Mazak

OPERATING MANUAL

MAZATROL T32B
ALARM LIST

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Mazak

CONTENTS

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ALARM LIST

If machine failures occur or if erroneous operations are carried out, appropriate alarm numbers and messages will be displayed in the alarm display section of the display. If alarm display appears, refer to the Alarm List to locate and eliminate the cause of the alarm. One or more alarm numbers and messages may be displayed, depending on the particular status of alarm occurring. In the event of alarm display, therefore, it is highly recommended that the operator should make sure of the type of alarm on the DIAGNOSIS (ALARM) display.

(1) Machine-status alarm indicator lamps

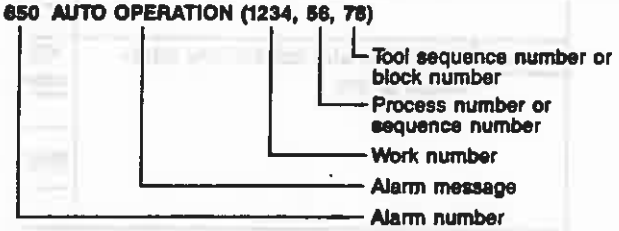
The following lamp lights up in the event of alarm display:

?MC ALM.....Lights up in the event of a machine failure.
?TOOL ALM.....Lights up in the event of a tool failure.
?NC ALM.....Lights up in the event of trouble with the NC equipment.

(2) Alarm display

Alarm display will appear on the DIAGNOSIS (ALARM) display in the following format:

650 AUTO OPERATION (1234, 56, 78)

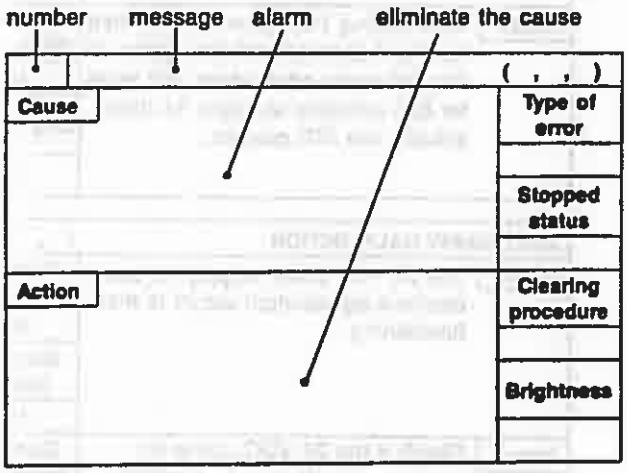


(3) Brightness of display

Alarm messages are displayed as either H (Highlighted: Brighter display) or N (Normal: Normal brightness), in reverse form.

H.....Cleared with the RESET key.
N.....Cleared with the CLEAR key.

(4) Structure of the Alarm List



Type of error

Code	Type	Description
A	Operation	A wrong key has been pressed. Or the machine has been operated incorrectly.
B	Registered data	The program or tool data includes an error(s).
C	Servo	Malfunctioning of the servo control mechanism.
D	Spindle	Malfunctioning of the spindle control mechanism.
E	NC	System (hardware/software) error
F	Machine (PLC)	Machine failure
G	External I/O unit	Malfunction of external I/O unit

Stopped Status

Code	Status
H	Emergency stop
I	Reset stop
J	Single-block stop
K	Feed stop (hold)
L	Operation continued

Clearing procedure

Code	Procedure
M	Power off ⇨ Eliminate cause ⇨ Power back on
N	Eliminate cause ⇨ Power off ⇨ Power back on
O	Eliminate cause ⇨ Press reset key
P	Press reset key
Q	Eliminate cause ⇨ Press data clear key
S	Press data clear key

Brightness of display

Code	Status of brightness
H	Brighter
N	Normal

Note 1: If program-related alarm display appears, that portion of the program in which the alarm has occurred will be displayed in code within the parentheses next to the alarm message. The meaning of each code in parentheses on the Alarm List is listed in the table below.

Code	Meaning
WNo.	Work number (MAZATROL or EIA/ISO)
PNo.	Work process number (MAZATROL)
SNo.	Sequence number (MAZATROL)
NNo.	Sequence number (EIA/ISO)
BNo.	Block number (EIA/ISO)
BLANK	No display or intra-system alarm processing code

Note 2: Depending on whether the alarm-encountered program is on the foreground (program selected on the POSITION display) or on the background (program selected on the PROGRAM display), each of the stopped status, the alarm-status clearing procedure, and the brightness of display may be divided into two types: with and without parentheses. If the particular alarm has occurred on the background, the above three types of information are displayed with parentheses.

Note 3: For alarm No. 350 to 399, refer to the Operating Manual accompanying the machine being used.

Note 4: An alarm does not exist for numberless items.

Note 5: An alarm may not be displayed for certain machine models or NC main versions.

000	(, ,)
Cause	Type of error
	Stopped status
Action	Clearing procedure
	Brightness

001	IOP NOT READY	(, ,)
Cause	The MC712 (IOP) card is not correctly inserted.	Type of error
		E
		Stopped status
		H
Action	Reinsert the card, but this time, correctly.	Clearing procedure
		M
		Brightness
		H

002	REMOTE UNIT ERROR	(, ,)
Cause	An error occurs frequently during communication between the remote unit and the CNC causing data communications to be halted.	Type of error
		E
		Stopped status
		H
Action	Check for incorrect connections to the remote control unit.	Clearing procedure
		M
		Brightness
		H

003	FLOPPY DISK ERROR	(, ,)
Cause	An error is detected during floppy loading for the RAM system CNC. The floppy disk is not the correct one. Data within the floppy disk has been destroyed. The floppy disk drive has become damaged.	Type of error
		E
		Stopped status
		H
Action	Please contact your YAMAZAKI MAZAK service representative if the same alarm recurs frequently.	Clearing procedure
		M
		Brightness
		H

004	SUM CHECK ERROR	(, ,)
Cause	The contents of the system software have been lost.	Type of error
		E
		Stopped status
		H
Action	Insert the system floppy disk into the drive once again to reload the system.	Clearing procedure
		M
		Brightness
		H

005	ILLEGAL SYSTEM PARAMETER	(, ,)
Cause	The system parameters, such as optional parameters, include incorrect ones.	Type of error
		E
		Stopped status
		H
Action	Check for and correct any parameter errors.	Clearing procedure
		N
		Brightness
		H

006	ILLEGAL DATA	(, ,)
Cause	Data errors are included in the ATC pocket management table.	Type of error
		E
		Stopped status
		H
Action	After turning the power off and then turning it back on, set the system in the test mode once again and register tool numbers as many as there actually are ATC pockets.	Clearing procedure
		N
		Brightness
		H

007	DI024V MALFUNCTION	(, ,)
Cause	The 24 VDC power supply for the machine input/output circuit is malfunctioning.	Type of error
		E
		Stopped status
		H
Action	Check if the 24 VDC power for machine input/output is supplied.	Clearing procedure
		M
		Brightness
		H

008	BATTERY MALFUNCTION (, ,)	
Cause	The memory backup battery has run down.	Type of error: E
		Stopped status: H
Action	Replace the battery	Clearing procedure: M
		Brightness: H

009	DI05V MALFUNCTION (, ,)	
Cause	The 5 VDC power supply for the machine input/output circuit is malfunctioning.	Type of error: E
		Stopped status: H
Action	Replace the DIO card.	Clearing procedure: M
		Brightness: H

010	OVERHEATED (, ,)	
Cause	The temperature of the NC unit or operation board is in excess of 65°C.	Type of error: E
		Stopped status: H
Action	Check for normal rotation of the cooling fans within the main switchboard and operation panel. Please contact our service representative if the fans are not rotating or if the alarm recurs frequently even with the fans rotating.	Clearing procedure: M
		Brightness: H

011	EEPROM MALFUNCTION (, ,)	
Cause	The life of the EEPROM has expired.	Type of error: E
		Stopped status: H
Action	Replace the EEPROM.	Clearing procedure: M
		Brightness: H

012	BOARD TRANSFER ERROR (, ,)	
Cause	An error occurred in data transmission to on reception from the operation panel due to noises and other causes.	Type of error: E
		Stopped status: H
Action	Please contact your MAZAK service representative if the error recurs quite often.	Clearing procedure: M
		Brightness: H

013	ILLEGAL INTERRUPTION (, ,)	
Cause	An illegal interruption signal is detected by the CPU due to noises and other causes.	Type of error: E
		Stopped status: H
Action	Please contact your MAZAK service representative if the error recurs quite often.	Clearing procedure: M
		Brightness: H

014	ILLEGAL MEMORY (, ,)	
Cause	Trouble has occurred in the RAM or ROM.	Type of error: E
		Stopped status: H
Action	Replace the memory card.	Clearing procedure: M
		Brightness: H

015	SYSTEM MALFUNCTION (, ,)	
Cause	An error detected in data transmission between the MCP and the amp when the power is turned on.	Type of error: E
		Stopped status: H
Action	Check the amplifier for: • Improper connector connections • Improper power connections	Clearing procedure: M
		Brightness: H

016	AMPLIFIER NOT EQUIPPED (, ,)	
Cause	The amplifier power is not turned on, or signals are not transferred.	Type of error: E Stopped status: H
Action	Check the amplifier for: • Incorrect cable connections • Cable disconnections • Improper connector connections Turn on the line power to the amplifier if not on. If the axis selector switches for the amplifier are not correctly set, set the No. 1 axis selector switch to 0 and the No. 2 axis selector switch to 1.	Clearing procedure: M Brightness: H

017	2 PORT MEMORY PARITY (, ,)	
Cause	Data related to the servo has been destroyed.	Type of error: E Stopped status: H
Action	Replace the card.	Clearing procedure: M Brightness: H

018	INCORRECT INITIAL PARAMETER (, ,)	
Cause	An error is detected with the parameters referenced when the power is turned on. • Internal settings concerning the units of input data are wrong. The data setting concerning • RNG (unit of movement) or PC2 (gear ratio 2) is illegal. • RNG (unit of movement) or PC2 (gear ratio 2) is not set. • PIT (ball screw pitch) or PC1 (gear ratio 1) is not set.	Type of error: E Stopped status: H
Action	Please contact your MAZAK service representative. • Check the #2 PC2 or #19 RNG MACHINE PARAMETER display data. • Check the #2 PC2 or #19 RNG MACHINE PARAMETER display data. • Check #1 PC1 or #18 PIT MACHINE PARAMETER display data.	Clearing procedure: N Brightness: H

019	INCORRECT TIME CONSTANT (, ,)	
Cause	Time constants are not set, or their settings are out of the required range. • Time constants for linear accelerate/decelerate rapid feed are illegal. The time constants are not set, or their settings are out of the required range. • Time constants for linear accelerate/decelerate cutting feed are illegal. The time constants are not set, or their settings are out of the required range. • Time constants for first-order delay rapid feed are illegal. The time constants are not set, or their settings are out of the required range. • Time constants for first-order delay cutting feed are illegal. The time constants are not set, or their settings are out of the required range.	Type of error: E Stopped status: H
Action	• Check the #4 LG0t axis specification MACHINE PARAMETER display data. • Check the #7LG1t axis specification MACHINE PARAMETER display data. • Check the #5LG0t axis specification MACHINE PARAMETER display data. • Check the #8LG1t axis specification MACHINE PARAMETER display data.	Clearing procedure: N Brightness: H

021	INSUFFICIENT VOLTAGE (, ,)	
Cause	The AC supply voltage has decreased below 160±5 V or failed to be applied momentarily.	Type of error: F Stopped status: H
Action	• Check the supply voltage and adjust it to 200/220 V±10%. • Using an oscilloscope, check if momentary power-down has occurred. At a supply voltage of 200 V, momentary power-down with a duration of about 25 msec or more may occur.	Clearing procedure: M Brightness: H

022	AXIS SELECT ERROR (, ,)	
Cause	The rotary switch setting is "6"~"E" in the amplifier. The same axis selected for L and M.	Type of error: C
		Stopped status: H
Action	Check amplifier	Clearing procedure: N
		Brightness: H

023	ILLEGAL MEMORY 1 (, ,)	
Cause	Trouble has occurred in the servo amplifier control card, the internal cables, or the cable connector. • A check sum error has occurred in the EPROM during initialization, an SRAM or 2-port RAM check error has occurred, or the EPROM or the 2-port RAM is malfunctioning.	Type of error: E
		Stopped status: H
Action	• Check for incorrect connector connections. • Check for cable disconnections. • Replace the control card (RF01).	Clearing procedure: M
		Brightness: H

024	EXTERNAL CLOCK MALFUNCTION (, ,)	
Cause	Trouble has occurred in the NC, the servo amplifier control card, the internal cables, or the cable connector. • Data processing of the location command from the NC has not terminated within the time set preset on the servo amplifier software, or the timing signal from the NC is illegal.	Type of error: E
		Stopped status: H
Action	• Check the NC—amplifier and amplifier—amplifier cable connectors for incorrect connections. • Check the NC—amplifier and amplifier—amplifier cables for incorrect connections. • Replace the control card (RF01).	Clearing procedure: M
		Brightness: H

025	WATCH DOG (, ,)	
Cause	Trouble has occurred in the NC, the servo amplifier control card, the internal cables, or the cable connector.. • Servo IT was not executed even after the elapse of a predetermined time, or the timing signal from the NC or a 2-port signal is illegal.	Type of error: E
		Stopped status: H
Action	• Check for improper connector connections. • Check for incorrect cable connections. • Check if the EPROM is mounted in the location indicated on it, or check for bends in the legs of pins. • Replace the control card (RF01) or the add-on card (RF31/33).	Clearing procedure: M
		Brightness: H

026	ILLEGAL MEMORY 2 (, ,)	
Cause	Trouble has occurred in the NC, the servo amplifier control card, the internal cables, or the cable connector. • A 2-port RAM check error occurred, or a parity error was detected during initial parameter data reception. Either the cable for communication with the NC or the 2-port RAM is defective. Excessive noise was introduced into the NC—amplifier or amplifier—amplifier cables.	Type of error: E
		Stopped status: H
Action	• Check the NC—amplifier and amplifier—amplifier cable connectors for incorrect connections. • Check the NC—amplifier and amplifier—amplifier cables for incorrect connections. • Replace the control card (RF01). • Provide suitable provision against noise.	Clearing procedure: M
		Brightness: H

027	MAGNETIC POSITION DETECT MALF. (, ,)	
Cause	The position of the magnetic pole was not correctly detected during initial detection of the magnetic pole. Either the detector mounted on the servo motor, the cable, or the servo amplifier is defective. Or the machine parameter settings related to the servo are illegal.	Type of error E Stopped status H
Action	• Check for improper connections of the detector connector. • Check for cable disconnections between the amplifier and the detector. • Check for position detector (encoder) malfunctions. • Check the setting of "S33" on the MACHINE PARAMETER No. 7 display. • Check the setting of "S41" on the MACHINE PARAMETER No. 7 display. • Replace the control card (RF01).	Clearing procedure M Brightness H

028	PRINT CIRCUIT BOARD MALFUNCTION (, ,)	
Cause	The servo amplifier control card is malfunctioning. Either the A/D converter on the control card did not correctly function during initialization or the periphery of the A/D converter is defective.	Type of error F Stopped status H
Action	Replace the control card (RF01).	Clearing procedure M Brightness H

029	DETECTING NO SIGNAL 1 (, ,)	
Cause	Signal U, V, A, B, or Z from the encoder connected to the RF01 card is illegal. Either the detector mounted on the servo motor, the cable, or the servo amplifier is defective.	Type of error C Stopped status H
Action	Check for improper connections of the detector connector, for cable disconnections between the amplifier and the detector, or for encoder malfunctions.	Clearing procedure M Brightness H

030	DETECTING NO SIGNAL 2 (, ,)	
Cause	Signal A, B, or Z from the encoder connected to the RF31 or RF33 card is illegal. Either the detector mounted on the servo motor, the cable, or the servo amplifier is defective.	Type of error C Stopped status H
Action	Check for improper connections of the detector connector, for cable disconnections between the amplifier and the detector, or for encoder malfunctions.	Clearing procedure M Brightness H

031	DETECTING NO SIGNAL 3 (, ,)	
Cause	The signal from the resolver (1X) connected to the RF33 card is illegal. Either the signal from the resolver (1X) connected to the RF33 card cable or the excitation signal is illegal.	Type of error C Stopped status H
Action	• Check for improper connections of the detector connector. • Check for cable disconnections between the amplifier and the detector. • Check for resolver malfunctions. • Replace the AMP card (RF33).	Clearing procedure M Brightness H

034	BATTERY MALFUNCTION (, ,)	
Cause	The power backup battery for the absolute-value detector circuit on the RF32 or RF33 card has run down.	Type of error E Stopped status H
Action	Zero-point returning is required since the absolute value has been lost. Replace the battery.	Clearing procedure M Brightness H

035	NO CONTROL AXIS ERROR (, ,)	
Cause	Setting error of the rotary switch. Failure of the power circuit of the axis which is not used. Failure of RF22 or RF202 card.	Type of error: E Stopped status: H
Action	Check for incorrect settings of the rotary switches. Replace the RF22 or RF202 card.	Clearing procedure: M Brightness: H

036	INTERNAL CLOCK MALFUNCTION (, ,)	
Cause	Due to failure of RF202 card, internal clock halted.	Type of error: E Stopped status: H
Action	Replace the RF202 card.	Clearing procedure: M Brightness: H

037	OVER REGENERATION (, ,)	
Cause	Either the frequency of acceleration/deceleration is excessive (care should be taken since this causes overheating of the regenerative control resistors), the unbalance load at an axis of motion is excessive, or the power transistors for regenerative control are malfunctioning.	Type of error: C Stopped status: H
Action	• Check the setting of "S36" on the MACHINE PARAMETER No. 7 display. • Reduce the frequency of rapid feed acceleration/deceleration. • Reduce the rapid feedrate. • Check the unbalance load at the axis of motion. • Add an optional resistor for regenerative control. • Replace the regenerative control power transistors or the unit.	Clearing procedure: N Brightness: H

038	OVER SPEED 1 (, ,)	
Cause	The maximum permissible speed of the motor or detector has been exceeded. The motor speed has exceeded 2400 rpm (for the HA40, HA80, HA100, HA200, or HA300) or 3600 rpm (for the HA43 or HA83), or the ultraprecision encoder speed has exceeded 1400 rpm (for the HA40, HA80, HA100, HA200, or HA300).	Type of error: C Stopped status: H
Action	• If overshooting occurs during acceleration, check the accelerate/decelerate time constant. • If overshooting occurs because of unstable operation of the servo system, check the gain levels (VG1 and PGN). • Reduce the rapid feedrate. • Check for cable disconnections between the encoder and the servo amplifier. • Check for encoder malfunctions. • Check the minimum unit of movement.	Clearing procedure: N Brightness: H

039	OVER AMPERE (, ,)	
Cause	An excessive current has flown from the plus side of the DC bus bar. A ground leak or a short-circuit has occurred in the motor power line, or an overcurrent has flown through the servo amplifier circuit for a predetermined time or more.	Type of error: C Stopped status: H
Action	• Check for a ground leak in the motor bus bar. • Check for a short-circuit in the motor bus bar. • Check if the speed detector is mounted in the direction of "STY". • Replace the speed detector. • Replace the RF01 card. • Check for malfunctions in the main circuit.	Clearing procedure: M Brightness: H

040	OVER VOLTAGE (, ,)	
Cause	The DC bus bar voltage has increased above 400 V. The supply voltage to the servo amplifier or its internal voltage has become excessive.	Type of error: C Stopped status: H
Action	• Check for incorrect connections to the regenerative control terminal board. • If the acceleration/deceleration frequency is excessive and the acceleration/deceleration time constant is too small: 1) Increase the acceleration/deceleration time constant. 2) Reduce the acceleration/deceleration frequency. 3) Reduce the rapid feedrate. • Check the unbalance load at the axis of motion. • Replace the regenerative control resistors. • Replace the regenerative control power transistors or the unit.	Clearing procedure: M Brightness: H

041	DATA PARITY (, ,)	
Cause	A parity error occurred during data reception from the NC.	Type of error: E Stopped status: H
Action	• Check for improper connections of the CN1A or CN1B connectors of the RF01 card. • Check for cable disconnections between the NC and the servo amplifier. • Check for appropriate provision against noise. • Replace the MC611/MC632 card on the NC side.	Clearing procedure: M Brightness: H

042	ILLEGAL DATA (, ,)	
Cause	The variation in the position of the data to be designated from the NC is too large.	Type of error: E Stopped status: H
Action	• Reduce the designated speed if it is too high. • Check if the CH1A and CN1B connectors within the RF01 card are correctly inserted. • Check for cable disconnections between the NC and the servo amplifier. • The error implies externally induced noise. Check if the appropriate noise reduction measures are undertaken. • Replace NC cards MC611 and/or MC632.	Clearing procedure: M Brightness: H

043	TRANSMISSION MALFUNCTION (, ,)	
Cause	Periodical data transfer from the NC was interrupted.	Type of error: E Stopped status: H
Action	• If the programmed speed is too high, reduce the speed. • Check for improper connections of the CN1A or CN1B connectors of the RF01 card. • Check for cable disconnections between the NC and the servo amplifier. • Check for appropriate provision against noise. • Replace the MC611/MC632 card on the NC side.	Clearing procedure: M Brightness: H

044	PARAMETER ERROR (, ,)	
Cause	Illegal parameter data was transferred during initialization. The parameter data that was transferred from the NC to the amplifier following the NC power-on sequence is illegal.	Type of error: E Stopped status: H
Action	• Check the parameter data. • The NC power must be turned off after the illegal parameter data has been corrected.	Clearing procedure: N Brightness: H

050	FIN OVERHEAT (, ,)	
Cause	The fin became overheated because the servo amplifier was operated at an excessive continuous output current. Since the regenerative control resistors or the regenerative control power transistors were being overloaded, the power unit for the servo amplifier or the thermal protector for the fin worked or the amplifier operated at its maximum permissible continuous output current.	Type of error: F Stopped status: H
Action	• Reduce the load. • If the thermal protector is malfunctioning, replace the unit.	Clearing procedure: M Brightness: H

051	MOTOR OVERHEAT (, ,)	
Cause	The motor became overheated because it was operated at an excessive continuous output current. Since the motor was operated at a continuous output current, the thermal protector within the motor worked.	Type of error: F Stopped status: H
Action	• Reduce the load. • Check for improper connections to the terminal board. • If the thermal protector is malfunctioning, replace the motor.	Clearing procedure: M Brightness: H

053	OVERLOAD 1 (, ,)	
Cause	The servo motor was operated at an output current exceeding its rating. The time during which the motor current exceeded a stall-rating equivalent of OLL parameter data (overload detection level) is larger than the OLP parameter data (overload time constant). The load inertia or friction is excessive. Or hunting due to parameter setting errors has occurred.	Type of error: C Stopped status: H
Action	• If the load inertia or friction is excessive, reduce the load. • Check the data settings of "S37" and "S38" on the MACHINE PARAMETER No. 7 display. • If hunting is occurring, make adjustments based on the servo parameter settings. • Check the U, V, and W of the amplifier. • Replace the detector and the detector cable.	Clearing procedure: N Brightness: H

054	OVERLOAD 2 (, ,)	
Cause	A current that is 95% or more of the current limit value flew for 0.5 sec or more, or excessively large load inertia occurred. Or machine collision occurred.	Type of error: C Stopped status: H
Action	• If the load inertia is excessively large, increase the time constant or reduce the load. • If hunting is occurring, make adjustments based on the servo parameter settings. • Replace the detector and the detector cable. • If the DC bus bar voltage within the unit has decreased below a predetermined level, replace the unit.	Clearing procedure: N Brightness: H

055	SERVO LAG EXCESS (, ,)	
Cause	The programmed relative position of the NC with respect to the machine has exceeded the maximum permissible data, or machine collision has occurred. Or the detector or its cable is defective. The actual machine position data relative to the programmed one has exceeded the parameter setting of OD1 (error too large at servo power-on) or OD2 (error too large at servo power-off). Or the load inertia is too large for further acceleration to be performed, or overshooting or hunting is occurring.	Type of error: E Stopped status: H
Action	• If the load inertia is too large for further acceleration to be performed, increase the time constant or reduce the rapid feedrate. • If overshooting or hunting is occurring, make adjustments based on the servo parameter settings. • Check for incorrect U, V, or W wiring of the amplifier. • Replace the detector and the detector cable. • If the DC bus bar voltage within the unit has decreased below a predetermined level, replace the unit. • Set the servo gain controls to VG1 and PGN.	Clearing procedure: M Brightness: H

057	AMPLIFIER OVERLOAD (, ,)	
Cause	The total current of the motors connected to amplifier exceeded the specified level for more than a predetermined time.	Type of error: C Stopped status: H
Action		Clearing procedure: M Brightness: H

058	EMERGENCY STOP (EXTERNAL) (, ,)	
Cause	An external emergency stop signal was input. The B and R terminals on the terminal board have been disconnected, or an emergency stop signal was input from the NC or machine side.	Type of error: E Stopped status: H
Action	• Check and remove the cause of the error on the NC or machine side. • If the connector within the unit is defective, replace the unit.	Clearing procedure: M Brightness: H

059	ANOTHER AXIS MALFUNCTION (, ,)	
Cause	Other servo amplifiers are malfunctioning. An alarm signal was issued to one of the axes connected to CN1B.	Type of error C Stopped status H
Action	• Check the axis alarm. • Check for unconnected termination connectors. • Check if supply voltage is applied to the axes not being used.	Clearing procedure M Brightness H

062	OVERLOAD (, ,)	
Cause	The overload-1 alarm has reached or exceeded its 80% level. Although this error does not directly lead to an alarm, care must be taken. (The servo power will not turn off.)	Type of error C Stopped status I
Action	• Check for parameter errors. • Reduce the load. • Reduce the acceleration/deceleration frequency.	Clearing procedure M Brightness H

065	PARAMETER ERROR (, ,)	
Cause	Illegal parameters are set. Illegal parameters will be ignored and the data existing before illegal parameters were set will be retained.	Type of error E Stopped status I
Action	• Check the parameter settings. This error will be cleared when correct parameters are set. (The servo power will not turn off.)	Clearing procedure N Brightness N

066	ABSOLUTE POSITION UNRELIABLE (, ,)	
Cause	Absolute position detection is malfunctioning. An error is detected with the "1X" in the absolute position detection. The value of 1X for detection of the absolute position is wrong. This error indicates that the value of 1X on the DIAGNOSIS (SERVO MONITOR) display is in the range of 278<1X<4722 or 1X<5070. In such cases, the absolute position is not correctly detected.	Type of error C Stopped status I
Action	• Returning to a watchdog-type reference point must be done once again. • If this action does not clear the error status, replace the detector and/or the RF card. (The servo power will not turn off.)	Clearing procedure O Brightness N

067	OVERTRAVEL (, ,)	
Cause	Automatic operation cannot be started since there is an axis that has reached its stroke end. This error indicates that overtraveling has occurred during speed loop step stoppage. (The servo power will not turn off.)	Type of error E Stopped status H
Action	If the stroke end has been reached at the axis end, move the axis under manual operations. If the stroke end has been reachd at some other position, check for signal line disconnections or limit switch malfunctions.	Clearing procedure P Brightness N

068	EMERGENCY STOP (, ,)	
Cause	A hardware error has occurred.	Type of error E Stopped status H
Action	If this error is not cleared even after the power has been turned off and then turned back on, please contact your MAZAK service representative.	Clearing procedure M Brightness H

