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خدمات فنی مهندسی نظری

0912-5159577

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PLC error displays

| Error display | Cause | Remedy |
|---------------------------------|---|--|
| A001 MACHINE EMERGENCY STOP | Emergency STOP push-button pressed, axes traversed to end limit | Unlock button, clear axes, press DRIVES OFF key. |
| A002 MAIN DRIVE TEMPERATURE | Main drive temperature exceeded, protective motor switch (external fan) has tripped | Allow to cool; check for overload; press DRIVES OFF key. |
| A003 AUXILIARY DRIVE THERMISTOR | Thermistor or protective motor switch of one of the auxiliary drives has tripped | Allow to cool; check for overload; press DRIVES OFF key. |
| A004 MOTOR FUSE TRIPPED | Protective motor switch or automatic fuse has tripped | Check appropriate circuit for overload or short circuit; press DRIVES OFF key. |
| A005 X AXIS 1 OVERLOAD | Overload clutch of X1 axis disengaged; collision | Select F0 picture; press softkey for BRAKE RELEASE and DRIVES OFF key; clear axis; re-engage clutch. |
| A006 Z AXIS 1 OVERLOAD | Overload clutch of Z1 axis disengaged; collision | Clear axis; re-engage clutch; press DRIVES OFF key. |
| A007 NC READY MISSING | Fault in NC or axis amplifier | Refer to corresp. NC error; press DRIVES OFF key. |
| A008 HYDRAULIC LEVEL/FILTER | Hydraulic oil low or filter clogged | Top up oil or clean/change filter. |
| A009 HYDRAULIC PRESSURE MISSING | Hydraulic pressure missing for more than 1 second | No oil, pump not running; pressure switch incorrectly set; press DRIVES OFF key. |
| A010 WRONG SPEED MAIN DRIVE | Speed deviation on main spindle greater than max. permissible tolerance of 20 %, e.g. overload, belt breakage | Reduce load, check system; press RESET key to clear error display. |



| Error display | Cause | Remedy |
|---|---|--|
| A011 PUS RPM NOMINAL VALUE | Speed deviation on opposed spindle greater than max. permissible tolerance of 20%, e.g. overload, belt breakage | Reduce load, check system; press RESET key to clear error display. |
| A012 CHUCK CONTROL NO SWITCH ACT | Limit switch of work-holding equipment set incorrectly or defective | Check setting or function. |
| A013 CHUCK CONTROL 2 SWITCH ACT | Limit switch of work-holding equipment set incorrectly or defective | Check setting or function. |
| A014 CHUCK OPEN WITH ROT. SPINDLE | Work-holding equipment not closed on speed call-up | Close work-holding equipment or select M77 and AUTOMATIC RUN key; press RESET key. |
| A015 STOP BAR FEED /SPINDLE NC | Fault in NC or axis amplifier | See corresponding NC error display |
| A016 MAIN DRIVE FAULT | No "READY" message from main drive converter | Check fuses, converter, main drive; press DRIVES OFF key. |
| A017 PUS DRIVE FAULT | "Ready" message for opposed spindle frequency converter missing | Check fuse, converter, main drive, press DRIVES OFF key |
| A018 LUBRICATION PRESSURE | Oil level of central lubrication system too low | Top up oil for central lubrication system |
| A019 CHUCK LUBRI- CATION ERROR | Chuck lubrication pressure missing | Check lubrication unit for chuck lubrication (lubricant level) Press NC RESET key |
| A020 TUR 1/DR 1 PROGRAMMING FAULT | T call-up while rot. tools are actuated or simultaneous programming of turret indexing and driven tools | Rectify program; press RESET key; restart program |
| A021 TURRET 1 END SWITCH | Limit switch "locked/unlocked" set incorrectly or defective | Check setting or function; press RESET key. |
| A022 TURRET 1 INDEXING TIME | Tool indexing time of turret 1 exceeded | Check speed, limit switch, angle encoder; press RESET key. |

| Error display | Cause | Remedy |
|---|--|--|
| A023 TURRET 1 NOT ENGAGED | Turret 1 not in locked position | Lock turret (set-up mode); check limit switch. |
| A024 TURRET 1 NO REFERENCE POS. | Turret 1 locked in wrong position | Move turret to position (set-up mode); check angle encoder. |
| A025 TURRET 1 PARITY MIS- SING | Parity error of angle encoder | Check angle encoder. |
| A026 TURRET 1 WRONG T NUMBER | An inadmissible tool number has been programmed | Rectify program; press RESET key. |
| A027 QUILL PRES- SURE/WORK POS. | Quill not in operating position, quill pressure drop => no clamping pressure | Move quill to working position; move quill forward or in basic position. |
| A028 STEADY NOT CLAMPED | Pressure drop on steady | Check pressure switch or hydraulic system. |
| A029 STEADY END POSITION/ COLLISION | Steady neither closed nor open | Close or open steady. |
| A030 B17xxxx WRONG B VALUE | A wrong B value has been programmed for gripper position of IHS | Rectify program; press RESET key. |
| A031 IHS START ERROR | Gripper head of IHS in undefined position when starting a program | Swivel gripper head in set-up mode to a defined position. |
| A032 WORKPIECE SORTER FAULT | Sorter not in basic position; time for traverse movement elapsed; fault limit switch or sorter | Move sorter in setting mode to basic position. |
| A033 TAILSTOCK/ STEADY COL- LISION | Tailstock has reached barrier X/Z | Move tailstock to working position. |
| A034 AMPL. DRIVEN TOOLS NOT READY | No "Ready" message of converter for tool drive or message of BUC basic unit | Check power supply to converter or BUC basic unit. |
| A035 WRONG SPEED DRIVEN TOOLS | Speed deviation greater than permissible tolerance, e.g. overload, belt breakage. | Reduce load; check system; press RESET key. |



| Error display | Cause | Remedy |
|----------------------------------|---|---|
| A037 NO BUC READY MESSAGE | Error during switching-on procedure or when operating BUC incoming/feedback unit | Check BUC, activate DRIVES OFF key |
| A038 BAR FEED NOT READY | Switching-on conditions for bar feed not met | Establish switching-on conditions as per description for bar feed. |
| A047 MAIN SPINDLE BRAKE ERROR | Main spindle brake not completely open when main spindle rotating | Check brake and limit switch Press NC RESET key |
| A048 OPPOSED SPINDLE BRAKE ERROR | Opposed spindle brake not completely open when opposed spindle rotating | Check brake and limit switch Press NC RESET key |
| A049 COVER MALFUNCTION | Power-operated cover does not open or close in given time or switch strip on door edge is actuated while opening or closing | Check actuation speed; prevent actuation of switch strip whilst opening or closing |
| A050 X AXIS 2 OVERLOAD | see A005 | |
| A051 Z AXIS 2 OVERLOAD | see A006 | |
| A052 V AXIS OVERLOAD | Overload clutch of V axis disengaged; collision | Clear axis; re-engage clutch; press DRIVES OFF key |
| A053 Y AXIS OVERLOAD | Overload clutch of Y axis disengaged; collision | Clear axis; re-engage clutch; press DRIVES OFF key |
| A055 PX AXIS OVERLOAD | Overload clutch of PX axis (X axis IHS) disengaged; collision | Clear axis; re-engage clutch; press DRIVES OFF key |
| A056 PZ AXIS OVERLOAD | Overload clutch of PZ axis (Z axis IHS) disengaged; collision | Clear axis; re-engage clutch; press DRIVES OFF key |
| A083 TOOL WEAR \$1 | Tool worn | Change worn tool Reset tool life Acknowledge with "NC RESET" Restart machine |

| Error display | Cause | Remedy |
|------------------------------------|---|--|
| A084 Tool breakage \$1 | Tool broken | Change tool Confirm breakage display with "NC RESET" key Restart machine |
| A088 Cover lock | Cover is not locked during automatic start | Check switch on locking magnet |
| A090 NO MEASURING PROBE SIGNAL \$1 | No measuring probe signal during G8 traverse block | 1) Check measuring probe transfer interval -> X178 2) Check programming of positioning or nominal pos |
| A091 INCORRECT PARAMETER \$1 | Incorrect address programming for G201, G204, G205 in \$1 | Rectify programming -> see "Internal measurement TX..8F" |
| A092 NO MEASURING PROBE SIGNAL \$2 | No measuring probe signal during G8 traverse block | 1) Check transfer interval MT -> X179 2) -> A090 |
| A093 INCORRECT PARAMETER \$2 | Incorrect address programming for G201, G205 in \$2 | Rectify programming -> see "Internal measurement TX 8F" |
| A102 AIR CONDITIONING UNIT FAULT | Air conditioning unit not operating properly; automatic circuit breaker tripped or switched off | Check air conditioning unit or actuate circuit breaker; press RESET key. |
| A112 GME NOT COUPLED | Coupling positioned tooth to tooth (GME = thread chas. and polyg.turn.attachm.) | Press RESET key Restart machine |
| A113 EJECTOR LIMIT POSITION ERROR | Error display output if part cannot be ejected from opposed spindle => stop spindle feed | Remove part Press RESET key Restart machine |
| A117 DRIVEN TOOL \$1 NOT LOCKED | Rotating drive disengages from lock during operation (overload) | Press "RESET" key Restart machine |
| A118 DRIVEN TOOL \$1 ALARM | Fault on converter or motor of tool drive | See error list "Drive for rotating tools" |
| A119 WRONG SPEED DRIVEN TOOLS \$1 | see A035 | |



