

10.7 : CPU.unit version mismatch

Code : &H0A07

Meaning/Cause	CPU unit version does not match the CPU.
Action	Make sure the CPU unit and driver unit versions match each other.

10.8 : Cannot set auxiliary axis

Code : &H0A08

Meaning/Cause	Setting of axis that cannot be set as an auxiliary axis was attempted. The following axes cannot be set as an auxiliary axis. <ul style="list-style-type: none"> • SCARA type robot axes • X and Y axes except on MULTI type robots
Action	1. Do not set an auxiliary axis. 2. Change the axis setting.

10.9 : Cannot set no axis

Code : &H0A09

Meaning/Cause	A no-axis setting was attempted on an axis which cannot accept it. The following axes cannot be set to no-axis. <ul style="list-style-type: none"> • X and Y axes except on MULTI type robots
Action	1. Do not make a no-axis setting. 2. Change the axis setting.

10.10 : Cannot change axis

Code : &H0A0A

Meaning/Cause	Changing of an axis whose setting cannot be changed was attempted. The following axes cannot be changed. <ul style="list-style-type: none"> • X and Y axes on SCARA type robots
Action	1. Do not change that axis. 2. Change a different axis.

10.13 : Cannot set Dualdrive

Code : &H0A0D

Meaning/Cause	A dual drive setting was attempted on an axis that cannot be set to dual drive.
Action	1. Do not set to dual drive. 2. Change the axis setting.

10.14 : Undefined parameter found

Code : &H0A0E

Meaning/Cause	a. Undefined, wrong parameter data was written because controller data from different controller version was used b. Parameter name is wrong.
Action	1. Write the correct parameter data. 2. Enter the parameter name correctly. 3. Set the "Skip undefined parameters" parameter to "VALID".

10.15 : Cannot set YC-Link

Code : &H0A0F

Meaning/Cause	An attempt was made to set a YC-Link for an axis that is set to dual drive.
Action	1. Do not set the YC-Link. 2. Change the axis setting.

10.17 : Cannot set Gripper

Code : &H0A11

Meaning/Cause	<ol style="list-style-type: none"> It was attempted to set the gripper for the YC-Link set axis. It was attempted to set the gripper for the dual drive set axis. It was attempted to set the gripper for an axis number exceeding the number of boards installed.
Action	<ol style="list-style-type: none"> Do not set the gripper for such axis. Change the setting axis.

10.18 : Cannot change auxiliary axis

Code : &H0A12

Meaning/Cause	It was attempted to reset the auxiliary axis setting of the gripper set axis.
Action	Do not reset the auxiliary axis setting.

10.19 : CPU soft version mismatch

Code : &H0A13

Meaning/Cause	Combination of CPU board and software is wrong.
Action	Install the software that supports the CPU board.

10.21 : Sys. backup battery low voltage

Code : &H0A15

Dedicated output : DO03a (Alarm) and the port set by the "Battery alarm output port (DO & SO)" parameter turn on.

Meaning/Cause	<ol style="list-style-type: none"> System backup battery voltage is low. System backup battery is disconnected from CPU board.
Action	<ol style="list-style-type: none"> Replace system backup battery. Connect system backup battery securely to CPU board.

10.22 : STD.DIO DC24V power low

Code : &H0A16

Meaning/Cause	<ol style="list-style-type: none"> 24V DC not supplied to STD.DIO connector. Drop in 24V DC being supplied for STD.DIO. STD.DIO connector is not connected.
Action	<ol style="list-style-type: none"> Supply 24V DC to STD.DIO connector. Check if line to STD.DIO connector is shorted, broken or miswired. Check if load connected to STD.DIO is beyond capacity of 24V DC supply. If STD.DIO is not used, make the "Watch on STD.DIO 24V DC" parameter invalid in SYSTEM>PARAM>OTHER mode.

10.26 : Gripper software version mismatch

Code : &H0A1A

Meaning/Cause	Software for gripper option board is incorrect.
Action	Use the same software version for the two CPUs on the gripper option board.

[12] I/O and option board errors**12.1 : Emg.stop on**

Code : &H0C01

Dedicated output : *3

Meaning/Cause	<ol style="list-style-type: none"> Programming box emergency stop button was pressed. Emergency stop terminals on SAFETY connector are open (emergency stop status). Programming box or terminator are not connected to RPB connector. SAFETY connector is not connected.
Action	<ol style="list-style-type: none"> Release the programming box emergency stop button. Close the emergency stop terminals on SAFETY connector. Connect programming box or terminator to RPB connector. Attach the SAFETY connector.

12.2 : Interlock on

Code : &H0C02

Meaning/Cause	<ol style="list-style-type: none"> Program was executed or moving of axis attempted while interlock signal was still input. Interlock signal turned ON during execution of program or axis movement. 24V DC not supplied to STD.DIO connector. STD.DIO connector is not connected.
Action	<ol style="list-style-type: none"> Cancel the interlock signal, and execute program or move axis. Supply 24V DC to STD.DIO connector. Connect the STD.DIO connector. Disable the "Watch on STD.DIO 24V DC" parameter when not using STD.DIO.

12.3 : Arm locked

Code : &H0C03

Meaning/Cause	Movement of an arm was attempted while the arm lock variable LO was ON.
Action	Clear the arm lock variable LO.

12.11 : CC-Link communication error

Code : &H0C0B

Meaning/Cause	<ol style="list-style-type: none"> Error in cable for CC-Link system. Wrong communication setting for CC-Link system. Master station sequencer power is turned off, has stopped operating or is damaged. Breakdown in CC-Link compatible unit.
Action	<ol style="list-style-type: none"> Check for a break, misconnection or wiring error in CC-Link cable, and check the specifications (cable length, etc.). Check the station No. and communication baud rate settings. Check if the master station sequencer is operating correctly. Replace the corresponding CC-Link compatible unit.

12.12 : CC-Link overtime error

Code : &H0C0C

Meaning/Cause	<ol style="list-style-type: none"> Error in CC-Link system communications due to noise pickup, etc. Master station sequencer (PLC) power is turned off or has stopped operating.
Action	<ol style="list-style-type: none"> Implement countermeasures to protect the CC-Link system cable and controller from noise. Check if the master station sequencer (PLC) is operating correctly.

12.16 : DeviceNet link error

Code : &H0C10

Meaning/Cause	<ol style="list-style-type: none"> Error in cable for DeviceNet system. The DeviceNet system's MacID or communication speed setting is incorrect. No power supplied for communication. The master PLC's power is turned off, has stopped operating, is not operating correctly or is damaged. Breakdown in DeviceNet compatible unit.
Action	<ol style="list-style-type: none"> Check for a break, misconnection or wiring error in DeviceNet cable, and check the specifications (cable length, etc.). Check the MacID and communication speed settings. Check whether the communication power is supplied. Check whether the master PLC is operating correctly. Replace the DeviceNet compatible unit.

12.17 : DeviceNet hardware error

Code : &H0C11

Meaning/Cause	Breakdown in DeviceNet compatible unit.
Action	Replace the DeviceNet compatible unit.

12.18 : Incorrect DeviceNet setting

Code : &H0C12

Meaning/Cause	The MacID or communication speed setting is incorrect.
Action	Check the MacID and communication speed settings.

12.19 : DeviceNet link error(Explicit)

Code : &H0C13

Meaning/Cause	The DeviceNet board was reset by an Explicit message request (Reset request to Identity Obj) from the client (master PLC).
Action	

12.21 : PROFIBUS link error

Code : &H0C15

Meaning/Cause	<ol style="list-style-type: none"> a. Error in cable for PROFIBUS system. b. The PROFIBUS system's station address setting is incorrect. c. The master station PLC power is turned off, or the PLC has stopped operating or is not operating correctly, or is broken. d. Breakdown in PROFIBUS compatible unit.
Action	<ol style="list-style-type: none"> 1. Check for a break, misconnection or wiring error in PROFIBUS cable, and check the specifications (cable length, etc.). 2. Check the station address settings. 3. Check whether the master station PLC is operating correctly. 4. Check the hardware configuration settings. 5. Replace the PROFIBUS compatible unit.

