** - Check the PL module - Inform your service agency
235-004C	**Error message** PL: No bus model found **Cause of error** No bus module was found in a PL module. **Error correction** - Check the PL module - Inform your service agency
235-004D	**Error message** Unknown PL software **Cause of error** A PL module has unknown software. **Error correction** - Check the PL module - Inform your service agency
235-004E	**Error message** Too many slots on PL module **Cause of error** A PL module has more slots than allowed. **Error correction** - Check the PL module - Inform your service agency
235-004F	**Error message** Error in identification of the hardware **Cause of error** A hardware unit could not be properly identified. **Error correction** Inform your service agency

Error number	Description
235-0050	**Error message** Hardware not found **Cause of error** A required hardware unit was not found. **Error correction** - Check all devices and connections - Inform your service agency
235-0051	**Error message** Error in communication with SPI module **Cause of error** An error occurred during communication with an SPI module. **Error correction** Inform your service agency
235-0052	**Error message** Error in a file operation **Cause of error** A file operation has failed. **Error correction** Inform your service agency
235-0053	**Error message** Error during hardware detection **Cause of error** Error during hardware detection **Error correction** Inform your service agency
235-0054	**Error message** Access of non-supported hardware **Cause of error** A connected hardware unit is not supported by the software in use. **Error correction** Inform your machine tool builder

Error number	Description
235-0055	**Error message** Firmware update required (%1) **Cause of error** A firmware update is required on an assembly. The assembly concerned is indicated in the additional information. **Error correction** This firmware update requires a confirmation by the user. Note the following messages.
235-0056	**Error message** Firmware update required (%1) **Cause of error** A firmware update is required on an assembly. The assembly concerned is indicated in the additional information. **Error correction** - Shut down the control software. - Manually start the firmware update on the HeROS console.
235-0057	**Error message** Firmware update is running (%1) **Cause of error** At present the control is updating the firmware on an assembly. The assembly concerned is indicated in the additional information. **Error correction** Wait until the firmware update has been completed. Note the following messages.
235-0058	**Error message** Firmware update has been completed (%1) **Cause of error** The firmware update was completed successfully. The assembly concerned is indicated in the additional information. **Error correction**

Error number	Description
235-0059	**Error message** Firmware update failed (%1) **Cause of error** The firmware update has failed. The assembly concerned is indicated in the additional information. **Error correction** - Note further error messages. - Eliminate the cause of error. - Shut down the control and restart. The firmware update will be repeated automatically the next time the control is started.
235-005A	**Error message** Firmware update failed (%1) **Cause of error** The firmware update has failed. The assembly concerned is indicated in the additional information. **Error correction** The assembly might now no longer be usable. Inform your service agency.
235-005B	**Error message** Control software shutdown delayed **Cause of error** At present the control software cannot be shut down because a firmware update is in progress. **Error correction** Wait until the firmware update has been completed. The control software then shuts down automatically.
235-005C	**Error message** System error **Cause of error** An as yet unimplemented function of a server was called. **Error correction** Inform your service agency
235-005D	**Error message** System error **Cause of error** A server cannot find the sender of a message. **Error correction** Inform your service agency

Error number	Description
235-005E	**Error message** System error **Cause of error** A server cannot reach the sender of a message. **Error correction** Inform your service agency
235-005F	**Error message** System error **Cause of error** A software error has occurred. **Error correction** Inform your service agency
235-0060	**Error message** Not enough main memory (RAM) **Cause of error** There is not enough working memory (RAM) on the MC to operate the control. **Error correction** Inform your service agency
235-0061	**Error message** Incompatible peripheral device (%1) **Cause of error** A peripheral device is incompatible with this control software and they cannot be operated together. The device concerned is indicated in the additional information. **Error correction** - Exchange the device - Inform your service agency

Error number	Description
235-0062	**Error message** Unknown device on HSCI bus (%1) **Cause of error** The NC software identifies every connected device by means of a device table. The table indicates whether the device is supported by the software version installed on the control. A device that the software does not support or that is not yet entered in the device table is connected to the HSCI bus. The device concerned is indicated in the additional information. The device table might have been overwritten by installing an update that was generated by an older software version. **Error correction** - Inform your service agency. - Update the NC software if the device is not supported by the currently installed version of the NC software. - Update the device table. The installed software might be able to control a new device that is not yet listed in the device table. In this case the device table must be updated.
235-0063	**Error message** Unknown device on the ProfiNet interface (%1) **Cause of error** The NC software identifies every connected devices by means of a device table. The table indicates whether the device is supported by the software version installed on the control. A device that the software does not support or that is not yet entered in the device table is connected over the ProfiNet interface. The device concerned is indicated in the additional information. **Error correction** - Inform your service agency - Run an update of the NC software if the device is not supported by the currently installed version of NC software. - Update the device table. A new device that is not yet listed in the device table might be supported by the installed software. In this case an update of the device table is required.

Error number	Description
235-0064	**Error message** Unknown device on the DriveCLiQ interface (%1) **Cause of error** The NC software identifies every connected devices by means of a device table. The table indicates whether the device is supported by the software version installed on the control. A device that the software does not support or that is not yet entered in the device table is connected over the DriveCLiQ interface. The device concerned is indicated in the additional information. **Error correction** - Inform your service agency - Run an update of the NC software if the device is not supported by the currently installed version of NC software. - Update the device table. A new device that is not yet listed in the device table might be supported by the installed software. In this case an update of the device table is required.
235-0065	**Error message** Device table is faulty **Cause of error** The device table is incorrect or cannot be used by the control. **Error correction** Inform your service agency.
235-0066	**Error message** Device (%1) reports error: %2 **Cause of error** A device connected with the control has an error. The device concerned is indicated in the additional information. Possible causes: - The device code programmed on the device is incorrect. - The device's firmware is not compatible with the control software. - The device is defective. **Error correction** Inform your machine tool builder.

Error number	Description
235-0067	**Error message** Error on device (%1) **Cause of error** An error has occurred on a device connected with the control. The device concerned is indicated in the additional information. Possible causes: - The device code programmed on the device is incorrect. - The device's firmware is not compatible with the control software. - The device is defective. **Error correction** Inform your machine tool builder.
235-0068	**Error message** Exchange the peripheral device (%1) **Cause of error** During startup it was discovered that a hardware component connected to the control is not compatible with the current level of the NC software. The device concerned is indicated in the additional information. A required update of the device's firmware is not possible. HEIDENHAIN recommends exchanging the component as soon as possible. **Error correction** Contact your service agency.
235-0069	**Error message** PROFINET: Protocol error **Cause of error** A PROFINET end device has transmitted data to the control that the control cannot interpret. It could be that the version of the PROFINET protocol used by the PROFINET end device is not supported by the TNC, The PROFINET end device concerned is indicated in the additional information. **Error correction** Inform your service agency.
235-006A	**Error message** Error in communication with the PROFINET controller **Cause of error** An error occurred in the communication between the control and the PROFINET controller. **Error correction** Inform your service agency.

Error number	Description
235-006B	**Error message** IOC file not configured **Cause of error** No file name was given for the IOC file. **Error correction** Configure the file name IOC file
235-006C	**Error message** Error in IOC file **Cause of error** There is an error in the IOC file. The additional information provides more data. **Error correction** - Check and correct the IOC file with the PC software IOconfig. - Inform your service agency.
235-006D	**Error message** Insufficient or faulty command parameters **Cause of error** A command with faulty or insufficient parameters was transferred to the part of the NC software responsible for the control of the hardware components. **Error correction** - Check the parameters - Inform your service agency.
235-006E	**Error message** IOC file cannot be opened **Cause of error** The IOC file could not be opened. The file name is indicated in the additional information. **Error correction** Check the configuration of the IOC file name.
235-006F	**Error message** IOC file format error **Cause of error** Control cannot interpret the IOC file. The file format is faulty or unknown. **Error correction** Check the IOC file with the PC software IOconfig.

Error number	Description
235-0070	**Error message** Incorrect format version of the IOC file **Cause of error** The IOC file cannot be processed because it is in the wrong format version. Minimum required format version: - PROFIBUS: IOC-V2 - AS-i: IOC-V2 - HSCI: IOC-V3 - PROFINET: IOC-V4 **Error correction** Check the IOC file and provide the correct format version.
235-0071	**Error message** IOC file: No PROFINET controller is configured **Cause of error** The PROFINET controller cannot be configured because there is no data for it in the IOC file. **Error correction** Use the PC software IOconfig to configure the PROFINET controller.
235-0072	**Error message** PROFINET: Too many devices configured **Cause of error** More PROFINET devices were configured than allowed. **Error correction** - Observe the additional information. - Reduce the number of configured devices.
235-0073	**Error message** PROFINET: project setup error **Cause of error** The configuration of the PROFINET topology is faulty. **Error correction** - Observe the additional information. - Correct the IOC file.
235-0074	**Error message** PROFINET: Process data memory is insufficient **Cause of error** The maximum size of the process data for PROFINET devices has been exceeded. **Error correction** Reduce the number of PROFINET end devices or the connected modules.

Error number	Description
235-0075	**Error message** PROFINET: No common RT class supported **Cause of error** A PROFINET end device cannot be activated by the control because the control and the end device have no common RT class. The device concerned is indicated in the additional information. **Error correction** Configure the PROFINET end device that can be operated with RT class 1.
235-0076	**Error message** PROFINET interface not activated **Cause of error** The control cannot activate the PROFINET interface because there is an error. **Error correction** - Note further messages. - Eliminate the cause of error. - Shut the control down and restart it.
235-0077	**Error message** HSCI cabling error: Controller connected to X501 **Cause of error** At least one controller unit (CC, UEC, UMC) was connected via HSCI to X501 of the MC. However, controller units must be connected to X500 of the MC. **Error correction** - Check the HSCI cabling - Connect all controller units (CC, UEC, UMC) an X500 of the MC - If the problem continues, please generate a service file and inform your service agency
235-0078	**Error message** HSCI cabling error: Too many devices on X501 **Cause of error** There are too many HSCI components connected to X501 of the MC **Error correction** - Check the HSCI cabling. - Use the default values of your control's Technical Manual for the maximum number of HSCI components. - Check the HSCI configuration. It may be possible to connect HSCI components to the X500 connector of the MC. - Generate the service files and inform your service agency.

Error number	Description
235-0079	**Error message** No contact to ProfiNet terminal **Cause of error** Interrupted communication between the control and a ProfiNet terminal. **Error correction** Check the hardware setup, the IOC file and the options set. You can find more information in the PROFINET diagnostics.
235-007A	**Error message** Faulty module configuration on ProfiNet terminal **Cause of error** The ACTUAL and NOMINAL configuration do not match on a ProfiNet terminal: - A module is configured, but it has not be plugged into the device. - A different module is configured than is plugged into the device. **Error correction** Check the hardware setup, the IOC file and the options set. You can find more information in the PROFINET diagnostics.
235-007B	**Error message** Unknown device on SPI bus (%1) **Cause of error** The NC software identifies every connected devices by means of a device table. The table indicates whether the device is supported by the software version installed on the control. A device that the software does not support or that is not yet entered in the device table is connected with the SPI bus. The device concerned is indicated in the additional information. **Error correction** - Inform your service agency. - Run an update of the NC software if the device is not supported by the currently installed version of NC software. - Update the device table. A new device that is not yet listed in the device table might be supported by the installed software. In this case an update of the device table is required.

Error number	Description
235-007C	**Error message** Error during read-in of the machine configuration data **Cause of error** The file(s) of the machine configuration or machine parameters cannot be read. It is either missing or damaged. **Error correction** - Start control as a programming station - Check the file(s) of the machine configuration (machine parameters) and, if required, recreate or correct them - Inform your service agency
235-007D	**Error message** PLCE partition has not yet been formatted **Cause of error** The encrypted PLCE partition has not yet been formatted. **Error correction** - Start the PLCE setup dialog - Enter an encryption password - Format the PLCE partition
235-007E	**Error message** Encryption password for PLCE partition incorrect **Cause of error** The PLCE partition could not be integrated because the encryption password is incorrect or the partition is not yet formatted. **Error correction** - Start the PLCE setup dialog. - Enter the correct encryption password. - Include the partition. or - Enter a new encryption password. - Format the PLCE partition. - Include the partition.
235-007F	**Error message** PLCE partition cannot be integrated **Cause of error** The PLCE partition is already being used at present and therefore cannot be included. **Error correction** - Manually enable the PLCE partition or - Reboot the control

Error number	Description
235-0080	**Error message** No password available for PLCE partition **Cause of error** An existing PLCE partition cannot be integrated for the following reasons: - Failure to read the password from the SIK. - Nor is the password available anywhere else. **Error correction** Ensure that the correct SIK is inserted in the MC.
235-0081	**Error message** Machine configuration file (.mcg) %1 is faulty **Cause of error** There is an error in the machine configuration. You will find more detailed information on the error in the additional information. **Error correction** Inform your service agency.
235-0083	**Error message** Error during import of the machine configuration file (.mcg) %1 **Cause of error** The machine configuration file (.mcg) cannot be imported. You will find more detailed information on the error in the additional information. **Error correction** - Check the configuration datum CfgPlcPath.compCfgFile. - Inform your service agency.
235-0085	**Error message** Topology error in IOC file **Cause of error** The options set in the machine configuration do not match those in the IOC file. You will find more detailed information on the error in the additional information. **Error correction** - Check the options set in the machine configuration and in the IOC file. - Inform your service agency.

Error number	Description
235-0086	**Error message** Supervisor takes over control of PROFINET terminal **Cause of error** A supervisor has taken control of a PROFINET terminal connected to the control. The machine cannot be switched back on until the supervisor has returned control. **Error correction** - Tell the supervisor to return control to the NC control - Acknowledge the error - Switch on the machine - You can find more information in the PROFINET diagnostics
235-0087	**Error message** NC software not supported by hardware **Cause of error** – The presently installed NC software version is not supported by this control hardware. - The MC main computer offers too little computing power to support all functions of the installed software. **Error correction** - Check the combination of NC software and control hardware – Inform your service agency
235-0088	**Error message** Illegal parallel connection of two power modules **Cause of error** - Two different power modules were connected parallel through an adapter. - Only power modules of the same type can be connected in parallel. - The affected devices are shown in the additional information. **Error correction** - Check the connection of the power modules and correct it. - Inform your service agency.

Error number	Description
235-008A	**Error message** Not possible to switch the HSCI data rate **Cause of error** The HSCI data rate of 1 Gbit/s was preset in the configuration datum MP_dataRateHsci in CfgHardware. However, the HSCI system cannot be operated with this data rate because - no HSCI device was connected, or - at least one connected HSCI device is not suited for a 1 Gbit/s data rate. **Error correction** Check the connected HSCI devices for suitability for a 1 Gbit/s data rate. In the configuration datum MP_dataRateHsci in CfgHardware, select the data rate 100 Mbit/s or “as fast as possible.”
235-008B	**Error message** Switchover of HSCI data rate has failed **Cause of error** The HSCI data rate of 1 Gbit/s was preset in the configuration datum MP_dataRateHsci in CfgHardware. However, the HSCI system could not be switched to the 1 Gbit/s data rate. There might be connecting cables in the HSCI system that are not made for this data rate. **Error correction** Check the HSCI cable for suitability for the 1 Gbit/s data rate. In the configuration datum MP_dataRateHsci in CfgHardware, select the data rate 100 Mbit/s or “as fast as possible.”
235-008C	**Error message** Configure the HSCI data rate to 100 Mbit **Cause of error** In the configuration datum MP_dataRateHsci in CfgHardware, the HSCI data rate “as fast as possible” was selected. The control found that all connected HSCI are suited for the 1 Gbit/s data rate, but there is at least one cable in the HSCI system that is not suited for this data rate. Because of this hardware configuration, system startup is delayed. **Error correction** To speed up the system startup, do the following: In the configuration datum MP_dataRateHsci in CfgHardware, select the data rate 100 Mbit/s or check the HSCI cable for suitability for the 1 Gbit/s data rate.

Error number	Description
235-008D	**Error message** Required HSCI data rate cannot be attained **Cause of error** There is at least one device in the HSCI system that requires a data rate of 1 Gbit/s for operation. However, this data rate cannot be set because at least one further device in the HSCI system is not suited for a data rate of 1 Gbit/s. **Error correction** Check all HSCI devices for suitability for a 1 Gbit/s data rate.
235-008E	**Error message** Required HSCI data rate cannot be attained. **Cause of error** There is at least one device in the HSCI system that requires a data rate of 1 Gbit/s for operation. However, this data rate cannot be set because at least one connecting cable in the HSCI system is not suited for a data rate of 1 Gbit/s. **Error correction** Check the HSCI connecting cable for suitability for a data rate of 1 Gbits.
235-008F	**Error message** HSCI data rate of 1 Gbit/s is required **Cause of error** The HSCI data rate of 100 Mbit/s was preset in the configuration datum MP_dataRateHsci in CfgHardware. - However, at least one connected HSCI device requires a 1 Gbit/s data rate for operation. **Error correction** In the configuration datum MP_dataRateHsci in CfgHardware, select the 1 Gbit/s setting or “as fast as possible.”
235-0090	**Error message** No original HEIDENHAIN driver software **Cause of error** Software for the operation of devices of a third manufacturer has been loaded via IOconfig to the control. It is not original HEIDENHAIN software. This software is not activated. **Error correction** - Use only original HEIDENHAIN software. - Inform your service agency.

Error number	Description
235-0091	**Error message** Driver software cannot be activated **Cause of error** Software for the operation of devices of a third manufacturer was transferred via IOconfig to the controller. Due to an error, this software cannot be activated. **Error correction** - Note the additional information - Inform your service agency
235-0092	**Error message** Not enough memory on periphery hardware (%1) **Cause of error** Since not enough memory is available on a device, that device cannot be run with this control software. The device concerned is indicated in the additional information. **Error correction** - Exchange device - Inform your service agency
235-0093	**Error message** Identification requested over PROFINET **Cause of error** A participant in a PROFINET network, usually a programming device, is demanding that the control identify itself. **Error correction**
235-0094	**Error message** Error while initializing the device %2, SN: %4 **Cause of error** The device %2 (ID number %3, serial number %4, path %1) could not be initialized. **Error correction** Inform your service agency
235-0095	**Error message** Excessive propagation time in HSCI system **Cause of error** Too many HSCI participants are connected to the HSCI bus, or the total length of the HSCI cables is too long. **Error correction** - Reduce the number of HSCI participants - Use shorter HSCI cables

Error number	Description
235-0096	**Error message** Error while evaluating a filter condition in the IOCP file **Cause of error** DEFINE missing in the MCG file. Faulty filter condition in the IOCP file. The incorrectly evaluated condition is shown in the additional data. The name of the MCG file is shown in the additional data. **Error correction** - Check the MCG file and correct it if necessary - Check the filter condition in the IOCP file and correct it if necessary
235-0097	**Error message** IOC options defined more than once **Cause of error** IOC options are defined twice in the configuration or in the MCG file. **Error correction** Correct the configuration: remove the superfluous IOC options
235-0098	**Error message** Empty IOC option defined **Cause of error** An empty IOC option is defined in the configuration or in the MCG file. **Error correction** Correct the configuration: remove the empty IOC option
235-0099	**Error message** Projektiertes Gerät nicht im HSCI-Strang **Cause of error** Folgende projektierte Geräte sind am HSCI-Strang nicht vorhanden: Angabe: Typ (Name aus Projektierung) %1 Mögliche Ursachen: - Option zur Konfiguration des Hardware-Ausbaus falsch gesetzt - Gerät an der Adresse nicht angesteckt **Error correction** - Projektierung und die dabei wirksamen Optionen prüfen - Verkabelung des HSCI-Strangs prüfen Hierzu können Sie die Diagnose-Funktionen der Steuerung nutzen.

Error number	Description
235-009A	**Error message** Configured device not in the HSCI chain **Cause of error** At least one configured device is missing in the HSCI chain. Due to ambiguities, the missing devices cannot be identified precisely. The possible devices are listed below: Configuration [Device type (name)]: %1 Hardware [Device type (HSCI address, serial number)]: %2 Possible causes: - Option for configuring the hardware expansion was set incorrectly - Device not connected at that address **Error correction** - Check configuration and the options in effect - Check cabling of the HSCI chain You can use the diagnostics functions of the control for this.
235-009B	**Error message** Wrong device in the HSCI chain **Cause of error** The device at HSCI address %3 is not the one that was configured: Configuration [Device type (name)]: %1 Hardware [Device type (HSCI address, serial number)]: %2 Possible causes: - Option for configuring the hardware expansion was set incorrectly - Incorrect device connected **Error correction** - Check configuration and the options in effect - Check cabling of the HSCI chain You can use the diagnostics functions of the control for this.

Error number	Description
235-009C	**Error message** Zwei Geräte am HSCI-Strang vertauscht **Cause of error** Folgende zwei Geräte im HSCI-Strang sind gegenüber der Projektierung vertauscht: Angabe: Typ (HSCI-Adresse, Seriennummer) %1 %2 Mögliche Ursache: - Option zur Konfiguration des Hardware-Ausbaus falsch gesetzt - Falsche Verkabelung am HSCI-Strang **Error correction** - Projektierung und die dabei wirksamen Optionen prüfen - Verkabelung des HSCI-Strangs prüfen Hierzu können Sie die Diagnose-Funktionen der Steuerung nutzen.
235-009D	**Error message** Device not configured in the HSCI chain **Cause of error** The following devices are not configured in the HSCI chain: Info: Type (HSCI address, serial number) %1 Possible causes: - Option for configuring the hardware expansion was set incorrectly - Extra device connected **Error correction** - Check configuration and the options in effect - Check cabling of the HSCI chain You can use the diagnostics functions of the control for this.
235-009E	**Error message** Non-configured device in the HSCI chain **Cause of error** At least one device in the HSCI chain is not configured. Due to ambiguities, the extra devices cannot be identified precisely. The possible devices are listed below: Configuration [Device type (name)]: %1 Hardware [Device type (HSCI address, serial number)]: %2 Possible causes: - Option for configuring the hardware expansion was set incorrectly - Extra device connected **Error correction** - Check configuration and the options in effect - Check cabling of the HSCI chain You can use the diagnostics functions of the control for this.

Error number	Description
235-009F	**Error message** Hardware setup does not match configuration **Cause of error** The hardware expansion in the HSCI chain does not match the configuration. The deviation is so large that the control cannot provided relevant information. Configuration [Device type (name)]: %1 Hardware [Device type (HSCI address, serial number)]: %2 Possible causes: - Incorrect IOCP file loaded - Option for configuring the hardware expansion was set incorrectly **Error correction** - Check the IOCP file - Check configuration and the options in effect - Check cabling of the HSCI chain You can use the diagnostics functions of the control for this.
235-00A0	**Error message** Fehlender Umrichter an HSCI-Gerät **Cause of error** An dem Gerät %4 mit der Seriennummer %5 an HSCI-Adresse %3 sind folgende Umrichter nicht vorhanden: Angabe: Typ (Port) %1 Mögliche Ursachen: - Option zur Konfiguration des Hardware-Ausbaus falsch gesetzt - Umrichter nicht angeschlossen **Error correction** - Projektierung und die dabei wirksamen Optionen prüfen - Modulausbau des Gerätes überprüfen Hierzu können Sie die Diagnose-Funktionen der Steuerung nutzen.

Error number	Description
235-00A1	**Error message** Falsches Modul in HSCI-Gerät **Cause of error** Auf dem Gerät %4 mit der Seriennummer %5 an HSCI-Adresse %3 entsprechen folgende Module nicht der Projektierung: Angabe: Typ (Steckplatz) Projektierung: %1 Hardware: %2 Mögliche Ursachen: - Option zur Konfiguration des Hardware-Ausbaus falsch gesetzt - Falsches Modul gesteckt **Error correction** - Projektierung und die dabei wirksamen Optionen prüfen - Gestecktes Modul überprüfen Hierzu können Sie die Diagnose-Funktionen der Steuerung nutzen.
235-00A2	**Error message** Falscher Umrichter an HSCI-Gerät **Cause of error** An dem Gerät %4 mit der Seriennummer %5 an HSCI-Adresse %3 entsprechen folgende Umrichter nicht der Projektierung: Projektierung [Typ (Port)]: %1 Hardware [Typ (Port, Seriennummer)]: %2 Mögliche Ursachen: - Option zur Konfiguration des Hardware-Ausbaus falsch gesetzt - Falscher Umrichter angeschlossen **Error correction** - Projektierung und die dabei wirksamen Optionen prüfen - Angeschlossenen Umrichter überprüfen Hierzu können Sie die Diagnose-Funktionen der Steuerung nutzen.

Error number	Description
235-00A3	**Error message** Modul im falschen Steckplatz **Cause of error** An dem Gerät %4 mit der Seriennummer %5 an HSCI-Adresse %3 befinden sich folgende Module im falschen Steckplatz: Angabe: Typ (Soll-Steckplatz<->Ist-Steckplatz) %1 Mögliche Ursachen: - Option zur Konfiguration des Hardware-Ausbaus falsch gesetzt - Module falsch gesteckt **Error correction** - Projektierung und die dabei wirksamen Optionen prüfen - Position des Moduls im Gerät überprüfen Hierzu können Sie die Diagnose-Funktionen der Steuerung nutzen.
235-00A4	**Error message** Umrichter am falschen Port **Cause of error** An dem Gerät %4 mit der Seriennummer %5 an HSCI-Adresse %3 befinden sich folgende Umrichter am falschen Port: Angabe: Typ (Soll-Port<->Ist-Port) %1 Mögliche Ursachen: - Option zur Konfiguration des Hardware-Ausbaus falsch gesetzt - Umrichter falsch angeschlossen **Error correction** - Projektierung und die dabei wirksamen Optionen prüfen - Anschluss des Umrichters überprüfen Hierzu können Sie die Diagnose-Funktionen der Steuerung nutzen.

Error number	Description
235-00A5	**Error message** Zwei Module vertauscht **Cause of error** Auf dem Gerät %4 mit der Seriennummer %5 an HSCI-Adresse %3 sind gegenüber der Projektierung zwei Module vertauscht: Angabe: Typ (Soll-Steckplatz<->Ist-Steckplatz) %1 %2 Mögliche Ursachen: - Option zur Konfiguration des Hardware-Ausbaus falsch gesetzt - Module falsch gesteckt **Error correction** - Projektierung und die dabei wirksamen Optionen prüfen - Position der Module überprüfen Hierzu können Sie die Diagnose-Funktionen der Steuerung nutzen.
235-00A6	**Error message** Zwei Umrichter vertauscht **Cause of error** An dem Gerät %4 mit der Seriennummer %5 an HSCI-Adresse %3 sind gegenüber der Projektierung zwei Umrichter vertauscht: Angabe: Typ (Soll-Port<->Ist-Port) %1 %2 Mögliche Ursachen: - Option zur Konfiguration des Hardware-Ausbaus falsch gesetzt - Umrichter falsch angeschlossen **Error correction** - Projektierung und die dabei wirksamen Optionen prüfen - Anschluss der Umrichter überprüfen Hierzu können Sie die Diagnose-Funktionen der Steuerung nutzen.

Error number	Description
235-00A7	**Error message** Überzähliges Modul in HSCI-Gerät **Cause of error** Auf dem Gerät %4 mit der Seriennummer %5 an HSCI-Adresse %3 befinden sich folgende nicht projektierte Module: Angabe: Typ (Steckplatz) %1 Mögliche Ursachen: - Option zur Konfiguration des Hardware-Ausbaus falsch gesetzt - Überzähliges Modul gesteckt **Error correction** - Projektierung und die dabei wirksamen Optionen prüfen - Modulausbau des Gerätes überprüfen Hierzu können Sie die Diagnose-Funktionen der Steuerung nutzen.
235-00A8	**Error message** Überzähliger Umrichter an HSCI-Gerät **Cause of error** An dem Gerät %4 mit der Seriennummer %5 an HSCI-Adresse %3 befinden sich folgende nicht projektierte Umrichter: Angabe: Typ (Port, Seriennummer) %1 Mögliche Ursachen: - Option zur Konfiguration des Hardware-Ausbaus falsch gesetzt - Überzähliger Umrichter angeschlossen **Error correction** - Projektierung und die dabei wirksamen Optionen prüfen - Angeschlossene Umrichter überprüfen Hierzu können Sie die Diagnose-Funktionen der Steuerung nutzen.

Error number	Description
235-00A9	**Error message** Module extension does not match configuration **Cause of error** On device %4 with the serial number %5 at HSCI address %3, the connected modules do not match the configuration. The deviation is so large that the control cannot provided relevant information. Info: Type (slot) Configuration: %1 Hardware: %2 Possible causes: - Option for configuring the hardware expansion was set incorrectly - Incorrect modules connected **Error correction** - Check configuration and the options in effect - Check the module structure You can use the diagnostics functions of the control for this.
235-00AA	**Error message** Connected inverters do not match configuration **Cause of error** On device %4 with the serial number %5 at HSCI address %3, the connected inverters do not match the configuration. The deviation is so large that the control cannot provided relevant information. Configuration [Type (port)]: %1 Hardware [Type (port, serial number)]: %2 Possible causes: - Option for configuring the hardware expansion was set incorrectly - Incorrect inverter connected **Error correction** - Check configuration and the options in effect - Check the connected inverters You can use the diagnostics functions of the control for this.

Error number	Description
235-00AC	**Error message** Module missing in HSCI device **Cause of error** On device %4 with the serial number %5 at HSCI address %3, at least one configured module is missing. Due to ambiguities, the missing modules cannot be identified precisely. The possible devices are listed below: Info: Type (slot) Configuration: %1 Hardware: %2 Possible causes: - Option for configuring the hardware expansion was set incorrectly - Module not connected - Module in wrong slot **Error correction** - Check configuration and the options in effect - Check the module structure of the device You can use the diagnostics functions of the control for this.
235-00AD	**Error message** Inverter not found at HSCI device **Cause of error** On device %4 with the serial number %5 at HSCI address %3, at least one configured inverter is missing. Due to ambiguities, the missing inverters cannot be identified precisely. The possible devices are listed below: Configuration [Type (port)]: %1 Hardware [Type (port, serial number)]: %2 Possible causes: - Option for configuring the hardware expansion was set incorrectly - Inverter not connected Inverter connected to wrong port **Error correction** - Check configuration and the options in effect - Check the module structure of the device You can use the diagnostics functions of the control for this.

Error number	Description
235-00AE	**Error message** Extra module in HSCI device **Cause of error** On device %4 with the serial number %5 at HSCI address %3, at least one non-configured module is connected. Due to ambiguities, the extra modules cannot be identified precisely. The possible devices are listed below: Info: Type (slot) Configuration: %1 Hardware: %2 Possible causes: - Option for configuring the hardware expansion was set incorrectly - Extra module connected - Module in wrong slot **Error correction** - Check configuration and the options in effect - Check the module structure of the device You can use the diagnostics functions of the control for this.
235-00AF	**Error message** Extra inverter at HSCI device **Cause of error** On device %4 with the serial number %5 at HSCI address %3, at least one non-configured inverter is connected. Due to ambiguities, the extra inverters cannot be identified precisely. The possible devices are listed below: Configuration [Type (port)]: %1 Hardware [Type (port, serial number)]: %2 Possible causes: - Option for configuring the hardware expansion was set incorrectly - Extra inverter connected Inverter connected to wrong port **Error correction** - Check configuration and the options in effect - Check the connected inverters You can use the diagnostics functions of the control for this.
235-00B0	**Error message** Projektierungsfehler: Ungültiger Sendetakt **Cause of error** Für ein PROFINET-Gerät wurde in IOconfig ein ungültiger Sendetakt konfiguriert. **Error correction** IOCP-Datei prüfen

Error number	Description
235-00B1	**Error message** Projektierungsfehler: Ungültiges Reduktionsverhältnis **Cause of error** Für ein PROFINET-Gerät wurde in IOconfig ein ungültiges Reduktionsverhältnis konfiguriert. **Error correction** IOCP-Datei prüfen
235-00B2	**Error message** Projektierungsfehler: Ungültiger Stationsname **Cause of error** Für ein PROFINET-Gerät wurde in IOconfig ein ungültiger Stationsname konfiguriert. **Error correction** IOCP-Datei prüfen
235-00B3	**Error message** Projektierungsfehler: Ungültige IP-Adresse **Cause of error** Für ein PROFINET-Gerät wurde in IOconfig eine ungültige IP-Adresse konfiguriert. **Error correction** IOCP-Datei prüfen
235-00B4	**Error message** Projektierungsfehler: Länge der Prozessdaten nicht unterstützt **Cause of error** In der IOCP-Datei wurde ein PROFINET-Gerät konfiguriert, für das der PROFINET-Controller die Länge der Prozessdaten nicht unterstützt. Der PROFINET-Controller unterstützt eine maximale Prozessdatenlänge von 1440 Bytes pro Datenrichtung. **Error correction** Länge der Prozessdaten anpassen oder das Gerät aus der Projektierung herausnehmen
235-00B5	**Error message** Projektierungsfehler: Stationsname mehrfach vergeben **Cause of error** In der IOCP-Datei wurde für mindestens 2 PROFINET-Geräte derselbe Stationsname vergeben. **Error correction** In IOconfig die Plausibilitätsprüfung starten und den Fehler beheben

Error number	Description
235-00B6	**Error message** Projektierungsfehler: IP-Adresse mehrfach vergeben **Cause of error** In der IOCP-Datei wurde für mindestens 2 PROFINET-Geräte dieselbe IP-Adresse vergeben. **Error correction** In IOconfig die Plausibilitätsprüfung durchführen und den Fehler beheben
235-00B7	**Error message** Mehrere Geräte mit dem selben Stationsnamen im PROFINET-Netzwerk **Cause of error** Im PROFINET-Netzwerk befinden sich mindestens zwei Geräte mit dem selben Stationsnamen. **Error correction** - PROFINET-Netzwerktopologie prüfen. - Ggf. in TNCdiag auf der Seite des PROFINET-Controllers den Inbetriebnahmemodus starten, um die betroffenen Geräte zu identifizieren
235-00B8	**Error message** Der DCP-Zugriff auf ein PROFINET-Gerät ist fehlgeschlagen **Cause of error** Das Konfigurieren eines PROFINET-Gerätes über das DCP-Protokoll ist fehlgeschlagen. **Error correction** - Konfiguration ggf. nochmals versuchen - Kundendienst des Geräteherstellers benachrichtigen
235-00B9	**Error message** Mehrere PROFINET-Geräte haben die selbe IP-Adresse **Cause of error** Im PROFINET-Netzwerk befinden sich mindestens zwei Geräte mit der selben IP-Adresse. **Error correction** - In TNCdiag auf der Seite des PROFINET-Masters den Inbetriebnahmemodus starten, um die betroffenen Geräte zu identifizieren - Korrekte IP-Adressen zuweisen

Error number	Description
235-00BA	**Error message** Treibersoftware nicht unterstützt **Cause of error** Die Treibersoftware wird von dieser Version der Steuerungssoftware nicht unterstützt. **Error correction** - In IOconfig die für diese Steuerungsversion passende Treibersoftware importieren
235-00BB	**Error message** PLCE-Partition nicht formatiert oder falsches Passwort **Cause of error** Mögliche Ursachen: - Die verschlüsselte PLCE-Partition wurde noch nicht formatiert. - Es wurde ein falsches Passwort für den Zugriff auf die PLCE-Partition eingegeben. **Error correction** - PLCE-Verschlüsselungspasswort korrekt eingeben oder - PLCE-Einrichtungsdialog starten - Verschlüsselungspasswort eingeben - PLCE-Partition formatieren
236-A001	**Error message** Command cannot be run **Cause of error** The ProfiNet software module cannot run a command. Possible causes: - The addressed ProfiNet end device is in a condition that prevents execution of the command. - The addressed ProfiNet end device does not exist or is not available. - The command code unknown **Error correction** Inform your service agency
236-A002	**Error message** Error during read-in of ProfiNet configuration data **Cause of error** The ProfiNet software module cannot read its configuration data. **Error correction** Check the configuration data and restart the control.

Error number	Description
236-A003	**Error message** Initialization of ProfiNet interface failed **Cause of error** An error occurred during device initialization of the ProfiNet interface. Possible causes: - The TNC cannot speak to the ProfiNet interface. - The firmware of the ProfiNet interface is not compatible with the control software. - The configuration data for the ProfiNet interface are incorrect. **Error correction** Inform your machine tool builder.
236-A004	**Error message** Change of operating mode in ProfiNet interface failed **Cause of error** The ProfiNet interface failed to switch between the asynchronous and cyclic operating modes. Possible cause: Internal error on the ProfiNet interface **Error correction** Inform your machine tool builder
236-A005	**Error message** ProfiNet: Assignment of drives incorrectly configured **Cause of error** Inconsistent assignment of the drives connected over ProfiNet with the axes managed by the TNC. The configuration data under System/ProfiNet/ParameterSets are incomplete. **Error correction** Check the configuration.
236-A006	**Error message** ProfiNet: Error during assignment of drives **Cause of error** The TNC cannot assign an axis to a drive connected over ProfiNet. Possible causes: - The configuration data under ProfiNet/ParameterSets are incorrect. - There is a fault in a drive. **Error correction** Remove the cause of error and acknowledge the error message

Error number	Description
236-A007	**Error message** Watchdog error on the ProfiNet interface **Cause of error** The ProfiNet interface does not react to signals from the MC. Possible cause: ProfiNet interface is defective **Error correction** Inform your machine tool builder
236-A101	**Error message** No contact to ProfiNet end device %1 **Cause of error** The ProfiNet end device does not respond. Possible causes: - Error in project setup - Inconsistent configuration of the ProfiNet end device name - Interrupted connection between TNC and ProfiNet end device - There is a fault in the ProfiNet end device. **Error correction** Check the ProfiNet topology and project setup. Acknowledge the error.
236-A102	**Error message** Error during access to ProfiNet end device %1 **Cause of error** The TNC cannot initialize the ProfiNet end device. **Error correction** Acknowledge the error
236-A103	**Error message** Contact lost to ProfiNet end device %1 **Cause of error** Interrupted communication between TNC and a ProfiNet end device. Possible causes: - The end device was separated from the control. - There is a fault in the end device. **Error correction** Check the ProfiNet end device. Acknowledge the error

Error number	Description
236-A104	**Error message** Error during access to ProfiNet end device %1 **Cause of error** An error occurred during initialization of the ProfiNet end device. The TNC cannot find any configuration data for a slot on the end device, or the data are erroneous. **Error correction** Check the configuration data under System/ProfiNet/Slots. Acknowledge the error
236-A121	**Error message** Error during access to ProfiNet end device %1 **Cause of error** An error occurred during initialization of the ProfiNet end device. The TNC cannot access the configuration data of the ProfiNet end device. **Error correction** Check the configuration and acknowledge the error
236-A122	**Error message** Error during access to ProfiNet end device %1 **Cause of error** An error occurred during initialization of the ProfiNet end device. The ProfiNet end device does not support the TNC-compatible version of the ProfiDrive profile. **Error correction** Check the configuration and acknowledge the error
236-A123	**Error message** Error during access to ProfiNet end device %1 **Cause of error** An error occurred during initialization of the ProfiNet end device. There are more drive objects logged in on the ProfiNet end device for cyclic data exchange with the TNC as on the ProfiNet interface. **Error correction** Check the ProfiNet project setup and acknowledge the error

Error number	Description
236-A201	**Error message** ProfiNet: Error while initializing the drive %1 **Cause of error** The TNC cannot initialize the drive. There are no correct configuration data for this drive. **Error correction** Check Configuration data and system/ProfiNet/Slots as well as the telegram project data. Acknowledge the error
236-A202	**Error message** ProfiNet: Error while initializing the drive %1 **Cause of error** The TNC cannot initialize the drive. Possible causes: - The TNC cannot access the configuration data of the drive. - The type of drive is not supported by the TNC or is configured incorrectly on the TNC. - The TNC and drive have different telegram types configured for cyclic data exchange. - The TNC cannot access the buffer memory for fault messages. - The TNC cannot access the buffer memory for warnings. **Error correction** Check the project setup data and acknowledge the error
236-A203	**Error message** ProfiNet: Drive %1 does not react **Cause of error** The drive does not react to the control signals of the TNC. There is a fault in the drive. **Error correction** Eliminate the cause and acknowledge the error
236-A204	**Error message** ProfiNet: Drive %1 does not react **Cause of error** The drive does not react. Possible causes: - The connection between the TNC and drive was interrupted. - There is a fault in the drive. **Error correction** Eliminate the cause and acknowledge the error

Error number	Description
236-A211	**Error message** ProfiNet: Drive %1 reports a fault **Cause of error** The drive reports a fault. Watch further messages for more detailed information on the type of fault. **Error correction** Eliminate the cause and acknowledge the error
236-A212	**Error message** ProfiNet: Drive %1 reports error code %2 **Cause of error** The drive reports a fault. **Error correction** Remove the cause of error and acknowledge the message.
236-A213	**Error message** ProfiNet: Drive %1 reports warning code %2 **Cause of error** The drive is sending a warning. **Error correction** Remove the cause and acknowledge the message.
236-A221	**Error message** ProfiNet: Drive %1 cannot be switched on **Cause of error** The TNC cannot switch on the drive. Possible cause: There is a fault in the drive. **Error correction** Eliminate the cause, acknowledge the error, and switch on again.
236-A222	**Error message** Error during parameter set switchover to drive %1 **Cause of error** An error occurred during a parameter set switchover on the drive. Possible cause: There is a fault in the drive. **Error correction** Eliminate the cause, acknowledge the error, and switch on again.

Error number	Description
236-A301	**Error message** Error when homing the axis %2 **Cause of error** The TNC cannot home the axis. Possible cause: There is a fault in the drive. **Error correction** Eliminate the cause and acknowledge the error.
236-A302	**Error message** Probe failed: Axis %2 **Cause of error** An error occurred during the probing process. Possible cause: There is a fault in the drive. **Error correction** Eliminate the cause and acknowledge the error.
236-A401	**Error message** Faulty motor encoder (drive/encoder: %1) **Cause of error** The drive encoder reports an error. The error code is provided in the additional information. **Error correction** Eliminate the cause and acknowledge the error.
236-A402	**Error message** Motor encoder (drive/encoder: %1) does not react **Cause of error** The encoder does not react to the control signals of the TNC. Possible causes: - The connection between the TNC and drive was interrupted. - There is a fault in the drive controller. **Error correction** Eliminate the cause and acknowledge the error.
236-A403	**Error message** Data transfer over PROFINET was interrupted **Cause of error** The PROFINET controller did not complete the process data transfer in time. **Error correction** Inform your service agency.

Error number	Description
237-10001	**Error message** 10001 CC%2 Alarm for software test **Cause of error** - In the automatic software test an alarm was released **Error correction** - Inform your service agency
237-10003	**Error message** 10003 CC%2 System error in error memory management %4 %5 **Cause of error** - Control was not properly shut down - Hardware problem **Error correction** - Shut down the control, the switch it off and on. - Inform your service agency
237-10004	**Error message** 10004 CC%2 Active drive during switch-off process **Cause of error** - A drive was still in the feedback loop during the switch-off process - A drive was switched on during the switch-off process **Error correction** - Check the PLC program - Inform your service agency
237-10005	**Error message** 10005 Drive switch-off error code: %4 **Cause of error** - Switch-off due to an external emergency stop signal - Error code: 1 = Signal -ES.A (emergency stop input on PL, MB) 2 = Signal -ES.A.HW (emergency stop input of the handwheel) 3 = Signal -ES.B (emergency stop input on PL, MB) 4 = Signal -ES.B.HW (emergency stop input of the handwheel) Further error codes: internal code **Error correction** - Check additional information from alarm message 0x10005. - Check the position of the emergency stop switch. - Inform your service agency.

Error number	Description
237-10006	**Error message** 10006 CC%2 SPLC-RTS status change=%4, new=%5 **Cause of error** **Error correction**
237-10007	**Error message** 10007 CC%2 Follow condition for AxGrp=%4, CC=%5, MC=%6, Cause=%7 **Cause of error** - **Error correction** -
237-10008	**Error message** 10008 Error in data format of ASCII command, alarm code %4 **Cause of error** - The CC controller has detected a syntax error in a transmitted ASCII command. - The faulty command was either sent by the commissioning tool TNCopt, or - the syntax of the compensation file in machine parameter compTorqueRipple is faulty. The results of adjustments through TNCopt are saved in the compensation file. **Error correction** - If TNCopt was used, repeat the affected measurement with TNCopt. - Deactivate syntax monitoring for ASCII commands with MiscCtrlFunctions bit 7 = 1. - Deactivate the compensation file in the parameter compTorqueRipple. - Inform your service agency.
237-10009	**Error message** 10009 CC%2 Follow condition for genSafe Id=%4, timer=%5, %6, %7 **Cause of error** **Error correction**
237-1000A	**Error message** 1000A CC%2 SS2 Request of IO device DeviceVariant=%4, count=%5 **Cause of error** **Error correction**

Error number	Description
237-1000B	**Error message** 1000B CC%2 Force the S status bit - bit=%4, mode=%5 **Cause of error** **Error correction**
237-1000C	**Error message** 1000C CC%2 axis group: stop=%4 cause=%5 axis group=%6 condition=%7 **Cause of error** **Error correction**
237-1000E	**Error message** 1000E CC%2 file access action=%4, %5, %6 **Cause of error** Error when accessing file Additional info 0: Action 2: Open 4: Write 5: Read 6: Delete 7: Rename 8: Directory 103: Close 250: ASYNC interface was not enabled 251: Waiting for ASYNC acknowledge from MC 252: The MC hasn't sent any hcFILE_IO (acknowledge) 253: The MC hasn't sent any ASYNC telegram 300: Not allowed during an interrupt 301: File header is corrupt Additional info 1, 2: MC error message **Error correction** - Inform your service agency
237-1000F	**Error message** 1000F Alarm not cleared; repeated alarm output

Error number	Description
237-10010	**Error message** 10010 CC%2 ACC parameter ID=%4 Info1=%5 **Cause of error** There is an error in the ACC parameter file: - This file was created with a wrong version of TNCopt - The file contains invalid parameter data **Error correction** - Use TNCopt to generate a new ACC parameter file - Check the software version. ID=1 Option missing ID=2 Invalid axis entry ID=10 Use is possible only on hardware with limited number of axes ID=300 Missing acceleration feedforward control (MP2600) ID=301 Motor's mass moment of inertia is missing from the motor table ID=302 Constant for torque calculation is missing from the motor table - Inform your service agency
237-10010	**Error message** 10010 CC%2 ACC parameter ID=%4 Info1=%5 **Cause of error** There is an error in the ACC parameter file: - This file was created with a wrong version of TNCopt - The file contains invalid parameter data **Error correction** - Use TNCopt to generate a new ACC parameter file - Check the software version. ID=1 Option missing ID=2 Invalid axis entry ID=10 Use is possible only on hardware with limited number of axes ID=300 Missing acceleration feedforward control (MP2600) ID=301 Motor's mass moment of inertia is missing from the motor table ID=302 Constant for torque calculation is missing from the motor table - Inform your service agency

Error number	Description
237-10011	**Error message** 10011 Syntax in %4 in line %5 in column %6 **Cause of error** - Syntax error in displayed file. - Function is not supported in the displayed file with this software version **Error correction** - Check the syntax in the displayed file - Use TNCopt to regenerate the displayed file - Use appropriate machine parameters to deactivate the function - Inform your service agency
237-10013	**Error message** 10013 NOD input in %4 in line %5 is incorrect **Cause of error** - Syntax error in displayed file. - Function is not supported in the displayed file with this software version **Error correction** - The maximum number of nodes was exceeded. - Reduce the number of nodes (NOD) - Use TNCopt to regenerate the displayed file - Use appropriate machine parameters to deactivate the function - Inform your service agency
237-10014	**Error message** 10014 Invalid axis in %4 in line %5 (SAX) **Cause of error** - Syntax error in displayed file. - Axis coupling not permissible or not possible **Error correction** - Axis coupling (SAX) is not possible because the axis is on another board - Axis coupling (SAX) is not possible because the axis is deselected - Use appropriate machine parameters to deactivate the function - Use TNCopt to regenerate the displayed file - Inform your service agency

Error number	Description
237-10015	**Error message** 10015 Compensation point errors in %4 in line %5 **Cause of error** - Syntax error in the displayed file - Compensation point (NODE) not defined **Error correction** - Too many compensation points (NODx) in defined in the displayed file - Use TNCopt to regenerate the displayed file - Use appropriate machine parameters to deactivate the function - Inform your service agency
237-10016	**Error message** 10016 Max. number of blocks in %4 exceeded **Cause of error** - Syntax error in the displayed file - Maximum number of interpolation blocks has been exceeded **Error correction** - Maximum number of interpolation blocks has been exceeded - Reduce the number of interpolation blocks - Use TNCopt to regenerate the displayed file - Inform your service agency
237-10017	**Error message** 10017 Controller unit performance too low **Cause of error** - The computing performance of the controller unit is not enough for the selected function - Too many axes were configured for the controller unit **Error correction** - Deactivation of the expanded compensations - Check the power of the controller unit used - Inform your service agency
237-10018	**Error message** 10018 Compensation point errors in %4 **Cause of error** - Syntax error in the displayed file - Compensation points are incorrectly defined **Error correction** - Faulty compensation points (NODx) in the displayed file - Compensation points (NODx) have to be in ascending order - Use TNCopt to regenerate the displayed file - Inform your service agency

Error number	Description
237-10019	**Error message** 10019 Error in %4 in line %5 **Cause of error** - Syntax error in the displayed file - Faulty signal (SIGx) in the displayed line **Error correction** - The signal (SIGx) is not possible because the index is unknown - Use appropriate machine parameters to deactivate the function - Use TNCopt to regenerate the displayed file - Inform your service agency
237-1001A	**Error message** 1001A File %4 does not exist **Cause of error** Displayed file could not be opened **Error correction** - Use TNCopt to regenerate the displayed file - Edit machine parameters to deactivate the relevant function - Inform your service agency
237-1001B	**Error message** 1001B CC (log): faulty memory area **Cause of error** **Error correction**
237-1001C	**Error message** 1001C %4 **Cause of error** No help text available **Error correction**
237-1001D	**Error message** 1001D %4 **Cause of error** No help text available **Error correction**
237-1001E	**Error message** 1001E %4 **Cause of error** No help text available **Error correction**

Error number	Description
237-1001F	**Error message** 1001F Condensation water on supply module **Cause of error** - Temperature in electrical cabinet is too low Condensation water on supply module **Error correction** - Check the electrical cabinet temperature - Inform your service agency
237-10020	**Error message** 10020 Controller unit defective: CC%2 **Cause of error** - The given CC controller unit is defective and must be exchanged. **Error correction** - Exchange the CC controller unit - Inform your service agency
237-10021	**Error message** 10021 CC%2 file access action=%4, %5, %6 **Cause of error** Warning about file access Additional data 2: Opening of file not executed Additional data 1,2: MC error message Additional data[2] = 11: EAGAIN **Error correction**
237-10022	**Error message** 10022 CC %2 axis %1: Measurement was not finished correctly. **Cause of error** - This is an internal software error **Error correction** - Inform your service agency

Error number	Description
237-10023	**Error message** 10023 CC%2: X%6 FO sign. strgth below warng threshld %1 (value = -%4dB) **Cause of error** - The signal strength of the FO connection (fiber optic cable to the UM converter) has fallen below a defined warning threshold **Error correction** - Check the optical fiber connections: - Is the green LED on? - Is the optical fiber plug fully engaged? - Is the tip of the optical fiber clean? - Ensure the proper bend radius - Exchange the optical fiber
237-10024	**Error message** 10024 CC%2: X%6 FO signal weaker than minimum value %1 (Wert = -%4dB) **Cause of error** - The signal strength of the fiber optic connection (fiber optic cable to the UM converter) has fallen below a permissible minimum value **Error correction** - Check the fiber optic connection: - Is the green LED on? - Is the optical fiber plug fully engaged? - Is the tip of the optical fiber clean? - Ensure the proper bend radius - Exchange the optical fiber
237-10025	**Error message** 10025 CC FSuC reports error %1 **Cause of error** The FSuC (Functional Safety Microcontroller) on the CC reports an error. For further information, note the following alarm messages (239-xxxx)! **Error correction**

Error number	Description
237-10026	**Error message** 10026 CC%2: UEC dc-link current too high (I-nom: %4, I-act: %5) **Cause of error** - Excessive DC-link current of the UEC - Machine is overloaded while machining the workpiece **Error correction** - Continue working, but with less power (reduce the feed rate, replace a blunt tool, etc.) - Reduce the power being consumed simultaneously by all drives - Reduce or limit the spindle power - Reduce the spindle acceleration - Ensure that the spindle and axes accelerate at different times - Reduce the cutting depths
237-10027	**Error message** 10027 CC%2: UEC dc-link voltage too high (U-min: %4, U-act: %5) **Cause of error** - DC-link voltage of the UEC is too high **Error correction** - Check the braking resistor of the UEC and exchange it if necessary - Check the wiring of the braking resistor - Check the line fuses - For operation with an optional RM regenerative module: - Check the regenerative module and exchange it if necessary - Check the wiring of the regenerative module (power grid side and DC link) - Replace the UEC if necessary
237-10028	**Error message** 10028 CC%2: UEC dc-link voltage too low (U-min: %4, U-act: %5) **Cause of error** - DC-link voltage of the UEC is too low **Error correction** - Check the wiring of the UEC - Check the 3-phase voltage supply of the UEC - Check the line fuses - Monitor for sporadic power failures

Error number	Description
237-10029	**Error message** 10029 CC%2: UEC dc-link voltage too high with RM (U-max: %4, U-act: %5) **Cause of error** The DC-link voltage is too high despite the use of an RM regenerative module. **Error correction** - For operation with an optional RM regenerative module: - Check the regenerative module and exchange it if necessary - Check the wiring of the regenerative module (power grid side and DC link) - Check the line fuse - For operation without an RM regenerative module: - Deactivate the machine parameter uecRecoveryModule
237-1002A	**Error message** 1002A CC%2: too many UM units connected to one CC **Cause of error** - Too many UM inverters are connected to the stated CC controller unit. - For each CC, the maximum number of UM inverters (or motor connections) is limited to the number of axes possible on the CC. **Error correction** - Distribute the UM inverters over other CC controller units or adapt the configuration - Remove UM inverters that aren't being used (or use one-axis modules instead of two-axis modules) - Inform your service agency
237-1002B	**Error message** 1002B CC%2: inconsistent hardware configuration **Cause of error** Correct operation of the CC controller unit is not possible. A fundamental step during hardware identification of the CC revealed an inconsistent/damaged configuration. There are two ways for such a possibility to arise: 1. Problems in the voltage supply to the CC, such as electrical contact problems, electromagnetic interference, or phenomena in the power-up sequence of the power source. 2. A hardware defect within the CC, possibly caused by problems in the voltage supply **Error correction** - Check the voltage supply, especially ribbon cables of the CC and the redundant 5V supply over X74 - Check for bent pins in the X69 box headers - Exchange the affected CC - Inform your service agency

Error number	Description
237-1002C	**Error message** 1002C CC%2: missing HFL LP transmission **Cause of error** Possible causes: Electromagnetic noise or faulty electrical contacts: - of the 24V supply voltage - of the DC-link voltage - in the motor cabling - in the brake cabling - Contamination or poor optical coupling of the HFL **Error correction** - No immediate corrective action is necessary, since no error situation has occurred yet - Recommended preventive measures: - Check the machine for correct shield connection and grounding - Check the power cables for correct clamping - Check the HFL for correct routing and clamping, and also for contamination
237-1002D	**Error message** 1002D CC%2 %1: notable HFL transmission; error code: %4 **Cause of error** Possible causes: Electromagnetic noise or faulty electrical contacts: - of the 24V supply voltage - of the DC-link voltage - in the motor cabling - in the brake cabling - Contamination or poor optical coupling of the HFL **Error correction** - No immediate corrective action is necessary, since no error situation has occurred yet - Recommended preventive measures: - Check the machine for correct shield connection and grounding - Check the power cables for correct clamping - Check the HFL for correct routing and clamping, and also for contamination

Error number	Description
237-1002E	**Error message** 1002E CC%2 %1: notable HFL transmission (ext.); error code: %4 **Cause of error** Possible causes: Electromagnetic noise or faulty electrical contacts: - of the 24V supply voltage - of the DC-link voltage - in the motor cabling - in the brake cabling - Contamination or poor optical coupling of the HFL **Error correction** - No immediate corrective action is necessary, since no error situation has occurred yet - Recommended preventive measures: - Check the machine for correct shield connection and grounding - Check the power cables for correct clamping - Check the HFL for correct routing and clamping, and also for contamination
237-1002F	**Error message** 1002F CC%2 %1: faulty HFL transmission; error code: %4 **Cause of error** Possible causes: Electromagnetic noise or faulty electrical contacts: - of the 24V supply voltage - of the DC-link voltage - in the motor cabling - in the brake cabling - Contamination or poor optical coupling of the HFL **Error correction** - Check the machine for correct shield connection and grounding - Check the power cables for correct clamping - Check the HFL for correct routing and clamping, and also for contamination - Exchange the UM3 - Exchange the CC3 - Inform your service agency

Error number	Description
237-10030	**Error message** 10030 CC%2 %1: faulty HFL transmission (ext.); error code: %4 **Cause of error** Possible causes: Electromagnetic noise or faulty electrical contacts: - of the 24V supply voltage - of the DC-link voltage - in the motor cabling - in the brake cabling - Contamination or poor optical coupling of the HFL **Error correction** - Check the machine for correct shield connection and grounding - Check the power cables for correct clamping - Check the HFL for correct routing and clamping, and also for contamination - Exchange the UM3 - Exchange the CC3 - Inform your service agency
237-10031	**Error message** 10031 CC%2 interface violation MC command %4 **Cause of error** Internal system error: the interface description was not adhered to in the command given. **Error correction** - Perform a software update if possible - Inform your service agency
237-10032	**Error message** 10032 CC%2: supply module readiness missing %1 **Cause of error** Supply module readiness was rescinded even though drives were still being controlled. Possible causes: - The Power Save mode of the UVR was activated (PLC Module 9047) even though drives were still being controlled. - The supply module is in a faulty state **Error correction** - Inform your service agency - Check the PLC program (do not switch the UVR to Power Save mode while drives are still being controlled) - Check the supply module for faults

Error number	Description
237-13000	**Error message** 13000 CC%2: inverter reports error %1 **Cause of error** UM inverter or compact inverter reports errors. For further information, note the following alarm messages (13xxx)! **Error correction**
237-13003	**Error message** 13003 UM: IGBT error %1 (maximum current: %4A, phase %5) **Cause of error** - Undervoltage monitor or short-circuit monitor of an IGBT has responded in the UM inverter or UEC compact inverter. **Error correction** - Check the current controller adjustment - Check for proper motor connection and short circuit - Check the motor for an interwinding fault - Inform your service agency - Exchange the power module
237-13004	**Error message** 13004 UM: HW overcurrent shutdown %1 (maximum current: %4A, phase %5) **Cause of error** The fast hardware overcurrent monitoring in the UM inverter or UEC compact inverter has responded - Possible causes: - Current controller parameterized incorrectly - Short-circuit - Excessive leakage current due to ground fault - Defective power module - Excessive current ripple, for example due to an unfavorable combination of motor, inverter, and PWM frequency **Error correction** - Check the current controller adjustment - Check the motor connection for a short circuit - Check the motor for an interwinding fault - Check the system for a ground fault - If necessary, use a stronger inverter - Increase the PWM frequency - If necessary, replace defective power module - Inform your service agency

Error number	Description
237-13005	**Error message** 13005 UM: PWM nominal value faulty %1 **Cause of error** - The controller unit supplies no PWM nominal value or an invalid one for the motor, or provides the nominal value too late - Controller configuration (machine parameters) faulty - Internal software error **Error correction** - Check the controller configuration or machine parameters for PWM frequency, encoder inputs/outputs and nominal value outputs - Check the software version - Check the machine for correct shield connections and grounding - Check the motor and power cables for correct shield connections and terminal connections - Inform your service agency
237-13006	**Error message** 13006 UM: Communication error in FO connection CC%2 %1 (info = %4) **Cause of error** - UM inverter or UEC compact inverter reports errors in communication via an optical fiber (HFL, HEIDENHAIN Fiber Link) with the controller unit - Info provides information about the exact cause of the error for the diagnosis **Error correction** - Check the optical fiber connections (HFL): - Is the green LED on? - Is the optical fiber plug fully engaged? - Is the tip of the optical fiber clean? - Ensure the proper bend radius - Exchange the optical fiber - Check the machine for correct shield connections and grounding - Check the motor and power cables for correct shield connections and terminal connections
237-13008	**Error message** 13008 UM: Voltage monitor B CC%2 %1 (voltage ID: %4) **Cause of error** - Voltage monitoring on the inverter has responded **Error correction** - Check the voltage supply - Inform your service agency - Exchange the power module

Error number	Description
237-13009	**Error message** 13009 UM: DRIVE OFF signal is active %1 **Cause of error** - Power supply unit (UVR or UEC) reports a fault **Error correction** - Check the power supply unit - Inform your service agency
237-1300A	**Error message** 1300A UM: Heatsink temp. greater than warning thrshld. %1 (value: %4°C) **Cause of error** - Heat sink temperature has exceeded a defined warning threshold **Error correction** - Let the UM inverter or UEC compact inverter cool off - Check the fan for function and contamination
237-1300A	**Error message** 1300A UM: overload / heat sink (warning) %1 (%4°C) **Cause of error** An excessive temperature of the power electronics or the heat sink was detected in the UM inverter or the UEC compact inverter. Possible causes: - Excessive cutting power - Excessive feed rate - Excessive continuous load - Axis moved against an obstacle or limit stop - Holding brake of axis applied during machining - Excessive temperature in the electrical cabinet (cooling failed) - Excessive axis or spindle acceleration - Fan of the UM inverter or UEC compact inverter defective **Error correction** - Inform your service agency - Reduce the cutting power - Reduce the feed rate - Reduce the continuous load - Reduce the axis or spindle acceleration (MP_maxAcceleration under CfgFeedLimits) - Check the holding brake of the axis (function/wiring) - Check the climate control unit in the electrical cabinet - Check the fan of the UM inverter or UEC compact inverter and replace it if necessary

Error number	Description
237-1300B	**Error message** 1300B UM: Heatsink temp. greater than max. value %1 (value: %4°C) **Cause of error** - Heat sink temperature has exceeded the maximum permissible value **Error correction** - Let the UM inverter or UEC compact inverter cool off - Check the fan for function and contamination
237-1300B	**Error message** 1300B UM: overload / heat sink %1 (%4°C) **Cause of error** An excessive temperature of the power electronics or the heat sink was detected in the UM inverter or the UEC compact inverter. Possible causes: - Excessive cutting power - Excessive feed rate - Excessive continuous load - Axis moved against an obstacle or limit stop - Holding brake of axis applied during machining - Excessive temperature in the electrical cabinet (cooling failed) - Excessive axis or spindle acceleration - Fan of the UM inverter or UEC compact inverter defective **Error correction** - Inform your service agency - Reduce the cutting power - Reduce the feed rate - Reduce the continuous load - Reduce the axis or spindle acceleration (MP_maxAcceleration under CfgFeedLimits) - Check the holding brake of the axis (function/wiring) - Check the climate control unit in the electrical cabinet - Check the fan of the UM inverter or UEC compact inverter and replace it if necessary
237-1300E	**Error message** 1300E UM: SW overcurrent monitoring %1 (actual value: %4Aeff) **Cause of error** - Software overcurrent monitoring in the UM inverter or UEC compact inverter has responded **Error correction** Check the current controller adjustment. - Check the motor connection for a short circuit - Check the motor for an interwinding fault - Inform your service agency - Exchange the power module

Error number	Description
237-1300F	**Error message** 1300F UM power-up test: HIK faulty CC%2 %1 %10 **Cause of error** - An error in the hardware identification key (HIK) was detected in the switch-on test of the UM converter or UEC compact inverter **Error correction** - Inform your service agency - Exchange the power module
237-1300F	**Error message** 1300F UM power-up test: internal component faulty CC%2 %1 %10 **Cause of error** - An inadmissible internal component identifier (FPGA ID) was detected or the component could not be accessed during the switch-on test of the UM or UEC compact inverter **Error correction** - Inform your service agency - Check the software version
237-1300F	**Error message** 1300F UM power-up test: analog interface faulty CC%2 %1 %10 **Cause of error** - During the switch-on test of the UM or UEC compact inverter, it was determined that an analog interface in the inverter is not functioning properly **Error correction** - Restart the control - Inform your service agency
237-1300F	**Error message** 1300F UM power-up test: temp. measurement not possible CC%2 %1 %10 **Cause of error** - It was not possible to read the values of the heat sink temperature sensor in the switch-on test of the UM or UEC compact inverter - Sensor or associated interface (I2C) defective **Error correction** - Inform your service agency

Error number	Description
237-1300F	**Error message** 1300F UM power-up test: memory component (FRAM) defective CC%2 %1 %10 **Cause of error** - The FRAM could not be identified in the switch-on test of the UM converter or UEC compact inverter **Error correction** - Restart the control - Inform your service agency
237-1300F	**Error message** 1300F UM power-up test: serial interface (SPI) faulty CC%2 %1 %10 **Cause of error** - During the switch-on test of the UM or UEC compact inverter, it was determined that the serial interface (SPI) to the FSuC in the inverter is not functioning properly **Error correction** - Restart the control - Inform your service agency
237-1300F	**Error message** 1300F UM power-up test: meas. of current faulty CC%2 %1 %10 (info = %5) **Cause of error** - During the switch-on test of the UM or UEC compact inverter, it was determined that the measurement of current in the inverter is faulty - When the drive has been switched off, the permissible maximum offset current has been exceeded in one or more phases: (info is displayed decimally but is to be interpreted as binary) - Bit 0: Phase U - Bit 1: Phase V - Bit 2: Phase W **Error correction** - Inform your service agency

Error number	Description
237-1300F	**Error message** 1300F UM power-up test: temp. value faulty CC%2 %1 %10 (value=%5°C) **Cause of error** - In the switch-on test of the UM converter or UEC compact inverter, a heat sink temperature outside the permitted range was read out - Heat sink too hot - Sensor or associated interface defective **Error correction** - Let the device cool off - Inform your service agency
237-1300F	**Error message** 1300F UM power-up test: fan defective CC%2 %1 %10 **Cause of error** During the switch-on test of the UM inverter or UEC compact inverter, it was determined that the fan for cooling of the electronics in the inverter is not functioning properly. **Error correction** - Check the fan - Exchange the inverter - Inform your service agency
237-1300F	**Error message** 1300F UM power-up test: internal lead defective CC%2 %1 %10 **Cause of error** During the switch-on test of the UM inverter or the UEC compact inverter, it was determined that an internal lead to the FSuC (Functional Safety Microcontroller) is defective. **Error correction** - Exchange the inverter - Inform your service agency
237-13012	**Error message** 13012 UM: WD monitoring has responded %1 (received:%4, expected:%5) **Cause of error** - UM inverter or UEC compact inverter reports that watchdog on controller unit is no longer being updated **Error correction** - Restart the control - Check the machine for correct shield connections and grounding - Check the motor and power cables for correct shield connections and terminal connections - Inform your service agency

Error number	Description
237-13014	**Error message** 13014 UM: Optical waveguide connection faulty %1 **Cause of error** - UM inverter or UEC compact inverter reports faults in the FO connection (fiber optic connection between controller unit and inverter) **Error correction** - Check the optical fiber connection: - Is the green LED on? - Is the optical fiber plug fully engaged? - Is the tip of the optical fiber clean? - Ensure the proper bend radius - Exchange the optical fiber
237-13015	**Error message** 13015 UM: Erroneous heatsink temperature value %1 **Cause of error** - The UM inverter or UEC compact inverter reports errors when accessing the I2C bus for reading the heat sink temperature sensor - No temperature sensor is connected or the connection is faulty - Temperature sensor is defective - I2C controller is defective **Error correction** - Restart the control - Inform your service agency
237-13016	**Error message** 13016 UM: Invalid UM debug channel %4 %1 **Cause of error** - Invalid UM debug signal selected in the oscilloscope **Error correction** - Select another signal
237-13017	**Error message** 13017 UM: Erroneous heatsink temperature value %1 **Cause of error** - The UM inverter or UEC compact inverter reports errors when accessing the I2C bus for reading the heat sink temperature sensor - No temperature sensor is connected or the connection is faulty - Temperature sensor is defective - Improper function of I2C controller **Error correction** - Restart the control - Inform your service agency

Error number	Description
237-1301A	**Error message** 1301A UM: FO signal weaker than warng threshld CC%2 %1 (value=-%4dB) **Cause of error** - The signal strength of the FO connection (fiber optic cable to the UM converter) has fallen below a defined warning threshold **Error correction** - Check the optical fiber connections: - Is the green LED on? - Is the optical fiber plug fully engaged? - Is the tip of the optical fiber clean? - Ensure the proper bend radius - Exchange the optical fiber
237-1301B	**Error message** 1301B UM: FO signal weaker than minimum value CC%2 %1 (value=-%4dB) **Cause of error** - The signal strength of the fiber optic connection (fiber optic cable to the UM converter) has fallen below a permissible minimum value **Error correction** - Check the fiber optic connection: - Is the green LED on? - Is the optical fiber plug fully engaged? - Is the tip of the optical fiber clean? - Ensure the proper bend radius - Exchange the optical fiber

Error number	Description
237-1301C	**Error message** 1301C UM: communication fault CC%2 %1, error code=%4 **Cause of error** The HFL communication component of the inverter reports an error Possible causes: - Electromagnetic disturbances - Hardware defective - Optical fibers (HFL) not connected correctly - Insufficient bend radius of the optical fibers (HFL) **Error correction** - Create a service file (error code gives information about the exact cause of the error for the diagnosis at HEIDENHAIN) - Inform your service agency - If required, exchange the hardware - Use TNCdiag to check the damping of the fiber-optic connections (HFL). If the damping is too high: - Check the optical fiber connections - Comply with the guidelines in the Technical Manual regarding the cable routing - Check the machine for correct shield connections and grounding - Check the motor and power cables for correct shield connections and terminal connections
237-1301D	**Error message** 1301D UM: logical disturbance of data reception CC%2 %1, error code=%4 **Cause of error** The communication component for the optical fiber connection (HFL) to the inverters reports an error Possible causes: - Hardware defective - Electromagnetic disturbances - Optical fibers (HFL) not connected correctly - Insufficient bend radius of the optical fibers (HFL) **Error correction** - Create a service file (error code gives information about the exact cause of the error for the diagnosis at HEIDENHAIN) - Inform your service agency - If required, exchange the hardware - Use TNCdiag to check the damping of the fiber-optic connections (HFL). If the damping is too high: - Check the optical fiber connections - Comply with the guidelines in the Technical Manual regarding the cable routing - Check the machine for correct shield connections and grounding - Check the motor and power cables for correct shield connections and terminal connections

Error number	Description
237-1301E	**Error message** 1301E UM: physical disturbance of data reception CC%2 %1, error code=%4 **Cause of error** The communication component for the optical fiber connection (HFL) to the inverters reports an error Possible causes: - Hardware defective - Electromagnetic disturbances - Optical fibers (HFL) not connected correctly - Insufficient bend radius of the optical fibers **Error correction** - Create a service file (error code gives information about the exact cause of the error for the diagnosis at HEIDENHAIN) - Inform your service agency - If required, exchange the hardware - Use TNCdiag to check the damping of the fiber-optic connections (HFL). If the damping is too high: - Check the optical fiber connections - Comply with the guidelines in the Technical Manual regarding the cable routing - Check the machine for correct shield connections and grounding - Check the motor and power cables for correct shield connections and terminal connections
237-1301F	**Error message** 1301F UM: Inverter not ready %1 (info = %4) **Cause of error** - Since a UM converter or UEC compact inverter is not ready, it is not possible to switch on the drive - Reason for lack of inverter readiness: (information is shown decimally. Please interpret as binary) - Bit 0: "STO.A.P.x" - Bit 1: "STO.B.H.P.x" - Bit 2: "STO.B.L.P.x" - Bit 3: Signal for PWM release not set - Bit 4: Error in switch-on test - Bit 5: Drive motor is not (fully) configured **Error correction** - Inform your service agency - Exchange the power module if necessary

Error number	Description
237-13020	**Error message** 13020 UM: Readiness was lost %1 (info = %4) **Cause of error** - UM inverter or UEC compact inverter was switched off during operation - Reason for lack of inverter readiness: (information is shown decimally. Please interpret as binary) - Bit 0: "STO.A.P.x" - Bit 1: "STO.B.H.P.x" - Bit 2: "STO.B.L.P.x" - Bit 3: Signal for PWM release not set - Bit 4: Error in switch-on test **Error correction** - Check the entry in MP_delayTimeSTOatSS1 and increase the value if necessary (the parameterized time here must be greater than the value in MP_vCtrlSwitchOffDelay) - Inform your service agency - Exchange the power module if necessary
237-13021	**Error message** 13021 UM: Faulty Include file CC%2 %1 **Cause of error** - Software from CC controller unit, UM inverter or UEC compact inverter have not been compiled with the same include file. **Error correction** - Check the software version and update it if necessary - Inform your service agency
237-13025	**Error message** 13025 UM: Stack overflow CC%2 %1 **Cause of error** - Internal software error on the UM inverter or UEC compact inverter **Error correction** - Inform your service agency - Check the software version
237-13026	**Error message** 13026 UM: IRQ stack overflow CC%2 %1 **Cause of error** - Internal software error on the UM inverter or UEC compact inverter **Error correction** - Inform your service agency - Check the software version

Error number	Description
237-13027	**Error message** 13027 UM (log): stack overflow early warning CC%2 %1 **Cause of error** **Error correction**
237-13028	**Error message** 13028 UM (log): IRQ stack overflow early warning CC%2 %1 **Cause of error** **Error correction**
237-13029	**Error message** 13029 UM: Temperature sensor provides invalid measured values %1 **Cause of error** The temperature sensor on the heat sink of the UM inverter or UEC compact inverter provides invalid measured values: - No temperature sensor is connected or the connection is missing - Temperature sensor is defective **Error correction** - Restart the control - Inform your service agency
237-1302A	**Error message** 1302A UM: leakage current too high %1 **Cause of error** Isolation problem (e.g. defective motor, contamination within the inverter, humidity) **Error correction** - Replace the motor of the affected axes or check for a ground fault - Replace the power cable of the affected axes or check for a ground fault - Replace the inverter of the affected axes or check for a ground fault - Inform your service agency

Error number	Description
237-1302C	**Error message** 1302C UM: Test software loaded **Cause of error** The inverter has a software version that has not been released yet, and has no valid checksum - This software has neither been tested nor released **Error correction** - After acknowledging the error message you can use this software for test purposes - Check the software version - Create service files - Contact your service agency
237-1302D	**Error message** 1302D UM: Temperature sensor provides invalid measured values %1 **Cause of error** The temperature sensor on the heat sink of the UM inverter or UEC compact inverter provides invalid measured values: - No temperature sensor is connected or the connection is missing - Temperature sensor is defective **Error correction** - Restart the control - Inform your service agency
237-1302E	**Error message** 1302E UM: Controller software timeout %1 **Cause of error** - The time monitor of the inverter software is reporting an exceedance - Internal software error **Error correction** - Inform your service agency
237-1302F	**Error message** 1302F UM: Controller software timeout %1 **Cause of error** - The time monitor of the inverter software is reporting an exceedance - Internal software error **Error correction** - Inform your service agency

Error number	Description
237-13032	**Error message** 13032 UM3xx must be exchanged or rebuilt %1 (Ser-Nr.: %4) **Cause of error** Umrichter mit Bremsschaltung ohne internen Pullup-Widerstand werden ab 27.05.2019 nicht mehr unterstützt **Error correction** Hardware umbauen oder tauschen (Bei Fragen an Georg Zehentner (Tel. 1845) wenden)
237-13033	**Error message** 13033 UM FSuC reports error CC%2 %1 %10 **Cause of error** The FSuC (Functional Safety Microcontroller) on the inverter reports an error. For further information, note the following alarm messages (239-xxxx)! **Error correction**
237-13034	**Error message** 13034 UM: Parameters for the thermal model are missing %1 (Ser-Nr.: %4) **Cause of error** Umrichter ohne HIK-Parameter für das thermische Modell werden bald nicht mehr unterstützt **Error correction** HIK umprogrammieren lassen
237-13035	**Error message** 13035 UM: barrier layer temp. > warning threshold %1 (value: %4°C) **Cause of error** The calculated barrier layer temperature has exceeded a defined warning threshold. **Error correction** - Reduce the profile load - Let the UM inverter or UEC compact inverter cool off - Check the fan for function and contamination

Error number	Description
237-13035	**Error message** 13035 UM: overload / IGBT (warning) / %1 (%4°C) **Cause of error** An excessive temperature of the power electronics or the heat sink was detected in the UM inverter or the UEC compact inverter. Possible causes: - Excessive cutting power - Excessive feed rate - Excessive continuous load - Axis moved against an obstacle or limit stop - Holding brake of axis applied during machining - Excessive temperature in the electrical cabinet (cooling failed) - Excessive axis or spindle acceleration - Fan of the UM inverter or UEC compact inverter defective **Error correction** - Inform your service agency - Reduce the cutting power - Reduce the feed rate - Reduce the continuous load - Reduce the axis or spindle acceleration (MP_maxAcceleration under CfgFeedLimits) - Check the holding brake of the axis (function/wiring) - Check the climate control unit in the electrical cabinet - Check the fan of the UM inverter or UEC compact inverter and replace it if necessary
237-13036	**Error message** 13036 UM: barrier layer temp. > maximum value %1 (value: %4°C) **Cause of error** The calculated barrier layer temperature has exceeded the maximum permissible value. **Error correction** - Reduce the profile load - Let the UM inverter or UEC compact inverter cool off - Check the fan for function and contamination

Error number	Description
237-13036	**Error message** 13036 UM: overload / IGBT %1 (%4°C) **Cause of error** An excessive temperature of the power electronics or the heat sink was detected in the UM inverter or the UEC compact inverter. Possible causes: - Excessive cutting power - Excessive feed rate - Excessive continuous load - Axis moved against an obstacle or limit stop - Holding brake of axis applied during machining - Excessive temperature in the electrical cabinet (cooling failed) - Excessive axis or spindle acceleration - Fan of the UM inverter or UEC compact inverter defective **Error correction** - Inform your service agency - Reduce the cutting power - Reduce the feed rate - Reduce the continuous load - Reduce the axis or spindle acceleration (MP_maxAcceleration under CfgFeedLimits) - Check the holding brake of the axis (function/wiring) - Check the climate control unit in the electrical cabinet - Check the fan of the UM inverter or UEC compact inverter and replace it if necessary
237-13037	**Error message** 13037 UM (log): histogram read error CC%2 %1 **Cause of error** **Error correction**
237-13038	**Error message** 13038 UM: CC%2 %1 CPU0 impermissible data processing **Cause of error** Internal software error: There was an attempt to access an impermissible memory area **Error correction** - Please generate a service file soon, reboot the control, and then generate another service file - Transmit both service files to the Service department for further inspections by HEIDENHAIN

Error number	Description
237-13039	**Error message** 13039 UM: CC%2 %1 CPU1 impermissible data processing **Cause of error** Internal software error: There was an attempt to access an impermissible memory area **Error correction** - Please generate a service file soon, reboot the control, and then generate another service file - Transmit both service files to the Service department for further inspections by HEIDENHAIN
237-1303A	**Error message** 1303A UM: CC%2 %1 CPU0 impermissible instruction processing **Cause of error** Internal software error: There was an attempt to access an impermissible memory area **Error correction** - Please generate a service file soon, reboot the control, and then generate another service file - Transmit both service files to the Service department for further inspections by HEIDENHAIN
237-1303B	**Error message** 1303B UM: CC%2 %1 CPU1 impermissible instruction processing **Cause of error** Internal software error: There was an attempt to access an impermissible memory area **Error correction** - Please generate a service file soon, reboot the control, and then generate another service file - Transmit both service files to the Service department for further inspections by HEIDENHAIN
237-1303C	**Error message** 1303C UM: fan speed too low CC%2 %1 **Cause of error** The speed of the fan for cooling of the electronics in the inverter has fallen below the monitoring threshold. **Error correction** - Check the fan - Exchange the inverter - Inform your service agency

Error number	Description
237-1303D	**Error message** 1303D UM: short circuit of brakes was detected %1 (Info: %4) **Cause of error** - The inverter detected a short circuit in the motor brake. - Info provides information about the exact cause of the error: Info = 1: Short circuit between BR+ and BR- Info = 2: Short circuit between BR+ and housing **Error correction** Warning: Hanging axes cannot be supported under certain circumstances. The axis can drop. Do not enter the area of danger under the axis! - Move the axis to a safe position before power-off - Inform your service agency - Check controls for motor brakes - Exchange motor
237-1303F	**Error message** 1303F UM: faulty FSuC Include file CC%2 %1 **Cause of error** The interface versions of internal components (SOC and FSuC) on the inverter do not match. **Error correction** - Check the software version and run an update if necessary - Inform your service agency
237-13040	**Error message** 13040 UM: too many faulty CC telegrams in sequence %1 **Cause of error** Too many telegrams in sequence were lost during transmission of the nominal voltage values from the CC to the UM. Electromagnetic noise or faulty electrical contacts: - of the 24V supply voltage - of the DC-link voltage - in the motor cabling - in the brake cabling - Contamination or poor optical coupling of the HFL **Error correction** - Check the machine for correct shield connection and grounding - Check the power cables for correct clamping - Check the HFL for correct routing and clamping, and also for contamination - Exchange the UM3 - Exchange the CC3 - Inform your service agency

Error number	Description
237-13041	**Error message** 13041 UM: too many faulty CC telegrams during the monitoring period %1 **Cause of error** Too many telegrams were lost during transmission of the nominal voltage values from the CC to the UM during the monitoring period. Electromagnetic noise or faulty electrical contacts: - of the 24V supply voltage - of the DC-link voltage - in the motor cabling - in the brake cabling - Contamination or poor optical coupling of the HFL **Error correction** - Check the machine for correct shield connection and grounding - Check the power cables for correct clamping - Check the HFL for correct routing and clamping, and also for contamination - Exchange the UM3 - Exchange the CC3 - Inform your service agency
237-13042	**Error message** 13042 UM: excessive error frequency of CC telegrams %1 **Cause of error** The frequency of faulty telegrams during transmission of the nominal voltage values from the CC to the UM is above the limit value. Electromagnetic noise or faulty electrical contacts: - of the 24V supply voltage - of the DC-link voltage - in the motor cabling - in the brake cabling - Contamination or poor optical coupling of the HFL **Error correction** - Check the machine for correct shield connection and grounding - Check the power cables for correct clamping - Check the HFL for correct routing and clamping, and also for contamination - Exchange the UM3 - Exchange the CC3 - Inform your service agency

Error number	Description
237-13043	**Error message** 13043 UM: conspicuous CC telegrams during the monitoring period %1 **Cause of error** There are peculiar telegrams during transmission of the nominal voltage values from the CC to the UM. Electromagnetic noise or faulty electrical contacts: - of the 24V supply voltage - of the DC-link voltage - in the motor cabling - in the brake cabling - Contamination or poor optical coupling of the HFL **Error correction** - Check the machine for correct shield connection and grounding - Check the power cables for correct clamping - Check the HFL for correct routing and clamping, and also for contamination - Exchange the UM3 - Exchange the CC3 - Inform your service agency
237-13044	**Error message** 13044 UM: conspicuous CC telegrams outside the monitoring period %1 **Cause of error** There are peculiar telegrams during transmission of the nominal voltage values from the CC to the UM. Electromagnetic noise or faulty electrical contacts: - of the 24V supply voltage - of the DC-link voltage - in the motor cabling - in the brake cabling - Contamination or poor optical coupling of the HFL **Error correction** - Check the machine for correct shield connection and grounding - Check the power cables for correct clamping - Check the HFL for correct routing and clamping, and also for contamination - Exchange the UM3 - Exchange the CC3 - Inform your service agency

Error number	Description
237-13045	**Error message** 13045 UM: overload / IGBT (emergency stop) %1 (%4°C) **Cause of error** An excessive temperature of the power electronics or the heat sink was detected in the UM inverter or the UEC compact inverter. Possible causes: - Excessive cutting power - Excessive feed rate - Excessive continuous load - Axis moved against an obstacle or limit stop - Holding brake of axis applied during machining - Excessive temperature in the electrical cabinet (cooling failed) - Excessive axis or spindle acceleration - Fan of the UM inverter or UEC compact inverter defective **Error correction** - Inform your service agency - Reduce the cutting power - Reduce the feed rate - Reduce the continuous load - Reduce the axis or spindle acceleration (MP_maxAcceleration under CfgFeedLimits) - Check the holding brake of the axis (function/wiring) - Check the climate control unit in the electrical cabinet - Check the fan of the UM inverter or UEC compact inverter and replace it if necessary

Error number	Description
237-13046	**Error message** 13046 UM: overload / IGBT (STO) %1 (%4°C) **Cause of error** An excessive temperature of the power electronics or the heat sink was detected in the UM inverter or the UEC compact inverter. Possible causes: - Excessive cutting power - Excessive feed rate - Excessive continuous load - Axis moved against an obstacle or limit stop - Holding brake of axis applied during machining - Excessive temperature in the electrical cabinet (cooling failed) - Excessive axis or spindle acceleration - Fan of the UM inverter or UEC compact inverter defective **Error correction** - Inform your service agency - Reduce the cutting power - Reduce the feed rate - Reduce the continuous load - Reduce the axis or spindle acceleration (MP_maxAcceleration under CfgFeedLimits) - Check the holding brake of the axis (function/wiring) - Check the climate control unit in the electrical cabinet - Check the fan of the UM inverter or UEC compact inverter and replace it if necessary
237-13047	**Error message** 13047 %4 CC%2 %1 %10 **Cause of error** **Error correction**

Error number	Description
237-13048	**Error message** 13048 UM3: sequencer sync pulse outside the tolerance range %1 **Cause of error** The synchronization pulse for an internal sequencer in the inverter was (too often) outside of the specified tolerance range. Electromagnetic noise or faulty electrical contacts: - of the 24 V supply voltage - of the DC-link voltage - in the motor cabling - in the brake cabling - Contamination or poor optical coupling of the HFL **Error correction** - Check the machine for correct shield connection and grounding - Check the power cables for correct clamping - Check the HFL for correct routing and clamping, and also for contamination - Exchange the UM3 - Exchange the CC3 - Inform your service agency
237-13049	**Error message** 13049 UM: missing HFL LP transmission **Cause of error** Possible causes: Electromagnetic noise or faulty electrical contacts: - of the 24V supply voltage - of the DC-link voltage - in the motor cabling - in the brake cabling - Contamination or poor optical coupling of the HFL **Error correction** - No immediate corrective action is necessary, since no error situation has occurred yet - Recommended preventive measures: - Check the machine for correct shield connection and grounding - Check the power cables for correct clamping - Check the HFL for correct routing and clamping, and also for contamination

Error number	Description
237-1304A	**Error message** 1304A UM: notable HFL transmission CC%2 %1; error code: %4 **Cause of error** Possible causes: Electromagnetic noise or faulty electrical contacts: - of the 24V supply voltage - of the DC-link voltage - in the motor cabling - in the brake cabling - Contamination or poor optical coupling of the HFL **Error correction** - No immediate corrective action is necessary, since no error situation has occurred yet - Recommended preventive measures: - Check the machine for correct shield connection and grounding - Check the power cables for correct clamping - Check the HFL for correct routing and clamping, and also for contamination
237-1304B	**Error message** 1304B UM: notable HFL transmission (ext.) CC%2 %1; error code: %4 **Cause of error** Possible causes: Electromagnetic noise or faulty electrical contacts: - of the 24V supply voltage - of the DC-link voltage - in the motor cabling - in the brake cabling - Contamination or poor optical coupling of the HFL **Error correction** - No immediate corrective action is necessary, since no error situation has occurred yet - Recommended preventive measures: - Check the machine for correct shield connection and grounding - Check the power cables for correct clamping - Check the HFL for correct routing and clamping, and also for contamination

Error number	Description
237-1304C	**Error message** 1304C UM: faulty HFL transmission CC%2 %1; error code: %4 **Cause of error** Possible causes: Electromagnetic noise or faulty electrical contacts: - of the 24V supply voltage - of the DC-link voltage - in the motor cabling - in the brake cabling - Contamination or poor optical coupling of the HFL **Error correction** - Check the machine for correct shield connection and grounding - Check the power cables for correct clamping - Check the HFL for correct routing and clamping, and also for contamination - Exchange the UM3 - Exchange the CC3 - Inform your service agency
237-1304D	**Error message** 1304D UM: faulty HFL transmission (ext.) CC%2 %1; error code: %4 **Cause of error** Possible causes: Electromagnetic noise or faulty electrical contacts: - of the 24V supply voltage - of the DC-link voltage - in the motor cabling - in the brake cabling - Contamination or poor optical coupling of the HFL **Error correction** - Check the machine for correct shield connection and grounding - Check the power cables for correct clamping - Check the HFL for correct routing and clamping, and also for contamination - Exchange the UM3 - Exchange the CC3 - Inform your service agency

Error number	Description
237-1304E	**Error message** 1304E UM: short-circuit braking not permitted %1 (info: %4) **Cause of error** - Short-circuit braking is activated because the parameter CfgPowerStage/delayTimeSTOatSS0 is greater than 0 - However, short-circuit braking is not permitted for: - Asynchronous motor (info: 1) - Sine-wave drive UMS (info: 2) - If more than one cause is given, then info > 2 **Error correction** - Short-circuit braking must be deactivated explicitly: - Set CfgPowerStage/delayTimeSTOAtSS0 to 0
237-1304F	**Error message** 1304F UM: overflow of an internal communication buffer CPU0 CC%2 %1 **Cause of error** An internal buffer in the UM inverter or UEC compact inverter for buffering messages to the CC controller unit overflowed. **Error correction** Inform your service agency
237-13050	**Error message** 13050 UM: overflow of an internal communication buffer CPU1 CC%2 %1 **Cause of error** An internal buffer in the UM inverter or UEC compact inverter for buffering messages to the CC controller unit overflowed. **Error correction** Inform your service agency
237-13051	**Error message** 13051 UM: no software support (HIK, model bit) CC%2 %1 **Cause of error** The UM inverter or UEC compact inverter being used is not supported by this version of the NC software. More diagnostic information: A model bit that is not supported is set in the HIK (Hardware Identification Key) of the inverter. **Error correction** - Update the software - Exchange the inverter - Inform your service agency

Error number	Description
237-13052	**Error message** 13052 UM: HIK faulty (model bits not plausible) CC%2 %1 **Cause of error** The UM inverter or UEC compact inverter being used is not supported by this version of the NC software. More diagnostic information: The plausibility check of the HIK (Hardware Identification Key) in the inverter failed because of an impermissible combination of model bit and version bit. **Error correction** - Exchange the inverter - Inform your service agency
237-13053	**Error message** 13053 UM: HIK faulty (block %4 missing) CC%2 %1 **Cause of error** The UM inverter or UEC compact inverter being used cannot be operated. More diagnostic information: A block that is required was not programmed in the HIK (Hardware Identification Key) of the inverter. **Error correction** - Exchange the inverter - Inform your service agency
237-13054	**Error message** 13054 UM: HIK faulty (block %4 missing) CC%2 %1 **Cause of error** The UM inverter or UEC compact inverter being used cannot be operated. More diagnostic information: A block in the HIK (Hardware Identification Key) of the inverter is missing a required entry. **Error correction** - Exchange the inverter - Inform your service agency
237-13055	**Error message** 13055 UM: HIK faulty (plausibility check) CC%2 %1 **Cause of error** The UM inverter or UEC compact inverter being used is not supported by this version of the NC software. More diagnostic information: The check of the HIK (Hardware Identification Key) in the inverter failed. The value of one or more entries is not plausible. **Error correction** - Exchange the inverter - Inform your service agency

Error number	Description
237-13056	**Error message** 13056 UM: Bremsleitungsbruch detektiert %1 **Cause of error** - Durch den Umrichter wurde ein Leitungsbruch in der Motorbremse detektiert. **Error correction** Warnung: Hängende Achsen werden unter Umständen nicht gehalten. Die Achse kann herunterfallen. Gefahrenbereich unter der Achse nicht betreten! - Achse vor dem Ausschalten in eine sichere Position fahren - Kundendienst benachrichtigen - Motorbremsansteuerung überprüfen - Bremse prüfen und gegebenenfalls tauschen
237-13057	**Error message** 13057 UM (Log): System Debug CC%2 %1 module = %4 line = %5 **Cause of error** **Error correction**
237-13058	**Error message** 13058 UM (Log): Faulty temperature value UM315 CC%2 %1 %10 **Cause of error** **Error correction**
237-13060	**Error message** 13060 UM: leakage current too high %1 **Cause of error** Isolation problem (e.g. defective motor, contamination within the inverter, humidity) **Error correction** - Replace the motor of the affected axes or check for a ground fault - Replace the power cable of the affected axes or check for a ground fault - Replace the inverter of the affected axes or check for a ground fault - Inform your service agency

Error number	Description
237-13061	**Error message** 13061 UM: attempted to set parameter disableFBC while drive was on %1 **Cause of error** Bei eingeschaltetem Antrieb wurde der Parameter disableF-BC gesetzt. Diest ist nicht zulässig. Der Parameter disableFBC ist nur im Zustand STO erlaubt. **Error correction** Parameter disableFBC auf den Wert false setzen.
237-13062	**Error message** 13062 UM: attempted drive-on while the disableFBC parame-ter was set %1 **Cause of error** Bei gesetztem Paramteter disableFBC wurde versucht den Antrieb einzuschalten. Der Parameter disableFBC ist nur im Zustand STO erlaubt. **Error correction** Parameter disableFBC auf den Wert false setzen.
237-137FF	**Error message** 137FF UM: Alarm CC%2 %1 module = %4 line = %5 **Cause of error** - Internal error in the UM inverter or UEC compact inverter **Error correction** - Inform your service agency
237-13800	**Error message** 13800 UM (FS.B):CRC error in FS communication %1 (nom.: %4,act.:%5) **Cause of error** - Checksum (CRC) in cyclic communication with SKERN-CC is faulty. **Error correction** - Inform your service agency
237-13801	**Error message** 13801 UM (FS.B):FS communication telegram counter %1 nom.:%4 act.:%5 **Cause of error** - Telegram counter in cyclic communication with SKERN-CC is faulty. **Error correction** - Inform your service agency

Error number	Description
237-13802	**Error message** 13802 UM (FS.B):UM-DriveID error in FS communicatn. %1 nom.:%4 act.:%5 **Cause of error** - UM.driveID contains errors in cyclic communication with SKERN-CC **Error correction** - Inform your service agency
237-13803	**Error message** 13803 UM (FS.B):Error during deactivation of the FS communication %1 **Cause of error** - Error during deactivation of the FS communication with the UM or UEC - The signals STO.B and SBC.B were not set during the deactivation of the axis. **Error correction** - Drives must be turned off before deactivating an axis. - Check the (S)PLC program, and adapt it if necessary.
237-13804	**Error message** 13804 UM (FS.B):Topology checking of UM parameters failed %1 **Cause of error** - Received parameters do not match the topology of the setup - Configuration of the machine parameters MP_hsciCcIndex, MP_inverterInterface, or MP_motorConnector is incorrect **Error correction** - Check the configuration of MP_hsciCcIndex, MP_inverterInterface, and MP_motorConnector, and adapt if necessary - Inform your service agency
237-13805	**Error message** 13805 UM (FS.B): FS configuration data were falsified %1 **Cause of error** - UM parameters were corrupted and do not match the calculated checksum (UM.DRIVE-ID) **Error correction** - Reboot of the control - Inform your service agency

Error number	Description
237-13806	**Error message** 13806 UM (FS.B): UM-DriveID from UM(FS.A) and UM(FS.B) are unequal %1 **Cause of error** - Calculated checksums (UM-DRIVE.ID) for UM parameters between UM(FS.A) and UM(FS.B) are different **Error correction** - Inform your service agency
237-13807	**Error message** 13807 UM (FS.B):Error during the parameterization of the UM (FS.A) %1 **Cause of error** - Faulty data transfer between UM(FS.A) and UM(FS.B). - The received data were corrupted on the bus line or recognized as invalid by the UM(FS.A). **Error correction** - Inform your service agency - If necessary, replace the inverter
237-13808	**Error message** 13808 UM (FS.B): reconfiguration of UM3 parameters not possible %1 **Cause of error** - Safety-relevant parameters of the inverter were changed (delayTimeSTOatSS0/SS1, delayTimeSBCatSS0/SS1 or driveOffGroup) **Error correction** - Restart the control in order to apply the new parameters
237-13809	**Error message** 13809 UM (FS.B):Switch-on readiness lacking %1 1:%4 2:%5 3:%6 4:%7 5:%8 **Cause of error** - The conditions for the switch-on readiness of the UM are not given: -- Info1 = 1: No valid configuration received for this axis -- Info2 = 1: SS0 stop reaction active for this axis -- Info3 = 1: Self-test for this axis has not yet run without error -- Info4 = 1: STEST.PERMIT set as release for the UM self-test -- Info5 = 1: Restart prevented due to the previous SS0 and SS1F **Error correction**

Error number	Description
237-1380A	**Error message** 1380A UM (FS.B): CRC error in PAE communication %1 (nom.:%4,act.:%5) **Cause of error** - Checksum (CRC) in cyclic communication with PAE is faulty. **Error correction** - Inform your service agency
237-1380B	**Error message** 1380B UM (FS.B): PAE communication telegram counter %1 nom.:%4 act.:%5 **Cause of error** - Telegram counter in cyclic communication with PAE is faulty. **Error correction** - Inform your service agency
237-1380C	**Error message** 1380C UM (FS.B): error during deactivation, %1 not in safe state **Cause of error** - The axis is to be deactivated, but the axis is not in a safe state - STO and SBC are still enabled **Error correction** - Put the axis in a safe state before deactivating it
237-13820	**Error message** 13820 UM (FS.B): 3.3 V (FS.A) voltage monitor exceeded CC %2 %1 **Cause of error** - The internal voltage monitor found that the 3.3 V voltage of the FS.A is too high **Error correction** Restart the control; if the error occurs again, then: - Check the X76 jumper plugs - Replace device - Inform your service agency

Error number	Description
237-13821	**Error message** 13821 UM (FS.B): 3.3V(FS.A) voltage monitor below limit CC %2 %1 **Cause of error** - The internal voltage monitor detected that the 3.3 V voltage of the FS.A is too low **Error correction** Restart the control; if the error occurs again, then: - Check the X76 jumper plugs - Replace device - Inform your service agency
237-13822	**Error message** 13822 UM (FS.B): 5V voltage monitor exceeded CC%2 %1 **Cause of error** - The internal voltage monitor detected that the 5 V voltage is too high **Error correction** Restart the control; if the error occurs again, then: - Check the X76 jumper plugs - Replace device - Inform you service agency
237-13823	**Error message** 13823 UM (FS.B): 5V voltage monitor below limit CC%2 %1 **Cause of error** - The internal voltage monitor found that the 5 V voltage is too low **Error correction** Restart the control; if the error occurs again, then: - Check the X76 jumper plugs - Replace device - Inform your service agency
237-13824	**Error message** 13824 UM (FS.B): Watchdog FS.A has responded CC%2 %1 **Cause of error** - UM inverter or UEC compact inverter reports that watchdog of the A-channel (FSuC) is no longer being updated **Error correction** - Restart the control - Inform your service agency

Error number	Description
237-13825	**Error message** 13825 UM (FS.B): Temp. greater than warning threshold CC %2 %1 (%4°C) **Cause of error** - Processor temperature has exceeded a defined warning threshold **Error correction** - Let the UM inverter or UEC compact inverter cool off - Check the fan for function and contamination
237-13826	**Error message** 13826 UM (FS.B): Temp. greater than maximum value CC%2 %1 (%4°C) **Cause of error** - Processor temperature has exceeded the maximum permissible value **Error correction** - Let the UM inverter or UEC compact inverter cool off - Check the fan for function and contamination

Error number	Description
237-13827	**Error message** 13827 UM (FS.B): Error in the safety self-test CC%2 %1 %10 Info0: %4 **Cause of error** - Error during FS self-test. Info 0: 0 = Emergency stop during the self-test 1 = Test-initialization 2 = Test of the brake control, part 1 3 = Test of the brake control, part 2 4 = Test of the brake control, part 3 5 = Test of the STO cut-out signal, part 1 6 = Test of the STO cutout signal, part 2 7 = Test of the STO cutout signal, part 3 8 = Test of the PWM pulse inhibitor, positive test 9 = Test of the PWM pulse inhibitor, low-side negative test 10 = Test of the PWM pulse inhibitor, high-side negative test 11 = Test of the watchdog, channel A 12 = Test of the watchdog, channel B 13 = Test of the voltage monitor, channel B lower limit 14 = Test of the voltage monitor, channel B upper limit 15 = Test of the voltage monitor, channel A 16 = Test of temperature value measurement, channel B 17 = Test of the SS0 stop request 18 = Test of the SS1 stop request 19 = Test of the timers, channel A timer 1 20 = Test of the timers, channel A timer 2 21 = Test of the timers, channel B 22 = Not all required tests have been performed **Error correction** - When Info 0 = 0: If necessary, unlock emergency stop, and restart the control. - When Info 0 = 2-4: Error of the brake control. Inspect the wiring of the holding brakes. - When Info 0 = 5-21: Inform your service agency. If required, exchange the hardware. - When Info 0 = 1/22: Inform your service agency.
237-13828	**Error message** 13828 UM (FS.B): SS1F request from UM(FS.A) CC%2 %1 **Cause of error** -SS1F request (REQ.SS1F signal) from UM(FS.A) active. **Error correction** Note further pending error messages.
237-13830	**Error message** 13830 UM (log): SS1 request from PAE **Cause of error** **Error correction**

Error number	Description
237-13831	**Error message** 13831 UM (log): PAE test returns rising edge STEST_OK **Cause of error** **Error correction**
237-13832	**Error message** 13832 UM (FS.B): Faulty start condition for PAE test %1 Info0:%4 **Cause of error** The condition for starting the self-test of the PAE module is not given on the B channel side: At the time of the self-test, the drive must be set to STO and SBC. Info 0 describes the cause bit-encoded - Bit 0: STO.B.H not active - Bit 1: STO.B.L not active - Bit 2: SBC.B not active **Error correction** - Stop the drive before the start of the self-test (STO and SBC must be active) - Inform your service agency
237-13833	**Error message** 13833 UM (FS.B): Faulty start condition for self-test %1 Info0:%4 **Cause of error** The condition for starting the self-test of the UM is not given At the time of the self-test, the drive must be set to STO and SBC. Further conditions must also be met. Info 0 describes the cause bit-encoded - Bit 0: STEST.Permit missing - Bit 1: STO.A not active - Bit 2: STO.B.H not active - Bit 3: STO.B.L not active - Bit 4: SBC.A not active - Bit 5: SBC.B not active - Bit 6: SEU error occurred - Bit 7: STEST.OK of PAE missing **Error correction** - Stop the drive before the start of the self-test (STO and SBC must be active) - Check the (S)PLC program, and adapt it if necessary - Inform your service agency

Error number	Description
237-13834	**Error message** 13834 UM (FS.B): PAE reports internal error (-REQ.SS1F) %1 **Cause of error** The PAE-H PL module reports an internal error (switch-off due to -REQ.SS1F) Possible causes: - Maximum temperature exceeded - Supply voltage not correct - PAE module not connected correctly - Internal PAE error **Error correction** - Check the expanded information in the bus diagnostics - Stay within the temperature range - Check the power supply - Exchange the PAE-H module - Inform your service agency
237-13835	**Error message** 13835 UM (FS.B):Temperature below warning threshold CC %2 %1 (%4°C) **Cause of error** The processor temperature has fallen below a defined warning threshold. The ambient temperature in the electrical cabinet must be greater than +1°C. **Error correction** - Check the temperature conditions in the electrical cabinet - Exchange the hardware - Inform your service agency
237-13836	**Error message** 13836 UM (FS.B):Temperature lower than min. value CC%2 %1 (%4°C) **Cause of error** The processor temperature has fallen below the permissible minimum value. The ambient temperature in the electrical cabinet must be greater than 0°C. **Error correction** - Check the temperature conditions in the electrical cabinet - If present: Check the climate control unit - Exchange the hardware - Inform you service agency

Error number	Description
237-13837	**Error message** 13837 UM (FS.B): brake control faulty CC%2 %1 %10 Info0: %4 **Cause of error** The test of the brake control detected a fault. Refer to Info0 for the possible cause. Info 0: 1 = Brake configured but not detected 2 = Short-circuit of the high-side or of the brake with 24V 3 = Short-circuit of the low-side or of the brake with 0V 4 = Short-circuit of the high-side with 24V and short-circuit of the low-side with 0V 5 = Supply voltage too low (< 23.75 V) **Error correction** - Check the supply voltage (23.75 V to 26.25 V) - Check the wiring of the brake - Inform your service agency
237-13838	**Error message** 13838 UM (FS.B): An SS0 or SS1F is preventing a restart %1 **Cause of error** - A previous SS0 or SS1F reaction of the inverter is preventing the drive from being switched on. **Error correction** - Restart the control.
237-13839	**Error message** 13839 UM (FS.B): unreleased testing software loaded: CC%2 %1 **Cause of error** An unreleased test software is installed on the inverter: - This software has neither been tested nor officially released - No checksum will be calculated for this software This software is intended solely for testing purposes! **Error correction** This software or firmware must be replaced by a software or firmware that has been officially released: - Create service files - Inform your service agency
237-1383A	**Error message** 1383A UM: Checksum error in the program code CC%2 %1 **Cause of error** - A checksum error was detected in the program code of the inverter. - Inverter defective. **Error correction** - Inform your service agency - If required, exchange the hardware

Error number	Description
237-1383B	**Error message** 1383B UM (Log): Invalid switch of communication status %1 **Cause of error** **Error correction**
237-13890	**Error message** 13890 UM (FS.B): faulty FS Include file CC%2 %1 (act: %4 nom: %5) **Cause of error** - SKERN-CC and UM (FS.B) software have not been compiled with the same Include file. **Error correction** - Check the NC software version, and reinstall it if necessary - Inform your service agency
237-13891	**Error message** 13891 UM(FS.B): Start of UM self-test via PLC module not permitted %1 **Cause of error** The start of the UM self-test via PLC Module 9144 in mode 2 is not supported for axis %1. The function is supported only with internal functional safety (FS). **Error correction**
237-13F00	**Error message** 13F00 UMFSSW: error while deactivating axis %1 **Cause of error** Deactivation of a safe axis is not supported by the functional safety (SKERN-CC). **Error correction** Restart the control without deactivating the safe axis
237-13F01	**Error message** 13F01 Test command was received in released software! **Cause of error** Error injection was demanded for a release software. This is not permissible! **Error correction** - Use autotest software! - Inform your service agency
237-14002	**Error message** 4002 CC (log): additional info from the DllError module **Cause of error** **Error correction**

Error number	Description
237-14800	**Error message** 4800 CC (log): contamination in encoder system %1 **Cause of error** **Error correction**
237-14840	**Error message** 4840 CC (log): stack overflow early warning **Cause of error** **Error correction**
237-14850	**Error message** 4850 CC (log): motor not finely tuned **Cause of error** **Error correction**
237-14860	**Error message** 4860 CC (log): alarm "Motor brake defective (0x8300)" suppressed %1 **Cause of error** **Error correction**
237-14970	**Error message** 4970 CC (log): overwrite the parameter "MotTypeOfFieldAdjust" **Cause of error** **Error correction**
237-149A0	**Error message** 49A0 CC (log): IRQ stack overflow early warning **Cause of error** **Error correction**
237-17FFC	**Error message** 17FFC Axis %1: PLC module 9311 no longer supported. **Cause of error** This function is no longer supported by this software version. **Error correction** Inform your service agency

Error number	Description
237-17FFD	**Error message** 17FFD CC %2 controller clock slave axis %1 not identical to master axis **Cause of error** The parameters MP_ctrlPerformance and MP_ampPwmFreq are parameterized differently for the master and slave. **Error correction** - Check the entries in MP_ctrlPerformance and MP_ampPwmFreq, and set them to the same values for master and slave. - Inform your service agency.
237-17FFE	**Error message** 17FFE Axis %1: Measurement canceled **Cause of error** - Note further messages. **Error correction** - Repeat the measurement.
237-17FFF	**Error message** 17FFF Axis %1: Amplitude of excitation signal is too high **Cause of error** Limit of provided current or voltage reached during the measurement. **Error correction** - Reduce the amplitude of the excitation signal
237-18000	**Error message** 18000 CC %2: Not enough memory available. **Cause of error** - The memory requirements for the requested measurement are too high. **Error correction** - Reduce the recording time. - Reduce the recording rate.
237-18001	**Error message** 18001 Axis %1 Alarm for software test **Cause of error** - In the automatic software test an alarm was released **Error correction** - Inform your service agency

Error number	Description
237-18002	**Error message** 18002 CC (Log): System Debug CC%2 module = %4 line = %5 **Cause of error** **Error correction**
237-18003	**Error message** 18003 kv factor of the cmp file is not equal to MP %1 **Cause of error** - The kv factors in a cmp file and parameter file are different **Error correction** - Change the kv factor (kvfactor) in the machine parameter file to the value from the cmp file (compTorqueRipple) - Inform your service agency.
237-18004	**Error message** 18004 ki factor of the cmp file is not equal to MP %1 **Cause of error** - The ki factors in a cmp file and machine parameter file are different **Error correction** - Change the ki factor (vCtrlIntGain) in the parameter file to the value from the cmp file (compTorqueRipple) - Inform your service agency.
237-18006	**Error message** 18006 DQ-ALM %1: Uz nominal value too low **Cause of error** - The DC-link voltage of a DRIVE-CLiQ ALM power supply as defined in the machine parameter "ampBusVoltage" is smaller than the rectified line voltage. **Error correction** - Check the entry in machine parameter "ampBusVoltage." - Inform your service agency.