070	INSUFFICIENT VOLTAGE (, ,)	
Cause	The supply voltage has decreased below the guaranteed operating voltage. Or power-down has occurred for 15 msec or more.	Type of error: D Stopped status: H
Action	• Check the supply voltage using a voltmeter. (The voltage must stay within the specifications of 200/230 VAC± %.) • Using an oscilloscope, check the supply voltage level to see if power-down has occurred for 15 msec or more.	Clearing procedure: N Brightness: H

072	ILLEGAL MEMORY 1 (, ,)	
Cause	Read/write operations on the controller control internal memory data are not correctly performed.	Type of error: D Stopped status: H
Action	• Check if the EPROM is correctly mounted, that is, check if the location of the ROM number is correct and for bends in the legs of pins. Location of the EPROM FR-SF: SF-CA Cards 2F, 4F FR-SFJ: SFJ-CA1 Cards 16G, 17G	Clearing procedure: N Brightness: H

073	EXTERNAL CLOCK MALFUNCTION (, ,)	
Cause	The NC, the servo amplifier control card, the internal cables, or the connectors are defective.	Type of error: D Stopped status: H
Action	Check the NC and the servo amplifier control card.	Clearing procedure: N Brightness: H

075	ILLEGAL MEMORY 2 (, ,)	
Cause	The 2-port memory used for communication during bus connection of the CNCs of the M300 series did not correctly work.	Type of error: D Stopped status: H
Action	• Check for improper cable connector connections between the NC and the amplifier and between the amplifier and the spindle. • Check for loose screws on the connectors. • Check for cable disconnections between the NC and the amplifier and between the amplifier and the spindle. • Replace the SF-TL/TLJ card. • Check if the grounding terminals of the amplifier, NC, and motor are correctly connected to ground, and check if cable shielding is provided.	Clearing procedure: N Brightness: H

077	PRINT CIRCUIT BOARD MALFUNCTION (, ,)	
Cause	Components on the printed circuit board for control did not correctly work.	Type of error: D Stopped status: H
Action	Replace the SF-CA/SFJ-CA1 card.	Clearing procedure: N Brightness: H

078	DETECTING NO SIGNAL 1 (, ,)	
Cause	The level of the signal from the motor-fitted detector (motor built-in encoder) is not normal.	Type of error: D Stopped status: H
Action	• Check the voltage level of the motor-fitted detector. The voltage level must be 3 V, peak-to-peak. If the level significantly differs from this value, replace the printed circuit board used for the motor-fitted detector. <Check terminal> FR-SF: SF-CA card CH45-CH9, CH44-CH9 FR-SF: SFJ-CA1 card CH31-CH35, CH32-CH35 • Replace the SF-CA/SFJ-CA1 card.	Clearing procedure: N Brightness: H

079	DETECTING NO SIGNAL 2 (, ,)	
Cause	Signals are not input from the orientation encoder. Or the signal level is not normal.	Type of error: D Stopped status: H
Action	• Check for CONB cable disconnections. • Replace the orientation encoder.	Clearing procedure: N Brightness: H

080	SPNDL. CONTRL. (IC MAC012) ALARM (, ,)	
Cause	An error has occurred in the "MAC012" IC of the SF-CA.	Type of error: D Stopped status: H
Action	Check if the IC MAC012 of the SF-CA card is correctly mounted. Or replace the SF-CA card.	Clearing procedure: N Brightness: H

081	SPINDLE SPEED ERROR (, ,)	
Cause	The programmed speed and the motor speed have increased above their required levels.	Type of error: D Stopped status: H
Action	• Set the VK1 parameter to "1" if "0". • If the motor is running at a speed of several tens of rpm but the display of the motor speed is 0 rpm, take the same corrective action as that of alarm No. 20. • If the display of the motor speed is correct, check the phase wiring of the U-V-W power line. • If the motor is not running smoothly or if it does not run, check for U-V-W power line disconnections between the amplifier and the motor.	Clearing procedure: N Brightness: H

082	SPINDLE CONTROL (BREAKER TRIP) (, ,)	
Cause	An overrated current was applied to the main circuit.	Type of error: D Stopped status: H
Action	• Check if the supply voltage is normal in capacity and waveform. • Check if momentary power-off or power-down occurred during deceleration. • Replace the SF-CA card.	Clearing procedure: N Brightness: H

083	SPINDL. (CONVERTER OVERCURRENT) (, ,)	
Cause	An overrated current was applied to the converter.	Type of error: D Stopped status: H
Action	• Check if the supply voltage is normal in capacity and waveform. • Check if momentary power-off or power-down occurred during deceleration. • Replace the SF-CA card.	Clearing procedure: N Brightness: H

084	SPINDLE CONTRL. (PHASE LACK) (, ,)	
Cause	Of the three phases of the line power, one is missing that is not being used for the control power.	Type of error: Stopped status:
Action	• Check the line power. • Check the control power for a blown fuse.	Clearing procedure: Brightness:

085	SPNDL. CONTRL. (CPU) MALFUNCTION (, ,)	
Cause	During calculation by the CPU, a division error occurred because of wrong parameter settings.	Type of error: D Stopped status: H
Action	Check the calculation results against the "Spindle Parameters on the NC Screen" specified in the parameter setting list attached to the FR-SF/SFJ body cover.	Clearing procedure: N Brightness: H

087	OVER SPEED (, ,)	
Cause	The motor speed has exceeded 115% of its maximum permissible value.	Type of error: D Stopped status: H
Action	• Reduce the programmed speed. • If overshooting due to unstable operation of the speed control system occurs, check the VKP and VKI gain levels. • Check if an alarm occurs at settings of VKP=63 and VKI=1. • If an alarm occurs, replace the SF-CA/SFJ-CA1 card. • If an alarm does not occur, set the gains to their optimum levels.	Clearing procedure: N Brightness: H

088	OVER AMPERE (, ,)	
Cause	An overrated current was applied to the controller. Or motor selection based on parameter 02 is not correct.	Type of error: Stopped status:
Action	• Make a correct motor selection based on parameter 02 of the FR-SF/SFJ body. • Check the supply voltage for appropriate capacity and waveform. • Check for a ground leak and a short-circuit in the motor bus bar. • Replace the SF-CA/SFJ-CA1 card. • Replace the unit.	Clearing procedure: Brightness:

089	OVER VOLTAGE (, ,)	
Cause	The voltage of the main circuit capacitor was increased above the required level by the regenerative energy during motor deceleration.	Type of error: D Stopped status: H
Action	FR-SF • Reduce the line impedance. • Check the supply voltage for appropriate capacity and waveform. • Check if momentary power-off or power-down occurred during deceleration. • Replace the SF-CA card. FR-SFJ • Check for cable disconnections in the resistor unit. • Replace the SFJ-CA1 card. • Replace the unit.	Clearing procedure: N Brightness: H

090	DATA PARITY (, ,)	
Cause	A parity error occurred during bus connection to the CNCs of the M300 series.	Type of error: D Stopped status: H
Action	• Check if suitable noise provision is made between the NC and the spindle. • Since trouble is likely to have occurred in the cables or the memory used for communication during bus connection, take the same corrective action as that of alarm No. 15. • Check for loose screws on the connectors between the NC, servo amplifier, and spindle. • Replace the MC611/MC632 card on the NC side.	Clearing procedure: N Brightness: H

091	ILLEGAL DATA (, ,)	
Cause	Larger move command data than the required data was given from a CNC during bus connection to the CNCs of the M300 series.	Type of error: D Stopped status: H
Action	• Check if suitable noise provision is made between the NC and the spindle. • Since trouble is likely to have occurred in the cables or the memory used for communication during bus connection, take the same corrective action as that of alarm No. 15. • Check for loose screws on the connectors between the NC, servo amplifier, and spindle. • Replace the MC611/MC632 card on the NC side.	Clearing procedure: N Brightness: H

092	TRANSMISSION MALFUNCTION (, ,)	
Cause	Correct data transfer was not performed during bus connection to the CNCs of the M300 series.	Type of error: D Stopped status: H
Action	• Check if suitable noise provision is made between the NC and the spindle. • Since trouble is likely to have occurred in the cables or the memory used for communication during bus connection, take the same corrective action as that of alarm No. 15. • Check for loose screws on the connectors between the NC, servo amplifier, and spindle. • Replace the MC611/MC632 card on the NC side.	Clearing procedure: N Brightness: H

093	PARAMETER ERROR (, ,)	
Cause	Parameter data out of the permissible range is set.	Type of error: D Stopped status: H
Action	Take the same corrective action as that of alarm No. 027.	Clearing procedure: N Brightness: H

094	FR-TK UNIT SWITCHING ERROR (, ,)	
Cause	The TK card (for 1-amplifier, 2-motor use) has detected a selection error.	Type of error: D Stopped status: H
Action	Check for FR-TK card malfunctions.	Clearing procedure: N Brightness: H

095	FR-TK UNIT COMMUNICATION ERROR (, ,)	
Cause	Correct data communication with the TK card was impossible.	Type of error: D Stopped status: H
Action	Check for FR-TK card malfunctions and for communication data errors.	Clearing procedure: N Brightness: H

099	SPINDLE CONTROL OVERHEAT (, ,)	
Cause	The main circuit components have become overheated because of stoppage of the cooling fan due to an abnormal ambient temperature or an overload.	Type of error: D Stopped status: H
Action	• Reduce the load. • Check if the cooling fan within the unit is rotating. • Check if the thermal protector within the unit is correctly working. • Replace the SF-CA/SFJ-CA1 card.	Clearing procedure: N Brightness: H

100	MOTOR OVERHEAT (, ,)	
Cause	The motor became overheated because of overloading or stoppage of the motor-cooling blower. Overheating of the motor will also occur if: • Motor acceleration/deceleration is performed more often than the maximum permissible number of times. • The resistor unit becomes overheated because of stoppage of the resistor-cooling fan. • The TBZ is unconnected or the CON2 is disconnected.	Type of error: D Stopped status: H
Action	FR-SF/SFJ • Reduce the load. • Check for cable disconnections between OHS1—CON2 pin 3 and OHS2—CON2 pin 2 on the motor. • Check if the motor-cooling fan is rotating smoothly. FR-SFJ only • Reduce the frequency of motor acceleration/deceleration. • Check for cable disconnections between the terminal board of the resistor unit and the AL1-A to AL2-B terminals on TB2 of the FR-SFJ body. • Check if the resistor unit cooling fan is rotating smoothly.	Clearing procedure: N Brightness: H

104	SERVO LAG EXCESS (, ,)	
Cause	The position follow-up error rate during position looping has exceeded the required value, or a wrong encoder-mounting direction was selected during data setting in bit 8 of parameter 30.	Type of error: D Stopped status: H
Action	• Check if the orientation-detector mounting direction that has been set using parameter ORS2 is correct. • Check if the position-loop detector mounting direction that has been set using parameter ORS2 is correct.	Clearing procedure: N Brightness: H

107	(, ,)	
Cause		Type of error Stopped status
Action		Clearing procedure Brightness

108	ANOTHER AXIS MALFUNCTION (, ,)	
Cause	Some trouble occurred in other servo axes during bus connection to the CNCs of the M300 series. Or the termination resistor on connector CN1B may have come off.	Type of error: D Stopped status: H
Action	• Check if the termination resistor on connector CN1B has come off. • Check for loose screws on connector CN1B. • Check if connectors CN1A and CN1B are connected the other way around.	Clearing procedure: N Brightness: H

109	OPTION PRINT CIRCUIT BOARD ERR. (, ,)	
Cause	The function which is required to be activated is not setup in the FR-SF as an option.	Type of error: D Stopped status: H
Action	Add an optional cover.	Clearing procedure: N Brightness: H

110	MEMORY POWER OFF WARNING (, ,)	
Cause	Supply voltage is lowered temporarily. (The servo power, however, will not turn off.)	Type of error: D Stopped status: H
Action	Press the reset key.	Clearing procedure: N Brightness: H

114	PARAMETER ERROR (, ,)	
Cause	Parameter data out of the permissible range has been set. (The servo power, however, will not turn off.)	Type of error: D Stopped status: H
Action	Check the parameter data.	Clearing procedure: N Brightness: H

117	EMERGENCY STOP (, ,)	
Cause	A hardware error has occurred.	Type of error: D Stopped status: H
Action	Please contact your MAZAK service representative if the error is not cleared even after the power has been turned off and then turned back on.	Clearing procedure: N Brightness: H

120	SOFT LIMIT (, ,)	
Cause	Stored stroke limit 1 or 2 has worked.	Type of error: D Stopped status: H
Action	• Move the axis under manual operations. • Correct the machining program.	Clearing procedure: N Brightness: H

121	OVER TRAVEL (, ,)	
Cause	The stroke end function has worked (input signal off) to indicate that an axis has reached its stroke end.	Type of error: D Stopped status: H
Action	Move the axis away from the stroke end limit switch under manual operations. Correct the machining program.	Clearing procedure: N Brightness: H

122	CHUCK BARRIER (, ,)	
Cause	The tool interfered with the chucks.	Type of error: D Stopped status: H
Action	Correct the machining program.	Clearing procedure: N Brightness: H

123	TAILSTOCK BARRIER (, ,)	
Cause	The tool interfered with the tail barriers.	Type of error: D Stopped status: H
Action	Correct the machining program.	Clearing procedure: N Brightness: H

124	WORK PIECE BARRIER (, ,)	
Cause	The workpiece of first and second system interfere.	Type of error: D Stopped status: H
Action	Correct the machining program.	Clearing procedure: N Brightness: H

125	NO MEASURING SENSOR SIGNAL (, ,)	
Cause	The sensor signal is not turned on.	Type of error: D Stopped status: H
Action	• Check if the sensors are correctly mounted. • Check the machining program for data errors.	Clearing procedure: N Brightness: H

126	ILLEGAL MEASURING SENSOR SIGNAL (, ,)	
Cause	A sensor turned on when it was outside the measure area.	Type of error: D Stopped status: H
Action	Check the program if a sensor came into contact with anything else. If the error is not due to sensor contact, check for correct mounting of sensors.	Clearing procedure: N Brightness: H

127	MEASURED RESULT MALFUNCTION (, ,)	
Cause	Being unusual of measured is showned.	Type of error: D Stopped status: H
Action	• Check if sensor tooling has been correctly done. • Check the machining program for data errors. • Check if the sensors are correctly mounted.	Clearing procedure: N Brightness: H

128	EMERGENCY STOP (, ,)	
Cause	The emergency stop button was pressed.	Type of error: D Stopped status: H
Action	Reset the emergency stop button.	Clearing procedure: N Brightness: H

128	PARAMETER ERROR	(, ,)
Cause		Type of error
		Stopped status
Action		Clearing procedure
		Brightness

130	SP BARRIER	(, ,)
Cause	The tool interfered with the SP barrier.	Type of error
		D
		Stopped status
		H
Action	Correct the machining program.	Clearing procedure
		N
		Brightness
		H

140	AUTO START CONDITION ERROR	(, ,)
Cause	(1) Axis moving Automatic start is not possible since there is an axis that is moving. (2) Ready off Automatic start is not possible since NC Ready is not on. (3) Reset signal active Automatic start is not possible because of a reset signal being input. (4) Automatic operation pause signal ON The FEED HOLD button on the machine is set to ON (valid). (5) Axis present at hardware stroke end Automatic start is not possible because of an axis having reached its stroke end. (6) Axis present at software stroke end Automatic start is not possible because of an axis having reached its stored stroke end. (7) Operation mode overlap Two or more automatic operation modes have been selected. (8) Overheated The temperature of the NC unit or operation board is too high.	Type of error E Stopped status L
Action	(1) After all axes have stopped moving, restart the automatic operation. (2) Some other alarm cause is occurring. Take the appropriate corrective action according to the particular alarm status. (3) Turn off the reset input signal. The RESET key is malfunctioning or set to its normally-on position. Review the sequence program. (4) Check the setting of the FEED HOLD button. The FEED HOLD button is of a B-contacts type. Check for cable disconnections in the FEED HOLD button signal line. Review the sequence program. (5) If the stroke end has been reached at the axis end, move the axis under manual operations. Check for cable disconnections in the stroke end signal line. Check for stroke end limit switch malfunctions. (6) Move the axis under manual operations. If that position is not the axis end, check for parameter errors. (7) Check for short-circuits in the mode selector signal lines (Memory, Tape, or MDI modes). Check for switch malfunctioning Review the sequence program. (8) Check the cooling fans within the main switchboard and operation panel.	Clearing procedure S Brightness N

141	NOT AUTO MODE	(, ,)
Cause	The operation mode active when the CYCLE START button was pressed was not an automatic operation mode.	Type of error
		E
		Stopped status
		L
Action	Change the mode to an automatic operation mode before restarting.	Clearing procedure
		S
		Brightness
		N

142	CHANGE OPERATE MODE (, ,)	
Cause	The operation mode is changed from one automatic operation mode to another.	Type of error: E Stopped status: L
Action	Change the mode back to the original automatic operation mode before restarting automatic operation.	Clearing procedure: S Brightness: N

143	RESTART SEARCH UNFINISHED (, ,)	
Cause	The restart key was pressed before the restart data search operation was completed. • MAZATROL···Data required for restart is not yet input. • EIA···Data required for restart is not yet input. "EIA/ISO SEARCH" menu key was not pressed.	Type of error: E Stopped status: L
Action	Set data, and then restart. (For EIA programs, press the "EIA/ISO SEARCH" menu key before restarting.)	Clearing procedure: S Brightness: N

144	SINGLE PROCESS SEARCH UNFIN. (, ,)	
Cause	The restart key was pressed before the single-process data search operation was completed. Data required for single-process start is not yet set.	Type of error: E Stopped status: L
Action	Set data, and then restart.	Clearing procedure: S Brightness: N

145	WORKPIECE PROGRAM NOT FOUND (, ,)	
Cause	Automatic operation has started but the intended work number was not present. The intended work number was not present (the work number was 0) when the CYCLE RESTART button was pressed in the automatic operation mode. (Except during the test mode.)	Type of error: E Stopped status: L
Action	Set a work number and restart.	Clearing procedure: S Brightness: N

146	EIA/ISO PROGRAM DESIGNATED (, ,)	
Cause	An EIA program was active when single-process operation was started.	Type of error: E Stopped status: L
Action	Select a MAZATROL program and then start.	Clearing procedure: S Brightness: N

147	TEST MODE DATA NOT FOUND (, ,)	
Cause	There was no data when operation was started in the test mode.	Type of error: E Stopped status: L
Action	Set data and then start.	Clearing procedure: S Brightness: N

148	HOME RETURN UNFINISH (, ,)	
Cause	Automatic starting was attempted with zero-point returning remaining undone. Automatic starting was attempted in spite of the fact that zero-point returning has not been done even a single time since the power was turned on. (Absolute-position detector inoperative)	Type of error: E Stopped status: L
Action	Carry out a watchdog-type zero-point returning operation before starting automatic operation.	Clearing procedure: S Brightness: N

149	CYCLE START ON SYNCHRONIZED (, ,)	
Cause	Starting during sequential synchronous operation is impossible. The CYCLE START button for the system in serial synchronous operation was pressed in an attempt to start automatic oepration in a manually-set axis serial synchronous operation ON status.	Type of error: E Stopped status: L
Action	Clear the serial synchronous operation mode before pressing the CYCLE START button.	Clearing procedure: S Brightness: N

150	TOOL SELECT MALFUNCTION (, ,)	
Cause	Automatic starting was attempted when nondesignated tool data was valid. An attempt was made to start automatic operation immediately after the tool change was made by manual interruption.	Type of error: E Stopped status: L
Action	Replace the tool with the original one before starting automatic operation.	Clearing procedure: S Brightness: N

151	NO EIA/ISO OPTION (, ,)	
Cause	EIA operation was attempted in the absence of EIA options.	Type of error: E Stopped status: L
Action	Purchase EIA options from your MAZAK service representative.	Clearing procedure: — Brightness: N

152	AUTO START INHIB. (DATA BUSY) (, ,)	
Cause	An attempt was made to perform loading data except program in the CMT I/O, TAPE I/O, or DNC I/O mode.	Type of error: E Stopped status: L
Action	Abort the loading operation, or wait for the loading operation to be through before proceeding to automatic operation.	Clearing procedure: S Brightness: N

153	Z-OFFSET NOT FOUND (, ,)	
Cause	The MAZATROL program you were going to use to start automatic operation does not have Z offset data.	Type of error: E Stopped status: L
Action	Set Z offset data on the SET UP display.	Clearing procedure: S Brightness: N

160	ILLEGAL AXIS EXSTS (, ,)	
Cause	The proximity detection limit switch overran the watchdog during reference-point returning.	Type of error: E Stopped status: L
Action	Increase the length of the proximity watchdog or reduce the reference-point returning speed, and then carry out the returning operation once again.	Clearing procedure: S Brightness: N

161	Z AXIS NOT COMPLETED (, ,)	
Cause	There is an axis that did not go through the Z-phase of the detector during an initial reference-point returning operation following the power-on sequence.	Type of error: E Stopped status: L
Action	Move the detector through more than one turn in an opposite direction to that of the reference point, and then carry out the returning operation once again.	Clearing procedure: S Brightness: N

162	ORIGIN RETURN DIR. ILLEGAL AXIS (, ,)	
Cause	The direction of manual reference-point returning is different from the axis move direction that has been selected using an axis move key.	Type of error: A Stopped status: I
Action	Select the correct direction using the axis move keys (+, −) and carry out the returning operation once again.	Clearing procedure: S Brightness: N

163	INSIDE INTERLOCK AXIS (, ,)	
Cause	Internal interlock is working.	Type of error: A Stopped status: L
Action	• The servo-off function is active. Deactivate the servo-off function. • An inavailable axis command is ordered. Select available axis. • The selected direction is the same as that in which the manual skip function has turned on. Carry out operations correctly.	Clearing procedure: S Brightness: N

164	OUTSIDE INTERLOCK AXIS (, ,)	
Cause	There is an axis that has entered an interlocked status since the interlock function has worked (input signal off).	Type of error: A Stopped status: L
Action	• Since the interlock function is valid, clear the interlock before carrying out operations. • Check the machine operation sequence program. • Check for cable disconnections in the interlock signal line.	Clearing procedure: S Brightness: N

165	NO OPERATE MODE (, ,)	
Cause	Disconnections in the input mode signal line, mode selector switch malfunctions, operation mode data is not input due to sequence program data errors.	Type of error: A Stopped status: I
Action	Check for cable disconnections in the input signal line, for mode selector switch malfunctions, or for sequence program data errors.	Clearing procedure: S Brightness: N

167	EXTERNAL FEEDRATE ZERO (, ,)	
Cause	• The override setting is zero. • The manual feedrate for jog mode or automatic dry run mode operation is zero. • The cutting feedrate for test mode operation is zero.	Type of error: A Stopped status: L
Action	• Change the override and the manual feedrate to values other than zero. • If the override and the manual feedrate are not zero, check for short-circuits in the signal line. • Check the sequence program.	Clearing procedure: S Brightness: N

169	STOP SPINDLE (, ,)	
Cause	The spindle or milling axis was at rest when the synchronous feed command was issued.	Type of error: D Stopped status: L
Action	• Rotate the spindle. • If work cutting is not in progress, set the dry run mode. • Check for spindle encoder cable disconnections. • Check for improper connector connections of the spindle encoder. • Check the state of the spindle encoder pulses.	Clearing procedure: S Brightness: N

170	HANDLE AXIS NOT SELECTED (, ,)	
Cause	An axis not supported by selected specification is designated for pulse handle feed operation, or pulse handle feed operation is attempted without designating the axis to feed.	Type of error: A Stopped status: L
Action	• Check for cable disconnections in the handle feed axis select signal line. • Check the sequence program. • Check the number of axes against the specifications.	Clearing procedure: S Brightness: N

171	SPINDLE ROTATE NO. OVER (, ,)	
Cause	The spindle speed exceeded the clamping speed of the axis when the threading command was issued.	Type of error: D Stopped status: L
Action	Reduce the programmed speed of the spindle.	Clearing procedure: S Brightness: N

176	ABSOLUTE POSITION DETECTION ERR (, ,)	
Cause	When the power was turned on, an offset larger than 0.9 pitches of ball screw was detected to the position saved in memory. (only for absolute position system)	Type of error: E Stopped status: I
Action	Carry out a watchdog-type zero-point returning operation.	Clearing procedure: S Brightness: N

177	TOOL LIFE EXCEED TIME (, ,)	
Cause	The tool life time (LIFE TIME) that has been set on the TOOL DATA display was exceeded during machining.	Type of error: E Stopped status: I
Action	(After changing the tool), reset the tool used time to zero.	Clearing procedure: S Brightness: N

178	USED TOOL NUMBER EXCEED (, ,)	
Cause	The number of tools (USED NUM.) that has been set on the TOOL DATA display was exceeded during machining.	Type of error: E Stopped status: I
Action	(After changing the tool), reset the number of tools to zero.	Clearing procedure: S Brightness: N

179	X-MAX OR Z-MAX OFFSET OVER (, ,)	
Cause	The maximum tool wear compensation value (MAX WEAR) that has been set on the TOOL DATA display was exceeded during machining.	Type of error: E Stopped status: I
Action	(After changing the tool), reset the wear offset to zero.	Clearing procedure: S Brightness: N

180	SYNCHRONIZED OPERATION (, ,)	
Cause		Type of error: Stopped status:
Action		Clearing procedure: Brightness:

181	EXT. SEARCH ERR. DURING OPERATION (, ,)	
Cause	External searching was attempted during operation. If an attempt is made to carry out an external search operation during automatic operation, external searching will become impossible since the external search start signal will turn on and an external search request will be issued to the NC. A notice will be displayed at this time and automatic operation will continue.	Type of error: E Stopped status: L
Action		Clearing procedure: S Brightness: N

182	NO DESIGNATED PROGRAM (EXT.) (, ,)	
Cause	The program that was selected from the machining programs when an external search request was issued does not exist for the following reasons: 1) The machining program itself does not exist. 2) The machining program area is unformatted.	Type of error: E Stopped status: L
Action	Check if the selected program exists in the NC.	Clearing procedure: S Brightness: N

184	ZERO RETURN IMPOSSIBLE (MEASURE) (, ,)	
Cause	The zero-point returning mode cannot be selected in the following cases: 1) The TOOL EYE is out of position. 2) The MEASURE START menu on the MANUAL MEASURE display is ON.	Type of error: E Stopped status: L
Action	1. Place the TOOL EYE back into position. 2. Press the MEASURE START menu key on the MANUAL MEASURE display to turn the menu off.	Clearing procedure: S Brightness: N

200	THERMAL TRIP (EMERGENCY STOP) (, ,)	
Cause	A motor ON/OFF thermal relay switch has tripped.	Type of error
		F
		Stopped status
		H
Action		Clearing procedure
		N
		Brightness
		H

201	BREAKER TRIP (, ,)	
Cause	The circuit breaker in the power line is tripped.	Type of error
		F
		Stopped status
		H
Action		Clearing procedure
		N
		Brightness
		H

202	HYDRAURIC PRESSURE DOWN (, ,)	
Cause	An oil pressure decrease below the required level has activated the pressure switch.	Type of error
		F
		Stopped status
		H
Action		Clearing procedure
		N
		Brightness
		H

203	AIR PRESSURE DOWN (, ,)	
Cause	An air pressure decrease below the required level has activated the pressure switch.	Type of error
		F
		Stopped status
		H
Action		Clearing procedure
		N
		Brightness
		H

204	SPINDLE CONTROLLER MALFUNCTION (, ,)	
Cause	An alarm occurred at spindle controller.	Type of error
		F
		Stopped status
		H
Action		Clearing procedure
		N
		Brightness
		H