| Error display | Cause | Remedy |
|-----------------------------------|--|---|
| A120 TUR 2/DR 2 PROGRAMMING FAULT | T call-up while rot. tools are activated or simultaneous programming of turret indexing and driven tools | Rectify program; press RESET key; restart program. |
| A121 TURRET 2 END SWITCH | Limit switch "locked/unlocked" set incorrectly or defective | Check setting or function; press RESET key. |
| A122 TURRET 2 INDEXING TIME | Tool indexing time of turret 2 exceeded | Check speed, limit switch, angle encoder; press RESET key. |
| A123 TURRET 2 NOT ENGAGED | Turret 2 not in locked position | Lock turret (set-up mode); check limit switch. |
| A124 TURRET 2 NO REFERENCE POS. | Turret 2 locked in wrong position | Move turret to position (set-up mode); check angle encoder. |
| A125 TURRET 2 PARITY MISSING | Parity error of angle encoder | Check angle encoder. |
| A126 TURRET 2 WRONG T NUMBER | An inadmissible tool number has been programmed | Rectify program; press RESET key. |
| A127 TURRET 1 NOT INDEXED | Turret not engaged in indexing mech. or pre-indexing switch defective | Check turret head or switch position. Press RESET key. |
| A128 TURRET 2 NOT INDEXED | Turret not engaged in indexing mech. or pre-indexing switch defective | Check turret head or switch position. Press RESET key. |
| A129 QUILL NOT SELECTED | Quill key on control panel not actuated | Actuate QUILL key. Press RESET key. |
| A130 NO TAILSTOCK END POSITION | Tailstock is not swung in or out. Limit switch not actuated | Check limit switch. |
| A131 DRILLING UNIT CHANGE TIME | Tool changing time of drilling unit exceeded | Check station and stop switch. Press RESET key. |
| A132 BA STATION SWITCH ERROR | More than one station switch emits signal | Check station switch. Press RESET key. |



| Error display | Cause | Remedy |
|----------------------------------|---|---|
| A183 TOOL WEAR \$2 | Tool worn | Change the worn tool. Reset tool life. Confirm with "NC RESET" key. Restart machine. |
| A184 TOOL BREAKAGE \$2 | Tool broken | Change tool. Acknowledge breakage display with "NC RESET" key. Restart machine. |
| A201 F-KUMO ALARM DISPLAY 01 | Error display programmed via F-Kumo | See error description of individual customer. |
| A202 F-KUMO ALARM DISPLAY 02 | Error display programmed via F-Kumo | See error description of individual customer. |
| A203 F-KUMO ALARM DISPLAY 03 | Error display programmed via F-Kumo | See error description of individual customer. |
| A204 F-KUMO ALARM DISPLAY 04 | Error display programmed via F-Kumo | See error description of individual customer. |
| A205 F-KUMO ALARM DISPLAY 05 | Error display programmed via F-Kumo | See error description of individual customer. |
| A206 F-KUMO ALARM DISPLAY 06 | Error display programmed via F-Kumo | See error description of individual customer. |
| A207 F-KUMO ALARM DISPLAY 07 | Error display programmed via F-Kumo | See error description of individual customer. |
| A208 F-KUMO ALARM DISPLAY 08 | Error display programmed via F-Kumo | See error description of individual customer. |
| A209 F-KUMO ALARM DISPLAY 09 | Error display programmed via F-Kumo | See error description of individual customer. |
| A210 F-KUMO ALARM DISPLAY 10 | Error display programmed via F-Kumo | See error description of individual customer. |
| A212 CHUCK CONTROL NO SWITCH ACT | Limit switch of work-holding equipment (opposed spindle) set incorrectly or defective | Check setting or function. |
| A213 CHUCK CONTROL 2 SWITCH ACT | Limit switch of work holding equipment (opposed spindle) set incorrectly or defective | Check setting or function. |



| Error display | Cause | Remedy |
|-----------------------------------|---|--|
| A214 CHUCK OPEN WITH ROT. PUS | Work-holding equipment of opposed spindle not closed on speed call-up | Close work-holding equipment or select M77 and AUTOMATIC RUN key; press RESET key. |
| A217 DRIVEN TOOL \$2 NOT LOCKED | Rotating drive disengages from lock during operation (overload) | Press RESET key. Restart machine. |
| A218 DRIVEN TOOLS \$2 ALARM | see A118 | |
| A219 WRONG SPEED DRIVEN TOOLS \$2 | SEE A035 | |
| A254 SWARF CONVEYOR FAULT | Chip conveyor blocked | Clear chip conveyor in set-up mode; switch drives off; press RESET key. |

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| Display text | Cause | Remedy |
|---|--|--|
| H001 APPROACH X AXIS 1 REF. POINT | see H002 | |
| H002 APPROACH Z AXIS 1 REF. POINT | Ref. point not approached | Approach ref. point |
| H003 MAIN DRIVE MAX RPM REACHED | a) Programmed speed too high/low b) Speed limit reached, e.g. with G96 V-constant | If necessary, modify NC program; ONLY MESSAGE, no program interruption. |
| H004 P.U.S. MAX RPM REACHED | See H003, but for opposed spindle | See H003, but for opposed spindle. |
| H005 APPROACH V AXIS REF. POINT | see H002 | |
| H006 APPROACH Y AXIS REF. POINT | see H002 | |
| H007 APPROACH X AXIS 2 REF. POINT | see H002 | |
| H008 APPROACH Z AXIS 2 REF. POINT | see H002 | |
| H010 SET-UP MODE LOCKED | Mode selector switch set to SET UP, PULSE GEN. (hand- wheel), REFERENCE POINT or FEED RATE (JOG), but key switch not set to SET UP | Set key switch to SET UP. |
| H012 2 SYSTEM SECTIONS SELECTED | Two subsystems have been selected in set-up mode | Deactivate one subsystem. |
| H013 SYSTEM SELECTION LOCKED | a) No additional subsystems can be activated in auto- matic mode b) In set-up mode, subsystems can only be activated or deactivated if key switch is set to SET UP | Switch to set-up mode. Set key switch to SET UP. |
| H014 QUILL TRAVEL TOO GREAT | Quill has moved beyond machining area | Move tailstock closer to workpiece. |



| Display text | Cause | Remedy |
|---------------------------------|--|---|
| H015 M29 QUILL NOT BACK | Quill positioned in set-up mode and must not be moved to basic position by M29 | Retract quill in set-up mode. |
| H016 EXECUTE SERVICE | Execute service as per maintenance manual | Press reset key. |
| H017 LUBRICATION SYSTEM LEVEL | Oil level of central lubrication system too low | Top up oil. |
| H018 COVER OPEN | Protective cover not closed completely | Close protective cover. |
| H019 SWITCH ON DRIVES | Drives are switched off | Switch on drives. |
| H020 SWITCH NC OFF/ON | After remedy and confirmation of an axis overload error (A005, A006, A050, A051, A052, A053, A055 or A056) | Switch the NC off and then on again. |
| H021 DRIVES AUTOMATICALLY OFF | a) In case of machine malfunction b) or if set workpiece quantity is reached | Rectify malfunction as per error list or set workpiece counter to "0"; switch drives OFF and then ON again. |
| H022 \$1 M CONFIRMATION MISSING | The aux. function programmed subsystem 1 is not executed or confirmed | When using options, check PLC option ; check functions in MDI or SET UP; press RESET key. |
| H023 \$2 M CONFIRMATION MISSING | same as H022, but in subsystem 2 | |
| H024 \$3 M CONFIRMATION MISSING | same as H022, but in subsystem 3 | |
| H025 \$4 M CONFIRMATION MISSING | same as H022, but in subsystem 4 | |
| H026 \$5 M CONFIRMATION MISSING | same as H022, but in subsystem 5 | |
| H027 \$1 S CONFIRMATION MISSING | The nominal speed programmed in subsystem 1 is not reached | Check nominal and actual values; press RESET key. |
| H028 \$2 S CONFIRMATION MISSING | same as H027, but in subsystem 2 | |

CRT displays
Display texts



| Display text | Cause | Remedy |
|---------------------------------|--|--|
| H029 \$3 S CONFIRMATION MISSING | same as H027, but in subsystem 3 | |
| H030 \$4 S CONFIRMATION MISSING | same as H027, but in subsystem 4 | |
| H031 \$5 S CONFIRMATION MISSING | same as H027, but in subsystem 5 | |
| H032 \$1 T CONFIRMATION MISSING | Tool turret of subsystem 1 has not reached nominal position or is not locked | Move tool turret in set-up mode to indexed position; press RESET key. |
| H033 \$2 T CONFIRMATION MISSING | same as H032, but in subsystem 2 | |
| H034 \$3 T CONFIRMATION MISSING | same as H032, but in subsystem 3 | |
| H035 \$4 T CONFIRMATION MISSING | same as H032, but in subsystem 4 | |
| H036 \$5 T CONFIRMATION MISSING | same as H032, but in subsystem 5 | |
| H037 \$1 B CONFIRMATION MISSING | The aux. function programmed in subsystem 1 is not executed or confirmed | Check PLC option ; check functions in MDI or SET UP mode; press RESET key. |
| H038 \$2 T CONFIRMATION MISSING | same as H037, but in subsystem 2 | |
| H039 \$3 T CONFIRMATION MISSING | same as H037, but in subsystem 3 | |
| H040 \$4 T CONFIRMATION MISSING | same as H037, but in subsystem 4 | |
| H041 \$5 T CONFIRMATION MISSING | same as H037, but in subsystem 5 | |
| H042 \$1 INVALID M VALUE | An M instruction without function has been programmed in subsystem 1 | Rectify program; press RESET key. |
| H043 \$2 INVALID M VALUE | same as H042, but in subsystem 2 | |
| H044 \$3 INVALID M VALUE | same as H042, but in subsystem 3 | |



| Display text | Cause | Remedy |
|---|---|--|
| H045 \$4 INVALID M VALUE | same as H042, but in subsystem 4 | |
| H046 \$5 INVALID M VALUE | same as H042, but in subsystem 5 | |
| H047 \$1 INVALID M VALUE | A B instruction without function has been programmed in subsystem 1 | Rectify program; press RESET key. |
| H048 \$2 INVALID B VALUE | same as H047, but in subsystem 2 | |
| H049 \$3 INVALID B VALUE | same as H047, but in subsystem 3 | |
| H050 \$4 INVALID B VALUE | same as H047, but in subsystem 4 | |
| H051 \$5 INVALID B VALUE | same as H047, but in subsystem 5 | |
| H052 PUS NO REFERENCE | The trailed opposed spindle is not locked | Check function. |
| H053 MAIN DRIVE TEMPERATURE EARLY WARNING | Main drive temperature \geq 120 °C | Check utilisation and ventilation of main drive. Press DRIVES OFF key. |
| H054 MAIN DRIVE TORQUE LIMIT | Main drive is operated at the torque limit (90 % of the normal maximum) | Check cutting data. |
| H055 APPROACH PX AXIS REF. PT. | see H002 | |
| H056 APPROACH PZ AXIS REF. PT. | see H002 | |
| H064 MAG PROGRAMMING ERROR | see magazine description | |
| H065 MAG INPUT ERROR | see magazine description | |
| H066 MAG INCORRECT | see magazine description | |
| H067 MAG PARAMETER ERROR | see magazine description | |
| H068 MAG COVER | see magazine description | |

