ABB Robotics

Operating manual
Trouble shooting, IRC5

Power and productivity
for a better world™

ABB

Operating manual - Trouble shooting, IRC5

Robot Controller

IRC5

M2004

Document ID: 3HAC020738-001

Revision: K

Table of Contents

Overview of this manual

About this manual

This manual contains information, procedures and descriptions, for trouble shooting IRC5 based robot systems.

Usage

This manual should be used whenever robot operation is interrupted by malfunction, regardless of whether an error event log message is created or not.

Who should read this manual?

This manual is intended for the following personnel:

- Machine and robot operators qualified to perform very basic trouble shooting and reporting to service personnel.
- Programmers qualified to write and change RAPID programs.
- Specialized trouble shooting personnel, usually very experienced service personnel, qualified for methodically isolating, analyzing and correcting malfunctions within the robot system.

Prerequisites

The reader should:

- Have extensive experience in trouble shooting industrial electro-mechanical machinery.
- Have in depth knowledge of the robot system function.
- Be familiar with the actual robot installation at hand, its surrounding equipment and peripherals.

References

Reference:	Document ID:
Product manual - IRC5	3HAC021313-001
Emergency safety information	3HAC027098-001
General safety information	3HAC031045-001
Operating manual - IRC5 with FlexPendant	3HAC16590-1
Operating manual - RobotStudio	3HAC032104-001
Operating manual - Getting started, IRC5 and RobotStudio	3HAC027097-001
Technical reference manual - System parameters	3HAC17076-1
Application manual - MultiMove	3HAC021272-001

Continues on next page

Revisions

Revision	Description
-	First edition.
A	Information has been added. The document has been partly restructured.
B	Information on how to submit error report has been changed. Information on RAPID change logs have been added. Event log messages have been added.
C	Updated Event log messages.
D	Updated Event log messages.
E	Updated Event log messages.
F	Minor corrections. Updated Event log messages.
G	Minor corrections. Updated Event log messages.
H	New information in section Serial Measurement Unit regarding the battery pack. More detailed information about trouble shooting power supplies DSQC 604, 661 and 662. Removed safety I/O signals: DRV1PANCH1, DRV1PANCH2, DRV1SPEED. New drive system introduced. Drive System 04 and Drive System 09 are both described.
J	Released with RobotWare 5.13 The chapter *Safety* updated with: - Updated safety signal graphics for the levels Danger and Warning, see *Safety signals in the manual on page 7*. - New safety labels on the manipulators, see *Safety symbols on the manipulator labels on page 9*. - Updated the graphic in the section *DANGER - Live voltage inside Drive Module! on page 17*. The contents in the following sections were updated: - Corrections regarding drive system information in chapter *Descriptions and background information on page 65* - Restructured the chapters as per the new document startergy. - Updated the graphic in the *Recommended actions* of the section *No voltage in service outlet on page 38*. - Updated the *Possible causes* in the section *Problem starting the FlexPendant on page 40*. - Updated the graphics in the section *LEDs in the Control Module on page 65*. - Updated the graphic in *Possible causes* of the section *Problem releasing Robot brakes on page 50*.
K	Updated Event log messages.

1 Safety

1.1. Safety signals in the manual

Introduction to safety signals

This section specifies all dangers that can arise when doing the work described in this manual. Each danger consists of:

- A caption specifying the danger level (DANGER, WARNING, or CAUTION) and the type of danger.
- A brief description of what will happen if the operator/service personnel **do not** eliminate the danger.
- An instruction on how to eliminate the danger to simplify doing the work.

Danger levels

The table below defines the captions specifying the danger levels used throughout this manual.

Symbol	Designation	Significance
danger	DANGER	Warns that an accident *will* occur if the instructions are not followed, resulting in a serious or fatal injury and/or severe damage to the product. It applies to warnings that apply to danger with, for example, contact with high voltage electrical units, explosion or fire risk, risk of poisonous gases, risk of crushing, impact, fall from height, etc.
warning	WARNING	Warns that an accident *may* occur if the instructions are not followed that can lead to serious injury, possibly fatal, and/or great damage to the product. It applies to warnings that apply to danger with, for example, contact with high voltage electrical units, explosion or fire risk, risk of poisonous gases, risk of crushing, impact, fall from height, etc.
Electrical shock	ELECTRICAL SHOCK	Warns for electrical hazards which could result in severe personal injury or death.
caution	CAUTION	Warns that an accident may occur if the instructions are not followed that can result in injury and/or damage to the product. It also applies to warnings of risks that include burns, eye injury, skin injury, hearing damage, crushing or slipping, tripping, impact, fall from height, etc. Furthermore, it applies to warnings that include function requirements when fitting and removing equipment where there is a risk of damaging the product or causing a breakdown.

Continues on next page

1 Safety

1.1. Safety signals in the manual

Continued

Symbol	Designation	Significance
Electrostatic discharge (ESD)	ELECTROSTATIC DISCHARGE (ESD)	Warns for electrostatic hazards which could result in severe damage to the product.
Note	NOTE	Describes important facts and conditions.
Tip	TIP	Describes where to find additional information or how to do an operation in an easier way.

3HAC020738-001 Revision: K

1.2. Safety symbols on the manipulator labels

Introduction to labels

This section describes safety symbols used on labels (stickers) on the manipulator.

Symbol are used in combinations on the labels, describing each specific warning. The descriptions in this section are generic, the labels can contain additional information such as values.
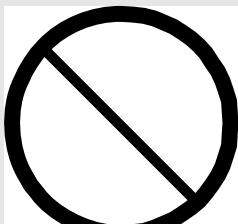
Types of labels

Both the manipulator and the controller are marked with several safety and information labels, containing important information about the product. The information is useful for all personnel handling the manipulator system, for example during installation, service, or operation.

The safety labels are language independent, they only use graphics. See *Symbols on safety labels on page 9*.

The information labels can contain information in text (English, German, and French).
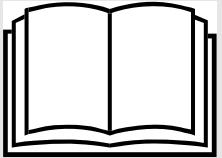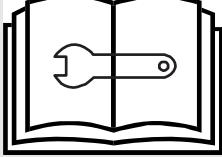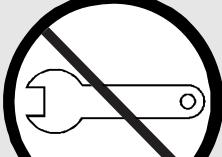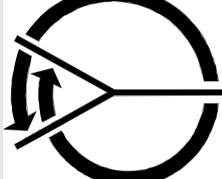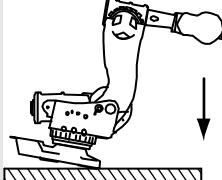
Symbols on safety labels

Symbol	Description
xx0900000812	**Warning!** Warns that an accident *may* occur if the instructions are not followed that can lead to serious injury, possibly fatal, and/or great damage to the product. It applies to warnings that apply to danger with, for example, contact with high voltage electrical units, explosion or fire risk, risk of poisonous gases, risk of crushing, impact, fall from height, etc.
xx0900000811	**Caution!** Warns that an accident may occur if the instructions are not followed that can result in injury and/or damage to the product. It also applies to warnings of risks that include burns, eye injury, skin injury, hearing damage, crushing or slipping, tripping, impact, fall from height, etc. Furthermore, it applies to warnings that include function requirements when fitting and removing equipment where there is a risk of damaging the product or causing a breakdown.
xx0900000839	**Prohibition** Used in combinations with other symbols.

Continues on next page
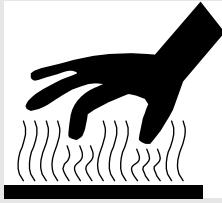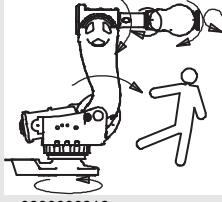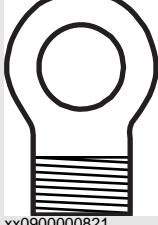
1 Safety

1.2. Safety symbols on the manipulator labels

Continued

Symbol	Description
xx0900000813	**Product manual** Read the product manual for details.
xx0900000816	**Before dismantling see product manual**
xx0900000815	**Do not dismantle** Dismantling this part can cause injury.
xx0900000814	**Extended rotation** This axis has extended rotation (working area) compared to standard.
xx0900000808	**Brake release** Pressing this button will release the brakes. This means that the manipulator arm can fall down.
xx0900000810	**Tip risk when loosening bolts** The manipulator can tip over if the bolts are not securely fastened.
xx0900000817	**Crush** Risk for crush injuries.

Continues on next page
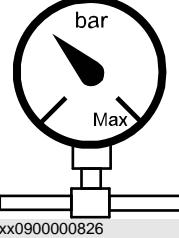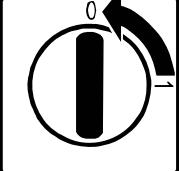
Continued

Symbol	Description
xx0900000818	**Heat** Risk of heat that can cause burns.
xx0900000819	**Moving robot** The robot can move unexpectedly.
xx0900000820	**Brake release buttons**
xx0900000821	**Lifting bolt**
xx0900000822	**Lifting of robot**
xx0900000823	**Oil** Can be used in combination with prohibition if oil is not allowed.

Continues on next page

1 Safety

1.2. Safety symbols on the manipulator labels

Continued

Symbol	Description
xx0900000824	**Mechanical stop**
xx0900000825	**Stored energy** Warns that this part contains stored energy. Used in combination with *Do not dismantle* symbol.
xx0900000826	**Pressure** Warns that this part is pressurized. Usually contains additional text with the pressure level.
xx0900000827	**Shut off with handle** Use the power switch on the controller.

Continued

3HAC020738-001 Revision: K

1.3. Safety during trouble shooting

General

All normal service work; installation, maintenance and repair work, is usually performed with all electrical, pneumatic and hydraulic power switched off. All manipulator movements are usually prevented by mechanical stops etc.

Trouble shooting work differs from this. While trouble shooting, all or any power may be switched on, the manipulator movement may be controlled manually from the FlexPendant, by a locally running robot program or by a PLC to which the system may be connected.

Dangers during trouble shooting

This implies that special considerations **unconditionally** must be taken when trouble shooting:

- All electrical parts must be considered as *live*.
- The manipulator must at all times be expected to perform any movement.
- Since safety circuits may be disconnected or strapped to enable normally prohibited functions, the system must be expected to perform accordingly.

1.4. Applicable safety standards

Standards, EN ISO

The manipulator system is designed in accordance with the requirements of:

Standard	Description
EN ISO 12100 -1	Safety of machinery - Basic concepts, general principles for design - Part 1: Basic terminology, methodology
EN ISO 12100 -2	Safety of machinery - Basic concepts, general principles for design - Part 2: Technical principles
EN ISO 13849-1	Safety of machinery, safety related parts of control systems - Part 1: General principles for design
EN ISO 13850	Safety of machinery - Emergency stop - Principles for design
EN ISO 10218-1[1]	Robots for industrial environments - Safety requirements -Part 1 Robot
EN ISO 9787	Manipulating industrial robots, Coordinate systems and motion nomenclatures
EN ISO 9283	Manipulating industrial robots, Performance criteria and related test methods
EN ISO 14644-1[2]	Classification of air cleanliness
EN ISO 13732-1	Ergonomics of the thermal environment - Part 1
EN 61000-6-4 (option 129-1)	EMC, Generic emission
EN 61000-6-2	EMC, Generic immunity
EN IEC 60974-1[3]	Arc welding equipment - Part 1: Welding power sources
EN IEC 60974-10[3]	Arc welding equipment - Part 10: EMC requirements
EN 60204-1	Safety of machinery - Electrical equipment of machines - Part 1 General requirements
IEC 60529	Degrees of protection provided by enclosures (IP code)

1. There is a deviation from paragraph 6.2 in that only worst case stop distances and stop times are documented.

2. Only robots with Protection Clean Room.

3. Only valid for arc welding robots. Replaces EN 61000-6-4 for arc welding robots.

European standards

Standard	Description
EN 614-1	Safety of machinery - Ergonomic design principles - Part 1: Terminology and general principles
EN 574	Safety of machinery - Two-hand control devices - Functional aspects - Principles for design
EN 953	Safety of machinery - General requirements for the design and construction of fixed and movable guards

Other standards

Standard	Description
ANSI/RIA R15.06	Safety Requirements for Industrial Robots and Robot Systems
ANSI/UL 1740 (option 429-1)	Safety Standard for Robots and Robotic Equipment
CAN/CSA Z 434-03 (option 429-1)	Industrial Robots and Robot Systems - General Safety Requirements

1 Safety

1.5.1. DANGER - Robot without axes' holding brakes are potentially lethal!

1.5 Safe Trouble Shooting

1.5.1. DANGER - Robot without axes' holding brakes are potentially lethal!

Description

Since the robot arm system is quite heavy, especially on larger robot models, it is dangerous if the holding brakes are disconnected, faulty, worn or in any way rendered non-operational.

For instance, a collapsing IRB 7600 arm system may kill or seriously injure a person standing beneath it.
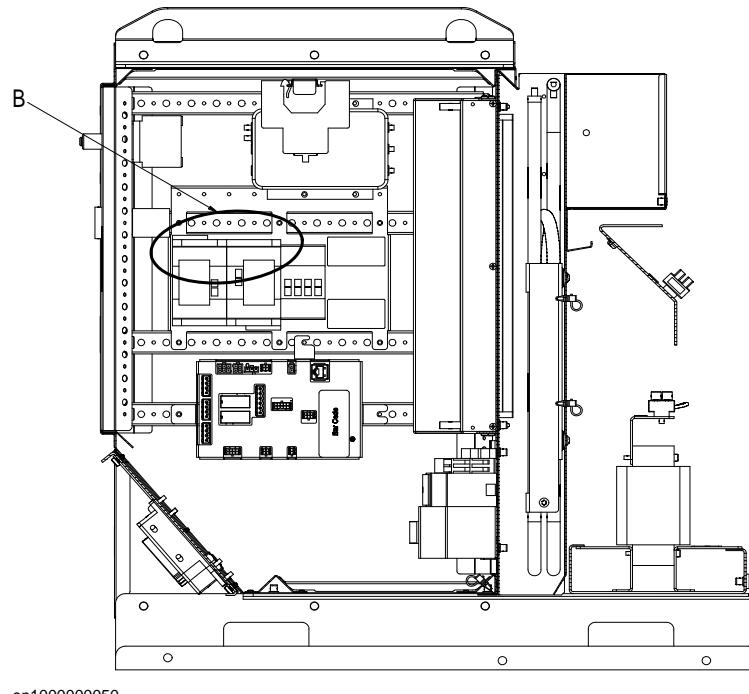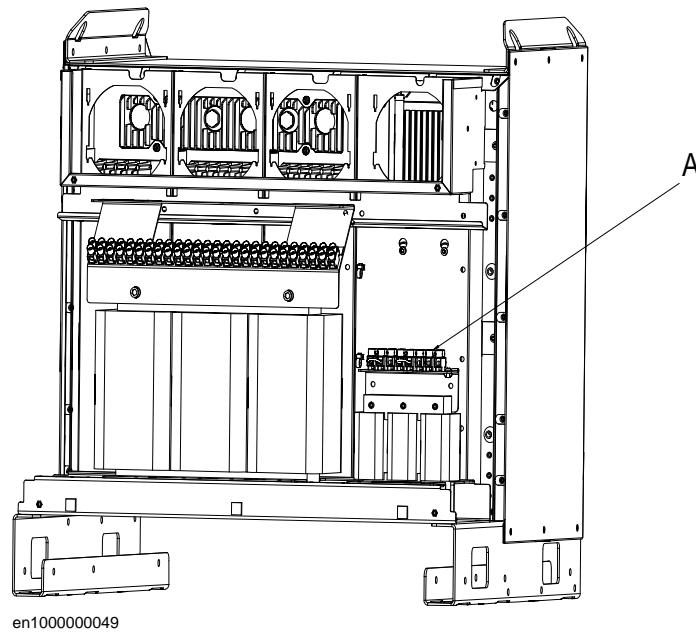
Elimination

	Action	Info/illustration
1.	If you suspect that the holding brakes are non-operational, secure the robot arm system by some other means before working on it.	Weight specifications etc. may be found in the *Product manual* of each robot model.
2.	If you intentionally render the holding brakes non-operational by connecting an external voltage supply, the utmost care must be taken! ⚠️ **DANGER!** **NEVER** stand inside the robot working area when disabling the holding brakes unless the arm system is supported by some other means! ⚠️ **DANGER!** Under no circumstance stand beneath any of the robot's axes!	How to correctly connect an external voltage supply is detailed in the *Product manual* of each robot model.

3HAC020738-001 Revision: K

1.5.2. DANGER - Live voltage inside Drive Module!

Description

The Drive Module has live voltage potentially accessible directly behind the rear covers and inside the front cover, even when the main switches have been switched off.

en1000000049

en1000000050

A	Live voltage at transformer terminals **even if the main power switches have been switched off**.
B	Live voltage at Motors ON terminals **even if the main power switches have been switched off**.

Continues on next page

1.5.2. DANGER - Live voltage inside Drive Module!

Continued

Elimination

Read this information before opening the rear cover of either module.

Step	Action
1.	Make sure the incoming mains power supply has been switched off.
2.	Use a voltmeter to verify that there is not voltage between any of the terminals.
3.	Proceed with the service work.

1.5.2. DANGER - Live voltage inside Drive Module!

Continued

3HAC020738-001 Revision: K

1.5.3. WARNING - The unit is sensitive to ESD!

Description

ESD (electrostatic discharge) is the transfer of electrical static charge between two bodies at different potentials, either through direct contact or through an induced electrical field. When handling parts or their containers, personnel not grounded may potentially transfer high static charges. This discharge may destroy sensitive electronics.

Elimination
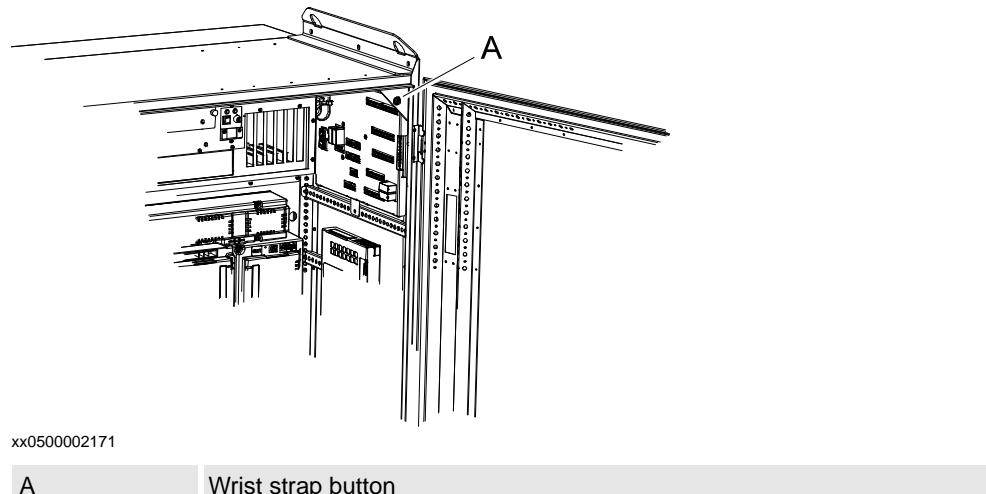
	Action	Note
1.	Use a wrist strap	Wrist straps must be tested frequently to ensure that they are not damaged and are operating correctly.
2.	Use an ESD protective floor mat.	The mat must be grounded through a current-limiting resistor.
3.	Use a dissipative table mat.	The mat should provide a controlled discharge of static voltages and must be grounded.

Location of wrist strap button

The location of the wrist strap button is shown in the following illustration.

IRC5

The wrist strap button is located in the top right corner.

xx0500002171

A	Wrist strap button

Continues on next page
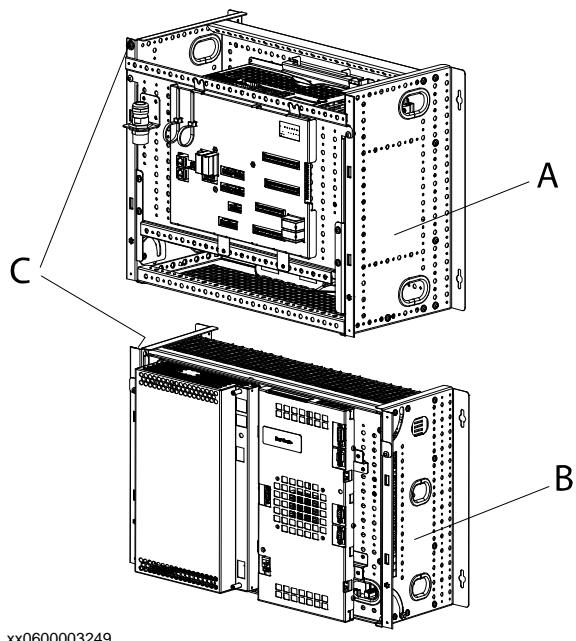
1.5.3. WARNING - The unit is sensitive to ESD!

Continued

Panel Mounted Controller

xx0600003249

A	Panel Mounted Control Module
B	Panel Mounted Drive Module
C	Wrist strap button NOTE! When not used, the wrist strap must always be attached to the wrist strap button.

1.5.4. CAUTION - Hot parts may cause burns!

Description

During normal operation, many manipulator parts become hot, especially the drive motors and gears. Sometimes areas around these parts also become hot. Touching these may cause burns of various severity.

Because of a higher environment temperature, more surfaces on the manipulator get hot and may result in burns.

NOTE!

The drive parts in the cabinet can be hot.

Elimination

The instructions below detail how to avoid the dangers specified above:

	Action	Info
1.	Always use your hand, at some distance, to feel if heat is radiating from the potentially hot component before actually touching it.	
2.	Wait until the potentially hot component has cooled if it is to be removed or handled in any other way.	
3.	The Bleeder can be hot upto 80 degrees.	

1.5.4. CAUTION - Hot parts may cause burns!

2 Trouble shooting Overview

2.1. Documentation and references

General

A great deal of effort was put into writing the event log messages as well as the technical documentation. Though imperfect, they may give vital clues. They are also constantly being upgraded.

The product documentation is available in several languages.

Read the documentation!

Do not wait until nothing else works to read the manual!

References to document numbers are specified in the chapter *Reference information* in *Product manual - IRC5*.

Read the circuit diagram!

The complete electrical circuitry of the controller is documented in *Product manual - IRC5*. It contains a lot of information useful, or even essential, to a trained trouble shooter.

Read the logs!

The error event logs which may be viewed on either the FlexPendant or RobotStudio, contain lots of information about any malfunction detected by the system.

en0300000547

Check the electronical unit's LEDs!

If a fault is thought to be caused by an electronic unit (circuit board in the controller or other), the LEDs on the unit front may give leads.

These are described in section *Indications on page 65*.

2.2. Overview

How to use this manual when trouble shooting

The illustration and description detail how to put the information in this manual to best use during trouble shooting the robot system.

en0400001200

Trouble shooting manual

Fault symptoms and malfunctions:

- Each fault or error is first detected as a symptom, for which an error event log message may or may not be created. It could be an error event log message on the FlexPendant, an observation that the gearbox on axis 6 is getting hot or that the controller can not be started. The faults displaying an event log message are listed in the end of this manual.

Instructions, how to correct faults:

- The instructions are divided into two main categories: descriptions of how to correctly handle the different parts of the system and instructions of how to remedy faults causing the symptoms specified above. The latter category is divided into two sub-

categories, depending on whether to trouble shoot a specific symptom or a suspected unit causing the problem. The first category contains information on how to use the event log to facilitate trouble shooting, etc.

Recommended working procedures:

- Here, you will find a procedure for how to correctly perform certain specific tasks. These may be used to make sure the seemingly irrational behavior of the system is not due to incorrect handling.

Basic reference info:

- This section contains information about what tools to use, references to documents that may be useful when trouble shooting, etc.

Description, systems:

- The different systems and sub-systems are described to give a better understanding of its function when it works "as it's supposed to". This enables the trouble shooter to better see and understand the differences between a system that's functional and one that's not.

Description, components and details:

- Specific details of the system are described with regards to their function, etc.

Description, functions:

- Contains descriptions on how specific functions within the system work, e.g the RUN chain, and what signals and other systems affect that particular function. This provides for a better understanding of the relations and mechanisms of the robot system.

Indications

- All indication LEDs and other indications (as found on the Control and Drive Modules as well as separate circuit boards, etc) are described in this section along with information about their indication modes and significances respectively. Recommended actions are often specified or references containing such instructions.

Event log messages:

- This section is basically a printout of all available event log messages. These may be displayed either on the FlexPendant or using RobotStudio. Having access to all messages at the same time may be useful during trouble shooting.

Additional information

In addition to the information given in this document, other documents may provide vital information, e.g. the Circuit Diagram.

Such useful documents are listed in *Overview of this manual on page 5*.

Continued

2.3. Standard toolkit

General

Listed are tools required to perform the actual trouble shooting work. All tools required to perform any corrective measure, such as replacing parts, are   listed in their Product Manual section respectively.

Contents, standard toolkit, IRC5

Tool	Remark
Screw driver, Torx	Tx10
Screw driver, Torx	Tx25
Ball tipped screw driver, Torx	Tx25
Screw driver, flat blade	4 mm
Screw driver, flat blade	8 mm
Screw driver, flat blade	12 mm
Screw driver	Phillips-1
Box spanner	8 mm

Contents, standard toolkit, trouble shooting

Qty	Art. no.	Tool	Rem.
-	-	Normal shop tools	Contents as specified above.
1	-	Multimeter	-
1	-	Oscilloscope	-
1	-	Recorder	-

3HAC020738-001 Revision: K

2.4 Tips and Tricks while trouble shooting

2.4.1. Trouble shooting strategies

Isolate the fault!

Any fault may give rise to a number of symptoms, for which error event log messages may or may not be created. In order to effectively eliminate the fault, it is vital to distinguish the original symptom from the consequential ones.

A help in isolating the fault may be creating a historical fault log as specified in section *Make a historical fault log! on page 29*.

Split the fault chain in two!

When trouble shooting any system, a good practice is to split the fault chain in two. This means:

- identify the complete chain.

- decide and measure the expected value at the middle of the chain.

- use this to determine in which half the fault is caused.

- split this half into two new halves, etc.

- finally, a single component may be isolated. The faulty one.

Example

A specific IRB 7600 installation has a 12 VDC power supply to a tool at the manipulator wrist. This tool does not work, and when checked, there is no 12 VDC supply to it.

- Check at the manipulator base to see if there is 12 VDC supply. Measurement show there are *no* 12 VDC supply. (Reference: Circuit Diagram in the *Product manual, IRC5*)

- Check any connector between the manipulator and the power supply in the controller. Measurement show there are *no* 12 VDC supply. (Reference: Circuit Diagram in the *Product manual, IRC5*)

- Check the power supply unit LED. (Reference: *Indications on page 65*)

Check communication parameters and cables!

The most common causes of errors in serial communication are:

- Faulty cables (e.g. send and receive signals are mixed up)

- Transfer rates (baud rates)

- Data widths that are incorrectly set.

Check the software versions!

Make sure the RobotWare and other software run by the system are the correct version. Certain versions are not compatible with certain hardware combinations.

Also, make a note of all software versions run, since this will be useful information to the ABB support people.

How to file a complete error report to your local ABB service personnel is detailed in section *Filing an error report on page 30*.

2.4.2. Work systematically

Do not replace units randomly!

Before replacing *any part at all*, it is important to establish a probable cause for the fault, thus determining which unit to replace.

Randomly replacing units may sometimes solve the acute problem, but also leaves the trouble shooter with a number of units that may/may not be perfectly functional.

Replace one thing at a time!

When replacing a presumably faulty unit that has been isolated, it is important that **only one** unit be replaced at a time.

Always replace components as detailed in the Repairs section of the Product manual of the robot or controller at hand.

Test the system after replacing to see if the problem has been solved.

If replacing several units at once:

- it is impossible to determine which of the units was causing the fault.
- it greatly complicates ordering a new spare part.
- it may introduce new faults to the system.

Take a look around!

Often, the cause may be evident once you see it. In the area of the unit acting erroneously, be sure to check:

- Are the attachment screws secured?
- Are all connectors secured?
- Are all cabling free from damage?
- Are the units clean (especially for electronic units)?
- Is the correct unit fitted?

Check for tools left behind!

Some repair and maintenance work require using special tools to be fitted to the robot equipment. If these are left behind (e.g. balancing cylinder locking device or signal cable to a computer unit used for measuring purposes), they may cause erratic robot behavior.