Error number	Description
237-18007	**Error message** 18007 EnDat para. invalid: axis %1code:%4 value: %5 **Cause of error** - During the initialization of the EnDat motor encoder for the given axis, a parameter value was detected that is not supported. - The code of the error message describes the cause: 100: EnDat 2.1 Parameters of the encoder manufacturer, word 20/21: "Measuring step or measuring steps per revolution" = 0 is not supported by the controller software if it is needed to calculate the commutation of a motor. 101: EnDat 2.1 Parameters of the encoder manufacturer, word 17: "Number of distinguishable revolutions" is supported only up to 65534. 102: EnDat 2.1 Parameters of the encoder manufacturer, word 13: CC424 "Number of clock pulses to transmit the position value (transmission format)" is supported up to 32. 200: EnDat 2.2 Parameters of the encoder manufacturer, word 4: "Scaling factor for temperature" unknown. **Error correction** - Exchange the encoder - Inform your service agency
237-18008	**Error message** 18008 EnDat parameter invalid in axis:%1 Code:%4 Value:%5 **Cause of error** - During the initialization of the EnDat position encoder for the given axis, a parameter value was detected that is not supported. - The code of the error message describes the cause: 101: EnDat 2.1 Parameters of the encoder manufacturer, word 17: "Number of distinguishable revolutions" is supported only up to 65534. 200: EnDat 2.2 Parameters of the encoder manufacturer, word 4: "Scaling factor for temperature" unknown. **Error correction** - Exchange the encoder - Inform your service agency.

Error number	Description
237-18009	**Error message** 18009 Communic. error, EnDat motor enc. %1, err. code %4 **Cause of error** - An error occurred with the EnDat motor encoder - The error code describes the cause: - 101 and 102: The encoder generated an internal error message. A further alarm 0x1800F describes the exact cause. - 103, 104 and 105: An error occurred in communication. Possible causes: - Defective encoder line - Encoder line is not suitable for digital EnDat communication at high clock frequency - Disturbances on the encoder line (e.g. through insufficient shielding) **Error correction** - Check additional information from alarm message 0x1800F - Check the encoder line - Check whether the encoder line is suited for digital transmission at high frequency - Exchange the encoder - Exchange the hardware (CC) - Inform your service agency.
237-1800A	**Error message** 1800A Communic. error, EnDat pos. encoder %1, error code %4 **Cause of error** - An error occurred with the EnDat position encoder - The error code describes the cause: - 101 and 102: The encoder generated an internal error message. A further alarm 0x18010 describes the exact cause. - 103, 104 and 105: An error occurred in communication. Possible causes: - Defective encoder line - Encoder line is not suitable for digital EnDat communication at high clock frequency - Disturbances on the encoder line (e.g. through insufficient shielding) **Error correction** - Check additional information from alarm message 0x18010 - Check the encoder line - Check whether the encoder line is suited for digital transmission at high frequency - Exchange the encoder - Exchange the hardware (CC) - Inform your service agency.

Error number	Description
237-1800B	**Error message** 1800B Axis %1 inverter switch off over -STO.A.x (signal: %4) **Cause of error** - The inverter was switched off by a signal within the control: 1 = "-STO.A.MC.WD" 2 = "-STO.A.P.x" 3 = "-STO.A.PIC" 4 = "-STO.A.CC" **Error correction** - Check the entry in MP_vCtrlTimeSwitchOff (up to NCK version 597110-13) or MP_delayTimeSTOatSS1 (as of NCK version 597110-14) and, if necessary, increase the value in MP_delayTimeSTOatSS1 or reduce the value in MP_vCtrlSwitchOffDelay. - Inform your service agency
237-1800C	**Error message** 1800C Reinitialization of the motor %1 is required **Cause of error** - The drive must be re-initialized, because the maximum encoder frequency was changed (VCtrlEncoderInputFunctions, bit 0) **Error correction** - Re-initialize the encoder - Use the machine parameter axisMode (bit x = 0) to deselect the axis - Exit the MP editor - Reactivate the axis in the machine parameter axisMode (bit x = 1) and set from MLST 19: CfgCtrlEncoder or to MLST 18: posEncoderType to the desired value - Exit the MP editor again - or reset/restart the control - Inform your service agency
237-1800D	**Error message** 1800D Encoder frequency up to 800 kHz not supported CC %2 %1 **Cause of error** - The max. encoder frequency of 800 kHz was selected for the motor encoder (VCtrlEncoderInputFunctions, bit 0 = 1) The hardware does not support this frequency. **Error correction** - Set the max. encoder frequency to 500 kHz (VCtrlEncoderInputFunctions, bit 0 = 0) - Inform your service agency

Error number	Description
237-1800E	**Error message** 1800E Excessive motor encoder frequency %1 **Cause of error** - The permissible encoder frequency at the motor encoder input was far exceeded. The monitoring thresholds are: - VCtrlEncoderInputFunctions, bit 0 = 0: 600 kHz - VCtrlEncoderInputFunctions, bit 1 = 1: 1000 kHz **Error correction** - Reduce the max. motor speed - Set the parameter of the motor encoder's input circuit to high frequency (not with CC 424): VCtrlEncoderInputFunctions bit 0 = 1 - Inform your service agency
237-1800F	**Error message** 1800F Error in EnDat motor encoder %1, error code %4 **Cause of error** - The EnDat motor encoder reports an error - The error code describes the cause: 1 = Failure of the illumination 2 = Incorrect signal amplitude 4 = Incorrect position value 8 = Overvoltage in the power supply 16 = Undervoltage in the power supply 32 = Overcurrent 64 = Battery exchange needed **Error correction** - Check the installation of the encoder - Check the power supply of the encoder - If required, exchange the battery - Exchange the encoder - Inform your service agency.

Error number	Description
237-18010	**Error message** 18010 Error in EnDat position encoder %1, error code %4 **Cause of error** - The EnDat position encoder reports an error - The error code describes the cause: 1 = Failure of the illumination 2 = Incorrect signal amplitude 4 = Incorrect position value 8 = Overvoltage in the power supply 16 = Undervoltage in the power supply 32 = Overcurrent 64 = Battery exchange needed **Error correction** - Check the installation of the encoder - Check the power supply of the encoder - If required, exchange the battery - Exchange the encoder - Inform your service agency.
237-18011	**Error message** 18011 Motor encoder: %1 Cause: %4, source: %5, alarm: %6 **Cause of error** - An error occurred during forced dynamic sampling of error statuses in the EnDat 2.2 motor encoder **Error correction** - Check the encoder cable - Check the encoder and, if necessary, exchange it - Check the CC controller unit or UEC and, if necessary, exchange it - Inform your service agency Please indicate the complete error text: cause, source and alarm
237-18012	**Error message** 18012 Position encoder: %1 Cause: %4, source: %5, alarm: %6 **Cause of error** - An error occurred during forced dynamic sampling of error statuses in the EnDat 2.2 position encoder **Error correction** - Check the encoder cable - Check the encoder and, if necessary, exchange it - Check the CC controller unit or UEC and, if necessary, exchange it - Inform your service agency Please indicate the complete error text: cause, source and alarm

Error number	Description
237-18013	**Error message** 18013 DQ encoder %1: error condition %4 determined **Cause of error** - One of the safety signals of the DRIVE-CLiQ encoder reports a device error. - Meaning of the additional information: 101 = Internal error bit F1 is set. 102 = Internal error bit F2 is set. 103 = Internal bit "Position Ok PO" is missing. 104 = Internal error bit "Fault Severity 0 XG1" is set. **Error correction** - Exchange the defective encoder. - Inform your service agency.
237-18014	**Error message** 18014 Sp. head change err. in DQ axis %1, port %4, err. %5 **Cause of error** An error occurred during a spindle head change accompanied by PHY Power Down and Up. The corresponding PHY is assigned to the given port. Error = error code (BMCR = "Basic mode control" register of the PHY): 1: BMCR before PHY Power Down not OK 2: BMCR after PHY Power Down not OK 3: BMCR after PHY Power Up not OK 4: BMCR after PHY Power Up is OK, but timeout **Error correction** Inform your service agency.
237-18015	**Error message** 18015 PWM freq. axis %1 <= 4 kHz. Restart required. **Cause of error** During initial servicing of the control the PWM frequency of an axis is less than or equal to 4 kHz. This axis is not assigned to the I2C master CC. **Error correction** - Switch the control off and on again - Alarm occurs in spite of repeated restarts: - Exchange defective CC or - Exchange the backup battery of the MC - Inform your service agency.

Error number	Description
237-18017	**Error message** 18017 SPI expansion module: transmission error %4 **Cause of error** - The SPI plug-in board (module for CC or MC) for controlling analog axes or for reading analog actual values cannot respond correctly. - SPI plug-in module is defective. - Wiring error on the SPI plug-in module **Error correction** - Check the external wiring, especially analog inputs and outputs connected to the SPI plug-in module. - Exchange the SPI plug-in board (module for CC or MC). - Inform your service agency.
237-18018	**Error message** 18018 SPI expansion module: error in module, number %4 **Cause of error** - The SPI plug-in board (module for CC or MC) for controlling analog axes or for reading analog actual values cannot respond correctly. - SPI plug-in module is defective. - Wiring error on the SPI plug-in module **Error correction** - Check the external wiring, especially analog inputs and outputs connected to the SPI plug-in module. - Exchange the SPI plug-in board (module for CC or MC). - Inform your service agency.
237-18019	**Error message** 18019 Clearable positioning error %1, ES %4 **Cause of error** A clearable positioning error has occurred (following error too large) due to an active emergency-stop input. In this case, the CC controller unit brakes the drive immediately. The result is a following error. The additional info indicates the active emergency-stop input: 1 = Emergency stop A (ES.A) 2 = Emergency stop A with handwheel (ES.A.HW) 3 = Emergency stop B (ES.B) 4 = Emergency stop B with handwheel (ES.B.HW) 5 = Emergency stop B Functional Safety 6 = Emergency stop B Functional Safety with handwheel **Error correction** - Check the external wiring, especially the emergency stop inputs. - Inform your service agency

Error number	Description
237-1801A	**Error message** 1801A Non-clearable positioning error %1, ES %4 **Cause of error** A positioning error that cannot be cleared (excessive servo lag) occurred as the result of an active emergency-stop input. In this case, the CC controller unit brakes the motor immediately. This results in a servo-lag error. The additional information indicates the active emergency-stop input: 1 = Emergency Stop A 2 = Emergency Stop A Handwheel 3 = Emergency Stop B 4 = Emergency Stop B Handwheel 5 = Emergency Stop B Functional Safety 6 = Emergency Stop B Functional Safety Handwheel 7 = Emergency Stop A Functional Safety 8 = Emergency Stop A Functional Safety Handwheel **Error correction** - Check the external wiring, especially the emergency-stop inputs - Inform your service agency
237-1801B	**Error message** 1801B SPI module in wrong slot **Cause of error** A single SPI module (e.g. CMA-H) solely in SPI slot 2 is not permissible. **Error correction** - Insert the SPI module in slot 1 of the controller unit. Only once the control has been switched off and is free of potential! - If the problem continues, inform your service agency.
237-1801C	**Error message** 1801C SPI expansion board not supported **Cause of error** - Hardware (CC controller) does not support the SPI expansion board. - CC controller assembly is too old. **Error correction** - Replace CC controller assembly with a current model. - Inform your service agency.

Error number	Description
237-1801D	**Error message** 1801D Overcurrent at analog output on SPI expansion module **Cause of error** Current at output exceeds 20 mA Possible causes: - Short circuit to 0 V or to other voltage sources - Short circuit to other outputs **Error correction** - Check the connection of the shield (on both sides, low impedance. Refer to your control's Technical Manual). - Check the cabling for short circuits to 0 V, to voltage sources or outputs of other channels. - Check the input impedance of the receiver. - Inform your service agency.
237-1801E	**Error message** 1801E Excessive temperature at SPI expansion module **Cause of error** Temperature in the output driver exceeded 105 °C. **Error correction** Inform your service agency.
237-1801F	**Error message** 1801F Supply voltage on the SPI expansion module too low **Cause of error** Supply voltage of the output driver is too low: - Voltage drop due to overload or short circuit - Supply voltage through CC/UEC/MC too low **Error correction** - Check the supply voltage. - Check the wiring of the outputs. - Avoid overloads by deactivating one or more output channels. - Inform your service agency.
237-18020	**Error message** 18020 Overcurrent on the analog output of the SPI expansion module **Cause of error** Message accompanies the ¿SHORT_CIRCUIT¿, error message if the error occurred only briefly and corrected itself. **Error correction** No remedial actions required because the error has been settled.

Error number	Description
237-18021	**Error message** 18021 Error in the CMP file: Supply pointer (SP) is faulty **Cause of error** CMP file: Supply pointer (SP) "UCCS" compensations is faulty. The supply pointer points to the infeed point for which the respective compensation is active. Possible input values: -1: Void -> Output value of the block can be used for UCCP. 0: UCCS block 0 1: UCCS block 1 2: UCCS block 0 3: UCCS block 3 4: UCCS block 4 5: UCCS block 5 6: IqNom 7: WNom **Error correction** - Deactivate CMP file in machine parameters - Create CMP file again. - Inform your service agency.
237-18022	**Error message** 18022 CMP file: Axis transfer in the "UCCS" compensation is faulty. **Cause of error** CMP file: The axis transfer in the "UCCS" compensations is faulty. The axis information from the MC, i.e. the transferred axis index does not agree with the axis index of the active axis. There is an internal software error. **Error correction** - Deactivate CMP file in machine parameters - Create CMP file again. - Inform your service agency.

Error number	Description
237-18023	**Error message** 18023 CMP file: Def. function (FUNC) in UCCS compensations is faulty **Cause of error** CMP file: A faulty function (FUNC) was used in the UCCS compensations. The following functions are possible: 0: DoNothing (-> deactivation) 1: Polynomial 2: Inverse polynomial 3: IIR filter, 2nd order 4: Sine 5: Hyperbolic sine 6: Segment-defined function 7: Adaptive filter **Error correction** - Deactivate CMP file in machine parameters - Create CMP file again. - Inform your service agency.

Error number	Description
237-18024	**Error message** 18024 CMP file: Signal definition SIG0 or SIG1 of UCCS is faulty **Cause of error** CMP file: Definition of the input signals SIG0 or SIG1 von UCCS/UCCP is faulty. The following input quantities are allowed: –1: Not active 0: Value entered in the machine parameter (only UCCP) 1: Output value for block 0 2: Output value for block 1 3: Output value for block 2 4: Output value for block 3 5: Output value for block 4 6: Feedforward current 7: Feedforward acceleration 8: Feedforward velocity 9: Nominal speed 10: Following error 11: Nominal current 12: Integral current 13: Nominal voltage 14: Ud 15: Uq 16: IqNom 17: IdNom 18: IqAct 19: IdAct 20: Motor temperature 21: Commutation angle **Error correction** - Deactivate CMP file in machine parameters - Create CMP file again. - Inform your service agency.
237-18025	**Error message** 18025 CMP file: Axis index (SAX) in the UCCS compensations is faulty **Cause of error** CMP file: Axis index (SAX) in the UCCS compensations is faulty. The axis index points at its own axis or another axis that must be located on the same CC board. The given index is with respect to the index of the machine-parameter file. **Error correction** - Deactivate CMP file in machine parameters - Create CMP file again. - Inform your service agency.

Error number	Description
237-18026	**Error message** 18026 CMP file: Entry (ENTR) in the "UCCS" compensations is faulty **Cause of error** CMP file: Entry (ENTR) in the "UCCS" compensations is faulty. "Entry" defines whether the UCCS compensation is applied additively or multiplicatively. The following input is allowed: 0: Application deactivated 1: Additive application 2: Multiplicative application **Error correction** - Deactivate CMP file in machine parameters - Create CMP file again. - Inform your service agency.
237-18027	**Error message** 18027 "Expanded compensations" and "TRC" are not simultaneous **Cause of error** The "TRC = Torque Ripple Compensation" and "Expanded compensations" functions could not be used at the same time. **Error correction** - Deselect the TRC compensation through the appropriate machine parameter or - Select the expanded compensations - Inform your service agency
237-18028	**Error message** 18028 CC%2: invalid command %4 received **Cause of error** A communication error occurred between the main computer (MC) and the controller unit (CC). Possible causes: - Faulty HSCI wiring - Internal software error - Installed software version is not officially released **Error correction** - Check the voltage supply to the devices - Check the HSCI cabling - Check the HSCI connections (plugged in?) - Check the software version - Note further information in the control's diagnostic functions (bus diagnostics or TNCdiag) - Inform your service agency

Error number	Description
237-18029	**Error message** 18029 CC%2 incrmtl. actl. val. measrmt. w/ motor enc. %1 **Cause of error** - Encoder defective - Data transfer from encoder faulty - Internal software error **Error correction** - Check the encoder cable and its connection - Exchange the encoder cable - Exchange the encoder - Check the software version. - Inform your service agency.
237-1802A	**Error message** 1802A PWM frequency switching requires double-speed axis %1 **Cause of error** If the machine parameter CfgCurrentControl/iCtrlPwmType is used to parameterize speed-dependent PWM frequency switching, then the machine parameter from MLST 19: CfgCtrlOut/ctrlPerformance or to MLST 18: CfgAxisHardware/ctrlPerformance must be set to the value DOUBLE. **Error correction** - Set the CfgCurrentControl/iCtrlPwmType parameter to zero in order to deactivate speed-dependent PWM frequency switching - Set the from MLST 19: CfgCtrlOut/ctrlPerformance or to MLST 18: CfgAxisHardware/ctrlPerformance parameter to DOUBLE - Inform your service agency
237-1802B	**Error message** 1802B Excessively high PWM frequency is parameterized %0 **Cause of error** The (highest) PWM frequency parameterized for the indicated control loop is not permissible **Error correction** - Deactivate PWM frequency switching by setting the parameter CfgCurrentControl/iCtrlPwmType to zero - Reduce the PWM frequency in CfgPowerStage/ampPwmFreq - Inform your service agency

Error number	Description
237-18030	**Error message** 18030 CC%2 incrmtl. actl. value measrmt. w/ pos. enc. %1 **Cause of error** - Encoder defective - Data transfer from encoder faulty - Internal software error **Error correction** - Check the encoder cable and its connection - Exchange the encoder cable - Exchange the encoder - Check the software version. - Inform your service agency.
237-18031	**Error message** 18031 CC%2 nominal speed value (PWM) incorrect %1 **Cause of error** The controller unit provides no valid nominal speed value for the motor, or provides it too late: - Controller configuration (machine parameters) faulty - Internal software error **Error correction** - Check the controller configuration or machine parameters for PWM frequency, encoder inputs/outputs and nominal value outputs - Check the software version. - Inform your service agency.
237-18032	**Error message** 18032 Maximum number of CCs was exceeded **Cause of error** The permissible number of CC controller units has been exceeded. **Error correction** - Reduce the number of CCs. - Inform your service agency.
237-18033	**Error message** 18033 Syntax error in PAC compensation file **Cause of error** - Syntax error in the compensation file for PAC - Faulty function type in the compensation file for PAC **Error correction** - Use TNCopt to recreate a compensation file for PAC - Inform your service agency

Error number	Description
237-18034	**Error message** 18034 Invalid axis assignment in PAC compensation file **Cause of error** - Invalid axis assignment in the compensation file for PAC - Syntax error in the compensation file for PAC **Error correction** - Check the axis assignment in the compensation file for PAC - Use TNCopt to recreate a compensation file for PAC - Inform your service agency
237-18035	**Error message** 18035 Syntax error in CTC compensation file **Cause of error** - Invalid input point in the compensation file for CTC - Syntax error in the compensation file for CTC **Error correction** - Use TNCopt to recreate a compensation file for CTC - Inform your service agency
237-18036	**Error message** 18036 CC%2 Drive:%1 stop=%4 cause=%5 axis group=%6 condition=%7 **Cause of error** **Error correction**
237-18037	**Error message** 18037 Required software option not enabled: %4 **Cause of error** The entered software option has not been enabled, although you tried to activate a function connected with it. **Error correction** - Check the software options using the SIK code number - Contact a representative of the machine manufacturer or HEIDENHAIN.
237-18038	**Error message** 18038 Incorrect entry in CTC compensation file **Cause of error** - Syntax error in the compensation files of the “expanded compensation” of the CTC function **Error correction** - Use TNCopt to recreate a compensation file for CTC - Inform your service agency

Error number	Description
237-18039	**Error message** 18039 Speed encoder line count of %1 is incorrect. %4 was expected. **Cause of error** Rotary encoders: - Encoder line count in the parameter is not equal to the EnDat line count found - The entry in machine parameter "CfgServoMotor/motStr" is incorrect - Incorrect entry under STR in motor table - EnDat 2.2 rotational speed encoder without line count information must be defined as STR = 1 or "CfgServoMotor/motStr=1" Linear encoders: - the grating period in the parameter deviates from the grating period found by EnDat - The entry in machine parameter from MLST 19: CfgCtrlEncoder/distance, CfgCtrlEncoder/increments or to MLST 18: posEncoderDist, posEncoderIncr is faulty - For EnDat 2.2 linear encoders without specified grating period, the value of the measuring step (e.g. 1 nm or 10 nm) must be parameterized **Error correction** Rotary encoders: - Enter the correct line count in machine parameter "CfgServoMotor/motStr" - Enter the displayed line count under STR in the motor table Linear encoders: - Enter the displayed grating period in machine parameter from MLST 19: CfgCtrlEncoder/distance, CfgCtrlEncoder/increments or to MLST 18: posEncoderDist, posEncoderIncr Inform your service agency.
237-1803A	**Error message** 1803A Configuration error %1 distance=%4, increments=%5 **Cause of error** Faulty configuration: - The context from the machine parameters from MLST 19: CfgCtrlEncoder/distance to CfgCtrlEncoder/increments or to MLST 18: CfgAxisHardware/posEncoderDist to CfgAxisHardware/posEncoderIncr does not agree with the values from the EnDat encoder - With EnDat 2.2: See the Technical Manual of the control **Error correction** - Check the entries of the machine parameters from MLST 19: CfgCtrlEncoder/distance, CfgCtrlEncoder/increments or to MLST 18: CfgAxisHardware/posEncoderDist, CfgAxisHardware/posEncoderIncr and replace them with the displayed values - Inform your service agency.

Error number	Description
237-1803B	**Error message** 1803B CC%2: command %4 received with invalid addressing %5 **Cause of error** A communication error occurred between the main computer (MC) and the controller unit (CC). Possible causes: - Faulty HSCI wiring - Internal software error - Installed software version is not officially released **Error correction** - Check the voltage supply to the devices - Check the HSCI cabling - Check the HSCI connections (plugged in?) - Check the software version - Note further information in the control's diagnostic functions (bus diagnostics or TNCdiag) - Inform your service agency
237-1803C	**Error message** 1803C Incorrect parameter entry in CC compensation file under UCCS **Cause of error** - Invalid entry in the compensation files of the expanded compensation (CTC, PAC, LAC, ...) - The installed software version does not support this entry **Error correction** - Check the entries of the compensation files - Inform your service agency
237-1803D	**Error message** 1803D Incorrect entry in PAC compensation file **Cause of error** - Invalid entry in the compensation file for PAC - Installed software version does not support this entry **Error correction** - Check the entries of the compensation file - Inform your service agency

Error number	Description
237-1803E	**Error message** 1803E Error in current controller **Cause of error** In spite of the given nominal current, the current controller could not measure any actual current (= 0). Possible causes: - Line to motor interrupted - Error in the control of the wye-delta contactor - Defective power module **Error correction** - Check the motor lines - Check the wiring and function of the wye-delta contactor - Exchange the power module, if necessary - Inform your service agency
237-1803F	**Error message** 1803F Syntax error in compensation file LAC **Cause of error** Error in the syntax of the "expanded compensations" Type of the "Load Adaptive Control" function is unknown **Error correction** Generation of a new LAC compensation files through TNCopt Inform your service agency.
237-18041	**Error message** 18041 Number of maximum compensation blocks (CTC/PAC) exceeded **Cause of error** – Maximum number of CTC blocks exceeded – Maximum number of PAC blocks exceeded – Maximum number of other blocks of the extended compensations exceeded **Error correction** – Revise extended compensation files with TNCopt – Deactivation of extended compensations via MP2700/CfgControllerComp/enhancedComp - Inform your service agency
237-18042	**Error message** 18042 Syntax error in compensation file MAC **Cause of error** Error in the syntax of the "expanded compensations" Type of the "Motion Adaptive Control" function is unknown **Error correction** - Use TNCopt to generate a new MAC compensation file - Inform your service agency

Error number	Description
237-18044	**Error message** 18044 There is no compensation file for CTC **Cause of error** Compensation file is missing **Error correction** - Use TNCopt to generate a compensation file - Deactivate the compensation file in CfgController-Comp/enhancedComp - Inform your service agency
237-18045	**Error message** 18045 There is no compensation file for PAC **Cause of error** Compensation file is missing **Error correction** - Use TNCopt to generate a compensation file - Deactivate the compensation file in CfgController-Comp/enhancedComp - Inform your service agency
237-18046	**Error message** 18046 There is no compensation file for LAC **Cause of error** Compensation file is missing **Error correction** - Use TNCopt to generate a compensation file - Deactivate the compensation file in CfgController-Comp/enhancedComp - Inform your service agency
237-18047	**Error message** 18047 There is no compensation file for MAC **Cause of error** Compensation file is missing **Error correction** - Use TNCopt to generate a compensation file - Deactivate the compensation file in CfgController-Comp/enhancedComp - Inform your service agency

Error number	Description
237-18048	**Error message** 18048 There is no compensation file for ACC **Cause of error** Compensation file is missing **Error correction** - Use TNCopt to generate a compensation file - Deactivate the compensation file in CfgController-Comp/enhancedComp - Inform your service agency
237-1804A	**Error message** 1804A There is no compensation file for UCCS **Cause of error** Compensation file is missing **Error correction** - Use TNCopt to generate a compensation file - Deactivate the compensation file in CfgController-Comp/enhancedComp - Inform your service agency
237-1804B	**Error message** 1804B There is no compensation file for UCCP **Cause of error** Compensation file is missing **Error correction** - Use TNCopt to generate a compensation file - Deactivate the compensation file in CfgController-Comp/enhancedComp - Inform your service agency
237-1804C	**Error message** 1804C EnDat position encoder: Transmission rate axis %1 **Cause of error** - The communication with the encoder is not possible at the velocity required for servo control. **Error correction** - Check the cable and connecting elements of the signal path - Exchange the encoder - Exchange the CC - Inform your service agency

Error number	Description
237-1804D	**Error message** 1804D EnDat motor encoder: Transmission rate axis %1 **Cause of error** - The communication with the encoder is not possible at the velocity required for servo control. **Error correction** - Check the cable and connecting elements of the signal path - Exchange the encoder - Exchange the CC - Inform your service agency
237-1804E	**Error message** 1804E SPI trigger card activates %1 trigger rate %4 Hz **Cause of error** - The synchronization of external encoders through an SPI trigger card in the CC was activated with CfgCCAuxil/miscCtrlFunct1, bit 10 **Error correction** - Check the entry in CfgCCAuxil/miscCtrlFunct1, bit 10 - Inform your service agency
237-1804F	**Error message** 1804F EnDat2.2 configured but not detected %1 info %4 %5 %6 **Cause of error** An EnDat2.2 encoder was configured, but the control could not switch it to the EnDat2.2-Modus mode. Info contains the following three additional information data: 1) 1: This is about the shaft speed encoder 2: This is about the position encoder 2) Connector offset e.g. connector offset = 3 and additional info 1) = 2: Connector X204 is affected 3) EnDat error word **Error correction** - Check the entry in Machine Parameter from MLST 19: CfgCtrlEncoder/protocol or to MLST 18: CfgAxisHardware/posEncoderType: The value EnDat2_2 must not be set unless the position encoder is an EnDat 2.2 encoder. - Check the selected motor: The current settings expect a motor with EnDat2.2 encoder. - Check the entry in Machine Parameter CfgServoMotor/motEncType. - Check the status of the EnDat2.2 encoder with the aid of DriveDiag: Check the pending alarms.

Error number	Description
237-18050	**Error message** 18050 CC%2 %1 AVD parameter ID=%4 **Cause of error** There is an error in the AVD parameter file: - The file contains invalid parameter data - An incorrect version of TNCopt may have been used to create it **Error correction** - Deactivate AVD in the configuration (enhanced-Comp/MP2700) - Make a new AVD file with a current version of TNCopt - Check the software version ID=10 Can only be used on hardware with a limited number of axes - Inform your service agency ID=107 Kv factor of position controller does not match AVD parameter PAR7 ID=108 Kp factor of speed controller does not match AVD parameter PAR8 ID=109 Ki factor of speed controller does not match AVD parameter PAR9 ID=205 File version not valid ID=300 Motor overcurrent due to incorrect AVD parameter assignment
237-18051	**Error message** 18051 Axis %2: Number of the UV is in error **Cause of error** - Number of the UV power supply unit in the machine parameter is faulty **Error correction** - Check the number of the UV power supply unit in the machine parameter - Inform your service agency
237-18052	**Error message** 18052 Axis %2: Faulty entry in ICTRL compensation file **Cause of error** - Invalid entry in the compensation file for ICTRL - Installed software version does not support this entry **Error correction** - Check the entries in the compensation file for ICTRL - Inform your service agency
237-18053	**Error message** 18053 %4 %1 **Cause of error** No help text available **Error correction**

Error number	Description
237-18054	**Error message** 18054 %4 %1 **Cause of error** No help text available **Error correction**
237-18055	**Error message** 18055 %4 %1 **Cause of error** No help text available **Error correction**
237-18056	**Error message** 18056 CC %2 axis %1: Filter %4 in the speed control loop is instable **Cause of error** - The filter parameter set is inconsistent. - The filter frequency defined in the machine parameter MP_vCtrlFilterFreqX is too low or too high. **Error correction** - Check the entries in the machine parameters MP_vCtrl-FilterTypeX, MP_vCtrlFilterFreqX, MP_vCtrlFilterDampingX and MP_vCtrlFilterBandWidthX, whereby X stands for the displayed filter number. - Inform your service agency
237-18057	**Error message** 18057 CC %2 axis %1: Filter %4 in the position control loop is instable **Cause of error** - The filter parameter set is inconsistent - The filter frequency defined in the machine parameter MP_vCtrlFilterFreqX is too low or too high **Error correction** - Check the entries in the machine parameters MP_vCtrl-FilterTypeX, MP_vCtrlFilterFreqX, MP_vCtrlFilterDampingX and MP_vCtrlFilterBandWidthX, whereby X stands for the displayed filter number. - Inform your service agency
237-18058	**Error message** 18058 CC %2 axis %1: IPC is instable %4 **Cause of error** - IPC time constant is too large **Error correction** - Check machine parameters MP_compIpcT1 and MP_com-pIpcT2 - Inform your service agency

Error number	Description
237-18059	**Error message** 18059 CC %2 axis %1: AVD instable %4 **Cause of error** - The adjusted AVD frequency is too low or too high. **Error correction** - Inspect the AVD frequency with a current version of TNCopt - Generation of a new AVD file through TNCopt - Inform your service agency
237-1805A	**Error message** 1805A CC %2 axis %1: AVD instable %4 **Cause of error** - The adjusted AVD frequency is too low or too high. **Error correction** - Inspect the AVD frequency with a current version of TNCopt - Generation of a new AVD file through TNCopt - Inform your service agency
237-1805B	**Error message** 1805B CC %2 axis %1: AVD filter is instable %4 **Cause of error** - The parameter set of the AVD filter 13 (type 22) is inconsistent - The defined frequency of the AVD filter 13 (type 22) is too high or too low - The adjusted AVD frequency is too high or too low. **Error correction** - Use the current TNCopt version to check the AVD filter 13. - Inspect the AVD frequency using TNCopt - Generation of a new AVD file through TNCopt - Inform your service agency
237-1805C	**Error message** 1805C CC %2 axis %1: Measurement with AVD is instable %4 **Cause of error** - Internal software error **Error correction** - Check the software version. - Inform your service agency

Error number	Description
237-1805D	**Error message** 1805D Maximum number of function blocks exceeded %1 **Cause of error** - Maximum number of LAC function blocks exceeded - Maximum number of function blocks of the extended compensations exceeded **Error correction** - Revise extended compensation files with TNCopt - Deactivation of extended compensations via <ParameterSet>/CfgControllerComp/enhancedComp - Inform your service agency
237-1805E	**Error message** 1805E Feed-in point in %4 in line %4 is faulty **Cause of error** - Syntax error in the displayed file - The given feed-in point is not supported **Error correction** - Generation of a new compensation file through TNCopt - Deactivation of extended compensations - Inform your service agency
237-1805F	**Error message** 1805F Error in %4 in line %5 **Cause of error** - Syntax error in the displayed file - Signal index (SIGx) in the displayed line is faulty **Error correction** - Use TNCopt to regenerate the displayed file - Deactivation of extended compensations via <ParameterSet>/CfgControllerComp/enhancedComp - Inform your service agency
237-18060	**Error message** 18060 Faulty assignment in %4 **Cause of error** - Input or output cannot be accessed for compensation (e.g. is on another controller board) - Faulty assignment in the displayed file **Error correction** - Use TNCopt to regenerate the compensation file - Compensations by axis coupling possible only for axes on the same controller board - Inform your service agency

Error number	Description
237-18062	**Error message** 18062 CC %2 axis %1: AVD Filter 1%4 in position control loop instable **Cause of error** - The filter parameter set is inconsistent - The filter frequency is defined too high or too low **Error correction** - Use the current TNCopt version to check the AVD filters 11 and 12 - Generation of a new AVD file through TNCopt - Inform your service agency
237-18063	**Error message** 18063 CC %2 axis %1: ACC instable %4 **Cause of error** - Internal software error **Error correction** - Check the software version. - Inform your service agency
237-18064	**Error message** 18064 CC %2 axis %1: ACC instable %4 **Cause of error** - Internal software error **Error correction** - Check the software version. - Inform your service agency
237-18065	**Error message** 18065 CC %2 axis %1: ACC instable %4 **Cause of error** - Internal software error **Error correction** - Check the software version. - Inform your service agency
237-18066	**Error message** 18066 CC %2 axis %1: ACC instable %4 **Cause of error** - Internal software error **Error correction** - Check the software version. - Inform your service agency

Error number	Description
237-18067	**Error message** 18067 CC %2 axis %1: CPF is instable %4 **Cause of error** - Separation frequency of the Crossover Position Filters (CPF) is too low **Error correction** - Check the separation frequency (MP_compActDampFreq) - Inform your service agency
237-18068	**Error message** 18068 Axis %1: FSC filter instable (%4) **Cause of error** The FSC filter parameters are faulty. **Error correction** - Check the FSC parameters - Use TNCopt to optimize the FSC parameters - Deactivate FSC (set FscAccToIq to 0) - Inform your service agency
237-18069	**Error message** 18069 Axis %1: FSC filter instable (%4) **Cause of error** The FSC filter parameters are faulty. **Error correction** - Check the FSC parameters - Use TNCopt to optimize the FSC parameters - Deactivate FSC (set FscAccToIq to 0) - Inform your service agency
237-1806B	**Error message** 1806B CC %2 axis %1: Filter is instable %4 **Cause of error** - Internal software error **Error correction** - Check the software version. - Inform your service agency
237-1806C	**Error message** 1806C "Machine Parameter" in %4 in line %5 is in error **Cause of error** - Syntax error in displayed file. - The given machine parameter is not supported **Error correction** - Generation of a new compensation file through TNCopt - Deactivation of the expanded compensations - Inform your service agency

Error number	Description
237-1806D	**Error message** 1806D Syntax error in FN22 function **Cause of error** - Error in FN22 syntax **Error correction** Inspect the syntax in the FN22 function Deactivate the FN22 function or the superimposed cycle Inform your service agency
237-1806E	**Error message** 1806E Faulty assignment in %4 **Cause of error** - Faulty assignment in the displayed file **Error correction** - Use TNCopt to regenerate the compensation file - Inform your service agency
237-1806F	**Error message** 1806F Cycle 239 has been canceled **Cause of error** Cycle 239 was canceled No mass/mass moment of inertia was estimated **Error correction** Repeat Cycle 239
237-18070	**Error message** 18070 CC%2 %1 Current limit in control loop **Cause of error** The current limitation in the control loop responded The AVD function was deactivated. Possible causes: - Excessive acceleration - Feedforward-control parameter(s) incorrect - Type of AVD damping incorrect - AVD damping factor too high **Error correction** - Check the nominal acceleration - Check the feedforward-control parameter(s) - Check the AVD parameterization - Adapt the parameter(s) if necessary - - Inform your service agency

Error number	Description
237-18071	**Error message** 18071 CC%2 function only available with EnDat encoder %1 **Cause of error** The crossover position filter is possible only with an EnDat encoder. **Error correction** Deselect the crossover position filter Use of an EnDat linear encoder Inform your service agency
237-18072	**Error message** 18072 Spindle overload %1 **Cause of error** - The spindle was briefly overloaded **Error correction** - Reduce the feed rate - Reduce the infeed - Check the cutting data
237-18073	**Error message** 18073 Transfer machine parameters axis %1
237-18074	**Error message** 18074 CC%2 %1 measured mass moment of inertia: %4 [kg'*m*m*0.001] **Cause of error** **Error correction**
237-18075	**Error message** 18075 CC%2 %1 measured mass: %4 [kg*0.001]
237-18076	**Error message** 18076 CC%2 %1 acceleration threshold not reached: %4 [percent] **Cause of error** The required axis acceleration was not reached during the weighing run. The mass or mass moment of inertia can be estimated only if a specific minimum acceleration is reached. **Error correction** - Set override potentiometer to 100% - Increase the traverse distance for the weighing run

Error number	Description
237-18078	**Error message** 18078 CC %2 axis %1: parameter %4 not supported by the software. **Cause of error** - Machine parameters are no longer supported by the installed NC software version. **Error correction** - Delete the machine parameters or set them to their initial value. - Inform your service agency
237-18079	**Error message** 18079 CC%2: disturbance in UM communication, error code=%4 **Cause of error** The communication component for the optical fiber connection (HFL) to the inverters reports an error Possible causes: - Hardware defective - Electromagnetic disturbances - Optical fibers (HFL) not connected correctly - Insufficient bend radius of the optical fibers **Error correction** - Create a service file (error code gives information about the exact cause of the error for the diagnosis at HEIDENHAIN) - Inform your service agency - If required, exchange the hardware - Use TNCdiag to check the damping of the fiber-optic connections (HFL). If the damping is too high: - Check the optical fiber connections - Comply with the guidelines in the Technical Manual regarding the cable routing - Check the machine for correct shield connections and grounding - Check the motor and power cables for correct shield connections and terminal connections

Error number	Description
237-1807A	**Error message** 1807A CC%2: Internal connection fault, Error code=%4 **Cause of error** The communication component of an internal connection is reporting an error. Possible causes: - Electromagnetic interference - Hardware defective **Error correction** - Check the encoder cables, particularly shield connections - Comply with the guidelines in the Technical Manual regarding the cable routing - Exchange the hardware - Create a service file (error code gives information about the exact cause of the error for the diagnosis at HEIDENHAIN) - Inform your service agency
237-1807B	**Error message** 1807B CC%2: logical disturbance of data reception %1, error code=%4 **Cause of error** The communication component for the optical fiber connection (HFL) to the inverters reports an error Possible causes: - Hardware defective - Electromagnetic disturbances - Optical fibers (HFL) not connected correctly - Insufficient bend radius of the optical fibers **Error correction** - Create a service file (error code gives information about the exact cause of the error for the diagnosis at HEIDENHAIN) - Inform your service agency - If required, exchange the hardware - Use TNCdiag to check the damping of the fiber-optic connections (HFL). If the damping is too high: - Check the optical fiber connections - Comply with the guidelines in the Technical Manual regarding the cable routing - Check the machine for correct shield connections and grounding - Check the motor and power cables for correct shield connections and terminal connections

Error number	Description
237-1807C	**Error message** 1807C CC%2: Internal port %5 fault, Error code=%4 **Cause of error** The communication component of an internal connection is reporting an error Possible causes: - Electromagnetic interference - Defective hardware **Error correction** - Check the encoder cables, particularly shield connections - Comply with the guidelines in the Technical Manual regarding the cable routing - Exchange the hardware - Create a service file (error code gives information about the exact cause of the error for the diagnosis at HEIDENHAIN) - Inform your service agency
237-1807D	**Error message** 1807D CC%2: physical disturbance of data reception %1, error code=%4 **Cause of error** The communication component for the optical fiber connection (HFL) to the inverters reports an error. Possible causes: - Hardware defective - Electromagnetic disturbances - Optical fibers (HFL) not connected correctly - Insufficient bend radius of the optical fibers **Error correction** - Use TNCdiag to check the damping of the optical fiber connections (HFL); if the damping is too high: - Check the optical fiber connections - Comply with the guidelines in the Technical Manual regarding the cable routing - If necessary, exchange the hardware - Create a service file (error code gives information about the exact cause of the error for the diagnosis at HEIDENHAIN) - Inform your service agency - Check the machine for correct shield connections and grounding - Check the motor and power cables for correct shield connections and terminal connections

Error number	Description
237-1807E	**Error message** 1807E CC%s: Internal connection fault, Error code=%4 **Cause of error** The component for internal optical fiber connections reports an error Possible causes: - Electromagnetic disturbances - Hardware defective **Error correction** - Check the encoder cables, particularly shield connections - Refer to the guidelines in the Technical Manual regarding the cable routing - Exchange the hardware - Create a service file (error code information about the exact cause of the error for the diagnosis at HEIDENHAIN) - Contact your service agency
237-1807F	**Error message** 1807F UM 3xx inverter not found %1 **Cause of error** - No communication with the inverter of the displayed axis - Optical fibers connected incorrectly or not at all - Supply voltage of the inverter is missing - The machine parameters CfgCtrlOut/inverterInterface CfgAxisHardware/inverterInterface, CfgCtrlOut/motorConnector CfgAxisHardware/motorConnector, or CfgCtrlAxis/hsciCcIndex CfgAxisHardware/hsciCcIndex are not parameterized correctly. - Inverter defective **Error correction** - Check the cabling - Check the supply voltage of the inverters - Check the entries in the machine parameters - Replace the inverter - Contact your service agency
237-18082	**Error message** 18082 There is no input for position encoder %1 **Cause of error** - A non-existent input was selected for the position encoder (entry in from MLST 19: CfgCtrlEncoder/input or to MLST 18: posEncoderInput) **Error correction** - Check machine parameter from MLST 19: CfgCtrlEncoder/input or to MLST 18: posEncoderInput - Inform your service agency

Error number	Description
237-18083	**Error message** 18083 There is no input for speed encoder %1 **Cause of error** - A non-existent input was selected for the tachometer (entry in MP_speedEncoderInput) **Error correction** - Check machine parameter MP_speedEncoderInput - Inform your service agency
237-18084	**Error message** 18084 No outlet for optical waveguide %1 **Cause of error** - A non-existent output was selected for the fiber-optic cable to the inverter UM (entry in MP_inverterInterface) **Error correction** - Check the machine parameter MP_inverterInterface - Inform your service agency
237-18085	**Error message** 18085 There is no motor connection on the inverter %1 **Cause of error** - The selected motor connection (entry in MP_motorConnector) is not present on the UM inverter or UEC compact inverter. **Error correction** - Check the machine parameter MP_motorConnector - Inform your service agency
237-18086	**Error message** 18086 %1 LAC: Measured mass moment of inertia: %4 [0.001*kg*m*m]
237-18087	**Error message** 18087 %1 LAC: measured mass: %4 [0.001*kg]

Error number	Description
237-18089	**Error message** 18089 WD monitoring has responded %1 (received:%4, expected:%5) **Cause of error** CC controller unit or UEC compact inverter reports that watchdog is no longer updated on UM inverter or UEC compact inverter **Error correction** - Restart the control - Check the machine for correct shield connections and grounding - Check the motor and power cables for correct shield connections and terminal connections - Inform your service agency
237-1808A	**Error message** 1808A Initial communication with inverter failed CC%2 %1 **Cause of error** No communication could be established with the inverter when booting the control. **Error correction** - Check the power supply - Inform your service agency - Replace the inverter
237-1808B	**Error message** 1808B ICTRL_xx.cmp parameter file faulty **Cause of error** - Incorrect entry in parameter file ICTRL_xx.cmp **Error correction** - Generation of a new parameter file via TNCopt - Variable parameter unknown - Variable parameter not permitted for this function - Inform your service agency
237-1808C	**Error message** 1808C Parameter entered: "%1 WearAdaptFriction = %4" **Cause of error** - Wear parameter(s) defined **Error correction**

Error number	Description
237-1808D	**Error message** 1808D Error in the determination of "WearAdaptFriction" **Cause of error** An error occurred while determining "WearAdaptFriction" - The velocity profile is not suitable for determining the wear parameter - The velocity profile is too long; as a result, the data recording is aborted too soon. - The velocity profile is too short; as a result, no constant velocity is reached for measured-value recording. **Error correction** - Adapt the velocity profile for determining the characteristic value for the wear - Inform your service agency
237-1808E	**Error message** 1808E PWM switching not permitted during operation **Cause of error** - The parameter for the PWM frequency was changed during operation. - The initial machine parameters contain a different PWM frequency. **Error correction** - All machine parameter subfiles must have the same PWM settings. - For all subfiles and all axes that are on the same PWM output, change the PWM frequency to the same value. - Inform your service agency.
237-1808F	**Error message** 1808F CC%2 incompatible motor system %1, X%4 connection **Cause of error** The configured encoder input of the controller unit can evaluate only digital, purely serial measuring systems This input does not support encoders with 1Vpp signals. **Error correction** - If the motor encoder being used is a 1Vpp encoder: use inputs X401 to X406 of this CC and configure them through CfgAxisConfig/MP_speedEncoderInput. - If it is an encoder with purely serial EnDat interface: set the parameter CfgServoMotor/MP_motEncType to the correct value. - Inform your service agency.

Error number	Description
237-18090	**Error message** 18090 CC%2 incompatible position encoder %1, X%4 connection **Cause of error** The configured encoder input of the controller unit can evaluate only digital, purely serial measuring systems This input does not support encoders with 1Vpp signals. **Error correction** - If the position encoder being used is a 1Vpp encoder: use inputs X401 to X406 of the CC and configure them through from MLST 19: CfgCtrlEncoder/input or to MLST 18: CfgAxisConfig/posEncoderInput. - If it is an encoder with purely serial EnDat interface: set the parameter from MLST 19: CfgCtrlEncoder/protocol or to MLST 18: CfgAxisHardware/posEncoderType to the correct value. - Inform your service agency
237-18091	**Error message** 18091 Speed controller: P factor or reset time too small in axis %1 **Cause of error** - P-factor of the speed controller in MP_vCtrlPropGain under CfgSpeedControl is too small - Reset time of the speed controller MP_vCtrlPropGain or MP_vCtrlIntGain is too short - Bit 20 of MP_miscCtrlFunct0 under CfgCCAuxil is set, although P factor and reset time are not too small **Error correction** - Increase the P factor in MP_vCtrlPropGain - Reduce the I factor in MP_vCtrlIntGain - Reset bit 20 of MP_miscCtrlFunct0
237-18092	**Error message** 18092 Controller software timeout BOARD-ID %2 **Cause of error** - The time monitor of the controller software reports an expiration. - Internal software error **Error correction** - Inform your service agency

Error number	Description
237-18093	**Error message** 18093 Controller software timeout BOARD-ID %2 **Cause of error** - The time monitor of the controller software reports an expiration. - Internal software error **Error correction** - Inform your service agency
237-18094	**Error message** 18094 CC%2 error during EnDat3 initialization %1 **Cause of error** - A problem occurred during initialization of the EnDat3 interface (AddInfo[0] == 0). - Communication with the EnDat3 encoder is not possible (AddInfo[0] == 1). **Error correction** - Restart the control - Exchange the CC controller unit - Check the encoder connecting cable - Remove the encoder from power for at least 5 seconds (disconnect the encoder from the control) and then restart the control - Exchange the encoder
237-18096	**Error message** 18096 Parameters of current controller are not correct %1 info %4 **Cause of error** - The current controller (CfgCurrentControl) is not parameterized correctly Info = 1: Mixed parameterization is not permitted: Please use only (iCtrlPropGain and iCtrlIntGain) or (iCtrlPropGainD, iCtrlIntGainD, iCtrlPropGainQ, and iCtrlIntGainQ) Info = 2: iCtrlPropGain = 0, even though iCtrlIntGain > 0 Info = 3: iCtrlPropGainD = 0, even though iCtrlIntGainD > 0 Info = 4: iCtrlPropGainQ = 0, even though iCtrlIntGainQ > 0 **Error correction** - Correct the parameterization of the current controller Info = 1: Set (iCtrlPropGain = 0 and iCtrlIntGain = 0) or (iCtrlPropGainD = 0, iCtrlIntGainD = 0, iCtrlPropGainQ = 0, and iCtrlIntGainQ = 0) Info = 2: Set iCtrlPropGain > 0 or iCtrlIntGain = 0 Info = 3: Set iCtrlPropGainD > 0 or iCtrlIntGainD = 0 Info = 4: Set iCtrlPropGainQ > 0 or iCtrlIntGainQ = 0

Error number	Description
237-18097	**Error message** 18097 Axis %1: measurement not possible **Cause of error** The axis was moved beyond the traverse limit during the measurement. **Error correction** Position the axis so that there is sufficient clearance to the traverse limits. Reduce the underlying velocity.
237-18098	**Error message** 18098 Axis %1: Application of the excitation signal canceled. **Cause of error** Drive is off or was switched off while the excitation signal was applied. **Error correction** Repeat the measurement with all drives switched on.
237-18099	**Error message** 18099 Shaft-speed-dependent PWM frequency switching not possible %1 **Cause of error** - A shaft-speed-dependent switching of the PWM frequency is configured with CfgCurrentControl/MP_iCtrlPwmType = 2. The software version being used does not yet support this functionality for Gen 3 drives. **Error correction** - Set the parameter CfgCurrentControl/iCtrlPwmType to 0. - If necessary, permanently set the PWM frequency to the higher value. - Inform your service agency.
237-1809A	**Error message** 1809A TNCopt adjustment sequence was started **Cause of error** An automatic adjustment sequence was started in TNCopt. TNCopt is controlling the control. The movement of the axes can be started automatically. **Error correction** - Check whether TNCopt is connected to the control and an adjustment sequence was started.

Error number	Description
237-1809B	**Error message** 1809B Axes %1: Oscillation detected. **Cause of error** An oscillation was detected during the measurement. **Error correction** Reduce the amplitude of the excitation signal. Ensure that the control loops have sufficient stability reserves.
237-1809C	**Error message** 1809C Type of referencing not permissible %1 **Cause of error** The mode set in the parameter CfgReferencing/refType is not possible with the present encoder. **Error correction** Enter a referencing mode suitable to the encoder in the stated parameter.
237-1809D	**Error message** 1809D CC%2: faulty internal connection **Cause of error** Interrupted communication to a device-internal controller. Possible causes: - Supply voltage outside of the permissible tolerance - Hardware defective **Error correction** - Check the supply voltage of the affected CC and dimension it according to the manual. - Exchange the CC. - Inform your service agency.
237-1809E	**Error message** 1809E CC%2: faulty internal connection **Cause of error** Interrupted communication to a device-internal controller. Possible causes: - Supply voltage outside of the permissible tolerance - Hardware defective **Error correction** - Check the supply voltage of the affected CC and dimension it according to the manual. - Exchange the CC. - Inform your service agency.

Error number	Description
237-1809F	**Error message** 1809F Axis %1: value of amplitude not in permissible range **Cause of error** The value of the amplitude of the excitation signal for the measurement of the frequency response is outside of the permissible range. **Error correction** - Inform your machine tool builder - Check the OEM macro for Cycle 238 (Measure machine status, CfgSystemCycle/OEM_MACHSTAT_MEAS) - Check the value for the excitation amplitude - Recommended setting: Enter the amplitude as a factor of the rated current. A typical value is 0.3.
237-180A0	**Error message** 180A0 Non-released inverter software loaded **Cause of error** The inverter contains test software that has not been released. This software may only be used for internal testing purposes. **Error correction** - Check the software version - Generate service files - Inform your service agency
237-180A1	**Error message** 180A1 "Time exceeded" trigger **Cause of error** The event that triggers the trigger did not occur in time. The programmed feed rate was not reached. **Error correction** Reduce the programmed feed rate.
237-180A2	**Error message** 180A2 Axis %1: %4 is not supported by the CC controller unit **Cause of error** The configured function is not supported in combination with the controller unit being used (CC or UxC). **Error correction** - Deactivate the function - Inform your service agency

Error number	Description
237-180A3	**Error message** 180A3 Axis %1: zero crossover of the %4 speed in '%5' measurement **Cause of error** While recording the Bode plot, a zero crossover of a measured velocity was detected. For this type of measurement, non-linear effects of friction at velocity=0 should be avoided. **Error correction** Increase the ratio of the underlying velocity to the excitation amplitude
237-180A4	**Error message** 180A4 CC%2: maximum computing load has risen for axis %1 **Cause of error** Due to a changed or newly activated set of machine parameters, the computing load of the CC has increased compared to the load through the initial or previous set of machine parameters. Factors in the computing load are the parameters for the PWM frequency (CfgPowerStage/ampPwmFreq), the controller performance (CfgCtrlOut/ctrlPerformance), and the current controller cycle time (CfgCurrentControl/iCtrlPwmType). **Error correction** - Reboot the control to initially load the changed set of parameters while booting. - Initially load the set of machine parameters with the highest computing load (if necessary with the attribute Axes/PhysicalAxes/(axis designation)/deactivatedAtStart = TRUE) and only then activate the set of machine parameters appropriate for the current hardware configuration (with less computing load).
237-180A5	**Error message** 180A5 Axis %1: error occurred during measurement **Cause of error** - This is an internal software error **Error correction** - Inform your service agency

Error number	Description
237-180A6	**Error message** 180A6 Axis %1: waterfall diagram measurement: v_nom not constant **Cause of error** The nominal velocity v_nom is not constant while recording the waterfall chart. **Error correction** - Inform your machine manufacturer - Check/correct the OEM macro for Cycle 238 Measure Machine Status (CfgSystemCycle/OEM_MACHSTAT_MEAS) - Increase the lead and lag time
237-180A7	**Error message** 180A7 CC%2: communication error w/ EnDat3 speed encoder, error code %6 **Cause of error** - An error occurred during communication with the EnDat3 encoder - The error code describes the cause: - 0, 1: Error in the physical layer (PHY) - 2: CRC error of the HPF or an LPF - 3: WD error; no response from the encoder was detected during the timeout - Possible causes: - Defective encoder - Defective encoder connecting cable - Noise on the encoder connecting cable **Error correction** - Exchange the encoder - Check the connecting cable, and exchange it if necessary - Exchange the CC controller unit
237-180A8	**Error message** 180A8 CC%2: communication error w/ EnDat3 pos. encoder, error code %6 **Cause of error** - An error occurred during communication with the EnDat3 encoder - The error code describes the cause: - 0, 1: Error in the physical layer (PHY) - 2: CRC error of the HPF or an LPF - 3: WD error; no response from the encoder was detected during the timeout - Possible causes: - Defective encoder - Defective encoder connecting cable - Noise on the encoder connecting cable **Error correction** - Exchange the encoder - Check the connecting cable, and exchange it if necessary - Exchange the CC controller unit

Error number	Description
237-180A9	**Error message** 180A9 CC %2: EnDat3 speed encoder reports error, error code %6 **Cause of error** The EnDat3 encoder reports an error during cyclic communication The error code describes the cause: - 6: Generation of data failed or encoder system failure - 7: Singleturn position faulty - 8: Multiturn position faulty - 9: Permissible ambient conditions of the encoder exceeded (e.g. temperature) - 10: Permissible electrical operating conditions exceeded (current and/or voltage too high or too low) - 11, 12, 13, 14: Device-specific error message 0-3 (note the encoder documentation) - 15: Unspecified error message **Error correction** - Check the encoder - Ensure the correct ambient conditions of the encoder - Exchange the encoder
237-180AA	**Error message** 180AA CC %2: EnDat3 position encoder reports error, error code %6 **Cause of error** The EnDat3 encoder reports an error during cyclic communication The error code describes the cause: - 6: Generation of data failed or encoder system failure - 7: Singleturn position faulty - 8: Multiturn position faulty - 9: Permissible ambient conditions of the encoder exceeded (e.g. temperature) - 10: Permissible electrical operating conditions exceeded (current and/or voltage too high or too low) - 11, 12, 13, 14: Device-specific error message 0-3 (note the encoder documentation) - 15: Unspecified error message **Error correction** - Check the encoder - Ensure the correct ambient conditions of the encoder - Exchange the encoder

Error number	Description
237-180AB	**Error message** 180AB CC%2: error in cyclic com. w/ EnDat3 speed encoder, error code %6 **Cause of error** The encoder reports an error during cyclic communication The error code describes the cause: - 4: Invalid position data were transmitted - 5: A request code is not supported by the encoder - 6: An error that cannot be associated was signaled **Error correction** - Check the encoder - Check any additional queries - Exchange the encoder - Exchange the CC controller unit - Inform your service agency
237-180AC	**Error message** 180AC CC%2: error in cyclic com. w/ EnDat3 pos. encoder, error code %6 **Cause of error** The encoder reports an error during cyclic communication The error code describes the cause: - 4: Invalid position data were transmitted - 5: A request code is not supported by the encoder - 6: An error that cannot be associated was signaled **Error correction** - Check the encoder - Check any additional queries - Exchange the encoder - Exchange the CC controller unit - Inform your service agency

Error number	Description
237-180AD	**Error message** 180AD CC%2: warning by EnDat3 encoder to %10; warning code: %6 **Cause of error** A warning was signaled during communication with the encoder The warning code describes the cause: - 0: Encoder status/maintenance - 1: Close to the limits of the permissible ambient conditions (e.g. temperature) - 2: Close to the limits of the permissible electrical operating conditions (current/voltage) - 3: Temperature warning threshold exceeded - 4: Almost down to minimum battery charge - 5-8: Encoder-specific warning 0-3 - 9: Unspecified warning from encoder - 10: A warning that cannot be associated is being signaled A serious encoder error could occur soon **Error correction** Measures depending on the warning code: - 0: Servicing of the encoder is recommended - 1, 4: Check compliance with the ambient conditions (e.g. temperature) and initiate measures - 2: Check compliance with the electrical operating conditions (e.g. ensure the voltage supply) - 3: Ensure compliance with the electrical operating conditions, change the battery soon - 5-8: Initiate measures as per the encoder documentation - 9, 10: Check the encoder; exchange the encoder; inform your service agency
237-180AE	**Error message** 180AE CC%2: temperature warning by EnDat3 encoder to %10 **Cause of error** The encoder has detected an impending violation of the permissible ambient conditions: Temperature exceedance **Error correction** - Ensure that the permissible ambient conditions are maintained (e.g., ensure sufficient cooling) - Check the encoder, and exchange it if necessary - Inform your service agency
237-180B0	**Error message** 180B0 CC (Log): data of an EnDat3 LowPrio transmission are invalid **Cause of error** **Error correction**

Error number	Description
237-180B1	**Error message** 180B1 Time exceeded during communication with UM 3xx at %1 **Cause of error** The described UM 3xx did not react to a communication request from the CC in time. Possible causes - Electromagnetic noise or faulty electrical contacts of the 24V supply voltage - Electromagnetic noise or faulty electrical contacts of the DC-link voltage - Electromagnetic noise or faulty electrical contacts in the motor cabling - Electromagnetic noise or faulty electrical contacts in the brake cabling - Contamination or poor optical coupling of the HFL **Error correction** - Check the machine and wiring for correct shield connection and grounding - Check the power cables for correct clamping - Check the HFL for correct routing, and also for contamination and correct clamping - Exchange the UM 3xx inverter - Exchange the CC 3xx controller unit - Generate a service file and inform your service agency
237-180B2	**Error message** 180B2 Error in communication with UM 3xx at %1 **Cause of error** Telegrams were lost during transmission of the actual current values from the UM to the CC. Possible causes - Electromagnetic noise or faulty electrical contacts of the 24V supply voltage - Electromagnetic noise or faulty electrical contacts of the DC-link voltage - Electromagnetic noise or faulty electrical contacts in the motor cabling - Electromagnetic noise or faulty electrical contacts in the brake cabling - Contamination or poor optical coupling of the HFL- - Internal system error **Error correction** - Check the machine and wiring for correct shield connection and grounding - Check the power cables for correct clamping - Check the HFL for correct routing, and also for contamination and correct clamping - Exchange the UM 3xx inverter - Exchange the CC 3xx controller unit - Generate a service file and inform your service agency

Error number	Description
237-180B3	**Error message** 180B3 Time exceeded during communication with internal component at %1 **Cause of error** The position-value converter component assigned to the connector did not react to a communication request from the processor in time. Possible causes - Electromagnetic noise or faulty electrical contacts of the 24V supply voltage - Electromagnetic noise or faulty electrical contacts in the encoder cabling - Electromagnetic noise or faulty electrical contacts in the shield connection - Internal system error **Error correction** - Check the machine and wiring for correct shield connection and grounding - Check the encoder cabling for correct clamping - Exchange the affected encoder or other encoders in the same column - so for X401 also X402, X431, or X432 - so for X403 also X404, X433, or X434 - so for X405 also X406, X435, or X436 - Exchange the CC 3xx controller unit - Generate a service file and inform your service agency
237-180B4	**Error message** 180B4 Error in communication with internal component at %1 **Cause of error** Communication with the position-value converter component for the described connector is impaired. Possible causes - Electromagnetic noise or faulty electrical contacts of the 24V supply voltage - Electromagnetic noise or faulty electrical contacts in the encoder cabling - Electromagnetic noise or faulty electrical contacts in the shield connection - Internal system error **Error correction** - Check the machine and wiring for correct shield connection and grounding - Check the encoder cabling for correct clamping - Exchange the affected encoder or other encoders in the same column - so for X401 also X402, X431, or X432 - so for X403 also X404, X433, or X434 - so for X405 also X406, X435, or X436 - Exchange the CC 3xx controller unit - Generate a service file and inform your service agency

Error number	Description
237-180B5	**Error message** 180B5 Too many faulty telegrams of a UM 3xx in sequence %1 **Cause of error** Too many telegrams in sequence were lost during transmission of the actual current values from the UM to the CC. Possible causes - Electromagnetic noise or faulty electrical contacts of the 24V supply voltage - Electromagnetic noise or faulty electrical contacts of the DC-link voltage - Electromagnetic noise or faulty electrical contacts in the motor cabling - Electromagnetic noise or faulty electrical contacts in the brake cabling - Contamination or poor optical coupling of the HFL **Error correction** - Check the machine and wiring for correct shield connection and grounding - Check the power cables for correct clamping - Check the HFL for correct routing, and also for contamination and correct clamping - Exchange the UM 3xx inverter - Exchange the CC 3xx controller unit - Generate a service file and inform your service agency
237-180B6	**Error message** 180B6 Too many faulty telegrams of a UM 3xx %1 **Cause of error** Too many telegrams were lost during transmission of the actual current values from the UM to the CC during the monitoring period. Possible causes - Electromagnetic noise or faulty electrical contacts of the 24V supply voltage - Electromagnetic noise or faulty electrical contacts of the DC-link voltage - Electromagnetic noise or faulty electrical contacts in the motor cabling - Electromagnetic noise or faulty electrical contacts in the brake cabling - Contamination or poor optical coupling of the HFL **Error correction** - Check the machine and wiring for correct shield connection and grounding - Check the power cables for correct clamping - Check the HFL for correct routing, and also for contamination and correct clamping - Exchange the UM 3xx inverter - Exchange the CC 3xx controller unit - Generate a service file and inform your service agency

Error number	Description
237-180B7	**Error message** 180B7 Excessive error frequency for telegrams of UM 3xx %1 **Cause of error** The frequency of faulty telegrams during transmission of the actual current values from the UM to the CC is above the limit value. Possible causes - Electromagnetic noise or faulty electrical contacts of the 24V supply voltage - Electromagnetic noise or faulty electrical contacts of the DC-link voltage - Electromagnetic noise or faulty electrical contacts in the motor cabling - Electromagnetic noise or faulty electrical contacts in the brake cabling - Contamination or poor optical coupling of the HFL **Error correction** - Check the machine and wiring for correct shield connection and grounding - Check the power cables for correct clamping - Check the HFL for correct routing, and also for contamination and correct clamping - Exchange the UM 3xx inverter - Exchange the CC 3xx controller unit - Generate a service file and inform your service agency
237-180B8	**Error message** 180B8 Conspicuous telegrams of UM 3xx %1 below the reporting threshold **Cause of error** There are peculiar telegrams during transmission of the actual current values from the UM to the CC. Possible causes - Electromagnetic noise or faulty electrical contacts of the 24V supply voltage - Electromagnetic noise or faulty electrical contacts of the DC-link voltage - Electromagnetic noise or faulty electrical contacts in the motor cabling - Electromagnetic noise or faulty electrical contacts in the brake cabling - Contamination or poor optical coupling of the HFL **Error correction** - No immediate corrective action is necessary, since no error situation has occurred yet - Possible preventive measure: check the machine for correct shield connection and grounding - Possible preventive measure: check the power cables for correct clamping - Possible preventive measure: check the HFL for correct routing, and also for contamination and correct clamping

Error number	Description
237-180B9	**Error message** 180B9 Conspicuous telegrams of UM 3xx %1 **Cause of error** There are peculiar telegrams during transmission of the actual current values from the UM to the CC. Possible causes - Electromagnetic noise or faulty electrical contacts of the 24V supply voltage - Electromagnetic noise or faulty electrical contacts of the DC-link voltage - Electromagnetic noise or faulty electrical contacts in the motor cabling - Electromagnetic noise or faulty electrical contacts in the brake cabling - Contamination or poor optical coupling of the HFL **Error correction** - No immediate corrective action is necessary, since no error situation has occurred yet - Possible preventive measure: check the machine for correct shield connection and grounding - Possible preventive measure: check the power cables for correct clamping - Possible preventive measure: check the HFL for correct routing, and also for contamination and correct clamping
237-180BA	**Error message** 180BA CC%2 EnDat2.2 incremental: faulty absolute value %1 **Cause of error** - Reference run was faulty - Reversal during the reference run - The same reference mark was traversed more than once **Error correction** - Separate the encoder from the power supply (for at least 10 seconds) - Switch off the power supply of the machine (main power switch off and on)
237-180BB	**Error message** 180BB Faulty FSuC Include file CC%2 %1 **Cause of error** The interface versions of internal components (SOC and FSuC) on the CC do not match. **Error correction** - Check the software version and run an update if necessary - Inform your service agency

Error number	Description
237-180BC	**Error message** 180BC Field-angle adjustment: chkPosHoldFieldAdj = 0 axis %1 **Cause of error** - A field angle adjustment was started even though the parameter CfgControllerAuxil/chkPosHoldFieldAdj has the value 0 - Only for spindles is it possible to deactivate position monitoring during a field angle adjustment - This is not permitted for axes **Error correction** - Set CfgControllerAuxil/chkPosHoldFieldAdj to a value greater than 0
237-180BD	**Error message** 180BD Position monitoring for field-angle adjustment %1, ES %4 **Cause of error** - The maximum position deviation was exceeded during the field angle adjustment. The additional information indicates the active emergency-stop input, if set: 0 = No emergency-stop input is set 1 = Emergency Stop A 2 = Emergency Stop A Handwheel 3 = Emergency Stop B 4 = Emergency Stop B Handwheel 5 = Emergency Stop B Functional Safety 6 = Emergency Stop B Functional Safety Handwheel 7 = Emergency Stop A Functional Safety 8 = Emergency Stop A Functional Safety Handwheel **Error correction** - Check the parameter CfgControllerAuxil/chkPosHoldField-Adj and increase it, if necessary - Check the external wiring, especially the emergency-stop inputs - Check the encoder and motor data
237-180BE	**Error message** 180BE Monitoring of servo lag inactive %1 **Cause of error** - The parameter CfgPosControl/servoLagMax2 has the value 0 - Only for spindles is it possible to deactivate servo-lag monitoring. This is not permitted for axes. **Error correction** - Set CfgPosControl/servoLagMax2 to a value greater than 0

Error number	Description
237-180BF	**Error message** 180BF Overflow of an internal communication buffer CPU0 CC%2 **Cause of error** An internal buffer in the CC controller unit for buffering messages to the MC main computer overflowed. **Error correction** Inform your service agency
237-180C0	**Error message** 180C0 Overflow of an internal communication buffer CPU1 CC%2 **Cause of error** An internal buffer in the CC controller unit for buffering messages to the MC main computer overflowed. **Error correction** Inform your service agency
237-180C1	**Error message** 180C1 Non-supported CC hardware CC%2 in use **Cause of error** By setting bit 31 in CfgCCAuxil/miscCtrlFunct1, a CC 61xx controller unit not supported by this software version is used intentionally. The proper functioning of the software cannot be ensured. **Error correction** - Exchange the CC (use ID 66263x-03 or higher) - Inform your service agency
237-180C2	**Error message** 180C2 CC hardware is not supported CC%2 **Cause of error** The CC 61xx controller unit being used is not supported by this software version. **Error correction** - Exchange the CC (use ID 66263x-03 or higher) - Inform your service agency
237-180C3	**Error message** 180C3 CC%2: error injection CC_ENCFPGA_VAR_%4 not valid for %1! **Cause of error** - An invalid or not yet supported error injection was triggered. - The transfer parameters for the error injection are not plausible. **Error correction** Adapt the additional information of the host command hcTAMPER_WITH_ENCODER_TRANSMISSION.

Error number	Description
237-180C4	**Error message** 180C4 CC%2: corrupt encoder data via CC_ENCFP-GA_VAR_%4 in %1! **Cause of error** - An error injection was triggered via hcTAMPER_WITH_EN-CODER_TRANSMISSION **Error correction**
237-180C5	**Error message** 180C5 MP transfer: Structure with ID %4 has size mismatch of %5 **Cause of error** - Size mismatch of an MP structure on the MC and CC. - This warning is just a reminder for R&D and has no functional meaning. **Error correction**
237-180C6	**Error message** 180C6 Axis %1: TRC cycle: feed rate not constant during measurement **Cause of error** The feed rate is not constant during measurement in the TRC cycle. **Error correction** - Increase the parameter trcCycLeadTime
237-180C7	**Error message** 180C7 Axis %1: incomplete parameterization of TRC cycle **Cause of error** The TRC cycle is parameterized incompletely or incorrectly. **Error correction** - Check the TRC cycle parameters in CfgTorqueRipple - Use TNCopt for parameterization
237-180C8	**Error message** 180C8 Axis %1: large difference (%5%) in reference meas.: harmonic %4 **Cause of error** There is a significant difference between the results of the two reference measurements in the TRC cycle. This can have a negative effect on the decisions of the optimizer and the adjustment quality. A possible cause could be a change in the lubrication condition, for example. **Error correction** Provide the most constant conditions possible during the cycle (such as the lubrication condition of the axes).

Error number	Description
237-180C9	**Error message** 180C9 Axis %1: TRC cycle: canceled due to max. iterations of %4 **Cause of error** Optimization was terminated after the maximum number of iterations. The criterion for cancellation (trcCycAmplTol) has not been attained. **Error correction** - Remove the configured motor harmonic whose compensation was not recommended (set to active) by the TRC cycle - Inform your service agency
237-180CA	**Error message** 180CA CC %2 axis %1: TRC cycles: trcCycMaxMeasDist %4 [mm/°] too small **Cause of error** The maximum permissible measuring distance is too small so that there is no period at constant feed rate or this period is too short. **Error correction** - Increase the parameter trcCycMaxMeasDist if possible. - Reduce the feed rate (trcCycMeasFeed) or increase the jerk and acceleration to keep the distance needed for acceleration and deceleration small. - Reduce the parameter trcCycLeadTime
237-180CB	**Error message** 180CB Axis %1: cycle had to be canceled **Cause of error** The feed-rate override entered is too low. NC stop or drive off during cycle run. Please note any further pending messages. **Error correction** Restart the cycle
237-180CC	**Error message** 180CC A collision occurred **Cause of error** Es wurde eine Kollision beim Verfahren der Achse festgestellt. **Error correction** - Verfahrwege der Achsen auf Hindernisse überprüfen - Sichtprüfung auf Beschädigungen der Maschine durchführen - Maschine auf Beschädigungen durch den Kundendienst überprüfen lassen - Maschinengeometrie neu vermessen lassen

Error number	Description
237-180D6	**Error message** 180D6 Critical collision detected **Cause of error** Kritische Kollision zwischen Achse und Werkstück oder zwischen Achse und Tisch erkannt. **Error correction** - Achse entgegen der Kollisionsrichtung freifahren - Werkzeug auf mechanische Beschädigungen prüfen - Maschine auf mechanische Beschädigungen überprüfen - Überprüfen Sie die Geometrie Ihrer Maschine - Überprüfen Sie die Spindel auf Beschädigungen - Kundendienst benachrichtigen
237-18500	**Error message** 18500 SKERN-CC%2: encoder error CRC X%4 **Cause of error** - Checksum error for the encoder data **Error correction** - Reboot the control - Exchange the controller unit (CC or UEC) if necessary - Inform your service agency
237-18501	**Error message** 18501 SKERN-CC%2: encoder error BlockID X%4 **Cause of error** - Block ID error for the encoder data **Error correction** - Reboot the control - Exchange the controller unit (CC or UEC) if necessary - Inform your service agency
237-18502	**Error message** 18502 SKERN-CC%2: encoder error amplitude too small X%4 **Cause of error** - Amplitude of encoder is too low **Error correction** - Check power supply of the encoder - Check encoder cabling - Replace encoder - Inform your service agency

Error number	Description
237-18503	**Error message** 18503 SKERN-CC%2: encoder error amplitude too large X%4 **Cause of error** - Amplitude of encoder is too high **Error correction** - Check encoder cabling - Replace encoder if necessary - Inform your service agency
237-18504	**Error message** 18504 SKERN-CC%2: encoder error frequency incorrect X%4 **Cause of error** - Frequency error in the encoder signals **Error correction** - Check encoder cabling including the shielding - Replace encoder if necessary - Inform your service agency
237-18505	**Error message** 18505 SKERN-CC%2: encoder error latch counter not incremented X%4 **Cause of error** - Faulty latch counter in the encoder data - No new encoder data received **Error correction** - Reboot the control - Exchange the controller unit (CC or UEC) or encoder (only if EnDat) if necessary - Check the encoder connection and cabling - Inform your service agency
237-18506	**Error message** 18506 SKERN-CC%2: encoder error pin ID X%4 **Cause of error** - PIN ID in the encoder data incorrect **Error correction** - Exchange the controller unit (CC or UEC) if necessary - Inform your service agency
237-18507	**Error message** 18507 SKERN-CC%2: encoder error EnDat22 F1 bit set X%4 **Cause of error** - Error bit F1 set in the EnDat22 encoder **Error correction** - Pay attention to the subsequent alarms - Check/replace encoder cabling - Replace encoder - Inform your service agency

Error number	Description
237-18508	**Error message** 18508 SKERN-CC%2: encoder error EnDat22 F2 bit set X%4 **Cause of error** - Error bit F2 set in the EnDat22 encoder **Error correction** - Pay attention to the subsequent alarms - Check/replace encoder cabling - Replace encoder - Inform your service agency
237-18509	**Error message** 18509 SKERN-CC%2: encoder error EnDat22 CRC X%4 **Cause of error** - Checksum error for the EnDat22 encoder data **Error correction** - Check/replace encoder cabling - Replace encoder - Inform your service agency
237-1850A	**Error message** 1850A SKERN-CC%2: encoder error block number X%4 **Cause of error** The block number in the encoder data is incorrect. **Error correction** - Exchange the controller unit (CC or UEC) if necessary - Inform your service agency
237-18510	**Error message** 18510 SKERN-CC%2: encoder error invalid overflow value X %4 **Cause of error** - Invalid overflow value for the encoder data **Error correction** - Inform your service agency
237-18511	**Error message** 18511 SKERN-CC%2: encoder error: group error in the EnDat master X%4 **Cause of error** There is an error with the encoder (EnDat master). **Error correction** Inform your service agency

Error number	Description
237-18520	**Error message** 18520 SKERN-CC%2: CRC error in cyclic inverter communication %1 **Cause of error** - CRC error in cyclic FS communication with the inverter **Error correction** - Reboot the control - Inform your service agency
237-18521	**Error message** 18521 SKERN-CC%2: counter error in cyclic inverter communication %1 **Cause of error** - Faulty packet counter in cyclic FS communication with the inverter **Error correction** - Reboot the control - Inform your service agency
237-18522	**Error message** 18522 SKERN-CC%2: checksum faulty %1 **Cause of error** - Checksum error of the UM-DriveID in cyclic FS communication with the inverter **Error correction** - Reboot the control - Inform your service agency
237-18523	**Error message** 18523 UM (FS.B): CRC error during cyclic UM communication CC%2 %1 **Cause of error** - CRC error in cyclic FS communication with the inverter **Error correction** - Reboot the control - Inform your service agency
237-18524	**Error message** 18524 UM (FS.B): counter error during cyclic UM communication CC%2 %1 **Cause of error** - Faulty packet counter in cyclic FS communication with the inverter **Error correction** - Reboot the control - Inform your service agency

Error number	Description
237-18525	**Error message** 18525 UM (FS.B): checksum error CC%2 %1 **Cause of error** - Checksum error of the UM-DriveID in cyclic FS communication with the inverter **Error correction** - Reboot the control - Inform your service agency
237-18530	**Error message** 18530 SKERN-CC%2: axis state during SMP change not STO %1 **Cause of error** - The axis was not in STO when one of the following parameters was changed: hsciCcIndex, inverterInterface, motorConnector **Error correction** - Switch the affected drive off or put it in STO before changing the parameter(s) - Check the PLC/SPLC program, and adapt it if necessary - Inform your service agency
237-18531	**Error message** 18531 SKERN-CC%2: watchdog error SKERN **Cause of error** - Internal software error (watchdog low priority cycle) **Error correction** - Inform your service agency
237-18540	**Error message** 18540 Encoder at X%4: Error during test of signal amplitude **Cause of error** An encoder with incremental signals is connected to the indicated connection. An error occurred with this encoder while testing the signal amplitude: - The dynamic sampling of an excessively high signal amplitude could not be completed successfully - The dynamic sampling of an excessively low signal amplitude could not be completed successfully **Error correction** - Check connections and cable of the encoder - Replace encoder or cable - Inform your service agency

Error number	Description
237-18541	**Error message** 18541 EnDat encoder at X%4: Forced dynamic sampling failed **Cause of error** An encoder with EnDat interface is connected to the indicated connection. An error occurred with this encoder during forced dynamic sampling. Possible causes: - Encoder not connected correctly - Encoder defective **Error correction** - Check connections and cable of the encoder - Replace encoder or cable - Inform your service agency
237-18542	**Error message** 18542 SKERN-CC%2: single-event-upset error (SEU) was determined **Cause of error** - Internal software error - Possible sporadic error due to EMC irradiation **Error correction** - Restart the control - Check the shielding or shield connection of the devices - Shield or remove possible EMC interferences - Inform your service agency
237-18544	**Error message** 18544 SKERN-CC%2: Inverter SS0 request axis %1 **Cause of error** - The inverter requests an SS0 stop function through the cyclic UM(FS.B) communication **Error correction** - Note any further messages from the inverter - Reboot the control
237-18545	**Error message** 18545 SKERN-CC%2: Inverter SS1F request axis %1 **Cause of error** - The inverter requests an SS1F stop function through the cyclic UM(FS.B) communication **Error correction** - Note any further messages from the inverter - Reboot the control

Error number	Description
237-18546	**Error message** 18546 SKERN-CC%2: Inverter watchdog error FSuC axis %1 **Cause of error** - FS.B of the inverter reports a watchdog error FS.A (WDF.A) - FS.A of the inverter is no longer ready **Error correction** - Reboot the control - Inform your service agency - Exchange the inverter, if necessary
237-18547	**Error message** 18547 SKERN-CC%2: Inverter FS.A supply voltage faulty axis %1 **Cause of error** - An internal supply voltage is too high or too low **Error correction** - Note any further messages from the inverter - Check the supply voltage of the inverter (jumper plug X76) - Reboot the control - Inform your service agency - Exchange the inverter, if necessary
237-18548	**Error message** 18548 SKERN-CC%2: Inverter requests an SS1 reaction axis %1 **Cause of error** - The inverter requests an SS1 stop reaction through the cyclic UM(FS.B) communication **Error correction** - Note any further messages from the inverter
237-18549	**Error message** 18549 SKERN-CC%2: Inverter requests an SS2 reaction axis %1 **Cause of error** - The inverter requests an SS2 stop reaction through the cyclic UM(FS.B) communication **Error correction** - Note any further messages from the inverter
237-18550	**Error message** 18550 Test command was received in released software! **Cause of error** Error injection was demanded for a release software. This is not permissible! **Error correction** - Use autotest software! - Inform your service agency

Error number	Description
237-18552	**Error message** 18552 SKERN-CC%2: Stuck-At error on the temperature channel **Cause of error** - The A/D converter channel (on the controller unit) for measuring the board temperature is defective - The firmware of the controller unit has detected a fault **Error correction** - Exchange the controller unit (CC or UEC) if necessary - Inform your service agency
237-18553	**Error message** 18553 SKERN-CC%2: Stuck-at error in voltage channel %4 **Cause of error** - Controller unit is defective (ADC channel). - Driver problem of the firmware of the controller unit (CC, UEC). **Error correction** - Inform your service agency. - Exchange the controller unit (CC, UEC), if necessary.
237-18554	**Error message** 18554 UM (FS.B): CC%2 SS0 request %1 **Cause of error** - The inverter requests an SS0 stop function through the cyclic UM(FS.B) communication **Error correction** - Note any further messages from the inverter - Reboot the control
237-18555	**Error message** 18555 UM (FS-B): UM requests SS1F CC%2 %1 **Cause of error** - The inverter requests an SS1F stop function through the cyclic UM(FS.B) communication **Error correction** - Note any further messages from the inverter - Reboot the control
237-18556	**Error message** 18556 UM (FS.B): watchdog error UM-FS.A CC%2 %1 **Cause of error** - FS.B of the inverter reports a watchdog error FS.A (WDF.A) - FS.A of the inverter is no longer ready **Error correction** - Reboot the control - Inform your service agency - Exchange the inverter, if necessary

Error number	Description
237-18557	**Error message** 18557 UM (FS.B): UM-FS.A improper power supply CC%2 %1 **Cause of error** - An internal supply voltage is too high or too low **Error correction** - Note any further messages from the inverter - Check the supply voltage of the inverter (jumper plug X76) - Reboot the control - Inform your service agency - Exchange the inverter, if necessary
237-18558	**Error message** 18558 UM (FS.B): UM requests SS1 reaction CC%2 %1 **Cause of error** - The inverter requests an SS1 stop reaction through the cyclic UM(FS.B) communication **Error correction** - Note any further messages from the inverter
237-18559	**Error message** 18559 UM (FS.B): UM requests SS2 reaction CC%2 %1 **Cause of error** - The inverter requests an SS2 stop reaction through the cyclic UM(FS.B) communication **Error correction** - Note any further messages from the inverter
237-1855A	**Error message** 1855A SKERN-CC%2: EnDat forced dynamic sampling not performed **Cause of error** Checking of the Endat22 forced dynamic sampling at the end of the first self-test failed. No successful EnDat forced dynamic sampling performed in the last 168 hours was detected. **Error correction** - Check the encoder for a defect or fault - Exchange the encoder

Error number	Description
237-1855B	**Error message** 1855B SKERN-CC%2: interval violation upon EnDat forced dynamic sampling **Cause of error** - The minimum time interval (4 hours) until the next EnDat forced dynamic sampling was violated (AddInfo[4] = 2) - The maximum time interval (168 hours) until the next EnDat forced dynamic sampling was violated (AddInfo[4] = 1) **Error correction** - Restart the control - If the error recurs, inform your service agency
237-1855C	**Error message** 1855C SKERN-CC%2: errors during EnDat forced dynamic sampling **Cause of error** The detected dynamic error bit does not match the forced dynamic sampling error. **Error correction** - Restart the control - - Check the encoder for a defect or fault - Exchange the encoder - If the error recurs after exchanging the encoder, inform your service agency
237-1855D	**Error message** 1855D SKERN-CC%2: error while testing the test position, axis %1 **Cause of error** A condition for testing the test position was violated; possible causes: - Internal position does not match the parameterized testing position - Fatal error state is active - Axis not referenced - Axis in motion - Permissive button not pressed **Error correction** - Check and correct the possible causes of the problems - Check the test position for plausibility - If all causes can be excluded, inform your service agency

Error number	Description
237-1855E	**Error message** 1855E CC%2: Host command hcS_SWITCH_FS_CONFIG (0x22D) not permitted! **Cause of error** - The host command was received while in an implausible state. - The internal state is %5, and the state %4 was expected. **Error correction** - Check the firmware for MC-CC compatibility. - Inform your service agency.
237-1855F	**Error message** 1855F CC%2: Timeout error in host command hcS_SWITCH_FS_CONFIG (0x22D)! **Cause of error** - The host command was not received within a permitted timeout time. - The reconfiguration status is %4, but the configured timeout is %5 seconds. **Error correction** - Check the firmware for MC-CC compatibility. - Inform your service agency.
237-18800	**Error message** 18800 SKERN-CC%2: encoder warning amplitude too small X%4 **Cause of error** - Amplitude of encoder is too low **Error correction** - Check power supply of the encoder - Check encoder cabling - Replace encoder - Inform your service agency
237-18801	**Error message** 18801 Autotest manipulation via hcS_AUTO_TEST_SKERN_CC is active! **Cause of error** - An error injection was triggered - No officially released software version is installed **Error correction** - Check the software version of the control - Install a released software version - Inform your service agency

Error number	Description
237-18802	**Error message** 18802 SKERN-CC: Test software without safety approval is loaded **Cause of error** The CC contains a test software with safety approval - This software has neither been tested nor released - No checksum will be calculated **Error correction** - After acknowledging the error message you can use this software only for tests - Check the software version - Create service files - Contact your service agency
237-18803	**Error message** 18803 CC%2 synchronization of SPLC run-time system lost **Cause of error** The mechanism for the synchronization of the SPLC run-time system routine on all CC controller units returned an error. **Error correction** - Generate a service file - Contact your service agency - Restart the control
237-18804	**Error message** 18804 SKERN CC%2: FS configuration error connector number %1 **Cause of error** The type of EnDat encoder being used is not supported. Only linear or rotatory EnDat encoders are supported for applications with functional safety (FS). Either an EIB or an unknown EnDat encoder was detected for the encoder parameterized under CfgAxParSafety/encoderForSafety. **Error correction** Check the encoder configuration under CfgAxParSafety/encoderForSafety

Error number	Description
237-18805	**Error message** 18805 SKERN-CC%2: faulty EnDat safety property %1 **Cause of error** Faulty EnDat safety bits were detected. EnDat safety bits have the same state, but should be inverted. Possible causes: - Faulty memory of the EnDat encoder - Error in transmission of the memory address to the CC controller unit **Error correction** - Restart the control - Exchange the encoder if the error recurs - If the error recurs after exchanging, inform your service agency
237-18806	**Error message** 18806 SKERN-CC%2: check for completeness of self-test deactivated **Cause of error** The completeness check at the end of the self-test was deactivated by manipulation. This is allowed only within a HEIDENHAIN-internal test. An error reaction will be triggered every four hours. **Error correction**
237-18807	**Error message** 18807 SKERN-CC%2: timeout of inactive self-test completeness check **Cause of error** The completeness check at the end of the self-test was deactivated by manipulation. This is allowed only within a HEIDENHAIN-internal test. An error reaction will be triggered every four hours. **Error correction**
237-18808	**Error message** 18808 CC%2 Cross-comparison not activated at end of self-test **Cause of error** - Keine Freigabe des Kreuzvergleichs am Ende des Selbsttests der Sicherheit - Die Aufforderung der MC zum Start des Kreuzvergleichs ist nicht eingegangen **Error correction** - Software-Update durchführen - Kundendienst benachrichtigen

Error number	Description
237-18809	**Error message** 18809 SKERN-CC%2: commanding a test of the holding torque was refused **Cause of error** Es wurden ungültige Übergabeparameter an SKERN-CC übergeben. **Error correction** - SPLC-Programm prüfen und ggf. korrigieren - Kundendienst benachrichtigen
237-1880A	**Error message** 1880A SKERN-CC%2: test of the brake-holding torque by SPLC not allowed **Cause of error** Das SPLC-Programm verhindert die Durchführung eines Tests des Haltemoments. Entweder ist von PP_AxRequest Bit0 ("PERMISSION_BRAKE_TORQUE_TEST") nicht gesetzt, oder es liegt eine (höherpriore) Anfrage zum Öffnen/Schließen der Bremse vor. **Error correction** - SPLC-Programm prüfen und ggf. korrigieren - Kundendienst benachrichtigen
237-1880B	**Error message** 1880B SKERN-CC%2: expanded SOS position window of FS was exceeded **Cause of error** Das erweiterte SOS-Positionsfenster der FS ist während einem Test des Haltemoments überschritten worden. - Die Bremse %4 der Achse %1 ist verschlissen. - Parametrierung des erweiterten SOS-Positionsfesnter prüfen. **Error correction** Bremse %4 der Achse %1 prüfen.
237-1880C	**Error message** 1880C SKERN-CC%2: not in STO %1 when starting the axis self-test **Cause of error** Die angegebene Achse befindet sich beim Start des Selbsttest nicht im Zustand STO. **Error correction** Alle Achsen vor dem Selbsttest in den Zustand STO bringen.

