Troubleshooting

1. Alarm messages

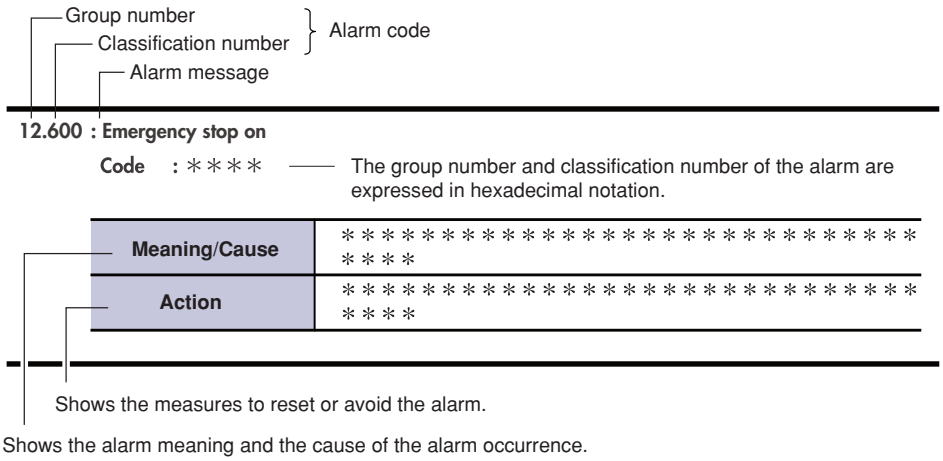
1.1 Alarm messages related to the controller

If an alarm occurs, a relevant alarm code is shown on the 7-segment LED on the front of the controller, and a relevant alarm code and message appears on the screen of the programming box.
The alarm code consists of two elements, "group" and "classification". Each code is classified as follows.

XX. YYY

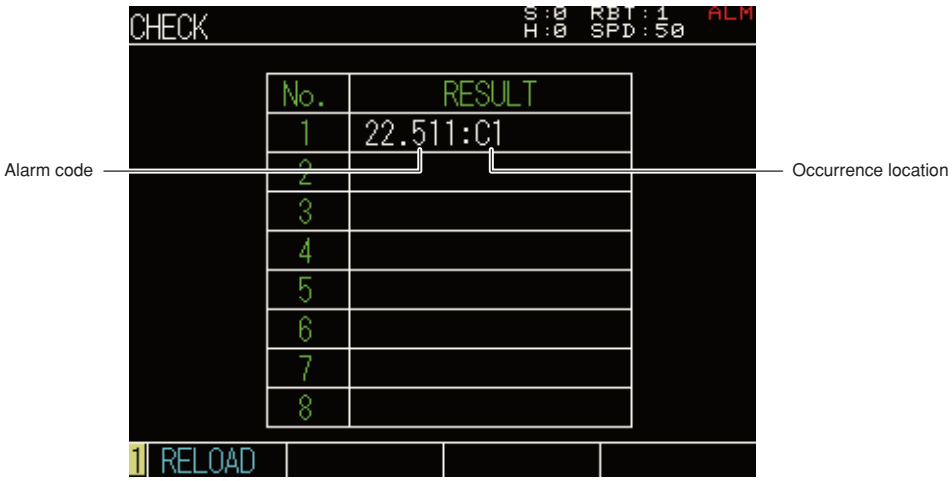
- Classification number ・・・Classified by the axis operation or resetting procedure if an alarm occurs.
- Group number ・・・Classified into groups [0] to [30] according to the alarm contents.

[Error message display format]



* The alarm occurrence status and alarm history can be checked from the programming box.
Information on the alarm occurrence location (axis, option unit, and so on) may be added.

■ Checking the alarm occurrence status



Alarm occurrence location list

T*	Task *... Task number
SYS	Startup, memory check, generation
ONL	Online command
RMT	Remote command
SEQ	Sequence program
SIN	Standard input
C*	Controller *... Controller number
C*O*	Option board *... Controller number, option slot number
R*/R*A*	Robot, axis *... Robot number, axis number
M*/C*M*	Physical motor *... Controller number, motor number

For example, when "17.403:M1" is displayed, this shows that the position reset position error occurs in motor 1. In the same manner, when "14.400:T02" is displayed, this shows that the communication shutdown error occurs in task 2.

1.1.1 Alarm group number list

The alarm message is classified into groups [0] to [30] according to the alarm contents.
The contents of each group are shown below.

Group number	Contents
[0]	Operation messages
[1]	System events
[2]	Alarm related to the robot movement range
[3]	Alarm related to the program file operation
[4]	Alarm related to the data input
[5]	Operation alarm related to the syntax of the robot language (compile)
[6]	Alarm related to the robot language execution
[7]	(Not used.)
[8]	(Not used.)
[9]	Alarm related to the memory
[10]	Alarm related to the environment and general hardware
[11]	(Not used.)
[12]	Alarm related to the option board
[13]	(Not used.)
[14]	Alarm related to the communication
[15]	(Not used.)
[16]	(Not used.)
[17]	Alarm related to the motor control
[18]	(Not used.)
[19]	Alarm related to the YC-Link/E
[20]	Alarm related to the iVY2 system
[21]	Serious software alarm
[22]	Serious hardware alarm
[23]	(Not used.)
[24]	(Not used.)
[25]	(Not used.)
[26]	Alarm related to the gripper
[27]	(Not used.)
[28]	Alarm related to the driver I/F
[29]	(Not used.)
[30]	(Not used.)

1.1.2 Alarm classification number list

Alarm code	Type	Axis operation in case of error	History	LED display	Reset method	Example
0	Correct	–	–	Not displayed	–	–
1 to 99	Message				Restart operation	HALT, HOLD, Break point, Key release
100 to 199			Save			CPU start
200 to 399	Operation error	Individual operation stop			Restart corresponding operation	No point
400 to 499		Operation stop		Display		Interlock
500 to 599	External error				Reset command	PIO24V off, SIO link error
600 to 699		Servo brake				Emergency stop, Main power off
700 to 799	Internal error	Operation stop				Fan error
800 to 899		Servo brake				Overload
900 to 999		Immediate servo off			Restart system	Over-current, Driver communication failure

1.1.3 Warning number list

Warning number	Type	Axis operation in case of error	History	LED display	Reset method	Example
c1 to c99	General warning	–	–	Warning ⇔ Status	Remove the warning cause.	Overload warning

[0] Operation messages

0.0 : OK

Code : &H0000 &H0000

Meaning/Cause	Correct status. No alarm occurs.
Action	—

0.2 : Running

Code : &H0000 &H0002

Meaning/Cause	A program or command is running.
Action	—

0.5 : Busy

Code : &H0000 &H0005

Meaning/Cause	The data is being saved.
Action	—

0.8 : Try again

Code : &H0000 &H0008

Meaning/Cause	The operation failed.
Action	Try again.

0.19 : Can't edit

Code : &H0000 &H0013

Meaning/Cause	The read-only file is being edited.
Action	Change the file attribute.

0.20 : Illegal command in this mode

Code : &H0000 &H0014

Meaning/Cause	The specified online command cannot be executed in the current mode.
Action	Change the mode.

0.21 : No control right

Code : &H0000 &H0015

Meaning/Cause	The operation cannot be executed because of the control setting.
Action	Change the control setting properly with the programming box.

0.22 : Not be execute by the safety setting

Code : &H0000 &H0016

Meaning/Cause	The command cannot be executed since the SAFETY setting is "INVALID".
Action	Set the target item in the SAFETY setting to "VALID".

0.23 : No right of PRINT/INPUT

Code : &H0000 &H0017

Meaning/Cause	The "PRINT/INPUT" statement was executed without setting.
Action	Change the setting of "PRINT/INPUT using channel" of the controller parameter.

[1] System events

1.1 : Program terminated by "CUT"

Code : &H0001 &H0001

Meaning/Cause	The program execution was terminated by the "CUT" command.
Action	—

1.2 : Program terminated by "EXIT TASK"

Code : &H0001 &H0002

Meaning/Cause	The program execution was terminated by the "EXIT TASK" command.
Action	—

1.3 : Program terminated by "HALTALL"

Code : &H0001 &H0003

Meaning/Cause	The program execution was terminated by the "HALTALL" command.
Action	—

1.4 : Program ended by "HALTALL"

Code : &H0001 &H0004

Meaning/Cause	The program execution was terminated by the "HALTALL" command.
Action	—

1.5 : Program ended by "HALT"

Code : &H0001 &H0005

Meaning/Cause	The program execution was terminated by the "HALT" command.
Action	—

1.6 : Program stopped by "HOLDALL"

Code : &H0001 &H0006

Meaning/Cause	The program execution was stopped by the "HOLDALL" command.
Action	The stop status is canceled by pressing the RUN key and the program execution restarts from the next command.

1.7 : Program stopped by "HOLD"

Code : &H0001 &H0007

Meaning/Cause	The program execution was stopped by the "HOLD" command.
Action	The stop status is canceled by pressing the RUN key and the program execution restarts from the next command.

1.8 : Stop executed

Code : &H0001 &H0008

Meaning/Cause	The program/command execution was stopped by external stop command.
Action	—

1.9 : Arrived at debug

Code : &H0001 &H0009

Meaning/Cause	• The program in execution reached the break point and stopped. • The program executed by the "RUNTO" command reached the specified line and stopped. • One line of the program was executed and stopped by the "STEP/NEXT" command.
Action	—

1.10 : Changed control right

Code : &H0001 &H000A

Meaning/Cause	The operation stopped since the control setting was changed.
Action	Change the control setting to "RELEASE" with the programming box.

1.11 : Stop other task alarm

Code : &H0001 &H000B

Meaning/Cause	The program execution was stopped since an alarm occurred in other task.
Action	Remove the alarm cause.

1.12 : Program stopped by key release

Code : &H0001 &H000C

Meaning/Cause	The RUN key was released in the "Hold To Run" enable status.
Action	—

1.13 : Changed PRINT/INPUT right

Code : &H0001 &H000D

Meaning/Cause	The operation stopped since the "PRINT/INPUT using channel" was changed.
Action	Change the setting of "PRINT/INPUT channel in use" of the controller parameter.

1.100 : CPU normal start

Code : &H0001 &H0064

Meaning/Cause	Start-up checks and initialization ended and controller operation started normally.
Action	—

[2] Alarm related to the robot operation

2.300 : Std. coord. doesn't exist

Code : &H0002 &H012C

Meaning/Cause	The standard coordinates are not set.
Action	• Set the standard coordinates. • Set the "Arm length" and "Offset pulse" of the axis parameter.

2.301 : Coordinate cal. failed

Code : &H0002 &H012D

Meaning/Cause	a. The standard coordinate setting is not correct. b. The operating position is out of the movement range.
Action	a. Set the standard coordinates correctly. b. Change the operating position within the movement range.

2.303 : Shift cal. failed

Code : &H0002 &H012F

Meaning/Cause	Preset calculation for the shift setting is not functioning.
Action	Set the shift coordinates correctly.

2.304 : Hand cal. failed

Code : &H0002 &H0130

Meaning/Cause	a. Preset calculation for the hand definition setting is not functioning. b. Multiple axes with the same coordinate attribute were operated simultaneously when specifying the hand R.
Action	a. Set the hand definitions correctly. b. Set the specified axis of the movement command correctly when specifying the hand R.

2.305 : Illegal Pallet parameter

Code : &H0002 &H0131

Meaning/Cause	Preset calculation for the pallet setting is not functioning.
Action	Set the pallet definition correctly.

2.306 : Movable range cal. failed

Code : &H0002 &H0132

Meaning/Cause	a. Preset calculation for the movement path setting is not functioning. b. The current position is not within the movement range.
Action	a. Change to the correct movement point. b. Change the current position to within the movement range.

2.307 : Overlap soft limit

Code : &H0002 &H0133

Meaning/Cause	On SCARA type robots, the total of the absolute values of the X or Y-axis plus soft limit and minus soft limit becomes the value to move the arm one or more rotation.
Action	Set the soft limit values so that the arm movement range becomes one rotation or less.

2.308 : X exceeded shift coord. range

Code : &H0002 &H0134

Meaning/Cause	X-axis exceeded the shift coordinate range.
Action	• Change the operation position to the inside of the shift coordinate range. • Change the shift coordinate range.

2.309 : Y exceeded shift coord. range

Code : &H0002 &H0135

Meaning/Cause	Y-axis exceeded the shift coordinate range.
Action	• Change the operation position to the inside of the shift coordinate range. • Change the shift coordinate range.

2.310 : Z exceeded shift coord. range

Code : &H0002 &H0136

Meaning/Cause	Z-axis exceeded the shift coordinate range.
Action	• Change the operation position to the inside of the shift coordinate range. • Change the shift coordinate range.

2.311 : R exceeded shift coord. range

Code : &H0002 &H0137

Meaning/Cause	R-axis exceeded the shift coordinate range.
Action	• Change the operation position to the inside of the shift coordinate range. • Change the shift coordinate range.

2.314 : Arch condition bad

Code : &H0002 &H013A

Meaning/Cause	The arch position and arch distance of the arch option are set in “mm” units on the arch motion command for X and Y-axis on SCARA type robots.
Action	Set the arch position and arch distance of the arch option in "pulse" units.

2.318 : Arm length is 0

Code : &H0002 &H013E

Meaning/Cause	The arm length is set is "0" on SCARA type robots.
Action	• Set the standard coordinates. • Set the "Arm length" of the axis parameter.

2.319 : Cannot move (RIGHTY to LEFTY)

Code : &H0002 &H013F

Meaning/Cause	The interpolation movement to the target point whose hand system is set to "LEFT" was attempted when the hand system is set to "RIGHT" on the SCARA type robots.
Action	Check the current hand system and hand system flag of the point data.

2.320 : Cannot move (LEFTY to RIGHTY)

Code : &H0002 &H0140

Meaning/Cause	The interpolation movement to the target point whose hand system is set to "RIGHT" was attempted when the hand system is set to "LEFT" on the SCARA type robots.
Action	Check the current hand system and hand system flag of the point data.

2.321 : Cannot use TOOL coord.

Code : &H0002 &H0141

Meaning/Cause	The hand data is not set.
Action	Set the hand data.

2.326 : Exceeded velocity

Code : &H0002 &H0146

Meaning/Cause	The interpolation operation speed exceeded the specified level.
Action	Change the specified speed.

2.327 : Circular arc cal. failed

Code : &H0002 &H0147

Meaning/Cause	The circular interpolation operation point is incorrect.
Action	• Set the correct point data. • Specify the correct circular arc plane option of the circular interpolation movement. • Set the correct specified axis of the circular interpolation movement.

2.328 : Circular arc restart failed

Code : &H0002 &H0148

Meaning/Cause	Stop position of the "MOVE C" command was different from the restart position.
Action	Set the stop position same as the restart position.

2.329 : Same point exists

Code : &H0002 &H0149

Meaning/Cause	• Two or three points of the “MOVE C” command three points are same. • Same points are consecutive on the path of PATH motion.
Action	Set the correct points.

2.330 : 3 points on line

Code : &H0002 &H014A

Meaning/Cause	Three points of one "MOVE C" command were placed on a straight line.
Action	Change the three points of the "MOVE C" command so that they are not on the same straight line.

2.331 : Circular arc radius too small

Code : &H0002 &H014B

Meaning/Cause	The "MOVE C" command radius is less than 0.1 mm.
Action	Change the "MOVE C" command to 0.1 mm or more for circular arc radius.

2.332 : Circular arc radius too large

Code : &H0002 &H014C

Meaning/Cause	The "MOVE C" command radius exceeded 5000 mm (5 meters).
Action	Change the "MOVE C" command to within 5000 mm (5 meters) for circular arc radius.