205	MILLING CONTROLLER MALFUNCTION (, ,)	
Cause	An alarm occurred at milling controller.	Type of error
		F
		Stopped status
		H
Action		Clearing procedure
		N
		Brightness
		H

206	OPEN FRONT DOOR (EMERGENCY STOP) (, ,)	
Cause	Front door is opened during automatic operation.	Type of error
		F
		Stopped status
		H
Action		Clearing procedure
		N
		Brightness
		H

207	EXT EMERGENCY STOP (, ,)	
Cause	An external emergency stop signal was input.	Type of error
		F
		Stopped status
		H
Action		Clearing procedure
		N
		Brightness
		H

208	MAGAZINE SHEAR PIN CUT	(, ,)
Cause	An alarm occurred during cutting-off of the magazine shear protective pin. (MEGA TURN)	Type of error: F Stopped status: H
Action		Clearing procedure: N Brightness: H

209	INCORRECT TOOL EYE ARM POSITION	(, ,)
Cause	The TOOL EYE retraction end sensor is turned off during automatic operation (only for manual TOOL EYE specification.)	Type of error: F Stopped status: H
Action		Clearing procedure: N Brightness: H

210	ILLEGAL DATA INPUT	(, ,)
Cause	The input program data or parameter is incorrect.	Type of error: F Stopped status: I
Action		Clearing procedure: O Brightness: H

211	NOT OPERATED M-CODE SIMULTA.	(, ,)
Cause	That combination of M-codes includes those which must not be used in combination.	Type of error: F Stopped status: I
Action		Clearing procedure: O Brightness: H

212	CHUCK OPEN/CLOSE SWITCH MALF.	(, ,)
Cause	The signal from the chuck open/close switch remains ON.	Type of error: F Stopped status: I
Action		Clearing procedure: O Brightness: H

213	ILLEGAL DESIGNATED TOOL NO.	(, ,)
Cause	A T-code which must not be designated in the program is read, or the command which does not coincide with the magazine state is designated.	Type of error: F Stopped status: I
Action		Clearing procedure: O Brightness: H

214	PLC-PARAMETER INPUT ERROR	(, ,)
Cause	An inconsistency occurred with the parameters which determine the machine specification.	Type of error: F Stopped status: I
Action		Clearing procedure: O Brightness: H

215	CHUCK SYSTEM MALFUNCTION	(, ,)
Cause	An erroneous chucking action was detected.	Type of error: F Stopped status: I
Action		Clearing procedure: O Brightness: H

216	CROSS RAIL OVERLOAD (, ,)	
Cause	The crossrail drive has become overloaded. (MEGA TURN)	Type of error: F Stopped status: I
Action		Clearing procedure: O Brightness: H

217	NC ALARM IN Z1, Z2 SYNCH. (, ,)	
Cause	During the synchronized mode operation, an alarm occurred with either of Z1 and Z2. (MULTI PLEX 620).	Type of error: F Stopped status: I
Action		Clearing procedure: O Brightness: H

218	CHECKING TYPE NOT SELECTED (, ,)	
Cause	Type of chucking (inner/outer) of spindle chuck is not selected. (Outer chucking was selected for a collet chuck.)	Type of error: F Stopped status: I
Action		Clearing procedure: O Brightness: H

219	(, ,)	
Cause		Type of error: Stopped status:
Action		Clearing procedure: Brightness:

220	TURRET POSITION SENSOR MALF (, ,)	
Cause	The turret index sensor fails to function.	Type of error: F Stopped status: K
Action		Clearing procedure: O Brightness: H

221	TURRET CLAMP SENSOR MALFUNCTION (, ,)	
Cause	The turret clamp/unclamp sensor fails to function, or both of them are ON simultaneously.	Type of error: F Stopped status: K
Action		Clearing procedure: O Brightness: H

222	TAILSTOCK BODY SENSOR MALF. (, ,)	
Cause	The tailstock body position detection sensors fail to function, or both of the sensors are ON simultaneously.	Type of error: F Stopped status: K
Action		Clearing procedure: O Brightness: H

223	TAILSTOCK QUILL SENSOR MALF. (, ,)	
Cause	The tailstock spindle position detection sensors fail to function, or both of the sensors are ON simultaneously.	Type of error: F Stopped status: K
Action		Clearing procedure: O Brightness: H

224	CHUCK SENSOR MALFUNCTION (, ,)	
Cause	The chuck open/close confirmation sensors fail to function, or both of the sensors are ON simultaneously.	Type of error: F Stopped status: K
Action		Clearing procedure: O Brightness: H

225	FRONT DOOR SENSOR MALFUNCTION (, ,)	
Cause	The front door open/close confirmation sensors fail to function, or both of the sensors are ON simultaneously.	Type of error: F Stopped status: K
Action		Clearing procedure: O Brightness: H

226	SPINDLE GEAR SHIFT SENSOR MALF. (, ,)	
Cause	The spindle gearshift position detection sensors fail to function, or more than one sensor is ON simultaneously.	Type of error: F Stopped status: K
Action		Clearing procedure: O Brightness: H

227	MILLING GEAR SHIFT SENSOR MALF. (, ,)	
Cause	The mill spindle gearshift position detection sensors fail to function, or more than one sensor is ON simultaneously.	Type of error: F Stopped status: K
Action		Clearing procedure: O Brightness: H

228	C-AXIS SHIFT SENSOR MALFUNCTION (, ,)	
Cause	The C-axis servo shift confirmation sensors fail to function, or both of the sensors are ON simultaneously.	Type of error: F Stopped status: K
Action		Clearing procedure: O Brightness: H

229	C-AXIS CLAMP SENSOR MALFUNCTION (, ,)	
Cause	The spindle clamp state confirmation sensors fail to function, or both of the sensors are ON simultaneously.	Type of error: F Stopped status: K
Action		Clearing procedure: O Brightness: H

230	ORIENT INDEX PIN SENSOR MALF. (, ,)	
Cause	The index orient pin IN/OUT confirmation sensors fail to function, or both of the sensors are ON simultaneously.	Type of error: F Stopped status: K
Action		Clearing procedure: O Brightness: H

231	TOOL EYE POSITION SENSOR MALF. (, ,)	
Cause	The TOOL EYE EXT./RET. confirmation sensors fail to function, or both of the sensors are ON simultaneously.	Type of error: F Stopped status: K
Action		Clearing procedure: O Brightness: H

232	MAGAZINE POSITION SENSOR MALF. (, ,)	
Cause	The magazine positioning confirmation sensor fails to function.	Type of error: F Stopped status: K
Action		Clearing procedure: O Brightness: H

233	MAGAZINE COVER SENSOR MALF. (, ,)	
Cause	The magazine cover open/close confirmation sensors fail to function, or both of the sensors are ON simultaneously.	Type of error: F Stopped status: K
Action		Clearing procedure: O Brightness: H

234	TOOL CLAMP SENSOR MALFUNCTION (, ,)	
Cause	The ATC type, tool clamp confirmation sensors fail to function, or both of the sensors are ON simultaneously.	Type of error: F Stopped status: K
Action		Clearing procedure: O Brightness: H

235	ATC-ARM SENSOR MALFUNCTION (, ,)	
Cause	The ATC arm operation confirmation sensors fail to function, or both of the sensors are ON simultaneously.	Type of error: F Stopped status: K
Action		Clearing procedure: O Brightness: H

236	PARTS-CATCHER SENSOR MALF. (, ,)	
Cause	The parts catcher ADV./RET. confirmation sensors fail to function, or both of the sensors are ON simultaneously.	Type of error: F Stopped status: K
Action		Clearing procedure: O Brightness: H

237	CROSS-RAIL CLAMP SENSOR MALF. (, ,)	
Cause	The cross-rail clamp confirmation sensors fail to function, or both of the sensors are ON simultaneously. (MEGA TURN)	Type of error: F Stopped status: K
Action		Clearing procedure: O Brightness: H

238	CROSS-RAIL POSITION SENSOR MALF. (, ,)	
Cause	The cross-rail position detection sensor fails to function. (MEGA TURN)	Type of error: F Stopped status: K
Action		Clearing procedure: O Brightness: H

239	MILLING COUPLING SENSOR MALF. (, ,)	
Cause	The sensor at the coupling side of the mill spindle coupling fails to function, or the sensors confirming the opp~~sing operation are ON simultaneously. (MULTIPLEX 620)	Type of error: F Stopped status: K
Action		Clearing procedure: O Brightness: H

240	MAGAZINE CONTROLLER MALF. (, ,)	
Cause	An alarm occurred at the magazine controller.	Type of error: F Stopped status: K
Action	Eliminate cause of alarm at the controller.	Clearing procedure: O Brightness: H

241	AJC CONTROLLER MALFUNCTION (, ,)	
Cause	An alarm occurred at the AJC controller.	Type of error: F Stopped status: K
Action	Eliminate cause of alarm at the controller.	Clearing procedure: O Brightness: H

242	ROBOT CONTROLLER MALFUNCTION (, ,)	
Cause	An alarm occurred at the robot controller.	Type of error: F Stopped status: K
Action	Eliminate cause of alarm at the controller.	Clearing procedure: O Brightness: H

243	MEASURING CONTROLLER MALF. (, ,)	
Cause	An alarm occurred at the measurement controller.	Type of error: F Stopped status: K
Action	Eliminate cause of alarm at the controller.	Clearing procedure: O Brightness: H

244	PALLET CHANGE CONTROLLER MALF. (, ,)	
Cause	An alarm occurred at the pallet changer controller.	Type of error: F Stopped status: K
Action	Eliminate cause of alarm at the controller.	Clearing procedure: O Brightness: H

245	BAR-FEEDER CONTROLLER MALF. (, ,)	
Cause	An alarm occurred at the bar feeder controller.	Type of error: F Stopped status: K
Action	Eliminate cause of alarm at the controller.	Clearing procedure: O Brightness: H

246	LOADER CONTROLLER MALFUNCTION (, ,)	
Cause	An alarm occurred at the loader controller.	Type of error: F Stopped status: K
Action	Eliminate cause of alarm at the controller	Clearing procedure: O Brightness: H

247	BORING BAR CONTROLLER MALF. (, ,)	
Cause	An alarm occurred at the boring bar controller.	Type of error: F Stopped status: K
Action	Eliminate cause of alarm at the controller.	Clearing procedure: O Brightness: H

248	EXTERNAL CONTROLLER (No. 1) MALF. (, ,)	
Cause	Failure of controller of a peripheral (option).	Type of error: F
		Stopped status: K
Action		Clearing procedure: O
		Brightness: H

249	EXTERNAL CONTROLLER (No. 2) MALF. (, ,)	
Cause	Failure of controller of a peripheral (option).	Type of error: F
		Stopped status: K
Action		Clearing procedure: O
		Brightness: H

250	SPINDLE START MISOPERATION (, ,)	
Cause	The spindle rotation start command was issued during the disabled state of spindle rotation, specified by a chuck open command, a measurement command etc.	Type of error: F
		Stopped status: K
Action		Clearing procedure: O
		Brightness: H

251	MILLING MOTOR ROTATION PROHIB. (, ,)	
Cause	The milling motor rotation start command was issued during the disabled state of milling, specified by a chuck open command, a measurement command etc.	Type of error: F
		Stopped status: K
Action		Clearing procedure: O
		Brightness: H

252	AXIS MOVE MISOPERATION (, ,)	
Cause	An axis move command was issued during the ON state of the axis interlock signal.	Type of error: F
		Stopped status: K
Action		Clearing procedure: O
		Brightness: H

253	SPINDLE OVERLOAD DETECTION (, ,)	
Cause	The spindle overload signal is turned ON: spindle overload detection is activated with M70/M71.	Type of error: F
		Stopped status: K
Action		Clearing procedure: O
		Brightness: H

254	MAGAZINE COVER OPEN (, ,)	
Cause	During automatic operation, the magazine cover was opened erroneously.	Type of error: F
		Stopped status: K
Action		Clearing procedure: O
		Brightness: H

255	FRONT COVER OPEN (FEED HOLD) (, ,)	
Cause	During automatic operation, the coolant cover was opened.	Type of error: F
		Stopped status: K
Action		Clearing procedure: O
		Brightness: H

256	TURRET ROTATION PROHIBITED (, ,)	
Cause	The turret rotation command is given during turret rotation prohibited state.	Type of error: F Stopped status: K
Action		Clearing procedure: O Brightness: H

257	ILLEGAL M CODE (, ,)	
Cause	An illegal M code has been specified	Type of error: F Stopped status: K
Action		Clearing procedure: O Brightness: H

258	TNo. MISMATCH (, ,)	
Cause	The No. of the tool to be restarted and that before the interruption differs at the restart after the manual interruption in the automatic mode.	Type of error: F Stopped status: J
Action		Clearing procedure: Q Brightness: N

259	MODE CHANGE IMPOSSIBLE (, ,)	
Cause	An attempt was made to change the operation mode while it was prohibited.	Type of error: F Stopped status: J
Action		Clearing procedure: Q Brightness: N

260	SLIDEWAY LUBRICATION ALARM (, ,)	
Cause	The sliding surface pressure switch worked for a predetermined time.	Type of error: F Stopped status: J
Action		Clearing procedure: Q Brightness: N

261	HEAD LUBRICATION ALARM (, ,)	
Cause	The spindlehead pressure switch worked for a predetermined time.	Type of error: F Stopped status: J
Action		Clearing procedure: Q Brightness: N

262	TABLE LUBRICATION ALARM (, ,)	
Cause	The table pressure switch worked for a predetermined time.	Type of error: F Stopped status: J
Action		Clearing procedure: Q Brightness: N

263	TAILSTOCK LUBRICATION ALARM (, ,)	
Cause	The tailstock pressure switch worked for a predetermined time.	Type of error: F Stopped status: J
Action		Clearing procedure: Q Brightness: N

264	THERMAL TRIP (SINGLE BLOCK) (, ,)	
Cause	A motor ON/OFF thermal relay switch has tripped that does not have direct effects on the machining capabilities of the chip conveyor motor or other sections.	Type of error: F Stopped status: J
Action		Clearing procedure: Q Brightness: N

265	COOLING FAN MALFUNCTION (, ,)	
Cause	An alarm occurred because the control panel cooling fan stopped rotating.	Type of error: F Stopped status: J
Action		Clearing procedure: Q Brightness: N

266	IRREGAL M-CODE (, ,)	
Cause	An illegal M code has been specified.	Type of error: Stopped status:
Action		Clearing procedure: Brightness:

267	BALL SCREW LUBRICATION ALARM (, ,)	
Cause	The pressure switch monitoring ball screw lubrication pressure has been actuated for more than preset period.	Type of error: F Stopped status: J
Action		Clearing procedure: Q Brightness: N

268	C-AXIS GEAR LUBRICATION ALARM (, ,)	
Cause	The pressure switch monitoring C-axis gear lubrication pressure has been actuated for more than preset period.	Type of error: F Stopped status: J
Action		Clearing procedure: Q Brightness: N

269	(, ,)	
Cause		Type of error: Stopped status:
Action		Clearing procedure: Brightness:

270	SPINDLE ORIENT EXCEED TIME (, ,)	
Cause	The orientation confirmation signal is not turned on 10 seconds after the issuance of the orientation command.	Type of error: F Stopped status: J
Action		Clearing procedure: P Brightness: N

271	MILL-SPINDLE ORIENT EXCEED TIME (, ,)	
Cause	The orientation confirmation signal is not turned on 10 seconds after the issuance of the orientation command.	Type of error: F Stopped status: J
Action		Clearing procedure: P Brightness: N

272	TURRET INDEX EXCEED TIME (, ,)	
Cause	The turret index confirmation signal is not turned on __ seconds after the issuance of the turret index command.	Type of error: F Stopped status: J
Action		Clearing procedure: P Brightness: N

273	MAGAZINE INDEX EXCEED TIME (, ,)	
Cause	The magazine index confirmation signal is not turned on __ seconds after the issuance of the magazine index command.	Type of error: F Stopped status: J
Action		Clearing procedure: P Brightness: N

274	AJC CYCLE EXCEED TIME (, ,)	
Cause	The AJC confirmation signal is not turned on __ seconds after the issuance of the AJC command.	Type of error: F Stopped status: J
Action		Clearing procedure: P Brightness: N

275	ROBOT SERVICE EXCEED TIME (, ,)	
Cause	The robot service completion signal is not turned on __ seconds after the issuance of the robot service command.	Type of error: F Stopped status: J
Action		Clearing procedure: P Brightness: N

276	ATC CYCLE EXCEED TIME (, ,)	
Cause	The ATC completion signal is not turned on __ seconds after the issuance of the ATC command.	Type of error: F Stopped status: J
Action		Clearing procedure: P Brightness: N

277	BAR-FEEDER CYCLE EXCEED TIME (, ,)	
Cause	The bar feeder completion signal is not turned on__seconds after the issuance of the bar feeder command.	Type of error: F Stopped status: J
Action		Clearing procedure: P Brightness: N

278	PALLET CHANGE EXCEED TIME (, ,)	
Cause	The pallet change completion signal is not turned on __ seconds after the issuance of the pallet change command.	Type of error: F Stopped status: J
Action		Clearing procedure: P Brightness: N

279	PARTS CATCHER CYCLE EXCEED TIME (, ,)	
Cause	The parts catcher completion signal is not turned on __ seconds after the issuance of the parts catcher command.	Type of error: F Stopped status: J
Action		Clearing procedure: P Brightness: N

280	TAILSTOCK BODY EXCEED TIME (, ,)	
Cause	The tailstock body positioning completion signal is not turned on __ seconds after the issuance of the tailstock body positioning command.	Type of error: F Stopped status: J
Action		Clearing procedure: P Brightness: N

281	TAILSTOCK QUILL EXCEED TIME (, ,)	
Cause	The tailstock spindle IN/OUT completion signal is not turned on __ seconds after the issuance of the tailstock spindle IN/OUT command.	Type of error: F Stopped status: J
Action		Clearing procedure: P Brightness: N

282	CHUCK CLAMP EXCEED TIME (, ,)	
Cause	The spindle chuck open/close completion signal is not turned on __ seconds after the issuance of the spindle chuck open/close command.	Type of error: F Stopped status: J
Action		Clearing procedure: P Brightness: N

283	SPINDLE GEARSHIFT EXCEED TIME (, ,)	
Cause	The spindle gearshift completion signal is not turned on __ seconds after the issuance of the spindle gearshift command.	Type of error: F Stopped status: J
Action		Clearing procedure: P Brightness: N

284	M-SPINDLE GEARSHIFT EXCEED TIME (, ,)	
Cause	The mill spindle gearshift completion signal is not turned on __ seconds after the issuance of the mill spindle gearshift command.	Type of error: F Stopped status: J
Action		Clearing procedure: P Brightness: N

285	C-AXIS CONNECT EXCEED TIME (, ,)	
Cause	The C-axis mode selection completion signal is not turned on __ seconds after the issuance of the C-axis mode selection command.	Type of error: F Stopped status: J
Action		Clearing procedure: P Brightness: N

286	FRONT DOOR EXCEED TIME (, ,)	
Cause	The automatic door open/close completion signal is not turned on __ seconds after the issuance of the automatic door open/close command.	Type of error: F Stopped status: J
Action		Clearing procedure: P Brightness: N

287	CROSS-RAIL POSITION EXCEED TIME (, ,)	
Cause	The cross-rail positioning completion signal is not turned on __ seconds after the issuance of the cross-rail positioning command.	Type of error: F Stopped status: J
Action		Clearing procedure: P Brightness: N

288	(, ,)
Cause	Type of error
	Stopped status
Action	Clearing procedure
	Brightness

289	(, ,)
Cause	Type of error
	Stopped status
Action	Clearing procedure
	Brightness

290	SENSOR MALFUNCTION No. 1	(, ,)
Cause	An alarm is given when a sensor of a peripherary (option) is faulty.	Type of error
		F
		Stopped status
		J
Action		Clearing procedure
		P
		Brightness
		N

291	SENSOR MALFUNCTION No. 2	(, ,)
Cause	An alarm is given when a sensor of a peripherary (option) is faulty.	Type of error
		F
		Stopped status
		J
Action		Clearing procedure
		P
		Brightness
		N

292	SENSOR MALFUNCTION No. 3	(, ,)
Cause	An alarm is given when a sensor of a peripherary (option) is faulty.	Type of error
		F
		Stopped status
		J
Action		Clearing procedure
		P
		Brightness
		N

293	SENSOR MALFUNCTION No. 4	(, ,)
Cause	An alarm is given when a sensor of a peripherary (option) is faulty.	Type of error
		F
		Stopped status
		J
Action		Clearing procedure
		P
		Brightness
		N

294	SENSOR MALFUNCTION No. 5	(, ,)
Cause	An alarm is given when a sensor of a peripherary (option) is faulty.	Type of error
		F
		Stopped status
		J
Action		Clearing procedure
		P
		Brightness
		N

295	SENSOR MALFUNCTION No. 6	(, ,)
Cause	An alarm is given when a sensor of a peripherary (option) is faulty.	Type of error
		F
		Stopped status
		J
Action		Clearing procedure
		P
		Brightness
		N

296	SENSOR MALFUNCTION No. 7	(, ,)
Cause	An alarm is given when a sensor of a peripherary (option) is faulty.	Type of error: F Stopped status: J
Action		Clearing procedure: P Brightness: N

297	SENSOR MALFUNCTION No. 8	(, ,)
Cause	An alarm is given when a sensor of a peripherary (option) is faulty.	Type of error: F Stopped status: J
Action		Clearing procedure: P Brightness: N

298	SENSOR MALFUNCTION No. 9	(, ,)
Cause	An alarm is given when a sensor of a peripherary (option) is faulty.	Type of error: F Stopped status: J
Action		Clearing procedure: P Brightness: N

299	SENSOR MALFUNCTION No. 10	(, ,)
Cause	An alarm is given when a sensor of a peripherary (option) is faulty.	Type of error: F Stopped status: J
Action		Clearing procedure: P Brightness: N

300	START COND. ERR. (DOOR OPEN)	(, ,)
Cause	An attempt has been made to start the machine with the front cover open.	Type of error: F Stopped status: L
Action		Clearing procedure: S Brightness: N

301	START COND. ERR. (TUR UNCLAMP)	(, ,)
Cause	An attempt has been made to start the machine with the turret unclamped.	Type of error: F Stopped status: L
Action		Clearing procedure: S Brightness: N

302	START COND. ERR. (EXT RESET)	(, ,)
Cause	An attempt has been made to start the machine with the external reset signal ON.	Type of error: F Stopped status: L
Action		Clearing procedure: S Brightness: N

303	START COND. ERR. (EXT FEED HOLD)	(, ,)
Cause	An attempt has been made to start the machine with the external feed hold signal ON.	Type of error: F Stopped status: L
Action		Clearing procedure: S Brightness: N

304	START COND. ERR. (PAL UNCLAMP) (, ,)	
Cause	An attempt has been made to start the machine with the pallet unclamped.	Type of error: F Stopped status: L
Action		Clearing procedure: S Brightness: N

305	C/S ERROR (ATC COVER OPEN) (, ,)	
Cause	An attempt was made to start the cycle with the ATC cover opened.	Type of error: F Stopped status: L
Action		Clearing procedure: S Brightness: N

306	C/S ERROR (MAGAZINE COVER OPEN) (, ,)	
Cause	An attempt was made to start the cycle with the magazine cover opened.	Type of error: F Stopped status: L
Action		Clearing procedure: S Brightness: N

307	C/S ERROR (TOOL UNCLAMP) (, ,)	
Cause	An attempt was made to start the operation while the tool was in the unclamped state (ATC type)	Type of error: F Stopped status: L
Action		Clearing procedure: S Brightness: N

308	C/S ERROR (TOOL EYE EXTEND) (, ,)	
Cause	An attempt was made to start the cycle with the TOOL EYE sensor extended.	Type of error: F Stopped status: L
Action		Clearing procedure: S Brightness: N

309	C/S ERROR (MIS-CHUCKING) (, ,)	
Cause	An attempt was made to start the cycle with the chuck workpiece clamp confirmation signal OFF.	Type of error: F Stopped status: L
Action		Clearing procedure: S Brightness: N

310	C/S ERROR (TNo. MISMATCH) (, ,)	
Cause	When restarting the cycle after the manual operation carried by interrupting the automatic cycle, the tool number used is different from the one used before the operation interruption.	Type of error: F Stopped status: L
Action		Clearing procedure: S Brightness: N

311	C/S ERROR (TAILSTOCK QUILL) (, ,)	
Cause	When restarting the cycle, the tailstock quill position differs from the position before the operation interruption. The tailstock quill position for cycle restart is improper.	Type of error: F Stopped status: L
Action		Clearing procedure: S Brightness: N

312	C/S ERROR (PT-CATCHE EXTEND) (, ,)	
Cause	An attempt was made to start the cycle with the parts catcher in the EXTEND position.	Type of error
		F
		Stopped status
		L
Action		Clearing procedure
		S
		Brightness
		N

313	C/S ERROR (T/S QUILL COMMAND) (, ,)	
Cause	An attempt was made to start the cycle in other than the following conditions: Tailstock spindle advance or retraction command ON, and retraction end LS actuated.	Type of error
		F
		Stopped status
		L
Action		Clearing procedure
		S
		Brightness
		N

314	CYCLE START CONDITION ERROR 1 (, ,)	
Cause	An alarm is given when conditions of a peripherary (option) are faulty.	Type of error
		F
		Stopped status
		L
Action		Clearing procedure
		S
		Brightness
		N

315	CYCLE START CONDITION ERROR 2 (, ,)	
Cause	An alarm is given when conditions of a peripherary (option) are faulty.	Type of error
		F
		Stopped status
		L
Action		Clearing procedure
		S
		Brightness
		N

316	CYCLE START CONDITION ERROR 3 (, ,)	
Cause	An alarm is given when conditions of a peripherary (option) are faulty.	Type of error
		F
		Stopped status
		L
Action		Clearing procedure
		S
		Brightness
		N

317	CYCLE START CONDITION ERROR 4 (, ,)	
Cause	An alarm is given when conditions of a peripherary (option) are faulty.	Type of error
		F
		Stopped status
		L
Action		Clearing procedure
		S
		Brightness
		N

318	CYCLE START CONDITION ERROR 5 (, ,)	
Cause	An alarm is given when conditions of a peripherary (option) are faulty.	Type of error
		F
		Stopped status
		L
Action		Clearing procedure
		S
		Brightness
		N

319	CYCLE START CONDITION ERROR 6 (, ,)	
Cause	An alarm is given when conditions of a peripherary (option) are faulty.	Type of error
		F
		Stopped status
		L
Action		Clearing procedure
		S
		Brightness
		N

320	TOOL UNCLAMP IMP. (M-SP ROT.) (, ,)	
Cause	The tool unclamp command was given while the mill spindle motor is rotating.	Type of error: F Stopped status: L
Action		Clearing procedure: Q Brightness: N

321	MODE CHANGE IMP. (ATC CYCLE) (, ,)	
Cause	An attempt was made to change the operation mode while the ATC is operating.	Type of error: F Stopped status: L
Action		Clearing procedure: Q Brightness: N

322	RAPID MODE IMP. (ORIGIN RET UNF) (, ,)	
Cause	The rapid feed mode was selected without carrying out the zero return operation after the power supply had been turned on or the emergency stop state had been released.	Type of error: F Stopped status: L
Action		Clearing procedure: Q Brightness: N

323	DIFF. MODE (TOOL SET MEASURING) (, ,)	
Cause	The rapid feed mode or zero return mode was selected for the tool set measurment operation.	Type of error: Stopped status:
Action		Clearing procedure: Brightness:

