

3 Error code list of drive alarm (380500)

The following message is displayed on Alarm overview display when the alarms or warnings are issued by the drive units.

380500 PROFIBUS-DP: fault of drive %1, code %2, value %3, time %4

- %1 : Axis identifier
- %2 : Error code on the drive
- %3 : Error group code
- %4 : Time stamp at the time of the alarm generating
(The elapsed time after power on)

The explanation of detail troubleshooting for each error code is described following section.
For servo drive alarm, please refer to the section '3.1 Error code list for servo drive (SGDK)' which is described on this page and after. For inverter alarm, please refer to the section '3.2 Error code list for inverter (MX)' which is described after the 7th page beyond this page.

3.1 Error code list for servo drive (SGDK)

Table 3-1. Servo drive alarms

- notes) • The alarms marked by *1 have no solution unless control power supply is turned OFF and ON.
To release the alarm, eliminate the cause of the alarm before turning control power supply ON.
- "*"2" marks the warnings. The motor operation is continued under the warning.
 - (CONV) indicates the alarms detected by the converter.
 - (EnDat) indicates that the alarms may be issued only when the EnDat encoder is used.

Error code	Explanation	Remedy
2 A.02*1 Parameter Error /Flash memory Error	EEPROM of Servo unit data error. Flash ROM error.	<ul style="list-style-type: none"> • Enter Fn005 to initialize the machine data for servo unit and then set them all over again. • Change the servo unit
4 A.04*1 Parameter Setting Error	Some of the machine data for servo unit have a value beyond the limit.	<ul style="list-style-type: none"> • Set again the machine data for servo unit within the correct range of the value. • Enter Fn005 to initialize the machine data for servo unit and then set them all over again. • Change the servo unit
5 A.05 Combination Error	Servo unit and servomotor capacities do no match each other.	<ul style="list-style-type: none"> • Check the capacities of servo unit and motor. • Change the servo motor.
6 A.06 DPRAM Error (CONV)	Checksum of Dual Port RAM is abnormal.	<ul style="list-style-type: none"> • Check the connection between the servo unit and the converter. • Check the grounding and the installation of the ferrite core. • Change the servo unit. • Change the converter.

Error code	Explanation	Remedy
16 A.10*1 Overcurrent	Overcurrent flowed through the IGBT.	<ul style="list-style-type: none"> • Check the wiring • Check the load and reduce it if necessary. • Change the servo motor • Change the servo unit
32 A.20 Servo Fuse Blown	Servo unit fuse has blown.	<ul style="list-style-type: none"> • Change the fuse or servo unit
33 A.21 MC Error (CONV)	Electromagnetic contactor is fault.	<ul style="list-style-type: none"> • Check the voltage of main power • Check the wiring for the electromagnetic contactor • Change the electromagnetic contractor • Changed the servo unit
34 A.22 Converter Fuse Blown	Converter fuse has blown.	<ul style="list-style-type: none"> • Change the fuse or the converter
50 A.32 Regenerative overload (CONV)	Regenerative power exceeds the capacity of converter.	<ul style="list-style-type: none"> • Extend the acceleration time. • Check the load inertia (negative load). • Change the converter.
52 A.34 Converter Regenerative Overcurrent (CONV)	Overcurrent flowed through the regenerative circuit.	<ul style="list-style-type: none"> • Check the load inertia (negative load). • Change the converter
64 A.40 Overvoltage /Converter overvoltage (CONV)	Main circuit DC voltage is excessively high.	<ul style="list-style-type: none"> • Check the voltage of the main power • Check the specification for load inertia and negative load • Check the regenerative capacity • Change the servo unit or the converter
65 A.41 Undervoltage /Converter undervoltage (CONV)	Main circuit DC voltage is low.	<ul style="list-style-type: none"> • Check the voltage of main power • Change the servo unit or the converter
66 A.42 Initial Charge Error (CONV)	Main circuit capacitor was not charged within the setting time.	<ul style="list-style-type: none"> • Check the voltage of main power • Change the converter
67 A.43 Drive control circuit low voltage	Control circuit DC voltage is lowered	<ul style="list-style-type: none"> • Check the voltage of control power • Change the servo unit or the converter
68 A.44 Converter control circuit low voltage (CONV)	Converter control circuit DC voltage is low.	<ul style="list-style-type: none"> • Check the voltage of control power • Change the converter