2.333 : Too low speed

Code : &H0002 &H014D

Meaning/Cause	The movement time exceeded 60 minutes since the specified speed was too low.
Action	Increase the specified speed or shorten the distance so that the movement time becomes within 60 minutes.

2.334 : Over soft limit

Code : &H0002 &H014E

Meaning/Cause	The value of the target position exceeded the soft limit specified in the parameter.
Action	• Change the operating position to within the soft limits. • Change the soft limit value.

2.335 : Over movable range

Code : &H0002 &H014F

Meaning/Cause	There is a point outside the movement range on the movement path.
Action	Specify the movement path to be within the movement range.

2.336 : ZR Torque origin failed

Code : &H0002 &H0150

Meaning/Cause	Return-to-origin with ZR-stroke end method failed.
Action	Change the R-axis dog length.

2.337 : Illegal DRIVE XY axes

Code : &H0002 &H0151

Meaning/Cause	X or Y-axis point is not specified when using the XY designation option of the "DRIVE" command.
Action	Specify the X or Y-axis point when using the XY designation option of the "DRIVE" command.

2.338 : PATH execute error

Code : &H0002 &H0152

Meaning/Cause	a. The PATH motion cannot be executed. b. The acceleration/deceleration zone distance is too short. c. The speed is too high at the position where the direction changes.
Action	a. Reduce the speed setting. b. Lengthen the straight line or circular arc distance containing acceleration/deceleration. c. Set the speed so that the direction at the connection point of straight lines does not change greatly.

2.339 : Start position changed by other task

Code : &H0002 &H0153

Meaning/Cause	The start position was changed by other tasks.
Action	Check the start position of the target task and change the position as needed.

2.340 : Target position changed by other task

Code : &H0002 &H0154

Meaning/Cause	The target position was changed by other tasks.
Action	Check the target position of the target task and change the position as needed.

2.341 : Illegal axes (R axis shift exist)

Code : &H0002 &H0155

Meaning/Cause	The operation was executed with specifying either X or Y-axis while selecting the shift coordinates for the R-axis rotation.
Action	Change the program so that the operation is executed with specifying both X and Y-axis.

2.342 : Illegal hand type

Code : &H0002 &H0156

Meaning/Cause	The hand definition of R-axis attachment was used to the robot without R-axis attachment.
Action	• Change to the hand definition of Y-axis attachment. • Quit to use the hand definition.

2.343 : Illegal axes (R selected hand)

Code : &H0002 &H0157

Meaning/Cause	a. Tool coordinate jog operation was executed for the auxiliary axis. b. Tool coordinate jog operation was executed while "R-axis orientation hold" is invalid.
Action	a. The auxiliary axis cannot be jog-operated on tool coordinate. b. Set "R-axis orientation hold" of the robot parameter to "VALID".

2.344 : Can't move (Different rotation)

Code : &H0002 &H0158

Meaning/Cause	Interpolation movement where the arm rotation information on the start position is different from that on the target position is executed by YK-TW series, the orbit type SCARA robot.
Action	Check the arm rotation information on the start point and that of the point data.

2.345 : Illegal soft limit

Code : &H0002 &H0159

Meaning/Cause	On YK-TW series, the orbit type SCARA robot, the total of the plus soft limit absolute value and minus soft limit absolute value of the X or Y-axis exceeds the movement range of the arm.
Action	Set the soft limit values so that the total value is within the movement range of the arm.

2.346 : Illegal axes (tracking)

Code : &H0002 &H015A

Meaning/Cause	a. Tracking cannot be executed with this axis configuration. b. "CTDRIVE" or "CTMOVE" command with specifying the Z-axis operation command was executed for the robot without Z-axis.
Action	a. Check the robot axis configuration. b. Change the program so that "CTDRIVE" or "CTMOVE" command with specifying the Z-axis operation command cannot be executed for the robot without Z-axis.

2.347 : Not tracking status

Code : &H0002 &H015B

Meaning/Cause	"CTDRIVE" command was executed for the robot without following the conveyor.
Action	Change the program so that "CTDRIVE" command is executed after following the conveyor by "CTMOVE" command.

2.348 : Over tracking area

Code : &H0002 &H015C

Meaning/Cause	• The robot cannot be operated since the elements of position monitoring queue specified by "CTMOVE" command was out of the work area. • The elements of position monitoring queue in following moved out of the work area.
Action	• Review the robot program so that the elements of position monitoring queue specified by "CTMOVE" command is in the work area. • Reduce the setting value of the tracking end margin of the tracking parameter. • Change the program so that the next command or "CTSTOP" command execute before moving out of the work area.

2.349 : Can't execute CTMOVE

Code : &H0002 &H015D

Meaning/Cause	"CTMOVE" command was not executed since it was in deceleration control.
Action	"CTMOVE" command cannot be executed in MANUAL mode.

2.700 : System error (EXCEPTION)

Code : &H0002&H02BC

Meaning/Cause	Error occurred in software.
Action	Contact your distributor.

2.701 : System error (Robot Type)

Code : &H0002&H02BD

Meaning/Cause	Error occurred in software.
Action	Contact your distributor.

2.702 : System error (Robot No)

Code : &H0002&H02BE

Meaning/Cause	Error occurred in software.
Action	Contact your distributor.

2.703 : System error (Axis No)

Code : &H0002&H02BF

Meaning/Cause	Error occurred in software.
Action	Contact your distributor.

2.704 : System error (Arm Type)

Code : &H0002&H02C0

Meaning/Cause	Error occurred in software.
Action	Contact your distributor.

2.705 : System error (OPTION)

Code : &H0002&H02C1

Meaning/Cause	Error occurred in software.
Action	Contact your distributor.

2.706 : System error (PATH)

Code : &H0002&H02C2

Meaning/Cause	Error occurred in software.
Action	Contact your distributor.

2.707 : AXSWEI over

Code : &H0002&H02C3

Meaning/Cause	The axis weight exceeds the input range.
Action	Set the axis weight within the input range.

2.708 : System error (Tracking)

Code : &H0002&H02C4

Meaning/Cause	Error occurred in software.
Action	Contact your distributor.

[3] Alarm related to the program file operation

3.201 : Too many programs

Code : &H0003 &H00C9

Meaning/Cause	A new program was created over 100 programs.
Action	Create a new program after deleting an unnecessary program. (Make a backup if necessary.)

3.202 : Program already exists

Code : &H0003 &H00CA

Meaning/Cause	A program with the same name of a registered program was created, copied, or renamed.
Action	Use a different program name to create, copy, or rename.

3.203 : Program doesn't exist

Code : &H0003 &H00CB

Meaning/Cause	A registered program of the specified name does not exist.
Action	Input a program name that is registered.

3.204 : Writing prohibited

Code : &H0003 &H00CC

Meaning/Cause	The specified program is write-protected.
Action	Make the program not write-protected.

3.206 : Too many breakpoints

Code : &H0003 &H00CE

Meaning/Cause	More than 32 break points were set.
Action	Delete unnecessary programs and then set new ones. (32 or less break points can be set per program.)

3.207 : Breakpoint doesn't exist

Code : &H0003 &H00CF

Meaning/Cause	The break point was not found during search.
Action	Set break points if necessary.

3.208 : Current program doesn't exist

Code : &H0003 &H00D0

Meaning/Cause	The current program is not registered.
Action	Set the current program on "Current program no." of the controller parameter.

3.218 : Duplicated Breakpoint

Code : &H0003 &H00DA

Meaning/Cause	Break points were already set on the line.
Action	—

3.219 : Illegal program no

Code : &H0003 &H00DB

Meaning/Cause	A program number exceeding 1 to 100 was set.
Action	Specify a program number between 1 and 100.

3.220 : Program step doesn't exist

Code : &H0003 &H00DC

Meaning/Cause	The number of lines exceeding the number registered in the program was specified.
Action	Specify lines registered in the program.

3.221 : Reading prohibited

Code : &H0003 &H00DD

Meaning/Cause	The program with the hidden attribute was browsed.
Action	Make the relevant program readable.

3.237 : Program has been already loaded

Code : &H0003 &H00ED

Meaning/Cause	The program that is already in the executable status was loaded.
Action	—

3.238 : Program is already running

Code : &H0003 &H00EE

Meaning/Cause	The program is already running.
Action	—

3.239 : Sequence program is already running

Code : &H0003 &H00EF

Meaning/Cause	The sequence program to revise or delete is running.
Action	Stop the sequence program.

[4] Alarm related to the data input

4.201 : Point number error

Code : &H0004 &H00C9

Meaning/Cause	A point number exceeding P29999 was input.
Action	Input a correct point number.

4.202 : Input format error

Code : &H0004 &H00CA

Meaning/Cause	The format used to input the data is incorrect.
Action	Input the data in correct format.

4.204 : Undefined robot number

Code : &H0004 &H00CC

Meaning/Cause	The specified robot number does not exist.
Action	Input a correct robot number.

4.205 : Undefined axis number

Code : &H0004 &H00CD

Meaning/Cause	The specified axis number does not exist.
Action	Input a correct axis number.

4.206 : Invalid input number

Code : &H0004 &H00CE

Meaning/Cause	a. Invalid data was input. b. Invalid data was input in the area check output port number.
Action	Input a port number that can be used

4.208 : Parameter range error

Code : &H0004 &H00D0

Meaning/Cause	The parameter to set exceeds the range that can be input.
Action	Set the parameter within the range that can be input.

4.209 : Point name doesn't exist

Code : &H0004 &H00D1

Meaning/Cause	The specified point name does not exist.
Action	• Input a point name that can be used. • Register a new point name.

4.210 : Illegal point name

Code : &H0004 &H00D2

Meaning/Cause	The specified point name is incorrect.
Action	• Input a point name that can be used. • Save a new point name.

4.211 : Illegal I/O port

Code : &H0004 &H00D3

Meaning/Cause	The specified port number is incorrect.
Action	Input a correct port number.

4.212 : Data not enough

Code : &H0004 &H00D4

Meaning/Cause	The specified data does not exist.
Action	• Input a point name that can be used. • Create and save new data.

4.213 : Undefined controller number

Code : &H0004 &H00D5

Meaning/Cause	The specified controller number does not exist.
Action	Input a correct controller number.

4.214 : Undefined motor number

Code : &H0004 &H00D6

Meaning/Cause	The specified motor number does not exist.
Action	Input a correct motor number.

[5] Alarm related to the syntax of the robot language (compile)

5.201 : Syntax error

Code : &H0005 &H00C9

Meaning/Cause	The syntax error was found in program.
Action	Input a correct syntax.

5.202 : Data error

Code : &H0005 &H00CA

Meaning/Cause	The input data format is incorrect.
Action	Use a correct data format.

5.203 : Number error

Code : &H0005 &H00CB

Meaning/Cause	a. The input number is incorrect. b. The input expression value is incorrect.
Action	a. Input a correct number. b. Input a correct expression value.

5.204 : Bit number error

Code : &H0005 &H00CC

Meaning/Cause	The specified bit number is not within 0 to 7.
Action	Specify a correct bit number.

5.206 : Digit number error

Code : &H0005 &H00CE

Meaning/Cause	a. Binary number has exceeded 8 digits (places). b. Octal number has exceeded 6 digits (places). c. Decimal number has exceeded the specified range. d. Hexadecimal number has exceeded 8 digits (places). e. Cartesian coordinate point data has more than 3 decimal places.
Action	• Change to the correct number of digits (places). • Specify the Cartesian coordinate point data of up to 3 decimal places.

5.207 : Illegal axis name

Code : &H0005 &H00CF

Meaning/Cause	The input robot axis name is incorrect.
Action	Input a correct axis name.

5.208 : Illegal order

Code : &H0005 &H00D0

Meaning/Cause	The bit order specified for I/O port is incorrect.
Action	Input in descending order starting from left.

5.212 : Stack overflow

Code : &H0005 &H00D4

Meaning/Cause	The stack area for execution overflowed.
Action	• Shorten the expression (for example, by dividing). • Reduce nesting of "GOSUB", "CALL" and "FOR to NEXT" statement. • Reduce argument of "CALL" statement.

5.213 : Illegal variable

Code : &H0005 &H00D5

Meaning/Cause	A variable other than a global variable was used in "SEND/@READ/@WRITE" commands.
Action	Input a global variable.

5.214 : Type mismatch

Code : &H0005 &H00D6

Meaning/Cause	a. Expression types are not equal on both sides. b. An incorrect type constant/variable/expression is used.
Action	a. Use the same expression type on both sides. b. Use a correct type constant/variable/expression.

5.215 : FOR variable error

Code : &H0005 &H00D7

Meaning/Cause	The variable name for "NEXT" statement differs from that for the corresponding "FOR" statement.
Action	Use the corresponding variable names.

5.216 : WEND without WHILE

Code : &H0005 &H00D8

Meaning/Cause	There is no "WHILE" statement corresponding to the "WEND" statement.
Action	• Delete the "WEND" statement. • Add a "WHILE" statement corresponding to the "WEND" statement.

5.217 : WHILE without WEND

Code : &H0005 &H00D9

Meaning/Cause	There is no "WEND" statement corresponding to the "WHILE" statement.
Action	• Delete the "WHILE" statement. • Add a "WEND" statement corresponding to the "WHILE" statement.

5.218 : NEXT without FOR

Code : &H0005 &H00DA

Meaning/Cause	a. There is no "FOR" statement corresponding to the "NEXT" statement. b. "NEXT" command was executed without executing "FOR" command.
Action	a-1. Delete the "NEXT" statement. a-2. Add "FOR" statement corresponding to the "NEXT" statement. b. Confirm execution of "FOR" command.

5.219 : FOR without NEXT

Code : &H0005 &H00DB

Meaning/Cause	There is no "NEXT" statement corresponding to the "FOR" statement.
Action	• Delete the "FOR" statement. • Add "NEXT" statement corresponding to the "FOR" statement.

5.220 : ENDIF without IF

Code : &H0005 &H00DC

Meaning/Cause	There is no "IF" statement corresponding to the "ENDIF" statement.
Action	• Delete the "ENDIF" statement. • Add IF statement corresponding to the "ENDIF" statement.

5.221 : ELSE without IF

Code : &H0005 &H00DD

Meaning/Cause	There is no "IF" statement corresponding to the "ELSE" statement.
Action	• Delete the "ELSE" statement. • Add IF statement corresponding to the "ELSE" statement.

5.222 : IF without ENDIF

Code : &H0005 &H00DE

Meaning/Cause	There is no "ENDIF" statement corresponding to the "IF" statement.
Action	• Delete the "IF" statement. • Add "ENDIF" statement corresponding to the "IF" statement.

5.223 : ELSE without ENDIF

Code : &H0005 &H00DF

Meaning/Cause	There is no "ENDIF" statement corresponding to the "ELSE" statement.
Action	• Delete the "ELSE" statement. • Add "ENDIF" statement corresponding to the "ELSE" statement.

5.224 : END SUB without SUB

Code : &H0005 &H00E0

Meaning/Cause	a. There is no "SUB" statement corresponding to the "END SUB" statement. b. "END SUB" command was executed without "SUB" command.
Action	a-1. Delete the END SUB statement. a-2. b-1. Add SUB statement corresponding to the END SUB statement. b-2. Confirm execution of "SUB" command.

5.225 : SUB without END SUB

Code : &H0005 &H00E1

Meaning/Cause	There is no "END SUB" statement corresponding to the "SUB" statement.
Action	• Delete the "SUB" statement. • Add "END SUB" statement corresponding to the "SUB" statement.

5.226 : Duplicated variable

Code : &H0005 &H00E2

Meaning/Cause	Two or more array variables were defined with the same name.
Action	Delete the definition statement for the array variables with the same name or define other array valuables.