12.22 : PROFIBUS hardware error

Code : &H0C16

Meaning/Cause	Breakdown in PROFIBUS compatible unit.
Action	Replace the PROFIBUS compatible unit.

12.31 : DI DC24V disconnected

Code : &H0C1F

Meaning/Cause	<ol style="list-style-type: none"> a. 24V DC not being supplied to DI section of OPT.DIO unit. b. Drop in 24V DC supply voltage to DI section of OPT.DIO unit. c. OPT.DIO connector is not connected.
Action	<ol style="list-style-type: none"> 1. Supply 24V DC to DI section of OPT.DIO. 2. Check for short, breakage or wiring error in OPT.DIO connector. 3. Check if a sufficient 24V DC is supplied to DI section of OPT.DIO unit.

12.32 : DO1 DC24V disconnected

Code : &H0C20

Meaning/Cause	<ol style="list-style-type: none"> a. 24V DC not being supplied to DO1 section of OPT.DIO unit. b. Drop in 24V DC supply voltage to DO1 section of OPT.DIO unit. c. OPT.DIO connector is not connected.
Action	<ol style="list-style-type: none"> 1. Supply 24V DC to DO1 section of OPT.DIO unit. 2. Check for short, breakage or wiring error in OPT.DIO connector. 3. Check if load connected to DO1 section of OPT.DIO unit is too large for the 24V DC supply to handle.

12.33 : DO2 DC24V disconnected

Code : &H0C21

Meaning/Cause	<ol style="list-style-type: none"> a. 24V DC not being supplied to DO2 section of OPT.DIO unit. b. Drop in 24V DC supply voltage to DO2 section of OPT.DIO unit. c. OPT.DIO connector is not connected.
Action	<ol style="list-style-type: none"> 1. Supply 24V DC to DO2 section of OPT.DIO unit. 2. Check for short, breakage or wiring error in OPT.DIO connector. 3. Check if load connected to DO2 section of OPT.DIO unit is too large for the 24V DC supply to handle.

12.34 : POS.OUT Point not exist

Code : &H0C22

Meaning/Cause	Comparison point data does not exist.
Action	Set comparison point data correctly.

12.35 : POS.OUT Point unit error

Code : &H0C23

Meaning/Cause	Comparison points 1 and 2 do not use the same unit system.
Action	Change them to the same unit system.

12.41 : EtherNet link error

Code : &H0C29

Meaning/Cause	<p>TELENET is disconnected.</p> <ol style="list-style-type: none"> The cable is broken or disconnected. Communicating with a client was off for more than the time specified by the "7. timeout [min]" parameter for EtherNet. Logout was attempted while the "11. logout" parameter for EtherNet is set to "STOP". No response for a keep-alive packet from the client.
Action	<ol style="list-style-type: none"> Connect the cable or connector securely. Communicate with a client at least once within the time specified by the "7. timeout [min]" parameter, or set the parameter to "0" to disable the timeout function. Set the "11. logout" parameter to "CONT." to avoid errors during logout. Check whether the client is responding to the keep-alive packet, or set the "12. keep-alive [sec]" parameter to "0" to stop the keep-alive packet from being sent out.

12.42 : EtherNet hardware error

Code : &H0C2A

Meaning/Cause	Breakdown in EtherNet compatible unit.
Action	Replace the EtherNet compatible unit.

12.51 : EtherNet/IP link error

Code : &H0C33

Meaning/Cause	An error occurred at the EtherNet/IP option board.
Action	Contact your distributor with details of this problem.

12.70 : Incorrect option setting

Code : &H0C46

Meaning/Cause	<ol style="list-style-type: none"> Error in DIP switch setting on option unit. Mismatched option units have been installed. Cannot identify the installed option unit.
Action	<ol style="list-style-type: none"> Check the DIP switch settings on the option unit. Install the correct unit. Replace the option unit. Replace the controller.

12.75 : Illegal remote command

Code : &H0C4B

Meaning/Cause	The remote command or command data is incorrect.
Action	Check the remote command or command data.

12.76 : Illegal input SERVICE mode

Code : &H0C4C

Meaning/Cause	Dedicated input signal was supplied when dedicated input is excluded from available devices in SERVICE mode. Refer to "Setting the SERVICE mode" of RCX240 User's Manual.
Action	1. Do not supply dedicated input signal. 2. Enable dedicated input on setting available devices on SERVICE mode. 3. Do not use SERVICE mode.

12.80 : Incorrect Indiv. Origin setting

Code : &H0C50

Meaning/Cause	a. 2 or more axes were specified for the "Axes selection port (DI & SI)" parameter. b. No axis was specified for the "Axes selection port (DI & SI)" parameter. c. Axis which is not present was specified for the "Axes selection port (DI & SI)" parameter.
Action	1. Specify only 1 axis. 2. Specify an appropriate axis. 3. Specify an axis which is present.

12.85 : Bad Gripper status setting

Code : &H0C55

Meaning/Cause	The same port number was set for the other parameters "G1 status output (DO & SO)" and "G2 status output (DO & SO)".
Action	Set different port numbers for the other parameters "G1 status output (DO & SO)" and "G2 status output (DO & SO)".

[13] Programming box errors**13.1 : RPB communication error**

Code : &H0D01

Meaning/Cause	Error occurred in communication with programming box.
Action	1. Install the programming box correctly. 2. Replace the programming box. 3. Replace the controller.

13.2 : RPB parity error

Code : &H0D02

Meaning/Cause	Abnormal data was entered in communication with programming box.
Action	1. Install the programming box correctly. 2. Install the programming box in a good operating environment. (Do not install near sources of noise.)

13.11 : RPB version mismatch

Code : &H0D0B

Meaning/Cause	Programming box version does not match the controller, and connection refused.
Action	Use an programming box version that matches the controller.

13.12 : RPB system error

Code : &H0DOC

Meaning/Cause	Error occurred in communication with programming box.
Action	1. Replace the programming box. 2. Replace the controller.

[14] RS-232C communication errors

14.1 : Communication error

Code : &H0E01

Meaning/Cause	a. During external communication via the RS-232C, an error occurred. b. An overrun error or framing error occurred via the RS-232C. c. Power supply for external device turned on or off after connecting communication cable with the external device.
Action	1. Change to a correct system environment for RS-232C. (Do not install near sources of noise.) 2. Replace the communications cable. 3. Check the communication parameter settings.

14.2 : Parity error

Code : &H0E02

Meaning/Cause	During external communication via the RS-232C, an error occurred.
Action	Check the communication parameter settings.

14.11 : Receive buffer overflow

Code : &H0E0B

Meaning/Cause	Communication receive buffer exceeded permissible capacity.
Action	1. Delay the communication parameter speed (baud rate). 2. Change communication parameter so that flow control is enabled.

14.12 : CMU is not ready

Code : &H0E0C

Meaning/Cause	Could not sent data from controller because receive prohibit status of other party continued for more than 10 seconds.
Action	1. Replace the communications cable. 2. Check that flow control is normal in software processing for other party.

14.20 : Too many Command characters

Code : &H0E14

Meaning/Cause	a. Online command character string in 1 line exceeded 80 letters. b. Command statement created with a remote command exceeded 80 letters.
Action	1. Limit number of characters in 1 line for an online command to 80 letters or less. 2. Check the command data of the remote command.

14.21 : No return code(C/R)

Code : &H0E15

Meaning/Cause	a. Character string in 1 line exceeded 75 letters. b. C/R code (0Dh) was not added at end of line.
Action	1. Limit number of characters in 1 line to 75 letters. 2. Add a C/R code at the end of a single line.