Error number	Description
237-1880D	**Error message** 1880D SKERN-CC %2: inconsistent parameterization of encoders **Cause of error** Die Messgeräteparameter für A- und B-Kanal sind inkonsistent. **Error correction** - Konfiguraton der Messgeräte für A- und B-Kanal prüfen - Kundendienst benachrichtigen
237-19000	**Error message** 19000 DQ-LT %1: Overcurrent ID=%4; fault value=%5 **Cause of error** The power module of the encoder detected overcurrent. - Closed-loop control is incorrectly parameterized - Motor has a short circuit or ground fault - Volts-per-hertz mode: Run-up ramp is set too small - U/f mode: Rated current of the motor is significantly greater than that of the motor module - Incoming power: High discharging and recharging currents in the event of line power failure - Incoming power: High recharging currents in the event of motor overload and failure of the DC-link voltage - Incoming power: Short circuit currents during switch-on due to missing commutating reactor. - Power lines are not correctly connected. - The power lines exceed the maximum permissible length. - Power module defective. Fault value (interpret bit-wise): Bit 0: Phase U. Bit 1: Phase V. Bit 2: Phase W. **Error correction** - Check the motor data; if required, repeat initial servicing - Check the motor circuit configuration (wye-delta). - Volts-per-hertz mode: Increase the run-up ramp - U/f mode: Check the assignment of the rated currents of the motor and motor modules - Incoming power: Check the line power quality - Incoming power: Decrease the motor load - Incoming power: Correct connection of the line commutating reactor - Check the power cable connections. - Check the power cables for short-circuit or ground fault. - Check the length of the power cable connections. - Exchange the power module

Error number	Description
237-19001	**Error message** 19001 DQ-MotEnc %1: ref. mark distance ID=%4; fault value= %5 **Cause of error** The measured reference-mark distance does not correspond to the parameterized reference-mark distance. For distance-coded encoders, the reference-mark distance is determined from detected pairs of reference marks. This means that if a reference mark is missing, depending on the pair generation, this cannot result in a fault and also has no effect in the system. Fault value (interpret decimal value): Last measured reference-mark distance in increments (4 increments = 1 encoder pulse). The algebraic sign designates the direction of motion when detecting the reference-mark distance. **Error correction** - Check that the encoder cables are routed in compliance with EMC. - Check the plug connections. - Check the encoder type (encoder with equidistant reference marks). - Replace the encoder or encoder cable.
237-1F300	**Error message** 1F300 CC%2 Cancelation of the cutout channel test %4 **Cause of error** The cut-out channel test was autonomously aborted by an error during the test run. The control does not finish a test step correctly. The control does not perform a certain test. **Error correction** Check whether a previous system error of the control led to the cancellation of the test section. Check the software version. Inform your service agency.
237-1F300	**Error message** 1F300 CC%2 Cancelation of the cutout channel test %4 **Cause of error** The cutout channel test was ended autonomously because of an error. An error occurs in the pp_GenFB_NCC signal (PL system module). The control does not finish a test step correctly **Error correction** - Check whether a previous system error of the control led to the cancellation of a test section - Check the wiring of the signal pp_GenFB_NCC - Inform your service agency

Error number	Description
237-1F300	**Error message** 1F300 CC%2 Cancelation of the cutout channel test %4 **Cause of error** The cutout channel test was ended autonomously because of an error. An error occurs in the –ES.B signal (PL system module). The control does not finish a test step correctly. **Error correction** Check whether a previous system error of the control led to the cancellation of a test section Check the wiring of the signal –ES.B. Inform your service agency
237-1F300	**Error message** 1F300 CC%2 Cancelation of the cutout channel test %4 **Cause of error** The cutout channel test was ended autonomously because of an error. An error occurs in the CVO signal (PL system module). The control does not finish a test step correctly. **Error correction** Check whether a previous system error of the NC led to the cancellation of a test section Check the wiring of the signal CVO Inform your service agency
237-1F300	**Error message** 1F300 CC%2 Cancelation of the cutout channel test %4 **Cause of error** The cutout channel test was ended autonomously because of an error. An error occurs in the RDY.PS (X69-17a) signal of the supply module. The control does not finish a test step correctly. **Error correction** Check whether a previous system error of the NC led to the cancellation of a test section Check the wiring of the signal RDY.PS (X69-17a) Inform your service agency

Error number	Description
237-1F300	**Error message** 1F300 CC%2 Cancelation of the cutout channel test %4 **Cause of error** The cutout channel test was ended autonomously because of an error. An error occurs in the pp_GenMKG signal (SMOP). The control does not finish a test step correctly. **Error correction** Check whether a previous system error of the NC led to the cancellation of a test section Check the wiring of the signal pp_GenMKG Inform your service agency
237-1F300	**Error message** 1F300 CC%2 Cancelation of the cutout channel test %4 **Cause of error** The cutout channel test was ended autonomously because of an error. An error occurs in the pp_AxGrpStateReq == S_STATE_AUTO signal. The control does not finish a test step correctly. **Error correction** Check whether a previous system error of the NC led to the cancellation of a test section Check the wiring of the guard door/signal pp_AxGrpStateReq == S_STATE_AUTO Inform your service agency
237-1F300	**Error message** 1F300 CC%2 Cancelation of the cutout channel test %4 **Cause of error** The cutout channel test was ended autonomously because of an error. An error occurs in the pp_GenFB_NCC signal (PL system module). The control does not finish a test step correctly. **Error correction** -Check whether a previous system error of the control led to the cancellation of a test section Check the wiring of the signal pp_GenFB_NCC - Inform your service agency

Error number	Description
237-1F300	**Error message** 1F300 CC%2 Cancelation of the cutout channel test %4 **Cause of error** The cutout channel test was ended autonomously because of an error during the test run or in the hardware/wiring. The control does not finish a test step correctly. The control does not perform a certain test. **Error correction** - Check whether a previous system error of the control led to the cancellation of a test section - Check the hardware/wiring (PWM ribbon cable) and exchange it if necessary - Inform your service agency
237-1F300	**Error message** 1F300 CC%2 Cancelation of the cutout channel test %4 **Cause of error** The cutout channel test was ended autonomously because of an error during the test run or in the hardware. The control does not finish a test step correctly. The control does not perform a certain test. **Error correction** - Check whether a previous system error of the control led to the cancellation of a test section - Check the hardware and exchange it if necessary - Inform your service agency
237-1F300	**Error message** 1F300 CC%2 Cancelation of the cutout channel test %4 **Cause of error** The cutout channel test was ended autonomously because of an error during the test run or in the hardware. The control does not finish a test step correctly. The control does not perform a certain test. **Error correction** - Check whether a previous system error of the control led to the cancellation of a test section - Check the hardware/wiring for whether SPL/SMOP A outputs are permanently at a High level - Inform your service agency

Error number	Description
237-1F300	**Error message** 1F300 CC%2 Cancelation of the cutout channel test %4 **Cause of error** The cutout channel test was ended autonomously because of an error during the test run or in the hardware. The control does not finish a test step correctly. The control does not perform a certain test. **Error correction** - Check whether a previous system error of the control led to the cancellation of a test section - Check the hardware/wiring for whether SPL/SMOP B outputs are permanently at a High level - Inform your service agency
237-1F300	**Error message** 1F300 CC%2 Cancelation of the cutout channel test %4 **Cause of error** An error occurred during the test run, or another error occurred; this led to the drive being switched off and cancellation of the brake test. The control does not finish a test step correctly. The control does not perform a certain test. **Error correction** - Check whether a previous system error of the control led to the cancellation of a test section - Check the software version - Inform your service agency
237-3001	**Error message** 13001 UM3: schwerwiegender Fehler (Stopp-Reaktion SS1) %1 **Cause of error** Für weitere Informationen nachfolgende Alarmmeldungen (13xxx) beachten! **Error correction**
237-3002	**Error message** 13002 UM3: Interne Überwachung (Stopp-Reaktion SS2) %1 **Cause of error** Für weitere Informationen nachfolgende Alarmmeldungen (13xxx) beachten! **Error correction**

Error number	Description
237-3007	**Error message** 13007 UM3: VarioLink-Kommunikationsfehler %1 **Cause of error** - Umrichter meldet Fehler in der VarioLink-Kommunikation **Error correction** - Steuerung neu starten - Variolink-Verbindung überprüfen
237-3010	**Error message** 13010 UM3: Umrichter meldet Fehler in der asynchronen Kommunikation %1 **Cause of error** - Umrichter meldet Fehler in der asynchronen Kommunikation mit der CC **Error correction** - Steuerung neu starten - Kundendienst benachrichtigen
237-3011	**Error message** 13011 UM3: CC meldet Fehler in der asynchronen Kommunikation %1 **Cause of error** - CC meldet Fehler in der asynchronen Kommunikation mit dem Umrichter **Error correction** - Steuerung neu starten - Kundendienst benachrichtigen
237-3018	**Error message** 13018 UM3: CC antwortet nicht auf Message %4 vom Umrichter %1 **Cause of error** - CC antwortet innerhalb einer vorgegebenen Zeit nicht auf die angegebene Message vom Umrichter (Message Code ist dezimal angezeigt, aber hexadezimal zu interpretieren) **Error correction** - Steuerung neu starten - Kundendienst benachrichtigen

Error number	Description
237-3019	**Error message** 13019 UM3: Umrichter antwortet nicht auf Kommando %4 von der CC %1 **Cause of error** - Der Umrichter antwortet innerhalb einer vorgegebenen Zeit nicht auf das angegebene Kommando von der CC (Kommando Code ist dezimal angezeigt, aber hexadezimal zu interpretieren) **Error correction** - Steuerung neu starten - Kundendienst benachrichtigen
237-3801	**Error message** 13801 UM-FSSW:Telegrammzähler Fehler FS-Kommunikation %1 Soll:%4 Ist:%5 **Cause of error** **Error correction**
237-3802	**Error message** 13802 UM-FSSW: UM-DriveID Fehler FS-Kommunikation %1 Soll:%4 Ist:%5 **Cause of error** **Error correction**
237-3804	**Error message** 13804 UM-SOC: Topology inspection of the UM parameters failed %1 **Cause of error** **Error correction**
237-3805	**Error message** 13805 UM-SOC: FS configuration data were falsified %1 %4 %5 **Cause of error** **Error correction**
237-3806	**Error message** 13806 UM-SOC: UM-DriveID from UM-SOC and UM-FSuC are unequal %1 %4 %5 **Cause of error** **Error correction**

Error number	Description
237-3820	**Error message** 13820 UM-SOC: Spannungsüberwachung 3,3V-FSuC überschritten **Cause of error** **Error correction**
237-3891	**Error message** 13891 UM-SOC: Fehlerhafte Include-Datei (erhaltene Version: %4 - erwartete Version:%5) **Cause of error** - Software von Reglereinheit und Umrichter(FS) sind nicht mit der gleichen Include-Datei compiliert worden. **Error correction** - Softwareversion prüfen und gegebenenfalls neu laden - Kundendienst benachrichtigen
237-8800	**Error message** 18800 SKERN-CC: Geberwarnung Amplitude zu niedrig X%4 **Cause of error** **Error correction**
238-1000	**Error message** 1000 UVR%2 overcurrent **Cause of error** The power supply unit hat detected an exceedance of the permissible current on its supply connection **Error correction** Inform your service agency
238-1001	**Error message** 1001 UVR%2 phase current too high **Cause of error** The line current consumed by the power supply unit is close to the maximum permissible value **Error correction** - Inspect the design of the inverter system - Reduce the power consumption of the inverter system - Inform your service agency
238-1002	**Error message** 1002 UVR%2 DC-link voltage too high **Cause of error** The power supply unit has detected that the DC-link voltage is too high **Error correction** Inform your service agency

Error number	Description
238-1003	**Error message** 1003 UVR%2 error in power supply **Cause of error** The supply unit hat detected a faulty power supply network. **Error correction** - Check the supply connection, and ensure correct supply connection - Inform your service agency
238-1004	**Error message** 1004 UVR%2 DC-link voltage too low **Cause of error** The power supply unit is reporting that the DC-link voltage is too low. **Error correction** - Check the supply connection - Check the parameters and stability of the supply network - Inform your service agency
238-1006	**Error message** 1006 UVR%2 leakage current too high **Cause of error** The leakage current monitor of the power supply unit has detected an impermissibly high value. **Error correction** - Check the wiring of the power modules and motors - Check the motor lines and DC link for sufficient insulation resistance to ground - Inform your service agency
238-1007	**Error message** 1007 UVR%2 temperature too high at heat sink **Cause of error** The temperature of the heat sink in the UVR exceeds a critical value. **Error correction** Reduce the load
238-1008	**Error message** 1008 UVR%2 error in control of IGBT **Cause of error** The supply unit has detected an error with the IGBT drive circuit **Error correction** Inform your service agency

Error number	Description
238-100A	**Error message** 100A UVR%2 temperature at heat sink critically high **Cause of error** The heat-sink temperature in the UVR supply unit is reaching critical values. **Error correction** - Reduce the power drawn from the DC link - Check the temperature or climate control unit of the electrical cabinet - Check for ventilation clearances around the power supply unit - Inform your service agency
238-100B	**Error message** 100B UVR%2 error in DC-link charge **Cause of error** The power supply unit has detected a fault during charging of the DC link. **Error correction** - Check the DC-link bus mounting or the DC-link wiring for a short circuit - Inform your service agency.
238-100C	**Error message** 100C UVR%2 service mode activated **Cause of error** The service mode of the UVR has been activated. Control of the UVR now occurs over the service interface. **Error correction** End the service mode at the service interface.
238-100D	**Error message** 100D UVR%2 faulty PWM control **Cause of error** The PWM drive circuit monitor is reporting an error **Error correction** Inform your service agency
238-100E	**Error message** 100E UVR%2 hardware detection faulty **Cause of error** The hardware detection of the power supply unit (so-called HIK) is faulty **Error correction** Inform your service agency

Error number	Description
238-100F	**Error message** 100F UVR%2 configuration error **Cause of error** The configuration of the UVR power supply unit is faulty. **Error correction** - Check the configuration of the power supply unit, and correct it as necessary (CfgSupplyModule3xx) - Inform your service agency
238-1010	**Error message** 1010 UVR%2 low voltage faulty **Cause of error** The supply voltage monitor in the supply unit is reporting an error **Error correction** Inform your service agency
238-1011	**Error message** 1011 UVR%2 failure of fan for power supply unit **Cause of error** The UVR power supply unit has detected a fault in the supply unit fan. **Error correction** - Check the supply unit fan for whether it is possibly blocked by objects or contamination - Inform your service agency
238-1012	**Error message** 1012 UVR%2 software error **Cause of error** Internal fault of the power supply unit **Error correction** Inform your service agency
238-1013	**Error message** 1013 UVR%2 error during self-test **Cause of error** A fault has arisen in the power supply unit during the internal self-test. **Error correction** - Check the wiring of the supply unit - Inform your service agency

Error number	Description
238-1014	**Error message** 1014 UVR%2 control error **Cause of error** A fault has arisen in the regulator in the power supply unit **Error correction** Inform your service agency
238-1015	**Error message** 1015 UVR%2 overload in the +24V of the integrated power supply unit **Cause of error** The current consumption of the 24 V consumers on the integrated power supply unit of the UVR exceeds the maximum permissible value. **Error correction** - Check the wiring of the +24 V (X76, X90) of the power supply unit integrated into the UVR - Check consumers on +24 V, and reduce as needed - Check the planning of the machine according to the technical manual of your inverter system - Check the configuration of CfgSupplyModule3xx/MP_ps24VMaxLoadCurr - Inform your service agency
238-1016	**Error message** 1016 UVR%2 CRC error during HSCI transmission **Cause of error** A checksum error was detected during data transmission over HSCI. **Error correction** - Check the HSCI connections and HSCI cables - Inform your service agency
238-1017	**Error message** 1017 UVR %2 maximum permissible DC-link capacity exceeded **Cause of error** The UVR power supply unit has detected an impermissibly high DC-link capacity. **Error correction** - Check the design of the inverter system - Reduce the number of modules connected to the DC-link (UM, CMH) - Inform your service agency

Error number	Description
238-1018	**Error message** 1018 UVR%2 processor temperature reaching critical values **Cause of error** The processor temperature in the UVR is reaching critical values. **Error correction** - Check the temperature in the electrical cabinet - Check the climate control unit for proper functioning - Inform your service agency
238-1019	**Error message** 1019 UVR%2 maximum temperature of processor exceeded **Cause of error** The maximum temperature of the processor in the supply unit has been exceeded. **Error correction** - Check the temperature in the electrical cabinet - Check the climate control unit for proper functioning - Reduce the power of the inverter system - Inform your service agency
238-101A	**Error message** 101A UVR%2 synchronization with line power supply failed **Cause of error** The synchronization between the supply unit and the supply network was not successful. **Error correction** - Check for a faulty connection of the main supply conductors - Check SITOR fuses for the inverter system - Check the power supply network - Inform your service agency
238-101B	**Error message** 101B UVR%2 value of DC-link center voltage too high **Cause of error** The UVR power supply unit has detected that the amount of the DC-link mean voltage is reaching impermissibly high values. **Error correction** - Check the supply voltages of the UVR (line voltage). - Ensure that operation occurs on a TN network. Operation on TT or IT networks is not permitted. Please refer to the technical manual of your inverter system. - Inform your service agency.

Error number	Description
238-101C	**Error message** 101C UVR%2 faulty measurement of voltage **Cause of error** The supply unit is reporting an error in the DC-link voltage measurement **Error correction** Inform your service agency
238-101D	**Error message** 101D UVR%2 configured DC-link voltage too low **Cause of error** The DC-link voltage configured in MP_dcLinkVoltage is too small. The configured DC-link voltage must be greater than the rectifier value of the live line voltage. If a power supply unit is operated, for example, with a line voltage of 3AC 480 V, the machine manufacturer must increase the DC-link voltage to be generated to DC 720 V by means of MP_dcLinkVoltage. **Error correction** - Check the entry in the parameter CfgSupplyModule3xx/MP_dcLinkVoltage and adjust it if necessary. - Inform your service agency.
238-101E	**Error message** 101E UVR%2 temperature sensor is supplying faulty data **Cause of error** The temperature sensor in the supply unit is defective or is returning faulty data. **Error correction** - Inform your service agency
238-101F	**Error message** 101F UVR%2 wrong or no KDR connected **Cause of error** The inductance of the commutating reactor was determined to be too low. Perhaps no commutating reactor is connected, or the connection is faulty. **Error correction** - Check whether the commutating reactor is connected correctly - Check the inductance of the commutating reactor - Inform your service agency

Error number	Description
238-1021	**Error message** 1021 UVR%2 DC-link voltage too low **Cause of error** The power supply unit reports that the DC-link voltage is too low. **Error correction** - Check the power connection - Inform your service agency
238-1022	**Error message** 1022 UVR%2 DC-link voltage low: charging circuit activated **Cause of error** The charging circuit of the power supply unit was activated because the DC-link voltage was too low. **Error correction** - Check the power connection - Inform your service agency
239-0001	**Error message** 1 CC-FSUC: internal error CC%2 %1 **Cause of error** Internal software error (unexpected program sequence) **Error correction** - Generate the service file - Inform your service agency
239-0002	**Error message** 2 MC-FSUC: internal error **Cause of error** Internal software error (unexpected program sequence) **Error correction** - Generate the service file - Inform your service agency
239-0003	**Error message** 3 UM-FSUC: internal error CC%2 %1 %10 **Cause of error** Internal software error (unexpected program sequence) **Error correction** - Generate the service file - Inform your service agency

Error number	Description
239-0004	**Error message** 4 CC-FSUC: voltage error CC%2 %1 **Cause of error** Voltage monitoring reports an error. **Error correction** - Check the voltage supply of the affected units ("24 V" status LED on the unit) - Inform your service agency
239-0005	**Error message** 5 MC-FSUC: voltage error **Cause of error** Voltage monitoring reports an error. **Error correction** - Check the voltage supply of the affected units ("24 V" status LED on the unit) - Inform your service agency
239-0006	**Error message** 6 UM-FSUC: voltage error CC%2 %1 %10 **Cause of error** Voltage monitoring reports an error. **Error correction** - Check the voltage supply of the affected units ("24 V" status LED on the unit) - Inform your service agency
239-0007	**Error message** 7 CC-FSUC: temperature error CC%2 %1 (temperature: %6, %7°C) **Cause of error** Temperature monitoring reports an error. **Error correction** - Check the temperature in the electrical cabinet - Inform your service agency
239-0008	**Error message** 8 MC-FSUC: temperature error (temperature: %6,%7°C) **Cause of error** Temperature monitoring reports an error. **Error correction** - Check the temperature in the electrical cabinet - Inform your service agency

Error number	Description
239-000A	**Error message** A CC-FSUC: parameterization failed CC%2 %1 **Cause of error** The FS microcontroller received invalid parameter data. **Error correction** - Generate the service file - Inform your service agency
239-000C	**Error message** C UM-FSUC: FS parameters inconsistent CC%2 %1 %10 **Cause of error** The FS microcontroller received inconsistent parameter data. **Error correction** - Generate the service file - Inform your service agency
239-000D	**Error message** D CC-FSUC: cyclic communication failed CC%2 %1 **Cause of error** Cyclic communication between the MC and CC FS micro-controller failed. **Error correction** - Generate the service file - Inform your service agency
239-000F	**Error message** F UM-FSUC: cyclic communication failed CC%2 %1 %10 **Cause of error** Cyclic communication between the MC and UM FS micro-controller failed. **Error correction** - Generate the service file - Inform your service agency
239-0010	**Error message** 10 CC-FSUC: software inconsistent CC%2 %1 **Cause of error** Internal software error (software corrupt) **Error correction** - Generate the service file - Inform your service agency

Error number	Description
239-0011	**Error message** 11 MC-FSUC: software inconsistent **Cause of error** Internal software error (software corrupt) **Error correction** - Generate the service file - Inform your service agency
239-0012	**Error message** 12 UM-FSUC: software inconsistent CC%2 %1 %10 **Cause of error** Internal software error (software corrupt) **Error correction** - Generate the service file - Inform your service agency
239-0013	**Error message** 13 CC-FSUC: stack error CC%2 %1 **Cause of error** Internal software error (stack memory) **Error correction** - Generate the service file - Inform your service agency
239-0014	**Error message** 14 MC-FSUC: stack error **Cause of error** Internal software error (stack memory) **Error correction** - Generate the service file - Inform your service agency
239-0015	**Error message** 15 UM-FSUC: stack error CC%2 %1 %10 **Cause of error** Internal software error (stack memory) **Error correction** - Generate the service file - Inform your service agency

Error number	Description
239-0016	**Error message** 16 CC-FSUC: internal software error CC%2 %1 **Cause of error** Internal software error (Single Event Upset) **Error correction** - Generate the service file - Inform your service agency
239-0017	**Error message** 17 MC-FSUC: internal software error **Cause of error** Internal software error (Single Event Upset) **Error correction** - Generate the service file - Inform your service agency
239-0018	**Error message** 18 UM-FSUC: internal software error CC%2 %1 %10 **Cause of error** Internal software error (Single Event Upset) **Error correction** - Generate the service file - Inform your service agency
239-0019	**Error message** 19 CC-FSUC: RAM error CC%2 %1 **Cause of error** Internal software error (RAM memory) **Error correction** - Generate the service file - Inform your service agency
239-001A	**Error message** 1A MC-FSUC: RAM error **Cause of error** Internal software error (RAM memory) **Error correction** - Generate the service file - Inform your service agency

Error number	Description
239-001B	**Error message** 1B UM-FSUC: RAM error CC%2 %1 %10 **Cause of error** Internal software error (RAM memory) **Error correction** - Generate the service file - Inform your service agency
239-001C	**Error message** 1C CC-FSUC: voltage monitoring impaired CC%2 %1 **Cause of error** The FS microcontroller reports defective monitoring of the voltage. **Error correction** - Generate the service file - Inform your service agency
239-001D	**Error message** 1D MC-FSUC: voltage monitoring impaired **Cause of error** The FS microcontroller reports defective monitoring of the voltage. **Error correction** - Generate the service file - Inform your service agency
239-001E	**Error message** 1E UM-FSUC: voltage monitoring impaired CC%2 %1 %10 **Cause of error** The FS microcontroller reports defective monitoring of the voltage. **Error correction** - Generate the service file - Inform your service agency
239-001F	**Error message** 1F CC-FSUC: initial software consistency check CC%2 %1 **Cause of error** Internal software error (software corrupt) **Error correction** - Generate the service file - Inform your service agency

Error number	Description
239-0020	**Error message** 20 MC-FSUC: initial software consistency check **Cause of error** Internal software error (software corrupt) **Error correction** - Generate the service file - Inform your service agency
239-0021	**Error message** 21 UM-FSUC: initial software consistency check CC%2 %1 %10 **Cause of error** Internal software error (software corrupt) **Error correction** - Generate the service file - Inform your service agency
239-0022	**Error message** 22 CC-FSUC: cyclic communication overloaded CC%2 %1 **Cause of error** The FS microcontroller has received too many cyclic telegrams. **Error correction** - Generate the service file - Inform your service agency
239-0024	**Error message** 24 UM-FSUC: cyclic communication overloaded CC%2 %1 %10 **Cause of error** The FS microcontroller has received too many cyclic telegrams. **Error correction** - Generate the service file - Inform your service agency
239-0025	**Error message** 25 CC-FSUC: cyclic communication impaired CC%2 %1 **Cause of error** Cyclic communication on the FS microcontroller is impaired. **Error correction** - Generate the service file - Inform your service agency

Error number	Description
239-0026	**Error message** 26 MC-FSUC: cyclic communication impaired **Cause of error** Cyclic communication on the FS microcontroller is impaired. **Error correction** - Generate the service file - Inform your service agency
239-0027	**Error message** 27 UM-FSUC: cyclic communication impaired CC%2 %1 %10 **Cause of error** Cyclic communication on the FS microcontroller is impaired. **Error correction** - Generate the service file - Inform your service agency
239-002A	**Error message** 2A UM-FSUC: impermissible Reconfiguration CC%2 %1 %10 **Cause of error** The FS microcontroller was reconfigured even though it had already received valid FS configuration data. **Error correction** - Generate the service file - Inform your service agency
239-002D	**Error message** 2D UM-FSUC: device parameters inconsistent CC%2 %1 %10 **Cause of error** The FS microcontroller received inconsistent configuration data. **Error correction** - Generate the service file - Inform your service agency
239-0030	**Error message** 30 UM-FSUC: FS configuration data of B channel invalid CC %2 / %1 10 **Cause of error** Upon request by the B channel, the FS microcontroller set the FS configuration data to invalid. **Error correction** - Generate the service file - Inform your service agency

Error number	Description
239-0033	**Error message** 33 UM-FSUC: invalid request for self-test CC%2 %1 %10 **Cause of error** The FS microcontroller received a request to start the self-test even though STO and SBC are not active. **Error correction** - Generate the service file - Inform your service agency
239-0036	**Error message** 36 UM-FSUC: self-test canceled CC%2 %1 %10 **Cause of error** The FS microcontroller canceled a running self-test because of an error. **Error correction** - Generate the service file - Inform your service agency
239-0039	**Error message** 39 UM-FSUC: B channel voltage error CC%2 %1 %10 **Cause of error** The B channel reports a voltage error. **Error correction** - Check the voltage supply of the affected units ("24 V" status LED on the unit) - Inform your service agency
239-003C	**Error message** 3C UM-FSUC: watchdog B timed out CC%2 %1 %10 **Cause of error** The watchdog of the B channel timed out. **Error correction** - Generate the service file - Inform your service agency
239-003D	**Error message** 3D CC-FSUC: internal watchdog defective CC%2 %1 **Cause of error** Could not configure the internal watchdog of the FS micro-controller. **Error correction** - Generate the service file - Inform your service agency

Error number	Description
239-003E	**Error message** 3E MC-FSUC: internal watchdog defective **Cause of error** Could not configure the internal watchdog of the FS micro-controller. **Error correction** - Generate the service file - Inform your service agency
239-003F	**Error message** 3F UM-FSUC: internal watchdog defective CC%2 %1 %10 **Cause of error** Could not configure the internal watchdog of the FS micro-controller. **Error correction** - Generate the service file - Inform your service agency
239-0042	**Error message** 42 UM-FSUC: internal communication error CC%2 %1 %10 **Cause of error** The FS microcontroller detected an error in the cyclic communication within the inverter. **Error correction** - Generate the service file - Inform your service agency
239-0045	**Error message** 45 UM-FSUC: cyclic communication inconsistent CC%2 %1 %10 **Cause of error** The FS microcontroller detected an error in the cyclic communication with the MC. **Error correction** - Generate the service file - Inform your service agency
239-0048	**Error message** 48 UM-FSUC: cyclic communication inconsistent CC%2 %1 %10 **Cause of error** The FS microcontroller detected an error in the cyclic communication with the PAE module. **Error correction** - Generate the service file - Inform your service agency

Error number	Description
239-004B	**Error message** 4B UM-FSUC: motor connection wrong CC%2 %1 %10 (E: X %4, P: X%5) **Cause of error** The FS microcontroller detected an incorrect assignment of a motor connection. **Error correction** - Generate the service file - Inform your service agency
239-004E	**Error message** 4E UM-FSUC: implausible parameterization CC%2 %1 %10 **Cause of error** The FS microcontroller detected an incorrect sequence during parameterization. **Error correction** - Generate the service file - Inform your service agency
239-004F	**Error message** 4F CC-FSUC: initialization error CC%2 %1 **Cause of error** Internal software error (initialization failed) **Error correction** - Generate the service file - Inform your service agency
239-0050	**Error message** 50 MC-FSUC: initialization error **Cause of error** Internal software error (initialization failed) **Error correction** - Generate the service file - Inform your service agency
239-0051	**Error message** 51 UM-FSUC: initialization error CC%2 %1 %10 **Cause of error** Internal software error (initialization failed) **Error correction** - Generate the service file - Inform your service agency

Error number	Description
239-0052	**Error message** 52 CC-FSUC: temperature warning CC%2 %1 (temperature: %6°C) **Cause of error** Temperature monitoring reports a warning. **Error correction** - Check the temperature in the electrical cabinet - Inform your service agency
239-0053	**Error message** 53 MC-FSUC: temperature warning (temperature: %6°C) **Cause of error** Temperature monitoring reports a warning. **Error correction** - Check the temperature in the electrical cabinet - Inform your service agency
239-0055	**Error message** 55 CC-FSUC: SS1F reaction requested CC%2 %1 **Cause of error** Serious error detected. **Error correction** - Generate the service file - Inform your service agency
239-0057	**Error message** 57 UM-FSUC: SS1F reaction requested CC%2 %1 %10 **Cause of error** Serious error detected. **Error correction** - Generate the service file - Inform your service agency
239-0058	**Error message** 58 CC-FSUC: incorrect interface version CC%2 %1 **Cause of error** The interface versions of internal components do not match. **Error correction** - Generate the service file - Inform your service agency

Error number	Description
239-0059	**Error message** 59 MC-FSUC: incorrect interface version **Cause of error** The interface versions of internal components do not match. **Error correction** - Generate the service file - Inform your service agency
239-005A	**Error message** 5A UM-FSUC: incorrect interface version CC%2 %1 %10 **Cause of error** The interface versions of internal components do not match. **Error correction** - Generate the service file - Inform your service agency
239-005B	**Error message** 5B CC-FSUC: comparison of interface version missing CC%2 %1 **Cause of error** The interface versions of internal components must be exchanged. The adjustment has not taken place yet. **Error correction** - Generate the service file - Inform your service agency
239-005C	**Error message** 5C MC-FSUC: comparison of interface version missing **Cause of error** The interface versions of internal components must be exchanged. The adjustment has not taken place yet. **Error correction** - Generate the service file - Inform your service agency
239-005D	**Error message** 5D UM-FSUC: comparison of interface version missing CC %2 %1 %10 **Cause of error** The interface versions of internal components must be exchanged. The adjustment has not taken place yet. **Error correction** - Generate the service file - Inform your service agency

Error number	Description
239-0101	**Error message** 101 CC-FSUC: internal error CC%2 %1 **Cause of error** Internal software error (unexpected program sequence) **Error correction** - Generate the service file - Inform your service agency
239-0102	**Error message** 102 MC-FSUC: internal error **Cause of error** Internal software error (unexpected program sequence) **Error correction** - Generate the service file - Inform your service agency
239-0103	**Error message** 103 UM-FSUC: internal error CC%2 %1 %10 **Cause of error** Internal software error (unexpected program sequence) **Error correction** - Generate the service file - Inform your service agency
239-0111	**Error message** 111 CC-FSUC: voltage error CC%2 %1 **Cause of error** Voltage monitoring reports an error. **Error correction** - Check the voltage supply of the affected units ("24 V" status LED on the unit) - Inform your service agency
239-0112	**Error message** 112 MC-FSUC: voltage error **Cause of error** Voltage monitoring reports an error. **Error correction** - Check the voltage supply of the affected units ("24 V" status LED on the unit) - Inform your service agency

Error number	Description
239-0113	**Error message** 113 UM-FSUC: voltage error CC%2 %1 %10 **Cause of error** Voltage monitoring reports an error. **Error correction** - Check the voltage supply of the affected units ("24 V" status LED on the unit) - Inform your service agency
239-0121	**Error message** 121 CC-FSUC: temperature error CC%2 %1 (temperature: %7, %8°C) **Cause of error** Temperature monitoring reports an error. **Error correction** - Check the temperature in the electrical cabinet - Inform your service agency
239-0122	**Error message** 122 MC FSUC: temperature error (temperature: %7,%8°C) **Cause of error** Temperature monitoring reports an error. **Error correction** - Check the temperature in the electrical cabinet - Inform your service agency
239-0131	**Error message** 131 CC-FSUC: parameterization failed CC%2 %1 **Cause of error** The FS microcontroller received invalid parameter data. **Error correction** - Generate the service file - Inform your service agency
239-0133	**Error message** 133 UM-FSUC: FS parameters inconsistent CC%2 %1 %10 **Cause of error** The FS microcontroller received inconsistent parameter data. **Error correction** - Generate the service file - Inform your service agency

Error number	Description
239-0141	**Error message** 141 CC-FSUC: cyclic communication failed CC%2 %1 **Cause of error** Cyclic communication between the MC and CC FS micro-controller failed. **Error correction** - Generate the service file - Inform your service agency
239-0143	**Error message** 143 UM-FSUC: cyclic communication failed CC%2 %1 %10 **Cause of error** Cyclic communication between the MC and UM FS micro-controller failed. **Error correction** - Generate the service file - Inform your service agency
239-0151	**Error message** 151 CC-FSUC: software inconsistent CC%2 %1 **Cause of error** Internal software error (software corrupt) **Error correction** - Generate the service file - Inform your service agency
239-0152	**Error message** 152 MC-FSUC: software inconsistent **Cause of error** Internal software error (software corrupt) **Error correction** - Generate the service file - Inform your service agency
239-0153	**Error message** 153 UM-FSUC: software inconsistent CC%2 %1 %10 **Cause of error** Internal software error (software corrupt) **Error correction** - Generate the service file - Inform your service agency

Error number	Description
239-0161	**Error message** 161 CC-FSUC: stack error CC%2 %1 **Cause of error** Internal software error (stack memory) **Error correction** - Generate the service file - Inform your service agency
239-0162	**Error message** 162 MC-FSUC: stack error **Cause of error** Internal software error (stack memory) **Error correction** - Generate the service file - Inform your service agency
239-0163	**Error message** 163 UM-FSUC: stack error CC%2 %1 %10 **Cause of error** Internal software error (stack memory) **Error correction** - Generate the service file - Inform your service agency
239-0171	**Error message** 171 CC-FSUC: internal software error CC%2 %1 **Cause of error** Internal software error (Single Event Upset) **Error correction** - Generate the service file - Inform your service agency
239-0172	**Error message** 172 MC-FSUC: internal software error **Cause of error** Internal software error (Single Event Upset) **Error correction** - Generate the service file - Inform your service agency

Error number	Description
239-0173	**Error message** 173 UM-FSUC: internal software error CC%2 %1 %10 **Cause of error** Internal software error (Single Event Upset) **Error correction** - Generate the service file - Inform your service agency
239-0181	**Error message** 181 CC-FSUC: RAM error CC%2 %1 **Cause of error** Internal software error (RAM memory) **Error correction** - Generate the service file - Inform your service agency
239-0182	**Error message** 182 MC-FSUC: RAM error **Cause of error** Internal software error (RAM memory) **Error correction** - Generate the service file - Inform your service agency
239-0183	**Error message** 183 UM-FSUC: RAM error CC%2 %1 %10 **Cause of error** Internal software error (RAM memory) **Error correction** - Generate the service file - Inform your service agency
239-0191	**Error message** 191 CC-FSUC: voltage monitoring impaired CC%2 %1 **Cause of error** The FS microcontroller reports defective monitoring of the voltage. **Error correction** - Generate the service file - Inform your service agency

Error number	Description
239-0192	**Error message** 192 MC-FSUC: voltage monitoring impaired **Cause of error** The FS microcontroller reports defective monitoring of the voltage. **Error correction** - Generate the service file - Inform your service agency
239-0193	**Error message** 193 UM-FSUC: voltage monitoring impaired CC%2 %1 %10 **Cause of error** The FS microcontroller reports defective monitoring of the voltage. **Error correction** - Generate the service file - Inform your service agency
239-01A1	**Error message** 1A1 CC-FSUC: initial software consistency check CC%2 %1 **Cause of error** Internal software error (software corrupt) **Error correction** - Generate the service file - Inform your service agency
239-01A2	**Error message** 1A2 MC-FSUC: initial software consistency check **Cause of error** Internal software error (software corrupt) **Error correction** - Generate the service file - Inform your service agency
239-01A3	**Error message** 1A3 UM-FSUC: initial software consistency check CC%2 %1 %10 **Cause of error** Internal software error (software corrupt) **Error correction** - Generate the service file - Inform your service agency

Error number	Description
239-01B1	**Error message** 1B1 CC-FSUC: cyclic communication overloaded CC%2 %1 **Cause of error** The FS microcontroller has received too many cyclic telegrams. **Error correction** - Generate the service file - Inform your service agency
239-01B2	**Error message** 1B2 MC FSUC: cyclic communication overloaded **Cause of error** The FS microcontroller has received too many cyclic telegrams. **Error correction** - Generate the service file - Inform your service agency
239-01B3	**Error message** 1B3 UM-FSUC: cyclic communication overloaded CC%2 %1 %10 **Cause of error** The FS microcontroller has received too many cyclic telegrams. **Error correction** - Generate the service file - Inform your service agency
239-01C1	**Error message** 1C1 CC-FSUC: cyclic communication impaired CC%2 %1 **Cause of error** Cyclic communication on the FS microcontroller is impaired. **Error correction** - Generate the service file - Inform your service agency
239-01C2	**Error message** 1C2 MC FSUC: cyclic communication impaired **Cause of error** Cyclic communication on the FS microcontroller is impaired. **Error correction** - Generate the service file - Inform your service agency

Error number	Description
239-01C3	**Error message** 1C3 UM-FSUC: cyclic communication impaired CC%2 %1 %10 **Cause of error** Cyclic communication on the FS microcontroller is impaired. **Error correction** - Generate the service file - Inform your service agency
239-01D3	**Error message** 1D3 UM-FSUC: impermissible Reconfiguration CC%2 %1 %10 **Cause of error** The FS microcontroller was reconfigured even though it had already received valid FS configuration data. **Error correction** - Generate the service file - Inform your service agency
239-01E3	**Error message** 1E3 UM-FSUC: device parameters inconsistent CC%2 %1 %10 **Cause of error** The FS microcontroller received inconsistent configuration data. **Error correction** - Generate the service file - Inform your service agency
239-01F3	**Error message** 1F3 UM-FSUC: FS configuration data of B channel invalid CC %2 / %1 10 **Cause of error** Upon request by the B channel, the FS microcontroller set the FS configuration data to invalid. **Error correction** - Generate the service file - Inform your service agency
239-0203	**Error message** 203 UM-FSUC: invalid request for self-test CC%2 %1 %10 **Cause of error** The FS microcontroller received a request to start the self-test even though STO and SBC are not active. **Error correction** - Generate the service file - Inform your service agency

Error number	Description
239-0213	**Error message** 213 UM-FSUC: self-test canceled CC%2 %1 %10 **Cause of error** The FS microcontroller canceled a running self-test because of an error. **Error correction** - Generate the service file - Inform your service agency
239-0223	**Error message** 223 UM-FSUC: B channel voltage error CC%2 %1 %10 **Cause of error** The B channel reports a voltage error. **Error correction** - Check the voltage supply of the affected units ("24 V" status LED on the unit) - Inform your service agency
239-0233	**Error message** 233 UM-FSUC: watchdog B timed out CC%2 %1 %10 **Cause of error** The watchdog of the B channel timed out. **Error correction** - Generate the service file - Inform your service agency
239-0241	**Error message** 241 CC-FSUC: internal watchdog defective CC%2 %1 **Cause of error** Could not configure the internal watchdog of the FS micro-controller. **Error correction** - Generate the service file - Inform your service agency
239-0242	**Error message** 242 MC-FSUC: internal watchdog defective **Cause of error** Could not configure the internal watchdog of the FS micro-controller. **Error correction** - Generate the service file - Inform your service agency

Error number	Description
239-0243	**Error message** 243 UM-FSUC: internal watchdog defective CC%2 %1 %10 **Cause of error** Could not configure the internal watchdog of the FS micro-controller. **Error correction** - Generate the service file - Inform your service agency
239-0253	**Error message** 253 UM-FSUC: internal communication error CC%2 %1 %10 **Cause of error** The FS microcontroller detected an error in the cyclic communication within the inverter. **Error correction** - Generate the service file - Inform your service agency
239-0263	**Error message** 263 UM-FSUC: cyclic communication inconsistent CC%2 %1 %10 **Cause of error** The FS microcontroller detected an error in the cyclic communication with the MC. **Error correction** - Generate the service file - Inform your service agency
239-0273	**Error message** 273 UM-FSUC: cyclic communication inconsistent CC%2 %1 %10 **Cause of error** The FS microcontroller detected an error in the cyclic communication with the PAE module. **Error correction** - Generate the service file - Inform your service agency
239-0283	**Error message** 283 UM FSUC: motor connection wrong CC%2 %1 %10 (E: X %5, P: X%6) **Cause of error** The FS microcontroller detected an incorrect assignment of a motor connection. **Error correction** - Generate the service file - Inform your service agency

Error number	Description
239-0293	**Error message** 293 UM-FSUC: implausible parameterization CC%2 %1 %10 **Cause of error** The FS microcontroller detected an incorrect sequence during parameterization. **Error correction** - Generate the service file - Inform your service agency
239-02A1	**Error message** 2A1 CC-FSUC: initialization error CC%2 %1 **Cause of error** Internal software error (initialization failed) **Error correction** - Generate the service file - Inform your service agency
239-02A2	**Error message** 2A2 MC-FSUC: initialization error **Cause of error** Internal software error (initialization failed) **Error correction** - Generate the service file - Inform your service agency
239-02A3	**Error message** 2A3 UM-FSUC: initialization error CC%2 %1 %10 **Cause of error** Internal software error (initialization failed) **Error correction** - Generate the service file - Inform your service agency
239-02B1	**Error message** 2B1 CC FSUC: temperature warning CC%2 %1 (temperature: %7°C) **Cause of error** Temperature monitoring reports a warning. **Error correction** - Check the temperature in the electrical cabinet - Inform your service agency

Error number	Description
239-02B2	**Error message** 2B2 MC FSUC: temperature warning (temperature: %7°C) **Cause of error** Temperature monitoring reports a warning. **Error correction** - Check the temperature in the electrical cabinet - Inform your service agency
239-02C1	**Error message** 2C1 CC-FSUC: SS1F reaction requested CC%2 %1 **Cause of error** Serious error detected. **Error correction** - Generate the service file - Inform your service agency
239-02C2	**Error message** 2C2 MC FSUC: SS1F reaction requested **Cause of error** Serious error detected. **Error correction** - Generate the service file - Inform your service agency
239-02C3	**Error message** 2C3 UM-FSUC: SS1F reaction requested CC%2 %1 %10 **Cause of error** Serious error detected. **Error correction** - Generate the service file - Inform your service agency
239-02D1	**Error message** 2D1 CC-FSUC: incorrect interface version CC%2 %1 **Cause of error** The interface versions of internal components do not match. **Error correction** - Generate the service file - Inform your service agency

Error number	Description
239-02D2	**Error message** 2D2 MC-FSUC: incorrect interface version **Cause of error** The interface versions of internal components do not match. **Error correction** - Generate the service file - Inform your service agency
239-02D3	**Error message** 2D3 UM-FSUC: incorrect interface version CC%2 %1 %10 **Cause of error** The interface versions of internal components do not match. **Error correction** - Generate the service file - Inform your service agency
239-02E1	**Error message** 2E1 CC-FSUC: comparison of interface version missing CC %2 %1 **Cause of error** The interface versions of internal components must be exchanged. The adjustment has not taken place yet. **Error correction** - Generate the service file - Inform your service agency
239-02E2	**Error message** 2E2 MC-FSUC: comparison of interface version missing **Cause of error** The interface versions of internal components must be exchanged. The adjustment has not taken place yet. **Error correction** - Generate the service file - Inform your service agency
239-02E3	**Error message** 2E3 UM-FSUC: comparison of interface version missing CC %2 %1 %10 **Cause of error** The interface versions of internal components must be exchanged. The adjustment has not taken place yet. **Error correction** - Generate the service file - Inform your service agency

Error number	Description
239-02F3	**Error message** 2F3 UM-FSUC: deactivation of drive failed CC%2 %1 %10 **Cause of error** The drive could not be deactivated since it is not in a safe state. **Error correction** - Generate the service file - Inform your service agency
239-FFF1	**Error message** FFF1 CC-FSUC: ALARM TEST CC%2 %1 **Cause of error** The functional safety microcontroller received a test alarm. **Error correction** - Generate the service file - Inform your service agency
239-FFF2	**Error message** FFF2 MC-FSUC: ALARM TEST **Cause of error** The functional safety microcontroller received a test alarm. **Error correction** - Generate the service file - Inform your service agency
239-FFF3	**Error message** FFF3 UM-FSUC: ALARM TEST CC%2 %1 %10 **Cause of error** The functional safety microcontroller received a test alarm. **Error correction** - Generate the service file - Inform your service agency
23A-0000	**Error message** Internal error on device: %2 **Cause of error** - Error during program run - Invalid error message %1 ID number: %3, serial number: %4 **Error correction** - Restart the control - If the problem recurs, generate a service file and inform your service agency

Error number	Description
23A-0001	**Error message** Internal error on device: %2 **Cause of error** - Program or hardware configuration faulty - Test environment is active %1 ID number: %3, serial number: %4 **Error correction** - Generate the service file and inform your service agency
23A-0003	**Error message** Internal access error on device: %2 **Cause of error** HSCI PHY: hardware is not responding %1 ID number: %3, serial number: %4 **Error correction** - Restart the control - If the problem recurs, generate a service file and inform your service agency
23A-0004	**Error message** Internal error on device: %2 **Cause of error** - Error during program run (NULL pointer) %1 ID number: %3, serial number: %4 **Error correction** - Generate the service file and inform your service agency
23A-0005	**Error message** Internal error on device: %2 **Cause of error** - Parameter transfer invalid - Illegal value %1 ID number: %3, serial number: %4 **Error correction** - Generate the service file and inform your service agency

Error number	Description
23A-0006	**Error message** Internal error on device: %2 **Cause of error** - Parameter transfer invalid - Illegal argument %1 ID number: %3, serial number: %4 **Error correction** - Generate the service file and inform your service agency
23A-0007	**Error message** Error while executing command on device: %2 **Cause of error** Received data invalid %1 ID number: %3, serial number: %4 **Error correction** - Check the interface connections and restart the control - If the problem recurs, generate a service file and inform your service agency
23A-0008	**Error message** Internal error on device: %2 **Cause of error** Device index invalid %1 ID number: %3, serial number: %4 **Error correction** - Generate the service file and inform your service agency
23A-0009	**Error message** Internal error on device: %2 **Cause of error** Internal registration of function: Error during program run %1 ID number: %3, serial number: %4 **Error correction** - Generate the service file and inform your service agency

Error number	Description
23A-000B	**Error message** Timeout during communication with device: %2 **Cause of error** HFL sender: interface at full capacity or not ready for operation %1 ID number: %3, serial number: %4 **Error correction** - Check the interface connections and restart the control - If the problem recurs, generate a service file and inform your service agency
23A-000E	**Error message** Timeout during communication with device: %2 **Cause of error** Device is not responding %1 ID number: %3, serial number: %4 **Error correction** - Check the interface connections and restart the control - If the problem recurs, generate a service file and inform your service agency
23A-0014	**Error message** Faulty data transmission with device: %2 **Cause of error** Received data invalid %1 ID number: %3, serial number: %4 **Error correction** - Check the interface connections and restart the control - If the problem recurs, generate a service file and inform your service agency
23A-0015	**Error message** Internal error on device: %2 **Cause of error** Interface index invalid %1 ID number: %3, serial number: %4 **Error correction** - Generate the service file and inform your service agency

Error number	Description
23A-0018	**Error message** Initialization of interface faulty for device: %2 **Cause of error** HFL Master: an error occurred at the interface %1 ID number: %3, serial number: %4 **Error correction** - Check the interface connections and restart the control - If the problem recurs, generate a service file and inform your service agency
23A-0019	**Error message** Error in communication with device:%2 **Cause of error** Inverter (HFL): an error occurred at the interface %1 ID number: %3, serial number: %4 **Error correction** - Check the interface connections and restart the control - If the problem recurs, generate a service file and inform your service agency
23A-001A	**Error message** Initialization of interface faulty for device: %2 **Cause of error** SPI: an error occurred at the interface %1 ID number: %3, serial number: %4 **Error correction** - Restart the control - If the problem recurs, generate a service file and inform your service agency
23A-001B	**Error message** Error in communication with device:%2 **Cause of error** SPI: an error occurred at the interface %1 ID number: %3, serial number: %4 **Error correction** - Restart the control - If the problem recurs, generate a service file and inform your service agency

Error number	Description
23A-001C	**Error message** Error in communication with device:%2 **Cause of error** SPI: an error occurred at the interface %1 ID number: %3, serial number: %4 **Error correction** - Restart the control - If the problem recurs, generate a service file and inform your service agency
23A-001D	**Error message** Timeout during communication with device: %2 **Cause of error** HSCI (DMA): interface at full capacity or not ready for operation %1 ID number: %3, serial number: %4 **Error correction** - Restart the control - If the problem recurs, generate a service file and inform your service agency
23A-001E	**Error message** Error in communication with device:%2 **Cause of error** HSCI (DMA): an error occurred at the interface %1 ID number: %3, serial number: %4 **Error correction** - Restart the control - If the problem recurs, generate a service file and inform your service agency
23A-001F	**Error message** Error in communication with device:%2 **Cause of error** HFL (DMA): an error occurred at the interface %1 ID number: %3, serial number: %4 **Error correction** - Restart the control - If the problem recurs, generate a service file and inform your service agency

Error number	Description
23A-0020	**Error message** Timeout during communication with device: %2 **Cause of error** HFL: interface at full capacity or not ready for operation %1 ID number: %3, serial number: %4 **Error correction** - Restart the control - If the problem recurs, generate a service file and inform your service agency
23A-0021	**Error message** Internal error on device: %2 **Cause of error** - Error during program run - XADC not initialized %1 ID number: %3, serial number: %4 **Error correction** - Generate the service file and inform your service agency
23A-0022	**Error message** Internal error on device: %2 **Cause of error** - Error during program run - XADC already initialized %1 ID number: %3, serial number: %4 **Error correction** - Generate the service file and inform your service agency
23A-0023	**Error message** Internal error on device: %2 **Cause of error** - Program or hardware configuration faulty - Entry not found in HDT %1 ID number: %3, serial number: %4 **Error correction** - Generate the service file and inform your service agency

Error number	Description
23A-0025	**Error message** Initialization of interface faulty for device: %2 **Cause of error** - Device is busy or not ready for operation - Encoder FPGA: configuration failed %1 ID number: %3, serial number: %4 **Error correction** - Restart the control - If the problem recurs, generate a service file and inform your service agency
23A-0026	**Error message** Internal error on device: %2 **Cause of error** Encoder-FPGA Flash ID: program or hardware configuration faulty %1 ID number: %3, serial number: %4 **Error correction** - Generate the service file and inform your service agency
23A-0027	**Error message** Internal error on device: %2 **Cause of error** Encoder FPGA DRAM: program or hardware configuration faulty %1 ID number: %3, serial number: %4 **Error correction** - Generate the service file and inform your service agency
23A-0028	**Error message** Internal access error on device: %2 **Cause of error** Encoder FPGA Flash: hardware is not responding %1 ID number: %3, serial number: %4 **Error correction** - Restart the control - If the problem recurs, generate a service file and inform your service agency

Error number	Description
23A-0029	**Error message** Initialization of interface faulty for device: %2 **Cause of error** Encoder FPGA Master (HFL): an error occurred at the interface %1 ID number: %3, serial number: %4 **Error correction** - Restart the control - If the problem recurs, generate a service file and inform your service agency
23A-002A	**Error message** Internal error on device: %2 **Cause of error** FSuC bootloader: invalid firmware loaded %1 ID number: %3, serial number: %4 **Error correction** - Generate the service file and inform your service agency
23A-002B	**Error message** Invalid firmware loaded on device: %2 **Cause of error** FSuC firmware: firmware update failed %1 ID number: %3, serial number: %4 **Error correction** - Restart the control - If the problem recurs, generate a service file and inform your service agency
23A-002C	**Error message** Invalid firmware loaded on device: %2 **Cause of error** FSuC VMT: firmware update failed %1 ID number: %3, serial number: %4 **Error correction** - Restart the control - If the problem recurs, generate a service file and inform your service agency

Error number	Description
23A-002D	**Error message** Internal error on device: %2 **Cause of error** FSuC HIK: invalid firmware loaded %1 ID number: %3, serial number: %4 **Error correction** - Generate the service file and inform your service agency
23A-002E	**Error message** Internal error on device: %2 **Cause of error** - Error during program run - FSuC firmware not started %1 ID number: %3, serial number: %4 **Error correction** - Restart the control - If the problem recurs, generate a service file and inform your service agency
23A-002F	**Error message** Error in communication with device:%2 **Cause of error** FSuC: invalid received data %1 ID number: %3, serial number: %4 **Error correction** - Restart the control - If the problem recurs, generate a service file and inform your service agency
23A-0030	**Error message** Timeout during communication with device: %2 **Cause of error** FSuC: device is not responding %1 ID number: %3, serial number: %4 **Error correction** - Restart the control - If the problem recurs, generate a service file and inform your service agency

Error number	Description
23A-0031	**Error message** Timeout during communication with device: %2 **Cause of error** FSuC: device at full capacity or not ready for operation %1 ID number: %3, serial number: %4 **Error correction** - Restart the control - If the problem recurs, generate a service file and inform your service agency
23A-0032	**Error message** Firmware update failed on device: %2 **Cause of error** FSuC: invalid firmware loaded %1 ID number: %3, serial number: %4 **Error correction** - Restart the control - If the problem recurs, generate a service file and inform your service agency
23A-0033	**Error message** Error in communication with device:%2 **Cause of error** FSuC: invalid parameter transfer %1 ID number: %3, serial number: %4 **Error correction** - Restart the control - If the problem recurs, generate a service file and inform your service agency
23A-0034	**Error message** Error in communication with device:%2 **Cause of error** - HSCI: an error occurred at the interface - Local error register is set %1 ID number: %3, serial number: %4 **Error correction** - Check the interface connections and restart the control - If the problem recurs, generate a service file and inform your service agency

Error number	Description
23A-0035	**Error message** Error in communication with device:%2 **Cause of error** - HSCI: an error occurred at the interface - External error register is set %1 ID number: %3, serial number: %4 **Error correction** - Check the interface connections and restart the control - If the problem recurs, generate a service file and inform your service agency
23A-0036	**Error message** Timeout during communication with device: %2 **Cause of error** HSCI: device is not responding %1 ID number: %3, serial number: %4 **Error correction** - Restart the control - If the problem recurs, generate a service file and inform your service agency
23A-0037	**Error message** Error in communication with device:%2 **Cause of error** HSCI: self-test of interface failed %1 ID number: %3, serial number: %4 **Error correction** - Restart the control - If the problem recurs, generate a service file and inform your service agency
23A-0039	**Error message** Internal access error on device: %2 **Cause of error** Flash module: Hardware initialization failed %1 ID number: %3, serial number: %4 **Error correction** - Restart the control - If the problem recurs, generate a service file and inform your service agency

Error number	Description
23A-003A	**Error message** Internal access error on device: %2 **Cause of error** Flash module: access to hardware failed %1 ID number: %3, serial number: %4 **Error correction** - Restart the control - If the problem recurs, generate a service file and inform your service agency
23A-003B	**Error message** Internal access error on device: %2 **Cause of error** Flash module: access to hardware failed %1 ID number: %3, serial number: %4 **Error correction** - Restart the control - If the problem recurs, generate a service file and inform your service agency
23A-003C	**Error message** Internal access error on device: %2 **Cause of error** Flash module: access to hardware failed %1 ID number: %3, serial number: %4 **Error correction** - Restart the control - If the problem recurs, generate a service file and inform your service agency
23A-003D	**Error message** Internal access error on device: %2 **Cause of error** Flash module: access to hardware failed %1 ID number: %3, serial number: %4 **Error correction** - Restart the control - If the problem recurs, generate a service file and inform your service agency

Error number	Description
23A-003E	**Error message** Internal access error on device: %2 **Cause of error** Flash module: invalid parameter transfer %1 ID number: %3, serial number: %4 **Error correction** - Restart the control - If the problem recurs, generate a service file and inform your service agency
23A-003F	**Error message** Internal access error on device: %2 **Cause of error** Flash module: invalid received data %1 ID number: %3, serial number: %4 **Error correction** - Restart the control - If the problem recurs, generate a service file and inform your service agency
23A-0040	**Error message** Internal access error on device: %2 **Cause of error** Flash module: configuration of the hardware failed %1 ID number: %3, serial number: %4 **Error correction** - Restart the control - If the problem recurs, generate a service file and inform your service agency
23A-0041	**Error message** Internal access error on device: %2 **Cause of error** Internal access error on device: %2 %1 ID number: %3, serial number: %4 **Error correction** - Restart the control - If the problem recurs, generate a service file and inform your service agency

Error number	Description
23A-0042	**Error message** Internal error on device: %2 **Cause of error** Zynq initialization: error during program run %1 ID number: %3, serial number: %4 **Error correction** - Restart the control - If the problem recurs, generate a service file and inform your service agency
23A-0043	**Error message** Internal error on device: %2 **Cause of error** Start of the application software: error during program run %1 ID number: %3, serial number: %4 **Error correction** - Restart the control - If the problem recurs, generate a service file and inform your service agency
23A-0044	**Error message** Internal access error on device: %2 **Cause of error** eFuse status: access to hardware failed %1 ID number: %3, serial number: %4 **Error correction** - Restart the control - If the problem recurs, generate a service file and inform your service agency
23A-0045	**Error message** Internal access error on device: %2 **Cause of error** eFuse key: access to hardware failed %1 ID number: %3, serial number: %4 **Error correction** - Restart the control - If the problem recurs, generate a service file and inform your service agency

Error number	Description
23A-0046	**Error message** Internal error on device: %2 **Cause of error** eFuse configuration data: error during program run %1 ID number: %3, serial number: %4 **Error correction** - Restart the control - If the problem recurs, generate a service file and inform your service agency
23A-0047	**Error message** Internal access error on device: %2 **Cause of error** eFuse write-operation: access to hardware failed %1 ID number: %3, serial number: %4 **Error correction** - Restart the control - If the problem recurs, generate a service file and inform your service agency
23A-0048	**Error message** Internal access error on device: %2 **Cause of error** RAM: invalid parameter transfer %1 ID number: %3, serial number: %4 **Error correction** - Restart the control - If the problem recurs, generate a service file and inform your service agency
23A-0049	**Error message** Internal access error on device: %2 **Cause of error** RAM: hardware test failed %1 ID number: %3, serial number: %4 **Error correction** - Restart the control - If the problem recurs, generate a service file and inform your service agency

Error number	Description
23A-004A	**Error message** Internal access error on device: %2 **Cause of error** FRAM: hardware initialization failed %1 ID number: %3, serial number: %4 **Error correction** - Restart the control - If the problem recurs, generate a service file and inform your service agency
23A-004F	**Error message** Internal access error on device: %2 **Cause of error** FRAM: hardware is not responding %1 ID number: %3, serial number: %4 **Error correction** - Restart the control - If the problem recurs, generate a service file and inform your service agency
23A-0050	**Error message** Internal access error on device: %2 **Cause of error** Diagnostics Flash: hardware initialization failed %1 ID number: %3, serial number: %4 **Error correction** - Restart the control - If the problem recurs, generate a service file and inform your service agency
23A-0052	**Error message** Internal access error on device: %2 **Cause of error** Diagnostics Flash: hardware test failed %1 ID number: %3, serial number: %4 **Error correction** - Restart the control - If the problem recurs, generate a service file and inform your service agency

Error number	Description
23A-0053	**Error message** Internal error on device: %2 **Cause of error** - Error during program run - Invalid image size %1 ID number: %3, serial number: %4 **Error correction** - Generate the service file and inform your service agency
23A-0054	**Error message** Faulty boot image on device: %2 **Cause of error** - Image data are incomplete or inconsistent - Application software not found %1 ID number: %3, serial number: %4 **Error correction** - Generate the service file and inform your service agency
23A-0055	**Error message** Faulty boot image on device: %2 **Cause of error** - Image data are incomplete or inconsistent - Boot image not found %1 ID number: %3, serial number: %4 **Error correction** - Generate the service file and inform your service agency
23A-0056	**Error message** Faulty boot image on device: %2 **Cause of error** - Image data are incomplete or inconsistent - Fall-back boot image not found %1 ID number: %3, serial number: %4 **Error correction** - Generate the service file and inform your service agency

Error number	Description
23A-0057	**Error message** Faulty boot image on device: %2 **Cause of error** - Image data are incomplete or inconsistent - Primary boot image not found %1 ID number: %3, serial number: %4 **Error correction** - Generate the service file and inform your service agency
23A-0058	**Error message** Faulty boot image on device: %2 **Cause of error** Fall-back boot image: incorrect image offset %1 ID number: %3, serial number: %4 **Error correction** - Generate the service file and inform your service agency
23A-0059	**Error message** Faulty boot image on device: %2 **Cause of error** Primary boot image: incorrect image offset %1 ID number: %3, serial number: %4 **Error correction** - Generate the service file and inform your service agency
23A-005A	**Error message** Faulty boot image on device: %2 **Cause of error** Image offset incorrect %1 ID number: %3, serial number: %4 **Error correction** - Generate the service file and inform your service agency
23A-005B	**Error message** Faulty boot image on device: %2 **Cause of error** Image data are incomplete or inconsistent - Generate the service file and inform your service agency No authentication data are available %1 ID number: %3, serial number: %4 **Error correction** - Generate the service file and inform your service agency

Error number	Description
23A-005C	**Error message** Faulty boot image on device: %2 **Cause of error** Byte converter: image data are incomplete or inconsistent %1 ID number: %3, serial number: %4 **Error correction** - Generate the service file and inform your service agency
23A-005D	**Error message** Internal error on device: %2 **Cause of error** -Received data invalid - Terminal: invalid character %1 ID number: %3, serial number: %4 **Error correction** - Restart the control - If the problem recurs, generate a service file and inform your service agency
23A-005E	**Error message** Internal error on device: %2 **Cause of error** -Received data invalid - Terminal: input too long %1 ID number: %3, serial number: %4 **Error correction** - Restart the control - If the problem recurs, generate a service file and inform your service agency
23A-0060	**Error message** Faulty boot image on device: %2 **Cause of error** Info section: image data are incomplete or inconsistent %1 ID number: %3, serial number: %4 **Error correction** - Restart the control - If the problem recurs, generate a service file and inform your service agency

Error number	Description
23A-0061	**Error message** Faulty boot image on device: %2 **Cause of error** Info section: image data are incomplete or inconsistent %1 ID number: %3, serial number: %4 **Error correction** - Restart the control - If the problem recurs, generate a service file and inform your service agency
23A-0062	**Error message** Faulty boot image on device: %2 **Cause of error** Info section: image data are incomplete or inconsistent %1 ID number: %3, serial number: %4 **Error correction** - Restart the control - If the problem recurs, generate a service file and inform your service agency
23A-0063	**Error message** Faulty boot image on device: %2 **Cause of error** Info section: image data are incomplete or inconsistent %1 ID number: %3, serial number: %4 **Error correction** - Restart the control - If the problem recurs, generate a service file and inform your service agency
23A-0064	**Error message** Faulty boot image on device: %2 **Cause of error** Info section: image data are incomplete or inconsistent %1 ID number: %3, serial number: %4 **Error correction** - Restart the control - If the problem recurs, generate a service file and inform your service agency

Error number	Description
23A-0065	**Error message** Faulty boot image on device: %2 **Cause of error** Info section: image data are incomplete or inconsistent %1 ID number: %3, serial number: %4 **Error correction** - Restart the control - If the problem recurs, generate a service file and inform your service agency
23A-0066	**Error message** Faulty boot image on device: %2 **Cause of error** Info section: image data are incomplete or inconsistent %1 ID number: %3, serial number: %4 **Error correction** - Restart the control - If the problem recurs, generate a service file and inform your service agency
23A-0067	**Error message** Faulty boot image on device: %2 **Cause of error** Info section: image data are incomplete or inconsistent %1 ID number: %3, serial number: %4 **Error correction** - Restart the control - If the problem recurs, generate a service file and inform your service agency
23A-0068	**Error message** Faulty boot image on device: %2 **Cause of error** Info section: image data are incomplete or inconsistent %1 ID number: %3, serial number: %4 **Error correction** - Restart the control - If the problem recurs, generate a service file and inform your service agency

Error number	Description
23A-0069	**Error message** Faulty boot image on device: %2 **Cause of error** Info section: image data are incomplete or inconsistent %1 ID number: %3, serial number: %4 **Error correction** - Restart the control - If the problem recurs, generate a service file and inform your service agency
23A-006A	**Error message** Faulty boot image on device: %2 **Cause of error** Info section: image data are incomplete or inconsistent %1 ID number: %3, serial number: %4 **Error correction** - Restart the control - If the problem recurs, generate a service file and inform your service agency
23A-006B	**Error message** Internal error on device: %2 **Cause of error** - Device index invalid %1 ID number: %3, serial number: %4 **Error correction** - Restart the control - If the problem recurs, generate a service file and inform your service agency
23A-006C	**Error message** Error while executing command on device: %2 **Cause of error** -Device index invalid - Driver assignment not possible %1 ID number: %3, serial number: %4 **Error correction** - Restart the control - If the problem recurs, generate a service file and inform your service agency

Error number	Description
23A-006D	**Error message** Error while executing command on device: %2 **Cause of error** - Device index invalid - Command was not processed %1 ID number: %3, serial number: %4 **Error correction** - Restart the control - If the problem recurs, generate a service file and inform your service agency
23A-006E	**Error message** Internal error on device: %2 **Cause of error** Interface designation invalid %1 ID number: %3, serial number: %4 **Error correction** - Restart the control - If the problem recurs, generate a service file and inform your service agency
23A-006F	**Error message** Internal error on device: %2 **Cause of error** - Error during program run - Error during main initialization phase %1 ID number: %3, serial number: %4 **Error correction** - Generate the service file and inform your service agency
23A-0070	**Error message** Faulty boot image on device: %2 **Cause of error** Image authentication: image data are incomplete or inconsistent %1 ID number: %3, serial number: %4 **Error correction** - Restart the control - If the problem recurs, generate a service file and inform your service agency

Error number	Description
23A-0071	**Error message** Error while detecting device for device: %2 **Cause of error** - Program or hardware configuration faulty - Capture limit reached %1 ID number: %3, serial number: %4 **Error correction** - Generate the service file and inform your service agency
23A-0072	**Error message** Error while detecting device for device: %2 **Cause of error** - Image data are incomplete or inconsistent - Faulty entry %1 ID number: %3, serial number: %4 **Error correction** - Restart the control - If the problem recurs, generate a service file and inform your service agency
23A-0073	**Error message** Error while detecting device for device: %2 **Cause of error** Device at full capacity or not ready for operation %1 ID number: %3, serial number: %4 **Error correction** - Restart the control - If the problem recurs, generate a service file and inform your service agency
23A-0074	**Error message** Internal error on device: %2 **Cause of error** FPGA ID: program or hardware configuration faulty %1 ID number: %3, serial number: %4 **Error correction** - Generate the service file and inform your service agency

Error number	Description
23A-0075	**Error message** Error while executing command on device: %2 **Cause of error** - Command invalid - No HIK available for reading out %1 ID number: %3, serial number: %4 **Error correction** - Generate the service file and inform your service agency
23A-0076	**Error message** Internal error on device: %2 **Cause of error** HIK: invalid parameter transfer %1 ID number: %3, serial number: %4 **Error correction** - Generate the service file and inform your service agency
23A-0077	**Error message** Error while executing command on device: %2 **Cause of error** - Parameter transfer invalid - Maximum command size (in) exceeded %1 ID number: %3, serial number: %4 **Error correction** - Generate the service file and inform your service agency
23A-0078	**Error message** Error while executing command on device: %2 **Cause of error** - Parameter transfer invalid - Maximum command size (out) exceeded %1 ID number: %3, serial number: %4 **Error correction** - Generate the service file and inform your service agency
23A-0079	**Error message** Error while executing command on device: %2 **Cause of error** - Parameter transfer invalid - Error in the command sequence %1 ID number: %3, serial number: %4 **Error correction** - Generate the service file and inform your service agency

Error number	Description
23A-007A	**Error message** Error while executing command on device: %2 **Cause of error** - Parameter transfer invalid - Address invalid %1 ID number: %3, serial number: %4 **Error correction** - Generate the service file and inform your service agency
23A-007D	**Error message** Error while executing command on device: %2 **Cause of error** - Parameter transfer invalid - Message ID invalid %1 ID number: %3, serial number: %4 **Error correction** - Restart the control - If the problem recurs, generate a service file and inform your service agency
23A-007E	**Error message** Error while executing command on device: %2 **Cause of error** - Parameter transfer invalid - Command invalid %1 ID number: %3, serial number: %4 **Error correction** - Generate the service file and inform your service agency
23A-007F	**Error message** Faulty boot image on device: %2 **Cause of error** Encoder FPGA info section: image data are incomplete or inconsistent %1 ID number: %3, serial number: %4 **Error correction** - Generate the service file and inform your service agency

Error number	Description
23A-0080	**Error message** Faulty boot image on device: %2 **Cause of error** Encoder FPGA info section: image data are incomplete or inconsistent %1 ID number: %3, serial number: %4 **Error correction** - Generate the service file and inform your service agency
23A-0081	**Error message** Internal error on device: %2 **Cause of error** - Program or hardware configuration faulty - Test environment is active %1 ID number: %3, serial number: %4 **Error correction** - Generate the service file and inform your service agency
23A-0082	**Error message** Internal error on device: %2 **Cause of error** - Hardware initialization failed - Internal XADC voltage reference is active %1 ID number: %3, serial number: %4 **Error correction** - Restart the control - If the problem recurs, generate a service file and inform your service agency
23A-0083	**Error message** Initialization of interface faulty for device: %2 **Cause of error** HFL: self-test of interface failed (VMK) %1 ID number: %3, serial number: %4 **Error correction** - Check the interface connections and restart the control - If the problem recurs, generate a service file and inform your service agency

Error number	Description
23A-0084	**Error message** Initialization of interface faulty for device: %2 **Cause of error** HFL: self-test of interface failed (VSK) %1 ID number: %3, serial number: %4 **Error correction** - Check the interface connections and restart the control - If the problem recurs, generate a service file and inform your service agency
23A-0085	**Error message** Initialization of interface faulty for device: %2 **Cause of error** HFL: self-test of interface failed (VMLS) %1 ID number: %3, serial number: %4 **Error correction** - Check the interface connections and restart the control - If the problem recurs, generate a service file and inform your service agency
23A-0086	**Error message** Initialization of interface faulty for device: %2 **Cause of error** HFL: self-test of interface failed (VMS) %1 ID number: %3, serial number: %4 **Error correction** - Check the interface connections and restart the control - If the problem recurs, generate a service file and inform your service agency
23A-0087	**Error message** Initialization of interface faulty for device: %2 **Cause of error** HFL: self-test of interface failed (VMPS) %1 ID number: %3, serial number: %4 **Error correction** - Check the interface connections and restart the control - If the problem recurs, generate a service file and inform your service agency

Error number	Description
23A-0088	**Error message** Initialization of interface faulty for device: %2 **Cause of error** HFL: self-test of interface failed (VSLPS) %1 ID number: %3, serial number: %4 **Error correction** - Check the interface connections and restart the control - If the problem recurs, generate a service file and inform your service agency
23A-0089	**Error message** Initialization of interface faulty for device: %2 **Cause of error** HFL: an error occurred at the interface (VMTX) %1 ID number: %3, serial number: %4 **Error correction** - Check the interface connections and restart the control - If the problem recurs, generate a service file and inform your service agency
23A-008A	**Error message** Initialization of interface faulty for device: %2 **Cause of error** HFL: an error occurred at the interface (VSTX) %1 ID number: %3, serial number: %4 **Error correction** - Check the interface connections and restart the control - If the problem recurs, generate a service file and inform your service agency
23A-008B	**Error message** Initialization of interface faulty for device: %2 **Cause of error** HFL: an error occurred at the interface (VMTO) %1 ID number: %3, serial number: %4 **Error correction** - Check the interface connections and restart the control - If the problem recurs, generate a service file and inform your service agency

Error number	Description
23A-008C	**Error message** Initialization of interface faulty for device: %2 **Cause of error** HFL: an error occurred at the interface (VSTO) %1 ID number: %3, serial number: %4 **Error correction** - Check the interface connections and restart the control - If the problem recurs, generate a service file and inform your service agency
23A-008D	**Error message** Initialization of interface faulty for device: %2 **Cause of error** HFL: an error occurred at the interface (VMRX) %1 ID number: %3, serial number: %4 **Error correction** - Check the interface connections and restart the control - If the problem recurs, generate a service file and inform your service agency
23A-008E	**Error message** Initialization of interface faulty for device: %2 **Cause of error** HFL: an error occurred at the interface (VSRX) %1 ID number: %3, serial number: %4 **Error correction** - Check the interface connections and restart the control - If the problem recurs, generate a service file and inform your service agency
23A-008F	**Error message** Initialization of interface faulty for device: %2 **Cause of error** HFL: an error occurred at the interface (VMSTX) %1 ID number: %3, serial number: %4 **Error correction** - Check the interface connections and restart the control - If the problem recurs, generate a service file and inform your service agency

Error number	Description
23A-0090	**Error message** Initialization of interface faulty for device: %2 **Cause of error** HFL: an error occurred at the interface (VMI) %1 ID number: %3, serial number: %4 **Error correction** - Check the interface connections and restart the control - If the problem recurs, generate a service file and inform your service agency
23A-0091	**Error message** Initialization of interface faulty for device: %2 **Cause of error** HFL: an error occurred at the interface (VSI) %1 ID number: %3, serial number: %4 **Error correction** - Check the interface connections and restart the control - If the problem recurs, generate a service file and inform your service agency
23A-0092	**Error message** Initialization of interface faulty for device: %2 **Cause of error** HFL: an error occurred at the interface (VMSRX) %1 ID number: %3, serial number: %4 **Error correction** - Check the interface connections and restart the control - If the problem recurs, generate a service file and inform your service agency
23A-0093	**Error message** Initialization of interface faulty for device: %2 **Cause of error** HFL: an error occurred at the interface (VMPE) %1 ID number: %3, serial number: %4 **Error correction** - Check the interface connections and restart the control - If the problem recurs, generate a service file and inform your service agency

Error number	Description
23A-0094	**Error message** Initialization of interface faulty for device: %2 **Cause of error** HFL: an error occurred at the interface (VSPE) %1 ID number: %3, serial number: %4 **Error correction** - Check the interface connections and restart the control - If the problem recurs, generate a service file and inform your service agency
240-07D0	**Error message** No permission to write **Cause of error** Sie haben eine schreibgeschützte Datei zum Editieren angewählt. **Error correction** Vor dem Editieren Schreibschutz aufheben: Schlüsselzahl 86357 eingeben.
240-07D1	**Error message** File '%1' not found **Cause of error** Diese Datei wurde nicht gefunden **Error correction** Datei neu anlegen oder generieren lassen
240-07D2	**Error message** File type of '%1' incorrect **Cause of error** Sie haben eine falsche Datei angewählt **Error correction** Wählen Sie eine andere Datei an
240-07D3	**Error message** File '%1' is encrypted **Cause of error** Sie haben eine verschlüsselte Datei angewählt **Error correction** Geben Sie den Schlüsselcode ein

Error number	Description
240-07D4	**Error message** Access to '%1' is blocked **Cause of error** You tried to edit an NC program while it was running in a Program Run mode. **Error correction** - Stop the NC program run
240-07D5	**Error message** Invalid file path: '%1' **Cause of error** **Error correction**
240-0800	**Error message** Key non-functional **Cause of error** The key is not allowed in this status or it has no function. **Error correction** Press another key or soft key.
240-0804	**Error message** NC program not saved **Cause of error** The NC program is write protected and therefore cannot be saved. **Error correction** - Open the file manager and cancel the write protection for the NC program. Then use the Programming mode of operation to select and save the NC program. - Or, as an alternative, save the NC program under another name.
240-0CA3	**Error message** Error in internal communication **Cause of error** Internal software error. **Error correction** Inform your service agency
240-0CA4	**Error message** Error in an internal process **Cause of error** Internal software error. **Error correction** Inform your service agency

Error number	Description
240-0CA5	**Error message** Cycle data faulty or incomplete **Cause of error** The stored description of the cycle is incorrect or incomplete. Check whether there are further error messages with more information on the possible cause. **Error correction** Define the cycle description correctly
240-0CA6	**Error message** Zyklus unvollständig **Cause of error** You programmed an incomplete cycle definition or inserted other NC blocks between cycle blocks. **Error correction** Edit the NC program.
240-0CA7	**Error message** Cycle not completely marked **Cause of error** Sie haben den mehrzeiligen Zyklus nicht vollständig markiert. **Error correction** - Vervollständigen Sie die Markierung.
240-0CA9	**Error message** Can't insert, too much data is marked **Cause of error** The NC blocks cannot be inserted, since the marked range in the editor is too large. **Error correction** - Mark fewer blocks, or insert them individually.
241-07D0	**Error message** Key non-functional **Cause of error** In this context the key has no function. **Error correction**
241-07D2	**Error message** Text not found **Cause of error** The ASCII editor could not find the desired text in a file. **Error correction** Search for another text (note upper and lower case letter).

Error number	Description
241-09C4	**Error message** Machine configuration error **Cause of error** A machine parameter has a faulty value. For more information see the soft key INTERNAL INFORMATION (Text0...2). **Error correction** - Correct the machine parameter - Inform your service agency
241-09C5	**Error message** Internal software error **Cause of error** Internal control error: - Insufficient memory - Other, nonspecified errors **Error correction** Inform your service agency.
241-09C6	**Error message** Data record already locked **Cause of error** The table editor was instructed to edit a locked data record. **Error correction** Release the lock (e.g.: terminate the NC program or tool change) and repeat the instruction.
241-09C7	**Error message** Data record with incorrect length **Cause of error** In the table editor, a table was entered containing at least one line whose length differs from the length of the line with the column name. **Error correction** Open the table with the text editor and shorten the problem line at its end or fill it with spaces. Alternatively, for example if several lines are faulty, you can use the file manager to copy the table into a new fault-free table.
241-09C8	**Error message** Pocket table incorrect **Cause of error** - The pocket table contains more spindle pockets than are given in the machine parameter CfgAxes.spindleIndices. **Error correction** - Delete the invalid pockets from the pocket table

Error number	Description
241-09C9	**Error message** Incorrect value `%1` in update rule `%2` **Cause of error** Incorrect syntax of the update rule: - The keyword is missing or spelled incorrectly - The keyword is unknown - Invalid number for a rule - Incorrect or unknown symbolic table name - The entered column is missing in the table - Column list is unequal during a copying statement **Error correction** - Note the additional information on the error message. - Remember that the error can also be before the indicated place! - Enter the statement in the correct syntax, or contact your machine tool builder.
241-09CA	**Error message** Update rule "%1" erroneous **Cause of error** The update rule for updating a table is faulty and cannot be applied. **Error correction** - Please pay attention to other pending error messages. - Enter the statement for updating the table in the correct syntax, or contact your machine tool builder.
241-09CB	**Error message** Error while importing the table '%1' in '%2' **Cause of error** Table import failed. **Error correction** - Note the additional data on the error message. To do so, press the INTERNAL INFO soft key. - Note further pending error messages. - Inform your service agency.
241-09CC	**Error message** Table '%1' erroneous **Cause of error** The update to the table failed since the table is faulty. **Error correction** Please ensure that the table - has the correct syntax - exists - is not write-protected If necessary, contact your machine tool builder

Error number	Description
241-09CD	**Error message** Error while updating table '%1' **Cause of error** The update of the table failed. **Error correction** - Please pay attention to other pending error messages. - Pay attention to the additional information regarding the error message or contact your machine tool builder.
241-09D0	**Error message** Access to file %1 during update denied **Cause of error** - The file cannot be updated because access to the table is not possible - The file might still be in use by the control or an external application **Error correction** - Press NC stop, close all files or release them in the external application, and try again. - If an update is still not possible: restart the control until the power-interrupted message appears. Then restart the update.
241-09D1	**Error message** File %1 changed through import **Cause of error** The entered file was automatically modified during import: - Program name - Special characters removed - End block inserted **Error correction** - Check the file - Note the changes and check - Use the file only if you feel that it is correct
241-0C03	**Error message** File or file path '%1' invalid **Cause of error** The file name or path for the file operation update is incorrect. Update failed. **Error correction** - Note the additional data on the error message. To do so, press the INTERNAL INFO soft key. - Note further pending error messages. - Check the syntax of the file name and path for the file operation. - Check whether the file and path actually exist. - Inform your service agency.

Error number	Description
241-0C04	**Error message** Error during update in file operation **Cause of error** File operation of an update rule failed. **Error correction** - Note the additional data on the error message. To do so, press the INTERNAL INFO soft key. - Note further pending error messages. - Inform your service agency.
241-0C05	**Error message** Update rule "%1" erroneous **Cause of error** The update rule for the file operation is faulty and has failed. **Error correction** - Note the additional data on the error message. To do so, press the INTERNAL INFO soft key. - Note further pending error messages. - Check the syntax of the command for the file. - Inform your service agency
241-0C2A	**Error message** Table layout can't be changed **Cause of error** You tried to change the number or layout of the table columns. The width of columns cannot be reduced. The table files must not be write-protected. **Error correction** - Do not reduce the column width - Close open tables and change the table layout before acknowledging the Power Interrupted message
242-07D0	**Error message** Key non-functional **Cause of error** In this context the key has no function. **Error correction**

Error number	Description
242-07D1	**Error message** File invalid **Cause of error** - The file to be inserted in the text was not found - No file selected - Selected file is already being edited by the text editor - Selected file is already being edited by another application - Invalid file **Error correction** - Select another file - Close the file in another application
242-07D3	**Error message** Intermediate memory empty **Cause of error** You attempted to insert blocks from intermediate memory, although you haven't copied anything since power has been on. **Error correction** Before you can insert anything from intermediate memory you must first fill it using the copy function.
242-07D4	**Error message** Text not found **Cause of error** The ASCII editor could not find the desired text in a file. **Error correction** Search for another text (note upper and lower case letter).
242-07D5	**Error message** Input error **Cause of error** You enter a value that exceeds the permissible input range. **Error correction** Check input value.
242-07D7	**Error message** No permission to write **Cause of error** The called file is write-protected. Sometimes it can no longer be saved under this name. **Error correction** - Save the file under another name - Select another file - Cancel write protection

Error number	Description
242-07DA	**Error message** File not saved **Cause of error** The file is write-protected and could not be saved. **Error correction** - Cancel the write-protection in the file management. Select the text editor and save the file again. - Save the file under another name.
243-00F5	**Error message** Serial number? **Cause of error** **Error correction**
245-03F5	**Error message** Configuration server not ready **Cause of error** The system-inherent communication over the data interface to the configuration server is not ready. **Error correction** Inform your service agency.
245-03F6	**Error message** Unable to open configuration server queue **Cause of error** Error in the system-inherent communication. **Error correction** Inform your service agency.
245-03F7	**Error message** Unable to read configuration data '%1' **Cause of error** Error in the system-inherent communication. **Error correction** Inform your service agency.
245-03F8	**Error message** Unable to write configuration data '%1' **Cause of error** Error in the system-inherent communication. **Error correction** Inform your service agency.

Error number	Description
245-03F9	**Error message** Error in the PGM-MGT configuration %1 **Cause of error** Invalid for incorrect data in the configuration of the file management **Error correction** Correct the corresponding data and save
245-03FA	**Error message** Internal error! **Cause of error** Internal software error in the file management **Error correction** Inform your service agency
245-03FB	**Error message** Process not available **Cause of error** A process entered in the configuration data cannot be activated. **Error correction** Inform your service agency.
245-03FC	**Error message** ClientQueue (%1) could not be opened **Cause of error** Error in system-inherent communication **Error correction** Inform your service agency.
245-03FD	**Error message** General error in internal system queue (%1) **Cause of error** Error in system-inherent communication **Error correction** Inform your service agency.
245-03FE	**Error message** No receiver for internal system message **Cause of error** Error in system-inherent communication **Error correction** Inform your service agency.

Error number	Description
245-03FF	**Error message** Processor check error **Cause of error** Internal software error **Error correction** Inform your service agency
245-0401	**Error message** Failed to send internal message **Cause of error** Error in system-inherent communication **Error correction** Inform your service agency.
245-040D	**Error message** Ext. in-/output not ready **Cause of error** - The interface is not connected - The external device is not switched on or is not ready - The transmission cable is defective or incorrect **Error correction** Check the data transmission line.
245-0413	**Error message** Problems recognizing the USB device! **Cause of error** - The USB device in use has not been detected - The USB device could not be integrated into the system **Error correction** - Remove the USB device and try again - Try it with another USB device
245-0414	**Error message** Problems removing the USB device! **Cause of error** - The USB device used was not correctly removed or was not logged off by means of the soft-key function - A file is still open on the USB device - The USB device could not be released from the system **Error correction** - Use the soft-key function to log the relevant USB device off correctly - Close the applications with access to a file on the USB device

Error number	Description
245-0416	**Error message** Serial data transmission is faulty **Cause of error** - The interface is not correctly configured - The transmission cable is defective or incorrect - Invalid file for the selected interface configuration **Error correction** - Check the interface configuration of both communication partners - Check the data transmission line - Check whether a valid file is available for transmission
245-0417	**Error message** File system error: %1 **Cause of error** **Error correction**
245-0851	**Error message** Display program could not be started. **Cause of error** A selection box is still open for starting an external display program **Error correction** Bring the hidden selection box back into the foreground, if necessary with the HeROS task bar - Either select the desired display program for further editing, - or cancel the selection of the display program
245-0861	**Error message** Changing the access rights is not permitted: %1 **Cause of error** Changing of the access rights to the file or directory is permitted only for the owner or the "root" user. **Error correction**
250-138B	**Error message** Program was edited **Cause of error** The current NC program, or one of the NC programs that have called the current NC program, was changed. It is therefore impossible to go back into the program. **Error correction** - Check whether the changed program should be started Use the mid-program startup function or the GOTO function to select the desired location to go back into the program. HEIDENHAIN recommends using the mid-program startup function to go back into the program.

Error number	Description
250-138C	**Error message** Not enough main memory (RAM) **Cause of error** The control has too little physical main memory. **Error correction** Equip the hardware with at least 128 MB RAM.
250-138D	**Error message** Current program not selected. Select with file manager. **Cause of error** The displayed program was not selected in the program run. **Error correction** Use the file manager to select a program at the beginning.
250-138E	**Error message** Program was edited during program run! **Cause of error** A program was edited during program run. **Error correction** Check whether the edited program should be run.
250-138F	**Error message** Cycle Query dialog box could not be opened! **Cause of error** A dialog box is already open. **Error correction** Close the open dialog box, and restart the program.
250-1390	**Error message** Application cannot be activated: %1 **Cause of error** The other application has not been started or has another title. **Error correction** Start the other application manually.
250-1391	**Error message** Error while transferring command to PLC server **Cause of error** Internal software error. **Error correction** Inform your service agency.

Error number	Description
250-1392	**Error message** Error while transferring command to SQL server **Cause of error** Internal software error. **Error correction** Inform your service agency.
250-1393	**Error message** Error in internal communication **Cause of error** Internal software error. **Error correction** Inform your service agency.
250-1394	**Error message** Error in an internal process **Cause of error** Internal software error. **Error correction** Inform your service agency.
250-1395	**Error message** Error in an internal process **Cause of error** Internal software error. **Error correction** Inform your service agency.
250-1396	**Error message** Program resumption not possible **Cause of error** The program cannot be continued from the point of interruption. **Error correction** Use GoTo to position to the start of program, or select the program again. If you are machining a pallet, then update the pallet table (perhaps set W-STATUS to BLANK). Then the program can be started.

Error number	Description
250-1397	**Error message** Axis movement canceled **Cause of error** A reference run in an axis was stopped or canceled before the target position was reached. **Error correction** - Check the axis, acknowledge the error, and restart the reference run - If appropriate, press the permissive button to confirm that a non-referenced or non-checked axis is to be moved
250-1398	**Error message** File access not possible **Cause of error** The file cannot be accessed. Perhaps it was deleted. **Error correction** Select another file.
250-1399	**Error message** File access not possible **Cause of error** The file is not a valid NC program for this control. **Error correction** Select another program.
250-139A	**Error message** NC program not selected **Cause of error** The NC program was not selected through the file management (PGM MGT key). **Error correction** To be able to start this program, select it in the file management (PGM MGT key) of start it with the selected program in mid-program startup.
250-13A7	**Error message** Connection setup to DNC not possible **Cause of error** Cannot connect with the DNC. **Error correction**

Error number	Description
250-13A8	**Error message** Connection setup to DNC not possible **Cause of error** Cannot connect with the DNC. TeleService is already being used by another application. **Error correction** - Restart the control. - If the problem continues, inform your service agency.
250-13A9	**Error message** Connection setup to DNC not possible **Cause of error** Cannot connect with the DNC. The machine parameter for TeleService is improperly configured. **Error correction** The machine parameter for TeleService, "CfgServiceRequest," must be correctly configured.
250-13AA	**Error message** TeleService request is in error **Cause of error** TeleService could not be activated or deactivated. **Error correction**
250-13AB	**Error message** TeleService request is in error **Cause of error** Unable to send TeleService request. **Error correction** Check the network connections and retry.
250-13AC	**Error message** TeleService request is in error **Cause of error** The machine parameter for TeleService is improperly configured. **Error correction** The machine parameter for TeleService, "CfgServiceRequest," must be correctly configured.

Error number	Description
250-13AE	**Error message** Table access not possible **Cause of error** The table cannot be accessed. The file was probably deleted. **Error correction** Make a new table.
250-13AF	**Error message** Preset table is faulty **Cause of error** No preset is marked as active in the preset table, or multiple presets are marked at the same time. **Error correction** Correct the preset table. Only one preset can be marked as active.
250-13B6	**Error message** Configuration parameter cannot be saved **Cause of error** The control tried to write data to a write-protected configuration file. **Error correction** - Inform your service agency
250-13B7	**Error message** Table cannot be selected **Cause of error** A configuration parameter required for selecting the table could not be written to. **Error correction** - Inform your service agency.
250-13B8	**Error message** Machine kinematic configuration has too many rotary axes **Cause of error** You have defined more than two axes as rotary axes. The working plane cannot be tilted with more that two rotary axes. Machine kinematics with more than two rotary axes are not supported by the control. **Error correction** - Change the machine configuration: Use a kinematic configuration with no more than 2 rotary axes.

Error number	Description
250-13BD	**Error message** PLC pop-up window (Module 9216) not possible **Cause of error** A PLC pop-up window (PLC Module 9216) cannot be shown in the current operating situation. **Error correction** Activate the machine operation or close a dialog already open.
250-13BE	**Error message** Tool number does not exist **Cause of error** The tool number required for selection of a pocket number is not in the table. **Error correction** - Correct the tool table
250-13BF	**Error message** Tool does not exist **Cause of error** The tool is not present in the tool table. **Error correction** - Correct the tool table - Select a tool table that contains the tool.
250-13C0	**Error message** No tool pocket available **Cause of error** There is no fitting tool pocket in the pocket table for the tool. **Error correction** - Provide a fitting tool pocket
250-13C1	**Error message** Pop-up window (Module 9217) not possible **Cause of error** A PLC pop-up window (PLC Module 9217) cannot be shown in the current operating situation. **Error correction** Activate the Machine operating mode or close an already open dialog box.

Error number	Description
250-13C2	**Error message** Cycle Query dialog is not possible in this state! **Cause of error** A cycle query dialog (PLC Module 9291) cannot be shown in the current operating situation. **Error correction** - Check the PLC program and correct if necessary
250-13C3	**Error message** Check the "Evaluation of EnDat" dialog window **Cause of error** The "Evaluation of EnDat encoder" dialog window cannot be displayed because is overlapped by a background operating mode. **Error correction** Activate a machine operating mode and confirm the "Evaluation of EnDat encoder" dialog window.
250-13C4	**Error message** Program selection not possible **Cause of error** The selection of an NC program is presently not allowed. **Error correction** Select the Program Run mode of operation
250-13C5	**Error message** Current status of the axis not received **Cause of error** **Error correction**
250-13C6	**Error message** Program start not supported **Cause of error** The start of the NC program is not supported in this condition. **Error correction** - Move the axes over the reference marks - Reconduct the program start
250-13C7	**Error message** Operation not supported **Cause of error** The control cannot be operated while it is in this state. **Error correction** Please wait until the axes have been referenced.

Error number	Description
250-13C9	**Error message** Current block (%1) not selected **Cause of error** After an interruption in the program run, the control cannot resume program run from the present cursor location. **Error correction** Select the desired location for resuming the program with "GOTO" + block number, or with the mid-program startup function.
250-13CA	**Error message** Start the program in the Program Run mode **Cause of error** An error occurred in the previous program run **Error correction** Switch to the Program Run mode of operation and restart the program
250-17D3	**Error message** Reference run is not possible **Cause of error** The reference run is not possible at present because the axis is in use. **Error correction** Restart the reference run at a later time.
250-F306	**Error message** Program selection not possible **Cause of error** An external program selection (over DNC, OPC UA, or the PLC) could not be executed because the file manager is open. **Error correction** - Select the program and close the file manager. - Or close the file manager and select the program externally (over DNC, OPC UA, or the PLC).
250-F308	**Error message** File manager was closed through an external program selection **Cause of error** While the file manager was open, the control received a command for an external program start (over DNC, OPC UA, or the PLC). The file manager was closed and the external program selection was conducted. **Error correction**

Error number	Description
250-F30C	**Error message** Preset table is faulty **Cause of error** No preset is marked as active in the preset table, or multiple presets are marked at the same time. **Error correction** Correct the preset table
250-F319	**Error message** Function could not be executed %1 **Cause of error** The function called (e.g. pressing of a soft key) could not be executed. **Error correction** - Call the function again later - If the problem continues, inform your service agency
250-F31A	**Error message** Execution canceled -- next start from beginning of table **Cause of error** - Program aborted by user - Program aborted because of an NC error - Attempt at starting failed because of a missing table entry **Error correction** Remove the cause of the error. The next program start will take place from the beginning of the table.
250-F31D	**Error message** Host computer operation is not possible **Cause of error** Host computer operation cannot be enabled because a machining process is currently running. **Error correction** Terminate the current operation and then activate host computer operation.
250-F322	**Error message** Illegal program type **Cause of error** The program type of the file is not valid. **Error correction** Select a valid NC program

Error number	Description
250-F323	**Error message** 3DROT active: Axis positions cannot be tested **Cause of error** You have attempted to test an axis even though the function "Rotate working plane" is active. Axis positions cannot be tested if the working plane is tilted. **Error correction** Deactivate "Tilt the working plane" and test the axis positions again
250-F324	**Error message** Component %1 cannot be displayed due to limits currently configured **Cause of error** Possible causes: - A component with fewer than four limits was entered in the machine configuration under CfgComponentMon/components[] - The values of the limits are not in ascending order. **Error correction** - Correct the machine configuration under CfgComponentMon/components[] or select another component in the "CM Detail" tab
250-F329	**Error message** Monitoring task %1 cannot be displayed. **Cause of error** Possible causes: - A monitoring task with fewer than four limits was entered in the machine configuration under Monitoring/CfgMonPreferences/monitoringTasks[] - The values of the limits of the entry in CfgMonComponent are not in ascending order. - No value is entered for CfgMonComponent/display. **Error correction** - Check and if necessary correct the machine configuration under Monitoring/CfgMonComponent, or - Select another monitoring task in the "MON Detail" tab
250-F32A	**Error message** Table cannot be activated **Cause of error** Activation of a different datum or compensation table is not possible while a block is being machined. **Error correction** Either wait until the active block has finished, or (if possible without danger) press the "Internal stop" soft key while the block is being machined.