5.227 : Duplicated identifier

Code : &H0005 &H00E3

Meaning/Cause	Two or more identifiers were defined with the same name.
Action	Define identifiers with the different name.

5.228 : Duplicated label

Code : &H0005 &H00E4

Meaning/Cause	The labels were defined with the same name.
Action	Define the labels with different name.

5.229 : Undefined array

Code : &H0005 &H00E5

Meaning/Cause	Assignment/reference was made for an undeclared array.
Action	Declare the array.

5.230 : Undefined identifier

Code : &H0005 &H00E6

Meaning/Cause	An undefined identifier was used.
Action	Define the undefined identifier.

5.231 : Undefined label

Code : &H0005 &H00E7

Meaning/Cause	An undefined label was used.
Action	Define the undefined label.

5.232 : Undefined user function

Code : &H0005 &H00E8

Meaning/Cause	Undefined function was called.
Action	Define the undefined function.

5.233 : Undefined HAND

Code : &H0005 &H00E9

Meaning/Cause	The specified hand is not defined.
Action	• Specify a correct hand. • Define the hand.

5.234 : Too many dimensions

Code : &H0005 &H00EA

Meaning/Cause	An array exceeding 3 dimensions was declared.
Action	Change array to within 3 dimensions.

5.235 : Dimension mismatch

Code : &H0005 &H00EB

Meaning/Cause	The array dimension number does not correspond to that declared.
Action	Make the array dimension numbers correspond to each other.

5.236 : Argument mismatch

Code : &H0005 &H00EC

Meaning/Cause	The number of "SUB" statement arguments does not correspond to that of "CALL" statement arguments.
Action	Make the number of "SUB" statements correspond to that of "CALL" statements.

5.238 : Illegal option

Code : &H0005 &H00EE

Meaning/Cause	The command option is incorrect.
Action	Input a correct option.

5.239 : Illegal identifier

Code : &H0005 &H00EF

Meaning/Cause	A reserved word was used as an identifier.
Action	Use an identifier name other than a reserved word. Refer to the RCX340 programming manual.

5.240 : Illegal command in procedure

Code : &H0005 &H00F0

Meaning/Cause	The command cannot be executed inside the procedure (between "SUB to END SUB" statements).
Action	Delete the target command.

5.241 : Illegal command outside procedure

Code : &H0005 &H00F1

Meaning/Cause	The command cannot be executed outside the procedure (between "SUB to END SUB" statements).
Action	Delete the target command.

5.242 : Illegal command inside IF

Code : &H0005 &H00F2

Meaning/Cause	The command cannot be executed in simple "IF" statement.
Action	• Input a command that can be executed in simple "IF" statement. • Input a block "IF" statement.

5.243 : Illegal direct

Code : &H0005 &H00F3

Meaning/Cause	The command cannot be executed independently.
Action	• Change the execution according to program. • Change it to a command that can be executed independently.

5.244 : Cannot use external label

Code : &H0005 &H00F4

Meaning/Cause	The command cannot use an external label.
Action	• Change to an internal label. • Change the execution command.

5.245 : Illegal program name

Code : &H0005 &H00F5

Meaning/Cause	a. When transmitting a program file by "SEND" command, the "NAME" statement was not defined on beginning line of the program data. b. Characters other than alphanumeric and " _ " (underscore) were used in the program name. c. Program name has more than 32 characters.
Action	a. Define the "NAME" statement on beginning line of program data. b. Use only alphanumeric and " _ " (underscore) characters in the program name. c. Use 32 characters or less in the program name.

5.246 : Too many identifiers

Code : &H0005 &H00F6

Meaning/Cause	There are too many identifiers.
Action	Reduce the number of identifiers. (An array variable or character string consume more memory than a numeric variable.)

5.247 : CASE without SELECT

Code : &H0005 &H00F7

Meaning/Cause	There is no "SELECT" statement corresponding to the "CASE" statement.
Action	• Delete the "CASE" statement. • Add a SELECT statement corresponding to the "CASE" statement.

5.248 : END SELECT without SELECT

Code : &H0005 &H00F8

Meaning/Cause	There is no "SELECT" statement corresponding to the "END SELECT" statement.
Action	• Delete the "END SELECT" statement. • Add a "SELECT" statement corresponding to the "END SELECT" statement.

5.249 : SELECT without END SELECT

Code : &H0005 &H00F9

Meaning/Cause	There is no "END SELECT statement corresponding to the "SELECT" statement.
Action	• Delete the "SELECT" statement. • Add an "END SELECT" statement corresponding to the "SELECT" statement.

5.250 : CASE without END SELECT

Code : &H0005 &H00FA

Meaning/Cause	There is no "END SELECT" statement corresponding to the "CASE" statement.
Action	• Delete the "CASE" statement. • Add an "END SELECT" statement corresponding to the "CASE" statement.

5.251 : Illegal command line

Code : &H0005 &H00FB

Meaning/Cause	The command cannot be executed since it is between "SELECT" and "CASE" statements.
Action	Delete the command between "SELECT" and "CASE" statements.

5.252 : Command doesn't exist

Code : &H0005 &H00FC

Meaning/Cause	There is a line which does not have a command.
Action	• Add a command. • Delete the line.

5.253 : Compile failure

Code : &H0005 &H00FD

Meaning/Cause	An error occurred in software.
Action	Contact your distributor.

5.254 : ELSEIF without IF

Code : &H0005 &H00FE

Meaning/Cause	There is no "IF" statement corresponding to the "ELSEIF" statement.
Action	• Delete the "ELSEIF" statement. • Add an "IF" statement corresponding to the "ELSEIF" statement.

5.255 : ELSEIF without ENDIF

Code : &H0005 &H00FF

Meaning/Cause	There is no "ENDIF" statement corresponding to the "ELSEIF" statement.
Action	• Delete the "ELSEIF" statement. • Add an "ENDIF" statement corresponding to the "ELSEIF" statement.

5.256 : Subscript mismatch

Code : &H0005 &H0100

Meaning/Cause	The numbers of the array declared by DIM and the subscript do not correspond.
Action	• Make the number of the subscript correspond to that of declared array. • Change the number of the subscript specified by the array declaration. • Check if there is an array with the same name and different subscript in other program.

5.300 : Identifier already exists

Code : &H0005 &H012C

Meaning/Cause	The specified identifier already exists.
Action	Specify an identifier that does not exist.

5.301 : EXIT FOR without FOR

Code : &H0005 &H012D

Meaning/Cause	There is no "FOR" statement corresponding to the "EXIT FOR" statement.
Action	• Delete the "EXIT FOR" statement. • Add a "FOR" statement corresponding to the "EXIT FOR" statement.

5.302 : EXIT SUB without SUB

Code : &H0005 &H012E

Meaning/Cause	There is no "SUB" statement corresponding to the "EXIT SUB" statement.
Action	• Delete the "EXIT SUB" statement. • Add a "SUB" statement corresponding to the "EXIT SUB" statement.

5.303 : Can't open communicate file

Code : &H0005 &H012F

Meaning/Cause	The communication file was specified in the "READ/WRITE" command.
Action	Use the "SEND" command.

[6] Alarm related to the robot language execution

6.201 : Illegal command

Code : &H0006 &H00C9

Meaning/Cause	Non-supported or non-executable command was executed.
Action	Change to a command that can be executed.

6.202 : Illegal function call

Code : &H0006 &H00CA

Meaning/Cause	The <expression> of "ON <expression> GOTO" or "ON <expression> GOSUB" command was a negative value.
Action	Change the <expression> to a positive value.

6.203 : Division by 0

Code : &H0006 &H00CB

Meaning/Cause	A command to divide by 0 was executed.
Action	Change the command to divide by 0.

6.204 : Point doesn't exist

Code : &H0006 &H00CC

Meaning/Cause	Assignment, movement or reference to an undefined point was attempted.
Action	Define the point.

6.205 : Coordinate type error

Code : &H0006 &H00CD

Meaning/Cause	a. Arithmetic operations of joint coordinate point data and Cartesian coordinate point data were attempted. b. Joint coordinate system exists in the "MOVE C" command point data. c. Joint coordinate system exists in the "PMOVE" command point data.
Action	a. Change to the same coordinate system. b, c. Change to the Cartesian coordinate system.

6.206 : Subscript out of range

Code : &H0006 &H00CE

Meaning/Cause	A subscript of an array variable has exceeded the declared range.
Action	Change the subscript of array variable to within the defined range.

6.207 : RETURN without GOSUB

Code : &H0006 &H00CF

Meaning/Cause	The "RETURN" command was executed without executing the "GOSUB" command.
Action	Confirm the execution of "GOSUB "command.

6.208 : END SUB without CALL

Code : &H0006 &H00D0

Meaning/Cause	The "END SUB" command was executed without executing the "CALL" command.
Action	Confirm the execution of "SUB" command.

6.209 : EXIT SUB without CALL

Code : &H0006 &H00D1

Meaning/Cause	The "EXIT SUB" command was executed without executing the "CALL" command.
Action	Confirm the execution of "SUB" command.

6.210 : SUSPEND without START

Code : &H0006 &H00D2

Meaning/Cause	The "SUSPEND" command was executed for a task not executed by the "START" command.
Action	Confirm the execution of "START" command.

6.211 : CUT without START

Code : &H0006 &H00D3

Meaning/Cause	The "CUT" command was executed for a task not executed by the "START" command.
Action	Confirm the execution of "START" command.

6.212 : RESTART without START

Code : &H0006 &H00D4

Meaning/Cause	The "RESTART" command was executed for a task not executed by the "START" command.
Action	Confirm the execution of "START" command.

6.213 : RESTART without SUSPEND

Code : &H0006 &H00D5

Meaning/Cause	The "RESTART" command was executed for a task not executed by the "SUSPEND" command.
Action	Confirm the execution of "SUSPEND" command.

6.214 : Task number error

Code : &H0006 &H00D6

Meaning/Cause	a. Task number is outside the range from 1 to 16. b. "START", "CUT", "SUSPEND" or "RESTART" command was executed for task 1 (main task). c. "START", "CUT", "SUSPEND" or "RESTART" command was executed for its own task.
Action	a. Specify a correct task number. b. Delete the task command for task 1. c. Delete the command for its own task.

6.215 : Task running

Code : &H0006 &H00D7

Meaning/Cause	The "START" command was executed for a task currently in operation.
Action	Delete or correct the "START" command.

6.216 : Task suspending

Code : &H0006 &H00D8

Meaning/Cause	The "START" or "SUSPEND" command was executed for a task in pause (suspend) condition.
Action	Delete or correct the "START" or "SUSPEND" command.

6.217 : Illegal command in error routine

Code : &H0006 &H00D9

Meaning/Cause	The command could not be executed within an error processing routine.
Action	Delete the command.

6.218 : EXIT FOR without FOR

Code : &H0006 &H00DA

Meaning/Cause	The "EXIT FOR" command was executed without executing the "FOR" command.
Action	Confirm the execution of "FOR" command.

6.219 : SUB without CALL

Code : &H0006 &H00DB

Meaning/Cause	The "SUB" command was executed without executing the "CALL" command.
Action	Confirm the execution of "CALL" command.

6.220 : Not execute CALL

Code : &H0006 &H00DC

Meaning/Cause	The "CALL" command was not executed.
Action	Confirm the execution of "CALL" command.

6.225 : No sufficient memory for OUT

Code : &H0006 &H00E1

Meaning/Cause	Since 17 or more the "OUT" commands were executed in parallel, the command cannot be executed because of insufficient memory.
Action	The maximum number of "OUT" commands that can be run in parallel is 16.

6.226 : PATH without SET

Code : &H0006 H00E2

Meaning/Cause	Either of the "PATH L", "PATH C" or "PATH END" command was executed without executing the "PATH SET" command.
Action	First execute the "PATH SET" command when setting a path.

6.227 : PATH without END

Code : &H0006 &H00E3

Meaning/Cause	The "PATH START" command was executed without executing the "PATH END" command.
Action	Execute the "PATH END" command to end the path setting and then execute the "PATH START" command.

6.228 : No PATH data

Code : &H0006 &H00E4

Meaning/Cause	a. No path is set for PATH motion. b. The previously set path was lost for the following reasons: • When "PATH SET" command is executed. • When the program is changed. • When the program is reset. • When the controller power is turned off.
Action	Set a path with the "PATH L" and "PATH C" commands.

6.229 : Too many PATH data

Code : &H0006 &H00E5

Meaning/Cause	The number of PATH motion paths exceeded 1000.
Action	Reduce the number of PATH motion paths to 1000 or less in total of the "PATH L" and "PATH C" commands.

6.230 : Not PATH start position

Code : &H0006 &H00E6

Meaning/Cause	The robot's current position is not the start position of PATH motion.
Action	Move the robot to the start position specified with the "PATH SET" command and then execute the "PATH START" command.

6.232 : ABS of MARK incomplete

Code : &H0006 &H00E8

Meaning/Cause	Absolute reset was performed with the "ORIGIN" statement or dedicated input while axes of "Mark" method are in the origin-incomplete status.
Action	Perform the absolute reset of the axis with the "Mark" method first.

6.233 : MARK method is not allowed

Code : &H0006 &H00E9

Meaning/Cause	Return-to-origin was performed by "ORIGIN" statement or dedicated input while the return-to-origin method for incremental type axes or semi-absolute type axes are set to "Mark".
Action	Change the return-to-origin method.

6.234 : Port number error

Code : &H0006 &H00EA

Meaning/Cause	• The port numbers for the DO, DI, MO, SI, and SO ports were not specified within the range of 0 to 7, 10 to 17, and 20 to 27. • The port numbers specified for the LO and TO ports were other than 0. • The output to port 0 or port 1 was specified for the DO, MO, and SO ports.
Action	Specify the correct port numbers.

6.235 : Password error

Code : &H0006 &H00EB

Meaning/Cause	The password is not correct.
Action	Input the correct password.

6.236 : Undefined pallet

Code : &H0006 &H00EC

Meaning/Cause	Data is not defined in the specified pallet number.
Action	• Specify another pallet number. • Define the pallet.

6.237 : Specification mismatch

Code : &H0006 &H00ED

Meaning/Cause	The command is non-executable in the current robot specifications.
Action	Change the execution command.

6.238 : Too many point data

Code : &&H0006&H00EE

Meaning/Cause	More than 32 values of point data are specified for movement command.
Action	Specify 32 or less values of point data for one movement command line.

6.239 : Illegal PATH task no

Code : &H0006 &H00EF

Meaning/Cause	The "PATH L", "PATH C", or "PATH END" command was executed in different task from that executed the "PATH SET" command.
Action	Execute commands from the "PATH SET" to the "PATH END" in the same task.

6.251 : Stack underflow

Code : &H0006 &H00FB

Meaning/Cause	a. The "RESUME" statement was executed outside the alarm routine. b. Error occurred in software.
Action	a. Use the "RESUME" statement within the alarm routine declared in "ON ERROR GOTO". b. Contact your distributor.

6.252 : Data out of range

Code : &H0006 &H00FC

Meaning/Cause	The specified value is out of the input range.
Action	Specify the value within the input range.

6.253 : Illegal point no

Code : &H0006 &H00FD

Meaning/Cause	The specified point number is out of the range; between 0 and 29999.
Action	Specify a point number between 0 and 29999.

6.254 : Illegal shift no

Code : &H0006 &H00FE

Meaning/Cause	The specified shift number is out of the range; between 0 and 39.
Action	Specify a shift number between 0 and 39.

6.255 : Illegal hand no

Code : &H0006 &H00FF

Meaning/Cause	The specified hand number is out of the range; between 0 and 31.
Action	Specify a hand number between 0 and 31.

6.256 : Illegal pallet no

Code : &H0006 &H0100

Meaning/Cause	The specified pallet number is out of the range; between 0 and 39.
Action	Specify a pallet number between 0 and 39.