14.22 : No start code(@)

Code : &H0E16

Meaning/Cause	Starting code "@" was not added at beginning of single line in an online command.
Action	Add starting code "@" at the beginning of online command.

14.23 : Illegal command,Operating

Code : &H0E17

Meaning/Cause	During data editing, an online command was executed.
Action	After completing data edit, execute an online command.

14.24 : Illegal command,Running

Code : &H0E18

Meaning/Cause	During program run, a non-executable online command was attempted.
Action	After stopping the program, execute the online system command which could not previously be executed.

14.25 : Illegal command in this mode

Code : &H0E19

Meaning/Cause	Cannot execute the specified online command in the current mode.
Action	1. Stop the online command. 2. Change the mode.

14.26 : Illegal command,SERVICE mode

Code : &H0E1A

Meaning/Cause	Unable to execute since operation is in SERVICE mode.
Action	1. Cancel SERVICE mode. 2. Change the exclusive control setting so it can be used in SERVICE mode.

14.31 : Illegal port type

Code : &H0E1F

Meaning/Cause	Communication port not specified.
Action	Contact your distributor with details on this problem.

[15] Memory card errors**15.1 : Invalid file attribute**

Code : &H0F01

Meaning/Cause	a. Directory was accessed. b. Read/write protected file was accessed.
Action	1. Change to a file which can be accessed. 2. Change to a file allowing read/write.

15.2 : Read only file

Code : &H0F02

Meaning/Cause	Writing was attempted on a write protected file.
Action	1. Change to another file. 2. Change to a file not write protected.

15.3 : Same file name already exists

Code : &H0F03

Meaning/Cause	File name change was attempted but the same file name already exists.
Action	Change it to an unused file name.

15.4 : File doesn't exist

Code : &HOF04

Meaning/Cause	Loading of file was attempted but file name does not exist.
Action	Change to a file name that currently exists.

15.11 : Directory full

Code : &HOF0B

Meaning/Cause	The file storage capacity was exceeded.
Action	<ol style="list-style-type: none"> 1. Use a new memory card. 2. Change the directory to save. 3. Delete unnecessary files.

15.12 : Disk full

Code : &HOF0C

Meaning/Cause	Write failed. No space is available on memory card. (File contents cannot be guaranteed.)
Action	<ol style="list-style-type: none"> 1. Use a new memory card. 2. Delete unnecessary files.

15.13 : Unformatted media

Code : &HOF0D

Meaning/Cause	<ol style="list-style-type: none"> a. Memory card was not formatted. b. Wrong memory card format.
Action	<ol style="list-style-type: none"> 1. Format correctly. 2. Replace memory card backup battery.

15.14 : Media protected

Code : &HOF0E

Meaning/Cause	Cannot write. Memory card has been set to write protect.
Action	<ol style="list-style-type: none"> 1. Change to allow writing. 2. Use another memory card.

15.15 : Media type mismatch

Code : &HOF0F

Meaning/Cause	Memory card is unusable.
Action	Replace the memory card.

15.16 : Media data destroyed

Code : &HOF10

Meaning/Cause	All or part of data stored on memory card is damaged.
Action	<ol style="list-style-type: none"> 1. Format the memory card. 2. Overwrite the damaged portion with new data. 3. Replace the memory card backup battery. 4. Replace the memory card.


15.21 : Cannot find media

Code : &HOF15

Meaning/Cause	Memory card not inserted correctly in slot.
Action	Insert the memory card correctly unit.

15.23 : Aborted

Code : &H0F17

Meaning/Cause	 key was pressed during reading/writing from or into memory card, and the operation halted.
Action	—

15.24 : Media hardware error

Code : &H0F18

Meaning/Cause	a. Memory card is defective b. Error occurred in controller.
Action	1. Replace the memory card. 2. Replace the controller.

15.27 : Data read error

Code : &H0F1B

Meaning/Cause	Failed to load file.
Action	1. Try to reload the file. 2. Replace the memory card. 3. Replace the controller.

15.28 : Data write error

Code : &H0F1C

Meaning/Cause	Failed to write file.
Action	1. Try rewriting the file. 2. Replace the memory card. 3. Replace the controller.

15.29 : Timeout error

Code : &H0F1D

Meaning/Cause	Failed to load/write file.
Action	1. Try to reload/rewrite the file. 2. Replace the memory card. 3. Replace the controller.

[17] Motor control errors**17.1 : System error (DRIVER)**

Code : &H1101

Dedicated output : *2

Meaning/Cause	Error occurred in software for driver unit.
Action	Contact your distributor with details of the problem.

17.2 : Watchdog error (DRIVER)

Code : &H1102

Dedicated output : *2

Meaning/Cause	a. Malfunction occurred in driver unit due to external noise. b. Controller is defective.
Action	1. Turn the power on again. 2. Replace the controller.

17.3 : Over current

Code : &H1103

Dedicated output : *2

Meaning/Cause	a. Short in motor cable. b. Malfunction occurred in motor.
Action	1. Replace the motor cable. 2. Replace the motor.

17.4 : Over load

Code : &H1104

Dedicated output : *2

Meaning/Cause	a. Robot drive section mechanically locked. b. Motor current exceeded its rated value due to a motor overload. c. Motor acceleration is excessive. d. System generation setting is wrong. e. Motor cable wiring is broken or wiring is incorrect. f. Electromagnetic brake for holding vertical axis is defective. g. Wiring is incorrect or disconnected on electromagnetic brake for holding the vertical axis. h. SAFETY connector is not used correctly.
Action	1. Perform robot service and maintenance. 2. Decrease load on motor. 3. Lower the motor acceleration. 4. Redo the system generation. 5. Wire the motor cable correctly. 6. Replace the motor cable. 7. Replace the magnetic brake for holding the vertical axis. 8. Replace the ROB I/O cable. 9. Do not use 24V DC from SAFETY connector as power source for external loads.

17.5 : Over heat

Code : &H1105

Dedicated output : *2

Meaning/Cause	Temperature in power module of driver unit exceeded 80°C.
Action	1. Improve the equipment environment. 2. Check that cooling fan is working correctly. 3. Lower the robot duty cycle and decrease the amount of heat generated. 4. Replace the controller.

17.6 : P.E.counter overflow

Code : &H1106

Dedicated output : *2

Meaning/Cause	a. Robot drive section mechanically locked. b. Motor acceleration is excessive. c. System generation setting is wrong. d. Motor cable wiring is broken or wiring is incorrect. e. Electromagnetic brake for holding vertical axis is defective. f. Wiring is incorrect or disconnected on electromagnetic brake for holding the vertical axis. g. SAFETY connector is not used correctly.
Action	1. Perform robot service and maintenance. 2. Lower the motor acceleration. 3. Redo the system generation. 4. Wire the motor cable correctly. 5. Replace the motor cable. 6. Replace the magnetic brake for holding the vertical axis. 7. Replace the ROB I/O cable. 8. Do not use 24V DC from SAFETY connector as power source for driving external loads.

17.9 : Command error

Code : &H1109

Dedicated output : *2

Meaning/Cause	Driver cannot identify commands from CPU.
Action	Check the versions of the CPU unit and driver unit.

17.10 : Feedback error 1

Code : &H110A

Dedicated output : *2

Meaning/Cause	Wiring of motor cable or ROB I/O cable is incorrect.
Action	1. Rewire the motor cable or ROB I/O cable correctly. 2. Replace the motor cable or ROB I/O cable.

17.11 : Feedback error 2

Code : &H110B

Dedicated output : *2

Meaning/Cause	Motor cable is broken.
Action	Replace the motor cable or encoder cable.

17.16 : Over velocity 1

Code : &H1110

Dedicated output : *2

Meaning/Cause	Axis movement speed exceeded the limit during linear interpolation, circular interpolation or manual orthogonal movement.
Action	1. Reduce the acceleration. 2. Reduce the speed.