| Display text | Cause | Remedy |
|-----------------------------------|---|--|
| H069 MAG SPINDLE ROTATING | see magazine description | |
| H070 MAG NO REFERENCE POINT | see magazine description | |
| H071 MAG END OF CHANGE TIME | see magazine description | |
| H072 MAG NO MOVEMENT | see magazine description | |
| H073 MAG ENCODER/HARDWARE | see magazine description | |
| H074 MAG PC PICTURE ALARM | see magazine description | |
| H075 MAG NO MATERIAL | see magazine description | |
| H076 MAG NO MATER./BAR TOO SHORT | see magazine description | |
| H077 MAG COMPONENT LENGTH | see magazine description | |
| H078 MAG POSITION COMPONENT | see magazine description | |
| H079 CHANGE MAG AT 100 % OVR | Change MAG at 100 % override | See magazine description |
| H080 IHS NO FOLLOW-UP PALLET | No further pallet with blanks on pallet conveyor | Insert pallet, move in new pallet. |
| H081 PALLET NOT IN START POSITION | First pallet with blanks not moved in correctly at start of machining | Abort program, move in a pallet, press RESET key. |
| H082 PALLET AT END POSITION | A pallet has reached the end of the transfer table | Remove pallet. If machine stopped, cycle can be restarted by pressing "AUTOMATIC START". |
| H083 PALLET NOT DETECTED | No pallet was detected within max. approach when approaching | Check pallet location and limit switch; press NC RESET key. |
| H084 PALLET WRONG DISTANCE | It has been tried to move pallet in though "0" increment distance indicated for first blank row | Correct contents of R2003 and B182..., resp. and re-start moving in; press RESET key. |



| Display text | Cause | Remedy |
|------------------------------------|--|--|
| H085 MONITOR NOT ACTIVE | Tool monitoring device is in pause mode or switched off | Activate monitoring device or press NC RESET key. |
| H090 \$1 GAUGING WITHIN ACC. RANGE | Measured value within programmed 'GO' range (\$1) | Is reset on G201 call-up, T call-up or by pressing RESET. |
| H091 \$1 GAUGING CORRECTION | Programmed tool is being corrected (\$1) | Is reset on G201 call-up, T call-up or by pressing RESET. |
| H092 \$1 GAUGING TOLERANCE ERROR | Measured value outside the programmed tolerance limit, no tool correction (\$1) | Change tool; confirm by pressing RESET. |
| H093 \$1 GAUGING POSITION ERROR | Infeed total of programmed tool exceeded (\$1) | Change tool, confirm by pressing RESET; reset infeed total. |
| H094 \$2 GAUGING WITHIN ACC. RANGE | see H090 (\$2) | |
| H095 \$2 GAUGING CORRECTION | see H091 (\$2) | |
| H096 \$2 GAUGING TOLERANCE ERROR | see H092 (\$2) | |
| H097 \$2 GAUGING POSITION ERROR | see H093 (\$2) | |
| H098 GAUGING OPEN TOLERANCES | Plus/minus tolerance limit set to maximum (independent of programming) (P = M = 30000 µm) | Activated/deactivated by softkey in screen: monitor/aux. funct./gauging. |
| H101 \$1 TOOL LIFE REACHED | Tool or replacement tool group is worn (\$1) -> last part -> stop after M30 | Change tool(s); reset tool life (\$1). Restart. |
| H102 \$2 TOOL LIFE REACHED | Tool or replacement tool group is worn (\$2) -> last part -> stop after M30 | Change tool(s); reset tool life (\$2). Restart. |
| H103 \$3 TOOL LIFE REACHED | Tool or replacement tool group is worn (\$3) -> last part -> stop after M30 | Change tool(s); reset tool life (\$3). Restart. |

| Display text | Cause | Remedy |
|--|---|--|
| H104 \$4 TOOL LIFE REACHED | Tool or replacement tool group is worn (\$4) -> last part -> stop after M30 | Change tool(s); reset tool life (\$4). Restart. |
| H105 \$5 TOOL LIFE REACHED | Tool or replacement tool group is worn (\$5) -> last part -> stop after M30 | Change tool(s); reset tool life (\$5). Restart. |
| H106 NO. PIECES REACHED | Required number of pieces stated is reached | Set actual value < required or required value = 0 and RESET. |
| H113 O/SP. WRONG PROGRAMMING | S or M instructions have been programmed for opposed spindle while synchr. running was selected | Rectify program; press RESET key. |
| H114 CHUCK 2 SECOND CLAMP. CONFIRM. ACTIVE | Key switch for selecting second clamping confirmation switched on. | Only message; is cancelled on deactivating second clamping confirmation. |
| H116 M34 PROGRAMMED AFTER M37/M38 | Wrong order when programming | Pay attention to programming instructions. |
| H120 LSV2: SEND BUFFER FULL | More than 250 characters in send buffer | Check the telegram format. |
| H121 LSV2: RECEIVE BUFFER FULL | More than 250 characters in receive buffer | Check the telegram format. |
| H122 LSV2: T0 TIME ELAPSED | Error in telegram execution | Check telegram execution and all LSV2 parameters. |
| H123 LSV2: T1 TIME ELAPSED | Error in telegram execution | Check telegram execution and all LSV2 parameters. |
| H124 LSV2: T2 TIME ELAPSED | Error in telegram execution | Check telegram execution and all LSV2 parameters. |
| H126 LSV2: I/O ERROR | The LSV2 interface cannot communicate | Check interfaces and their parameters. |
| H127 LSV2: ST, ZS, AL STORED | Automatic telegram output not possible. The last telegram was not terminated | LSV2 RESET Check the telegram execution and status mask. |



CRT displays
Display texts

| Display text | Cause | Remedy |
|--------------------------------------|---|---|
| H197 F-KUMO COMPILER RUN | The customer-specific F-Kumo program is compiled | See F-Kumo description. |
| H198 ACTIVATE F-KUMO | The customer-specific F-Kumo program is correctly compiled | Activate F-Kumo section (see F-Kumo description). |
| H199 F-KUMO COM- PILER ERROR | The customer-specific F-Kumo program contains programminig errors | Correct programming errors (see F-Kumo description). |
| H200 PROG. 99999 NOT PRESENT | The customer-specific F-Kumo program not present | See F-Kumo description. |
| H201 F-KUMO DISPLAY MESSAGE 01 | Display message programmed via F-Kumo | See error description of individual customer. |
| H202 F-KUMO DISPLAY MESSAGE 02 | Display message programmed via F-Kumo | See error description of individual customer. |
| H203 F-KUMO DISPLAY MESSAGE 03 | Display message programmed via F-Kumo | See error description of individual customer. |
| H204 F-KUMO DISPLAY MESSAGE 04 | Display message programmed via F-Kumo | See error description of individual customer. |
| H205 F-KUMO DISPLAY MESSAGE 05 | Display message programmed via F-Kumo | See error description of individual customer. |
| H206 F-KUMO DISPLAY MESSAGE 06 | Display message programmed via F-Kumo | See error description of individual customer. |
| H207 F-KUMO DISPLAY MESSAGE 07 | Display message programmed via F-Kumo | See error description of individual customer. |
| H208 F-KUMO DISPLAY MESSAGE 08 | Display message programmed via F-Kumo | See error description of individual customer. |
| H209 F-KUMO DISPLAY MESSAGE 09 | Display message programmed via F-Kumo | See error description of individual customer. |
| H210 F-KUMO DISPLAY MESSAGE 10 | Display message programmed via F-Kumo | See error description of individual customer. |

NC error displays

Operating errors in EDIT and IN/OUT: E...

| Error display | Cause | Remedy |
|--------------------|--|--|
| E01 SETTING ERROR | Input of a value without # number | |
| E02 DATA OVER | Input value has too many places | Enter correct value. |
| E03 NO. NOT FOUND | Wrong address for parameter value; address does not exist | |
| E04 DEV. NOT READY | Interface power supply absent; cable not connected | |
| E05 NOT ACCEPTABLE | Data input of APLC counters and times locked; tool input PLC locked; key word E71 locked | Set corresponding bit under #49: 0 = 1 times 1 = 1 counter |
| E06 NO SPEC | An unspecified menu key has been pressed; an attempt has been made to enter a non-existent parameter | |
| E07 RESET END | Input/output operation has been aborted by NC RESET or an error display | |
| E08 PHYSICAL ERR | Wrong parameter value for interface in NC or on external unit | |
| E09 TIME OUT | Monitoring time for input/output function set too short | |
| E10 MEMORY OVER | Existing memory capacity is used up; max. possible input range in MDI exceeded | Delete programs. |




| Error display | Cause | Remedy |
|---------------------|--|---|
| E11 PROG.NO.DUPLI | Program number already exists in NC memory | |
| E12 FILE ENTRY OVER | Max. number of program numbers reached | Delete programs. |
| E13 NR NOT FOUND | Block with specified BLOCK number is missing | |
| E14 PROG. NOT FOUND | Program number used does not exist in memory | |
| E15 EDIT LOCK B | Input locked for program B and C for editing | |
| E16 EDIT LOCK C | Input locked for program C | |
| E17 PARITY H | Parity error in input format; horizontal number of positions faulty | |
| E18 PARITY V | Parity error in input format; vertical number of positions faulty | |
| E20 OVER RUN ERROR | Data overflow during data input/output | Check control characters and parameters |
| E21 PROGRAM RUNNING | Attempt was made to edit in an elapsed program; attempt was made to edit parameters in a running program; attempt was made for SET UP in a running program | |
| E22 CODE CHANGE ERR | Wrong code on punched tape etc. | |
| E23 NOT ADD I/O | No interface print installed | |
| E24 PLC RUNNING | An attempt was made to read in, read out or compare machine parameters while the PLC is not in stop mode | |