Make sure all such tools are removed when maintenance work is complete!

2.4.3. Keeping track of history

Make a historical fault log!

In some cases, a particular installation may give rise to faults not encountered in others. Therefore, charting each installation may give tremendous assistance to the trouble shooter.

To facilitate trouble shooting, a log of the circumstances surrounding the fault gives the following advantages:

- it enables the trouble shooter to see patterns in causes and consequences not apparent at each individual fault occurrence.

- it may point out a specific event always taking place just before the fault, for example a certain part of the work cycle being run.

Check up the history!

Make sure you always consult the historical log if it is used. Also remember to consult the operator, or similar, who was working when the problem first occurred.

At what stage did the fault occur?

What to look for during trouble shooting depends greatly of when the fault occurred: was the robot just freshly installed? Was it recently repaired?

The table gives specific hints to what to look for in specific situations:

If the system has just:	then:
been installed	Check: • the configuration files • connections • options and their configuration
been repaired	Check: • all connections to the replaced part • power supplies • that the correct part has been fitted
had a software upgrade	Check: • software versions • compatibilities between hardware and software • options and their configuration
been moved from one site to another (an already working robot)	Check: • connections • software versions

2.5. Filing an error report

Introduction

If you require the assistance of ABB support personnel in trouble shooting your system, you may file a formal error report as detailed below.

In order for the ABB support personnel to better solve your problem, you may attach a special diagnostics file that the system generates on demand.
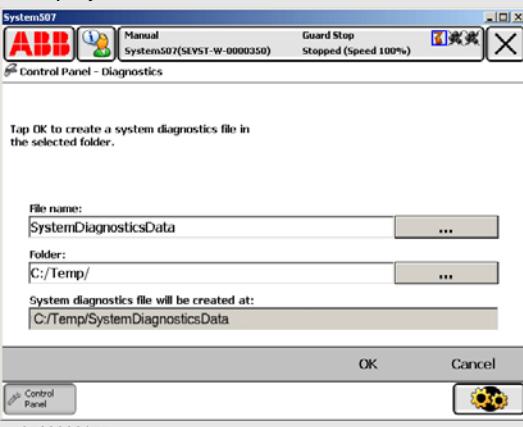
The diagnostics file includes:

- **Event log** A list of all system events.
- **Backup** A backup of the system taken for diagnostics purposes.
- **System information** Internal system information useful to ABB support personnel.

NOTE that it is not required to create or attach any additional files to the error report if not explicitly requested by the support personnel!

Creating the diagnostics file

The diagnostics file is created manually as detailed below.

	Action
1.	Tap **ABB**, then **Control Panel** and then **Diagnostics**. A display is shown: en0500002175
2.	Specify the name you want for the diagnostics file, the save folder of it and tap **OK**. The default save folder is C:/Temp, but any folder may be selected, for instance an externally connected USB memory. This may take a couple of minutes, while "Creating file. Please wait!" is displayed.
3.	To shorten file transfer time, you may compress the data into a zip-file.
4.	Write a regular e-mail addressed to your local ABB support personnel, and make sure to include the following information: • Robot serial number • RobotWare version • External options • A written fault description. The more detailed, the easier for the ABB support personnel to assist you. • if available, enclose the license key. • attach the diagnostics file!
5.	Mail it!

3 Troubleshooting by fault symptoms

3.1. Start-up failures

Introduction

This section describes possible faults during start-up and the recommended action for each failure.

Consequences

Problem starting the sytem.

Symptoms and causes

The following are the possible symptoms of a start-up failure:

- LEDs not lit on any unit.
- Earth fault protection trips.
- Unable to load the system software.
- FlexPendant not responding.
- FlexPendant starts, but does not respond to any input.
- Disk containing the system software does not start correctly.

Recommended actions

The following are the recommended actions to be taken during a start-up failure:

NOTE!

This may be due to a loss of power supply in many stages.

	Action	**Info/illustration**
1.	Make sure the main power supply to the system is present and is within the specified limits.	Your plant or cell documentation can provide this information.
2.	Make sure that the main transformer in the Drive module is correctly connected to the mains voltage levels at hand.	How to strap the mains transformer is detailed in the product manual for the controller.
3.	Make sure that the main switches are switched on.	
4.	Make sure that the power supply to the Control module and Drive module are within the specified limits.	If required, trouble shoot the power supply units as explained in section *Trouble shooting power supply on page 56*.
5.	If no LEDs lit, proceed to section *All LEDs are OFF at Controller on page 36*.	
6.	If the system is not responding, proceed to section *Controller not responding on page 33*.	
7.	If the FlexPendant is not responding, proceed to section *Problem starting the FlexPendant on page 40*.	

Continues on next page

3 Troubleshooting by fault symptoms

Continued

	Action	Info/illustration
8.	If the FlexPendant starts, but does not communicate with the controller, proceed to section *Problem connecting FlexPendant to the controller on page 41*.	

3HAC020738-001 Revision: K

3.2. Controller not responding

Description

This section describes the possible faults and the recommended actions for each failure:

- Robot controller not responding
- LED indicators not lit

Consequences

System cannot be operated using the FlexPendant.

Possible causes

	Symptoms	Recommended action
1	Controller not connected to the mains power supply.	Ensure that the mains power supply is working and the voltage level matches that of the controller requirement.
2	Main transformer is malfunctioning or not connected correctly.	Ensure that the main transformer is connected correctly to the mains voltage level.
3	Main fuse (Q1) might have tripped.	Ensure that the mains fuse (Q1) inside the Drive Module is not tripped
4	Connection missing between the Control and Drive modules.	If the Drive Module does not start although the Control Module is working and the Drive Module main switch has been switched on, ensure that all the connections between the Drive module and the Control module are connected correctly.

3.3. Low Controller performance

Description

The controller performance is low, and seems to work irrationally.

The controller is *not* completely" dead". If it is, proceed as detailed in section *Controller not responding on page 33*.

Consequences

These symptoms can be observed:

- Program execution is sluggish, seemingly irrational and sometimes stalls.

Possible causes

The computer system is experiencing too high load, which may be due to one, or a combination, of the following:

- Programs containing too high a degree of logical instructions only, causing too fast program loops and in turn, overloads the processor.
- The I/O update interval is set to a low value, causing frequent updates and a high I/O load.
- Internal system cross connections and logical functions are used too frequently.
- An external PLC, or other supervisory computer, is addressing the system too frequently, overloading the system.

Recommended actions

	Action	Info/illustration
1.	Check whether the program contains logical instructions (or other instructions that take "no time" to execute), since such programs may cause the execution to loop if no conditions are fulfilled. To avoid such loops, you can test by adding one or more WAIT instructions. Use only short WAIT times, to avoid slowing the program down unnecessarily.	Suitable places to add WAIT instructions can be: • In the main routine, preferably close to the end. • In a WHILE/FOR/GOTO loop, preferably at the end, close to the ENDWHILE/ENDFOR etc. part of the instruction.
2.	Make sure the I/O update interval value for each I/O board is not too low. These values are changed using RobotStudio. I/O units that are not read regularly may be switched to "change of state" operation as detailed in the RobotStudio manual.	ABB recommends these poll rates: • DSQC 327A: 1000 • DSQC 328A: 1000 • DSQC 332A: 1000 • DSQC 377A: 20-40 • All others: >100
3.	Check whether there is a large amount of cross connections or I/O communication between PLC and robot system.	Heavy communication with PLCs or other external computers can cause heavy load in the robot system main computer.

	Action	Info/illustration
4.	Try to program the PLC in such a way that it uses event driven instructions, instead of looped instructions.	The robot system have a number of fixed system inputs and outputs that may be used for this purpose. Heavy communication with PLCs or other external computers can cause heavy load in the robot system main computer.

3.4. All LEDs are OFF at Controller

Description

No LEDs at all are lit on the Control Module or the Drive Module respectively.

Consequences
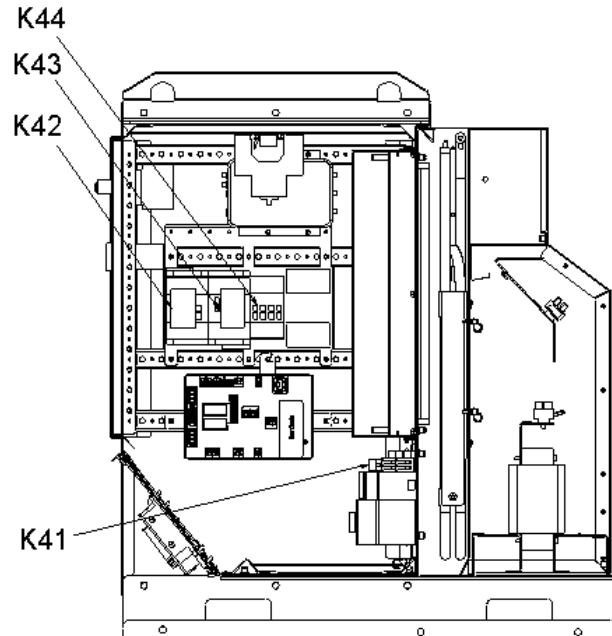
The system cannot be operated or started at all.

Possible causes

The symptom can be caused by (the causes are listed in order of probability):

- The system is not supplied with power.

- The main transformer is not connected for the correct mains voltage.

- Circuit breaker F6 (if used) is malfunctioning or open for any other reason.

- Contactor K41 is malfunctioning or open for any other reason.

en1000000051

Continued

Recommended actions

	Action	Info
1.	Make sure the main switch has been switched on.	
2.	Make sure the system is supplied with power.	Use a voltmeter to measure incoming mains voltage.
3.	Check the main transformer connection.	The voltages are marked on the terminals. Make sure they match the shop supply voltage.
4.	Make sure circuit breaker F6 (if used) is closed in position 3.	The circuit breaker F6 is shown in the circuit diagram in the product manual for the controller.
5.	Make sure contactor K41 opens and closes when ordered.	
6.	⚡ - Disconnect connector X1 from the Drive Module power supply and measure the incoming voltage.	Measure between pins X1.1 and X1.5.
7.	If the power supply incoming voltage is correct (230 VAC) but the LEDs still do not work, replace the Drive Module power supply.	Replace the power supply as detailed in the product manual for the controller.

3.5. No voltage in service outlet

Description

Some Control Modules are equipped with service voltage outlet sockets, and this information applies to these modules only.

No voltage is available in the Control Module service outlet for powering external service equipment.

Consequences
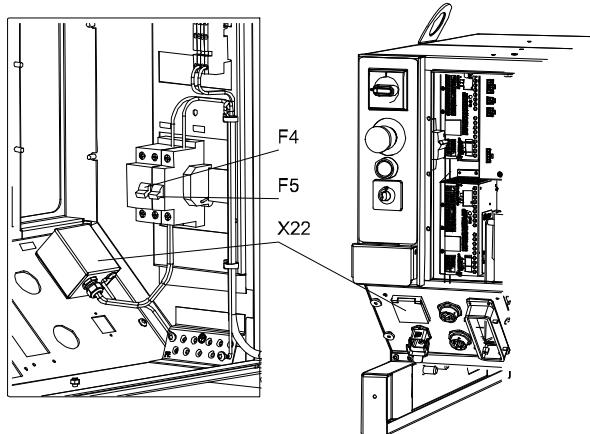
Equipment connected to the Control Module service outlet does not work.

Probable causes
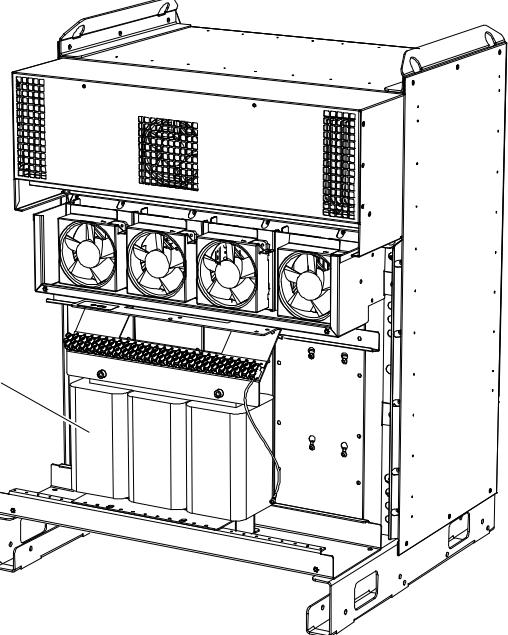
The symptom can be caused by (the causes are listed in order of probability):

- Tripped circuit breaker (F5)
- Tripped earth fault protection (F4)
- Mains power supply loss
- Transformers incorrectly connected

xx0500001403

Continues on next page

Continued

Recommended actions

	Action	Info
1.	Make sure the circuit breaker in the Control Module has not been tripped.	Make sure any equipment connected to the service outlet does not consume too much power, causing the circuit breaker to trip.
2.	Make sure the earth fault protection has not been tripped.	Make sure any equipment connected to the service outlet does not conduct current to ground, causing the earth fault protection to trip.
3.	Make sure the power supply to the robot system is within specifications.	Refer to the plant documentation for voltage values.
4.	Make sure the transformer (A) supplying the outlet is correctly connected, i.e. input and output voltages in accordance with specifications.	xx0500002028 Refer to the plant documentation for voltage values.

3.6. Problem starting the FlexPendant

Description

The FlexPendant is completely or intermittently "dead".

No entries are possible, and no functions are available.

If the FlexPendant starts but does not display a screen image, proceed as detailed in section *Problem connecting FlexPendant to the controller on page 41*.

Consequences

The system cannot be operated using the FlexPendant.

Possible causes

The symptom can be caused by (the causes are listed in order of probability):

- The system has not been switched on.
- The FlexPendant is not connected to the controller.
- The cable from the controller is damaged.
- The cable connector is damaged.
- FlexPendant power supply from controller is faulty.

Recommended actions

The following actions are recommended (listed in order of probability):

	Action	Info
1.	Make sure the system is switched on and that the FlexPendant is connected to the controller.	How to connect the FlexPendant to the controller is detailed in *Operating manual - Getting started, IRC5 and RobotStudio*.
2.	Inspect the FlexPendant cable for any visible damage.	If faulty, replace the FlexPendant.
3.	If possible, test by connecting a different FlexPendant to eliminate the FlexPendant and cable as error sources.	
4.	If possible, test the FlexPendant with a different controller to eliminate the controller as error source.	

Continues on next page

3.7. Problem connecting FlexPendant to the controller

Description

The FlexPendant starts but does not display a screen image.

No entries are possible, and no functions are available.

The FlexPendant is not completely dead. If it is dead, proceed as detailed in section *Problem starting the FlexPendant on page 40*.

Consequences

The system cannot be operated using the FlexPendant.

Possible causes

The symptom can be caused by (the causes are listed in order of probability):

- The Ethernet network has problems.
- The main computer has problems.

Recommended actions

The following actions are recommended (listed in order of probability):

	Action	Info
1.	Check all cables from power supply unit to main computer, making sure these are correctly connected.	
2.	Make sure the FlexPendant has been correctly connected to the controller.	
3.	Check all indication LEDs on all units in the controller.	All indication LEDs and their significance are specified in section *Indications on page 65*.
4.	Check all status signals on the main computer.	

3.8. Erratic event messages on FlexPendant

Description

The event messages displayed on the FlexPendant are erratic and do not seem to correspond to any actual malfunctions on the robot. Several types of messages can be displayed, seemingly erroneously.

This type of fault may occur after major manipulator disassembly or overhaul, if not performed correctly.

Consequences

Major operational disturbances due to the constantly appearing messages.

Possible causes

The symptom can be caused by (the causes are listed in order of probability):

- Internal manipulator cabling not correctly performed. Causes may be: faulty connection of connectors, cable loops too tight causing the cabling to get strained during manipulator movements, cable insulation chafed or damaged by rubbing short-circuiting signals to earth.

Recommended actions

The following actions are recommended (listed in order of probability):

	Action	Info
1.	Inspect all internal manipulator cabling, especially all cabling disconnected, connected re-routed or bundled during recent repair work.	Refit any cabling as detailed in the product manual for the robot.
2.	Inspect all cable connectors to make sure these are correctly connected and tightened.	
3.	Inspect all cable insulation for damage.	Replace any faulty cabling as detailed in the product manual for the robot.

3HAC020738-001 Revision: K

3.9. Problem jogging the robot

Description

The system can be started but the joystick on the FlexPendant does not work.

Consequences

The robot can not be jogged manually.

Possible causes

The symptom can be caused by (the causes are listed in order of probability):

- The joystick is malfunctioning.
- The joystick may be deflected.

Recommended actions

The following actions are recommended (listed in order of probability):

	Action	Info
1.	Make sure the controller is in manual mode.	How to change operating mode is described in *Operating manual - IRC5 with FlexPendant*.
2.	Make sure the FlexPendant is connected correctly to the Control Module.	
3.	Reset the FlexPendant.	Press Reset button located on the back of the FlexPendant. **NOTE!** The Reset button resets the FlexPendant not the system on the Controller.

3.10. Reflashing firmware failure

Description

When reflashing firmware, the automatic process can fail.

Consequences

The automatic reflashing process is interrupted and the system stops.

Possible causes

This fault usually occurs due to a lack of compatibility between hardware and software.

Consequences

The following actions are recommended (listed in order of probability):

	Action	Info
1.	Check the event log for a message specifying which unit failed.	The logs may also be accessed from RobotStudio.
2.	Was the relevant unit recently replaced? If YES; make sure the versions of the old and new unit is identical. If NO; check the software versions.	
3.	Was the RobotWare recently replaced? If YES; make sure the versions of the old and new unit is identical. If NO; proceed below!	
4.	Check with your local ABB representative for a firmware version compatible with your hardware/software combination.	

3.11. Inconsistent path accuracy

Description

The path of the robot TCP is not consistent. It varies from time to time, and is sometimes accompanied by noise emerging from bearings, gearboxes, or other locations.

Consequences

Production is not possible.

Possible causes

The symptom can be caused by (the causes are listed in order of probability):

- Robot not calibrated correctly.
- Robot TCP not correctly defined.
- Parallel bar damaged (applies to robots fitted with parallel bars only).
- Mechanical joint between motor and gearbox damaged. This often causes noise to be emitted from the faulty motor.
- Bearings damaged or worn (especially if the path inconsistency is coupled with clicking or grinding noises from one or more bearings).
- The wrong robot type may be connected to the controller.
- The brakes may not be releasing correctly.

Recommended actions

In order to remedy the symptom, the following actions are recommended (the actions are listed in order of probability):

	Action	Info/Illustration
1.	Make sure the robot tool and work object are correctly defined.	How to define these are detailed in *Operating manual - IRC5 with FlexPendant*.
2.	Check the revolution counters' positions.	Update if required.
3.	If required, recalibrate the robot axes.	How to calibrate the robot is detailed in *Operating manual - IRC5 with FlexPendant*.
4.	Locate the faulty bearing by tracking the noise.	Replace faulty bearing as specified in the product manual for the robot.
5.	Locate the faulty motor by tracking the noise. Study the path of the robot TCP to establish which axis, and thus which motor, may be faulty.	Replace the faulty motor/gearbox as specified in the product manual for the robot.
6.	Check the trueness of the parallel bar (applies to robots fitted with parallel bars only).	Replace the faulty parallel bar as specified in the product manual for the robot.
7.	Make sure the correct robot type is connected as specified in the configuration files.	
8.	Make sure the robot brakes work properly.	Proceed as detailed in section *Problem releasing Robot brakes on page 50*.

3.12. Oil and grease stains on motors and gearboxes

Description

The area surrounding the motor or gearbox shows signs of oil leaks. This can be at the base, closest to the mating surface, or at the furthest end of the motor at the resolver.

Consequences

Besides the dirty appearance, in some cases there are no serious consequences if the leaked amount of oil is very small. **However**, in some cases the leaking oil lubricates the motor brake, causing the manipulator to collapse at power down.

Possible causes

The symptom can be caused by (the causes are listed in order of probability):

- Leaking seal between gearbox and motor.
- Gearbox overfilled with oil.
- Gearbox oil too hot.

Recommended actions

In order to remedy the symptom, the following actions are recommended (the actions are listed in order of probability):

	Action	Info
1.	**CAUTION!** Before approaching the potentially hot robot component, observe the safety information in section *CAUTION - Hot parts may cause burns! on page 21*.	
2.	Inspect all seals and gaskets between motor and gearbox. The different manipulator models use different types of seals.	Replace seals and gaskets as specified in the product manual for the robot.
3.	Check the gearbox oil level.	Correct oil level is specified in the product manual for the robot.
4.	Too hot gearbox oil may be caused by: • Oil quality or level used is incorrect. • The robot work cycle runs a specific axis too hard. Investigate whether it is possible to program small "cooling periods" into the application. • Overpressure created inside gearbox.	Check the recommended oil level and type as specified in the product manual for the robot. Manipulators performing certain, extremely heavy duty work cycles may be fitted with vented oil plugs. These are not fitted to normal duty manipulators, but may be purchased from your local ABB representative.

3.13. Mechanical noise

Description

During operation, no mechanical noise should be emitted from motors, gearboxes, bearings, or similar. A faulty bearing often emits scraping, grinding, or clicking noises shortly before failing.

Consequences

Failing bearings cause the path accuracy to become inconsistent, and in severe cases, the joint can seize completely.

Possible causes

The symptom can be caused by (the causes are listed in order of probability):

- Worn bearings.
- Contaminations have entered the bearing races.
- Loss of lubrication in bearings.

If the noise is emitted from a gearbox, the following can also apply:

- Overheating.

Recommended actions

The following actions are recommended (listed in order of probability):

	Action	**Info**
1.	⚠️ **CAUTION!** Before approaching the potentially hot robot component, observe the safety information in section *CAUTION - Hot parts may cause burns! on page 21*.	
2.	Determine which bearing is emitting the noise.	
3.	Make sure the bearing has sufficient lubrica-tion.	As specified in the product manual for the robot.
4.	If possible, disassemble the joint and measure the clearance.	As specified in the product manual for the robot.
5.	Bearings inside motors are not to be replaced individually, but the complete motor is replaced.	Replace faulty motors as specified in the product manual for the robot.
6.	Make sure the bearings are fitted correctly.	Also see the product manual for the robot for general instruction on how to handle bearings.

3.13. Mechanical noise

	Action	Info
7.	Too hot gearbox oil may be caused by: • Oil quality or level used is incorrect. • The robot work cycle runs a specific axis too hard. Investigate whether it is possible to program small "cooling periods" into the application. • Overpressure created inside gearbox.	Check the recommended oil level and type as specified in the product manual for the robot. Manipulators performing certain, extremely heavy duty work cycles may be fitted with vented oil plugs. These are not fitted to normal duty manipulators, but may be purchased from your local ABB representative.

3.14. Manipulator crashes on power down

Description

The manipulator is able to work correctly while Motors ON is active, but when Motors OFF is active, it collapses under its own weight.

The holding brake, integral to each motor, is not able to hold the weight of the manipulator arm.

Consequences

The fault can cause severe injuries or death to personnel working in the area or severe damage to the manipulator and/or surrounding equipment.

Possible causes

The symptom can be caused by (the causes are listed in order of probability):

- Faulty brake.
- Faulty power supply to the brake.

Recommended actions

The following actions are recommended (listed in order of probability):

	Action	Info
1.	Determine which motor(s) causes the robot to collapse.	
2.	Check the brake power supply to the collapsing motor during the Motors OFF state.	Also see the circuit diagrams in the product manuals for the robot and the controller .
3.	Remove the resolver of the motor to see if there are any signs of oil leaks.	If found faulty, the motor must be replaced as a complete unit as detailed in the product manual for the robot.
4.	Remove the motor from the gearbox to inspect it from the drive side.	If found faulty, the motor must be replaced as a complete unit as detailed in the product manual for the robot.

Continues on next page

Continued

3.15. Problem releasing Robot brakes

Description

When starting robot operation or jogging the robot, the internal robot brakes must release in order to allow movements.
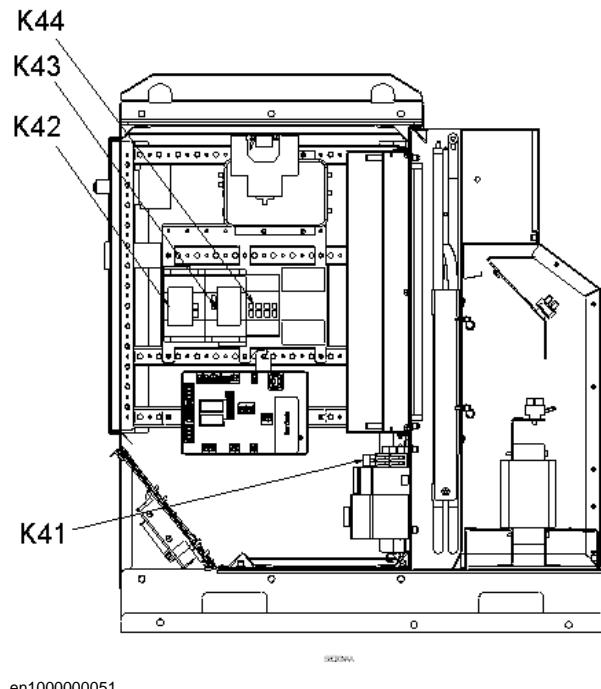
Consequences

If the brakes do not release, no robot movement is possible, and a number of error log messages can occur.

Possible causes

The symptom can be caused by (the causes are listed in order of probability):

- Brake contactor (K44) does not work correctly.
- The system does not go to status Motors ON correctly.
- Faulty brake on the robot axis.
- Supply voltage 24V BRAKE missing.

en1000000051

Recommended actions

This section details how to proceed when the robot brakes do not release.

	Action	Info
1.	Make sure the brake contactor is activated.	A 'tick' should be audible, or you may measure the resistance across the auxiliary contacts on top of the contactor.
2.	Make sure the RUN contactors (K42 and K43) are activated. NOTE that **both** contactors must be activated, not just one!	A 'tick' should be audible, or you may measure the resistance across the auxiliary contacts on top of the contactor.
3.	Use the push buttons on the robot to test the brakes. If just one of the brakes malfunctions, the brake at hand is probably faulty and must be replaced. If none of the brakes work, there is probably no 24V BRAKE power available.	The location of the push buttons differ, depending on robot model. Please refer to the product manual for the robot!
4.	Check the Drive Module power supply to make sure 24V BRAKE voltage is OK.	
5.	A number of other faults within the system can cause the brakes to remain activated. In such cases, event log messages will provide additional information.	The event log messages can also be accessed using RobotStudio.

3.16. Intermittent errors

Description

During operation, errors and malfunctions may occur, in a seemingly random way.

Consequences

Operation is interrupted, and occasionally, event log messages are displayed, that sometimes do not seem to be related to any actual system malfunction. This sort of problem sometimes affects the Emergency stop or Enable chains respectively, and may at times be very hard to pinpoint.

Probable causes

Such errors may occur anywhere in the robot system and may be due to:

- external interference
- internal interference
- loose connections or dry joints, e.g. incorrectly connected cable screen connections.
- thermal phenomena , e.g. major temperature changes within the workshop area.

Recommended actions

In order to remedy the symptom, the following actions are recommended (the actions are listed in order of probability):

	Action	Info/illustration
1.	Check all the cabling, especially the cables in the Emergency stop and Enable chains. Make sure all connectors are connected securely.	
2.	Check if any indication LEDs signal any malfunction that may give some clue to the problem.	The significance of all indication LEDs are specified in section *Indications on page 65*.
3.	Check the messages in the event log. Sometimes specific error combinations are intermittent.	The event log messages may be viewed either on the FlexPendant or using Robot-Studio.
4.	Check the robot's behaviour, etc, each time that type of error occurs.	If possible, keep track of the malfunctions in a log or similar.
5.	Check whether any condition in the robot working environment also changes periodically, e.g, interference from any electric equipment only operating periodically.	
6.	Investigate whether the environmental conditions (such as ambient temperature, humidity, etc) has any bearing on the malfunction.	If possible, keep track of the malfunctions in a log or similar.

4 Trouble shooting by Unit

4.1. Trouble shooting the FlexPendant

General

The FlexPendant communicates, through the Panel Board, with the Control Module main computer. The FlexPendant is physically connected to the Panel Board through a cable in which the +24 V supply and two Enabling Device chains run and emergency stop.

Procedure

The procedure below details what to do if the FlexPendant does not work correctly.