17.17 : Mode error

Code : &H1111

Dedicated output : *2

Meaning/Cause	Driver unit is in abnormal control mode status.
Action	Contact your distributor with details on the problem.

17.18 : DPRAM data error

Code : &H1112

Dedicated output : *2

Meaning/Cause	2 tries at loading the dual port RAM failed.
Action	Contact your distributor with details on the problem.

17.19 : Coord. value error

Code : &H1113

Dedicated output : *2

Meaning/Cause	Error occurred during linear interpolation, circular interpolation or manual orthogonal movement.
Action	Contact your distributor with details on the problem.

17.20 : Motor type error

Code : &H1114

Meaning/Cause	A motor type unidentifiable by drive unit was selected.
Action	1. Redo the system generation. 2. Replace the controller.

17.21 : Bad origin sensor

Code : &H1115

Meaning/Cause	a. Origin sensor is defective. b. Origin sensor wiring is broken.
Action	1. Replace the origin sensor. 2. Replace the ROB I/O cable.

17.22 : Bad PZ

Code : &H1116

Meaning/Cause	a. Motor is defective. b. Resolver signal wire is broken.
Action	1. Replace the motor. 2. Replace the ROB I/O cable.

17.28 : Dual P.E.counter overflow

Code : &H111C

Meaning/Cause	On a dual-axis drive, the position differential between the main axis and sub axis is too large. a. Friction in the robot drive section is too large. b. Motor brake wiring is broken.
Action	1. Check the drive sections for assembled condition and lubrication to ensure smooth movement. 2. Check that the motor brake works properly.

17.30 : Bad position

Code : &H111E

Dedicated output : *2

Meaning/Cause	Cannot perform positioning.
Action	1. Turn the power off and then on again. 2. Replace the controller.

17.31 : Servo off

Code : &H111F

Meaning/Cause	Movement command was attempted in servo-off state.
Action	Change status to servo-on.

17.33 : Busy now

Code : &H1121

Dedicated output : *2

Meaning/Cause	a. Servo OFF command was attempted while the driver was stopped. b. Return-to-origin command was attempted before manual movement was complete.
Action	1. Turn off the power to the controller and then turn it back on. 2. Wait until the command has finished.

17.34 : Servo on failed

Code : &H1122

Meaning/Cause	a. Servo ON was attempted for each axis while motor power was off. b. Servo ON processing failed because the drive unit had been stopped.
Action	1. First turn on the motor power if servo ON for each axis was attempted. 2. Turn the power off and then on again.

17.35 : Axis weight over

Code : &H1123

Meaning/Cause	The weight (sum of work weight + axis weight) on a particular robot axis exceeded the maximum payload of that axis.
Action	1. Redo the system generation. 2. Select the axis weight parameter to a correct value.

17.39 : Servo off failed

Code : &H1127

Dedicated output : *2

Meaning/Cause	Servo OFF processing failed because the drive unit had been stopped.
Action	Turn the power off and then on again.

17.40 : Torque mode now

Code : &H1128

Meaning/Cause	Manual movement attempted while in torque mode.
Action	Cancel the torque mode.

17.42 : Cannot reset position

Code : &H112A

Meaning/Cause	a. The ABSINIT statement was executed at a position where a "current position reset" is not possible. b. The ABSINIT2 statement was executed at a position where a "current position reset" is not possible.
Action	1. Execute the ABSINIT statement after moving to a position where a "current position reset" is possible. 2. Execute the ABSINIT2 statement after moving to a position where a "current position reset" is possible.

17.73 : Resolver wire breakage

Code : &H1149

Meaning/Cause	a. Resolver signal wire is broken. b. Motor malfunction occurred. c. Controller malfunction occurred.
Action	1. Replace the ROB I/O cable. 2. Replace the motor. 3. Replace the controller.

17.78 : Power module error

Code : &H114E

Meaning/Cause	a. Power module overheated. b. Power module/motor drew excessive current.
Action	Lighten the load on the robot.

17.81 : ABS.battery wire breakage

Code : &H1151

Meaning/Cause	a. Absolute battery cable is broken. b. Absolute battery cable is not connected. c. Drop in absolute battery voltage.
Action	1. Replace the absolute battery. 2. Connect the absolute battery. 3. Enable the "Incremental mode control" parameter for use in incremental mode.

17.82 : CS read error

Code : &H1152

Meaning/Cause	a. Readout check of resolver electrical angle information failed twice. b. Over-acceleration occurs due to collision, etc.
Action	1. Perform absolute reset or return-to-origin operation. 2. Replace the motor. 3. Replace the controller. 4. Change the operation pattern to avoid over-acceleration.

17.83 : Backup position data error 1

Code : &H1153

Meaning/Cause	Backup position information did not match the resolver angle information when robot position information was recalculated at controller startup.
Action	Perform absolute reset.

17.84 : Over velocity 2

Code : &H1154

Meaning/Cause	Movement speed is too high during power-off of the controller.
Action	Perform absolute reset.

17.85 : Backup position data error 2

Code : &H1155

Meaning/Cause	Failed to read out the robot position data during start-up of the controller.
Action	Perform absolute reset.

17.90 : DRIVE2 module type error

Code : &H115A

Meaning/Cause	Motor specifications do not match current sensor specifications.
Action	1. Replace the controller. 2. Redo the system generation.

17.91 : Cannot perform ABS.reset

Code : &H115B

Meaning/Cause	Absolute reset was attempted at a position where absolute reset cannot be performed.
Action	Move the axis to a position (machine reference from 44 to 56%) where absolute reset can be performed, and then try again.

17.92 : Resolver disconnected during power off

Code : &H115C

Meaning/Cause	a. Resolver signal line was disconnected or broken while power to the controller was cut off. (Same as when ROB I/O connector is removed.) b. The controller was restarted, after resolver signal line was disconnected while the power was on. (Same as when ROB I/O connector is removed.) (Even after turning off the power, the controller still knows that resolver signal line was disconnected while the power was on. This is displayed as an error when the controller is restarted.)
Action	Perform absolute reset.

17.93 : Position backup counter overflow

Code : &H115D

Meaning/Cause	Position information lost when motor speed (rotation) exceeded 4096 when controller power was cut off.
Action	1. Do not rotate motor more than necessary when the controller power is being cut off. 2. Perform absolute reset.

17.94 : ABS.battery low voltage

Code : &H115E

Dedicated output : When the absolute battery voltage becomes low, DO03a (Alarm) and the port set by the "Battery alarm output port (DO & SO)" parameter turn on.

Meaning/Cause	Battery for retaining absolute data is low or not installed.
Action	1. Replace battery. 2. Install battery.

17.99 : Pole Search Error

Code : &H1163

Meaning/Cause	Failed to detect the motor magnetic pole when the servo was turned on. a. Servo wire is broken or misconnected. b. Position sensor cable is miswired. c. Axis parameter setting related to motor control is wrong.
Action	1. Correct the motor wiring. 2. Check the position sensor cable wiring. 3. Correct the parameter setting.

17.111: Controller fan failed

Code : &H116F

Meaning/Cause	Power is not supplied to controller cooling fan. a. Open-circuit fault in controller cooling fan cable. b. Short-circuit of ROB I/O cable. c. Controller is at fault. Abnormal condition occurred in controller cooling fan. d. Controller cooling fan is at fault. e. Controller is at fault.
Action	1. Replace the controller cooling fan cable. 2. Replace the ROB I/O cable. 3. Replace the controller. 4. Replace the controller cooling fan. 5. Replace the controller.

17.112: Current limit error

Code : &H1170

Meaning/Cause	a. Robot drive section mechanically locked. b. System generation setting is wrong. c. Motor cable wiring is broken or wiring is incorrect. d. Electromagnetic brake for holding vertical axis is defective. e. Wiring is incorrect or disconnected on electromagnetic brake for holding the vertical axis. f. SAFETY connector is not used correctly.
Action	1. Perform robot service and maintenance. 2. Redo the system generation. 3. Wire the motor cable correctly. 4. Replace the motor cable. 5. Replace the magnetic brake for holding the vertical axis. 6. Replace the ROB I/O cable. 7. Do not use 24V DC from SAFETY connector as power source for external loads.