| Error display | Cause | Remedy |
|--|---|---|
| E25 DATA MEMORY ERR | Data error on punched tape, etc., for ex. correction or tool data have too many positions | |
| E26 NO CHARACTERS | Nothing found in a search for a specific character or character sequence (string) | |
| E30/ E40 INTERFACE ERROR | Interface cannot carry out communication | Check interface and its parameters. |
| E35 COMPARE ERROR | Wrong or different data when comparing programs | Should one of these errors occur when editing or reading data in/out, the memory must be checked. |
| E50 FILE ERR E51 FILE OPEN ERROR E52 FILE CLOSE ERR E53 ERROR E54 FILE SELECTION E55 ERROR E56 FILE READ ERROR E60 FILE DELETE ERROR FILE INSERT ERROR I/O CHANNEL ERROR | Additional error numbers for error displays E50.. and E60.. Errors E.. 04 Time out 05 Hardware fault 07 Control alarm 10 Power supply absent 15 Parity, horiz. 16 Parity, vertical 17 Data overflow 18 Data conversion error | |
| E61 MODE SELECT | | |
| E62 I/O PARAM ERROR | | Check parameters. |
| E63 MODE/PARAM ERROR | | Check parameters for mode used. |
| E64 PROGRAM NO. ERR | Program number already exists in memory | |
| E65 PROGR.NO. DUPLI | When reading, access to a program number already in use | |



| Error display | Cause | Remedy |
|------------------------|---|---|
| E66 NO PROG. NUMBER | There is no program number on punched tape, etc. | Set program number and repeat input. |
| E70 ROOL NO. DUPLI | Data already assigned to entered tool number | |
| E71 TOOL ENTRY OVER | A tool number has been entered that no longer exists in tool file | |
| E76 TOOL NO. ERROR | Illegal offset No. when gauging | Select correct tool. |
| E77 NO AXIS REF. POINT | No ref. point of axis to be gauged | Approach ref. point. |
| E78 AX UNMATCH* (TLM) | Two or more axes traverse while measuring probe for automatic tool length determination is operative | |
| E79 NO REF-RTN (ATC) | Axis has no reference point when approaching with measuring probe | |
| E80 TOP SEARCH ERR | Start address not found in as search | |
| E81 PROGRAM ERR | | |
| E82 ALREADY RESERCH | | |
| E83 COUNT OVERFLOW | | |
| E84 CAN'T IN/OUT | During a running input/output operation, an attempt has been made to start a different input/output routine | |
| E85 LINE BUSY | Communication between DNC and host computer is active | Interface activated; waiting for data transfer. |
| E86 INPUT DATA ERR | Tool correction data wrong or faulty; wrong program values or parameter tapes | |

| Error display | Cause | Remedy |
|--------------------------------|---|--|
| E87 NOT EDIT PROG. | Playback not allowed in a fixed cycle; no subroutine has access to playback | |
| E88 CAN'T ADD BLOCK | Wrong operating mode for playback | On the left side of CRT search for end of playback by means of cursor  and then enter data. |
| E91 \$ NUMBER ERR | Wrong subsystem | |
| E92 SET POINT OVER | | |
| E100 ILLLEGAL # NUMBER | An attempt was made to input a program block with an invalid line number | Select another line number. |
| E101 ILLEGAL G CODE | In "TRAUB format" an attempt was made to input a G code not specific to it | Edit in free format. |
| E102 ADDRESS FORMAT | Incorrect address data in an NC block (when editing) | |
| E103 INPUT FORMAT ERROR | Incorrect format data | |
| E104 COPY RANGE EXCEEDED | | |
| E105 DATA INPUT BLOCKED | | Set key switch to data release. |
| E106 ILLEGAL 2ND G CODE | Invalid combination of two G codes in one NC block | |
| E110 ONLY \$1 SYSTEM | An attempt was made to switch to 2nd subsystem on a machine with only one subsystem | |
| E111 SUBSYSTEM SELECTION ERROR | | |
| E120 INPUT ERROR | | |
| E130 PUNCHED TAPE ERROR | | |



CRT displays
NC error displays

| Error display | Cause | Remedy |
|------------------------|-------|--------|
| E131 ASSIGNMENT ERROR | | |
| E132 BAUDRATE TOO HIGH | | |

خدمات فنی مهندسی نظری

0912-5159577

General operating errors: ...

| M01 Operating error <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> Error number | | The error display "M01 operating error" is always output in conjunction with an error number (of an axis name, if necessary). e.G. M01 operating error 0007 X | |
|---|-------------------------|---|--|
| Error display | Cause | | Remedy |
| 0001 | TRIP DOG OVERRUN | Trip dog overrun (axis zero mark) when approaching spindle reference point | Reduce approach speed. |
| 0002 | NO REFERENCE POINT | One of the machine axes has not found the reference point | Move in front of trip dog and approach again ref. point in "reference point" mode. |
| 0003 | WRONG DIRECTION KEY | Wrong key used to approach reference point | Use correct key. |
| 0004 | EXTERNAL FEED INTERLOCK | External signal for feed interlock exists | This signal must become zero to cancel feed interlock. |
| 0005 | CONTROLLER DISABLED | Axis amplifiers have controller disabled signal (servo OFF); axis traverse possible after controller enabling | |
| 0006 | HARDWARE END LIMIT | One axis has contacted the hardware limit switch | Clear axis by moving it in opposite dir. |
| 0007 | SOFTWARE LIMIT | One axis has contacted the entered software limit | Clear axis by moving it in opposite dir.; if necessary, check parameter. |



| Error display | Cause | Remedy |
|---------------|--|---|
| 0008 | BARRIERS Entered end limit points for chuck and/or tailstock reached | Press RESET and clear in opposite direction. |
| 0009 | WRONG REFERENCE POINT Wrong reference point number has been entered | Approach first reference point in program or manually. |
| 0101 | NO MODE No mode of operation is selected | Check switches; check line to interface. |
| 0102 | NO FEED VALUE | Check limit switch position; check program; feed rate value programmed; check signal line in CHECK picture. |
| 0103 | ZERO RAPID TRAV./FEED RATE Feed rate or rapid traverse switch set to zero | Check switch position. |
| 0105 | SPINDLE STOP Spindle not rotating despite speed programming | Check program; check pulse encoder + line and cable of spindle. |
| 0106 | NO MANUAL TRAVEL An axis has been selected which cannot be moved manually | Check manual travel signal; check handwheel; select correct axis; check parameter of existing axis. |
| 0107 | EXCESS SPEED Spindle has reached excessive speed during threading | Reduce programmed speed. |
| 0108 | FIXED POINT AXIS NUMBER ILLEGAL | |
| 0109 | START LOCKED A "feed stop" signal is present | Check program; reset feed stop (interlock) signal. |
| 0110 | FEED STOP G1 feed stop signal is active | Check program; reset feed stop signal. |
| 1001 | MANUAL TRAVEL LOCKED Axis to be traversed in set-up mode is assigned to a different subsystem | |



| Error display | Cause | Remedy |
|---------------|--|--|
| 1002 | WRONG SERVO DESIGNATION | Check #16 check parameter; designation of servo print incorrect. |
| 1003 | WRONG TRAVEL DATA When programming axis allocation: wrong travel data programmed as a function of subsystem | |
| 1004 | INADEQUATE AXIS ALLOCATION More than three allocation commands programmed; axis superimposing programmed during interpolation | Check program. |
| 1005 | ILLEGAL G114 TO G116 COMMAND G114 to G116 programmed while G114 to G116 is already selected | Check program. |



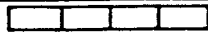

General operating errors: M02...

M02 Approach ref. point
 Error number
 (Error with absolute measurement system)

The error display "Approach M02 ref. point" is always output in conjunction with an error number e.g. M02 0007



| Error display | Cause | Remedy |
|---------------|--|---|
| 0001 | MEASURING SYSTEM ERROR Data of absolute measuring system | Approach reference point via trip dog. |
| 0002 | ABSOLUTE ENCODER ERROR | Approach reference point via trip dog in "reference point" mode |
| 0003 | ZERO POINT ERROR Permissible tolerance value for machine zero point entered by parameter (abs/mt) exceeded | Approach reference point. |
| 0004 | APPROACH REF. POINT For automatic program execution the reference points of all axes concerned must have been approached. | |

Abort criteria: T01..../T02..../T03..../T04....

| T01 | |  Error number | The error display "T01" is always output in conjunction with an error number, e.g. T01 0007. |
|---------------|----------------|---|--|
| Error display | Cause | | Remedy |
| T01 | NO CYCLE START | An NC cycle stop signal is present; no cycle start can be executed with this status | Check mode of op.; check SET UP program. |
| 0101 | AXIS TRAVERSE | At least one axis is traversed, but cycle start is only possible when all axes are stopped | |
| 0102 | NOT READY | An NC alarm is present | This NC alarm must be removed. |
| 0103 | RESET | RESET signal is present; automatic start therefore not possible | |
| 0104 | AUTOSTOP 1 | Automatic stop signal is present | Check program. |
| 0105 | LIMIT STOP | Hardware limit switch "machine limit" has been reached | Clear in opposite direction in set-up mode |
| 0106 | SOFTWARE LIMIT | The entered limit position has been reached | Clear axis in opposite direction in set-up mode. |
| 0107 | MODE | "Automatic" oder "MDI" mode must be selected | Check mode selector switch. |
| 0108 | TWO MODES | Two modes are active simultaneously | Check position of mode selector switch and mode signal. |
| 0109 | MODE CHANGE | | Select correct mode (automatic mode); press  cycle start. |



| Error display | Cause | Remedy |
|---------------|--|---|
| 0110 | PROGRAM INPUT Selected program is edited in EDIT mode; cycle start therefore not possible | |
| 0111 | READ-IN STATUS Program is being read in; this program can only be started after termination of complete read-in cycle and subsequent SET-UP | |
| T02 | <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> Error number | The error display "T02" is always output in conjunction with an error number e.g. T02 0201. |
| Error display | Cause | Remedy |
| T02 | FEED STOP A feed stop signal is present | Automatic start can take place only after eliminating feed stop situation. |
| 0201 | LIMIT STOP Hardware limit switch \$2 reached | Clear axis in opposite direction in set-up mode. |
| 0202 | SOFTWARE LIMIT Limit entered in \$2 reached | Clear axis in opposite direction in set-up mode. |
| 0203 | NC RESET RESET signal has been sent; program is aborted and reset to first block (program start) | |
| 0204 | AUTOSTOP 2 Automatic stop signal 2 (feed stop) is present | Check program. |
| 0205 | MODE CHANGE | Select correct mode. |

| | | | |
|----------------------|-----------------------|---|---|
| T03 | | <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> Error number | The error display "T03" is always output in conjunction with an error number, e.g. T03 0201. |
| Error display | Cause | | Remedy |
| T03 | BLOCK STOP | Execution of program aborted after termination of one single block | |
| 0301 | SINGLE BLOCK | Single block signal is present; program is only executed block by block | |
| 0302 | USER MACRO STOP | A block stop has been executed in this user program. | Press key  |
| 0303 | MODE CHANGE | | Select "Automatic" mode; press  key. |
| 0304 | MDI END | Program entered in MDI has been executed | |
| T04 | | <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> Error number | The error display "T04" is always output in conjunction with an error number, e.g. T04 0201. |
| Error display | Cause | | Remedy |
| T04 | COMPARISON TERMINATED | | |