	Action	Info/illustration
1.	If the FlexPendant is completely "dead", proceed as detailed in section *Problem starting the FlexPendant on page 40*.	
2.	If the FlexPendant starts, but does not operate correctly, proceed as detailed in section *Problem connecting FlexPendant to the controller on page 41*.	
3.	If the FlexPendant starts, seems to operate, but displays erratic event messages, proceed as detailed in section *Erratic event messages on FlexPendant on page 42*.	
4.	Check the cable for connections and integrity.	
5.	Check the 24 V power supply.	
6.	Read the error event log message and follow any instructions of references.	

4.2. Trouble shooting communications

Overview

This section details how to trouble shoot data communication in the Control and Drive Modules.

Trouble shooting procedure

When trouble shooting communication faults, follow the outline detailed below:

	Action	Info/illustrations
1.	Faulty cables (e.g. send and receive signals are mixed up).	
2.	Transfer rates (baud rates).	
3.	Data widths that are incorrectly set.	

4.3. Trouble shooting fieldbuses and I/O units

Where to find information

Information about how to trouble shoot the fieldbuses and I/O units can be found in the manual for the respective fieldbus or I/O unit.

4.4.1. Trouble shooting DSQC 604

4.4 Trouble shooting power supply

4.4.1. Trouble shooting DSQC 604

Required test equipment

Equipment needed for trouble shooting:

- Ohmmeter
- Resistive load (e.g. Main Computer DSQC 639 on +24V_PC)
- Voltmeter

Preparations

	Action	Note
1.	Check the FlexPendant for errors and warnings.	

Trouble shooting procedure, DSQC 604

The trouble shooting table is supposed to be used as a detailed instruction together with the trouble shooting flowchart, see .

	Test	Note	Action
1.	Check the indicator LED on DSQC 604.	The indicator LED is labelled DCOK.	If the LED is GREEN, the power supply should be working properly. If the LED is PULSING GREEN, the DC outputs are probably not connected to any units or there may be a short circuit on an output. Proceed with step 2. If the LED is OFF, either the power supply is faulty or it does not have sufficient input voltage. Proceed with step 4.
2.	Check connections between DC outputs and connected units.	Make sure that the power supply is connected to its proper units. A minimum load of 0.5-1A is required on at least one DC output for the 604 to work properly.	If the connections are OK, proceed with step 3. If the connections are faulty or the power supply is not connected to any units at all, repair connections/ connect units. Verify that the fault has been fixed and restart this guide if necessary.
3.	Check for short circuits on DC outputs.	Check both the DC outputs on DSQC 604 and the inputs on surrounding units. Measure the resistance between voltage pins and ground. The resistance should NOT be zero. The DC outputs are shown in the Circuit Diagram in *Product manual - IRC5*.	If no short circuit is found, proceed with step 4. If a short circuit is found on DSQC 604, proceed with step 10. If a short circuit is found on any surrounding unit, get that unit working. Verify that the fault has been fixed and restart this guide if necessary.
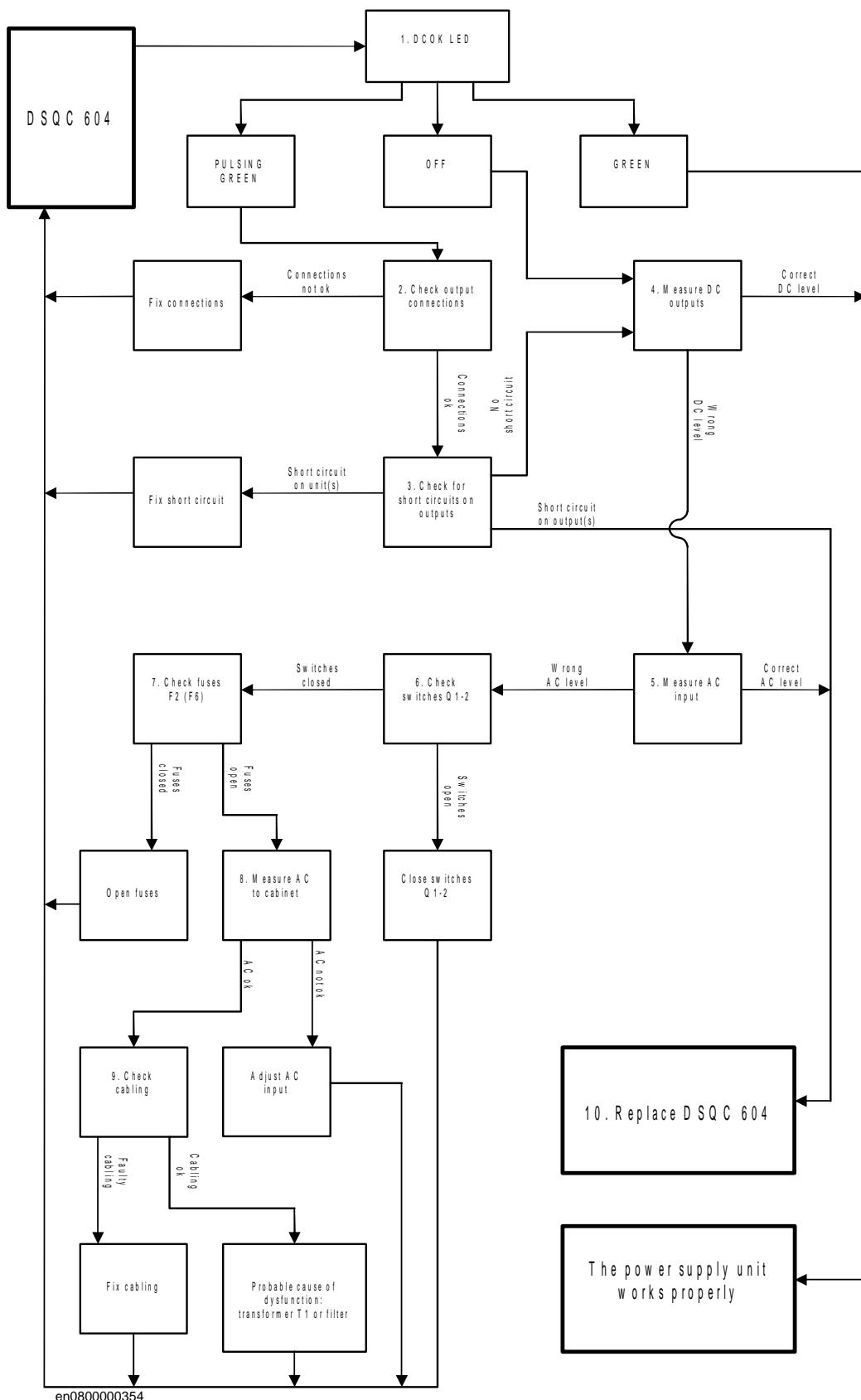
	Test	Note	Action
4.	Disconnect one DC output at a time and measure its voltage.	Make sure that at least one unit is connected at all times. A minimum load of 0.5- 1A is required on at least one output for the 604 to work properly. Measure the voltage using a voltmeter. The voltage should be: +24V < U < +27V. The DC outputs are shown in the Circuit Diagram in *Product manual - IRC5*.	If the correct voltage is detected on all outputs and the DCOK LED is green, the power supply is working properly. If the correct voltage is detected on all outputs and the DCOK LED is off, the power supply is regarded as faulty but does not have to be replaced instantly. If no or the wrong voltage is detected, proceed with step 5.
5.	Measure the input voltage to the 604.	Measure the voltage using a voltmeter. Voltage should be: 172 < U < 276V. The AC input is shown in the Circuit Diagram in *Product manual - IRC5*.	If the input voltage is correct, proceed with step 10. If no or the wrong input voltage is detected, proceed with step 6.
6.	Check switches Q1-2.	Make sure that they are closed. Their physical location is shown in the Circuit Diagram in *Product manual - IRC5*.	If the switches are closed, proceed with step 7. If the switches are open, close them. Verify that the fault has been fixed and restart this guide if necessary.
7.	Check main fuse F2 and optional fuse F6 if used.	Make sure that they are open. Their physical location is shown in the Circuit Diagram in *Product manual - IRC5*.	If the fuses are open, proceed with step 8. If the fuses are closed, open them. Verify that the fault has been fixed and restart this guide if necessary.
8.	Make sure that the input voltage to the cabinet is the correct one for that particular cabinet.		If the input voltage is correct, proceed with step 9. If the input voltage is incorrect, adjust it. Verify that the fault has been fixed and restart this guide if necessary.
9.	Check the cabling.	Make sure that the cabling is correctly connected and not faulty.	If the cabling is OK, the problem is likely to be the transformer T1 or the input filter. Try to get this part of the supply working. Verify that the fault has been fixed and restart this guide if necessary. If the cabling is found unconnected or faulty, connect/replace it. Verify that the fault has been fixed and restart this guide if necessary.

4.4.1. Trouble shooting DSQC 604

Trouble shooting flowchart, DSQC 604

DSQC 604

1. DC OK LED

PULSING GREEN

OFF

GREEN

Fix connections — Connections not ok — 2. Check output connections

4. Measure DC outputs — Correct DC level

Connections ok

No short circuit

Wrong DC level

Fix short circuit — Short circuit on unit(s) — 3. Check for short circuits on outputs

Short circuit on output(s)

7. Check fuses F2 (F6) — Switches closed — 6. Check switches Q1-2 — Wrong AC level — 5. Measure AC input — Correct AC level

Fuses closed

Fuses open

Switches open

Open fuses

8. Measure AC to cabinet

Close switches Q1-2

AC ok

AC not ok

9. Check cabling

Adjust AC input

Faulty cabling

Cabling ok

Fix cabling

Probable cause of dysfunction: transformer T1 or filter

10. Replace DSQC 604

The power supply unit works properly

en0800000354

3HAC020738-001 Revision: K

4.4.2. Trouble shooting DSQC 661

Required test equipment

Equipment needed for trouble shooting:

- Ohmmeter
- Resistive load (e.g. Main Computer DSQC 639 on +24V_PC)
- Voltmeter

Preparations

	Action
1.	Check the FlexPendant for errors and warnings.
2.	Make sure that the control system power supply is in run-time mode. Do this by waiting 30 seconds after power-on.

Trouble shooting procedure, DSQC 661

The trouble shooting table is supposed to be used as a detailed instruction together with the trouble shooting flowchart, see .

	Test	Note	Action
1.	Check the indicator LED on DSQC 661.	The indicator LED is labelled DCOK.	If the LED is GREEN, the 661 should be working properly. If the LED is PULSING GREEN, the DC output is probably not connected to any unit (load) or there may be a short circuit on the output. Proceed with step 2. If the LED is OFF, either the 661 is faulty or it does not have sufficient input voltage. Proceed with step 4.
2.	Check connection between DC output and connected unit.	Make sure that the power supply is connected to DSQC 662. A minimum load of 0.5-1A is required on the DC output for the 661 to work properly.	If the connection is OK, proceed with step 3. If the connection is faulty or the power supply is not connected to DSQC 662, repair connection/ connect it. Verify that the fault has been fixed and restart this guide if necessary.
3.	Check for short circuit on DC output.	Check both the DC output on DSQC 661 and the input on DSQC 662. Measure the resistance between voltage pins and ground. The resistance should NOT be zero. The DC output is shown in the Circuit Diagram in *Product manual - IRC5*.	If no short circuit is found, proceed with step 4. If a short circuit is found on DSQC 661, proceed with step 10. If a short circuit is found on DSQC 662, get that unit working. Verify that the fault has been fixed and restart this guide if necessary.

*Continues on next page*

4.4.2. Trouble shooting DSQC 661
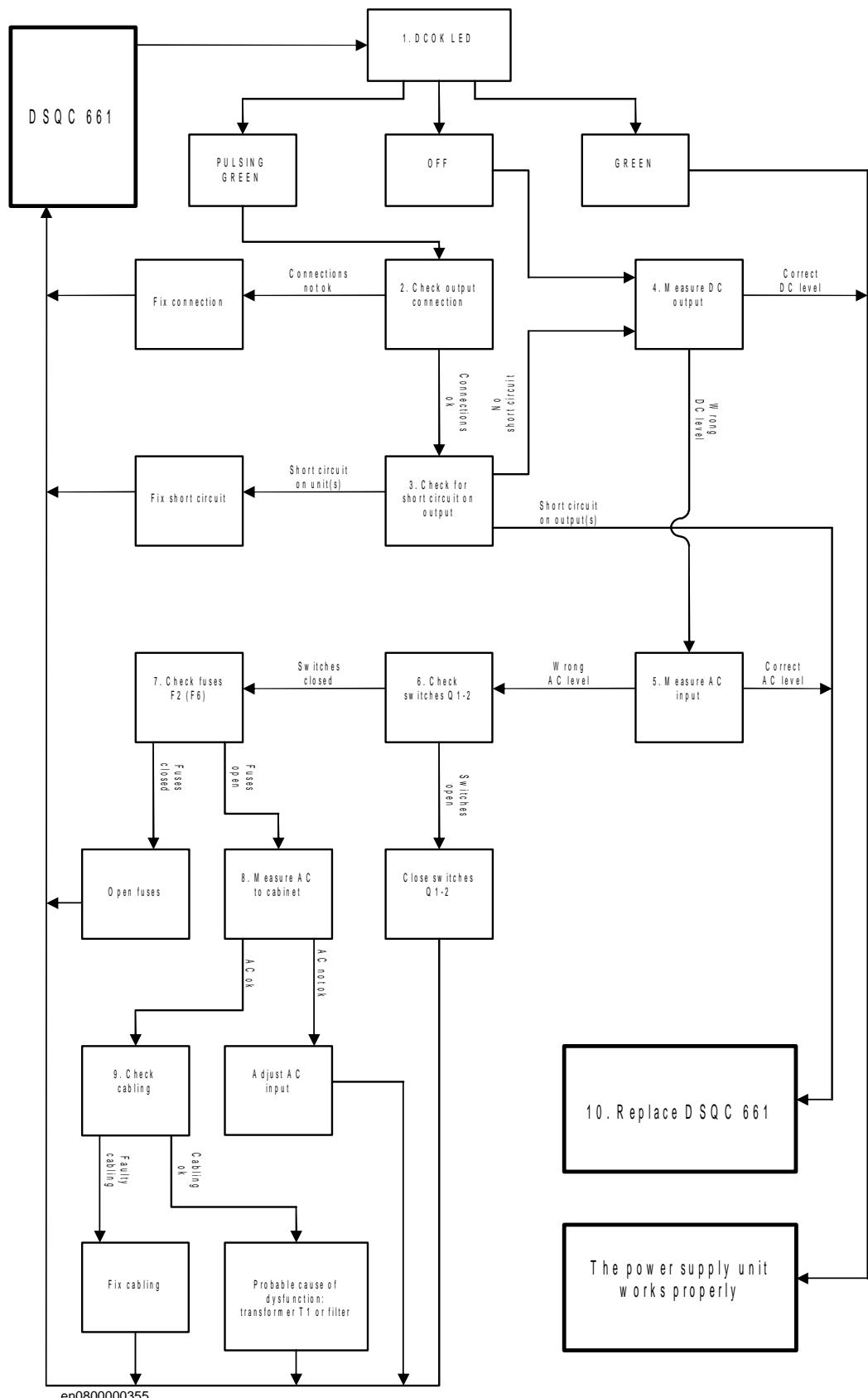
Continued

	Test	Note	Action
4.	Measure the DC voltage while the output is connected to DSQC 662 or some other load.	DSQC 661 requires a minimum load of 0.5- 1A in order for it to deliver +24V. Measure the voltage using a voltmeter. The voltage should be: +24V < U < +27V. The DC output is shown in the Circuit Diagram in *Product manual - IRC5.*	If the correct voltage is detected and the DCOK LED is green, the power supply is working properly. If the correct voltage is detected and the DCOK LED is off, the power supply is regarded as faulty but does not have to be replaced instantly. If no or the wrong voltage is detected, proceed with step 5.
5.	Measure the input voltage to the 661.	Measure the voltage using a voltmeter. Voltage should be: 172 < U < 276V. The AC input is shown in the Circuit Diagram in *Product manual - IRC5.*	If the input voltage is correct, proceed with step 10. If no or the wrong input voltage is detected, proceed with step 6.
6.	Check switches Q1-2.	Make sure that they are closed. Their physical location is shown in the Circuit Diagram in *Product manual - IRC5.*	If the switches are closed, proceed with step 7. If the switches are open, close them. Verify that the fault has been fixed and restart this guide if necessary.
7.	Check main fuse F2 and optional fuse F6 if used.	Make sure that they are open. Their physical location is shown in the Circuit Diagram in *Product manual - IRC5.*	If the fuses are open, proceed with step 8. If the fuses are closed, open them. Verify that the fault has been fixed and restart this guide if necessary.
8.	Make sure that the input voltage to the cabinet is the correct one for that particular cabinet.		If the input voltage is correct, proceed with step 9. If the input voltage is incorrect, adjust it. Verify that the fault has been fixed and restart this guide if necessary.
9.	Check the cabling.	Make sure that the cabling is correctly connected and not faulty.	If the cabling is OK, the problem is likely to be the transformer T1 or the input filter. Try to get this part of the supply working. Verify that the fault has been fixed and restart this guide if necessary. If the cabling is found unconnected or faulty, connect/ replace it. Verify that the fault has been fixed and restart this guide if necessary.
10.	The 661 may be faulty, replace it and verify that the fault has been fixed.	How to replace the unit is detailed in *Product manual - IRC5.*	

Continues on next page

Trouble shooting flowchart, DSQC 661

en0800000355

4.4.3. Trouble shooting DSQC 662

Required test equipment

Equipment needed for trouble shooting:

- Ohmmeter
- Resistive load (e.g. Main Computer DSQC 639 on +24V_PC)
- Voltmeter

Preparations

	Action	Note
1.	Check the FlexPendant for errors and warnings.	
2.	Make sure that the power distribution board is in run-time mode. Do this by waiting 1 minute after power-on.	When the AC power has been cut off, the indicator LED (Status LED) on DSQC 662 will turn red and stay red until UltraCAP is empty. This may take a long time and is completely normal. It does not mean that there is something wrong with the 662.

Trouble shooting procedure, DSQC 662

The trouble shooting table is supposed to be used as a detailed instruction together with the trouble shooting flowchart, see .

	Test	Note	Action
1.	Check the indicator LED on DSQC 662.	The indicator LED is labelled Status LED.	If the LED is GREEN, the 662 should be working properly. If the LED is PULSING GREEN, a USB communication error has occurred. Proceed with step 2. If the LED is RED, the input/output voltage is low, and/or the logic signal ACOK_N is high. Proceed with step 4. If the LED is PULSING RED, one or more DC outputs are under specified voltage level. Make sure cables are properly connected to its respective units. Proceed with step 4. If the LED is PULSING REDGREEN, a firmware upgrade error has occurred. This is not supposed to happen during runtime mode, proceed with step 6. If the LED is OFF, either the 662 is faulty or it does not have sufficient input voltage. Proceed with step 4.

Continues on next page

Continued
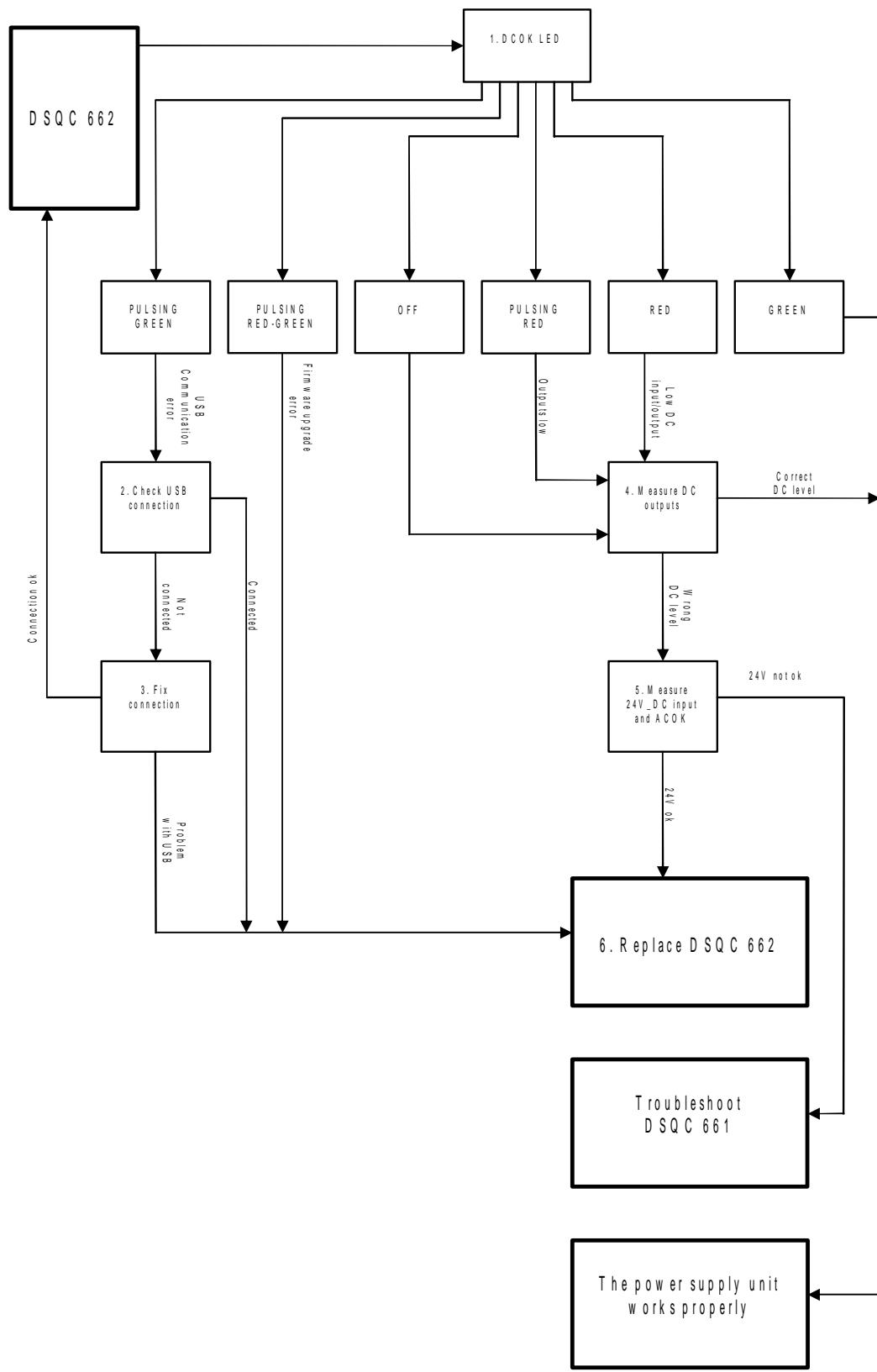
	Test	Note	Action
2.	Check USB connection on both ends.		If the connection seems OK, proceed with step 6. If there is a problem with the connection, proceed with step 3.
3.	Try to fix the commu- nication between the power supply and the computer by reconnecting the cable.	Make sure that the USB cable is properly connected on both ends.	If the communication comes back up, verify that the fault has been fixed and restart this guide if necessary. If unable to fix the communication, proceed with step 6.
4.	Disconnect one DC output at a time and measure its voltage.	Make sure that at least one unit is connected at all times. A minimum load of 0.5- 1A is required on at least one output for the 662 to work properly. Measure the voltage using a voltmeter. The voltage should be: +24V < U < +27V. The DC outputs are shown in the Circuit Diagram in *Product manual - IRC5*.	If the correct voltage is detected on all outputs and the Status LED is green, the power supply is working properly. If the correct voltage is detected on all outputs and the Status LED is NOT green, the power supply is regarded as faulty but does not have to be replaced instantly. If no or the wrong voltage is detected, proceed with step 5.
5.	Measure the input voltage to the 662 and the ACOK_N signal.	Measure the voltage using a voltmeter. Input voltage should be: 24 < U < 27V and ACOK_N should be 0V. Make sure that connectors X1 and X2 are connected properly on both ends. The DC input X1 and ACOK_N connector X2 are shown in the Circuit Diagram in *Product manual - IRC5*.	If the input voltage is correct, proceed with step 6. If no or the wrong input voltage is detected, troubleshoot DSQC 661.
6.	The 662 may be faulty, replace it and verify that the fault has been fixed.	How to replace the unit is detailed in *Product manual - IRC5*.	

Continues on next page

4.4.3. Trouble shooting DSQC 662

Continued

Trouble shooting flowchart, DSQC 662

en0800000356

5 Descriptions and background information

5.1 Indications

5.1.1. LEDs in the Control Module
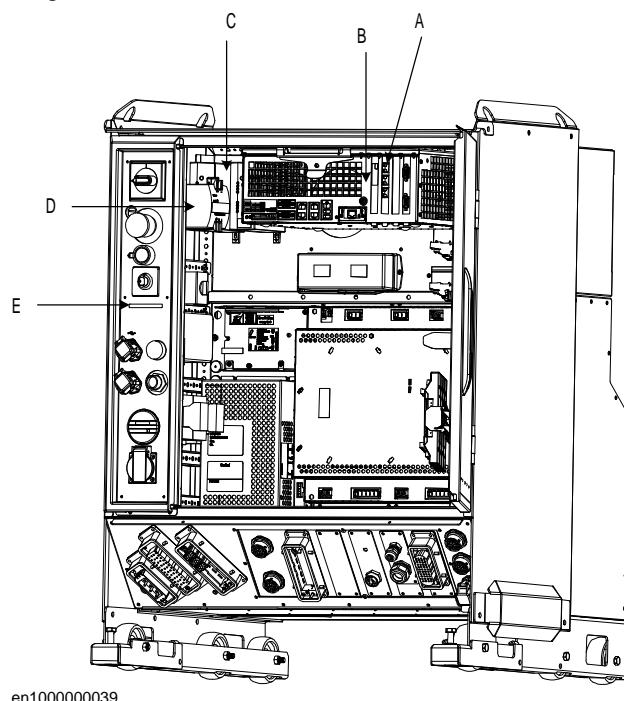
General

The Control Module features a number of indication LEDs, which provide important information for trouble shooting purposes. If no LEDs light up at all when switching the system on, trouble shoot as detailed in section *All LEDs are OFF at Controller on page 36*

All LEDs on the respective units, and their significance, are described in the following sections.