Error code	Explanation	Remedy
81 A.51 Overspeed	Rotational speed of the motor is excessively high.	<ul style="list-style-type: none"> • Check the wiring for any errors in U,V and W with the motor • Lower program values of the position or the feedrate • Change the servo unit
113 A.71 Overload: Short - term	Motor was operated for several seconds or dozens of seconds under a torque largely exceeding ratings.	<ul style="list-style-type: none"> • Check the wiring and the connectors on the servo motors • Lower the load torque or inertia. If needed, replace the motor with a larger capacity
114 A.72 Overload (Max. continuous load)	Motor was operated continuously under a torque exceeding ratings.	<ul style="list-style-type: none"> • Change the servo unit
115 A.73 Dynamic Break Overload	When the dynamic brake was in operated, rotational energy exceeded the capacity of dynamic brake resistor.	<ul style="list-style-type: none"> • Slow down the rotation speed • Decrease the load inertia • Do not allow DB stop to occur too often • Change the servo unit
119 A.77 Collision	Disturbance torque value exceeded the collision detective level in measure.	<ul style="list-style-type: none"> • Check the mechanics • Adjust the disturbance torque (MD3368 - MD3371) to the proper values • Set the gravity offset torque (MD3367) to the correct value
122 A.7A Servo Heat Sink Overheat	The heat sink of Servo unit overheated.	<ul style="list-style-type: none"> • Lower the ambient temperature to less than 55 °C • Follow the original rules for the installation method and ambient space • Change the servo unit • Reduce the load
123 A.7B Converter Heat Sink Overheated (CONV)	The heat sink of Converter overheated.	<ul style="list-style-type: none"> • Lower the ambient temperature to less than 55 °C • Follow the original rules for the installation method and ambient space • Change the converter • Reduce the load
129 A.81 ^{*1} Encoder Backup Error	All the power supplies for the absolute encoder have failed and position data was cleared.	<ul style="list-style-type: none"> • Initialize the absolute value encoder • Change the servo motor
130 A.82 ^{*1} Encoder Checksum Error	The checksum results of encoder memory are incorrect.	<ul style="list-style-type: none"> • Initialize the absolute value encoder • Change the servo motor if happens too often
132 A.84 ^{*1} Encoder Data Alarm	Data from the encoder is failure.	<ul style="list-style-type: none"> • Change the servo motor if happens too often • Check on the wiring about the encoder-- search for fouls with servo motor ground, separation of encoder cable and servo motor power cable, and troidal core insertion to the cable

Error code	Explanation	Remedy
133 A.85* ¹ Encoder Overspeed	Encoder was rotating at a high speed when the power was turned ON.	<ul style="list-style-type: none"> • Turn on the power again when the servo motor is brought to a stop • Change the servo motor
134 A.86* ¹ Encoder Overheated	Internal temperature of encoder is too high.	<ul style="list-style-type: none"> • Lower the servo motor ambient temperature to less than 40 degree • Reduce the load • Change the servo unit • Change the servo motor
135 A.87* ¹ External Serial PG Error	Errors in the memory sum check of the external serial PG Errors in the inside data of the external serial PG	<ul style="list-style-type: none"> • Change the external serial PG if happens too often. • Check on the wiring about external serial PG -- search for error in ground, separation of encoder cable and servo motor power cable, and troidal core insertion to the cable • Change the servo unit • Change the linear scale
136 A.88 *1 EnDat linear scale error	The alarm is issued by EnDat linear scale.	<ul style="list-style-type: none"> • Change the EnDat linear scale.
145 A.91 *2 Overload warning	Current operation may activate the overload alarm if continues.	<ul style="list-style-type: none"> • Lower the load torque or inertia. If needed, replace the motor with that of a lager capacity • Check the wiring and the connectors on servo motor
147 A.93 *2 Battery warning	Battery voltage is low.	<ul style="list-style-type: none"> • Exchange the battery on converter in just the state the control power of drive turn on.
151 A.97 *2 AD conversion warning during drive clearance	The result of AD conversion is 0 during drive clearance control.	<ul style="list-style-type: none"> • The warning is automatically deleted if the result of AD conversion is not 0.
152 A.98 *2 The error overflow during drive clearance	The error between the instructed offset and the gap exceeds the parameter MD3444.	<ul style="list-style-type: none"> • The warning is automatically deleted if the error decrease to MD3444 or less.
178 A.b2 A/D Converter Error	Errors are found in AD converter to detect the main circuit voltage.	<ul style="list-style-type: none"> • Change the servo unit
182 A.b6 Communication Hardware Error	Hardware to communicate between NC and drives is failure.	<ul style="list-style-type: none"> • Change the converter
189 A.bd* ¹ Converter System Error (CONV)	Error occurred in Converter hardware.	<ul style="list-style-type: none"> • Change the servo unit
191 A.bF* ¹ System Error	A system error occurred in the Servo unit.	<ul style="list-style-type: none"> • Change the servo unit