Servo errors: S....

| Error display | Cause | Remedy |
|---|--------------------|---|
| <p>Note: It is a servo error when, besides the error number, the relevant axis is also displayed.</p> | | |
| S01 | SERVO ALARM □□ | Servo alarm present; error of axes can be read on CRT (screen) and additionally on servo amplifier |
| 10 | UNDERVOLTAGE | Remedy alarm; switch NC off. |
| 11 | EXCESS SPEED 2 | Axis speed is too high; nominal value is too high |
| 12 | MEMORY ERROR 1 | Memory error (RAM) on servo amplifier or on control print |
| 13 | CLOCK SIGNAL ERROR | Time monitoring of servo amplifier tripped |
| 14 | WATCHDOG | Check supply voltage of servo amplifier; check for voltage drops of ≥ 25 ms. |
| 15 | MEMORY ERROR 2 | Dual port RAM checksum error; malfunction on connecting cable between CNC and servi; parity error on initialization |
| | | Check parameter, ball screw pitch error, speed, regulation. |
| | | Check connector of serial servo interface; check RF01 print and replace, if necessary; initialize servo amplifier. |
| | | Check connectors and connection lines servo and NC; if necessary, replace print TF01. |
| | | Check connectors; check EPROM - is it plugged in properly? Replace print RF01 or additionally plug in RF31/3. |
| | | Switch on/off again; check axis control group for loose connectors; replace, if necessary. |




| Error display | Cause | Remedy |
|---------------|------------------------------|--|
| 16 | MAGNETIZATION ERROR | Check pulse encoder; check connector; cable breakage?; check servo param. STY and MTY; if everything is OK, replace control modules. |
| 17 | SETPOINT ERROR | Fault on print RF01; A/D converter not correctly installed OFF/ON switch or replace RF01 print, if necessary. |
| 20 | NO FEEDBACK SIGNAL 1 | Defective encoder or encoder plug not plugged in |
| 21 | NO FEEDBACK SIGNAL 2 | Defective encoder or encoder plug not plugged in |
| 22 | NO FEEDBACK SIGNAL 3 | Defective encoder or encoder plug not plugged in |
| 24 | DETECTION OF EARTH FAULT | One of the 3 phases (U, V, W) possibly has an earth contact |
| 25 | BATTERY ALARM | Batteries of absolute value encoder must be exchanged; after exchange, approach ref. point to protect data. |
| 26 | ALARM AT UNUSED AXIS SECTION | Overcurrent detected in power unit of an unused half of dual amplifier Check power driver. |
| 27 | INTERNAL CYCLE ERROR | The servo-internal oscillator is defective |



| Error display | Cause | Remedy |
|---------------|--|---|
| 30 | OVERCURRENT Excessive current needed for acceleration or deceleration | Increase start-up/brake ramps; check OTR parameter; reduce rapid traverse speed; additionally install braking unit; replace braking unit. |
| 31 | EXCEEDS SPEED Limit speed of motors exceeded -> 2400 or 2600 rpm | Check parameters; check acceleration/deceleration time constant; check gain V61 PGN; check parameter MTY RNG-PIT; check cable and encoder; check smallest traverse increment. |
| 32 | OVERCURRENT Motor control shorted or earthing. | Replace servo cable; check STY signal direction of rotation; replace encoder; replace control print RF01; replace complete converter (power section). |
| 33 | OVERVOLTAGE DC component higher than 400 V | Check braking unit and connection; check servo parameters for correct values. |
| 34 | PARITY ERROR Transmission errors occur during data transfer between CNC and servo amplifier | Check CN1A, CN1B connectors; check connecting cables; if necessary, measure interferences (peaks); replace MC611/MC632. |
| 35 | SERVO DATA ERROR | Check programmed traverse speed; check connectors and connecting cables; check for malfunction and, if necessary, replace MC611/MC632 control group. |

| Error display | Cause | Remedy |
|--|---|--|
| 36 | TRANSMISSION ERROR No data transmission between CNC and servo amplifiers | Rectify as described in S0135. |
| Note: It is a servo error when, besides the error number, the relevant axis is also displayed. | | |
| S02 | INIT PARAM ERROR <input type="checkbox"/> | Parameter transmission from CNC to axis amplifiers was faulty Switch off/on again. |
| 37 | PARAMETER ERROR Errors have occurred during parameter transmission | |
| Note: It is a servo error when, besides the error number, the relevant axis is also displayed. | | |
| S03 | SERVO ALARM <input type="checkbox"/> | Number of axis concerned is displayed; read error off the axis After error rectification, display can be cancelled by NC RESET. |
| 42 | | Encoder error 1 Encoder error of motor encoder |
| 43 | | Encoder error 2 Encoder error in closed loop operation |
| 44 | | Encoder error |
| 45 | OVERTEMPERATURE | Temperature monitoring of axis amplifiers has responded; mechanical axis resistance Check current consumption; if necessary, replace temperature monitor. |
| 46 | MOTOR TEMPERATURE | Check motor and mechanism; if necessary, replace motor. |
| 50 | OVERCURRENT 1 | Time out for max. motor current set with parameters OLL and OLT; incorrect U, V, W wiring; mechanical resistance Rectify servo parameters. |



| Error display | Cause | Remedy |
|--|--|--|
| 51 | OVERCURRENT 2 95 % of max. permissible overcurrent has been needed for more than 0.5 s | Increase time constant; reduce current consumption; set servo parameters; check encoder cable; check for mechanical resistance. |
| 52 | POSITION ERROR 1 Machine position is outside the defined error window | Check OD1 parameter; check U, V, W wiring; check time constant - acceleration/deceleration; replace encoder; adjust amplifier VG1 PGN. |
| 53 | POSITION ERROR 2 The machine position is outside of the defined error window (when servo "off") | Check OD2 parameter. |
| 54 | AMPLIFIER OVERLOADED Amplifier was overloaded for longer than a preset time | |
| 55 | EMERGENCY STOP An EMERGENCY STOP signal has been triggered by the control system or the servo amplifiers | |
| 56 | AXIS ALARM Alarm CN1 triggered on one axis; "READY" missing | Read alarm off the servo amplifiers; check input voltage; contactor for power supply on control amplifier not activated. |
| Note: It is a servo error when, besides the error number, the relevant axis is also displayed. | | |
| S52 | SERVO WARNING  Name of axis where an error has occurred, is displayed | |
| E0 | OVEREXCITATION 80 % of permissible overload of servo motor reached | |
| E1 | OVERCURRENT 80 % of permissible overcurrent reached | |

| Error display | Cause | Remedy | |
|---|-----------------------------------|---|--|
| E3 | POSITION ERROR AT ABSOLUTE SENSOR | The absolute position counter value is incorrect. - Absolute sensor, - cable, - or supplementary plate for absolute sensor signal evaluation (on servo) is defective | |
| E4 | PARAMETER ERROR | A wrong parameter or value has been set | |
| E5 | POSITION ERROR | The absolute measuring system is not operating correctly | LX value servo screen is $278 < LX < 4722$ or $LX > 5070$; approach reference point; if necessary, replace measuring encoder and/or print TF33. |
| E6 | LIMIT STOP | Limit stop has been reached; speed control has been interrupted | |
| E7 | NC EMERGENCY STOP | Control system signals an EMERGENCY STOP situation to the servo amplifiers | |
| <p>Note: It is a servo error when, besides the error number, the relevant axis is also displayed.</p> | | | |
| S51 | PARAMETER ERROR | | |



Spindle errors: S... ..