17.113: Change mode timeout

Code : &H1171

Meaning/Cause	Failed to change the operation mode of the driver within a specified period of time.
Action	Contact your distributor with details on the problem.

17.114: Command send error

Code : &H1172

Meaning/Cause	Failed to send the command to the YC-Link axis.
Action	Contact your distributor with details on the problem.

[19] YC-Link (SR1) related error**19.1 : OVER LOAD**

Code : &H1301

Meaning/Cause	<ol style="list-style-type: none"> a. Motor current higher than rated current has flown due to excessive load on motor. b. Motor drive parts were mechanically locked. c. Electromagnetic brake failure or wire breakage. d. Robot number setting is incorrect.
Action	<ol style="list-style-type: none"> 1. Reduce the load on the motor. Set the payload and acceleration to their optimal values. Lower the operation duty on the robot. 2. Check the conditions of the movable parts. Perform maintenance on the robot. 3. Replace the electromagnetic brake. 4. Set the correct robot number and initialize the parameters.

19.2 : OVER CURRENT

Code : &H1302

Meaning/Cause	<ol style="list-style-type: none"> a. Short-circuit, earth fault or wire breakage occurred in motor cable. b. Motor failure. c. Controller board is defective. d. Robot number setting is incorrect.
Action	<ol style="list-style-type: none"> 1. Replace the motor cable. 2. Replace the motor. 3. Replace the controller. 4. Set the correct robot number and initialize the parameters.

19.3 : OVER HEAT

Code : &H1303

Meaning/Cause	<ol style="list-style-type: none"> a. Ambient temperature around the controller is above 40°C. b. Excessive load on motor. c. Cooling fan stopped working. d. Thermal sensor failed.
Action	<ol style="list-style-type: none"> 1. Correct the ambient conditions so that temperature is below 40°C. 2. Lower the load on the motor. 3. Replace the controller.

19.4 : POWER DOWN

Code : &H1304

Meaning/Cause	<ol style="list-style-type: none"> a. AC power line voltage is less than 80V. b. Momentary power outage occurred.
Action	<ol style="list-style-type: none"> 1. Use the correct AC line voltage. 2. Reset the alarm to resume operation.

19.5 : BATT.LOW-VOLTAGE

Code : &H1305

Meaning/Cause	a. Battery connection is incorrect. b. Battery voltage is lower than specified.
Action	1. Connect the battery correctly. 2. Replace the battery.

19.6 : 24V POWER OFF

Code : &H1306

Meaning/Cause	Internal 24V circuit failure. Controller board failed.
Action	Replace the controller.

19.7 : P.E. COUNTER OVER

Code : &H1307

Meaning/Cause	Deviation counter error.
Action	—

19.11 : SYSTEM FAULT

Code : &H130B

Meaning/Cause	a. Driver was not recognized correctly at power-on. b. External noise has disrupted software program. c. RS-232C receiving buffer has overflowed.
Action	1. Replace the controller. 2. Check the environment for noise. 3. Select the XON/XOFF control with the host device.

19.12 : BAD ORG-SENSOR

Code : &H130C

Meaning/Cause	a. Origin sensor connection is incorrect. b. Origin sensor wire broke or sensor became defective. c. Origin sensor dog (target) is not properly adjusted.
Action	1. Connect the origin sensor correctly. 2. Replace the origin sensor. 3. Adjust the origin sensor dog correctly.

19.13 : BAD PZ

Code : &H130D

Meaning/Cause	a. Position detector failure. b. Phase Z detection error.
Action	1. Replace the motor or robot. 2. Connect the ROB I/O cable correctly. 3. Replace the ROB I/O cable.

19.14 : FEEDBACK ERROR 1

Code : &H130E

Meaning/Cause	a. Controller position detection circuit failed. b. Position detector (motor) failed.
Action	1. Replace the controller. 2. Replace the motor.

19.15 : FEEDBACK ERROR 2

Code : &H130F

Meaning/Cause	a. ROB I/O cable connection is incorrect. b. ROB I/O cable is broken.
Action	1. Connect the ROB I/O cable correctly. 2. Replace the ROB I/O cable.

19.16 : ABNORMAL VOLTAGE

Code : &H1310

Meaning/Cause	<ul style="list-style-type: none"> a. AC power line voltage is too high. b. Regenerative unit (RG1) connection is incorrect. c. Temperature of regenerative absorption resistance is too high (above 120°C). d. RGEN cable failed. e. Regenerative unit failed. f. Power supply voltage setting (200V/100V) is incorrect.
Action	<ul style="list-style-type: none"> 1. Use the correct AC line voltage. 2. Connect the regenerative unit correctly. 3. Reduce the ambient temperature. Use the correct AC line voltage. Lower the operation duty on the robot. 4. Replace the RGEN cable. 5. Replace the regenerative unit. 6. Check the wiring on the input voltage select terminals.

19.17 : SYSTEM FAULT 2

Code : &H1311

Meaning/Cause	Controller board failed.
Action	Replace the controller.

19.18 : FEEDBACK ERROR 3

Code : &H1312

Meaning/Cause	Motor drive parts are mechanically locked.
Action	<ul style="list-style-type: none"> Check the conditions of the movable parts. Perform maintenance on the robot. Correctly adjust the Mechanical locking detect level (PRM142).

19.19 : SYSTEM FAULT 3

Code : &H1313

Meaning/Cause	<ul style="list-style-type: none"> a. External noise has disrupted software program. b. CPU failure or malfunction.
Action	<ul style="list-style-type: none"> 1. Check the environment for noise. 2. Replace the controller.

19.21 : BAD NETWORK

Code : &H1315

Meaning/Cause	<ul style="list-style-type: none"> a. Poor connection of communication cable. b. Open-circuit fault of communication cable.
Action	<ul style="list-style-type: none"> 1. Connect the communication cable securely. 2. Replace the communication cable.

19.23 : ABS.BAT.L-VOLTAGE

Code : &H1317

Meaning/Cause	Absolute battery voltage is less than 3.1V.
Action	Replace the absolute battery.

19.24 : ABS.DATA ERROR

Code : &H1318

Meaning/Cause	Absolute search for "semi-absolute" ended abnormally.
Action	<ul style="list-style-type: none"> 1. Register the correct stroke length (PRM102). 2. Initialize the parameters.

19.26 : FEEDBACK ERROR 4

Code : &H131A

Meaning/Cause	<ul style="list-style-type: none"> a. Motor cable connection is incorrect. b. Motor cable broke or failed. c. Motor failed. d. Controller board failed.
Action	<ul style="list-style-type: none"> 1. Connect the motor cable correctly. 2. Replace the motor cable. 3. Replace the motor. 4. Replace the controller.

19.27 : POLE SEARCH ERROR

Code : &H131B

Meaning/Cause	<ul style="list-style-type: none"> a. Motor cable connection is incorrect. b. Motor cable broke or failed. c. ROB I/O cable connection is incorrect. d. ROB I/O cable broke. e. Motor failed. f. Controller board failed. g. Robot number setting is incorrect.
Action	<ul style="list-style-type: none"> 1. Connect the motor cable correctly. 2. Replace the motor cable. 3. Connect the ROB I/O cable correctly. 4. Replace the ROB I/O cable. 5. Replace the motor. 6. Replace the controller. 7. Set the correct robot number and initialize the parameters.

19.28 : COORD.VAL. ERROR

Code : &H131C

Meaning/Cause	<ul style="list-style-type: none"> a. Poor connection of communication cable. b. Open-circuit fault of communication cable. c. Data destruction due to external noise.
Action	<ul style="list-style-type: none"> 1. Connect the communication cable securely. 2. Replace the communication cable. 3. Check the ambient conditions.