6.257 : Illegal axis no

Code : &H0006 &H0101

Meaning/Cause	The specified axis number is out of the range; between 1 and 6.
Action	Specify an axis number between 1 and 6.

6.258 : Illegal robot no

Code : &H0006 &H0102

Meaning/Cause	The specified robot number is out of the range; between 1 and 4.
Action	Specify a robot number between 1 and 4.

6.259 : Illegal task no

Code : &H0006 &H0103

Meaning/Cause	The specified task number is out of the range; between 1 and 16.
Action	Specify a task number between 1 and 16.

6.260 : Too many characters

Code : &H0006 &H0104

Meaning/Cause	a. The number of defined character constants exceeds 255. b. The number of addition characters exceeds 255.
Action	a. Define the number of character constants within 255. b. Set the number of additional characters within 255.

6.261 : Task stopped

Code : &H0006 &H0105

Meaning/Cause	The task is in stop status.
Action	Restart the task by "RESTART" statement.

6.262 : Task doesn't exist

Code : &H0006 &H0106

Meaning/Cause	The task is not executed.
Action	Start the task by "START" statement.

6.263 : Too many Tasks

Code : &H0006 &H0107

Meaning/Cause	The number of programs has exceeded the upper limit (16).
Action	Release the task by "EXIT TASK" statement or "CUT" statement, then register a task.

6.264 : Type mismatch

Code : &H0006 &H0108

Meaning/Cause	a. Expression types are not equal on both sides. b. Prohibited type constant/variable/expression was used.
Action	a. Use the same expression type on both sides. b. Use a correct type of constant/variable/expression.

6.265 : Timeout

Code : &H0006 &H0109

Meaning/Cause	a. Servo off/free of the axis has not completed. b. Mark setting has not completed. c. Servo on/off of the gripper has not completed.
Action	a. Check the axis connection. b. Check the mark axis connection. c. Check the gripper connection.

6.266 : All axes completed

Code : &H0006 &H010A

Meaning/Cause	Return-to-origin has completed on all axes.
Action	It is not necessary to perform return-to-origin.

6.267 : Access level error

Code : &H0006 &H010B

Meaning/Cause	The operation cannot be executed at the present access level.
Action	Change the access level so that the operation can be executed.

6.270 : Can't calculate

Code : &H0006 &H010E

Meaning/Cause	The position that cannot be calculated is taught during wizard.
Action	Teach again at the correct position.

6.271 : Can't be in hand use

Code : &H0006 &H010F

Meaning/Cause	The hand data to change is in use.
Action	Release the setting of the robot and specify the correct hand setting.

6.272 : Can't be in shift use

Code : &H0006 &H0110

Meaning/Cause	The shift data to change is in use.
Action	Release the setting of the robot and specify the correct shift setting.

6.280 : Illegal command Operating

Code : &H0006 &H0118

Meaning/Cause	The online command was executed during data editing.
Action	After completing data editing, execute the online command.

6.281 : Illegal command Running

Code : &H0006 &H0119

Meaning/Cause	The non-executable online command was executed during program running.
Action	After stopping the program, execute the online system command.

6.282 : Illegal command Moving

Code : &H0006 &H011A

Meaning/Cause	The non-executable online command was executed during axis operation.
Action	After stopping the axis operation, execute the online system command.

6.300 : Motor power off

Code : &H0006 &H012C

Meaning/Cause	The movement command was executed in the motor power off status.
Action	Put the robot in the motor and servo on status.

6.301 : Servo off

Code : &H0006 &H012D

Meaning/Cause	The movement command was executed in the servo off status.
Action	Put the robot in the servo on status.

6.302 : Origin incomplete

Code : &H0006 &H012E

Meaning/Cause	● Without performing return-to-origin, operations shown below were performed in the origin incomplete status. • Program or command execution • Point teaching • Cartesian coordinate movement ● The robot puts into the origin-incomplete status by the following reasons. • The absolute batteries were removed from the controller or retained position became unstable by absolute battery voltage drop. • ROB I/O cable was disconnected. • Return-to-origin operation was stopped halfway. • System generation was changed, parameters were initialized or parameters to determine the origin return direction, axis polarity, or origin position were changed. (Writing ALL and PRM files into the controller is also included.)
Action	Perform absolute reset or return-to-origin operation to put the robot in the return-to-origin complete status.

6.309 : INC. motor disconnected

Code : &H0006 &H0135

Meaning/Cause	Return-to-origin command was executed without incremental type or absolute type axes.
Action	Refer to "DI14 Return-to-origin (for INC axis)" of "1.9 Dedicated input signal description" in Chapter 4.

6.310 : ABS. motor disconnected

Code : &H0006 &H0136

Meaning/Cause	Return-to-origin command was executed without absolute type axes.
Action	Refer to "DI14 Return-to-origin (for INC axis)" of "1.9 Dedicated input signal description" in Chapter 4.

6.312 : ABS. reset position incomplete

Code : &H0006 &H0138

Meaning/Cause	Absolute reset was executed at a position where the absolute reset cannot be performed.
Action	Move to a position where the absolute reset can be performed.

6.313 : MRK. motor disconnected

Code : &H0006 &H0139

Meaning/Cause	Return-to-origin was executed without mark-specified axes.
Action	Check the system generation data.

6.314 : Can't execute while servo on

Code : &H0006 &H013A

Meaning/Cause	Writing in "ALL" or "PRM" files was attempted in servo on status.
Action	Turn off the servo before writing files.

6.315 : ZR torque origin incorrect setting

Code : &H0006 &H013B

Meaning/Cause	a. Simultaneous return-to-origin was performed while the ZR-stroke end method was set. b. R-axis stack was not set for the Z-axis. c. Either Z or R-axis return-to-origin method was not set to the ZR-stroke end method. d. Multiple Z-axis (or R-axis) return-to-origin methods were set to the ZR-stroke end method.
Action	a. Set the return-to-origin order correctly. (Simultaneous return-to-origin cannot be performed.) b. Set the R-axis stack correctly. c. Set both Z and R-axis return-to-origin methods to the ZR-stroke end method. d. Set Z and R-axis one each for the ZR-stroke end method.

6.316 : Can't execute while motor power on

Code : &H0006 &H013C

Meaning/Cause	The parameter that cannot be written in motor power off status was saved.
Action	Turn off the motor, and then save the parameter.

6.317 : Illegal origin method

Code : &H0006 &H013D

Meaning/Cause	a. Performing return-to-origin (mark method) was attempted. b. Only one of Z or R-axis is set to ZR-stroke end method.
Action	a. Perform absolute reset for axes of “Mark" method using the programming box or support software. b. Set both Z and R-axis at "ZR-stroke end method".

6.319 : Can't change hand data

Code : &H0006 &H013F

Meaning/Cause	a. Changing the hand setting that another robot is using was attempted. b. Specifying the hand R for the robot without R-axis was attempted.
Action	a. Release the hand setting of the other robot. b. Set blank for the fourth parameter of the target parameter.

6.321 : Illegal option slot no

Code : &H0006 &H0141

Meaning/Cause	The specified option slot number is out of the range; between 1 and 4.
Action	Specify an option slot number between 1 and 4.

6.322 : Illegal calibration no

Code : &H0006 &H0142

Meaning/Cause	The specified calibration number is out of the range; between 0 and 31.
Action	Specify a calibration number between 0 and 31.

6.399 : Can't execute while alarm

Code : &H0006 &H018F

Meaning/Cause	The program cannot be executed while an alarm is occurring.
Action	Clear the alarm cause and reset alarm or restart the controller as necessary.

6.999 : Interpreter runtime system error

Code : &H0006 &H03E7

Meaning/Cause	Error occurred in software.
Action	Contact your distributor.

[9] Alarm related to the memory

9.300 : Memory full

Code : &H0009 &H012C

Meaning/Cause	There is no available space in the program or point data area.
Action	Delete unnecessary programs or points.

9.301 : Program too big

Code : &H0009 &H012D

Meaning/Cause	The program size exceeded the permissible size.
Action	Compress the program size.

9.400 : Gripper origin data destroyed

Code : &H0009 &H0190

Meaning/Cause	Part or all of the data that saved after performing return-to-origin of gripper has been destroyed.
Action	Perform return-to-origin of the gripper.

9.701 : Program destroyed

Code : &H0009 &H02BD

Meaning/Cause	a. Part or all of the program data has been destroyed. b. This error message is sometimes issued due to a major error or the power being turned off during rewrite of program data.
Action	a. Delete that program during selection. b. Initialize the program data.

9.702 : Point data destroyed

Code : &H0009 &H02BE

Meaning/Cause	• Part or all of the point data has been destroyed. • This error message is sometimes issued due to a major error or the power being turned off during rewriting point data.
Action	Initialize the point data.

9.704 : Parameter destroyed

Code : &H0009 &H02C0

Meaning/Cause	Part or all of the parameter data has been destroyed.
Action	Initialize the parameter data.

9.706 : Shift data destroyed

Code : &H0009 &H02C2

Meaning/Cause	Part or all of the shift data has been destroyed.
Action	Initialize the shift data.

9.707 : Hand data destroyed

Code : &H0009 &H02C3

Meaning/Cause	Part or all of the hand data has been destroyed.
Action	Initialize the hand data.

9.709 : Pallet data destroyed

Code : &H0009 &H02C5

Meaning/Cause	Part or all of the pallet definition data was destroyed.
Action	Initialize the pallet definition data.

9.710 : Break point data destroyed

Code : &H0009 &H02C6

Meaning/Cause	Part or all of the break point has been destroyed.
Action	Initialize the break point.

9.711 : IO name data destroyed

Code : &H0009 &H02C7

Meaning/Cause	Part or all of the name of I/O has been destroyed.
Action	Initialize the name of I/O

9.712 : Area checkout data destroyed

Code : &H0009 &H02C8

Meaning/Cause	Part or all of the area check output has been destroyed.
Action	Initialize the area check output.

9.713 : Calibration data destroyed

Code : &H0009 &H02C9

Meaning/Cause	Part or all of the calibration output has been destroyed.
Action	Initialize the calibration.

9.714 : Conveyor data destroyed

Code : &H0009 &H02CA

Meaning/Cause	Error occurred in the conveyor calibration data.
Action	Initialize the conveyor calibration data.

9.715 : Alarm log destroyed

Code : &H0009 &H02CB

Meaning/Cause	Part or all of the alarm history has been destroyed.
Action	Initialize the alarm history.

9.716 : Variable data destroyed

Code : &H0009 &H02CC

Meaning/Cause	Part or all of the variable data has been destroyed.
Action	Initialize the controller.

9.717 : Program register data destroyed

Code : &H0009 &H02CD

Meaning/Cause	Part or all of the program register has been destroyed.
Action	Initialize the program.

9.718 : Communicate setting destroyed

Code : &H0009 &H02CE

Meaning/Cause	Part or all of the controller status data has been destroyed.
Action	Initialize the communication setting.

9.722 : Global EtherNet Port setting destroyed

Code : &H0009 &H02D2

Meaning/Cause	Part or all of the communication setting of general-purpose Ethernet has been destroyed.
Action	Initialize the communication setting of general-purpose Ethernet.

9.723 : Controller status data destroyed

Code : &H0009 &H02D3

Meaning/Cause	Part or all of the controller status data has been destroyed.
Action	Initialize the controller status.

9.724 : Robot status data destroyed

Code : &H0009 &H02D4

Meaning/Cause	Part or all of the robot status data has been destroyed.
Action	• Initialize the robot status. • Reset the standard coordinates in the case of SCARA type robots.

9.725 : Axis status data destroyed

Code : &H0009 &H02D5

Meaning/Cause	Part or all of the axis status data has been destroyed.
Action	Initialize the axis status.

9.726 : Motor status data destroyed

Code : &H0009 &H02D6

Meaning/Cause	Part or all of the motor status data has been destroyed.
Action	• Initialize the motor status. • Re-perform return-to-origin.

9.727 : Out status data destroyed

Code : &H0009 &H02D7

Meaning/Cause	Part or all of the out status data has been destroyed.
Action	Reset the output port.

9.729 : Sequence object destroyed

Code : &H0009 &H02D9

Meaning/Cause	Part or all of the sequence object program has been destroyed.
Action	Re-compile the sequence program.

9.730 : Gripper status data destroyed

Code : &H0009 &H02DA

Meaning/Cause	Part or all of the data for the gripper operation has been destroyed. Data for the gripper operation was initialized.
Action	Re-perform the gripper generation.

9.732 : Counter status data destroyed

Code : &H0009 &H02DC

Meaning/Cause	Error occurred in the tracking counter status data. Status specified on "CCOND" and "CTVISION" commands will be initialized.
Action	Re-execute "CCOND" and "CTVISION" commands.

9.900 : Sys. generation destroyed

Code : &H0009 &H0384

Meaning/Cause	Part or all of the system generation data has been destroyed.
Action	Back up the current data, then send/load the data that is proper for the target robot and controller.

9.901 : Sys. generation mismatch

Code : &H0009 &H0385

Meaning/Cause	The robot type or axis number designation in the system generation data is incorrect.
Action	Back up the current data, then send/load the data that is proper for the target robot and controller.

[10] Alarm related to the environment and general hardware

10.201 : Robot disconnected

Code : &H000A &H00C9

Meaning/Cause	The system generation is not set.
Action	• Back up the current data, then send/load the data that is proper for the target robot and controller. • Contact your distributor.

10.205 : Illegal robot type

Code : &H000A &H00CD

Meaning/Cause	The specified robot type is incorrect.
Action	• Check the robot type data. • Back up the current data, then send/load the data that is proper for the target robot and controller. • Contact your distributor.

10.208 : Cannot set auxiliary axis
Code : &H000A &H00D0

Meaning/Cause	An auxiliary axis was set on an axis that cannot be set as so. The following axes cannot be set as an auxiliary axis. • SCARA type robot axes • X and Y-axis except on MULTI type robots
Action	• Do not set an auxiliary axis. • Contact your distributor.

10.209 : Cannot set no axis
Code : &H000A &H00D1

Meaning/Cause	"No axis" was set on an axis which cannot accept "no axis" setting. The following axes cannot be set to "no axis". • X and Y-axis except on MULTI type robots
Action	• Do not set "no-axis" on the axis. • Contact your distributor.

10.213 : Cannot set Dualdrive
Code : &H000A &H00D5

Meaning/Cause	"Dual drive" was set on an axis that cannot be set to "Dual drive".
Action	• Do not set "Dual drive" on the axis. • Contact your distributor.

10.214 : Undefined parameter found
Code : &H000A &H00D6

Meaning/Cause	a. The parameter name is incorrect. b. Undefined and non-corresponded parameter data was written because the controller data of different controller version was used.
Action	a-1. Input the parameter name correctly. a-2. Write the correct parameter data. b. Set the "PRM SKIP" parameter to "VALID".

10.219 : Illegal axis type
Code : &H000A &H00DB

Meaning/Cause	This axis type cannot be set.
Action	• Check the axis setting. • Back up the current data, then send/load the data that is proper for the target robot and controller. • Contact your distributor.

10.223 : Axis disconnected
Code : &H000A &H00DF

Meaning/Cause	No axis is set.
Action	• Check the axis setting. • Back up the current data, then send/load the data that is proper for the target robot and controller. • Contact your distributor.

10.225 : Controller disconnected
Code : &H000A &H00E1

Meaning/Cause	No controller is connected.
Action	• Check the system generation data. • Re-perform the system generation.

10.226: Motor disconnected
Code : &H000A &H00E2

Meaning/Cause	No motor is connected.
Action	• Check the system generation data. • Re-perform the system generation.

10.231: Driver overlap assign

Code : &H000A &H00E7

Meaning/Cause	The driver assignments are overlapping.
Action	Assign the drivers not to overlap.