All units with LEDs are shown in the illustration below:

LEDs

Single cabinet controller

en1000000039
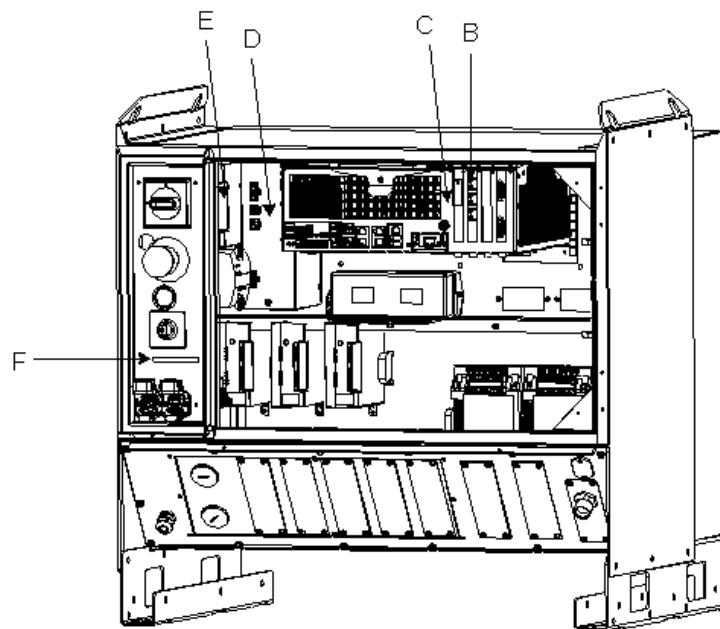
A	Ethernet board (any of the four board slots)
B	Computer unit (DSQC 639)
C	Customer I/O power supply (up to three units)
D	Control module power supply
E	LED board

Continues on next page

5 Descriptions and background information

5.1.1. LEDs in the Control Module

Continued

Control module for Dual cabinet controller
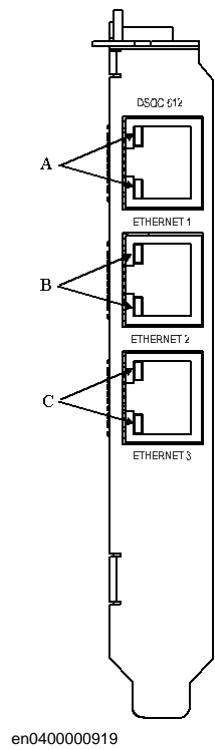
en1000000035

B	Ethernet board (any of the four board slots)
C	Computer unit (DSQC 639)
D	Customer I/O power supply (up to three units)
E	Control module power supply
F	LED board

3HAC020738-001 Revision: K

Ethernet board

The illustration below shows the LEDs on the Ethernet board:

en0400000919

A	AXC2 connector LED
B	AXC3 connector LED
C	AXC4 connector LED

Description	Significance
AXC2 connector LED	Shows the status of Ethernet communication between Axis Computer 2 and the Ethernet board. GREEN OFF:10 Mbps data rate has been selected. GREEN ON:100 Mbps data rate has been selected. YELLOW flashing: The two units are communicating on the Ethernet channel. YELLOW steady: A LAN link is established. YELLOW OFF: A LAN link is *not* established.
AXC3 connector LED	Shows the status of Ethernet communication between Axis Computer 3 and the Ethernet board See the description above!
AXC4 connector LED	Shows the status of Ethernet communication between Axis Computer 4 and the Ethernet board See the description above!
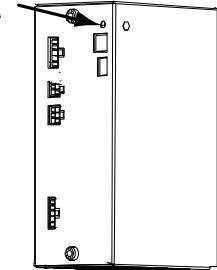
5.1.1. LEDs in the Control Module

Control module Power supply

The illustration below shows the LEDs on the Control module power supply:
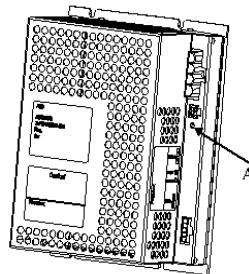
DSQC

xx0400001073
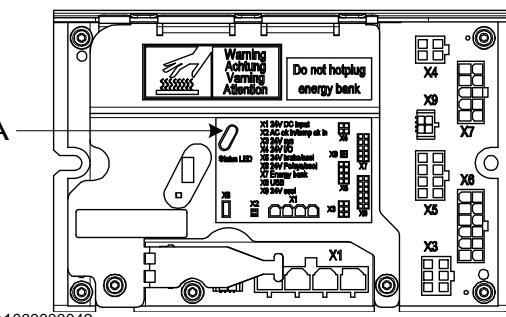
DSQC 661

en1000000041

DSQC 662

en1000000042

A	DCOK indicator

Description	Significance
DCOK indicator	GREEN: When all DC outputs are above the specified minimum levels. OFF: When one or more DC output/s below the specified minimum level.
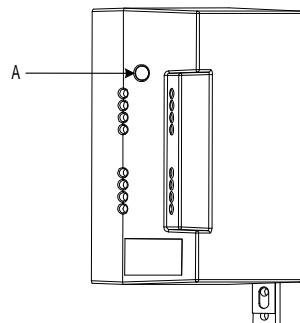
Control module Power distribution board

Description	Significance
DCOK indicator	GREEN: When DC output is above the specified minimum level.
	OFF: When the DC output below the specified minimum level.

Customer Power Supply

The illustration below shows the LEDs on the Customer Power Supply Module:

en1000000037
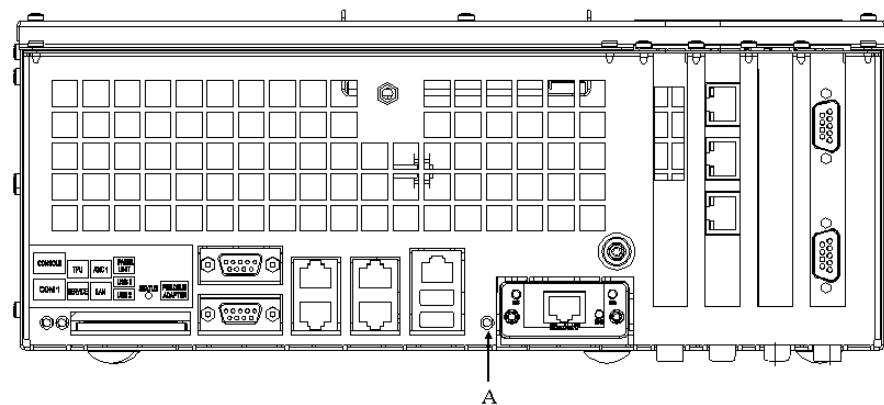
A	DCOK indicator

Description	Significance
DCOK indicator	GREEN: When all DC outputs are above the specified minimum levels.
	OFF: When one or more DC output/s below the specified minimum level.

Computer unit

The illustration below shows the LEDs on the Computer unit:

en1000000040

Description	Significance
Status LED	Shows the status of the communication on the computer unit

Continues on next page
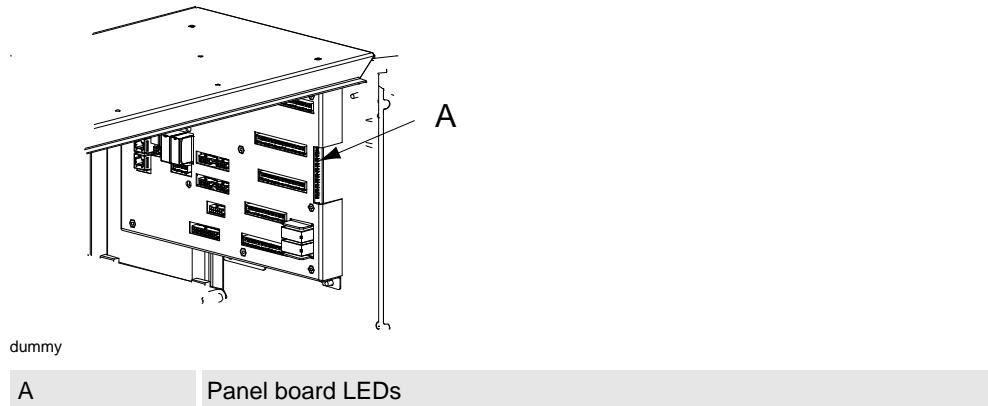
5 Descriptions and background information

5.1.1. LEDs in the Control Module

Continued

Panel board

The illustration below shows the LEDs on the Panel board:

dummy

A	Panel board LEDs

The panel board LEDs are described from top to bottom below:

Description	Significance
Status LED	GREEN flashing: serial communication error. GREEN steady: no errors found and system is running. RED flashing: system is in power up/selftest mode. RED steady: other error than serial communication error.
Indication LED, ES1	YELLOW when Emergency stop chain 1 closed
Indication LED, ES2	YELLOW when Emergency stop chain 2 closed
Indication LED, GS1	YELLOW when General stop switch chain 1 closed
Indication LED, GS2	YELLOW when General stop switch chain 2 closed
Indication LED, AS1	YELLOW when Auto stop switch chain 1 closed
Indication LED, AS2	YELLOW when Auto stop switch chain 2 closed
Indication LED, SS1	YELLOW when Superior stop switch chain 1 closed
Indication LED, SS2	YELLOW when Superior stop switch chain 2 closed
Indication LED, EN1	YELLOW when ENABLE1=1 and RS-communication is OK

LED board

The function of the LEDs on the LED board are identical to those on the Panel board as described above.

Should the LED board not be working, but the Panel board is, the problem is the communication between these boards or the LED board itself. Check the cabling between them.
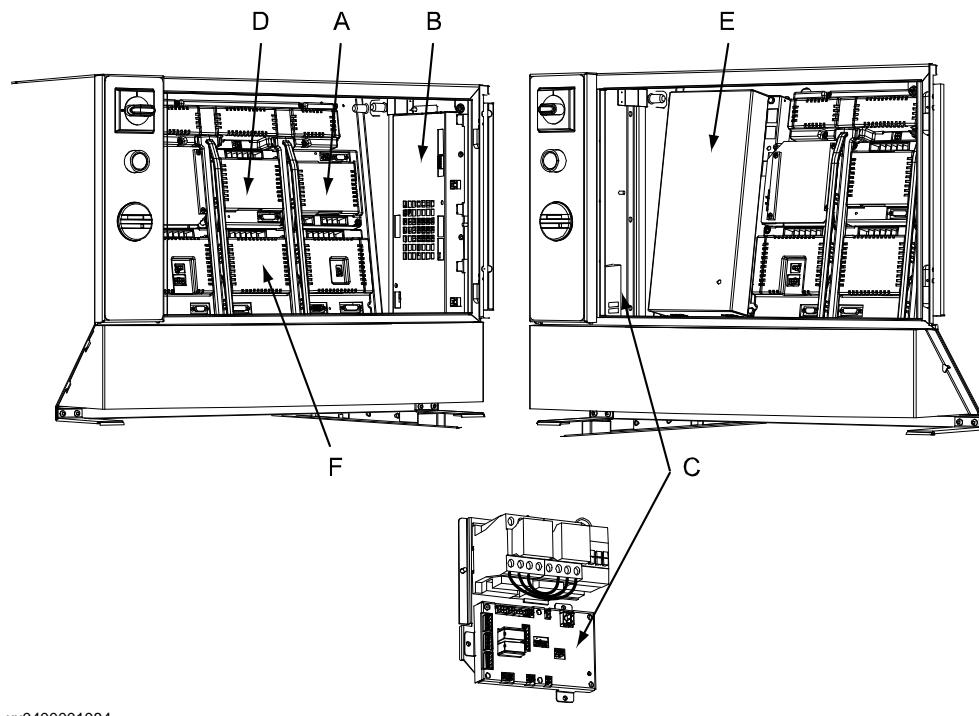
3HAC020738-001 Revision: K

5.1.2. LEDs in the Drive Module for Drive System 04

General

The Drive Module features a number of indication LEDs, which provide important information for trouble shooting purposes. If no LEDs light up at all when switching the system on, trouble shoot as detailed in section *All LEDs are OFF at Controller on page 36*.

All LEDs on the respective units, and their significance, are described in the following sections.

All units with LEDs are shown in the illustration below:

LEDs

xx0400001084

A	Rectifier
B	Axis Computer
C	Contactor interface board
D	Single servo drive
E	Drive Module Power Supply
F	Main drive unit
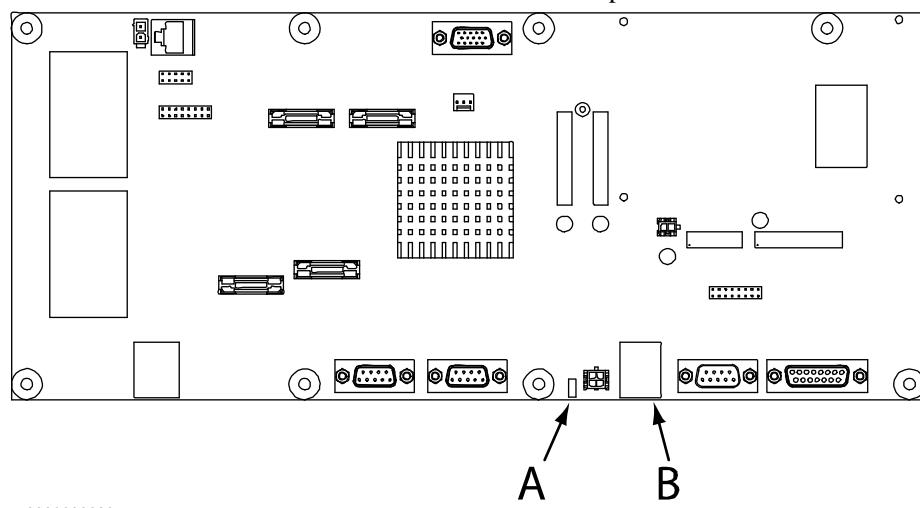
5.1.2. LEDs in the Drive Module for Drive System 04

Continued

Axis computer

The illustration below shows the LEDs on the Axis computer:

xx0300000023

A	Status LED
B	Ethernet LEDs

Description	Significance
Status LED	Normal sequence during startup: 1. RED steady: Default at power-up. 2. GREEN flashing: Establish connection to main computer, retrieve IP address and download the application file. 3. GREEN steady. Start-up sequence ready. Application is running. The following indicates errors: • RED steady (forever): The axis computer has failed to initialize basic hardware. • RED (long) -> GREEN flashing (short) -> RED (long) -> GREEN flashing (short) -> ... : Missing connection to main computer. Possible cable problem. • RED (short) -> GREEN flashing (long) -> RED (short) -> GREEN flashing (long) -> ... : Connection established with main computer. Possible RobotWare problem in main computer. • GREEN flashing (forever): Possible cable or RobotWare problem in main computer.
Ethernet LED	Shows the status of Ethernet communication between an additional axis computer (2, 3 or 4) and the Ethernet board. • GREEN OFF:10 Mbps data rate has been selected. This is an error state. • GREEN ON:100 Mbps data rate has been selected. • YELLOW flashing: The two units are communicating on the Ethernet channel. • YELLOW steady: A LAN link is established. • YELLOW OFF: A LAN link is *not* established.
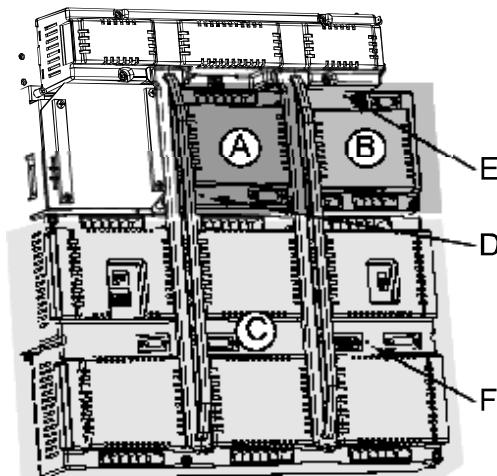
Main drive unit, single drive unit and rectifier unit

The illustration below shows the indication LEDs on the main drive unit, single drive unit and rectifier unit.

NOTE that there are two types of main drive units: a six unit drive and a three unit drive which are both used to power a six axes robot. Shown in the illustration is a six unit drive. The three unit drive is half the size of the six unit drive, but the indication LED is positioned in the same place.

xx0400001089

A	Single drive unit
B	Rectifier unit
C	Main drive unit
D	Indication LED, single servo drive
E	Indication LED, rectifier unit
F	Indication LED, main drive unit

Description	Significance
Indication LEDs D, E and F	GREEN flashing: Internal function is OK and there is a malfunction in the interface to the unit. The unit does not need to be replaced.
	GREEN steady: Program loaded successfully, unit function OK and all interfaces to the units is fully functional.
	RED steady: Permanent internal fault detected. The LED is to have this mode in case of failure at internal self test at start-up, or in case of detected internal failure state in running system. The unit probably needs to be replaced.
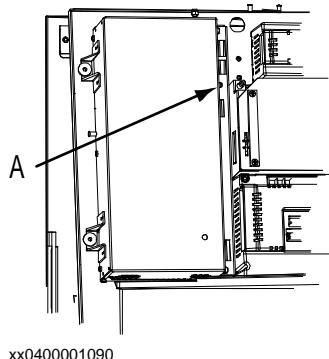
5 Descriptions and background information

5.1.2. LEDs in the Drive Module for Drive System 04

Continued

Drive Module Power Supply

The illustration below shows the LEDs on the Drive Module power supply:

xx0400001090

A	DCOK indicator

Description	Significance
DCOK indicator	GREEN: When all DC outputs are above the specified minimum levels. OFF: When one or more DC output/s below the specified minimum level.

Contactor interface board

The illustration below shows the LEDs on the Contractor interface board:

xx0400001091

A	Status LED

Description	
Status LED	GREEN flashing: serial communication error. GREEN steady: no errors found and system is running. RED flashing: system is in power up/selftest mode. RED steady: other error than serial communication error.

3HAC020738-001 Revision: K

5.1.3. LEDs in the Drive Module for Drive System 09

General

The Drive Module features a number of indication LEDs, which provide important information for trouble shooting purposes. If no LEDs light up at all when switching the system on, trouble shoot as detailed in section *All LEDs are OFF at Controller on page 36*.

All LEDs on the respective units, and their significance, are described in the following sections.

All units with LEDs are shown in the illustration below:

Units

xx0800000484

A	Main Drive Unit
B	Additional Drive Units
C	Axis computer
D	Drive Module power supply
E	Contactor interface board

Continued

Axis computer

The illustration below shows the LEDs on the Axis computer:

xx0800000485

A	Status LED
B	Ethernet LED

Description	Significance
Status LED	Normal sequence during startup: 1. RED steady: Default at power-up. 2. RED flashing: Establish connection to main computer and load program to axis computer. 3. GREEN flashing: Start-up of axis computer program and connect peripheral units. 4. GREEN steady. Start-up sequence ready. Application is running. The following indicates errors: • DARK: No power to axis computer or internal error (hardware/firmware). • RED steady (forever): The axis computer has failed to initialize basic hardware. • RED flashing (forever): Missing connection to main computer, main computer start-up problem or RobotWare installation problem. • GREEN flashing (forever): Missing connections to peripheral units or RobotWare start-up problem.

Continued

Description	Significance
Ethernet LED	Shows the status of Ethernet communication between an additional axis computer (2, 3 or 4) and the Ethernet board. • GREEN OFF:10 Mbps data rate has been selected. • GREEN ON:100 Mbps data rate has been selected. • YELLOW flashing: The two units are communicating on the Ethernet channel. • YELLOW steady: A LAN link is established. • YELLOW OFF: A LAN link is *not* established.

Main Drive Unit and Additional Drive Unit

The illustration below shows the indication LEDs on the Main Drive Unit and Additional Drive Units.

xx0800000486

A	Main Drive Unit
B	Main Drive Unit Ethernet LEDs
C	Additional Drive Unit
D	Additional Drive Unit Ethernet LEDs

Continues on next page
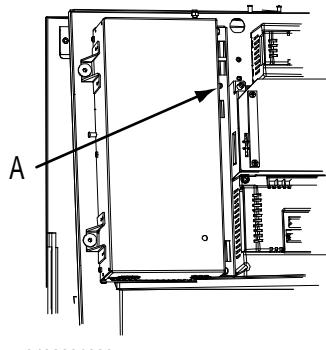
5.1.3. LEDs in the Drive Module for Drive System 09

Continued

Description	Significance
Ethernet LEDs (B and D)	Shows the status of Ethernet communication between an additional axis computer (2, 3 or 4) and the Ethernet board. • GREEN OFF:10 Mbps data rate has been selected. • GREEN ON:100 Mbps data rate has been selected. • YELLOW flashing: The two units are communicating on the Ethernet channel. • YELLOW steady: A LAN link is established. • YELLOW OFF: A LAN link is *not* established.

Drive Module Power Supply
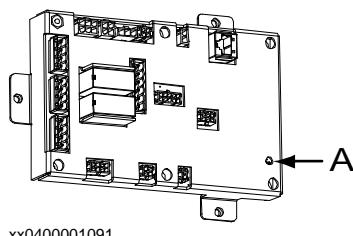
The illustration below shows the LEDs on the Drive Module power supply:

xx0400001090

A	DCOK indicator

Description	Significance
DCOK indicator	GREEN: When all DC outputs are above the specified minimum levels. OFF: When one or more DC output/s below the specified minimum level.

Contactor interface board

The illustration below shows the LEDs on the Contractor interface board:

xx0400001091

A	Status LED

Description	
Status LED	GREEN flashing: serial communication error. GREEN steady: no errors found and system is running. RED flashing: system is in power-up/self-test mode. RED steady: other error than serial communication error.

6 Trouble shooting by Event log

10002, Program pointer has been reset

Description

The program pointer of task *arg* has been reset.

Consequences

When started, program execution will start on the first instruction of the task's entry routine. NOTE that the manipulator may move to unexpected position when restarted!

Probable causes

The operator has probably requested this action manually.

10009, Work memory full

Description

The task *arg* has no memory left for new RAPID instructions or data.

Recommended actions

Save the program and then restart the system.

10010, Motors OFF state

Description

The system is in the Motors OFF state. It enters this state either after switching from Manual mode to Automatic, or after the Motors ON circuit has been opened during program execution.

Consequences

No operation will be possible until after closing the Motors ON circuit. The manipulator's axes are meanwhile held in position by mechanical holding brakes.

10011, Motors ON state

Description

The system is in the Motors ON state.

Consequences

The Motors ON circuit has been closed., enabling power supply to the manipulator's motors. Normal operation may be resumed.

10012, Safety guard stop state

Description

The system is in the Guard stop state. It enters this state either after switching from Automatic mode to Manual, or after the Motors ON circuit has been opened by an Emergency Stop, General Stop, Automatic Stop or Superior Stop.

Consequences

No operation will be possible until after closing the Motors ON circuit. The manipulator's axes are meanwhile held in position by mechanical holding brakes.

Probable causes

Any safety device connected to the system's stop inputs have been opened. These are shown in the Circuit Diagram.

Recommended actions

1. Check which safety device caused the stop.

2. Close the device.

3. To resume operation, switch the system back to state Motors ON.

10013, Emergency stop state

Description

The system is in the Emergency stop state, since the Motors ON circuit has been opened by an Emergency Stop device.

Consequences

All program execution and thus robot actions are immediately halted. The robot axes are meanwhile held in position by mechanical holding brakes.

Probable causes

Any emergency stop device connected to the emergency stop input have been opened. These may be internal (on the controller or on the teach pendant) or external (devices connected by the system builder). The internal devices are shown in the Circuit Diagram.

Recommended actions

1) Check which emergency stop device caused the stop.

2) Close/reset the device.

3) To resume operation, switch the system back to state Motors ON by pressing this button on the Control Module.

10014, System failure state

Description

Execution of all NORMAL tasks has been stopped due to malfunction.

Consequences

No start of program execution or manual manipulator jogging will be possible until after the system has been restarted.

Probable causes

A large number of malfunctions may cause this condition. Please use the teach pendant or RobotStudio to check other event log messages for events occurring at this time!

Recommended actions

1. Determine what caused the stop by studying the event log.

2. Remedy the fault.

3. Restart the system as detailed in the Operator's Manual.

10015, Manual mode selected

Description

The system is in the Manual mode.

6 Trouble shooting by Event log

Consequences

Programmed operation is possible, but only with a max. speed of 250 mm/s. The manipulator may also be jogged manually after pressing the enabling device on the teach pendant.

10016, Automatic mode requested

Description

The system has been ordered to go to the Automatic mode.

Consequences

The system will go to the Automatic mode after confirmed from teach pendant.

10017, Automatic mode confirmed

Description

The system is in the Automatic mode.

Consequences

The enabling device is disconnected. The robot can move without human intervention.

10018, Manual mode full speed requested

Description

The system has been ordered to go to the Manual mode without any speed restraints.

Consequences

The system will go to the Manual mode full speed.

10019, Manual mode full speed confirmed

Description

The system is in the Manual mode without any speed restraints.

Consequences

Programmed operation is possible while pressing the hold-to-run button on the teach pendant. The manipulator may also be jogged manually after pressing the enabling device on the teach pendant.

10020, Execution error state

Description

The program execution in task *arg* has been stopped due to a spontaneous error.

Consequences

No program execution will be possible until the error has been removed.

Probable causes

A large number of malfunctions may cause this condition. Please use the teach pendant or RobotStudio to check other event log messages for events occurring at this time!

Recommended actions

1. Determine what caused the stop by studying the event log.

2. Remedy the fault.

3. If neccesary, move Program Pointer to main before pressing start button.

10021, Execution error reset

Description

The program execution in task *arg* has left a spontaneous error state.

10024, Collision triggered

Description

Some mechanical part of the manipulator has collided with a piece of fixed equipment in the cell.

Consequences

Manipulator movement is interrupted and program execution is stopped.

10025, Collision confirmed

Description

The collision detection has been confirmed.

Recommended actions

10026, Collision retraction

Description

The manipulator has attempted to back away from the obstacle, into which it collided, and succeeded.

Consequences

The system is ready to go back to normal operation.

10027, Collision retraction fail

Description

The manipulator has attempted to back away from the obstacle, into which it collided, and failed.

Consequences

The system is NOT ready to go back to normal operation.

Probable causes

This may be caused by the robot being stuck to the object into which it collided.

Recommended actions

1) Go to Manual Mode.

2) Manually run the robot away from the object.

3) Resume operation by restarting the program.

10030, All axes commutated

Description

After checking, the system has found all manipulator axes to be commutated.

Consequences

Normal operation is possible.

10031, All axes calibrated

Description

After checking, the system has found all manipulator axes to be calibrated.

Consequences

Normal operation is possible.

10032, All revolution counters updated

Description

After checking, the system has found all revolution counters for all manipulator axes to be updated.

Consequences

Normal operation is possible.

10033, All axes synchronized

Description

After checking, the system has found all manipulator axes to be synchronized.

Consequences

Normal operation is possible.

10034, Axis not commutated

Description

After checking, the system has found that one or more manipulator axes are not commutated.

Consequences

To enable operation, all manipulator axes must be commutated.

Probable causes

The manipulator drive motor and related units may have been altered, e.g. after replacing a faulty unit.

Recommended actions

Commutate the manipulator axes as detailed in the manipulator Product Manual.

10035, Axis not calibrated

Description

After checking, the system has found that one or more manipulator axes are not calibrated.

Consequences

To enable operation, all manipulator axes must be calibrated.

Probable causes

The manipulator drive motor and related units may have been altered, e.g. after replacing a faulty unit.

Recommended actions

Calibrate the manipulator axes as detailed in the manipulator Product Manual.

10036, Revolution counter not updated

Description

After checking, the system has found that the revolution counters of one or more manipulator axes are not updated.

Consequences

To enable operation, the revolution counters of all manipulator axes must be updated.

Probable causes

The manipulator drive motor and related units may have been altered, e.g. after replacing a faulty unit.

Recommended actions

Update the revolution counters of all manipulator axes as detailed in the manipulator Product Manual.

10037, Axis not synchronized

Description

After checking, the system has found that one or more manipulator axes are not synchronized.

Consequences

To enable operation, all manipulator axes must be synchronized.

Probable causes

The manipulator drive motor and related units may have been altered, e.g. after replacing a faulty unit.

Recommended actions

Synchronize the manipulator axes as detailed in the manipulator Product Manual.

10038, SMB memory is OK

Description

During startup, the system has found that all data on the Serial Measurement Board (SMB) is OK.

Continued

Consequences

Operation is possible.

10039, SMB memory is not OK

Description

During startup, the system has found that data in the Serial Measurement Board (SMB) memory is not OK.

Consequences

All data must be OK before automatic operation is possible. Manually jogging the robot is possible.

Probable causes

There are differences between the data stored on the SMB and the data stored in the controller. This may be due to replacement of SMB, controller or both.

Recommended actions

1) Update the Serial Measurement Board data as detailed in Operator's Manual, IRC5.

10040, Program loaded

Description

A program or program module has been loaded into task *arg*. After loading, *arg* bytes memory remain. The size of the loaded program is *arg*.

10041, Program deleted

Description

A program or program module was deleted from task *arg*.

Consequences

If the deleted program contained the task entry routine, the program will no longer be executable.

Probable causes

The program may have been removed manually.

Recommended actions

1) Define an entry routine in one of the task's remaining programs, or:

2) Load a program containing an entry routine.

10042, Axis recalibrated

Description

Fine calibration or rev counter update was made for an axis in an already synchronized mechanical unit.

10043, Restart failed

Description

The task *arg* can't restart.

10044, Program Pointer updated

Description

The task *arg* could have changed the Program Pointer position.

Recommended actions

10045, System restarted

Description

An already installed system was restarted.

Recommended actions

10046, System restarted in cold mode

Description

First start after installation.

Recommended actions

10048, Background task did stop

Description

The task *arg* stopped without reason.

Recommended actions

10051, Event routine error

Description

The task *arg* could not start the specified system event routine *arg*. The routine is either unknown to the system or the program is unlinkable.

Recommended actions

Insert the routine in a system module or correct the program.

10052, Regain start

Description

A regain movement has started.

Recommended actions

10053, Regain ready

Description

The regain movement is ready.

Recommended actions

10054, Regain rejected

Description

Regain on path not possible, as one client has already ordered it.

Recommended actions

A new regain movement is ordered during an already started regain movement. Reduce the number of start orders from e.g system I/O

10055, Path process restarted

Description

The path process has been restarted.

Recommended actions

10060, Test of enable chain

Description

The enable chain is always tested at startup. If the test failed an error message concerning enable will follow.

Recommended actions

If enable chain test at startup failed the related error message will be "Enable chain timeout"

10061, A target has been modified

Description

A target in module *arg* in task *arg* has been modified or tuned.