19.29 : NET DATA ERROR

Code : &H131D

Meaning/Cause	Data destruction due to external noise.
Action	Check the ambient conditions.

19.32 : 12V POWER OFF

Code : &H1320

Meaning/Cause	<ul style="list-style-type: none"> Internal 12V circuit failure. Controller board failed.
Action	Replace the controller.

19.33 : MAIN POWER OFF

Code : &H1321

Meaning/Cause	<ul style="list-style-type: none"> a. AC power line voltage is less than 100V (when 200V is selected). b. AC power line voltage is less than 40V (when 100V is selected). c. Power supply voltage setting (200V/100V) is incorrect. d. Controller failed.
Action	<ul style="list-style-type: none"> 1. Use the correct AC line voltage. 2. Use the correct AC line voltage. 3. Check the wiring on the input voltage select terminals. 4. Replace the controller.

19.34 : LOW VOLTAGE

Code : &H1322

Meaning/Cause	a. AC line voltage is low. b. Power supply voltage setting (200V/100V) is incorrect.
Action	1. Use the correct AC line voltage. 2. Check the wiring on the input voltage select terminals.

19.35 : DRIVER DISCONNECT

Code : &H1323

Meaning/Cause	Driver board connection failure
Action	Replace the controller.

19.40 : ABS.OS ERROR

Code : &H1328

Meaning/Cause	—
Action	—

19.41 : ABS.RO ERROR

Code : &H1329

Meaning/Cause	ROB I/O cable broke during power-off.
Action	—

19.42 : ABS.RE ERROR

Code : &H132A

Meaning/Cause	ROB I/O cable broke during power-on.
Action	—

19.43 : ABS.OF ERROR

Code : &H132B

Meaning/Cause	—
Action	—

19.44 : ABS.ME ERROR

Code : &H132C

Meaning/Cause	—
Action	—

19.45 : ABS.BAT ERROR

Code : &H132D

Meaning/Cause	Absolute battery voltage is less than 2.5V.
Action	Replace the absolute battery.

[20] iVY system errors

20.0 : Vision not installed

Code : &H1400

Meaning/Cause	No robot vision function settings.
Action	Check to see if the iVY board is properly connected.

20.1 : Vision init. error

Code : &H1401

Meaning/Cause	Error occurred during iVY board initial processing.
Action	Contact your distributor with details of the problem.

20.2 : Vision control mode error

Code : &H1402

Meaning/Cause	Vision system robot language commands and parameter changes, etc., are not possible in the "Host PC" vision control mode.
Action	Switch to the "Controller" vision control mode.

20.3 : Vision camera disconnected

Code : &H1403

Meaning/Cause	Camera recognition problem.
Action	<ol style="list-style-type: none"> 1. Check the camera cable connection. 2. Check the camera channel. 3. Check for severed/disconnected camera cable. 4. Check power supply wiring for the iVY board.

20.4 : Vision undefined error

Code : &H1404

Meaning/Cause	"Undefined" error occurred at iVY board.
Action	Contact your distributor with details of the problem.

20.5 : Vision not ready

Code : &H1405

Meaning/Cause	iVY board startup is in progress.
Action	Do not attempt operation until the iVY board's board status LED (green) changes from a "blinking" to "constant on" (not blinking) condition.

20.7 : Vision hardware error

Code : &H1407

Meaning/Cause	Hardware error occurred at the iVY board.
Action	Contact your distributor with details of the problem.

20.8 : Vision calibration error

Code : &H1408

Meaning/Cause	Error occurred during camera calibration.
Action	<ol style="list-style-type: none"> 1. Check to see if fiducial marks have been registered. 2. Check to see if fiducial marks are being recognized properly. 3. Check the calibration settings.

20.9 : Vision calibration in prog.

Code : &H1409

Meaning/Cause	Switching to the "Host PC" vision control mode is not possible during camera calibration.
Action	Switch the mode after camera calibration is completed.

20.10 : Vision calibration not set

Code : &H140A

Meaning/Cause	Incorrect calibration number specified.
Action	<ol style="list-style-type: none"> 1. Change the specified calibration number. 2. Perform a camera calibration setting operation.

20.11 : Vision calib. data type error

Code : &H140B

Meaning/Cause	Mismatch between calibration data and the robot configuration.
Action	<ol style="list-style-type: none"> 1. Check the specified calibration number. 2. Specify the calibration setting operation again.

20.12 : Vision calib. data destroyed

Code : &H140C

Meaning/Cause	Calibration data error occurred.
Action	Contact your distributor with details of the problem.

20.13 : Vision no pattern data

Code : &H140D

Meaning/Cause	No model has been registered for the specified model number.
Action	<ol style="list-style-type: none"> 1. Change the specified model number. 2. Register the model.

20.14 : Vision trigger timeout

Code : &H140E

Meaning/Cause	Trigger timeout occurred.
Action	<ol style="list-style-type: none"> 1. Check the "Trigger timeout (9. Trigger timeout [sec])" setting in iVY board's parameter data. 2. Check the camera trigger input cable wiring and connection. 3. Check for severed/disconnected camera trigger input cable.

20.15 : Vision Disk full

Code : &H140F

Meaning/Cause	iVY board's disk is full.
Action	Read out image data and erase unnecessary data from the iVY board.

20.16 : Vision parameter error

Code : &H1410

Meaning/Cause	Incorrect parameter value specified.
Action	Change the specified parameter value.

20.17 : Vision search timeout

Code : &H1411

Meaning/Cause	Search ended due to timeout.
Action	Change the timeout setting for the specified model.

20.50 : V_Plus not installed

Code : &H1432

Meaning/Cause	No settings are made for the lighting control function and/or conveyor tracking function.
Action	Check whether the lighting control board and tracking board are correctly connected.

20.51 : V_Plus Watchdog error

Code : &H1433

Meaning/Cause	Lighting control board or tracking board operation is abnormal. Bits which should be reversed periodically are not being reversed due to a stopped clock or CPLD freeze, etc.
Action	Perform a restart power. If the restart fails to restore a normal condition, check the board connection condition and the board recognition at the programming box.

20.52 : V_Plus counter wire breakage

Code : &H1434

Meaning/Cause	Disconnected encoder input cable detected.
Action	Set unused encoder input channels to "INVALID". Verify that the cable connector is not disconnected or severed. Check to see if the encoder is operating normally.

20.53 : V_Plus Tracking error

Code : &H1435

Meaning/Cause	Tracking was attempted during tracking.
Action	Review the robot program and change it so that the CTMOVE statement will not be executed during tracking.

20.54 : V_Plus Not Tracking error

Code : &H1436

Meaning/Cause	A command that should be executed during tracking was executed while tracking is not in progress.
Action	Review the robot program and change it so that the command will be executed during tracking.

20.55 : V_Plus not have Z Axis error

Code : &H1437

Meaning/Cause	The CTDRIVE statement was executed for the robot with no Z-axis.
Action	Change the main robot setting to a robot with the third axis.

20.56 : V_Plus parameter error

Code : &H1438

Meaning/Cause	The lighting control board parameter and/or tracking board parameter are incorrect.
Action	Initialize the parameters and set them correctly.

20.57 : V_Plus calibration not set

Code : &H1439

Meaning/Cause	Conveyor calibration data is not set.
Action	Set the conveyor calibration data and re-execute calibration.

20.58 : V_Plus out of Tracking work area

Code : &H143A

Meaning/Cause	Tracking was attempted after the first point data in the position monitoring array has passed the work area.
Action	Use the CRMVQUE command to delete the data that indicates the first point data in the position monitoring array has passed the work area, and then review the robot program and change it so that the CTMOVE statement will be executed.

20.59 : V_Plus Tracking queue empty

Code : &H143B

Meaning/Cause	Tracking was attempted while no data is registered in the position monitoring array.
Action	Use the CADDQUE command to add data to the position monitoring array, and then review the robot program and change it so that the CTMOVE statement will be executed.