10.232: Can't release driver-assign by using

Code : &H000A &H00E8

Meaning/Cause	The driver registration to release is in use.
Action	Release the driver registration after deleting the robot setting.

10.233: Illegal robot configuration

Code : &H000A &H00E9

Meaning/Cause	The robot configuration is specified incorrect.
Action	• Check the system generation data. • Re-perform the system generation.

10.700: Illegal safe mode

Code : &H000A &H02BC

Meaning/Cause	The safe mode setting is incorrect.
Action	Reset the safe mode.

10.701: Real time clock data failed

Code : &H000A &H02BD

Meaning/Cause	Gaining real time clock data failed.
Action	Reset the real time clock.

10.900: Turn on power again

Code : &H000A &H0384

Meaning/Cause	• System generation was performed because of changing robot and so on. • Parameters were changed through the communication. • System generation data was destroyed. • The controller is abnormal.
Action	Turn the power off and then on again.

10.901: Illegal driver setting

Code : &H000A &H0385

Meaning/Cause	The driver configuration cannot be specified.
Action	• Check the system generation data. • Re-perform the system generation.

[12] Alarm related to the option board

12.75 : Illegal remote command

Code : &H000C &H004B

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

12.76 : Disable remote command

Code : &H000C &H004C

Meaning/Cause	The "Remote command" of the I/O parameter is set to "INVALID".
Action	Set the "Remote command" parameter to "VALID".

12.100 : EtherNet/IP DHCP enabled

Code : &H000C &H0064

Meaning/Cause	The DHCP setting of the communication parameter was changed from "INVALID" to "VALID".
Action	—

12.200: Tracking disabled

Code : &H000C &H00C8

Meaning/Cause	a. No tracking board is connected to the option slot. b. The tracking board is set to "INVALID".
Action	a. Check that the tracking board is connected. b. Set the tracking board to "VALID".

12.201 : Tracking counter not enabled

Code : &H000C &H00C9

Meaning/Cause	a. The tracking counter status is set "INVALID". b. The value of counter pulse did not change during calibration.
Action	a. Check the counter status and set "VALID". b. Check if the counter value can be read.

12.202 : Tracking vision not enabled

Code : &H000C &H00CA

Meaning/Cause	a. Tasks or counters which did not execute the "CTVISION" command were specified when executing the "CADDQUEV" command. b. The iVY2 system is set "INVALID".
Action	a. Execute the "CTVISION" command on the tasks or counters beforehand. b. Set the iVY2 system "VALID".

12.203 : Tracking calibration incomplete

Code : &H000C &H00CB

Meaning/Cause	Tracking function was executed with the robot or counter on which calibration was not executed.
Action	• Execute calibration. • Write the calibration data. • Set the different calibration data at upstream and downstream positions.

12.204 : Tracking counter number error

Code : &H000C &H00CC

Meaning/Cause	The specified counter number was neither 1 nor 2.
Action	Specify the correct value.

12.205 : Tracking queue element number error

Code : &H000C &H00CD

Meaning/Cause	The position monitor queue element number that is out of specifiable range was specified. Between 0 and 79 can be specified.
Action	Specify the value within the range.

12.206 : Tracking queue element doesn't exist

Code : &H000C &H00CE

Meaning/Cause	The queue element specified by the position monitoring queue does not exist.
Action	• Add the queue element to the position monitoring queue. • Check the specified queue element.

12.207 : Tracking queue element being used

Code : &H000C &H00CF

Meaning/Cause	The "CRMVQUE" command was executed during tracking operation.
Action	Execute the command after tracking operation has completed.

12.208 : Tracking queue element over run

Code : &H000C &H00D0

Meaning/Cause	The queue element registered on the position monitoring queue exceeded the monitoring range.
Action	• Delete the queue elements that are not used by the "CRMVQUE" command. • Check the queue elements to register.

12.300 : Incorrect Indiv. Origin setting

Code : &H000C &H012C

Meaning/Cause	• Multiple axes were specified for the "Axes sel. port (DI & SI)" parameter. • No axis was specified for the "Axes sel. port (DI & SI)" parameter. • Axis which is not present was specified for the "Axes sel. port (DI & SI)" parameter.
Action	Specify one axis each.

12.400: Standard in stop on

Code : &H000C &H0190

Meaning/Cause	a. Program execution or axis movement was attempted in the stop status. b. The robot was put in the stop status during program execution or axis movement. c. 24V-power for I/O is not supplied to the DIO connector. d. The DIO connector is not connected.
Action	a, b. Cancel the stop status, and then execute the program or move the axis. c. Supply 24V-power for I/O. d. Connect the DIO connector. * Set the "Option board enable" parameter INVALID when DIO is not used.

12.401: Arm locked

Code : &H000C &H0191

Meaning/Cause	The arm was moved while the arm lock variable LO was ON.
Action	Set the arm lock variable LO off.

12.500: Changed operation mode input

Code : &H000C &H01F4

Meaning/Cause	The robot in operation stopped since the operation mode was changed.
Action	Check the status, reset the alarm, and restart operating the robot.

12.520: PIO DC24V low voltage

Code : &H000C &H0208

Meaning/Cause	a. 24V power is not supplied to the PIO board. b. The power voltage supplying to the PIO board has dropped.
Action	a. Supply 24V power. b. Check if any device with over voltage source capacity is connected or how power supply state is.

12.521: PIO DC24V over voltage

Code : &H000C &H0209

Meaning/Cause	Exceeding 24V power is supplied to the PIO board.
Action	Supply power at 24V.

12.522: PIO STD DC24V low voltage

Code : &H000C &H020A

Meaning/Cause	a. 24V power is not supplied to the PIO STD board. b. The power supply voltage supplying to the PIO STD board has dropped.
Action	a. Supply 24V power. b. Check if any device with over voltage source capacity is connected or how power supply state is.

12.531: CC-Link communication error

Code : &H000C &H0213

Meaning/Cause	a. Error occurred on the cable for CC-Link system. b. The communication setting of the CC-Link system is incorrect. c. The master module power is turned off, has stopped operating or is damaged. d. The CC-Link compatible module is damaged. e. Initial data process is not performed.
Action	a. Check for a break, disconnection, wiring error, short circuit on the CC-Link cable or the specifications (cable length, etc.). b. Check the station number, communication baud rate and CC-Link version settings. c. Check that the master module operates correctly. d. Replace the CC-Link compatible module. e. Perform initial data process.

12.532: CC-Link overtime error

Code : &H000C &H0214

Meaning/Cause	a. Communication error occurred by noise, etc. in the CC-Link system. b. The master module is turned off or has stopped operating. c. The cable is broken or unconnected.
Action	a. Take noise preventive actions for the cable for the CC-Link system and the controller. b. Check that the master module operates correctly. c. Check the CC-Link cable connection.

12.541: DeviceNet link error

Code : &H000C &H021D

Meaning/Cause	a. Error occurred on the cable for DeviceNet system. b. The communication setting of the DeviceNet system is incorrect. c. Power for communication is not supplied. d. The master module power is turned off, has stopped operating or is damaged. e. The DeviceNet compatible module is damaged.
Action	a. Check for a break disconnection, wiring error, short circuit on the DeviceNet cable or the specifications (cable length, etc.). b. Check the communication settings. c. Check that the communication power is supplied. d. Check that the master module operates correctly. e. Replace the DeviceNet compatible module.

12.542: DeviceNet overtime error

Code : &H000C &H021E

Meaning/Cause	a. Communication error occurred by noise, etc. in the DeviceNet system. b. The master module power is turned off or has stopped operating. c. The cable is broken or unconnected.
Action	a. Take the noise preventive actions for the cable of the DeviceNet system and the controller. b. Check that the master module operates correctly. c. Check the DeviceNet cable connection.

12.551: EtherNet/IP link error

Code : &H000C &H0227

Meaning/Cause	a. Error occurred on the cable for EtherNet/IP system. b. The communication setting of the EtherNet/IP system is incorrect. c. The master module power is turned off, has stopped operating or is damaged. d. The EtherNet/IP compatible module is damaged.
Action	a. Check for a break disconnection, wiring error, short circuit on the EtherNet/IP cable or the specifications (cable length, etc.). b. Check the communication setting. c. Check that the master module operates correctly. d. Replace the EtherNet/IP compatible module.

12.552: EtherNet/IP overtime error

Code : &H000C &H0228

Meaning/Cause	a. Communication error occurred by noise, etc. in the EtherNet/IP system. b. The master module power is turned off or has stopped operating. c. The cable is broken or unconnected.
Action	a. Take the noise preventive actions for the cable of the EtherNet/IP system and the controller. b. Check that the master module operates correctly. c. Check the EtherNet/IP cable connection.

12.561: PROFIBUS link error

Code : &H000C &H0231

Meaning/Cause	a. Error occurred in cable for PROFIBUS system. b. The communication setting of the PROFIBUS system was incorrect. c. The master module power is turned off, has stopped operating or is damaged. d. The PROFIBUS compatible module is damaged.
Action	a. Check for a break disconnection, wiring error, short circuit on the PROFIBUS cable or the specifications (cable length, etc.). b. Check the communication setting. c. Check that the master module operates correctly. d. Replace the PROFIBUS compatible module.

12.562: PROFIBUS overtime error

Code : &H000C &H0232

Meaning/Cause	a. Communication error occurred by noise, etc. in the PROFIBUS system. b. Master module power is turned off or has stopped operating. c. The cable is broken or unconnected.
Action	a. Take the noise preventive actions for the cable of the PROFIBUS system and the controller. b. Check that the master module operates correctly. c. Check the PROFIBUS cable connection.

12.571: PROFINET link error

Code : &H000C &H023B

Meaning/Cause	a. Error occurred in cable for PROFINET system. b. The communication setting of the PROFINET system incorrect. c. The master module power is turned off, or the PLC has stopped operating, or is broken. d. The PROFINET compatible module is breakdown.
Action	a. Check for a break disconnection, wiring error, short circuit on the PROFINET cable or the specifications (cable length, etc.). b. Check the communication setting. c. Check that the master module operates correctly. d. Replace the PROFINET compatible module.

12.572: PROFINET overtime error

Code : &H000C &H0232

Meaning/Cause	a. Communication error occurred by noise, etc. in the PROFINET system. b. Master module power is turned off or has stopped operating. c. The cable is broken or unconnected.
Action	a. Take the noise preventive actions for the cable and controller of the PROFINET system. b. Check that the master module operates correctly. c. Check the PROFINET cable connection.

12.581: Counter1 wire breakage

Code : &H000C &H0245

Meaning/Cause	The encoder cable connected to the counter 1 is broken. The break detection is available when the counter 1 is set to "VALID".
Action	• Set the counter status to "INVALID" if the encoder is not connected to the counter 1. • Check the encoder cable of the counter 1. • Check if the encoder works normally.

12.582: Counter2 wire breakage

Code : &H000C &H0246

Meaning/Cause	The encoder cable connected to the counter 2 is broken. The break detection is available when the counter 2 is set to "VALID".
Action	• Set the counter status to "INVALID" if the encoder is not connected to the counter 2. • Check the encoder cable of the counter 2. • Check if the encoder works normally.

12.583: Tracking watchdog error

Code : &H000C &H0247

Meaning/Cause	There is no response from the tracking board for a certain time.
Action	• Check the tracking board connection status. • Check if the tracking board is recognized on the programming box. • Turn the power off and on again.

12.600: Emergency stop on

Code : &H000C &H0258

Meaning/Cause	a. The programming box emergency stop button was pressed. b. The emergency stop terminal on the SAFETY connector is open (emergency stop status). c. The programming box or terminator is not connected to the PB connector. d. The SAFETY connector is not connected.
Action	a. Release the emergency stop button on the programming box. b. Close the emergency stop terminal on SAFETY connector. c. Connect the programming box or terminator to the PB connector. d. Attach the SAFETY connector.

12.601: Illegal operation mode input

Code : &H000C &H0259

Meaning/Cause	a. The programming box or terminator is not connected to the PB connector, b. Settings of the MANUAL LOCK of the programming box and AUTO MODE of the SAFETY connector are incorrect in the case of a CE specification controller.
Action	a. Connect the programming box or terminator to the PB connector. b. Check the AUTO MODE connection of the SAFETY connector in the case of a CE specification controller.

12.700: Option board changed

Code : &H000C &H02BC

Meaning/Cause	The option board configuration was changed.
Action	Initialize the option board setting.

12.705: Parallel I/O board assign changed

Code : &H000C &H02C1

Meaning/Cause	a. The PIO board was pulled out, or new one was inserted. b. "Option board enable" parameter was changed. c. "Parallel IO ID" parameter was changed. d. PIO board is damaged.
Action	a. Check if the PIO board configuration is correct. b. Check if the option board configuration is correct. c. Check the PIO board IDs are correct. d. Check unrecognizable PIO boards and replace them.

12.706: PIO board I/O stop

Code : &H000C &H02C2

Meaning/Cause	a. PIO board power is turned off or has stopped operation. b. The PIO board is broken.
Action	a. Check if power for the PIO board is supplied normally. b. Replace the PIO board.

12.734: POS.OUT Point not exist

Code : &H000C &H02DE

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

12.735: POS.OUT Point unit error

Code : &H000C &H02DF

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

12.750: PIO board Flash error

Code : &H000C &H02EE

Meaning/Cause	The PIO board is breakdown.
Action	Replace the PIO board.

12.751: PIO STD. board connector error

Code : &H000C &H02EF

Meaning/Cause	a. The standard PIO board cable is not connected. b. The standard PIO board connector is half-plugged. c. The standard PIO board wiring is incorrect.
Action	a. Connect the standard PIO board cable. b. Re-insert the standard PIO board connector. c. Check the wiring of the standard PIO board.

12.760: CC-Link initialize error

Code : &H000C &H02F8

Meaning/Cause	Initializing the CC-Link option board failed.
Action	Contact your distributor.

12.761: DeviceNet initialize error

Code : &H000C &H02F9

Meaning/Cause	Initializing the DeviceNet option board failed.
Action	Contact your distributor.

12.762: EtherNet/IP initialize error

Code : &H000C &H02FA

Meaning/Cause	Initializing the EtherNet/IP option board failed
Action	Contact your distributor.

12.763: EtherNet/IP parameter mismatch

Code : &H000C &H02FB

Meaning/Cause	Parameters set in the controller do not correspond to those set in the option board.
Action	Initialize the EtherNet/IP option parameters.

12.764: PROFIBUS initialize error

Code : &H000C &H02FC

Meaning/Cause	Initializing the PROFIBUS option board failed.
Action	Contact your distributor.

12.765: PROFINET initialize error

Code : &H000C &H02FD

Meaning/Cause	Initializing the PROFINET option board failed.
Action	Contact your distributor.

12.900: Incorrect option setting

Code : &H000C &H0384

Meaning/Cause	a. Error occurred in ID setting on the option module. b. Option modules that cannot be mixed were installed. c. The installed option module cannot be identified.
Action	a. Check the ID setting of the option module. b. Install the correct option modules. c. Replace the option module. • Replace the controller.

12.901: PIO internal error

Code : &H000C &H0385

Meaning/Cause	a. The PIO board cable is abnormal. b. The PIO board power is turned off, or has stopped operation. c. The PIO board is breakdown.
Action	a. Check for a break disconnection, wiring error, short circuit on the PIO cable or the specifications (cable length, etc.). b. Check if power for the PIO board is supplied normally. c Replace the PIO board.

12.903: PIO option setting error

Code : &H000C &H0387

Meaning/Cause	The PIO board installed incorrectly.
Action	• Remove the PIO board for correct configuration. • Set the PIO board INVALID for correct configuration.