| Error display | Cause | Remedy |
|--|---|--|
| <p>Note: It is a spindle error when, besides the error number, no axis number is displayed.</p> | | |
| S01 | SERVO ERROR: PR <input type="text"/> | Alarm can only be removed with NC OFF. |
| S03 | SERVO ERROR: NR <input type="text"/> | Alarm can only be removed with NC OFF. |
| 10 | VOLTAGE TOLERANCE | Supply voltage has exceeded or fallen below correct value by 10 - 15 %; a voltage drop of ≥ 15 ms has taken place |
| 12 | MEMORY ERROR 1 | Check EPROM; check RAM and PAL components for correct fit (all PINs). |
| 15 | MEMORY ERROR 2 | Errors in communication between CNC and spindle |
| 17 | COMPONENT FAULT | SF-CA/STJ-CAT control board on converter of main drive has component fault |
| 20 | NO TACHO SIGNAL | Encoder installed in motor issues incorrect signal |
| 21 | NO ENCODER SIGNAL | Measure voltage level - peak 3 V; if deviation is excessive: exchange RAM encoder print or encoder. |
| 22 | SF-CA BOARD CONTACT FAULT | Check CONB cable; exchange encoder; spindle positioning? |
| | | Check installation of SF-CA print; exchange print, if necessary |

| Error display | Cause | Remedy |
|---------------|--|--|
| 23 | SPEED TOLERANCE | Set parameter VK1=0 to 1; if motor rotates without speed display in control system: check encoder; check phase u, v, w; check connecting cables. |
| 24 | FUSE BLOWN | Check complete controller; if necessary, exchange SF-CA print or complete unit. |
| 25 | BRAKING UNIT MALFUNCTION | Check supply voltage; switch on again; exchange SF-CA print; exchange braking unit. |
| 26 | PHASE ERROR | Check voltage of the three phases; check power supply fuse. |
| 27 | CPU ERROR | Parameter data? Check NC spindle parameters and motor parameter list. |
| 31 | OVERSPEED Max. speed exceeded by 15 % | Max. speed too high; wrong parameter setting (excessive oscillations); check VKP and VKI gain; set VKP=63, VK1=1 if an error occurs; exchange SF-CA/SFJ-CA1 print; optimize motor. |
| 32 | OVERCURRENT Short circuit? | Set parameter 02 on main drive amplifier to correct value; measure power supply. voltage wave form and phase shift, etc.; exchange converter. |



| Error display | Cause | Remedy |
|---------------|---|---|
| 33 | OVERVOLTAGE Overvoltage during braking | Check power supply; check as described in S0332; no phase failure: exchange converter. |
| 34 | PARITY ERROR Transmission error between CNC and converter; disturbance on line | |
| 35 | DATA ERROR | Check cable connection; see also alarm S0315; plug connection tightened, firmly? |
| 36 | TRANSMISSION ERROR | Exchange MC611/MC632. |
| 37 | PARAMETER ERROR | Check parameter data in spindle picture CNC and on converter (list). |
| 45 | OVERTEMPERATURE Ambient temperature too high | Check fan (temperature control system); check temperature monitor; exchange SF-CA/SFJ-CA1 print; reduce current consumption (parameter). |
| 46 | MOTOR TEMPERATURE Overload of motor; motor fan not running; braking or acceleration time too short; fan of braking unit not running; TB2 or CON2 interrupted | FR-SF connections: check OHS1-CON2 pin 3 and OHS2-CON2 pin 2; FR-SFJ connections: check AL1 and A TB2 or AL2 and B. |
| 52 | POSITION ERROR Encoder produces incorrect value; parameter ORS2 has incorrect value | |
| 55 | EXTERNAL EMERGENCY STOP | Eliminate EMERGENCY STOP situation; FR-SFJ connection: parameter 09 must be on 3; check CON1 pins 47 and 10 for short circuit; check parameter 0A=3 pins 48 and 10 for short circuit. |

| Error display | Cause | | Remedy |
|---|---|--|--|
| 56 | SERVO ERROR | Termination resistor missing | Check fastening screws. |
| 57 | MODULE MISSING | An option print is missing | Install appropriate option print. |
| <p>Note: It is a spindle error when, besides the error number, no axis name is displayed.</p> | | | |
| S52 | AXIS ERROR <input type="checkbox"/> <input type="checkbox"/> | Spindle warning | Check alarm display on main spindle drive. |
| E0 | VOLTAGE DROP | Voltage drop has occurred in power supply | |
| E1 | OVERLOAD | Motor or converter is overloaded | Check working cycle. |
| E4 | PARAMETER ERROR | A parameter value is outside the permissible range | |
| E7 | NC EMERGENCY STOP | EMERGENCY STOP signal applied to converter by the control system | |



Module alarms: Y... ..

| Error display | Cause | Remedy | |
|---------------|---------------------------------|---|---|
| Y01 | MEMORY ALARM []]]]] | Error in RAM or EPROM area | |
| 0001 | LOC. RAM ERROR | Error in RAM area of print MC111 or MC411 | |
| 0002 | DP. RAM ERROR | Error in dual port RAM area | Exchange print MC111 or MC611. |
| 0004 | EPROM ERROR | Error on ROM print | Exchange print MC111. |
| Y02 | SYSTEM ALARM [] [] [] [] | After switching on, an error occurs on data transfer between axis control print and servo amplifier | |
| 0002 | BUS ERROR | | Check plug-in connection and plug-in prints incl. cables. |
| 0003 | ADDR. ERROR | Access to wrong address | Reinitialize or set correct address. |
| 0004 | WRONG COMMAND | Wrong command has been issued | Check parameters. |
| 0005 | DIVISION BY ZERO | Not possible! | Modify program. |
| 0050 | ERROR BACKGROUND MACHINING | | |
| 0051 | ERROR DATA TRANSFER | | |
| 0052 | CHECKSUM ERROR | | |
| 0057 | NO OPT. CARD | | Supply opt. card. |
| 0060 | PARITY ERROR | | Software or hardware error |
| 0061 | PARITY ERROR | | Software or hardware error |
| 0062 | PARITY ERROR | | Software or hardware error |
| 0063 | PARITY ERROR | | Software or hardware error |
| 0064 | PARITY ERROR | | Software or hardware error |
| 0065 | PARITY ERROR | | Software or hardware error |



| Error display | Cause | Remedy |
|---|---|--|
| 0066 | Parity error | Software or hardware error |
| 0067 | Parity error | Software or hardware error |
| 0068 | Parity error | Software or hardware error |
| 0069 | Parity error | Software or hardware error |
| 0070 | Amplif.interface error | Software or hardware error |
| 0071 | Amplif.interface error | Software or hardware error |
| 0072 | Amplif.interface error | Software or hardware error |
| 0073 | Amplif.interface error | Software or hardware error |
| 0074 | Amplif.interface error | Software or hardware error |
| 0075 | Amplif.interface error | Software or hardware error |
| 0076 | Amplif.interface error | Software or hardware error |
| 0077 | Amplif.interface error | Software or hardware error |
| 0078 | Amplif.interface error | Software or hardware error |
| 0079 | Amplif.interface error | Software or hardware error |
| Y03 AMPL UNEQUIPPED □ □ □ □ | Axis not connected; connection amplifier missing | Check param. "sfig"; check cable connection; check plug-in connection; check power supply; check axis assignment (switch axis 1=0, axis 2=1). |
| Y04 MCP RAM PARITY ERROR □ □ □ □ | | Exchange servo control module MCP. |
| Y05 INIT PARAM ERROR □ □ □ □ | Initialization error Parameter transfer CNC → servo and EPROM → RAM when switching on, NC start-up faulty | Switch off/on again. |



| Error display | Cause | Remedy |
|---------------|---|---|
| 0001 | INPUT ERROR Internal software data, E ² PROM wrong | Check parameters of main drive servo amplifier. |
| 0002 | INVALID PARA- METER VALUE | Check parameter #19RNG, #2PC2 in servo monitor and set to permissible values. |
| 0003 | PARA GEAR SPEED 1 No values entered in para- meters #19RNG, #2PC2 | |
| 0004 | PARA GEAR SPEED 2 Parameters #18 Pit and #1 PC1 missing or not set correctly | |
| Y06 | MCP NO. ERROR □ □ □ □ □ | |
| 0001 | PLC AXIS ERROR An axis controlled by the PLC not set correctly in parameter field | Check MCP No. |
| Y07 | S OUTPUT ERROR □ □ □ □ □ | |
| 0001 | S output double entry | Check parameter P1 # 25 sout. |
| 0002 | S name double entry | Check parameter P1 # 25 sname. |
| 0003 | S output and S name incorrectly designated | Check parameter P1 # 25 + # 26. |
| Y51 | PARAMETER ERROR □ □ □ □ □ Wrong axis motion triggers alarm when axes are being controlled | |
| D001 | RAPID TRAVERSE ERROR Parameter #4 LG0t has wrong value or is not set | Check linear acceleration or braking. |
| D002 | FEED RATE ERROR Feed rate wrong during acceleration and braking; parameter is not set | Check PARA #7 LG1t. |
| D003 | GO BRAKING RAMP Check parameter #5 G0t and set to valid value. | |
| D004 | G1 BRAKING RAMP Check parameter #8 G1t and set to valid value. | |

CRT displays
NC error displays



| Error display | Cause | Remedy |
|-----------------------------|---------------------------------------|------------------------|
| 0009 | Incorrect Grd spc parameter value. | #4 grdspc must be > 0! |
| Y52 REF.PT.ERROR □□□□ | | |



System alarms: Z../P...

| Error display | Cause | Remedy |
|----------------------|---|--|
| Z01 WATCHDOG | Time monitoring of CNC hardware has responded | Check corresp. print and exchange, if necessary. |
| Z02 SYSTEM ERROR | Software error | Exchange software. |
| Z03 MEMORY ERROR | This alarm occurs if wrong data have been used for arithmetic functions | Delete memory; exchange software; exchange memory print. |
| Z04 MEMORY DISABLED | Access to inadmissible function (option) | Set corresponding option. |
| Z05 DIVIDE BY ZERO | Not possible! | Modify program. |
| Z06 CAN'T LOAD MFD | No drive system available; floppy defective; wrong jumper has been set | |
| Z07 CRC ERROR | | |
| Z08 CRC ERROR | | |
| Z09 REMOTE I/O ERR | Connection to second rack not OK or second rack is defective | |
| Z50 INVALID IR | | |
| Z51 EEROM ERROR | | |
| Z52 BATTERY ALARM | Buffer battery exhausted or defective | Charge battery or exchange battery; check parameters and program data. |
| Z53 TEMP. EXCEEDED | | |
| Z54 DIO 5V ERROR | | |
| Z55 DIO 24V ERROR | | |
| Z56 FIX P REENTRY | | |
| Z57 MC 472/472 ERROR | MC 471/472 card is missing or defective | Hardware defective. |
| Z58 MC 462 ERROR | MC 462 card missing or defective | Hardware defective |
| Z59 MEM BX ERROR | MEM BX card missing or defective | Hardware defective |

**CRT displays
NC error displays**



| Error display | Cause | Remedy |
|---------------------|--|--------------------|
| Z60 MEM D0 ERROR | MEM D0 card missing or defective | Hardware defective |
| Z61 MEM D1 ERROR | MEM D1 card missing or defective | Hardware defective |
| Z62 MEM D0/D1 ERROR | MEM D0 and D1 cards missing or defective | Hardware defective |