Error number	Description
250-F32E	**Error message** Monitoring task %1 cannot be displayed. **Cause of error** The monitoring task cannot be displayed. Possible causes: - The display settings for this monitoring task are incomplete or faulty - The configured limits do not permit display of the monitoring task **Error correction** - Check the configuration and adapt it if necessary: CfgMonComponent/display - Select a different monitoring task
250-F332	**Error message** Program cannot be run **Cause of error** Either there is an error in the program, or the program has been modified. **Error correction** - Check whether the program is free of errors, and execute a GOTO or reset before restarting - Use the GOTO function in order to select the desired starting point for the restart. Or use a reset to restart the simulation from the beginning of the program.
250-F333	**Error message** Preset was not stored **Cause of error** An error occurred while saving the preset. **Error correction** - Check the preset table and correct it if necessary - Restart the control - Try to save the preset again - If the error recurs, save the service file and inform your service agency
250-F334	**Error message** Preset was not reset **Cause of error** An error occurred while resetting the preset. **Error correction** - Check the preset table and correct it if necessary - Restart the control - Try to save the preset again - If the error recurs, save the service file and inform your service agency

Error number	Description
250-F335	**Error message** This file cannot be displayed **Cause of error** Access to the file was denied. **Error correction** Check the access rights for the file
250-F33C	**Error message** Check the "Evaluation of EnDat" dialog window **Cause of error** The "Evaluation of EnDat encoder" dialog window can't be opened, because the "Traverse reference points" dialog box is not active. **Error correction** Activate the "Traverse reference points" dialog box and confirm the "Evaluation of EnDat encoder" dialog window.
250-F33D	**Error message** GPS: settings have not been saved yet **Cause of error** You edited entries in the global program settings but did not save these entries. **Error correction** Apply or discard the settings
251-0D92	**Error message** Communication error when reading the configuration data **Cause of error** An internal communication error has occurred in the internal oscilloscope during interrogation of the configuration data. **Error correction** - Check the configuration of the parameter set and correct if necessary - Inform your service agency
251-0D93	**Error message** Unexpected answer when reading the active parameter set **Cause of error** An internal communication error has occurred in the internal oscilloscope during interrogation of the configuration data. **Error correction** - Check the configuration of the parameter set and correct if necessary - Inform your service agency

Error number	Description
251-0D94	**Error message** Login for reading the configuration data has failed **Cause of error** An internal communication error has occurred in the internal oscilloscope during interrogation of the configuration data. **Error correction** - Check the configuration of the parameter set and correct if necessary - Inform your service agency
251-0D95	**Error message** Internal communication error in oscilloscope **Cause of error** An internal communication error has occurred in the internal oscilloscope during log-in to the Channel Manager. **Error correction** Inform your service agency.
251-0D96	**Error message** Internal communication error in oscilloscope **Cause of error** An internal communication error has occurred in the internal oscilloscope during registration for operating modes. **Error correction** Inform your service agency.
251-0D97	**Error message** Step function has been deactivated **Cause of error** Due to an operating mode change, the jump function was deactivated in the integrated oscilloscope. **Error correction** Run the jump function in manual mode
251-0D98	**Error message** Incorrect operating mode was selected for step function **Cause of error** The jump function can be activated only in manual mode. **Error correction** Change to the manual operating mode

Error number	Description
251-0D99	**Error message** Parameter set cannot be read **Cause of error** Interrogation of the active parameter set of an axis has failed. **Error correction** Check the parameter sets of the axis
251-0D9B	**Error message** Initializing parameters cannot be read **Cause of error** An error occurred during import of the initialization parameters for the jump function of the active axis. **Error correction** Check the initialization file
251-0D9C	**Error message** Error while restoring the parameters **Cause of error** The restoration of and the original parameters of an axis has failed. **Error correction** Check the axis parameters after deactivation of the jump function
251-0D9D	**Error message** Parameter-set code of an axis does not exist **Cause of error** The identifier of the parameter set for restoring the original axis parameters is missing. **Error correction** After deactivation of the jump function, check the parameters of the axis and correct them if necessary
251-0D9F	**Error message** Step function cannot be activated **Cause of error** The reference marks for one or more axes were not scanned. **Error correction** - Home the axes - Reselect the jump function in the integrated oscilloscope

Error number	Description
251-0DA0	**Error message** Step function cannot be activated **Cause of error** An internal communication error has occurred. The status of the axis's parameter set or the status of the reference run could not be ascertained. **Error correction** - Reselect the jump function in the integrated oscilloscope - Inform your service agency if the error occurs repeatedly
251-0DA1	**Error message** Parameter set cannot be initialized **Cause of error** The active parameter set of an axis could not be initialized for the jump function. **Error correction** - Reselect the jump function in the integrated oscilloscope - Inform your service agency if the error occurs repeatedly
251-0DA6	**Error message** Step function cannot be activated **Cause of error** An error occurred during import of the initialization parameters or the parameter sets for the jump function. **Error correction** Check the parameter sets and initialization parameters, and correct if required.
251-0DA7	**Error message** Actual-to-nominal value transfer is faulty **Cause of error** No actual-to-nominal value transfer could be executed after deactivation of the jump function. **Error correction** Inform your service agency if this error occurs repeatedly
251-0DB7	**Error message** The selected signal is not supported **Cause of error** The selected position signal is not supported by the control hardware. **Error correction** Choose another signal.

Error number	Description
251-0DD5	**Error message** Selected CC signal is not available **Cause of error** When the data record is started, the selected signal can not be assigned to the CC. **Error correction** If the error occurs repeatedly, please inform your service agency.
251-0DD6	**Error message** Error in synchronization of data channels to the PLC **Cause of error** Synchronization error between IPO and PLC at start of data recording. Signals from the PLC are to be recorded, but the IPO does not receive a response from the PLC. **Error correction** If the error occurs repeatedly, please inform your service agency.
251-0DD7	**Error message** Error in synchronization of CC signals **Cause of error** Synchronization error between IPO and CC at start of data recording. CC signals are to be recorded, but the IPO does not receive a response from the CC. **Error correction** If the error occurs repeatedly, please inform your service agency.
251-0DD8	**Error message** Number of CC signals exceeded **Cause of error** The permissible number of CC signals has been exceeded. **Error correction** Limit the number of CC signals to the permissible maximum.
251-0DD9	**Error message** Unexpected sampling rate during acknowledgment of CC data channel **Cause of error** When a CC data channel is acknowledged, the cycle time of the acknowledgment does not correspond to the expected cycle time. **Error correction** Check the parameter settings for the cycle time.

Error number	Description
251-0DDA	**Error message** Number of data channels for recording with CC clock exceeded. **Cause of error** When recording with the CC clock, the number of data channels is limited. **Error correction** Limit the number of data channels when recording with CC clock to the permissible maximum.
251-0DE2	**Error message** The selected signal is not supported **Cause of error** The right to IPO-/CC-Dbg signals is missing **Error correction**
251-0DE3	**Error message** The signal cannot be recorded **Cause of error** The right needed to record IPO or CC-Dbg signals is missing. **Error correction** Log on to the control as a user who has the right to read OEM interface data (e.g. as the function user 'oemdataaccessread').
251-0DE4	**Error message** The signal cannot be recorded **Cause of error** The right to record PLC signals is missing **Error correction**
251-0DE5	**Error message** The application cannot be started **Cause of error** The right to run the internal control oscilloscope is missing **Error correction**
251-0DE6	**Error message** The selected signal is not supported **Cause of error** The right to PLC signals is missing **Error correction**

Error number	Description
251-0E18	**Error message** Check data of the SCO file **Cause of error** You opened an older version of a SCO file; this file is not compatible with the current version. **Error correction** Check the loaded data.
251-0E28	**Error message** The trace file could not be saved **Cause of error** Trace file cannot be written to. **Error correction** Check whether write-access is granted for the selected partition (e.g. PLC).
251-0E29	**Error message** File could not be read **Cause of error** A file could not be accessed for reading. **Error correction** Check whether read-access is granted for the selected partition (e.g. PLC).
251-0E2A	**Error message** Necessary right for recording a signal is missing **Cause of error** When loading a file or initializing the control, changed user rights have caused a signal to not have the necessary rights for recording The signal is set to OFF in the selection dialog box of the integrated oscilloscope. **Error correction**
251-0E2B	**Error message** Signal ID not found in list of enabled signals **Cause of error** The signal ID used was not found in the list of permitted signals. The signal is set to OFF in the selection dialog box of the integrated oscilloscope. **Error correction**

Error number	Description
251-0E2C	**Error message** Recording of signal not permitted **Cause of error** There is no recording right for this signal. The signal is set to OFF in the selection dialog box of the integrated oscilloscope. **Error correction**
251-0E2D	**Error message** Signal ID not found in selection list **Cause of error** The signal ID used was not found in the list of of the selection dialog box of the integrated oscilloscope. The signal is set to OFF. The registered user might not have the right to access the signal. **Error correction** Log-on as a user with the necessary access right
251-0E34	**Error message** Selected UVR signal is not available **Cause of error** When data recording is started, the selected signal of the UVR cannot be assigned. **Error correction** If the error occurs repeatedly, please inform your service agency.
251-0E35	**Error message** Error in synchronization of CC or UVR signals **Cause of error** Synchronization error between interpolator, CC controller unit, or UVR at start of data recording. CC or UVR signals are to be recorded, but the interpolator receives no response from the CC or UVR. **Error correction** If the error occurs repeatedly, please inform your service agency.

Error number	Description
251-0E36	**Error message** Trigger condition Signal [SAVED] not fulfilled in reference trace **Cause of error** A signal was set to [SAVED] even though a trigger condition has not been fulfilled for the reference trace. **Error correction** Before the signal state [SAVED] can be used, a trigger condition must be fulfilled for the reference trace, otherwise the signal curve cannot be associated chronologically.
251-0E37	**Error message** Trigger condition Signal [SAVED] not fulfilled in current trace **Cause of error** The signal state [SAVED] is being used even though no trigger condition has been fulfilled for the current trace. **Error correction** If the signal state [SAVED] is to be used, then a trigger condition must be fulfilled for the current trace. Otherwise the signal curve cannot be associated chronologically.
251-0E48	**Error message** Remote-Inbetriebnahme- oder Servicemodus aktiv **Cause of error** Es ist eine externe HEIDENHAIN-Anwendung über das Netzwerk mit der Steuerung verbunden, die ausschließlich für die Inbetriebnahme oder den Service vorgesehen ist. **Error correction** Trennen Sie alle nicht für den Produktivbetrieb freigegebenen Anwendungen von der Steuerung, wenn dieser läuft.
260-01FB	**Error message** Cannot find PLC module: %1 **Cause of error** Cannot find the selected PLC module. **Error correction** Select another PLC module or inform your service agency.
260-01FC	**Error message** Error in temporary file **Cause of error** The temporary file could not be generated. **Error correction** Select another PLC program or inform your service agency.

Error number	Description
260-01FD	**Error message** Compiler not found **Cause of error** The PLC compiler / PET interpreter could not be loaded. **Error correction** Inform your service agency.
260-01FE	**Error message** Program/table with invalid format **Cause of error** The PLC program / the PET table has an incorrect format. **Error correction** Correct the program/table.
260-01FF	**Error message** PLC compiler configuration incorrect **Cause of error** The configuration file for the PLC compiler contains errors. **Error correction** Correct the configuration file. Note further error messages regarding this.
260-0200	**Error message** Insufficient memory for the PLC compiler/PET **Cause of error** Insufficient memory to load the PLC compiler / PET. **Error correction** Release some memory and compile again.
260-0202	**Error message** System error in the PLC **Cause of error** The following causes of error are intended to help the service personnel to isolate and correct the PLC system error. - A PLC program cannot be loaded because the control type is configured incorrectly. - A PLC program cannot be loaded because the error table for the PLC compiler is configured incorrectly. - A PLC program cannot be loaded because an unexpected file system error occurred. - Symbol definitions for the PLC program cannot be read or contain unexpected data. - There is another internal PLC system error **Error correction** Inform your service agency.

Error number	Description
260-0203	**Error message** Command cannot be executed at present **Cause of error** The command cannot be executed at present because either an NC program is running or a compiler process is already active. **Error correction** Stop the program run and restart the compiler process.
260-0204	**Error message** The command cannot be executed at present **Cause of error** The command cannot be executed at present because autostart is already active. **Error correction** End autostart and restart the compiler process.
260-0205	**Error message** PLC program could not be started **Cause of error** The PLC program was compiled correctly but the PLC could not be started. **Error correction** Select another PLC program and compile it; or inform your service agency.
260-0206	**Error message** No active PLC program **Cause of error** The PLC program has not started and therefore no program for tracing is active. **Error correction** Select another PLC program and compile it; or inform your service agency.
260-0207	**Error message** No access to PLC symbol file (%1) **Cause of error** A PLC symbol file cannot be accessed. **Error correction** Compile the PLC program again or select another PLC program.

Error number	Description
260-0208	**Error message** Local symbol. Cannot be displayed **Cause of error** **Error correction**
260-0209	**Error message** No valid PLC operand **Cause of error** The input contains no valid PLC operands. **Error correction** Please enter the correct PLC operand name.
260-020A	**Error message** Update of operand data not possible **Cause of error** The operand data update is not possible at present. **Error correction** Compile the PLC-Programm again or inform your service agency.
260-020B	**Error message** Source file invalid **Cause of error** **Error correction**
260-020C	**Error message** No active error table **Cause of error** The error table is not active. **Error correction** Reselect the error table and compile.
260-020D	**Error message** Compilation of PLC program failed **Cause of error** The PLC program could not be compiled. **Error correction** Select another PLC program and compile.
260-020E	**Error message** Compilation of PLC error table failed **Cause of error** The error table could not be compiled. **Error correction** Select another error table and compile.

Error number	Description
260-020F	**Error message** Operand being loaded in watchlist.... **Cause of error** **Error correction**
260-0210	**Error message** Operand not recognized! **Cause of error** **Error correction**
260-0211	**Error message** Operand %1 loaded in watchlist **Cause of error** **Error correction**
260-021D	**Error message** Command not possible at this time: Trace function is active **Cause of error** The command cannot be executed at present. An external tracer is active, which is why the command is not permissible. **Error correction** End the external tracer and give the command again.
260-021E	**Error message** Command not possible at this time: Self-test is active **Cause of error** The command cannot be executed at present. The safety self-test is active, which is why the command is not permissible. **Error correction** Wait for the end of the self-test, and then give the command again.
260-0221	**Error message** Operand %1 not activated/deactivated **Cause of error** The given operand could not be activated or deactivated in the I/O force list. **Error correction** Please check the I/O force list and correct it if necessary.

Error number	Description
260-0224	**Error message** Operand %1 was set twice **Cause of error** The given operand was entered more than once in the I/O force list **Error correction** - Adapt selection. PLC operands of the same name should be listed only once in the I/O force list. - If there are multiple entries, the last operand in the list applies!
260-0235	**Error message** Data request not permitted **Cause of error** Due to missing user rights, no data can be requested from the PLC. **Error correction** - Check the user rights - If necessary, grant the current user the necessary additional rights
270-0001	**Error message** System error in SQL server **Cause of error** A software error has occurred in the SQL server. **Error correction** Inform your service agency.
270-0002	**Error message** System error in SQL server **Cause of error** A function of the SQL server has been called, although the function has not yet been implemented. **Error correction** Inform your service agency.
270-0003	**Error message** System error in SQL server **Cause of error** The SQL server cannot determine the sender of a message. **Error correction** Inform your service agency.

Error number	Description
270-0004	**Error message** System error in SQL server **Cause of error** The SQL server cannot contact the sender of a message. **Error correction** Inform your service agency.
270-0005	**Error message** Symbolic name %1 is not resolvable **Cause of error** A given symbolic table name cannot be resolved with the configuration data. **Error correction** – Check the configuration data - Contact your machine tool builder
270-0006	**Error message** Table %1 not found **Cause of error** A table file cannot be found in the given path. **Error correction** - Correct the given path name - Copy or move the file to the given location
270-0007	**Error message** Error while accessing file %1 **Cause of error** An error occurred while accessing the indicated file: - The file is not ISO Latin-15 encoded and begins with a Byte Order Mark (BOM) - The file contains impermissible control characters, particularly the string 'NUL' - Reading of the file is not permissible - The file is to be deleted, but may not be written - The file is to be renamed, but may not be written - A previous access to the already open file failed - There are already too many open files in the file system - The file system does not permit the creation of any more files - The file system reports some other error **Error correction** - Check the encoding of the file, change it if necessary, and remove the Byte Order Mark - Check whether the file contains impermissible control characters and remove them - Check and adapt the access rights to this file if necessary - Check the status of the file system, and repair the file system if necessary

Error number	Description
270-0008	**Error message** Table %1 erroneous **Cause of error** A given table file has a faulty file name or contains incorrect syntax in the table description. **Error correction** - Check the file name of the table, and correct it if required The file name of a table may consist of only the following characters: - Letters from a to z and A to Z - The digits 0 to 9 - A period (.) - An underscore (_) - Check the table description and adapt it if required. It must contain, in this sequence and spelling, the keyword BEGIN, the table name, and optionally the keyword MM or INCH for the unit of measure - Contact your machine manufacturer
270-0009	**Error message** Table %1 incomplete **Cause of error** A give table file does not end with the keyword [END]. This file might be incomplete. **Error correction** - Check whether the table file is complete. If necessary, add the keyword [END] on its own line at the end of the file - If necessary, contact your machine tool builder
270-000A	**Error message** Definition of column %1 is faulty or missing **Cause of error** The table contains a column for which either there is no description in the configuration data or in the table itself, or whose description in the table is faulty. **Error correction** - Add to or correct the column description - If necessary, contact your machine tool builder
270-000B	**Error message** Field name %1 already assigned **Cause of error** A given table file contains one field name more than once. **Error correction** - Correct the table - If necessary, contact your machine tool builder

Error number	Description
270-000C	**Error message** Syntactically incorrect SQL statement **Cause of error** A given SQL statement has incorrect syntax. **Error correction** - Enter the statement in the correct syntax - If necessary, contact your machine tool builder
270-000D	**Error message** Literal not concluded **Cause of error** A literal in a given SQL statement does not end with the required ' character. **Error correction** Enter the statement in the correct syntax, or contact your machine tool builder.
270-000E	**Error message** Field name %1 not found **Cause of error** An SQL statement was given with a field name that is not contained in the table. **Error correction** - Enter the statement in the correct syntax - If necessary, contact your machine tool builder
270-000F	**Error message** Data record already locked **Cause of error** There was an attempt to lock access to or to edit a data record that was already locked from somewhere else. **Error correction** - Remove the external lock and repeat the statement - If necessary, contact your machine tool builder
270-0010	**Error message** Data record with incorrect length **Cause of error** A given table contains at least one data record whose length differs from the length of the line with the field names. **Error correction** - Shorten the data record or fill it with space characters - If necessary, contact your machine tool builder

Error number	Description
270-0011	**Error message** No further data records found **Cause of error** No further data records were found in response to an SQL query. **Error correction** Reformulate the query if the desired data record has not already been found.
270-0012	**Error message** Incorrect default value for field **Cause of error** There was an attempt to insert a data record in a table, where an incorrect default value was given for at least one field in the description. **Error correction** - Correct the default value. In most cases it cannot be saved in the available field length. - If necessary, contact your machine tool builder
270-0013	**Error message** Incorrect value for field **Cause of error** There was an attempt to edit a data record in a table, where an incorrect value was given for at least one field. **Error correction** - Correct the given value. Usually it cannot be saved in the available field length. - If necessary, contact your machine tool builder
270-0014	**Error message** Incorrect number of values **Cause of error** There was an attempt to insert or change a data record in a table, where the number of values do not match the number of selected fields. **Error correction** - Correct the statement - If necessary, contact your machine tool builder
270-0015	**Error message** System error in SQL server **Cause of error** Unknown error in the SQL server. **Error correction** Inform your service agency.

Error number	Description
270-0016	**Error message** Table synonym already exists **Cause of error** An attempt was made to generate for the table a logical name that already exists. **Error correction** Select another name or delete the existing name first.
270-0017	**Error message** Table synonym not found **Cause of error** There was an attempt to delete or edit a nonexistent logical name for a table. **Error correction** Select another name.
270-0018	**Error message** Table already exists **Cause of error** An attempt was made to create a new table, although a table with this name already exists. **Error correction** Select another table name.
270-0019	**Error message** Table is still open **Cause of error** An attempt was made the change a table description or delete a table, although the table is still open. **Error correction** Close the table first.
270-001A	**Error message** Configuration datum cannot be modified **Cause of error** An attempt was made to create or change a logical name for a table. However, the corresponding configuration datum cannot be written. **Error correction** Stop the machining and then try again to generate or change the logical name.

Error number	Description
270-001B	**Error message** Description of the columns cannot be read **Cause of error** No description of the columns can be found for the table, because the type of table is not included in the configuration data, or the description of columns saved in the table itself is incomplete or syntactically incorrect. **Error correction** Check the configuration data and add a description of the type of table. Open the table with a text editor and delete or edit the column description saved in the table.
270-001C	**Error message** Table contains no columns **Cause of error** An attempt was made to make or open a table without columns. **Error correction** Delete the table and make a new one.
270-001D	**Error message** Table is write-protected **Cause of error** There was an attempt to make or edit a table on a write-protected storage medium or on one marked as write protected. **Error correction** Remove the write protection.
270-001E	**Error message** Column %1 already exists in table **Cause of error** An attempt was made in a table to insert an existing column twice. **Error correction** Enter another column name.
270-001F	**Error message** Index already defined **Cause of error** An attempt was made to create an index for a table using an index name that was already defined. **Error correction** Check the SQL statement and enter a different index name.

Error number	Description
270-0020	**Error message** Index not found **Cause of error** An attempt was made to delete an index that does not exist. **Error correction** Enter a valid name.
270-0021	**Error message** Value %1 is not unique **Cause of error** The indicated value appears more than once in a column configured for unique values. **Error correction** Change the values in the column such that each value is unique.
270-0022	**Error message** Column %1 cannot be indexed **Cause of error** An attempt was made to create an index for a column that was not configured for unique values. **Error correction** Change the values in the column such that each value is unique and configure the column for unique values, or enter a different column for indexing.
270-0023	**Error message** Caption of the column %1 too long **Cause of error** The key name given for the column configuration is just as long as or longer than the given column width. **Error correction** - Enter a larger value for the column width - If necessary, contact your machine tool builder
270-0024	**Error message** Configuration datum %1 - %2 contains no value **Cause of error** The designated attribute of the column configuration contains an empty string. **Error correction** - Enter a valid value - Delete the attribute if no default value is needed - If necessary, inform your machine manufacturer

Error number	Description
270-0025	**Error message** Configuration datum %1 - %2 contains syntactically incorrect value %3 **Cause of error** The designated attribute of the column configuration contains a syntactically incorrect value. **Error correction** - Enter a valid value - If necessary, inform your machine manufacturer
270-0026	**Error message** Configuration datum %1 - %2 contains a value %3 that is too long **Cause of error** The designated attribute of the column configuration contains a value that cannot be entered in the column with the given width **Error correction** - Enter a larger value for the column width - Enter another value for the attribute - If necessary, inform your machine manufacturer
270-0027	**Error message** Unnecessary configuration datum %1 - %2 **Cause of error** The indicated attribute for the column configuration is not defined for the data type of the column. **Error correction** Delete the attribute or contact your machine tool builder.
270-0028	**Error message** Configuration datum %1 - %2 contains value %3 out of range **Cause of error** The designated attribute of the column configuration lies outside of the value range. It might, for example, be smaller than the minimum value. **Error correction** - Enter a valid value - If necessary, inform your machine manufacturer

Error number	Description
270-0029	**Error message** Configuration of table type %1 refers to undefined column %2 **Cause of error** The column designated in the configuration of the table type is not defined. **Error correction** - Check the column name - Delete the column - Delete the column from the configuration of the table type - If necessary, contact your machine tool builder
270-002A	**Error message** Primary key of table type %1 refers to undefined column %2 **Cause of error** The designated primary key is not a column of the table type. **Error correction** - Check the primary key - Enter the column designated in the list of columns as the primary key of the table - If necessary, inform your machine manufacturer
270-002B	**Error message** Foreign key of table type %1 refers to undefined column %2 **Cause of error** The indicated foreign key is not a column of this table type. **Error correction** Check the entry for the foreign key, or enter a column identified in the list of columns as the foreign key for this table, or contact your machine tool builder.
270-002C	**Error message** Foreign key of the table type %1 contains invalid referential action %3 **Cause of error** Incorrect syntax in the referential action for the designated foreign key. **Error correction** - Check the given referential action - If necessary, inform your machine manufacturer

Error number	Description
270-002D	**Error message** Configuration datum %1 - %2 contains errors **Cause of error** The indicated configuration datum contains errors. The erroneous values were replaced by default values for operating the SQL server. **Error correction** - Correct the indicated configuration datum - Check whether the primaryKey parameter has the correct initial value for the table column - If necessary, inform your machine manufacturer
270-002E	**Error message** Configuration datum %1 - %2 contains errors **Cause of error** The given configuration datum has errors and was not accepted for operating the SQL server. **Error correction** - Correct the given configuration datum - If necessary, inform your machine manufacturer
270-002F	**Error message** No column given **Cause of error** The SQL does not specify a column. **Error correction** Enter at least one column in the statement.
270-0030	**Error message** Primary key may not be altered **Cause of error** The column for the primary key may not be renamed or removed from the table. **Error correction** Check the entered SQL statement.
270-0031	**Error message** Update %1 not possible **Cause of error** An attempt was made to change a value in the column indicated as primary key for the table. **Error correction** Check the entered SQL statement.

Error number	Description
270-0032	**Error message** Value of primary key %1 missing **Cause of error** An attempt was made to enter a line in the table, even though there was no value entered in the primary key column of the table. **Error correction** Check the entered SQL statement.
270-0033	**Error message** Column %1 contains no value **Cause of error** An attempt was made to delete a value from the indicated column. However, a value must be entered in this column. **Error correction** Check the entered SQL statement and assign a valid value to the column.
270-0034	**Error message** Erroneous value for %1 **Cause of error** An attempt was made to enter a syntactically incorrect value to the column. **Error correction** Check the entered SQL statement and assign a valid value to the column.
270-0035	**Error message** Value for %1 is too long **Cause of error** An attempt was made to enter a value wider than the column width to the column. **Error correction** Check the entered SQL statement and assign a valid value to the column.
270-0036	**Error message** Erroneous value for %1 **Cause of error** An attempt was made to enter a value outside the value range to the column. **Error correction** Check the entered SQL statement and assign a valid value to the column.

Error number	Description
270-0037	**Error message** Data record %1 cannot be inserted, changed or deleted **Cause of error** There was an attempt to insert, change or delete a data record that either makes reference through a foreign key to a non-available data record or to which at least one other data record makes reference through a foreign key. The specified referential action would leave an invalid reference. **Error correction** Check the SQL statement and correct the references first.
270-0038	**Error message** Data record %1 cannot be changed **Cause of error** There was an attempt to change a data record that uses a foreign key to refer to another data record. The specified referential action would change a data record that was already changed by the SQL statement itself. **Error correction** Check the SQL statement and correct the references first.
270-0039	**Error message** Data record already deleted **Cause of error** There was an attempt to access a data record that was already deleted by another statement. **Error correction** - Correct the statement - If necessary, contact your machine tool builder
270-003A	**Error message** Error in table name or table type %1 **Cause of error** The given table name or type has incorrect syntax. Table names and types must begin with a letter and can otherwise contain letters, numerals and the underscore character. **Error correction** Check and correct the table name or type.
270-003B	**Error message** Data medium almost full **Cause of error** When table files were closed, it was impossible to save a compact version of the files due to insufficient space remaining on the data medium. **Error correction** Delete any unnecessary files on the data medium.

Error number	Description
270-003C	**Error message** The modification key does not designate a time stamp column **Cause of error** A modification key was entered in the table configuration, but the corresponding column does not have the type TSTAMP. **Error correction** Select the column type TSTAMP or configure another time stamp column as modification key.
270-003D	**Error message** The modification key designates a read only column **Cause of error** A modification key was entered in the table configuration and the corresponding column was declared only readable. This is not allowed because this column must always take the current time stamp for changes. **Error correction** Remove READONLY in the column configuration or configure another column as modification key.
270-003E	**Error message** The modification key designates a unique column **Cause of error** A modification key was entered in the table configuration and the corresponding column was declared unique. This is not allowed because the same time stamp might be saved in two or more lines when changes are close together in time. **Error correction** Remove UNIQUE in the column configuration or configure another column as modification key.
270-003F	**Error message** Merging of incompatible tables **Cause of error** Two tables were entered for merging that have different basic types. The basic types are derived from the file footers and headers in the tables. **Error correction** Check the file footers and headers of both table files and their configuration. If the tables have different basic types, they cannot be merged.

Error number	Description
270-0040	**Error message** Column %1 for special functions is not allowed **Cause of error** The column given for a special function (primary key, foreign key, timestamp or password) does not exist, has the wrong file type or is too narrow. Further information: - Columns for a foreign key have to have the same data type as the column for the primary key. - The column for the timestamp must have the TSTAMP data type and be at least 19 characters wide. - The column for the password must have the TEXT data type and be at least 15 characters wide. - The columns for the timestamp and password must not be write-protected or ambiguous. **Error correction** Correct the description of the table type or the column in the configuration data
270-0041	**Error message** Data record %1 is protected by password **Cause of error** You tried to delete, edit or cancel the password protection of a table's password-protected data record. **Error correction** - To change the data record, reenter the password in the password column or cancel the password protection. - Cancel the password protection before deleting the data record. - To cancel the password protection, enter the exclamation mark character "!" in the password column and immediately enter the password.
270-0042	**Error message** Data record %1 was changed without authorization **Cause of error** The checksum calculated for table's data record does not agree with the stored checksum. The table file was manipulated by an external application or damaged on the storage medium. **Error correction** Import a backup copy of the affected table file.

Error number	Description
270-0043	**Error message** The table file %1 might have been manipulated **Cause of error** Not all data records in the table file have checksums saved in the column for the password. Data records might have been changed by an external application. **Error correction** Check all data records for correctness or import a backup copy of the table file.
280-0064	**Error message** FN 14: error code %1 **Cause of error** Error forced by the function FN14 (ISO: D14). This function calls preprogrammed messages of the machine tool builder (for example from an OEM cycle). If with FN14 (D14) is reached during a program run or test run, the program is interrupted and the corresponding message is displayed. **Error correction** Look for a description of the error in the machine tool manual. Restart the program after the cause of the error has been removed.
280-03E8	**Error message** Spindle must be turning **Cause of error** You called a fixed cycle without first switching on the spindle. **Error correction** Edit the part program.
280-03E9	**Error message** Tool axis is missing **Cause of error** You programmed a positioning block with tool radius compensation without first calling a tool. **Error correction** Edit the part program.

Error number	Description
280-03EA	**Error message** Tool radius too small **Cause of error** - The tool radius is too small for the selected operation. - Cycle 3 "Slot": You defined a width greater than four times the tool radius. - Cycle 240: You entered a centering diameter greater than the tool diameter. - Cycle 210 "Slot" or Cycle 211 "Circular Slot": The slot width is six times greater than the tool radius. **Error correction** - Use a tool with a larger radius. - Cycle 3 "Slot": Define the slot width to be greater than the tool diameter and smaller than four times the tool radius. - Cycle 240: Use a larger tool. - Cycle 210 "Slot" or Cycle 211 "Circular Slot": Define the slot width to be greater than the tool diameter and smaller than six times the tool radius.
280-03EB	**Error message** Tool radius too large **Cause of error** - Contour milling: The radius of an arc block at an inside corner is smaller than the tool radius. - Thread milling: The thread core diameter is smaller than the tool diameter. - Slot milling: The slot width for roughing is smaller than the tool diameter. - Cycle 251, rectangular pocket: The rounding radius Q220 is smaller than the tool radius. - Cycle 214: The given workpiece-blank diameter is smaller than the tool diameter **Error correction** - Use a smaller tool - Slot milling: If necessary, use a smaller oversize (Q368) - Cycle 214: Use a smaller tool; correct the workpiece-blank diameter
280-03EC	**Error message** Range exceeded **Cause of error** During digitizing the stylus went out of the defined digitizing range. **Error correction** Check the data in the Range cycle, especially the entry for the touch probe axis.

Error number	Description
280-03ED	**Error message** Start position incorrect **Cause of error** Digitizing with contour lines: Incorrect starting position selected. **Error correction** Check the axes defined in the Contour Lines cycle.
280-03EE	**Error message** Rotation not permitted **Cause of error** Rotation was programmed before a touch probe cycle. **Error correction** Reset the rotation cycle.
280-03EF	**Error message** Scaling factor not permitted **Cause of error** A scaling factor was programmed before a touch probe cycle. **Error correction** Reset the scaling factor or the axis-specific scaling cycles.
280-03F0	**Error message** Mirroring not permitted **Cause of error** Mirroring was programmed before a touch probe cycle. **Error correction** Reset the mirroring cycle.
280-03F1	**Error message** Datum shift not permitted **Cause of error** Datum shift is active. **Error correction** Reset the datum shift.
280-03F2	**Error message** Feed rate is missing **Cause of error** You did not program a feed rate. **Error correction** Edit the NC program. FMAX is effective only for the block in which it is programmed.

Error number	Description
280-03F3	**Error message** Entry value incorrect **Cause of error** - The value you entered is out-of-range. - Cycle 209 (ISO: 209): You entered the value 0 as infeed depth for chip breaking (Q257). **Error correction** - Enter the correct value. - Enter a value other than 0 in Q257.
280-03F4	**Error message** Wrong sign programmed **Cause of error** The programmed dwell time in the Dwell Time cycle, Peck Drilling cycle, or Tapping cycle is negative (through Q parameter). **Error correction** Edit the cycle parameter.
280-03F5	**Error message** Entered angle not permitted **Cause of error** - The solid angles programmed in Cycle 19 Tilt Working Plane (DIN/ISO: G80) cannot be realized with the current attachment (e.g. universal head where only one hemisphere is accessible). - Run probing cycle only with paraxial angular position. - The point angle (T-ANGLE) defined for the active tool is 180°. **Error correction** - Edit the solid angle entered. - Run probing cycle only with paraxial angular position. - Use angular values greater than 0 and less than 180°.
280-03F6	**Error message** Touch point inaccessible **Cause of error** No touch point was reached during the TCH-PROBE 0 cycle (ISO: G55) or when using the manual probing cycles. **Error correction** - Pre-position the touch probe closer to the workpiece.

Error number	Description
280-03F7	**Error message** Too many points **Cause of error** Automatic establishment of points for the digitizing range in the Positioning with Manual Data Input operating mode: Number of stored points (max. 893) exceeded. **Error correction** Re-record digitizing range after increasing the point spacing.
280-03F8	**Error message** Contradictory entry **Cause of error** The values that you entered are contradictory. **Error correction** Check the input values.
280-03F9	**Error message** CYCL DEF incomplete **Cause of error** - You deleted part of a cycle. - You have inserted other part program blocks within a cycle. **Error correction** - Redefine the complete cycle again - Delete part program blocks programmed within a cycle.
280-03FA	**Error message** Plane wrongly defined **Cause of error** While defining the Contour Lines cycle (TCH PROBE 7) you programmed a height axis in the starting point. **Error correction** Edit the part program.
280-03FB	**Error message** Wrong axis programmed **Cause of error** - An incorrect axis is programmed in the highlighted block. - Touch Probe Cycle 403: You programmed in incorrect compensation axis (Q312). **Error correction** - Check whether you have programmed an axis twice. - Touch Probe Cycle 403: In parameter Q312, select only compensation axes that are present in the kinematic description.

Error number	Description
280-03FC	**Error message** Wrong rpm **Cause of error** The programmed spindle speed does not lie in the existing pattern of spindle speed stages. **Error correction** Enter the correct rotational speed.
280-03FD	**Error message** Radius comp. undefined **Cause of error** You programmed a radius-compensated single-axis positioning block which without the radius compensation does not result in tool movement (e.g. IX+0 R+, ISO: G7). **Error correction** Edit the part program.
280-03FE	**Error message** Rounding-off not permitted **Cause of error** In the positioning block before a rounding arc (RND, ISO: G25) either you programmed a movement only in the tool axis or you used the M function M98 to cancel compensation. **Error correction** Edit the part program.
280-03FF	**Error message** Rounding radius too large **Cause of error** - In the definition of a contour, a contour pocket or a contour train, you programmed a rounding arc (RND, ISO: G25) with so large a radius that it does not fit between the adjoining elements. - In a fixed cycle (rectangular pocket/rectangular stud), you defined a rounding arc that cannot be inserted. **Error correction** - Define a smaller rounding radius in the contour subprogram - Check the cycle definition and correct the input values
280-0400	**Error message** Program start undefined **Cause of error** Type of interpolation undefined. **Error correction** Restart the part program.

Error number	Description
280-0401	**Error message** Excessive subprogramming **Cause of error** You nested more than 8 subprogram calls (CALL LBL xx, ISO: Lx,0). **Error correction** Check whether all your subprograms are concluded with LBL 0 (ISO:G98 L0).
280-0402	**Error message** Angle reference missing **Cause of error** In an LP/CP block (ISO: G10, G11, G12, G13) no polar angle or incremental polar angle is defined, i.e.: - The distance between the last programmed position and the pole is less than or equal to 0.1 µm. - No rotation is programmed between pole assumption and an LP/CP block. **Error correction** - Program the absolute polar angle. - Check the position of the pole. - If necessary, reset the rotation.
280-0403	**Error message** No fixed cycle defined **Cause of error** There is no fixed cycle defined before Cycle 220/221 (circular/linear point pattern). **Error correction** Define a fixed cycle before Cycle 220/221.
280-0404	**Error message** Insufficient slot width **Cause of error** The width defined in the slot cycle cannot be machined with the active tool. **Error correction** Use a smaller tool.
280-0405	**Error message** Pocket too small **Cause of error** The side lengths defined in the Pocket Milling cycle are too small. **Error correction** Use a smaller tool.

Error number	Description
280-0406	**Error message** Q202 not defined **Cause of error** There is no plunging depth (Q202) defined in the fixed cycles 200 to 215. **Error correction** Enter a plunging depth in the fixed cycle.
280-0407	**Error message** Q205 not defined **Cause of error** In the Universal Drilling cycle, you have not defined the minimum plunging depth. **Error correction** Enter a minimum plunging depth in the fixed cycle.
280-0408	**Error message** Q218 must be greater than Q219 **Cause of error** Pocket milling cycle: Q218 must be greater than Q219. **Error correction** Correct the values in the fixed cycle.
280-0409	**Error message** Fixed cycle not allowed **Cause of error** Fixed cycle cannot be run in the CIRCULAR PATTERN or LINEAR PATTERN cycle. **Error correction** Use another fixed cycle.
280-040A	**Error message** CYCL 211 not permitted **Cause of error** Cycle 211 cannot be run in the CIRCULAR PATTERN or LINEAR PATTERN cycle. **Error correction** Use another fixed cycle.
280-040B	**Error message** Q220 too large **Cause of error** Pocket finishing or stud finishing cycle: Rounding radius Q220 is too large. **Error correction** Correct the rounding radius in the fixed cycle.

Error number	Description
280-040C	**Error message** Q222 must be greater than Q223 **Cause of error** Stud finishing cycle: Workpiece blank diameter Q222 must be greater than the finished part diameter Q223. **Error correction** Correct the workpiece blank diameter in the fixed cycle.
280-040D	**Error message** Q244 must be greater than 0 **Cause of error** Circular Pattern cycle: You entered a pitch circle diameter of zero. **Error correction** Correct the pitch circle diameter in the cycle.
280-040E	**Error message** Q245 must not equal Q246 **Cause of error** Circular Pattern cycle: Enter a stopping angle equal to the starting angle. **Error correction** Correct the starting or stopping angle in the cycle.
280-040F	**Error message** Angle range must be under 360° **Cause of error** Circular Pattern cycle: You entered an angle range greater than 360°. **Error correction** Correct the starting or stopping angle in the cycle.
280-0410	**Error message** Q223 must be greater than Q222 **Cause of error** In the Circular Pocket Finishing cycle, you entered a finished-part diameter (Q223) smaller than the workpiece-blank diameter (Q222). **Error correction** Edit Q222 in the cycle definition.

Error number	Description
280-0411	**Error message** Q214: 0 not permitted **Cause of error** In the definition of Cycle 204 you have entered the disengaging direction 0. **Error correction** In Q214, enter a value from 1 to 4.
280-0412	**Error message** Traverse direction not defined **Cause of error** In a probing cycle you entered 0 for the traverse direction Q267. **Error correction** For Q267, enter either +1 (for positive traverse direction) or -1 (for negative traverse direction).
280-0413	**Error message** No datum table active **Cause of error** Probing cycle for datum setting: The measured point is to be written in a datum table. However, you have not activated a datum table in a program run mode. **Error correction** In the Program Run, Single Block or Program Run, Full Sequence mode, activate a datum table in which the point is to be written.
280-0414	**Error message** Position error: center in axis 1 **Cause of error** Probing cycle for workpiece measurement: Center of 1st axis outside of position tolerance. **Error correction** Check the workpiece and the measuring log.
280-0415	**Error message** Position error: center in axis 2 **Cause of error** Probing cycle for workpiece measurement: Center of 2st axis outside of position tolerance. **Error correction** Check the workpiece and the measuring log.

Error number	Description
280-0416	**Error message** Hole diameter too small **Cause of error** Probing cycle for workpiece measurement: Hole diameter too small for tolerance. **Error correction** Check the workpiece and the measuring log.
280-0417	**Error message** Hole diameter too large **Cause of error** - Probing cycle for workpiece measurement: Hole diameter tolerance exceeded. - Cycle 208: The programmed hole diameter (Q335) cannot be machined with the active tool. **Error correction** - Check the workpiece and, if necessary, the measuring log. - Cycle 208: Use a larger tool. Hole diameter must not be larger than twice the tool diameter.
280-0418	**Error message** Stud diameter too small **Cause of error** Probing cycle for workpiece measurement: Stud diameter too small for tolerance. **Error correction** Check the workpiece and the measuring log.
280-0419	**Error message** Stud diameter too large **Cause of error** Probing cycle for workpiece measurement: Stud diameter too large for tolerance. **Error correction** Check the workpiece and the measuring log.
280-041A	**Error message** Pocket too small: rework axis 1 **Cause of error** Probing cycle for workpiece measurement: Pocket length in 1st axis too small for tolerance. **Error correction** Check the workpiece and the measuring log.

Error number	Description
280-041B	**Error message** Pocket too small: rework axis 2 **Cause of error** Probing cycle for workpiece measurement: Pocket width in 2nd axis too small for tolerance. **Error correction** Check the workpiece and the measuring log.
280-041C	**Error message** Pocket too large: scrap axis 1 **Cause of error** Probing cycle for workpiece measurement: Pocket length in 1st axis too large for tolerance. **Error correction** Check the workpiece and the measuring log.
280-041D	**Error message** Pocket too large: scrap axis 2 **Cause of error** Probing cycle for workpiece measurement: Pocket width in 2nd axis too large for tolerance. **Error correction** Check the workpiece and the measuring log.
280-041E	**Error message** Stud too small: scrap axis 1 **Cause of error** Probing cycle for workpiece measurement: Stud length in 1st axis too small for tolerance. **Error correction** Check the workpiece and the measuring log.
280-041F	**Error message** Stud too small: scrap axis 2 **Cause of error** Probing cycle for workpiece measurement: Stud width in 2nd too small for tolerance. **Error correction** Check the workpiece and the measuring log.

Error number	Description
280-0420	**Error message** Stud too large: rework axis 1 **Cause of error** Probing cycle for workpiece measurement: Stud length in 1st axis too large for tolerance. **Error correction** Check the workpiece and the measuring log.
280-0421	**Error message** Stud too large: rework axis 2 **Cause of error** Probing cycle for workpiece measurement: Stud width in 2nd axis too large for tolerance. **Error correction** Check the workpiece and the measuring log.
280-0422	**Error message** Meas. cycle: length exceeds max **Cause of error** Probing cycle 425 or 427: The measured length exceeds the maximum permissible value. **Error correction** Check the workpiece and the measuring log.
280-0423	**Error message** Meas. cycle: length below min **Cause of error** Probing cycle 425 or 427: The measured length is below the minimum permissible value. **Error correction** Check the workpiece and the measuring log.
280-0424	**Error message** TCHPROBE 426: length exceeds max **Cause of error** Probing cycle 426: The measured length exceeds the maximum permissible value. **Error correction** Check the workpiece and the measuring log.

Error number	Description
280-0425	**Error message** TCHPROBE 426: length below min **Cause of error** Probing cycle 426: The measured length is below the minimum permissible value. **Error correction** Check the workpiece and the measuring log.
280-0426	**Error message** TCHPROBE 430: diameter too large **Cause of error** Probing cycle 430: The measured bolt-hole-circle diameter exceeds the maximum permissible value. **Error correction** Check the workpiece and the measuring log.
280-0427	**Error message** TCHPROBE 430: diameter too small **Cause of error** Probing cycle 430: The measured bolt-hole-circle diameter is below the minimum permissible value. **Error correction** Check the workpiece and the measuring log.
280-0428	**Error message** No measuring axis defined **Cause of error** You failed to define the measuring axis in one of the measuring cycles 400, 402, 420, 425, 426 or 427. **Error correction** Check Q272 in the corresponding cycle. Permissible input values: 1 or 2; for Cycle 427: 1, 2 or 3.
280-0429	**Error message** Tool breakage tolerance exceeded **Cause of error** During workpiece inspection using a measuring cycle, the tool breakage tolerance RBREAK given in the tool table was exceeded. **Error correction** Check whether the tool is damaged.

Error number	Description
280-042A	**Error message** Enter Q247 unequal 0 **Cause of error** In a measuring cycle you entered in parameter Q247 an angular step of 0. **Error correction** Enter an angular step (Q247) other than 0.
280-042B	**Error message** Enter Q247 greater than 5 **Cause of error** In a measuring cycle, you entered in parameter Q247 an angular step smaller than 5 degrees. **Error correction** To ensure sufficient measuring accuracy, enter an angular step (Q247) greater than 5 degrees.
280-042C	**Error message** Datum table? **Cause of error** A datum table is required to run an NC program. However, there is no table saved in the control's NC memory, or there are more than one table but none of them is activated. **Error correction** Activate a datum table in the Program Run, Full Sequence operating mode.
280-042D	**Error message** Enter direction Q351 unequal 0 **Cause of error** In a fixed cycle you did not define the cutting direction (climb or up-cut). **Error correction** Define the cutting direction as climb milling (= 1) or up-cut milling (= -1).
280-042E	**Error message** Thread depth too large **Cause of error** The programmed thread depth plus 1/3 of the pitch is greater than the drilling or sinking depth. **Error correction** Program the total hole depth to be at least 1/3 of a thread pitch smaller that the total hole depth.

Error number	Description
280-042F	**Error message** Missing calibration data **Cause of error** You have attempted to perform a measurement with Cycle 440 without first performing a calibration. **Error correction** Repeat Cycle 440, but with Q363 = 0 (calibrate).
280-0430	**Error message** Tolerance exceeded **Cause of error** The limits entered in the tool table TOOL.T in the LTOL or RTOL column were exceeded. **Error correction** Check the limit values for the active calibration tool.
280-0431	**Error message** Mid-program startup active **Cause of error** Mid-program startup is not permitted with the programmed function. **Error correction** Mark the programmed function with "skip blocks" and activate this setting. Then run the mid-program startup again.
280-0432	**Error message** ORIENTATION not permitted **Cause of error** - Your machine does not offer spindle orientation - Spindle orientation not possible **Error correction** - Refer to your machine manual! - Check machine parameter mStrobeOrient and enter the numerical designation of the M function or -1 for spindle orientation by the NC. Refer to your machine manual!
280-0433	**Error message** 3-D ROT not permitted **Cause of error** You tried to conduct one of the following functions while the working plane was tilted: - Setting a reference point - A touch probe cycle 40x for measuring a misalignment **Error correction** Deactivate the tilted working plane function and restart the program.

Error number	Description
280-0434	**Error message** Activate 3DROT **Cause of error** In the Manual operating mode, the Tilt Working Plane function is inactive. **Error correction** Activate 3DROT in Manual mode.
280-0435	**Error message** Check the depth sign **Cause of error** The cycle can only be performed in the negative direction (Cycle 204: positive direction) because the configuration parameter displayDepthErr is set to "on". **Error correction** - Enter a negative depth (Cycle 204: positive depth) in order to perform the cycle - Set the configuration parameter displayDepthErr to "off" in order to perform the cycle in positive direction (Cycle 204: negative direction) - Enter the diameter in Cycle 240 as a negative value in order to perform the operation in the negative direction of the tool axis.
280-0436	**Error message** Q303 in meas. cycle undefined! **Cause of error** In one of the measuring cycles 410 to 418, you did not define the parameter Q303 (measured value transfer)(current value = -1). For reasons of security, however, selection of the measured value transfer is required to write the results of measurement in a table (datum table or preset table). **Error correction** Change parameter Q303 (measured value transfer) in the measuring cycle that is causing the error: - Q303=0: Write the measured values with respect to the active workpiece coordinate system into the active datum table (activate in the program with Cycle 7!). - Q303=1: Write the measured values with respect to the active machine-based coordinate system (REF values) into the preset table (activate in the program with Cycle 247!). - Q303=-1: Measured value transfer is undefined. This value is automatically generated by the TNC when you download a program that was written on a TNC 4xx or with an old software level of the iTNC 530, or if during the cycle definition you skipped the prompt for the measured value transfer with the END key.

Error number	Description
280-0437	**Error message** Tool axis not allowed **Cause of error** - You called probing cycle 419 with an illegal tool axis. - You called the PATTERN DEF function in connection with an illegal tool axis. **Error correction** - Only call probing cycle 419 with the tool axis X, Y or Z. - Use the PATTERN DEF function only with the tool axis Z (TOOL CALL Z).
280-0438	**Error message** Calculated values incorrect **Cause of error** In probing cycle 418, the TNC calculated too large a value. You may have defined in an incorrect sequence for the four holes to be probed. **Error correction** Check the probing sequence. Refer to the User's Manual for Touch Probe Cycles.
280-0439	**Error message** Contradictory measuring points **Cause of error** - In one of the probing cycles 400, 403 or 420, you defined a contradictory combination of measuring points and measuring axes. - The selection of measuring points in Cycle 430 results in division by 0. **Error correction** - For measuring axis = reference axis (Q272=1), the parameters Q264 and Q266 are defined at different values. - For measuring axis = minor axis (Q272=2), the parameters Q263 and Q265 are defined at different values. - For measuring axis = probe axis (Q272=3), the parameters Q263 and Q265 or Q264 and Q266 are defined at different values. - Select the measuring points so that they always have different coordinates in all axes.
280-043A	**Error message** Incorrect clearance height! **Cause of error** In Cycle 20 (ISO: G120), you entered a clearance height (Q7) that is lower than the coordinate of the workpiece surface (Q5). **Error correction** Enter a clearance height (Q7) that is higher than the coordinate of the workpiece surface (Q5).

Error number	Description
280-043B	**Error message** Contradictory plunge type! **Cause of error** The plunging strategy defined in Cycles 251 to 254 contradicts the defined plunging angle of the active tool. **Error correction** Change parameter Q366 in one of the Cycles 251 to 254 or the plunging angle ANGLE of the tool in the tool table. Permissible combinations of parameter Q366 and the plunging ANGLE are: For perpendicular plunging: Q366 = 0 and ANGLE = 90 For helical plunging: Q366 = 1 and ANGLE > 0 For inactive tool table, define Q366 with 0 (only perpendicular plunging allowed).
280-043C	**Error message** This fixed cycle not allowed **Cause of error** - You attempted to run a fixed cycle in connection with Cycle 220 or 221 although it cannot be combined with these cycles. - You tried to run the Cycle 209 with a feed rate factor for retraction (Q403). **Error correction** - You cannot combine Cycles 220 and 221 with the following fixed cycles: - Cycles of the SLI and SLII groups - Cycles 210 and 211 - Cycles 230 and 231 - Cycle 254 - Feed rate factor 403 is allowed only with a setting in MP3010 unequal to 7.
280-043D	**Error message** Line is write-protected **Cause of error** - You tried to edit or erase a write-protected line in the preset table. - You tried to write a value in the active line of the preset table. **Error correction** - Overwriting the active preset is not allowed. Use another preset number. - The write protection was activated by your machine manufacturer. Maybe fixed datum was defined in this line. If you want to cancel write protection, contact your machine tool builder. - You defined the write protection in the TNC.SYS file. If required, cancel the write-protection there. - You tried to change line 0. It cannot be changed.

Error number	Description
280-043E	**Error message** Oversize greater than depth **Cause of error** SL cycles II or milling cycles 25x: You have entered an allowance for floor greater than the milling depth. **Error correction** - SL cycles II: Check Q4 in Cycle 20 (ISO: G120). - Milling cycles 25x: Check allowance Q369 and depth Q201.
280-043F	**Error message** No point angle defined **Cause of error** In Cycle 240 Centering you defined parameter Q343 such that centering is done with respect to the diameter. In a drilling cycle you defined parameter Q395 such that the depth is in reference to the tool diameter. You programmed a cycle for chamfering. The point angle for this must be between 1 and 179 degrees. However, no point angle is defined for the active tool. **Error correction** - Set parameter Q343=0 (centering to entered depth). - Set parameter Q395=0 (depth in reference to the tool tip). - Define the point angle in the column T-ANGLE of the tool table TOOL.T.
280-0440	**Error message** Contradictory data **Cause of error** The combination of the parameters Depth (Q201) and Diameter (Q344) defined in Cycle 240 Centering under Select depth/diameter (Q343) is not allowed. **Error correction** Possible definitions: Q343=1 (entered diameter active): Q201 must be equal to 0 and Q344 must not be equal to 0. Q343=0 (entered depth active): Q201 must not be equal to 0 and Q344 must be equal to 0.
280-0441	**Error message** Slot position 0 not allowed! **Cause of error** You tried to run Cycle 254 with the slot position 0 (Q367=0) in conjunction with the point pattern Cycle 221. **Error correction** Use slot position Q367 = 1, 2 or 3 if you want to run Cycle 254 with the point pattern cycle 221

Error number	Description
280-0442	**Error message** Enter an infeed not equal to 0 **Cause of error** You defined a fixed cycle with the depth 0. **Error correction** Enter a depth unequal to 0.
280-0443	**Error message** Switchover of Q399 not allowed **Cause of error** You tried to switch on the touch probe cycle 441 to switch on the angle tracking, although this function is deactivated by configuration datum. **Error correction** In the probe table, set the angle tracking in the TRAC column to ON and then recalibrate the touch probe.
280-0444	**Error message** Tool not defined **Cause of error** You have called a tool that is not defined in the tool table. **Error correction** - Add the missing tool to the tool table. - Use another tool.
280-0445	**Error message** Tool number not allowed **Cause of error** In a TOOL CALL or TOOL DEF block you tried to define a tool number although it is prohibited by machine parameter. **Error correction** - Use the tool name. - Adapt machine parameter 7483. If required, contact your machine manufacturer.
280-0446	**Error message** Tool name not allowed **Cause of error** In a TOOL CALL or TOOL DEF block you tried to define a tool name although it is prohibited by machine parameter. **Error correction** - Use the tool number. - If required, contact your machine tool builder

Error number	Description
280-0447	**Error message** Software option not active **Cause of error** You tried to use a software option that is not enabled on your TNC. **Error correction** Contact your machine tool builder or the control manufacturer to purchase the software option.
280-0448	**Error message** Kinematics cannot be restored **Cause of error** You tried to restore kinematics that do not match the currently active kinematics. **Error correction** Restore only kinematics that you have saved previously from an identical kinematics description.
280-0449	**Error message** Function not permitted **Cause of error** You tried to use a feature that is not enabled on your TNC by the Feature Content Level (FCL) management. **Error correction** By default, FCL functions are locked after a software update. By entering the code number 65535 in the SIK menu, you can enable these functions for a certain period of time for test purposes. You can enable FCL functions permanently by purchasing and entering a code number. For more information, contact your machine tool builder or the control manufacturer.
280-044A	**Error message** Contradictory workpc. blank dim. **Cause of error** The workpiece blank dimensions you have defined in a fixed cycle are smaller than the dimensions of the finished part. **Error correction** Check the cycle definition and correct the input values.

Error number	Description
280-044B	**Error message** Measuring position not allowed **Cause of error** The kinematic measurement resulted in a measuring position of 0° in one of the three rotary axes. This is not allowed. **Error correction** Select the starting angle, stopping angle and, if applicable, number of measurements on all three axes in a way that does not result in any 0° positions.
280-044C	**Error message** Kinematic access not possible **Cause of error** The control could not access the active kinematic description (read or write). - There is no valid kinematic description. - The kinematic description is write-protected. **Error correction** - Use a valid kinematic description. - Cancel write-protection for a kinematic description.
280-044D	**Error message** Meas. pos. not in traverse range **Cause of error** You have defined a measured position that lies outside of the rotary axis's traverse range. **Error correction** Select the start angle and/or end angle in the cycle so that the measured position lies within the traverse range.
280-044E	**Error message** Preset compensation not possible **Cause of error** You tried to run a compensation of the preset although not all the entries required for it are in the kinematic description. You can only run the preset compensation if transformations in three separate axes in the machine coordinate system are entered in the kinematic description. **Error correction** Change the number of measuring points in the cycle so that the control can run a preset compensation. If necessary, contact the machine manufacturer.

Error number	Description
280-044F	**Error message** Tool radius too large **Cause of error** - The dimensions you defined in one of the Cycles 251 to 254 are too small. - The lateral oversize in one of the Cycles 251 to 254 is too large. **Error correction** - Use a smaller tool - Reduce the oversize.
280-0450	**Error message** Plunging type is not possible **Cause of error** In one of the cycles 251 to 254 you defined a plunging strategy that is not possible with the dimensions defined in the cycle. **Error correction** Use a smaller tool or another plunging strategy. Set the configuration datum suppressPlungeErr to "on" in order to suppress this monitoring, or use RCUTS in the tool table. Use a tool with a sufficiently large cutting width and define this width in the RCUTS column of the tool table.
280-0451	**Error message** Plunge angle incorrectly defined **Cause of error** You defined an incorrect plunge angle (ANGLE column in the tool table) for the selected plunging strategy. **Error correction** Define a plunge angle greater than 0° and smaller than 90°.
280-0452	**Error message** Angular length is undefined **Cause of error** You defined in the cycle an angular length of 0°. **Error correction** Define an angular length greater than 0° in the cycle definition.

Error number	Description
280-0453	**Error message** Slot width is too large **Cause of error** You defined the circular slot width at least as large as the pitch circle diameter. **Error correction** Enter a slot width smaller than the pitch circle diameter in the cycle definition.
280-0454	**Error message** Scaling factors not equal **Cause of error** You attempted to scale a circular contour element with differing axis-specific scaling factors. **Error correction** Scale the axes of circular contour elements with the
280-0455	**Error message** Tool data inconsistent **Cause of error** A tool whose data do not match those calibrated by the touch probe is active. **Error correction** Transmit the calibrated data of the touch probe to the tool table and perform a TOOL CALL in order to load the changed data.
280-0456	**Error message** MOVE not possible **Cause of error** In a KinematicsOpt cycle you selected a rotary axis positioning with the MOVE function although that is not possible with the existing configuration. **Error correction** Deactivate the MOVE function: - Enter a retraction height Q408 greater than 0. - Define the retraction height Q408 high enough to allow rotary movements without collisions.

Error number	Description
280-0457	**Error message** Presetting not allowed! **Cause of error** - You tried to save a datum in the preset table, although this function is locked by machine parameter. - Touch Probe Cycle 403: Setting the datum in the axis you select is not allowed. It would lead to errors during the tilting of the working plane or in connection with TCPM (M128). **Error correction** - Set the machine parameter MP7295 = 0 for the axes X, Y and Z. If necessary, consult with your machine tool builder. - Check the compensation axis you selected. A datum can be set in the compensation axis only in the first rotary table axis (seen from the workpiece).
280-0458	**Error message** Thread angle too small! **Cause of error** Sum of overrun and pitch is larger than the thread length. **Error correction** - Increase the thread length (in Cycle 831 the length of the overrun is as large as the pitch)
280-0459	**Error message** 3-D ROT status is contradictory! **Cause of error** The 3-D Rot status for the MANUAL and AUTOMATIC operating modes does not match. **Error correction** In 3-D Rot in the MANUAL and AUTOMATIC operating modes, set the same status (ACTIVE/INACTIVE).
280-045A	**Error message** Configuration is incomplete **Cause of error** The configuration data are not prepared for this application. **Error correction** - Inform your machine tool builder.
280-045B	**Error message** No turning tool is active **Cause of error** A turning tool is required for the executed function. **Error correction** - Insert a turning tool (defined via TYPE column in the tool table).

Error number	Description
280-045C	**Error message** Tool orientation is inconsistent **Cause of error** The tool orientation TO does not agree with the selected operation. **Error correction** Check the entry for the tool orientation of the turning tool and the selection (AXIAL / RADIAL) of the cycle being used.
280-045D	**Error message** Angle not possible! **Cause of error** The entered angle is not possible. A taper angle cannot be 0 or 180 degrees. **Error correction** - Correct the value for the entered angle. - Enter a taper angle between 0 and 180 degree, or between 0 and -180 degrees.
280-045E	**Error message** Radius too small! **Cause of error** The radius of the programmed circle is too small. Thread milling: The offset for countersinking on the face is too small. **Error correction** - Check the programmed values for the circle block. - Thread milling: Program an offset greater than 0 for countersinking on the face.
280-045F	**Error message** Thread runout too short! **Cause of error** The thread runout is too short. The minimum length is calculated as: thread runout * thread depth / safety clearance. **Error correction** - Increase the value for the thread runout.

Error number	Description
280-0460	**Error message** Contradictory meas. points **Cause of error** The measured points result in two parallel lines: cannot calculate an intersection. Cannot calculate a straight line from identical measuring points. **Error correction** Choose measuring points so that all the individual points have different coordinates. Two measuring points on a straight line have to have different coordinates.
280-0461	**Error message** Too many limits **Cause of error** Too many limits were selected for face milling. **Error correction** Set no more than 3 limits for face milling.
280-0462	**Error message** Machining strategy with limits not possible **Cause of error** Spiral machining strategy: face milling with limits is not possible **Error correction** Deactivate the limits or select another machining strategy.
280-0463	**Error message** Machining direction not possible **Cause of error** The machining direction is not possible in compliance with the overlap factor. **Error correction** Select another machining direction.
280-0464	**Error message** Check the thread pitch! **Cause of error** The programmed thread pitch differs from the thread pitch of the active tool. **Error correction** Check the value of the thread pitch (PITCH column) in the tool table. If the value of the thread pitch for the active tool is 0, there is no monitoring.

Error number	Description
280-0465	**Error message** Angle cannot be calculated **Cause of error** The inclination angle cannot be calculated. There is no appropriate tilting axis configured in the kinematic description. The programmed inclination angle lies outside of the tilting axis's traverse range. The indexable insert of the tool has been rotated. **Error correction** Check the programmed angle and the preferred direction. Ensure that no rotation (SPB-INSERT) is entered in the tool table.
280-0466	**Error message** Eccentric turning not possible **Cause of error** Control is not configured for eccentric turning. A coupling function is already active through the machine manufacturer. **Error correction** The machine manual provides further information. Check the entry in the configuration datum eccLimSpeedFactor.
280-0467	**Error message** No milling tool is active **Cause of error** The active tool is not defined as a milling cutter. **Error correction** In the tool table, check the entry in the TYPE column. Cycle 880: The hob must be defined as a milling cutter. Cycle 292: Without option 50, a turning tool must also be defined as a milling cutter.
280-0468	**Error message** Insufficient length of cutting edge **Cause of error** Die angegebene Schneidenlänge des aktiven Werkzeugs ist für die Bearbeitung nicht ausreichend. **Error correction** Definieren Sie in der Spalte LCUTS der Werkzeugtabelle die Länge der Werkzeugschneiden. Prüfen Sie bei Zyklus 880 den Eintag in Q553. Ist LCUTS gleich 0 so überwacht Zyklus 880 keine Schneidenlänge.

Error number	Description
280-0469	**Error message** Gear definition is inconsistent or incomplete **Cause of error** Module, tooth number and head diameter are incomplete or contradictory **Error correction** You have to enter at least 2 of the 3 parameters for module/ tooth number/tip circle diameter (not equal to 0). Check the module, tooth number and tip circle diameter , because the given values are contradictory.
280-046A	**Error message** No finishing allowance provided **Cause of error** Es ist kein Aufmaß programmiert, obwohl im Bearbeitung-sumfang nur Schlichten angewählt ist. **Error correction** Definieren Sie für die Schlichtbearbeitung ein Aufmaß.
280-046B	**Error message** Line does not exist in table **Cause of error** The programmed action cannot be executed because the given table line does not exist. **Error correction** Check your NC program. Create the given line in your preset or datum table.
280-046C	**Error message** Probing process not possible **Cause of error** There is no workpiece touch probe in the spindle. No direction or path is defined for probing. **Error correction** Insert a touch probe in the spindle. Select the desired angle probing direction by soft key.
280-046D	**Error message** Coupling function not possible **Cause of error** The commanded coupling function cannot be performed. **Error correction** A coupling function has already been activated by the machine tool builder. The kinematic design of the axis to be coupled is not supported. The machine manual provides further information.

Error number	Description
280-046E	**Error message** Fixed cycle is not supported by this NC software **Cause of error** The programmed machining cycle is not supported by this control. **Error correction** Cycle 290 Interpolation turning: - Adapt the NC program - Use Cycle 291 or 292
280-046F	**Error message** Touch probe cycle is not supported by this NC software **Cause of error** The programmed touch probe cycle is not supported by this NC software. **Error correction** Replacement for Cycle 441: Fast probing: Assign a line from the touch-probe table with the desired properties to a tool index.
280-0470	**Error message** NC program aborted **Cause of error** The NC program was aborted through operator action. **Error correction** If required, check the data in your NC program. After the cancellation of the NC program, continue with NC start.
280-0471	**Error message** Touch probe data incomplete **Cause of error** The data of the touch probe are incomplete or incorrectly defined. **Error correction** Check the entries of the touch probe table(TYPE column).
280-0472	**Error message** LAC function not possible **Cause of error** The LAC function is not configured for this axis. **Error correction** Check whether the axis concerned exists (CfgChannelAxis/progAxis). Check whether LAC is activated for the axis concerned (CfgControllerComp/enhancedComp). Contact your machine tool builder.

Error number	Description
280-0473	**Error message** Rounding radius or chamfer is too large! **Cause of error** Input parameter Q220: Rounding radius or chamfer is too large **Error correction** Check parameter Q220 and correct the input value if required.
280-0474	**Error message** Axis angle not equal to tilt angle **Cause of error** Probing function not permitted while working plane is inactive: the position of the tilted axes is not equal to 0°. Probing function not permitted while working plane is active: the position of the tilted axes does not match the active angular values. **Error correction** Working plane is inactive: move the tilting axes to the home position. Working plane is active: move the tilting axes to the correct position or adapt the angular values.
280-0475	**Error message** Character height not defined **Cause of error** The transfer value in the input parameters Q513 “Character height” and Q574 “Text length” is 0. **Error correction** In the input parameter Q513, define the desired character height. In the input parameter Q574, define the maximum permissible text length. Define the value 0 for character height in Q513 if you want to scale the engraving to the value defined for text length in Q574.
280-0476	**Error message** Excessive character height **Cause of error** The programmed engraving with the defined character height Q513 results in a longer text than is defined in Q574. **Error correction** Reduce the character height in Q513 so that the programmed engraving is no longer than defined in Q574. Set the value for Q574 higher or to zero in order to make a longer engraving possible. Enter the value 0 in Q513 if you want to scale the engraving to the text length set in Q574.

Error number	Description
280-0477	**Error message** Tolerance error: Workpiece rework **Cause of error** The probed dimension on the workpiece is outside of the defined tolerance. Too little material was removed. The workpiece can be reworked. **Error correction**
280-0478	**Error message** Tolerance error: Workpiece scrap **Cause of error** The probed dimension on the workpiece is outside of the defined tolerance. Too much material was removed. The workpiece is scrap. **Error correction**
280-0479	**Error message** Faulty dimension definition **Cause of error** The definition of a measure or a tolerance cannot be interpreted. **Error correction** Note the rules for defining a measured or tolerance.
280-047A	**Error message** Illegal entry in compensation table **Cause of error** There is a faulty entry in the corresponding compensation table. - The AXIS columns must not refer to linear axes. - The PLC columns must contain no entries. **Error correction** Adapt the configuration or the contents of the compensation table.

Error number	Description
280-047B	**Error message** Transformation not possible **Cause of error** Some transformations between the working plane and basic coordinate system are not allowed for the function performed. Rotations between the tool cutting edge and tool spindle, for example in the tool carrier, are not allowed. **Error correction** Remove the basic rotation and mirroring between the working plane and basic coordinate system. Try out rotations between the tool cutting edge and the tool spindle.
280-047C	**Error message** Tool spindle incorrectly configured **Cause of error** There is an error in the tool spindle configuration. **Error correction** Contact your machine tool builder. Check whether the spindle is listed in CfgAxes/spindleIndices. Check the attributes “progKind” and “dir” in CfgProgAxis.
280-047D	**Error message** Offset of the turning spindle unknown **Cause of error** A offset set in the rotary spindle for the milling operation cannot be considered for the necessary coupling of the eccentric turning. An offset can be defined by the workpiece datum, pallet datum or PLC datum. **Error correction** If you can ensure that no offset is needed, you can continue machining. In order to consider the offset, the configuration must be changed. Contact your machine tool builder. The rotary spindle must be included as axis in turning mode in the programmable axes (CfgChannelAxes/progAxes or CfgKinSimpleModel/progAxes). This rotary axis must make reference to the active channel spindle (CfgProgAxis/relatedAxis).

Error number	Description
280-047E	**Error message** Global program settings are active **Cause of error** The selected function is not possible with active global program settings. **Error correction** Deactivate the global program settings in order to perform the selected function.
280-047F	**Error message** Faulty configuration of OEM macros **Cause of error** Only one of the two macros for interpolation turning was configured. **Error correction** Contact your machine tool builder. Configure the macro either under CfgSystemCycle OEM_INTERPTURN_ON and OEM_INTERPTURN_OFF, or don't use either of the two macros.
280-0480	**Error message** The combination of programmed oversizes is not possible **Cause of error** A combination of programmed oversizes is not possible. **Error correction** Define either an equidistant oversize or a longitudinal and transverse.
280-0481	**Error message** Measured value not captured **Cause of error** No measured value was ascertained within a probing function. **Error correction** Check whether the probing process was performed. The points can only be evaluation only if a probing process has been successfully conducted.
280-0482	**Error message** Check the monitoring of the tolerance **Cause of error** A consideration of the tolerance is not possible due to an inconsistent working plane. **Error correction** Check the measurement result or correct the settings for the tilted working plane.

Error number	Description
280-0483	**Error message** Hole is smaller than the stylus tip **Cause of error** The diameter of the stylus tip is greater than the diameter of the hole to be measured. **Error correction** Use a smaller stylus tip to measure this hole.
280-0484	**Error message** Preset cannot be set **Cause of error** A correct reference point cannot be written due to an inconsistent machining plane. **Error correction** Correct the setting for tilting the working plane. This monitoring is active due to the configuration of the machine parameter CfgPresetSettings.chkTiltingAxes. If necessary, contact your machine tool builder.
280-0485	**Error message** Alignment of a rotary table is not possible **Cause of error** There is no suitable rotary table in the active machine kinematic model. The axis of the rotary table is not perpendicular in the current workpiece coordinate system. **Error correction** Make sure that there is a rotary table axis with which you can align the workpiece. If necessary, check whether a 3-D basic rotation prevents meaningful alignment.
280-0486	**Error message** Alignment of rotary axes is not possible **Cause of error** Aligning rotary axes to a determined plane is supported only if the basic rotation is also adopted. Aligning a rotary table is not supported if the determined angle is also to be used as a basic rotation. **Error correction** Check the values in the input parameters Q1121 and Q1126.

Error number	Description
280-0487	**Error message** Infeed limited to length of cutting edge **Cause of error** If a cutting edge length is specified in the LCUTS column in TOOL.T, the TNC restricts the infeed to this value. **Error correction** Check the value of the cutting edge length (LCUTS in TOOL.T) and the programmed infeed. Enter the value 0 as the cutting length to switch off this monitoring.
280-0488	**Error message** Machining depth defined as 0 **Cause of error** There is no machining because the machining depth has been programmed with the value zero. **Error correction** Program the machining depth with a value unequal to zero.
280-0489	**Error message** Tool type is unsuitable **Cause of error** In the tool table, a tool type that is not suitable for this operation is defined in the TYP column. **Error correction** Check and correct the entry in the tool table
280-048A	**Error message** Finishing allowance not defined **Cause of error** No machining operation will be performed, since neither an allowance for the side nor an allowance for the depth was programmed for the finishing operation. **Error correction** Check the input parameters for the finishing allowances and the machining strategy, and correct them if required.

Error number	Description
280-048B	**Error message** Machine datum could not be written **Cause of error** The value of the machine datum (MP_refPos) cannot be changed. The required change amount is greater than MP_maxModification/5, or MP_positionDiffRef/5. **Error correction** If you restore this data record the active machine kinematics might be inaccurate. Check the values and make the necessary adjustments manually. If necessary, inform your machine manufacturer.
280-048C	**Error message** Spindle for synchronization could not be ascertained **Cause of error** Could not determine the spindle to be synchronized. The spindle can be determined automatically only if exactly two spindles are configured in the system. The spindle to be synchronized must not be the active channel spindle. **Error correction** - If more than two spindles are configured, the spindle to be synchronized must be defined in the macro OEM_CYCLGEAR_PRE. - Contact your machine tool builder.
280-048D	**Error message** Function is not possible in the active operating mode **Cause of error** The programmed function is not possible in the active operating mode. **Error correction** For example, use FUNCTION MODE MILL or FUNCTION MODE TURN to activate the operating mode intended for the programmed function.
280-048E	**Error message** Oversize defined too large **Cause of error** The programmed allowance is greater than the entire machining depth. With gear teeth the machining depth corresponds to the tooth height: tooth height = 2 * module + trough-to-tip clearance **Error correction** Check the value of the programmed allowance.

Error number	Description
280-048F	**Error message** Number of teeth not defined **Cause of error** The number of teeth has not been defined for the active tool. The programmed machining operation requires the information about the number of teeth. **Error correction** In CUT column of the tool table, define the number of teeth.
280-0490	**Error message** Machining depth does not increase monotonously **Cause of error** A calculated machining depth does not increase monotonously. The programmed entries result in a machining depth that was already exceeded by a previous cut. **Error correction** Reduce either the first infeed or the number of infeeds. The last infeed must be smaller than the first one. Check the following entries: - First infeed Q586 - Last infeed Q587 - Number of infeeds Q584
280-0491	**Error message** Infeed does not decrease monotonously **Cause of error** A calculated infeed does not decrease strictly monotonously. The programmed entries result in at least one infeed that is greater than or equal to the previous one. **Error correction** Increase the number of infeeds or the first infeed. Reduce the last infeed. The last infeed must be smaller than the first one. Check the following entries: - First infeed Q586 - Last infeed Q587 - Number of infeeds Q584

Error number	Description
280-0492	**Error message** Tool radius not defined correctly **Cause of error** The physical tool radius (sum of R and DR from the tool table) is less than zero. If the physical tool radius equals zero, the selected machining cycle instead uses the programmed delta value DR. The effective tool radius (sum of R and DR from the tool table and the programmed delta value DR) is less than or equal to zero. **Error correction** Enter the correct radius of the tool in the tool table. A programmed delta value DR must not lead to an effective tool radius of less than or equal to zero.
280-0493	**Error message** Mode for retraction to clearance height not possible **Cause of error** The programmed mode for retraction to clearance height will be ignored for manual pre-positioning. **Error correction** When manually pre-positioning to the probing object, make sure that this movement is without collision.
280-0494	**Error message** Gear wheel definition incorrect **Cause of error** The definition of the tooth geometry is incomplete or contradicts itself. The module and number of teeth are necessary for the definition of a gear tooth system according to DIN 3990 (ISO 6336). Outside diameter and tooth height are optional entries. The outside diameter must be greater than the inside diameter. **Error correction** Enter the module and the number of teeth. If there are deviations from DIN 3990 (ISO 6336) then you can define the outside diameter and tooth height. Check the definition of the outside diameter and tooth height.

Error number	Description
280-0495	**Error message** Probing object contains different types of dimension definition **Cause of error** You didn't use the same type of dimension definition for all coordinates of an object to be probed. - For manual pre-positioning: Enter a question mark (?) at the beginning of a dimension definition in order to define manual pre-positioning. - For defining the actual position: Enter the at sign (@) after stating the nominal position in order to define the actual position. **Error correction** You must program the same type of dimension definition in the principal, secondary, and tool axes of an object to be probed. Correct the faulty dimension definition.
280-0496	**Error message** Dimension definition contains impermissible characters **Cause of error** A dimension definition contains impermissible characters. - More than one decimal separator is in a value. - There are additional characters after the dimension definition. - Impermissible characters were used. **Error correction** Correct the dimension definition. Example for freely toleranced dimension: "20-0.01+0.02" Example for ISO 286: "20H7" Example for general tolerance in accordance with ISO 2768: "20m"
280-0497	**Error message** Actual value in dimension definition faulty **Cause of error** The actual value is not indicated correctly in a dimension definition: - The preceding delimiter '@' is missing. - The definition of a value after the delimiter '@' is missing. The indicated Q parameter may not be used after the delimiter. **Error correction** Correct the definition of the actual value. You can only use Q1900 to Q1999 to transfer variable values.

Error number	Description
280-0498	**Error message** Starting point of hole too deep **Cause of error** The starting point Q379 of a hole is defined to be larger or equivalent to the total depth Q201 of the hole. The dwell depth Q435 is less than or equal to the starting point Q379. **Error correction** Define the starting point to be within the specified hole depth. Define the dwell depth to be greater than the starting point and less than the machining depth.
280-0499	**Error message** Dimension def.: Nominal value missing for manual pre-positioning **Cause of error** When probing with manual pre-positioning, the nominal values are missing for all directions at one position. **Error correction** Define a nominal value for at least one direction. You should define a nominal value in at least the directions that you can specify exactly with the probing process. For manual pre-positioning, define the nominal value after the '?'.
280-049A	**Error message** A replacement tool is not available **Cause of error** The programmed tool is locked or the tool life has expired and no replacement tool is available. **Error correction** Check the columns TL, RT, CUR_TIME, and TIME2 of the programmed tool. If you programmed a tool number then the replacement tool is defined in the column RT. If you are using a tool name then define the same name for the replacement tool.

Error number	Description
280-049B	**Error message** OEM macro is not defined **Cause of error** No macro is configured for this cycle. **Error correction** - In CfgSystemCycle, enter a key for the corresponding macro: - Cycle 238 requires a key with the name OEM_MACHS-TAT_MEAS. - Simultaneous finishing with FreeTurn tools requries a key with the name OEM_FREETURN_SIMUL_ON and OEM_FREE-TURN_SIMUL_OFF. - Contact the machine tool builder.
280-049C	**Error message** Measurement not possible with auxiliary axis **Cause of error** An OEM macro defined an axis to be measured that is not possible with this type of measurement. This measurement cannot be performed with auxiliary axes (PLC axes). **Error correction** - Change the type of measurement or the axis to be measured - Contact your machine tool builder
280-049D	**Error message** Start position not possible with modulo axis **Cause of error** The movement commanded in the OEM macro leads through the zero crossover of a modulo axis. **Error correction** - Pre-position the modulo axis such that the commanded movement does not lead through the zero crossover - Contact your machine tool builder
280-049E	**Error message** Function only possible if door is closed **Cause of error** The function you selected can be executed only if the guard doors are closed. **Error correction** Close the guard doors.

Error number	Description
280-049F	**Error message** Number of possible records exceeded **Cause of error** Not enough memory is available in order to process the data. Cycle 453: Excessive number of measuring points. **Error correction** Reduce the number of records. Cycle 453: Reduce the number of rows in the compensation table (*.kco). Contact your machine tool builder.
280-04A0	**Error message** Inconsistent machining plane due to axis angle with basic rot. **Cause of error** Das Schwenken der Bearbeitungsebene mit Achswinkeln in Kombination mit einer Grunddrehung führt zu einer inkonsistenten Bearbeitungsebene. Die Achswinkel stimmen nicht mit den Schwenkwinkeln überein. Das kann zu fehlerhaften Bearbeitungen führen. **Error correction** Vermeiden Sie die Kombination von Grunddrehung und Bearbeitungsebene schwenken mit Achswinkel.
280-04A1	**Error message** Transfer parameter contains an impermissible value **Cause of error** A transfer parameter from an OEM macro to the cycle is not in the permitted range. **Error correction** - Check the values transferred from the OEM macro to the cycle - Contact your machine manufacturer
280-04A2	**Error message** Tooth width RCUTS is defined too large **Cause of error** The tooth width RCUTS is defined too large for helical or reciprocating plunging in cycles 251 to 254. **Error correction** For helical or reciprocating plunging the tooth width must be less than the tool radius Correct the value for tooth width RCUTS in the tool table.

Error number	Description
280-04A3	**Error message** Usable length LU of the tool is too small **Cause of error** The programmed machining depth is greater than the usable length of the tool. **Error correction** Check the usable length LU in the tool table. Correct the machining depth or use a different tool.
280-04A4	**Error message** The defined chamfer is too large **Cause of error** The programmed chamfer is too large. **Error correction** Define a greater machining depth for the tip of the tool. Use a tool with a larger radius.
280-04A5	**Error message** Chamfer angle cannot be machined with the active tool **Cause of error** The programmed angle of the chamfer cannot be machined with the active tool. **Error correction** Check the value in input parameter Q354: The chamfer angle must be half of the point angle (T-ANGLE) of the tool. Enter the value 0 in Q354 in order to create a chamfer with half of the point angle (T-ANGLE) of the tool.
280-04A6	**Error message** The allowances do not define any stock removal **Cause of error** No stock removal is defined. The programmed allowance at the beginning of the machining operation is not greater than the allowance remaining at the end of the operation. **Error correction** Define the lateral allowance at the beginning of the machining operation (Q368) to be greater than the allowance at the end of the operation (Q14).

Error number	Description
280-04A7	**Error message** Spindle angle not unique **Cause of error** You tried to orient the tool spindle even though the relative position between the input and tool coordinate systems prevents an unambiguous determination of the spindle angle. During a probing operation the center offset (CAL_OF1 and CAL_OF2) defined for the touch probe cannot be taken into account correctly. **Error correction** Avoid a spindle orientation under these conditions: - Status of the transformations and position of tilting axes - Active turning operation Probing: - Exactly align the touch probe mechanically and do not define any values for the center offset (CAL_OF1 and CAL_OF2).
280-04A8	**Error message** Internal software error: wrong or faulty command **Cause of error** An internal software error has occurred. An unexpected or faulty command was received. **Error correction** Inform your service agency
280-04A9	**Error message** Probing procedure is not possible **Cause of error** The defined probing procedure cannot be performed with the active tool. **Error correction** Check whether the active tool is a touch probe. If the tool is not a touch probe, then you can apply the current coordinates with the actual position capture key.
280-04AA	**Error message** Type of the object to be probed is not possible **Cause of error** The type of the object selected to be probed cannot be probed in this situation. **Error correction** Select a different object to be probed. - Inform your service agency.

Error number	Description
280-04AB	**Error message** Input value not permitted **Cause of error** One of the input values is not in the valid range. **Error correction** Check and correct the input values.
280-04AC	**Error message** No data available for processing **Cause of error** No data found to be processed. **Error correction** Select the rows with the data you want to process. Enter nominal values for the processing.
280-04AD	**Error message** Object to be probed cannot be repeated **Cause of error** The object you selected to be probed cannot be re-probed. Changes to the basic rotation or the rotary-axis offset prevent correct calculation of the overall result. **Error correction** If necessary, re-probe all objects to be probed with the probing function.
280-04AE	**Error message** Limitation for island missing **Cause of error** In the definition of an island, the associated boundary is missing. **Error correction** Use Cycles 1281 or 1282 to define a boundary geometry for an island (Q650=1).
280-04AF	**Error message** Cannot process the data **Cause of error** The selected information cannot be used by this processing method. A basic rotation or an offset cannot be written to a datum table. A basic rotation cannot be written to a pallet preset. The combination of offset and shift (X,Y,Z) cannot be written to a pallet preset. **Error correction** Change the information selected. Use a different processing method.

Error number	Description
280-04B0	**Error message** Rotation of the tool coordinate system not permitted **Cause of error** An impermissible rotation of the tool coordinate system is in effect. This rotation can result in an improper motion during lift-off. **Error correction** Reset this rotation, for example with Cycle 801. Contact your machine tool builder.
280-04B1	**Error message** NC Start was ignored **Cause of error** NC Start was ignored since the current situation does not permit it. **Error correction** - Check the entries and correct them if necessary - Only press NC Start when the operational situation permits it
280-04B2	**Error message** Circle cannot be calculated **Cause of error** Could not calculate a circle from the measured points. The number of points or the distance between them is insufficient. **Error correction** Check the number and positions of the points for circle calculation.
280-04B3	**Error message** Probing of an extrusion not possible **Cause of error** An extrusion that cannot be probed was defined as probing object. An extrusion cannot be combined with a manual pre-positioning task for which a '?' is programmed in the position definition. **Error correction** Check your entries in Cycle 1493. Check the definition of the position of the probing object.

Error number	Description
280-04B4	**Error message** Nominal position not defined correctly **Cause of error** No nominal position is defined, or it contains tolerances. **Error correction** Enter a nominal position for all coordinate directions. Enter a tolerance along the surface-normal vector instead of for the nominal position.
280-04B5	**Error message** Retraction behavior not possible with multiple plunging **Cause of error** Only linear retraction is possible with multiple plunging. **Error correction** If necessary, adjust the input parameters Q462 Retraction mode and Q562 Multiple plunging.
280-04B6	**Error message** Basic rotation will be rescinded **Cause of error** A basic rotation is in effect in the active preset. In order for the sequence to work correctly, the called probing cycle requires that this basic rotation be rescinded. **Error correction** Check your entries. Clear this message and press NC-START in order to rescind the basic rotation and continue with the probing cycle. Or perform an internal stop in order to cancel the probing cycle and check your entries.
280-04B7	**Error message** Repeat last measurement? **Cause of error** The last measurement could not be performed correctly. **Error correction** Refer to the preceding messages concerning the last measurement. You can acknowledge these messages and then repeat the last measurement with NC Start.

Error number	Description
280-04B8	**Error message** Continue with next measurement? **Cause of error** This measurement cannot be performed correctly. **Error correction** Refer to the preceding messages concerning the measurement. Check the configuration for this measurement. You can acknowledge these messages and jump to the next measurement with NC Start.
280-04B9	**Error message** File not found **Cause of error** The specified file could not be found. **Error correction** Ensure that the specified file exists and that the given path is correct.
280-04BA	**Error message** The entire plunging depth is greater than the tooth height **Cause of error** The sum of the defined infeeds does not match the tooth height. Twice the tooth height results from the difference between the outside diameter and the inside diameter. If the total infeed is greater than the tooth height, the machining operation is not carried out. If the total infeed is less than the tooth height, the machining operation can still be carried out. **Error correction** Check the sum of all infeeds in the INFEED column, and correct them if necessary.
280-04BB	**Error message** The entire plunging depth is less than the tooth height **Cause of error** The sum of the defined infeeds does not match the tooth height. Twice the tooth height results from the difference between the outside diameter and the inside diameter. If the total infeed is greater than the tooth height, the machining operation is not carried out. If the total infeed is less than the tooth height, the machining operation can still be carried out. **Error correction** Check the sum of all infeeds in the INFEED column, and correct them if necessary.

Error number	Description
280-04BC	**Error message** File cannot be opened **Cause of error** Could not open the file specified in the cycle. **Error correction** Check whether the file is there, whether the path is correct, and whether the file is in a readable format.
280-04BF	**Error message** Status of transformations for simultaneous turning is not correct **Cause of error** The status of the transformations is not correct for the requested simultaneous turning operation with a FreeTurn tool. TCPM must be activated before the cycle can run. Before the cycle was run, a transformation was activated that is not possible with this type of operating mode. **Error correction** Activate TCPM before calling the cycle. Check your corrections in the WPL-CS, such as: FUNCTION CORRDATA WPL.
280-04C0	**Error message** Preset cannot be modified after probe objects have been probed **Cause of error** The modifications to the preset are not possible. Modifications to the preset are only possible as long as no object has been probed yet. **Error correction** Discard objects that have already been probed by ending the manually selected probing function. Then you can make the changes to the preset.
280-04C1	**Error message** Tolerance does not match probing direction **Cause of error** The result of a probing motion is outside of the tolerance, and the direction of the probing motion does not match the defined tolerance. **Error correction** Check the programmed tolerances regarding the defined probing direction and the extrusion direction.

Error number	Description
280-04C2	**Error message** Offset in pallet reference point not permitted **Cause of error** Setting up of a workpiece with an offset in the active pallet preset is not permitted. **Error correction** When setting up workpieces, use pallet presets with spatial angles instead of offsets.
280-04C3	**Error message** Global program settings are active **Cause of error** A workpiece cannot be set up if global program settings are active. **Error correction** Deactivate global program settings in order to run the selected function
280-04C4	**Error message** Global program settings are active **Cause of error** Activating the global program settings function can falsify measurement results. **Error correction** HEIDENHAIN recommends deactivating the global program settings before using the function
280-04C5	**Error message** Cycle can be executed only in the Testing mode **Cause of error** In the current machine state, this cycle can be executed only in the Testing mode. The corresponding software option is missing for further modes, or the machine configuration has not been adapted correctly. **Error correction** Contact your machine manufacturer in order to use other modes.

Error number	Description
280-04C7	**Error message** Tool carrier can't be monitored correctly **Cause of error** The tool carrier defined in the "KINEMATIC" column cannot be considered correctly in the current constellation, since the tool spindle is configured as a spindle and the turning tool will be reversed in Cycle 800 (Q498=1). This can have an effect on collision monitoring and the path calculations of turning cycles. **Error correction** Check the effects precisely and change the conditions, if necessary. If needed, you can add a new index to your turning tool in the tool management. In this index you define your turning tool rotated by 180°, so that you can use Q498=0 in Cycle 800.
280-04C8	**Error message** Probing function doesn't support stylus type **Cause of error** A stylus type that is not supported by the selected probing function is entered in the STYLUS column of the touch probe table. **Error correction** Check the stylus type entered. Use a probing function that supports the entered stylus type.
280-04C9	**Error message** Slot smaller than stylus tip **Cause of error** The diameter of the stylus tip is greater than the width of the slot to be measured. For the STYLUS L-TYPE, the diameter of the stylus tip plus center offset is greater than the width of the slot to be measured. **Error correction** Use a smaller stylus tip to measure this slot. For the STYLUS L-TYPE, use a smaller center offset to measure this slot.

Error number	Description
280-04CA	**Error message** Determination of machine datum with inclination angle not 0 **Cause of error** When executing Cycle 451 with mode Q406=3, the machine datum is corrected for a rotary axis. However, the inclination angle (Q413, Q417, Q421) programmed in the cycle deviates from the machine datum. **Error correction** If you don't determine the machine datum of a rotary axis at its home position, unfavorable results can occur. Check the cycle entries and change the values in Q413, Q417 or Q421 to 0 if necessary.
280-04CB	**Error message** Feed-rate potentiometer is effective for L stylus! **Cause of error** The entry in machine parameter CfgProbes/overrideForMeasure makes the feed-rate potentiometer effective for probing procedures. You achieve the maximum accuracy by using the same speed for calibration and for actual probing. **Error correction** Please ensure that the feed-rate potentiometer is always at 100% (if possible) when probing with an L stylus. Contact your machine manufacturer to configure the machine parameter CfgProbes/overrideForMeasure.
280-04CC	**Error message** Spindle orientation not possible **Cause of error** A touch probe with an L stylus requires spindle orientation (TRACK=ON) In its current state, the machine does not support spindle orientation. Spindle orientation is not defined for the touch probe. **Error correction** Check the entry in the TRACK column of the touch probe table. Perhaps use the touch probe only in milling mode. Contact your machine manufacturer to configure the machine parameter mStrobePos for the active spindle.

Error number	Description
280-04CD	**Error message** Antastpunkt nicht erreicht **Cause of error** The defined touch point could not be reached. The program was not aborted, since the corresponding error message is being suppressed with Q371 in Cycle 441. **Error correction** In order to proceed with the operation correctly, use Q183 to evaluate the status of the probing cycle in the NC program.
280-04CE	**Error message** Starten eines Antast-Zyklus mit bereits ausgelenktem Taster **Cause of error** You tried to start a probing cycle although the stylus is still deflected. **Error correction** Increase the retraction path
280-04CF	**Error message** Keine gültige Zeile für einen Bezugspunkt **Cause of error** Es ist kein Bezugspunkt aktiv. Es wurde eine ungültige Zeile einer Werkstück- oder Palettenbezugspunkttabelle übergeben. **Error correction** Zum Aktivieren eines Bezugspunkts wählen Sie die gewünschte Zeile zuvor aus.
280-04D0	**Error message** Offset of a rotary axis differs **Cause of error** The offset of at least one rotary axis differs between that for the active preset and the target line. Due to the different offsets, the written basic rotation might be unusable. **Error correction** Check whether the determined basic rotation in the target line of the preset table meets your expectations. To avoid unexpected errors, and before probing starts, activate the preset you want to change.
280-04D1	**Error message** Couldn't start Python process **Cause of error** There was a problem while starting a Python process. **Error correction** Notify your service agency if this error recurs.

Error number	Description
280-04D2	**Error message** TCPM not possible with selected function **Cause of error** The selected function is not possible with active TCPM. **Error correction** Switch TCPM off before executing the desired function: - Execute FUNCTION RESET TCPM or M129 - Select the NC program again
280-05DC	**Error message** Error in pallet management **Cause of error** Internal control error. **Error correction** Inform your service agency.
280-05DD	**Error message** Error in pocket table **Cause of error** Error in pocket table: - Pockets or tools appear twice. - There is no value in column T for the spindle pocket. - The tool in the spindle is not in the tool table. - The TOOL_P symbol does not point to a pocket table or it is not set. - The pocket table is write-protected or it does not exist. **Error correction** - Correct the pocket table. - There is no value in column T for the spindle pocket. - The tool in the spindle is not in the tool table. - The TOOL_P symbol does not point to a pocket table or it is not set. - The pocket table is write-protected or it does not exist.
280-05DE	**Error message** Fixture not activated **Cause of error** Pallet changer: The started NC program belongs to a fixture that is not on the pallet. **Error correction** Activate the correct fixture.

Error number	Description
280-05DF	**Error message** Wrong pallet **Cause of error** Pallet changer: The NC program that was started belongs to a pallet that is not at the machining position. The LOCATION column of the pallet table does not contain "MA". **Error correction** Change to the proper pallet (LOCATION == MA).
280-05E0	**Error message** Pallet line locked! **Cause of error** You attempted to run a locked pallet line. **Error correction** To resume program run, unlock the line or continue with the next line. If necessary, refer to your machine manual.
280-05E1	**Error message** Datum table missing **Cause of error** You selected a datum table that does not exist in the control's NC memory. **Error correction** Select an existing datum table or make the desired table.
280-05E2	**Error message** Measuring probe not defined **Cause of error** - You called a touch probe that is not defined in the touch probe table. - The touch probe table is write-protected or it does not exist. **Error correction** - Add the missing touch probe to the touch probe table. - Create a touch probe table or cancel the write protection.

Error number	Description
280-05E3	**Error message** Incorrect tool data **Cause of error** Incorrect tool data: - Tool appears twice. - TOOL symbol does not point to a tool table or it is not set. - The tool table is write-protected or it does not exist. - Tool table is locked because of the Test Run or Programming operating mode. **Error correction** - Correct the tool table. - Reassign the TOOL symbol or create an equivalent tool table. - Create a tool table or cancel the write protection. - Close the the Test Run or Programming operating mode.
280-05E4	**Error message** Tool number 0 not permitted **Cause of error** A tool definition with the number "0" is not permitted. **Error correction** Edit the part program.
280-05E5	**Error message** Tool not defined **Cause of error** You have called a tool that is not defined in the tool table. **Error correction** - Add the missing tool to the tool table. - Use another tool.
280-05E6	**Error message** No appropriate tool found **Cause of error** Automatic tool search: No suitable tool was found in the tool table. **Error correction** Check the tool table.
280-05E7	**Error message** Calculated tool number too large **Cause of error** - Calculation of a tool number from a Q parameter resulted in a value outside the permissible range of 0 to 32767. - You have called a tool number that is greater than the number of tools defined in the tool table. **Error correction** Edit the part program.