Error code	Explanation	Remedy
193 A.C1 Servo Overrun detected	The servomotor ran out of control.	<ul style="list-style-type: none"> • Check the wiring and the connector for the motor • Check the wiring and the connector for the encoder • Change the servo motor • Change the servo unit
198 A.C6 FPG Disconnection (PA,PB)	External encoder A and B phase signal cable is disconnected.	<ul style="list-style-type: none"> • Check the wiring for the external encoder • Change the option board for fully-closed control • Change the servo unit • Change the external encoder
199 A.C7 FPG Disconnection (PC)	External encoder C phase signal cable is disconnected.	<ul style="list-style-type: none"> • Check the wiring for the external encoder • Change the option board for fully-closed control • Change the servo unit • Change the external encoder
200 A.C8 ^{*1} Absolute Encoder Clear Error	The multi-turn for the absolute encoder was not properly cleared or set.	<ul style="list-style-type: none"> • Change the servo unit • Change the servo motor
201 A.C9 ^{*1} Encoder Communications Error	Communication between Servo unit and encoder is not possible.	<ul style="list-style-type: none"> • Check the encoder wiring. • Change the servo motor • Change the servo unit
202 A.CA ^{*1} Encoder Parameter Error	Encoder parameters are faulty.	<ul style="list-style-type: none"> • Change the servo motor • Change the servo unit
203 A.Cb ^{*1} Encoder echo back Error	Contents of communications with encoder are incorrect.	<ul style="list-style-type: none"> • Check the encoder wiring • Change the servo motor • Change the servo unit
204 A.CC ^{*1} Multi-turn Limit Disagreement	Different multi-turn limits have been set in the encoder and Servo unit.	<ul style="list-style-type: none"> • Change the machine data MD3205 • Confirm if the correct multi-turn limit is set to MD3205. If MD3205 have incorrect value, set the correct value to the machine data. Then reset the alarm by setting MD2798=4.
206 A.CE ^{*1} FPG Multi-turn Error	The multi-turn for the external absolute encoder is abnormal.	<ul style="list-style-type: none"> • Check on the external encoder wiring • Change the external encoder • Change the servo unit
207 A.CF ^{*1} External Serial PG (EnDat) /Communication Error	Communication between the external serial PG and the servo unit is unable. Communication contents do not agree with the external serial PG.	<ul style="list-style-type: none"> • Check again the wiring around the external serial encoder • Change the external serial encoder • Change the servo unit