Start line *arg*, column *arg*, end line *arg*.

10062, A module has been edited.

Description

Module *arg* in task *arg* has been edited between lines: *arg*, *arg*.

10063, Module has been edited

Description

Module *arg* in task *arg* has been edited.

10064, A module has been erased.

Description

Module *arg* in task *arg* has been erased.

10065, New user has started to modify RAPID.

Description

User *arg* has started with RAPID program modifications in task *arg*.

10066, Not possible to load system module

Description

System module *arg* in task *arg* cannot be loaded since the file is not found.

10067, Program Pointer Reset

Description

Unable to reset the program pointer for task *arg*.

Consequences

The program will not start.

Probable causes

- No program is loaded.
- The main routine is missing.
- There are errors in the program.

Recommended actions

1. Load program if no program is loaded.

2. Check that the program has a main routine. If there is no main routine, add one.

3. Check for errors in the program and correct them.

4. See previous error messages in the Event log.

10068, Start Program

Description

Unable to start program for task *arg*.

Consequences

The program will not execute.

10074, NFS server up

Description

The control system communicates correctly with the NFS server *arg*.

10075, NFS server down

Description

The control system is not able to communicate correctly with the NFS server *arg*.

Consequences

If the server *arg* is defined as TRUSTED, robot program execution will be stopped. If the server is defined as NON-TRUSTED, execution will proceed. These definitions are specified in the Application manual - Robot communication and I/O control.

Probable causes

If this message is displayed at first start-up, the server configuration may be incorrect. If displayed during operation, the previously working communication has been lost due to a broken connection. Also see the I/O event log!

Recommended actions

1. Check the NFS server configuration.

2. Check all communication hardware, cables and such.

3. Check NFS client configuration on the controller.

10076, FTP server up

Description

The control system communicates correctly with the FTP server *arg*.

10077, FTP server down

Description

The control system is not able to communicate correctly with the FTP server *arg*.

Consequences

If the server *arg* is defined as TRUSTED, robot program execution will be stopped. If the server is defined as NON-TRUSTED, execution will proceed. These definitions are specified in the Application manual - Robot communication and I/O control.

Probable causes

If this message is displayed at first start-up, the server configuration may be incorrect. If displayed during operation, the previously working communication has been lost due to a broken connection. Also see the I/O event log!

Recommended actions

1. Check the FTP server configuration.

2. Check all communication hardware, cables and such.

3. Check the FTP client configuration on the controller.

10080, An updated RAPID file is found

Description

The SEMISTATIC task *arg* has an older version of a module installed than the source *arg*

Recommended actions

Restart the system with a P-START to install the newer version.

10081, Background task *arg*

Description

failed to load a newer version of a module. The source of the module is *arg*.

Recommended actions

See previous messages for the cause or restart the system with a P-START to load the newer version.

10082, RAPID Task supervision

Description

Task *arg* is not running. The system will be set in SysFail state. It's now impossible to change to motors on *arg*.

Recommended actions

See previous messages for the cause. Restart the system to reset the error state.

10083, RAPID Task supervision

Description

Task *arg* is not running. The system will be set in motors off state. *arg*

Recommended actions

See previous messages for the cause.

10084, RAPID Task supervision

Description

Task *arg* is not running. All NORMAL tasks will also be stopped.

Recommended actions

See previous messages for the cause.

10085, RAPID Task supervision

Description

Task *arg* can't be stopped. The trustLevel is set to a safety level.

Recommended actions

If the task should be possible to stop change the trustLevel or task type in the system parameters menu.

10086, Robot is purged OK

Description

Purging pressure regained after a purge fault.

Recommended actions

10087, Purge state: *arg*.

Description

State changed.

Recommended actions

10090, P-Start done

Description

A P-Start is done.

Consequences

After restart the system's state will be resumed except for manually loaded programs and modules. Static and semistatic tasks are restarted from the beginning, not from the state they had when the system was stopped.

Modules will be installed and loaded in accordance with the set configuration. System parameters will not be affected.

Probable causes

1. The P-start was ordered by the user.

2. The system forced the P-start due to inconsistent data, malfunction or unrecoverable task state.

10091, Restart not possible

Description

A restart after collision detection is not possible before acknowledge the error dialogue.

Recommended actions

10092, (Re)start not possible

Description

(Re)start is not possible due to lost contact with IO module *arg* configured with trustlevel 3.

Recommended actions

10093, (Re)start not possible

Description

(Re)start of task *arg* is not possible before a warm start is done.

Recommended actions

The background task is configured with Trustlevel set to SysHalt

10095, At least one task is unchecked in the task selection panel

Description

One or more of the NORMAL tasks are unchecked in the task selection panel when performing a (re)start.

Recommended actions

10096, *arg* not active!

Description

The workobject *arg* contains a coordinated mechanical unit which is not activated.

Recommended actions

Activate the mechanical unit and perform the operation again.

10097, Restart not possible

Description

The task *arg* is set in blocked state and the program is for that reason not possible to restart from the current program position.

Recommended actions

The Program Pointer must be moved before restart.

10098, Restart not possible

Description

The task *arg* has been in system failure state and the program is for that reason not possible to restart from the current program position.

Recommended actions

The Program Pointer must be moved before restart.

10099, Program start rejected

Description

The system has performed a soft stop, and the program may not be restarted.

Consequences

The system goes to the Motors OFF state and can not be started. The full meaning of this status is described in the Trouble shooting manual, IRC5.

Probable causes

The soft stop may be caused by opening the safety circuit.

Recommended actions

1) Check the safety circuits for an open switch.

2) Go to Motors ON and restart the program.

10106, Service Message

Description

It's time for service for robot *arg* because it is *arg* days since the last service.

Recommended actions

10107, Service Message

Description

It remains *arg* days for robot *arg* until it's time for service.

Recommended actions

10108, Service Message

Description

It's time for service for robot *arg* cause it's *arg* hours of production since last service.

Recommended actions

10109, Service Message

Description

It remains *arg* hours of production for robot *arg* to next service.

Recommended actions

10110, Service Message

Description

The gearbox at *arg* of robot *arg* needs service.

Recommended actions

10111, Service Message

Description

The gearbox at *arg* of robot *arg* has reached *arg* of its service interval.

Recommended actions

10112, Service Message

Description

The system date and time has changed.

This could cause problems with the SIS calender notification.

Recommended actions

The SIS parameters Calender Limit and Calender Warning might need to be changed

10120, Program stopped

Description

The task *arg* has stopped. The reason is that an external or internal stop after current instruction has occurred.

Recommended actions

10121, Program stopped

Description

The task *arg* has stopped. The reason is that the task has reached an exit instruction.

Recommended actions

10122, Program stopped

Description

The task *arg* has stopped. The reason is that the task is ready.

Recommended actions

10123, Program stopped

Description

The task *arg* has stopped. The reason is that the task is ready with this step.

Recommended actions

10124, Program stopped

Description

The task *arg* has stopped. The reason is that the task has reached a break instruction.

Recommended actions

10125, Program stopped

Description

The task *arg* has stopped. The reason is that an external or internal stop has occurred.

Recommended actions

10126, Program stopped

Description

The task *arg* has stopped. The reason is that an error has occurred.

Recommended actions

10127, Backward execution not possible

Description

The task *arg* has stopped. The reason is that it is not possible to execute backward past beginning of instruction list.

Recommended actions

10128, Backward execution not possible

Description

The task *arg* has stopped. The reason is that it is not possible to execute backward past the instruction.

Recommended actions

10129, Program stopped

Description

The task *arg* has stopped. The reason is that the event routine for RESET or POWER_ON is ready.

Recommended actions

10130, Program stopped

Description

The task *arg* has stopped. The reason is that the task is ready with this move step.

Recommended actions

10131, Program stopped

Description

The task *arg* has stopped. The reason is that the routine called from system IO interrupt is ready.

Recommended actions

10132, Program stopped

Description

The task *arg* has stopped. The reason could not be determined.

Recommended actions

10133, Program stopped

Description

The task *arg* has stopped. The reason is that the task is ready with the execution of the UNDO handlers.

10150, Program started

Description

Execution of task *arg* has been started from the first instruction of the task's entry routine. The originator could not be determined.

Recommended actions

10151, Program started

Description

Execution of task *arg* has been started from the first instruction of the task's entry routine. The originator is an external client.

Recommended actions

10152, Program started

Description

Execution of task *arg* has been started from the first instruction of the task's entry routine. The start order was initiated by an action causing the UNDO handler to execute.

10155, Program restarted

Description

Execution of task *arg* has been restarted from where it was previously stopped. The originator could not be determined.

Recommended actions

10156, Program restarted

Description

Execution of task *arg* has been restarted from where it was previously stopped. The originator is an external client.

Recommended actions

10157, Program restarted

Description

Execution of task *arg* has been restarted from where it was previously stopped. The restart order was initiated by an action causing the UNDO handler to execute.

10170, Background task *arg*

Description

refuse to start. Task is empty.

Recommended actions

10171, Background task *arg*

Description

refuse to start. Wrong state.

Recommended actions

10172, Background task *arg*

Description

refuse to start. Can't set PP to the main routine.

Probable causes

The module that contains the main routine was not loaded since the module file is missing in the target directory.

The module that contains the main routine was not loaded since the configuration file has no entry for automatic loading of the module.

The main routine is missing.

The main entry is corrupted.

Recommended actions

Load the module by hand or perform an I-start when the cause of the problem is removed.

10173, Background task *arg*

Description

refuse to start. Can't set the execution mode.

Recommended actions

10174, Background task *arg*

Description

refuse to start. The start order failed.

Recommended actions

10175, Background task *arg*

Description

refuse to start due to a syntax error.

Recommended actions

10176, Background task *arg*

Description

refuse to start. Can't load module.

Probable causes

The module file is missing in the target directory.

Recommended actions

1. Copy the module file to the target directory.

2. Perform an I-start.

10177, Task refuses to start

Description

Task *arg*:

There is not sufficient program memory or the program memory is fragmented. Modules could be missing or data may not have been installed.

Recommended actions

1. Unload/reload modules and warmstart.

2. Split large data structures.

3. P-start the system.

4. Increase stack size for task.

10178, A static/semistatic task can't be stepped

Description

Task *arg* can't be started.

A static/semistatic task can only run in continuous mode.

Consequences

No tasks will be started.

Probable causes

Trying to step (forward or backward) a static/semistatic task.

Recommended actions

Start *arg* in continuous mode.

10185, Task could not be prepared for start

Description

Task *arg*:

There is not sufficient program memory or the program memory is fragmented. Modules could be missing or data may not have been installed.

Recommended actions

1. Unload/reload modules and warm start.

2. Split large data structures.

3. P-start the system.

10190, Protected area not done

Description

A power fail did occur in the middle of a protected area for the task *arg*. The system is trying to selfheal.

Recommended actions

10191, Protected area not done

Description

A power fail did occur in the middle of a protected area for the task *arg*. A pending error is removed from the queue.

Recommended actions

10192, Protected area not done

Description

A power fail did occur in the middle of a protected area for the task *arg*. A pending exit is removed from the queue.

Recommended actions

10193, Protected area not done

Description

A power fail did occur in the middle of a protected area for the task *arg*. This may result in an extra program cycle.

Recommended actions

10194, Protected area not done

Description

A power fail did occur in the middle of a protected area for the task *arg*. The task will be restarted from the main routine.

Recommended actions

10195, Protected area not done

Description

A power fail did occur in the middle of a protected area for the task *arg*. All tasks are reset and all user programs are lost.

Recommended actions

Try to save the user program and do a warm start of the system

10196, Protected area not done

Description

A power fail did occur in the middle of a protected area for the task *arg*.

Recommended actions

10210, Execution cancelled

Description

The restart will clear the execution in task *arg* of a POWER ON system event routine.

Recommended actions

10211, Execution cancelled

Description

The restart will clear the execution in task *arg* of a STOP system event routine.

Recommended actions

10212, Execution cancelled

Description

The restart will clear the execution in task *arg* of an EMERGENCY STOP system event routine.

Recommended actions

10213, Execution cancelled

Description

The restart will clear the execution in task *arg* of a START system event routine.

Recommended actions

10214, Execution cancelled

Description

The restart will clear the execution in task *arg* of a RESTART system event routine.

Recommended actions

10215, Execution cancelled

Description

The restart will clear the execution in task *arg* of a RESET system event routine.

Recommended actions

10216, Execution cancelled

Description

The restart will clear the execution in task *arg* of an INTERNAL system event routine.

Recommended actions

10217, Execution cancelled

Description

The restart will clear the execution in task *arg* of a USER routine.

Recommended actions

10218, Execution cancelled

Description

The restart will clear the execution in task *arg*.

Recommended actions

10219, Execution cancelled

Description

The restart will clear the execution in task *arg* of a STEP system event routine.

Recommended actions

10230, Backup step ready

Description

The backup step Prepare is ready.

Recommended actions

10231, Backup step ready

Description

The backup step Configuration is ready.

Recommended actions

10232, Backup step ready

Description

The backup of Task is ready.

Recommended actions

10250, Restore step ready

Description

The restore step Prepare is ready.

Recommended actions

10251, Restore step ready

Description

The restore step Configuration is ready.

Recommended actions

10252, Restore step ready

Description

The restore of Task is ready.

Recommended actions

10253, Restore step ready

Description

The restore of User Task is ready.

Recommended actions

10260, System diagnostics info generated

Description

System diagnostics information was successfully generated to file *arg*

10261, System diagnostics info unavailable

Description

User requested to save diagnostics system information to file *arg*.
System was unable to fulfill this request.

Consequences

Diagnostics system information is normally used when reporting a
problem with the system to ABB support.

Probable causes

The system is in such state that it is not possible to generate the
requested information.
Please check that the device has enough space left.

Recommended actions

If you are experiencing a problem with the system contact ABB
support.

10270, Cyclic Brake Check Done

Description

The Cyclic Brake Check has been done for all brakes supervised by
Safety Controllers.

10300, A P-Start is ordered

Description

The P-Start has been ordered from the system.

Recommended actions

10301, A P-Start is ordered

Description

The P-Start has been ordered manually or automatically during a
configuration.

Recommended actions

10304, An update has been ordered

Description

An update of program configuration is done.

Recommended actions

10350, Update of task failed

Description

The system could not update task *arg* to the new configuration.

Recommended actions

10351, A task is removed

Description

The task *arg* was removed because of configuration changes.

Recommended actions

10352, A task is added

Description

The task *arg* was installed because of configuration changes.

Recommended actions

10353, A task is reinstalled

Description

The task *arg* was reinstalled because of configuration changes.

Recommended actions

10354, Restore aborted due to lost system data.

Description

The system is using a backup of the system data, since the system data was not properly saved at last shutdown. Due to this, a previously ordered Restore from directory *arg* was attempted again, but was aborted.

Consequences

No RAPID programs or modules will be loaded.

Probable causes

The system data was not properly saved at last shutdown.

Recommended actions

After recovering from the system data loss by a (B)ackup-Restart or system re-installation, please verify that the backup directory *arg* is OK, and perform the Restore again.

10355, Restore error

Description

Error during the restore of Task. Trying to load to unknown task, *arg*.

Consequences

Loading has been aborted for *arg*.

Probable causes

The current system doesn't have the same options as the one used to create the backup.

10400, User *arg* logged on

Description

User *arg* logged on using *arg*.

10401, User *arg* logged off

Description

User *arg* using *arg* logged off.

10420, New unsafe robot path

Description

The robot path has been cleared after a target has been modified in task *arg*. The robot will for that reason move towards the position pointed out by the move instruction at the program pointer. Move instructions between the modified target and the program pointer will be skipped.

Consequences

The programmed speed is used for this movement.
The new untested path may contain obstacles that might cause a collision.

Recommended actions

Check your program pointer and move it if necessary.
Reduce the speed.

10421, Planned path not aborted

Description

A target that may be part of the planned robot path has been modified. The new target position will be used the next time the instruction with the target is executed.

Consequences

The current planned path is using the old target position.

Recommended actions

If the current planned path is unsafe, move the program pointer to abort it.

11020, Backup error

Description

Error during the backup step Prepare. Unknown error.

Recommended actions

arg

11021, Backup error

Description

Error during the backup step Prepare. General error.

Recommended actions

arg

11022, Backup error

Description

Error during the backup step Prepare. The directory contains items that are to be created.

Recommended actions

arg

11023, Backup error

Description

Error during the backup step Prepare. The directory lacks at least one neccessary item.

Recommended actions

arg

11024, Backup error

Description

Error during the backup step Prepare. The directory does not exist.

Recommended actions

arg

11025, Backup error

Description

Error during the backup step Prepare. Directory cannot be created.

Recommended actions

arg

11026, Backup error

Description

Error during the backup step Prepare. Error whilst writing the backup.

Recommended actions

arg

11027, Backup error

Description

Error during the backup step Prepare. Error reading configuration parameters.

Recommended actions

arg

11028, Backup error

Description

Error during the backup step Prepare. Error writing configuration parameters.

Recommended actions

arg

11029, Backup error

Description

Error during the backup step Prepare. The structure is too deep.

Recommended actions

arg

11030, Backup error

Description

Error during the backup step Prepare. No more objects.

Recommended actions

arg

11031, Backup error

Description

Error during the backup step Prepare. The directory lacks at least one neccessary item.

Recommended actions

arg

11032, Backup error

Description

Error during the backup step Prepare. The system version doesn't match the backup.

Recommended actions

arg

11033, Backup error

Description

Error during the backup step Prepare. Error restoring configuration parameters.

Recommended actions

arg

11034, Backup error

Description

Error during the backup step Prepare. Error restoring configuration parameters.

Recommended actions

arg

11035, Backup error

Description

Error during the backup step Prepare. Mismatch between current system and the backup.

Recommended actions

arg

11036, Backup error

Description

Error during the backup step Prepare. Write error.

Consequences

The backup will be incomplete.

Probable causes

You may not have write access to the backup drive.

The drive might be full.

If it is a network drive you might have lost connection.

Recommended actions

arg

11037, Backup error

Description

Error during the backup step Prepare. At least one modname is too long.

Recommended actions

arg

11038, Backup error

Description

Error during the backup step Prepare. Unknown task.

Recommended actions

arg

11039, Backup error

Description

Error during the backup step Prepare. Storage media full.

Recommended actions

arg

11040, Backup error

Description

Error during the backup step Prepare. Item not possible to delete.

Recommended actions

arg

11120, Backup error

Description

Error during the backup step Configuration. Unknown error.

Recommended actions

11121, Backup error

Description

Error during the backup step Configuration. General error.

Recommended actions

11122, Backup error

Description

Error during the backup step Configuration. The directory contains items that are to be created.

Recommended actions

11123, Backup error

Description

Error during the backup step Configuration. The directory lacks at least one neccessary item.

Recommended actions

11124, Backup error

Description

Error during the backup step Configuration. The directory does not exist.

Recommended actions

11125, Backup error

Description

Error during the backup step Configuration. Directory cannot be created.

Recommended actions

11126, Backup error

Description

Error during the backup step Configuration. Error whilst writing the backup.

Recommended actions

11127, Backup error

Description

Error during the backup step Configuration. Error reading configuration parameters.

Recommended actions

11128, Backup error

Description

Error during the backup step Configuration. Error writing configuration parameters.

Recommended actions

11129, Backup error

Description

Error during the backup step Configuration. The structure is too deep.

Recommended actions

11130, Backup error

Description

Error during the backup step Configuration. No more objects.

Recommended actions

11131, Backup error

Description

Error during the backup step Configuration. The directory lacks at least one neccessary item.

Recommended actions

11132, Backup error

Description

Error during the backup step Configuration. The system version doesn't match the backup.

Recommended actions

11133, Backup error

Description

Error during the backup step Configuration. Error restoring configuration parameters.

Recommended actions

11134, Backup error

Description

Error during the backup step Configuration. Error restoring configuration parameters.

Recommended actions

11135, Backup error

Description

Error during the backup step Configuration. Mismatch between current system and the backup.

Recommended actions

11136, Backup error

Description

Error during the backup step Configuration. Write error.

Recommended actions

11137, Backup error

Description

Error during the backup step Configuration. At least one modname is too long.

Recommended actions

11138, Backup error

Description

Error during the backup step Configuration. Unknown task.

Recommended actions

11139, Backup error

Description

Error during the backup step Configuration. Storage media full.

Recommended actions

11140, Backup error

Description

Error during the backup step Configuration. Item not possible to delete.

Recommended actions

11220, Backup error

Description

Error during the backup of Task. Unknown error.

Recommended actions

11221, Backup error

Description

Error during the backup of Task. General error.

Recommended actions

11222, Backup error

Description

Error during the backup of Task. The directory contains items that are to be created.

Recommended actions

11223, Backup error

Description

Error during the backup of Task. The directory lacks at least one neccessary item.

Recommended actions

11224, Backup error

Description

Error during the backup of Task. The directory does not exist.

Recommended actions

11225, Backup error

Description

Error during the backup of Task. Directory cannot be created.

Recommended actions

11226, Backup error

Description

Error during the backup of Task. Error whilst writing the backup.

Recommended actions

11227, Backup error

Description

Error during the backup of Task. Error reading configuration parameters.

Recommended actions

11228, Backup error

Description

Error during the backup of Task. Error writing configuration parameters.

Recommended actions

11229, Backup error

Description

Error during the backup of Task. The structure is too deep.

Recommended actions

11230, Backup error

Description

Error during the backup of Task. No more objects.

Recommended actions

11231, Backup error

Description

Error during the backup of Task. The directory lacks at least one neccessary item.

Recommended actions

11232, Backup error

Description

Error during the backup of Task. The system version doesn't match the backup.

Recommended actions

11233, Backup error

Description

Error during the backup of Task. Error restoring configuration parameters.

Recommended actions

11234, Backup error

Description

Error during the backup of Task. Error restoring configuration parameters.

Recommended actions

11235, Backup error

Description

Error during the backup of Task. Mismatch between current system and the backup.

Recommended actions

11236, Backup error

Description

Error during the backup of Task. Write error.

Recommended actions

Check: No space left on device. Corrupt device.

11237, Backup error

Description

Error during the backup of Task. At least one modname is too long.

Recommended actions

11238, Backup error

Description

Error during the backup of Task. Unknown task.

Recommended actions

11239, Backup error

Description

Error during the backup of Task. Storage media full.

Recommended actions

11240, Backup error

Description

Error during the backup of Task. Item not possible to delete.

Recommended actions

12020, Restore error

Description

Error during the restore step Prepare. Unknown error.

Recommended actions

arg

12021, Restore error

Description

Error during the restore step Prepare. General error.

Recommended actions

arg

12022, Restore error

Description

Error during the restore step Prepare. The directory contains items that are to be created.

Recommended actions

arg

12023, Restore error

Description

Error during the restore step Prepare. The directory lacks at least one neccessary item.

Recommended actions

arg

12024, Restore error

Description

Error during the restore step Prepare. The directory does not exist.

Recommended actions

arg

12025, Restore error

Description

Error during the restore step Prepare. Directory cannot be created.

Recommended actions

arg

12026, Restore error

Description

Error during the restore step Prepare. Error whilst writing the backup.

Recommended actions

arg

12027, Restore error

Description

Error during the restore step Prepare. Error reading configuration parameters.

Recommended actions

arg

12028, Restore error

Description

Error during the restore step Prepare. Error writing configuration parameters.

Recommended actions

arg

12029, Restore error

Description

Error during the restore step Prepare. The structure is too deep.

Recommended actions

arg

12030, Restore error

Description

Error during the restore step Prepare. No more objects.

Recommended actions

arg

12031, Restore error

Description

Error during the restore step Prepare. The directory lacks at least one neccessary item.

Recommended actions

arg

12032, Restore error

Description

Error during the restore step Prepare. The system version doesn't match the backup.

Recommended actions

arg

12033, Restore error

Description

Error during the restore step Prepare. Error restoring configuration parameters.

Recommended actions

arg

12034, Restore error

Description

Error during the restore step Prepare. Error restoring configuration parameters.

Recommended actions

arg

12035, Restore error

Description

Error during the restore step Prepare. Mismatch between current system and the backup.

Recommended actions

arg

12036, Restore error

Description

Error during the restore step Prepare. Write error.

Recommended actions

arg

12037, Restore error

Description

Error during the restore step Prepare. At least one modname is too long.

Recommended actions

arg

12038, Restore error

Description

Error during the restore step Prepare. Unknown task.

Recommended actions

arg

12039, Restore error

Description

Error during the restore step Prepare. Storage media full.

Recommended actions

arg

12040, Restore error

Description

Error during the restore step Prepare. Item not possible to delete.

Recommended actions

arg

12120, Restore error

Description

Error during the restore step Configuration. Unknown error.

Recommended actions

12121, Restore error

Description

Error during the restore step Configuration. General error.

Recommended actions

12122, Restore error

Description

Error during the restore step Configuration. The directory contains items that are to be created.

Recommended actions

12123, Restore error

Description

Error during the restore step Configuration. The directory lacks at least one neccessary item.

Recommended actions

12124, Restore error

Description

Error during the restore step Configuration. The directory does not exist.

Recommended actions

12125, Restore error

Description

Error during the restore step Configuration. Directory cannot be created.

Recommended actions

12126, Restore error

Description

Error during the restore step Configuration. Error whilst writing the backup.

Recommended actions

12127, Restore error

Description

Error during the restore step Configuration. Error reading configuration parameters.

Recommended actions

12128, Restore error

Description

Error during the restore step Configuration. Error writing configuration parameters.

Recommended actions

12129, Restore error

Description

Error during the restore step Configuration. The structure is too deep.

Recommended actions

12130, Restore error

Description

Error during the restore step Configuration. No more objects.

Recommended actions

12131, Restore error

Description

Error during the restore step Configuration. The directory lacks at least one neccessary item.

Recommended actions

12132, Restore error

Description

Error during the restore step Configuration. The system version doesn't match the backup.

Recommended actions

12133, Restore error

Description

Error during the restore step Configuration. Error restoring configuration parameters.

Recommended actions

12134, Restore error

Description

Error during the restore step Configuration. Error restoring configuration parameters.

Recommended actions

12135, Restore error

Description

Error during the restore step Configuration. Mismatch between current system and the backup.

Recommended actions

12136, Restore error

Description

Error during the restore step Configuration. Write error.

Recommended actions

12137, Restore error

Description

Error during the restore step Configuration. At least one modname is too long.

Recommended actions

12138, Restore error

Description

Error during the restore step Configuration. Unknown task.

Recommended actions

12139, Restore error

Description

Error during the restore step Configuration. Storage media full

Recommended actions

12140, Restore error

Description

Error during the restore step Configuration. Item not possible to delete.

Recommended actions

12220, Restore error

Description

Error during the restore of Task. Unknown error.

Recommended actions

12221, Restore error

Description

Error during the restore of Task. General error.

Recommended actions

12222, Restore error

Description

Error during the restore of Task. The directory contains items that are to be created.

Recommended actions

12223, Restore error

Description

Error during the restore of Task. The directory lacks at least one neccessary item.

Recommended actions

12224, Restore error

Description

Error during the restore of Task. The directory does not exist

Recommended actions

12225, Restore error

Description

Error during the restore of Task. Directory cannot be created

Recommended actions

12226, Restore error

Description

Error during the restore of Task. Error whilst writing the backup

Recommended actions

12227, Restore error

Description

Error during the restore of Task. Error reading configuration parameters

Recommended actions

12228, Restore error

Description

Error during the restore of Task. Error writing configuration parameters

Recommended actions

12229, Restore error

Description

Error during the restore of Task. The structure is too deep

Recommended actions

12230, Restore error

Description

Error during the restore of Task. No more objects

Recommended actions

12231, Restore error

Description

Error during the restore of Task. The directory lacks at least one neccessary item.

Recommended actions

12232, Restore error

Description

Error during the restore of Task. The system version doesn't match the backup.

Recommended actions

12233, Restore error

Description

Error during the restore of Task. Error restoring configuration parameters.

Recommended actions

12234, Restore error

Description

Error during the restore of Task. Error restoring configuration parameters.

Recommended actions

12235, Restore error

Description

Error during the restore of Task. Mismatch between current system and the backup.

Recommended actions

12236, Restore error

Description

Error during the restore of Task. Write error.

Recommended actions

12237, Restore error

Description

Error during the restore of Task. At least one modname is too long.

Recommended actions

12238, Restore error

Description

Error during the restore of Task. Unknown task.

Recommended actions

12239, Restore error

Description

Error during the restore of Task. Storage media full.