Error number	Description
280-05E8	**Error message** Tool definition is missing **Cause of error** In a TOOL CALL (ISO: T..) you entered a tool number for which there is no definition in the program. **Error correction** Edit the part program.
280-05E9	**Error message** Tool number already assigned **Cause of error** You attempted to give a tool more than one definition. **Error correction** Edit the part program.
280-05EA	**Error message** Tool definition not permitted **Cause of error** You programmed a tool definition with radius or length (TOOL DEF, ISO: G99). **Error correction** - Delete the TOOL DEF block (G99 block). - Use the tool preselection without radius and length(TOOL DEF, ISO: G51).
280-05EB	**Error message** TOOL DEF w/o length or radius **Cause of error** The definition of a tool (TOOL DEF, ISO: G99) is missing the value for tool length or tool radius. **Error correction** Complete the TOOL DEF block (G99 block).
280-05EC	**Error message** Max. tool age expired **Cause of error** The service life of the called tool has expired and you have not defined a replacement tool. **Error correction** Check the tool and, if necessary, exchange it or define a replacement tool.

Error number	Description
280-05ED	**Error message** Tool locked **Cause of error** The tool was locked (e.g. after breakage). **Error correction** Check the tool and, if necessary, change it or unlock it in the tool table.
280-05EE	**Error message** Tool table is missing **Cause of error** Either you did not select a tool table or the selected table is not in the control's NC memory. **Error correction** Select an available tool table or create one.
280-05EF	**Error message** FN14_1519 **Cause of error** FN14_1519 **Error correction** FN14_1519
280-05F0	**Error message** Helical plunging not possible **Cause of error** Q366 = 1 **Error correction** Edit the part program
280-05F1	**Error message** FN14_1521 **Cause of error** FN14_1521 **Error correction** FN14_1521

Error number	Description
280-05F2	**Error message** No touch probe data **Cause of error** - No touch probe inserted - No tool axis active for the touch probe - Contradictory touch probe data **Error correction** - Insert the touch probe - Define the tool axis in the touch probe call - Check the touch probe data
280-05F3	**Error message** SQL command failed **Cause of error** An SQL command used in the cycle could not be executed. **Error correction** Inform your service agency.
280-05F4	**Error message** FN14_1524 **Cause of error** FN14_1524 **Error correction** FN14_1524
280-05F5	**Error message** FN14_1525 **Cause of error** FN14_1525 **Error correction** FN14_1525
280-05F6	**Error message** FN14_1526 **Cause of error** FN14_1526 **Error correction** FN14_1526

Error number	Description
280-05F7	**Error message** Error in pallet management **Cause of error** Error in pallet management: - The pallet table does not exist or is write-protected. - TARGET and FN17/18 ID510 NR22 are used simultaneously in the PAL row. **Error correction** - Create a pallet table or cancel write-protection. - Do not use TARGET and FN17/18 ID510 NR22 simultaneously in the PAL row.
280-05F8	**Error message** Error in preset table **Cause of error** The preset table is faulty. Possible causes: - The preset table is write-protected or it does not exist. - Line 0 does not exist. - The is no line with ACTNO = 1. **Error correction** - Please make the preset table or cancel the write protection - Enter the line 0 in the preset table - Set ACTNO in one line to zero
280-05F9	**Error message** Incorrect datum table **Cause of error** Incorrect datum table: - The datum table is write-protected or it does not exist. **Error correction** - Create a datum table or cancel the write protection.
280-05FA	**Error message** Tool change during mid-program startup not possible **Cause of error** Tool change not possible during mid-program startup. The active tool is not in the spindle for program run after mid-program startup. **Error correction** Please contact your machine tool builder.

Error number	Description
280-05FB	**Error message** Calibrate touch probe **Cause of error** You tried to automatically measure a tool although the tool touch probe is not yet calibrated. **Error correction** Calibrate the TT tool touch probe with the cycle TCH PROBE 30.
280-05FC	**Error message** Tool axis is missing **Cause of error** You called a fixed cycle without first activating a tool. **Error correction** Edit the NC program.
280-05FD	**Error message** CYCL DEF incomplete **Cause of error** - You deleted part of a cycle - You inserted other NC blocks within a cycle **Error correction** - Redefine the complete cycle - Delete NC blocks within a cycle
280-05FE	**Error message** TOOL.T: Enter number of teeth **Cause of error** Automatic tool measurement: Number of teeth not entered into tool table. **Error correction** Enter the number of teeth (CUT) into TOOL.T.
280-05FF	**Error message** Enter tool radius greater than 0 **Cause of error** You defined the cutter radius for the active tool in the tool table as less than or equal to 0. **Error correction** You can only measure a tool with a positive radius. Change the radius in the table.

Error number	Description
280-0600	**Error message** Tolerance in the parameter measureTolerance[1;2] is too low **Cause of error** The tolerance entered in the "measureTolerance1" parameter cannot be achieved during tool radius measurement with the TT. **Error correction** - Increase the permissible tolerance for finding tool teeth with spindle orientation in the "measureTolerance2" parameter - Reduce the positioning window of the spindle in the "posTolerance" parameter - Check whether a burr has formed on the probe contact. Remove the burr, if there has. - Exchange the tool touch probe, if required
280-0601	**Error message** Tool locked **Cause of error** The tool was locked (e.g. after breakage). **Error correction** Check the tool and, if necessary, change it or unlock it in the tool table.
280-0602	**Error message** Error in tool measurement configuration **Cause of error** The configuration of the tool measurement is incorrect or incomplete. **Error correction** Check the tool measurement configuration and edit or extend it, if required.
280-0603	**Error message** Tool measurement locked **Cause of error** Tool measurement is disabled. **Error correction** Check the tool measurement configuration and edit it, if required.

Error number	Description
280-0604	**Error message** Tool measurement: Functionality not yet implemented **Cause of error** The desired functionality is not implemented. - The tool axis is not the Z axis. (NC program: TOOL CALL) - Sum of "YL + DYL" is greater than +/– 5.0 mm. (Tool table) - Value of SPB-INSERT does not equal 0 degrees. (Tool table) - Value of ANGLE is greater than 90 degrees or sum of ANGLE + PANGLE is greater than or equal to 180 degrees. (Tool table) - The value TO is not supported for tool types. (Tool table) - The value of stylusAxis is not Z_Positive. (Configuration) **Error correction** Check the NC program, tool table, and tool measurement configuration and edit them as necessary.
280-0605	**Error message** Orientation not configured **Cause of error** - Your machine might not offer spindle orientation - Spindle orientation not possible **Error correction** - Refer to your machine manual! - Check the "spindleOrientMode" machine parameter and use the NC to enter -1 or the value of the M function for spindle orientation.
280-0606	**Error message** Arithmetical error **Cause of error** Internal calculations have resulted in a non-representable numerical value. **Error correction** Check the input values.
280-0607	**Error message** Cycle error **Cause of error** Internal control error **Error correction** Inform your service agency

Error number	Description
280-0608	**Error message** Tool broken **Cause of error** Automatic tool measurement: The breakage tolerance (LBREAK or RBREAK) from the tool table was exceeded. **Error correction** Check the tool and, if necessary, replace it.
280-0609	**Error message** Calibrate TT in tilted plane **Cause of error** You attempted to run a cycle for tool measurement while the tilted-plane function was active, although the touch probe was not calibrated in the tilted working plane. **Error correction** Run the calibration cycle 30 while the working plane is tilted.
280-060A	**Error message** Calibrate TT in non-tilted plane **Cause of error** You attempted to run a cycle for tool measurement, although the touch probe was last calibrated in a tilted working plane. **Error correction** Run the calibration cycle 30 when the working plane is not tilted.
280-060B	**Error message** TT not parallel to tool axis **Cause of error** You attempted to run a cycle for tool measurement although the touch probe axis is not parallel to the tool axis. **Error correction** Position the axes so that the touch probe axis and tool axis are parallel.
280-060C	**Error message** Tool index not allowed **Cause of error** You called a fixed cycle for tool measurement with a step drill. **Error correction**

Error number	Description
280-060D	**Error message** Turning tool incompletely defined **Cause of error** - You called a turning tool that is not defined in the turning tool table. - The turning tool table is faulty or missing. **Error correction** - Add the missing tool to the turning tool table. - Create or correct the turning tool table.
280-060E	**Error message** Probing direction not in probe plane **Cause of error** You configured a probing direction that does not lie in the touch probe plane. **Error correction** Correct the machine parameter probingDirRadial
280-060F	**Error message** Unbalance detection failed **Cause of error** Fehler bei Unwuchterfassung aufgetreten **Error correction** Weitere Fehlermeldungen beachten
280-0610	**Error message** Excessive unbalance **Cause of error** Maximale Unwuchtamplitude überschritten **Error correction** Unwucht neu erfassen und kompensieren
280-0611	**Error message** Configuration for unbalance detection wrong **Cause of error** Die Konfiguration der Unwuchterfassung ist fehlerhaft oder unvollständig. **Error correction** Konfiguration der Unwuchterfassung überprüfen und ggf. anpassen oder erweitern.

Error number	Description
280-0612	**Error message** Radius of replacement tool not suitable **Cause of error** - During automatic exchange of a replacement tool (M101), the TNC did not find a suitable tool in the tool table. - The total radius R + DR of the replacement tool is greater and/or R2 + DR2 is less than the radius of the current tool when 3-D compensation is active. **Error correction** - Define a replacement tool with suitable radii. - Perhaps use M107 to deactivate monitoring of the tool radii.
280-0613	**Error message** Invalid tool axis programmed **Cause of error** You have programmed a tool axis other than Z. **Error correction** Edit the NC program.
280-0614	**Error message** Tool table locked **Cause of error** The tool file (TOOL.T) cannot be edited while the TNC is executing a tool call. Pressing the EDIT ON/OFF soft key provokes this error message. **Error correction** Exit the mode by selecting the "EDIT ON/OFF" soft key. Then acknowledge the message and resume program run with NC Start.
280-0615	**Error message** Unbalance calculation failed **Cause of error** An error occurred while calculating the unbalance. The entered value is not in the unbalance table. **Error correction** - Modify the entered value - Expand the unbalance table
280-0616	**Error message** Tool must not be altered **Cause of error** A change of tool number or tool index is not allowed at present. This test was activated by the machine tool builder within the TOOL CALL macro. **Error correction** Inform your machine tool builder

Error number	Description
280-0617	**Error message** Traverse mode for retraction not possible **Cause of error** The “tilted system” and “tool axis” traverse modes are not possible because of the machine configuration. **Error correction** Select the “machine axes” or “thread” traverse modes and repeat the retraction.
280-0618	**Error message** Tool life expired **Cause of error** The remaining tool life is not enough for the precalculated machining time. - The service life of the called tool is insufficient and you haven’t defined a sister tool. - The tool-usage file is not available or not up to date. **Error correction** - The tool is to be used anyway: acknowledge the message and continue the NC program with NC start. - The tool is not to be used: cancel the NC program with an INTERNAL STOP. o Check the tool and, if necessary, exchange it or define a replacement tool. o Create or update a tool-usage file. Run the desired program in the Test Run mode of operation. Ensure that creation of a tool usage file is activated in the configuration.
280-0619	**Error message** Tool life expired **Cause of error** The remaining tool life is not enough for the precalculated machining time. - The service life of the called tool has expired and you have not defined a sister tool. - The tool usage file is not available or not up to date. **Error correction** - Check the tool and, if necessary, exchange it or define a sister tool. - Create or update a tool usage file. - Run the desired program in the Test Run mode of operation. - Ensure that the tool usage file is activated in the configuration.

Error number	Description
280-061A	**Error message** Feed rate limiting has been canceled **Cause of error** - Feed rate limiting was canceled by the operator. - Reactivation of the feed rate limiting is not possible in the Retraction operating mode. **Error correction** - Use the feed rate potentiometer F to limit the feed rate. - Be very careful when moving the axes.
280-061B	**Error message** Pallet line with completed part **Cause of error** The pallet line under the cursor is marked as a completed part and can therefore no longer be executed. **Error correction** Select a pallet line in which a workpiece blank or an incomplete part is entered.
280-061C	**Error message** Access to pallet preset table failed **Cause of error** Access to pallet preset table was not possible. The pallet preset table might not exist or is faulty. **Error correction** Inform your service agency.
280-061D	**Error message** Automatic continuation of pallet machining not possible **Cause of error** Automatic continuation of pallet machining not possible. **Error correction** - Pallet machining was not continued by the OEM cycle. - Check the entry for the OEM macro in OEM_PAL_RESUMPTION. - Inform your service agency.
280-061E	**Error message** Strategy for continuing the pallet machining is not supported

Error number	Description
280-061F	**Error message** Thread-cutting process was interrupted **Cause of error** Automatic continuation of pallet machining not possible. **Error correction** - Note any further error messages. - Correct the cause of error and repeat the operation. - Inform your service agency.
280-0620	**Error message** Pallet table locked **Cause of error** An editor locked any further execution of the pallet table **Error correction** - Exit the editing or input mode - Then acknowledge the message and resume the pallet machining with NC start.
280-0621	**Error message** Tool not defined completely **Cause of error** You called a tool that is not completely defined in the tool table: - There is no value for the tool radius and/or length. **Error correction** - Check and complete the tool entries. - Use another tool.
280-0622	**Error message** Row does not exist in preset table **Cause of error** Could not activate the programmed preset. The given line does not exist in the preset table. **Error correction** - Check the preset table - Add the given line to the preset table.
280-0623	**Error message** Row does not exist in pallet preset table **Cause of error** Could not activate the programmed number of the pallet preset. The given line does not exist in the pallet preset table. **Error correction** - Check the pallet preset table - Add the given line to the pallet preset table.

Error number	Description
280-0624	**Error message** Preset table not found **Cause of error** Could not open the preset table selected for the test run. **Error correction** - Select existing preset table again, or - Create a new preset table
280-06A4	**Error message** Camera not reacting **Cause of error** The image processing cycle cannot communicate with the camera or does not answer. **Error correction** Restart the NC software or remove the image processing cycle from the NC program. - Inform your service agency.
280-06A5	**Error message** Camera not responding **Cause of error** The image processing cycle cannot communicate with the camera or does not answer. **Error correction** Restart the NC software or remove the image processing cycle from the NC program. - Inform your service agency.
280-06A6	**Error message** File for camera position does not exist **Cause of error** The control cannot move the camera to the desired position because the table with the position data is missing. **Error correction** Inform your service machine tool builder.
280-06A7	**Error message** Line does not exist in the position table **Cause of error** The control cannot move the camera to the desired position because the desired line number is missing in the table for position data. **Error correction** Inform your machine tool builder

Error number	Description
280-06A8	**Error message** Communication with camera not possible **Cause of error** The image processing cycle cannot communicate with the camera because the internal data structure for communication is missing. **Error correction** - Inform your service agency.
280-06A9	**Error message** Camera provides no images **Cause of error** No live image was received from the camera. **Error correction** - Test whether the live image is shown correctly in the Manual operating mode - If this is not the case, restart the control - If both actions don't help, contact your service agency
280-06AA	**Error message** A name for the monitoring point is missing **Cause of error** The monitoring point has no name **Error correction** Enter a name for the monitoring point in the image processing cycle
280-06AB	**Error message** Not allowed to call an unbalance cycle in milling mode **Cause of error** A unbalance cycle cannot be started in milling mode **Error correction** Start the unbalance cycle in turning mode
280-07D0	**Error message** Invalid error consequence **Cause of error** Invalid error consequence **Error correction** Internal error

Error number	Description
280-07D1	**Error message** No space released **Cause of error** No location released for inserting the tool. On the wheel head there are no are no locations released for inserting the grinding wheel. Error correction: Release locations for inserting the tool (table: WHEEL.PGW). **Error correction** Release locations for inserting the tool (table: WHEEL.PGW).
280-07D2	**Error message** No valid physical space **Cause of error** No valid, physical location on wheel head. Selected location on wheel head is invalid. Location number is greater than 9. **Error correction** Select valid location (0...9).
280-07D3	**Error message** Space not released **Cause of error** Location for inserting the tool not released. The selected location on the wheel head has not been released and therefore cannot be accept a grinding wheel. **Error correction** Select another location for insertion.
280-07D4	**Error message** Tool is already inserted **Cause of error** The tool to be inserted is already clamped in another location. **Error correction** Select another tool (other tool number) or remove the tool from another location (not only physical, but also logical).
280-07D5	**Error message** No space released **Cause of error** No released location found. No other vacant location was found on the wheel head. **Error correction** Remove tool from another location and use the set-up function to release the location.

Error number	Description
280-07D6	**Error message** No identical space **Cause of error** No released, identical location found. There is no other logical location on the wheel head with the same physical position. **Error correction** Remove tool from another location and use the set-up function to release the location.
280-07D7	**Error message** No further tool found **Cause of error** No other tool found that meets the search criteria. **Error correction** Adapt the search criteria.
280-07D8	**Error message** No further tool found **Cause of error** No tool found that meets the search criteria. **Error correction** Adapt the search criteria.
280-07D9	**Error message** Invalid tool type **Cause of error** An unsupported tool type was selected, or the tool type is not permitted together with a function. **Error correction** Check the tool type.
280-07DA	**Error message** Tool type not allowed **Cause of error** Tool type not allowed, not released. In the set-up function a tool was selected that is not supported at present. **Error correction** Select another tool type.

Error number	Description
280-07DB	**Error message** Data not loaded **Cause of error** Data were not accepted because the tool number was changed. In the set-up function, the number (reference) of the current tool was changed. Because of this, all edited data were discarded and the data of the tool with the new number were loaded. **Error correction** None
280-07DC	**Error message** No entry in table **Cause of error** No entry in table / Access failed. An attempt to access a table failed. It could be that the desired entry is missing or the format of a column doesn't fit. **Error correction** Check the values.
280-07DD	**Error message** Invalid parameter value **Cause of error** Invalid parameter value. A parameter has an invalid value. **Error correction** Check the values of the parameters.
280-07DE	**Error message** Invalid command **Cause of error** Invalid command. An invalid command (FN19 command) was programmed to the PLC. **Error correction** Check the command / Check the PLC program.
280-07DF	**Error message** Error in table access **Cause of error** Error in table access (no handle). An attempt to access a table failed. It could be that the desired entry is missing, the format of a column doesn't fit, the table doesn't exist, etc. **Error correction** Check the values.

Error number	Description
280-07E0	**Error message** No grinding wheel **Cause of error** Current tool is not a grinding wheel. It is expected that the current tool be a grinding wheel, which is not the case. To find the location of a dresser, for example, the current tool must be a grinding wheel. **Error correction** Exchange the grinding wheel.
280-07E1	**Error message** Invalid tool number **Cause of error** Invalid tool number. The tool number is out of range. **Error correction** Enter the correct number (1...99).
280-07E2	**Error message** Invalid alignment **Cause of error** Invalid dresser alignment. The alignment of a dresser doesn't fit the selected grinding wheel edge. **Error correction** Select another wheel edge or another dresser alignment.
280-07E3	**Error message** No dresser defined **Cause of error** No dresser defined. A function expects that a dresser has been defined/ programmed, which is not the case. **Error correction** Define/program a dresser.
280-07E4	**Error message** Dresser not defined **Cause of error** Dresser not captured for this wheel. You tried to work with a dresser whose location hasn't been found for the current wheel. **Error correction** Capture/set-up the dresser.

Error number	Description
280-07E5	**Error message** Not a valid wheel type **Cause of error** Not a valid wheel type. Invalid wheel type programmed. **Error correction** Select the correct wheel type.
280-07E6	**Error message** Ref. of dresser to wheel edge **Cause of error** Reference of dresser to wheel edge is incorrect. The dresser is being used in reference to another wheel edge, as if it were captured/set-up. **Error correction** Repeat the capture/setup of the dressing attachment.
280-07E7	**Error message** Relieved wheel not possible **Cause of error** Wheel side: Relieved wheel not possible. The length of the relief is not possible, or the combination with other parameters of the wheel side is not possible. **Error correction** Check the parameters of the wheel side.
280-07E8	**Error message** Chamfer width missing **Cause of error** Wheel side: Chamfer width missing. A chamfer width is expected but was not programmed. **Error correction** Check the parameters of the wheel side.
280-07E9	**Error message** Chamfer greater than side len. X **Cause of error** Wheel side: Chamfer greater than side length X. **Error correction** Check the parameters of the wheel side.

Error number	Description
280-07EA	**Error message** Angle of the relief is incorrect **Cause of error** Wheel side: Angle of the relief is incorrect. The angle of the relief has an invalid value. **Error correction** Check the parameters of the wheel side.
280-07EB	**Error message** Selected grinding wheel face not permitted **Cause of error** Parameter Q1006 was programmed for a dressing cycle even though it is not needed. You need to select the grinding wheel side to be dressed only if the dressing system is activated through a macro of the machine manufacturer. If the dressing system is activated before the cycle call, then the side to be dressed is selected by selecting the dressing preset (activated grinding wheel edge) through Cycle 1030. **Error correction** - Check the NC program: Remove the optional parameter Q1006 from the dressing cycle.
280-07EB	**Error message** FN14_2027 **Cause of error** FN14_2027 **Error correction** FN14_2027
280-07EC	**Error message** Selection of grinding wheel face required **Cause of error** Parameter Q1006 was not programmed for a dressing cycle even though it is needed. You need to select a grinding wheel side to be dressed if the dressing system is activated through a macro of the machine manufacturer. **Error correction** - Check the NC program: Program the optional parameter Q1006 in the dressing cycle.
280-07EC	**Error message** FN14_2028 **Cause of error** FN14_2028 **Error correction** FN14_2028

Error number	Description
280-07ED	**Error message** Selection of grinding wheel face contradictory **Cause of error** The parameter Q1006 was used to selected a grinding wheel side to be dressed in a dressing cycle. The dressing preset (activated grinding wheel edge) activated by the macro of the machine manufacturer doesn't match the grinding wheel side programmed with the parameter Q1006. **Error correction** - Contact your machine manufacturer
280-07ED	**Error message** FN14_2029 **Cause of error** FN14_2029 **Error correction** FN14_2029
280-07EE	**Error message** Dressing strategy: corner radius not permitted **Cause of error** If a corner radius (RV, RV1, RV2) is defined, then a dressing strategy must be selected that dresses the diameter and the side at the same time. **Error correction** Select a different dressing cycle, or set corner radius to 0
280-07EE	**Error message** FN14_2030 **Cause of error** FN14_2030 **Error correction** FN14_2030
280-07EF	**Error message** Dressing strategy: wheel edge not supported **Cause of error** The combination of dressing cycle and active wheel edge is not allowed **Error correction** Activate a different wheel edge or select a different dressing cycle

Error number	Description
280-07EF	**Error message** FN14_2031 **Cause of error** FN14_2031 **Error correction** FN14_2031
280-07F0	**Error message** Selected dressing strategy is not supported **Cause of error** A reciprocating strategy was programmed although this is not supported. A reciprocating strategy can be used only if the dressing movement consists of a straight line. A “Special grinding point” type of grinding wheel cannot be used with the “reciprocating” strategy. **Error correction** Select a different dressing strategy
280-07F0	**Error message** FN14_2032 **Cause of error** FN14_2032 **Error correction** FN14_2032
280-07F1	**Error message** Dressing mode already active, tool not allowed **Cause of error** If dressing mode (FUNCTION DRESS BEGIN) is activated before the dressing cycle, then no tool may be programmed in the dressing cycle. **Error correction** - Clear the tool number/name - Remove FUNCTION DRESS BEGIN before the dressing cycle
280-07F1	**Error message** FN14_2033 **Cause of error** FN14_2033 **Error correction** FN14_2033

Error number	Description
280-07F2	**Error message** Type of grinding wheel not allowed, not approved **Cause of error** The dressing cycle is not suitable for the selected type of grinding wheel, or has not been released yet. **Error correction** Select a different dressing cycle
280-07F2	**Error message** FN14_2034 **Cause of error** FN14_2034 **Error correction** FN14_2034
280-07F3	**Error message** Tool is not a dressing wheel or roll **Cause of error** A relationship between the cutting speeds was programmed even though the dressing tool is neither a dressing wheel nor a roll. **Error correction** - Change the type of dressing tool - Either do not program the relationship between the cutting speeds, or set it to 0
280-07F3	**Error message** FN14_2035 **Cause of error** FN14_2035 **Error correction** FN14_2035
280-07F4	**Error message** FN14_2036 **Cause of error** FN14_2036 **Error correction** FN14_2036
280-07F5	**Error message** FN14_2037 **Cause of error** FN14_2037 **Error correction** FN14_2037

Error number	Description
280-07F6	**Error message** FN14_2038 **Cause of error** FN14_2038 **Error correction** FN14_2038
280-07F7	**Error message** FN14_2039 **Cause of error** FN14_2039 **Error correction** FN14_2039
280-07F8	**Error message** Calculation of wear on dressing tool not possible **Cause of error** Measurement of a grinding tool revealed wear on the associated dressing tool. It can be determined correctly only if the tool length XL of the dressing tool is not zero. **Error correction** - Correctly define XL of the dressing tool (the dressing tool being used is defined in the tool data of the grinding wheel) - For the grinding wheel, change the correction method to "grinding wheel with correction"
280-07F8	**Error message** FN14_2040 **Cause of error** FN14_2040 **Error correction** FN14_2040
280-07F9	**Error message** Wear on dressing tool exceeds breakage tolerance **Cause of error** Measurement of a grinding tool revealed wear on the associated dressing tool. It exceeds the tool breakage tolerance RBREAK of the dressing tool. **Error correction** - Check the grinding tool for damage - Check the associated dressing tool for damage (the dressing tool being used is defined in the tool data of the grinding wheel) - Check the tool data of the associated dressing tool - For the grinding wheel, change the correction method to "grinding wheel with correction"

Error number	Description
280-07F9	**Error message** FN14_2041 **Cause of error** FN14_2041 **Error correction** FN14_2041
280-07FA	**Error message** FN14_2042 **Cause of error** FN14_2042 **Error correction** FN14_2042
280-07FB	**Error message** FN14_2043 **Cause of error** FN14_2043 **Error correction** FN14_2043
280-07FC	**Error message** FN14_2044 **Cause of error** FN14_2044 **Error correction** FN14_2044
280-07FD	**Error message** FN14_2045 **Cause of error** FN14_2045 **Error correction** FN14_2045
280-07FE	**Error message** FN14_2046 **Cause of error** FN14_2046 **Error correction** FN14_2046

Error number	Description
280-07FF	**Error message** FN14_2047 **Cause of error** FN14_2047 **Error correction** FN14_2047
280-0800	**Error message** FN14_2048 **Cause of error** FN14_2048 **Error correction** FN14_2048
280-0801	**Error message** FN14_2049 **Cause of error** FN14_2049 **Error correction** FN14_2049
280-0802	**Error message** Error in definition of the direction for the reciprocating stroke **Cause of error** The coordinate system for defining the direction of the reciprocating stroke is not defined correctly. The direction of the reciprocating stroke cannot be implemented with the configured axes. **Error correction** - Before you start, use Cycle 1000 to define the data for the reciprocating stroke. - Define the coordinate system and the vector that determines the direction of the reciprocating stroke.
280-0803	**Error message** Axes not configured for reciprocating stroke **Cause of error** Not all three linear axes have been configured for the reciprocating stroke. These three linear axes must span a three-dimensional space. **Error correction** Check the configuration of the reciprocating stroke axes: - Three linear axes must be entered in CfgChannelAxes/grindAxis. - These linear axes must be contained in CfgAxes/axisList.

Error number	Description
280-0804	**Error message** Configuration of dynamics of axes for reciprocating stroke faulty **Cause of error** Die Konfiguration für die Definition der Dynamik der Achsen für den Pendelhub ist fehlerhaft. Die Geschwindigkeit und die Beschleunigung des Pendelhubs müssen kleiner als die gesamte Dynamik der Achse sein. **Error correction** - Parametersatz der Achse für den Pendelhub kontrollieren und ggf. korrigieren: Die konfigurierte Geschwindigkeit des Pendelhubs (CfgStrokeDynamics/maxFeed) muss kleiner wie die gesamte Achsdynamik (CfgFeedLimits/maxFeed) sein. Die konfigurierte Beschleunigung des Pendelhubs (CfgStrokeDynamics/maxAcceleration) muss kleiner wie die gesamte Achsdynamik (CfgFeedLimits/maxAcceleration) sein.
280-0805	**Error message** M136 wird von Rundschleifzyklen nicht unterstützt **Cause of error** Beim Aufruf eines Rundschleifzyklus ist noch ein M136 aktiv. Dies wird nicht unterstützt. **Error correction** - M136 mit M137 deaktivieren, bevor ein Rundschleifzyklus programmiert wird
280-0806	**Error message** Werkzeugausrichtung für automatisches Anfahren unpassend **Cause of error** Als Voraussetzung für ein automatisches Anfahren müssen Werkzeug und Werkstück parallel ausgerichtet sein (Z-Komponenten von T-CS und W-CS). **Error correction** - Vor dem Aufruf des Zyklus die Rundachsen so anstellen, dass das Werkzeug und das Werkstück parallel ausgerichtet sind
280-0834	**Error message** Infeed not defined **Cause of error** Infeed not defined. The definition command for this infeed was not programmed. **Error correction** Define/program the infeed.

Error number	Description
280-0835	**Error message** Infeed direction not defined **Cause of error** Infeed direction not defined. The infeed direction is unknown. That means that the start position of the infeed is identical with the end position, and no infeed direction is known from a previous command. **Error correction** At least in the first infeed command, program an end position unequal to the starting position.
280-0836	**Error message** Undersize **Cause of error** Undersize. During grinding with a dimensional control, the control has already responded at the start of the command. This means that the diameter to be ground already has a finishing dimension or undersize. If more than one cycle is programmed in sequence with a dimensional control, it can be normal for the rough size to be too small. However, at least the last cycle must be free of such error. **Error correction** Check the workpiece / Check the setting of the dimensional control.
280-0837	**Error message** FN14_2103 **Cause of error** FN14_2103 **Error correction** FN14_2103
280-0838	**Error message** Oversize **Cause of error** Oversize. During grinding with a dimensional control, the control has not responded. This means that the diameter to be ground was not reached. The workpiece has an oversize. **Error correction** Check the workpiece / Check the setting of the dimensional control.

Error number	Description
280-0839	**Error message** FN14_2105 **Cause of error** FN14_2105 **Error correction** FN14_2105
280-083A	**Error message** Signal already active at start **Cause of error** Signal already active at start. During grinding with an external signal (probe etc.) the signal responded before the movement was started. **Error correction** Compare the workpiece dimensions with the program and correct the program if necessary.
280-083B	**Error message** FN14_2107 **Cause of error** FN14_2107 **Error correction** FN14_2107
280-083C	**Error message** Signal has not responded **Cause of error** Signal has not responded. During grinding with an external signal (probe etc.) the signal did not respond during the movement. **Error correction** Compare the workpiece dimensions with the program and correct the program if necessary.
280-083D	**Error message** FN14_2109 **Cause of error** FN14_2109 **Error correction** FN14_2109

Error number	Description
280-083E	**Error message** B axis in wrong position **Cause of error** B axis in wrong position. For a function, the B axis was expected to be in a defined position. The B axis is not in this position. **Error correction** Check the position of the B axis.
280-083F	**Error message** No grinding wheel **Cause of error** Tool to be dressed is not a grinding wheel. Only grinding wheels can be dressed. **Error correction** Check the tool type.
280-0840	**Error message** Dressing location not released **Cause of error** Dressing location has not been not released. A selected dressing location has not been not released. **Error correction** Select another dresser location.
280-0841	**Error message** Wheel edges not released **Cause of error** Backward grinding (edges 4-6) not released. The edges 4 to 6 are not released for the selected location. This means that "backward" grinding is not allowed. **Error correction** Select a wheel edge in front (1 to 3).
280-0842	**Error message** Wheel location not occupied **Cause of error** Location on wheelhead not occupied. There is no tool at the desired location. **Error correction** Select another location or tool.

Error number	Description
280-0843	**Error message** Wheel location not released **Cause of error** Location on wheelhead not released. No tool is allowed at the desired location. It is locked against occupation. **Error correction** Select another location, or release this one for occupation.
280-0844	**Error message** Dressing location not occupied **Cause of error** Dresser location is not occupied. The desired dresser attachment location is not occupied. **Error correction** Select another location or place a dressing attachment in the location.
280-0845	**Error message** T-call parameter invalid **Cause of error** Parameter during tool call is out of valid range. **Error correction** Check the tool call.
280-0846	**Error message** Wheel settings not defined **Cause of error** The settings of the grinding wheel are not defined. For certain setup functions it is expected that for a grinding wheel the settings (position of the head) have been defined/ set up. **Error correction** Define / set up the settings.
280-0847	**Error message** Wheel data not defined **Cause of error** Wheel data not captured (diameter, width, etc.). For certain setup functions it is expected that for one grinding wheel the settings (position of the head) have been defined/set up. **Error correction** Capture/set up the grinding wheel data.

Error number	Description
280-0848	**Error message** Wheel not inserted **Cause of error** The grinding wheel is not mounted. Either no grinding wheel was mounted (logical wheel location number = 0 or wheel number = 0) or you attempted to work with a wheel other than the one that was mounted. **Error correction** Use tool call to mount the wheel.
280-0849	**Error message** Wheel location changed **Cause of error** Wheel pocket changed. When the dresser was captured, the grinding wheel was at another location. **Error correction** Repeat the capture/setup of the dressing attachment.
280-084A	**Error message** Dressing location changed **Cause of error** Dressing location changed. When the wheel was evaluated, the dressing attachment was at another location. **Error correction** Repeat the evaluation/setup of the dressing attachment.
280-084C	**Error message** Feed rate not programmed **Cause of error** Feed rate not programmed.No feed rate was programmed, or it was programmed as zero. **Error correction** Program the feed rate for a velocity other than zero.
280-084D	**Error message** Wheel missing **Cause of error** Wheel missing. You tried to work with a location that is not occupied by a grinding wheel. **Error correction** Occupy the location with a grinding wheel.

Error number	Description
280-084E	**Error message** No valid tool selected **Cause of error** No valid tool selected. You tried to work with a tool that is not allowed for the current operation, or no tool is even selected. **Error correction** Select a valid tool.
280-084F	**Error message** Invalid position **Cause of error** The axes were moved between two cylindrical grinding cycles. The positions (in the input system) at the start of the cylindrical grinding cycle are not identical to the positions at the end of the previous cylindrical grinding cycle. **Error correction** Do not perform any movements between two cylindrical grinding cycles. If any movements must be performed (such as for intermediate dressing), then the initial position must be returned to (in the input system).
280-0850	**Error message** Not a valid dresser type **Cause of error** Not a valid dresser type. You tried to work with a dresser that is not allowed for the current operation, or the dresser type is not defined. **Error correction** Define/check the dresser type.
280-0852	**Error message** No event programmed **Cause of error** No event programmed. You tried to run a function for which an event (touch probe, dimensional control, etc.) has to be defined, but no event is defined. **Error correction** Define/program the event.

Error number	Description
280-0853	**Error message** Invalid event programmed **Cause of error** Invalid event programmed.An event was program that is not or not yet supported, or the event does not match the function. **Error correction** Program another event.
280-0854	**Error message** FN14_2132 **Cause of error** FN14_2132 **Error correction** FN14_2132
280-0855	**Error message** Event happened before movement **Cause of error** Event happened before movement. An event has already happened before the associated movement was started. **Error correction** Check the program. Depending on the event, however, this may be correct behavior.
280-0856	**Error message** FN14_2134 **Cause of error** FN14_2134 **Error correction** FN14_2134
280-0857	**Error message** FN14_2135 **Cause of error** FN14_2135 **Error correction** FN14_2135

Error number	Description
280-0858	**Error message** Event did not happen **Cause of error** The event did not happen. A movement with an event was programmed and the movement was completed without the event occurring. **Error correction** Check the program. Depending on the event, however, this may be correct behavior.
280-0859	**Error message** No reciprocating stroke calculated **Cause of error** The combination of the programmed values and the wheel geometry does not result in a reciprocating stroke. **Error correction** - Ensure a sufficient clearance between the stroke ends and the support point - If necessary, set parameter Q1049 "Ignore the grinding wheel geometry"
280-0859	**Error message** FN14_2137 **Cause of error** FN14_2137 **Error correction** FN14_2137
280-085A	**Error message** No swing stroke **Cause of error** No swing stroke programmed. In a swing grinding operation, no swing stroke was programmed, or the stroke was programmed as zero. **Error correction** Check the swing cycle.
280-085B	**Error message** Jig grinding, reciprocating stroke: tool axis not allowed **Cause of error** The current tool axis is not supported by reciprocation cycle 1000 **Error correction** Reciprocation cycle 1000 is possible only with X, Y, or Z as tool axis

Error number	Description
280-085B	**Error message** FN14_2139 **Cause of error** FN14_2139 **Error correction** FN14_2139
280-085C	**Error message** Jig grinding: reciprocating stroke already stopped **Cause of error** A reciprocation stop (cycle 1002) was programmed even though the reciprocation movement has already stopped. **Error correction** Check the NC program Mid-program startup, a change of operating mode, and other actions stop an active reciprocation movement
280-085C	**Error message** FN14_2140 **Cause of error** FN14_2140 **Error correction** FN14_2140
280-085D	**Error message** Jig grinding: reciprocating stroke already defined **Cause of error** A reciprocation cycle (cycle 1000) was defined even though a reciprocation cycle is already active. **Error correction** Clear the previous reciprocation cycle definition (cycle 1002) before defining a new reciprocation cycle.
280-085D	**Error message** FN14_2141 **Cause of error** FN14_2141 **Error correction** FN14_2141

Error number	Description
280-085E	**Error message** Immediate stop only permitted if reciprocation def. gets deleted **Cause of error** The parameter combination "Immediate stop" and "Do not delete reciprocation definition" is not allowed. **Error correction** Check the combination of parameter values, and correct as necessary
280-085E	**Error message** FN14_2142 **Cause of error** FN14_2142 **Error correction** FN14_2142
280-085F	**Error message** Infeed direction and taper angle are contradictory **Cause of error** The combination of Z–/Z+ as infeed direction and a taper angle of 0 degrees is not permitted. The combination of X–/X+ as infeed direction and a taper angle of +180 degrees or –180 degrees is not permitted. **Error correction** - Check the NC program: Correct the combination of the infeed direction and taper angle parameters.
280-085F	**Error message** FN14_2143 **Cause of error** FN14_2143 **Error correction** FN14_2143
280-0860	**Error message** Invalid position for reciprocation **Cause of error** The reciprocating movement goes through the rotational center of the workpiece. **Error correction** - Check the parameters for reciprocating on a taper: - Correct the taper angle, support position, and offset of the reciprocation positions to the support position

Error number	Description
280-0860	**Error message** FN14_2144 **Cause of error** FN14_2144 **Error correction** FN14_2144
280-0861	**Error message** Reciprocating stroke already active **Cause of error** Die letzte Schleifbearbeitung mit einem Pendelhub wurde nicht korrekt beendet. **Error correction** - Eine vorhergehende Schleifbearbeitung mit einem Pendelhub muss korrekt abgeschlossen werden - NC-Programm prüfen: Zyklus 1040 verwenden
280-0861	**Error message** FN14_2145 **Cause of error** FN14_2145 **Error correction** FN14_2145
280-0862	**Error message** Infeed already active **Cause of error** The last grinding operation with an infeed movement was not concluded correctly. **Error correction** - A preceding grinding operation with an infeed movement must be concluded correctly - Check the NC program: Use Cycle 1040
280-0862	**Error message** FN14_2146 **Cause of error** FN14_2146 **Error correction** FN14_2146

Error number	Description
280-0863	**Error message** Feed rate not defined for infeed **Cause of error** The feed rate for the infeed movement must be specified in the machine parameter. **Error correction** - Define the feed rate for the infeed movements: CfgGrindSettings/infeedFeed
280-0863	**Error message** FN14_2147 **Cause of error** FN14_2147 **Error correction** FN14_2147
280-0864	**Error message** Feed rate not defined for sensor **Cause of error** The feed rate for moving with a sensor must be specified in the machine parameter. **Error correction** - Define the feed rate for moving with a sensor : CfgGrindSettings/searchFeed
280-0864	**Error message** FN14_2148 **Cause of error** FN14_2148 **Error correction** FN14_2148

Error number	Description
280-0865	**Error message** No infeed, or infeed is contradictory **Cause of error** Starting and and end position of a grinding operation are identical. - Two machining cycles have the same allowance. - A combination of machining cycles with and without a dimensional controller leads to the end positions of two machining cycles being identical. The infeed direction changes within a grinding operation. - An incorrect allowance was programmed. - A combination of machining cycles with and without a dimensional controller leads to the infeed direction of two machining cycles being different. **Error correction** - Check the NC program: Compare the programmed allowance of the current machining cycle with the allowance of the previous machining cycle. - Check whether the dimensional controller was used correctly, if at all.
280-0865	**Error message** FN14_2149 **Cause of error** FN14_2149 **Error correction** FN14_2149
280-0866	**Error message** Wrong axis programmed **Cause of error** An axis was programmed that is not allowed for the present function. **Error correction** Check the program.
280-0867	**Error message** No axis programmed **Cause of error** No axis programmed. In a function that needs at least one programmed axis, no axis was programmed. **Error correction** Check the program.

Error number	Description
280-0868	**Error message** M command not allowed **Cause of error** M command not allowed. An M command was programmed that is invalid or is not allowed at this time. **Error correction** Check the program.
280-0869	**Error message** Incorrect machining mode **Cause of error** A function is being used that is not permitted in the current machining mode (FUNCTION MODE). For cylindrical grinding functions, either FUNCTION MODE GRIND or FUNCTION MODE TURN must be active. **Error correction** - Check the NC program: Set the correct machining mode (FUNCTION MODE)
280-0869	**Error message** FN14_2153 **Cause of error** FN14_2153 **Error correction** FN14_2153
280-086A	**Error message** Tool orientation is not supported **Cause of error** A tool orientation (edge) of the grinding wheel was selected that is not supported by the cycle. **Error correction** - Check the NC program: Use Cycle 1030 to select an appropriate tool orientation (edge)
280-086A	**Error message** FN14_2154 **Cause of error** FN14_2154 **Error correction** FN14_2154

Error number	Description
280-086B	**Error message** A 104x definition cycle needs to be the first grinding cycle **Cause of error** The sequence of the grinding cycles (cylindrical grinding) is not correct. **Error correction** - Check the NC program: Pay attention to the sequence of the grinding cycles for cylindrical grinding 1st: Definition cycle 2nd: Machining cycles 3rd: Conclusion cycle
280-086B	**Error message** FN14_2155 **Cause of error** FN14_2155 **Error correction** FN14_2155
280-086C	**Error message** Sequence of cycles is faulty or not supported **Cause of error** An unsupported combination of cylindrical grinding cycles is being used. **Error correction** Check the NC program: - Check the sequence of the cylindrical grinding cycles - Check the combination of the definition cycle and machining cycles - The machining cycle must be appropriate for the infeed axis
280-086C	**Error message** FN14_2156 **Cause of error** FN14_2156 **Error correction** FN14_2156

Error number	Description
280-086D	**Error message** Inclination angle cannot be determined **Cause of error** The control calculates the necessary inclination angle of the grinding tool for the current grinding operation. It depends on the following parameters: - Type of grinding wheel - Infeed direction - Taper angle - Inside or outside machining The control could not calculate the necessary inclination angle from the current combination of these parameters. **Error correction** Check the NC program: - Correct the combination of the relevant parameters - Manually set the necessary inclination angle in the definition cycle for the grinding operation
280-086D	**Error message** FN14_2157 **Cause of error** FN14_2157 **Error correction** FN14_2157
280-086E	**Error message** FN14_2158 **Cause of error** FN14_2158 **Error correction** FN14_2158
280-086F	**Error message** FN14_2159 **Cause of error** FN14_2159 **Error correction** FN14_2159
280-0870	**Error message** Pitch <= 0 **Cause of error** Thread grinding: Pitch <= 0. For thread grinding, the pitch must be greater than 0. **Error correction** Correct the parameter.

Error number	Description
280-0871	**Error message** Rotational speed = 0 **Cause of error** Thread grinding: Rotational speed = 0. For thread grinding, the rotational speed must not be 0. **Error correction** Correct the parameter.
280-0872	**Error message** Cutting length = 0 **Cause of error** Thread plunge grinding: Cutting length = 0. For thread plunging, the cutting length must not be 0. **Error correction** Correct the parameter.
280-0873	**Error message** Velocity = 0 **Cause of error** Thread plunge grinding: Velocity Ve, Vm or Vk = 0. For thread plunging, none of the three velocities can be zero. **Error correction** Correct the parameter.
280-0874	**Error message** Signs differ **Cause of error** Thread plunge grinding: Different signs for E, M and K. For thread plunge grinding, the algebraic signs of the parameters E, M and K must be identical. **Error correction** Correct the parameter.
280-0875	**Error message** Pitch = 0 **Cause of error** Thread plunge grinding: Thread depth = 0. For thread plunging, the thread depth must not be 0. **Error correction** Correct the parameter.

Error number	Description
280-0876	**Error message** FN14_2166 **Cause of error** FN14_2166 **Error correction** FN14_2166
280-0877	**Error message** FN14_2167 **Cause of error** FN14_2167 **Error correction** FN14_2167
280-0878	**Error message** FN14_2168 **Cause of error** FN14_2168 **Error correction** FN14_2168
280-0879	**Error message** FN14_2169 **Cause of error** FN14_2169 **Error correction** FN14_2169
280-087A	**Error message** FN14_2170 **Cause of error** FN14_2170 **Error correction** FN14_2170
280-087B	**Error message** FN14_2171 **Cause of error** FN14_2171 **Error correction** FN14_2171

Error number	Description
280-087C	**Error message** FN14_2172 **Cause of error** FN14_2172 **Error correction** FN14_2172
280-087D	**Error message** FN14_2173 **Cause of error** FN14_2173 **Error correction** FN14_2173
280-087E	**Error message** FN14_2174 **Cause of error** FN14_2174 **Error correction** FN14_2174
280-087F	**Error message** FN14_2175 **Cause of error** FN14_2175 **Error correction** FN14_2175
280-0880	**Error message** FN14_2176 **Cause of error** FN14_2176 **Error correction** FN14_2176
280-0881	**Error message** FN14_2177 **Cause of error** FN14_2177 **Error correction** FN14_2177

Error number	Description
280-0882	**Error message** FN14_2178 **Cause of error** FN14_2178 **Error correction** FN14_2178
280-0883	**Error message** FN14_2179 **Cause of error** FN14_2179 **Error correction** FN14_2179
280-0884	**Error message** Block scan over probe functions not allowed **Cause of error** Block scan over probe functions not allowed. A block scan was started over a block with a probe function. **Error correction** Run the block without block scan. Touch probe functions cannot be run in block scan.
280-0885	**Error message** Command not allowed during block scan **Cause of error** Command not allowed during block scan. A command or cycle cannot be run in block scan. **Error correction** Run the block without block scan. Some commands cannot be run in block scan.
280-0886	**Error message** Command not executed due to block scan **Cause of error** Command not executed due to block scan. A command or cycle was not run due to in block scan. **Error correction** None

Error number	Description
280-0887	**Error message** Measuring function not executed due to block scan **Cause of error** Measuring function not executed due to block scan. A command or cycle containing a measuring function was not run due to block scan. **Error correction** None
280-0888	**Error message** Elimination of air grinding was not executed due to block scan **Cause of error** Elimination of air grinding was not executed due to block scan. A command or cycle containing the "Eliminate air grinding" function was not run due to block scan. **Error correction** None
280-0889	**Error message** Block scan is not possible on this block **Cause of error** Block scan is not possible on this block. The control does not support a block scan on the selected block. **Error correction** Select a block scan on another block.
280-088A	**Error message** FN14_2186 **Cause of error** FN14_2186 **Error correction** FN14_2186
280-088B	**Error message** FN14_2187 **Cause of error** FN14_2187 **Error correction** FN14_2187

Error number	Description
280-088C	**Error message** FN14_2188 **Cause of error** FN14_2188 **Error correction** FN14_2188
280-088D	**Error message** FN14_2189 **Cause of error** FN14_2189 **Error correction** FN14_2189
280-088E	**Error message** Command not allowed in the simulation **Cause of error** Command not allowed in simulation. The command is not supported by the control in the simulation. **Error correction** Do not use the command in the simulation.
280-088F	**Error message** FN14_2191 **Cause of error** FN14_2191 **Error correction** FN14_2191
280-0890	**Error message** FN14_2192 **Cause of error** FN14_2192 **Error correction** FN14_2192
280-0891	**Error message** FN14_2193 **Cause of error** FN14_2193 **Error correction** FN14_2193

Error number	Description
280-0892	**Error message** FN14_2194 **Cause of error** FN14_2194 **Error correction** FN14_2194
280-0893	**Error message** FN14_2195 **Cause of error** FN14_2195 **Error correction** FN14_2195
280-0894	**Error message** FN14_2196 **Cause of error** FN14_2196 **Error correction** FN14_2196
280-0895	**Error message** FN14_2197 **Cause of error** FN14_2197 **Error correction** FN14_2197
280-0896	**Error message** FN14_2198 **Cause of error** FN14_2198 **Error correction** FN14_2198
280-0897	**Error message** FN14_2199 **Cause of error** FN14_2199 **Error correction** FN14_2199

Error number	Description
280-0898	**Error message** No safety clearance at diameter **Cause of error** No safety clearance at diameter. No safety clearance was programmed at the diameter of the grinding wheel. When the dresser approaches the grinding wheel, it moves toward the wheel edge up to a safety clearance. To ensure that the diamond does not touch the wheel at this position, the safety clearance must be at least as large as half the dresser width. **Error correction** Define a safety clearance at the diameter.
280-0899	**Error message** No safety clearance on the outside **Cause of error** No safety clearance on the outside. No safety clearance was programmed at the outer side of the grinding wheel. When the dresser approaches the grinding wheel, it moves toward the wheel edge up to a safety clearance. To ensure that the diamond does not touch the wheel at this position, the safety clearance must be at least as large as half the dresser width. **Error correction** Define a safety clearance on the outer side.
280-089A	**Error message** No safety clearance on the inside **Cause of error** No safety clearance on the inner side. No safety clearance was programmed at the inner side of the grinding wheel. When the dresser approaches the grinding wheel, it moves toward the wheel edge up to a safety clearance. To ensure that the diamond does not touch the wheel at this position, the safety clearance must be at least as large as half the dresser width. **Error correction** Define a safety clearance on the inner side.

Error number	Description
280-089B	**Error message** Dresser too wide **Cause of error** Dresser too wide (safety clearance too small). When the dresser approaches the grinding wheel, it moves toward the wheel edge up to a safety clearance. To ensure that the diamond does not touch the wheel at this position, the safety clearance must be at least as large as half the dresser width. **Error correction** Check the safety clearances.
280-089C	**Error message** Insufficient diameter **Cause of error** Wheel diameter is too small. The wheel has less than the minimum permissible diameter. The minimum diameter requirement might have been violated during dressing or in a corresponding entry during setup. **Error correction** Correct the entry or adjust the minimum wheel diameter. You might have to insert another wheel.
280-089D	**Error message** Insufficient width **Cause of error** Wheel width is too small. The wheel has less than the minimum permissible width. The minimum width requirement might have been violated during dressing or in a corresponding entry during setup. **Error correction** Correct the entry or adjust the minimum wheel width. You might have to insert another wheel.
280-089E	**Error message** Outer side of wheel incorrect **Cause of error** Outer side of wheel incorrect. Incorrect values or incorrect combination of parameters that define the outer side of the wheel. **Error correction** Check the parameters of the outer side of the wheel.

Error number	Description
280-089F	**Error message** Inner side of wheel incorrect **Cause of error** Inner side of wheel incorrect. Incorrect values or incorrect combination of parameters that define the inner side of the wheel. **Error correction** Check the parameters of the inner side of the wheel.
280-08A0	**Error message** FN14_2208 **Cause of error** FN14_2208 **Error correction** FN14_2208
280-08A0	**Error message** Dressing roller violates retraction amounts **Cause of error** The cutter width of the dressing roller is greater than the width and retraction amounts AA and AI of the grinding wheel together. Cycle 1018: An edge of the dresser is outside of the retraction amounts AA or AI of the grinding wheel. **Error correction** - Check the retraction amounts of the grinding wheel - Cycle 1018: Also check the center offset
280-08A1	**Error message** FN14_2209 **Cause of error** FN14_2209 **Error correction** FN14_2209

Error number	Description
280-08A1	**Error message** Overlapping not possible **Cause of error** In Q1028, an overlap was programmed that is not possible or for which the conditions have not been met. - Unsuitable dressing tool: only dressing tools with a defined width are suitable. - The dressing tool width is less than the width of the grinding wheel. - The retraction values of the grinding wheel are too small. **Error correction** - Select a suitable dressing tool whose width is greater than that of the grinding wheel - Select large enough retraction values for the grinding wheel - Do not use the optional parameter Q1028
280-08A2	**Error message** Intermed. dressing not allowed **Cause of error** Intermediate dressing not allowed. Intermediate dressing is not allowed in the present condition of the machine, or no dressing is defined in the running program. **Error correction** Define dressing in the program.
280-08A3	**Error message** FN14_2211 **Cause of error** FN14_2211 **Error correction** FN14_2211
280-08A4	**Error message** FN14_2212 **Cause of error** FN14_2212 **Error correction** FN14_2212
280-08A5	**Error message** FN14_2213 **Cause of error** FN14_2213 **Error correction** FN14_2213

Error number	Description
280-08A6	**Error message** FN14_2214 **Cause of error** FN14_2214 **Error correction** FN14_2214
280-08A7	**Error message** FN14_2215 **Cause of error** FN14_2215 **Error correction** FN14_2215
280-08A8	**Error message** FN14_2216 **Cause of error** FN14_2216 **Error correction** FN14_2216
280-08A9	**Error message** FN14_2217 **Cause of error** FN14_2217 **Error correction** FN14_2217
280-08AA	**Error message** FN14_2218 **Cause of error** FN14_2218 **Error correction** FN14_2218
280-08AB	**Error message** FN14_2219 **Cause of error** FN14_2219 **Error correction** FN14_2219

Error number	Description
280-08AC	**Error message** FN14_2220 **Cause of error** FN14_2220 **Error correction** FN14_2220
280-08AC	**Error message** Wheel edge geometry not supported **Cause of error** Dressing cycle and grinding wheel geometry do not match. **Error correction** - Check the wheel geometry - Select a different dressing cycle
280-08AD	**Error message** FN14_2221 **Cause of error** FN14_2221 **Error correction** FN14_2221
280-08AD	**Error message** Invalid shape of grinding wheel on the outer side **Cause of error** An invalid wheel shape was defined for the outer side of the grinding wheel **Error correction** - Check the wheel shape defined for the outer side - Check the combination of grinding wheel parameters for the outer side
280-08AE	**Error message** FN14_2222 **Cause of error** FN14_2222 **Error correction** FN14_2222

Error number	Description
280-08AE	**Error message** Invalid shape of grinding wheel on the inner side **Cause of error** An invalid wheel shape was defined for the inner side of the grinding wheel **Error correction** - Check the wheel shape defined for the inner side - Check the combination of grinding wheel parameters for the inner side
280-08AF	**Error message** FN14_2223 **Cause of error** FN14_2223 **Error correction** FN14_2223
280-08AF	**Error message** Depth of grinding wheel too large **Cause of error** The depth of the grinding wheel is greater than its radius. This can be caused by dressing. **Error correction** Check the depth of the grinding wheel
280-08B0	**Error message** FN14_2224 **Cause of error** FN14_2224 **Error correction** FN14_2224
280-08B0	**Error message** Dimension of grinding wheel negative **Cause of error** A grinding wheel parameter has become negative. This can be caused by dressing. **Error correction** Check the grinding wheel parameters
280-08B1	**Error message** FN14_2225 **Cause of error** FN14_2225 **Error correction** FN14_2225

Error number	Description
280-08B1	**Error message** Minimum value of grinding wheel radius not reached **Cause of error** The current radius of the grinding wheel is smaller than the minimum permissible radius. This can be caused by dressing. **Error correction** Check the grinding wheel parameters
280-08B2	**Error message** FN14_2226 **Cause of error** FN14_2226 **Error correction** FN14_2226
280-08B3	**Error message** FN14_2227 **Cause of error** FN14_2227 **Error correction** FN14_2227
280-08B4	**Error message** FN14_2228 **Cause of error** FN14_2228 **Error correction** FN14_2228
280-08B5	**Error message** FN14_2229 **Cause of error** FN14_2229 **Error correction** FN14_2229
280-08B6	**Error message** FN14_2230 **Cause of error** FN14_2230 **Error correction** FN14_2230

Error number	Description
280-08B7	**Error message** FN14_2231 **Cause of error** FN14_2231 **Error correction** FN14_2231
280-08B8	**Error message** FN14_2232 **Cause of error** FN14_2232 **Error correction** FN14_2232
280-08B9	**Error message** FN14_2233 **Cause of error** FN14_2233 **Error correction** FN14_2233
280-08BA	**Error message** FN14_2234 **Cause of error** FN14_2234 **Error correction** FN14_2234
280-08BB	**Error message** FN14_2235 **Cause of error** FN14_2235 **Error correction** FN14_2235
280-08BC	**Error message** FN14_2236 **Cause of error** FN14_2236 **Error correction** FN14_2236

Error number	Description
280-08BD	**Error message** FN14_2237 **Cause of error** FN14_2237 **Error correction** FN14_2237
280-08BE	**Error message** FN14_2238 **Cause of error** FN14_2238 **Error correction** FN14_2238
280-08BF	**Error message** FN14_2239 **Cause of error** FN14_2239 **Error correction** FN14_2239
280-08C0	**Error message** FN14_2240 **Cause of error** FN14_2240 **Error correction** FN14_2240
280-08C1	**Error message** FN14_2241 **Cause of error** FN14_2241 **Error correction** FN14_2241
280-08C2	**Error message** FN14_2242 **Cause of error** FN14_2242 **Error correction** FN14_2242

Error number	Description
280-08C3	**Error message** FN14_2243 **Cause of error** FN14_2243 **Error correction** FN14_2243
280-08C4	**Error message** FN14_2244 **Cause of error** FN14_2244 **Error correction** FN14_2244
280-08C5	**Error message** FN14_2245 **Cause of error** FN14_2245 **Error correction** FN14_2245
280-08C6	**Error message** FN14_2246 **Cause of error** FN14_2246 **Error correction** FN14_2246
280-08C7	**Error message** FN14_2247 **Cause of error** FN14_2247 **Error correction** FN14_2247
280-08C8	**Error message** FN14_2248 **Cause of error** FN14_2248 **Error correction** FN14_2248

Error number	Description
280-08C9	**Error message** FN14_2249 **Cause of error** FN14_2249 **Error correction** FN14_2249
280-08CA	**Error message** FN14_2250 **Cause of error** FN14_2250 **Error correction** FN14_2250
280-08CB	**Error message** FN14_2251 **Cause of error** FN14_2251 **Error correction** FN14_2251
280-08CC	**Error message** FN14_2252 **Cause of error** FN14_2252 **Error correction** FN14_2252
280-08CD	**Error message** FN14_2253 **Cause of error** FN14_2253 **Error correction** FN14_2253
280-08CE	**Error message** FN14_2254 **Cause of error** FN14_2254 **Error correction** FN14_2254

Error number	Description
280-08CF	**Error message** FN14_2255 **Cause of error** FN14_2255 **Error correction** FN14_2255
280-08D0	**Error message** FN14_2256 **Cause of error** FN14_2256 **Error correction** FN14_2256
280-08D1	**Error message** FN14_2257 **Cause of error** FN14_2257 **Error correction** FN14_2257
280-08D2	**Error message** FN14_2258 **Cause of error** FN14_2258 **Error correction** FN14_2258
280-08D3	**Error message** FN14_2259 **Cause of error** FN14_2259 **Error correction** FN14_2259
280-08D4	**Error message** FN14_2260 **Cause of error** FN14_2260 **Error correction** FN14_2260

Error number	Description
280-08D5	**Error message** FN14_2261 **Cause of error** FN14_2261 **Error correction** FN14_2261
280-08D6	**Error message** FN14_2262 **Cause of error** FN14_2262 **Error correction** FN14_2262
280-08D7	**Error message** FN14_2263 **Cause of error** FN14_2263 **Error correction** FN14_2263
280-08D8	**Error message** FN14_2264 **Cause of error** FN14_2264 **Error correction** FN14_2264
280-08D9	**Error message** FN14_2265 **Cause of error** FN14_2265 **Error correction** FN14_2265
280-08DA	**Error message** FN14_2266 **Cause of error** FN14_2266 **Error correction** FN14_2266

Error number	Description
280-08DB	**Error message** FN14_2267 **Cause of error** FN14_2267 **Error correction** FN14_2267
280-08DC	**Error message** FN14_2268 **Cause of error** FN14_2268 **Error correction** FN14_2268
280-08DD	**Error message** FN14_2269 **Cause of error** FN14_2269 **Error correction** FN14_2269
280-08DE	**Error message** FN14_2270 **Cause of error** FN14_2270 **Error correction** FN14_2270
280-08DF	**Error message** FN14_2271 **Cause of error** FN14_2271 **Error correction** FN14_2271
280-08E0	**Error message** FN14_2272 **Cause of error** FN14_2272 **Error correction** FN14_2272

Error number	Description
280-08E1	**Error message** FN14_2273 **Cause of error** FN14_2273 **Error correction** FN14_2273
280-08E2	**Error message** FN14_2274 **Cause of error** FN14_2274 **Error correction** FN14_2274
280-08E3	**Error message** FN14_2275 **Cause of error** FN14_2275 **Error correction** FN14_2275
280-08E4	**Error message** FN14_2276 **Cause of error** FN14_2276 **Error correction** FN14_2276
280-08E5	**Error message** FN14_2277 **Cause of error** FN14_2277 **Error correction** FN14_2277
280-08E6	**Error message** FN14_2278 **Cause of error** FN14_2278 **Error correction** FN14_2278

Error number	Description
280-08E7	**Error message** FN14_2279 **Cause of error** FN14_2279 **Error correction** FN14_2279
280-08E8	**Error message** FN14_2280 **Cause of error** FN14_2280 **Error correction** FN14_2280
280-08E9	**Error message** FN14_2281 **Cause of error** FN14_2281 **Error correction** FN14_2281
280-08EA	**Error message** FN14_2282 **Cause of error** FN14_2282 **Error correction** FN14_2282
280-08EB	**Error message** FN14_2283 **Cause of error** FN14_2283 **Error correction** FN14_2283
280-08EC	**Error message** FN14_2284 **Cause of error** FN14_2284 **Error correction** FN14_2284

Error number	Description
280-08ED	**Error message** FN14_2285 **Cause of error** FN14_2285 **Error correction** FN14_2285
280-08EE	**Error message** FN14_2286 **Cause of error** FN14_2286 **Error correction** FN14_2286
280-08EF	**Error message** FN14_2287 **Cause of error** FN14_2287 **Error correction** FN14_2287
280-08F0	**Error message** FN14_2288 **Cause of error** FN14_2288 **Error correction** FN14_2288
280-08F1	**Error message** FN14_2289 **Cause of error** FN14_2289 **Error correction** FN14_2289
280-08F2	**Error message** FN14_2290 **Cause of error** FN14_2290 **Error correction** FN14_2290

Error number	Description
280-08F3	**Error message** FN14_2291 **Cause of error** FN14_2291 **Error correction** FN14_2291
280-08F4	**Error message** FN14_2292 **Cause of error** FN14_2292 **Error correction** FN14_2292
280-08F5	**Error message** FN14_2293 **Cause of error** FN14_2293 **Error correction** FN14_2293
280-08F6	**Error message** FN14_2294 **Cause of error** FN14_2294 **Error correction** FN14_2294
280-08F7	**Error message** FN14_2295 **Cause of error** FN14_2295 **Error correction** FN14_2295
280-08F8	**Error message** FN14_2296 **Cause of error** FN14_2296 **Error correction** FN14_2296

Error number	Description
280-08F9	**Error message** FN14_2297 **Cause of error** FN14_2297 **Error correction** FN14_2297
280-08FA	**Error message** FN14_2298 **Cause of error** FN14_2298 **Error correction** FN14_2298
280-08FB	**Error message** FN14_2299 **Cause of error** FN14_2299 **Error correction** FN14_2299
280-08FC	**Error message** FN22 command faulty **Cause of error** Error from system function: An FN22 command resulted in an error. **Error correction** Cancel the program, correct the parameter of the FN22, and restart.
280-08FD	**Error message** Parameter block does not exist **Cause of error** Parameter block does not exist You tried to activate a nonexistent parameter block for an axis. **Error correction** Select an existing parameter block.
280-08FE	**Error message** Command not allowed **Cause of error** Command not allowed This command is not supported by the control. **Error correction** Do not use the command

Error number	Description
280-08FF	**Error message** Command not allowed at this point **Cause of error** Command not allowed at this point A command supported by the control was used in the wrong context or with the wrong condition of the control. This could be, for example, a grinding command within a dressing program. **Error correction** Check/correct the program
280-0900	**Error message** FN14_2304 **Cause of error** FN14_2304 **Error correction** FN14_2304
280-0901	**Error message** FN14_2305 **Cause of error** FN14_2305 **Error correction** FN14_2305
280-0902	**Error message** FN14_2306 **Cause of error** FN14_2306 **Error correction** FN14_2306
280-0903	**Error message** FN14_2307 **Cause of error** FN14_2307 **Error correction** FN14_2307
280-0904	**Error message** FN14_2308 **Cause of error** FN14_2308 **Error correction** FN14_2308

Error number	Description
280-0905	**Error message** FN14_2309 **Cause of error** FN14_2309 **Error correction** FN14_2309
280-0906	**Error message** FN14_2310 **Cause of error** FN14_2310 **Error correction** FN14_2310
280-0907	**Error message** FN14_2311 **Cause of error** FN14_2311 **Error correction** FN14_2311
280-0908	**Error message** FN14_2312 **Cause of error** FN14_2312 **Error correction** FN14_2312
280-0909	**Error message** FN14_2313 **Cause of error** FN14_2313 **Error correction** FN14_2313
280-090A	**Error message** FN14_2314 **Cause of error** FN14_2314 **Error correction** FN14_2314

Error number	Description
280-090B	**Error message** FN14_2315 **Cause of error** FN14_2315 **Error correction** FN14_2315
280-090C	**Error message** FN14_2316 **Cause of error** FN14_2316 **Error correction** FN14_2316
280-090D	**Error message** FN14_2317 **Cause of error** FN14_2317 **Error correction** FN14_2317
280-090E	**Error message** FN14_2318 **Cause of error** FN14_2318 **Error correction** FN14_2318
280-090F	**Error message** FN14_2319 **Cause of error** FN14_2319 **Error correction** FN14_2319
280-0910	**Error message** FN14_2320 **Cause of error** FN14_2320 **Error correction** FN14_2320

Error number	Description
280-0911	**Error message** FN14_2321 **Cause of error** FN14_2321 **Error correction** FN14_2321
280-0912	**Error message** FN14_2322 **Cause of error** FN14_2322 **Error correction** FN14_2322
280-0913	**Error message** FN14_2323 **Cause of error** FN14_2323 **Error correction** FN14_2323
280-0914	**Error message** FN14_2324 **Cause of error** FN14_2324 **Error correction** FN14_2324
280-0915	**Error message** FN14_2325 **Cause of error** FN14_2325 **Error correction** FN14_2325
280-0916	**Error message** FN14_2326 **Cause of error** FN14_2326 **Error correction** FN14_2326

Error number	Description
280-0917	**Error message** Non-circular channel not active **Cause of error** Non-circular channel not active A command was programmed that expects an active non-circular channel (non-circular program). **Error correction** Check/correct the program
280-0918	**Error message** Non-circ. channel still active **Cause of error** Non-circular channel still active A command was programmed that is not allowed with an active non-circular channel. This could be, for example, an M3, M4 or M5. **Error correction** Check/correct the program
280-0919	**Error message** Command only allowed in non-circular channel **Cause of error** Command only allowed in non-circular channel A command was programmed in a normal program that is allowed only in a contour program (non-circular program). A contour program (non-circular program) was started as a normal program. **Error correction** Check/correct the program Start the non-circular program by means of a cycle and not in full sequence/single block
280-091A	**Error message** Incorrect contour command **Cause of error** Incorrect contour command: The sequence of commands (Cycles 175, 178, 179) is not suited for running a contour program. For example, a contour program is started although none was loaded. **Error correction** Check the sequence of the commands 175, 178 and 179.
280-091B	**Error message** Error in contour machining **Cause of error** Error in contour machining. **Error correction**

Error number	Description
280-091C	**Error message** Contour program faulty **Cause of error** Contour program error: A Cycle 176 was programmed at the beginning of a contour program (noncircular contour). There is an error in the combination of possible parameters. **Error correction** Check the parameters of Cycle 176 in the contour program.
280-092F	**Error message** Tool axis X, Y, Z permitted **Cause of error** Only X, Y, and Z are possible as tool axes **Error correction**
280-0930	**Error message** Starting spindle angle missing **Cause of error** For the imaging of tools, at least the spindle angle of one tooth must be known. **Error correction** - Run TCH PROBE Cycle 624 in order to determine the tooth angles - Enter the spindle angle in the VTC-TOOLS.TAB table
280-0931	**Error message** Max. tilt angle exceeded **Cause of error** The maximum tilting angle of the probe contact was exceeded. **Error correction** Check the setup of the probe contact, and correct it if required. The tilting angle of the probe contact must be within the prescribed limits of both axes.
280-0932	**Error message** Spindle speed not possible **Cause of error** The spindle shaft speed cannot be set for the panorama image. **Error correction** - Please contact your machine manufacturer

Error number	Description
280-0933	**Error message** Spindle speed not possible **Cause of error** The spindle shaft speed cannot be set for the breakage control. **Error correction** - Please contact your machine tool builder
280-0934	**Error message** Camera data faulty **Cause of error** Incorrect internal camera data. Caution: Collisions are possible when running the VTC cycles! **Error correction** - Please contact HEIDENHAIN
280-0935	**Error message** Spindle angle unknown **Cause of error** The spindle angles of the tool teeth have not been determined yet. **Error correction** - Run VTC Cycle 624 - Or enter the angles in the TNC:\table\VTC-TOOLS.TAB table
280-0936	**Error message** Option for panorama image is missing **Cause of error** The VTC option for panorama images is not enabled **Error correction** - Consult your contact person at HEIDENHAIN
280-0937	**Error message** Spindle name? **Cause of error** The spindle designation is missing or unknown. **Error correction** - Enter the spindle name in the table PLC:\VTC\VTC.TAB

Error number	Description
280-0938	**Error message** Error in VTC.TAB **Cause of error** Entries in the table PLC:\VTC\VTC.TAB are incorrect: - An entry is missing from the feed rate fields - Both FMAX and a numerical value were entered for a feed rate - An incorrect string was entered instead of FMAX **Error correction** Check VTC.TAB and enter the values correctly
280-093A	**Error message** Excessive number of teeth **Cause of error** The permissible quantity of tool teeth was exceeded. Tools with no more than 32 teeth can be inspected. **Error correction**
280-093B	**Error message** Incorrect VTC API version **Cause of error** The camera cycles do not match the programming interface of the VTC application **Error correction** - Inform your service agency
280-093C	**Error message** Impermissible character in job name **Cause of error** An impermissible character was entered for the job name in the Q string QS620. **Error correction** - Edit the NC program - Check whether any special characters, such as ?, ; , or a blank have been entered
280-093E	**Error message** Incorrect value for contact angle at R2 **Cause of error** The value for the contact angle is always positive and is limited to 0..90 degrees. **Error correction** - Check the NC program and correct it

Error number	Description
280-0940	**Error message** Contact angle of 0 degrees is not permitted **Cause of error** For spherical and toroid cutters, a value of 0 degrees is not permitted for the contact angle. **Error correction** - Correct the value in parameter Q629
280-0941	**Error message** Cycle cannot be used with drilling tools **Cause of error** Detection of the cutting edge angle cannot be used for drilling tools. Individual teeth of drilling tools cannot be detected with camera 1. **Error correction**
280-0942	**Error message** Approaching/tilting to camera not possible **Cause of error** The contact point on the cutter cannot be moved to the camera's focus point. Preconditions or possible causes: - Table kinematics and angle heads are not supported - The tool axis must be the Z axis - Swivel head orientations greater than 45 degrees from the zero position are not possible - Distance of at least 5 mm to the camera glass cannot be maintained **Error correction**
280-0943	**Error message** Value not in permitted range **Cause of error** The value for the contact angle must be within the range 0 to 90 degrees. **Error correction** Change the numerical value in the cycle
280-0944	**Error message** Error in table VTC-TOOLS.TAB **Cause of error** The entry for the contact angle is missing from the table. **Error correction** Correct the table by entering a value for the contact angle

Error number	Description
280-0945	**Error message** Tool contact angle Q629 doesn't equal 0 **Cause of error** For cylindrical milling cutters and drills the value for the tool contact angle Q629 must equal 0 **Error correction** - Edit the NC program
280-0946	**Error message** Selection of view in Q622 doesn't equal 0 **Cause of error** When using Camera 2, Q622 must equal 0 **Error correction** - Edit the NC program
292-0001	**Error message** Look-ahead: internal software error **Cause of error** **Error correction** Inform your service agency.
292-0002	**Error message** ProfilePool: internal software error **Cause of error** **Error correction** Inform your service agency.
292-0003	**Error message** ProfilePool: internal software error **Cause of error** **Error correction** Inform your service agency.
292-0004	**Error message** ProfilePool: internal software error **Cause of error** **Error correction** Inform your service agency.
292-0005	**Error message** Look-ahead: internal software error **Cause of error** **Error correction** Inform your service agency.

Error number	Description
292-0006	**Error message** Thread cutting: Spindle synchronized too late (distance, position controller) **Cause of error** During thread cutting with controlled spindle, the control could not synchronize the spindle soon enough. **Error correction** 1.) Increase the safety clearance 2.) Check the position control loop (kv factor and tolerance window)
292-0007	**Error message** Axes switched while in motion **Cause of error** - Result of emergency stop during movement - Clamping operation was switched while the axis was in motion - Axis was switched off while in motion **Error correction** - If you suspect a PLC error, contact your machine tool builder.
292-0008	**Error message** Incorrect sequence of contour machining **Cause of error** You used an illegal combination of contour machining commands. **Error correction** Correct the NC program
292-0009	**Error message** %1 **Cause of error** **Error correction**
292-000A	**Error message** Parameters for contour machining not allowed **Cause of error** Control commands for non cylindrical machining are not supported (FN22 FNR720). **Error correction** Inform your service agency

Error number	Description
292-000B	**Error message** Clamping mode switched too early **Cause of error** - PLC program has reset PP_AxClampModeRequest (W1038) too early, even before the drives were switched back on. **Error correction** - Inform your machine tool builder.
292-000C	**Error message** System error: No feed rate **Cause of error** A movement without feed rate occurred for no apparent reason. **Error correction** Inform your machine tool builder.
292-000D	**Error message** No spindle available for feed per revolution! **Cause of error** No spindle is available for the tool. **Error correction** Correct the kinematic configuration / switch off M14
292-000E	**Error message** New start after immediate stop of noncylindr. contour not allowed **Cause of error** If the noncylindrical contour was stopped with G179 STOPP=1, a new start with G178 is not allowed. **Error correction** Delete the complete noncylindrical contour with G179 STOPP=3 and reload.
292-000F	**Error message** Noncircular program too long for RAM **Cause of error** The current noncircular program is too long. Not enough free RAM is available to run the program. **Error correction** Correct or reduce the NC program.

Error number	Description
292-0010	**Error message** CMO is not in the current kinematic description **Cause of error** You tried to activate or deactivate a collision monitored object (CMO) for monitoring. The control cannot fine the CMO in the currently selected kinematics. **Error correction** Correct the name of the CMO to be activated or deactivated.
292-0011	**Error message** Tool is not monitored for collisions **Cause of error** The selected tool has the value zero or a negative value as the radius or length. There will be no monitoring for collisions. **Error correction**
292-0012	**Error message** Tool is not allowed for collision monitoring **Cause of error** You have inserted a tool that cannot be monitored for collision by DCM (e.g. a non-cylindrical tool). **Error correction** Please use another tool.
292-0013	**Error message** General system error in the collision monitoring **Cause of error** A general system error has occurred in the collision monitoring. **Error correction** Inform your service agency.
292-0014	**Error message** DCM: %1 **Cause of error** Dynamic collision monitoring (DCM) stopped the program in order to avoid a collision. **Error correction**

Error number	Description
292-0015	**Error message** Spindle turning too fast **Cause of error** The axis cannot follow because the spindle is turning too fast for the programmed thread. **Error correction** Decrease the spindle speed.
292-0016	**Error message** DCM inactive: Axis has not yet been homed **Cause of error** DCM is inactive because one or more axes have no reference. **Error correction** Do a reference run in the axes
292-0017	**Error message** DCM inactive: RTC (Real Time Coupling) activated **Cause of error** DCM is inactive because for one or more axes the real-time coupling function is active (RTC). **Error correction** Cancel the real-time couplings (RTC)
292-0019	**Error message** Axes have not been homed, although DCM is active **Cause of error** Axes were not yet moved over the reference marks and DCM is switched on. The NC program run was aborted. **Error correction** - Deactivate DCM if non-referenced axes are used
292-001A	**Error message** Lagged axes with active DCM **Cause of error** In the current NC program, an axis is moved in the following error mode while the DCM collision monitoring is active. The collision monitoring of axes with following error is not supported. The NC program run was aborted. **Error correction** - Edit the NC program, use FUNCTION DCM to deactivate DCM, or - Use the soft key to switch DCM off

Error number	Description
292-001B	**Error message** Thread cutting: Spindle synchronization aborted! **Cause of error** During tapping with servo-controlled spindle, the movement was interrupted during spindle synchronization. The tool axis did not come to a stop until after reaching the safety clearance, although the spindle is still turning. **Error correction** - Check the tool and workpiece for possible damage. - Generate the service file and inform your service agency
292-001D	**Error message** DCM inactive: Facing-slide kinematics are activated **Cause of error** DCM collision monitoring is inactive because a facing slide kinematic model was activated. **Error correction** - Deactivate the facing slide kinematics again.
292-001E	**Error message** Facing slide activated with active DCM **Cause of error** The facing slide was activated and collision monitoring (DCM) is switched on. The NC program run was aborted. **Error correction** - Deactivate DCM, if a facing slide is used.
292-001F	**Error message** Deactivate handwheel for axis %1 **Cause of error** The control waits for automatic clamping of this axis. The activated handwheel is preventing this clamping. **Error correction** Disable the handwheel for this axis
292-0020	**Error message** Configuration of CfgDCM/manualModeDistance is faulty **Cause of error** The value configured for CfgDCM/manualModeDistance is less than the minimum permissible value. **Error correction** Adapt the machine configuration

Error number	Description
292-0021	**Error message** Machine configuration is incorrect **Cause of error** The configuration of the parameter profileType or profileTypeHi is faulty. If "advancedTrapezoidal" is to be configured, then this setting must be set in both the profileType parameter as well as in profileTypeHi. The settings currently do not match. **Error correction** Modify the configuration: Configure the value "advancedTrapezoidal" in profileType and in profileTypeHi
292-0022	**Error message** Look-ahead: internal software error. Code %1 **Cause of error** The control has detected an internal software error dealing with the motion control. **Error correction** Inform your service agency
292-0023	**Error message** %3 3-D model not loaded %2 **Cause of error** Could not load the 3-D model because it does not fulfill the quality requirements. The following requirements are in place for 3-D models: - All dimensions in mm - No gaps between triangles ("waterproof") - No overlapping - No degenerated triangles **Error correction** Regenerate the 3-D model and transfer it to the control.
292-0024	**Error message** %3 3-D model not loaded %2 **Cause of error** Error while reading the 3-D model: the file contains too many triangles. **Error correction** - Use a rougher 3-D model - Generate the 3-D model with the CAD program again and transfer it to the control. In many CAD programs the level of detail can be set when exporting.

Error number	Description
292-0025	**Error message** %3 3-D model not loaded %2 **Cause of error** Error while reading the 3-D model: the file could not be opened or is not a supported 3-D data format. **Error correction** - Check the path and correct it if necessary - Reload the file
293-0001	**Error message** Internal error in Look-Ahead Chain Module **Cause of error** **Error correction** Inform your service agency.
293-0002	**Error message** Illegal filter type 2 **Cause of error** The second nominal value filter must not be of the cutter-location type. **Error correction** Adjust the configuration.
293-0003	**Error message** Axis %1 with 2 filters **Cause of error** Two filters are activated in the parameter set of one axis. **Error correction** Adjust the configuration.
293-0004	**Error message** Incorrect filter form in axis %1 **Cause of error** Only position filters with HSC form are allowed. **Error correction** Adjust the configuration

Error number	Description
293-0005	**Error message** No cutter-location filter active **Cause of error** The tolerance for rotary axes with M128 was - configured or programmed, although no nominal-value filter of the cutter-location type is active. - configured or programmed, although none of the loaded axis parameters works with the 1st filter. **Error correction** Adjust the configuration or edit the program.
293-0006	**Error message** Tolerance for rotary axes inactive **Cause of error** The tolerance for rotary axes with M128 was deactivated because you switched to a set of axis parameters without cutter-location filter. Therefore the normal path tolerance is being again used for all axes. The tolerance for rotary axes with M128 stays active until the cutter-location filter is used again. **Error correction** A correction is not essential. The warning can be suppressed by deactivating the tolerance for rotary axes before the axis parameter switchover.
293-0007	**Error message** Axis parameters for logical axis %1 were lost **Cause of error** Internal error The most recently programmed axis parameters of the axis named were lost in an abnormal program cancellation. Therefore the configured parameters will be used. **Error correction** The control continues operation without correction. If you still know the lost axis parameters, you can program them again.
293-0008	**Error message** Parameters from another axis were programmed %1 **Cause of error** The axis for which the axis parameters were programmed do not belong to the channel. **Error correction** Edit the program

Error number	Description
293-0009	**Error message** Parameters from another axis were configured %1 **Cause of error** A logical axis is assigned to another, physical axis. The parameter of this physical axis cannot be overwritten by the values of the logical axis. **Error correction** Change the configuration
293-000A	**Error message** Missing axis parameters in CfgAxis of %1 **Cause of error** The configuration of an axis has no entries for the axis parameters used here. **Error correction** Change the configuration
293-000B	**Error message** Two cutter-location filters **Cause of error** Both position filters are of the cutter-location type. **Error correction** Change the configuration.
293-000C	**Error message** Position filter is missing **Cause of error** With a position filter of the cutter-location type, the second filter must be of the position type. **Error correction** Change the configuration.
293-000D	**Error message** Two position filters in axis %1 **Cause of error** Two position filters of the position type are configured for the same axis. **Error correction** Change the configuration.

Error number	Description
293-000E	**Error message** No position filter in axis %1 **Cause of error** For axes with cutter-location filters, the second filters must also be configured. **Error correction** Change the configuration.
293-000F	**Error message** The option for axis-specific jerk has not been enabled **Cause of error** Axis-specific jerk values were activated in the machine configuration, but the option was not yet enabled. Now the jerk that is valid in the channel was activated for the axis. **Error correction** - Delete the parameters MP_axPathJerk and MP_axPath-JerkHi for axis-specific jerk from the machine configuration or enable the software option.
293-0010	**Error message** The option for the feed rate filter has not been enabled **Cause of error** A time constant for the feed rate filter was configured in the machine configuration, but the option was not yet enabled. The feed rate filter was deactivated by the NC software. **Error correction** - Delete the parameter MP_filterFeedTime for the time constant of the feed rate filter from the machine configura-tion or enable the software option.
293-0011	**Error message** In Program Run it is not allowed to switch the filter on or off **Cause of error** A filter can be switched on or off by changing the filter form, filter order or the frequency. Filter switched on: Form is not "Off" and the order is greater than 1. Filter switched off: Form is "Off" and the order is less than 1. Only for HSC filters: Filter is switched off if frequency = 0. The programmed parameters for the filter were not adopted. **Error correction** - Edit the program or the cycle.

Error number	Description
293-0012	**Error message** Faulty configuration of the nominal position value filters **Cause of error** The following filter parameters are no longer supported and must no longer be configured: - CfgFilter/typeFilter1, typeFilter2, orderFilter1, orderFilter2, - CfgPositionFilter/filter1Shape, filter2Shape, filter1LimitFreq, filter2LimitFreq **Error correction** The old parameters of the position nominal value filter are automatically deleted by a correctly run configuration update. The following conditions must be met in order to conduct the update: - The config object CfgFilter must completely match the old level (with no new parameters). - Either only new parameters or only old parameters are permitted for each CfgPositionFilter config object in the system.
293-0013	**Error message** Name of parameter set (%1) for axis (%2) already assigned **Cause of error** Two or more axes are using the same parameter set. The names of parameter sets must be unique for each axis. **Error correction** - Assign a unique name for each of the parameter sets.
293-0014	**Error message** Option for limiting the radial acceleration not enabled **Cause of error** A maximum value for the radial acceleration was configured in the machine configuration, but the option was not yet enabled. The limit to the radial acceleration was deactivated by the NC software. **Error correction** - Delete the maxTransAcc and maxTransAccHi parameters for limiting the radial acceleration from the machine configuration or enable the software option.
293-0015	**Error message** The DCC calculation module was activated

Error number	Description
293-0016	**Error message** Filter settings for virtual axis %1 not allowed **Cause of error** An individual filter setting was configured for a virtual axis. That is not allowed for virtual axes. The individual filter setting was deactivated by the NC. An axis is virtual if CfgAxis/axisMode has the value "Virtual". **Error correction** - Configuration: Delete the config object CfgPositionFilter for this axis and use CfgKeySynonym to connect it with the real axis - FN17: Use FN17 to delete filter settings from the NC program - Cycle 32: Delete HSC mode from Cycle 32
293-0017	**Error message** ADP must be active during use of DCM tolerances **Cause of error** The additional tolerances CfgDCM/maxLinearTolerance and CfgDCM/maxAngleTolerance are configured and ADP is not active. This is not allowed. **Error correction** Switch-on ADP by configuring CfgHardware/setupADP = Premium. Comply with the information on ADP in the Technical Manual.
293-0018	**Error message** Excessive contour error (%1 mm) in thread (%2 mm permitted) **Cause of error** The adjusted tolerance for successive threads was exceeded **Error correction** - Edit the NC program If possible, reduce the spindle speed. - If a larger deviation is acceptable, increase the tolerance for threads. - Inform your service agency.
293-0019	**Error message** End of successive threads not reached **Cause of error** The programmed end point of the successive thread was not reached. **Error correction** - Check the NC program and edit it if necessary - Reduce the spindle speed, if possible

Error number	Description
293-001A	**Error message** Invalid number programmed for FN17/18 No%1 **Cause of error** - Incorrect number of FN17/18 programmed during access to look-ahead parameters. - The is no look-ahead parameter under this number. **Error correction** - Correct the corresponding FN17 or FN18 command.
293-001B	**Error message** Invalid axis programmed in FN17/18 IDX%1 **Cause of error** - Incorrect axis/spindle was programmed through FN17 or FN 18 during access to look-ahead parameters. - There is no axis or spindle with this axis index. **Error correction** - Correct the corresponding FN17 or FN18 command.
293-001C	**Error message** Vertical movement not allowed in the middle of successive threads **Cause of error** - A movement perpendicular to the threaded axis was programmed in the middle of the thread. - A perpendicular movement is allowed only in the form of lift-off at the end of the thread. **Error correction** - Check the NC program and adapt it if necessary
293-001E	**Error message** Programmed feed rate too small **Cause of error** The programmed feed rate is too small. **Error correction** Edit the NC program.
293-001F	**Error message** The NC program is longer than %1 **Cause of error** The total distance moved in the NC program is greater than permitted. **Error correction** Shorten the NC program. Remove infinite loops.

Error number	Description
293-0020	**Error message** Internal error in LookAheadChain module. Code %1 **Cause of error** The control has detected an internal software error dealing with the motion control. **Error correction** Inform your service agency
293-0021	**Error message** Impermissible dynamic calculation of non-registered axis %1 **Cause of error** Look-ahead is supposed to calculate the dynamics of an axis that is not registered. The cause could be a deactivated axis that is used in the kinematics. That is not allowed. **Error correction** - Activate the deactivated axis, check the machine configuration, and correct it if required - Activate another machine kinematic configuration through the NC program - Edit the machine configuration or activate another machine kinematic configuration
293-0022	**Error message** NC program contains more than %1 blocks **Cause of error** The NC program contains too many blocks. **Error correction** Shorten the NC program. Remove infinite loops.
295-F306	**Error message** Component Monitoring software option is not set. **Cause of error** Components were configured for component monitoring, although the Component Monitoring software option is not set. **Error correction** - Edit the configuration - Enable the Component Monitoring software option

Error number	Description
296-0004	**Error message** Process monitoring recordings are not compatible **Cause of error** The process monitoring settings were changed in the machine configuration. This makes existing recordings invalid. **Error correction** Delete existing recordings and perform new reference machining operations.
296-0005	**Error message** Process monitoring recordings are not compatible **Cause of error** There are process monitoring recordings for this NC program that come from an older version of the control software. They are not compatible with the current software version. **Error correction** Delete existing recordings and perform new reference machining operations.
296-0006	**Error message** Process Monitoring export: memory limit almost reached. **Cause of error** Die Obergrenze der Verzeichnisgröße für automatische Exporte der Prozessüberwachung ist fast erreicht. **Error correction** Maschinenhersteller informieren und Verzeichnis leeren lassen.
296-0007	**Error message** Not enough free hard disk space for Process Monitoring **Cause of error** Für die Prozessüberwachung steht nicht genügend Festplattenspeicher zur Datenerfassung zur Verfügung. **Error correction** Prozessüberwachung deaktivieren oder mehr Festplattenspeicher zur Verfügung stellen.
296-0008	**Error message** Manufacturer texts for component monitoring are missing **Cause of error** The machine configuration does not contain the machine parameter CfgOemTranslation with the key "COMPMON" for configuring the manufacturer-specific texts for component monitoring. **Error correction** - Configure CfgOemTranslation with the key "COMPMON"

Error number	Description
296-0009	**Error message** Manufacturer texts for process monitoring are missing **Cause of error** In der Maschinenkonfiguration fehlt der Maschinenparameter CfgOemTranslation mit Schlüssel "PROCMON" zur Konfiguration der herstellerspezifischen Texte für die Prozessüberwachung. **Error correction** - CfgOemTranslation mit Schlüssel "PROCMON" konfigurieren
296-000A	**Error message** Limits of reactions not compatible with trigger condition **Cause of error** The selected trigger condition cannot be fulfilled, due to the configuration of the monitoring task. **Error correction** - Adapt the trigger condition - Adapt the configuration of the monitoring task
296-000C	**Error message** Synchronization of process monitoring cannot be ensured **Cause of error** The value of the feed-rate override deviates too greatly from the initial value of the monitoring section **Error correction** - Change the feed-rate override value to the initial value of the recording
296-000D	**Error message** Not all monitoring sections were recorded **Cause of error** Not all of the monitoring sections present in the NC program were executed, and could therefore not be recorded by the process monitoring. **Error correction** - Adapt the NC program in order to include all monitoring sections - Delete existing recordings

Error number	Description
296-000E	**Error message** Komponentenüberwachung: Konfiguration Statusanzeige fehlerhaft **Cause of error** Eine Anzeige-Box der Komponentenüberwachung enthält einzelne Überwachungsaufgaben, die nicht in der Gesamtstatusanzeige eingetragen sind. **Error correction** - Darstellung ggf. anpassen oder Hinweise zur Konfiguration der Komponentenüberwachung unterdrücken
296-000F	**Error message** History-Daten der Komponentenüberwachung zurückgesetzt **Cause of error** Die History-Daten wurden automatisch zurückgesetzt, da sich das Datenformat aufgrund eines Software-Updates geändert hat. Vorhandene History-Dateien wurden von der Steuerung automatisch auf der Systempartition archiviert. **Error correction**
296-0010	**Error message** Data quality for process monitoring might be insufficient **Cause of error** The data quality of the process monitoring tasks was negatively influenced by the control's high processing loads, and might be insufficient for subsequent recordings. **Error correction** - If necessary, delete the reference data and repeat the recording - Avoid high processor loads before or during monitoring sections
296-0011	**Error message** Fehler bei Metadaten-Export der Prozessüberwachung **Cause of error** Der Metadaten-Export der Prozessüberwachung konnte nicht erfolgreich durchgeführt werden. **Error correction** - Konfiguration des Metadaten-Exports überprüfen - Pfadangaben prüfen, sie müssen auf existierende Dateien bzw. Verzeichnisse verweisen

Error number	Description
296-0012	**Error message** Process monitoring is deactivated for the current NC program **Cause of error** The maximum file size for process monitoring has been reached. Automatic overwriting of recordings is not permitted for the current NC program. **Error correction** - Delete recordings manually, permit automatic overwriting, or adapt the recording strategy.
296-0013	**Error message** Prozessüberwachung für das aktuelle NC-Programm deaktiviert **Cause of error** Das Dateigrößenlimit der Prozessüberwachung wurde erreicht. Ein automatisches Überschreiben von Aufzeichnungen ist nicht möglich, da die letzte Aufzeichnung keine Laufzeitdaten enthält. **Error correction** - Aufzeichnungen manuell löschen - Aufnahmestrategie anpassen
2A0-0001	**Error message** Ext. in-/output not ready **Cause of error** - The interface is not connected. - The external device is either switched off or not ready. - The transmission cable is defective or incorrect. **Error correction** Check the data transfer line.
2A0-0002	**Error message** Error **Cause of error** This message indicates that there is an error message on the screen now in the background. **Error correction** Switch to the background mode and acknowledge the error message.
2A0-0003	**Error message** Interface already assigned **Cause of error** You attempted to assign an already occupied data interface. **Error correction** End the data transmission and restart it.

Error number	Description
2A0-0004	**Error message** Baud rate not possible **Cause of error** The baud rates set at the two data interfaces do not permit simultaneous transmission over both interfaces. **Error correction** Select another baud rate.
2A0-0005	**Error message** Data transfer erroneous **Cause of error** E During data transfer with BCC the <NAK> signal was received 15 times in succession. A to H Error code of the receiver module with one w/o E of the following causes: - The baud rate settings of the TNC and peripheral device do not match. - The parity bit is erroneous. - Erroneous data frame (e.g.: no stop-bit). - The receiver module of the interface is defective. K During transmission of an error to the TNC the <1> character was not transmitted after the <ESC> character. L After the error sequence <ESC><1> an incorrect error number was received (error numbers 0 to 7 are permitted). M During data transmission with BCC the <NAK> character was transmitted 15 times in succession. N An expected acknowledgment <ACK> or <NAK> was not transmitted after a certain time. **Error correction** Check the data transfer channel.
2A0-0006	**Error message** LSV2: Line interrupted **Cause of error** - DSR signal missing **Error correction** - Check the data transfer line
2A0-0007	**Error message** LSV2: Transmission error **Cause of error** - Character error in the telegram **Error correction** - Check the data transfer line

Error number	Description
2A0-0008	**Error message** LSV2: Transmission error **Cause of error** - Checksum error in the received telegram **Error correction** - Check the data transfer line - If the error recurs, inform your service agency
2A0-0009	**Error message** LSV2: Transmission error **Cause of error** - Checksum error in the transmitted telegram **Error correction** - Check the data transfer line - If the error recurs, inform your service agency
2A0-000A	**Error message** LSV2: Timeout error **Cause of error** - No reaction from distant terminal (T1) **Error correction** - If the error recurs, inform your service agency - Check the LSV2TIME1 entry in OEM.SYS
2A0-000B	**Error message** LSV2: Transmission error **Cause of error** - Distant terminal not ready **Error correction** - Check the communications software of distant terminal
2A0-000C	**Error message** LSV2: Timeout error **Cause of error** - Telegram incomplete, ETX missing (T0) **Error correction** - Check the communications software of distant terminal - If the error recurs, inform your service agency - Check the LSV2TIME0 entry in OEM.SYS

Error number	Description
2A0-000D	**Error message** LSV2: Timeout error **Cause of error** - No reaction from distant terminal (T2) **Error correction** - Check the communications software of distant terminal - If the problem recurs, inform your service agency - Check the LSV2TIME2 entry in OEM.SYS
2A0-000E	**Error message** LSV2: Outgoing transmiss. error **Cause of error** - Internal software error **Error correction** - If the problem recurs, inform your service agency - Check the software version
2A0-000F	**Error message** Key non-functional **Cause of error** In this context the key has no function. **Error correction**
2A0-0010	**Error message** Illegal file name **Cause of error** Syntax error during file-name input. **Error correction** Use no more than 16 characters for file names.
2A0-0011	**Error message** Key is locked **Cause of error** You pressed a key that is locked at present by the NC software. **Error correction** If necessary, repeat the function at a later time.

Error number	Description
2A0-0012	**Error message** Function not permitted **Cause of error** You tried to use a feature that is not enabled on your control by the Feature Content Level (FCL) management. **Error correction** By default, FCL functions are locked after a software update. By entering the code number 65535 in the SIK Menu, you can enable these functions for a certain period of time for test purposes. You can enable FCL functions permanently by purchasing and entering a code number. For more information, contact your machine tool builder or the service agency for the control.
2A0-0013	**Error message** Two rotary positions not allowed **Cause of error** In a pattern or a frame, you tried to define two rotary positions at once. **Error correction** Define only the rotary position of the reference axis or minor axis.
2A0-0014	**Error message** File name already exists **Cause of error** You tried to assign a name to a new file, although that name already exists. **Error correction** Use another file name.
2A0-0015	**Error message** Function not enabled **Cause of error** You tried to use a software option that is not enabled on your control. **Error correction** Contact your machine tool builder or the service agency for the control to purchase the software option.
2A0-0016	**Error message** Caution: Prepos. height defined! **Cause of error** You have hidden or disabled a point for which a pre-positioning height is defined. In some cases this could lead to a collision. **Error correction** Check if the next points can be approached without danger.