General information in MDI, IN/OUT and simulation

| | |
|------------------------------------|---|
| EDIT displays | |
| Error display | Cause → and, if necessary, remedy |
| SEARCH EXECUTION | Program is searched through; no error, only message |
| SEARCH COMPLETE | Programm has been found; program call-up terminated completely; no error, only message |
| BUFFER EDIT | Buffer edit mode has been selected |
| INPUT/OUTPUT NOT ACTIVATED | -> Select IN/OUT mode |
| MDI displays: | |
| MDI NO SETTING | Only MDI mode selected; no data available in MDI memory for processing |
| SET UP MDI COMPLETE | Activation of an MDI program terminated; program can be run |
| MDI ENTRY COMPLETE | Data input in MDI mode done correctly and completely |
| MDI RUNNING | Program defined in MDI is running |
| PUSH KEY SEARCH/ PRG | Search for program and active it to obtain an executable program |
| EDITING | Program input mode is active; a program is being edited |
| PROGRAM RUNNING | Program to be edited is running; do not edit when machine is at standstill! |
| Data IN/OUT displays: | |
| DATA IN EXECUTION | Data are read in correctly |
| E ² RCM DATA STORAGE | Data read in by means of parameter tape are being stored in E ² RCM memory |
| DATA PROTECTING | Reading-in of data completed |
| COMPARE EXECUTION | Program or data comparison between punched tape, etc. and NC memory contents running correctly |
| COMPARE COMPLETE | Data comparison has been terminated |
| DATA OUT EXECUTION | Data output to interface ius taking place |
| DATA OUT COMPLETE | Data output has been terminated |
| ERASE EXECUTION | Memory is being deleted correctly |

| Error display | Cause -> and, if necessary, remedy |
|----------------------------|---|
| MERGE EXECUTION | Merging of several programs in one has been called up and is taking place |
| MERGE COMPLETE | |
| ERASE COMPLETE | |
| COPY EXECUTION | Copying is taking place correctly |
| COPY COMPLETE | |
| CONDENSE EXECUTION | Available data memory is being compressed |
| CONDENSING COMPLETE | |
| NC. CHANGE EXECUTION | |
| NC. CHANGE COMPLETE | |
| Graphics | |
| SIMULATION | The program execution is graphically simulated |
| TEST RUN | Program is being run in graphics mode trace |
| Auxiliary functions | |
| DATA INPUT DISABLED | Data input switch is not set to INPUT |
| PROCEDURE COMPLETE | Research complete |
| EXECUTE PROCEDURE | Research execution |
| VARIABLE ERROR | Variable convert. err. |



Programming errors: P...

| Error display | Cause | Remedy |
|----------------------|--|---|
| P10 EXCS. AXIS NO. | Too many addresses have been specified in this block | Check program; check number of axes (parameters). |
| P11 AXIS ADD. ERROR | Wrong axis designation; axis address contained in program, but parameter for this axis is not set; axis does not exist | |
| P20 DIVISION ERROR | Input value is smaller than smallest increment | Check parameters of smallest output resolution. |
| P30 PARITY H | Parity error on punched tape | Check punched tape. |
| P31 PARITY V | Odd number of characters in one block | Modify block or reset parameter. |
| P32 ADDRESS ERROR | Wrong address letter used | Correct program. |
| P33 FORMAT ERROR | Entered values do not correspond to permissible format | Correct program. |
| P34 G-CODE ERROR | G value contains errors or is inadmissible | Correct program. |
| P35 CMD. VALUE OVER | Max. number of address letters exceeded | Modify program. |
| P36 PROGRAM END ERR | No M30/M99 on punched tape or in subroutine | Complete program. |
| P37 PROG. NO. ZERO | "0" is not allowed as a program number | Correct program. |
| P38 NO BLOCK SKIP | | |
| P39 NO SPEC ERR | | |
| P40 PREREAD BL ERR | | |
| P50 NO INCH/MM SPEC | No parameter switching for inch/mm | |
| P60 OVER COMP. LENG. | Programmed traverse exceeds max. permissible value | Check input. |

| Error display | Cause | Remedy |
|--------------------------|---|---|
| P61 NO S-DIR SPEC | | Check spindle parameter; check program. |
| P62 F-CMD NOTHING | | Enter feed rate value in program. |
| P63 NO G5 SPECI- FIED | Not used at TRAUB | |
| P70 ARC ERROR | | Check start and end points of geometry (angle program); check sign. |
| P71 ARC CENTER | Centre point is not found in "circular interpola- tion" when executing the program | |
| P72 NO HELICAL SPEC | Parameter or option and software for helical inter- polation missing | |
| P73 NO SPIRAL SPEC | Parameter or option and software for helical inter- polation missing | |
| P80 NO G07 SPEC | Not TRAUB standard! Parameter for G07 not set | Check options; G07 command faulty; check axis data. |
| P90 NO THREAD SPEC | Thread function has been programmed, but option is not set | Set option. |
| P91 NO G34 SPEC | G34 (variable thread) has been programmed, but option is not set | Set option. |
| P92 NO ARC THRD SPC | | Check option parameters for approach and return strategy. |
| P93 SCREW PITCH ERR | | Check threading cycle and enter correct pitch. |
| P100 NO CYLIND SPEC | Funktion G16 for circum- ference not set | Set corresponding parame- ter. |
| P110 PLANE CHG (PR) | | |
| P111 PLANE CHG (CR) | | |



| Error display | Cause | Remedy |
|-----------------------|---|---|
| P112 PLANE CHG (CC) | G17, G18, G19 programmed within TRC/MRC; plane selection or change only possible outside of G46 | |
| P113 ILLEGAL PLANE | Programmed angle is not within selected plane | Correct angle (program). |
| P120 NO SYNC. FEED | | Check program; program asynchronous feed G94: |
| P121 FO ARC MODAL | | |
| P122 NO AUTO C-OVR | Automatic feed rate reduction for transition radius not selected | Select parameter. |
| P130 2ND AUX. ADDR. | Parameter for using a second M function not set correctly | |
| P131 NO G96 SPEC | G96 function not set | Check parameter. |
| P132 SPINDLE S=0 | | |
| P133 G96 P-NO ERR | Programmed cutting speed faulty | Check program. |
| P134 X=0 AT V-CMD | No diameter input for G97 programming | Correct program. |
| P135 S < Q IN S-SPEED | S < Q entered for G92 programming | Correct program. |
| P140 NO T-POS OFST. | Tool correction data missing for G46 | |
| P141 PAT-ROT ERROR | | |
| P142 T-OFST, G2 ERR | Error with G2 in connection with TRC/MRC in tool correction data | |
| P150 NO C-CMP SPEC | Option tool nose radius/milling cutter radius compensation (TRC/MRC) not set | Check parameter; activate G46. |

| Error display | Cause | Remedy |
|--------------------------------|---|--|
| P151 G2, 3 COMP. ERR. | Error in connection with G46 when programming an arc; G2/G3 must not be programmed in combination with G41, G42, G46 and G40 (in one block) | Modify program accordingly. |
| P152 I.S.P. NOTHING | No intersection point found at geometry transitions for tool nose or milling cutter radius compensation | Check program. |
| P153 I.F. ERROR | Trouble during machining with TRC/MRC | Check program. |
| P154 NO 3D-CMP SPEC | No 3D compensation is set | |
| P155 F-CYC ERR (CC) | No multiple cycle must be used with G46; repeat cycle cancels TRC | Correct program. |
| P156 BOUND DIRECT | Contour violation occurs when approaching the contour | Correct quadrant selected? Check and modify, if necessary; use different tool. |
| P157 SIDE REVERSED | Compensation direction reversed within the selected TRC/MRC | Select different G function G00, G28, G30, G33, G53; use different quadrant; set parameter to cancel "direction reversal" error. |
| P158 ILLEGAL TIP P. | Wrong tool quadrant is used within G46 | Select correct quadrant. |
| P160 DARA ERROR $R + r < 0$ | | Check cutting radius compensation. |
| P170 NO CORR. NO. | No tool number specified for G41, G42, G46 | Insert number in program; check compensation. |
| P171 NO G10 SPEC | Parameter for G10 function missing | |
| P172 G10 L-NO ERR | | Check parameter value for permissible L value and modify, if necessary. |



| Error display | Cause | Remedy |
|----------------------|---|--|
| P173 G10 P-NO ERR | | Check P address value range and modify, if necessary. |
| P174 NO G11 SPEC | Parameter for G11 function missing | |
| P175 ILL. TOOL NO. | Inadmissible or non-existent tool number has been programmed | Correct program. |
| P180 NO BORING CYC. | | Check parameter and set drilling cycles, if necessary. |
| P181 NO S-CMD (TAP) | Spindle speed S missing for a programmed tapping cycle | Correct program. |
| P182 SYN TAP ERROR | | Check connecting cable to pulse encoder; if necessary, exchange encoder. |
| P183 PTC/THD NO. | Input F or E missing for a threading cycle (drilling) | Correct program. |
| P184 NO PTCH/THD CMD | Pitch error when programming in inches in a tapping cycle | Check program. |
| P185 NO TAP CYC SPC | Tapping cycle not loaded in the RAM | Set parameter. |
| P186 NEED M3/M4 CMD | M3/M4 instructions for direction of rotation missing | Complete program. |
| P190 NO CUTTING CYC | Cycles not loaded | Read cycle programs into control. |
| P191 TAPER LENG ERR | Programmed value must be smaller than permissible axis traverse | Check start point. |
| P192 CHAMFERING ERR | Entered transition chamfer inadmissible in threading cycle | Check program and change, if necessary, to a permissible value. |
| P193 NO MULTI C SPC | Cycles are not loaded in system | |
| P194 MULTI NEED MDL | | |
| P200 NO MRC CYC SPC | | Load cycles in control. |