Recommended actions

12240, Restore error

Description

Error during the restore of Task. Item not possible to delete.

Recommended actions

12320, Restore error

Description

Error during the restore of User Task. Unknown error.

Recommended actions

12321, Restore error

Description

Error during the restore of User Task. General error.

Recommended actions

12322, Restore error

Description

Error during the restore of User Task. The directory contains items that are to be created.

Recommended actions

12323, Restore error

Description

Error during the restore of User Task. The directory lacks at least one neccessary item.

Recommended actions

12324, Restore error

Description

Error during the restore of User Task. The directory does not exist

Recommended actions

12325, Restore error

Description

Error during the restore of User Task. Directory cannot be created

Recommended actions

12326, Restore error

Description

Error during the restore of User Task. Error whilst writing the backup

Recommended actions

12327, Restore error

Description

Error during the restore of User Task. Error reading configuration parameters

Recommended actions

12328, Restore error

Description

Error during the restore of User Task. Error writing configuration parameters

Recommended actions

12329, Restore error

Description

Error during the restore of User Task. The structure is too deep

Recommended actions

12330, Restore error

Description

Error during the restore of User Task. No more objects

Recommended actions

12331, Restore error

Description

Error during the restore of User Task. The directory lacks at least one neccessary item.

Recommended actions

12332, Restore error

Description

Error during the restore of User Task. The system version doesn't match the backup.

Recommended actions

12333, Restore error

Description

Error during the restore of User Task. Error restoring configuration parameters.

Recommended actions

12334, Restore error

Description

Error during the restore of User Task. Error restoring configuration parameters.

Recommended actions

12335, Restore error

Description

Error during the restore of User Task. Mismatch between current system and the backup.

Recommended actions

12336, Restore error

Description

Error during the restore of User Task. Write error.

Recommended actions

12337, Restore error

Description

Error during the restore of User Task. At least one modname is too long.

Recommended actions

12338, Restore error

Description

Error during the restore of User Task. Unknown task.

Recommended actions

12339, Restore error

Description

Error during the restore of User Task. Storage media full.

Recommended actions

12340, Restore error

Description

Error during the restore of User Task. Item not possible to delete.

Recommended actions

12510, Network subnet mask illegal

Description

The subnet mask *arg* for network interface *arg* is illegal.

Consequences

The network interface will not be configured, and may not be used.

Probable causes

The network subnet mask may be mistyped.

Recommended actions

1) Make sure the network subnet mask is correct.

12511, Network interface IP address illegal

Description

The network IP address *arg* for interface *arg* is illegal/missing.

Consequences

The interface will not be configured, and may not be used.

Probable causes

The network IP address may be mistyped or it already exists on the network.

Recommended actions

1) Make sure the interface IP address is correct and not a duplicate.

12512, Network gateway IP address illegal

Description

The default gateway IP address *arg* is illegal/missing or the LAN IP address *arg* is illegal.

Consequences

The network will not be reached, and may not be used.

Probable causes

The gateway IP and/or LAN IP addresses may be mistyped.

Recommended actions

1) Make sure the gateway IP and LAN IP addresses are correct.

12513, No parameters from the DHCP server

Description

The network interface *arg* has not received any parameters from the DHCP server.

Consequences

The interface will not be configured, and may not be used.

Probable causes

The LAN connection is not working -The DHCP server is not activated.

Recommended actions

1) Make sure the LAN cable is working and correctly connected.

2) Make sure the DHCP server is activated.

3) Set the LAN IP address manually.

12514, Network interface initialization error

Description

The network interface *arg* could not be initialized.

Consequences

The interface will not be configured, and may not be used.

Probable causes

The network parameters may be wrong.

-Although unlikely, the hardware may be faulty, requiring replacement.

Recommended actions

1) Make sure the network parameters for the interface at hand are correct.

2) Isolate the cause, by replacing the suspected hardware.

20010, Emergency stop state

Description

The emergency stop circuit has previously been broken, and while broken, an attempt was made to operate the robot.

Consequences

The system remains in state "Waiting for Motors ON after emergency stop".

Probable causes

An attempt has been made to maneuvre a control, before switching the system back to status Motors ON.

Recommended actions

1) To resume operation, switch the system back to state Motors ON by pressing the Motors ON button on the Control Module.

20011, Emergency stop state.

Description

Emergency stop reset is required.

Recommended actions

First release the Em stop button
and then press the panel button.

20012, Sys failure state active

Description

Fatal non-recoverable system error.
Warm start is required.

Recommended actions

Turn the mains switch off and on
again if the soft restart command is
ignored or not possible to reach.

20025, Stop order timeout

Description

The stop order was carried out
as a forced guard stop when
no acknowledgement was received
within the expected time

Recommended actions

20030, Axis not commutated

Description

One or several internal drive unit
axes are not commutated.

Recommended actions

20031, Axis not calibrated.

Description

One or several absolute/relative
measurement axes are not calibrated.

Recommended actions

Check what axis that are not
calibrated and calibrate them.

20032, Rev. counter not updated

Description

Revolution counter is not updated.
One or several absolute measurement
axes are not synchronized.

Recommended actions

Move the axes to the sync position
and update the revolution counters.

20033, Axis not synchronized.

Description

One or several relative measurement
axes are not synchronized.

Recommended actions

Order Motors On and synchronize all
mechanical units in the list.

20034, SMB memory is not OK

Description

This action or state is not allowed since data in the Serial Measurement Board (SMB) memory is not OK.

Consequences

All data must be OK before automatic operation is possible. Manually jogging the robot is possible.

Probable causes

There are differences between the data stored on the SMB and the data stored in the controller. This may be due to replacement of SMB, controller or both, or manually cleared SMB.

Recommended actions

1) Update the Serial Measurement Board data as detailed in Operator's Manual, IRC5.

20051, Not allowed command

Description

The command is only allowed when the client is in control of the resource (program/motion).

Consequences

The system remains in the same status, and the requested action will not be performed.

Recommended actions

1) Check if the client is in control, by checking "Write Access" in RobotStudio.

2) Check if the client who ought to be in control really is.

20054, Not allowed command

Description

The command is NOT allowed when the program is executing.

Consequences

The system remains in the same status, and the requested action will not be performed.

Recommended actions

1) Make sure the program is not executing.

20060, Not allowed command

Description

The command is not allowed in Auto mode.

Consequences

The system remains in the same status, and the requested action will not be performed.

Recommended actions

1) Make sure the system is NOT in Auto Mode.

20061, Not allowed command

Description

The command is not allowed when changing to Auto mode.

Consequences

The system remains in the same status, and the requested action will not be performed.

Recommended actions

1) Make sure the system is NOT changing to Auto Mode.

20062, Not allowed command

Description

The command is not allowed in Manual mode.

Consequences

The system remains in the same status, and the requested action will not be performed.

Recommended actions

1) Make sure the system is NOT in Manual Mode.

20063, Not allowed command

Description

The command is not allowed in Manual full speed mode.

Consequences

The system remains in the same status, and the requested action will not be performed.

Recommended actions

1) Make sure the system is NOT in Manual full speed Mode.

20064, Not allowed command

Description

The command is not allowed when changing to Manual full speed mode.

Consequences

The system remains in the same status, and the requested action will not be performed.

Recommended actions

1) Make sure the system is NOT changing to Manual full speed Mode.

20065, Not allowed command

Description

The command is only allowed in Manual mode (reduced or full speed).

Consequences

The system remains in the same status, and the requested action will not be performed.

Recommended actions

1) Make sure the system is NOT in Auto mode or changing to Manual Mode (reduced or full speed).

20070, Not allowed command

Description

The command is not allowed in Motors ON state.

Consequences

The system remains in the same status, and the requested action will not be performed.

Recommended actions

1) Make sure the system is in Motors OFF state.

20071, Not allowed command

Description

The command is not allowed while changing to Motors ON state.

Consequences

The system remains in the same status, and the requested action will not be performed.

Recommended actions

1) Investigate by whom and why the action was requested, and, if required, correct the reason.

20072, Not allowed command

Description

The command is not allowed in Motors OFF state.

Consequences

The system remains in the same status, and the requested action will not be performed.

Recommended actions

1) Make sure the system is in Motors ON state.

20073, Not allowed command

Description

The command is not allowed while changing to Motors OFF state.

Consequences

The system remains in the same status, and the requested action will not be performed.

Recommended actions

1) Investigate by whom and why the action was requested, and, if required, correct the reason.

20074, Not allowed command

Description

The command is not allowed in Guard Stop state.

Consequences

The system remains in the same status, and the requested action will not be performed.

Recommended actions

1) Make sure the system is NOT in Guard Stop state.

20075, Not allowed command

Description

The command is not allowed in Emergency Stop state.

Consequences

Emergency stop reset is required.

Recommended actions

1) Make sure the system is NOT in Emergency Stop state.

20076, Not allowed command

Description

The command is not allowed in System Failure state.

Consequences

A non-recoverable system error has resulted, and a warm start is required.

Recommended actions

1) Make sure the system is NOT in Emergency Stop state.

2) Perform a restart as detailed in the Operator's Manual, IRC5.

3) If restarting is not possible, switch the main power OFF and then back ON.

20080, Not allowed command

Description

The command is not allowed when axis has not been commutated.

Consequences

The system remains in the same status, and the requested action will not be performed.

Recommended actions

1) Commutate the axis as detailed in the Additional Axes Manual.

2) Investigate by whom and why the action was requested, and, if required, correct the reason.

20081, Not allowed command

Description

The command is not allowed when axis is not calibrated.

Consequences

The system remains in the same status, and the requested action will not be performed.

Recommended actions

1) Calibrate the axis as detailed in the Calibration Pendulum Instruction or the Instructions for Levelmeter calibration, depending on which equipment to be used.

20082, Not allowed command

Description

The command is not allowed when axis revolution counter is not updated.

Consequences

The system remains in the same status, and the requested action will not be performed.

Recommended actions

1) Update the revolution counter as detailed in Operator's Manual, IRC5.

20083, Not allowed command

Description

The command is not allowed when axis is not synchronized.

Consequences

The system remains in the same status, and the requested action will not be performed.

Recommended actions

1) Synchronize the axis as detailed in the Calibration Pendulum Instruction or the Instructions for Levelmeter calibration, depending on which equipment to be used.

20084, Not allowed command

Description

This command is not allowed since data in the Serial Measurement Board (SMB) memory is not OK.

Consequences

All data must be OK before automatic operation is possible. Manually jogging the robot is possible.

Recommended actions

1) Update the Serial Measurement Board data as detailed in Operator's Manual, IRC5.

20088, Automatic Mode Rejected

Description

The speed could not be set to 100% when automatic mode was requested.

Consequences

The system can not enter automatic mode.

Probable causes

The speed could not be set to 100%.

Recommended actions

1) Switch back to manual mode

2a) Set the speed in the QuickSet menu

2b) or set System Parameter Controller/Auto Condition Reset/ AllDebugSettings/Reset to No if the system should be in debug mode when switching to auto.

3) Switch back to automatic mode and confirm.

20089, Automatic Mode Rejected

Description

The call chain was altered to begin at a routine other than main and could not be reset to main when automatic mode was requested.

Consequences

The system can not enter automatic mode.

Probable causes

Program pointer could not be set to Main.

Recommended actions

1) Switch back to manual mode.

2a) Move PP to main.

2b) or if the program always shall start at the new routine, change System Parameter "Main entry" (Domain Controller, Type Task) to the new routine name.

2c) or set System Parameter Controller/Auto Condition Reset/ AllDebugSettings/Reset to No if the system should be in debug mode when switching to auto.

3) Switch back to automatic mode and confirm.

20092, Not allowed command

Description

Not allowed in state

System IO Start Blocked.

Recommended actions

20093, Automatic Mode Rejected

Description

One or more of the NORMAL tasks were disabled and could not be enabled when automatic mode was requested.

Consequences

The system can not enter automatic mode.

Probable causes

It is not possible to reset Task Selection Panel in synchronized block.

Recommended actions

1) Switch back to manual mode.

2a) Set PP to main.

2b) or step out of synchronized block.

2c) or set System Parameter Controller/Auto Condition Reset/ AllDebugSettings/Reset to No if the system should be in debug mode when switching to auto.

3) Switch back to automatic mode and confirm.

20094, Load name could not be found

Description

Load name *arg* could not be found.

Consequences

It is not possible to jog without a correct defined load.

Probable causes

The module with the load definition is probably deleted.

Recommended actions

Load module with load definition.

Choose other load.

20095, Tool name could not be found

Description

Tool name *arg* could not be found.

Consequences

It is not possible to jog without a correct defined tool.

Probable causes

The module with the tool definition is probably deleted.

Recommended actions

Load module with tool definition.

Choose other tool.

20096, WorkObject name could not be found

Description

WorkObject name *arg* could not be found.

Consequences

It is not possible to jog without a correct defined workobject.

Probable causes

The module with the workobject definition is probably deleted.

Recommended actions

Load module with workobject definition.

Choose other workobject.

20097, Not allowed to jog with LOCAL PERS Load

Description

The object *arg* is of type LOCAL PERS and is not possible to jog.

Recommended actions

Change Load.

20098, Not allowed to jog with LOCAL PERS Tool

Description

The object *arg* is of type LOCAL PERS and is not possible to jog.

Recommended actions

Change Tool.

20099, Not allowed to jog with LOCAL PERS Work Object

Description

The object *arg* is of type LOCAL PERS and is not possible to jog.

Recommended actions

Change Work Object.

20101, TP (program) in control.

Description

The teachpendant programming

window has focus and is in control

of the program server.

Recommended actions

Change to the production window

and perform the command again.

20103, Controller busy updating Task Selection Panel.

Description

The Task Selection Panel is having an update.

It is not possible to do the requested command.

Recommended actions

Perform the command again or

make a warm start and perform the command again.

20105, Backup already in progress

Description

A backup is already in progress.

Consequences

The command "Backup" from System Input Signal will be rejected.

Recommended actions

Use System Output Signal "Backup in progress" to control if a backup can be strarted or not.

20106, Backup path

Description

There are errors in the backup path or the backup name in the configuration for the System Input Backup. The directory for the backup can not be created.

Backup path: *arg*

Backup name: *arg*

Consequences

The command "Backup" from System Input Signal will be rejected.

Recommended actions

Verify that configured path and name for the System Input Backup are correct.

20111, TP (program) in control

Description

The teachpendant programming
window has focus and is in control
of the program server.

Recommended actions

Change to the production window
and perform the command again.

20120, System IO in control

Description

See Title

Recommended actions

20126, Load data has changed

Description

The active load *arg* was removed and replaced with *arg*. The load data was located in task: *arg* connected to mechanical unit *arg*.

Consequences

The load definition for jogging may not be correct.

Probable causes

The load data was removed. The module containing the original tool definition may have been deleted.

Recommended actions

If you require the old definition, locate the program or module of the original load data and load it.

20127, Tool data has changed

Description

The active tool *arg* was removed and replaced with *arg*. The tool data was located in task: *arg* connected to mechanical unit *arg*.

Consequences

The tool definition for jogging may not be correct.

Probable causes

The tool data was removed. The module containing the original tool definition may have been deleted.

Recommended actions

If you require the old definition, locate the program or module of the original tool data and load it.

20128, Work object data has changed

Description

The active work object *arg* was removed and replaced with *arg*. The work object data was located in task: *arg* connected to mechanical unit *arg*.

Consequences

The work object definition for jogging may not be correct.

Probable causes

The work object data was removed. The module containing the original tool definition may have been deleted.

Recommended actions

If you require the old definition, locate the program or module of the original work object data and load it.

20130, Active Task Menu is restored

Description

During warm start, the "Active Task Menu" is restored in Auto mode.

Consequences

If one or several tasks were unchecked, they are now checked again after the warm start in Auto mode.

Probable causes

A warm start has been performed

Recommended actions

Go to manual mode.

2. Uncheck the not wanted tasks

3. Go back to Auto mode.

20131, Automatic Mode Rejected

Description

One or more logical I/O signals were blocked and could not be unblocked when automatic mode was requested.

Consequences

The system can not enter automatic mode.

Probable causes

Some blocked I/O signal could not be unblocked.

Recommended actions

1) Switch back to manual mode.

2a) Check Event Log for errors related to I/O.

2b) or set System Parameter Controller/Auto Condition Reset/ AllDebugSettings/Reset to No if the system should be in debug mode when switching to auto.

3) Switch back to automatic mode and confirm.

20132, Blocked I/O signals

Description

One or more logical I/O signals were blocked during startup in automatic mode.

Consequences

Blocked signals will be unblocked.

Probable causes

System was switched to automatic mode during warm start.

System parameter AllDebugSettings is set to Yes.

Recommended actions

None, system has automatically reset debug settings.

To keep debug settings in auto:

1) Switch back to manual mode

2) Set system parameter Controller/Auto Condition Reset/ AllDebugSettings/Reset to NO.

3) Switch back to automatic mode and confirm.

4) For more info, see the Technical Reference Manual - System Parameters.

20133, Debug Settings in Auto

Description

One or more logical I/O signals were blocked during startup in automatic mode.

Consequences

Blocked I/O signals will stay blocked.

System will not be in full production mode in auto.

Recommended actions

For full production mode:

1) Switch back to manual mode

2) Set system parameter Controller/Auto Condition Reset/ AllDebugSettings/Reset to YES.

3) Switch back to automatic mode and confirm.

4) For more info, see the Technical Reference Manual - System Parameters.

20134, Call Chain

Description

The call chain has been altered to begin at a routine other than main.

Consequences

Program pointer will be reset to main routine.

Probable causes

System was switched to automatic mode during warm start.

System parameter AllDebugSettings is set to Yes.

Recommended actions

For debug mode in auto:

1) Switch back to manual mode

2) Set system parameter AllDebugSetting, reset to NO.

3) Switch back to automatic mode and confirm.

4) For more info, see the Technical Reference Manual - System Parameters.

20135, Debug Settings in Auto

Description

The call chain has been altered to begin at a routine other than main.

Consequences

Program pointer will not be set to main.

System will not be in full production mode in auto.

Recommended actions

For full production mode:

1) Switch back to manual mode

2) Set system parameter Controller/Auto Condition Reset/ AllDebugSettings/Reset to YES.

3) Switch back to automatic mode and confirm.

4) For more info, see the Technical Reference Manual - System Parameters.

20136, Reduced Speed

Description

The system was running at reduced speed during startup in automatic mode.

Consequences

Speed will be set to 100%.

Probable causes

System was switched to automatic mode during warm start.

Recommended actions

None, system has automatically reset debug settings.

To keep debug settings in auto:

1) Switch back to manual mode

2) Set system parameter Controller/Auto Condition Reset/ AllDebugSettings/Reset to NO.

3) Switch back to automatic mode and confirm.

4) For more info, see the Technical Reference Manual - System Parameters.

20137, Debug Settings in Auto

Description

The system was running at reduced speed during startup in automatic mode.

Consequences

Speed will stay unchanged.

System will not be in full production mode in auto.

Recommended actions

For full production mode:

1) Switch back to manual mode

2) Set system parameter Controller/Auto Condition Reset/ AllDebugSettings/Reset to YES.

3) Switch back to automatic mode and confirm.

4) For more info, see the Technical Reference Manual - System Parameters.

20138, Disabled Tasks

Description

One or more of the NORMAL tasks were disabled during the startup when in automatic mode.

Consequences

All disabled normal tasks will be enabled.

Probable causes

System was switched to automatic mode during warm start

System parameter AllDebugSettings is set to Yes.

Recommended actions

None, system has automatically reset debug settings.

To keep debug settings in auto:

1) Switch back to manual mode

2) Set system parameter Controller/Auto Condition Reset/ AllDebugSettings/Reset to NO.

3) Switch back to automatic mode and confirm.

4) For more info, see the Technical Reference Manual - System Parameters.

20139, Debug Settings in Auto

Description

One or more of the NORMAL tasks were disabled during startup in automatic mode.

Consequences

Disabled tasks will stay disabled.

System will not be in full production mode in auto.

Recommended actions

For full production mode:

1) Switch back to manual mode

2) Set system parameter Controller/Auto Condition Reset/ AllDebugSettings/Reset to YES.

3) Switch back to automatic mode and confirm.

4) For more info, see the Technical Reference Manual - System Parameters.

20140, Motors On rejected

Description

Motors On, via System IO, was rejected.

Recommended actions

20141, Motors Off rejected

Description

Motors Off, via System IO, was rejected.

Recommended actions

20142, Start rejected

Description

Start/restart of program, via System IO, was rejected.

The reason could be that the robot is outside of regain distance.

Recommended actions

20143, Start at main rejected

Description

Start of program at main, via System IO, was rejected.

Recommended actions

20144, Stop rejected

Description

Stop of program, via System IO, was rejected.

Recommended actions

20145, Stop cycle rejected

Description

Stop of program after cycle, via System IO, was rejected.

Recommended actions

20146, Manual interrupt rejected

Description

Manual interrupt of program, via System IO, was rejected.

Recommended actions

20147, Load and start rejected

Description

Load and start of program, via System IO, was rejected.

Recommended actions

The name of the program file to be loaded (including mass memory unit) must be defined.

20148, Confirm rejected

Description

Emergency Stop reset confirm, via System IO, was rejected.

Recommended actions

20149, Error reset rejected

Description

Program execution error reset, via System IO, was rejected.

Recommended actions

20150, Load failure

Description

Load of program, via System IO, failed.

Consequences

Program will not be possible to start.

Probable causes

- The arguments for the System Input Load are wrong.

- The module was loaded, but system failed to set the program pointer.

- The program was executing.

Recommended actions

Check the following:

- correct arguments for System Input Load.

- defined and correct name of the program file to be loaded (including mass memory unit).

- defined and correct name of the task that the program should be loaded in.

- program stopped before activating System Input Load.

20153, Motors On and Start rejected

Description

Motors On and Start/Restart of program, via System IO, was rejected. The reason could be that the robot is outside of regain distance.

Recommended actions

20154, Stop instruction rejected

Description

Stop of program after instruction, via System IO, was rejected.

Recommended actions

20156, Undefined Argument

Description

Interrupt routine name for System IO

Manual Interrupt is not defined.

Recommended actions

Configure the interrupt routine name.

20157, Undefined Argument

Description

Program name for System IO
LoadStart is not defined

Recommended actions

Configure the program name.

20158, No System Input signal

Description

A System Input has been configured to
an I/O-signal that doesn't exist.
System Input: *arg*
Signal Name: *arg*

Consequences

The system goes to status SYS FAIL.

Recommended actions

Add signal *arg* to eio.cfg or remove System Input *arg* from eio.cfg.
For every System Input a signal must be configured.

20159, No System Output signal

Description

A System Output has been configured to
an I/O-signal that doesn't exist.
System Output: *arg*
Signal Name: *arg*

Consequences

The system goes to status SYS FAIL.

Recommended actions

Add signal *arg* to eio.cfg or remove System Output *arg* from eio.cfg.
For every System Output a signal must be configured.

20161, Path not found

Description

The system module *arg* in task
arg has a corresponding
specification in the configuration
for "Task modules" that point out
a non existing file path

Recommended actions

View "Task modules" in the "System
Parameter" menu and change the path

in the item for this system module

20162, Write error

Description

A write error occur when the system try
to save the system module *arg*
at *arg*
in task *arg*. Or the file
system was full

Recommended actions

View "Task modules" in the "System
Parameter" menu and change the path
in the item for this system module

20164, Reconfig failed

Description

There are still some unsaved system
modules.

Recommended actions

Read error descriptions in earlier
messages.
Try another system start

20165, Program Pointer lost.

Description

Restart is no longer possible from
current position.

Recommended actions

The program has to be
started from the beginning.

20166, Refuse to save module

Description

The module *arg*
is older than the source
at *arg*
in task *arg*.

Recommended actions

20167, Unsaved module

Description

The module *arg*
is changed but not saved
in task *arg*.

Recommended actions

20170, The system was stopped

Description

An error was detected, which stopped the system.

Consequences

The system goes to status SYS STOP and the robot is stopped along
the path. The full meaning of this status is described in the Trouble
Shooting Manual, IRC5.

Probable causes

A number of errors may cause this status transition.

Recommended actions

1) Check other event log messages occurring at the same time to
determine the actual cause.
2) Fix the cause of the fault.

20171, The system was halted

Description

An error was detected, which halted the system.

Consequences

The system goes to status SYS HALT, the program and robot motion
is stopped and the motors are switched OFF. The full meaning of this
status is described in the Trouble Shooting Manual, IRC5.

Probable causes

A number of errors may cause this status transition.

Recommended actions

1) Check other event log messages occurring at the same time to
determine the actual cause.
2) Fix the cause of the fault.
3) Restart the program.

20172, The system has failed

Description

An error was detected, which caused the system to fail.

Consequences

The system goes to status SYS FAIL. The program and robot motion
is stopped and the motors are switched OFF. The full meaning of this
status is described in the Trouble Shooting Manual, IRC5.

Probable causes

A number of errors may cause this status transition.

Recommended actions

1) Check other event log messages occurring at the same time to
determine the actual cause.
2) Fix the cause of the fault.
3) Perform a system restart as detailed in the Operator's Manual, IRC5.

20176, Analog System Output Outside Limits

Description

The value *arg* for the System Output *arg*, signal *arg*, is outside its limits (logical min: *arg* m/s, logical max: *arg* m/s).

Consequences

The new value is not set; the previous value of the analogue signal is preserved.

Probable causes

The logical upper and/or lower limit for the signal may be defined wrongly.

Recommended actions

Adjust the values of the logical upper and/or lower limit for the signal and restart the controller.

20177, Short circuit in Motor phase circuit

Description

The motor or motor cable for joint *arg* in drive module *arg*, drive unit number *arg*, is a short circuit.

Consequences

No operation will be possible until after correcting the fault. The system goes to status SYS HALT.

Probable causes

This may be caused by a faulty motor or motor cable. It may also be caused by contamination in the contactors for the cables or a failure of the motor windings.

Recommended actions

1) Make sure the motor cable is correctly connected to the drive unit.

2) Check the cable and motor by measuring their resistance respectively. Disconnect before measuring.

3) Replace any faulty component.

20178, Wrong task name configured

Description

Wrong task name *arg* configured for System Input *arg*.

Consequences

The digital input signal will not be connected to the specified event.

Recommended actions

Change the configuration and restart the system.

20179, Disk memory critically low

Description

The amount of free storage capacity on the disk has reached a critical level. It is now less than 10 Mb. Execution of RAPID programs is stopped.

Consequences

The disk memory is very close to being completely full. When this happens the system will not be able to function.

Probable causes

Too much data on the disk

Recommended actions

1) Save the files on some other disk connected to the network.

2) Erase data from disk.

3) After removing files from the drive, restart the program.

20181, System Reset rejected.

Description

System Reset via System IO
not allowed.

Recommended actions

20184, Incorrect argument for System Inputs

Description

An undefined Start Mode has been
declared for System IO.

Recommended actions

20185, Incorrect Name

Description

An undefined Name has been declared
in current runchn_bool configuration.

Recommended actions

20187, Diagnostics record file created

Description

Due to any of a number of faults, a system diagnostics file was created at *arg*. This file contains internal debug info and is intended for trouble shooting and debugging purposes.

Consequences

The system will react to the error causing the stop as specified in its own event log text.

Probable causes

A number of errors may cause this. Faults causing the system to go to status SYS FAIL will generally also create a diagnostics record file.

Recommended actions

If required, the file may be appended to an error report sent to your local ABB representative.

20188, System data is not valid

Description

The contents of the file, *arg*, containing system persistent data is invalid. Internal error code: *arg*. The system has been started using last good system data saved earlier at *arg*.

Consequences

Any changes made in the system configuration or RAPID programs since *arg* will NOT be available after restart. Any such changes will have to be re-implemented.

Recommended actions

1) Check other event log messages occurring at the same time to determine the actual cause.

2) If acceptable, perform a B-restart to accept starting with the loaded last good system data.

3) Reinstall the system.

4) Check the available disk storage capacity. If required, erase data to increase free storage capacity.

20189, Robot data not valid

Description

Could not load the system independent
robot data from file *arg*.
The file exists but the content is not
valid. Internal code: *arg*

Recommended actions

Check other logged messages for needed
actions.
Make sure there is free memory
left on the device.

20192, Disk memory low

Description

The amount of free storage capacity on the disk is less than 25 MB. When reaching 10 MB, execution of RAPID programs will be stopped.

Consequences

The disk memory is close to being completely full. When this happens the system will not be able to function.