Error number	Description
2A0-0017	**Error message** Too little free memory on SYS: **Cause of error** There is not enough memory on the system partition SYS:. Proper function of the control can no longer be ensured. **Error correction** - Reboot the control. - Inform your service agency
2A0-0018	**Error message** Too little free memory on SYS: **Cause of error** There is not enough memory on the system partition SYS:. Proper function of the control can no longer be ensured. **Error correction** - Reboot the control. - Inform your service agency
2A0-0019	**Error message** Too little free memory on SYS: **Cause of error** There is not enough memory on the system partition SYS:. Proper function of the control can no longer be ensured. **Error correction** - Reboot the control. - Inform your service agency
2A0-001A	**Error message** Too little free memory on SYS: **Cause of error** There is not enough memory on the system partition SYS:. Proper function of the control can no longer be ensured. **Error correction** - Reboot the control. - Inform your service agency
2A0-001B	**Error message** Too little free memory on SYS: **Cause of error** There is not enough memory on the system partition SYS:. Proper function of the control can no longer be ensured. **Error correction** - Reboot the control. - Inform your service agency

Error number	Description
2A0-001C	**Error message** Too little free memory on PLC: **Cause of error** There is not enough memory on the PLC: partition. Proper function of the control can no longer be ensured. **Error correction** Inform your machine tool builder.
2A0-001D	**Error message** Too little free memory on PLC: **Cause of error** There is not enough memory on the PLC: partition. Proper function of the control can no longer be ensured. **Error correction** Inform your machine tool builder.
2A0-001E	**Error message** Too little free memory on PLC: **Cause of error** There is not enough memory on the PLC: partition. Proper function of the control can no longer be ensured. **Error correction** Inform your machine tool builder.
2A0-001F	**Error message** Too little free memory on PLC: **Cause of error** There is not enough memory on the PLC: partition. Proper function of the control can no longer be ensured. **Error correction** Inform your machine tool builder.
2A0-0020	**Error message** Too little free memory on PLC: **Cause of error** There is not enough memory on the PLC: partition. Proper function of the control can no longer be ensured. **Error correction** Inform your machine tool builder.

Error number	Description
2A0-0021	**Error message** Too little free memory on TNC: **Cause of error** You saved too many files or excessively large files on the TNC: partition of the control. If you save any more files you will prevent safe operation of the control. **Error correction** - Delete NC programs that are no longer required - Delete backup files of NC programs (*.bak) that are no longer required - Delete service files that are no longer required - If a machining process is now in progress, do not under any circumstance save any more files. It would endanger the success of the operation.
2A0-0022	**Error message** Too little free memory on TNC: **Cause of error** You saved too many files or excessively large files on the TNC: partition of the control. If you save any more files you will prevent safe operation of the control. **Error correction** - Delete NC programs that are no longer required - Delete backup files of NC programs (*.bak) that are no longer required - Delete service files that are no longer required - If a machining process is now in progress, do not under any circumstance save any more files. It would endanger the success of the operation.
2A0-0023	**Error message** Too little free memory on TNC: **Cause of error** You saved too many files or excessively large files on the TNC: partition of the control. If you save any more files you will prevent safe operation of the control. **Error correction** - Delete NC programs that are no longer required - Delete backup files of NC programs (*.bak) that are no longer required - Delete service files that are no longer required - If a machining process is now in progress, do not under any circumstance save any more files. It would endanger the success of the operation.

Error number	Description
2A0-0024	**Error message** Too little free memory on TNC: **Cause of error** You saved too many files or excessively large files on the TNC: partition of the control. If you save any more files you will prevent safe operation of the control. **Error correction** - Delete NC programs that are no longer required - Delete backup files of NC programs (*.bak) that are no longer required - Delete service files that are no longer required - If a machining process is now in progress, do not under any circumstance save any more files. It would endanger the success of the operation.
2A0-0025	**Error message** Too little free memory on TNC: **Cause of error** You saved too many files or excessively large files on the TNC: partition of the control. If you save any more files you will prevent safe operation of the control. **Error correction** - Delete NC programs that are no longer required - Delete backup files of NC programs (*.bak) that are no longer required - Delete service files that are no longer required - If a machining process is now in progress, do not under any circumstance save any more files. It would endanger the success of the operation.
2A0-0026	**Error message** Not enough free RAM. **Cause of error** There is little free RAM available. If you use any more RAM you will prevent safe operation of the control. **Error correction** - Deactivate memory-intensive applications such as the editor graphics or the Test Run mode. - Reboot the control.
2A0-0027	**Error message** Not enough free RAM. **Cause of error** There is little free RAM available. If you use any more RAM you will prevent safe operation of the control. **Error correction** - Deactivate memory-intensive applications such as the editor graphics or the Test Run mode. - Reboot the control.

Error number	Description
2A0-0028	**Error message** Not enough free RAM. **Cause of error** There is little free RAM available. If you use any more RAM you will prevent safe operation of the control. **Error correction** - Deactivate memory-intensive applications such as the editor graphics or the Test Run mode. - Reboot the control.
2A0-0029	**Error message** Not enough free RAM. **Cause of error** There is little free RAM available. If you use any more RAM you will prevent safe operation of the control. **Error correction** - Deactivate memory-intensive applications such as the editor graphics or the Test Run mode. - Reboot the control.
2A0-002A	**Error message** Not enough free RAM. **Cause of error** There is little free RAM available. If you use any more RAM you will prevent safe operation of the control. **Error correction** - Deactivate memory-intensive applications such as the editor graphics or the Test Run mode. - Reboot the control.
2A0-002B	**Error message** Cannot switch modes of operation **Cause of error** You started the pattern generator or the contour programming while in a machining form and from there tried to switch to another operating mode. **Error correction** Close the pattern generator or contour programming and then close the form input mode (saving or discarding the data) before you switch to another operating mode.

Error number	Description
2A0-002C	**Error message** Auto. keyboard lock was opened **Cause of error** The TNC locks keys during a status change, but the lock was opened because the status change was not completed within 15 seconds. **Error correction** Wait until the status change is complete.
2A0-002D	**Error message** Tree view buildup canceled **Cause of error** After selecting a long smarT.NC program, you canceled the buildup of the tree view. The TNC therefore cannot show the complete tree structure of the program within smarT.NC, nor can you test or run the program. **Error correction** Select the program again and this time wait until the TNC has finished building the tree view.
2A0-002E	**Error message** PGM being edited in parallel **Cause of error** You tried to edit form data that are being edited in the Programming and Editing mode. **Error correction** Cancel your editing in the Programming and Editing mode and make the desired changes in the smarT.NC mode.
2A0-002F	**Error message** Program header already exists **Cause of error** You tried to insert the UNIT 700 (program header), although it already exists. **Error correction** Make changes in the existing program header.
2A0-0030	**Error message** Clipboard is empty! **Cause of error** You tried to insert a block from the clipboard, but the clipboard is empty. **Error correction** First fill the clipboard with the COPY BLOCK or CUT BLOCK.

Error number	Description
2A0-0031	**Error message** System memory overflow **Cause of error** This error occurs when the TNC does not have enough buffer memory for calculations, e.g. for generating complex FK graphics while machining a complex part. **Error correction** Acknowledge the error message by pressing CE and repeat the function.
2A0-0032	**Error message** Function not permitted! **Cause of error** You tried to use a workpiece blank definition from an .hu program, but you did not select the current contour program from an .hu program. **Error correction** Use the function only when you have started the contour program from a UNIT program.
2A0-0033	**Error message** File does not exist **Cause of error** You tried to use the "Recent Files" function to open a file that was moved or no longer exists. **Error correction** Select a different file or open a new file.
2A0-0034	**Error message** File format has changed **Cause of error** This error message will be displayed upon opening a binary file (*.H,*.T...) if the binary format has changed since the previous output version. **Error correction** Delete the file.
2A0-0035	**Error message** smarT.NC: Programming smarT.NC: Programming **Cause of error** **Error correction**

Error number	Description
2A0-0036	**Error message** smarT.NC: Defining contours smarT.NC: Contour def. **Cause of error** **Error correction**
2A0-0037	**Error message** smarT.NC: Defining positions smarT.NC: Position def. **Cause of error** **Error correction**
2A0-0038	**Error message** Application %1 cannot be started **Cause of error** - Due to a lack of system resources (e.g. during memory-intensive HSC machining), a part of the system software cannot be loaded. - The TNC cannot interpret the format of a DXF file. - The DXF file is destroyed. **Error correction** - Call the desired function again at a later time. - Ensure that the DXF file is available in R12 (ASCII) format. - If required, recreate the DXF file.
2A0-0039	**Error message** %1 **Cause of error** **Error correction**
2A0-003A	**Error message** Programming graphics impossible **Cause of error** Programming graphics generation had to be terminated due to an internal error. **Error correction** Select the NC program again and restart generation of a new programming graphic (RESET+START soft key)

Error number	Description
2A0-003B	**Error message** smarT.NC: Select DXF elements smarT.NC: Select elements **Cause of error** **Error correction**
2A0-003C	**Error message** Erroneous DXF file **Cause of error** You tried to open a DXF file that cannot be edited by the TNC. **Error correction** - Check whether the DXF file is available in ASCII format. - Have the DXF file read out in AutoCAD R12 (AC1009€) format. If the problem recurs, try to make the DXF file with another CAD system. - If necessary, inform your service agency.
2A0-003D	**Error message** Use of DXF_CONVERTER not possible **Cause of error** You tried to open a DXF file that cannot be edited by the TNC. **Error correction** - Check whether the DXF file is available in ASCII format. - Have the DXF file read out in AutoCAD R12 (AC1009€) format. If the problem recurs, try to make the DXF file with another CAD system. - If necessary, inform your service agency.
2A0-003E	**Error message** Program-run graphics impossible! **Cause of error** The TNC is being so heavily utilized to machine the current workpiece that there is no more capacity available for the program-run graphics. **Error correction** No corrective action possible.

Error number	Description
2A0-003F	**Error message** Global PGM settings deactivated **Cause of error** In the smarT.NC operating mode you selected the Program Run submode although global program settings were active. **Error correction** The TNC automatically deactivates all active global program settings. Reactivate the settings, if necessary, when you continue working in the Program Run, Single Block or Program Run, Full Sequence operating mode.
2A0-0040	**Error message** smarT.NC: Program run smarT.NC: Program run **Cause of error** **Error correction**
2A0-0041	**Error message** To retract: NC start **Cause of error** **Error correction**
2A0-0042	**Error message** Selected block not addressed **Cause of error** After an interruption of the program run the TNC can no longer resume the program run from the cursor's present location. **Error correction** Press GOTO and enter a block number to select the desired location for returning to the program, or select the mid-program startup function.
2A0-0043	**Error message** Test graphic not possible **Cause of error** At present, the system is preventing use of the test graphic. **Error correction** Use the test graphic at a later time.

Error number	Description
2A0-0044	**Error message** smarT.NC: Testing smarT.NC: Testing **Cause of error** **Error correction**
2A0-0045	**Error message** Tool file? **Cause of error** There are several tool tables in the NC memory and no table is activated in the Test Run operating mode. **Error correction** Activate the tool table in the Test Run operating mode (status "S").
2A0-0047	**Error message** GOTO table line **Cause of error** **Error correction**
2A0-0048	**Error message** Locked axis was programmed **Cause of error** - You programmed a locked axis in a part program block. - A traverse was calculated for a locked axis (e.g. due to an active rotation). - A programmed axis is a freely traversing rotary axis. **Error correction** - If necessary, activate the axis. - Delete the axis from the part program block.
2A0-0049	**Error message** Spindle must be turning **Cause of error** You called a fixed cycle without first switching on the spindle. **Error correction** Edit the part program.
2A0-004A	**Error message** Tool axis is missing **Cause of error** You called a fixed cycle without first activating a tool. **Error correction** Edit the part program.

Error number	Description
2A0-004B	**Error message** Tool radius too small **Cause of error** - The tool radius is too small for the selected operation. - Cycle 3 "Slot": You defined a width greater than four times the tool radius. - Cycle 240: You entered a centering diameter greater than the tool diameter. - Cycle 210 "Slot" or Cycle 211 "Circular Slot": The slot width is six times greater than the tool radius. **Error correction** - Use a tool with a larger radius. - Cycle 3 "Slot": Define the slot width to be greater than the tool diameter and smaller than four times the tool radius. - Cycle 240: Use a larger tool. - Cycle 210 "Slot" or Cycle 211 "Circular Slot": Define the slot width to be greater than the tool diameter and smaller than six times the tool radius.
2A0-004C	**Error message** Tool radius too large **Cause of error** - Contour milling: The radius of an arc block at an inside corner is smaller than the tool radius. - Thread milling: The thread core diameter is smaller than the tool diameter. - Slot milling: The slot width for roughing is smaller than the tool diameter. - Cycle 251, rectangular pocket: The rounding radius Q220 is smaller than the tool radius. - Cycle 214: The given workpiece-blank diameter is smaller than the tool diameter **Error correction** - Use a smaller tool - Slot milling: If necessary, use a smaller oversize (Q368) - Cycle 214: Use a smaller tool; correct the workpiece-blank diameter
2A0-004D	**Error message** Range exceeded **Cause of error** During digitizing the stylus went out of the defined digitizing range. **Error correction** Check the data in the Range cycle, especially the entry for the touch probe axis.

Error number	Description
2A0-004E	**Error message** Start position incorrect **Cause of error** Digitizing with contour lines: Incorrect starting position selected. **Error correction** Check the axes defined in the Contour Lines cycle.
2A0-004F	**Error message** Rotation not permitted **Cause of error** - Rotation not permitted during digitizing. - Rotation not permitted during automatic measuring (measuring cycles 400 to 418) together with 3-D rotation. - 3-D rotation not permitted together with Cycle 247. **Error correction** - Delete the Rotation cycle. - Reset the rotation (manual mode). - Reset 3-D rotation.
2A0-0050	**Error message** Scaling factor not permitted **Cause of error** You programmed a scaling factor before the TCH PROBE 0 cycle (ISO: G55) or before the digitizing cycles. **Error correction** Delete the Scaling Factor or the Axis-Specific Scaling
2A0-0051	**Error message** Mirroring not permitted **Cause of error** You programmed a mirror image before the TCH PROBE 0 cycle (ISO: G55) or before the digitizing cycles. **Error correction** Delete the Mirror Image cycle.
2A0-0052	**Error message** Datum shift not permitted **Cause of error** Digitizing with contour lines: Datum shift is active. **Error correction** Delete the datum shift.

Error number	Description
2A0-0053	**Error message** Feed rate is missing **Cause of error** You did not program a feed rate. **Error correction** Edit the NC program. FMAX is effective only for the block in which it is programmed.
2A0-0054	**Error message** Entry value incorrect **Cause of error** - The value you entered is out-of-range. - Cycle 209 (ISO: 209): You entered the value 0 as infeed depth for chip breaking (Q257). **Error correction** - Enter the correct value. - Enter a value other than 0 in Q257.
2A0-0055	**Error message** Contradictory signs in cycle **Cause of error** The algebraic signs of the setup clearance, total hole depth and plunging depth do not match. **Error correction** Enter identical signs.
2A0-0056	**Error message** Entered angle not permitted **Cause of error** - The solid angles programmed in Cycle 19 Tilt Working Plane (DIN/ISO: G80) cannot be realized with the current attachment (e.g. universal head where only one hemisphere is accessible). - Run probing cycle only with paraxial angular position. - The point angle (T-ANGLE) defined for the active tool is 180°. **Error correction** - Edit the solid angle entered. - Run probing cycle only with paraxial angular position. - Use angular values greater than 0 and less than 180°.

Error number	Description
2A0-0057	**Error message** Touch point inaccessible **Cause of error** In the TCH PROBE 0 (ISO: G55) cycle or during use of the manual probe cycles no touch point was reached within the traverse defined in machine parameter MP6130. **Error correction** - Pre-position the touch probe to the workpiece. - Increase the value in MP6130.
2A0-0058	**Error message** Too many points **Cause of error** Automatic establishment of points for the digitizing range in the Positioning with Manual Data Input operating mode: Number of stored points (max. 893) exceeded. **Error correction** Re-record digitizing range after increasing the point spacing.
2A0-0059	**Error message** Contradictory entry **Cause of error** The values that you entered are contradictory. **Error correction** Check the input values.
2A0-005A	**Error message** CYCL DEF incomplete **Cause of error** - You deleted part of a cycle. - You have inserted other part program blocks within a cycle. **Error correction** - Redefine the complete cycle again - Delete part program blocks programmed within a cycle.
2A0-005B	**Error message** Height axis not permitted here **Cause of error** While defining the Contour Lines cycle (TCH PROBE 7) you programmed a height axis in the starting point. **Error correction** Edit the part program.

Error number	Description
2A0-005C	**Error message** Wrong axis programmed **Cause of error** - An incorrect axis is programmed in the highlighted block. - Touch Probe Cycle 403: You programmed in incorrect compensation axis (Q312). **Error correction** - Check whether you have programmed an axis twice. - Touch Probe Cycle 403: In parameter Q312, select only compensation axes that are present in the kinematic description.
2A0-005D	**Error message** Wrong rpm **Cause of error** You entered an invalid spindle speed. **Error correction** Enter the correct speed, refer to the machine manual.
2A0-005E	**Error message** Radius comp. undefined **Cause of error** - In the definition of a contour, a contour pocket or a contour train you neglected to program radius compensation. - You have called a machining cycle with the tool radius 0. **Error correction** - Set a tool radius compensation in the contour subprogram to define whether the contour is for a pocket or island. - Define a tool radius other than 0.
2A0-005F	**Error message** Rounding-off undefined **Cause of error** You programmed in sequence a positioning block without radius compensation, a rounding arc (RND, ISO: G25), and a circle block with radius compensation. **Error correction** Edit the part program.

Error number	Description
2A0-0060	**Error message** Rounding radius too large **Cause of error** - In the definition of a contour, a contour pocket or a contour train, you programmed a rounding arc (RND, ISO: G25) with so large a radius that it does not fit between the adjoining elements. - In a fixed cycle (rectangular pocket/rectangular stud), you defined a rounding arc that cannot be inserted. **Error correction** - Define a smaller rounding radius in the contour subprogram - Check the cycle definition and correct the input values
2A0-0061	**Error message** Program start undefined **Cause of error** The TNC cannot exactly calculate the geometry from the present position (e.g., the programmed coordinates of the first positioning block are the same as the compensated actual position). **Error correction** - Restart the part program. - Use mid-program startup to return to the point of interruption.
2A0-0062	**Error message** Excessive subprogramming **Cause of error** In a Contour Pocket cycle or a Contour Train cycle you called more than 6 programs (PGM CALL, ISO: %..). A program call can also be: - Cycle 12 (PGM CALL, ISO: G39) - Calling an OEM cycle **Error correction** Edit the part program.

Error number	Description
2A0-0063	**Error message** Angle reference missing **Cause of error** In an LP/CP block (ISO: G10, G11, G12, G13) no polar angle or incremental polar angle is defined, i.e.: - The distance between the last programmed position and the pole is less than or equal to 0.1 µm. - No rotation is programmed between pole assumption and an LP/CP block. **Error correction** - Program the absolute polar angle. - Check the position of the pole. - If necessary, reset the rotation.
2A0-0064	**Error message** No fixed cycle defined **Cause of error** There is no fixed cycle defined before Cycle 220/221 (circular/linear point pattern). **Error correction** Define a fixed cycle before Cycle 220/221.
2A0-0065	**Error message** Insufficient slot width **Cause of error** The width defined in the slot cycle cannot be machined with the active tool. **Error correction** Use a smaller tool.
2A0-0066	**Error message** Pocket too small **Cause of error** The side lengths defined in the Pocket Milling cycle are too small. **Error correction** Use a smaller tool.
2A0-0067	**Error message** Q202 not defined **Cause of error** There is no plunging depth (Q202) defined in the fixed cycles 200 to 215. **Error correction** Enter a plunging depth in the fixed cycle.

Error number	Description
2A0-0068	**Error message** Q205 not defined **Cause of error** In the Universal Drilling cycle, you have not defined the minimum plunging depth. **Error correction** Enter a minimum plunging depth in the fixed cycle.
2A0-0069	**Error message** Q218 must be greater than Q219 **Cause of error** Pocket milling cycle: Q218 must be greater than Q219. **Error correction** Correct the values in the fixed cycle.
2A0-006A	**Error message** CYCL 210 not permitted **Cause of error** Fixed cycle cannot be run in the CIRCULAR PATTERN or LINEAR PATTERN cycle. **Error correction** Use another fixed cycle.
2A0-006B	**Error message** CYCL 211 not permitted **Cause of error** Cycle 211 cannot be run in the CIRCULAR PATTERN or LINEAR PATTERN cycle. **Error correction** Use another fixed cycle.
2A0-006C	**Error message** Q220 too large **Cause of error** Pocket finishing or stud finishing cycle: Rounding radius Q220 is too large. **Error correction** Correct the rounding radius in the fixed cycle.
2A0-006D	**Error message** Q222 must be greater than Q223 **Cause of error** Stud finishing cycle: Workpiece blank diameter Q222 must be greater than the finished part diameter Q223. **Error correction** Correct the workpiece blank diameter in the fixed cycle.

Error number	Description
2A0-006E	**Error message** Q244 must be greater than 0 **Cause of error** Circular Pattern cycle: You entered a pitch circle diameter of zero. **Error correction** Correct the pitch circle diameter in the cycle.
2A0-006F	**Error message** Q245 must not equal Q246 **Cause of error** Circular Pattern cycle: Enter a stopping angle equal to the starting angle. **Error correction** Correct the starting or stopping angle in the cycle.
2A0-0070	**Error message** Angle range must be under 360° **Cause of error** Circular Pattern cycle: You entered an angle range greater than 360°. **Error correction** Correct the starting or stopping angle in the cycle.
2A0-0071	**Error message** Q223 must be greater than Q222 **Cause of error** In the Circular Pocket Finishing cycle, you entered a finished-part diameter (Q223) smaller than the workpiece-blank diameter (Q222). **Error correction** Edit Q222 in the cycle definition.
2A0-0072	**Error message** Q214: 0 not permitted **Cause of error** In the definition of Cycle 204 you have entered the disengaging direction 0. **Error correction** In Q214, enter a value from 1 to 4.

Error number	Description
2A0-0073	**Error message** Traverse direction not defined **Cause of error** In a probing cycle you entered 0 for the traverse direction Q267. **Error correction** For Q267, enter either +1 (for positive traverse direction) or -1 (for negative traverse direction).
2A0-0074	**Error message** No datum table active **Cause of error** Probing cycle for datum setting: You want the TNC to write the measured point into a datum table, but you have not activated a datum table in a program run mode (status M). **Error correction** In the single block or full sequence program run mode, activate the datum table into which you want the measured point to be entered.
2A0-0075	**Error message** Position error: center in axis 1 **Cause of error** Probing cycle for workpiece measurement: Center of 1st axis outside of position tolerance. **Error correction** Check the workpiece and the measuring log.
2A0-0076	**Error message** Position error: center in axis 2 **Cause of error** Probing cycle for workpiece measurement: Center of 2st axis outside of position tolerance. **Error correction** Check the workpiece and the measuring log.
2A0-0077	**Error message** Hole diameter too small **Cause of error** Probing cycle for workpiece measurement: Hole diameter too small for tolerance. **Error correction** Check the workpiece and the measuring log.

Error number	Description
2A0-0078	**Error message** Hole diameter too large **Cause of error** - Probing cycle for workpiece measurement: Hole diameter tolerance exceeded. - Cycle 208: The programmed hole diameter (Q335) cannot be machined with the active tool. **Error correction** - Check the workpiece and, if necessary, the measuring log. - Cycle 208: Use a larger tool. Hole diameter must not be larger than twice the tool diameter.
2A0-0079	**Error message** Stud diameter too small **Cause of error** Probing cycle for workpiece measurement: Stud diameter too small for tolerance. **Error correction** Check the workpiece and the measuring log.
2A0-007A	**Error message** Stud diameter too large **Cause of error** Probing cycle for workpiece measurement: Stud diameter too large for tolerance. **Error correction** Check the workpiece and the measuring log.
2A0-007B	**Error message** Pocket too small: rework axis 1 **Cause of error** Probing cycle for workpiece measurement: Pocket length in 1st axis too small for tolerance. **Error correction** Check the workpiece and the measuring log.
2A0-007C	**Error message** Pocket too small: rework axis 2 **Cause of error** Probing cycle for workpiece measurement: Pocket width in 2nd axis too small for tolerance. **Error correction** Check the workpiece and the measuring log.

Error number	Description
2A0-007D	**Error message** Pocket too large: scrap axis 1 **Cause of error** Probing cycle for workpiece measurement: Pocket length in 1st axis too large for tolerance. **Error correction** Check the workpiece and the measuring log.
2A0-007E	**Error message** Pocket too large: scrap axis 2 **Cause of error** Probing cycle for workpiece measurement: Pocket width in 2nd axis too large for tolerance. **Error correction** Check the workpiece and the measuring log.
2A0-007F	**Error message** Stud too small: scrap axis 1 **Cause of error** Probing cycle for workpiece measurement: Stud length in 1st axis too small for tolerance. **Error correction** Check the workpiece and the measuring log.
2A0-0080	**Error message** Stud too small: scrap axis 2 **Cause of error** Probing cycle for workpiece measurement: Stud width in 2nd too small for tolerance. **Error correction** Check the workpiece and the measuring log.
2A0-0081	**Error message** Stud too large: rework axis 1 **Cause of error** Probing cycle for workpiece measurement: Stud length in 1st axis too large for tolerance. **Error correction** Check the workpiece and the measuring log.

Error number	Description
2A0-0082	**Error message** Stud too large: rework axis 2 **Cause of error** Probing cycle for workpiece measurement: Stud width in 2nd axis too large for tolerance. **Error correction** Check the workpiece and the measuring log.
2A0-0083	**Error message** Meas. cycle: length exceeds max **Cause of error** Probing cycle 425 or 427: The measured length exceeds the maximum permissible value. **Error correction** Check the workpiece and the measuring log.
2A0-0084	**Error message** Meas. cycle: length below min **Cause of error** Probing cycle 425 or 427: The measured length is below the minimum permissible value. **Error correction** Check the workpiece and the measuring log.
2A0-0085	**Error message** TCHPROBE 426: length exceeds max **Cause of error** Probing cycle 426: The measured length exceeds the maximum permissible value. **Error correction** Check the workpiece and the measuring log.
2A0-0086	**Error message** TCHPROBE 426: length below min **Cause of error** Probing cycle 426: The measured length is below the minimum permissible value. **Error correction** Check the workpiece and the measuring log.

Error number	Description
2A0-0087	**Error message** TCHPROBE 430: diameter too large **Cause of error** Probing cycle 430: The measured bolt-hole-circle diameter exceeds the maximum permissible value. **Error correction** Check the workpiece and the measuring log.
2A0-0088	**Error message** TCHPROBE 430: diameter too small **Cause of error** Probing cycle 430: The measured bolt-hole-circle diameter is below the minimum permissible value. **Error correction** Check the workpiece and the measuring log.
2A0-0089	**Error message** No measuring axis defined **Cause of error** You failed to define the measuring axis in one of the measuring cycles 400, 402, 420, 425, 426 or 427. **Error correction** Check Q272 in the corresponding cycle. Permissible input values: 1 or 2; for Cycle 427: 1, 2 or 3.
2A0-008A	**Error message** Tool breakage tolerance exceeded **Cause of error** During workpiece inspection using a measuring cycle, the tool breakage tolerance RBREAK given in the tool table was exceeded. **Error correction** Check whether the tool is damaged.
2A0-008B	**Error message** Enter Q247 unequal 0 **Cause of error** In a measuring cycle you entered in parameter Q247 an angular step of 0. **Error correction** Enter an angular step (Q247) other than 0.

Error number	Description
2A0-008C	**Error message** Enter Q247 greater than 5 **Cause of error** In a measuring cycle, you entered in parameter Q247 an angular step smaller than 5 degrees. **Error correction** To ensure sufficient measuring accuracy, enter an angular step (Q247) greater than 5 degrees.
2A0-008D	**Error message** Datum table? **Cause of error** A datum table is required to machine a part program. Either there is no table in the control's NC memory, or several tables have be saved and none activated. **Error correction** Activate the datum table in the Program Run, Full Sequence mode (status M).
2A0-008E	**Error message** Enter direction Q351 unequal 0 **Cause of error** In a fixed cycle you did not define the cutting direction (climb or up-cut). **Error correction** Define the cutting direction as climb milling (= 1) or up-cut milling (= -1).
2A0-008F	**Error message** Thread depth too large **Cause of error** The programmed thread depth plus 1/3 of the pitch is greater than the drilling or sinking depth. **Error correction** Program the total hole depth to be at least 1/3 of a thread pitch smaller that the total hole depth.
2A0-0090	**Error message** Missing calibration data **Cause of error** You have attempted to perform a measurement with Cycle 440 without first performing a calibration. **Error correction** Repeat Cycle 440, but with Q363 = 0 (calibrate).

Error number	Description
2A0-0091	**Error message** Tolerance exceeded **Cause of error** The limits entered in the tool table TOOL.T in the LTOL or RTOL column were exceeded. **Error correction** Check the limit values for the active calibration tool.
2A0-0092	**Error message** Mid-program startup active **Cause of error** Mid-program startup is not permitted with the programmed function. **Error correction** Mark the programmed function with "skip blocks" and activate this setting. Then run the mid-program startup again.
2A0-0093	**Error message** ORIENTATION not permitted **Cause of error** - Your machine does not offer spindle orientation - Spindle orientation not possible **Error correction** - Refer to your machine manual! - Check machine parameter 7442 and enter the numerical designation of the M function or -1 for spindle orientation by the NC. Refer to your machine manual!
2A0-0094	**Error message** 3DROT not permitted **Cause of error** You tried to conduct one of the following functions while the working plane was tilted: - Setting a reference point - A touch probe cycle 40x for measuring a misalignment **Error correction** Deactivate the tilted working plane function and restart the program.
2A0-0095	**Error message** Activate 3DROT **Cause of error** In the Manual operating mode, the Tilt Working Plane function is inactive. **Error correction** Activate 3DROT in Manual mode.

Error number	Description
2A0-0096	**Error message** Check the depth sign **Cause of error** **Error correction**
2A0-0097	**Error message** Q303 in meas. cycle undefined! **Cause of error** In one of the measuring cycles 410 to 418, you did not define the parameter Q303 (measured value transfer)(current value = -1). For reasons of security, however, selection of the measured value transfer is required to write the results of measurement in a table (datum table or preset table). **Error correction** Change parameter Q303 (measured value transfer) in the measuring cycle that is causing the error: - Q303=0: Write the measured values with respect to the active workpiece coordinate system into the active datum table (activate in the program with Cycle 7!). - Q303=1: Write the measured values with respect to the active machine-based coordinate system (REF values) into the preset table (activate in the program with Cycle 247!). - Q303=-1: Measured value transfer is undefined. This value is automatically generated by the TNC when you download a program that was written on a TNC 4xx or with an old software level of the iTNC 530, or if during the cycle definition you skipped the prompt for the measured value transfer with the END key.
2A0-0098	**Error message** Tool axis not allowed **Cause of error** - You called probing cycle 419 with an illegal tool axis. - You called the PATTERN DEF function in connection with an illegal tool axis. **Error correction** - Only call probing cycle 419 with the tool axis X, Y or Z. - Use the PATTERN DEF function only with the tool axis Z (TOOL CALL Z).

Error number	Description
2A0-0099	**Error message** Calculated values incorrect **Cause of error** In probing cycle 418, the TNC calculated too large a value. You may have defined in an incorrect sequence for the four holes to be probed. **Error correction** Check the probing sequence. Refer to the User's Manual for Touch Probe Cycles.
2A0-009A	**Error message** Contradictory measuring points **Cause of error** - In one of the probing cycles 400, 403 or 420, you defined a contradictory combination of measuring points and measuring axes. - The selection of measuring points in Cycle 430 results in division by 0. **Error correction** - For measuring axis = reference axis (Q272=1), the parameters Q264 and Q266 are defined at different values. - For measuring axis = minor axis (Q272=2), the parameters Q263 and Q265 are defined at different values. - For measuring axis = probe axis (Q272=3), the parameters Q263 and Q265 or Q264 and Q266 are defined at different values. - Select the measuring points so that they always have different coordinates in all axes.
2A0-009B	**Error message** Incorrect clearance height! **Cause of error** In Cycle 20 (ISO: G120), you entered a clearance height (Q7) that is lower than the coordinate of the workpiece surface (Q5). **Error correction** Enter a clearance height (Q7) that is higher than the coordinate of the workpiece surface (Q5).

Error number	Description
2A0-009C	**Error message** Contradictory plunge type! **Cause of error** The plunging strategy defined in Cycles 251 to 254 contradicts the defined plunging angle of the active tool. **Error correction** Change parameter Q366 in one of the Cycles 251 to 254 or the plunging angle ANGLE of the tool in the tool table. Permissible combinations of parameter Q366 and the plunging ANGLE are: For perpendicular plunging: Q366 = 0 and ANGLE = 90 For helical plunging: Q366 = 1 and ANGLE > 0 For inactive tool table, define Q366 with 0 (only perpendicular plunging allowed).
2A0-009D	**Error message** This fixed cycle not allowed **Cause of error** - You attempted to run a fixed cycle in connection with Cycle 220 or 221 although it cannot be combined with these cycles. - You tried to run the Cycle 209 with a feed rate factor for retraction (Q403). **Error correction** - You cannot combine Cycles 220 and 221 with the following fixed cycles: - Cycles of the SLI and SLII groups - Cycles 210 and 211 - Cycles 230 and 231 - Cycle 254 - Feed rate factor 403 is allowed only with a setting in MP3010 unequal to 7.
2A0-009E	**Error message** Line is write-protected **Cause of error** - You tried to edit or erase a write-protected line in the preset table. - You tried to write a value in the active line of the preset table. **Error correction** - Overwriting the active preset is not allowed. Use another preset number. - The write protection was activated by your machine manufacturer. Maybe fixed datum was defined in this line. If you want to cancel write protection, contact your machine tool builder. - You defined the write protection in the TNC.SYS file. If required, cancel the write-protection there. - You tried to change line 0. It cannot be changed.

Error number	Description
2A0-009F	**Error message** Oversize greater than depth **Cause of error** SL cycles II or milling cycles 25x: You have entered an allowance for floor greater than the milling depth. **Error correction** - SL cycles II: Check Q4 in Cycle 20 (ISO: G120). - Milling cycles 25x: Check allowance Q369 and depth Q201.
2A0-00A0	**Error message** Point angle not defined **Cause of error** In Cycle 240 Centering you defined parameter Q343 such that centering is done with respect to the diameter. In a drilling cycle you defined parameter Q395 such that the depth is in reference to the tool diameter. You programmed a cycle for chamfering. The point angle for this must be between 1 and 179 degrees. However, no point angle is defined for the active tool. **Error correction** - Set parameter Q343=0 (centering to entered depth). - Set parameter Q395=0 (depth in reference to the tool tip). - Define the point angle in the column T-ANGLE of the tool table TOOL.T.
2A0-00A1	**Error message** Contradictory data **Cause of error** The combination of the parameters Depth (Q201) and Diameter (Q344) defined in Cycle 240 Centering under Select depth/diameter (Q343) is not allowed. **Error correction** Possible definitions: Q343=1 (entered diameter active): Q201 must be equal to 0 and Q344 must not be equal to 0. Q343=0 (entered depth active): Q201 must not be equal to 0 and Q344 must be equal to 0.
2A0-00A2	**Error message** Slot position 0 not allowed! **Cause of error** You tried to run Cycle 254 with the slot position 0 (Q367=0) in conjunction with the point pattern Cycle 221. **Error correction** Use slot position Q367 = 1, 2 or 3 if you want to run Cycle 254 with the point pattern cycle 221

Error number	Description
2A0-00A3	**Error message** Enter an infeed not equal to 0. **Cause of error** You defined a fixed cycle with the depth 0. **Error correction** Enter a depth unequal to 0.
2A0-00A4	**Error message** Switchover of Q399 not allowed **Cause of error** You tried to switch on the touch probe cycle 441 to switch on the angle tracking, although this function is deactivated by machine parameter 6165. **Error correction** Set the machine parameter 6165 = 1 (MOD function, code number 123) and then recalibrate the touch probe.
2A0-00A5	**Error message** Tool not defined **Cause of error** You have called a tool that is not defined in the tool table. **Error correction** - Add the missing tool to the tool table. - Use another tool.
2A0-00A6	**Error message** Tool number not allowed **Cause of error** In a TOOL CALL or TOOL DEF block you tried to define a tool number although it is prohibited by machine parameter. **Error correction** - Use the tool name. - Adapt machine parameter 7483. If required, contact your machine manufacturer.
2A0-00A7	**Error message** Tool name not allowed **Cause of error** In a TOOL CALL or TOOL DEF block you tried to define a tool name although it is prohibited by machine parameter. **Error correction** - Use the tool number. - If required, contact your machine tool builder

Error number	Description
2A0-00A8	**Error message** Software option not active **Cause of error** You tried to use a software option that is not enabled on your TNC. **Error correction** Contact your machine tool builder or the control manufacturer to purchase the software option.
2A0-00A9	**Error message** Kinematics cannot be restored **Cause of error** You tried to restore kinematics that do not match the currently active kinematics. **Error correction** Restore only kinematics that you have saved previously from an identical kinematics description.
2A0-00AA	**Error message** Function not permitted **Cause of error** You tried to use a feature that is not enabled on your TNC by the Feature Content Level (FCL) management. **Error correction** By default, FCL functions are locked after a software update. By entering the code number 65535 in the SIK menu, you can enable these functions for a certain period of time for test purposes. You can enable FCL functions permanently by purchasing and entering a code number. For more information, contact your machine tool builder or the control manufacturer.
2A0-00AB	**Error message** Contradictory workpc. blank dim. **Cause of error** The workpiece blank dimensions you have defined in a fixed cycle are smaller than the dimensions of the finished part. **Error correction** Check the cycle definition and correct the input values.

Error number	Description
2A0-00AC	**Error message** Measuring position not allowed **Cause of error** The kinematic measurement resulted in a measuring position of 0° in one of the three rotary axes. This is not allowed. **Error correction** Select the starting angle, stopping angle and, if applicable, number of measurements on all three axes in a way that does not result in any 0° positions.
2A0-00AD	**Error message** Handwheel inactive **Cause of error** **Error correction**
2A0-00AE	**Error message** HR not allowed **Cause of error** **Error correction**
2A0-00AF	**Error message** Wrong operating mode for handwheel **Cause of error** **Error correction**
2A0-00B0	**Error message** Manual **Cause of error** **Error correction**
2A0-00B1	**Error message** Handwheel **Cause of error** **Error correction**
2A0-00B2	**Error message** Manual input **Cause of error** **Error correction**

Error number	Description
2A0-00B3	**Error message** Single Block **Cause of error** **Error correction**
2A0-00B4	**Error message** Full Sequence **Cause of error** **Error correction**
2A0-00B5	**Error message** Edit table **Cause of error** **Error correction**
2A0-00B6	**Error message** T%s: Remaining tool life too short **Cause of error** The remaining tool life (TIME2 column in the tool table) of the tool indicated in the error text has been exceeded. **Error correction** - Use a new tool. - Correct the current tool life (CUR.TIME column in the tool table). A complete list of the tools whose tool life has expired is contained in the TOOLLIST.ERR file stored in the TNC:\ directory.
2A0-00B7	**Error message** FN 14: Error code %s **Cause of error** Forced error through function FN14 (ISO: D14). With this function the TNC calls the preprogrammed messages of the machine manufacturer (e.g. from an OEM cycle). If during a program run or test run the TNC comes to a block with FN14 (D14), it stops operation and displays a message. You must then restart the program. **Error correction** Refer to the User's Manual for a description of the error. Correct the error and restart the program.

Error number	Description
2A0-00B8	**Error message** FN 14: error code %-3u **Cause of error** Forced error through function FN14 (ISO: D14). With this function the TNC calls the preprogrammed messages of the machine manufacturer (e.g. from an OEM cycle). If during a program run or test run the TNC comes to a block with FN14 (D14), it stops operation and displays a message. You must then restart the program. **Error correction** Refer to the User's Manual for a description of the error. Correct the error and restart the program.
2A0-00B9	**Error message** Calculated error no. too large **Cause of error** Calculation of an error number for the FN14 function (ISO: D14) from a Q parameter resulted in a value outside the permissible range of 0 to 499. **Error correction** Edit the part program.
2A0-00BA	**Error message** Tool %s not defined **Cause of error** You called a tool that is not contained in the tool magazine. **Error correction** Check the pocket table and add the tool if required. A complete list of the tools that are not contained in the tool magazine can be found in the the TOOLLIST.ERR file stored in the TNC:\ directory.
2A0-00BB	**Error message** block scan inconsistent %s **Cause of error** During restoration of the machine status after a block scan (mid-program startup), the conditions on the machine regarding spindle speed (S), traverse range (R) or preset (P) were not the same as calculated in the block scan. **Error correction** - Shut down the control and restart it. - Inform your machine tool builder.

Error number	Description
2A0-00BC	**Error message** Limit switch %.2s- **Cause of error** The calculated path of the tool exceeds the traversing range (software limit switch) of the machine - Software limit switch was reached in a manual operating mode **Error correction** - Check the programmed coordinates. If required, edit the program. - Check the reference point. If required, set a new reference point. - Move the tool in the opposite direction.
2A0-00BD	**Error message** Limit switch %.2s- **Cause of error** The calculated tool path exceeds the machine's traverse limits. Negative traverse range is defined with MP92x.x. **Error correction** - Check the programmed coordinates. If required, edit the program. - Check the reference point. If required, set a new reference point.
2A0-00BE	**Error message** Limit switch %.2s+ **Cause of error** - The calculated path of the tool exceeds the traversing range (software limit switch) of the machine - Software limit switch was reached in a manual operating mode **Error correction** - Check the programmed coordinates. If required, edit the program. - Check the reference point. If required, set a new reference point. - Move the tool in the opposite direction.

Error number	Description
2A0-00BF	**Error message** Limit switch %.2s+ **Cause of error** The calculated tool path exceeds the machine's positive traverse limits. Positive traverse range is defined with MP91x.x. **Error correction** - Check the programmed coordinates. If required, edit the program. - Check the reference point. If required, set a new reference point.
2A0-00C0	**Error message** Required element missing **Cause of error** Not all required data have been entered in an NC block. **Error correction** Add the missing information.
2A0-00C1	**Error message** File does not exist **Cause of error** - The given file does not exist. - The given file has been deleted since last used. - You tried to select a file whose name exceeds the permitted length. - smarT.NC: You selected an .HU program that uses a point table that does not exist on the TNC hard disk. - You entered an incorrect path under >MOD >Print (print test). - You tried to open and edit a file protected by SELinux (access check). **Error correction** - Use an existing file for the selected file operation. - Pay attention to the maximum permissible length of the file name. - Check the .HU program for missing point tables and restore or read-in the missing files - Correct the path entry. - Deactivate SELinux temporarily.
2A0-00C2	**Error message** File type missing or incorrect **Cause of error** You tried to create a new file without first defining the appropriate file type. **Error correction** Enter the correct file type.

Error number	Description
2A0-00C3	**Error message** No datum table selected **Cause of error** You tried to select a datum number by soft key although no datum table is selected in the program header. **Error correction** - Under options in the program header (UNIT 700), enter a datum table from which the datums can be selected. - Make sure that you have entered the correct path name in the UNIT 141 or in the program header (UNIT 700).
2A0-00C4	**Error message** No polar coordinates possible **Cause of error** You pressed the P key to enter polar coordinates. Polar coordinates are not programmable for the active function. **Error correction** Enter Cartesian coordinates to program the active function, or use a function that permits polar coordinate input.
2A0-00C5	**Error message** Incremental input not allowed **Cause of error** You attempted to enter an incremental value by pressing the I key. **Error correction** Enter an absolute value.
2A0-00C7	**Error message** MC: System error in SPLC-RTS **Cause of error** - Internal software error in the run-time system (RTS) of the SPLC on the MC **Error correction** Inform your service agency
2A0-00C8	**Error message** Faulty recognition of PL/MB hardware **Cause of error** An error occurred during detection and evaluation of the safety-related PL and MB hardware. **Error correction** - Check the connection and function of HSCI-PLs and MB - Inform your service agency

Error number	Description
2A0-00C9	**Error message** I/O assembly %1 reports an error **Cause of error** A safety-related HSCI-PL or the MB supplies invalid data. **Error correction** - Find and exchange the faulty device - Inform your service agency
2A0-00CA	**Error message** I/O assembly %1 reports an error **Cause of error** A safety-related HSCI-PL or the MB reports an error. **Error correction** - Check the wiring and condition of the PLs or the MB. - Inform your service agency
2A0-00CB	**Error message** MC: System error in SPLC-RTS **Cause of error** - Internal software error in the run-time system (RTS) of the SPLC by the MC **Error correction** Inform your service agency
2A0-00CC	**Error message** MC: System error in SPLC-RTS **Cause of error** - Internal software error in the run-time system (RTS) of the SPLC by the MC **Error correction** Inform your service agency
2A0-00CD	**Error message** Run-time error in SPLC program **Cause of error** - Run-time error in the SPLC program **Error correction** Inform your service agency
2A0-00CE	**Error message** SPLC cannot load program **Cause of error** The SPLC program cannot be loaded. **Error correction** Inform your service agency

Error number	Description
2A0-00CF	**Error message** SPLC program has changed **Cause of error** The SPLC program or the NC software was changed after the machine safety acceptance. **Error correction** Restore the original SPLC program or perform the safety acceptance again.
2A0-00D0	**Error message** SPLC program cannot run **Cause of error** SPLC program cannot be started **Error correction** - Note further error messages. - Inform your service agency
2A0-00D1	**Error message** Machine not in safe operation **Cause of error** The control commissioning is not yet concluded. The functional safety of the machine is not ensured. **Error correction**
2A0-00D2	**Error message** Configuration of SPLC inputs **Cause of error** The configuration of the SPLC inputs with inverse logic is faulty. **Error correction** - Check configuration in safety-related machine parameters inpNoInverseA and inpNoInverseB. - Inform your service agency
2A0-00D3	**Error message** Configuration of SPLC inputs **Cause of error** The configuration of the SPLC inputs that are participating in the minute test is faulty. **Error correction** - Check configuration in safety-related machine parameter inpNoDynTest. - Inform your service agency

Error number	Description
2A0-00D4	**Error message** Configuration of SPLC cycle time **Cause of error** Configured cycle time for SPLC is too long or too short. **Error correction** - Check configuration in machine parameter plcCount. - Inform your service agency
2A0-00D5	**Error message** Functional Safety (FS) not ensured! **Cause of error** This installation of the control software is a test version: - This control software may be used only for test purposes! - The functional safety of the machine is not guaranteed! - Therefore be careful when running the machine, particularly when the guard doors are open! **Error correction**
2A0-00D6	**Error message** ACCESSLEVEL: Function locked **Cause of error** - Desired function in the active ACCESSLEVEL is locked **Error correction** - Enable the function through ACCESSLEVEL
2A0-00D7	**Error message** Protected File! **Cause of error** You cannot edit or erase this program until the protection has been removed. **Error correction** Cancel the program protection.
2A0-00D8	**Error message** smarT.NC: Copy/Cut smarT.NC: Copy **Cause of error** **Error correction**

Error number	Description
2A0-00D9	**Error message** Changed NC software version **Cause of error** - The NC software version was changed after the machine safety acceptance. - NC software version and version of the file used, SplcApi-Marker.def, do not match. **Error correction** - Transfer the SplcApiMarker.def file appropriate to the installed NC software version into the SPLC project. - Enter the value of the constant SPLC_API_VERSION from this file into the safety-related machine parameter splcApiVersion in CfgSafety - Repeat the safety inspection and approval of the machine with the appropriate comprehensiveness. - Inform your service agency
2A0-00DA	**Error message** Error in SPLC configuration data **Cause of error** - The configuration data for the SPLC are incorrect. It is not possible to translate the PLC program until these data are corrected. **Error correction** - Correct the configuration data for SPLC Note further error messages regarding this. - Inform your service agency
2A0-00DB	**Error message** Incorrect condition of safe output %1 **Cause of error** - Indicated SPLC output is logical 1 (+24 V), although SPLC specifies logical 0 (0 V) for the output. - Faulty wiring (short circuit to +24 V) - PLD module defective **Error correction** - Check the wiring - Exchange the defective PLD module - Inform your service agency
2A0-00DC	**Error message** AFC: No reference power recorded **Cause of error** Adaptive Feed Control (AFC), learning mode: The TNC could not find any reference power. Possible cause: Test cut in the air **Error correction** Repeat the teach-in cut.

Error number	Description
2A0-00DD	**Error message** Faulty assignment of tool/cut no. **Cause of error** AFC: In the AFC settings the assignment of the current cut number to the current tool is faulty. **Error correction** Repeat the teaching process. The TNC automatically resets the current cut to "Teach".
2A0-00DE	**Error message** Wiring of SPLC input %1 **Cause of error** According to the configuration (CfgSafety / inpNoDynTest), the SPLC input named in the text participates in the dynamic test but does not drop out although the corresponding test output was switched off. **Error correction** - Check the wiring - Check the configuration
2A0-00DF	**Error message** Wiring of emergency stop **Cause of error** An emergency stop input does not drop out, although the associated test output was switched off. **Error correction** Check the wiring. All emergency stop circuits must be supplied with current over the corresponding test outputs.
2A0-00E0	**Error message** Wrong input %1 for dynamic test **Cause of error** The indicated SPLC input cannot be tested with the minute test (dynamic test) - No physical PLC input with the indicated number exists - The PLC input is neither on a system PL (PLB 62xxFS) nor on a safe machine operating panel (MB 6xxFS) even though there is more than one system PL in the HSCI system. **Error correction** - Check machine parameter inpNoDynTest in CfgSafety. - Inform your service agency.

Error number	Description
2A0-00E1	**Error message** MC error during cross comparison at input %1 **Cause of error** The two terminals of a dual-channel FS input have differing logical conditions. Possible causes: - Key on the machine operating panel was pressed on a slant - Breakage in the wiring of an FS input - Short circuit on 0 V or 24 V in the wiring of an FS input - Incorrect configuration (SMP) of inverse FS inputs (e.g. with antivalent or inverted signal) **Error correction** - Check the keys on the machine operating panel. If one of the keys had been pressed at an incorrect angle, then no further measures are necessary - Check the wiring of the affected dual-channel input - Inform your service agency Note that the input cannot be put back into the trigger state until both input terminals are in the idle state.
2A0-00E2	**Error message** Unexpected condition of SPLC input %1 **Cause of error** According to the machine parameter configuration, the given SPLC input in the idle state should be providing 0 V and another channel 24 V. This is not the case. Possible causes: - Configuration of the SPLC input is faulty - Input is not in the idle state during the self-test - Wiring is faulty. - The connected handwheel is not suitable for functional safety (FS) - The handwheel has been replaced by an unsuitable dummy plug (not suitable for FS) **Error correction** - Check the wiring - Check the configuration - Check connected handwheel and exchange it if necessary - Check the dummy plug and exchange it if necessary - Inform your service agency
2A0-00E3	**Error message** Select override: Handw./ Op. panel CAUTION F/S values **Cause of error** **Error correction**

Error number	Description
2A0-00E4	**Error message** Control strategy not found in AFC.TAB. Default will be used. **Cause of error** The control could not find the control strategy assigned to the active workpiece in the table AFC.TAB. **Error correction** Correct the entries in the AFC column of the tool table or in the AFC.TAB table.
2A0-00E5	**Error message** Input marker %1 set by SPLC program **Cause of error** - The SPLC program has an input marker set to the value TRUE (= 1). This is not allowed. - Input markers can be deleted by the SPLC program (= 0), but they cannot be set (= 1) **Error correction** - Check the SPLC program and correct it if necessary - Inform your service agency
2A0-00EC	**Error message** AFC parameters not allowed in turning mode **Cause of error** An AFC parameter was programmed that is not permitted in turning mode, e.g. TIME or DIST. **Error correction** Check the NC program and adapt it if necessary
2A0-00ED	**Error message** Program-run graphics: Incomplete display **Cause of error** The TNC is so busy machining the current workpiece that the program-run graphics are sometimes not being updated, and can therefore be incomplete. **Error correction** No corrective action possible
2A0-00EE	**Error message** AFC: No idle power recorded **Cause of error** The acceleration phase to the starting speed could not be concluded before the first cutting block was reached; therefore the idle power could not be determined. **Error correction** Only perform the first cutting block once it is ensured that the starting speed has been reached.

Error number	Description
2A0-00EF	**Error message** AFC: function is not in effect; inconsistent input values **Cause of error** A FUNCTION MODE ... command was executed after the TOOL CALL. That is not allowed. **Error correction** Edit the NC program
2A8-0003	**Error message** Place handwheel in charger **Cause of error** The wireless handwheel is not located in the charging station although the handwheel mode is not active. If the rechargeable battery of the handwheel is emptied or there is interference in the radio connection, the TNC releases an emergency stop. In this case the program run is canceled. **Error correction** Always place the handwheel in the loading station when you are not working with it.
2A8-0004	**Error message** Configuration error in OEM handwheel menu or soft key **Cause of error** The configuration of an OEM handwheel menu or an OEM handwheel soft key is incomplete or faulty. **Error correction** Inform your service agency.
2A8-0007	**Error message** Battery almost empty. Place handwheel into the charging station **Cause of error** The wireless handwheel's rechargeable battery is almost empty. If the rechargeable battery loses charge, it interrupts the connection to the handwheel. This results in an emergency stop and the program run is aborted! **Error correction** - Now place the handwheel onto the charging station to restore its charge. - Recommendation: Always keep the handwheel in the charging when not in use.

Error number	Description
2A9-0001	**Error message** Faulty BLK FORM **Cause of error** The given workpiece blank definition is faulty and could not be interpreted by the control. **Error correction** - Correct the BLK FORM in the NC program.
2A9-0002	**Error message** Incorrect tool data **Cause of error** The 3-D simulation graphic cannot process the tool data. **Error correction** Adapt the tool data
2A9-0003	**Error message** 3-D simulation graphic is being recalculated...
2A9-0004	**Error message** Graphics memory exhausted **Cause of error** No more graphics memory is available for displaying the 3D material removal simulation. The simulation was automatically aborted, so as not to endanger the system stability. **Error correction** - Adjust the graphics settings, e.g set the model quality to "low" - Restart the simulation
2A9-0005	**Error message** 3-D test graphic is being recalculated **Cause of error** The representation of the material removal simulation uses to much graphics memory. Simulation with the set level of detail is not possible. In order to finish simulating the NC program, a simplified workpiece model with lower memory requirements was switched to automatically. This can reduce the level of detail. **Error correction**

Error number	Description
2A9-0009	**Error message** Rapid-traverse cut near block %1 **Cause of error** The simulation detected possible cutting of material at rapid traverse near the indicated block number. **Error correction** - Check the position and size of the BLK FORM - Increase the quality of the simulation - Edit the NC program
2A9-000B	**Error message** System error when calculating the graphics **Cause of error** System error during internal calculation of the 3-D graphical representation during program run or a test run. **Error correction** Inform your service agency
2A9-000C	**Error message** Violation of the workpiece near block %1 **Cause of error** The simulation detected a possible violation of the workpiece by a non-cutting part of the tool (holder or shank) near the indicated block number. **Error correction** Check the position and size of the BLK FORM, as well as the tool data, and edit the NC program if necessary
2A9-000D	**Error message** %2 3-D model not loaded %1 **Cause of error** Error while reading the 3-D model: the file could not be opened or is not a supported 3-D data format. **Error correction** - Check the path and correct it if necessary - Reload the file

Error number	Description
2A9-000E	**Error message** %2 3-D model not loaded %1 **Cause of error** Could not load the 3-D model because it does not fulfill the quality requirements. The following requirements are in place for 3-D models: - All dimensions in mm - No gaps between triangles ("waterproof") - No overlapping - No degenerated triangles **Error correction** Regenerate the 3-D model and transfer it to the control.
2A9-000F	**Error message** %2 3-D model not loaded %1 **Cause of error** Error while reading the 3-D model: the file contains too many triangles. **Error correction** - Use a rougher 3-D model - Generate the 3-D model with the CAD program again and transfer it to the control. In many CAD programs the level of detail can be set when exporting.
2A9-0010	**Error message** Workpiece could not be exported **Cause of error** Could not write the file. **Error correction** - Check the path and correct it if necessary - Check the available memory
2A9-0011	**Error message** Ext. workpiece monitoring temporarily deactivated **Cause of error** Too many blocks with violations of the workpiece were found. Extended workpiece monitoring will be deactivated until the next BLK FORM. **Error correction** Check and correct as necessary: - Tool data - Position and shape of the workpiece - Cuts at FMAX

Error number	Description
2A9-0012	**Error message** Workpiece could not be exported **Cause of error** There is no workpiece present. **Error correction**
2A9-001E	**Error message** Real-time graphical simulation stopped **Cause of error** The RAM currently available does not suffice to display the real-time graphical simulation. **Error correction**
2A9-001F	**Error message** Graphical simulation was switched to 2.5D **Cause of error** Only little RAM is available for displaying the graphical simulation. 2.5D mode was switched to in order to save RAM. **Error correction**
2A9-0020	**Error message** Fixture violation near block %1 **Cause of error** A possible violation of the fixture by a cutting part or a non-cutting part of the tool was detected near the indicated block number. **Error correction** - Check the fixture position - Check the tool data - Edit the NC program, if necessary
2A9-0021	**Error message** STL file contains a hidden object **Cause of error** In der 3D-Simulation wird ein Rohteil verwendet, in dem ein verdeckter Körper enthalten ist. Dies ist nicht zulässig. **Error correction** - STL-Datei korrigieren bzw. andere STL-Datei verwenden - 2.5D Simulationseinstellung verwenden

Error number	Description
2A9-0022	**Error message** Werkstückverletzung nahe Satz %1 **Cause of error** Die Simulation hat eine mögliche Verletzung des Werkstücks durch eine Maschinenkomponente in der Nähe der angegebenen Satznummer detektiert. **Error correction** - Position und Größe der BLK FORM prüfen und ggf. NC-Programm anpassen
2AA-0005	**Error message** Database error **Cause of error** Access to the table was not possible for the following reasons: - The table is write-protected - The table is corrupted - The table does not exist **Error correction** Check the table
2D4-0000	**Error message** Start of Python script "%1" failed **Cause of error** Communication with the PLC necessary for starting the Python script has failed. **Error correction** - Compile the PLC program - Restart the Python script
2D4-0001	**Error message** Start of Python script "%1" failed **Cause of error** The exact cause of the error is unknown. **Error correction** Inform your service agency.
2D4-0002	**Error message** Start of Python script "%1" failed **Cause of error** The Python option is not enabled For Python applications to be run on the control, the "Python OEM Process" software option must be enabled in the SIK. **Error correction** - "Python OEM process" software option was not enabled in the SIK

Error number	Description
2D4-0003	**Error message** Start of Python script "%1" failed **Cause of error** Too little free working memory available to run the Python script. **Error correction** - Assign less memory requirement to the Python script over the machine configuration ("memLimit" machine parameter) - Close running Python processes to free memory.
2D4-0004	**Error message** Start of Python script "%1" failed **Cause of error** The value of the machine parameter "memLimit" (maximum process memory) is invalid. **Error correction** - Check the machine parameter "memLimit" and correct it
2D4-0005	**Error message** Start of Python script "%1" failed **Cause of error** The path entered in the machine configuration for the Python script is invalid. **Error correction** - Correct the machine parameter in the CfgSoftkeyOverlay config object.
2D4-0006	**Error message** Start of Python script "%1" failed **Cause of error** The name entered in the machine configuration for the Python process is invalid. **Error correction** - Correct the machine parameter "jobName" in the CfgSoftkeyOverlay config object.
2D4-0007	**Error message** Start of Python script "%1" failed **Cause of error** A Python process with the same name is already running. **Error correction** - If desired, terminate the running Python process

Error number	Description
2D4-0008	**Error message** Start of Python script "%1" failed **Cause of error** In the machine configuration there are invalid parameters defined for the Python script. **Error correction** - Correct the machine parameter "parameter" in the CfgSoftkeyOverlay config object.
303-0001	**Error message** Referenced OPC UA namespace %1 does not exist **Cause of error** The entities CfgOpcUaObject and CfgOpcUaPlcVar with the following keys do not refer to an existing OPC UA namespace configuration: %1 The nodes stated and all child elements will not be created. **Error correction** Check the withinNamespace attribute
303-0002	**Error message** Referenced OPC UA parent node %1 does not exist **Cause of error** The entities CfgOpcUaObject and CfgOpcUaPlcVar with the following keys use the attribute parentNode to refer to a parent node that does not exist: %1 The nodes and all child elements will not be created. **Error correction** Check the parentNode attribute
303-0003	**Error message** Invalid value for nodeIdIdentifier %1 **Cause of error** nodeIdType was set to Numeric in the configuration datum %1. However, the value entered for nodeIdIdentifier is not a numeric value. The node and all child elements will not be created. **Error correction** Check the nodeIdType and nodeIdIdentifier attributes in the indicated configuration datum

Error number	Description
303-0004	**Error message** Invalid value for publicationDate %1 **Cause of error** The publication date entered in the configuration datum %1 does not match the format YYYY-MM-DDThh:m-m:ss.sssTZD. **Error correction** Check the configuration datum
303-0005	**Error message** Multiple definitions of the namespace URI %1 **Cause of error** The namespace URI of an OPC UA namespace must be unique. The namespaceUri in the CfgOpcUaNamespace entities with the following keys is identical: %1 (%2 entities) Only the first namespace configuration stated is active. **Error correction** Check the configuration of the namespaceUri
303-0006	**Error message** Value not permitted for namespaceUri %1 **Cause of error** The OPC UA namespace URI entered in the configuration datum %1 is not permitted, since it is too similar to other names or namespace URIs that have already been assigned. The namespace and all nodes it contains will not be created. **Error correction** Select a different URI for the OPC UA namespace
303-0007	**Error message** Multiple use of NodeId %1 **Cause of error** The same NodeId was configured for the entities CfgOpcUaObject and CfgOpcUaPlcVar with the following keys: %1 (%2 entities) Only the first node stated will be created. **Error correction** Check the configuration of the withinNamespace, nodeId-Type, and nodeIdIdentifier attributes

Error number	Description
303-0008	**Error message** Attribute %1 was not configured **Cause of error** No value was entered in the configuration datum %1. It is absolutely essential. The node and all child elements will not be created. **Error correction** Check the configuration datum
303-0009	**Error message** Cyclic parent-child relationship **Cause of error** The entities CfgOpcUaObject and CfgOpcUaPlcVar with the following keys form a cyclic reference though their parentNode attributes: %1 This is not permitted. The nodes stated and all child elements will not be created. **Error correction** Check the respective parentNode attributes
303-000A	**Error message** Invalid namespace URI %1 **Cause of error** An invalid namespace URI was entered in the namespaceUri attribute in the configuration datum %1. The node and all child elements will not be created. **Error correction** Enter a correct namespace URI
303-000B	**Error message** Invalid parent node: %1 **Cause of error** The entity CfgOpcUaObject %1 references an CfgOpcUaPlcVar entity as parent node. This is not allowed. The node and all child elements will not be created. **Error correction** Check the parentNode attribute

Error number	Description
303-000C	**Error message** Impermissible multiple use of browseName %1 **Cause of error** The same browseName is used below the same parent node in the entities CfgOpcUaObject and CfgOpcUaPlcVar with the following keys: %1 (%2 entities) Only the first node stated will be created. **Error correction** Check the configuration of the browseName attribute
303-000D	**Error message** More than %1 variables are configured **Cause of error** The machine manufacturer configured many variables for access through OPC UA NC Server. If OPC UA clients order subscriptions to all of these variables, a system overload can occur. %2 variables are configured. **Error correction** Reduce the number of variables or adapt the warning threshold after successful testing of the overall load
303-000E	**Error message** The configuration of the OPC UA NC Server has changed **Cause of error** The OEM-specific configuration of OPC UA NC Server was changed. The changes will take effect the next time the server is restarted. **Error correction** Restart the server to activate the changes. Active connections will be disconnected.
303-0012	**Error message** Invalid range specified %1 **Cause of error** The range specified in the configuration datum %1 is not valid. The minimum value is greater than the maximum value. The variable node will not be created. **Error correction** Check the configuration datum

Error number	Description
303-0013	**Error message** Incomplete range specified %1 **Cause of error** The range specified in the configuration datum %1 is not complete. Either the minimum value or the maximum value is missing. The variable node will not be created. **Error correction** Check the configuration datum
303-0014	**Error message** EURange outside of InstrumentRange **Cause of error** The range specified for EURange in the configuration datum %1 exceeds the range specified for InstrumentRange in the configuration datum %2 InstrumentRange indicates the maximum permissible range of values, and therefore must not be exceeded by EURange. The variable node will not be created. **Error correction** Check the configuration datum
303-0015	**Error message** Unknown UnitCode %1 **Cause of error** The UnitCode entered in the configuration datum %1 is unknown to the control. The variable node will not be created. **Error correction** Check the configuration datum
303-0016	**Error message** Unknown PLC symbol %1 **Cause of error** Im Konfigurationsdatum %1 wurde ein PLC-Symbolname angegeben, der im PLC-Programm nicht definiert ist. **Error correction** Konfigurationsdatum prüfen

Error number	Description
303-0017	**Error message** Meta-information does not match the PLC operand **Cause of error** In Konfigurationsdatum %1 wurden Meta-Informationen für numerische Werte konfiguriert. Der Datentyp des angegebenen PLC-Operanden ist jedoch nicht numerisch. Die Meta-Informationen werden ignoriert. **Error correction** Meta-Informationen löschen oder korrekten PLC-Operanden angeben
303-0018	**Error message** Meta-information does not match the PLC operand **Cause of error** A valuePrecision was entered in the configuration datum %1. However, this is supported only for the data types Word and DWord. The indicated valuePrecision will be ignored. **Error correction** Delete the value for valuePrecision or enter a correct PLC operand
303-0019	**Error message** Invalid index for PLC symbol %1 **Cause of error** Im Konfigurationsdatum %1 wurde ein PLC-Symbol mit einem ungültigen Index adressiert. **Error correction** Konfigurationsdatum prüfen
303-001A	**Error message** PLC symbol %1 has no valid data value **Cause of error** Im Konfigurationsdatum %1 wurde ein PLC-Symbolname angegeben, der keinen gültigen Datenwert beschreibt (z.B. eine PLC-Struktur). **Error correction** Konfigurationsdatum prüfen. (Bei PLC-Strukturen können deren Elemente als separate Variablen konfiguriert werden.)

Error number	Description
303-001B	**Error message** Write-access configured for PLC constant **Cause of error** In Konfigurationsdatum %1 wurde der PLC-Operand über valueWritable als schreibbar konfiguriert. Der angegebene PLC-Operand ist jedoch eine Konstante und kann somit nicht geändert werden. Das Attribut valueWritable wird ignoriert. **Error correction** Konfigurationsdatum prüfen
320-0001	**Error message** Error while sending message to PLC **Cause of error** **Error correction**
320-0002	**Error message** PLC program not successfully compiled **Cause of error** **Error correction**
320-0003	**Error message** Argument out of range **Cause of error** **Error correction**
320-0004	**Error message** PLC is running in simulation mode **Cause of error** **Error correction**
320-0005	**Error message** PLC compiler argument (%1) missing **Cause of error** **Error correction**
320-0006	**Error message** Invalid PLC call parameter **Cause of error** **Error correction**

Error number	Description
320-000A	**Error message** Programmed spindle speed is too low **Cause of error** The spindle speed that programmed is too low. **Error correction** Program a faster shaft speed or check the configuration datum Axes/ParameterSets/????/CfgFeedLimits/minFeed. "????" designates the current name of the data record from the configuration.
320-000B	**Error message** Rotational speed programmed for spindle too high **Cause of error** The shaft speed that you programmed for this axis is too low. **Error correction** Program a faster shaft speed or check the configuration datum Axes->ParameterSets->????->CfgFeedLimits->minFeed. "????" designates the current name of the configuration set.
320-000C	**Error message** %1 **Cause of error** siehe Maschinenhandbuch **Error correction** siehe Maschinenhandbuch
320-000D	**Error message** The PLC program has been stopped **Cause of error** The PLC program was stopped because of a system error in the PLC. **Error correction** Inform your machine tool builder.
320-000E	**Error message** Error in PLC program **Cause of error** An error occurred during execution of the PLC program. **Error correction** Inform your machine tool builder.

Error number	Description
320-000F	**Error message** System error in the PLC **Cause of error** Internal software error **Error correction** Inform your service agency.
320-0010	**Error message** General system error **Cause of error** Internal software error **Error correction** Inform your service agency.
320-0011	**Error message** Spindle speed programmed without configured spindle **Cause of error** No spindle available, but speed has been programmed. **Error correction** Configure the spindle (CfgAxes/spindleIndices) or do not program a spindle speed.
320-0012	**Error message** Configuration datum %1/%2 contains errors **Cause of error** The given configuration datum contains errors and was not accepted for control operation. **Error correction** Correct the given configuration data or inform your machine tool builder.
320-0013	**Error message** Configuration datum %1 for channel %2 missing **Cause of error** The given configuration datum was not found. **Error correction** Add the given configuration datum or inform your machine tool builder.

Error number	Description
320-0014	**Error message** Configuration datum %1 for channel %2 already defined **Cause of error** The given configuration datum causes a multiple definition of an output to the PLC. **Error correction** Correct the given configuration data or inform your machine manufacturer.
320-0015	**Error message** Operand %1 for configuration datum %2 not found **Cause of error** The operand described in the given configuration data was not defined in the PLC. **Error correction** Correct the given configuration data, select another PLC program and/or inform your machine manufacturer.
320-0016	**Error message** Data of PLC strobe for channel %1 could not be transferred **Cause of error** The data belonging to the given output to the PLC could not be saved in PLC markers. **Error correction** Correct the associated configuration datum or inform your machine tool builder.

Error number	Description
320-0017	**Error message** Configuration and PLC program incompatible **Cause of error** A PLC program has been selected that is not compatible with the configuration of the machine. Necessary prerequisites for the successful operation of the PLC program: - PLC programs that operate with the numerical memory interface API 1.0 (TNC flag interface) can only control one operating mode group, one NC channel, and one spindle. - PLC programs that use the symbolic memory interface API 3 must create the API data structures in the number suitable for the configuration. - The correct values for the system parameters AXIS_COUNT and SPINDLE_COUNT must be defined in the configuration file of the PLC compiler. - PLC programs must define a sufficiently large memory image. All permanently assigned, non-volatile, or absolutely addressed flags must fall within the memory image. - PLC programs have to define all markers to which configuration data are to be assigned at the start of the PLC program. - Pay attention to any other, previously issued warnings. **Error correction** - Check the machine configuration - Check the configuration file of the PLC compiler for correct values - Use a suitable PLC program - Inform your service agency
320-0018	**Error message** Inconsistent PLC program **Cause of error** The API version in the selectable PLC program is not compatible with the control software or the definition of the API version in the PLC program is faulty. **Error correction** Update the ApiMarker.DEF file from the PLC project of the machine, or correct the PLC program.
320-0019	**Error message** Error in PLC program: Input was changed **Cause of error** The PLC program tried to change an input marker (e.g. I3). **Error correction** Correct the PLC program. Input markers can only be read, never written.

Error number	Description
320-001A	**Error message** PLC error table cannot be read (%1) **Cause of error** The PLC cannot read your error table. It could be that the path configured for the table is incorrect or the table has an incorrect format. **Error correction** Check the configuration and PLC error table.
320-001B	**Error message** PLC error table erroneous (%1) **Cause of error** An invalid error marker was given in the PLC error table.It could be that a symbolic name is written incorrectly. **Error correction** Correct the PLC error table.
320-001C	**Error message** Control cannot read operating times **Cause of error** The control cannot read one or more operating time values that are saved in a file. The file was presumably destroyed. **Error correction** If the error message appears repeatedly, inform your service agency.
320-001D	**Error message** System error in the PLC **Cause of error** Internal software error: The persistent storage of operating times in a file has failed, presumably because of an error in the file system. **Error correction** Inform your service agency.

Error number	Description
320-0023	**Error message** Invalid configuration for fast inputs Number %1 - Operand %2 **Cause of error** The configuration of the fast inputs is incorrect. **Error correction** Correct the configuration under consideration of the following constraints: - PLC programs that use the TNC marker can only use the markers M4590-4593 - The data type D (DWORD) is required to record all edges - Symbolic operands must be defined in the PLC program
320-0024	**Error message** Configuration datum %1/%2 missing **Cause of error** The given configuration datum was not found. **Error correction** Add the given configuration datum or inform your machine tool builder.
320-0025	**Error message** The PLC program has been stopped **Cause of error** Due to a change of the configuration data, the PLC was stopped and will be restarted. **Error correction** No correction necessary.
320-0026	**Error message** PLC: Division by 0/ Modulo error **Cause of error** Run-time error in the PLC program: - Division by 0 was caused. - A modulo calculation was incorrectly executed. **Error correction** Edit the PLC program. Change the PLC compiler setting DIVERROR/MODERROR.
320-0027	**Error message** PLC: Overflow when multiplying **Cause of error** Run-time error in PLC program: - Overflow during multiplication **Error correction** Edit the PLC program. Change the PLC compiler setting MULERROR.

Error number	Description
320-0028	**Error message** Invalid configuation for PLC arithmetic error operand %1 **Cause of error** The configuration for treatment of PLC arithmetic errors is illegal. **Error correction** Correct the configuration under consideration of the following constraints: - Examine the MULERROR, DIVERROR, and MODERROR entries in the configuration file for the PLC compiler (see entry under CfgPlcPath) - PLC programs that use the TNC marker interface can use only the markers M4200 to M4202 - Symbolic operands must be defined in the PLC program
320-0029	**Error message** System error in the PLC **Cause of error** A PLC server function that has not yet been implemented was called. **Error correction** Inform your service agency
320-002A	**Error message** System error in the PLC **Cause of error** The PLC server cannot find the sender of a message. **Error correction** Inform your service agency
320-002B	**Error message** System error in the PLC **Cause of error** The PLC server cannot reach the sender of a message. **Error correction** Inform your service agency
320-002C	**Error message** System error in the PLC **Cause of error** A software error has occurred in the PLC. **Error correction** Inform your service agency

Error number	Description
320-002D	**Error message** Cannot read the PLC MAIN file (%1) **Cause of error** The PLC cannot read its program file. **Error correction** Check the configuration and PLC program file.
320-002E	**Error message** Cannot read the PLC compiler file (%1) **Cause of error** The PLC cannot read a given compiler file. **Error correction** Check the PLC compiler configuration file (.cfg).Check the PLC compiler error text file (.err).
320-002F	**Error message** Operand field %1 in datum %2 too large **Cause of error** The given symbolic name refers to a field of PLC operands. The field size is too large for the given configuration data item. **Error correction** Correct the given configuration item, or contact your machine tool builder.
320-0030	**Error message** Operand field %1 in datum %2 too small **Cause of error** The given symbolic name refers to a field of PLC operands. The field size is too small for the given configuration data item. **Error correction** Correct the given configuration item, or contact your machine tool builder.
320-0031	**Error message** Invalid text source **Cause of error** A text source configured for dialog and error texts cannot be loaded. **Error correction** Configure another language or contact your machine tool builder.

Error number	Description
320-0032	**Error message** PL510 fault in cyclic operation **Cause of error** An EMC disturbance has occurred in the cyclical PL 510 mode. The periphery cannot be used. **Error correction** Inform your machine tool builder
320-0033	**Error message** System error in the PLC **Cause of error** Internal software error **Error correction** Inform your service agency.
320-0034	**Error message** Strobe was not realized **Cause of error** A strobe output was not realised after the block scan **Error correction**
320-0035	**Error message** System-management-bus initialization failed **Cause of error** No support for system management bus, or version of operating system is too old. **Error correction** Inform your service agency.
320-0036	**Error message** Error in PLC Python script **Cause of error** The given PLC Python script has an error. **Error correction** Inform your machine tool builder.
320-0037	**Error message** Error in PLC program **Cause of error** PLC run-time error: An error occurred when an API was called in the PLC program. **Error correction** Edit the PLC program.

Error number	Description
320-0037	**Error message** Error in PLC program **Cause of error** - An error occurred when an PLC module was called in the PLC program - The programmed parameter is outside the valid range **Error correction** - Check the PLC program and correct it - Inform your service agency
320-0037	**Error message** Error in PLC program **Cause of error** - An error occurred when an PLC module was called in the PLC program - The programmed parameter is invalid/does not exist **Error correction** - Check the PLC program and correct it - Inform your service agency
320-0037	**Error message** Error in PLC program **Cause of error** - An error occurred when an PLC module was called in the PLC program - The programmed address is outside the valid value range **Error correction** - Check the PLC program and correct it - Inform your service agency
320-0037	**Error message** Error in PLC program **Cause of error** - An error occurred when an PLC module was called in the PLC program - Sum of address and block length outside valid value range **Error correction** - Check the PLC program and correct it - Inform your service agency

Error number	Description
320-0037	**Error message** Error in PLC program **Cause of error** - An error occurred when an PLC module was called in the PLC program - The programmed address is not a word or double word address **Error correction** - Check the PLC program and correct it - Inform your service agency
320-0037	**Error message** Error in PLC program **Cause of error** - An error occurred when an PLC module was called in the PLC program - The programmed value can/must not be changed **Error correction** - Check the PLC program and correct it - Inform your service agency
320-0037	**Error message** Error in PLC program **Cause of error** - An error occurred when an PLC module was called in the PLC program - Programmed file is faulty **Error correction** - Check the PLC program and correct it - Inform your service agency
320-0037	**Error message** Error in PLC program **Cause of error** - An error occurred when an PLC module was called in the PLC program - Wrong NC operating mode is active **Error correction** - Check the PLC program and correct it - Inform your service agency

Error number	Description
320-0037	**Error message** Error in PLC program **Cause of error** - An error occurred when an PLC module was called in the PLC program - A position command or another job is already being executed **Error correction** - Check the PLC program and correct it - Inform your service agency
320-0037	**Error message** Error in PLC program **Cause of error** - An error occurred when an PLC module was called in the PLC program - No tool changer defined **Error correction** - Check the PLC program and correct it - Inform your service agency
320-0037	**Error message** Error in PLC program **Cause of error** - An error occurred when an PLC module was called in the PLC program - String cannot be converted or contains illegal characters in the string **Error correction** - Check the PLC program and correct it - Inform your service agency
320-0037	**Error message** Error in PLC program **Cause of error** - An error occurred when an PLC module was called in the PLC program - No end of string detected, or string incomplete **Error correction** - Check the PLC program and correct it - Inform your service agency

Error number	Description
320-0037	**Error message** Error in PLC program **Cause of error** - An error occurred when an PLC module was called in the PLC program - No connection over interface or to a server **Error correction** - Check the PLC program and correct it - Inform your service agency
320-0037	**Error message** Error in PLC program **Cause of error** - An error occurred when an PLC module was called in the PLC program - RS-232 interface busy or not assigned **Error correction** - Check the PLC program and correct it - Inform your service agency
320-0037	**Error message** Error in PLC program **Cause of error** - An error occurred when an PLC module was called in the PLC program - RS-232 transmit buffer not empty **Error correction** - Check the PLC program and correct it - Inform your service agency
320-0037	**Error message** Error in PLC program **Cause of error** - An error occurred when an PLC module was called in the PLC program - RS-232 receiving buffer empty **Error correction** - Check the PLC program and correct it - Inform your service agency

Error number	Description
320-0037	**Error message** Error in PLC program **Cause of error** - An error occurred when an PLC module was called in the PLC program - RS-232 baud rate not possible **Error correction** - Check the PLC program and correct it - Inform your service agency
320-0037	**Error message** Error in PLC program **Cause of error** - An error occurred when an PLC module was called in the PLC program - Transmission error of RS-232 interface **Error correction** - Check the PLC program and correct it - Inform your service agency
320-0037	**Error message** Error in PLC program **Cause of error** - An error occurred when an PLC module was called in the PLC program - No current controller found **Error correction** - Check the PLC program and correct it - Inform your service agency
320-0037	**Error message** Error in PLC program **Cause of error** - An error occurred when an PLC module was called in the PLC program - The PLC module was not called as a submit or spawn job **Error correction** - Check the PLC program and correct it - Inform your service agency

Error number	Description
320-0037	**Error message** Error in PLC program **Cause of error** An error occurred when a PLC module was called in the PLC program. The PLC module was called during program run without a strobe. **Error correction** - Check and correct the PLC program - Inform your service agency
320-0037	**Error message** Error in PLC program **Cause of error** - An error occurred when an PLC module was called in the PLC program - Overflow of key queue **Error correction** - Check the PLC program and correct it - Inform your service agency
320-0037	**Error message** Error in PLC program **Cause of error** - An error occurred when an PLC module was called in the PLC program - Overflow of PLC error message queue **Error correction** - Check the PLC program and correct it - Inform your service agency
320-0037	**Error message** Error in PLC program **Cause of error** - An error occurred when an PLC module was called in the PLC program - The PLC module was called from a submit or spawn job **Error correction** - Check the PLC program and correct it - Inform your service agency

Error number	Description
320-0037	**Error message** Error in PLC program **Cause of error** - An error occurred when an PLC module was called in the PLC program - Too many elements in a constants field **Error correction** - Check the PLC program and correct it - Inform your service agency
320-0037	**Error message** Error in PLC program **Cause of error** - An error occurred when an PLC module was called in the PLC program - Illegal elements programmed in a constants field **Error correction** - Check the PLC program and correct it - Inform your service agency
320-0037	**Error message** Error in PLC program **Cause of error** - An error occurred when an PLC module was called in the PLC program - Oriented spindle stop already active **Error correction** - Check the PLC program and correct it - Inform your service agency
320-0037	**Error message** Error in PLC program **Cause of error** - An error occurred when an PLC module was called in the PLC program - Module function is already active **Error correction** - Check the PLC program and correct it - Inform your service agency

Error number	Description
320-0037	**Error message** Error in PLC program **Cause of error** - An error occurred when an PLC module was called in the PLC program - The entered file name is invalid! **Error correction** - Check the PLC program and correct it - Inform your service agency
320-0037	**Error message** Error in PLC program **Cause of error** - An error occurred when an PLC module was called in the PLC program - The programmed field name does not exist **Error correction** - Check the PLC program and correct it - Inform your service agency
320-0037	**Error message** Error in PLC program **Cause of error** - An error occurred when an PLC module was called in the PLC program - Syntax error of the query statement **Error correction** - Check the PLC program and correct it - Inform your service agency
320-0037	**Error message** Error in PLC program **Cause of error** - An error occurred when an PLC module was called in the PLC program - No fitting data record available for the inquiry **Error correction** - Check the PLC program and correct it - Inform your service agency

Error number	Description
320-0037	**Error message** Error in PLC program **Cause of error** - An error occurred when an PLC module was called in the PLC program - The programmed axis has not yet been referenced **Error correction** - Check the PLC program and correct it - Inform your service agency
320-0037	**Error message** Error in PLC program **Cause of error** - An error occurred when an PLC module was called in the PLC program - The reset of a connected external device is faulty **Error correction** - Check the PLC program and correct it - Inform your service agency
320-0037	**Error message** Error in PLC program **Cause of error** - An error occurred when an PLC module was called in the PLC program - The editor is not active **Error correction** - Check the PLC program and correct it - Inform your service agency
320-0037	**Error message** Error in PLC program **Cause of error** - An error occurred when an PLC module was called in the PLC program - A general error occurred during a data access **Error correction** - Check the PLC program and correct it - Inform your service agency

Error number	Description
320-0037	**Error message** Error in PLC program **Cause of error** - An error occurred when an PLC module was called in the PLC program - The control's system memory is too small **Error correction** - Check the PLC program and correct it - Inform your service agency
320-0037	**Error message** Error in PLC program **Cause of error** - An error occurred when an PLC module was called in the PLC program - Error occurred during parsing **Error correction** - Check the PLC program and correct it - Inform your service agency
320-0037	**Error message** Error in PLC program **Cause of error** - An error occurred when an PLC module was called in the PLC program - Fast PLC input set when drives are to be switched on **Error correction** - Check the PLC program and correct it - Inform your service agency
320-0037	**Error message** Error in PLC program **Cause of error** - An error occurred when an PLC module was called in the PLC program - The drives cannot be switched on **Error correction** - Check the PLC program and correct it - Inform your service agency

Error number	Description
320-0037	**Error message** Error in PLC program **Cause of error** - An error occurred when an PLC module was called in the PLC program - The inspection of the number type was interrupted during entry in the tool table **Error correction** - Check the PLC program and correct it - Inform your service agency
320-0037	**Error message** Error in PLC program **Cause of error** - An error occurred when an PLC module was called in the PLC program - The powerfail monitoring cannot be switched off **Error correction** - Check the PLC program and correct it - Inform your service agency
320-0037	**Error message** Error in PLC program **Cause of error** - An error occurred when an PLC module was called in the PLC program - The control is a system without functional safety (FS) **Error correction** - Check the PLC program and correct it - Inform your service agency
320-0037	**Error message** Error in PLC program **Cause of error** - An error occurred when an PLC module was called in the PLC program - Error occurred in the evaluation of the soft-key resource file **Error correction** - Check the PLC program and correct it - Inform your service agency

Error number	Description
320-0037	**Error message** Error in PLC program **Cause of error** - An error occurred when an PLC module was called in the PLC program - The PLC module execution was canceled **Error correction** - Check the PLC program and correct it - Inform your service agency
320-0037	**Error message** Error in PLC program **Cause of error** - An error occurred when an PLC module was called in the PLC program - There has been an Profibus error **Error correction** - Check the PLC program and correct it - Inform your service agency
320-0037	**Error message** Error in PLC program **Cause of error** - An error occurred when an PLC module was called in the PLC program **Error correction** - Check and correct the PLC program - Inform your service agency
320-0037	**Error message** Error in PLC program **Cause of error** - An error occurred when an PLC module was called in the PLC program **Error correction** - Check the PLC program and correct it - Inform your service agency
320-0037	**Error message** Error in PLC program **Cause of error** - An error occurred when an PLC module was called in the PLC program **Error correction** - Check the PLC program and correct it - Inform your service agency

Error number	Description
320-0037	**Error message** Error in PLC program **Cause of error** - An error occurred when an PLC module was called in the PLC program **Error correction** - Check the PLC program and correct it - Inform your service agency
320-0037	**Error message** Error in PLC program **Cause of error** - An error occurred when an PLC module was called in the PLC program - The programmed function is not supported by the PLC module **Error correction** - Check the PLC program and correct it - Inform your service agency
320-0037	**Error message** Error in PLC program **Cause of error** - An error occurred when an PLC module was called in the PLC program - The programmed function is supported only by a dual-processor control. **Error correction** - Check the PLC program and correct it - Inform your service agency
320-0037	**Error message** Error in PLC program **Cause of error** - An error occurred when an PLC module was called in the PLC program - The control hardware does not have a serial interface **Error correction** - Check the PLC program and correct it - Inform your service agency

Error number	Description
320-0037	**Error message** Error in PLC program **Cause of error** - An error occurred when an PLC module was called in the PLC program - The programmed function is not supported by a dual-processor control **Error correction** - Check the PLC program and correct it - Inform your service agency
320-0037	**Error message** Error in PLC program **Cause of error** - An error occurred when an PLC module was called in the PLC program - File could not be disabled **Error correction** - Check the PLC program and correct it - Inform your service agency
320-0037	**Error message** Error in PLC program **Cause of error** - An error occurred when an PLC module was called in the PLC program - Entered file not found **Error correction** - Check the PLC program and correct it - Inform your service agency
320-0037	**Error message** Error in PLC program **Cause of error** - An error occurred when an PLC module was called in the PLC program - The function (software option or FCL) has not not been released **Error correction** - Check the PLC program and correct it - Inform your service agency

Error number	Description
320-0037	**Error message** Error in PLC program **Cause of error** - An error occurred when an PLC module was called in the PLC program - The function not available when there is more than one configured NC channel **Error correction** - Check the PLC program and correct it - Inform your service agency
320-0037	**Error message** Error in PLC program **Cause of error** - An error occurred when an PLC module was called in the PLC program - Could not start the programmed process (Python) **Error correction** - Check the PLC program and correct it - Inform your service agency
320-0037	**Error message** Error in PLC program **Cause of error** - An error occurred when an PLC module was called in the PLC program - This hardware does not support the programmed analog output at X8/X9 **Error correction** - Check the PLC program and correct it - Inform your service agency
320-0037	**Error message** Error in PLC program **Cause of error** - An error occurred when an PLC module was called in the PLC program - The PLC module could not be run **Error correction** - Check the PLC program and correct it - Inform your service agency

Error number	Description
320-0037	**Error message** Error in PLC program **Cause of error** - An error occurred when an PLC module was called in the PLC program - The transferred symbol/designator does not exist **Error correction** - Check the PLC program and correct it - Inform your service agency
320-0037	**Error message** Error in PLC program **Cause of error** - An error occurred when an PLC module was called in the PLC program - Could not create the handle **Error correction** - Check the PLC program and correct it - Inform your service agency
320-0037	**Error message** Error in PLC program **Cause of error** - An error occurred when an PLC module was called in the PLC program - The transferred handle is invalid **Error correction** - Check the PLC program and correct it - Inform your service agency
320-0037	**Error message** Error in PLC program **Cause of error** - An error occurred when an PLC module was called in the PLC program - Wrong data direction for transmission **Error correction** - Check the PLC program and correct it - Inform your service agency

Error number	Description
320-0037	**Error message** Error in PLC program **Cause of error** - An error occurred when an PLC module was called in the PLC program - A control with functional safety (FS) does not support the function called **Error correction** - Check the PLC program and correct it - Inform your service agency
320-0038	**Error message** Operand %1 for configuration datum %2 illegal **Cause of error** The operand defined in the given configuration datum is not allowed at this location. In most cases, configuration data can refer only to ordinary logical PLC markers (type M) or ordinary arithmetic PLC operands (types B,W,D). **Error correction** Correct the given configuration datum, and select another PLC program or inform your machine manufacturer
320-0039	**Error message** Configuration datum %1 **Cause of error** Correct the given configuration datum or inform your machine manufacturer **Error correction** Too many configuration data of the given type were defined.
320-003A	**Error message** PLC: Error in magazine rules file **Cause of error** The selected magazine rules file is missing or contains errors. **Error correction** Restore or correct the magazine rules file.

Error number	Description
320-003B	**Error message** Default setting of IOC hardware is incomplete **Cause of error** The default setting for the use of the IOC hardware and the IOC configuration file is incomplete: (see also the machine parameter iocProject under CfgPlcPeriphery) - IOC file not found - Hardware is configured in the IOC file, but the file is not available - IOC hardware is available, but the IOC file is not configured **Error correction** - Match the configuration file and hardware. - You can find more information in the diagnostics menu
320-003C	**Error message** Profibus initialization incorrect **Cause of error** An error occurred during initialization of the Profibus hardware. **Error correction** - Inform your service agency - You can find more diagnostic information in the diagnostics menu.
320-003D	**Error message** Profibus error in cyclic operation **Cause of error** An error occurred during access to the Profibus hardware. **Error correction** - Inform your service agency - You can find more diagnostic information in the diagnostics menu.
320-003E	**Error message** Faulty initialization of IOC hardware **Cause of error** Errors occurred while initializing the IOC hardware and the IOC configuration file (see the attribute iocProject under CfgPlcPeriphery). **Error correction** - Check the voltage supply to the devices - Note further information in the control's diagnostic functions (bus diagnostics or TNCdiag) - Inform your service agency

Error number	Description
320-003F	**Error message** Faulty HSCI initialization **Cause of error** An error occurred while initializing the HSCI hardware. **Error correction** - Check the voltage supply to the devices - Note further information in the control's diagnostic functions (bus diagnostics or TNCdiag) - Inform your service agency - Pay attention to any other, previously issued warnings
320-0040	**Error message** Error from PL/MB in cyclic operation **Cause of error** A PL component (PLB), a machine operating panel (MB, TE), or a PL part of a compact inverter (UEC, UMC) reported an error. **Error correction** - Inform your service agency - For more diagnostics information about the affected device and the cause, see the bus diagnosis under HSCI
320-0041	**Error message** SPLC MAIN file cannot be read (%1) **Cause of error** The PLC cannot read the program file for the SPLC program. **Error correction** Check configuration and SPLC program file.
320-0042	**Error message** Inconsistent SPLC program **Cause of error** The API version in the selectable SPLC program is not compatible with the control software or the definition of the API version in the SPLC program is faulty. **Error correction** Update the file SplcApiMarker.DEF or correct the SPLC program. The file SplcApiMarker.def must be included in the SPLC program before all other definition files.
320-0043	**Error message** Inconsistent SPLC program **Cause of error** The definition of the markers that are transferred between the PLC program and SPLC program is faulty. **Error correction** Correct the SPLC program

Error number	Description
320-0044	**Error message** SPLC program has changed **Cause of error** The SPLC program has been edited. A partial acceptance test must be conducted before the machine can be operated with this edited SPLC program. **Error correction** Intended change: Delete the error message, then restart the control and run the required partial acceptance test. Unintended change: Undo the change of the SPLC program and recompile the SPLC program.
320-0045	**Error message** SPLC program binary code has changed **Cause of error** The binary code of the SPLC program has been changed, although the source code has remained unchanged. Possible causes: - New SPLC compiler through software update - Corrupted binary file of the SPLC program on MC or CC (without software update) **Error correction** Message appears after a software update: - Clear the error message, then restart the control and run the required partial acceptance test - Then apply the new CRC sums to the corresponding safe machine parameters Message appears although no software update has been conducted: - Inform your service agency
320-0046	**Error message** %1 **Cause of error** siehe Maschinenhandbuch **Error correction** siehe Maschinenhandbuch

Error number	Description
320-0047	**Error message** Configuration PLC compiler: Enter %1 **Cause of error** A value inappropriate for the control model is defined for a constant in the configuration file for the PLC compiler. The values of the constants OMG_COUNT, CHANNEL_COUNT, AXIS_COUNT and SPINDLE_COUNT must be entered correctly. **Error correction** - Check the configuration file of the PLC compiler and correct it if necessary
320-0048	**Error message** PLC program source code required **Cause of error** Because of a reconfiguration, the PLC program is no longer suitable on the control. The PLC program must be regenerated from the source code. **Error correction** - Undo the configuration change (ignore the repeated error message). - Copy the source code of the PLC program to the control and compile it.
320-004A	**Error message** AC powerfail **Cause of error** An error occurred during the AC Fail process. The line voltage was intermittently interrupted. Possible causes: - Power failure - Dropout in line power - Defective protection of the line power supply - Check the wiring of the line power supply **Error correction** - Check the line power circuit breakers - Check the power supply wiring - Check the quality of the line voltage (possible dropouts) - Inform your service agency

Error number	Description
320-004B	**Error message** DC powerfail **Cause of error** An error occurred during the DC Fail process. The dc-link voltage is below the specified limit. **Error correction** - Check the dc-link voltage - Check the DC-link charging contactor for interruptions - Check the line power supply - Check the line power circuit breakers - Check the wiring of the line power - Check the quality of the line voltage (possible dropouts) - Inform your service agency
320-004C	**Error message** Error: Process %1 could not be started **Cause of error** The hardware used does not have enough main memory. **Error correction** Inform your service agency.
320-004D	**Error message** Error: Process %1 could not be started **Cause of error** The command line transferred to the process is too long. **Error correction** Ensure that the command line has fewer than 127 characters.
320-004E	**Error message** Error: Process %1 could not be started **Cause of error** The name selected for the process is ambiguous. **Error correction** Select another unique name for the process.

Error number	Description
320-004F	**Error message** Error: Process %1 could not be started **Cause of error** Possible causes: - The given path does not lead to a valid Python script. - Fatal errors occurred during initialization of the Python script. - The assigned memory was exhausted during initialization of the Python script. - Other system resources were exhausted during initialization of the Python script. **Error correction** - Check the path of the Python script and correct it if necessary. - Ensure that all required libraries are installed in the required versions. - Increase the memory reserved for the script.
320-0050	**Error message** Error: Process %1 could not be started **Cause of error** An excessively long name was entered for the Python process. **Error correction** - Edit the Python script. The name of the Python process must be shorter than 17 characters.
320-0051	**Error message** Error: Process %1 could not be started **Cause of error** Possible causes: - The path given for the Python script is too long. - No file was found in the path given for the Python script. **Error correction** - Ensure that a Python script has been saved in the given path. - Check the path information. The path must have fewer than 260 characters.

Error number	Description
320-0052	**Error message** Error: Process %1 could not be started **Cause of error** Possible causes: - You have assigned too much memory to the Python script. - You have assigned more memory to the script than is available in total for all Python processes. - You have assigned a negative value to the Python script. - You have not assigned any memory to the Python script. **Error correction** - Adapt the Python script so that it is assigned a correct memory size.
320-0053	**Error message** Error: Process %1 could not be started **Cause of error** The maximum memory available for Python processes is in use. **Error correction** - Edit the Python scripts so that fewer processes are started at the same time. - Assign less memory for the individual processes.
320-0054	**Error message** Error: Process %1 could not be started **Cause of error** Could not start the Python process because it would exceed the maximum number of simultaneous Python processes. **Error correction** - Edit the Python scripts so that fewer processes are active at the same time.
320-0055	**Error message** Error: Process %1 could not be started **Cause of error** The software option #46 (Python OEM Process) required for execution of Python processes is not enabled. **Error correction** - Order the software option from your service agency.
320-0056	**Error message** Initialization of IOC hardware with warnings **Cause of error** Warning occurred during the initialization of IOC hardware and the IOC configuration file (see the parameter iocProject under CfgPlcPeriphery). **Error correction** You can find more information in the diagnostics menu.

Error number	Description
320-0057	**Error message** ProfiNET: Initialization faulty **Cause of error** An error occurred during initialization of the ProfiNET hardware. **Error correction** - Inform your service agency. - You can find more information in the diagnostics menu.
320-0058	**Error message** ProfiNET: Error in cyclic operation **Cause of error** An error occurred during access to the PROFINET hardware. **Error correction** - This error can occur, for example, when data exchange with the controller is overloaded or there is a current IOPS/IOCS reaction - Inform your service agency. - You can find more information in the diagnostics tool.
320-0059	**Error message** IOC configuration has invalid PLC operand addresses **Cause of error** The IOC configuration contains PLC operand addresses, that exceed the permissible PLC memory area. Possible causes: - IOC configuration and PLC configuration file do not fit together - Initial servicing or new installation - Importing a backup The BUS diagnosis shows which operand range is affected. **Error correction** Confirm the error message and current interruption, and note the further error messages: - Either the areas for the affected operands must be enlarged in the configuration file for the PLC compiler, or - a restart is necessary in order to activate a new or changed configuration. - Inform your service agency

Error number	Description
320-005A	**Error message** IOC configuration requires too much memory **Cause of error** - The IOC configuration requires for at least one bus system (e.g. HSCI) too much memory on the field bus hardware. - The BUS diagnosis has more information. **Error correction** - Check the IOC configuration. - Reduce the number of configured system components. - Create a service file. - Inform your service agency.
320-005B	**Error message** HSCI warning in cyclic operation **Cause of error** An warning appeared during access to the HSCI hardware. **Error correction** - You can find more diagnostic information in the HSCI-bus diagnostics.
320-005C	**Error message** Change of %1/%2 requires a compilation of the PLC program **Cause of error** The changed configuration datum goes into the definition of symbols for the PLC program. The PLC program must be recompiled so that the change becomes effective. **Error correction** Recompile the PLC program
320-005D	**Error message** Internal inputs/outputs: Faulty initialization **Cause of error** An error occurred during initialization of the internal I/O hardware (PL/PL510/SPI). **Error correction** - Inform your service agency. - You can find more information in the diagnostics menu
320-005E	**Error message** Internal inputs/outputs: Error in cyclic operation **Cause of error** An error occurred upon access to the internal I/O hardware (SPI modules). **Error correction** - Inform your service agency. - You can find more information in the diagnostics menu.