324	DIFF. MODE (ORIGIN RET UNFIN.) (, ,)	
Cause	Any of the automatic operation modes was selected without carrying out the zero return operation after the power supply has been turned on or the emergency stop state had been released.	Type of error: F Stopped status: L
Action		Clearing procedure: Q Brightness: N

325	TL. EYE EXT. IMP (T/S QUILL EXT) (, ,)	
Cause	The TOOL EYE extend command was given although the tailstock spindle retraction end confirmation sensor is not ON.	Type of error: F Stopped status: L
Action		Clearing procedure: Q Brightness: N

326	T/S QUILL EXT. IMP. (TL EYE EXT) (, ,)	
Cause	The tailstock spindle advance command was given although the TOOL EYE is in the extend position.	Type of error: F Stopped status: L
Action		Clearing procedure: Q Brightness: N

327	NOT IN ATC START POSITION (, ,)	
Cause	The turret is not at the tool change position when the ATC was manually operated.	Type of error: F Stopped status: L
Action		Clearing procedure: Q Brightness: N

328	TL EYE MES IMP. (MGZN CVR OPEN)	(, ,)
Cause	The magazine cover was closed when the TOOL EYE measurement command was executed.	Type of error: F Stopped status: L
Action		Clearing procedure: Q Brightness: N

329	CHUCKING SELECTION PROHIBITED	(, ,)
Cause	Chuck inner/outer chucking switch is operated in the next condition. • Spindle or mill spindle turning • During automatic operation	Type of error: F Stopped status: L
Action		Clearing procedure: Q Brightness: N

330	MISOPERATION No. 1	(, ,)
Cause	An alarm is given when misoperation is made for a peripherary (option).	Type of error: F Stopped status: L
Action		Clearing procedure: Q Brightness: N

331	MISOPERATION No. 2	(, ,)
Cause	An alarm is given when misoperation is made for a peripherary (option).	Type of error: F Stopped status: L
Action		Clearing procedure: Q Brightness: N

332	MISOPERATION No. 3	(, ,)
Cause	An alarm is given when misoperation is made for a peripherary (option).	Type of error: F Stopped status: L
Action		Clearing procedure: Q Brightness: N

333	MISOPERATION No. 4	(, ,)
Cause	An alarm is given when misoperation is made for a peripherary (option).	Type of error: F Stopped status: L
Action		Clearing procedure: Q Brightness: N

334	MISOPERATION No. 5	(, ,)
Cause	An alarm is given when misoperation is made for a peripherary (option).	Type of error: F Stopped status: L
Action		Clearing procedure: Q Brightness: N

335	MISOPERATION No. 6	(, ,)
Cause	An alarm is given when misoperation is made for a peripherary (option).	Type of error: F Stopped status: L
Action		Clearing procedure: Q Brightness: N

336	MISOPERATION No. 7	(, ,)
Cause	An alarm is given when misoperation is made for a peripherary (option).	Type of error: F Stopped status: L
Action		Clearing procedure: Q Brightness: N

337	MISOPERATION No. 8	(, ,)
Cause	An alarm is given when misoperation is made for a peripherary (option).	Type of error: F Stopped status: L
Action		Clearing procedure: Q Brightness: N

338	MISOPERATION No. 9	(, ,)
Cause	An alarm is given when misoperation is made for a peripherary (option).	Type of error: F Stopped status: L
Action		Clearing procedure: Q Brightness: N

339	MISOPERATION No. 10	(, ,)
Cause	An alarm is given when misoperation is made for a peripherary (option).	Type of error: F Stopped status: L
Action		Clearing procedure: Q Brightness: N

340	CONDITION No. 1 MISSING	(, ,)
Cause	The workpiece material detection sensor at the material supply side is turned off causing the cycle time over.	Type of error: F Stopped status: L
Action		Clearing procedure: Q Brightness: N

341	CONDITION No. 2 MISSING	(, ,)
Cause	The workpiece unloading side sensor is turned on causing the cycle time over.	Type of error: F Stopped status: L
Action		Clearing procedure: Q Brightness: N

342	CONDITION No. 3 MISSING	(, ,)
Cause	An alarm is given when conditions for a peripherary (option) are not all met.	Type of error: F Stopped status: L
Action		Clearing procedure: Q Brightness: N

343	CONDITION No. 4 MISSING	(, ,)
Cause	An alarm is given when conditions for a peripherary (option) are not all met.	Type of error: F Stopped status: L
Action		Clearing procedure: Q Brightness: N

344	CONDITION No. 5	(, ,)
Cause	An alarm is given when conditions for a peripherary (option) are not all met.	Type of error: F Stopped status: L
Action		Clearing procedure: Q Brightness: N

345	CONDITION No. 6 MISSING	(, ,)
Cause	An alarm is given when conditions for a peripherary (option) are not all met.	Type of error: F Stopped status: L
Action		Clearing procedure: Q Brightness: N

346	CONDITION No. 7 MISSING	(, ,)
Cause	An alarm is given when conditions for a peripherary (option) are not all met.	Type of error: F Stopped status: L
Action		Clearing procedure: Q Brightness: N

347	CONDITION No. 8 MISSING	(, ,)
Cause	An alarm is given when conditions for a peripherary (option) are not all met.	Type of error: F Stopped status: L
Action		Clearing procedure: Q Brightness: N

348	CONDITION No. 9 MISSING	(, ,)
Cause	An alarm is given when conditions for a peripherary (option) are not all met.	Type of error: F Stopped status: L
Action		Clearing procedure: Q Brightness: N

349	CONDITION No. 10 MISSING	(, ,)
Cause	An alarm is given when conditions for a peripherary (option) are not all met.	Type of error: F Stopped status: L
Action		Clearing procedure: Q Brightness: N

400		(, ,)
Cause		Type of error: Stopped status:
Action		Clearing procedure: Brightness:

401	ILLEGAL FORMAT	(, ,)
Cause	The input format is illegal. (Example 1) An attempt has been made to input a negative number to an item that rejects negative numbers or characters handled as such (-, ., letters of the alphabet, etc.) (Example 2) An attempt has been made to input a number consisting of more digits than available.	Type of error A Stopped status L
Action	Press the CLEAR key and set correct data.	Clearing procedure S Brightness N

402	ILLEGAL NUMBER INPUT	(, ,)
Cause	The input value is out of the allowable setting range.	Type of error A Stopped status L
Action	Press the CLEAR key and set correct data.	Clearing procedure S Brightness N

403		(, ,)
Cause		Type of error Stopped status
Action		Clearing procedure Brightness

404	MEMORY CAPACITY EXCEED	(, ,)
Cause	Additional machining programs cannot be stored into the machining program storage area of the memory since its capacity has been exceeded, or additional layout data cannot be stored into the layout data storage area of the memory since its capacity has been exceeded.	Type of error E Stopped status L
Action	Delete an unnecessary program, or save existing programs into an external storage unit and use those programs.	Clearing procedure S Brightness N

405		(, ,)
Cause		Type of error Stopped status
Action		Clearing procedure Brightness

406	MEMORY PROTECT	(, ,)
Cause	The PROGRAM LOCK/ENABLE switch on the operator panel is set to LOCK.	Type of error A Stopped status L
Action	Reset the PROGRAM LOCK/ENABLE switch to ENABLE.	Clearing procedure S Brightness N

407	DESIGNATED DATA NOT FOUND (, ,)	
Cause	The designated number or character string does not exist. (1) A search operation was carried out on the PROGRAM display.	Type of error: A Stopped status: L
Action	Review the designated number or character string.	Clearing procedure: S Brightness: N

408	PROGRAM ERROR (, ,)	
Cause	Data stored within the machining program storage area has been destroyed.	Type of error: E Stopped status: L
Action	Delete the corresponding program.	Clearing procedure: S Brightness: N

409	(, ,)	
Cause		Type of error: Stopped status:
Action		Clearing procedure: Brightness:

410	ILLEGAL DELETION (, ,)	
Cause	An attempt has been made to delete '%' during EIA/ISO program editing.	Type of error: A Stopped status: L
Action	The "%" symbol cannot be deleted.	Clearing procedure: S Brightness: N

411	STOP POWER IN PROGRAM EDITING (, ,)	
Cause	Part of the program contents has been destroyed because the power was turned off during program editing.	Type of error: E Stopped status: L
Action	Check the corresponding program and if that program contains incorrect data, delete the program and create a correct program.	Clearing procedure: S Brightness: N

412	AUTO DRILL PROCESS IMPOSSIBLE (, ,)	
Cause	The "DEP-1, 2, 3" (depth of cut) could not be automatically determined in the calculation.	Type of error: B Stopped status: L
Action	Recheck the program for missing data. Set data in DEP-1, DEP-2, and DEP-3.	Clearing procedure: S Brightness: N

413	PROGRAM OVER (, ,)	
Cause	The maximum allowable number of programs which can be registered has been exceeded. (Up to 32, 128, or 256 programs can be registered, depending on the memory type.)	Type of error: A Stopped status: L
Action	Delete an unnecessary program, or save existing programs into an external storage unit and use those programs.	Clearing procedure: S Brightness: N

414	AUTO CUT COND. PROCESS IMPOSSI. (, ,)	
Cause	The material code is not set for the program common data, or the material code set for the common data is not registered at the CUTTING CONDITION display.	Type of error: B Stopped status: L
Action	Set correct data on the CUTTING CONDITION display. Recheck the program.	Clearing procedure: S Brightness: N

415	MIS-SET G CODE (, ,)	
Cause	An attempt has been made to set a G-code that cannot be designated for the manual program.	Type of error: A Stopped status: L
Action	Recheck the program for missing data.	Clearing procedure: S Brightness: N

416	AUTO THREAD PROCESS IMPOSSIBLE (, ,)	
Cause	The thread data (height, number of cuts, depth of cut) cannot be determined automatically.	Type of error: B Stopped status: L
Action	Recheck the program for missing data.	Clearing procedure: S Brightness: N

417	PROCESS NUMBER EXCEED (>99) (, ,)	
Cause	An attempt has been made to create more than 99 sets of process data for that program.	Type of error: A Stopped status: L
Action	Call up multiple programs and chain them.	Clearing procedure: S Brightness: N

419	AUTO TAP PROCESS IMPOSSIBLE (, ,)	
Cause	Automatic setting of tapping process data is impossible because of inconsistencies in the nominal diameter data of tapping.	Type of error: B Stopped status: L
Action	Recheck the program for tapping process data errors.	Clearing procedure: S Brightness: N

420	DISIGNATION OVERLAP (, ,)	
Cause	An attempt has been made to designate data that has already been registered (CMT I/O, TAPE I/O, DNC I/O, or PRINT OUT display program number, tool data suffix, or machining program number).	Type of error: A Stopped status: L
Action	Recheck the designated data.	Clearing procedure: S Brightness: N

421	SET-UP No. DESIGNATION OVERLAP (, ,)	
Cause	The TRS setup number that has been designated for the program already exists.	Type of error: A Stopped status: L
Action	Recheck the TRS setup number.	Clearing procedure: S Brightness: N

422	MEMORY PROTECT (I/O BUSY) (, ,)	
Cause	An attempt has been made to edit or set a machining program or tool data during I/O operation.	Type of error: A
		Stopped status: L
Action	Edit or set a machining program or tool data after I/O operation.	Clearing procedure: S
		Brightness: N

423	NO DESIGNATED PROGRAM (, ,)	
Cause	A program not existent within the NC has been designated during one of the following operations: (1) Work number search (2) Process copying or program copying (3) SET UP display selection (4) Program deletion	Type of error: A
		Stopped status: L
Action	Check the designated program.	Clearing procedure: S
		Brightness: N

424	DATA NOT FOUND (, ,)	
Cause	The number of a nonexistent process has been designated for process copying, or the number of a nonexistent process has been designated for interchange or movement of layout data.	Type of error: A
		Stopped status: L
Action	Check the designated process.	Clearing procedure: S
		Brightness: N

425	DATA MISSING (, ,)	
Cause	Processing is impossible since the necessary data is unset. (1) A load or save command was issued before designation of a work number on the CMT I/O, TAPE I/O, DNC I/O, or PRINT OUT display. (2) Data for intersection-point calculation is missing. For TPR: 1) The "CPT-X" or "CPT-Z" data for the process is unset. 2) Either the "SPT-X", "SPT-Z", "FPT-X", "FPT-Z", or "ANGLE" data for the sequence is unset. For concave ⊔/convex ⌓ machining: 1) The next program line is not for the CTR sequence. 2) Either the "SPT-X", "SPT-Z", "FPT-X", "FPT-Z", or "RADIUS" data for the sequence is unset. (3) The sequence number (N) has not yet been set when the "EIA/ISO SEARCH" menu key was pressed.	Type of error: B
		Stopped status: L
Action	Check data.	Clearing procedure: S
		Brightness: N

426	SEQUENCE NUMBER EXCEED (, ,)	
Cause	(1) An attempt has been made to create multiple sequence lines for the process which can accept only one sequence line. (2) An attempt has been made to create more sequences than available for the macrosequence. (3) An attempt has been made to create more than 250 sequences for only one process.	Type of error: A
		Stopped status: L
Action	Call up multiple processes.	Clearing procedure: S
		Brightness: N

427	MEMORY PROTECT (AUTO MODE) (, ,)	
Cause	An attempt has been made to set the POSITION counter during the automatic operation mode.	Type of error: A Stopped status: L
Action	Change the operation mode to a manual mode, and set the POSITION counter.	Clearing procedure: S Brightness: N

428	MEMORY PROTECT (AUTO OPERATION) (, ,)	
Cause	(1) An attempt has been made to set unavailable data during automatic operation. (2) An attempt has been made to set data (program edition, work No. research) during M02 stop	Type of error: A Stopped status: L
Action	Reset that switch, and then set correct data.	Clearing procedure: S Brightness: N

429	MEMORY PROTECT (SAMPLING) (, ,)	
Cause	An attempt was made to set the data at the MEMORY SCOPE display during sampling process.	Type of error: A Stopped status: L
Action	Press the "START" menu key once again to interrupt the sampling operation, and then make sure that the highlighted status of the "START" menu display has been cleared. Data can now be set.	Clearing procedure: S Brightness: N

430	(, ,)	
Cause		Type of error: Stopped status:
Action		Clearing procedure: Brightness:

431	GEAR No. ERROR (, ,)	
Cause	The designated gear number is illegal.	Type of error: A Stopped status: L
Action	Override the gear number with a correct one.	Clearing procedure: S Brightness: N

432	TOOL NOT FOUND (, ,)	
Cause	(1) No tool numbers were set in the program during layout. (2) The tool number that was designated during the test mode is not yet registered in the tool data.	Type of error: B Stopped status: L
Action	Override the tool number with a correct one.	Clearing procedure: S Brightness: N

433	SAME PROGRAM EXISTS (, ,)	
Cause	The machining program that was designated to be loaded from the external unit already exists in the NC.	Type of error: B Stopped status: L
Action	Check the machining program number and then renumber (or delete) a program stored within the NC prior to setting data.	Clearing procedure: S Brightness: N

434	TOOL No. DATA NOT FOUND (, ,)	
Cause	An attempt was made to set the tool ID code without setting a tool number.	Type of error: A Stopped status: L
Action	Set a tool number before designating a tool ID code.	Clearing procedure: S Brightness: N

435	PROGRAM CHECK NOT ALLOWED	(, ,)
Cause	Tool path checking is impossible with the background processing mode.	Type of error: A Stopped status: L
Action	Check the tool path after completion of automatic operation or after pressing the RESET key to abort automatic operation.	Clearing procedure: S Brightness: N

436	LAYOUT NOT COMPLETE	(, ,)
Cause	The program process layout is not yet complete.	Type of error: A Stopped status: L
Action	Do the layout once again.	Clearing procedure: S Brightness: N

437	LAYOUT UNABLE	(, ,)
Cause	Layout under those conditions is impossible. (1) The data to be set for the program is missing.	Type of error: B Stopped status: L
Action	Recheck the program for missing data.	Clearing procedure: S Brightness: N

438	MAZATROL MACRO DESIGNATED	(, ,)
Cause	An attempt was made to select a macro program in the work number search operation.	Type of error: A Stopped status: L
Action	Work number search operations cannot be carried out with macro programs.	Clearing procedure: S Brightness: N

439	MAZATROL PROGRAM DESIGNATED	(, ,)
Cause	A MAZATROL program was designated for use of the tape puncher, or a MAZATROL program was designated during use of the copying of the EIA/ISO program editing mode.	Type of error: A Stopped status: L
Action	When using the tape puncher, you cannot designate any MAZATROL programs during EIA/ISO program editing.	Clearing procedure: S Brightness: N

440	EIA/ISO PROGRAM DESIGNATED	(, ,)
Cause	An EIA/ISO program was designated during use of the copying function of the MAZATROL program editing mode.	Type of error: A Stopped status: L
Action	Check the program number	Clearing procedure: S Brightness: N

441	FINAL POINT DATA NOT FOUND	(, ,)
Cause	The end-point data of the preceding line was not yet set when an attempt was made to set the start point data of the BAR or CPY process on the CONTINUE menu.	Type of error: B Stopped status: L
Action	Recheck the program for missing data.	Clearing procedure: S Brightness: N

442	DATA RENEWAL NOT ALLOWED	(, ,)
Cause	The machining program data cannot be updated under those conditions.	Type of error: A Stopped status: L
Action	This message implies that the NC is busy executing internal processing operations. Press the CLEAR key, and update the program data.	Clearing procedure: S Brightness: N

443	HELP IS NOT AVAILABLE (, , ,)	
Cause	DETAILED INFORM display was designated during a process other than machining processes.	Type of error: A Stopped status: L
Action	The DETAILED INFORM display cannot be selected for non-machining processes. Move the cursor to a machining-process item and call up the DETAILED INFORM display.	Clearing procedure: S Brightness: N

444	AUTO CALCULATION IMPOSSIBLE (, , ,)	
Cause	Automatic calculation of intersection-point data is impossible. For TPR: (1) More than one "?" exists in a single line. (2) The machining data for the process is illegal, that is, neither OUT, IN, FCE, nor BAK. For concave ⊔ /convex ⌂ machining: (1) The symbol "?" exists in both "SPT-X" data and "SPT-Z" data. (2) The symbol "?" exists in both "FPT-X" data and "FPT-Z" data. (3) The machining data for the process is illegal, that is, neither OUT, IN, FCE, nor BAK. (When two intersection points exist but their directions are not designated.)	Type of error: B Stopped status: L
Action	Recheck the program. Refer to the section "Automatic extrapolation" of the Programing Manual.	Clearing procedure: S Brightness: N

445	NO INTERSECTION (, , ,)	
Cause	(1) No intersections have been defined after calculation. (2) The coordinate of the intersection with the X-axis has overstepped the range from 0 to 9999.999 after calculation. (3) The coordinate of the intersection with the Z-axis has overstepped the range from −9999.999 to 9999.999 after calculation.	Type of error: B Stopped status: L
Action	Recheck the program. See Programming manual "Automatic extrapolation" for details.	Clearing procedure: S Brightness: N

446	EEPROM ERROR (A, ,) (, , ,)	
Cause	An error occurred during EEPROM read or write operations, or the EEPROM itself does not exist.	Type of error: E Stopped status: L
Action		Clearing procedure: S Brightness: N

A	Description
1	EEPROM write not yet done.
65535	EEPROM not yet initialized. (No serial numbers)
65534	EEPROM comparison error. (Replace the EEPROM.)
65533	Too many write operations. (replace the EEPROM.)

447	(, , ,)	
Cause		Type of error
		Stopped status
Action		Clearing procedure
		Brightness

448	(, ,)
Cause	Type of error
	Stopped status
Action	Clearing procedure
	Brightness

449	RESTART SEARCH FINISHED	(, ,)
Cause	An attempt has been made to edit the EIA/ISO program after a restart search for the beginning-of-program was completed.	Type of error
		A
		Stopped status
		L
Action	Program editing is impossible since the search operation intended for restart has already been completed. To carry out program edit operations, you must press the RESET key to cancel the search mode.	Clearing procedure
		S
		Brightness
		N

450	TPC DATA NOT FOUND	(, ,)
Cause	While a process line not containing TPC data remained on the display, the "TPC" menu key was pressed in an attempt to indicate the TPC display during the PROGRAM dispaly list mode.	Type of error
		A
		Stopped status
		L
Action	Carry out the operation on editing mode.	Clearing procedure
		S
		Brightness
		N

451	TOOL EYE NOT EXTENDED	(, ,)
Cause	The TOOL EYE arm is not at the extend state when the corresponding menu key is pressed to carry out the measurement for tool setting.	Type of error
		A
		Stopped status
		L
Action	Place the TOOL EYE arm out of position. (extend state)	Clearing procedure
		S
		Brightness
		N

452	CURRENT TOOL No. NOT COINCIDENT	(, ,)
Cause	The tool for which tool tip position is to be stored (TPS) differs from the tool which is currently selected.	Type of error
		A
		Stopped status
		L
Action	Move the cursor to the selected tool data item before carrying out the tool tip position store operation.	Clearing procedure
		S
		Brightness
		N

453	EXCHANGE OR MOVE IMPOSSIBLE	(, ,)
Cause	In the layout, an attempt was made to change or move the process outside the processes delimited by SEP, TRS processes.	Type of error
		A
		Stopped status
		L
Action	Carry out that operation within the range separated by the SEP and TRS processes. For details, refer to the section "PROCESS LAYOUT display" of the Operating Manual.	Clearing procedure
		S
		Brightness
		N

454	CURSOR POSITION INADEQUATE	(, ,)
Cause	Processing is impossible because of the incorrect position of the cursor. (1) A copying, deleting, inserting, or some other editing operation was carried out on non-process data or common-process data. (2) The TPC menu key was pressed with a non-process line being displayed.	Type of error
		A
		Stopped status
		L
Action	Check the cursor position.	Clearing procedure
		S
		Brightness
		N

455	SAME PROGRAM APPOINTED (, ,)	
Cause	The machining program being edited was designated during program copying.	Type of error: A Stopped status: L
Action	Program copying cannot be done on the same program. Check the corresponding program number.	Clearing procedure: S Brightness: N

456	SAME PROCESS DESIGNATED (, ,)	
Cause	An attempt was made to copy the cursor located process in the process copy operation.	Type of error: A Stopped status: L
Action	Process copying cannot be done on the same process.	Clearing procedure: S Brightness: N

457	NOT FOUND ADDRESS OF DATA (, ,)	
Cause	An attempt has been made to set data without designating an address for the manual program sequence.	Type of error: A Stopped status: L
Action	Designate an address before setting manual program sequence data.	Clearing procedure: S Brightness: N

458	ILLEGAL TPC DATA (, ,)	
Cause	The TPC data for the process is not correct; (1) After making the TPC data, the process machining mode is changed.	Type of error: B Stopped status: L
Action	Delete the TPC data and set correct data once again whenever required.	Clearing procedure: S Brightness: N

459	TPC DATA EDIT IMPOSSIBLE (, ,)	
Cause	The TPC data editing is not possible for the designated process.	Type of error: A Stopped status: L
Action	Check the program.	Clearing procedure: S Brightness: N

460	PRINTER IN OPERATION (, ,)	
Cause	An attempt was made to print out the data from the PRINT OUT display while the hard copy is being made. An attempt was made from the graphic display to perform display, scaling, change, material, shape and tool path drawing while the hard copy is being made.	Type of error: A Stopped status: L
Action	After finishing the hard copy, carry out the operation.	Clearing procedure: S Brightness: N

461	SUFFIX DESIGNATION ERROR (, ,)	
Cause	An attempt was made to change the tool ID code for the tool for which the ID code is not assigned. An attempt was made to change the H/V ID code for the machine which requires H/V attribute. An attempt was made to input the ID code which cannot be selected for the machine which requires H/V attribute.	Type of error: A Stopped status: L
Action	Suffixes that can be registered on the H-type machine: A, C, E, and G Suffixes that can be registered on the V-type machine: B, D, and F	Clearing procedure: S Brightness: N

462	ILLEGAL PROCESS DESIGNATED (, ,)	
Cause	In the layout, the special process (SEP, TRS process) is designated in the program for a stand alone machine.	Type of error: B Stopped status: L
Action	Using the program editing mode, delete the special process (SEP and TRS) and make a process layout once again.	Clearing procedure: S Brightness: N

463	MACRO PROGRAM NOT FOUND (, ,)	
Cause	With the MAZATROL program, although the macro process was designated the corresponding macro process is not existed in the NC. (Layout)	Type of error: B Stopped status: L
Action		Clearing procedure: S Brightness: N

464	PARAMETER ERROR (, ,)	
Cause	The tool data (machine parameters B1 through B11 and C1 through C11) is illegal.	Type of error: B Stopped status: L
Action	Recheck the parameters (B1 ~ B11 and C1 ~ C11) to see that each of them is appropriate for your machine model.	Clearing procedure: S Brightness: N

466	MACRO COMPILE ERROR (, ,)	
Cause	Macro programming error was found when the macro program was being registered.	Type of error: B Stopped status: L
Action		Clearing procedure: S Brightness: N

467	MACRO ENTRY ERROR (, ,)	
Cause	Macro programs could not be registered because: (1) The number of macro programs in the memory exceeded 32. The max number of macro programs is 32. (2) Macro number already registered is used.	Type of error: A Stopped status: L
Action	(1) Delete an unnecessary macro number. (2) Register the macroprogram under any other macro number, or delete a registered macro number.	Clearing procedure: S Brightness: N

468	OUT OF VFC RANGE (, ,)	
Cause	The surface speed or the feedrate exceeded its max. because the VFC was out of range.	Type of error: B Stopped status: L
Action	Recheck the peripheral speed or feedrate set in the program with which you executed automatic operation.	Clearing procedure: S Brightness: N

469	(, ,)	
Cause		Type of error: Stopped status:
Action		Clearing procedure: Brightness:

500	MEMORY PROTECT (AUTO OPERATION) (, ,)	
Cause	An attempt has been made to operate the I/O during automatic operation when a background I/O option is not provided.	Type of error: A Stopped status: L
Action	Operate the I/O only after automatic operation has been completed.	Clearing procedure: S Brightness: N

501	ILLEGAL FORMAT (, ,)	
Cause	A cassette tape or floppy disk that contains data other than T32 or T2/T3 data has been set.	Type of error: A Stopped status: L
Action	Set a cassette tape or floppy disk that contains T32 or T2/T3 data.	Clearing procedure: S Brightness: N

502	PARAMETER ERROR (, ,)	
Cause	When tool data was loaded, an error occurred because the data was different from parameterized tool information. (The loaded tool data does not match to the machine specifications.)	Type of error: A Stopped status: L
Action	Check machine parameters B1 through B11 and C1 through C11. Check if the loaded data is for the machine being operated.	Clearing procedure: S Brightness: N

503	LOAD IMPOSSIBLE (TOO MANY) (WNo., ,)	
Cause	An attempt has been made to load machining program data that exceeds the maximum registration of programs within the NC.	Type of error: A Stopped status: L
Action	First delete unnecessary machining programs directly or after saving them into an external storage unit, and then load the intended program data.	Clearing procedure: S Brightness: N

504	LOAD IMPOSSIBLE (AUTO OPERATION) (, ,)	
Cause	An attempt has been made to load data other than machining program data during automatic operation.	Type of error: A Stopped status: L
Action	Load data after completion of automatic operation.	Clearing procedure: S Brightness: N