Probable causes

Too much data on the disk

Recommended actions

1) Save the files on some other disk connected to the network.
2) Erase data from disk.

20193, Robot data update warning

Description

Axis sync values and service information

data (SIS) was restored from backup.
The system independent robot data was
not saved during system shutdown. The
data was restored from latest backup.

Recommended actions

Make sure there is free memory left on
the device.
The backup battery may be drained. Check
the hardware log.

20194, System data backup could not be created

Description

The system was restored successfully
but a backup of the current system data
could not be created.

Recommended actions

Make sure there is free memory left on
the device *arg*.

20195, System data from last shutdown is lost

Description

Normally, all system data is saved on shutdown. During the last shutdown saving data has failed. The system has been started using last good system data saved earlier at *arg*.

Consequences

Any changes made in system configuration or RAPID programs since *arg* will NOT be available after restart. Any such changes will have to be re-implemented.

Probable causes

The backup energy bank may have been drained at the time of the shut down. The storage disk may be full.

Recommended actions

1) Check other event log messages occurring at the same time to determine the actual cause.

2) If acceptable, perform a B-restart to accept starting with the loaded system data.

3) Reinstall the system.

4) Check the available disk storage capacity. If required, erase data to increase free storage capacity.

20196, Module saved

Description

During reconfiguration of the system a changed and not saved module was found.
The module was saved to
arg.

Recommended actions

20197, System data from last shutdown can not be found

Description

Normally, all system data is saved on shutdown. The file containing system persistent data cannot be found. The system has been started using last good system data saved earlier at *arg*.

Consequences

Any changes made in system configuration or RAPID programs since *arg* will NOT be available after restart. Any such changes will have to be re-implemented.

Probable causes

The file containing the saved system data may have been manually moved or deleted.

Recommended actions

1) Check the location and availability of the saved system data file.

2) If acceptable, perform a B-restart to accept starting with the loaded last good system data.

3) Reinstall the system.

20199, System SoftStop Rejected

Description

The System Input SoftStop is not allowed

Recommended actions

20200, Limit Switch opened by SC

Description

The limit switch on the robot has been opened by the Safety Controller (SC)

Consequences

The system goes to the Guard stop state.

Probable causes

The Safety Controller has opened the limit switch because of a safety violation.

Recommended actions

1) Check for reason found in other event logs.

2)Check the cable between the contactor board and the Safety Controller

3)Do a Confirm Stop by pressing the Motors on push button or by activating the appropriated system input.

20201, Limit Switch open

Description

The limit switch on the robot has opened.

Consequences

The system goes to the Motors OFF status.

Probable causes

The robot has been run outside the working range defined by the limit switches fitted to the robot.

Recommended actions

1) Press an eventual existing external "Override Limit" button and manually

jog the robot back into the working area.

2) Resume operation.

20202, Emergency Stop open

Description

The emergency stop circuit has previously been broken, and while broken, an attempt was made to operate the robot.

Consequences

The system remains in the Emergency Stop status.

Probable causes

An attempt has been made to manoeuvre a control, e.g. the enabling device.

Recommended actions

1) To resume operation, first reset the emergency stop button triggering the stop.

2) Then switch the system back to state Motors ON by pressing the Motors ON button on the Control Module.

20203, Enabling Device open

Description

Only one of the two Enabling Device chains was opened.

Consequences

The system goes to status SYS HALT.

Probable causes

The teach pendant Enabling Device may be faulty or incorrectly connected. The teach pendant and its Enabling Device is described in the Trouble Shooting Manual, IRC5.

Recommended actions

1) Check the teach pendant cable and its connection.

2) If required, replace the faulty teach pendant or its cable.

20204, Operation Key imbalance

Description

The system has detected an imbalance in the two parallel MANUAL / AUTO Operation Key circuits.

Probable causes

The contact pair in any of the cables connected to the Operation Key circuit is not working correctly.

Recommended actions

1) Isolate the cable connection causing the conflict

2) Connect the cable in a correct way

20205, Auto Stop open

Description

The Automatic Mode Safeguarded Stop circuit has been broken.

Consequences

The system goes to the Auto Stop status.

Probable causes

One or more of the switch connected in series with the Automatic Mode Safeguarded Stop circuit have been opened, which may be causes by a large number of faults. This is only possible while in the Auto operational mode. The Automatic Mode Safeguarded Stop circuit is described in the Trouble Shooting Manual.

Recommended actions

1) Locate the switch, reset it and restart the system.

2) Check cables and connections.

20206, General Stop open

Description

The General Mode Safeguarded Stop circuit has been broken.

Consequences

The system goes to the General Stop status.

Probable causes

One or more of the switch connected in series with the General Mode Safeguarded Stop circuit have been opened, which may be causes by a large number of faults. This is possible in any operational mode. The General Mode Safeguarded Stop circuit is described in the Trouble Shooting Manual.

Recommended actions

1) Locate the switch, reset it and restart the system.

2) Check cables and connections.

20208, Chain switches open

Description

A safety chain, other than Auto Stop and General Stop, has been broken.

Consequences

The system goes to the Guard Stop status.

Probable causes

One or more of the switch connected in series with the RUN Chain Top circuit have been opened, which may be causes by a large number of faults. The RUN Chain Top is described in the Trouble Shooting Manual and Circuit Diagram.

Recommended actions

   1) Check other error messages for primary fault reason.

2) Locate the switch, reset it and restart the system.

3) Check cables and connections.

20209, External Contactor open

Description

An external contactor has been opened.

Consequences

The system goes from the Motors OFF status to SYS HALT when attempting to start.

Probable causes

The RUN chain of external equipment has been broken, which may be caused by the external contactor auxiliary contacts or, if used, any PLC, controlling it. The external contactor supplies power to a piece of external equipment, equivalently to how the RUN contactor supplies a robot. This fault may occur when attempting to go to the Motors ON mode only. The RUN chain is described in the Trouble Shooting Manual and Circuit Diagram.

Recommended actions

1) Locate the switch, reset it and restart the system.

2) Check cables and connections.

3) Check the external contactor auxiliary contacts.

4) If used, check any PLC equipment controlling the external contactor.

20211, Two channel fault, ENABLE chain

Description

A switch in only one of the two ENABLE chains was briefly affected, opening the chain and then reclosing it, without the other chain being affected.

Consequences

The system goes to status SYS HALT.

Probable causes

There may be a loose signal connection on either the axis computer or the Safety System. The ENABLE chain is described in the Trouble Shooting Manual and Circuit Diagram.

Recommended actions

1) Check cables and connections.

2) Make sure all signal connectors on the axis computer board and the Safety System are securely connected.

3) If there is no loose connection, replace the faulty board.

20212, Two channel fault, RUN CHAIN

Description

Only one of the two RUN chains was closed.

Consequences

The system goes to status SYS HALT.

Probable causes

Any of the switches connected to the RUN chain may be faulty or not correctly connected, causing only one channel to close. The RUN chain is described in the Trouble Shooting Manual, IRC5.

Recommended actions

1) Check cables and connections.

2) Check other event log messages occurring at the same time to determine which switch caused the fault.

3) Make sure all switches are working correctly.

4) To assist in returning the chains to a defined status, first pressing, then resetting the Emergency Stop

5) If there is no loose connection, replace the faulty switch.

20213, Two channel fault

Description

A brief status change in any of the RUN or ENABLE chains has been detected.

Consequences

The system goes to status SYS HALT.

Probable causes

This may be caused by a number of faults. The ENABLE and RUN chains are described in the Trouble Shooting Manual, IRC5.

Recommended actions

1) Check cables and connections.

2) Check other event log messages occurring at the same time to determine the cause of the fault.

3) To assist in returning the chains to a defined status, first pressing, then resetting the Emergency Stop may work.

20214, Limit Switch open, DRV1

Description

The limit switch on the robot has opened.

Consequences

The system goes to the Motors OFF status.

Probable causes

The robot has been run outside the working range defined by the limit switches fitted to the robot.

Recommended actions

1) Press an eventual existing external "Override Limit" button and manually

jog the robot back into the working area.

2) Resume operation.

20215, Superior Stop open

Description

The Superior Mode Safeguarded Stop circuit has been opened.

Consequences

The system goes to the Superior Stop status.

Probable causes

One or more of the switch connected in series with the Superior Mode Safeguarded Stop circuit have been opened, which may be causes by a large number of faults. This is possible in any operational mode. The Superior Mode Safeguarded Stop circuit is described in the Trouble Shooting Manual.

Recommended actions

1) Locate the switch, reset it and restart the system.

20216, Enabling device active in Auto mode

Description

The system has detected that the Enabling device has been pressed for more than 3 seconds in Automatic operating mode.

Consequences

The system goes to status Guard Stop.

Recommended actions

1. Release the Enabling device

2. Switch to Manual mode

20217, Limit Switch open, DRV2

Description

The limit switch on the robot has opened.

Consequences

The system goes to the Motors OFF status.

Probable causes

The robot has been run outside the working range defined by the limit switches fitted to the robot.

Recommended actions

1) Press an eventual existing external "Override Limit" button and manually

jog the robot back into the working area.

2) Resume operation.

20218, Limit Switch open, DRV3

Description

The limit switch on the robot has opened.

Consequences

The system goes to the Motors OFF status.

Probable causes

The robot has been run outside the working range defined by the limit switches fitted to the robot.

Recommended actions

1) Press an eventual existing external "Override Limit" button and manually

jog the robot back into the working area.

2) Resume operation.

20219, Limit Switch open, DRV4

Description

The limit switch on the robot has opened.

Consequences

The system goes to the Motors OFF status.

Probable causes

The robot has been run outside the working range defined by the limit switches fitted to the robot.

Recommended actions

1) Press an eventual existing external "Override Limit" button and manually

jog the robot back into the working area.

2) Resume operation.

20220, Superior stop conflict

Description

Only one of the two Superior Mode Safeguarded Stop chains was opened.

Consequences

The system goes to status SYS HALT.

Probable causes

Any of the switches connected to the Superior Stop chain may be faulty or not correctly connected, causing only one channel to close. The Superior Stop chain is described in the Trouble Shooting Manual, IRC5.

Recommended actions

1) Check cables and connections.

2) Check other event log messages occurring at the same time to determine which switch caused the fault.

3) Make sure all switches are working correctly.

4) If there is no loose connection, replace the faulty switch.

20221, Run chain conflict

Description

Status conflict

for Run chain.

Recommended actions

Please check the Run chain cables.

20222, Limit switch conflict

Description

Only one of the two Limit switch chains was opened.

Consequences

The system goes to status SYS HALT.

Probable causes

Any of the switches connected to the Limit switch chain may be faulty or not correctly connected, causing only one channel to close. The Limit switch chain is described in the Trouble Shooting Manual, IRC5.

Recommended actions

1) Check cables and connections.

2) Check other event log messages occurring at the same time to determine which switch caused the fault.

3) Make sure all switches are working correctly.

4) If there is no loose connection, replace the faulty switch.

20223, Emergency Stop conflict

Description

Only one of the two Emergency Stop chains was opened.

Consequences

The system goes to status SYS HALT.

Probable causes

Any of the switches connected to the Emergency Stop chain may be faulty or not correctly connected, causing only one channel to close. The Emergency Stop chain is described in the Trouble Shooting Manual, IRC5.

Recommended actions

1) Check cables and connections.

2) Check other event log messages occurring at the same time to determine which switch caused the fault.

3) Make sure all switches are working correctly.

4) If there is no loose connection, replace the faulty switch.

20224, Enabling Device conflict

Description

Only one of the two Enabling Device chains was opened.

Consequences

The system goes to status SYS HALT.

Probable causes

The teach pendant Enabling Device may be faulty or incorrectly connected. The teach pendant and its Enabling Device is described in the Trouble Shooting Manual, IRC5.

Recommended actions

1) Check the teach pendant cable and its connection.

2) If required, replace the faulty teach pendant or its cable.

20225, Auto Stop conflict

Description

Only one of the two Automatic Mode Safeguarded Stop chains was opened.

Consequences

The system goes to status SYS HALT.

Probable causes

Any of the switches connected to the Auto Stop chain may be faulty or not correctly connected, causing only one channel to close. The Auto Stop chain is described in the Trouble Shooting Manual, IRC5.

Recommended actions

1) Check cables and connections.

2) Check other event log messages occurring at the same time to determine which switch caused the fault.

3) Make sure all switches are working correctly.

4) If there is no loose connection, replace the faulty switch.

20226, General Stop conflict

Description

Only one of the two General Mode Safeguarded Stop chains was opened.

Consequences

The system goes to status SYS HALT.

Probable causes

Any of the switches connected to the General Stop chain may be faulty or not correctly connected, causing only one channel to close. The General Stop chain is described in the Trouble Shooting Manual, IRC5.

Recommended actions

1) Check cables and connections.

2) Check other event log messages occurring at the same time to determine which switch caused the fault.

3) Make sure all switches are working correctly.

4) If there is no loose connection, replace the faulty switch.

20227, Motor Contactor conflict, DRV1

Description

Only one of the two Motor Contactors for drive system 1 has acknowledged the activation order.

Consequences

The system goes to status SYS HALT.

Probable causes

A failure of the motor contactor auxiliary contacts or the supply to these.

Recommended actions

1) Check cables and connections.

2) Check the function of the auxiliary contacts.

20231, Delayed Emergency Stop due to circuit imbalance

Description

The system has detected an imbalance in the two parallel Emergency Stop circuits.

Consequences

The system goes to status Emergency Stop after approximately 1 sec.

Probable causes

The contact pair in any of the Emergency Stop buttons is not working correctly.

Recommended actions

1. Isolate the Emergency Stop button causing the conflict.

2. Check the contact pair.

3. Make sure all connections are tight.

4. Replace the button if required.

20232, Delayed Auto Stop due to circuit imbalance

Description

The system has detected an imbalance in the two parallel Auto Stop circuits.

Consequences

The system goes to status Guard Stop after approximately 1 sec.

Probable causes

The contact pair in any of the safety devices connected to the Auto Stop circuit is not working correctly.

Recommended actions

1. Isolate the safety device causing the conflict.

2. Make sure the device used is a two-channel device.

3. Check the contact pair.

4. Make sure all connections are tight.

5. Replace the device if required.

20233, Delayed General Stop due to circuit imbalance

Description

The system has detected an imbalance in the two parallel General Stop circuits.

Consequences

The system goes to status Guard Stop after approximately 1 sec.

Probable causes

The contact pair in any of the safety devices connected to the General Stop circuit is not working correctly.

Recommended actions

1. Isolate the safety device causing the conflict.

2. Make sure the device used is a two-channel device.

3. Check the contact pair.

4. Make sure all connections are tight.

5. Replace the device if required.

20234, Immediate Emergency Stop

Description

The Emergency Stop circuits have been broken.

Consequences

The system goes directly to status Emergency Stop.

Probable causes

One or more of the red emergency stop buttons have been activated.

Recommended actions

1) Isolate the Emergency Stop button that was opened.

2) Reset the button.

20235, Immediate Auto Stop

Description

The Auto Stop circuits have been broken.

Consequences

The system goes directly to status Guard Stop.

Probable causes

One or more of the safety device switches in the Auto Stop circuit have been opened

Recommended actions

1) Isolate the safety device that was opened

2) Reset the device switch.

20236, Immediate General Stop

Description

The General Stop circuits have been broken.

Consequences

The system goes directly to status Guard Stop.

Probable causes

One or more of the safety device switches in the General Stop circuit have been opened

Recommended actions

1) Isolate the safety device that was opened

2) Reset the device switch.

20237, Immediate Superior Stop

Description

The Superior Stop circuits have been broken.

Consequences

The system goes directly to status Guard Stop.

Probable causes

One or more of the safety device switches in the Superior Stop circuit have been opened

Recommended actions

1) Isolate the safety device that was opened

2) Reset the device switch.

20238, Delayed Superior Stop due to circuit imbalance

Description

The system has detected an imbalance in the two parallel Superior Stop circuits.

Consequences

The system goes to status Guard Stop after approximately 1 sec.

Probable causes

The contact pair in any of the safety devices connected to the Superior Stop circuit is not working correctly.

Recommended actions

1. Isolate the safety device causing the conflict.

2. Make sure the device used is a two-channel device.

3. Check the contact pair.

4. Make sure all connections are tight.

5. Replace the device if required.

20240, Conflict between ENABLE signals

Description

A switch in only one of the two ENABLE chains was affected, without the other chain being affected.

Consequences

The system goes to status SYS HALT.

Probable causes

There may be a loose signal connection on the Safety System. The ENABLE chain is described in the Trouble Shooting Manual and Circuit Diagram.

Recommended actions

1) Check cables and connections.

2) Make sure all signal connectors on the Safety System are securely connected.

3) If there is no loose connection, replace the faulty board.

20241, Operating mode conflict

Description

There is a conflict between the operating mode selected on the operating mode selector on the controller cabinet front and the actual operating mode as detected by the axis computer.

Consequences

The system goes to status SYS HALT.

Probable causes

There may be a hardware fault in the operating mode selector or its cabling to the Safety System.

Recommended actions

Check the operating mode selector and its cabling to the Safety System.

20245, Run Control status conflict, DRV2

Description

Status conflict between Run Control and Motor Contactors for drive system 2.

Consequences

The system goes to status SYS HALT.

Probable causes

A failure of the Motor Contactors or the supply to these.

Recommended actions

1) Check cables and connections.

2) Do a Warm start.

20246, Run Control status conflict, DRV3

Description

Status conflict between Run Control and Motor Contactors for drive system 3.

Consequences

The system goes to status SYS HALT.

Probable causes

A failure of the Motor Contactors or the supply to these.

Recommended actions

1) Check cables and connections.

2) Do a Warm start.

20247, Run Control status conflict, DRV4

Description

Status conflict between Run Control and Motor Contactors for drive system 4.

Consequences

The system goes to status SYS HALT.

Probable causes

A failure of the Motor Contactors or the supply to these.

Recommended actions

1) Check cables and connections.

2) Do a Warm start.

20248, Motor Contactor conflict, DRV2

Description

Only one of the two Motor Contactors for drive system 2 has acknowledged the activation order.

Consequences

The system goes to status SYS HALT.

Probable causes

A failure of the motor contactor auxiliary contacts or the supply to these.

Recommended actions

1) Check cables and connections.

2) Check the function of the auxiliary contacts.

20249, Motor Contactor conflict, DRV3

Description

Only one of the two Motor Contactors for drive system 3 has acknowledged the activation order.

Consequences

The system goes to status SYS HALT.

Probable causes

A failure of the motor contactor auxiliary contacts or the supply to these.

Recommended actions

1) Check cables and connections.

2) Check the function of the auxiliary contacts.

20250, Motor Contactor conflict, DRV4

Description

Only one of the two Motor Contactors for drive system 4 has acknowledged the activation order.

Consequences

The system goes to status SYS HALT.

6 Trouble shooting by Event log

Probable causes

A failure of the motor contactor auxiliary contacts or the supply to these.

Recommended actions

1) Check cables and connections.

2) Check the function of the auxiliary contacts.

20252, Motor temperature high, DRV1

Description

Over temperature in Manipulator Motor. Make sure to let the Motor cool down before ordering Motors On again.

Recommended actions

1) Wait until the overheated Motor has cooled down before ordering Motors On again.

2) If optional air filter is used, check if it is clogged and has to be exchanged

20253, External device temperature high, DRV1

Description

Over temperature in External Device. Make sure to let the External Device cool down before ordering Motors On again.

Recommended actions

Wait until the overheated Motor has cooled down before ordering Motors On again.

20254, Motor temperature high, DRV2

Description

Over temperature in Manipulator Motor. Make sure to let the Motor cool down before ordering Motors On again.

Recommended actions

1) Wait until the overheated Motor has cooled down before ordering Motors On again.

2) If optional air filter is used, check if it is clogged and has to be exchanged

20255, External device temperature high, DRV2

Description

Over temperature in External Device. Make sure to let the External Device cool down before ordering Motors On again.

Recommended actions

Wait until the overheated Motor has cooled down before ordering Motors On again.

20256, Motor temperature high, DRV3

Description

Over temperature in Manipulator Motor. Make sure to let the Motor cool down before ordering Motors On again.

Recommended actions

1) Wait until the overheated Motor has cooled down before ordering Motors On again.

2) If optional air filter is used, check if it is clogged and has to be exchanged

20257, External device temperature high, DRV3

Description

Over temperature in External Device. Make sure to let the External Device cool down before ordering Motors On again.

Recommended actions

Wait until the overheated Motor has cooled down before ordering Motors On again.

20258, Motor temperature high, DRV4

Description

Over temperature in Manipulator Motor. Make sure to let the Motor cool down before ordering Motors On again.

Recommended actions

1) Wait until the overheated Motor has cooled down before ordering Motors On again.

2) If optional air filter is used, check if it is clogged and has to be exchanged

20259, External device temperature high, DRV4

Description

Over temperature in External Device. Make sure to let the External Device cool down before ordering Motors On again.

Recommended actions

Wait until the overheated Motor has cooled down before ordering Motors On again.

20260, Run Control status conflict, DRV1

Description

Status conflict between Run Control and Motor Contactors for drive system 1.

Consequences

The system goes to status SYS HALT.

Probable causes

A failure of the Motor Contactors or the supply to these.

Recommended actions

1) Check cables and connections.

2) Do a Warm start.

20262,   SC *arg* Not found

Description

The system has an option for *arg* Safety Controller (SC) on drive module *arg*, but no Safety Controller was found.

Recommended actions

- Check Safety Controller cabling.

- Check Safety Controller health.

Warm start controller, after performing recommended actions.

20263,   SC *arg* Communication Failure

Description

Communication error with Safety Controller (SC) *arg*

Recommended actions

- Check Safety Controller cabling.

- Check Safety Controller health.

Warm start controller, after performing recommended actions.

20264,   SC *arg* Option Not Present

Description

Found *arg* Safety Controller (SC) on drive module *arg*.This system does not have the option for a Safety Controller on that drive module.

Recommended actions

- Check drive module software options.

- Install a system with Safety Controller option.

20265, SC Soft Stop Error

Description

Safety Controller (SC) Soft Stop has not opened the Motor Contactors within the calculated time

Recommended actions

Check Lim-switch connection if SafeMove is present

20266,   SC *arg* PIN Code Request

Description

Safety Controller (SC) *arg* has a new Safety Configuration and needs a new PIN code to be activated.

Recommended actions

1. Log in as a user with Safety Configuration grants.

2. Enter new PIN-Code for the Safety Controller in the Control Panel.

20267,   SC *arg* Initialization Failed

Description

Safety Controller (SC) *arg* failed to initialize properly, or failed to respond during start up.

Recommended actions

1. Check previous error logs for possible causes.

2. Restart the system.

20268,   SC *arg* Wrong Type

Description

Found *arg* Safety Controller (SC) on drive module *arg*, expected *arg*.

Recommended actions

- Check drive module software options.

- Install a system with correct Safety Controller option.

- Install a Safety Controller of the correct type.

20270, Access error

Description

Panel Module access error.

Recommended actions

Examine your I/O configuration files.

20280, Symbol conflict

Description

The signal *arg* defined in the IO configuration conflict with another program symbol with the same name. Due on that fact the signal will not be mapped to a program variable.

Recommended actions

Rename the signal in the IO configuration.

20281, IO configuration error

Description

argarg with signal name *arg* has wrong signal type. Found *arg* expected *arg*.

Recommended actions

Change your configuration and restart the system.

20282, Resource and index exist

Description

Resource *arg*
Index *arg*.

Recommended actions

20283, Text database is full.

Description

Resource *arg*

Index *arg*

Recommended actions

20284, Wrong Signal Type For System Input

Description

The System Input *arg* is configured with an I/O-signal of wrong type.

The I/O-signal *arg* is of type *arg* and this System Input requires an I/O-signal of type *arg*.

Recommended actions

Change the configuration for the specified System Input.

20285, Wrong Signal Type For System Output

Description

The System Output *arg* is configured with an I/O-signal of wrong type.

The I/O-signal *arg* is of type *arg* and this System Output requires an I/O-signal of type *arg*.

Recommended actions

Change the configuration for the specified System Output.

20286, Not Unique I/O-Signal For System Output

Description

Each System Output must have a unique I/O-signal configured.

It is not possible to configure same I/O-signal to several System Outputs.

System Output: *arg*

Signal Name: *arg*

Recommended actions

20287, Not Unique I/O-signal For System Input

Description

Each System Input must have a unique I/O-signal configured.

It is not possible to configure same I/O-signal to several System Inputs.

System Input: *arg*

Signal Name: *arg*

20288, Unknown System Output Type

Description

The configured System Output type is unknown by the system.

Unknown System Output: *arg*

Recommended actions

Verify that the System Output name is correctly spelled.

20289, Unknown System Input Type

Description

The configured System Input type is unknown by the system.

Unknown System Input: *arg*

Recommended actions

Verify that the System Input name is correctly spelled.

20290, Unknown Mechanical Unit Name For System Output

Description

A System Output is configured with a mechanical unit name which is unknown by the system.

System Output: *arg*

Mechanical unit name: *arg*

Recommended actions

The specified mechanical unit must be configured in order to be used by System Outputs

Verify that the mechanical unit name is correctly spelled.

20291, Unknown System Input Restriction Type

Description

The configured System Input Restriction Type is unknown by the system.

Unknown System Input Restriction: *arg*

Recommended actions

Verify that the System Input Restriction name is correctly spelled.

20292, Unknown System Input Restriction

Description

The configured System Input Restriction is unknown by the system.

System Input Restriction Type: *arg*

Unknown System Input Restriction: *arg*

Recommended actions

Verify that the System Input Restriction name is correctly spelled.

20293, System Input is Restricted

Description

The system input *arg* is restricted by the system input *arg* set by I/O signal *arg*.

Consequences

The action called for by system input *arg* will not take place, and the operation will NOT be affected.

Probable causes

System input *arg* may be set by external equipment, such as PLCs, etc, for a number of reasons.

Recommended actions

1) Investigate why the system input was set, and, if required, correct the reason.

20294, Action *arg* can not be fulfilled.

Description

The requested action cannot be fulfilled since the IO unit is not responding.

Consequences

It is not possible to decide if there are any restrictions set to the action.

Probable causes

The requested action will not be fulfilled until the I/O unit is enabled again.

Recommended actions

Never disable a unit with System Inputs/Outputs.

20295, Signal cannot be used as System Output.

Description

The System Output *arg* is configured with an I/O-signal with wrong category. The I/O-signal *arg* has category Safety and can not be used as System Output.

Recommended actions

Choose another signal or set to another category.

20296, Wrong task name configured

Description

Wrong task name *arg* configured for System Output *arg*.

Consequences

The digital output signal will not be connected to the specified event.

Recommended actions

Change the configuration and restart the system.

20307, Motor cooling fan malfunction, axis 1

Description

The axis 1 motor cooling fan on the robot connected to Drive Module *arg* does not work correctly.

Consequences

The full meaning of this status is described in the Trouble Shooting Manual, IRC5.

Probable causes

-The fan power cabling may be damaged or not connected correctly to motor or contactor unit.

-The fan or the Drive Module Power Supply may be faulty.

Recommended actions

1) Make sure the fan cable is correctly connected

2) Make sure the fan is free to rotate and that the air flow is not obstructed.

3) Make sure the Drive Module Power Supply output and input voltages are within specified limits as detailed in the Trouble shooting manual. Replace any faulty unit.

20308, Motor cooling fan malfunction, axis 2

Description

The axis 2 motor cooling fan on the robot connected to Drive Module *arg* does not work correctly.

Consequences

The full meaning of this status is described in the Trouble Shooting Manual, IRC5.

Probable causes

-The fan power cabling may be damaged or not connected correctly to motor or contactor unit.

-The fan or the Drive Module Power Supply may be faulty.

Recommended actions

1) Make sure the fan cable is correctly connected

2) Make sure the fan is free to rotate and that the air flow is not obstructed.

3) Make sure the Drive Module Power Supply output and input voltages are within specified limits as detailed in the Trouble shooting manual. Replace any faulty unit.

20309, Motor cooling fan malfunction, axis 3

Description

The axis 3 motor cooling fan on the robot connected to Drive Module *arg* does not work correctly.

Consequences

The full meaning of this status is described in the Trouble Shooting Manual, IRC5.

Probable causes

-The fan power cabling may be damaged or not connected correctly to motor or contactor unit.

-The fan or the Drive Module Power Supply may be faulty.