Error code	Explanation	Remedy
208 A.d0 Position Error Pulse Overflow	Position error pulse exceeded machine data MD3425.	<ul style="list-style-type: none"> • Check the wiring • Increase the speed loop gain MD3030 and position loop gain MD32200. • Decrease the load torque or inertia; if impossible, replace with a motor of larger capacity • Slow down the command pulse frequency • Adopt a smoothing function • Check again on the electronic gear ratio • Check again the machine data MD3425 • Change the servo unit
209 A.d1 Position error between motor and load overflow	The position error pulse between motor and load exceeded machine data MD3443.	<ul style="list-style-type: none"> • Check the wiring for FPG. • Check the direction of the scale. • Check the setting of 3rd digit of MD3002. • Check again the mechanical coupling.
224 A.E0 ^{*1} DPRAM Access Error	The DPRAM initialization between Converter and drive is failed at the power initialization.	<ul style="list-style-type: none"> • Confirm the servo unit rotary switch setting • Confirm the wiring between converter and servo unit • Change the servo unit • Change the converter
225 A.E1 ^{*1} Timeout Error	The communication between NC and Converter is not available.	<ul style="list-style-type: none"> • Confirm the servo unit rotary switch setting • Confirm the wiring between converter and servo unit • Change the servo unit • Change the converter
226 A.E2 ^{*1} Converter WDC Error	The synchronization between NC and drive is abnormal.	<ul style="list-style-type: none"> • Check the wiring between converter and servo unit • Check the noise control -- Search for error in ground, troidal core for local bus cable, etc. • Change the servo unit • Change the converter
227 A.E3 ^{*1} Converter Data Error	The communication data between NC and drive is abnormal.	<ul style="list-style-type: none"> • Check the wiring between converter and servo unit • Check the noise control -- Search for error in ground, troidal core for local bus cable, etc. • Change the servo unit • Change the converter
229 A.E5 ^{*1} Network Communication Error (CONV)	NC does not response.	<ul style="list-style-type: none"> • Check the wiring between NC and converter • Check the noise control -- Search for error in ground, troidal core for PROFIBUS cable, etc. • Change the converter

Error code	Explanation	Remedy
230 A.E6 ^{*1} Link setting Error (CONV)	The setting between NC and drives is abnormal.	<ul style="list-style-type: none"> • Confirm the rotary switch setting on servo unit and the axis selection setting on NC. • Check the wiring between NC and converter. • Check the terminating on PROFIBUS line. • Check the noise control -- Search for error in ground, triodal core for PROFIBUS cable, etc. • Change the converter
236 A.EC ^{*1} Drive WDC Error (CONV)	Drive does not response.	<ul style="list-style-type: none"> • Check the wiring of converter and servo unit • Check the noise control -- Search for error in ground, triodal core for local bus cable, etc. • Change the servo unit.
241 A.F1 Power Line Open Phase (CONV)	One phase is not connected in the main power supply.	<ul style="list-style-type: none"> • Check the wiring in the main circuit power • Check the MCCB, the noise filter, the electromagnetic conductor • Check the voltage of main power • Change the servo unit
242 A.F2 Power Line Frequency Error (CONV)	The frequency of power line is abnormal.	<ul style="list-style-type: none"> • Check the input power frequency • Change the converter
244 A.F4 Power Line Undervoltage (CONV)	Main power voltage is low.	<ul style="list-style-type: none"> • Check the power voltage • Change the converter

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 - (CONV) indicates the alarms detected by the converter.
 - (EnDat) indicates that the alarms may be issued only when the EnDat encoder is used.

3.2 Error code list of Inverter (MX)

Table 3-3 Inverter alarms

- notes) • The alarms marked by *1 have no solution unless control power supply is turned OFF and ON. To release the alarm, eliminate the cause of the alarm before turning control power supply ON.
- "**2" marks the warnings. The motor operation is continued under the warning.
 - (CONV) indicates the alarms detected by the converter.
 - (SE_ENC) indicates the alarms detected by the serial encoder.

Error code	Explanation	Remedy
2 A,02*1 Parameter Error /Flash memory Error	Inverter EEPROM data error Flash ROM check error	<ul style="list-style-type: none"> • Set MD6988=1 and turn the power OFF and ON in order to initialize the machine data for inverter and then set them all over again. • Change inverter.
4 A.04*1 Parameter Setting Error	User set value that exceeds the set range has been set.	<ul style="list-style-type: none"> • Set the machine data for inverter again within the correct range. • Set MD6988=1 and turn the power OFF and ON in order to initialize the machine data for inverter and then set them all over again. • Change inverter.
6 A.06 DPRAM Error (CONV)	Data sum check error	<ul style="list-style-type: none"> • Check the wiring of local bus cable. • Change inverter.
16 A,10*1 Overcurrent	Overcurrent flew into IGBT.	<ul style="list-style-type: none"> • Check wiring to the motor and correct it. • Change spindle motor. • Change inverter.
32 A.20 Inverter fuse blown	The fuse blew out.	<ul style="list-style-type: none"> • Change the fuse or the inverter.
33 A.21 MC Error (CONV)	An electromagnetic contractor does not work.	<ul style="list-style-type: none"> • Check the voltage of main power. • Check the wiring of electromagnetic contractor, and correct it. • Change the electromagnetic contractor. • Change the converter.
34 A.22 Converter fuse blown (CONV)	The fuse blew out.	<ul style="list-style-type: none"> • Change the fuse. • Change the converter.
50 A.32 Regenerative overload (CONV)	Regenerative energy exceeded regenerative converter resistance capacity.	<ul style="list-style-type: none"> • Extend the acceleration time. • Reduce the load inertia (negative load) • Change the converter with larger capacity one.
52 A.34 Converter regenerative overcurrent (CONV)	Overcurrent flew into regenerative processing circuit.	<ul style="list-style-type: none"> • Check wiring of main power. • Check the capacity of reactor. • Change the converter.