12.904: SIO option board initialize error

Code : &H000C &H0388

Meaning/Cause	Initializing the SIO option board failed.
Action	Contact your distributor.

12.905: Option board overlapped

Code : &H000C &H0389

Meaning/Cause	The installed option board cannot be overlapped.
Action	Remove the option board that cannot be overlapped.

12.906: Undefined option board

Code : &H000C &H038A

Meaning/Cause	The installed option board inapplicable.
Action	Contact your distributor.

[14] Alarm related to the communication

14.201 : Communication error

Code : &H000E &H00C9

Meaning/Cause	a. Error occurred in the external communication. b. The external device was turned on or off with connecting to the communication cable.
Action	• Prevent putting noise generation source close to the robot so as to improve the communication environment. • Replace the communication cable. • Check the communication parameter settings.

14.211 : Receive buffer overflow

Code : &H000E &H00D3

Meaning/Cause	The communication receive buffer exceeded permissible capacity.
Action	• Decrease the communication parameter speed (baud rate). • Change communication parameter so that the flow control is enabled.

14.212 : CMU is not ready

Code : &H000E &H00D4

Meaning/Cause	Sending the data from controller failed because the receiving prohibition status of the external device continued for 10 or more seconds.
Action	• Replace the communications cable. • Check that the flow control is normal in software processing for the external device.

14.220 : Too many Command characters

Code : &H000E &H00DC

Meaning/Cause	a. The online command character string in 1 line exceeded 255 characters. b. The command statement created with a remote command exceeded 255 characters.
Action	a. Limit the number of characters in 1 line for an online command to 255 or less. b. Check the command data of the remote command.

14.221 : No return code(C/R)

Code : &H000E &H00DD

Meaning/Cause	a. The character string in 1 line exceeded 255 characters. b. C/R code (0Dh) was not added at the end of a single line.
Action	a. Limit the number of characters in 1 line to 255. b. Add a C/R code (0Dh) at the end of a single line.

14.222 : No start code (@)

Code : &H000E &H00DE

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

14.228 : Illegal port type

Code : &H000E &H00E4

Meaning/Cause	The communication port is not specified.
Action	Contact your distributor.

14.229 : Command stop timeout

Code : &H000E &H00E5

Meaning/Cause	Timeout occurred during sending/receiving through the communication port.
Action	• Check the communication port settings. • Check the communication cable connection.

14.230 : Port is already open

Code : &H000E &H00E6

Meaning/Cause	The communication port is open.
Action	Check if the communication port has already been opened.

14.231 : Port open failed

Code : &H000E &H00E7

Meaning/Cause	Opening the communication port failed.
Action	• Check the communication port settings. • Check the communication cable. • Check if the communication port has already been opened.

14.233 : Parameter error

Code : &H000E &H00E9

Meaning/Cause	The parameter exceeded the range that can be input.
Action	Set the parameters within the range.

14.400: Communicate disconnected

Code : &H000E &H0190

Meaning/Cause	a. Error occurred on the external communication. b. Overrun error or framing error occurred. c. External device power was turned on/off with connecting to the external device by the communication cable.
Action	• Prevent putting noise generation source close to the robot so as to improve the communication environment. • Check the connection of the communication cable. • Replace the communication cable. • Check the communication parameter settings.

14.441: EtherNet link error

Code : &H000C &H01B9

Meaning/Cause	Error occurred on the EtherNet/IP option board.
Action	Contact your distributor.

14.500: Data send error

Code : &H000E &H0190

Meaning/Cause	Error occurred on the external communication by RS-232C during sending.
Action	Check the communication parameter settings.

14.501: Data receive error

Code : &H000E &H01F5

Meaning/Cause	Error occurred on the external communication by RS-232C during receiving.
Action	Check the communication parameter settings.

14.502: Framing error

Code : &H000E &H01F6

Meaning/Cause	Error occurred on the external communication by RS-232C.
Action	Check the communication parameter settings.

14.503: Parity error

Code : &H000E &H01F7

Meaning/Cause	Error occurred on the external communication by RS-232C.
Action	Check the communication parameter settings.

14.504: Over run error

Code : &H000E &H01F8

Meaning/Cause	Error occurred on the external communication by RS-232C.
Action	Check the communication parameter settings.

14.505: Break

Code : &H000E &H01F9

Meaning/Cause	Error occurred in external communication by RS-232C.
Action	Check the communication parameter settings.

14.700: Can't be initialized

Code : &H000E &H02BC

Meaning/Cause	Initializing the communication port failed.
Action	Check the communication port settings.

[17] Alarm related to the motor control

17.400: PZ failure

Code : &H0011 &H0190

Meaning/Cause	a. The motor is defective. b. The resolver signal wire is broken.
Action	a. Replace the motor. b. Replace the ROB I/O cable.

17.401: Pole search error

Code : &H0011 &H0191

Meaning/Cause	The motor magnetic pole was not detected when the servo was turned on. a. The servo wire is broken or incorrectly connected. b. The position sensor cable is incorrectly wired. c. Axis parameter settings related to motor control is incorrect.
Action	a. Check the connection of the servo wire. b. Check the connection of the position sensor cable. c. Set the parameter setting correctly.

17.402: ABS. data error

Code : &H0011 &H0192

Meaning/Cause	a. The linear scale length setting is incorrect. b. Z-phase was detected incorrectly.
Action	a. Set the correct value for the linear scale length. b-1. Replace the ROB/IO cable. b-2. Replace the robot.

17.403: Position reset malposition

Code : &H0011 &H0193

Meaning/Cause	a. "ABSINIT" statement was executed at a position where the current position cannot be reset. b. Absolute reset was executed at a position where it cannot be executed.
Action	a. Move to a position where the current position can be reset, and then execute the "ABSINIT" statement. b. Move the axis to a position (machine reference is 44 to 56%) where the absolute reset can be executed.

17.404: Moving distance error

Code : &H0011 &H0194

Meaning/Cause	The movement distance exceeded the specified value by return-to-origin.
Action	Re-perform the system generation.

17.410: ABS. battery error during power off

Code : &H0011 &H019A

Meaning/Cause	During the controller power-off... a. The absolute battery cable is breakdown. b. The absolute battery cable is not connected. c. The absolute battery voltage has dropped.
Action	This alarm occurs every time the power is turned on until the absolute reset is completed. a. Replace the absolute battery. b. Connect the absolute battery. c. Set the "Incremental mode control" parameter to "VALID" for use in incremental mode.

17.411: Resolver disconnected during power off

Code : &H0011 &H019B

Meaning/Cause	• Resolver signal line was disconnected or breakdown during the controller power-off. (Same as when ROB I/O connector is removed.) • The controller was restarted after the resolver signal line had been disconnected during power-on. (Same as when ROB I/O connector is removed.) Even after turning off the power, the controller still memorizes the disconnection and this is displayed as an error when the controller is restarted.
Action	Perform absolute reset.

17.412: ABS. count error

Code : &H0011 &H019C

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

17.413: ABS. overflow error

Code : &H0011 &H019D

Meaning/Cause	The number of motor rotation exceeded 4096 during the controller power-off.
Action	• Do not rotate motor more than necessary during the controller power-off. • Perform absolute reset.

17.414: ABS. mixing error 1

Code : &H0011 &H019E

Meaning/Cause	The position data count is inconsistent. (The electrical resolver position data deviated from the mechanical during the controller power-off.)
Action	Perform absolute reset.

17.500: Origin sensor failure

Code : &H0011 &H01F4

Meaning/Cause	a. The origin sensor is defective. b. The origin sensor wiring is breakdown.
Action	a. Replace the origin sensor. b. Replace the ROB I/O cable.

17.800: Motor overload

Code : &H0011 &H0320

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

17.801: Driver overload

Code : &H0011 &H0321

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

17.802: Current limit error

Code : &H0011 &H0322

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

17.900: AC power down

Code : &H0011 &H0384

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

17.901: Over voltage

Code : &H0011 &H0385

Meaning/Cause	a. Output voltage for motor power supply exceeded 420 V. b. The regenerative unit safety device was triggered due to temperature rise (120 °C or more) in regeneration damping resistor. c. The regenerative unit is defective. d. The SAFETY connector is used incorrectly.
Action	a, b-1. Check the power supply voltage. b-2, c. Lower the robot duty cycle. d. Do not supply 24 V DC to the SAFETY connector from external source.

17.902: IPM error

Code : &H0011 &H0386

Meaning/Cause	• The power module overheated. • The power module or motor drew excessive current.
Action	Lighten the load on the robot.

17.905: Resolver wire breakage

Code : &H0011 &H0389

Meaning/Cause	a. The resolver signal wire is broken. b. The motor malfunction occurred. c. The controller malfunction occurred.
Action	a. Replace the ROB I/O cable. b. Replace the motor. c. Replace the controller.

17.906: ABS. mixing error 2

Code : &H0011 &H038A

Meaning/Cause	The position data count is not consistent while the controller power is on.
Action	• Replace the ROB/IO cable. • Replace the controller.

17.910: Position deviation error

Code : &H0011 &H038E

Meaning/Cause	a. The robot drive section mechanically locked. b. The motor acceleration is excessive. c. The system generation setting is incorrect. d. The motor cable wiring is broken or wiring is incorrect. e. The vertical axes electromagnetic brake is defective. f. Wiring is incorrect or disconnected on the vertical axes electromagnetic brake. g. The SAFETY connector is not used correctly.
Action	a. Perform robot service and maintenance. b. Lower the motor acceleration. c. Redo the system generation. d-1. Wire the motor cable correctly. d-2. Replace the motor cable. e. Replace the vertical axes electromagnetic brake. f. Replace the ROB I/O cable. g. Do not use 24 V DC from the SAFETY connector as power source for external loads.

17.911: Velocity deviation error

Code : &H0011 &H038F

Meaning/Cause	a. The robot drive section mechanically locked. b. The motor acceleration is excessive. c. The system generation setting is incorrect. d. The motor cable wiring is broken or wiring is incorrect. e. The vertical axes electromagnetic brake is defective. f. Wiring is incorrect or disconnected on the vertical axes electromagnetic brake.
Action	a. Perform robot service and maintenance. b. Lower the motor acceleration. c. Redo the system generation. d-1. Wire the motor cable correctly. d-2. Replace the motor cable. e. Replace the vertical axes electromagnetic brake. f. Replace the ROB I/O cable.

17.912: Current deviation error

Code : &H0011 &H0390

Meaning/Cause	a. The motor cable wiring was broken. b. The controller was defective.
Action	a. Replace the motor cable. b. Replace the controller.

17.913: Dual position deviation error

Code : &H0011 &H0391

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

17.914: Overspeed

Code : &H0011 &H0392

Meaning/Cause	a. The robot drive unit was pushed by external force and its speed exceeded the specified value. b. The system generation setting is incorrect.
Action	a. Remove the external force. b. Re-perform the system generation.

17.915: Motor over current

Code : &H0011 &H0393

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

17.916: Feedback error1

Code : &H0011 &H0394

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

17.920: EMG. stop Input error

Code : &H0011 &H0398

Meaning/Cause	a. The driver unit malfunctioned by external noise. b. The controller is defective.
Action	a. Turn the power off and then on again. b. Contact your distributor.

17.921: Reference velocity error

Code : &H0011 &H0399

Meaning/Cause	a. The driver unit malfunctioned by external noise. b. The controller is defective.
Action	a. Turn the power off and then on again. b. Contact your distributor.

17.922: Command error

Code : &H0011 &H039A

Meaning/Cause	a. The driver unit malfunctioned by external noise. b. The controller is defective.
Action	a. Turn the power off and then on again. b. Contact your distributor.

17.923: Parameter data error

Code : &H0011 &H039B

Meaning/Cause	a. The driver unit malfunctioned by external noise. b. The controller is defective.
Action	a. Turn the power off and then on again. b. Contact your distributor.

17.990: Watchdog error 1

Code : &H0011 &H03DE

Meaning/Cause	a. The driver unit malfunctioned by external noise. b. The controller is defective.
Action	a. Turn the power off and then on again. b. Contact your distributor.

17.991: Watchdog error 2

Code : &H0011 &H03DF

Meaning/Cause	a. The driver unit malfunctioned by external noise. b. The controller is defective.
Action	a. Turn the power off and then on again. b. Contact your distributor.

17.992: System error 1

Code : &H0011 &H03E0

Meaning/Cause	Error occurred in software for driver unit.
Action	Contact your distributor.

17.993: System error 2

Code : &H0011 &H03E1

Meaning/Cause	Error occurred in software for driver unit.
Action	Contact your distributor.

17.994: System error 3

Code : &H0011 &H03E2

Meaning/Cause	Error occurred in software for driver unit.
Action	Contact your distributor.

17.995: System error 4

Code : &H0011 &H03E3

Meaning/Cause	Error occurred in software for driver unit.
Action	Contact your distributor.

17.996: Mode error 1

Code : &H0011 &H03E4

Meaning/Cause	Error occurred in software for driver unit.
Action	Contact your distributor.

17.997: Mode error 2

Code : &H0011 &H03E5

Meaning/Cause	Error occurred in software for driver unit.
Action	Contact your distributor.

17.999: Undefined

Code : &H0011 &H03E7

Meaning/Cause	Undefined system error.
Action	Contact your distributor.

[19] Alarm related to the YC-Link/E

19.400: YC/E slave connecting retry

Code : &H0013 &H0190

Meaning/Cause	The YC-Link/E slave is retrying the connection establishment with the master.
Action	Please wait while retrying the connection.

19.500: YC/E master port open fail

Code : &H0013 &H01F4

Meaning/Cause	The communication port of the YC-Link/E master board does not open within a certain period of time (about 20 seconds).
Action	• Check that the master and slave are connected with the cables. • Check the slave power is turned on.

19.501: YC/E communicate initialize fail

Code : &H0013 &H01F5

Meaning/Cause	The communication failed in the initialization process of the YC-Link/E connection.
Action	• Restart the controller. • Take noise preventive measures. • Replace the slave option board.

19.502: YC/E slave port wrong

Code : &H0013 &H01F6

Meaning/Cause	The IN port and OUT port of the YC-Link/E slave are used incorrectly.
Action	• Check the connection. • Reconnect the cable into the correct port.

19.800: YC/E send data checksum error

Code : &H0013 &H0320

Meaning/Cause	The checksum error occurred in the data sent from the YC-Link/E master.
Action	• Check the cable connection. • Replace the cable. • Take noise preventive measures. • Replace the controller.

19.801: YC/E receive data checksum error

Code : &H0013 &H0321

Meaning/Cause	The checksum error occurred in the data received by the YC-Link/E master (Host check).
Action	• Check the cable connection. • Replace the cable. • Take noise preventive measures. • Replace the controller.

19.802: YC/E working counter error

Code : &H0013 &H0322

Meaning/Cause	a. The YC-Link/E master could not send the data correctly. b. The slave could not receive the data correctly.
Action	• Check the cable connection. • Replace the cable. • Replace the master board and slave board.

19.805: YC/E master receive checksum error

Code : &H0013 &H0325

Meaning/Cause	The checksum error occurred in the data received by the YC-Link/E master. (Master check)
Action	• Check the cable connection. • Replace the cable. • Take noise preventive measures. • Replace the controller.

19.900: YC/E master board watchdog error

Code : &H0013 &H0384

Meaning/Cause	The data was not sent from the master board of the YC-Link/E for a certain period of time.
Action	• Check the LAN cable for disconnection. • Take noise preventive measures. • Replace the master board.

19.901: YC/E master interrupt fail

Code : &H0013 &H0385

Meaning/Cause	The master board of the YC-Link/E could not receive the data from the HOST CPU for a certain period of time.
Action	• Check the LAN cable for disconnection. • Take noise preventive measures. • Replace the master board.