505	LOAD IMPOSSIBLE (MISMATCH) (, ,)	
Cause	An attempt has been made to load cassette tape or floppy disk data different from the parameter data within the NC. (The parameters do not match in terms of data size, head type, etc.)	Type of error: A Stopped status: L
Action	Check if the data saved within the cassette tape or floppy disk is for the machine being operated.	Clearing procedure: S Brightness: N

506	SAME PROGRAM APPOINTED (WNo., ,)	
Cause	An attempt has been made to load a machining program that has the same work number as that of a machining program prestored within the NC.	Type of error: A Stopped status: L
Action	Review work numbers for possible overlapping.	Clearing procedure: S Brightness: N

507	NO DESIGNATED PROGRAM (WNo., ,)	
Cause	The machining program you have made an attempt to save into the CMT unit does not exist in the NC.	Type of error: A Stopped status: L
Action	Check if the machining program that contains the designated work number exists in the NC.	Clearing procedure: S Brightness: N

508	MEMORY CAPACITY EXCEED (WNo., ,)	
Cause	An attempt has been made to load machining program data that exceeds the maximum available area for program registration within the NC.	Type of error: A Stopped status: L
Action	First delete unnecessary machining programs directly or after saving them into an external storage unit, and then load the intended program data.	Clearing procedure: S Brightness: N

509	LAYOUT SOFTWARE NOT COINCIDENT (WNo., ,)	
Cause	The T2/T3 process layout cannot be converted in construction.	Type of error: A Stopped status: L
Action	Since the program itself will be loaded, review the process layout.	Clearing procedure: S Brightness: N

510	CONTENTS ARE NOT COINCIDENT (WNo., ,)	
Cause	Data within the cassette tape or floppy disk differs from the NC data in terms of data size, management information, etc. (NOTE) If the work number is 10000 or more, data other than machining program data will be displayed.	Type of error: A Stopped status: L
Action	(1) Check the data size, data name, etc. on the PROGRAM FILE display, and then correct the data and make comparison. (2) If the data is not for a machining program, check if the data is for the machine being operated.	Clearing procedure: S Brightness: N

511	DATA ARE NOT COINCIDENT (WNo., PNo., SNo.)	
Cause	Data within the cassette tape or floppy disk differs partly from the NC data. (NOTE) For EIA/ISO programs, the number displayed in the PNo. position corresponds to the number displayed at the lower right section of the PROGRAM display page. If both the PNo. and the SNo. are 0 (zero), this also indicates that the cassette tape or floppy disk data mismatches in terms of operational setup or layout. If the work number is 10000 or more, data other than machining program data will be displayed.	Type of error: A Stopped status: L
Action	(1) Correct data disparities in the machining program, and then make data comparison. (2) If the data is for ones except a machining program, check data disparities on each display. (NOTE) If data that has been saved prior to automatic operation is compared with the NC data after completion of automatic operation, this alarm may result from possible automatic data updating associated with automatic operation.	Clearing procedure: S Brightness: N

512	DESIGNATED FILE NOT FOUND (WNo., ,)	
Cause	The machining program or data that has been designated as the subject of loading or comparison does not exist in the cassette tape or floppy disk. (NOTE) If the work number is 10000 or more, data other than machining program data will be displayed.	Type of error: A Stopped status: L
Action	Using a DIRECTORY command, check what type of data is stored on the cassette tape or floppy disk.	Clearing procedure: S Brightness: N

513	PROGRAM SOFTWARE NOT COINCIDENT (, ,)	
Cause	An attempt has been made to load a machining program different from NC programs in data structure.	Type of error: A Stopped status: L
Action	Check if the cassette tape or floppy disk data is for the T32 or for the T2/T3.	Clearing procedure: S Brightness: N

514	DESIGNATED DATA NOT COINCIDENT (, ,)	
Cause	An attempt has been made to load non-machining program data different from NC program data in structure.	Type of error: A Stopped status: L
Action	Check if the cassette tape or floppy disk data is for the T32 or for the machine being operated.	Clearing procedure: S Brightness: N

515	CMT MIS-CONNECTED (, ,)	
Cause	A cabling error, a power-off sequence error, or a baud rate setting error occurred during NC connection to the CMT or microdisk unit. During NC connection to the microdisk unit, this alarm message may also be displayed if a floppy disk is not correctly set.	Type of error: G Stopped status: L
Action	(1) Check if all cables are correctly connected. (2) Check if the power is on. (3) Check if the baud rate is correctly set. (Parameters within the NC: DV1 ... f1) (4) For microdisks, check if a floppy disk is correctly set.	Clearing procedure: S Brightness: N

516	SYSTEM ERROR (, ,)	
Cause	An error occurred in the system.	Type of error: E Stopped status: L
Action	Please contact your MAZAK service representative if the error cannot be cleared even by turning the NC off and then turning it back on. When contacting your MAZAK service representative, please also let them know what kind of operation you were carrying out as the error was occurring, and what data was displayed in parentheses on the display.	Clearing procedure: S Brightness: N

517	PROGRAM OPERATION NOT ALLOWED (WNo., ,)	
Cause	An attempt was made to save the program being edited or the machining program being loaded from other I/O units.	Type of error: A Stopped status: L
Action	Save the program after editing or after loading from other I/O units.	Clearing procedure: S Brightness: N

518	DATA OPERATION NOT ALLOWED (, ,)	
Cause	(1) An attempt was made to load non-machining program data during automatic operation. (2) An attempt was made to save the data being loaded using other I/O units. (3) An attempt was made to save the data being saved using other I/O units.	Type of error: A Stopped status: L
Action	Load data after completion of automatic operation or after loading or saving using other I/O units.	Clearing procedure: S Brightness: N

519	DESIGNATED DATA IS NOT RIGHT (, ,)	
Cause	A program other than system macroprograms was designated for system macroprogram saving.	Type of error: A Stopped status: L
Action	Designate a system macroprogram and then resave program data.	Clearing procedure: S Brightness: N

520	MEMORY CAPACITY EXCEED (WNo., ,)	
Cause	An end-of-tape state occurred in the middle of data saving onto the cassette tape or floppy disk.	Type of error: G Stopped status: L
Action	Divide the data so that only the desired part of the data can be saved onto the cassette tape or floppy disk, and then carry out the saving operation once again.	Clearing procedure: S Brightness: N

521	CMT MIS-EQUIPPED (, ,)	
Cause	A cassette tape is not set.	Type of error: A Stopped status: L
Action	Set a cassette tape correctly.	Clearing procedure: S Brightness: N

522	NO OPERABLE DATA IN CMT (, ,)	
Cause	The T2/T3 use cassette tape or floppy disk that has been set does not contain machining programs. (Only machining programs can be loaded from the T2/T3 use cassette tape or floppy disk)	Type of error: A Stopped status: L
Action	The T2/T3 use cassette tape or floppy disk that has been set does not contain machining programs. Check this out on the MAZATROL T2/T3 program.	Clearing procedure: S Brightness: N

523	CMT I/O ERROR (, ,)	
Cause	A hardware error has occurred in the CMT or microdisk unit. This alarm also occurs if a read operation is carried out on an immediately-after-formatted floppy disk that contains no data to be saved.	Type of error: G Stopped status: L
Action	After checking the baud rate or other RS-232C communication conditions preset on the CMT or microdisk and then replacing the cassette tape or floppy disk, carry out the I/O operation once again.	Clearing procedure: S Brightness: N

524	CMT WRITE PROTECT (, ,)	
Cause	An attempt has been made to save data onto a write-protected cassette tape or floppy disk.	Type of error: A Stopped status: L
Action	The cassette tape or floppy disk is write-protected. Release the write-protected state by resetting the PROGRAM LOCK/ENABLE switch to LOCK (write-protected), or for cassette tapes, by tapping the holed section of the tape surface.	Clearing procedure: S Brightness: N

525	STOP POWER IN CMT OPERATION (, ,)	
Cause	The NC power was turned off during the operation of the CMT or microdisk unit.	Type of error: A Stopped status: L
Action	Check for data errors in the machining program being used, and if errors exist, carry out the CMT or microdisk operations once again from the beginning. If the NC has been turned off during loading of the machining program, carry out the loading operation once again only after deleting the machining program data.	Clearing procedure: S Brightness: N

526	CMT MALFUNCTION (, ,)	
Cause	Data reading failed because of cassette tape or floppy disk data errors. This alarm message will also be displayed if CMT data whose saving was interrupted is loaded. (This alarm message may also imply a check sum error.)	Type of error: G Stopped status: L
Action	Use a different cassette tape or floppy disk, or use the current cassette tape or floppy disk after saving the tape or disk data.	Clearing procedure: S Brightness: N

527	NO MACRO OPTION (, ,)	
Cause	An attempt has been made to carry out a load or compare command on a macroprogram when a macro option was not provided.	Type of error: A Stopped status: L
Action	Macroprograms cannot be processed because of the absence of a macro option.	Clearing procedure: S Brightness: N

528	NO EIA/ISO OPTION (, ,)	
Cause	An attempt has been made to carry out a load or compare command on an EIA/ISO program when an EIA/ISO option was not provided.	Type of error: A Stopped status: L
Action	EIA/ISO programs cannot be processed because of the absence of an EIA/ISO option.	Clearing procedure: S Brightness: N

529	(, ,)	
Cause		Type of error: Stopped status:
Action		Clearing procedure: Brightness:

530	NO TAPE READER PUNCHER OPTION (, ,)	
Cause	An attempt has been made to operate the tape I/O unit when a tape reader/puncher option was not provided.	Type of error: A Stopped status: L
Action	Tape I/O operations cannot be carried out because of the absence of a tape reader/puncher option.	Clearing procedure: S Brightness: N

531	ILLEGAL FORMAT (, ,)	
Cause	An attempt has been made to use a paper tape having a different format to that of paper tapes which can be used for the T32.	Type of error: A Stopped status: L
Action	Repunch the data into the format usable for the T32.	Clearing procedure: S Brightness: N

532	(, ,)	
Cause		Type of error: Stopped status:
Action		Clearing procedure: Brightness:

533	LOAD IMPOSSIBLE (TOO MANY) (WNo., ,)	
Cause	An attempt has been made to load machining program data that exceeds the maximum registration of programs within the NC.	Type of error: A Stopped status: L
Action	First delete unnecessary machining programs directly or after saving them into an external storage unit, and then load the intended program data.	Clearing procedure: S Brightness: N

534	(, ,)
Cause	Type of error
	Stopped status
Action	Clearing procedure
	Brightness

535	STOP POWER IN TAPE READ/PUNCH	(, ,)
Cause	The NC power was turned off during the operation of the tape puncher/reader or microdisk unit.	Type of error
		A
		Stopped status
		L
Action	Check for data errors in the machining program being used, and if errors exist, carry out the CMT or microdisk operations once again from the beginning. If the NC has been turned off during punching, carry out the punching operation once again.	Clearing procedure
		S
		Brightness
		N

536	SAME PROGRAM APPOINTED	(WNo., ,)
Cause	An attempt has been made to load machining program that has the same work number as that of a machining program prestored within the NC.	Type of error
		A
		Stopped status
		L
Action	Review work numbers for possible overlapping.	Clearing procedure
		S
		Brightness
		N

537	NO DESIGNATED PROGRAM	(WNo., ,)
Cause	The machining program you have made an attempt to punch into the paper tape or floppy disk does not exist in the NC.	Type of error
		A
		Stopped status
		L
Action	Check if the machining program that contains the designated work number exists in the NC.	Clearing procedure
		S
		Brightness
		N

538	MEMORY CAPACITY EXCEED	(WNo., ,)
Cause	An attempt has been made to load machining program data that exceeds the maximum available area for program registration within the NC.	Type of error
		A
		Stopped status
		L
Action	First delete unnecessary machining programs directly or after saving them into an external storage unit, and then load the intended program data.	Clearing procedure
		S
		Brightness
		N

539	(, ,)
Cause	Type of error
	Stopped status
Action	Clearing procedure
	Brightness

540	CONTENTS ARE NOT COINCIDENT (WNo., ,)	
Cause	This alarm indicates that the data within the cassette tape or floppy disk differs from the NC data in terms of data size, management information, etc. The alarm also indicates that end-of-program M-codes (M02, M30, M99, M198, M199) do not exist. This alarm will occur if a machining program having data preceded by an end-of-program M-code is compared after it has been punched.	Type of error: A Stopped status: L
Action	Designate an end-of-program M-code and correct the machining program so that data cannot be set in a position that succeeds that of the designated end-of-program M-code. If data is to be set in a position that succeeds that of the designated end-of-program M-code, disable use of end-of-program M-codes using a special parameter (I58).	Clearing procedure: S Brightness: N

541	DATA ARE NOT COINCIDENT (WNo.,NOTE,)	
Cause	Data within the paper tape or floppy disk differs partly from the NC data. (NOTE) The number displayed after the work number is a line number. This line number is crosskeyed to the number displayed at the lower right section of the PROGRAM display page.	Type of error: A Stopped status: L
Action	Correct data disparities in the machining program, and make data comparison.	Clearing procedure: S Brightness: N

542	NO DESIGNATED PROGRAM (WNo., ,)	
Cause	The machining program that has been designated as the program to be loaded (or compared with NC program data) does not exist in the paper tape or floppy disk.	Type of error: A Stopped status: L
Action	Using ALL LOAD and other commands, check what types of machining programs have been punched onto the paper tape or floppy disk.	Clearing procedure: S Brightness: N

543	DESIGNATED DATA IS NOT RIGHT (, ,)	
Cause	The designated search data is not correct (this implies that an EOB is included in the search data), or the rewind mode has been selected when a rewind option was not provided.	Type of error: A Stopped status: L
Action	(1) Check if the search data is correct. (2) Check if the setting of rewinding parameter I24 is correct. The rewind mode is valid only when the tape reader has a rewind option.	Clearing procedure: S Brightness: N

544	TAPE READER MIS-CONNECTED (, ,)	
Cause	A cabling error or a power-off sequence error occurred during connection between the tape reader or microdisk unit and the NC. For microdisks, this alarm also indicates that the floppy disk is not correctly set.	Type of error: G Stopped status: L
Action	(1) Check for incorrect cable connections. (2) Check if the power is on. (3) For microdisks, check if a floppy disk is correctly set.	Clearing procedure: S Brightness: N

545	TAPE PUNCHER MIS-CONNECTED (, ,)	
Cause	A cabling error or a power-off sequence error occurred during connection between the tape puncher or microdisk unit and the NC. For microdisks, this alarm also indicates that the floppy disk is not correctly set.	Type of error: G Stopped status: L
Action	(1) Check for incorrect cable connections. (2) Check if the power is on. (3) For microdisks, check if a floppy disk is correctly set.	Clearing procedure: S Brightness: N

546	SYSTEM ERROR (, ,)	
Cause	An error has occurred in the system.	Type of error: E
		Stopped status: L
Action	If the error cannot be cleared even after the NC power has been turned off and then turned back on, please contact your MAZAK service representative giving information about what type of operation you were carrying out when the error occurred, and the data which is displayed in parentheses.	Clearing procedure: S
		Brightness: N

547	PROGRAM OPERATION NOT ALLOWED (WNo., ,)	
Cause	An attempt has been made to save the program being edited or being loaded from an external I/O unit.	Type of error: A
		Stopped status: L
Action	Save the program only after its editing or loading from an external I/O unit has been completed.	Clearing procedure: S
		Brightness: N

548	NO EIA/ISO OPTION (, ,)	
Cause	An attempt has been made to load an EIA/ISO program in the absence of an EIA/ISO option.	Type of error: A
		Stopped status: L
Action	EIA/ISO program data cannot be processed since the system does not have an EIA/ISO option.	Clearing procedure: S
		Brightness: N

549	DATA SIZE OVER (WNo.,NOTE,)	
Cause	Blocks that contain more than 256 characters of data per block are present in the machining program. (Or either an EOB or an EOR is not present in 256 characters.) (NOTE) The number displayed after a work number is a line number that is crosskeyed to the number displayed at the lower right section of the PROGRAM display page.	Type of error: A
		Stopped status: L
Action	Correct the machining program first. (Include an EOB in 256 characters.)	Clearing procedure: S
		Brightness: N

550	NOT FOUND WNo. ON PAPER TAPE (, ,)	
Cause	Data loading or comparison cannot be performed since WNo. 0 is not present in the paper tape or floppy disk.	Type of error: A
		Stopped status: L
Action	Set WNo. 0 on the TAPE I/O display.	Clearing procedure: S
		Brightness: N

551	SET THE NEW PAPER TAPE (, ,)	
Cause	A paper tape is not yet set in the tape reader/puncher. The baud rate setting and other conditions for RS-232C communication between the tape reader/puncher or microdisk unit and the NC are not satisfied.	Type of error: A
		Stopped status: L
Action	(1) Check if a paper tape is set in the tape reader/puncher. (2) Check for mismatches in RS-232C communication conditions between the I/O unit and the NC. (Parameters within the NC: DV2 ... I1 through I8, and I9 through I24)	Clearing procedure: S
		Brightness: N

552	(, ,)
Cause	Type of error
	Stopped status
Action	Clearing procedure
	Brightness

553	TAPE READER ERROR	(, ,)
Cause	A hardware error has occurred in the tape reader or microdisk unit.	Type of error
		G
		Stopped status
		L
Action	Before operating the tape reader or microdisk unit, check for mismatches in RS-232C communication conditions between the tape reader or microdisk unit and the NC and replace the current paper tape or floppy disk with a new one.	Clearing procedure
		S
		Brightness
		N

554	TAPE PUNCHER ERROR	(, ,)
Cause	A hardware error has occurred in the tape puncher or microdisk unit.	Type of error
		G
		Stopped status
		L
Action	Before operating the tape puncher or microdisk unit, check for mismatches in RS-232C communication conditions between the tape puncher or microdisk unit and the NC and replace the current paper tape or floppy disk with a new one.	Clearing procedure
		S
		Brightness
		N

555	MAZATROL PROGRAM DESIGNATED	(, ,)
Cause	An attempt has been made to punch MAZATROL program data onto the paper tape.	Type of error
		A
		Stopped status
		L
Action	Only EIA/ISO program data can be punched onto paper tapes. Designate an EIA/ISO program.	Clearing procedure
		S
		Brightness
		N

556	PARITY H ERROR	(, ,)
Cause	Data loading is not possible because of a parity H error in the paper tape data or floppy disk data. The number of sprocket holes present in the tape must be even (for ISO programs) or odd (for EIA programs). Sprocket	Type of error
		A
		Stopped status
		L
Action	Use some other paper tape or floppy disk, or use the current paper tape or floppy disk only after repunching.	Clearing procedure
		S
		Brightness
		N

557	PARITY V ERROR	(, ,)
Cause	Data loading is not possible because of a parity V error in the paper tape data or floppy disk data. EOB EOB EOB The number of sprocket holes in this section must be even.	Type of error
		A
		Stopped status
		L
Action	OFF setting of parity V check enable parameter I13 makes data loading possible.	Clearing procedure
		S
		Brightness
		N

558	PROGRAM END NOT FOUND (, ,)	
Cause	An attempt has been made to load a machining program that has an EOR preceding the end M-codes (M02, M30, M99, M198, M199) or next work No. 0. The conditions for ending the program can be changed using parameter I58.	Type of error: A Stopped status: L
Action	Since the loading of the machining program has already been completed, set an end M-code using the PROGRAM display.	Clearing procedure: S Brightness: N

559	DESIGNATED DATA NOT FOUND (, ,)	
Cause	The designated search data does not exist in the paper tape or floppy disk.	Type of error: A Stopped status: L
Action	Designate other search data, or search the entire paper tape or floppy disk once again for the designated search data.	Clearing procedure: S Brightness: N

560	NO PRINTER OPTION (, ,)	
Cause	An attempt has been made to operate the printer in the absence of a printer operation option.	Type of error: A Stopped status: L
Action	The printer cannot be operated because of the absence of a printer operation option.	Clearing procedure: S Brightness: N

561	SET THE NEW PAPER (, ,)	
Cause	An attempt has been made to print out data despite the fact that the printer was not loaded with paper or not in a ready status for operation.	Type of error: — Stopped status: L
Action	(1) Load the printer with paper. (2) Set the printer ready for operation.	Clearing procedure: S Brightness: N

562	NO DESIGNATED PROGRAM (WNo., ,)	
Cause	The machining program you have made an attempt to print out does not exist in the NC.	Type of error: A Stopped status: L
Action	Check if the machining program of the designated work number exists in the NC.	Clearing procedure: S Brightness: N

563	PRINTER I/O ERROR (, ,)	
Cause	• A hardware error has occurred in the printer. • Mismatches exist in the RS-232C communication conditions between the printer and the NC.	Type of error: G Stopped status: L
Action	Check for mismatches in the RS-232C communication conditions between the printer and the NC. (Parameters within the NC): DV3 ... I1 through I8)	Clearing procedure: S Brightness: N

564	(, ,)	
Cause		Type of error: Stopped status:
Action		Clearing procedure: Brightness:

565	PRINTER MIS-CONNECTED (, ,)	
Cause	A cabling error or a power-off sequence error occurred during connection between the printer and the NC.	Type of error: G Stopped status: L
Action	(1) Check for incorrect printer cable connections. (2) Check if the printer power is on.	Clearing procedure: S Brightness: N

566	SYSTEM ERROR (, ,)	
Cause	A hardware error has occurred in the system.	Type of error: E
		Stopped status: L
Action	If the error cannot be cleared even after the NC power has been turned off and then turned back on, please contact your MAZAK service representative giving information about what type of operation you were carrying out when the error occurred, and the data which was displayed in parentheses at that time.	Clearing procedure: S
		Brightness: N

567	PROGRAM OPERATION NOT ALLOWED (WNo., ,)	
Cause	An attempt has been made to print out the program being edited or being loaded from an external I/O unit.	Type of error: A
		Stopped status: L
Action	Print out the program only after its editing or loading from an external I/O unit has been completed.	Clearing procedure: S
		Brightness: N

568	PARAMETER ERROR (, ,)	
Cause	The parameters for setting a number of paper feed lines and for setting a number of lines per page are set incorrectly. (Only for I41 × 2 ≧ I42)	Type of error: A
		Stopped status: L
Action	Check the parameter settings of the number of paper feed lines and the number of lines per page.	Clearing procedure: S
		Brightness: N

569	DATA SIZE OVER (WNo.,NOTE,)	
Cause	Blocks containing more than 256 characters per block exist in the EIA/ISO machining program. (Or an EOB or an EOR is not present in 256 characters.) (NOTE) The number displayed after a work number is a line number that is crosskeyed to the number displayed at the lower right section of the PROGRAM display page.	Type of error: A
		Stopped status: L
Action	Correct the machining program for EIA/ISO first. (Or include an EOB in 256 characters.)	Clearing procedure: S
		Brightness: N

570	NO DNC OPTION (, ,)	
Cause	An attempt has been made to operate the DNC in the absence of a DNC operation option.	Type of error: A
		Stopped status: L
Action	The DNC cannot be operated because of the absence of a DNC operation option.	Clearing procedure: S
		Brightness: N

571	(, ,)	
Cause		Type of error:
		Stopped status:
Action		Clearing procedure:
		Brightness:

572	PARAMETER ERROR (, ,)	
Cause	During tool data loading, an error occurred because of differences from the parameter-set tool information. (Or the loaded tool data does not match to the machine specifications.)	Type of error: A Stopped status: L
Action	Check the settings of machine parameters B1 through B11 and C1 through C11. Check if the loaded tool data is for the machine being operated.	Clearing procedure: S Brightness: N

573	LOAD IMPOSSIBLE (TOO MANY) (WNo., ,)	
Cause	An attempt has been made to load a larger number of machining programs than the maximum number of machining programs that can be stored within the NC.	Type of error: A Stopped status: L
Action	Delete unnecessary machining programs, or save such programs into an external storage unit and then delete them.	Clearing procedure: S Brightness: N

574	LOAD IMPOSSIBLE (AUTO OPERATION) (, ,)	
Cause	An attempt has been made to load non-machining program data during automatic operation.	Type of error: A Stopped status: L
Action	Load the data only after completion of automatic operation.	Clearing procedure: S Brightness: N

575	LOAD IMPOSSIBLE (MISMATCH) (, ,)	
Cause	An attempt has been made to load data despite the fact that the data sent from the host was different from the condition data within the NC. (Mismatches in data size and other parameters)	Type of error: A Stopped status: L
Action	Check that the data you have made an attempt to send from the host is for the machine being operated.	Clearing procedure: S Brightness: N

576	SAME PROGRAM APPOINTED (WNo., ,)	
Cause	An attempt has been made to load a machining program that has the same work number as that of a machining program existing in the NC.	Type of error: A Stopped status: L
Action	Recheck work numbers for overlaps. This alarm implies that bit 2 of parameter I60 is placed in a ready status (ON) for saving old programs. Thus, if you set this bit to OFF (0), the intended program can be loaded after deleting old programs.	Clearing procedure: S Brightness: N

577	NO DESIGNATED PROGRAM (WNo., ,)	
Cause	• The machining program you have made an attempt to send from the NC to the host does not exist in the NC. • The machining program specified by a control command (work number search, program delete) does not exist in the NC.	Type of error: A Stopped status: L
Action	Check if the machining program corresponding to the designated work number exists in the NC.	Clearing procedure: S Brightness: N

578	MEMORY CAPACITY EXCEED (WNo., ,)	
Cause	An attempt has been made to load a larger number of machining programs than the maximum number of machining programs that can be stored within the NC.	Type of error: A Stopped status: L
Action	Delete unnecessary machining programs, or save such programs into an external storage unit and then delete them.	Clearing procedure: S Brightness: N

579	MEMORY PROTECT (, ,)	
Cause	An attempt has been made to load data despite the fact that the PROGRAM LOCK/ENABLE switch on the NC unit was in LOCK (write-protected) status.	Type of error: A Stopped status: L
Action	Reset the PROGRAM LOCK/ENABLE switch to its original position ENABLE (write-enabled status) before loading. This alarm implies that bit 3 of parameter I60 is placed in an active (write-enabled) status. Thus, if you set this bit to ON (1), the PROGRAM LOCK/ENABLE switch can be deactivated.	Clearing procedure: S Brightness: N

580	NO MACRO OPTION (, ,)	
Cause	An attempt has been made to transfer a macroprogram despite the fact that macro option was not provided.	Type of error: A Stopped status: L
Action	Macroprogram data cannot be processed because of the absence of a macro option.	Clearing procedure: S Brightness: N

581	(, ,)	
Cause		Type of error: Stopped status:
Action		Clearing procedure: Brightness:

582	LAYOUT SOFTWARE NOT COINCIDENT (WNo., ,)	
Cause	Process layout data for the T2/T3 cannot be converted in structure.	Type of error: A Stopped status: L
Action	Since program loading itself will be performed, change the process layout.	Clearing procedure: S Brightness: N

583	PROGRAM SOFTWARE NOT COINCIDENT (, ,)	
Cause	An attempt has been made to load a machining program having a data structure different from that of the programs within the NC.	Type of error: A Stopped status: L
Action	• Check if the program sent from the host is for the T32 or for the T2/T3. • Check for errors in the header block of the file transfer statement.	Clearing procedure: S Brightness: N

584	RECEIVED DATA NOT COINCIDENT (, ,)	
Cause	• An attempt has been made to load non-machining program data having a data structure different from that stored within the NC. • There are errors in the header block of the file transfer statement or in the data block. (Include machining program)	Type of error: A Stopped status: L
Action	• Check if the data sent from the host is for the T32 or for the machine being operated. • Check for version number errors in the header block of the file transfer statement or for sequence number errors in the data block.	Clearing procedure: S Brightness: N