Error code	Explanation	Remedy
64 A.40 Overvoltage /Converter overvoltage (CONV)	Main circuit DC voltage is very high.	<ul style="list-style-type: none"> • Check voltage of main power. • Check if the regenerative load (minus load) is excessive. • Check the regenerative operation on converter. • Change the unit which detects the alarm.
65 A.41 Undervoltage /Converter undervoltage (CONV)	Main circuit DC voltage is too low.	<ul style="list-style-type: none"> • Check the voltage and capacity of main power • Check the wire size for main power. • Change the unit which detects the alarm.
66 A.42 Initial charge Error (CONV)	Main circuit capacitor was charged completely within set time.	<ul style="list-style-type: none"> • Check power voltage. • Change the converter.
67 A.43 Inverter control circuit low voltage	Control circuit power supply decreased.	<ul style="list-style-type: none"> • Check input voltage for control power. • Change inverter.
68 A.44 Converter control circuit low voltage (CONV)	Converter control circuit power supply decreased.	<ul style="list-style-type: none"> • Check input voltage for control power. • Change the converter.
81 A.51 Overspeed (H speed winding motor side)	Motor rotation speed exceeded maximum speed for H winding.	<ul style="list-style-type: none"> • Check the maximum speed setting machine data MD6703. • Check wiring mistake of the motor U, V phases and encoder. • Decrease speed command values.
82 A.52 Overspeed (Machine side)	Spindle rotation speed exceeded rating speed.	<ul style="list-style-type: none"> • Check the rating speed machine data (NC:MD32260 , inverter:MD6500) • Check speed command. • Check wiring mistake of the motor U, V phases and encoder.
83 A.53 Excessive speed deviation	Deviation of speed between command and the real spindle exceed the setting.	<ul style="list-style-type: none"> • Check if load is too heavy or cutting tool is bite into the workpiece. • Check the torque limit (MD6421, MD6422). • Check encoder signal wiring. • Check the motor constant machine data (MD6700 or later).

Error code	Explanation	Remedy
84 A.54 Overspeed (L speed winding motor side)	Motor rotation speed exceeded maximum speed for low winding.	<ul style="list-style-type: none"> • Check the maximum speed setting machine data MD6753. • Check speed command. • Check external sequence to confirm if winding switchover speed is correct. • Check wiring mistake of the motor U, V phases and encoder.
85 A.55 Overspeed (C axis)	Motor rotation speed exceeded the limit in the C axis control.	<ul style="list-style-type: none"> • Check the Machine data (MD6543) for setting the rating speed of C axis. • Check the speed command. • Check if the external sequence suit to C axis control. • Check wiring mistake of the motor U, V phases and encoder.
105 A.69 Winding switchover operation Error	Winding switchover contactor did not operate correctly.	<ul style="list-style-type: none"> • Check control parameter (MD6809). • Check wiring of electromagnetic contactor for winding switchover. • Change the electromagnetic contactor.
107 A.6B Emergency stop operation Error	Emergency stop could not operate correctly.	<ul style="list-style-type: none"> • Check control parameter for torque limit (MD6421, MD6422). • Check if the operation signals, TLL and THL, are turned off after motor stop due to emergency stop.
113 A.71 Overload at the IPM motor locking	The IPM motor was locked for longer time than the setting time.	<ul style="list-style-type: none"> • Check the spindle load and reduce it. • Check the IPM motor. • Check the machine data for detection of locking (MD6813 to 6815).
114 A.72 Inverter overload (Max. continuous load)	Operation continued with the torque beyond rating.	<ul style="list-style-type: none"> • Compare the capacitor of drive with the load.. • Check the output current. • Reduce the load. • Change into the inverter unit with more large capacity
115 A.73 Overload at the low frequency	The load exceeded 80% of rating output when the output frequency was 6Hz or under.	<ul style="list-style-type: none"> • Check the spindle load and reduce it. • Check the output current or the frequency. • Change into the inverter unit with more large capacity
117 A.75 Internal cooling fan Error	Internal cooling fan stopped.	<ul style="list-style-type: none"> • Check wiring of power line for the fan. • Exchange the internal cooling fan or inverter.