Error number	Description
320-005F	**Error message** Spindle not available **Cause of error** An NC function is trying to control a spindle that is not available at the moment: - At present the spindle is functioning as an NC axis - The spindle is occupied by another channel - A spindle is to be switched to the NC axis while it is occupied by the NC **Error correction** Edit the NC program or contact your machine tool builder
320-0060	**Error message** IOC configuration has invalid PLC operands **Cause of error** The IOC configuration includes PLC operands that have already been assigned. The BUS diagnosis shows which operands are affected. Possible causes: - Use of operands that are occupied by an internal PL board. - Use of operands that are occupied by a handwheel. **Error correction** Correct the operand addresses in the IOC file: - If an internal PL board is active, then the operands I0-I32 and O0-O31 must not be used. - If the default data of a handwheel are active, then the operands I160-I175 and O96-O111 must not be used. - Inform your service agency.
320-0061	**Error message** Invalid IOC configuration for PLC operand Operand %1 not found **Cause of error** The operand designated in the IOC file was not defined in the PLC program. **Error correction** - Correct the PLC program or the IOC project. - Inform your service agency.

Error number	Description
320-0062	**Error message** Invalid IOC configuration for PLC operand Operand %1 not appropriate for terminal (%2) **Cause of error** The operand designated in the IOC file is not suitable for the terminal: - The data size is incorrect. - The terminal cannot be mapped to the operand type. - Mixture of logical and arithmetical data types. **Error correction** - Correct the PLC program or the IOC project. - Inform your service agency.
320-0063	**Error message** Invalid configuration for PLC log files **Cause of error** The configuration under CfgPlcLogging is invalid. **Error correction** Inform your service agency
320-0064	**Error message** Strobe %1 was canceled **Cause of error** Execution of the NC program was canceled in the output of an M, S, or T strobe to the PLC program. **Error correction** - Your system might be in an inconsistent condition. Check whether the status shown for the machine and for the active tool reflect the actual situation. - Inform your service agency.
320-041A	**Error message** PLC: excessive nesting **Cause of error** PLC runtime error: - You attempted to nest more than 32 module calls within each other. - You programmed a recursive module call that exceeds the limit of 32 levels. **Error correction** Edit PLC program.

Error number	Description
320-041B	**Error message** PLC: stack underflow **Cause of error** PLC runtime error: You attempted to retrieve data from the stack, although it had not been written there. **Error correction** Edit PLC program.
320-041C	**Error message** Run-time error in PLC program: overflow in data stack **Cause of error** Run-time error in the PLC program: You attempted to put more data on the stack than it can carry. The size of the data stack is limited to a maximum of 128 values. Each floating-point number occupies the space of two values. A frequent cause of error are loops or recursions in the PLC program where one or more values remain on the stack after each run. **Error correction** Check the PLC program and correct any programming errors.
320-041D	**Error message** PLC: timeout **Cause of error** PLC runtime error: - The processing of the cyclically executed program section takes too long. Check the subprogram structure for very calculation-intensive sections that you can start as SUBMIT jobs. - The displayed processing time will be increased during data transfer and in handwheel mode. In case of doubt, select handwheel mode and simultaneously start the data transfer at max. baud rate. At the same time, check "MAXIMUM PROCESSING TIME" in the PLC programming. Values should not exceed 150% (safety reserve in the event of unfavorable operating conditions!). **Error correction** Edit the PLC program.

Error number	Description
320-041E	**Error message** PLC: CASE out of range **Cause of error** PLC runtime error: The operand for the CASE statement contains a value that cannot be interpreted as an offset in the CM table (smaller than 0, or greater than or equal to the table length). **Error correction** - Have the PLC program checked - Inform your service agency
320-041F	**Error message** PLC: subprogram not defined **Cause of error** PLC runtime error: Subprogram not defined. **Error correction** Edit the PLC program.
320-0420	**Error message** PLC: index range incorrect **Cause of error** PLC runtime error: - The address for a writing access to data types B/W/D/M/I/O/T/C is, through the inclusion of the index register, in an invalid region for these operand types. - The index register contains a value, due to accessing a constant field, which is not possible for this field (less than 0, or greater than or equal to field length). - The address of a string leads through the inclusion of the index register to an invalid value. - The number of a dialog (S#Dn[X]) or an error message (S#En[X]) leads through the inclusion of the index register to an invalid value (less than 0 or greater than 999). - During the addressing of a component string. **Error correction** Edit the PLC program.

Error number	Description
320-0421	**Error message** PLC: error table missing **Cause of error** There is no PLC error table. - A PLC error module 9085/9086 was called although no error table was compiled, or there were no entries in the table. - A PLC error module 9085/9086 was called or an error marker was set, although the error table was edited or erased after compilation. **Error correction** - Compile the PLC error table. - Check the entries in the PLC error table.
320-0422	**Error message** PLC: error in module call **Cause of error** Fatal error during PLC module call (e.g. Module 9031: error converting MP). **Error correction** Edit the PLC program.
320-0423	**Error message** PLC: Event file not found **Cause of error** In the system file plc.cfg the file defined with PLCEVENTS= was not found. **Error correction** Contact your service agency.
320-0424	**Error message** PLC: Too many events **Cause of error** More than 15 events were defined for the current SPAWN process (cooperative multitasking). **Error correction** Contact your service agency.
320-0442	**Error message** PLC: error table not .PET **Cause of error** The PLC error table selected in plc.cfg is not a PET file. **Error correction** Check the format of the PLC error table.

Error number	Description
320-0443	**Error message** PLC: error table not found **Cause of error** The PLC error table in the plc.cfg file was not found. **Error correction** Check the file name or the path name.
320-0444	**Error message** PLC: err. table format incorrect **Cause of error** PLC error table: The error table selected in the plc.cfg file does not have an up-to-date binary format (e.g. after a software exchange). **Error correction** Delete the PLC error table and download a new PLC error table through the data interface.
320-0445	**Error message** PET table: Too many lines **Cause of error** There are too many error messages defined in the PET table. **Error correction** Only a limited number of lines in a PET table can be evaluated. All subsequent lines are ignored.
320-07D0	**Error message** PLC: Checksum error **Cause of error** **Error correction**
320-07D1	**Error message** PLC: M4005/M4006/M4006 incorrect **Cause of error** PLC runtime error: More than one of the markers M4005 (M03), M4006, (M04), M4007 (M05) is set. **Error correction** Edit the PLC program.
320-07D2	**Error message** PLC: more than one strobe active **Cause of error** PLC runtime error: More than one of the functions "PLC positioning," "datum shift," or "spindle orientation" has been activated. **Error correction** Edit the PLC program.

Error number	Description
320-07D3	**Error message** PLC: undefined run-time error **Cause of error** Undefined run-time error **Error correction** Inform your service agency.
320-07D4	**Error message** Supply voltage missing at X44 **Cause of error** No supply voltage is applied at connector X44 of the control (= Relay external DC voltage missing). Possible causes: - PLC fuses defective - 24V power supply unit in the electrical cabinet defective - Faulting wiring of 24 V supply - Lines interrupted **Error correction** - Check the PLC fuses - Check the 24 V power supply unit in the electrical cabinet - Check the wiring of the 24 V supply - Check the lines for interruption
320-07D5	**Error message** Incorrect wiring of EMERGENCY STOP **Cause of error** - The wiring of the emergency stop circuit is faulty. **Error correction** - Inform your service agency - Check the wiring
320-07D6	**Error message** STOP through PLC **Cause of error** The system was stopped by the PLC program **Error correction** Note any further messages. If necessary, inform your machine tool builder. The control must be shut down and restarted.
320-07D7	**Error message** M0-999 and B0-127 deleted **Cause of error** You called the function for deleting the non-volatile data. The system has been stopped. **Error correction** Restart the control

Error number	Description
320-07D8	**Error message** Exchange buffer battery **Cause of error** The voltage of the buffer battery has dropped below the minimum permissible value. **Error correction** Refer to your machine manual or contact your machine tool builder.
320-07D9	**Error message** Temperature too high (CPU%1 := %2°C) **Cause of error** Temperature sensor detects an excessively high temperature within the main computer's housing. - Insufficient heat dissipation for the MC main computer - Contaminated filter pads - Defective climate control unit in the electrical cabinet or operating panel (where MC is installed) - Defective fan - Defective temperature sensor - Unfavorable mounting of components **Error correction** - Clean the filter pads - Check the climate control unit and repair it if necessary - Replace the fan - Inform your service agency
320-07DA	**Error message** Temperature of MC main computer too high := %1°C **Cause of error** Temperature sensor detects an excessively high temperature within the main computer's housing. - Insufficient heat dissipation for the MC main computer - Contaminated filter pads - Defective climate control unit in the electrical cabinet or operating panel (where MC is installed) - Defective fan - Defective temperature sensor - Unfavorable mounting of components **Error correction** - Clean the filter pads - Check the climate control unit and repair it if necessary - Replace the fan - Inform your service agency

Error number	Description
320-07DB	**Error message** MC housing fan defective **Cause of error** Rotational speed of the housing fan is too low. **Error correction** - Exchange the fan - inform your service agency
320-07DC	**Error message** Supply voltage missing at device **Cause of error** The supply voltages on a device in the HSCI line are outside of the specified range. The HSCI bus diagnosis indicates which HSCI component triggered the error. Possible devices: - MC main computer - PL inputs/outputs - MB machine operating panel - Other CC in the HSCI line Possible causes: - Insufficient power supply to the devices - Short circuit in the power supply - Short circuit in PL inputs and outputs **Error correction** - Check the voltage supply to the devices - Note further information in the control's diagnostic functions (bus diagnostics or TNCdiag) - Check the wiring for possible short circuits (e.g., PLC inputs or outputs) - Exchange the hardware - Inform your service agency
320-0BB8	**Error message** %1 **Cause of error** **Error correction**
320-0FA1	**Error message** M **Cause of error** **Error correction**
320-0FA2	**Error message** S **Cause of error** **Error correction**

Error number	Description
320-0FA3	**Error message** T0 **Cause of error** **Error correction**
320-0FA4	**Error message** TOOL CALL **Cause of error** **Error correction**
320-0FA5	**Error message** TOOL DEF **Cause of error** **Error correction**
320-0FA6	**Error message** Strobe **Cause of error** **Error correction**
320-0FA7	**Error message** Acknowledgment **Cause of error** **Error correction**
320-0FA8	**Error message** Parameter **Cause of error** **Error correction**
320-0FA9	**Error message** Rotational speed **Cause of error** **Error correction**
320-0FAA	**Error message** Mode **Cause of error** **Error correction**

Error number	Description
320-0FAB	**Error message** Gear range **Cause of error** **Error correction**
320-0FAC	**Error message** Index **Cause of error** **Error correction**
320-0FAD	**Error message** Magazine **Cause of error** **Error correction**
320-0FAE	**Error message** Pocket **Cause of error** **Error correction**
320-0FAF	**Error message** Channel **Cause of error** **Error correction**
320-0FB0	**Error message** Status **Cause of error** **Error correction**
320-0FB1	**Error message** Manual **Cause of error** **Error correction**
320-0FB2	**Error message** Incremental **Cause of error** **Error correction**

Error number	Description
320-0FB3	**Error message** Referencing **Cause of error** **Error correction**
320-0FB4	**Error message** Probing **Cause of error** **Error correction**
320-0FB5	**Error message** Negative direction **Cause of error** **Error correction**
320-0FB6	**Error message** Position **Cause of error** **Error correction**
320-0FB7	**Error message** Feed rate **Cause of error** **Error correction**
320-0FB8	**Error message** W/o limit switches **Cause of error** **Error correction**
320-0FB9	**Error message** Without NC stop **Cause of error** **Error correction**

Error number	Description
320-0FBB	**Error message** Supply voltage missing for HSCI device **Cause of error** It was detected that the +24 V supply voltage was missing on an HSCI bus device. The -PF.BOARD is pending in the S status. **Error correction** - Open the bus diagnosis and check the status messages of the devices connected to the HSCI bus system. - Provide all devices connected to the HSCI bus system with the correct +24 V NC and +24 V PLC voltage. - Restart the control.
320-0FBC	**Error message** The TNC will be shut down and machine functions will be performed **Cause of error** The PLC program is delaying shutdown of the control **Error correction** Run the machine functions requested by the PLC program.
320-0FBE	**Error message** Tool is inconsistent
320-0FBF	**Error message** More than one error class was defined for a PET error **Cause of error** - More than one error class was defined for an error in an error table (.PET). **Error correction** - Define only one error class for the relevant error. - You will find more informationen (table name, error number) in the error list through the "Internal info" soft key. - Inform your service agency.
320-0FC0	**Error message** Fast PLC input has incorrect parameters **Cause of error** A fast PLC input is not in the IOC file, or the parameters are incorrect. **Error correction** - Check the IO configuration. - Inform your service agency

Error number	Description
320-0FC2	**Error message** JHIOSim installation incomplete **Cause of error** Windows: JHIOSim DLL not available Virtual Box: Installation incomplete Virtual Box: Common folder /mnt/sf/IOsim does not exist **Error correction** Check the installation of virtual box and Windows
320-0FC3	**Error message** Start of an NC program not permitted at this time **Cause of error** Starting the NC program is not permitted at this time, since axes are currently executing positioning tasks. **Error correction** Try to start the NC program at a later time
320-0FC4	**Error message** System overload – message buffer is full **Cause of error** Very many small jobs were sent in a short time to the PLC run-time system. As a result, the associated messages could no longer be delivered in the system. These jobs result from calling PLC modules or calling the Python function library for OEM applications. The capacity for buffering the messages in the system has been exhausted; the PLC program has been stopped. **Error correction** Change the PLC program or the OEM application Distribute the calls from PLC modules or functions of the JH function library in Python OEM applications more evenly over time.

Error number	Description
320-0FC6	**Error message** Temperature of the MC main computer too high: %1°C (warning) **Cause of error** Temperature sensor detects an excessively high temperature within the main computer's housing. - Insufficient heat dissipation for the MC main computer - Contaminated filter pads - Defective climate control unit in the electrical cabinet or operating panel (where MC is installed) - Defective fan - Defective temperature sensor - Unfavorable mounting of components **Error correction** - Clean the filter pads - Check the climate control unit and repair it if necessary - Replace the fan - Inform your service agency
320-0FC7	**Error message** Temperature of the MC main computer too low: %1°C (warning) **Cause of error** Temperature sensor detects an excessively low temperature within the main computer's housing. - Defective climate control unit in the electrical cabinet or operating panel (where MC is installed) - Defective temperature sensor - Unfavorable mounting of components **Error correction** - Check the temperature conditions in the electrical cabinet - Check the climate control unit, and repair it if necessary - Inform your service agency
320-0FC8	**Error message** Temperature of the MC main computer too low: %1°C **Cause of error** Temperature sensor detects an excessively low temperature within the main computer's housing. - Defective climate control unit in the electrical cabinet or operating panel (where MC is installed) - Defective temperature sensor - Unfavorable mounting of components **Error correction** - Check the temperature conditions in the electrical cabinet - Check the climate control unit, and repair it if necessary - Inform your service agency

Error number	Description
320-0FC9	**Error message** Calling an external tool not permitted at this time **Cause of error** An external tool can be called only if it is inserted in the spindle as part of the call. However, at this time the called tool is supposed to remain in its position. **Error correction** Assign the tool a place in the pocket table.
320-0FCB	**Error message** NC keyboard no longer selectable as source for override **Cause of error** The NC keyboard can no longer be selected for the "source" machine parameter under CfgPlcOverrideDev. The TNC7 controls no longer support relaying of NC keys to the PLC run-time system. **Error correction** The OEM must emulate corresponding functions by setting the PLC program as source and by using machine keys or separate operating elements in the OEM area.
320-0FCC	**Error message** PROFINET: Warnung im zyklischen Betrieb **Cause of error** Bei einem Zugriff auf die PROFINET-Hardware ist eine Warnung aufgetreten. Diese Warnung kann unter anderem auftreten, wenn der Datenaustausch mit dem Controller überlastet ist. In diesem Fall kann es auch zur Beeinflussung der IOPS-/IOCS-Meldungen kommen. **Error correction** - Diagnose-Tool öffnen für weitere Hinweise zu der Warnung
322-0002	**Error message** Incorrect tool location at start of block scan (%1) **Cause of error** Mid-program startup started with incorrect tool. **Error correction** Change to the correct tool and start again.

Error number	Description
322-0003	**Error message** Configuration datum %1 - %2 contains errors **Cause of error** The file entered in the configuration data for the description of a tool-change sequence contains errors, and was not loaded onto the control for operation. **Error correction** Inform your machine tool builder.
322-0004	**Error message** Tool call unclear **Cause of error** Two tools are to be inserted or exchanged at the same time. **Error correction** Correct the NC program.
322-0005	**Error message** File not found **Cause of error** The file entered in the configuration data for describing a tool-change sequence does not exist. **Error correction** Inform your machine tool builder.
322-0006	**Error message** Pocket table faulty **Cause of error** No primary key (TOOL_P.P, magazine number and pocket number) is defined for the pocket table TOOL_P. **Error correction** Inform your machine tool builder.
322-0007	**Error message** Pocket table faulty **Cause of error** The wrong column (not TOOL_P.P, magazine number and pocket number) was defined as primary key for the pocket table TOOL_P. **Error correction** Inform your machine tool builder.

Error number	Description
322-0008	**Error message** Pocket table faulty **Cause of error** An invalid value was read in column P of the pocket table. **Error correction** Inform your machine tool builder.
322-0009	**Error message** Pocket table faulty **Cause of error** An invalid value was read in column ST of the pocket table. **Error correction** Inform your machine tool builder.
322-000A	**Error message** Pocket table faulty **Cause of error** An invalid value was read in column F of the pocket table. **Error correction** Inform your machine tool builder.
322-000B	**Error message** Pocket table faulty **Cause of error** An invalid value was read in column PTYP of the pocket table. **Error correction** Inform your machine tool builder.
322-000C	**Error message** Pocket table faulty **Cause of error** A tool was found more than once in the pocket table. **Error correction** Correct the pocket table. Delete the tool from the pockets that it is not in, or mark these pockets as reserved.

Error number	Description
322-000D	**Error message** Pocket table might be inconsistent **Cause of error** The internal data of the control on the loaded tool do not correspond with the content of the pocket table. This can happen after the pocket table is edited or overwritten, or after a tool change was canceled. The contents of the pocket table might no longer correspond to the tool configuration in the tool memory. **Error correction** Check the contents of the pocket table and correct them if required.
322-000E	**Error message** Pocket table faulty **Cause of error** A required column (P, Tor RSV) is not defined for the pocket table TOOL_P. **Error correction** Inform your machine tool builder.
322-000F	**Error message** File not found **Cause of error** The file with the pocket table was not found in the path configured. **Error correction** Restore the file to the original path, or create a new file with the original path, or contact your machine tool builder.
322-0010	**Error message** System error in the PLC **Cause of error** Internal software error **Error correction** Inform your service agency
322-0011	**Error message** Access to pocket table denied **Cause of error** The tool call cannot proceed because write-access to the pocket table was denied. The PLC program or editing of the pocket table can be the cause of such a lock. **Error correction** Conclude editing of the pocket table, or contact your machine tool builder.

Error number	Description
322-0012	**Error message** Pocket table faulty **Cause of error** The configuration data for a column in the pocket table are missing or faulty. **Error correction** Inform your machine tool builder
322-0013	**Error message** File access not possible **Cause of error** The file with the pocket table is missing, or access to this file was denied. **Error correction** Restore the file, or check the access rights to the file. Rescind any active write-protection.
322-0014	**Error message** Pocket table faulty **Cause of error** The file with the pocket table is incomplete, or contains lines of differing lengths, syntactical errors or unknown columns. **Error correction** Correct the file, or restore the file, or contact your machine tool builder.
322-0015	**Error message** Pocket table faulty **Cause of error** An invalid value was read in column T of the pocket table. **Error correction** Correct the file, or restore the file, or contact your machine tool builder.
322-0016	**Error message** System error in the PLC **Cause of error** Internal software error **Error correction** Inform your service agency

Error number	Description
322-0017	**Error message** Access to pocket table denied **Cause of error** Access to the pocket table is locked by another application. The control could therefore no longer update the pocket table after tool change. The contents of the pocket table might no longer correspond to the tool configuration in the tool memory. **Error correction** Check the contents of the pocket table and correct them if required. Conclude editing of the pocket table, or contact your machine tool builder.
322-0018	**Error message** System error in the PLC **Cause of error** Internal software error **Error correction** Inform your service agency
322-0019	**Error message** Pocket table faulty **Cause of error** An invalid value was read in column RSV of the pocket table. **Error correction** Correct the file, or restore the file, or contact your machine tool builder.
322-001A	**Error message** Tool change without configured spindle required **Cause of error** No spindle was configured for channel %1 or (only channel 0). It was not possible to implicitly assign a spindle. **Error correction** Edit the NC program or contact your machine tool builder

Error number	Description
322-001B	**Error message** PLC datum %1 cannot be changed **Cause of error** An attempt was made to change the PLC datum with the given designation. The datum does not exist, or cannot be changed, or the new value is not permissible. **Error correction** Check whether the datum with the given designation exists and is free for changes. Check whether the new value is permissible for this datum. Edit your NC program so that a correct designation and a permissible value are used.
322-001C	**Error message** System error in the PLC **Cause of error** Internal software error **Error correction** Inform your service agency
322-001D	**Error message** Pocket table faulty **Cause of error** An invalid value was read in column L of the pocket table. **Error correction** Inform your machine tool builder
322-001E	**Error message** Pocket in tool magazine is locked **Cause of error** The tool call cannot be executed because the pocket in the tool magazine is locked. Such a lock can be caused by editing the pocket table or by the PLC program. **Error correction** Correct the pocket datum or inform your machine manufacturer.
330-0002	**Error message** Safe Torque Off (-STO.B.x) is active **Cause of error** - Error in program run - Safety function Safe Torque Off (STO) is active **Error correction** - Inform your service agency.

Error number	Description
330-0003	**Error message** External EMERGENCY STOP **Cause of error** - The PLC input for the control-is-ready signal is inactive - The EMERGENCY STOP circuit was interrupted manually or by the control. **Error correction** - Enable the EMERGENCY STOP button, switch on the control voltage, and acknowledge the error message. - Check the EMERGENCY-STOP circuit. (EMERGENCY STOP button, axis limit switches, wiring, etc.)
330-0004	**Error message** Switch off external dc voltage **Cause of error** The machine control voltage is still switched on. **Error correction** Switch off the machine control voltage.
330-0005	**Error message** Normally closed relay open? **Cause of error** In the relay chain the normally closed contact of one or more relays is open. **Error correction** - Check the relay for proper function. - If necessary, contact your service agency.
330-0006	**Error message** Switch on external dc voltage **Cause of error** The machine control voltage is switched off. **Error correction** Switch off the machine control voltage.

Error number	Description
330-0008	**Error message** Inverter not ready **Cause of error** - Power-on of the drive not possible, because an inverter is not ready (RDY signal). - On interface PCBs for Siemens inverters, the second axis is not enabled - No switch signals to the inverter contacts or relays - Compact inverter, inverter supply unit or power module is defective - Interruption at inverter bus cable (supply bus, unit bus, PWM bus) - Defective PWM interface on the control **Error correction** - Remove interruption in the electrical cabinet - Replace the defective compact inverter, supply unit or power module - Replace the defective cable - Inform your service agency
330-0012	**Error message** MC machine key depressed **Cause of error** Contact of a machine key does not open. **Error correction** Release the key if pressed, otherwise inform your service agency.
330-0013	**Error message** Relay: n.c. contact closed? **Cause of error** In the relay chain, the normally closed contact of all relays is closed. **Error correction** Check the relays for proper function. If required, inform your service agency.
330-0014	**Error message** CC%2 inverter for spindle RDY=0 **Cause of error** The power module of the spindle could not be switched to ready condition. - Safety relay not on (e.g. connector X71 of the UE/UV/UVR, X73 of the HEIDENHAIN expansion board for Simodrive) - Defective power module - PWM bus cable interrupted **Error correction** Check the wiring and inform your service agency.

Error number	Description
330-0015	**Error message** CC%2 inverter for axis RDY=0 **Cause of error** The power module of an axis could not be switched to ready condition. - Safety relay not on (e.g. connector X72 of the UV, X73 of the HEIDENHAIN expansion board for Simodrive) - Defective power module - PWM bus cable interrupted **Error correction** Check the wiring and inform your service agency.
330-0016	**Error message** CC%2 inverter for spindle RDY=1 **Cause of error** The spindle power supply is ready for operation although it ought to be switched off. **Error correction** Inform your service agency.
330-0017	**Error message** CC%2 inverter for axis RDY=1 **Cause of error** The power module of an axis is ready for operation although it should actually be switched off. **Error correction** Inform your service agency.
330-001A	**Error message** Input (ES.B) not equal to 0 **Cause of error** 24 V at input ES.B. During the dynamic test, the voltage is expected to be 0 V. **Error correction** Inform your service agency.
330-001B	**Error message** Test of cutout channels inactive **Cause of error** The MC (Main Computer Unit) failed to test the cutoff channels. **Error correction** Inform your service agency.

Error number	Description
330-001F	**Error message** CC%2 FS checksum error **Cause of error** - Checksum error due to faulty data - Internal software error **Error correction** Inform your service agency.
330-0020	**Error message** Command buffer overflow **Cause of error** The CC could not run so many commands from the MC. **Error correction** Inform your service agency.
330-0021	**Error message** Commands do not agree **Cause of error** The command confirmed from the CC as an echo is not the command sent from the MC. **Error correction** Inform your service agency.
330-0022	**Error message** CC%2 command not acknowledged **Cause of error** Command was not acknowledged by the Computer Control Unit (CC) within 200 ms. **Error correction** Inform your service agency.
330-0023	**Error message** FS function not performed **Cause of error** One or more FS functions within a cycle were not performed. **Error correction** Inform your service agency.

Error number	Description
330-0024	**Error message** MC handwheel permissive key pressed **Cause of error** The permissive button of the handwheel was pressed. An incorrect handwheel was selected by CfgHandwheel/type. **Error correction** - Check the permissive button - Set the configuration datum properly; - Inform your service agency.
330-0025	**Error message** Faulty data from CC%2 **Cause of error** Faulty software **Error correction** Inform your service agency.
330-0026	**Error message** System clock MC not = CC%2 **Cause of error** - Hardware error (crystal generator) - Internal software error **Error correction** - Inform your service agency - Exchange the drive control board or processor board - Check the software version

Error number	Description
330-0027	**Error message** MC pos. deviation too large %2 **Cause of error** The calculated position deviation between the speed encoder and the position encoder is greater than the value from the parameter CfgAxParSafety/positionDiffRef or CfgAxParSafety/positionDiffNom. - Excessive difference between the positions calculated from the position encoder pulses and the speed encoder pulses - During initial setup: Incorrect standardization of the speed encoder pulses (e.g., incorrect ball screw pitch entered) - Excessive hysteresis - Coupling, gears, etc. defective - Belt torn **Error correction** - Switch the control off and on again - Check CfgAxParSafety/positionDiffRef, CfgAxParSafety/positionDiffRun - During initial setup: Check the standardization of the speed encoder pulses (enter the correct ball screw pitch) - Check the hysteresis - Repair the coupling, gears, etc. - Replace the belt - Inform your service agency
330-0028	**Error message** No pos. values from the CC%2 **Cause of error** For a certain time the CC has not sent any position values to the MC. **Error correction** - Switch the control off and back on again - Inform your service agency
330-0029	**Error message** CC%2 no pos. values from the MC **Cause of error** - The MC must not send any position values to the CC. - Internal software error **Error correction** - Switch the control off and on again - Inform your service agency

Error number	Description
330-002A	**Error message** MC/CC%2 checked axes unequal **Cause of error** - Contradictory status of checked position values in the MC and CC. - Internal software error **Error correction** - Switch the control off and on again - Inform your service agency
330-002B	**Error message** CC%2 wrong include-file version **Cause of error** - The version number of one of the called Include files are different in the MC and CC - Internal software error **Error correction** - Check the software version - Inform your service agency
330-002D	**Error message** Permission required to switch spindle on **Cause of error** The spindle start key was pressed but not the permissive key while the protective door A/S was open. **Error correction** Press the spindle start key and the permissive key
330-002E	**Error message** SMP or checksum erroneous **Cause of error** - Safety-related machine parameter (SMP) was changed. - Checksum over safety-related machine parameter was changed. **Error correction** - Check the safety-related machine parameter and the checksum. - Change must be conducted only by the machine manufacturer using a manufacturer's password. - If there are changes, it may be necessary to conduct acceptance tests on the machine. - Inform your service agency

Error number	Description
330-002F	**Error message** SMP or checksum calculation erroneous **Cause of error** - Safety-related machine parameter (SMP) was changed. - Checksum over safety-related machine parameter was changed. - Machine parameter file could not be opened or does not exist. **Error correction** - Check the safety-related machine parameter and the checksum. - Change must be conducted only by the machine manufacturer using a manufacturer's password. - If there are changes, it may be necessary to conduct acceptance tests on the machine. - Inform your service agency
330-0030	**Error message** Safe axes must have sinusoidal inputs **Cause of error** - Safety orientation (SG) error **Error correction**
330-0031	**Error message** Axis status cannot be determined **Cause of error** - Safety orientation (SG) error **Error correction**
330-0033	**Error message** Not in the REF operating mode **Cause of error** - The axes can be tested only in the Reference Run REF operating mode. **Error correction** - Press CE to acknowledge the error message and switch to the REF mode. - Then home the axes. - Inform your service agency

Error number	Description
330-0034	**Error message** Invalid axis **Cause of error** - The axis to be tested is not a safe axis. - The axis to be tested is a spindle. - The given axis number is invalid. **Error correction** - Check the configuration of the axis and, if necessary, correct it (spindles cannot be referenced). - Inform your service agency.
330-0035	**Error message** Axis has already been checked **Cause of error** - Axis to be tested has already been checked. - The given axis number is invalid. **Error correction** - Internal software error. - Inform your service agency
330-0036	**Error message** Axis is not referenced **Cause of error** - The axis to be tested has not yet been homed. **Error correction** - Internal software error. - Inform your service agency
330-0037	**Error message** Axis in motion **Cause of error** - The axis to be tested is not yet stationary. **Error correction** - Press CE to acknowledge the error message and bring the axis to a standstill. - Then test the axis. - Inform your service agency

Error number	Description
330-0038	**Error message** Axis not at test position **Cause of error** - The axis to be tested is not located at the test position (safe machine parameter positionMatch in CfgAxParSafety). - The axis to be tested is not located at the test position (safe machine parameter positionDiffRef in CfgAxParSafety). - Axis traverse direction is not correctly configured (machine parameter MP_signCorrActualVal, MP_signCorrNominalVal or entry in the DIR column of the motor table). **Error correction** - Press CE to acknowledge the error message and move the axis to the test position. - Then test the axis. - If the message appears although the axis is at the correct test position, check the configuration of the axis traverse direction and correct it if necessary. - Inform your service agency
330-0039	**Error message** Missing permission **Cause of error** - When testing the axis (message: "Confirm with permissive key") control receives no permission through a permissive key. - Permissive key(s) defective. - Test of the axes cannot be concluded without permission. **Error correction** - Check the hardware of the permissive keys. - Inform your service agency
330-003A	**Error message** No authorization for testing **Cause of error** - The axis(or axes) cannot be tested in the safety-related operating mode SOM_1. **Error correction** - Select another safety-related operating mode (e.g. SOM_2, SOM_3). - To acknowledge any pending error message, use the CE key. - Then test the axis. - Inform your service agency if the error message recurs.

Error number	Description
330-003C	**Error message** MC S input signals %2 not equal **Cause of error** Safety-oriented input of SPLC-MC is not equal to input of SPLC-CC. e.g. FB_NCC.x, KSW.x, ES.x **Error correction** Inform your service agency.
330-003D	**Error message** CC%2 safe inputs %1 not equal **Cause of error** - A safety-related input of the CC is longer than 400 ms unequal to MC - Different levels at the safety module input: 4 = Acknowledgement of switch-off 8 = Safe reduced velocity of axes/spindle 10 = Safe reduced velocity of auxiliary axes 11 = Operating mode 3(detachable-key switch 1, Pos3) (safe controlled stop of axes/spindle) 18 = Operating mode 2 (detachable-key switch 1,Pos2) 19 = Operating mode 4 (detachable-key switch 2) - Wiring error X65, X66, (X67) – Safety module defective **Error correction** – Check the wiring X65, X66, (X67) – Exchange the safety module - Generate the service files and notify the Service Department
330-003E	**Error message** MC limit switch %2 + **Cause of error** - Violation of the absolute positive limit position value (in the positive traverse direction) of the safety function SLP. - The calculated path of the tool exceeds the defined traversing range (software limit switch) of the machine. - The software limit switch (absolute position limit value) was reached in a manual operating mode. **Error correction** - Check the programmed coordinates. If required, edit the program. - Check the reference point. If required, set a new reference point. - Move the tool in the opposite direction. - Inform your service agency.

Error number	Description
330-003F	**Error message** CC limit switch %2 + **Cause of error** The calculated tool path exceeds the machine's positive traverse limits. The current machine setting was presumably not used and the workpiece is therefore in the wrong position in the working space. The positive software limit switch is defined with the configuration datum CfgPositionLimits/swLimitSwitchPos. **Error correction** - Check the programmed coordinates. If required, edit the program. - Check the reference point. If required, set a new reference point.
330-0040	**Error message** MC limit switch %2 - **Cause of error** - Violation of the absolute negative limit position value (in the negative traverse direction) of the safety function SLP. - The calculated path of the tool exceeds the defined traversing range (software limit switch) of the machine. - The software limit switch (absolute position limit value) was reached in a manual operating mode. **Error correction** - Check the programmed coordinates. If required, edit the program. - Check the reference point. If required, set a new reference point. - Move the tool in the opposite direction. - Inform your service agency.
330-0041	**Error message** CC limit switch %2 - **Cause of error** The calculated tool path exceeds the machine's negative traverse limits. The current machine setting was presumably not used and the workpiece is therefore in the wrong position in the working space. The negative software limit switch is defined with the configuration datum CfgPositionLimits/swLimitSwitchNeg. **Error correction** - Check the programmed coordinates. If required, edit the program. - Check the reference point. If required, set a new reference point.

Error number	Description
330-0042	**Error message** MC standstill monitoring %2 **Cause of error** - The position error in an active safe operating stop (SOS) is greater than the value specified in the configuration parameter CfgAxParSafety/positionRangeVmin. - If during an emergency stop the axes and spindle are decelerated, and the axes come to a stop earlier than the spindle, then the axes are standstill-monitored for the value from CfgAxParSafety/positionRangeVmin until the spindle comes to a stop. - If the protective door is closed in the automatic mode (SOM 1), axes whose drives are switched off (e g. clamped axes) are standstill-monitored for the value from CfgAxParSafety/positionRangeVmin. - After the permissive button is released, the tool magazine axis continues to move for more than 3 seconds. - During the braking test, the axis exceeds the maximum permissible path in CfgAxParSafety/positionRangeVmin. It must be assumed that a holding brake for the axis is defective! - After triggering of an SS2 stop reaction and expiration of the SS2 stopping time, a position error greater than the value in the configuration parameter CfgAxParSafety/positionRangeVmin was detected. **Error correction** - If the error occurs during the brake test, the axis remains in the servo loop. The axis has to be moved to a safe position before you switch the machine off. It must be assumed that a holding brake is defective. - Inform your service agency.
330-0044	**Error message** MC feed rate greater SLS %2 **Cause of error** The feed rate exceeds the permissible limit value for the active safety-related operating mode (SOM). **Error correction** Inform your service agency.
330-0045	**Error message** CC feed rate greater SLS %2 **Cause of error** The feed rate exceeds the permissible limit value for the active safety-related operating mode (SOM). **Error correction** Inform your service agency.

Error number	Description
330-0046	**Error message** MC S input %2 not equal 0 **Cause of error** The safety-oriented inputs for detachable-key switches, door contacts and emergency stop were not set to 0 during the cyclic test. **Error correction** Inform your service agency!
330-0047	**Error message** CC%1 S input %2 not equal 0 **Cause of error** The safety-oriented inputs for detachable-key switches, door contacts and emergency stop were not set to 0 during the cyclic test. **Error correction** Inform your service agency!
330-0048	**Error message** MC NC temperature out of tol. **Cause of error** The temperature inside the control is outside the permissible tolerance range. - Clogged filter pads in the electrical cabinet - Defective climate control unit in the electrical cabinet - Defective fan in the control housing - Defective control **Error correction** - Clean the filter pads - Repair the air conditioner - Exchange the fan in the control housing / if necessary, exchange the complete control Improve the ventilation in the electrical cabinet.
330-0049	**Error message** CC%2 NC temperature out of tol. **Cause of error** The temperature inside the control is outside the permissible tolerance range. - Clogged filter pads in the electrical cabinet - Defective climate control unit in the electrical cabinet - Defective fan in the control housing - Defective control **Error correction** - Clean the filter pads - Repair the air conditioner - Exchange the fan in the control housing / if necessary, exchange the complete control Improve the ventilation in the electrical cabinet.

Error number	Description
330-004A	**Error message** MC +5V out of tolerance **Cause of error** - The internal +5-V power supply of the MC is outside the permissible tolerance range. **Error correction** - Exchange defective hardware (MC) - Inform your service agency
330-004B	**Error message** CC%2 +5V out of tolerance **Cause of error** The 5V power supply of the control is outside the permissible tolerance range. **Error correction** Inform your service agency
330-004C	**Error message** Op. state of MC not equal CC **Cause of error** The automatic SLS, SOS, STO operating states of the MC and CC are compared cyclically. If the values remain unequal for longer than 500 ms, a Safe Stop 1 (SS1) is released. **Error correction** - Press CE to acknowledge the error message - Switch the machine off and on - Inform your service agency. - Check the software version
330-004D	**Error message** CC%2 operating state not equal MC **Cause of error** - The automatic SLS, SOS, STO operating states of the MC and CC are compared cyclically. If the values remain unequal for longer than 500 ms, a Safe Stop 1 (SS1) is released. **Error correction** - Press CE to acknowledge the error message - Switch the machine off and on - Inform your service agency. - Check the software version

Error number	Description
330-004E	**Error message** MC amplitude too high %2 **Cause of error** The amplitude of the encoder signal is too high or the signal for contamination is active. - Incorrect adjustment between head and encoder, air gap too small (exposed encoders) - Excessive supply voltage **Error correction** - Check the amplitude of the encoder signal - Inform your service agency
330-004F	**Error message** CC amplitude too high %2 **Cause of error** - The amplitude of the encoder signal is too high or the signal for contamination is active. - Incorrect adjustment between head and encoder, air gap too small (exposed encoders) - Excessive supply voltage **Error correction** - Check the amplitude of the encoder signal - Inform your service agency
330-0050	**Error message** MC amplitude too low %2 **Cause of error** The amplitude of the encoder signal is too small or the signal for contamination is active. - Encoder contaminated - Encoder defective - Penetration of humidity - Scanning head misaligned (distance, parallelism, etc.) - Encoder cabling defective - Encoder input defective on the control - Vibration - Interfering signals **Error correction** - Inform your service agency

Error number	Description
330-0051	**Error message** CC amplitude too low %2 **Cause of error** The amplitude of the encoder signal is too small or the signal for contamination is active. - Encoder contaminated - Encoder defective - Penetration of humidity - Scanning head misaligned (distance, parallelism, etc.) - Encoder cabling defective - Encoder input defective on the control - Vibration - Interfering signals **Error correction** - Inform your service agency
330-0052	**Error message** MC frequency too high %2 **Cause of error** The maximum input frequency was exceeded at an encoder input. - Fault on signal of the speed encoder - Vibrations on the machine **Error correction** - Check the speed encoder connection (ground connection) - Check the speed encoder - Check the encoder signal input frequency. - Eliminate the vibrations - Inform your service agency
330-0053	**Error message** CC frequency too high %2 **Cause of error** - The maximum input frequency was exceeded at an encoder input. - Noise on motor encoder signal - Vibrations on the machine **Error correction** - Inform your service agency - Check the motor encoder connection (ground connection) - Check the motor encoder - Check the encoder signal input frequency - Remove the vibrations

Error number	Description
330-0054	**Error message** MC speed greater than SLS %2 **Cause of error** The rotational speed exceeds the permissible limit value for the active safety-related operating mode (SOM_2, SOM_3, SOM_4 or SLI_S). **Error correction** Inform your service agency.
330-0055	**Error message** CC speed greater than SLS %2 **Cause of error** The feed rate exceeds the permissible limit value for the active safety-related operating mode (SOM). **Error correction** Inform your service agency.
330-0056	**Error message** MC: Machine permissive button depressed **Cause of error** The permissive button of the tool changer was pressed. **Error correction** - Check the permissive buttons. - Contact your service agency.
330-0057	**Error message** CC%2 SH1=0 **Cause of error** Internal software error **Error correction** Inform your service agency
330-0058	**Error message** CC%2 SH1=1 **Cause of error** - Hardware error - Internal software error **Error correction** Inform your service agency
330-0059	**Error message** No hardware for functional safety **Cause of error** Hardware components not compatible with safety software. **Error correction** Inform your service agency.

Error number	Description
330-005A	**Error message** MC no memory available **Cause of error** Internal software error **Error correction** Inform your service agency
330-005B	**Error message** MC safety doors are open **Cause of error** Guard doors are open The guard doors have to be closed in order to conduct the safety self-test or the brake test of an axis. Further possible causes: - Faulty wiring of guard doors - Guard door contact is defective - SPLC interface signal PP_AxGrpStateReq unequal to S_STATE_AUTO [10] **Error correction** - Close the guard doors in order to conduct the safety self-test or the brake test Further possible measures: - Check the wiring of the guard door contacts - Check the guard door contact. - Check the SPLC program. - Inform your service agency
330-005C	**Error message** Axis %2 started w/o test by MC **Cause of error** The axis was not yet tested. **Error correction** Test the axis.
330-005E	**Error message** Internal software error **Cause of error** Internal software error **Error correction** Inform your service agency.
330-005F	**Error message** FS hardware used without FS software! **Cause of error** The safety hardware cannot be installed without safety software! **Error correction** Inform your service agency.

Error number	Description
330-0060	**Error message** FS error in configuration **Cause of error** - The machine parameter or config object is erroneous, incomplete, or the like (datum was read as additional info). - Axis group from config object CFGAxParSafety is not configured. - Safe spindle not in the axis group for spindles - Maximum velocity for SOM 2 is missing or incorrect - Safe feed axis not in the axis group for spindles - The encoder input (position or motor) was configured incorrectly or not at all - PWM output was configured incorrectly - Safe axis not controlled through CC (analog, simulation, PLC spindle, etc.) - Safe axis configured for "referencing on the fly"; check machine parameter MP_refType (400401) - Differing line counts for motor encoder in various parameter sets of one axis - Several axis groups assigned with identical ID - Invalid index number assigned for axis group (negative, too large) **Error correction** - Correct the machine configuration - Inform your service agency
330-0064	**Error message** MC brake test not completed **Cause of error** The brake test was started, but no end was received within 10 seconds from the CC. **Error correction** - Internal software error - Inform your service agency
330-0065	**Error message** MC command %1 not acknowledged **Cause of error** Command was not acknowledged by the Main Computing Unit (MC) within 400 ms. **Error correction** Inform your service agency.
330-0066	**Error message** MC PWM output is not present **Cause of error** Internal software error **Error correction** Inform your service agency

Error number	Description
330-0067	**Error message** CC%2 timeout version comparison **Cause of error** The CC does not send a version number (safe stop 0) within 2 s. **Error correction** Inform your service agency.
330-0068	**Error message** MC wrong quantity FS-CC **Cause of error** Internal software error **Error correction** - Inform your service agency - Exchange the software
330-0069	**Error message** MC S checksum error **Cause of error** - Checksum error due to faulty data - Internal software error **Error correction** Inform your service agency.
330-006A	**Error message** CC%2 timeout SMP check sum **Cause of error** The CC does not find an SMP checksum (safe stop 0) within 2 s. - Internal software error **Error correction** Inform your service agency.
330-006B	**Error message** MC SOM 2 only one axis allowed **Cause of error** Two or more axes are to be moved simultaneously in the SOM 2 operating mode. **Error correction** Only one axis may be moved at a time in SOM 2.

Error number	Description
330-006C	**Error message** +24 V MC short on brake line **Cause of error** There is a short circuit with 24 V on the brake line A of the MC. **Error correction** - Check brake channel A - Inform your service agency
330-006D	**Error message** MC 0 V short on brake line %2 **Cause of error** There is a short circuit with 0 V on the brake line A of the MC. **Error correction** - Check brake channel A - Inform your service agency
330-006E	**Error message** MC SOM 4 Press the permissive key **Cause of error** In the SOM 4 mode of operation, the permissive key was not pressed within the time defined in MP529. **Error correction** Press the permissive key.
330-006F	**Error message** MC SOM 4 not released **Cause of error** The operating mode BA4 is addressed through the keylock switch and is still not enabled over the configuration datum "permitSom4". **Error correction** - Inform your service agency - Enable the operating mode through the configuration datum "permitSom4"
330-0070	**Error message** MC SOM 4 not possible **Cause of error** 1. Key switch is not on SOM 1. **Error correction** 1. Turn the key switch to SOM 1.

Error number	Description
330-0071	**Error message** MC operating mode not possible **Cause of error** Wiring error at the SG inputs BA2.x, BA3.x and BA4.x. **Error correction** - Inform your service agency. - Check the wiring.
330-0073	**Error message** CC%2 current measurement timeout **Cause of error** Current measurement of the controller unit in the cut-out test could not be performed because the standby signal RDY of a power stage (inverter) is missing. **Error correction** - Check the switch setting of “AXIS/SPINDLE (X110)” on the inverter. - Inform your service agency
330-0074	**Error message** MC: Incorrect safe axis group **Cause of error** - The axis-group definition is not allowed in the safe machine parameter CfgAxParSafety/axisGroup. **Error correction** - Correct the machine parameter axisGroup in CfgAx-ParSafety. - Changes in this safe machine parameter may be performed solely by the machine tool builder. - Inform your service agency.
330-0075	**Error message** MC braking test not activated **Cause of error** - Move the axis to a safe position before power-off - Brake test was not commanded by the MC **Error correction** - Software error - Inform your service agency

Error number	Description
330-0076	**Error message** CC: Guard doors are open **Cause of error** - One or more guide doors are open The guard doors have to be closed in order to conduct the safety self-test or the brake test of an axis. Further possible causes: - Faulty wiring of guard doors - Guard door contact is defective **Error correction** - Close the guard doors in order to conduct the safety self-test or the brake test Further possible measures: - Check the wiring of the guard door contacts - Check the guard door contact - Check the SPLC program - Inform your service agency
330-0077	**Error message** Checksum error A **Cause of error** The CRC sum of the EPROMs IC-P1 and IC-P2 is incorrect. **Error correction** - Switch the control off and on again (reboot) - Inform your service agency.
330-0078	**Error message** MC movement monitoring %2 **Cause of error** - Defective hardware - Spindle cannot be controlled **Error correction** - Adjust the spindle - Exchange the hardware - Inform your service agency
330-0079	**Error message** MC error in braking process %2 **Cause of error** The axes cannot be servo-controlled. dv/dt monitoring has responded. **Error correction** - Check machine parameter CfgAxParSafety/timeToleranceDvDt - Adjust the axes - Exchange the hardware - Inform your service agency

Error number	Description
330-007A	**Error message** CC: Machine key depressed **Cause of error** One or more machine keys of an operating station are active on the CC side. Machine keys are keys, e.g. on the machine operating panel or the handwheel, that can release a movement of the machine (permissive keys, axis-direction keys, chip conveyors, etc.) **Error correction** - Release the key(s) or check the wiring - Inform your service agency
330-007B	**Error message** MC: Mach. permiss. button depressed **Cause of error** Machine-key permissive key is depressed on the MC side. **Error correction** - Release the key or check the wiring - Inform your service agency
330-007C	**Error message** CC panel permissive button pressed **Cause of error** Machine-key permissive key is depressed on the CC side. **Error correction** - Release the key or check the wiring - Inform your service agency
330-007D	**Error message** CC: Machine permissive button pressed **Cause of error** Tool changer permissive key is active on CC side. **Error correction** - Release the key or check the wiring - Inform your service agency
330-007E	**Error message** MC inverter RDY=0 %2 **Cause of error** Although SH1B.x=1, RDY.x=0 **Error correction** - Hardware error - Inform your service agency

Error number	Description
330-007F	**Error message** MC inverter RDY=1 %2 **Cause of error** Although SH1B.x=0, RDY.x=1 **Error correction** - Hardware error - Inform your service agency
330-0080	**Error message** MC 1st violation of limit switch %2+ **Cause of error** The safety limit switch was tripped for the first time. **Error correction** - Press "machine on" to cancel the error message and move to the limit switch range.
330-0081	**Error message** MC 1st violation of limit switch %2- **Cause of error** The safety limit switch was tripped for the first time. **Error correction** - Press "machine on" to cancel the error message and move to the limit switch range.
330-0082	**Error message** MC nominal-to-actual position error too large %2 **Cause of error** The following error of a moving axis is greater than the value specified in the safe machine parameter positionDiffNom. **Error correction** - Reduce the contouring feed rate, increase the rotational speed. - Remove any possible sources of vibration. - Inform your service agency if the error occurs frequently.
330-0083	**Error message** MC S software error %1 **Cause of error** - Software error **Error correction** - Inform your service agency

Error number	Description
330-0084	**Error message** MC start test of the cut-out channels not possible **Cause of error** The start test of the cutout channels was commanded through the PLC, although the machine-on input is inactive. **Error correction** - Error in PLC program - Inform your service agency
330-0085	**Error message** CC: Handwheel permissive button depressed **Cause of error** The permissive button of the handwheel on the CC side was pressed. An incorrect handwheel was selected by CfgHandwheel/type. **Error correction** - Check the permissive button - Set the configuration datum properly - Inform your service agency
330-0086	**Error message** Emergency stop from SPLC **Cause of error** - Stop reaction for emergency stop (SS1) released by the SPLC program **Error correction** - Inform your service agency
330-0087	**Error message** Fatal error from SPLC **Cause of error** - Stop reaction for fatal error (SS1) released by the SPLC program **Error correction** - Inform your service agency
330-0088	**Error message** MC: Permissive button depressed **Cause of error** Permissive button of machine operating panel or handwheel is depressed. **Error correction** - Release permissive button - Check inputs

Error number	Description
330-0089	**Error message** CC permissive button pressed **Cause of error** Permissive button of machine operating panel or handwheel is depressed. **Error correction** - Release permissive button - Check inputs
330-008A	**Error message** CC%2 inverter for axis RDY=0 (safety relay) **Cause of error** RDY of the inverter remains 0, although 1 is expected after a beginning a test. Possible causes: - Safety relay for axes (K1) has a short circuit to 0 V - Wiring of the enabling relays (X72) or the axis release module is faulty - Wiring of the STO.A.G or MC.RDY signal is faulty - Inverter is not configured for axes **Error correction** - Check the hardware - Check the wiring - Inform your service agency
330-008B	**Error message** CC%2 inverter for axes RDY=1 (safety relay) **Cause of error** RDY of the inverter remains 1, although 0 is expected after a beginning a test. Possible causes: - Safety relay for axes (K1) has a short circuit to +24 V. - Wiring of the enabling relays (X72) or the axis release module is faulty - Wiring of the STO.A.G or MC.RDY signal is faulty - Inverter is not configured for axes **Error correction** - Check the hardware - Check the wiring - Inform your service agency
330-008C	**Error message** MC timeout during braking (SS1) %2 **Cause of error** - The maximum permissible time for braking at the current limit (SS1 reaction) was exceeded. **Error correction** - Check the parameter values: timeLimitStop1: Default time for stopping the axes/spindle at the emergency braking ramp for SS1 reaction - Inform your service agency.

Error number	Description
330-008D	**Error message** MC traverse range exceeded at SS2 %2 **Cause of error** When braking at a contour (SS2), a spindle or axis exceeded the maximum permissible path. The maximum permissible path for axes is the entry in the safety-related machine parameter distLimitStop2. A maximum of 2 revolutions are permissible for spindles during an SS2 reaction in SOM_2, and 5 revolutions are permissible in SOM_3, SOM_4. **Error correction** - Check the machine parameters for the braking process during an SS2 reaction. - Check the entry in distLimitStop2 - Inform your service agency.
330-008E	**Error message** MC change from SOM_2/SOM_3 to SOM_4 not possible **Cause of error** - Safety-related mode of operation SOM_1 not selected - E.g. keylock switch 1 not in SOM_1 position **Error correction** - Select safety-related mode of operation SOM_1 - E.g. keylock switch 1 in SOM_1 position
330-008F	**Error message** MC change from SOM_4 to SOM_2/SOM_3 not possible **Cause of error** - Safety-related mode of operation SOM_1 not selected - E.g. keylock switch 1 not in SOM_1 position **Error correction** - Select safety-related mode of operation SOM_1 - E.g. keylock switch 1 in SOM_1 position
330-0090	**Error message** MC SPLC requests invalid stop reaction **Cause of error** - SPLC demands an invalid stop reaction (SS0, SS1, SS1F or SS2) for an axis/spindle group - Error in SPLC program **Error correction** - Check the SPLC program - Inform your service agency

Error number	Description
330-0091	**Error message** MC SPLC requests invalid safety function **Cause of error** - SPLC demands an invalid safety function (SLI, SLS, STO, SOS or AUTO) for an axis/spindle group - Error in SPLC program **Error correction** - Check the SPLC program - Inform your service agency
330-0092	**Error message** MC brake cannot be deactivated %2 **Cause of error** - Drive was switched on although the STO (Safe Torque Off) safety function for the axis or spindle is still active. **Error correction** - Internal software error - Inform your service agency
330-0093	**Error message** MC System clock MC is not equal to SKERN MC **Cause of error** - MC does not increase the internal watchdog counter value - There is an MC hardware defect or internal software error **Error correction** - Restart the control - Inform your service agency
330-0094	**Error message** MC System clock MC is not equal to SPLC MC **Cause of error** - MC does not get any messages from the SPLC MC - There is an SPLC MC hardware defect or internal software error **Error correction** - Restart the control - Inform your service agency
330-0095	**Error message** MC System clock MC is not equal to SPLC CC **Cause of error** - MC does not get any messages from the SPLC CC - There is an SPLC CC hardware defect or internal software error **Error correction** - Restart the control - Inform your service agency

Error number	Description
330-0096	**Error message** MC error during cross comparison: %1 **Cause of error** - A cross comparison between safety-related data of the MC and the CC reports errors - Data of the programming interface SPlcApiFromSaftey (NN_xxx) are different on the MC and CC - Data of the programming interface SPlcApiToSaftey (PP_xxx) are different on the MC and CC - Hardware defective- Internal software error **Error correction** - Inform your service agency
330-0097	**Error message** MC Safe output is not equal: %1 **Cause of error** Cross comparison of a back-readable output reports an error. Possible causes: - Power supply of the outputs - Wiring of the outputs - Hardware defective (PL module) - Internal software error **Error correction** - Check the power supply of both channels or all outputs - Check the wiring - Exchange the defective PL module - Inform your service agency
330-0098	**Error message** MC +3.3 V out of tolerance **Cause of error** - The internal +3.3-V power supply of the MC is outside the permissible tolerance range. **Error correction** - Exchange defective hardware (MC) - Inform your service agency
330-0099	**Error message** MC +3.3 V PIC out of tolerance **Cause of error** - The internal +3.3 V PIC power supply of the MC is outside the permissible tolerance range. **Error correction** - Exchange defective hardware (MC) - Inform your service agency

Error number	Description
330-009A	**Error message** MC +12 V out of tolerance **Cause of error** - The internal +12-V power supply of the MC is outside the permissible tolerance range. **Error correction** - Exchange defective hardware (MC) - Inform your service agency
330-009B	**Error message** MC speed of fan 1 too slow **Cause of error** - Internal fan 1 of the MC is below the permissible tolerance range (too slow). **Error correction** - Exchange defective hardware (MC) - Inform your service agency
330-009C	**Error message** MC Speed of fan 2 too slow **Cause of error** - Internal fan 2 of the MC is below the permissible tolerance range (too slow). **Error correction** - Exchange defective hardware (MC) - Inform your service agency
330-009D	**Error message** MC fan not recognized **Cause of error** - Hardware (MC) defective **Error correction** - Exchange defective hardware (MC) - Inform your service agency
330-009E	**Error message** MC error in actual-value measurement %2 %1 **Cause of error** The encoder reports an internal error in the actual value acquisition **Error correction** Inform your service agency

Error number	Description
330-00A0	**Error message** MC axis %2 in servo control **Cause of error** - The SPLC program requests the STO safety function, although the axis is still in servo control - Internal software error **Error correction** Inform your service agency
330-00A1	**Error message** MC spindle %2 in servo control **Cause of error** - The SPLC program requests the STO safety function, although the spindle is still in servo control - Internal software error **Error correction** Inform your service agency
330-00A2	**Error message** MC excessive deviation of actual from nominal speed %2 **Cause of error** - The safety function "comparison of actual to nominal speed values" reports an error - The maximum permissible deviation between the actual and nominal speed value (CfgAxParSafety/speedDiffNom) exceeded the permissible time in the safety related machine parameter timeToleranceSpeed **Error correction** - Check the entries in the safety-related machine parameters speedDiffNom and timeToleranceSpeed in CfgAxParSafety - Inform your service agency
330-00A3	**Error message** MC: Erroneous data from SPLC %1 **Cause of error** - Data transfer error - CRC checksum error **Error correction** - Inform your service agency.

Error number	Description
330-00A4	**Error message** MC S status reaction is active: %1 **Cause of error** - An error bit was set in the S status by an internal hardware or software error: -STO.B.CC.WD: Watchdog WD.B.CC of a CC controller unit has timed out -SMOP.WD: Watchdog WD.A.SMOP or WD.B.SMOP of an MB machine operating panel has timed out -SPL.WD: Watchdog WD.A.SPL or WD.B.SPL of a PLB has timed out -PF.BOARD: The internal voltage monitoring of the HSCI components has detected a faulty operating voltage -REQ.SS2: The internal temperature or fan monitoring of the HSCI components has detected a fault **Error correction** - Inform your service agency.
330-00A5	**Error message** MC -SMC.A.WD=0 **Cause of error** Internal software error **Error correction** Inform your service agency
330-00A6	**Error message** SKERN-MC: autotest function active **Cause of error** - Unsafe test software loaded for acceptance tests - Caution: Safety functions have been partly deactivated! **Error correction** - Inform your service agency.
330-00A7	**Error message** MC timeout during braking (SS2) %2 **Cause of error** - The maximum permissible time for a controlled stop (SS2 – braking on the contour) was exceeded **Error correction** - Check the parameter values: timeLimitStop2: Default time for bringing axes to a controlled standstill for SS2 reaction - Inform your service agency

Error number	Description
330-00A8	**Error message** Checksum of safe machine parameters are invalid **Cause of error** No checksum has been saved or a checksum is invalid for at least one of the following configurations: - Safe configuration data - Hardware configuration - Configuration of the encoders **Error correction** - Check the entries of the safe machine parameters and correct them if necessary - If the values of the machine parameters have been changed, they are to be loaded by entering the manufacturer's password. Then a corresponding acceptance test must be run. - Inform your service agency.
330-00A9	**Error message** Checksum of safe machine parameters have been changed **Cause of error** - The internally saved checksum of the safe machine parameters does not match the new calculated checksum. - One or more safe machine parameters were changed. **Error correction** - Check the entries of the safe machine parameters - If the values of the machine parameters have been changed, they are to be loaded by entering the manufacturer's password. Then a corresponding acceptance test must be run. - Inform your service agency.
330-00AA	**Error message** Checksum was changed through the hardware configuration **Cause of error** - The internally saved checksum of the HSCI system hardware configuration does not match the new calculated checksum. - HSCI components were exchanged, removed, or new ones inserted **Error correction** - Check the hardware configuration and correct it if required. - If the configuration has been changed, they are to be loaded by entering the manufacturer's password. Then a corresponding acceptance test must be run. - Inform your service agency.

Error number	Description
330-00AB	**Error message** Checksum was changed through the encoder configuration **Cause of error** - The internally saved checksum of the encoders' configuration does not match the new calculated checksum. - Encoders were exchanged, removed, or new ones inserted **Error correction** - Check the encoder configuration and correct it if required. - If the configuration has been changed, they are to be loaded by entering the manufacturer's password. Then a corresponding acceptance test must be run. - Inform your service agency.
330-00AC	**Error message** Checksum of safe machine parameters have been changed **Cause of error** Entries in safe machine parameters have been changed. **Error correction** - Check the entries of the safe machine parameters - Switch the control off and on again - If the values of the machine parameters have been changed, they are to be loaded by entering the manufacturer's password. Then a corresponding acceptance test must be run. - Inform your service agency.
330-00AD	**Error message** Impermissible deviation of safe machine parameters **Cause of error** Safe machine parameters deviate between the individual parameter blocks of a safe axis. This is not allowed. The values have to match in all parameter blocks of an axis: - Encoder input - PWM output - Encoder resolution per path - Counting direction - Line count **Error correction** - Check the entries of the safe machine parameters and correct them if necessary - Switch the control off and on again - If the values of the machine parameters have been changed, they are to be loaded by entering the manufacturer's password. Then a corresponding acceptance test must be run. - Inform your service agency.

Error number	Description
330-00AE	**Error message** Invalid entry in safe machine parameter **Cause of error** The configuration datum CFGAxParSafety contains invalid values in one of the following safe machine parameters: - positionMatch Entered position or value is invalid - positionDiffRef Entered deviation or value is invalid - speedLimitSom2 Entered velocity or value is invalid - axisGroup Invalid axis group, too many spindles, too many axes or axis configured as spindle. **Error correction** - Check the entries of the safe machine parameters and correct them if necessary - Switch the control off and on again - If the values of the machine parameters have been changed, they are to be loaded by entering the manufacturer's password. Then a corresponding acceptance test must be run. - Inform your service agency.
330-00AF	**Error message** Invalid entry in safe machine parameter **Cause of error** The configuration datum CfgAxGroupSafety contains an invalid value in a safe machine parameter. - The number of the axis group in the safe machine parameter “id”invalid. - The axis group is not of the “SPINDLE” type, but in the safe machine parameter “brakeAfter” there is a dependency on at least one other axis group. - The axis group is not of the “SPINDLE” type, but the value “STO” is set in the safe machine parameter “idleState”. **Error correction** - Check the entries of the safe machine parameter and correct if necessary - Switch the control off and on again - If the values of the machine parameters have been changed, they are to be loaded by entering the manufacturer’s password. Then a corresponding acceptance test must be run. - Inform your service agency

Error number	Description
330-00B0	**Error message** Invalid entry in safe machine parameter **Cause of error** The safe machine parameter cfgSafety contains invalid values. **Error correction** - Check the entries of the safe machine parameter and correct them if necessary - Switch the control off and on again - If the values of the machine parameters have been changed, they are to be loaded by entering the manufacturer's password. Then a corresponding acceptance test must be run. - Inform your service agency.
330-00B1	**Error message** Invalid entry in safe machine parameter **Cause of error** The configuration of the safe machine parameters is invalid. The following causes are possible: - Invalid encoder input was configured or none and all (speed or position encoder) - Invalid PWM output was configured or none at all - Invalid assignment of axes/spindles to controller main boards - Invalid assignment of PWM output and encoder input (speed or position encoder) to the controller main board - Configuration between PWM output and encoder input (speed or position encoder) is invalid **Error correction** - Check the configuration in the safe machine parameters and correct them if necessary - Switch the control off and on again - If the values of the machine parameters have been changed, they are to be loaded by entering the manufacturer's password. Then a corresponding acceptance test must be run. - Inform your service agency.

Error number	Description
330-00B2	**Error message** Deviations in safe machine parameter **Cause of error** Safe machine parameters deviate between the individual parameter blocks of a safe axis. This is not allowed. The values have to match in all parameter blocks of an axis: - Encoder input - PWM output - Encoder resolution per path - Counting direction - Line count **Error correction** - Check the entries of the safe machine parameters and correct them if necessary - Switch the control off and on again - If the values of the machine parameters have been changed, they are to be loaded by entering the manufacturer's password. Then a corresponding acceptance test must be run. - Inform your service agency.
330-00B3	**Error message** MC self test %1 not started **Cause of error** The self-test for safety detected an error. A certain signal must be set for test purposes. This signal was not released by the indicated HSCI component. The error message contains the following information: MC self test STEST_<signal>, STESTDEV_<HSCI component>, <HSCI address> - The signal to be set is indicated under STEST_. - The HSCI component that did not set the signal is indicated under STESTDEV_. - The given number in the error message matches the HSCI address of the HSCI component concerned. Possible causes: - HSCI component is defective. - Wiring is faulty. **Error correction** - Exchange the HSCI component. - Check the wiring - Inform your service agency

Error number	Description
330-00B4	**Error message** MC self test %1 not detected **Cause of error** The self-test for safety detected an error. A certain signal was set and was not recognized by the indicated HSCI component. The error message contains the following information: MC self test STEST_<signal>, STESTDEV_<HSCI component>, <HSCI address> - The set signal is indicated under STEST_. - The HSCI component that did not recognize the set signal is indicated under STESTDEV_. - The given number in the error message matches the HSCI address of the HSCI component concerned. Possible causes: - HSCI component is defective. - Wiring is faulty. **Error correction** - Exchange the HSCI component. - Check the wiring - Inform your service agency.
330-00B5	**Error message** MC Incorrect command from the MC **Cause of error** - Internal software error **Error correction** - Inform your service agency
330-00B6	**Error message** MC Invalid SPLC operating mode **Cause of error** - Error in SPLC program - SPLC requests an invalid operating mode The valid modes are SOM_1, SOM_2, SOM_3, SOM_4 - Internal software error **Error correction** - Check the SPLC program - Inform your service agency

Error number	Description
330-00B7	**Error message** MC brake control is defective %2 **Cause of error** - Brake output of the inverter is defective - PL output for controlling the brake is defective - Incorrect wiring of the braking control (e.g. short circuit to 0 V, short circuit to 24 V) **Error correction** - Check the wiring of the brake control - Check the wiring for short circuits to 0 V or 24 V - Check the supply voltage of the outputs to the brake control (PL module, inverter) - Inform your service agency.
330-00B8	**Error message** MC brake control is defective **Cause of error** - Brake output of the inverter is defective - PL output for controlling the brake is defective - Incorrect wiring of the braking control (e.g. short circuit to 0 V, short circuit to 24 V) **Error correction** - Check the wiring of the brake control - Check the wiring for short circuits to 0 V or 24 V - Check the supply voltage of the outputs to the brake control (PL module, inverter) - Inform your service agency.
330-00B9	**Error message** MC error in the cutout channel STO.A.x (-STO.A.P.x=0) %2 **Cause of error** The cutout channel test detected a fault: The axis-specific pulse deletion for the power stage over the A channel is defective. Switch-off signal: STO.A.P.x Switch-off signal: STO.A.x The acknowledgment signal for this cutout channel has the wrong condition, i.e. when - JH inverter: Power stage reports "readiness" (RDY.x=1), although "No readiness“ (RDY.x=0) is expected. - DRIVE-CLiQ inverter: Associated diagnostic signal is "1", although "0" is expected. **Error correction** - Check the wiring (PWM cable) - Hardware error (power module, controller unit) - Inform your service agency.

Error number	Description
330-00BA	**Error message** MC error in the cut-out channel STO.A.x (-STO.A.P.x=1) %2 **Cause of error** The cutout channel test detected a fault: The axis-specific pulse release for the power stage over the A channel is defective. Switch-off signal: STO.A.P.x Switch-off signal: STO.A.x The acknowledgment signal for this cutout channel has the wrong condition, i.e. when - JH inverter: Power stage reports "no readiness" (RDY.x=0), although "readiness“ (RDY.x=1) is expected. - DRIVE-CLiQ inverter: Associated diagnostic signal is "0", although "1" is expected. **Error correction** - Check the wiring (PWM cable) - Hardware error (power module, controller unit) - Inform your service agency.
330-00BB	**Error message** CC%2 error in cut-out channel STO.A.x (-STO.A.MC.WD=0) ax-grp A **Cause of error** The cutout channel test detected a fault: The CC-specific pulse deletion for the corresponding power modules of the NC axis group (A) over the A channel is defective. Switch-off signal: STO.A.MC.WD Switch-off signal: STO.A.x At least one of the acknowledgment signals for this cutout channel has the wrong condition, i.e. when - JH inverter: At least one power module reports "readiness" (RDY.x=1), although for all power modules of the axis group A of the CC, "No readiness“ (RDY.x=0) is expected. - DRIVE-CLiQ inverter: At least on of the associated diagnostic signal is "1", although "0" is expected. **Error correction** - Check the wiring (PWM cable) - Hardware error (power module, controller unit) - Inform your service agency.

Error number	Description
330-00BC	**Error message** CC%2 error in cut-out channel STO.A.x (-STO.A.MC.WD=0) ax-grp. S **Cause of error** The cutout channel test detected a fault: The CC-specific pulse deletion for the corresponding power modules of the spindle axis group (S) over the A channel is defective. Switch-off signal: STO.A.MC.WD Switch-off signal: STO.A.x At least one of the acknowledgment signals for this cutout channel has the wrong condition, i.e. when - JH inverter: At least one power module reports "readiness" (RDY.x=1), although for all power modules of the axis group S of the CC, "No readiness“ (RDY.x=0) is expected. - DRIVE-CLiQ inverter: At least on of the associated diagnostic signal is "1", although "0" is expected. **Error correction** - Check the wiring (PWM cable) - Hardware error (power module, controller unit) - Inform your service agency.
330-00BD	**Error message** CC%2 error in cut-out channel STO.A.x (-STO.B.P.x) axis group A **Cause of error** The cutout channel test detected a fault: The CC-specific pulse release for the corresponding power modules of the NC axis group (A) over the A channel is defective. The ready signal RDY for one axis group is missing. The cutout channel STO.A.x was switched to inactive for the test of the cutout channel STO.B.x for all power modules. At least one of the acknowledgment signals for this cutout channel has the wrong condition, i.e. when - At least one power module reports “No readiness” (RDY.x=0), although “Readiness“ (RDY.x=1) is expected for all power modules of the axis group of the CC. **Error correction** - Check the wiring (e.g. pulse release X72 of the supply module, X73 Heidenhain interface PCB, PWM cable is defective) - Exchange defective hardware (power module) - Inform your service agency

Error number	Description
330-00BE	**Error message** CC%2 error in cut-out channel STO.A.x, RDY signal missing **Cause of error** The cutout channel test detected a fault: The CC-specific pulse release for the corresponding power modules of the spindle (S) over the A channel is defective. The ready signal RDY for one axis group is missing. The cutout channel STO.A.x was switched to inactive for the test of the cutout channel STO.B.x for all power modules of the axis group S. At least one of the acknowledgment signals for this cutout channel has the wrong condition, i.e. when - At least one power module reports “No readiness” (RDY.x=0), although “Readiness“ (RDY.x=1) is expected for all power modules of the axis group of the CC. **Error correction** - Check the wiring (e.g. pulse release X71 of the supply module, X73 Heidenhain interface PCB, PWM cable is defective) - Exchange defective hardware (power module) - Inform your service agency
330-00C0	**Error message** Self-test required **Cause of error** - Maximum permissible time interval for the self-test has been exceeded - For further operation of the machine with open guard doors, the self-test must be conducted **Error correction** - Start the self-test - If the guard doors are closed, the error message can be acknowledged and machine operation continued - With open guard doors, or before the guard doors are opened, the self-test must be conducted in order to continue operating the machine - Inform your service agency
330-00C1	**Error message** MC drives cannot be switched on: NN_GenSafe = 0 **Cause of error** - SPLC interface signal NN_GenSafe = 0. It is therefore impossible to switch on the drives. - SPLC program does not set the interface signal. **Error correction** - Check the SPLC program. - Inform your service agency.

Error number	Description
330-00C2	**Error message** Error during activation of an FS configuration **Cause of error** The activation of another FS configuration was canceled because the CRC checksums of the FS data records differ. **Error correction** - Reset the "accepted" status of the most recently changed FS data records - Manually undo your most recently made changes - Copy a valid backup onto the machine - Inform your service agency
330-00C3	**Error message** FS configuration error: machine IDs do not match **Cause of error** The activation of another FS configuration was canceled because the entered machine IDs of the FS configurations differ. **Error correction** – Check the machine IDs of the FS configurations - Inform your service agency
330-00C4	**Error message** Maximum number of FS data records has been reached **Cause of error** The activation of another FS configuration was canceled because the maximum permissible number of different FS data records was exceeded. **Error correction** - Delete any unneeded FS data records - Inform your service agency
330-00C5	**Error message** Maximum number of FS configurations has been reached **Cause of error** The activation of another FS configuration was canceled because the maximum permissible number of different FS configurations was exceeded. **Error correction** - Delete any unneeded FS configurations - Inform your service agency

Error number	Description
330-00C6	**Error message** MC manual operation. Only one axis allowed. **Cause of error** — Two or more axes are being moved in the "Electronic Handwheel" operating mode. - Simultaneous movement of multiple axes is not allowed. **Error correction** - Move only one axis in the Handwheel operating mode. - Check the entry in the appropriate safe machine parameter and correct it if necessary. - Inform your service agency.
330-00C7	**Error message** A fatal reconfiguration error was triggered **Cause of error** - The reconfiguration process for functional safety (FS) has failed. **Error correction** - The status "accepted" will be reset for all configurations and data records for functional safety. - The comparison data records will be deleted. - Install a complete backup of the machine. - Inform your service agency.
330-00C8	**Error message** Acceptance not allowed during configuration process **Cause of error** - Acceptance testing of data records configurations was conducted during an FS configuration process. This is not allowed. **Error correction** - Conduct the acceptance testing when the configuration process is completed. - Inform your service agency.
330-00C9	**Error message** Error during activation of an FS configuration **Cause of error** One of the following safe machine parameters was changed after the self-test began: - Time to next self-test - Time monitoring for brake test These machine parameters can be changed only before starting the safety self-test. **Error correction** - Undo the change in the affected machine parameters. - Restart the control. - Inform your service agency.

Error number	Description
330-00CA	**Error message** Axis-group-specific guard door is open (MC) %1 **Cause of error** - Guard door of the axis group is opened The guard door has to be closed in order to conduct the safety self-test or the brake test of a respective axis group Further possible causes: - Faulty wiring of guard doors - Guard door contact is defective - SPLC interface signal PP_AxGrpStateReq unequal to S_STATE_AUTO [10] **Error correction** - Close the axis-group-specific guard doors in order to conduct the safety self-test or the brake test Further possible measures: - Check the wiring of the guard door contacts - Check the guard door contact - Check the SPLC program - Inform your service agency
330-00CB	**Error message** Axis-group-specific guard door is open (CC) %1 **Cause of error** - The guard door is open The guard door(s) has to be closed in order to conduct the safety self-test or the brake test of an axis Further possible causes: - Faulting wiring of the guard door - Guard door contact is defective **Error correction** - Close the guard door(s) in order to conduct the safety self-test or the brake test Further possible measures: - Check the wiring of the guard door contacts - Check the guard door contact - Check the SPLC program - Inform your service agency
330-00CC	**Error message** The time until the next brake test is invalid for one axis %1 **Cause of error** - A time greater than 0 is configured for a non-safe axis **Error correction** - For an axis that is not monitored by functional safety (FS) , only 0 is allowed as the time value.

Error number	Description
330-00DE	**Error message** Commissioning function for FS is active **Cause of error** Commissioning support for functional safety (FS) functions are active: - The NC software does not limit velocity - Unexpected movements or dangerous situations might occur **Error correction** - The machine must be operated only by trained personnel. - Operate the machine only with great caution - This function must be activated only for commissioning purposes - Deactivate this function before shipping the machine
330-00E7	**Error message** FS data record cannot be accepted **Cause of error** - There are at least two FS data records with identical ID in different parameter sets and at least one safe parameter SMP has a different value in both parameter set. **Error correction** - Compare and adjust the values of the safe parameters SMP of the same data record between the parameter sets. - To avoid such errors, HEIDENHAIN recommends using the “KeySynonym” function. - Inform your service agency.
330-00E8	**Error message** Self-test required **Cause of error** - Maximum permissible interval time for the self-test has been exceeded - The self-test must be conducted for further operation of the machine with open guard doors **Error correction** - Start the self-test - When the guard doors are open, or before opening the guard doors, the self-test must be started in order to continue operating the machine
330-00EA	**Error message** Activation of the automatic change mode not possible **Cause of error** An FS reconfiguration has not yet concluded. **Error correction** Wait until the FS reconfiguration process is completed and then retry.

Error number	Description
330-00EC	**Error message** MC: S status reaction is active: %1 **Cause of error** An error bit was set in the S status by an internal hardware or software error: -SCC.B.WD: Watchdog WD.B.CC of a CC controller unit has timed out -SMOP.WD: Watchdog WD.A.SMOP or WD.B.SMOP of an MB or TE machine operating panel has timed out -SPL.WD: Watchdog WD.A.SPL or WD.B.SPL of a PLB has timed out -PF.BOARD: The internal voltage monitoring of an HSCI component has detected a faulty supply voltage -REQ.SS2: The internal temperature or fan monitoring of an HSCI component has detected a fault **Error correction** - Generate the service file - Inform your service agency
330-00ED	**Error message** MC error, device-specific evaluation CC %2 / %3, error %1 **Cause of error** The CC controller unit reports a device-specific error. **Error correction** Inform your service agency
330-00EE	**Error message** SKERN-MC: single-event-upset error (SEU) was determined **Cause of error** - Internal software error - Possible sporadic error due to EMC irradiation **Error correction** - Restart the control - Check the shielding or shield connection of the devices - Shield or remove possible EMC interferences - Inform your service agency
330-00EF	**Error message** SMC error in the configuration data %1 **Cause of error** The configuration parameters do not match the expected values. **Error correction** Check the machine parameters and correct as needed

Error number	Description
330-00F0	**Error message** Checking of axes of various axis groups **Cause of error** You attempted to check axes of different axis groups simultaneously. **Error correction** - Check the configuration: axes that are coupled in a rigid gantry combination must belong to the same axis group - Uncouple a dynamic gantry combination if you want to check it - If necessary, inform your machine manufacturer
330-00F1	**Error message** Reconfiguration while checking the axes **Cause of error** Safe machine parameters were reconfigured while the axes were being checked. Checking was therefore aborted. **Error correction** - Re-check the axes - If the problem persists, inform your machine manufacturer
330-00F2	**Error message** Checking of an externally monitored axis **Cause of error** You attempted to check an externally monitored axis. The control can check only internally monitored axes. **Error correction** - Check the parameter CfgAxParSafety/encoderForSafety - Inform your service agency
330-00F3	**Error message** Permissive button missing while checking **Cause of error** While checking an axis, you failed to press the permissive button within the time prescribed by the control. **Error correction** Re-check the axis.
330-00F4	**Error message** Checking during a fatal error **Cause of error** You attempted to check an axis while the functional safety was in a fatal error state. **Error correction** - Restart the control - If necessary, inform your service agency

Error number	Description
330-00F5	**Error message** Axis not at test position **Cause of error** - The axis to be checked is not located at the test position (safe machine parameter positionMatch in CFGAxParSafety) - Axis is too far from the test position (safe machine parameter positionDiffRef in CFGAxParSafety) **Error correction** - Press CE to acknowledge the error message and move the axis to the test position - Then check the axis If the message appears although the axis is at the correct test position: - For gantry combinations, an axis other than the one being checked might not be in the correct position. If necessary, uncouple the gantry combination for checking. - Check the configuration of the axis traverse direction and correct it if necessary (machine parameter signCorrActualVal, signCorrNominalVal, or entry in the DIR column of the motor table) - Inform your machine manufacturer
330-00F6	**Error message** FS configuration with a parameter whose value cannot be accepted **Cause of error** Acceptance of CfgSafety/CfgAxParSafety/speedPosCompType with the value noComp is not allowed. **Error correction** - Reset the acceptance status - Reset the parameter value
330-00F7	**Error message** Axis in motion **Cause of error** Possible causes: - The axis to be checked is still in motion - Another axis that belongs to the same axis group as the axis to be checked is still in motion **Error correction** - Press CE to acknowledge the error message and bring the axis to a standstill - Then check the axis - Inform your service agency

Error number	Description
330-00F8	**Error message** Internal software error **Cause of error** You checked an axis while another axis was still being checked **Error correction** - Conclude checking of the first axis before checking another axis - Inform your service agency
330-00F9	**Error message** Checking of axes of different axis groups **Cause of error** You checked two or more axes at the same time even though they belong to different axis groups **Error correction** - Make sure that all internally monitored axes of a gantry combination belong to the same axis group - Inform your machine manufacturer - Inform your service agency
330-00FA	**Error message** CC error while testing axes **Cause of error** An error occurred in the CC controller unit while testing the axes. **Error correction** Note the additional error message of the CC controller unit
330-00FB	**Error message** Internal software error SMC **Cause of error** An internal software error occurred in the functional safety aspect. **Error correction** Inform your service agency
400-071F	**Error message** Key non-functional **Cause of error** In this context the key has no function. **Error correction**

Error number	Description
400-0720	**Error message** Selected block not addressed **Cause of error** After an interruption in the program run, the control cannot resume program run from the present cursor location. **Error correction** Select the desired location for resuming the program with "GOTO" + block number, or with the mid-program startup function.
400-073E	**Error message** Parameter not found %1 **Cause of error** A value could not be read from the configuration data. **Error correction** Check the configuration data.
400-075F	**Error message** Error while reading the model data from %1 **Cause of error** Error while reading the model data. **Error correction** Delete the faulty file and make a new one.
400-0760	**Error message** Error while writing the model data to %1 **Cause of error** Error while writing the model data. **Error correction** Check the memory capacity. Error in file system.
400-0761	**Error message** Directory '%1' could not be created. **Cause of error** Directory could not be created. **Error correction** Check the memory capacity. Error in file system.
400-0768	**Error message** Selection of %1 not allowed **Cause of error** The tool table tool.t is meant only for program run. **Error correction** Select another tool table.

Error number	Description
400-0773	**Error message** Unable to write parameter **Cause of error** A configuration file might be write protected. **Error correction**
400-0774	**Error message** Error in preset table **Cause of error** The preset table is faulty. Possible causes: - The preset table is write-protected or it does not exist. - Line 0 does not exist. - The is no line with ACTNO = 1. **Error correction** - Please make the preset table or cancel the write protection - Enter the line 0 in the preset table - Set ACTNO in one line to zero
400-0775	**Error message** Incomplete graphic model **Cause of error** **Error correction**
400-0777	**Error message** Error while transferring command to PLC server **Cause of error** Internal software error. **Error correction** Inform your service agency.
400-077F	**Error message** File is being saved and cannot yet be opened **Cause of error** The file is now being saved in the editor. **Error correction** - After the saving process is complete, reselect the file. - The condition is indicated by the “Please wait” icon.
401-0001	**Error message** Message %1 cannot be transmitted **Cause of error** Internal software error **Error correction** Inform your service agency.

Error number	Description
401-0002	**Error message** The application could not be initialized **Cause of error** Logon with the confiration server is not possible. Configuration of the programmable axes is contradictory. **Error correction** Check the configuration data and edit.
401-0003	**Error message** Bad option %1 specified **Cause of error** Internal software error **Error correction** Inform your service agency.
401-0004	**Error message** The file %1 already contains a binary coded NC program **Cause of error** **Error correction**
401-0005	**Error message** The file %1 does not contain an NC program **Cause of error** **Error correction**
401-0006	**Error message** The file %1 already contains an encrypted NC program **Cause of error** **Error correction**
401-0007	**Error message** The file %1 contains data in an unknown format **Cause of error** **Error correction**
401-0008	**Error message** The file %2 will be overwritten by file %1 **Cause of error** **Error correction**

Error number	Description
401-0009	**Error message** Specified drive %2 of the file %1 cannot be substituted **Cause of error** An NC program is to be installed on a drive other that 0:, R: or V:. **Error correction** Check and edit the configuration data for cycles and NC macros.
401-000A	**Error message** %2 file was converted (%1) **Cause of error** **Error correction**
401-000B	**Error message** File %1 could not be converted to file %2 **Cause of error** Error during conversion of an NC program. The file could not be saved. **Error correction** Check the path name and write protection of the target file.
401-000C	**Error message** File %2 was encrypted **Cause of error** **Error correction**
401-000D	**Error message** Installation of cycles complete **Cause of error** **Error correction**
401-000E	**Error message** Error: **Cause of error** **Error correction**
401-000F	**Error message** %2 file was converted **Cause of error** **Error correction**

Error number	Description
401-0010	**Error message** %1 file contains data in an illegible format **Cause of error** At an earlier time the program was converted to an unreadable format. No backup copy was made from which another conversion would be possible. **Error correction** Recopy the file with the source text of the program to the control and start the conversion again.
401-0011	**Error message** The file %1 contains syntactically incorrect NC block %2. **Cause of error** The program uses an unknown cycle or axis, or contains other syntax errors. **Error correction** Copy the file with the corrected program source text to the control again and restart the conversion.
402-0001	**Error message** FK programming: Contradictory input **Cause of error** You programmed contradictory data within a contour element or in different contour elements. **Error correction** Check the entered data and modify it.
402-0002	**Error message** FK programming: Undefined starting position **Cause of error** You did not define an unambiguous tool position before beginning an FK sequence. **Error correction** Before beginning an FK sequence, program a positioning block with both coordinates of the working plane.
402-0003	**Error message** FK programming: No FPOL defined **Cause of error** You programmed polar coordinates within an FK sequence without first defining the pole. **Error correction** Use the FPOL function to program a pole.

Error number	Description
402-0004	**Error message** FK programming: FSELECT not allowed. **Cause of error** An FK sequence contains an FSELECT block although the contour is already clearly defined. **Error correction** Edit the NC program: delete the corresponding FSELECT block.
402-0005	**Error message** FK programming: Contour too complex **Cause of error** The number of unresolvable FK blocks or the number of selectable alternative contours exceeds the permissible maximum value of 32 each. **Error correction** Use FSELECT to resolve the FK sequence earlier, or enter additional data.
402-0006	**Error message** FK programming: Internal software error **Cause of error** The control software could not calculate the programmed contour, although it satisfies all formal requirements tested. **Error correction** Try to program the desired contour in another way. If necessary, inform the service agency for you control.
402-0007	**Error message** FK programming: Illegal coordinate **Cause of error** You programmed an illegal axis within an FK sequence. **Error correction** Program only coordinates in the working plane that you defined using FPOL (default: XY plane).

Error number	Description
402-0008	**Error message** FK programming: Incomplete input **Cause of error** You did not program all required data within an FK sequence. The following are illegal: only one coordinate in the FPOL block, only one coordinate of a auxiliary point (PD, P1, P2 or P3), PD auxiliary point without the distance DP or vice versa, FC/FCT circular arc without definition of a rotational direction (DR), the distance of a contour to a parallel line (DP) without the parallel line (PAR) or vice versa. **Error correction** Add the missing data to the NC program.
402-0009	**Error message** FK programming: Illegal positioning block **Cause of error** Within an unresolved FK sequence you programmed an illegal positioning block other than FK blocks, RND/CHF, APPR/DEP, and L blocks with motion components exclusively perpendicular to the FK plane. **Error correction** First resolve the FK sequence completely or delete illegal positioning blocks. Geometry functions that are defined over the gray contouring keys and have coordinates in the working plane are illegal (exception: RND, CHF, APPR/DEP).
402-000A	**Error message** FK programming: Illegal operation **Cause of error** The following are illegal in open FK sequences: PGM END (program end), CYCL DEF 7-11 and 26 (coordinate transformations), TOOL CALL (tool change), and PGM CALL (program calls) **Error correction** First resolve the FK sequence or program the objectionable operation at another location in the program.

Error number	Description
402-000B	**Error message** FK programming: Illegal block reference **Cause of error** From an FK sequence, a block number is used to make reference to the end point or the end tangent of a block that either - does not exist - is too far away (> 64 blocks below or > 32 blocks above) - is not a positioning block - belongs to a category of positioning blocks which cannot be used for references (transitions, CC, FPOL, blocks containing only axis values or machine coordinates) **Error correction** Enter a reference to another block, or do without the reference
402-000C	**Error message** FK programming: Incomplete input **Cause of error** The FK sequence is not complete at its program end. You will have to program additional data or NC blocks. **Error correction** * Add FK blocks as the end or edit them. * Add the missing data or NC blocks within the program. Note: - In each block, program the data that do not change. (Non-programmed data are treated as unknown.) - If the first block of an FK contour is an FCT or FLT block, you must program at least two NC blocks with the gray path function keys to fully define the direction of contour approach. An FK contour must not be programmed immediately after an LBL command
600-0009	**Error message** Casting machining was interrupted due to an internal error. Machining is not possible. %1 **Cause of error** Data overflow or insufficient memory. **Error correction** Check the program. If necessary, correct the finished part.

Error number	Description
600-000A	**Error message** Blank defined smaller than finished part. %1 **Cause of error** Error in the part definition. **Error correction** Redefine the table.
600-000B	**Error message** Drill tip longer than bore! No rough drilling takes place. %1 **Cause of error** Perhaps the inside contour resulted unintentionally from contour generation of the finished part. **Error correction** Check the program. If necessary, correct the finished part.
600-000C	**Error message** No free memory capacity. %1 **Cause of error** The data module is too small or the contours are too large. **Error correction** If possible, simplify the part.
600-000F	**Error message** Internal error - more information in the system warning %1 **Cause of error** **Error correction**
600-0011	**Error message** There is nothing to machine or nothing can be machined under these preconditions. %1 **Cause of error** Error in the data. **Error correction** Redefine the program.

Error number	Description
600-0012	**Error message** No automatic function available for this function. Do the machining manually. %1 **Cause of error** Incorrect main machining mode. **Error correction** Redefine the main machining mode.
600-0013	**Error message** Since "Clamping" was not used, an external chuck with 15 mm clamping length is assumed. %1 **Cause of error** The part is not clamped. **Error correction** Interrupt TURN PLUS and clamp the part.
600-0015	**Error message** Since no cutting limit was defined, it will be set to the end of the workpiece %1 **Cause of error** The cutting limit assignment will be exited without data. **Error correction** Clamp or enter the values for the cutting limit.
600-0031	**Error message** Tool %2 was programmed without cutting speed. A default value is set. %1 **Cause of error** The database is incomplete. **Error correction** Expand the cutting database.
600-0032	**Error message** Tool %2 was programmed without main feed! A default value is set. %1 **Cause of error** The database is incomplete. **Error correction** The cutting database must be expanded.

Error number	Description
600-0033	**Error message** You are attempting to load cutting data for an unidentifiable tool number. This is not possible. %1 **Cause of error** Since the tool was already loaded via DCS, the cause can only be a software or hardware error. **Error correction** Load the part again and restart AWG.
600-0034	**Error message** No cutting data available for this tool. (Tool number, Material, Cutting material %2) %1 **Cause of error** The database has no data beyond the current combination of cutting material. **Error correction** Expand the cutting database, then restart the AWG.
600-0041	**Error message** Defined secondary machining mode is invalid! %1 **Cause of error** Software error or incorrect data in the machining sequence. **Error correction** Check the entered machining sequence.
600-0049	**Error message** Generated working block contains incorrect record types or technology record is missing. %1 **Cause of error** No technology record was made. **Error correction** Check whether a tool was selected.
600-0051	**Error message** Due to a tool geometry cutting limitation an area to be finished cannot be machined. %1 **Cause of error** The tool diameter is too large. **Error correction** Select or define another tool.

Error number	Description
600-0081	**Error message** For automatic calculation of the tool change position, tool selection must be set to turret! %1 **Cause of error** The parameter for tool selection is set incorrectly. **Error correction** In the parameter editor, set the tool selection to turret.
600-0083	**Error message** No valid slide number was found, machining is taking place with slide number 1! %1 **Cause of error** Header is invalid. **Error correction** The slide number must be entered in the header.
600-00A9	**Error message** No data on machining site; no automatic tool selection possible! %1 **Cause of error** The data were not entered correctly. **Error correction** Reenter the data.
600-00AA	**Error message** No data on machining direction; no automatic tool selection possible! %1 **Cause of error** The data were not entered correctly. **Error correction** Reenter the data.
600-00AB	**Error message** No data on machining mode; no automatic tool selection possible! %1 **Cause of error** The data were not entered correctly. **Error correction** Reenter the data.

Error number	Description
600-00B1	**Error message** Since no drill with sufficient effective length is available, no through-drilling is possible. %1 **Cause of error** No suitable tool available. **Error correction** If possible, add to the data bank.
600-00B2	**Error message** Since no suitable internal roughing tool was found, only a partial section can be machined. %1 **Cause of error** No suitable tool available. **Error correction** If possible, add to the data bank.
600-00B3	**Error message** Since no internal finishing tool was found, only a partial section can be machined. %1 **Cause of error** No suitable tool available. **Error correction** If possible, add to the data bank.
600-00B4	**Error message** No suitable tools available (Ideal-/Alternative-/Emergency tool: %2)! %3 %1 **Cause of error** The database is too small. **Error correction** Enter more tools, or increase the possible tolerance values.
600-00B5	**Error message** Unknown tool type defined! No automatic tool selection possible. %1 **Cause of error** Tool type input error. **Error correction** Reenter the tool type.

Error number	Description
600-00CC	**Error message** The 1st hole limit diameter must not be smaller than the 2nd hole limit diameter. %1 **Cause of error** UBD2 > UBD1 **Error correction** Exchange the diameter values.
600-00F9	**Error message** Due to technological cutting limitations, specific machining areas must be omitted. %1 **Cause of error** Cutting limitations of the chuck. **Error correction** Clamp the part differently.
600-0101	**Error message** No tool selection possible with available data on machining mode, site and direction! %1 **Cause of error** The data were not entered correctly. **Error correction** Reenter the data.
600-0149	**Error message** Elements with unknown machining data were found in the finished part contour. %1 **Cause of error** Error in the analysis. **Error correction** Reload the contour and restart the AWG.
600-0181	**Error message** Starting or overtravel length of thread too long! Collision with workpiece or chuck jaws! %1 **Cause of error** Starting length or overtravel length is defined too large. **Error correction** Correct the starting or overtravel length.

Error number	Description
600-0189	**Error message** Secondary machining direction of tool invalid; end face elements are not finished faced. %1 **Cause of error** Auxiliary cutting edge undefined or incorrectly defined. **Error correction** Define the auxiliary cutting edge correctly.
600-01C3	**Error message** No attributes defined for thread. %1 **Cause of error** No thread attributed defined. **Error correction** Define thread attributes.
600-01C4	**Error message** Contour contains thread whose edge elements are not finish machined. %1 **Cause of error** Unmachined contour areas. **Error correction** Machine manually or after a second clamping.
600-01C9	**Error message** More than 6 threads were defined within a machining site. %1 **Cause of error** More that six threads were defined for one machining location. **Error correction** Define a maximum of six threads per machining location.
600-0211	**Error message** Finished part does not line entirely within the workpiece blank. Defined part can't be machined in this condition. %1 **Cause of error** The parts were entered incorrectly. **Error correction** Delete one part and define it again.

Error number	Description
600-0212	**Error message** Contour sense of rotation undeterminable! %1 **Cause of error** The parts were entered incorrectly. **Error correction** Delete the part and define them again.
600-0213	**Error message** Blank contour contains irreparable errors! Machining is not possible. %1 **Cause of error** The part was entered incorrectly. **Error correction** Delete the part and define it again.
600-0214	**Error message** Finished part contour contains irreparable errors! Machining is not possible. %1 **Cause of error** The part was entered incorrectly. **Error correction** Delete the part and define it again.
600-0215	**Error message** No program header defined! Definition required prior to machining. %1 **Cause of error** The program header was not generated or it has an old structure. **Error correction** Generate a program head.
600-0229	**Error message** Corner is unsuitable for the separation point. Cond.: inner corner angle > 180 deg. - inward copy angle %1 **Cause of error** The AWG cannot follow the machining strategy resulting from the chosen separation point. **Error correction** Either machine the part with the interactive working plane generation (IWG) or change the separation point.

Error number	Description
600-022A	**Error message** Contour element for machining through the separation is within clamping range. Separation point is deleted. %1 **Cause of error** The separation point lies within the clamping range. **Error correction** Either clamp differently or change the separation point.
600-0239	**Error message** Either all secondary machining modes must be defined or none. %1 **Cause of error** **Error correction**
600-0261	**Error message** Pocket/island milling is not yet possible. Alternatively the contour is milled. %1 **Cause of error** You defined a contour without attributes. You did not define whether it is machined internally or externally, therefore pocket milling is assumed. **Error correction** Assign contour attributes.
600-0262	**Error message** The cutter radius cannot be determined from the contour. A default cutter is used (%2). %1 **Cause of error** The contour now has circular inside corners. The cutter diameter cannot be determined. **Error correction**
600-0263	**Error message** Contour sense of rotation undetermined. The cutter radius cannot be determined ==> standard cutter (%2 dia.) %1 **Cause of error** The contour is open. Open contours can only be engraved. **Error correction**

Error number	Description
600-0264	**Error message** Machining side is not clear. The contour side is selected depending on the depth. %1 **Cause of error** There were no contour attributes assigned. **Error correction** Assign contour attributes.
600-0265	**Error message** Pockets can only be machined internally. %1 **Cause of error** You assigned either the "contour" or "external" attribute to the pocket. **Error correction** Assign the "internal" attribute.
600-0266	**Error message** Islands can only be machined externally. %1 **Cause of error** You assigned either the "contour" or "internal" attribute to the island. **Error correction** Assign the "external" attribute.
600-0267	**Error message** Tool with the defined %2 diameter was not found. Select tool with a smaller diameter %3. %1 **Cause of error** The corresponding tool is not in the turret or in the file, or the tool with the given diameter is not well suited for the task. **Error correction** Make the tools available or change the parameter.
600-02D9	**Error message** No tool found. Use a left-hand tool to machine the front side and a right-hand tool to machine the rear. %1 **Cause of error** Optimization deletes all tools because they seem unsuitable for the AWG. **Error correction** Check the parameters stored under tool geometry with those of the tool.