19.902: YC/E master data send fail

Code : &H0013 &H0386

Meaning/Cause	The master board of the YC-Link/E could not send the data for a certain period of time.
Action	• Check the LAN cable for disconnection. • Take noise preventive measures. • Replace the master board.

19.903: YC/E master data receive fail

Code : &H0013 &H0387

Meaning/Cause	The return of the data packet sent from the master board of the YC-Link/E could not be received for a certain period of time.
Action	• Check the LAN cable for disconnection. • Take noise preventive measures. • Replace the master board.

19.904: YC/E master send data destroy

Code : &H0013 &H0388

Meaning/Cause	The return of the data packet sent from the master board of the YC-Link/E was different from its sent status.
Action	• Take noise preventive measures. • Replace the master board.

19.905: YC/E master send data destroy

Code : &H0013 &H0389

Meaning/Cause	The format of the data received by the master board of the YC-Link/E was faulty.
Action	• Take noise preventive measures. • Replace the master board.

19.906: YC/E invalid slave exist

Code : &H0013 &H038A

Meaning/Cause	Slave that cannot be used exists in the slaves of the YC-Link/E.
Action	Remove the inapplicable slave.

19.907: YC/E slave unconformity

Code : &H0013 &H038B

Meaning/Cause	The controller mode setting on the master controller of the YC-Link/E is different from that on the slave controller.
Action	Replace the controller.

19.908: YC/E slave config mismatch

Code : &H0013 &H038C

Meaning/Cause	The number of controllers set in the master of the YC-Link/E is different from the number of actually connected controllers.
Action	Change the parameter setting or turn off the power, and turn it on again after matching the number of slaves to the setting.

19.909: YC/E slave power low

Code : &H0013 &H038D

Meaning/Cause	The control power voltage of the YC-Link/E slave dropped.
Action	Check the power supply of the slave, and turn off both the master and slave, and turn them on again.

19.910: YC/E system power turn on again

Code : &H0013 &H038E

Meaning/Cause	The slave of the YC-Link/E does not communicate. Only the master might be turned off, and then it might be turned on again.
Action	Turn off all the controllers that are connected with the YC-Link/E, and turn them on again.

19.920: YC/E master slave loose connection

Code : &H0013 &H0398

Meaning/Cause	The connection between the master and slave of the YC-Link/E has broken.
Action	• Check the cable connection. • Replace the cable. • Take noise preventive measures. • Replace the controller.

19.993: YC/E master fatal error

Code : &H0013 &H03E1

Meaning/Cause	An unknown error occurred in the YC-Link/E.
Action	Contact your distributor.

[20] Alarm related to the iVY2 system

20.100: Vision Camera channel out of range

Code : &H0014 &H0064

Meaning/Cause	The specified camera channel number is out of range.
Action	Change to a correct camera channel number.

20.101: Vision Target number out of range

Code : &H0014 &H0065

Meaning/Cause	The specified model number is out of range.
Action	Change to a correct model number.

20.102: Vision Calibration number out of range

Code : &H0014 &H0066

Meaning/Cause	The specified camera calibration number is out of range.
Action	Change to a correct camera calibration number.

20.103: Vision Memory number out of range

Code : &H0014 &H0067

Meaning/Cause	The specified memory number is out of range.
Action	Change to a correct memory number.

20.104: Vision File name number of characters error

Code : &H0014 &H0068

Meaning/Cause	The number of charaters in the file name is out of range.
Action	Change to a correct file name.

20.105: Vision array number out of range

Code : &H0014 &H0069

Meaning/Cause	The specified array number is out of range.
Action	Change to a correct array number.

20.106: Vision task number out of range

Code : &H0014 &H006A

Meaning/Cause	The specified task number is out of range.
Action	Change to a correct task number.

20.107: Vision Light channel out of range

Code : &H0014 &H006B

Meaning/Cause	The specified light channel number is out of range.
Action	Change to a correct light channe numbel number.

20.108: Vision data out of range

Code : &H0014 &H006C

Meaning/Cause	The specified data value is out of range.
Action	Change to a correct data value.

20.120: Vision calibration error

Code : &H0014 &H0078

Meaning/Cause	An error occurred during camera calibration. a. The fiducial mark was not detected. b. The fiducial mark is outside the camera's field of view.
Action	• Make sure that the fiducial mark is registered. • Make sure that the fiducial mark is correctly recognized. • Check the camera calibration settings.

20.121: Vision Calibration Robot type error

Code : &H0014 &H0079

Meaning/Cause	The camera calibration setting is not corresponded to the robot type.
Action	Change the camera calibration setting.

20.122: Vision Calibration Calculate error

Code : &H0014 &H007A

Meaning/Cause	The camera calibration calculation was failed.
Action	• Change the camera calibration movement range. • Confirm the point data for creating the camera calibration data.

20.123: Vision Calibration Setting error

Code : &H0014 &H007B

Meaning/Cause	The specified camera calibration setting is not suitable for the specification.
Action	Change the camera calibration.

20.300: Vision not installed

Code : &H0014 &H012C

Meaning/Cause	The iVY2 unit is not connected. a. The iVY2 unit is not connected. b. The iVY2 unit is disabled. c. The iVY2 unit has malfunctioned.
Action	a. Verify that the iVY2 unit is connected correctly. b. Enable the iVY2 unit's enable/ disable parameter. c. Replace the iVY2 unit.

20.301: Vision edit mode error

Code : &H0014 &H012D

Meaning/Cause	The iVY2 unit is in Edit mode. • RCX-Studio Pro is connected in Edit mode. • iVY2 Studio is connected in Edit mode.
Action	• Disconnect RCX-Studio Pro or iVY2 Studio. • Change the RCX-Studio Pro or iVY2 Studio connection to Monitor mode.

20.302: Vision not ready

Code : &H0014 &H012E

Meaning/Cause	The iVY2 unit is starting up.
Action	Verify that the iVY2 unit's status LED (green) has changed from flashing to lit before you perform operations.

20.303: Vision camera disconnected

Code : &H0014 &H012F

Meaning/Cause	The camera cannot be detected correctly. a. The camera cable may be broken or disconnected. b. The camera channel is not assigned. c. The camera has malfunctioned.
Action	a. Check the camera cable connection. b. Check the camera channel. c. Replace the camera and cable.

20.304: Vision no pattern data

Code : &H0014 &H0130

Meaning/Cause	A model is not registered for the specified model number. a. Model registration has not been performed. b. There is a mistake in the specified model number.
Action	a. Perform model registration. b. Change the specified model number.

20.305: Vision mismatch between image and pattern

Code : &H0014 &H0131

Meaning/Cause	The specified camera does not match the model image size.
Action	• Check the specified model. • Check the number of screen pixels for the specified camera.

20.306: Vision calibration not set

Code : &H0014 &H0132

Meaning/Cause	There is a mistake in the specified camera calibration number.
Action	• Specify a different camera calibration number. • Perform camera calibration settings.

20.307: Vision memory image doesn't exist

Code : &H0014 &H0133

Meaning/Cause	There is no image in the specified memory number.
Action	• Register an image in the memory number that you specify. • Execute the "VCAPTURE" command and "VSEARCH" command.

20.308: Vision no result data

Code : &H0014 &H0134

Meaning/Cause	a. The specified result array number is incorrect. b. Search has not been executed. c. No workpiece was detected.
Action	a. Specify a different result array number. b. Execute search. c. Check the model setting so that the workpiece is detected.

20.309: Vision search timeout

Code : &H0014 &H0135

Meaning/Cause	The search ended in a timeout. a. The fiducial mark was not detected. b. The fiducial mark is outside the camera's field of view.
Action	a. Change the timeout setting parameter of the specified model. b. Change the model setting of the specified model. (Refer to the iVY2 manual for details.)

20.310: Vision memory full

Code : &H0014 &H0136

Meaning/Cause	The iVY2 unit has no free memory capacity.
Action	Read the image data, and delete unneeded data from the iVY2 unit.

20.311: Vision not execute search

Code : &H0014 &H0137

Meaning/Cause	Search was not executed.
Action	Execute a search command ("VSEARCH", "VSEARCHS", "VSEARCHR", "VSEARCHM").

20.312: Vision command running

Code : &H0014 &H0138

Meaning/Cause	A vision command is currently running.
Action	Wait for the vision command to finish before executing.

20.313: Vision camera FOV mismatch

Code : &H0014 &H0139

Meaning/Cause	The number of screen pixels of the specified camera and the camera calibration data do not match.
Action	• Specify a different camera number. • Specify a different camera calibration number. • Correct the camera calibration data.

20.314: Vision trigger timeout

Code : &H0014 &H013A

Meaning/Cause	a. The trigger timeout setting is too short. b. There is a problem with the wiring of the camera H/W trigger input cable. c. The camera H/W trigger input cable is broken.
Action	a. Check the setting of the "trigger timeout" camera parameter. b. Check the wiring and connection of the camera H/W trigger input cable. c. Check whether the camera H/W trigger input cable might be broken.

20.315: Vision camera parameter set error

Code : &H0014 &H013B

Meaning/Cause	Setting the camera parameters failed.
Action	• Specify a different parameter value. • Check the state of the iVY2 unit.

20.316: Vision light parameter set error

Code : &H0014 &H013C

Meaning/Cause	Setting the light parameters failed.
Action	• Specify a different parameter value. • Check the state of the iVY2 unit.

20.317: Vision unit version mismatch

Code : &H0014 &H013D

Meaning/Cause	The iVY2 unit version is not corresponded.
Action	Update the iVY2 unit.

20.380: Vision system error

Code : &H0014 &H017C

Meaning/Cause	A problem has occurred with the iVY2 unit.
Action	Contact your distributor.

20.381: Vision capture timeout

Code : &H0014 &H017D

Meaning/Cause	Capturing the image failed.
Action	Check the wiring and connection of the camera cable.

20.382: Vision system error

Code : &H0014 &H017E

Meaning/Cause	A problem has occurred with the iVY2 unit.
Action	Contact your distributor.

20.383: Vision system error

Code : &H0014 &H017F

Meaning/Cause	A problem has occurred with the iVY2 unit.
Action	Contact your distributor.

20.384: Vision system error

Code : &H0014 &H0180

Meaning/Cause	A problem has occurred with the iVY2 unit.
Action	Contact your distributor.

20.385: Vision system error

Code : &H0014 &H0181

Meaning/Cause	A problem has occurred with the iVY2 unit.
Action	Contact your distributor.

20.386: Vision system error

Code : &H0014 &H0182

Meaning/Cause	A problem has occurred with the iVY2 unit.
Action	Contact your distributor.

20.387: Vision system error

Code : &H0014 &H0183

Meaning/Cause	A problem has occurred with the iVY2 unit.
Action	Contact your distributor.

20.399: Vision system software error

Code : &H0014 &H018F

Meaning/Cause	A problem has occurred with the iVY2 unit.
Action	Contact your distributor.

20.400: Vision EtherNet link error

Code : &H0014 &H0190

Meaning/Cause	a. The cable is broken, or the connector is disconnected. b. 24 VDC power is not being supplied to the iVY2 unit, or it has stopped operating.
Action	a. Replace the cable or connect the connector correctly. b. Restart the iVY2 unit.

20.401: Vision EtherNet connection timeout

Code : &H0014 &H0191

Meaning/Cause	iVY2 Ethernet communication has timed-out.
Action	Contact your distributor.

20.402: Vision EtherNet system error

Code : &H0014 &H0192

Meaning/Cause	A problem has occurred with iVY2 Ethernet communication.
Action	Contact your distributor.

20.500: Vision DC24V disconnected

Code : &H0014 &H01F4

Meaning/Cause	24 VDC is not being supplied. a. 24 VDC is not being supplied. b. There is a problem with the 24 VDC wiring. c. The 24 VDC cable is broken.
Action	a. Check the 24 VDC status. b. Check the24 VDC wiring. c. Check whether the 24 VDC cable might be broken. * Use alarm reset to restart the iVY2 unit.

20.700: Vision initialize error

Code : &H0014 &H02BC

Meaning/Cause	An error occurred while initializing the iVY2 unit.
Action	• Check the wiring of the camera and lighting. • Restart the iVY2 unit. * Use alarm reset to restart the iVY2 unit.

20.701: Vision renew parameter error

Code : &H0014 &H02BD

Meaning/Cause	Synchronization with the iVY2 unit's parameters failed.
Action	• Check the status of the iVY2 unit. • Re-synchronize with the iVY2 unit. * Use alarm reset to re-synchronize with the iVY2 unit.

20.702: Vision camera parameter init error

Code : &H0014 &H02BE

Meaning/Cause	Camera parameter initialization failed. a. The structure of the connected camera was changed. b. The camera cable is broken or the connector is disconnected. c. The camera has malfunctioned.
Action	a. Check the camera parameter settings. b. Connect the cable and connector. c. Replace the camera.

20.703: Vision light parameter init error

Code : &H0014 &H02BF

Meaning/Cause	Lighting parameter initialization failed.
Action	Check the lighting parameter settings.

20.704: Vision abnormal temperature error

Code : &H0014 &H02C0

Meaning/Cause	The iVY2 unit's temperature has risen beyond approximately 90 °C.
Action	• Improve the installation conditions. • Check that the cooling fan is working correctly. • Replace the iVY2 unit. * Use alarm reset to restart the iVY2 unit.

20.705: Vision system thermal shutdown

Code : &H0014 &H02C1

Meaning/Cause	The iVY2 unit shut down automatically because of high temperature.
Action	• Improve the installation conditions. • Check that the cooling fan is working correctly. • Replace the iVY2 unit. * Use alarm reset to restart the iVY2 unit.

20.706: Vision file error

Code : &H0014 &H02C2

Meaning/Cause	The iVY2 unit's memory is damaged.
Action	• Connect with the iVY2 Studio and execute Recovery mode. • Replace the iVY2 unit.

20.750: Vision system status error

Code : &H0014 &H02EE

Meaning/Cause	A problem has occurred with the iVY2 unit.
Action	Contact your distributor.

20.751: Vision system status error

Code : &H0014 &H02EF

Meaning/Cause	A problem has occurred with the iVY2 unit.
Action	Contact your distributor.

20.752: Vision system status error

Code : &H0014 &H0F0

Meaning/Cause	A problem has occurred with the iVY2 unit.
Action	Contact your distributor.

20.753: Vision system status error

Code : &H0014 &H02F1

Meaning/Cause	A problem has occurred with the iVY2 unit.
Action	Contact your distributor.

20.754: Vision system status error

Code : &H0014 &H02F2

Meaning/Cause	A problem has occurred with the iVY2 unit.
Action	Contact your distributor.

20.755: Vision system status error

Code : &H0014 &H02F3

Meaning/Cause	A problem has occurred with the iVY2 unit.
Action	Contact your distributor.

20.756: Vision system status error

Code : &H0014 &H02F4

Meaning/Cause	A problem has occurred with the iVY2 unit.
Action	Contact your distributor.

20.900: Vision CFastcard doesn't exist

Code : &H0014 &H0384

Meaning/Cause	The CFast card is not connected.
Action	Contact your distributor.

[21] Serious alarm related to software

21.900: System error (EXCEPTION)

Code : &H0015 &H0384

Meaning/Cause	Software error occurred.
Action	Contact your distributor.

21.903: System error (TaskID)

Code : &H0015 &H0387

Meaning/Cause	Software error occurred.
Action	Contact your distributor.

21.912: System error (RTOS)

Code : &H0015 &H0390

Meaning/Cause	Software error occurred.
Action	Contact your distributor.

21.915: System error (NULL access)

Code : &H0015 &H0393

Meaning/Cause	Software error occurred.
Action	Contact your distributor.

21.999: System error (UNDEFINED)

Code : &H0015 &H03E7

Meaning/Cause	Software error occurred.
Action	Contact your distributor.