585	CABLE MIS-CONNECTED (, ,)	
Cause	A cabling error or a power-off sequence error occurred during connection between the host and the NC.	Type of error: G Stopped status: L
Action	• Check for incorrect DNC cable connections. • Check if the host is powered on and ready for data transmission/reception. If, although a DNC option is provided, the DNC is not yet cabled and you are not to use the DNC for the time being, this alarm message can be made not to appear in any case by setting bit 1 of parameter I60 to OFF (0).	Clearing procedure: S Brightness: N

586	SYSTEM ERROR (, ,)	
Cause	An error has occurred in the system.	Type of error: E Stopped status: L
Action	If the error cannot be cleared even after the NC power has been turned off and then turned back on, please contact your MAZAK service representative giving information about what type of operation you were carrying out when the error occurred, and the data which was displayed in parentheses at that time.	Clearing procedure: S Brightness: N

587	PROGRAM OPERATION NOT ALLOWED (WNo., ,)	
Cause	An attempt has been made to send to the host the program being edited or being loaded from an external I/O unit.	Type of error: A Stopped status: L
Action	Send to the host the program only after its editing or loading from an external I/O unit has been completed.	Clearing procedure: S Brightness: N

588	DATA OPERATION NOT ALLOWED (, ,)	
Cause	• An attempt has been made to load non-machining program data during automatic operation. • An attempt has been made to send to the host the data being loaded from an external I/O unit. • An attempt has been made to load the data being saved from an external I/O unit.	Type of error: A Stopped status: L
Action	Wait until automatic operation or loading/saving from an external I/O unit is completed.	Clearing procedure: S Brightness: N

589	(, ,)	
Cause		Type of error: Stopped status:
Action		Clearing procedure: Brightness:

590	DNC COMMAND IMPOSSIBLE (, ,)	
Cause	The control command issued from the host cannot be executed since the NC is not ready for data processing. • A work number search request was issued during automatic operation. • A request for deletion of the machining program being used during automatic operation was issued while automatic operation was in progress.	Type of error: A Stopped status: L
Action	Wait until the NC becomes ready for data processing (this status is automatically set on completion of automatic operation). Then, issue the intended request once again.	Clearing procedure: S Brightness: N

591	MACRO COMMAND IMPOSSIBLE (WNo., ,)	
Cause	The macroprogram control command issued from the host cannot be executed since the NC is not ready for data processing. (Intermediate codes cannot be registered or deleted.)	Type of error: A Stopped status: L
Action	Check for errors in the macroprogram intermediate codes and in the designated macroprogram.	Clearing procedure: S Brightness: N

592	RECEIVED ILLEGAL COMMAND (, ,)	
Cause	• The control command or file transfer command that has been sent from the host is a nonexistent command. • The machine number that was designated prior to the start of non-machining program data loading is different from the machine number prestored within the NC.	Type of error: A Stopped status: L
Action	• Check the contents of the command message which was sent from the host. • Check if the designated machine number is the same as the machine number prestored within the NC, that is, as the setting of parameter I35.	Clearing procedure: S Brightness: N

593	DNC I/O ERROR (, ,)	
Cause	• Processing was interrupted because hardware error causes (such as line noise) occurred during DNC I/O operations. • Mismatches exist in the RS-232C communication condition settings between the host and the NC. • The condition settings of time-out, number of times of repetition, etc. are not correct.	Type of error: G Stopped status: L
Action	• Perform hardware checks on the NC and the host, as well as line checks. • Check for mismatches in the RS-232C communication condition settings between the host and the NC. • Change the condition settings of time-out, number of times of repetition, etc. to those which are preset on the host side. (Parameters within the NC: DV4 ... I1 through I8, and I25 through I40)	Clearing procedure: S Brightness: N

594	SEND-RECEIVE ERROR (, ,)	
Cause	• The current number of times of repetition was exceeded during transmission/reception of command messages. • Mismatches exist in the RS-232C communication condition settings between the host and the NC. • The condition settings of time-out, number of times of repetition, etc. are not correct.	Type of error: G Stopped status: L
Action	• Perform message checks on the host side, as well as line checks. • Check for mismatches in the RS-232C communication condition settings between the host and the NC. • Change the condition settings of time-out, number of times of repetition, etc. to those which are preset on the host side. (Parameters within the NC: DV4 ... I1 through I8, and I25 through I40)	Clearing procedure: S Brightness: N

595	FILE TRANSFER ERROR (, ,)	
Cause	• The current number of times of repetition was exceeded during transmission/reception of file messages. • Mismatches exist in the RS-232C communication condition settings between the host and the NC. • The condition settings of time-out, number of times of repetition, etc. are not correct.	Type of error: G Stopped status: L
Action	• Perform message checks on the host side, as well as line checks. • Check for mismatches in the RS-232C communication condition settings between the host and the NC. • Change the condition settings of time-out, number of times of repetition, etc. to those which are preset on the host side. (Parameters within the NC: DV4 ... I1 through I8, and I25 through I40)	Clearing procedure: S Brightness: N

596	DNC MALFUNCTION (, ,)	
Cause	An uncorrectible hardware error occurred during reception of the first message (ENO) from the host.	Type of error: G Stopped status: L
Action	Perform hardware checks on the NC and the host, as well as line checks, and then restart from the beginning (that is, from the NC power-on sequence).	Clearing procedure: S Brightness: N

597	STOP POWER IN DNC OPERATION (, ,)	
Cause	The NC power was turned off during the operation of the DNC.	Type of error: A Stopped status: L
Action	Check for data errors in the machining program being used, and if they exist, operate the DNC once again. If the NC power has been turned off during loading of the machining program, reload the program after deleting the loaded portion.	Clearing procedure: S Brightness: N

598	NO EIA/ISO OPTION (, ,)	
Cause	An attempt has been made to transfer an EIA/ISO program despite the fact that an EIA/ISO option was not provided.	Type of error: A Stopped status: L
Action	EIA/ISO program data cannot be processed because of the absence of an EIA/ISO option.	Clearing procedure: S Brightness: N

599	DESIGNATED DATA NOT FOUND (, ,)	
Cause	• A request for transmission/reception of data not existing in the NC has been issued from the host. • A request for transfer of more data than can be managed by the NC has been issued from the host.	Type of error: G Stopped status: L
Action	Check the contents of the message in the request command which has been sent from the host.	Clearing procedure: S Brightness: N

601	NO DESIGNATED PROGRAM (WNo., ,)	
Cause	The MAZATROL machining program corresponding to the designated work number does not exist in the memory.	Type of error: B Stopped status: J
Action	Check if the work number is wrong and designate the correct one, or load the machining program to be executed.	Clearing procedure: P Brightness: H

602	DATA NOT FOUND (WNo., ,)	
Cause	(1) An attempt has been made to execute the program being edited or being entered from an external input unit. (2) The program has entered in an abnormal condition because of a possible reduction in the backup battery voltage.	Type of error: B Stopped status: J
Action	(1) Execute the program only after completion of its editing or entry. (2) Reload the machining program to be executed.	Clearing procedure: P Brightness: H

603	DATA NOT FOUND (WNo.,PNo.,)	
Cause	The designated process number does not exist in the MAZATROL machining program corresponding to the previously designated work number.	Type of error: B Stopped status: J
Action	Check if the process number is wrong and designate the correct one, or load the machining program to be executed.	Clearing procedure: P Brightness: H

604	R/F CUTTING PROCESS NOT FOUND (WNo.,PNo.,)	
Cause	Although the machining process corresponding to the previously designated process number exists, the designated machining type (R for rough-machining, or F for finish-machining) is not registered for that process.	Type of error: B Stopped status: J
Action	Check if the machining type is wrong and designate the correct one, or load the machining program to be executed.	Clearing procedure: P Brightness: H

605	ILLEGAL MAZATROL DATA (WNo., ,)	
Cause	The MAZATROL machining program of the designated work number cannot be executed because structural errors exist in that program.	Type of error: B Stopped status: J
Action	Reload the machining program to be executed.	Clearing procedure: P Brightness: H

606	ILLEGAL PROCESS (WNo.,PNo.,)	
Cause	(1) Process data not acceptable for the machine specifications exists in the program you have made an attempt to execute. (2) SEP or TRS process data exists in the system memory despite the fact that the program you have made an attempt to execute is not a COMPLEX program. (3) The TPC data does not match to the process you have made an attempt to execute.	Type of error: B Stopped status: J
Action	(1) Delete process data not acceptable for the machine specifications. (2) Delete the SEP or TRS process data. (3) Delete the TPC data, and then create correct TPC data.	Clearing procedure: P Brightness: H

607	PROCESS DATA NOT FOUND (WNo.,PNo.,)	
Cause	Data items remaining blank exist in the process data items corresponding to the process you have made an attempt to execute.	Type of error: B Stopped status: J
Action	Set data in all blank data items.	Clearing procedure: P Brightness: H

608	ILLEGAL PROCESS DATA (WNo.,PNo.,)	
Cause	Data out of the allowable setting range exists in the process data corresponding to the process you have made an attempt to execute.	Type of error: B Stopped status: J
Action	Delete unallowable data, and then set correct data.	Clearing procedure: P Brightness: H

609	ILLEGAL SEQUENCE DATA (WNo.,PNo.,SNo.)	
Cause	Sequence data corresponding to the process you have made an attempt to execute does not match to the process data.	Type of error: B Stopped status: J
Action	Delete the existing sequence data, and then set correct sequence data.	Clearing procedure: P Brightness: H

610	SEQUENCE DATA NOT FOUND (WNo.,PNo.,)	
Cause	No sequence data exists for the process you have made an attempt to execute.	Type of error: B Stopped status: J
Action	Set sequence data.	Clearing procedure: P Brightness: H

611	SEQUENCE DATA NUMBER EXCEED (WNo.,PNo.,SNo.)	
Cause	The number of lines of sequence data for the process you have made an attempt to execute is in excess of a predetermined number of lines. The predetermined number of lines is as follows:	Type of error: B Stopped status: J

COMMON	MTR	BAR	CPY	CNR	EDG	THR
0	1~25	1~25	1~25	1	1	1~25

GRV	M	MES	MMS	MNP	MMP	DRL
1	0	1	1	0~Free	0~Free	1

TAP	MDR	MTP	BOR	MGV	LCT	RGT
1	1~25	1~25	1~25	1~25	1~25	1~25

LFT	MCR	END	TLY	TRS	SEP	
1~25	0	0	0	0	0	

(NOTE)
- A maximum of 25 lines of MTR data are available for each of IN and OUT.
- "Free" means that unless a maximum allowable of lines is exceeded, any number of lines of MAZATROL program data can be saved.

Action	Reduce the number of lines of sequence data.	Clearing procedure: P Brightness: H

612	SEQUENCE DATA NOT FOUND (WNo.,PNo.,SNo.)	
Cause	Data items remaining blank exist in the sequence dat items corresponding to the process you have made an attempt to execute.	Type of error: B Stopped status: J
Action	Set data in all blank data items.	Clearing procedure: P Brightness: H

613	ILLEGAL SEQUENCE DATA (WNo.,PNo.,SNo.)	
Cause	Data out of the allowable setting range exists in the sequence data corresponding to the process you have made an attempt to execute.	Type of error: B Stopped status: J
Action	Delete unallowable data, and then set correct data.	Clearing procedure: P Brightness: H

614	UNFINISHED TOOL SET (WNo.,PNo.,)	
Cause	Tooling data does not exist for the tools that are to be used for the process you have made an attempt to execute.	Type of error: B Stopped status: J
Action	Set tooling data for the tools that are to be used.	Clearing procedure: P Brightness: H

615	DESIGNATED TOOL NOT FOUND (WNo.,PNo.,)	
Cause	The tools to be used for the process you have made an attempt to execute are not yet registered in tool data.	Type of error: B Stopped status: J
Action	Check the tool data and register the necessary tools.	Clearing procedure: P Brightness: H

616	ILLEGAL CUTTING POINT (WNo.,PNo.,)	
Cause	The infeed point specified by the process data of the process (BAR, CPY) you have made an attempt to execute is outside the profile of the workpiece (approximate workpiece shape specified by common data).	Type of error: B Stopped status: J
Action	Move the infeed point into the profile of the workpiece.	Clearing procedure: P Brightness: H

617	ILLEGAL CUTTING START POINT (WNo.,PNo.,)	
Cause	The relative position of the starting or ending point specified by the sequence data with respect to the infeed point specified by the process data of the process (BAR, CPY) you have made an attempt to execute, is not appropriate.	Type of error: B Stopped status: J
Action	Change the position of the starting or ending point of the sequence data, or change the position of the infeed point.	Clearing procedure: P Brightness: H

618	SHAPE EXCEEDS MATERIAL SIZE (WNo.,PNo.,SNo.)	
Cause	The starting or ending point specified by the sequence data of the process you have made an attempt to execute is outside the profile of the workpiece (approximate workpiece shape specified by common data).	Type of error: B Stopped status: J
Action	Move the starting or ending point into the profile of the workpiece.	Clearing procedure: P Brightness: H

619	CUTTING DIRECTION NOT DEFINED (WNo.,PNo.,SNo.)	
Cause	Sequence data exists that does not allow the direction of machining (forward or backward) to be determined from the sequence data and the position of the infeed point specified by the process (BAR, CPY) data you have made an attempt to execute.	Type of error: B Stopped status: J
Action	Change the data of the starting or ending point in the sequence data.	Clearing procedure: P Brightness: H

620	REVERSE SHAPE CONTOUR (WNo.,PNo.,SNo.)	
Cause	Part of the workpiece shape defined by the sequence data of the process (BAR, CPY) you have made an attempt to execute is opposite in direction of machining with respect to the reference axis movement direction.	Type of error: B Stopped status: J
Action	Correct the position of the starting or ending point specified in the sequence data.	Clearing procedure: P Brightness: H

621	DOUBLE SHAPE CONTOUR (WNo.,PNo.,SNo.)	
Cause	The workpiece shape defined by the sequence data of the process (BAR, CPY) you have made an attempt to execute has overlaps in direction of machining.	Type of error: B Stopped status: J
Action	Correct the position of the starting or ending point specified in the sequence data.	Clearing procedure: P Brightness: H

622	ILLEGAL RADIUS (WNo.,PNo.,SNo.)	
Cause	Arc-drawing data in the sequence data of the process (BAR, CPY, LCT, RGT, LFT, MNP, MMP) you have made an attempt to execute is wrong. That is, the relationship between the starting point, ending point, and radius of the arc is incorrect.	Type of error: B Stopped status: J
Action	Correct the starting-point data, ending-point data, or radius data in the sequence data.	Clearing procedure: P Brightness: H

623	ILLEGAL CORNER DEFINITION (WNo.,PNo.,SNo.)	
Cause	In the sequence data of the process (BAR, CPY, CNR, GRV) you have made an attempt to execute, there are the following errors related to the designated corner-C drawing data: <BAR, CPY, CNR> The length of the block (or arc) present before or after of corner C you have made an attempt to add is smaller than that of corner C. <GRV> Added corner C is outside the profile of the workpiece.	Type of error: B Stopped status: J
Action	Correct either the length of corner C or the sequence data set before or after of the corner.	Clearing procedure: P Brightness: H

624	EXCEEDS NUMBER OF SHAPES (WNo.,PNo.,)	
Cause	Shape data for the process (BAR, CPY, LCT, RGT, LFT) you have made an attempt to execute or shape of workpiece defined in the MTR process is too complicated to be processed.	Type of error: B Stopped status: J
Action	Simplify the shape of the workpiece or the shape defined by the sequence data.	Clearing procedure: P Brightness: H

625	EXCEEDS NUMBER OF VALLEY SHAPES (WNo.,PNo.,)	
Cause	The total number of valleys in the workpiece shape defined by the sequence data of the process (BAR) you have made an attempt to execute is in excess of 10, the maximum allowable number.	Type of error: B Stopped status: J
Action	Simplify the shape defined by the sequence data.	Clearing procedure: P Brightness: H

626	COMMON DATA NOT FOUND (WNo., ,)	
Cause	Common process data does not exist in the beginning part of the data of the designated work number.	Type of error: B Stopped status: J
Action	Load or set the program once again.	Clearing procedure: P Brightness: H

627	ILLEGAL COMMON DATA (RADIAL) (WNo.,PNo.,)	
Cause	The relationship between "OD-MAX" and "IN-MIN" in the common process data of the designated work number is not as follows: (Maximum allowable outside diameter of workpiece) > (Minimum allowable inside diameter of workpiece) ≧0	Type of error: B Stopped status: J
Action	Correct "OD-MAX" or "IN-MIN".	Clearing procedure: P Brightness: H

628	ILLEGAL COMMON DATA (AXIAL) (WNo.,PNo.,)	
Cause	The relationship between the workpiece length (LENGTH), workpiece edge protrusion length (WORK FACE), and product length (FIN-LENGTH) in the common process data of the designated work number is not as follows: (LENGTH)≧(WORK FACE)+(FIN-LENGTH)>0 (WORK FACE), (FIN-LENGTH)>0	Type of error: B Stopped status: J
Action	Correct either "LENGTH", "WORK FACE", or "FIN-LENGTH".	Clearing procedure: P Brightness: H

629	MATERIAL SHAPE CROSSING (WNo.,PNo.,SNo.)	
Cause	There is a data overlap between the inside diameter side (IN) and outside diameter side (OUT) of the workpiece shape which has been designated for the MTR process.	Type of error: B Stopped status: J
Action	Redefine the IN or OUT workpiece shape data.	Clearing procedure: P Brightness: H

630	ILLEGAL DATA (TLY PROCESS) (WNo.,PNo.,)	
Cause	Either tool No. or pocket numbers are missing in the TLY process data.	Type of error: B Stopped status: J
Action	Set both a tool No. and a pocket number in each data item.	Clearing procedure: P Brightness: H

631	EXCESSIVE FINISH ALLOWANCE (, ,)	
Cause	The area to be rough-cut does not exist since the designated finishing allowance is too large for the shape defined by the sequence data.	Type of error: B Stopped status: J
Action	Either change the finishing allowance or cancel rough-cutting.	Clearing procedure: P Brightness: H

632	ILLEGAL SHAPE DESIGNATED (CNR) (WNo.,PNo.,SNo.)	
Cause	In the CNR process data, the relationship between the starting point (SPT-X/Z) and the ending point (EPT-X/Z) that are defined in the sequence data is wrong.	Type of error: B Stopped status: J
Action	Correct the coordinates of the starting or ending point.	Clearing procedure: P Brightness: H

633	ILLEGAL SHAPE DESIGNATED (EDG) (, ,)	
Cause	In the EDG process data, the relationship between the starting point and the ending point that are defined in the sequence data is wrong.	Type of error: B Stopped status: J
Action	Correct the coordinates of the starting or ending point.	Clearing procedure: P Brightness: H

634	ILLEGAL NUM. OF PATHS (THR) (WNo.,PNo.,)	
Cause	In the THR process data, the designated number of times of cutting of #0, #3 thread type is less than 2.	Type of error: B Stopped status: J
Action	Change the number of times of cutting to 3 or more, or change the thread type.	Clearing procedure: P Brightness: H

635	ACCELERATION DISTANCE EXCEED (WNo.,PNo.,)	
Cause	In the THR process data, the calculated distance of threading acceleration is in excess of the clamp data.	Type of error: B Stopped status: J
Action	After checking for safety, change the parameter.	Clearing procedure: P Brightness: H

636	ILLEGAL SHAPE DESIGNATED (GRV)(WNo.,PNo.,)	
Cause	In the GRV process data, the relationship between the starting point (SPT-X/Z) and the ending point (FPT-X/Z) that are defined in the sequence data is wrong.	Type of error: B Stopped status: J
Action	Correct the coordinates of the starting or ending point.	Clearing procedure: P Brightness: H

637	ILLEGAL SHAPE EXCEEDS MTRL SIZE (WNo.,PNo.,SNo.)	
Cause	In the GRV process, the second and subsequent grooves of all those which have been designated for the GRV process are outside the workpiece profile defined by common data.	Type of error: B Stopped status: J
Action	Reduce the number of grooves.	Clearing procedure: P Brightness: H

638	ILLEGAL DESIGNATED TL WID (GRV) (WNo.,PNo.,SNo.)	
Cause	The width of the designated tool does not match to the groove shape specified in the GRV process data.	Type of error: B Stopped status: J
Action	Designate some other tool, or change the width of the designated tool.	Clearing procedure: P Brightness: H

639	ILLEGAL OVERLAP (GRV PROCESS) (, ,)	
Cause	In the GRV process data, the parameter-set amount of grooving overlap is larger than the width of the designated tool.	Type of error: B Stopped status: J
Action	Either designate some other tool, change the width of the designated tool, or change the parameter setting.	Clearing procedure: P Brightness: H

640	ILLEGAL DRILLING DIRECTION (WNo.,PNo.,SNo.)	
Cause	In the hole-machining process (DRL, TAP) data, the relationship between the starting point (SPT-Z) and the ending point (FPT-Z) that are defined in the sequence data is wrong.	Type of error: B Stopped status: J
Action	Correct the Z-axis coordinates of the starting or ending point.	Clearing procedure: P Brightness: H

641	ILLEGAL G-CODE INPUT (, ,)	
Cause	Unavailable G-code commands have been designated for the manual operation process (MNP, MMP).	Type of error: B Stopped status: J
Action	Change the G-code commands to correct ones.	Clearing procedure: P Brightness: H

642	ILLEGAL AXIS INPUT (WNo.,PNo.,SNo.)	
Cause	An axis that is illegal for the G-code command in the sequence data has been designated for the manual operation process (MNP, MMP). Or the same axis is designated more than 2 in 1 sequence data of the manual operation process (MNP, MMP).	Type of error: B Stopped status: J
Action	Delete all move commands related to the illegal axis.	Clearing procedure: P Brightness: H

643	MILLING TOOL DIA NOT FOUND (, ,)	
Cause	(1) The diameter of the tool to be used during the process (DRL, TAP, MSG, MDR, MTP, BOR, MGV, LCT, RGT, LFT) is unset or is set to 0. (2) The diameter of the sensor tool to be used during the measurement process (MES) is unset or is set to 0.	Type of error: B Stopped status: J
Action	Set the correct diameter of the tool or sensor tool you want to use.	Clearing procedure: P Brightness: H

644	ILLEGAL FEEDRATE DATA (WNo.,PNo.,SNo.)	
Cause	The synchronous or asynchronous feed data designated in the manual operation process (MNP, MMP) data is not appropriate for the G-code command set in the sequence data.	Type of error: B Stopped status: J
Action	Change the synchronous or asynchronous feed data.	Clearing procedure: P Brightness: H

645	CORNER (R/C) DESIGNATED OVERLAP (WNo.,PNo.,SNo.)	
Cause	In the sequence data of the process (BAR, CPY), different types of corners (R or C) have been designated for portions that are identical in shape.	Type of error: B Stopped status: J
Action	Check the designated corner portions and delete one of the corners.	Clearing procedure: P Brightness: H

646	ILLEGAL FINISHING ALLOWANCE (WNo.,PNo.,)	
Cause	In the "#0, #0" type of THR (threading) proces data, the following relationship exists: (Finishing allowance) > (First depth-of-cut/4) └ Calculated from the height (MGT) and the number of times (NUMBER) that are specified by the process data. Specified by parameter U39.	Type of error: B Stopped status: J
Action	Change either the thread height or the setting of parameter U39.	Clearing procedure: P Brightness: H

647	ILLEGAL ANGLE IN FIRST SEQUENCE (WNo.,PNo.,SNo.)	
Cause	Threading is not possible since the relationship between the thread shape and threading angle that are defined by the first sequence data of the THR process is incorrect.	Type of error: B Stopped status: J
Action	Change the threading angle, or change the coordinates of the starting or ending point of the first sequence.	Clearing procedure: P Brightness: H

648	ILLEGAL THREAD ANGLE (WNo.,PNo.,)	
Cause	In the THR process data that requires the designating of a threading angle, "ANG" (threading angle) is not in the following range. (Tool tip angle) ≦ (Threading angle)	Type of error: B Stopped status: J
Action	Change either the threading angle, the type of tool to be used, or tool data.	Clearing procedure: P Brightness: H

649	ILLEGAL THREAD HEIGHT (WNo.,PNo.,)	
Cause	In the THR process data, the relationship between the thread height and the finishing allowance is not: (Finishing allowance) ≦ (Thread height) └ Designated in the process data. └ Set using parameter U39.	Type of error: B Stopped status: J
Action	Change the thread height or the setting of parameter U39.	Clearing procedure: P Brightness: H

651	LAYOUT UNABLE (WNo.,PNo.,)	
Cause	Because of lack of data, automatic creation of layout data is not possible and thus the program cannot be executed.	Type of error: B Stopped status: J
Action	Check the machining program for tool or SEP/TRS head selection errors.	Clearing procedure: P Brightness: H

652	LAYOUT SIZE EXCEED (WNo., ,)	
Cause	Automatic creation of process layout data, although attempted prior to execution of machining programs, has failed because of lack of an available storage area in the layout data storage memory.	Type of error: B Stopped status: J
Action	Delete an unnecessary machining program(s).	Clearing procedure: P Brightness: H

653	INTERSECTION NOT FOUND (WNo.,PNo.,SNo.)	
Cause	Although crossing-point calculation was attempted because a data item denoting uncalculated crossing-point data (?) was present in the sequence data of the process, no calculations were obtained since there are data disparities.	Type of error: B Stopped status: J
Action	Correct the sequence data.	Clearing procedure: P Brightness: H

654	DATA MISSING (INTERSECTION) (WNo.,PNo.,SNo.)	
Cause	Although crossing-point calculation was attempted because a data item denoting uncalculated crossing-point data (?) was present in the sequence data of the process, no calculations were obtained since there are lack of datas.	Type of error: B Stopped status: J
Action	Correct the process data or the sequence data.	Clearing procedure: P Brightness: H

655	INTERSECTION CALCULATE IMPOSS. (WNo.,PNo.,SNo.)	
Cause	Although crossing-point calculation was attempted because a data item denoting uncalculated crossing-point data (?) was present in the sequence data of the process, no calculations were obtained since there are illegal datas.	Type of error: B Stopped status: J
Action	Correct the process data or the sequence data.	Clearing procedure: P Brightness: H

656	NEED TOOL ROTATION DIRECTION (, ,)	
Cause	The rotating direction of the spindle or milling tool cannot be determined since the "FWD/REV R/L" data item in "TOOL DATA (2)" which corresponds to the designated tool is left blank.	Type of error: B Stopped status: J
Action	Set data in "FWD/REV R/L" or designate some other tool.	Clearing procedure: P Brightness: H

657	NO DEPTH OF CUT INFO. (, ,)	
Cause	The depth of cutting with the milling tool cannot be determined since the "DEP-AMO/DEP-ANG" data item in "TOOL DATA (2)" which corresponds to the designated tool is left blank.	Type of error: B Stopped status: J
Action	Set data in "DEP-AMO/DEP-ANG" or designate some other tool.	Clearing procedure: P Brightness: H

658	ILLEGAL TPC DATA (WNo.,PNo.,)	
Cause	Data out of the allowable setting range exists in the TPC data of the process you have made an attempt to execute.	Type of error: B Stopped status: J
Action	Correct the data error(s).	Clearing procedure: P Brightness: H

659	DATA NOT FOUND (WNo.,PNo.,)	
Cause	The "Z1", "Z2", and "Z-OFFSET" setup data items for the TRS process you have made an attempt to execute are left blank.	Type of error: B Stopped status: J
Action	Set correct data in the setup data items.	Clearing procedure: P Brightness: H