Error code	Explanation	Remedy
121 A.79 Motor Overheat /Thermistor disconnection	Motor temperature rose over the set value. Or the motor thermistor was disconnected.	<<Light load or free>> <ul style="list-style-type: none"> • Check the wiring for thermistor • Check the value of thermistor resistance • Change the motor or inverter <<Heavy load>> <ul style="list-style-type: none"> • Check if the motor cooling fan turn. • Check if the capacity of cooling fan is suitable for the motor. • Check the load and reduce it. • Change motor cooling fan or motor.
122 A.7A Drive heat sink overheat	The inverter heat sink was overheated.	<ul style="list-style-type: none"> • Reduce ambient temperature to 55 degrees or less. • Follow the rule of the mounting method and surrounding spaces. • Change inverter. • Reduce the load • Check the wiring for thermistor to measure the temperature of heat sink.
123 A.7B Converter heat sink overheat (CONV)	The converter heat sink was overheated.	<ul style="list-style-type: none"> • Reduce ambient temperature to 55 degrees or less. • Follow the rule of the mounting method and surrounding spaces. • Change inverter. • Reduce the load • Check the wiring for thermistor to measure the temperature of heat sink.
130 A.82 *1 PG sum check error (SE_ENC)	The data error (sum check) in serial encoder. (only detected at power on)	<ul style="list-style-type: none"> • Check the connection around the encoder. (check grounding according to the specification of encoder connection.) • Separate the encoder line from the power line. • Change the encoder.
132 A.84 *1 Encoder position alarm (absolute encoder) (SE_ENC)	The number of pulse a revolution is not correct.	<ul style="list-style-type: none"> • Check the connection around the encoder. (Check grounding according to the specification of encoder connection.) • Separate the encoder line from the power line. • Change the encoder.

Error code	Explanation	Remedy
133 A.85 *1 PG overspeed (SE_ENC)	The motor speed calculated by serial encoder exceeded the setting value.	<ul style="list-style-type: none"> • Check the actual motor speed. • Check the connection around the encoder. (check grounding according to the specification of encoder connection.) • Separate the encoder line from the power line. • Change the encoder.
151 A.97 *2 Warning for heat sink overheat	There is a possibility to become a heat sink Overheat alarm if a current operation is continued.	<ul style="list-style-type: none"> • Reduce ambient temperature to 55 degrees or less. • Reduce the load. • Reduce regenerative load.
152 A.98 *2 Warning for motor Overheat	There is a possibility to become a Motor Overheat alarm if a current operation is continued.	<ul style="list-style-type: none"> • Check motor cooling fan operation. • Reduce the load.
178 A.b2 A/D Converter Error	CPU built-in A/D converter has an error.	<ul style="list-style-type: none"> • Check the voltage of the power on control board. • Change inverter.
183 A,b7*1 ASIC PWM compare match error	ASIC internal error occurred.	<ul style="list-style-type: none"> • Change inverter.
184 A.b8 ASIC WDC Error	ASIC internal error occurred.	<ul style="list-style-type: none"> • Change inverter.
189 A.bd*1 Converter System Error (CONV)	The converter hardware has an error.	<ul style="list-style-type: none"> • Change the converter.
190 A.bE*1 System Error	The inverter hardware has an error.	<ul style="list-style-type: none"> • Change inverter.
191 A.bF*1 System Error	The inverter hardware has an error.	<ul style="list-style-type: none"> • Change inverter.
197 A,C5*1 Motor magnetic pole detection Error	The pole signal for IPM motor is not detected.	<ul style="list-style-type: none"> • Check if spindle motor is mechanically locked. • Check the wiring of motor power or encoder • Increase initial magnetic pole detection estimation time (MD6605). • Check the Motor constant machine data (MD6700 or later)
198 A.C6 FPG disconnection (PA,PB)	The wiring disconnection was detected for the A and B phase of external encoder.	<ul style="list-style-type: none"> • Check wiring for external encoder. • Change the option board for external encoder.
199 A.C7 FPG disconnection (PC)	The wiring disconnection was detected for the C phase of external encoder.	<ul style="list-style-type: none"> • Check wiring for external encoder. • Change the option board for external encoder.