[22] Serious alarm related to hardware

22.504: Abnormal drop in voltage

Code : &H0016 &H01F8

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

22.507: Driver over heat

Code : &H0016 &H01FB

Meaning/Cause	The driver unit temperature increased to approximately 60 °C or more.
Action	• Improve the installation environment. • Check that the cooling fan operates correctly. • Replace or clean the cooling fan filter. • Decrease the robot duty cycle to reduce the amount of heat generated. • Replace the controller.

22.508: Regen. over heat

Code : &H0016 &H01FC

Meaning/Cause	The regenerative unit heated up abnormally.
Action	• Improve the installation environment. • Check that the cooling fan operates correctly. • Replace or clean the cooling fan filter. • Decrease the robot duty cycle to reduce the amount of heat generated. • Replace the controller.

22.509: Internal 24V power abnormal

Code : &H0016 &H01FD

Meaning/Cause	Internal 24V-power voltage dropped. a. The SAFETY connector wiring was incorrect. b. The brake cable was short-circuited. c. The controller malfunctioned.
Action	a. Perform the wiring of the SAFETY connector correctly. b. Replace the robot cable. c. Replace the controller.

22.511: Fan stop error

Code : &H0016 &H01FF

Meaning/Cause	Power was not supplied to the controller cooling fan. a. The controller cooling fan cable wiring was broken. b. ROB I/O cable was short-circuited. c. The controller malfunctioned. d. Error occurred in the controller cooling fan. e. The controller cooling fan malfunctioned.
Action	a. Replace the controller cooling fan cable. b. Replace the ROB/IO cable. c. Replace the controller. d, e. Replace the controller cooling fan.

22.516: Controller over heat

Code : &H0016 &H0204

Meaning/Cause	The environmental temperature inside the controller increased to approximately 60 °C or more.
Action	• Improve the installation environment. • Check that the cooling fan operates correctly. • Replace the controller.

22.600: Motor power off

Code : &H0016 &H0258

Meaning/Cause	The main power voltage dropped in the servo on or servo off status.
Action	Check that the main power is input.

22.800: Control power off

Code : &H0016 &H0320

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

CAUTION

This error always occurs when the power is cut off.

22.901: CT type mismatch

Code : &H0016 &H0385

Meaning/Cause	The correct current sensor controller is not used for the set robot.
Action	Replace the current sensor controller with a correct one.

22.902: Position sensor type mismatch

Code : &H0016 &H0386

Meaning/Cause	The correct position sensor is not set for the set robot correctly.
Action	Contact your distributor.

22.903: Driver unit disconnected

Code : &H0016 &H0387

Meaning/Cause	The CPU unit did not recognize the driver unit.
Action	Replace the controller.

22.904: Driver2 board disconnected

Code : &H0016 &H0388

Meaning/Cause	The CPU unit did not recognize the driver 2 board.
Action	Replace the controller.

22.905: Abnormal over voltage

Code : &H0016 &H0389

Meaning/Cause	a. Output voltage for motor power supply exceeded 420 V. b. The regenerative unit safety device triggered due to temperature rise in regeneration damping resistor. c. The regenerative unit is defective. d. The SAFETY connector is used incorrectly.
Action	• Check the power supply voltage. • Lower the robot duty cycle. • Do not supply 24 V DC to the SAFETY connector from external source.

22.906: Break 24V power abnormal

Code : &H0016 &H038A

Meaning/Cause	The brake power voltage dropped. a. Power was not supplied to BK 24 V. b. Brake cable was short-circuited. c. Controller malfunctioned.
Action	a. Supply the brake power. b. Replace the robot cable. c. Replace the controller.

[26] Alarm related to the gripper

26.97: Undefined gripper type number

Code : &H001A &H0061

Meaning/Cause	The specified type number gripper does not exist.
Action	Input the correct gripper number.

26.98: Gripper overlap assign

Code : &H001A &H0062

Meaning/Cause	a. A different gripper in an option slot for which generation settings were already made was registered. b. A different option slot to a gripper for which generation settings were already made was assigned.
Action	a. Change the option slot number. b. Stop making gripper settings.

26.99: Gripper undefined error

Code : &H001A &H0063

Meaning/Cause	Undefined error was detected on the gripper control board.
Action	Contact your distributor.

26.332: Gripper soft limit over

Code : &H001A &H014C

Meaning/Cause	The operating position exceeds the software limit value specified by the parameter.
Action	• Change the operating position to be within the software limit. • Change the software limit value. • Change the limit width.

26.336: Gripper servo off

Code : &H001A &H0150

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

26.337: Gripper stop signal on

Code : &H001A &H0151

Meaning/Cause	It was attempted to execute the program or move the gripper while the gripper's stop signal was ON.
Action	Contact your distributor.

26.350: Gripper data error

Code : &H001A &H015E

Meaning/Cause	Option data such as a movement command sent to the gripper control board exceeds the input range.
Action	Contact your distributor.

26.351: Gripper type error

Code : &H001A &H015F

Meaning/Cause	The gripper generation is set using an undefined type number.
Action	Contact your distributor.

26.395: Gripper type isn't assigned

Code : &H001A &H018B

Meaning/Cause	The gripper type number is not assigned.
Action	Use system generation settings to assign the gripper type number.

26.396: Gripper cannot get error

Code : &H001A &H018C

Meaning/Cause	Obtaining an error generated by the gripper itself failed.
Action	Contact your distributor.

26.397: Gripper disconnected

Code : &H001A &H018D

Meaning/Cause	a. The specified gripper is not connected. b. Generation is incomplete for the specified gripper.
Action	a. Connect the gripper. b. Make gripper settings.

26.398: Illegal gripper no

Code : &H001A &H018E

Meaning/Cause	A gripper number outside the range from 1 to 4 was specified.
Action	Specify a gripper number between 1 and 4.

26.399: Gripper timeout error

Code : &H001A &H018F

Meaning/Cause	Execution of a command sent to the gripper control board ended in timeout.
Action	Contact your distributor.

26.435: Gripper origin incomplete

Code : &H001A &H01B3

Meaning/Cause	Return-to-origin has not been performed.
Action	Perform return-to-origin so that the gripper is in the return-to-origin complete status.

26.604 Gripper 24V power supply voltage low

Code : &H001A &H025C

Meaning/Cause	The 24 V DC power supply voltage is less than 80% of the rated value.
Action	Check the power supply capacity, and if it is insufficient, adjust the power supply voltage to be within the rated range.

26.608 Gripper 24V power off

Code : &H001A &H0260

Meaning/Cause	a. The 24 V DC power supply is not wired. b. The 24 V DC power supply is not being provided. c. The 24 V DC power supply cable is disconnected.
Action	a. Check the wiring of the 24 V DC power supply. b. Check the 24 V DC power supply. c. Check the 24 V DC power supply cable.

26.612 Gripper over voltage

Code : &H001A &H0264

Meaning/Cause	The 24 V DC power supply voltage is greater than 130% of the rated value. a. Power supply voltage increased due to regeneration b. The DC24V power supply voltage is incorrect.
Action	a. Decrease the duty of the mechanism. b. Check the 24 V DC power supply voltage and adjust it to be within the rated range.

26.801 Gripper over load

Code : &H001A &H0321

Meaning/Cause	Motor overload a. Motor is defective. b. Parameters are incorrect. c. Power supply line capacity is insufficient. d. Excessive friction within the mechanism itself.
Action	a. If there are problems such as excessively heavy motion when moving the motor manually, replace the motor. b. Initialize the parameters. c. Check the power supply capacity, and if it is insufficient, adjust the power supply voltage to be within the rated range. d. Check the moving parts of the mechanism for heavy motion. If motion is excessively heavy, make readjustments.

26.802 Gripper over current

Code : &H001A &H0322

Meaning/Cause	Motor over current a. Motor wiring is shorted. b. Gripper control board is defective. c. Parameters are incorrect.
Action	a. Test the conductivity of the motor wiring, and if a fault is found, replace the motor. b. Replace the gripper control board. c. Initialize the parameters.

26.803 Gripper machine reference over

Code : &H001A &H0323

Meaning/Cause	The encoder Z-phase position deviated from the initial value stored in the controller. • The gripper main body was replaced. • A finger was replaced with the origin set to the close side. • The CPU board of the controller was replaced. • The CPU software version of the controller was changed. • An obstacle was struck while returning to the origin point. • The encoder Z-phase has broken or has malfunctioned. • The gripper drive section or transmission section has malfunctioned.
Action	• Perform return-to-origin again. • Remove the obstacle and perform return-to-origin again. • Replace the gripper main body.

26.806 Gripper position deviation error

Code : &H001A &H0326

Meaning/Cause	a. Mechanical lock occurred in the gripper drive section. b. Motor cable is broken or wired incorrectly. c. Parameters are incorrect.
Action	a. Check the gripper drive section for mechanical lock. b. Check the motor cable and encoder cable connections. c. Initialize the parameters.

26.807 Gripper internal fault

Code : &H001A &H0327

Meaning/Cause	Error occurred within the gripper control board.
Action	Contact your distributor.

26.809 Gripper watchdog error

Code : &H001A &H0329

Meaning/Cause	The software input a runaway state due to external noise.
Action	Contact your distributor.

26.810 Gripper feedback error 1

Code : &H001A &H032A

Meaning/Cause	a. External force caused the finger to overrun the software limit. b. External noise caused the encoder to miscount.
Action	a. Turn on the power and check that no external force is applied to the finger, and perform return-to-origin. b. Contact your distributor.

26.811 Gripper encoder wire breakage

Code : &H001A &H032B

Meaning/Cause	a. The encoder cable is disconnected. b. The guide block is locked.
Action	a. Check the encoder cable connection. b. Unlock the guide block.

26.814 Gripper current deviation error

Code : &H001A &H032E

Meaning/Cause	The motor cable is broken or wired incorrectly.
Action	Check the motor cable connection.

26.899 Gripper parameter send fail

Code : &H001A &H0383

Meaning/Cause	Sending the gripper parameter to the gripper control board failed.
Action	Contact your distributor.

[28] Alarm related to the driver I/F

28.900: Driver version mismatch

Code : &H001C &H0384

Meaning/Cause	The software version of the driver unit was not appropriate.
Action	Update the software version of the driver unit.

28.902: DMA transfer timeout

Code : &H001C &H0386

Meaning/Cause	Time-out occurred in the communication process between the CPU unit and driver unit.
Action	Contact your distributor.

28.903: Driver interrupt timeout

Code : &H001C &H0387

Meaning/Cause	Time-out occurred in the communication process between the CPU unit and driver unit.
Action	Contact your distributor.

28.904: RTOS fail

Code : &H001C &H0388

Meaning/Cause	Software error occurred.
Action	Contact your distributor.

28.905: Send checksum fail

Code : &H001C &H0389

Meaning/Cause	The driver unit received abnormal data.
Action	Contact your distributor.

28.906: Receive checksum fail

Code : &H001C &H038A

Meaning/Cause	The CPU unit received abnormal data.
Action	Contact your distributor.

28.999: Driver I/F undefined error

Code : &H001C &H03E7

Meaning/Cause	Undefined errors were detected in the communication process between the CPU unit and driver unit.
Action	Contact your distributor.

[c] Warning

c1 : Right arm selected

Meaning/Cause	On SCARA type robots, the arm uses the right-handed system for starting interpolation movement.
Action	• Stop the axis immediately when the robot moves unexpectedly. • Operate carefully when the robot moves as expected.

c2 : Left arm selected

Meaning/Cause	On SCARA type robots, the arm uses the left-handed system for starting interpolation movement.
Action	• Stop the axis immediately when the robot moves unexpectedly. • Operate carefully when the robot moves as expected.

c20 : CC-Link initial data fail

Meaning/Cause	The CC-Link initial data process had not been performed yet.
Action	Perform the CC-Link initial data process.

c40 : Vision abnormal temperature

Meaning/Cause	The iVY2 unit temperature rose over 80 °C.
Action	• Improve the installation environment. • Check if the cooling fan works normally. • Replace the iVY2 unit.

c41 : Vision fan error

Meaning/Cause	The number of fan rotation of the iVY2 unit dropped 4700 rpm or less.
Action	• Check if the cooling fan is stuck with dust, etc. • Check the cooling fan connector. • Replace the cooling fan.

c42 : Vision memory life warning

Meaning/Cause	The iVY2 unit CFast card is reaching the end of its lifespan.
Action	Backup iVY2 unit data and then replace the CFast card. Restore the backup data after replacing the CFAST card.

c50 : Memory backup battery low

Meaning/Cause	The memory battery voltage dropped.
Action	Replace the memory battery.

c70 : Motor overload

Meaning/Cause	The motor was overloaded. Alarm might occur.
Action	Reduce the load to the motor.

c71 : Driver overload

Meaning/Cause	The driver was overloaded. Alarm might occur.
Action	Reduce the load to the driver.

c72 : Motor over current

Meaning/Cause	The motor drew excessive current. Alarm might occur.
Action	Reduce the load to the motor.

c73 : Absolute battery low voltage

Meaning/Cause	The ABS battery voltage was 3.1 V or less.
Action	Replace the ABS battery.

1.2 Alarm messages related to the programming box

If a hardware or software error occurs in the programming box, relevant message appears on the screen.

NO PANEL DATA

Meaning/Cause : Screen data could not be downloaded during upgrading.
Action : Perform the upgrading again.

Receiving Error.

Meaning/Cause : Error occurred during data receiving.
Specified communication was not performed within the specified period of time.
Action : Check the communication cable for abnormality.
Check that the connector is inserted correctly.

Sending Error.

Meaning/Cause : Error occurred during data sending.
CTS signal did not turn on for 5 seconds during data sending.
Action : Check the communication cable for abnormality.
Check that the connector is inserted correctly.

Receiving timeout.

Meaning/Cause : Error occurred during data receiving.
Specified communication was not performed within the specified period of time.
Action : Check the communication cable for abnormality.
Check that the connector is inserted correctly.

NG=xx.xxx

Meaning/Cause : Alarm occurred in the controller.
Action : Check the alarm contents and perform the alarm reset.

No breakpoint set.

Meaning/Cause : Break point was not set in the program debug.
Action : Set a break point.

USB IO ERROR

Meaning/Cause : USB memory device was not supported.
Action : Replace the USB memory device with a correct one.

USB Not Connect

Meaning/Cause : USB memory device was not connected or a device other than the USB memory device was connected.
Action : Connect the USB memory device correctly.

Bad Format

Meaning/Cause : Format of the USB memory device was incorrect.
Action : Change the format of the USB memory device to FAT16 or FAT32.

Not FAT16 Format

Meaning/Cause : Format of the USB memory device was NTFS.
Action : Change the format of the USB memory device to FAT16 or FAT32.

2. Troubleshooting

2.1 When trouble occurs

Please contact your distributor and report the following items in as much detail as possible.

Item	Description
What happened	• Controller model name and serial number example: RCX340 • Robot model name and serial number example: YK400XR • Controller version No. example: V1.05 R0018
When	• Date of purchase example: June 2014 • Period of use example: Since delivery, about 1 year
Under what conditions	• Usage conditions example: when power is turned on when creating program during jog movement when robot is moved to particular location during program operation
Current status is	• Programming box screen status example: Nothing is displayed on screen Error message appears on screen • Robot servo status example: Servo won't turn on. Abnormal sound occurs when robot is moved. Return-to-origin is incomplete. • Programming box operating status example: Keys won't function. Response after pressing key is slow. Only the emergency stop button functions. etc.
How often it happens	• How often above problem occurs example: Always occurs when power is turned on. Occurs at particular line during program operation. Only occurs once, then does not occur again.

NOTE

When the programming box is connected, the error message appearing on the screen is a valuable source of information for troubleshooting.