Error number	Description
600-02DA	**Error message** No tool found in the file with which machining is to be carried out. %1 **Cause of error** Optimization deletes all tools because they seem unsuitable for the AWG. **Error correction** Check the parameters.
600-02DB	**Error message** No tool found in the file which can be used to carry out the machining process. %1 **Cause of error** Optimization deletes all tools because they seem unsuitable for the AWG. **Error correction** Check the parameters stored under tool geometry with those of the tool.
600-02DC	**Error message** No tool found with a permissible secondary machining direction needed for machining. %1 **Cause of error** Optimization deletes all tools because they seem unsuitable for the AWG. **Error correction** Check the parameters stored under tool geometry with those of the tool.
600-02DD	**Error message** No tool found. Contour cannot be machined using the adjustment and tool tip angle specified %1 **Cause of error** Optimization deletes all tools because they seem unsuitable for the AWG. **Error correction** Check the parameters stored under tool geometry with those of the tool.

Error number	Description
600-02DE	**Error message** No tool found. The tool cutting width (without radius) is too large for the recess. %1 **Cause of error** Optimization deletes all tools because they seem unsuitable for the AWG. **Error correction** Check the parameters stored under tool geometry with those of the tool.
600-02DF	**Error message** No tool found. The plunging depth of the tool is insufficient. %1 **Cause of error** Optimization deletes all tools because they seem unsuitable for the AWG. **Error correction** Check the parameters stored under tool geometry with those of the tool.
600-02E0	**Error message** No tool found whose direction of rotation fits the machining side of the contour and the milling direction. %1 **Cause of error** A tool is being sought whose a direction of rotation that has not yet been defined. **Error correction** In the machining attributes, change up-cut to climb, or vice versa.
600-02E1	**Error message** No tool found. Machining is only possible with stationary tools. %1 **Cause of error** Optimization deletes all tools because they seem unsuitable for the AWG. **Error correction** Check the parameters stored under tool geometry with those of the tool.

Error number	Description
600-02E2	**Error message** No tool found. Machining is only possible with driven tools. %1 **Cause of error** Optimization deletes all tools because they seem unsuitable for the AWG. **Error correction** Check the parameters stored under tool geometry with those of the tool.
600-02E3	**Error message** No tool found. Please check the milling machine cutting teeth. %1 **Cause of error** Optimization deletes all tools because they seem unsuitable for the AWG. **Error correction** Check the parameters stored under tool geometry with those of the tool.
600-02E4	**Error message** No tool found. The effective length is insufficient %1 **Cause of error** Optimization deletes all tools because they seem unsuitable for the AWG. **Error correction** Check the parameters stored under tool geometry with those of the tool.
600-02E5	**Error message** No tool found. Please check the milling diameter. %1 **Cause of error** Optimization deletes all tools because they seem unsuitable for the AWG. **Error correction** Check the parameters stored under tool geometry with those of the tool.

Error number	Description
600-02E6	**Error message** No tool found. Please check the milling angle. %1 **Cause of error** Optimization deletes all tools because they seem unsuitable for the AWG. **Error correction** Check the parameters stored under tool geometry with those of the tool.
600-02E7	**Error message** Multi-cut tools are not supported and are therefore rejected. %1 **Cause of error** The automatic tool selection does not work for multi-cut tools. **Error correction**
600-02E8	**Error message** No tool found that also fits in the tool mount location. %1 **Cause of error** The mount types of tool and tool carrier do not match. **Error correction** If the mount type is incorrect, adjust the mount type of the tool to the mount type of the tool-carrier mount positions.
600-02E9	**Error message** No tool found. The effective length is insufficient %1 **Cause of error** Optimization deletes all tools because they seem unsuitable for the AWG. **Error correction** Check the parameters stored under tool geometry with those of the tool.
600-02EA	**Error message** No tool found. Please check drill diameter. %1 **Cause of error** Optimization deletes all tools because they seem unsuitable for the AWG. **Error correction** Check the parameters stored under tool geometry with those of the tool.

Error number	Description
600-02EB	**Error message** No tool found. Please check tool tip angle. %1 **Cause of error** Optimization deletes all tools because they seem unsuitable for the AWG. **Error correction** Check the parameters stored under tool geometry with those of the tool.
600-02EC	**Error message** No tool found. Please check tappet diameter. %1 **Cause of error** Optimization deletes all tools because they seem unsuitable for the AWG. **Error correction** Check the parameters stored under tool geometry with those of the tool.
600-02ED	**Error message** No tool found. Please check tappet length. %1 **Cause of error** Optimization deletes all tools because they seem unsuitable for the AWG. **Error correction** Check the parameters stored under tool geometry with those of the tool.
600-02EE	**Error message** No tool found. Check countersinking angle. %1 **Cause of error** Optimization deletes all tools because they seem unsuitable for the AWG. **Error correction** Check the parameters stored under tool geometry with those of the tool.

Error number	Description
600-02EF	**Error message** No tool found. Please check thread pitch. %1 **Cause of error** Optimization deletes all tools because they seem unsuitable for the AWG. **Error correction** Check the parameters stored under tool geometry with those of the tool.
600-02F0	**Error message** No tool found. Please check centering angle. %1 **Cause of error** Optimization deletes all tools because they seem unsuitable for the AWG. **Error correction** Check the parameters stored under tool geometry with those of the tool.
600-02F1	**Error message** No tool found. Data on cutting materials are missing. %1 **Cause of error** There are no cutting materials entered on the tool data. **Error correction** Enter the cutting materials in the tool data.
600-0301	**Error message** Selection parameters for tool selection mode not set! %1 **Cause of error** Parameter error. **Error correction** In the parameter editor, set the parameter for type of tool selection.
600-0302	**Error message** No tool and turret data defined for entered slide number. %1 **Cause of error** Parameter error. **Error correction** In the parameter editor, set the parameter for type of tool selection.

Error number	Description
600-0304	**Error message** Machining only possible using the turret! %1 **Cause of error** The automatic magazine position assignment is not supported by the AWG. **Error correction** In the parameter editor, set the parameter for type of tool selection.
600-0305	**Error message** Invalid slide/spindle assignment in program header! %1 **Cause of error** Incorrect parameter description in the program header. **Error correction** Change the program header.
600-0306	**Error message** Invalid slide number specification in program header! %1 **Cause of error** Incorrect parameter description in the program header. **Error correction** Change the program header.
600-0307	**Error message** Mount type of tool %2 does not fit any mount type in turret. %1 **Cause of error** During automatic tool selection from a file, the control compares the tool mount types listed for the turret with the tool mount types entered in the NC program. The types must match. **Error correction** Ensure that the tool holder types match.
600-0309	**Error message** Selected tool not in turret. %1 **Cause of error** The turret was incorrectly assigned, or the tool selection parameter is incorrectly set. **Error correction** Set the tool selection to "NEW" turret and start INI_REVBELEGUNG.

Error number	Description
600-030A	**Error message** Turret is full! %1 **Cause of error** The tool turret is full. **Error correction** Check the turret assignment and remove superfluous tools.
600-030B	**Error message** Selection parameter for tool selection mode not set! %1 **Cause of error** Parameter error. **Error correction** In the parameter editor, set the parameter for type of tool selection.
600-030C	**Error message** Tool %2 is not suitable for mount location %3. %1 **Cause of error** Due to its mount type and preferred mount in the tool carrier description, the tool does not fit into its ideal, alternative, or emergency location. It is therefore simply placed in a vacant location. **Error correction** Edit the tool mount locations in the tool carrier description.
600-030D	**Error message** There are no longer any free tool mount locations or tool does not fit in carrier due to the mount type. %1 **Cause of error** The tool carrier is full, or the tool or the vacant locations in the carrier do not share the same mount types. **Error correction** If the mount type is incorrect, adjust the mount type of the tool to the mount type of the tool-carrier mount positions.

Error number	Description
600-030E	**Error message** No tool was found that also fits in the tool mount location. %1 **Cause of error** The mount types of tool and tool carrier do not match. **Error correction** If the mount type is incorrect, adjust the mount type of the tool to the mount type of the tool-carrier mount positions.
600-030F	**Error message** Tool %2 has no cam or location number. %1 **Cause of error** A cam number or code number is missing in the database. **Error correction** Enter a code or cam number in the tool data.
600-0379	**Error message** Tool not contained in data base. (Tool number %2)! %1 **Cause of error** The tool was inserted directly into the turret. **Error correction** Save the tool data in the database.
600-0399	**Error message** Shaft is not prepared; no reverse machining possible in this clamping mode. %1 **Cause of error** The shaft has a constant diameter. **Error correction** Delete the part and define it again.
603-0027	**Error message** Contour area cannot be executed with active tool. **Cause of error** There is probably a blank form definition error. This means that the limiting contour lies in the vicinity of the starting element outside the workpiece blank. **Error correction** Check the workpiece blank definition in the part program and correct it if necessary.

Error number	Description
603-0161	**Error message** Extension of limiting contour at traversing angle not possible due to formation of a contour loop. %1 **Cause of error** You selected an traversing angle at which the limiting contour intersects itself when extended in the traversing angle. **Error correction** Select a traversing angle that rules out a contour loop, or select a different machining range.
603-0162	**Error message** Extension of limiting contour at travel angle not possible due to formation of a contour loop. %1 **Cause of error** You selected an departure angle at which the limiting contour intersects itself when extended in the travel angle. **Error correction** Select a travel angle that rules out a contour loop, or select a different machining range.
603-0164	**Error message** Error in finished part or blank definition. Starting element of BEA area outside blank. %1 **Cause of error** There is probably a blank form definition error. This means that the limiting contour lies in the vicinity of the starting element outside the workpiece blank. **Error correction** Check the workpiece blank definition in the part program and correct it if necessary.
603-0165	**Error message** Error in finished part or blank definition. An end element of BEA area outside blank. %1 **Cause of error** This is probably a blank form definition error, which means that the limiting contour lies in the vicinity of the end element outside the workpiece blank. **Error correction** Check the workpiece blank definition in the part program and correct it if necessary.

Error number	Description
603-0182	**Error message** Residual material due to cutting edge geometry! %1 **Cause of error** You selected a poorly suited tool. **Error correction** Select a tool whose geometry enables it to machine grooves in the contour.
603-01A2	**Error message** The complete machining area is a recessing contour and was erased. %1 **Cause of error** The cycle was not intended to machine recessing contours. Because it identified the entire limiting contour as recessing contour, it was deleted. **Error correction** Either select the cycle "with recessing," or select another machining area.
603-01A3	**Error message** Too many recessing areas! Cycle not executable due to a lack of memory. Reduce machining area. %1 **Cause of error** The recessing areas are saved internally in a contour list. Since there was not enough memory to save all recessing areas, the cycle had to interrupt. **Error correction** Try to run the cycle with a smaller machining area.
603-01E0	**Error message** Invalid position of workpiece blank corner (X1,Z1) %1 **Cause of error** The workpiece blank corner was defined such that the workpiece does not fully include the ICP contour. **Error correction** Correct the coordinates (X1,Z1)

Error number	Description
603-01E2	**Error message** Residual material in recess due to cutting edge width of recessing tool. %1 **Cause of error** Due to its cutting-edge geometry, the tool cannot reach every point in the selected machining area. **Error correction** Select another tool, or change the machining area.
603-0242	**Error message** Nothing to machine for cycle in selected contour area. %1 **Cause of error** It could be that the oversize is greater than the maximum distance between limiting contour and workpiece blank contour. **Error correction** Select a smaller oversize or another machining area.
603-0243	**Error message** Nothing to machine for cycle in selected contour area. %1 **Cause of error** You selected oversizes that are greater than the max. distance between limiting contour and workpiece blank contour, or you programmed machining in an area that has already been machined. **Error correction** Select a smaller oversize or another machining range.
603-0244	**Error message** Longitudinal cutting limitation incompatible with current tool position. Position the tool. %1 **Cause of error** You defined a longitudinal cutting limitation and the tool is positioned so that the cutting limitation shields the limiting contour from the tool. **Error correction** The tool must be positioned on the same side of the cutting limitation as the limiting contour to be machined. Reposition the tool accordingly.

Error number	Description
603-0245	**Error message** Transverse cutting limitation incompatible with current tool position. Position the tool. %1 **Cause of error** You defined a transverse cutting limitation and the tool is positioned so that the cutting limitation shields the limiting contour from the tool. **Error correction** The tool must be positioned on the same side of the cutting limitation as the limiting contour to be machined. Reposition the tool accordingly.
603-0247	**Error message** Equidistant allowance contour cannot be calculated. Cycle cannot be executed. %1 **Cause of error** The equidistant replied with an error message and the equidistant was not executed. **Error correction** Inform your service agency.
603-0261	**Error message** Machining with the selected tool is impossible! Select another tool! %1 **Cause of error** The auxiliary machining direction, which results from the cutting edge geometry, is not entered in WZ_NORM. The use of the tool is therefore not permissible. **Error correction** Select another tool.
603-0281	**Error message** Tool position unknown! Position tool. %1 **Cause of error** You defined a longitudinal cutting limit. There are no valid position coordinates defined for the tool. **Error correction** Position the tool.

Error number	Description
603-0282	**Error message** Tool position unknown! Position tool. %1 **Cause of error** A cutting limit plan was defined. There are no valid position coordinates defined for the tool. **Error correction** Position the tool.
603-0283	**Error message** Tool positioned exactly on longitudinal cutting limitation. Machining area cannot be determined. %1 **Cause of error** The control cannot recognize which side of the limit along the limiting contour to machine, because the tool is located exactly on the limiting axis. **Error correction** Position the tool longitudinally on the side of the cutting limitation to be machined.
603-0284	**Error message** Tool positioned exactly on transverse cutting limitation. Machining area cannot be determined. %1 **Cause of error** The control cannot recognize which side of the limit along the limiting contour to machine, because the tool is located exactly on the limiting axis. **Error correction** Position the tool transversely on the side of the cutting limitation to be machined.
603-02A1	**Error message** Rough-machining cycle called with invalid tool! %1 **Cause of error** **Error correction** Select another tool.

Error number	Description
603-02A2	**Error message** Recessing cycle called with invalid tool! %1 **Cause of error** **Error correction** Select another tool.
603-02A3	**Error message** Finish-machining cycle called with invalid tool! %1 **Cause of error** **Error correction** Select another tool.
603-02A4	**Error message** Contour area cannot be machined with current tool either with main (+Z) or secondary cutting edge (+X). %1 **Cause of error** **Error correction** Select another contour area or another tool.
603-02A5	**Error message** Contour area cannot be machined with current tool either with main (+Z) or secondary cutting edge (-Z). %1 **Cause of error** **Error correction** Select another contour area or another tool.
603-02A6	**Error message** Contour cannot be machined with current tool either with main (+Z) or secondary cutting edge (-X). %1 **Cause of error** **Error correction** Select another contour area or another tool.

Error number	Description
603-02A7	**Error message** Contour area cannot be machined with current tool either with main (+X) or secondary cutting edge (+Z). %1 **Cause of error** **Error correction** Select another contour area or another tool.
603-02A8	**Error message** Contour area cannot be machined with current tool either with main (+X) or secondary cutting edge (-Z). %1 **Cause of error** **Error correction** Select another contour area or another tool.
603-02A9	**Error message** Contour area cannot be machined with current tool either with main (+X) or secondary cutting edge (-X). %1 **Cause of error** **Error correction** Select another contour area or another tool.
603-02AA	**Error message** Contour area cannot be machined with current tool either with main (-Z) or secondary cutting edge (+Z). %1 **Cause of error** **Error correction** Select another contour area or another tool.
603-02AB	**Error message** Contour area cannot be machined with current tool either with main (-Z) or secondary cutting edge (X). %1 **Cause of error** **Error correction** Select another contour area or another tool.

Error number	Description
603-02AC	**Error message** Contour area cannot be machined with current tool either with main (-Z) or secondary cutting edge (-X). %1 **Cause of error** **Error correction** Select another contour area or another tool.
603-02AD	**Error message** Contour area cannot be machined with current tool either with main (-X) or secondary cutting edge (+Z). %1 **Cause of error** **Error correction** Select another contour area or another tool.
603-02AE	**Error message** Contour area cannot be machined with current tool either with main (-X) or secondary cutting edge (+X). %1 **Cause of error** **Error correction** Select another contour area or another tool.
603-02AF	**Error message** Contour area cannot be machined with current tool either with main (-X) or secondary cutting edge (-Z). %1 **Cause of error** **Error correction** Select another contour area or another tool.
603-02B0	**Error message** Machining direction incompatible with contour direction. Longitudinal or transverse cycle cannot be executed. %1 **Cause of error** A longitudinal or transverse cycle was called with a tool whose machining direction does not match the limiting contour direction. **Error correction** Select another tool or change the machining direction.

Error number	Description
603-02B1	**Error message** Recess cannot be machined with selected tool. Check RECESS and TOOL SELECTION. %1 **Cause of error** Either you attempted to machine a recess with the width 0, or you attempted to machine a radial recess with an axial tool, or vice versa. **Error correction** Check the recess and the selected tool.
603-02C1	**Error message** Approach to limiting contour at this traversing angle invalid due to cutting edge geometry! %1 **Cause of error** With the programmed tool, the approach to the limiting contour is not permissible at this angle because otherwise the side rake would gouge the workpiece. **Error correction** Select another traversing angle or another tool.
603-02C2	**Error message** Travel from limiting contour at this travel angle invalid due to cutting edge geometry. %1 **Cause of error** With the programmed tool, the departure from the limiting contour is not permissible at this angle because otherwise the side rake would gouge the workpiece. **Error correction** Select another travel angle or another tool.
603-02C3	**Error message** Transverse cutting limitation incompatible with current tool position. Position the tool. %1 **Cause of error** The present tool position and the selected longitudinal cutting limitation make it impossible to machine the limiting contour in the roughing cycle. **Error correction** Position the tool so that it is on the other side of the cutting limitation axis, or select another transverse cutting limitation.

Error number	Description
603-02C4	**Error message** Longitudinal cutting limitation incompatible with current tool position. Position the tool. %1 **Cause of error** The present tool position and the selected longitudinal cutting limitation make it impossible to machine the limiting contour in the roughing cycle. **Error correction** Position the tool so that it is on the other side of the cutting limitation axis, or select another longitudinal cutting limitation.
603-02E1	**Error message** Longitudinal cutting limitation incompatible with current tool position. Position the tool. %1 **Cause of error** The present tool position and the selected longitudinal cutting limitation make it impossible to machine the limiting contour in the recessing cycle. **Error correction** Position the tool so that it is on the other side of the cutting limitation axis, or select another longitudinal cutting limitation.
603-02E2	**Error message** Transverse cutting limitation incompatible with current tool position. Position the tool. %1 **Cause of error** The present tool position and the selected longitudinal cutting limitation make it impossible to machine the limiting contour in the recessing cycle. **Error correction** Position the tool so that it is on the other side of the cutting limitation axis, or select another transverse cutting limitation.
603-0301	**Error message** Insufficient memory for individual contour areas. Cycle cannot be executed. Reduce machining area. %1 **Cause of error** The limiting contour switches so often with the workpiece contour that the individual limiting contour areas cannot be saved in the contour list. **Error correction** Reduce the machining area and try again.

Error number	Description
603-0321	**Error message** Incorrect tool for machining. Select WO 2 or WO 8. %1 **Cause of error** An unsuitable tool was selected for the next operation. **Error correction** Select on of the proposed tools.
603-0322	**Error message** Incorrect tool for machining. Select WO 4 or WO 6. %1 **Cause of error** An unsuitable tool was selected for the next operation. **Error correction** Select one of the proposed tools.
603-0323	**Error message** Incorrect tool for machining. Select WO 5 or WO 7. %1 **Cause of error** An unsuitable tool was selected for the next operation. **Error correction** Select one of the proposed tools.
603-0324	**Error message** Incorrect tool for machining. Select WO 1 or WO 3 %1 **Cause of error** An unsuitable tool was selected for the next operation. **Error correction** Select one of the proposed tools..
603-0325	**Error message** Incorrect tool for machining. Select WO 1 or WO 2 %1 **Cause of error** An unsuitable tool was selected for the next operation. **Error correction** Select one of the proposed tools.

Error number	Description
603-0326	**Error message** Incorrect tool for machining. Select WO 2 or WO 3 %1 **Cause of error** An unsuitable tool was selected for the next operation. **Error correction** Select one of the proposed tools.
603-0327	**Error message** Incorrect tool for machining. Select WO 3 or WO 4 %1 **Cause of error** An unsuitable tool was selected for the next operation. **Error correction** Select one of the proposed tools.
603-0328	**Error message** Incorrect tool for machining. Select WO 4 or WO 5 %1 **Cause of error** An unsuitable tool was selected for the next operation. **Error correction** Select one of the proposed tools.
603-0329	**Error message** Incorrect tool for machining. Select WO 5 or WO 6 %1 **Cause of error** An unsuitable tool was selected for the next operation. **Error correction** Select one of the proposed tools.
603-032A	**Error message** Incorrect tool for machining. Select WO 6 or WO 7 %1 **Cause of error** An unsuitable tool was selected for the next operation. **Error correction** Select one of the proposed tools.

Error number	Description
603-032B	**Error message** Incorrect tool for machining. Select WO 7 or WO 8 %1 **Cause of error** An unsuitable tool was selected for the next operation. **Error correction** Select one of the proposed tools.
603-032C	**Error message** Incorrect tool for machining. Select WO 8 or WO 1 %1 **Cause of error** An unsuitable tool was selected for the next operation. **Error correction** Select one of the proposed tools.
603-032D	**Error message** Incorrect tool for machining. Select WO 2, WO 3, WO 5 or WO 6 %1 **Cause of error** An unsuitable tool was selected for the next operation. **Error correction** Select one of the proposed tools. CAUTION: The selection of the tool determines whether the contour is machined from the left or right!
603-032E	**Error message** Incorrect tool for machining. Select WO 1, WO 2, WO 6 or WO 7 %1 **Cause of error** An unsuitable tool was selected for the next operation. **Error correction** Select one of the proposed tools. {0>ACHTUNG:<}0{>CAUTION:<0} The selection of the tool determines whether the contour is machined from the left or from the right!

Error number	Description
603-032F	**Error message** Incorrect tool for machining. Select WO 1, WO 8, WO 3 or WO 4 %1 **Cause of error** An unsuitable tool was selected for the next operation. **Error correction** Select one of the proposed tools. ACHTUNG: The selection of the tool determines whether the contour is machined from the left or right!
603-0330	**Error message** Incorrect tool for machining. Select WO 4, WO 5, WO 7 or WO 8 %1 **Cause of error** An unsuitable tool was chosen for the intended operation. **Error correction** Select one of the proposed tools CAUTION: The selection of the tool decides whether cutting is on the left or right of the contour!
603-0331	**Error message** Incorrect tool for machining. Select WO 1, WO 3, WO 5 or WO 7 %1 **Cause of error** An unsuitable tool was chosen for the intended operation. **Error correction** Select one of the proposed tools CAUTION: The selection of the tool decides whether cutting is on the left or right of the contour!
603-0332	**Error message** Incorrect tool for machining. Select WO 2, WO 4, WO 6 or WO 8 %1 **Cause of error** An unsuitable tool was chosen for the intended operation. **Error correction** Select one of the proposed tools CAUTION: The selection of the tool decides whether cutting is on the left or right of the contour!

Error number	Description
603-0333	**Error message** The machining contour exceeds the center of turning Modify the corresponding coordinates! %1 **Cause of error** The machining contour corners were programmed past the turning center **Error correction** Enter the coordinates so they all lie on one side of the center of rotation
603-0334	**Error message** No surface for machining Cycle has nothing to process! %1 **Cause of error** The cycle cannot calculate a machining surface because the contour only consists of one paraxial segment. **Error correction** Edit the entered coordinates
603-0335	**Error message** Tool position not permissible! Position in front of, or over the machining area! %1 **Cause of error** The cycle cannot move the tool from its given position to the starting point of machining without danger of collision. **Error correction** Position the tool in front of or over the machining area
603-0336	**Error message** RAM data memory is full! Contact Service! %1 **Cause of error** Insufficient memory for contour calculation **Error correction** This problem can only be fixed by service personnel.

Error number	Description
603-0337	**Error message** Incorrect tool for turning. Select a lathe tool. %1 **Cause of error** An unsuitable tool was chosen for the intended operation. **Error correction** Select one of the proposed tools CAUTION: The selection of the tool decides whether cutting is on the left or right of the contour!
603-0338	**Error message** Incorrect tool for cutting off. Select a recess. tool. %1 **Cause of error** An unsuitable tool was selected for the next operation. **Error correction** Select one of the proposed tools. CAUTION: The selection of the tool determines whether the contour is machined from the left or right!
603-0339	**Error message** Incorrect tool for machining. Select WO 1, WO 3 or WO 2. %1 **Cause of error** An unsuitable tool was selected for the next operation. **Error correction** Select one of the proposed tools..
603-033A	**Error message** Incorrect tool for machining. Select WO 1, WO 3 or WO 4. %1 **Cause of error** An unsuitable tool was selected for the next operation. **Error correction** Select one of the proposed tools.

Error number	Description
603-033B	**Error message** Incorrect tool for machining. Select WO 2, WO 8 or WO 1. %1 **Cause of error** An unsuitable tool was selected for the next operation. **Error correction** Select on of the proposed tools.
603-033C	**Error message** Incorrect tool for machining. Select WO 2, WO 8 or WO 7. %1 **Cause of error** An unsuitable tool was selected for the next operation. **Error correction** Select on of the proposed tools.
603-033D	**Error message** Incorrect tool for machining. Select WO 4, WO 6 or WO 3. %1 **Cause of error** An unsuitable tool was selected for the next operation. **Error correction** Select on of the proposed tools.
603-033E	**Error message** Incorrect tool for machining. Select WO 4, WO 6 or WO 5. %1 **Cause of error** An unsuitable tool was selected for the next operation. **Error correction** Select on of the proposed tools.
603-033F	**Error message** Incorrect tool for machining. Select WO 5, WO 7 or WO 6. %1 **Cause of error** An unsuitable tool was selected for the next operation. **Error correction** Select one of the proposed tools.

Error number	Description
603-0340	**Error message** Incorrect tool for machining. Select WO 5, WO 7 or WO8. %1 **Cause of error** An unsuitable tool was selected for the next operation. **Error correction** Select one of the proposed tools.
603-0341	**Error message** Incorrect tool for machining. Select WO 1, WO 2, WO 3, WO 4 or WO 5 %1 **Cause of error** An unsuitable tool was selected for the next operation. **Error correction** Select one of the proposed tools.
603-0342	**Error message** Incorrect tool for machining. Select WO 3, WO 4 or WO 5 %1 **Cause of error** An unsuitable tool was selected for the next operation. **Error correction** Select one of the proposed tools.
603-0343	**Error message** Incorrect tool for machining. Select WO 3, WO 4, WO 5, WO 6 or WO 7 %1 **Cause of error** An unsuitable tool was selected for the next operation. **Error correction** Select one of the proposed tools.
603-0344	**Error message** Incorrect tool for machining. Select WO 5, WO 6 or WO 7 %1 **Cause of error** An unsuitable tool was selected for the next operation. **Error correction** Select one of the proposed tools.

Error number	Description
603-0345	**Error message** Incorrect tool for machining. Select WO 5, WO 6, WO 7, WO 8 or WO 1 %1 **Cause of error** An unsuitable tool was selected for the next operation. **Error correction** Select one of the proposed tools.
603-0346	**Error message** Incorrect tool for machining. Select WO 7, WO 8 or WO 1 %1 **Cause of error** An unsuitable tool was selected for the next operation. **Error correction** Select one of the proposed tools.
603-0347	**Error message** Incorrect tool for machining. Select WO 7, WO 8, WO 1, WO 2 or WO 3 %1 **Cause of error** An unsuitable tool was selected for the next operation. **Error correction** Select one of the proposed tools.
603-0348	**Error message** Incorrect tool for machining. Select WO 1, WO 2 or WO 3 %1 **Cause of error** An unsuitable tool was selected for the next operation. **Error correction** Select one of the proposed tools.
603-0355	**Error message** Incorrect tool for machining. Select WO 5, WO 6, WO 7, WO 8 or WO 1 %1 **Cause of error** An unsuitable tool was selected for the next operation. **Error correction** Select one of the proposed tools.

Error number	Description
603-0356	**Error message** Incorrect tool for machining. Select WO 7, WO 8 or WO 1 %1 **Cause of error** An unsuitable tool was selected for the next operation. **Error correction** Select one of the proposed tools.
603-0357	**Error message** Incorrect tool for machining. Select WO 7, WO 8, WO 1, WO 2 or WO 3 %1 **Cause of error** An unsuitable tool was selected for the next operation. **Error correction** Select one of the proposed tools.
603-0358	**Error message** Incorrect tool for machining. Select WO 1, WO 2 or WO 3 %1 **Cause of error** An unsuitable tool was selected for the next operation. **Error correction** Select one of the proposed tools.
603-0359	**Error message** Incorrect tool for machining. Select WO 1, WO 2, WO 3, WO 4 or WO 5 %1 **Cause of error** An unsuitable tool was selected for the next operation. **Error correction** Select one of the proposed tools.
603-035A	**Error message** Incorrect tool for machining. Select WO 3, WO 4 or WO 5 %1 **Cause of error** An unsuitable tool was selected for the next operation. **Error correction** Select one of the proposed tools.

Error number	Description
603-035B	**Error message** Incorrect tool for machining. Select WO 3, WO 4, WO 5, WO 6 or WO 7 %1 **Cause of error** An unsuitable tool was selected for the next operation. **Error correction** Select one of the proposed tools.
603-035C	**Error message** Incorrect tool for machining. Select WO 5, WO 6 or WO 7 %1 **Cause of error** An unsuitable tool was selected for the next operation. **Error correction** Select one of the proposed tools.
603-035D	**Error message** The main cutting direction does not fit the contour. **Cause of error** An unsuitable tool was selected for the next operation. **Error correction** Select one of the proposed tools.
603-0360	**Error message** Invalid tool orientation for transverse machining (roughing) **Cause of error** In the facing cycle (transverse machining), tool orientations 2 and 6 are not possible for roughing **Error correction**
603-0361	**Error message** Invalid tool orient. for longitudinal machining (roughing) **Cause of error** In longitudinal machining, tool orientations 4 and 8 are not possible for roughing **Error correction**

Error number	Description
603-0366	**Error message** The cycle cannot completely create the programmed contour; residual material will remain. %1 **Cause of error** Aufgrund von z. B. der Schneidengeometrie und/oder dem Anstellwinkel zwischen Werkzeug und Werkstück kann der Zyklus Teile der programmierten Kontur nicht erreichen. **Error correction** Prüfen Sie die aktuelle Bearbeitungssituation und beurteilen Sie, ob - die zu bearbeitende Kontur - das gewählte Werkzeug - die gewählte Anstellung - der programmierte Zyklus der geforderten Bearbeitung entspricht bzw. korrigieren Sie diese. Prüfen Sie, ob ein evtl. nachfolgender (Schlicht-)Zyklus das Restmaterial ohne Überlastung des Werkzeugs bearbeiten kann und korrigieren Sie auch hier gegebenenfalls die oben genannten Parameter. Falls das verbleibende Restmaterial für ihre Bearbeitungssituation akzeptabel ist, können Sie diese Meldung ignorieren.
605-024E	**Error message** Programmed cutting depth too small %1 **Cause of error** The programmed value is too small. **Error correction** Check the NC program
605-0278	**Error message** Feed axis is already braked in the thread %1 **Cause of error** The run-out length P in the thread cycle G31 is less than the cutting width SB of the tool being used. **Error correction** Enter a run-out length P at least as large as the cutting width SB of the tool, or select a tool with a smaller cutting width SB.

Error number	Description
605-0279	**Error message** Feed axis is still accelerated in the thread %1 **Cause of error** The run-in distance of the feed axis is too small. The tool cannot achieve the speed necessary in order to cut the thread correctly. **Error correction** Increase the run-in length B
605-027A	**Error message** Determined run-in length is too short %1 **Cause of error** The space automatically determined from the recess or undercut is too short for the run-in length. **Error correction** Program a run-in length, or increase the recess or undercut
605-027B	**Error message** Determined run-out length is too short %1 **Cause of error** The space automatically determined from the recess or undercut is too short for the run-out length. **Error correction** Program a run-out length, or increase the recess or undercut
605-032C	**Error message** "TOOL_P" configured without tool magazine **Cause of error** The path to a pocket table was given in the machine configuration although no tool magazine is configured. Access by the PLC run-time system to the pocket table is enabled through the symbolic name "TOOL_P" only for tool magazines. **Error correction** Adapt the machine configuration: - Delete the "TOOL_P" path for the pocket table if no tool magazines are configured.

Error number	Description
605-032D	**Error message** Tool magazine configured without path for "TOOL_P" **Cause of error** Tool magazines were configured without the TOOL_P path for the pocket table. **Error correction** Adapt the machine configuration: - Enter the symbolic name "TOOL_P" for the pocket table in CfgTablePath - Enter the path to the pocket table under "TOOL_P"
605-0342	**Error message** Active tool pocket unknown **Cause of error** The tool change was canceled. **Error correction** - Correct any pending error messages and repeat - Inform your service agency
605-0344	**Error message** Protective zone monitoring not allowed in axis system with B axis **Cause of error** The protection zone monitor in the axis system does monitor any position changes of the tool by rotary axes (e.g. the B axis). **Error correction** - Activation of the expanded protection zone monitor is required (MP_enhancedProtZone = 2: Machine base system) - In addition, for machines with rear-face machining, adjustments in the kinematics is required - Contact the machine tool builder - Inform your service agency
605-0358	**Error message** Starting block of channel <%2> cannot be reached because other channels are already waiting at the sync. point %1 **Cause of error** The starting blocks were set on the individual channels in such a manner that, because of sync. points, they cannot be reached. **Error correction** Cancel the mid-program startup, and set the starting block before the sync. point.

Error number	Description
605-0359	**Error message** Program run blocked due to a serious error (e.g., configuration data or table) %1 **Cause of error** The configuration data or tables are not complete. Reliable program execution cannot be performed. See the LogFile.log for more information. **Error correction** Correct the configuration data and complete the tables.
605-035A	**Error message** No workpiece blank defined for turning cycle **Cause of error** The workpiece blank must be defined in order for the turning cycle to calculate the paths. This workpiece blank definition does not match the workpiece blank defined with BLK FORM. **Error correction** Use FUNCTION TURNDATA BLANK to define a workpiece blank for the turning cycle.
606-0062	**Error message** Calculation of the approach path not possible %1 **Cause of error** All calculated approaching paths damage the workpiece. **Error correction** Select another tool position
606-02E2	**Error message** Area to be machined was not provided %1 **Cause of error** The area to be machine has not been provided. **Error correction** - Check the NC program - Contact your service agency if the error occurs during program generation with TURN PLUS

Error number	Description
606-02E3	**Error message** A negative safety clearance is not allowed %1 **Cause of error** Global machining parameters are incorrect or safety clearance is set to an invalid value **Error correction** Revise the global machining parameters or set the safety clearance before the cycle call
606-0343	**Error message** No valid cutting depth was defined; cycle is working with 2/3 of the tool's max. cutting depth %1 **Cause of error** The value of the G function's P parameter is less than or equal to 0. **Error correction** Reset the P parameter of the NC block
606-0345	**Error message** Internal memory of calculating the cuts is full %1 **Cause of error** The cycle needs too much memory space to save all cut lines. Example: 50 mm oversize with 0.003 mm cutting depth. **Error correction** Enter a larger cutting depth
606-0385	**Error message** Too many stepping angles for simultaneous turning cycle **Cause of error** Calculation of the simultaneous turning cycle takes too long because the resolution of the angle range is too high. The resolution was reduced automatically. **Error correction**

Error number	Description
606-0386	**Error message** Not a valid machining contour for simultaneous turning cycle **Cause of error** - The cycle has received an invalid contour. - Internal software error. **Error correction** Check the contour: workpiece blank, tool holder, and machining contour must be closed. All elements must be greater than zero. - Inform your service agency.
606-0387	**Error message** Contour elements not properly marked (simultaneous turning) **Cause of error** The contour elements of the center point contour are not correctly marked for the simultaneous turning cycle. **Error correction** The following conditions must be fulfilled: - An open space of the contour must be marked as "CYC". - The starting element of the space must be the first element of the contour.
606-0388	**Error message** Internal error in the simultaneous turning cycle **Cause of error** Due to an internal error, the simultaneous turning cycle could not be executed. **Error correction** - See "INTERNAL INFO" for more information. - Generate the service files and inform your service agency.
606-0389	**Error message** The contour cannot be completely machined **Cause of error** With the selected parameters, the simultaneous turning cycle cannot completely finished the programmed contour without collision. **Error correction** Inasmuch as is technically meaningful, adapt the range of the inclination angle in the cycle and, if required, select another tool for machining.

Error number	Description
606-038B	**Error message** Simultaneous turning: Tool is too far "behind" input contour **Cause of error** Correct approach and departure behavior is not possible if the tool along the Z axis is behind the workpiece blank or the machining contour. **Error correction** Position the tool farther away from the chuck (along Z+) in order to enable correct approach and departure behavior.
606-038C	**Error message** The tilting motion results in a collision with the tool **Cause of error** The cycle could not rotate the tool from the initial inclination to the start inclination calculated by the cycle, or from the end inclination back to the initial inclination. **Error correction** Position the tool outside the collision range, farther away from the workpiece.
606-038D	**Error message** Simultaneous turning: Tool tip radius must not be null **Cause of error** The simultaneous turning cycle requires a tool with a cutter radius greater than zero. **Error correction** Select another tool for the operation
606-038E	**Error message** Tool position not defined **Cause of error** For open contours, the tool position must be programmed for the simultaneous turning cycle. **Error correction** Enter whether the tool should move to the right or left of the contour.
606-038F	**Error message** No valid tool contour for simultaneous turning cycle **Cause of error** - The cycle has received an invalid contour. - Internal software error. **Error correction** Check the contour: workpiece blank, tool holder, and machining contour must be closed. All elements must be greater than zero. - Inform your service agency.

Error number	Description
606-0391	**Error message** Collision-free approach/departure could not be calculated **Cause of error** No collision-free approach/departure paths could be calculated for the given turning contour and position of the tool. **Error correction** It may be that the contour does not allow collision-free approach/departure paths. Check the contour, and correct the position of the tool if necessary.
606-0392	**Error message** Desired inclination angles can't be reached without collision **Cause of error** The cycle could not be run because the programmed inclination angles could cause collisions. **Error correction** Change the NC program - adjust the inclination angle accordingly
606-0393	**Error message** Cannot reach desired angle of incidence at beginning of contour %1 **Cause of error** The cycle could not be run because the programmed inclination angles could cause collisions. **Error correction** Change the NC program - adjust the inclination angle accordingly
606-0394	**Error message** Clearance angle + cutting edge angle must be less than 180 %1 **Cause of error** Clearance angle + cutting edge must not be more than 180°. **Error correction** - Decrease the clearance angle or - Select a different tool
606-0396	**Error message** Cycle changes angle of incidence at starting point %1 **Cause of error** An inclination angle was defined at the beginning of machining, together with the option "do not approach". **Error correction** - Select a different type of approach or - Approach the desired inclination angle manually

Error number	Description
606-0397	**Error message** Aux. contour of tool head faulty, collision monitoring not possible %1 **Cause of error** The description of the tool head does not include a closed envelope. **Error correction** Adapt or correct the description of the tool head.
606-0398	**Error message** Wear comp. violates holder oversize %1 **Cause of error** The wear compensations of the tool are greater than the selected holder oversize **Error correction** Check the wear compensations and the holder oversize; you might need to choose a different tool
606-0399	**Error message** Maximum infeed exceeded **Cause of error** The desired infeed must be chosen so that it is less than the maximum infeed. **Error correction** Reduce the desired infeed or increase the maximum infeed.
606-039A	**Error message** Initial tool angle not in permitted inclination range **Cause of error** The pre-positioned tool angle violates the minimum or maximum inclination angle. **Error correction** Either pre-position the tool angle within the permitted angle range or expand the angle range correspondingly

Error number	Description
606-039B	**Error message** %2 Residual material will remain %1 **Cause of error** The target contour cannot be completely machined; residual material will remain. This can be due to various reasons, such as the tool cannot reach the respective area due to geometrical reasons, the prescribed inclination angle range makes it impossible to reach the residual material, etc. **Error correction** Residual material must be considered for the subsequent machining operations.
606-039C	**Error message** The cycle cannot machine the indicated target contour **Cause of error** The cycle cannot use the defined input parameters and the selected tool to machine the target contour. **Error correction** Adapt the corresponding input parameters or adapt the target contour or select an appropriate tool.
606-039D	**Error message** Maximum infeed of tool exceeded **Cause of error** The desired infeed exceeds 2/3 of the cutting edge length of the tool. Cutting lines will be adapted if necessary. **Error correction** Reduce the desired infeed or select an appropriate tool
606-039F	**Error message** The infeed does not match the length of the cutting edge **Cause of error** Possible causes: - The current infeed is greater than the maximum cutting depth - The maximum cutting depth is greater than 2/3 of the current length of the cutting edge **Error correction** Reduce the (maximum) infeed or use an appropriate tool

Error number	Description
606-03A0	**Error message** The safety clearance is too small %1 **Cause of error** The cycle requires a greater safety clearance in order to work without collision. **Error correction** Program a greater safety clearance.
60C-000B	**Error message** No valid cutting speed programmed **Cause of error** The cycle cannot be run with the entered values. **Error correction** - Correct the values - Restart the program
60C-000C	**Error message** Invalid tool rotation direction **Cause of error** The cycle cannot be run with the entered values. **Error correction** - Correct the values - Restart the program
60C-000D	**Error message** Data not fully defined (2%) **Cause of error** The cycle cannot be run with the entered values. **Error correction** - Correct the values - Restart the program
60C-000E	**Error message** Information is missing for 2% **Cause of error** The cycle cannot be run with the entered values. **Error correction** - Correct the values - Restart the program

Error number	Description
60C-000F	**Error message** The target point must be after the starting point **Cause of error** The cycle cannot be run with the entered values. **Error correction** - Correct the values - Restart the program
60C-0010	**Error message** Value in %2 does not agree with value in %3 **Cause of error** The cycle cannot be run with the entered values. **Error correction** - Correct the values - Restart the program
60C-0011	**Error message** Tool diameter is too large **Cause of error** The cycle cannot be run with the entered values. **Error correction** - Correct the values - Restart the program
60C-0012	**Error message** Tool type %2 doesn't match the machining operation **Cause of error** The cycle cannot be run with the entered values. **Error correction** - Correct the values - Restart the program
60C-0013	**Error message** Tool %2 doesn't match the machining operation **Cause of error** The cycle cannot be run with the entered values. **Error correction** - Correct the values - Restart the program

Error number	Description
60C-0014	**Error message** No head diameter and no module indicated **Cause of error** The cycle cannot be run with the entered values. **Error correction** - Correct the values - Restart the program
60C-0015	**Error message** Tooth number of tool doesn't match gear wheel Actual: %2 Nominal: %3 **Cause of error** The cycle cannot be run with the entered values. **Error correction** - Correct the values - Restart the program
60C-0016	**Error message** Cannot calculate infeed depths **Cause of error** Automatic calculation of the infeed depths and feed rates is not possible. **Error correction** Vary the number of cuts or set the value to 0 (automatic calculation of the number of cuts)
60F-0033	**Error message** Finished part no longer located within current workpiece. %1 **Cause of error** An area of the finished part, e.g. an end point, lies outside of the defined workpiece blank. This note has no effect on the program run. **Error correction**
612-0001	**Error message** System warning: %1 **Cause of error** System warning. A recoverable internal error has occurred. The process will NOT be canceled. **Error correction**

Error number	Description
612-0002	**Error message** System error: %1 **Cause of error** A fatal error has occurred. The process will be canceled. **Error correction**
620-004D	**Error message** Tool ID %1 not found **Cause of error** A tool not included in the tool table has been entered in the turret or magazine assignment. **Error correction** Remove the tool from the turret/magazine assignment, or add the tool to the tool table.
620-00C9	**Error message** Tool not found (%1) **Cause of error** A tool not included in the tool table has been entered in the turret or magazine assignment. **Error correction** Remove the tool from the turret/magazine assignment, or add the tool to the tool table.
621-003F	**Error message** Helix diameter is greater than twice the cutter diameter %1 **Cause of error** With the selected cutter diameter, material remains standing in the middle of the plunging helix. **Error correction** Program a smaller “Diameter of helix”
621-0040	**Error message** Pilot holes were calculated for a different contour %1 **Cause of error** For the calculation of the pilot hole positions, a different contour was programmed than the one in the current milling cycle. **Error correction** Change the position marker of the pilot holes or exchange the contour to be machined

Error number	Description
621-0041	**Error message** Pilot holes were calculated for a different trochoid width %1 **Cause of error** For the calculation of the pilot hole positions, a different trochoid width was programmed than the one in the current milling cycle. **Error correction** Correct the trochoid width.
621-0042	**Error message** Pilot holes were calculated with a different oversize %1 **Cause of error** For the calculation of the pilot hole positions, a different oversize was programmed than the one in the current milling cycle. **Error correction** Correct the oversize
621-0043	**Error message** No corners for trochoidal milling present %1 **Cause of error** For slots and circular pockets, there are no corners to be milled trochoidally. **Error correction** Program the machining operation as “Complete” or “W/o corner machining”
621-0044	**Error message** Pilot holes on the other side of the contour %1 **Cause of error** For the calculation of the pilot hole positions, a different tool position was programmed than the one in the current milling cycle. **Error correction** Correct the tool position
621-0045	**Error message** Tool diameter is too large %1 **Cause of error** The tool diameter must be smaller than the plunging length or the diameter of the helix. **Error correction** Use a suitable tool

Error number	Description
621-0047	**Error message** Cutter diameter must be less than the trochoid width %1 **Cause of error** With the current cutter diameter and the programmed trochoid width, no trochoidal paths can be calculated. **Error correction** Select a cutter with smaller diameter, or program a larger trochoid width
621-0048	**Error message** Radius for return greater than half the trochoid width %1 **Cause of error** With the programmed radius, the path for return lies outside of the trochoidal path. **Error correction** Program a smaller radius for return or a larger trochoid width
621-0049	**Error message** Trochoid width smaller than plunging helix radius %1 **Cause of error** The plunging paths lie partially outside of the trochoidal path. **Error correction** Program a smaller plunging helix or larger trochoid width
621-004A	**Error message** Pilot holes not present %1 **Cause of error** No position markers were programmed under the specified position marker. **Error correction** Correct the position marker
621-004B	**Error message** Depth of the pilot hole less than the milling depth %1 **Cause of error** The drilling depth must not be less than the milling depth. **Error correction** Correct the drilling or milling depth

Error number	Description
621-004C	**Error message** No trochoid width programmed %1 **Cause of error** Without a specified trochoid width, the cycle cannot calculate any paths. **Error correction** Program the trochoid width
621-004D	**Error message** Programmed oversize too large %1 **Cause of error** The oversize is so large that inside machining of the contour is no longer possible. **Error correction** Correct the oversize
621-004E	**Error message** Programmed trochoid width too large %1 **Cause of error** The trochoid width must be less than the slot width or rectangle width when the oversize values are taken into account. **Error correction** Correct the trochoid width.
659-004B	**Error message** Internal software error / 3D graphics switched off **Cause of error** Internal software error in the 3D graphics. Other operating modes of the control are not affected by this. **Error correction** Restart the control
663-04EA	**Error message** Error when loading a dialog: %1 **Cause of error** The dialog box could not be opened because of a faulty or missing dialog description by the machine manufacturer. **Error correction** Inform your service agency Inform your machine tool builder

Error number	Description
900-0BB8	**Error message** File '%1' not found **Cause of error** The given file path does not refer to a graphic file. **Error correction** Select another graphic file.
900-0BB9	**Error message** Failed to send internal message **Cause of error** Error in the internal system communication. **Error correction** Inform your service agency.
900-0BBA	**Error message** Unable to open configuration server queue **Cause of error** Error in the internal system communication. **Error correction** Inform your service agency.
900-0BBB	**Error message** Unable to read configuration data '%1' **Cause of error** Error in the internal system communication. **Error correction** Inform your service agency.
900-0BBC	**Error message** Configuration data '%1' could not be written **Cause of error** Error in the internal system communication. **Error correction** Inform your service agency.
900-0BBD	**Error message** Internal error! **Cause of error** Internal GRED software error. **Error correction** Inform your service agency.

Error number	Description
900-0BBE	**Error message** Internal error: %1 **Cause of error** Internal GRED software error. **Error correction** Inform your service agency.
900-0BBF	**Error message** Invalid data in graphic file: %1 **Cause of error** The existing data cannot be read as graphic data. **Error correction** - Correct/remove and save the corresponding data, or - Delete the graphic file and make a new one
900-0BC0	**Error message** No graphic file: %1 **Cause of error** The specified file cannot be read as a graphic file. **Error correction** Select another graphic file.
900-0BC1	**Error message** Missing object '%1' **Cause of error** Missing object in the selected graphic file. **Error correction** - Add the corresponding object and save, or - Delete the graphic file and make a new one
900-0BC2	**Error message** Object '%1' is incomplete **Cause of error** Missing object elements in the selected graphic file. **Error correction** - Correct the corresponding object and save, or - Delete the graphic file and make a new one
900-0BC3	**Error message** Object '%1' already exists **Cause of error** Displayed object already exists in the selected graphic file. **Error correction** - Remove the redundant object and save, or - Delete the graphic file and make a new one

Error number	Description
900-0BC4	**Error message** Working plan '%1' is incomplete **Cause of error** Steps are still missing in the displayed working plan. **Error correction** - Add the missing work steps and save, or - Remove all entries in the working plan
900-0BC5	**Error message** Geometry object list is incomplete **Cause of error** More geometry objects are needed to fully describe the workpiece form. **Error correction** - Add the missing geometry objects and save, or - Delete the graphic file and make a new one
900-0BC6	**Error message** Redundant object '%1' present **Cause of error** A redundant object is in the selected graphic file and will no longer be used. **Error correction** Remove the redundant object manually and save: - Remove the object in the graphic file and save the file, or - Resave the loaded graphic file
900-0BC7	**Error message** Environment variable '%1' not defined **Cause of error** Internal GRED NC program template error. **Error correction** Inform your service agency.
900-0BC8	**Error message** Control structure variable '%1' not defined **Cause of error** Internal GRED NC program template error. **Error correction** Inform your service agency.

Error number	Description
900-0BC9	**Error message** Maximum nesting depth of control structures has been reached **Cause of error** Internal GRED NC program template error. **Error correction** Inform your service agency.
900-0BCA	**Error message** Faulty composition of control structure **Cause of error** Internal GRED NC program template error. **Error correction** Inform your service agency.
900-0BCB	**Error message** Unknown control structure '%1' **Cause of error** Internal GRED NC program template error. **Error correction** Inform your service agency.
900-0BCC	**Error message** Invalid value '%1' in object '%2' **Cause of error** There is an incorrect attribute value in the current object. **Error correction** Use a text editor to check and correct the attribute value in the object and to save it again to the corresponding graphic file.
900-0BCD	**Error message** Tool data incomplete: '%1' **Cause of error** Required data on the tool are missing. **Error correction** Add the required tool data to the workpiece table and save it.

Error number	Description
900-0BCE	**Error message** Error when opening the tool table '%1' **Cause of error** The corresponding tool table cannot be opened: - Tool table is not missing in the given file path - Tool table has an invalid format - Tool table is inconsistent **Error correction** Inform your service agency.
900-0BCF	**Error message** New parameters of input form '%1' inserted **Cause of error** Some required parameters are missing in the form. **Error correction** The system has already made the correction. Please check the result!
900-0BD0	**Error message** Old parameters of input form '%1' removed **Cause of error** There are too many parameters in the current form. **Error correction** The system has already made the correction. Please check the result!
900-0BD1	**Error message** Variable name '%1' already exists **Cause of error** Internal GRED NC program template error. **Error correction** Inform your service agency.
900-0BD2	**Error message** Graphic file '%1' cannot be opened **Cause of error** An error occurred when the graphic file was opened. **Error correction** Ensure that the graphic file exists, that the given path is correct, and that the file is in a readable format.

Error number	Description
900-0BD3	**Error message** Graphic file '%1' is too large **Cause of error** The graphic file does not fit into the space provided. **Error correction** Ensure that the graphic file fulfills the required dimensions.
900-0BD4	**Error message** Error when writing the tool data '%1' **Cause of error** The tool cannot be saved to the table. **Error correction** Check the corresponding tool data.
900-0BD5	**Error message** Object '%1' is faulty **Cause of error** Incorrect object elements in the selected graphic file. **Error correction** Correct the corresponding object and save.
900-0BD6	**Error message** Parameter '%1' not defined **Cause of error** The given parameter is not fully defined in the configuration. **Error correction** Complete the definition of the configuration and save.
900-0BD7	**Error message** Environment variable '%1' not initialized **Cause of error** Internal GRED NC program template error. **Error correction** Inform your service agency.
900-0BD8	**Error message** Error when reading the tool data '%1' **Cause of error** Required data on the tool are missing. **Error correction** Add the corresponding tool data.

Error number	Description
900-0BD9	**Error message** Configuration data are incomplete **Cause of error** The given references/information regarding configuration data are incomplete. **Error correction** Complete the configuration data.
900-0BDA	**Error message** Parameter '%1' not allowed in this formula! **Cause of error** The input form lists an illegal parameter that cannot be evaluated. **Error correction** Remove the corresponding form parameter and replace it with another.
900-0BDB	**Error message** Configuration object '%1' is faulty **Cause of error** Configuration object has incorrect or incomplete data. **Error correction** Correct the configuration object and save.
903-0001	**Error message** Starting position of noncircular contour not in workpiece system **Cause of error** - Axis-value programming is active **Error correction** - Edit the program
903-0002	**Error message** Polar starting position is programmed incrementally **Cause of error** The radius or angle of the polar-programmed starting position is programmed incrementally **Error correction** Edit the program or the cycle

Error number	Description
903-0003	**Error message** Starting position is programmed incrementally **Cause of error** Polar programmed starting position is programmed incrementally **Error correction** Edit the program or the cycle
903-0004	**Error message** Relative programming of the reciprocation starting position is not allowed **Cause of error** Starting position of the reciprocation is programmed in relative values **Error correction** Program the starting position with absolute values
903-0005	**Error message** Absolute programming of the relief vector is not allowed **Cause of error** - Relief vector was programmed absolutely instead of incrementally **Error correction** - Program the relief vector incrementally
903-0006	**Error message** Relative programming of the infeed starting position is not allowed! **Cause of error** Starting position of the infeed is programmed in relative values **Error correction** Program the starting position with absolute values
903-0007	**Error message** Programmed axis is not a grinding axis **Cause of error** Wrong axis selected for grinding **Error correction** Program a grinding axis

Error number	Description
903-0008	**Error message** Programmed value is not interpreted as a coordinate **Cause of error** Presumably a system error **Error correction** Inform your service agency
903-0009	**Error message** Incremental programming of the starting position is not allowed **Cause of error** Starting position is programmed incrementally **Error correction** Program the starting position with absolute values
903-000A	**Error message** Reciprocation over zero length is not allowed **Cause of error** **Error correction** - Edit the program
905-2711	**Error message** Pre-position [Ls] **Cause of error** **Error correction**
905-2712	**Error message** Thread type (0=ext. / 1=int.) **Cause of error** **Error correction**
905-2713	**Error message** Thread pitch **Cause of error** **Error correction**
905-2714	**Error message** Thread depth **Cause of error** **Error correction**

Error number	Description
905-2715	**Error message** Amount of infeed **Cause of error** **Error correction**
905-2716	**Error message** Remaining cut division (0 = Yes) **Cause of error** **Error correction**
905-2717	**Error message** Number of dry runs **Cause of error** **Error correction**
905-2718	**Error message** Run-out length at end of thread **Cause of error** **Error correction**
905-2719	**Error message** Starting angle **Cause of error** **Error correction**
905-271A	**Error message** Rotational speed (rpm) **Cause of error** **Error correction**
905-271B	**Error message** Peripheral speed (m/min) **Cause of error** **Error correction**
905-271C	**Error message** Workpiece rotation speed (1/min) **Cause of error** **Error correction**

Error number	Description
905-271D	**Error message** Taper angle (>0 = ascending) **Cause of error** **Error correction**
905-271F	**Error message** Stndrd thread (0=none, 1=ISO,..) **Cause of error** **Error correction**
905-2720	**Error message** Nominal diameter **Cause of error** **Error correction**
905-2721	**Error message** Thread 0=righthand,1=lefthand **Cause of error** **Error correction**
905-2722	**Error message** Return **Cause of error** **Error correction**
905-2723	**Error message** Run-in length **Cause of error** **Error correction**
905-2724	**Error message** Run-in speed **Cause of error** **Error correction**
905-2725	**Error message** Length of cut in depth **Cause of error** **Error correction**

Error number	Description
905-2726	**Error message** Traversing speed **Cause of error** **Error correction**
905-2727	**Error message** Run-out length **Cause of error** **Error correction**
905-2728	**Error message** Speed on run-out **Cause of error** **Error correction**
905-2729	**Error message** Target position X **Cause of error** **Error correction**
905-272A	**Error message** Target position Z **Cause of error** **Error correction**
905-272B	**Error message** Reciprocation feed rate [F] **Cause of error** **Error correction**
905-272C	**Error message** Infeed rate [D] **Cause of error** **Error correction**
905-272D	**Error message** Number of spark-out strokes [H] **Cause of error** **Error correction**

Error number	Description
905-2737	**Error message** Tool number (T0 - T9) **Cause of error** **Error correction**
905-2738	**Error message** Error number **Cause of error** **Error correction**
905-2739	**Error message** Error consequence **Cause of error** **Error correction**
905-273A	**Error message** Error level **Cause of error** **Error correction**
905-273B	**Error message** Wheel location **Cause of error** **Error correction**
905-273C	**Error message** Dresser location **Cause of error** **Error correction**
905-273D	**Error message** Wheel edge **Cause of error** **Error correction**
905-273E	**Error message** Place – Bit **Cause of error** **Error correction**

Error number	Description
905-273F	**Error message** Type of machining **Cause of error** **Error correction**
905-2740	**Error message** Command number **Cause of error** **Error correction**
905-2741	**Error message** Dresser number **Cause of error** **Error correction**
905-2742	**Error message** Value 1 **Cause of error** **Error correction**
905-2743	**Error message** Value 2 **Cause of error** **Error correction**
905-2744	**Error message** Value 3 **Cause of error** **Error correction**
905-2745	**Error message** Calibration **Cause of error** **Error correction**
905-2746	**Error message** Encoder **Cause of error** **Error correction**

Error number	Description
905-2747	**Error message** Linear measurement **Cause of error** **Error correction**
905-2748	**Error message** Diameter **Cause of error** **Error correction**
905-2749	**Error message** Delete Z **Cause of error** **Error correction**
905-274A	**Error message** Delete X **Cause of error** **Error correction**
905-274B	**Error message** Define the wheel shape **Cause of error** **Error correction**
905-274C	**Error message** Teach in width **Cause of error** **Error correction**
905-274D	**Error message** Define the tool **Cause of error** **Error correction**
905-274E	**Error message** Continue **Cause of error** **Error correction**

Error number	Description
905-274F	**Error message** Question mark **Cause of error** **Error correction**
905-2750	**Error message** Teach in Z **Cause of error** **Error correction**
905-2751	**Error message** Teach in X **Cause of error** **Error correction**
905-2752	**Error message** Delete the dresser **Cause of error** **Error correction**
905-2753	**Error message** Spindle dresser **Cause of error** **Error correction**
905-2754	**Error message** Dress plate **Cause of error** **Error correction**
905-2755	**Error message** Diamond dresser **Cause of error** **Error correction**
905-2756	**Error message** Dresser alignment **Cause of error** **Error correction**

Error number	Description
905-2757	**Error message** Teach in dresser position **Cause of error** **Error correction**
905-2758	**Error message** New dresser **Cause of error** **Error correction**
905-2759	**Error message** V **Cause of error** **Error correction**
905-275A	**Error message** Transmission ratio **Cause of error** **Error correction**
905-275B	**Error message** Initialize **Cause of error** **Error correction**
905-275C	**Error message** Calculate **Cause of error** **Error correction**
905-275D	**Error message** Reload the data **Cause of error** **Error correction**
905-275E	**Error message** Settings **Cause of error** **Error correction**

Error number	Description
905-275F	**Error message** Outer side **Cause of error** **Error correction**
905-2760	**Error message** Inner side **Cause of error** **Error correction**
905-2761	**Error message** Search criteria **Cause of error** **Error correction**
905-2762	**Error message** Confirm the data **Cause of error** **Error correction**
905-2763	**Error message** Next **Cause of error** **Error correction**
905-2764	**Error message** Previous **Cause of error** **Error correction**
905-2765	**Error message** Next identical **Cause of error** **Error correction**
905-2766	**Error message** Previous identical **Cause of error** **Error correction**

Error number	Description
905-2767	**Error message** Tool information **Cause of error** **Error correction**
905-2768	**Error message** Internal grinding **Cause of error** **Error correction**
905-2769	**Error message** External grinding **Cause of error** **Error correction**
905-276A	**Error message** General wheel data **Cause of error** **Error correction**
905-276B	**Error message** Face plate **Cause of error** **Error correction**
905-276C	**Error message** Angular wheel **Cause of error** **Error correction**
905-276D	**Error message** Straight wheel **Cause of error** **Error correction**
905-276E	**Error message** End ? **Cause of error** **Error correction**

Error number	Description
905-276F	**Error message** Starting position X **Cause of error** **Error correction**
905-2770	**Error message** Starting position Z **Cause of error** **Error correction**
905-2771	**Error message** End position X **Cause of error** **Error correction**
905-2772	**Error message** End position Z **Cause of error** **Error correction**
905-2773	**Error message** X value for swing position 1 **Cause of error** **Error correction**
905-2774	**Error message** Z value for swing position 1 **Cause of error** **Error correction**
905-2775	**Error message** X value for swing position 2 **Cause of error** **Error correction**
905-2776	**Error message** Z value for swing position 2 **Cause of error** **Error correction**

Error number	Description
905-2777	**Error message** Reciprocation feed rate [F1] **Cause of error** **Error correction**
905-2778	**Error message** Reciprocation feed rate [F2] **Cause of error** **Error correction**
905-2779	**Error message** Infeed rate [F] **Cause of error** **Error correction**
905-277A	**Error message** Amount of infeed [D] **Cause of error** **Error correction**
905-277B	**Error message** Search path of the probe **Cause of error** **Error correction**
905-277C	**Error message** Offset [L] **Cause of error** **Error correction**
905-277D	**Error message** Dwell time [H] **Cause of error** **Error correction**
905-277E	**Error message** Dwell time [H] at swing pos. 1 **Cause of error** **Error correction**

Error number	Description
905-277F	**Error message** Dwell time [H2] at swing pos. 2 **Cause of error** **Error correction**
905-2780	**Error message** Number of spark-out strokes [N] **Cause of error** **Error correction**
905-2781	**Error message** Selection of override switch [O] **Cause of error** **Error correction**
905-2782	**Error message** Retraction amount [A] **Cause of error** **Error correction**
905-2783	**Error message** Absolute (=0) or relative (=1) **Cause of error** **Error correction**
905-2784	**Error message** Referenced to axis 1=yes, 0=no **Cause of error** **Error correction**
905-2785	**Error message** Infeed in pos. 1, 2 or both **Cause of error** **Error correction**
905-2786	**Error message** Faulty behavior with undersize **Cause of error** **Error correction**

Error number	Description
905-2787	**Error message** Faulty behavior with oversize **Cause of error** **Error correction**
905-2788	**Error message** Shift of end position [K] **Cause of error** **Error correction**
905-2789	**Error message** Sensor already active at start **Cause of error** **Error correction**
905-278A	**Error message** Sensor has not responded **Cause of error** **Error correction**
905-278B	**Error message** Probe already active at start **Cause of error** **Error correction**
905-278C	**Error message** Probe has not responded **Cause of error** **Error correction**
905-278D	**Error message** Type of status information 0-4 **Cause of error** **Error correction**
905-278E	**Error message** Type of movement 0-2 **Cause of error** **Error correction**

Error number	Description
905-278F	**Error message** Mode of execution 0-1 **Cause of error** **Error correction**
905-2790	**Error message** Type of movement 0-8 **Cause of error** **Error correction**
905-2791	**Error message** Type of movement 0-3 **Cause of error** **Error correction**
905-2792	**Error message** Type of event **Cause of error** **Error correction**
905-2793	**Error message** Type of reaction **Cause of error** **Error correction**
905-2794	**Error message** Signal for OK **Cause of error** **Error correction**
905-2795	**Error message** Reaction in event test 1 **Cause of error** **Error correction**
905-2796	**Error message** Reaction in event test 2 **Cause of error** **Error correction**

Error number	Description
905-2797	**Error message** Reaction in event test 3 **Cause of error** **Error correction**
905-2798	**Error message** Dressing amount [D] **Cause of error** **Error correction**
905-2799	**Error message** Dressing feed rate [F] **Cause of error** **Error correction**
905-279A	**Error message** Number of repetitions [E] **Cause of error** **Error correction**
905-279B	**Error message** Number of idle strokes [H] **Cause of error** **Error correction**
905-279C	**Error message** Angle of infeed [Q] **Cause of error** **Error correction**
905-279D	**Error message** Dressing after number of pcs. **Cause of error** **Error correction**
905-279E	**Error message** Diamond number for outer side **Cause of error** **Error correction**

Error number	Description
905-279F	**Error message** Diamond number for inner side **Cause of error** **Error correction**
905-27A0	**Error message** Type of dressing **Cause of error** **Error correction**
905-27A1	**Error message** Dressing strategy **Cause of error** **Error correction**
905-27A2	**Error message** Removal at diameter **Cause of error** **Error correction**
905-27A3	**Error message** Removal at outer edge **Cause of error** **Error correction**
905-27A4	**Error message** Removal at inner edge **Cause of error** **Error correction**
905-27A5	**Error message** Valve number **Cause of error** **Error correction**
905-27A6	**Error message** Operation code **Cause of error** **Error correction**

Error number	Description
905-27A7	**Error message** Type of offset 0=X,1=Z,2=X/Z **Cause of error** **Error correction**
905-27A8	**Error message** Retraction type (0=X,1=Z,2=X/Z) **Cause of error** **Error correction**
905-27A9	**Error message** Infeed direction: X component **Cause of error** **Error correction**
905-27AA	**Error message** Infeed direction: Z component **Cause of error** **Error correction**
905-27AB	**Error message** Retractn amnt intermed. dressing **Cause of error** **Error correction**
905-27AC	**Error message** Retraction: X component **Cause of error** **Error correction**
905-27AD	**Error message** Retraction: Z component **Cause of error** **Error correction**
905-27AE	**Error message** Retractn. in X (incl. direction) **Cause of error** **Error correction**

Error number	Description
905-27AF	**Error message** Retractn. in Z (incl. direction) **Cause of error** **Error correction**
905-27B0	**Error message** Retraction speed (0=FMAX) **Cause of error** **Error correction**
905-27B1	**Error message** Sensor active **Cause of error** **Error correction**
905-27B2	**Error message** Dimensional control active **Cause of error** **Error correction**
905-27B3	**Error message** Dimensional control valve **Cause of error** **Error correction**
905-27B4	**Error message** Initiate interm. dressing drctly **Cause of error** **Error correction**
905-27B5	**Error message** Start the reciprocation **Cause of error** **Error correction**
905-27B6	**Error message** Start preset for X **Cause of error** **Error correction**

Error number	Description
905-27B7	**Error message** Activation of C axis **Cause of error** **Error correction**
905-27B8	**Error message** Start preset for Y **Cause of error** **Error correction**
905-27B9	**Error message** End position **Cause of error** **Error correction**
905-27BA	**Error message** Start preset for Z **Cause of error** **Error correction**
905-27BB	**Error message** Feed rate for positioning in C **Cause of error** **Error correction**
905-27BC	**Error message** Start preset for R (radius) **Cause of error** **Error correction**
905-27BD	**Error message** Start preset for H (angle) **Cause of error** **Error correction**
905-27BE	**Error message** Start preset for B **Cause of error** **Error correction**

Error number	Description
905-27BF	**Error message** Start preset for C **Cause of error** **Error correction**
905-27C0	**Error message** Start preset for C **Cause of error** **Error correction**
905-27C1	**Error message** Tool compensation **Cause of error** **Error correction**
905-27C2	**Error message** Number of revolutions **Cause of error** **Error correction**
905-27C3	**Error message** Restart noncylindrical movemnt. **Cause of error** **Error correction**
905-27C4	**Error message** Stop of noncylindrical movemnt. **Cause of error** **Error correction**
905-27C5	**Error message** Do not approach with meas. sys. **Cause of error** **Error correction**
905-27C6	**Error message** Diameter Q400 **Cause of error** **Error correction**

Error number	Description
905-27C7	**Error message** Width Q401 **Cause of error** **Error correction**
905-27C8	**Error message** Overhang Q402 **Cause of error** **Error correction**
905-27C9	**Error message** Depth Q403 **Cause of error** **Error correction**
905-27CA	**Error message** Angle Q404 **Cause of error** **Error correction**
905-27CB	**Error message** Angle Q405 **Cause of error** **Error correction**
905-27CC	**Error message** Radius Q406 **Cause of error** **Error correction**
905-27CD	**Error message** Radius Q407 **Cause of error** **Error correction**
905-27CE	**Error message** Radius Q408 **Cause of error** **Error correction**

Error number	Description
905-27CF	**Error message** Minimum diameter **Cause of error** **Error correction**
905-27D0	**Error message** Minimum width **Cause of error** **Error correction**
905-27D1	**Error message** Wheel type **Cause of error** **Error correction**
905-27D2	**Error message** Type of machining **Cause of error** **Error correction**
905-27D3	**Error message** Tool number **Cause of error** **Error correction**
905-27D4	**Error message** Angle Q414 **Cause of error** **Error correction**
905-27D5	**Error message** Cutting speed **Cause of error** **Error correction**
905-27D6	**Error message** Location number **Cause of error** **Error correction**

Error number	Description
905-27D7	**Error message** Maximum diameter **Cause of error** **Error correction**
905-27D8	**Error message** Minimum diameter **Cause of error** **Error correction**
905-27D9	**Error message** Maximum width **Cause of error** **Error correction**
905-27DA	**Error message** Minimum width **Cause of error** **Error correction**
905-27DB	**Error message** Chamfer width Q421 **Cause of error** **Error correction**
905-27DC	**Error message** Chamfer angle Q422 **Cause of error** **Error correction**
905-27DD	**Error message** Corner radius Q423 **Cause of error** **Error correction**
905-27DE	**Error message** Side length Q424 **Cause of error** **Error correction**

Error number	Description
905-27DF	**Error message** Angle of relief Q425 **Cause of error** **Error correction**
905-27E0	**Error message** Depth of relief Q426 **Cause of error** **Error correction**
905-27E1	**Error message** Length of recess Q427 **Cause of error** **Error correction**
905-27E2	**Error message** Angle of departure Q428 **Cause of error** **Error correction**
905-27E3	**Error message** Total depth Q429 **Cause of error** **Error correction**
905-27E4	**Error message** Safety clearance X **Cause of error** **Error correction**
905-27E5	**Error message** Safety clearance Z **Cause of error** **Error correction**
905-27E6	**Error message** Safety clearance Z **Cause of error** **Error correction**

Error number	Description
905-27E7	**Error message** X edge Q433 **Cause of error** **Error correction**
905-27E8	**Error message** Minimum (V) **Cause of error** **Error correction**
905-27E9	**Error message** Maximum (V) **Cause of error** **Error correction**
905-27EA	**Error message** Motor pulley **Cause of error** **Error correction**
905-27EB	**Error message** Wheel pulley **Cause of error** **Error correction**
905-27EC	**Error message** Radius Q438 **Cause of error** **Error correction**
905-27ED	**Error message** Length Q439 **Cause of error** **Error correction**
905-27EE	**Error message** Length Q440 **Cause of error** **Error correction**

Error number	Description
905-27EF	**Error message** Location number Q441 **Cause of error** **Error correction**
905-27F0	**Error message** Logic location Q442 **Cause of error** **Error correction**
905-27F1	**Error message** Alignment Q443 **Cause of error** **Error correction**
905-27F2	**Error message** Type of dresser Q444 **Cause of error** **Error correction**
905-27F3	**Error message** Actual position X Q445 **Cause of error** **Error correction**
905-27F4	**Error message** Actual position Z Q446 **Cause of error** **Error correction**
905-27F5	**Error message** Rotational speed Q447 **Cause of error** **Error correction**
905-27F6	**Error message** Width Q448 **Cause of error** **Error correction**

Error number	Description
905-27F7	**Error message** Compensation Q449 **Cause of error** **Error correction**
905-27F8	**Error message** Nominal position X Q450 **Cause of error** **Error correction**
905-27F9	**Error message** Nominal position Z Q451 **Cause of error** **Error correction**
905-27FA	**Error message** Tool type (select by soft key) **Cause of error** **Error correction**
905-27FB	**Error message** Radius Q453 **Cause of error** **Error correction**
905-27FC	**Error message** Length Q454 **Cause of error** **Error correction**
905-27FD	**Error message** Length Q455 **Cause of error** **Error correction**
905-27FE	**Error message** Diameter X Q456 **Cause of error** **Error correction**

Error number	Description
905-27FF	**Error message** Length Z Q457 **Cause of error** **Error correction**
905-2800	**Error message** Actual position X Q458 **Cause of error** **Error correction**
905-2801	**Error message** Actual position Z Q459 **Cause of error** **Error correction**
905-2802	**Error message** Select the edge Q460 **Cause of error** **Error correction**
905-2803	**Error message** Select the wheel shape Q461 **Cause of error** **Error correction**
905-2804	**Error message** Position X Q462 **Cause of error** **Error correction**
905-2805	**Error message** Position Z Q463 **Cause of error** **Error correction**
905-2806	**Error message** Number (1...4) of position Q464 **Cause of error** **Error correction**

Error number	Description
905-2807	**Error message** Number of safety positions Q465 **Cause of error** **Error correction**
905-2808	**Error message** Datum shift X Q466 **Cause of error** **Error correction**
905-2809	**Error message** Datum shift Z Q467 **Cause of error** **Error correction**
905-280A	**Error message** Select the preset Q468 **Cause of error** **Error correction**
905-280B	**Error message** Delete entry or status **Cause of error** **Error correction**
905-280C	**Error message** Measured value in axis system **Cause of error** **Error correction**
905-280D	**Error message** Axis **Cause of error** **Error correction**
905-280E	**Error message** Axis number **Cause of error** **Error correction**

Error number	Description
905-280F	**Error message** Parameter block **Cause of error** **Error correction**
905-2810	**Error message** Probe input X12 or X13 **Cause of error** **Error correction**
905-2811	**Error message** Name of noncylindrical program **Cause of error** **Error correction**
905-2812	**Error message** Name of wheel **Cause of error** **Error correction**
905-2813	**Error message** Tolerance value 1? **Cause of error** **Error correction**
905-2814	**Error message** Tolerance value 2? **Cause of error** **Error correction**
905-2815	**Error message** Feed rate limit? **Cause of error** **Error correction**
905-2816	**Error message** Ls **Cause of error** **Error correction**

Error number	Description
905-2817	**Error message** I **Cause of error** **Error correction**
905-2818	**Error message** P **Cause of error** **Error correction**
905-2819	**Error message** T **Cause of error** **Error correction**
905-281A	**Error message** D **Cause of error** **Error correction**
905-281B	**Error message** B **Cause of error** **Error correction**
905-281C	**Error message** H **Cause of error** **Error correction**
905-281D	**Error message** K **Cause of error** **Error correction**
905-281E	**Error message** C **Cause of error** **Error correction**

Error number	Description
905-281F	**Error message** S **Cause of error** **Error correction**
905-2820	**Error message** V **Cause of error** **Error correction**
905-2821	**Error message** S **Cause of error** **Error correction**
905-2822	**Error message** W **Cause of error** **Error correction**
905-2823	**Error message** L **Cause of error** **Error correction**
905-2824	**Error message** Q **Cause of error** **Error correction**
905-2825	**Error message** X **Cause of error** **Error correction**
905-2826	**Error message** R **Cause of error** **Error correction**

Error number	Description
905-2827	**Error message** A **Cause of error** **Error correction**
905-2828	**Error message** E **Cause of error** **Error correction**
905-2829	**Error message** Ve **Cause of error** **Error correction**
905-282A	**Error message** M **Cause of error** **Error correction**
905-282B	**Error message** Vm **Cause of error** **Error correction**
905-282C	**Error message** K **Cause of error** **Error correction**
905-282D	**Error message** Vk **Cause of error** **Error correction**
905-282E	**Error message** X **Cause of error** **Error correction**

Error number	Description
905-282F	**Error message** Z **Cause of error** **Error correction**
905-2830	**Error message** F **Cause of error** **Error correction**
905-2831	**Error message** D **Cause of error** **Error correction**
905-2832	**Error message** H **Cause of error** **Error correction**
905-2833	**Error message** Tool number **Cause of error** **Error correction**
905-2834	**Error message** Error number **Cause of error** **Error correction**
905-2835	**Error message** Error consequence **Cause of error** **Error correction**
905-2836	**Error message** Error level **Cause of error** **Error correction**

Error number	Description
905-2837	**Error message** W_PL **Cause of error** **Error correction**
905-2838	**Error message** D_PL **Cause of error** **Error correction**
905-2839	**Error message** E **Cause of error** **Error correction**
905-283A	**Error message** B **Cause of error** **Error correction**
905-283B	**Error message** E **Cause of error** **Error correction**
905-283C	**Error message** NR **Cause of error** **Error correction**
905-283D	**Error message** D_Nr **Cause of error** **Error correction**
905-283E	**Error message** D1 **Cause of error** **Error correction**

Error number	Description
905-283F	**Error message** D2 **Cause of error** **Error correction**
905-2840	**Error message** D3 **Cause of error** **Error correction**
905-2841	**Error message** K **Cause of error** **Error correction**
905-2842	**Error message** Q **Cause of error** **Error correction**
905-2843	**Error message** L **Cause of error** **Error correction**
905-2844	**Error message** D **Cause of error** **Error correction**
905-2845	**Error message** Delete Z **Cause of error** **Error correction**
905-2846	**Error message** Delete X **Cause of error** **Error correction**

Error number	Description
905-2848	**Error message** Teach in width **Cause of error** **Error correction**
905-2849	**Error message** Define the tool **Cause of error** **Error correction**
905-284A	**Error message** Continue **Cause of error** **Error correction**
905-284F	**Error message** Spindle dresser **Cause of error** **Error correction**
905-2850	**Error message** Dress plate **Cause of error** **Error correction**
905-2851	**Error message** Diamond dresser **Cause of error** **Error correction**
905-2852	**Error message** Alignment **Cause of error** **Error correction**
905-2853	**Error message** Teach in dresser pos **Cause of error** **Error correction**

Error number	Description
905-2854	**Error message** New dresser **Cause of error** **Error correction**
905-2856	**Error message** Ratio **Cause of error** **Error correction**
905-2859	**Error message** Reload the data **Cause of error** **Error correction**
905-285D	**Error message** Search criteria **Cause of error** **Error correction**
905-285E	**Error message** Confirm the data **Cause of error** **Error correction**
905-2861	**Error message** Next identical **Cause of error** **Error correction**
905-2862	**Error message** Previous identical **Cause of error** **Error correction**
905-2863	**Error message** Tool information **Cause of error** **Error correction**

Error number	Description
905-2864	**Error message** Internal grinding **Cause of error** **Error correction**
905-2865	**Error message** External grinding **Cause of error** **Error correction**
905-2866	**Error message** General wheel data **Cause of error** **Error correction**
905-2867	**Error message** Face plate **Cause of error** **Error correction**
905-2868	**Error message** Angular wheel **Cause of error** **Error correction**
905-2869	**Error message** Straight wheel **Cause of error** **Error correction**
905-286A	**Error message** End **Cause of error** **Error correction**
905-286B	**Error message** X **Cause of error** **Error correction**

Error number	Description
905-286C	**Error message** Z **Cause of error** **Error correction**
905-286D	**Error message** X **Cause of error** **Error correction**
905-286E	**Error message** Z **Cause of error** **Error correction**
905-286F	**Error message** X **Cause of error** **Error correction**
905-2870	**Error message** Z **Cause of error** **Error correction**
905-2871	**Error message** X **Cause of error** **Error correction**
905-2872	**Error message** Z **Cause of error** **Error correction**
905-2873	**Error message** F1 **Cause of error** **Error correction**

Error number	Description
905-2874	**Error message** F2 **Cause of error** **Error correction**
905-2875	**Error message** F **Cause of error** **Error correction**
905-2876	**Error message** D **Cause of error** **Error correction**
905-2877	**Error message** Search path **Cause of error** **Error correction**
905-2879	**Error message** H **Cause of error** **Error correction**
905-287A	**Error message** H1 **Cause of error** **Error correction**
905-287B	**Error message** H2 **Cause of error** **Error correction**
905-287C	**Error message** N **Cause of error** **Error correction**

Error number	Description
905-287D	**Error message** O **Cause of error** **Error correction**
905-287E	**Error message** A **Cause of error** **Error correction**
905-287F	**Error message** I **Cause of error** **Error correction**
905-2880	**Error message** M91 **Cause of error** **Error correction**
905-2881	**Error message** E **Cause of error** **Error correction**
905-2882	**Error message** ER1 **Cause of error** **Error correction**
905-2883	**Error message** ER2 **Cause of error** **Error correction**
905-2884	**Error message** K **Cause of error** **Error correction**

Error number	Description
905-2885	**Error message** ER3 **Cause of error** **Error correction**
905-2886	**Error message** ER4 **Cause of error** **Error correction**
905-2887	**Error message** ER5 **Cause of error** **Error correction**
905-2888	**Error message** ER6 **Cause of error** **Error correction**
905-2889	**Error message** E **Cause of error** **Error correction**
905-288A	**Error message** E **Cause of error** **Error correction**
905-288B	**Error message** S **Cause of error** **Error correction**
905-288C	**Error message** E **Cause of error** **Error correction**

Error number	Description
905-288D	**Error message** K **Cause of error** **Error correction**
905-288E	**Error message** E **Cause of error** **Error correction**
905-288F	**Error message** R **Cause of error** **Error correction**
905-2890	**Error message** S **Cause of error** **Error correction**
905-2891	**Error message** R1 **Cause of error** **Error correction**
905-2892	**Error message** R2 **Cause of error** **Error correction**
905-2893	**Error message** R3 **Cause of error** **Error correction**
905-2894	**Error message** D **Cause of error** **Error correction**

Error number	Description
905-2895	**Error message** F **Cause of error** **Error correction**
905-2896	**Error message** E **Cause of error** **Error correction**
905-2897	**Error message** H **Cause of error** **Error correction**
905-2898	**Error message** Q **Cause of error** **Error correction**
905-2899	**Error message** N **Cause of error** **Error correction**
905-289A	**Error message** Diamond no. outside **Cause of error** **Error correction**
905-289B	**Error message** Diamond no. inside **Cause of error** **Error correction**
905-289C	**Error message** Type of dressing **Cause of error** **Error correction**

Error number	Description
905-289D	**Error message** Dressing strategy **Cause of error** **Error correction**
905-289E	**Error message** D **Cause of error** **Error correction**
905-289F	**Error message** O **Cause of error** **Error correction**
905-28A0	**Error message** I **Cause of error** **Error correction**
905-28A1	**Error message** V **Cause of error** **Error correction**
905-28A2	**Error message** C **Cause of error** **Error correction**
905-28A3	**Error message** RL **Cause of error** **Error correction**
905-28A4	**Error message** RA **Cause of error** **Error correction**

Error number	Description
905-28A5	**Error message** dX **Cause of error** **Error correction**
905-28A6	**Error message** dZ **Cause of error** **Error correction**
905-28A7	**Error message** AZ **Cause of error** **Error correction**
905-28A8	**Error message** dXA **Cause of error** **Error correction**
905-28A9	**Error message** dZA **Cause of error** **Error correction**
905-28AA	**Error message** AX **Cause of error** **Error correction**
905-28AB	**Error message** AZ **Cause of error** **Error correction**
905-28AC	**Error message** FA **Cause of error** **Error correction**

Error number	Description
905-28AD	**Error message** SA **Cause of error** **Error correction**
905-28AE	**Error message** MA **Cause of error** **Error correction**
905-28AF	**Error message** MV **Cause of error** **Error correction**
905-28B0	**Error message** D_OK **Cause of error** **Error correction**
905-28B1	**Error message** P **Cause of error** **Error correction**
905-28B2	**Error message** X **Cause of error** **Error correction**
905-28B3	**Error message** E **Cause of error** **Error correction**
905-28B4	**Error message** Y **Cause of error** **Error correction**

Error number	Description
905-28B5	**Error message** C **Cause of error** **Error correction**
905-28B6	**Error message** Z **Cause of error** **Error correction**
905-28B7	**Error message** F **Cause of error** **Error correction**
905-28B8	**Error message** R **Cause of error** **Error correction**
905-28B9	**Error message** H **Cause of error** **Error correction**
905-28BA	**Error message** B **Cause of error** **Error correction**
905-28BB	**Error message** C **Cause of error** **Error correction**
905-28BC	**Error message** C **Cause of error** **Error correction**

Error number	Description
905-28BD	**Error message** COR **Cause of error** **Error correction**
905-28BE	**Error message** COUNT **Cause of error** **Error correction**
905-28BF	**Error message** RESET **Cause of error** **Error correction**
905-28C0	**Error message** STOPP **Cause of error** **Error correction**
905-28C1	**Error message** U **Cause of error** **Error correction**
905-28C2	**Error message** Diameter **Cause of error** **Error correction**
905-28C3	**Error message** Width of wheel **Cause of error** **Error correction**
905-28C4	**Error message** Overhang **Cause of error** **Error correction**

Error number	Description
905-28C5	**Error message** Depth of wheel **Cause of error** **Error correction**
905-28C6	**Error message** Wheel tilt angle **Cause of error** **Error correction**
905-28C7	**Error message** Corner angle **Cause of error** **Error correction**
905-28C8	**Error message** Corner radius RV **Cause of error** **Error correction**
905-28C9	**Error message** Corner radius RV1 **Cause of error** **Error correction**
905-28CA	**Error message** Corner radius RV2 **Cause of error** **Error correction**
905-28CB	**Error message** Minimum diameter **Cause of error** **Error correction**
905-28CC	**Error message** Minimum width **Cause of error** **Error correction**

Error number	Description
905-28CD	**Error message** Straight,angul.,flat **Cause of error** **Error correction**
905-28CE	**Error message** External / Internal **Cause of error** **Error correction**
905-28D0	**Error message** Offset B axis **Cause of error** **Error correction**
905-28D1	**Error message** Cutting speed **Cause of error** **Error correction**
905-28D2	**Error message** Location no. (0..99) **Cause of error** **Error correction**
905-28D3	**Error message** Upper limit diameter **Cause of error** **Error correction**
905-28D4	**Error message** Lower limit diameter **Cause of error** **Error correction**
905-28D5	**Error message** Upper limit width **Cause of error** **Error correction**

Error number	Description
905-28D6	**Error message** Lower limit width **Cause of error** **Error correction**
905-28D7	**Error message** Width **Cause of error** **Error correction**
905-28D8	**Error message** Angle **Cause of error** **Error correction**
905-28D9	**Error message** Radius **Cause of error** **Error correction**
905-28DA	**Error message** Side length **Cause of error** **Error correction**
905-28DB	**Error message** Angle **Cause of error** **Error correction**
905-28DC	**Error message** Depth **Cause of error** **Error correction**
905-28DD	**Error message** Length **Cause of error** **Error correction**

Error number	Description
905-28DE	**Error message** Radius **Cause of error** **Error correction**
905-28DF	**Error message** Depth **Cause of error** **Error correction**
905-28E0	**Error message** Diameter **Cause of error** **Error correction**
905-28E1	**Error message** Outer side **Cause of error** **Error correction**
905-28E2	**Error message** Inner side **Cause of error** **Error correction**
905-28E3	**Error message** Edge selection **Cause of error** **Error correction**
905-28E4	**Error message** Cutting speed **Cause of error** **Error correction**
905-28E5	**Error message** Cutting speed **Cause of error** **Error correction**

Error number	Description
905-28E6	**Error message** Diameter **Cause of error** **Error correction**
905-28E7	**Error message** Diameter **Cause of error** **Error correction**
905-28E8	**Error message** Diamond radius **Cause of error** **Error correction**
905-28E9	**Error message** Length L1 **Cause of error** **Error correction**
905-28EA	**Error message** Length L2 **Cause of error** **Error correction**
905-28EB	**Error message** Dresser location **Cause of error** **Error correction**
905-28EC	**Error message** Dresser location **Cause of error** **Error correction**
905-28ED	**Error message** Alignment **Cause of error** **Error correction**

Error number	Description
905-28EE	**Error message** Type of dresser **Cause of error** **Error correction**
905-28EF	**Error message** Dresser position **Cause of error** **Error correction**
905-28F0	**Error message** Dresser position **Cause of error** **Error correction**
905-28F1	**Error message** Dressing spindle **Cause of error** **Error correction**
905-28F2	**Error message** Width of dress plate **Cause of error** **Error correction**
905-28F3	**Error message** Type of compensation **Cause of error** **Error correction**
905-28F4	**Error message** Dresser position **Cause of error** **Error correction**
905-28F5	**Error message** Dresser position **Cause of error** **Error correction**

Error number	Description
905-28F6	**Error message** Tool type **Cause of error** **Error correction**
905-28F7	**Error message** Probe-tip radius **Cause of error** **Error correction**
905-28F8	**Error message** Length L1 **Cause of error** **Error correction**
905-28F9	**Error message** Length L2 **Cause of error** **Error correction**
905-28FA	**Error message** Calibration **Cause of error** **Error correction**
905-28FF	**Error message** Wheel shape **Cause of error** **Error correction**
905-2903	**Error message** Safety position. **Cause of error** **Error correction**
905-2905	**Error message** Datum shift **Cause of error** **Error correction**

Error number	Description
905-2906	**Error message** Calibration **Cause of error** **Error correction**
905-2907	**Error message** E **Cause of error** **Error correction**
905-2908	**Error message** Axis system **Cause of error** **Error correction**
905-2909	**Error message** Radius **Cause of error** **Error correction**
905-290A	**Error message** A **Cause of error** **Error correction**
905-290B	**Error message** Axis **Cause of error** **Error correction**
905-290C	**Error message** P **Cause of error** **Error correction**
905-290D	**Error message** Probe input **Cause of error** **Error correction**

Error number	Description
905-290E	**Error message** PGM_NAME **Cause of error** **Error correction**
905-290F	**Error message** Wheel name **Cause of error** **Error correction**
905-2910	**Error message** TOLERANCE 1 **Cause of error** **Error correction**
905-2911	**Error message** TOLERANCE 2 **Cause of error** **Error correction**
905-2912	**Error message** Feed rate limit **Cause of error** **Error correction**
905-2913	**Error message** Wheel data **Cause of error** **Error correction**
905-2914	**Error message** Wheel data **Cause of error** **Error correction**
905-2915	**Error message** Wheel data **Cause of error** **Error correction**

Error number	Description
905-2916	**Error message** Wheel data **Cause of error** **Error correction**
905-2917	**Error message** Outside **Cause of error** **Error correction**
905-2918	**Error message** Inside **Cause of error** **Error correction**
905-2919	**Error message** Settings **Cause of error** **Error correction**
905-291A	**Error message** Cutting speed **Cause of error** **Error correction**
905-291B	**Error message** Cutting speed **Cause of error** **Error correction**
905-291C	**Error message** Ratio **Cause of error** **Error correction**
905-291D	**Error message** Insertion location 0 **Cause of error** **Error correction**

Error number	Description
905-291E	**Error message** Insertion location 1 **Cause of error** **Error correction**
905-291F	**Error message** Insertion location 2 **Cause of error** **Error correction**
905-2920	**Error message** Insertion location 3 **Cause of error** **Error correction**
905-2921	**Error message** Insertion location 4 **Cause of error** **Error correction**
905-2922	**Error message** Insertion location 5 **Cause of error** **Error correction**
905-2923	**Error message** Insertion location 6 **Cause of error** **Error correction**
905-2924	**Error message** Insertion location 7 **Cause of error** **Error correction**
905-2925	**Error message** Insertion location 8 **Cause of error** **Error correction**

Error number	Description
905-2926	**Error message** Insertion location 9 **Cause of error** **Error correction**
905-2927	**Error message** Wheel data **Cause of error** **Error correction**
905-2928	**Error message** Cutter data **Cause of error** **Error correction**
905-2929	**Error message** Dresser data **Cause of error** **Error correction**
905-292A	**Error message** Probe data **Cause of error** **Error correction**
905-292B	**Error message** Drill data **Cause of error** **Error correction**
905-292C	**Error message** Search criteria **Cause of error** **Error correction**
905-292D	**Error message** Probe **Cause of error** **Error correction**

Error number	Description
905-292E	**Error message** New dresser **Cause of error** **Error correction**
905-292F	**Error message** Define dresser **Cause of error** **Error correction**
905-2930	**Error message** Define dresser **Cause of error** **Error correction**
905-2931	**Error message** Define dresser **Cause of error** **Error correction**
905-2932	**Error message** Define alignment **Cause of error** **Error correction**
905-2933	**Error message** Dresser position **Cause of error** **Error correction**
905-2934	**Error message** Dresser position **Cause of error** **Error correction**
905-2935	**Error message** Calibration: Select **Cause of error** **Error correction**

Error number	Description
905-2936	**Error message** Teach in positions **Cause of error** **Error correction**
905-2937	**Error message** Teach in width **Cause of error** **Error correction**
905-2938	**Error message** Wheel form **Cause of error** **Error correction**
905-2939	**Error message** Wrkpc. datum shift **Cause of error** **Error correction**
905-293A	**Error message** Wheel datum shift **Cause of error** **Error correction**
905-293B	**Error message** Safety position **Cause of error** **Error correction**
905-293C	**Error message** No. of safety pos. **Cause of error** **Error correction**
905-293D	**Error message** T command **Cause of error** **Error correction**

Error number	Description
905-293E	**Error message** Q command **Cause of error** **Error correction**
905-2940	**Error message** Thread grinding **Cause of error** **Error correction**
905-2941	**Error message** Thread plunging **Cause of error** **Error correction**
905-2942	**Error message** Thread oscillation **Cause of error** **Error correction**
905-2943	**Error message** C axis **Cause of error** **Error correction**
905-2944	**Error message** Start of grinding **Cause of error** **Error correction**
905-2945	**Error message** End of grinding **Cause of error** **Error correction**
905-2946	**Error message** Reciprocation config **Cause of error** **Error correction**

Error number	Description
905-2947	**Error message** Recipr.para. config. **Cause of error** **Error correction**
905-2948	**Error message** Start pos. infeed **Cause of error** **Error correction**
905-2949	**Error message** Asynchronous infeed **Cause of error** **Error correction**
905-294A	**Error message** Synchronous infeed **Cause of error** **Error correction**
905-294B	**Error message** General infeed **Cause of error** **Error correction**
905-294C	**Error message** Infeed meas.sys.asyn **Cause of error** **Error correction**
905-294D	**Error message** Infeed meas.sys.sync **Cause of error** **Error correction**
905-294E	**Error message** Probe infeed **Cause of error** **Error correction**

Error number	Description
905-294F	**Error message** Infeed gap control **Cause of error** **Error correction**
905-2950	**Error message** Infeed probe **Cause of error** **Error correction**
905-2951	**Error message** General dressing **Cause of error** **Error correction**
905-2952	**Error message** Intermed. dressing **Cause of error** **Error correction**
905-2953	**Error message** Load contour program **Cause of error** **Error correction**
905-2954	**Error message** Start of contour pgm **Cause of error** **Error correction**
905-2955	**Error message** End of contour pgm **Cause of error** **Error correction**
905-2956	**Error message** Start of contour pgm **Cause of error** **Error correction**

Error number	Description
905-2957	**Error message** Contour program stop **Cause of error** **Error correction**
905-2958	**Error message** Asynchr. infeed def. **Cause of error** **Error correction**
905-2959	**Error message** Synchr. infeed def. **Cause of error** **Error correction**
905-295A	**Error message** General infeed def. **Cause of error** **Error correction**
905-295B	**Error message** Override assignment **Cause of error** **Error correction**
905-295C	**Error message** Start of grinding **Cause of error** **Error correction**
905-295D	**Error message** Grinding stop **Cause of error** **Error correction**
905-295E	**Error message** Grinding status **Cause of error** **Error correction**

Error number	Description
905-295F	**Error message** Wait f. grinding end **Cause of error** **Error correction**
905-2960	**Error message** Activate event **Cause of error** **Error correction**
905-2961	**Error message** Deactivate event **Cause of error** **Error correction**
905-2962	**Error message** Check event **Cause of error** **Error correction**
905-2963	**Error message** Wheel data **Cause of error** **Error correction**
905-2964	**Error message** Wheel head **Cause of error** **Error correction**
905-2965	**Error message** Dresser data **Cause of error** **Error correction**
905-2966	**Error message** Calibration **Cause of error** **Error correction**

Error number	Description
905-2967	**Error message** Safety position **Cause of error** **Error correction**
905-2968	**Error message** Wrkpc. datum shift **Cause of error** **Error correction**
905-2969	**Error message** Wheel datum shift **Cause of error** **Error correction**
905-296A	**Error message** T command **Cause of error** **Error correction**
905-296B	**Error message** Q command **Cause of error** **Error correction**
905-296C	**Error message** Wheel status **Cause of error** **Error correction**
905-296D	**Error message** Delete the dresser **Cause of error** **Error correction**
905-296E	**Error message** Select param. block **Cause of error** **Error correction**

Error number	Description
905-296F	**Error message** Start dressing **Cause of error** **Error correction**
905-2970	**Error message** Reverse dressing **Cause of error** **Error correction**
905-2971	**Error message** Compensate wheel **Cause of error** **Error correction**
905-2972	**Error message** Reference system **Cause of error** **Error correction**
905-2973	**Error message** PLC command **Cause of error** **Error correction**