| Error display | Cause | Remedy |
|------------------------|---|---|
| P201 PROG ERR (MRC) | Inadmissible G function defined in contour description for finished part: G27/G28, G30, G31, G33 are not admissible | Check program for finished contour. |
| P202 BLOCK OVR (MRC) | Too many finished contour blocks for use of roughing cycles | Modify program for finished contour and reduce number of blocks (< 50). |
| P203 CONF. ERR (MRC) | The roughing cycles cannot machine the programmed contour | Check roughing cycles (contour definition). |
| P204 VALUE ERR (MRC) | A command in cycles G70-G76 is wrong | Check program. |
| P205 E > F AT DOWN-CUT | In roughing cycles, feed E is higher than normal feed | Check cycle: E < F. |
| P206 START P. ERROR | Wrong start point has been programmed in the cycles | Modify program. |
| P210 NO PAT CYC SPC | Cycles are not in control | Set or load cycles. |
| P220 NO SPECIAL CYC | Cycle missing | Set or load cycles. |
| P221 No HOLE (S-CYC) | | Set or load cycles. |
| P222 G36 ANGLE ERR | | Check program. |
| P223 G12/G13 R ERR | | |
| P224 NO G12,G13 SPC | | |
| P230 NESTING OVER | Permissible amount of subroutine nesting exceeded; max. 8 permissible | Modify program. |
| P231 NO N-NUMBER | In a jump command or subroutine call-up, block number missing as jump address | Correct program. |
| P132 NO PROGRAM NO | Subroutine does not exist | Create subroutine; enter correct number in program. |
| P240 NO VARBL. SPEC | (#00) No variables are defined | Delete variable command; check specification. |



| Error display | Cause | Remedy |
|----------------------|--|--|
| P241 NO VARI NUMBER | A variable has been programmed that is no longer within the variable range -> number too high | Change number. |
| P242 EGL. SYM MSSG. | Equal sign has not been entered in a variable definition | Check and correct variables. |
| P243 VARIABLE ERR | Error when processing program variables | Check and correct value range, quantity, number, and function. |
| P250 NO PAT-ROT SPEC | Not used by TRAUB! | |
| P251 DUPL PAT ROT | | |
| P252 PAT COOD ROT | | |
| P260 NO COOD-RT SPT | | |
| P270 NO MACRO SPEC | Non-existent macro instruction has been programmed | Check macro options; delete macro in program. |
| P271 NO MACRO INT. | Non-existent macro instruction has been programmed | Check macro options; delete macro in program. |
| P272 NC/MACRO ILL. | An NC and a macro instruction have been used in the same program block | Separate instructions in two blocks. |
| P273 MACRO OVERCALL | Number of macro call-ups too large | Reduce macro frequency. |
| P275 MACRO ARG EX. | Number of arguments in macro call-up II too large | Check macro call-up. |
| P276 CALL CANCEL | A macro can only be deactivated if it has been selected before | |
| P277 MACRO ALM MESSG | | |
| P280 EXC. () | More than 5 brackets in a block | Modify program. |
| P281 () ILLEGAL | Number of brackets used in a block is odd | |

| Error display | Cause | Remedy |
|-----------------------|--|---|
| P282 CALC. IMPOSS. | Expression used in an arithmetic function incorrect -> invalid or faulty computer operation | Check program. |
| P283 DIVIDE BY ZERO | Not possible! | Check program. |
| P284 INTEGER OVER | Number with too many positions has been entered in a calculation operation | Check program. |
| P285 OVERFLOW VALUE | Value assigned to a variable too high | Check program. |
| P290 IF SNT. ERROR | | Correct program. |
| P291 WHILE SNT. ERROR | | Correct program. |
| P292 SET VN SNT. ERR | Variable name has more than 7 characters; max. number = / characters | Correct program. |
| P293 DO-END EXCESS | More than 20 DO-END instructions in one WHILE operation | Check program. |
| P294 DO-END MMC. | When executing the program from punched tape, no WHILE/GOTO function can be used; this is only possible from NC memory | |
| P295 WHILE/GOTO ERROR | WHILE/GOTO function cannot be used when executing program from punched tape; this is only possible from the NC memory | Delete command. |
| P296 NO ADR (MACRO) | | |
| P297 ADR-A ERR. | | |
| P298 PTR OP (MACRO) | Macro command when executing the program from punched tape | Delete command. |
| P300 VAR. NAME ERROR | | Designate variables in program correctly. |
| P301 VAR NAME DFUPLI | Variable name exists already in the program | Correct program or assign different name. |



| Error display | Cause | Remedy |
|----------------------|--|---|
| P350 NO SCALING SPC | Computer functions not set in control | |
| P360 NO PROG MIRR | Mirror functions not activated in control | |
| P370 NO OPPTS MR SPC | Mirror function G68 is not set | Check parameter; delete G68 from program. |
| P380 NO CORNER R/C | Simultaneous programming of r and D | Check parameter; modify block. |
| P381 NO ARC R/C SPC | P/D is programmed simultaneously in chamfer or radius cycles or in geometry with transition chamfer/radius | Correct program. |
| P382 CORNER NO MOVE | No consec. movement programmed after a transition radius/chamfer | |
| P383 CORNER SHORT | Traverse movement in block smaller than specified chamfer/radius values | Correct program. |
| P384 CORNER SHORT | Traverse movement in following block (next block) smaller than programmed chamfer/radius values | Correct program. |
| P385 GO G33 IN CONR | GO or G33 programmed simultaneously in a block with chamfer/radius value | Correct program. |
| P390 NO GEOMETRIC 1 | Specification missing | Set corresponding option in control. |
| P391 NO GEOMETRIC 2 | Specification missing | Set corresponding option in control. |
| P392 LES AG 1 (GECM) | When programming straight line-straight line, angle is smaller than 1° | Check program. |
| P393 INC ERR (GEOMT) | Within the geometry, second block programmed in incremental | Modify program. |
| P394 NO G01 (GEOMT) | No G01 instruction in a geometry block | Correct program. |

| Error display | Cause | Remedy |
|----------------------|--|-------------------------------------|
| P395 NO ADRS (GEOMT) | Wrong axis format in geometry definition | Correct program. |
| P396 PL CHG. (GEOMT) | Plane selection has been set in a geometry block | |
| P397 ARC ERR (GEOMT) | Angle input in geometry incorrect | Correct program. |
| P398 NO GEOMETRIC 1B | Geometry is not set in parameter data | Check parameter. |
| P399 DIR ERR (GEOMT) | Incorrect direction of movement in a geometry block | Correct program. |
| P400 NO POLE COORDI | | Check POLYFORM parameters. |
| P410 NO ADDR. CHG. | Specified address is wrong | Check address format and parameter. |
| P420 NO PARA. IN SPC | Parameter input is not possible; G function for parameter processing missing | Check parameters. |
| P421 PARAM IN ERROR | Specified parameters are inadmissible; a wrong G command has been entered; parameter input programmed within cycles or TRC/MRC | Correct program. |
| P422 NO T PARA SPEC | Tool parameters missing | |
| P423 NO T/H/W. ADDR | Tool addresses missing | Check tool/offset parameter data. |
| P424 ILL PARAM. NO. | Inadmissible parameter number programmed | Correct program |
| P430 AXIS NOT RET. | | |
| P431 NO 2ND REF SPC | Second G command (G30) not programmed | |



| Error display | Cause | Remedy |
|----------------------|---|--|
| P432 NO G29 SPEC | Not used by TRAUB! | |
| P433 NO G27 SPEC | | |
| P434 COLLATION ERROR | | |
| P435 G27/M ERROR | | |
| P436 G29/M ERROR | | |
| P437 NO TOOL P. SPEC | Value for tool changing point not set | Correct program. |
| P438 TOOL P.X=Z=0 | | |
| P440 NO COOD PRESET | | Check coordinates (parameters) and set appropriate machine data. |
| P450 NO CHUCK BARR. | No chuck barriers set; parameter values | Set barriers. |
| P451 NO PROG. LIMIT | | Set specification for end limit; check value for end limit. |
| P452 MOVEMENT LIMIT | A programmed travel distance (end point) has been reached; this point is within the monitored end positions or barriers | Correct program. |
| P460 TAPE I/O ERROR | Error when reading in or sending macro functions | |
| P461 NO FILE DATA | Access to active NC program not possible | |
| P462 DNC ERROR | Data transfer error | Check connection to interface. |
| P480 NO MILL SPEC | Parameter (option) for POLYFORM is not set | |
| P481 MILL ILL. G | Inadmissible G function used for drilling | Correct program. |
| P482 MILL. ILL. AXIS | When milling, C is not allowed as motion axis | Programm correct axis. |

| Error display | Cause | Remedy |
|------------------------------|---|---|
| P483 CANCEL SHIFT X | | Check zero point shift in X; set X = 0. |
| P484 MILL AXIS RET. | | Before calling up milling routines, the C axis or other participating axes must be moved to their ref. point. |
| P485 MILL ILL. MODAL | | Deactivate selected milling cutter radius compensation by G40. |
| P500 NO G110 SPEC | | Check parameter. |
| P501 ILL. G110 STATE | | |
| G502 ILL. G210 \$ NO. | Wrong or no slide specified | Correct program. |
| P503 ILL. G210 AXIS | Idadmissible travel axis | Correct program. |
| P600 NO AUTO TLM. | Cycle for automatic tool measurement not set | |
| P601 NO SKIP SPEC. | Measurement option not set | Check G function parameter (G31). |
| P602 NO MULTI SKIP | Function only set for a subsystem | |
| P603 MEASURING SPEED IS 0 | | Check speed. |
| P604 G37 ILL. AXIS | No axis or more than one axis in motion during auto- matic tool measurement | Correct program. |
| P605 T-CMD IN BLOCK | A T call-up programmed in the same block as automatic tool length calculation | Correct program. |
| P606 NO T-CMD REF | No T call-up programmed before automatic tool length calculation | Correct program. |



| Error display | Cause | Remedy |
|----------------------------|--|--|
| P607 G37 ILL. SIGNAL | Parameter values in G function not correct for automatic tool length calculation | |
| P608 SKIP ERROR (CC) | Measuring cycle must not be used with tool or milling cutter radius compensation | |
| P990 PREPRO S/W ERR | Interpolator software PREPRO DATA contains an error | Check program, check NC software state. |
| P991 AUTO PROG. ERR | Program error during automatic program run | Correct program. |
| P992 ERROR FIXED CYCLES | Error in basic software | Delete memory and reload basic software. |