[21] Major software errors**21.1 : System error (JOG)**

Code : &H1501

Meaning/Cause	Software error occurred.
Action	Contact your distributor with details of this problem.

21.2 : System error (srvmod)

Code : &H1502

Meaning/Cause	Software error occurred.
Action	Contact your distributor with details of this problem.

21.3 : System error (TaskID)

Code : &H1503

Meaning/Cause	Software error occurred.
Action	Contact your distributor with details of this problem.

21.4 : System error (drcom)

Code : &H1504

Meaning/Cause	Software error occurred.
Action	Contact your distributor with details of this problem.

21.5 : System error (drmod)

Code : &H1505

Meaning/Cause	Software error occurred.
Action	Contact your distributor with details of this problem.

21.6 : System error (Gen.Data)

Code : &H1506

Meaning/Cause	Software error occurred.
Action	Contact your distributor with details of this problem.

21.10 : Watchdog error (CPU)

Code : &H150A

Dedicated output : *1

Meaning/Cause	a. CPU malfunctioned due to external noise. b. Controller is defective.
Action	1. Turn the power off and then on again. 2. Replace the controller.

21.11 : System error (EmgHalt)

Code : &H150B

Meaning/Cause	Software error occurred.
Action	Contact your distributor with details of this problem.

21.12 : System error (RTOS)

Code : &H150C

Meaning/Cause	Software error occurred.
Action	Contact your distributor with details of this problem.

21.13 : System error (CRFPOS)

Code : &H150D

Meaning/Cause	Current position of driver does not match the instructed position.
Action	1. Replace the driver. 2. Replace the controller.

21.14 : DPRAM error (PTP data)

Code : &H150E

Meaning/Cause	Failed to write PTP command data into driver.
Action	1. Replace the driver. 2. Replace the controller.

21.15 : System error (Gripper)

Code : &H150F

Meaning/Cause	Software error occurred.
Action	Contact your distributor with details of this problem.

21.16 : System error (EherNet/IP)

Code : &H1510

Meaning/Cause	Software error occurred.
Action	Contact your distributor with details of this problem.

21.41 : System error (EXCEPTION)

Code : &H1529

This error requires replacing CPU board

Meaning/Cause	Software error occurred.
Action	Contact your distributor with details of this problem.

[22] Major hardware errors**22.1 : AC power low**

Code : &H1601

Dedicated output : *1

Meaning/Cause	a. AC supply voltage of control power supply dropped below 85% of rated voltage. b. Power source has insufficient capacity.
Action	1. Check the AC supply voltage. 2. Check if supply voltage drops during robot operation. 3. Lower the robot duty cycle.

**CAUTION**

This error always occurs when the power is cut off.

22.3 : DC24V power low

Code : &H1603

Dedicated output : *1

Meaning/Cause	a. 24V DC power supply malfunctioned and the voltage dropped. b. Electromagnetic brake for vertical axis is defective. c. Wiring for electromagnetic brake of vertical axis is shorted. d. Short in 24V DC for safety connector.
Action	1. Replace the controller. 2. Replace the vertical axis electromagnetic brake. 3. Replace the ROB I/O cable. 4. Check the SAFETY connector wiring.

22.9 : Abnormal over voltage

Code : &H1609

Meaning/Cause	a. Output voltage for motor power supply exceeded 420 volts. b. Regenerative unit not connected to controller. c. Regenerative unit safety device triggered due to temperature rise (120°C or more) in regeneration damping resistor. d. Cable connecting regenerative unit and controller is defective. e. Regenerative unit is defective. f. Safety connector is used incorrectly.
Action	1. Check the power supply voltage. 2. Connect the regenerative unit. 3. Lower the robot operating duty. 4. Replace the RGEN cable. 5. Replace the regenerative unit. 6. Do not supply 24V DC to SAFETY connector from external source.

22.10 : Abnormal drop in voltage

Code : &H160A

Meaning/Cause	a. Output voltage for motor power supply dropped below 140V. b. Power supply has insufficient capacity. c. Vertical axis electromagnetic brake is defective. d. SAFETY connector is used incorrectly.
Action	1. Check the power supply voltage. 2. Check if supply voltage drops during robot operation. 3. Lower the robot duty cycle. 4. Replace the vertical axis electromagnetic brake. 5. Do not supply 24V DC to SAFETY connector from external source. 6. Do not use 24V DC from SAFETY connector as power source for driving external loads.

22.12 : Abnormal temperature

Code : &H160C

Dedicated output : *1

Meaning/Cause	Controller internal temperature rose to 60°C or more.
Action	1. Improve the operating environment. 2. Check if the cooling fan is operating correctly. 3. Replace the controller.

22.13 : Bus interface overtime

Code : &H160D

Dedicated output : *1

Meaning/Cause	Could not acquire access rights to dual port RAM.
Action	Replace the controller.

22.14 : Abnormal DRIVER unit error

Code : &H160E

Dedicated output : *1

Meaning/Cause	Error occurred in hardware.
Action	Contact your distributor with details of the problem.

22.20 : DRIVER unit disconnected

Code : &H1614

Dedicated output : *1

Meaning/Cause	a. CPU unit could not recognize driver unit. b. Dual port RAM is defective.
Action	Replace the controller.

22.30 : DRIVER unit abnormality

Code : &H161E

Dedicated output : *1 or *2

Meaning/Cause	a. Wrong DIP switch setting on drive unit. b. Drive unit not operating correctly. c. Dual port RAM is defective.
Action	Replace the controller.

22.40 : PCMCIA interface overtime

Code : &H1628

Dedicated output : *1

Meaning/Cause	Failed to acquire access privilege for PCMCIA interface.
Action	1. Replace the PCMCIA interface driver. 2. Replace the controller.

22.41 : OPT.1 interface overtime

Code : &H1629

Dedicated output : *1

Meaning/Cause	Failed to acquire access privilege for interface with option board connected to option slot 1.
Action	1. Replace the option board connected to option slot 1. 2. Replace the controller.

22.42 : OPT.2 interface overtime

Code : &H162A

Dedicated output : *1

Meaning/Cause	Failed to acquire access privilege for interface with option board connected to option slot 2.
Action	1. Replace the option board connected to option slot 2. 2. Replace the controller.

22.43 : OPT.3 interface overtime

Code : &H162B

Dedicated output : *1

Meaning/Cause	Failed to acquire access privilege for interface with option board connected to option slot 3.
Action	1. Replace the option board connected to option slot 3. 2. Replace the controller.

22.44 : OPT.4 interface overtime

Code : &H162C

Dedicated output : *1

Meaning/Cause	Failed to acquire access privilege for interface with option board connected to option slot 4.
Action	1. Replace the option board connected to option slot 4. 2. Replace the controller.

22.45 : DRIVER interface overtime

Code : &H162D

Dedicated output : *1

Meaning/Cause	Failed to acquire access privilege for interface with driver.
Action	1. Replace the driver. 2. Replace the controller.

22.50 : YC-Link disconnect

Code : &H1632

Meaning/Cause	The secondary station connection test failed at primary station startup. a. The secondary station power is OFF. b. The YC-link communication cable and terminal resistor are disconnected. c. The secondary station's "station No." setting is incorrect.
Action	1. Configure so that the secondary station power switches ON before or simultaneously with the primary station power ON. 2. Verify that the YC-link cable and the terminal resistor are connected. 3. Check the station No. settings.

22.51 : YC-Link error

Code : &H1633

Meaning/Cause	The secondary station failed to start properly. a. Secondary station communication failure.
Action	Verify that the YC-link cable and the terminal resistor are connected.

22.52 : YC-Link type error

Code : &H1634

Meaning/Cause	Mismatch between the secondary station specifications and the setting. a. The secondary station controller (SR1) specification (SR1-X/SR1-P) or the current sensor specification has been changed (controller was replaced).
Action	1. Check the connected SR1 type, and the current sensor specification. 2. Verify that the station No. setting is correct. 3. Perform a system generation.