660	NO EIA/ISO OPTION (WNo.,PNo.,)	
Cause	The EIA/ISO program that has been designated as the next program to be executed is set in the END process data of the currently running program despite the fact that the system does not have an EIA/ISO program execution option.	Type of error: B Stopped status: J
Action	Check the work number for error, or reload the machining program to be executed.	Clearing procedure: P Brightness: H

661	EXCESSIVE GROOVE WIDTH (WNo.,PNo.,)	
Cause	Machining within the allowable stroke of the dummy Y-axis is not possible since the groove width (GRV-WID) that has been set for MGV is too large for that tool. (Only for a system that has a dummy Y-axis.) The allowable stroke of the dummy Y-axis is as follows: −(Setting of parameter B65/2) ≦ Allowable stroke ≦ (Setting of parameter B65/2)	Type of error: B Stopped status: J
Action	Designate a tool that has a sufficiently large diameter, or reduce the groove width and perform machining within the allowable stroke.	Clearing procedure: P Brightness: H

662	ILLEGAL Y-AXIS DATA (WNo.,PNo.,)	
Cause	The Y-coordinate of the program is outside the allowable stroke of the dummy Y-axis. (Only for a system that has a dummy Y-axis.) The allowable stroke of the dummy Y-axis is as follows: −(Setting of parameter B65/2) ≦ Allowable stroke ≦ (Setting of parameter B65/2)	Type of error: B Stopped status: J
Action	Reduce the Y-coordinate below the allowable stroke.	Clearing procedure: P Brightness: H

680	MACRO PROGRAM NOT FOUND (WNo.,PNo.,)	
Cause	The macroprogram (MAZATROL MACRO) that has been designated for the MCR process is an unregistered one.	Type of error: B Stopped status: J
Action	Change or register the name of the macroprogram to be called up.	Clearing procedure: P Brightness: H

681	ILLEGAL MACRO G-CODE (WNo.,PNo.,)	
Cause	The macroprogram (MAZATROL MACRO) cannot be executed since illegal G-codes are included in it.	Type of error: B Stopped status: J
Action	Change the G-codes.	Clearing procedure: P Brightness: H

682	DESIGNATED AXIS OVER (MACRO) (WNo.,PNo.,)	
Cause	The macroprogram (MAZATROL MACRO) cannot be executed since more axes than allowable for the macroprogram have been designated.	Type of error: B Stopped status: J
Action	Reduce the number of axes.	Clearing procedure: P Brightness: H

683	ILLEGAL AXIS INPUT (MACRO) (WNo.,PNo.,)	
Cause	The macroprogram (MAZATROL MACRO) cannot be executed since axis addresses not allowable for the macroprogram have been designated.	Type of error: B Stopped status: J
Action	Reduce the number of axis addresses, or change part of the axis addresses.	Clearing procedure: P Brightness: H

684	FEEDRATE ZERO (MACRO) (WNo.,PNo.,)	
Cause	The feedrate (F) designated in the macroprogram (MAZATROL MACRO) is not a positive value.	Type of error: B Stopped status: J
Action	Change the value of F to a positive one.	Clearing procedure: P Brightness: H

685	M-CODE OVER (WNo.,PNo.,)	
Cause	More than four M-codes per block are set in the macroprogram (MAZATROL MACRO).	Type of error: B Stopped status: J
Action	Reduce the number of M-codes below four per block.	Clearing procedure: P Brightness: H

686	SPINDLE ZERO (MACRO) (WNo.,PNo.,)	
Cause	The speed (S) designated in the macroprogram (MAZATROL MACRO) is not a positive value.	Type of error: B Stopped status: J
Action	Change the value of S to a positive one.	Clearing procedure: P Brightness: H

687	SPINDLE ZERO (MACRO) (WNo.,PNo.,)	
Cause	The peripheral velocity (V) designated in the macroprogram (MAZATROL MACRO) is not a positive value.	Type of error: B Stopped status: J
Action	Change the value of V to a positive one.	Clearing procedure: P Brightness: H

688	ADDRESS DESIGNATION OVERLAP (WNo.,PNo.,)	
Cause	The addresses that must not be set in two or more places within one block exist in one or more blocks of the macroprogram (MAZATROL MACRO).	Type of error: B Stopped status: J
Action	Delete one or more of the addresses of the same type.	Clearing procedure: P Brightness: H

689	ADDRESS OVER (WNo.,PNo.,)	
Cause	A block containing more than 20 addresses exists in the macroprogram (MAZATROL MACRO).	Type of error: B Stopped status: J
Action	Delete the excess number of addresses, or divide the commands into two blocks.	Clearing procedure: P Brightness: H

690 MACRO EXECUTION ERROR (WNo.,PNo.,Macro error No.)

Cause One or more of the following errors occurred during execution of the macroprogram:

Error No.	Error description	Type of error
1	The intermediate code header information is wrong.	B
2	The area handled by the interpreter is insuficient.	
3	The quantities of both arguments existing during macro call from a macro are not the same.	
5	After debugging, the number of arguments described in the program became smaller than that of arguments which were entered.	
6	After debugging, the number of arguments described in the program became larger than that of arguments which were entered.	
7	The number of times of nesting for macro call is in excess of its maximum allowable number (10).	
8	Array statement error (The array size defined in DIM statement is exceeded)	
9	In COM#(i) or COM@(i), the value of i is illegal (the value of i is minus or in excess of the value set in macro control block).	Stopped status
10	During division, the divisior is 0.	J
11	The function (MACSEARCH, SMACSEARCH) that returns the code area pointer of the macro has error-returned.	
12	In SCOM#(i) or SCOM@(i), the value of i is illegal (the value of i is minus or excess of the value set in macro control block).	
13	Instruction word error.	
14	The number of machining programs is larger than the value set in the macro control block.	
15	Unregistered external functions are given.	
17	The stack handled by the interpreter is overflowing or underflowing.	
18	The divisor for calculation of MOD is 0.	
20	The type of arguments for macro call is illegal.	

Action Correct and re-register the macroprogram.

Clearing procedure	Brightness
P	H

699 SHAPE MANEGEMENT IMPOSSIBLE (WNo.,PNo.,SNo.)

Cause The shape data that has been defined in the sequence data of the process (BAR, CPY) cannot be correctly processed.

Type of error	Stopped status
B	J

Action Change the machining program or tool data to such an extent that no machining error is likely to occur (say, down to several micrometers). Normal operation may then resume, because this alarm is usually due to a calculation error.
If the situation does not improve even after such changes have been made, your MAZAK service representative should be contacted for assistance.

Clearing procedure	Brightness
P	H

701 SIMULTANEOUS AXIS OVER (, ,)

Cause The number of axis addresses per block is in excess of the specifications.

Type of error	Stopped status
B	J

Action
- Divide the addresses in the alarm block into two groups.
- Check against the specifications.

Clearing procedure	Brightness
P	H

702 ILLEGAL AXIS NAME (, ,)

Cause The axis address name in the program is different from that which has been parameter-set.

Type of error	Stopped status
B	J

Action Correct the axis address name in the program.

Clearing procedure	Brightness
P	H

703	DIMENSION DETECTING ERROR (, ,)	
Cause	Axis addresses that cannot be divided in address units have been set.	Type of error: B Stopped status: J
Action	Review the program.	Clearing procedure: P Brightness: H

704	PARITY H ERROR (, ,)	
Cause	The number of holes per character in the paper tape is even (for EIA codes) or odd (for ISO codes).	Type of error: B Stopped status: J
Action	• Check the paper tape. • Check the tape reader and the tape puncher for normal operation.	Clearing procedure: P Brightness: H

705	PARITY V ERROR (, ,)	
Cause	The number of characters per block on the paper tape is odd.	Type of error: B Stopped status: J
Action	• Make the number of characters per block on the paper tape even. • Set the parity-V selection parameter to OFF.	Clearing procedure: P Brightness: H

706	ILLEGAL ADDRESS (, ,)	
Cause	Addresses not available for the machine specifications have been set.	Type of error: B Stopped status: J
Action	• Check and correct address errors in the program. • Check the specifications.	Clearing procedure: P Brightness: H

707	ILLEGAL FORMAT (, ,)	
Cause	The programming format is not correct.	Type of error: B Stopped status: J
Action	Review the program.	Clearing procedure: P Brightness: H

708	ILLEGAL G-CODE (, ,)	
Cause	G-codes not available for your machine are included.	Type of error: B Stopped status: J
Action	Check and correct G-code address errors in the program.	Clearing procedure: P Brightness: H

709	ILLEGAL NUMBER INPUT (, ,)	
Cause	The address setting range has been overstepped.	Type of error: B Stopped status: J
Action	Review the program.	Clearing procedure: P Brightness: H

710	PROGRAM END NOT FOUND (, ,)	
Cause	"EOR" has been read in during tape or memory mode operation.	Type of error: B Stopped status: J
Action	• Include M02 or M30 at the end of the program. • Include M99 at the end of the subprogram.	Clearing procedure: P Brightness: H

711	ILLEGAL O, N NUMBER (, ,)	
Cause	Program number 0 and/or sequence number 0 has been set.	Type of error: B Stopped status: J
Action	Designate a program number from 0 to 9999, and /or a sequence number from 0 to 99999.	Clearing procedure: P Brightness: H

712	INTERPOLATION IS OVERFLOW (, ,)	
Cause	The designated travel distance data is in excess of 2^{31}.	Type of error: B Stopped status: J
Action	Recheck the designated axis address.	Clearing procedure: P Brightness: H

713	FEEDRATE ZERO (, ,)	
Cause	The feedrate is unset.	Type of error: B Stopped status: J
Action	Set an F command and designate a feedrate.	Clearing procedure: P Brightness: H

714	DIFFERENT CENTER TOO LARGE (, ,)	
Cause	The starting point, ending point, and/or center of the arc are wrong.	Type of error: B Stopped status: J
Action	Check the address data of the starting point, ending point, and center of the arc. Check the direction (+, −) of the address data.	Clearing procedure: P Brightness: H

715	MISSING CENTER (NO DATA) (, ,)	
Cause	Because of address data errors, the center of the arc cannot be determined during radius-disignated arc interpolation.	Type of error: B Stopped status: J
Action	Check the address data in the program.	Clearing procedure: P Brightness: H

716	VARI PITCH THRD OPT NOT PRESENT (, ,)	
Cause	A variable lead thread cutting command is designated although the control does not support the variable lead thread cutting specification.	Type of error: B Stopped status: J
Action	Check the specifications.	Clearing procedure: P Brightness: H

717	ILLEGAL LEAD (THREAD) (, ,)	
Cause	The designated thread lead is incorrect in the threading process data.	Type of error: B Stopped status: J
Action	Correct the thread lead data in the threading process data.	Clearing procedure: P Brightness: H

718	G16-G19 COM. IN NOSE-R COMP. (, ,)	
Cause	A plane selection G code (G17, G18, G19) is designated in the tool diameter offset command or nose-R offset command (G41, G42, G48).	Type of error: B Stopped status: J
Action	Set a plane select command after canceling the tool diameter offset command and the nose-R offset command (after commanding G40).	Clearing procedure: P Brightness: H

719	ILLEGAL G16-G19 COMMAND (, ,)	
Cause	Mismatch between the arc command axis and the selected plane.	Type of error: B
		Stopped status: J
Action	Set correct plane-selection data and correct arc-drawing data.	Clearing procedure: P
		Brightness: H

720	NOT FOUND AUTO CORNER OVERRIDE (, ,)	
Cause		Type of error: B
		Stopped status: J
Action		Clearing procedure: P
		Brightness: H

721	ILLEGAL 2-ND MISCELLAN. CODE (, ,)	
Cause	The No. 2 auxiliary function address set in the program is different from the parameter-set address.	Type of error: B
		Stopped status: J
Action	Check and correct the No. 2 auxiliary function address set in the program.	Clearing procedure: P
		Brightness: H

722	ILLEGAL AXIS DESIGNATED IN G96 (, ,)	
Cause	A wrong axis is designated for calling the constant peripheral velocity control.	Type of error: B
		Stopped status: J
Action	Recheck the program to see if the parameter-set address of the constant peripheral velocity control axis is correct.	Clearing procedure: P
		Brightness: H

723	NOSE-R COMPENSATION IN G02/03 (, ,)	
Cause	A offset command (G40, G41, G42, or G46) is designated in the circular interpolation mode (G02, G03).	Type of error: B
		Stopped status: J
Action	Include linear-interpolation command code G01 or rapid-feed command code G00 in the offset command block or the cancel block, respectively. Modal interpolation will then change over to linear interpolation.	Clearing procedure: P
		Brightness: H

724	NO INTERSECTION (, ,)	
Cause	Calculation of the crossing-point offset vector failed during execution of the tool diameter offset command or the nose-R offset command (G41, G42, G46).	Type of error: B
		Stopped status: J
Action	Recheck the program.	Clearing procedure: P
		Brightness: H

725	NOSE-R COMP. INTERFERENCE ERROR (, ,)	
Cause	An interference error occurred during the execution of the tool diameter offset command or nose-R offset command, (G41, G42, G46) function.	Type of error: B
		Stopped status: J
Action	Recheck the program.	Clearing procedure: P
		Brightness: H

726	CANNED CYCLE IN NOSE-R COMP. (, ,)	
Cause	A fixed-cycle command is designated during the diameter offset mode.	Type of error: B
		Stopped status: J
Action	Include diameter offset cancel code G40 in the program since the diameter offset mode can only be used during execution of the fixed-cycle command.	Clearing procedure: P
		Brightness: H

727	ILLEGAL NOSE-R COMP. DIRECTION (, ,)	
Cause	At the start-up of the G46 nose-R offset mode, the vector cannot define the offset direction.	Type of error: B Stopped status: J
Action	• Change the move vector to one that make the offset direction constant. • Replace the tool with one that has a different tip number.	Clearing procedure: P Brightness: H

728	REVERSE NOSE-R COMP. DIRECTION (, ,)	
Cause	In the nose-R offset mode (G46), the offset direction is reversed.	Type of error: B Stopped status: J
Action	• Change the command to a G-code command (G00, G28, G30, G33, or G53) that permits reversal of the offset direction. • Replace the tool with one that has a different tip number. • Set the G46 reversal error prevention parameter to ON.	Clearing procedure: P Brightness: H

729	ILLEGAL TOOL NOSE (, ,)	
Cause	The tool point is illegal (other than 1 – 8) in the nose-R compensation mode G48.	Type of error: B Stopped status: J
Action	Correct the tip number.	Clearing procedure: P Brightness: H

730	ILLEGAL OFFSET No. (, ,)	
Cause	When offset command (G41, G42 or G46) was set, the offset number was 0 (T00) or larger than the maximum available value.	Type of error: B Stopped status: J
Action	• Append an offset number command to the offset command block. • Check the maximum available number of offset numbers, and change the offset number to an available one.	Clearing procedure: P Brightness: H

731	DR CANNED CYCLE OPT NOT PRESENT (, ,)	
Cause	A fixed cycle command is designated although the fixed cycle (G81 – G89) specification is not supported.	Type of error: B Stopped status: J
Action	• Check the specifications. • Correct the program.	Clearing procedure: P Brightness: H

732	TAPPING SPEED DATA NOT FOUND (, ,)	
Cause	The spindle speed is not designated when a fixed drilling cycle is designated.	Type of error: B Stopped status: J
Action	During setting of fixed-cycle hole-drilling commands (G84, G88), also set a spindle speed command (S).	Clearing procedure: P Brightness: H

733	ILLEGAL SYNCH. TAPPING CYCLE (, ,)	
Cause	Connection with the spindle unit is not made.	Type of error: B Stopped status: J
Action	• Check for correct connection to the spindle unit. • Check the presence/absence of a spindle encoder.	Clearing procedure: P Brightness: H

734	THREAD PITCH NOT FOUND	(, ,)
Cause	In the fixed tapping cycle, there is no designation for pitch or number of threads.	Type of error: B Stopped status: J
Action	Using an F or E command, designate a pitch or a number of threads per inch.	Clearing procedure: P Brightness: H

735	ILLEGAL THREAD PITCH	(, ,)
Cause	In the fixed tapping cycle, designation for the pitch or the number of thread is incorrect.	Type of error: B Stopped status: J
Action	Check the pitch or the number of threads per inch.	Clearing procedure: P Brightness: H

736	ILLEGAL TAPER LENGTH	(, ,)
Cause	In the turning cycle, designation for the taper length is incorrect.	Type of error: B Stopped status: J
Action	Set the value of R for the turning cycle so that the travel of the axis is not exceeded.	Clearing procedure: P Brightness: H

737	ILLEGAL CHAMFERING	(, ,)
Cause	In the thread cutting cycle, designation for chamfering is incorrect.	Type of error: B Stopped status: J
Action	Set chamfering data that ensures termination of the operation of the tool within the cycle time.	Clearing procedure: P Brightness: H

738	ILLEGAL G-CODE DATA	(, ,)
Cause	The following command is present in the subprogram called by a composite-type fixed-cycle I: — Reference point return command (G27, G28, G30) — Thread cutting (G33) — Fixed cycle — Skip function (G31)	Type of error: B Stopped status: J
Action	• Delete the following G-codes from the subprograms that are called up by composite-type fixed-cycle I codes G70 through G73: G27, G28, G30, G31, G33 • Fixed-cycle G-codes Normally, this alarm is not output. If this alarm is output, data must be deleted from the entire system area.	Clearing procedure: P Brightness: H

739	BLOCK NUMBER EXCEED	(, ,)
Cause	The number of blocks in the shape program of the composite-type fixed-cycle I exceeds 50 blocks.	Type of error: B Stopped status: J
Action	Reduce below 50 the number of blocks in the shape programs called up by composite-type fixed-cycle I codes G70 through G73.	Clearing procedure: P Brightness: H

740	ILLEGAL SHAPE DESIGNATED	(, ,)
Cause	The shape program in the composite-type fixed-cycle I (G70 ~ G73) is not the shape for correct cutting.	Type of error: B Stopped status: J
Action	Recheck the shape program specified by composite-type fixed-cycle I (G70 through G73)	Clearing procedure: P Brightness: H

741	ILLEGAL DATA INPUT (, ,)	
Cause	The command in the composite-type fixed-cycle (G70 – G76) is not correct.	Type of error: B Stopped status: J
Action	Recheck the command data of composite-type fixed-cycle (G70 through G76).	Clearing procedure: P Brightness: H

742	SUB PROGRAM NESTING OVER (, ,)	
Cause	The number of times of sequential subprogram call from subprograms has exceeded 15.	Type of error: B Stopped status: J
Action	Check the actual number of times of subprogram call, and correct the program so that the value does not exceed 15.	Clearing procedure: P Brightness: H

743	DESIGNATED SNo. NOT FOUND (, ,)	
Cause	The sequence number that was designated using GOTO during exit from a called subprogram has been found to be a nonexistent sequence number.	Type of error: B Stopped status: J
Action	Include the sequence number in a suitable block.	Clearing procedure: P Brightness: H

744	NO DESIGNATED PROGRAM (, ,)	
Cause	A called subprogram has been found to be an unregistered one.	Type of error: B Stopped status: J
Action	Register the subprogram.	Clearing procedure: P Brightness: H

745	NOT FOUND ADDR. CHANGE OPTION (, ,)	
Cause	A sequence number or block number not existing in the program has been designated and search start for restart has been activated.	Type of error: B Stopped status: J
Action	After checking the program, reset restart data and activate the search start for restart.	Clearing procedure: P Brightness: H

746	ABSOLUTE INPUT REQUIRED (G36) (, ,)	
Cause	Incremental data has been set as target data in the block of G36.	Type of error: B Stopped status: J
Action	Review the axis addresses within G36.	Clearing procedure: P Brightness: H

747	NO SECOND OPERATION (, ,)	
Cause	The specifications of G109, G110, G111, and G112 remain unset.	Type of error: B Stopped status: J
Action		Clearing procedure: P Brightness: H

748	NOT ZERO RETURNED AXIS EXIST (, ,)	
Cause	A move command other than those used for returning axes to reference points was set for an axis that has not been returned to such points.	Type of error: B Stopped status: J
Action	Carry out a manual reference-point return operation.	Clearing procedure: P Brightness: H

749	REFERENCE POINT RETURN CHECK (, ,)	
Cause	An axis exists that has not returned to its home position when home-position check command G27 was executed.	Type of error: B Stopped status: J
Action	Recheck the program.	Clearing procedure: P Brightness: H

750	TAPE I/O ERROR (, ,)	
Cause	An error has occurred in the tape reader.	Type of error: B Stopped status: J
Action		Clearing procedure: P Brightness: H

751	FILE I/O ERROR (, ,)	
Cause	Reading of the machining program files failed.	Type of error: B Stopped status: J
Action		Clearing procedure: P Brightness: H

752	CANNED CYCLE PROGRAM ERROR (, ,)	
Cause	The shape definition program for fixed-cycle operation includes G27, G28, G30, G31, G32, and fixid-cycle G-codes.	Type of error: B Stopped status: J
Action		Clearing procedure: P Brightness: H

753	ILLEGAL G10 L NUMBER (, ,)	
Cause	A wrong L-address number was set during setting of G10.	Type of error: B Stopped status: J
Action	Check the L-address number and change it to the correct number.	Clearing procedure: P Brightness: H

754	ILLEGAL G10 CORRECTION No. (, ,)	
Cause	An offset number not allowable for the machine specifications was set during setting of G10.	Type of error: B Stopped status: J
Action	After checking the maximum allowable number of offset numbers, change the number of address P to an allowable number.	Clearing procedure: P Brightness: H

755	NO DIRECTIVE FOR NEXT MOVE R/C (, ,)	
Cause	A non-move command has been designated for the block immediately succeeding the corner R/C command.	Type of error: B Stopped status: J
Action	Change the block that immediately succeeds the corner R/C command to a block of move commands.	Clearing procedure: P Brightness: H

756	INSUFFICIENT MOVE DISTANCE R/C (, ,)	
Cause	The travel distance is smaller than the length of designated corner R/C.	Type of error: B Stopped status: J
Action	Reduce the length of corner R/C below the travel distance.	Clearing procedure: P Brightness: H

757	INSUFF. NEXT MOVE DISTANCE R/C	(, ,)
Cause	The travel distance specified in the next block is smaller than the length of designated corner R/C.	Type of error: B Stopped status: J
Action	Reduce the length of corner R/C below the travel distance specified in the next block.	Clearing procedure: P Brightness: H

758	CNR-R/C DESIGNATED IN G0, THREAD	(, ,)
Cause	The block corner R/C command or athe next block is in the G00 mode or the thread cutting mode.	Type of error: B Stopped status: J
Action	Recheck the program.	Clearing procedure: P Brightness: H

759	G27, M COMMANDS SAME BLOCK	(, ,)
Cause	M-code-only command are included in the command block of G27.	Type of error: B Stopped status: J
Action	M-code-only commands cannot coexist with G27 command blocks. Divide each of G27 commands and M-code-only commands into separate blocks.	Clearing procedure: P Brightness: H

760	G29, M COMMANDS SAME BLOCK	(, ,)
Cause	M-code-only command are included in the command block of G29.	Type of error: B Stopped status: J
Action	M-code-only commands cannot coexist with G29 command blocks. Divide each of G29 commands and M-code-only commands into separate blocks.	Clearing procedure: P Brightness: H

761	SKIP SPEED ZERO	(, ,)
Cause	The skip speed is 0.	Type of error: B Stopped status: J
Action	Set the skip speed to a value other than 0.	Clearing procedure: P Brightness: H

762	SKIP COMMAND IN CORRECTING DIA	(, ,)
Cause	A skip command coexists with the diameter offset command.	Type of error: B Stopped status: J
Action	Set diameter offset cancel code (G40), or delete the skip command.	Clearing procedure: P Brightness: H

763	MILLING IMPOSSIBLE	(, ,)
Cause	The specification of G12.1 remains unsel.	Type of error: B Stopped status: J
Action		Clearing procedure: P Brightness: H

764	ILLEGAL G-CODE (MILLING)	(, ,)
Cause	A G-code not usable for milling has been designated during the milling mode.	Type of error: B Stopped status: J
Action		Clearing procedure: P Brightness: H

767	AXIS ZERO RETURN NOT COMPLETED (, ,)	
Cause	An axis remaining unreturned to its zero-point has been designated during the milling mode.	Type of error: B Stopped status: J
Action		Clearing procedure: P Brightness: H

768	ILLEGAL MODAL (, ,)	
Cause	The milling mode has been selected during nose-R offsetting or peripheral speed constant control.	Type of error: B Stopped status: J
Action		Clearing procedure: P Display: H

769	NO CORNER-R/C OPTION (MILLING) (, ,)	
Cause	An unavailable corner R/C has been selected during the milling mode.	Type of error: B Stopped status: J
Action		Clearing procedure: P Brightness: H

770	WORKPIECE RADIUS NOT INPUT (G16) (, ,)	
Cause	A plane without a cylindrical radius has been selected using G16 during the milling mode.	Type of error: B Stopped status: J
Action		Clearing procedure: P Brightness: H

771	LOOK AHEAD BUFFER INSUFFICIENT (, ,)	
Cause	The block to be pre-read for nose-R offset vector creation is in excess of the capacity of the special buffer for such blocks.	Type of error: B Stopped status: J
Action		Clearing procedure: P Brightness: H

772	ERROR IN LOOK AHEAD BLOCK (, ,)	
Cause	The block that has been pre-read for nose-R offset vector creation included the factor of the alarm.	Type of error: B Stopped status: J
Action	Recheck the program.	Clearing procedure: P Brightness: H

773	ILLEGAL Y-AXIS DATA (, ,)	
Cause	The Y-axis data that has been designated in the G19 plane selection code (available only for dummy Y-axis specifications) during the EIA milling mode is in excess of the housing diameter that has been set using parameter B65 (for HD #2, parameter G65).	Type of error: B Stopped status: J
Action		Clearing procedure: P Brightness: H

801	NO DESIGNATED PROGRAM (WNo., ,)	
Cause	The MAZATROL machining program corresponding to the designated work number does not exist in the memory.	Type of error: B Stopped status: L
Action	Check if the work number is wrong and designate the correct one, or load the machining program to be executed.	Clearing procedure: S Brightness: N

802	DATA NOT FOUND (WNo., ,)	
Cause	(1) An attempt has been made to execute the program being edited or being entered from an external input unit. (2) The program has entered in an abnormal condition because of a possible reduction in the backup battery voltage.	Type of error: B Stopped status: L
Action	(1) Execute the program only after completion of its editing or entry. (2) Reload the machining program to be executed.	Clearing procedure: S Brightness: N

803	DATA NOT FOUND (WNo.,PNo.,)	
Cause	The designated process number does not exist in the MAZATROL machining program corresponding to the previously designated work number.	Type of error: B Stopped status: L
Action	Check if the process number is wrong and designate the correct one, or load the machining program to be executed.	Clearing procedure: S Brightness: N

804	R/F CUTTING PROCESS NOT FOUND (WNo.,PNo.,)	
Cause	Although the machining process corresponding to the previously designated process number exists, the designated machining type (R for rough-machining, or F for finish-machining) is not registered for that process.	Type of error: B Stopped status: L
Action	Check if the machining type is wrong and designate the correct one, or load the machining program to be executed.	Clearing procedure: S Brightness: N

805	ILLEGAL MAZATROL DATA (WNo., ,)	
Cause	The MAZATROL machining program of the designated work number cannot be executed because structural errors exist in that program.	Type of error: B Stopped status: L
Action	Reload the machining program to be executed.	Clearing procedure: S Brightness: N

806	ILLEGAL PROCESS (WNo.,PNo.,)	
Cause	(1) Process data not acceptable for the machine specifications exists in the program you have made an attempt to execute. (2) SEP or TRS process data exists in the system memory despite the fact that the program you have made an attempt to execute is not a COMPLEX program. (3) The TPC data does not match to the process you have made an attempt to execute.	Type of error: B Stopped status: L
Action	(1) Delete process data not acceptable for the machine specifications. (2) Delete the SEP or TRS process data. (3) Delete the TPC data, and then create correct TPC data.	Clearing procedure: S Brightness: N

807	PROCESS DATA NOT FOUND (WNo.,PNo.,)	
Cause	Data items remaining blank exist in the process data items corresponding to the process you have made an attempt to execute.	Type of error: B Stopped status: L
Action	Set data in all blank data items.	Clearing procedure: S Brightness: N

808	ILLEGAL PROCESS DATA (WNo.,PNo.,)	
Cause	Data out of the allowable setting range exists in the process data corresponding to the process you have made an attempt to execute.	Type of error: B Stopped status: L
Action	Delete unallowable data, and then set correct data.	Clearing procedure: S Brightness: N

809	ILLEGAL SEQUENCE DATA (WNo.,PNo.,SNo.)	
Cause	Sequence data corresponding to the process you have made an attempt to execute does not match to the process data.	Type of error: B Stopped status: L
Action	Delete the existing sequence data, and then set correct sequence data.	Clearing procedure: S Brightness: N

810	SEQUENCE DATA NOT FOUND (WNo.,PNo.,)	
Cause	No sequence data exists for the process you have made an attempt to execute.	Type of error: B Stopped status: L
Action	Set sequence data.	Clearing procedure: S Brightness: N

811	SEQUENCE DATA NUMBER EXCEED (WNo.,PNo.,)	
Cause	The number of lines of sequence data for the process you have made an attempt to execute is in excess of a predetermined number of lines. The predetermined number of lines is as follows:	Type of error: B Stopped status: L

COMMON	MTR	BAR	CPY	CNR	EDG	THR
0	1~25	1~25	1~25	1	1	1~25

GRV	M	MES	MMS	MNP	MMP	DRL
1	0	1	1	0~Free	0~Free	1

TAP	MDR	MTP	BOR	MGV	LCT	RGT
1	1~25	1~25	1~25	1~25	1~25	1~25

LFT	MCR	END	TLY	TRS	BEP	
1~25	0	0	0	0	0	

(NOTE)
- A maximum of 25 lines of MTR data are available for each of IN and OUT.
- For an MGV (Mill-Groove machining) option, the number of lines of MGV data may be fixed at 1.
- "Free" means that unless a maximum allowable of lines is exceeded, any number of lines of MAZATROL program data can be saved.