Error code	Explanation	Remedy
201 A.C9 ^{*1} Encoder communication Error (SE_ENC)	The communication does not succeed between encoder and inverter.	<ul style="list-style-type: none"> • Check the connection around the encoder. (check grounding according to the specification of encoder connection.) • Separate the encoder line from the power line. • Change the spindle motor or inverter.
202 A.CA ^{*1} Encoder Parameter Error (SE_ENC)	The parameter error is detected in the encoder.	<ul style="list-style-type: none"> • Check the connection around the encoder. (check grounding according to the specification of encoder connection.) • Separate the encoder line from the power line. • Change the spindle motor or inverter.
203 A.Cb ^{*1} Encoder echo back Error	The initial communication does not succeed between encoder and inverter.	<ul style="list-style-type: none"> • Check the connection around the encoder. (check grounding according to the specification of encoder connection.) • Separate the encoder line from the power line. • Change the spindle motor or inverter.
208 A.d0 Position Error Pulse Overflow	Position error pulse exceeded machine data (MD6965)	<ul style="list-style-type: none"> • Adjust the machine data MD6965. • Increase speed loop gain (MD6064 to MD6067) and position loop gain (MD32200).
224 A.E0 ^{*1} DPRAM access Error	Initialization failed in the DPRAM area between converter and inverter when power supply was turned ON.	<ul style="list-style-type: none"> • Check rotary switch setting of the inverter. • Check wiring between converter and inverter.
225 A.E1 ^{*1} Time out Error	The communication between converter and inverter can not be started.	<ul style="list-style-type: none"> • Check rotary switch setting of the inverter. • Check wiring between converter and inverter.
226 A.E2 ^{*1} Converter WDC Error	The synchronization between converter and inverters is misaligned.	<ul style="list-style-type: none"> • Check rotary switch setting of the inverter. • Check wiring between converter and inverter.
227 A.E3 ^{*1} Communication data Error	Checksum of communication data between converter and inverter has an error.	<ul style="list-style-type: none"> • Check rotary switch setting of the inverter. • Check wiring between converter and inverter.
229 A.E5 ^{*1} Network communication Error (CONV)	No response from NC.	<ul style="list-style-type: none"> • Check wiring between converter NC and converter.
230 A.E6 ^{*1} Link setting Error (CONV)	NC and inverter have a different setting for axis assignment.	<ul style="list-style-type: none"> • Check inverter rotary switch setting and axis selection setting on NC side. • Check the connection between converter and inverter.

Error code	Explanation	Remedy
234 A.EA *1 Inverter initialization access Error (CONV)	Inverter and servo unit do not response to the inquiry from converter.	<ul style="list-style-type: none"> • Check wiring between converter and inverter.
236 A.EC *1 Inverter WDC Error	No inverter response	<ul style="list-style-type: none"> • Check wiring between converter and inverter. • Change inverter.
241 A.F1 Power supply line open phase (CONV)	One phase is not connected in the main power supply.	<ul style="list-style-type: none"> • Check input power supply.
242 A.F2 Power supply line frequency error (CONV)	Power supply frequency has an error.	<ul style="list-style-type: none"> • Check input power supply waveform.
244 A.F4 Power supply line undervoltage (CONV)	Input power supply voltage decreased.	<ul style="list-style-type: none"> • Check input power supply.

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To release the alarm, eliminate the cause of the alarm before turning control power supply ON.
- "*2" marks the warnings. The motor operation is continued under the warning.
 - (CONV) indicates the alarms detected by the converter.
 - (SE_ENC) indicates the alarms detected by the serial encoder.