22.53 : YC-Link robot-type error

Code : &H1635

Meaning/Cause	Mismatch between the secondary station robot No. and the setting. a. The secondary station controller setting was changed, or the controller was replaced.
Action	1. Verify that the correct SR1 is connected. 2. Verify that the station No. setting is correct. 3. Perform a system generation.

22.54 : YC-Link parameter error

Code : &H1636

Meaning/Cause	Mismatch between the secondary station parameter and the setting. a. The secondary station parameter setting was changed, or the controller was replaced.
Action	1. Verify that the correct SR1 is connected. 2. Verify that the station No. setting is correct. 3. Perform a system generation.

22.55 : YC-Link network error

Code : &H1637

Meaning/Cause	The secondary station failed to reply. a. The communication cable is disconnected. b. The communication is malfunctioning due to noise. c. A serious failure has occurred at the secondary station controller.
Action	1. Verify that the communication cable is connected. 2. Implement noise countermeasures. 3. Check the secondary station controller's condition.

22.56 : YC-Link Emg. stop on

Code : &H1638

Meaning/Cause	The secondary station is in emergency stop.
Action	Release the secondary station emergency stop.

22.70 : Gripper disconnect

Code : &H1646

Meaning/Cause	It was attempted to execute a gripper dedicated robot language command even though the gripper option was not set.
Action	Set the gripper option.

22.71 : Gripper timeout error

Code : &H1647

Meaning/Cause	Execution of the command sent to the gripper control board ended due to timeout.
Action	Contact your distributor with details of this problem.

22.72 : Gripper cannot get error

Code : &H1648

Meaning/Cause	It was failed to obtain the error that occurred in the gripper main body.
Action	Contact your distributor with details of this problem.

22.73 : Gripper not initialized

Code : &H1649

Meaning/Cause	The gripper initial setting was not complete.
Action	Execute the initial setting of the gripper axis using the generation.

22.74 : Gripper DC24V power low

Code : &H164A

Meaning/Cause	The 24V DC power voltage of the gripper dropped.
Action	Check the 24V DC power voltage.

[26] Alarm messages occurred in electric gripper main body (Fatal error)**26.1 : Gripper Over load**

Code : &H1A01

Meaning/Cause	The motor overload occurred. a. The motor was faulty. b. The parameter was faulty. c. The capacity of the power line was insufficient. d. The friction of the machine main body was large.
Action	1. If a symptom, such as excessively heavy motion is found when the motor is moved manually, replace the motor. 2. Initialize the parameters. 3. Check the power capacity. If the power capacity is insufficient, adjust the power voltage to its correct range. 4. Check the movable part of the mechanical part for heavy motion. If the motion is excessively heavy, make the readjustment.

26.2 : Gripper Over current

Code : &H1A02

Meaning/Cause	The motor overcurrent occurred. a. The motor cable was short-circuited. b. The gripper control board was faulty. c. The parameter was faulty.
Action	1. Inspect the electric continuity of the motor cable. If any fault is found, replace the motor. 2. Replace the gripper control board. 3. Initialize the parameters.

26.3 : Gripper Machine reference over

Code : &H1A03

Meaning/Cause	The encoder Z-phase position deviated from the initial value stored in the controller. a. The gripper main body was replaced. b. The finger with the setting on the origin close side was replaced. c. The CPU board in the RCX240 controller was replaced. d. The CPU software version for the RCX240 controller was changed. e. Struck an obstacle while returning to the origin point. f. The encoder Z-phase had faulty wiring or malfunctioned. g. The gripper drive section or transmission section malfunctioned.
Action	1. Perform the return-to-origin again. 2. Remove the obstacle and perform the return-to-origin again. 3. Replace the gripper main body.

26.4 : Gripper Power supply voltage low

Code : &H1A04

Meaning/Cause	The DC power voltage dropped to 80% or less of the rated value.
Action	Check the power capacity. If the power capacity is insufficient, adjust the power voltage to its correct range.

26.6 : Gripper P.E. Counter over

Code : &H1A06

Meaning/Cause	a. Mechanical lock occurred in the gripper drive part. b. The motor cable had faulty wiring or incorrect wiring. c. The parameter was faulty.
Action	1. Check the gripper drive part for mechanical lock. 2. Check the motor and encoder cable connections. 3. Initialize the parameters.

26.7 : Gripper Internal fault

Code : &H1A07

Meaning/Cause	Error occurred inside the gripper control board.
Action	Contact your distributor with details of this problem.

26.8 : Gripper 24V Power off

Code : &H1A08

Meaning/Cause	<ol style="list-style-type: none"> 24V DC power cable was not connected. 24V DC power was not supplied. 24V DC power cable had faulty wiring.
Action	<ol style="list-style-type: none"> Check the 24V DC power cable connection. Check the 24V DC power. Check the 24V DC power cable.

26.9 : Gripper System fault 1

Code : &H1A09

Meaning/Cause	The software entered the runaway status due to external noise.
Action	Contact your distributor with details of this problem.

26.10 : Gripper Feedback error 1

Code : &H1A0A

Meaning/Cause	<ol style="list-style-type: none"> The finger overrun the software limit due to external force. The encoder counting was incorrect due to external noise.
Action	<ol style="list-style-type: none"> Turn on the power to check that no external force is applied. After that, perform the return-to-origin. Contact your distributor with details of this problem.

26.11 : Gripper Feedback error 2

Code : &H1A0B

Meaning/Cause	<ol style="list-style-type: none"> The encoder cable has faulty wiring. The guide block was locked.
Action	<ol style="list-style-type: none"> Check the encoder cable connections. Unlock the guide block.

26.12 : Gripper Abnormal voltage

Code : &H1A0C

Meaning/Cause	<ol style="list-style-type: none"> The power voltage increased by regeneration. The 24V DC power voltage was incorrect.
Action	<ol style="list-style-type: none"> Decrease the duty of the mechanism part. Check the capacity of the 24V DC power supply. If the capacity is insufficient, adjust the power voltage to its correct range.

26.13 : Gripper System fault 2

Code : &H1A0D

Meaning/Cause	The software entered the runaway status due to external noise.
Action	Contact your distributor with details of this problem.

26.14 : Gripper Feedback error 3

Code : &H1A0E

Meaning/Cause	The motor cable had faulty wiring or incorrect wiring.
Action	Check the motor cable connections.

[27] Error messages occurred in electric gripper main body

27.32 : Gripper Soft limit over

Code : &H1B20

Meaning/Cause	The operation position exceeded the software limit set by the parameter.
Action	1. Change the operation position to put it within a software limit area. 2. Change the software limit value. 3. Change the limit width.

27.35 : Gripper Origin incomplete

Code : &H1B23

Meaning/Cause	The return-to-origin was not performed.
Action	Perform the return-to-origin to put the gripper in the return-to-origin completion status.

27.36 : Gripper Servo off

Code : &H1B24

Meaning/Cause	A movement command was executed in the servo OFF status.
Action	Turn on the servo.

27.37 : Gripper Interlock

Code : &H1B25

Meaning/Cause	It was attempted to execute a program or move an axis in the interlock status.
Action	Reset the interlock and execute the program or move the axis.

27.50 : Gripper Data error

Code : &H1B32

Meaning/Cause	The option data, such as movement command to be sent to the gripper control board exceeded the input range.
Action	Restart the system generation.

27.51 : Gripper type error

Code : &H1B33

Meaning/Cause	It was attempted to initialize with an unspecified actuator type.
Action	Enter a correct value for the gripper axis number.

27.52 : Gripper Internal failure

Code : &H1B34

Meaning/Cause	a. The 24V DC power was not turned on. b. An error occurred in the gripper control board.
Action	1. Check the 24V DC power. 2. Contact your distributor with details of this problem.