Action	Reduce the number of lines of sequence data.	Clearing procedure: S Brightness: N

812	SEQUENCE DATA NOT FOUND (WNo.,PNo.,SNo.)	
Cause	Data items remaining blank exist in the sequence data items corresponding to the process you have made an attempt to execute.	Type of error: B Stopped status: L
Action	Set data in all blank data items.	Clearing procedure: S Brightness: N

813	ILLEGAL SEQUENCE DATA (WNo.,PNo.,SNo.)	
Cause	Data out of the allowable setting range exists in the sequence data corresponding to the process you have made an attempt to execute.	Type of error: B Stopped status: L
Action	Delete unallowable data, and then set correct data.	Clearing procedure: S Brightness: N

814	UNFINISHED TOOL SET (WNo.,PNo.,)	
Cause	Tooling data does not exist for the tools that are to be used for the process you have made an attempt to execute.	Type of error: B Stopped status: L
Action	Set tooling data for the tools that are to be used.	Clearing procedure: S Brightness: N

815	DESIGNATED TOOL NOT FOUND (WNo.,PNo.,)	
Cause	The tools to be used for the process you have made an attempt to execute are not yet registered in tool data.	Type of error: B Stopped status: L
Action	Check the tool data and register the necessary tools.	Clearing procedure: S Brightness: N

816	ILLEGAL CUTTING POINT (WNo.,PNo.,)	
Cause	The infeed point specified by the process data of the process (BAR, CPY) you have made an attempt to execute is outside the profile of the workpiece (approximate workpiece shape specified by common data).	Type of error: B Stopped status: L
Action	Move the infeed point into the profile of the workpiece.	Clearing procedure: S Brightness: N

817	ILLEGAL CUTTING START POINT (WNo.,PNo.,)	
Cause	The relative position of the starting or ending point specified by the sequence data with respect to the infeed point specified by the process data of the process (BAR, CPY) you have made an attempt to execute, is not appropriate.	Type of error: B Stopped status: L
Action	Change the position of the starting or ending point of the sequence data, or change the position of the infeed point.	Clearing procedure: S Brightness: N

818	SHAPE EXCEEDS MATERIAL SIZE (WNo.,PNo.,SNo.)	
Cause	The starting or ending point specified by the sequence data of the process you have made an attempt to execute is outside the profile of the workpiece (approximate workpiece shape specified by common data).	Type of error: B Stopped status: L
Action	Move the starting or ending point into the profile of the workpiece.	Clearing procedure: S Brightness: N

819	CUTTING DIRECTION NOT DEFINED (WNo.,PNo.,SNo.)	
Cause	Sequence data exists that does not allow the direction of machining (forward or backward) to be determined from the sequence data and the position of the infeed point specified by the process (BAR, CPY) data you have made an attempt to execute.	Type of error: B Stopped status: L
Action	Change the data of the starting or ending point in the sequence data.	Clearing procedure: S Brightness: N

820	REVERSE SHAPE CONTOUR (WNo.,PNo.,SNo.)	
Cause	Part of the workpiece shape defined by the sequence data of the process (BAR, CPY) you have made an attempt to execute is opposite in direction of machining with respect to the reference axis movement direction.	Type of error: B Stopped status: L
Action	Correct the position of the starting or ending point specified in the sequence data.	Clearing procedure: S Brightness: N

821	DOUBLE SHAPE CONTOUR (WNo.,PNo.,SNo.)	
Cause	The workpiece shape defined by the sequence data of the process (BAR, CPY) you have made an attempt to execute has overlaps in direction of machining.	Type of error: B Stopped status: L
Action	Correct the position of the starting or ending point specified in the sequence data.	Clearing procedure: S Brightness: N

822	ILLEGAL RADIUS (WNo.,PNo.,SNo.)	
Cause	Arc-drawing data in the sequence data of the process (BAR, CPY, LCT, RGT, LFT, MNP, MMP) you have made an attempt to execute is wrong. That is, the relationship between the starting point, ending point, and radius of the arc is incorrect.	Type of error: B Stopped status: L
Action	Correct the starting-point data, ending-point data, or radius data in the sequence data.	Clearing procedure: S Brightness: N

823	ILLEGAL CORNER DEFINITION (WNo.,PNo.,SNo.)	
Cause	In the sequence data of the process (BAR, CPY, CNR, GRV) you have made an attempt to execute, there are the following errors related to the designated corner-C drawing data: <BAR, CPY, CNR> The length of the block (or arc) present in front or rear of corner C you have made an attempt to add is smaller than that of corner C. <GRV> Added corner C is outside the profile of the workpiece.	Type of error: B Stopped status: L
Action	Correct either the length of corner C or the sequence data set in front or rear of the corner.	Clearing procedure: S Brightness: N

824	EXCEEDS NUMBER OF SHAPES (WNo.,PNo.,)	
Cause	1 Shape data for the process (BAR, CPY, LCT, RGT, LFT) you have made an attempt to execute or shape of workpiece defined in the MTR process is too complicated to be processed.	Type of error: B Stopped status: L
Action	Simplify the shape of the workpiece or the shape defined by the sequence data.	Clearing procedure: S Brightness: N

825	EXCEEDS NUMBER OF VALLEY SHAPES (WNo.,PNo.,)	
Cause	The total number of valleys in the workpiece shape defined by the sequence data of the process (BAR) you have made an attempt to execute is in excess of 10, the maximum allowable number.	Type of error: B Stopped status: L
Action	Simplify the shape defined by the sequence data.	Clearing procedure: S Brightness: N

826	COMMON DATA NOT FOUND (WNo., ,)	
Cause	Common process data does not exist in the beginning part of the data of the designated work number.	Type of error: B Stopped status: L
Action	Load or set the program once again.	Clearing procedure: S Brightness: N

827	ILLEGAL COMMON DATA (RADIAL) (WNo.,PNo.,)	
Cause	The relationship between "OD-MAX" and "IN-MIN" in the common process data of the designated work number is not as follows: (Maximum allowable outside diameter of workpiece) > (Minimum allowable inside diameter of workpiece) ≥ 0	Type of error: B Stopped status: L
Action	Correct "OD-MAX" or "IN-MIN".	Clearing procedure: S Brightness: N

828	ILLEGAL COMMON DATA (AXIAL) (WNo.,PNo.,)	
Cause	The relationship between the workpiece length (LENGTH), workpiece edge protrusion length (WORK FACE), and product length (FIN-LENGTH) in the common process data of the designated work number is not as follows: (LENGTH) ≥ (WORK FACE) + (FIN-LENGTH) > 0 (WORK FACE), (FIN-LENGTH) > 0	Type of error: B Stopped status: L
Action	Correct either "LENGTH", "WORK FACE", or "FIN-LENGTH".	Clearing procedure: S Brightness: N

829	MATERIAL SHAPE CROSSING (WNo.,PNo.,SNo.)	
Cause	There is a data overlap between the inside diameter side (IN) and outside diameter side (OUT) of the workpiece shape which has been designated for the MTR process.	Type of error: B Stopped status: L
Action	Change the IN or OUT workpiece shape data.	Clearing procedure: S Brightness: N

830	ILLEGAL DATA (TLY PROCESS) (WNo.,PNo.,)	
Cause	Either tool No. or pocket numbers are missing in the TLY process data.	Type of error: B Stopped status: L
Action	Set both a tool No. and a pocket number in each data item.	Clearing procedure: S Brightness: N

831	EXCESSIVE FINISH ALLOWANCE (, ,)	
Cause	The area to be rough-cut does not exist since the designated finishing allowance is too large for the shape defined by the sequence data.	Type of error: B Stopped status: L
Action	Either change the finishing allowance or cancel rough-cutting.	Clearing procedure: S Brightness: N

832	ILLEGAL SHAPE DESIGNATED (CNR) (WNo.,PNo.,SNo.)	
Cause	In the CNR process data, the relationship between the starting point (SPT-X/Z) and the ending point (EPT-X/Z) that are defined in the sequence data is wrong.	Type of error: B Stopped status: L
Action	Correct the coordinates of the starting or ending point.	Clearing procedure: S Brightness: N

833	ILLEGAL SHAPE DESIGNATED (EDG) (, ,)	
Cause	In the EDG process data, the relationship between the starting point and the ending point that are defined in the sequence data is wrong.	Type of error: B Stopped status: L
Action	Correct the coordinates of the starting or ending point.	Clearing procedure: S Brightness: N

834	ILLEGAL NUM. OF PATHS (THR) (WNo.,PNo.,)	
Cause	In the THR process data, the designated number of times of cutting of #0, #3 thread type is less than 2.	Type of error: B Stopped status: L
Action	Change the number of times of cutting to 3 or more, or change the thread type.	Clearing procedure: S Brightness: N

835	ACCELERATION DISTANCE EXCEED (WNo.,PNo.,)	
Cause	In the THR process data, the calculated distance of threading acceleration is in excess of the clamp data.	Type of error: B Stopped status: L
Action	After checking for safety, change the parameter.	Clearing procedure: S Brightness: N

836	ILLEGAL SHAPE DESIGNATED (GRV) (WNo.,PNo.,)	
Cause	In the GRV process data, the relationship between the starting point (SPT-X/Z) and the ending point (FPT-X/Z) that are defined in the sequence data is wrong.	Type of error: B Stopped status: L
Action	Correct the coordinates of the starting or ending point.	Clearing procedure: S Brightness: N

837	ILLEGAL SHAPE EXCEEDS MTRL SIZE (WNo.,PNo.,SNo.)	
Cause	In the GRV process, the second and subsequent grooves of all those which have been designated for the GRV process are outside the workpiece profile defined by common data.	Type of error: B Stopped status: L
Action	Reduce the number of grooves.	Clearing procedure: S Brightness: N

838	ILLEGAL DESIGNATED TL WID (GRV) (WNo.,PNo.,SNo.)	
Cause	The width of the designated tool does not match to the groove shape specified in the GRV process data.	Type of error: B Stopped status: L
Action	Designate some other tool, or change the width of the designated tool.	Clearing procedure: S Brightness: N

839	ILLEGAL OVERLAP (GRV PROCESS) (, ,)	
Cause	In the GRV process data, the parameter-set amount of grooving overlap is larger than the width of the designated tool.	Type of error: B Stopped status: L
Action	Either designate some other tool, change the width of the designated tool, or change the parameter setting.	Clearing procedure: S Brightness: N

840	ILLEGAL DRILLING DIRECTION (WNo.,PNo.,SNo.)	
Cause	In the hole-machining process (DRL, TAP) data, the relationship between the starting point (SPT-X/Z) and the ending point (FPT-X/Z) that are defined in the sequence data is wrong.	Type of error: B Stopped status: L
Action	Correct the coordinates of the starting or ending point.	Clearing procedure: S Brightness: N

841	ILLEGAL G-CODE INPUT (, ,)	
Cause	Unavailable G-code commands have been designated for the manual operation process (MNP, MMP).	Type of error: B Stopped status: L
Action	Change the G-code commands to correct ones.	Clearing procedure: S Brightness: N

842	ILLEGAL AXIS INPUT (WNo.,PNo.,SNo.)	
Cause	An axis that is illegal for the G-code command in the sequence data has been designated for the manual operation process (MNP, MMP). Or the same axis is designated more than 2 in 1 sequence data of the manual operation process (MNP, MMP).	Type of error: B Stopped status: L
Action	Delete all move commands related to the illegal axis.	Clearing procedure: S Brightness: N

843	MILLING TOOL DIA NOT FOUND (, ,)	
Cause	(1) The diameter of the tool to be used during the process (DRL, TAP, MMP, MDR, MTP, BOR, MGV, LCT, RGT, LFT) is unset or is set to 0. (2) The diameter of the sensor tool to be used during the measurement process (MES) is unset or is set to 0.	Type of error: B Stopped status: L
Action	Set the correct diameter of the tool or sensor tool you want to use.	Clearing procedure: S Brightness: N

844	ILLEGAL FEEDRATE DATA (WNo.,PNo.,SNo.)	
Cause	The synchronous or asynchronous feed data designated in the manual operation process (MNP, MMP) data is not appropriate for the G-code command set in the sequence data.	Type of error: B Stopped status: L
Action	Change the synchronous or asynchronous feed data.	Clearing procedure: S Brightness: N

845	CORNER (R/C) DESIGNATED OVERLAP (WNo.,PNo.,SNo.)	
Cause	In the sequence data of the process (BAR, CPY), different types of corners (R or C) have been designated for portions that are identical in shape.	Type of error: B Stopped status: L
Action	Check the designated corner portions and delete one of the corners.	Clearing procedure: S Brightness: N

846	ILLEGAL FINISHING ALLOWANCE (WNo.,PNo.,)	
Cause	In the "#0, #0" type of THR (threading) proces data, the following relationship exists: (Finishing allowance) > (First depth-of-cut/4) └ Calculated from the height (HGT) and the number of times (NUMBER) that are specified by the process data. Specified by parameter U39.	Type of error: B Stopped status: L
Action	Change either the thread height or the setting of parameter U39.	Clearing procedure: S Brightness: N

847	ILLEGAL ANGLE IN FIRST SEQUENCE (WNo.,PNo.,SNo.)	
Cause	Threading is not possible since the relationship between the thread shape and threading angle that are defined by the first sequence data of the THR process is incorrect.	Type of error: B Stopped status: L
Action	Change the threading angle, or change the coordinates of the starting or ending point of the first sequence.	Clearing procedure: S Brightness: N

848	ILLEGAL THREAD ANGLE (WNo.,PNo.,)	
Cause	In the THR process data that requires the designating of a threading angle, "ANG" (threading angle) is not in the following range. (Tool tip angle) ≦ (Threading angle)	Type of error: B Stopped status: L
Action	Change either the threading angle, the type of tool to be used, or tool data.	Clearing procedure: S Brightness: N

849	ILLEGAL THREAD HEIGHT (WNo.,PNo.,)	
Cause	In the THR process data, the relationship between the thread height and the finishing allowance is not: (Finishing allowance) ≦ (Thread height) └ Designated in the process data. └ Set using parameter U39.	Type of error: B Stopped status: L
Action	Change the thread height or the setting of parameter U39.	Clearing procedure: S Brightness: N

850	AUTO OPERATION (WNo., ,)	
Cause	An attempt has been made to perform a tool path check during automatic operation despite the fact that the system does not have an assigned background processing option.	Type of error: B Stopped status: L
Action	Perform the tool path check only after completion of automatic operation, or assign a background processing option to the system.	Clearing procedure: S Brightness: N

851	LAYOUT UNABLE (WNo.,PNo.,)	
Cause	Because of lack of data, automatic creation of layout data is not possible and thus the program cannot be executed.	Type of error: B Stopped status: L
Action	Check the machining program for tool or SEP/TRS head selection errors.	Clearing procedure: S Brightness: N

852	LAYOUT SIZE EXCEED (WNo., ,)	
Cause	Automatic creation of process layout data, although attempted prior to execution of machining programs, has failed because of lack of an available storage area in the layout data storage memory.	Type of error: B Stopped status: L
Action	Delete an unnecessary machining program(s).	Clearing procedure: S Brightness: N

853	INTERSECTION NOT FOUND (WNo.,PNo.,SNo.)	
Cause	Although crossing-point calculation was attempted because a data item denoting uncalculated crossing-point data (?) was present in the sequence data of the process, no calculations were obtained since there are data disparities.	Type of error: B Stopped status: L
Action	Correct the sequence data.	Clearing procedure: S Brightness: N

854	DATA MISSING (INTERSECTION) (WNo.,PNo.,SNo.)	
Cause	Although crossing-point calculation was attempted because a data item denoting uncalculated crossing-point data (?) was present in the sequence data of the process, no calculations were obtained since there are lack of datas.	Type of error: B Stopped status: L
Action	Correct the process data or the sequence data.	Clearing procedure: S Brightness: N

855	INTERSECTION CALCULATE IMPOSS. (WNo.,PNo.,SNo.)	
Cause	Although crossing-point calculation was attempted because a data item denoting uncalculated crossing-point data (?) was present in the sequence data of the process, no calculations were obtained since there are illegal datas.	Type of error: B Stopped status: L
Action	Correct the process data or the sequence data.	Clearing procedure: S Brightness: N

856	NEED TOOL ROTATION DIRECTION (, ,)	
Cause	The rotating direction of the spindle or milling tool cannot be determined since the "FWD/REV[" data item in "TOOL DATA (2)" which corresponds to the designated tool is left blank.	Type of error: B Stopped status: L
Action	Set data in "FWD/REV[" or designate some other tool.	Clearing procedure: S Brightness: N

857	NO DEPTH OF CUT INFO. (, ,)	
Cause	The depth of cutting with the milling tool cannot be determined since the "DEP-AMO/DEP-ANG" data item in "TOOL DATA (2)" which corresponds to the designated tool is left blank.	Type of error: B Stopped status: L
Action	Set data in "DEP-AMO/DEP-ANG" or designate some other tool.	Clearing procedure: S Brightness: N

858	ILLEGAL TPC DATA (WNo.,PNo.,)	
Cause	Data out of the allowable setting range exists in the TPC data of the process you have made an attempt to execute.	Type of error: B Stopped status: L
Action	Correct the data error(s).	Clearing procedure: S Brightness: N

861	EXCESSIVE GROOVE WIDTH (WNo.,PNo.,)	
Cause	Machining within the allowable stroke of the dummy Y-axis is not possible since the groove width (GRV-WID) that has been set for MGV is too large for that tool. (Only for a system that has a dummy Y-axis.) The allowable stroke of the dummy Y-axis is as follows: −(Setting of parameter B65/2) ≦ Allowable stroke ≦ (Setting of parameter B65/2)	Type of error: B Stopped status: L
Action	Designate a tool that has a sufficiently large diameter, or reduce the groove width and perform machining within the allowable stroke.	Clearing procedure: S Brightness: N

862	ILLEGAL Y-AXIS DATA (WNo.,PNo.,)	
Cause	The Y-coordinate of the program is outside the allowable stroke of the dummy Y-axis. (Only for a system that has a dummy Y-axis.) The allowable stroke of the dummy Y-axis is as follows: −(Setting of parameter B65/2) ≦ Allowable stroke ≦ (Setting of parameter B65/2)	Type of error: B Stopped status: L
Action	Reduce the Y-coordinate below the allowable stroke.	Clearing procedure: S Brightness: N

880	MACRO PROGRAM NOT FOUND (WNo.,PNo.,)	
Cause	The macroprogram (MAZATROL MACRO) that has been designated for the MCR process is an unregistered one.	Type of error: B Stopped status: L
Action	Change or register the name of the macroprogram to be called up.	Clearing procedure: S Brightness: N

881	ILLEGAL MACRO G-CODE (WNo.,PNo.,)	
Cause	The macroprogram (MAZATROL MACRO) cannot be executed since illegal G-codes are included in it.	Type of error: B Stopped status: L
Action	Change the G-codes.	Clearing procedure: S Brightness: N

882	DESIGNATED AXIS OVER (MACRO) (WNo.,PNo.,)	
Cause	The macroprogram (MAZATROL MACRO) cannot be executed since more axes than allowable for the macroprogram have been designated.	Type of error: B Stopped status: L
Action	Reduce the number of axes.	Clearing procedure: S Brightness: N

883	ILLEGAL AXIS INPUT (MACRO) (WNo.,PNo.,)	
Cause	The macroprogram (MAZATROL MACRO) cannot be executed since axis addresses not allowable for the macroprogram have been designated.	Type of error: B Stopped status: L
Action	Reduce the number of axis addresses, or change part of the axis addresses.	Clearing procedure: S Brightness: N

884	FEEDRATE ZERO (MACRO) (WNo.,PNo.,)	
Cause	The feedrate (F) designated in the macroprogram (MAZATROL MACRO) is not a positive value.	Type of error: B Stopped status: L
Action	Change the value of F to a positive one.	Clearing procedure: S Brightness: N

885	M-CODE OVER (WNo.,PNo.,)	
Cause	More than four M-codes per block are set in the macroprogram (MAZATROL MACRO).	Type of error: B Stopped status: L
Action	Reduce the number of M-codes below four per block.	Clearing procedure: S Brightness: N

886	SPINDLE ZERO (MACRO) (WNo.,PNo.,)	
Cause	The speed (S) designated in the macroprogram (MAZATROL MACRO) is not a positive value.	Type of error: B Stopped status: L
Action	Change the value of S to a positive one.	Clearing procedure: S Brightness: N

887	SPINDLE ZERO (MACRO) (WNo.,PNo.,)	
Cause	The peripheral velocity (V) designated in the macroprogram (MAZATROL MACRO) is not a positive value.	Type of error: B Stopped status: L
Action	Change the value of V to a positive one.	Clearing procedure: S Brightness: N

888	ADDRESS DESIGNATION OVERLAP (WNo.,PNo.,)	
Cause	The addresses that must not be set in two or more places within one block exist in one or more blocks of the macroprogram (MAZATROL MACRO).	Type of error: B Stopped status: L
Action	Delete one or more of the addresses of the same type.	Clearing procedure: S Brightness: N

889	ADDRESS OVER (WNo.,PNo.,)	
Cause	A block containing more than 20 addresses exists in the macroprogram (MAZATROL MACRO).	Type of error: B Stopped status: J
Action	Delete the excess number of addresses, or divide the commands into two blocks.	Clearing procedure: S Brightness: N

890	MACRO EXECUTION ERROR (WNo.,PNo.,Macro error No.)	
Cause	One or more of the following errors occurred during execution of the macroprogram:	Type of error

Error No.	Error description	
1	The intermediate code header information is wrong.	
2	The area handled by the interpreter is insuficient.	
3	The quantities of both arguments existing during macro call from a macro are not the same.	
5	After debugging, the number of arguments described in the program became smaller than that of arguments which were entered.	B
6	After debugging, the number of arguments described in the program became larger than that of arguments which were entered.	
7	The number of times of nesting for macro call is in excess of its maximum allowable number (10).	
8	Array statement error (The array size defined in DIM statement is exceeded)	
9	In COM#(i) or COM@(i), the value of i is illegal (the value of i is minus or in excess of the value set in macro control block).	Stopped status
10	During division, the divisior is 0.	
11	The function (MACSEARCH, SMACSEARCH) that returns the code area pointer of the macro has error-returned.	
12	In SCOM#(i) or SCOM@(i), the value of i is illegal (the value of i is minus or excess of the value set in macro control block).	
13	Instruction word error.	L
14	The number of machining programs is larger than the value set in the macro control block.	
15	Unregistered external functions are given.	
17	The stack handled by the interpreter is overflowing or underflowing.	
18	The divisor for calculation of MOD is 0.	
20	The type of arguments for macro call is illegal.	

Action	Correct and re-register the macroprogram.	Clearing procedure
		S
		Brightness
		N

899	SHAPE MANEGEMENT IMPOSSIBLE (WNo.,PNo.,SNo.)	
Cause	The shape data that has been defined in the sequence data of the process (BAR, CPY) cannot be correctly processed.	Type of error
		B
		Stopped status
		L
Action	Change the machining program or tool data to such an extent that no machining error is likely to occur (say, down to several micrometers). Normal operation may then resume, because this alarm is usually due to a calculation error. If the situation does not improve even after such changes have been made, your MAZAK service representative should be contacted for assistance.	Clearing procedure
		S
		Brightness
		N

901	SIMULTANEOUS AXIS OVER	(, ,)
Cause	The number of axis addresses per block is in excess of the specifications.	Type of error: B Stopped status: L
Action	• Divide the addresses in the alarm block into two groups. • Check against the specifications.	Clearing procedure: S Brightness: N

902	ILLEGAL AXIS NAME	(, ,)
Cause	The axis address name in the program is different from that which has been parameter-set.	Type of error: B Stopped status: L
Action	Correct the axis address name in the program.	Clearing procedure: S Brightness: N

903	DIMENSION DETECTING ERROR	(, ,)
Cause	Axis addresses that cannot be divided in address units have been set.	Type of error: B Stopped status: L
Action	Review the program.	Clearing procedure: S Brightness: N

904	PARITY H ERROR	(, ,)
Cause	The number of holes per character in the paper tape is even (for EIA codes) or odd (for ISO codes).	Type of error: B Stopped status: L
Action	• Check the paper tape. • Check the tape reader and the tape puncher for normal operation.	Clearing procedure: S Brightness: N

905	PARITY V ERROR	(, ,)
Cause	The number of characters per block on the paper tape is odd.	Type of error: B Stopped status: L
Action	• Make the number of characters per block on the paper tape even. • Set the parity-V selection parameter to OFF.	Clearing procedure: S Brightness: N

906	ILLEGAL ADDRESS	(, ,)
Cause	Addresses not available for the machine specifications have been set.	Type of error: B Stopped status: L
Action	• Check and correct address errors in the program. • Check the specifications.	Clearing procedure: S Brightness: N

907	ILLEGAL FORMAT	(, ,)
Cause	The programming format is not correct.	Type of error: B Stopped status: L
Action	Review the program.	Clearing procedure: S Brightness: N

908	ILLEGAL G-CODE	(, ,)
Cause	G-codes not available for your machine are included.	Type of error: B Stopped status: L
Action	Check and correct G-code address errors in the program.	Clearing procedure: S Brightness: N