Recommended actions

1) Make sure the fan cable is correctly connected

2) Make sure the fan is free to rotate and that the air flow is not obstructed.

3) Make sure the Drive Module Power Supply output and input voltages are within specified limits as detailed in the Trouble shooting manual. Replace any faulty unit.

20310,   SC *arg* Communication Failed

Description

An error occurred while trying to communicate with Safety Controller (SC) *arg*

Recommended actions

- Check Safety Controller cabling.

- Check Safety Controller health.

Warm start controller, after performing recommended actions.

20311, Enable 1 open

Description

The ENABLE 1 circuit monitoring the Safety System has been opened.

Consequences

The system goes to status SYS HALT.

Probable causes

There may be an internal fault in the Safety System or the internal supervision has detected a fault.

Recommended actions

1) Check all connections to the Safety System.

2) If faulty, replace the faulty board.

20312, Enable 2 open

Description

The ENABLE 2 circuit monitoring the Axis Computer has been opened.

Consequences

The system goes to status SYS HALT.

Probable causes

There may be a connection problem between Main Computer and Axis Computer.

Recommended actions

1) Check all connections to the axis computer.

2) Check cables conntected to the Safety System.

20313, Enable1 supervision fault

Description

The ENABLE1 circuit has been broken. This circuit monitors the function of the Safety System and the main computer.

Consequences

The system goes to status SYS HALT.

Probable causes

A fault, probably a software fault, has been detected by any of the units supervised by the ENABLE1 circuit.

Recommended actions

1) Attempt restarting by pressing the Motors ON button. If restarting is IMPOSSIBLE it indicates a hardware fault in Safety System, axis computer. If restarting is POSSIBLE, it indicates a software fault. In such case, contact your local ABB representative.

2) Determine which unit is faulty by checking its indication LEDs. The LEDs are described in the Trouble Shooting Manual. Replace the faulty unit.

20314, Enable2 supervision fault

Description

The ENABLE2 circuit to drive module 1 has been broken. This circuit monitors e.g. the function of the Safety System and the axis computer.

Consequences

The system goes to status SYS HALT.

Probable causes

A fault, probably a software fault, has been detected by any of the units supervised by the ENABLE2 circuit.

Recommended actions

1) Attempt restarting by pressing the Motors ON button. If restarting is IMPOSSIBLE it indicates a hardware fault in Safety System, axis computer. If restarting is POSSIBLE, it indicates a software fault. In such case, contact your local ABB representative.

2) Determine which unit is faulty by checking its indication LEDs. The LEDs are described in the Trouble Shooting Manual. Replace the faulty unit.

20315, Enable2 Supervision fault

Description

The ENABLE2 circuit to drive module 2 has been broken. This circuit monitors e.g. the function of the Safety System and the axis computer.

Consequences

The system goes to status SYS HALT.

Probable causes

A fault, probably a software fault, has been detected by any of the units supervised by the ENABLE2 circuit.

Recommended actions

1) Attempt restarting by pressing the Motors ON button. If restarting is IMPOSSIBLE it indicates a hardware fault in safety board, axis computer. If restarting is POSSIBLE, it indicates a software fault. In such case, contact your local ABB representative.

2) Determine which unit is faulty by checking its indication LEDs. The LEDs are described in the Trouble Shooting Manual. Replace the faulty unit.

20316, Enable2 Supervision fault

Description

The ENABLE2 circuit to drive module 3 has been broken. This circuit monitors e.g. the function of the Safety System and the axis computer.

Consequences

The system goes to status SYS HALT.

Probable causes

A fault, probably a software fault, has been detected by any of the units supervised by the ENABLE2 circuit.

Recommended actions

1) Attempt restarting by pressing the Motors ON button. If restarting is IMPOSSIBLE it indicates a hardware fault in Safety System, axis computer. If restarting is POSSIBLE, it indicates a software fault. In such case, contact your local ABB representative.

2) Determine which unit is faulty by checking its indication LEDs. The LEDs are described in the Trouble Shooting Manual. Replace the faulty unit.

20317, Enable2 Supervision fault

Description

The ENABLE2 circuit to drive module 4 has been broken. This circuit monitors e.g. the function of the Safety System and the axis computer.

Consequences

The system goes to status SYS HALT.

Probable causes

A fault, probably a software fault, has been detected by any of the units supervised by the ENABLE2 circuit.

Recommended actions

1) Attempt restarting by pressing the Motors ON button. If restarting is IMPOSSIBLE it indicates a hardware fault in Safety System, Axis computer. If restarting is POSSIBLE, it indicates a software fault. In such case, contact your local ABB representative.

2) Determine which unit is faulty by checking its indication LEDs. The LEDs are described in the Trouble Shooting Manual. Replace the faulty unit.

20350, Not a valid task name

Description

The task name *arg* cannot be used as a name of a task. It is either already used as an installed symbol, a reserved word in the system or too long (max. 16 characters).

Consequences

The task will not be installed in the system.

Recommended actions

Change the configuration of the task name and restart the controller.

20351, Max number of tasks exceeded

Description

The maximum number of tasks, *arg*, of the configuration type *arg* is exceeded.

Consequences

All configured tasks will not be installed.

Recommended actions

Change the configuration and restart the system.

20352, Not a valid motion planner name

Description

The motion planner name for mechanical unit group *arg* in *arg* is not correct.

The reason can be one of the following:

1. empty name

2. not present in the motion configuration

3. already in use by another mechanical unit group

Consequences

The system will not be able to use.

Recommended actions

Change the configuration and restart the controller.

20353, Mechanical unit not found

Description

The mechanical unit *arg* in *arg* can not be found in the list of configured mechanical units.

Consequences

It is not possible to execute any RAPID instructions that use the configured mechanical units.

Probable causes

The unit is probably not present in the motion configuration.

Recommended actions

Change the configuration and restart the controller.

20354, The argument is undefined

Description

The configured argument *arg* for task *arg* is not a valid type.

Consequences

The behaviour of the task will be undefined.

Recommended actions

Change the configuration and restart the controller.

20355, Mechanical unit group name not correct

Description

The configured name of *arg* in task *arg* is not correct.

The reason could be:

1. The argument is not used in the configuration

2. The configured name is not a member of the mechanical unit group

3. The configured name is already used by another task.

Consequences

The task will not be installed or it will not be possible to execute RAPID motion instructions.

Recommended actions

Change the configuration and restart the controller.

20356, Maximum number of motion tasks exceeded

Description

Only *arg* tasks are allowed to control mechanical units i.e. execute RAPID move instructions.

Recommended actions

Change the configuration and restart the controller.

20357, No configured motion task

Description

No task is configured to control mechanical units i.e. execute RAPID move instructions.

Consequences

It is not possible to execute any RAPID move instructions.

Recommended actions

Change the configuration to include a task controlling mechanical units.
Restart the controller.

20358, No members of *arg* configured

Description

The configuration type is required in a multi robot system.

Consequences

It is not possible to execute any RAPID move instructions.

Recommended actions

Change the configuration and restart the controller.

20359, Cfg type *arg* is configured

Description

The type was found but not expected in a system with current options.

Recommended actions

Check if the right configuration file is loaded or remove all instances of the type.
Restart the controller.

20360, Unknown event in cfg type *arg*

Description

The event *arg* is not a system event.

Recommended actions

Change the configuration and restart the system.

20361, Only shared modules in the shared task

Description

The module *arg* is not configured shared and cannot be loaded into the shared task.

Recommended actions

Change the configuration and restart the system.

20362, Not defined task name

Description

The task *arg* in cfg type *arg* is not configured in the system.

Recommended actions

Change the configuration and restart the system.

20363, Module not a system module

Description

The module *arg* loaded from the file *arg* is not a system module.

Recommended actions

Change the file suffix or add a module attribute to the module.
Load the module again or restart the system.

20364, Max number of mechanical unit groups exceeded

Description

The maximum number of mechanical unit groups, *arg*, of the configuration type *arg* is exceeded.

Consequences

Exceeded instances are ignored.

Recommended actions

Change the configuration and restart the controller.

20365, Update of configuration is done

Description

All tasks are reset to its main routine due to configuration changes.

Recommended actions

20366, Type error in task configuration

Description

The task *arg* is configured with wrong type. Task configured to control mechanical units i.e. execute RAPID move instructions must be of type *arg*.

Consequences

The task will not be installed.

Recommended actions

Change the configuration and restart the controller.

20367, No configured mechanical units

Description

The instance *arg* of configuration type *arg* has no mechanical unit argument.

Consequences

It will not be possible to perform any actions against the motion system, i.e. execute RAPID move instructions.

Recommended actions

Change the configuration and restart the controller.

20368, Not connected mechanical unit group

Description

There is no RAPID motion task connected with the mechanical unit group *arg*.

Consequences

It will not be possible to use the mechanical units that belong to this group.

Probable causes

The cause of this error can be a missing RAPID task instance in the controller domain of the configuration or a task that has not been configured as a motion task.

Recommended actions

1. Add a motion task instance that is connected to the mechanical unit group.

2. Change an existing non-motion task to a motion task.

3. Remove the mechanical unit group.

4. Check for misspelled names.

20369, Confusing configuration of system parameters.

Description

There is a mixture of old and new structure of type System Misc.

Consequences

It is possible that not the correct parameters are configured.

Probable causes

Configuration of old and new structure has been loaded into the system.

Recommended actions

1. Check that the correct parameters are configured.

2. Update the parameters in System Misc with correct values.

3. Save the controller domain and replace the old config file.

20370, Failed to read configuration data for regain distance

Description

The system failed to read the configuration data for the type *<arg>*. The regain distance is the limit when the system will warn before a start with regain movement.

Consequences

Default value for the regain distance will be used.

Probable causes

-The sys.cfg file loaded into the system does not contain any regain distance information.

-No sys.cfg file has been loaded due to file errors.

Recommended actions

1) Load a new sys.cfg file and restart the system

20371, A default mechanical unit group is used

Description

The configuration of task *arg* has no connection to *arg*. The attribute *arg* is required in a multimove system and is missing.

Consequences

The task performs no movement by the mechanical unit, but can read motion data. The RAPID functions may fail, if they read motion data and is connected to the wrong mechanical unit. The mechanical unit group in *arg* has been connected to the task.

Probable causes

-The attribute was not specified when the configuration was created.

-The configuration file could have been created in a non-multi move system.

Recommended actions

1) Make sure the correct mechanical unit group is connected to the task.

20372, Failed to read configuration data.

Description

The system failed to read the configuration data for the type *<arg>*.

Consequences

Hotedit or modpos will not be possible.

Probable causes

-The sys.cfg file loaded into the system does not contain hotedit and modpos information.

-No sys.cfg file has been loaded due to file errors.

Recommended actions

Load a new sys.cfg file and restart the system

20380, No motion planner connected to mechanical unit

Description

The mechanical unit *arg* has no motion planner connected.

Consequences

It is not possible to use this mechanical unit in any operations such as calibration or activation.

Probable causes

The cause of this error is probably an error in the configuration.

Recommended actions

Check the motion and/or controller configuration.

20381, Error when recreating path after power fail

Description

The path wasn't successfully recreated.

Consequences

The Program Pointer must be moved before restarting the program. It's recommended to move the robot to a safe position though the robot might not follow the original path when restarted.

Probable causes

A number of errors may cause this. Faults causing the system to go to status SYS FAIL will generally also cause path recreate after powerfail to fail.

Recommended actions

1) Check other event log messages occurring at the same time to determine the actual cause.

2) Fix the cause of the fault.

3) Move the robot to a safe position before restarting. The robot may not follow the original path.

20390, Start rejected

Description

Start/restart of program, via System IO, was rejected.

The reason is that write access is held by

arg using *arg*

Recommended actions

20391, Start at main rejected

Description

Start of program at main, via System IO, was rejected.

The reason is that write access is held by

arg using *arg*

Recommended actions

20392, Manual interrupt rejected

Description

Manual interrupt of program, via System IO, was rejected.

The reason is that write access is held by

arg using *arg*

Recommended actions

20393, Load and start rejected

Description

Load and start of program, via System IO, was rejected.

The reason is that write access is held by

arg using *arg*

Recommended actions

20394, Motors On and Start rejected.

Description

Motors On and Start/restart of program, via System IO, was rejected.

The reason is that write access is held by

arg using *arg*

Recommended actions

20395, Load rejected

Description

Load of program via System IO, was rejected.

The reason is that write access is held by

arg using *arg*

20396, Manual interrupt rejected

Description

Manual interrupt of program, via System IO, was rejected in task *arg*.
Manual interrupt is not allowed during synchronized movement.

20397, Manual interrupt rejected

Description

Manual interrupt of program, via System IO, was rejected in task *arg*.
The interrupt is connected to *arg*, which is not a valid RAPID procedure.

Consequences

arg will not be executed.

Probable causes

1. *arg* does not exist.
2. *arg* is not a procedure (PROC) that takes zero (0) parameters.

Recommended actions

Make sure that *arg* is an existing procedure (PROC) that takes zero (0) parameters.

20398, Automatic Mode Rejected

Description

A stopped static/semistatic task (alias background task) could not be started when automatic mode was requested.

Consequences

The system can not enter automatic mode.

Probable causes

A stopped static/semistatic task could not be started.

Recommended actions

1) Switch back to manual mode.
2) Make sure that all static/semistatic tasks has a program/module containing the configured production entry.
3) Make sure that no static/semistatic task has any syntax errors.
4) Switch back to automatic mode and confirm.

20399, Static/Semistatic task started

Description

At least on static/semistatic task (alias background task) was not executing after startup in automatic mode.

Consequences

Execution was started in at least one static/semistatic task.

Probable causes

System was switched to automatic mode during warm start.

Recommended actions

None, system has automatically reset debug settings.

To keep debug settings in auto:
1) Switch back to auto mode
2) Set system parameter Controller/Auto Condition Reset/
AllDebugSettings/Reset to NO.
3) Switch back to automatic mode and confirm.
4) For more info, see the Technical Reference Manual - System Parameters.

20400, Debug Settings In Auto

Description

A static/semistatic task (alias background task) has been stopped.

Consequences

The static/semistatic task will not be started.
System will not be in full production mode in auto.

Recommended actions

For full production mode:
1) Switch back to manual mode.
2) Set system parameter Controller/Auto Condition Reset/
AllDebugSettings/Reset to Yes.
3) Switch back to automatic mode and confirm.
4) For more info, see the Technical Reference Manual - System Parameters.

20401, Too many CFG instances

Description

There are too many instances *arg* of type *arg* in topic *arg*.

Consequences

The wrong instance may be used and cause unexpected behavior.

Probable causes

There are multiple instances of *arg* of type *arg* in topic *arg*.

Recommended actions

Remove all instances but one.

20440, Failed to initialize FW upgrade framework

Description

The firmware upgrade framework for hardware boards could not be initialized

Consequences

No firmware upgrade of hardware boards will be performed

Probable causes

An invalid xml file in the controller installation:
arg

Recommended actions

For developers:
- Correct the file. Use the hw_compatibility.xsd schema to verify.

For other users:

- Reinstall the system.

20441, Failed to initialize firmware patch

Description

Failed to initialize the firmware patch handling for hardware boards.

Consequences

No firmware patches for hardware boards will be applied

Probable causes

The firmware patch file was invalid:

arg

Recommended actions

Correct the patch file. Use the schema hw_compatibility.xsd to verify.

20443, Multiple firmware upgrade restarts

Description

A new restart to firmware upgrade mode was ordered after two consecutive upgrade restarts.

Consequences

No further restart to firmware upgrade mode was performed.

Probable causes

Firmware upgrade of a hardware board has most likely failed. The board's firmware or hardware may be corrupt.

Recommended actions

Check the event log for previous error messages.

20450,   SC *arg*CBC Speed exceeded

Description

Cyclic Brake Check (CBC) speed limit is exceeded in Safety Controller (SC) on Mechanical unit *arg*, when Brake check is required

Recommended actions

Decrease speed and execute Brake check

20451,   SC *arg* Not synchronized

Description

Safety Controller (SC) *arg* is not synchronized with supervised Mechanical units.

Recommended actions

Move all Mechanical units supervised by Safety Controller *arg* to the synchronization positions defined in the Safety Configuration.

20452,   SC *arg* Synchronized

Description

Safety Controller (SC) *arg* is now synchronized to supervised Mechanical units. Safety supervision can be used.

20453,   SC *arg* Wrong Sync. Position

Description

The positions of the supervised Mechanical units do not match the synchronization positions defined in the Safety Configuration for Safety Controller (SC) *arg* on axis *arg*.

Recommended actions

- Check that all supervised Mechanical units are positioned at the configured synchronization position.

- Check that the synchronization switch is working properly.

- Check that motor calibration and revolution counters are updated and correct.

- Check that the synchronization position in the Safety Configuration is correct.

- Check for configuration error.

- Download Motor calibration values.

- Check if axis 4 or 6 is configured as independent, if YES, check that the EPS configuration is configured likewise.

20454,   SC *arg* Servo-Lag Limit exceeded

Description

Safety Controller (SC) *arg* detected a too big difference between the ordered and actual position, for Mechanical unit *arg* on axis *arg*.

Recommended actions

- Check for collision.

- If using external axis, check Servo Lag settings in the Safety Configuration.

- If using Soft Servo, Check that the Operational Safety Range (OSR) Tolerance in the Safety Configuration is not set too low

- Verify that revolution counters are updated.

- Check for communication problems to the Main Computer, Axis Computer or the Serial Measurement Board.

- Check if tool weight is correctly defined.

20455,   SC *arg* Incorrect Position Value

Description

Incorrect position value from Serial Measurement Board detected by Safety Controller (SC) *arg* on Mechanical unit *arg*.

Recommended actions

- Check resolver and resolver connections.

- Replace Serial Measurement Board.

- Replace resolver.

20456,   SC *arg* Reference Data Timeout

Description

The Robot Controller has stopped sending reference data to Safety Controller (SC) *arg*.

Recommended actions

1. Check previous error logs for possible causes.

2. Restart System.

20457, SC *arg* Corrupt Safety Configuration

Description

The Safety Configuration for Safety Controller (SC) *arg* is corrupt or contains invalid data.

Recommended actions

- Warm start Robot Controller.

- Download a Safety Configuration to the Safety Controller.

- Reinstall System.

20458, SC *arg* Internal Failure

Description

Internal Failure in Safety Controller (SC) *arg*.

Recommended actions

- Check Safety Controller cabling.

- Check Safety Controller health on LED

- Replace Safety Controller if remaining error

20459, SC *arg* Input/Output Failure

Description

I/O Error on Safety Controller (SC) *arg*.

Recommended actions

- Check Safety Controller cabling.

- Check Safety Controller health.

Warm start Robot Controller, after performing recommended actions.

20460, SC *arg* Safety Configuration not found

Description

Failed to retrieve Safety Configuration for Safety Controller (SC) *arg*.

Recommended actions

- Warm start Robot Controller.

- Download a Safety Configuration to the SC.

- Reinstall System.

20461, SC *arg* Robot Configuration not found

Description

Failed to retrieve Robot Configuration for Safety Controller (SC) *arg*.

Recommended actions

- Warm start Robot Controller.

- Reinstall System.

20462, SC *arg* Calibration Offset not found

Description

Failed to retrieve Motor Calibration offsets for Safety Controller (SC) *arg*.

Recommended actions

Download new Calibration offsets to the SC.

20463, SC *arg* Safety Configuration downloaded

Description

Download of Safety Configuration was successful for Safety Controller (SC) *arg*.

20464, SC *arg* OSR Limit exceeded

Description

Safety Controller (SC) *arg* detected a too big difference between the ordered and actual position inside Operational Safety Range (OSR) , for Mechanical unit *arg* on axis *arg*.

Recommended actions

- Check for collision.

- Check that Operational Safety Range (OSR) Tolerance in the Safety Configuration is not set too low.

- Synchronize the Safety Controller, if the revolution counters have been updated since last synchronization.

20465, SC *arg* SAS Speed exceeded

Description

Safe Axis Speed (SAS) violation on Mechanical unit *arg* Axis *arg* on Safety Controller (SC)

Recommended actions

Decrease speed on Axis *arg*

20466, SC *arg* Input/Output Failure

Description

I/O Error on Safety Controller (SC) *arg* I/O *arg* Type *arg*

Type 1: Input

Type 2: Output

Probable causes

- Wrong connection to I/O terminals on SC

- Two channel I/O mismatch

Recommended actions

- Check SC cabling.

- Check SC health.

Warm start Robot Controller, after performing recommended actions.

20467,　SC *arg* STS speed exceeded

Description

Safe reduced Tool Speed (STS) in Safety Controller (SC) on Mechanical unit *arg* too high. Cause *arg*.

Probable causes

1. Tool0 speed
2. Elbow speed
3. Tool speed
4. Additional axis speed

Recommended actions

Reduce tool speed.

20468,　SC *arg* STZ violation

Description

Safe Tool Zone (STZ) *arg* is violated on Mechanical unit *arg*. Cause *arg*

Probable causes

1. Exceeded speed
2. Wrong tool position
3. Wrong tool orientation
4. Wrong elbow position
11. Wrong tool point 1 position
12. Wrong tool point 2 position
13. Wrong tool point 3 position
14. Wrong tool point 4 position
15. Wrong tool point 5 position
16. Wrong tool point 6 position
17. Wrong tool point 7 position
18. Wrong tool point 8 position

Recommended actions

- Reduce speed
- Move Robot tool to safe position
- Adjust tool orientation

20469,　SC *arg* SAR violation

Description

Safe Axis Range (SAR) *arg* is violated on Mechanical unit *arg* Axis *arg*

Recommended actions

Move Mechanical unit to safe position

20470,　SC *arg* Synchronization Pre-warning

Description

Synchronization required for Mechanical units supervised by Safety Controller (SC) *arg* in less than *arg* hour(s).

Recommended actions

Perform synchronization before the time limit expires.

20471,　SC *arg* Synchronization Timeout

Description

Synchronization time limit expired for Safety Controller (SC) *arg*. Last synchronization was *arg* hours ago.

Recommended actions

Perform synchronization.

20472,　SC *arg* New Safety Configuration

Description

Safety Controller (SC) *arg* has received a new Safety Configuration. A new PIN-code is needed to activate.

Recommended actions

1. Log in as a user with Safety Configuration grants.
2. Enter new PIN-Code for the Safety Controller in the Control Panel.

20473,　SC *arg* Dual Computer mismatch

Description

Safety Controller (SC) *arg* have had conflicting values for a Safety Output for too long.

Consequences

The Safety Controller has entered a Safe State and issue an error after 10 minutes of internal mismatch, if recommended actions are not performed.

Probable causes

- The Mechanical unit have been parked at a position on, or close to, a supervised or monitored function limit for too long time.
- Internal computation error in Safety Controller.

Recommended actions

Move all Mechanical units' axes and tools well inside or outside monitored and supervised function limits.

20474,　SC *arg* I/O Supply Failure

Description

I/O supply voltage level for Safety Controller (SC) *arg* is out of range.

Probable causes

Either the voltage is out of limits or the voltage is missing.

Recommended actions

1. Connect 24V supply with correct voltage level to I/O supply terminals.
2. Warm start Robot Controller.

20475,   SC *arg* Synchronization rejected

Description

Safety Controller (SC) *arg* is not correctly configured for synchronization.

Probable causes

- Safety Configuration PIN is not set or is incorrect.

- Safety Configuration is empty.

- Safety Configuration is corrupt or missing.

- Safety Controller connected to the wrong SMB bus.

- I/O Power supply missing.

Recommended actions

Verify and check possible causes

20476,   SC *arg* Disabled

Description

Safety Controller (SC) *arg* is disabled.

Consequences

All safety supervision has been disabled in the Safety Controller. Risk for Safety hazards.

Recommended actions

Download a Safety Configuration to the Safety Controller.

20477,   SC *arg* SMB Communication Failure

Description

Safety Controller (SC) *arg* failed to communicate with Serial Measurement Board (SMB).

Recommended actions

1. Make sure that the cabling from SMB to Safety Controller is connected to the right SMB connector and functional.

2. Restart System.

20478,   SC *arg* Main Supply Failure

Description

The main power supply voltage for Safety Controller (SC) *arg* is out of range.

Probable causes

Either the voltage is out of limit or the voltage is missing.

Recommended actions

1. Check Safety Controller cabling.

2. Check voltage from power supply.

3. Warm start Robot Controller.

20479,   SC *arg* Additional Axis missing

Description

An Additional Axis that is supervised by Safety Controller (SC) *arg* is no longer present in the System Configuration.

Recommended actions

Reinstall the supervised Additional Axis, or Download a Safety Configuration without supervision of the Additional Axis.

20480,   SC *arg* SST violation

Description

Safe Stand Still (SST) *arg* in Safety Controller (SC) is violated on Mechanical unit *arg* Axis *arg*.

Recommended actions

- Verify Rapid program

- Verify process equipment

- Check that movement is not ongoing when SST is active

- Check previous elog messages

20481,   SC *arg* OVR active

Description

Override Operation (OVR) active on Safety Controller (SC) *arg*

SafeMove will stop the robot after approximately 20 minutes with OVR active.

Speed is limited to 250 mm/s or 18 degrees/s.

Recommended actions

Deactivate signal connected to OVR input

20482,   SC *arg* OVR time out

Description

Override Operation (OVR) has been active too long time on Safety Controller (SC) *arg*.

Recommended actions

1. Warmstart Robot Controller   2. Toggle signal connected to OVR input

3. Activate Confirm stop by pressing Motors On push button

4. Jog Robot back into working area

5. Deactivate signal connected to OVR input

20483,   SC *arg* CBC soon required

Description

Cyclic Brake Check (CBC) required in less than *arg* hours.

Recommended actions

Perform a Brake Check before the time limit expires.

20484, SC *arg* CBC Time Limit expired

Description

Cyclic Brake Check (CBC) time limit expired in Safety Controller (SC). Last Brake Check was executed *arg* hours ago.

Recommended actions

Perform a Brake Check.

20485, SC *arg* Too low brake torque

Description

Too low brake torque in Safety Controller (SC) on Mechanical unit *arg*.

Probable causes

- Axis has not been tested.
- Worn out brake(s).

Recommended actions

- Check that the failing axis is activated
- If failing axis is activated replace brake(s)as soon as possible.

20486, SC *arg* CBC incorrect

Description

Safety Controller (SC) has detected that the last Cyclic Brake Check (CBC) on Mechanical unit *arg* was incorrect.

Recommended actions

- Perform a new Brake Check.
- Check previous elogs.

20487, SC *arg* Unsynchronized speed exceeded

Description

Exceeded Axis speed when Safety Controller (SC) *arg* was unsynchronized.

Recommended actions

Jog Mechanical unit to synch position with low axis speed. Reduce speed to 250 mm/s or 18 degrees/s.

20488, SC *arg* Unsynchronized time limit expired

Description

Available time to move the Robot when unsynchronized has expired for Safety Controller (SC) *arg*.

Recommended actions

1. Do a Confirm stop by pressing the Motors ON push button or activate System input

2. Synchronize SC *arg*.

20489, SC *arg* has been disabled

Description

Safety Controller (SC) *arg* has been disabled and no supervision functions are active.

Probable causes

Either a C-start has been performed or it's the first startup of SC.

Recommended actions

Download a Configuration to SC *arg*.

20490, SC *arg* OVR Speed exceeded

Description

Override (OVR) Speed limit exceeded on Mechanical unit *arg*.

Probable causes

If Override (OVR) is active, then OVR speed limitations will be active

Recommended actions

- Decrease speed.
- Deactivate OVR.

20491, SC *arg* Override active during startup

Description

Override digital input was active during startup on SC*arg*

20492, SC *arg* SST violation in Brake test

Description

Movement detected during Brake test on Safety Controller (SC)*arg* Mechanical unit *arg* Axis *arg*

Probable causes

- Interrupted braketest.
- Worn out Brakes.

Recommended actions

- Restart CBC.
- Replace Brake.

20493, SC *arg* SBR triggered

Description

Safe Brake Ramp (SBR) on Safety Controller (SC) was interrupted by a Class 0 stop due to slow deceleration on Mechanical unit *arg*. This is normal and occurs in cases when a stop1 is to slow. Check for other safety controller elog.

Recommended actions

- Change parameter value for SBR in motion configuration
- Trigger a new stop to test the Brake Ramp.
- If this happens frequently, check the Application manual for Mechanical units configuration.

20494,   SC *arg* Tool change incorrect

Description

Incorrect tool change with Tool *arg* on Mechanical unit *arg*

Recommended actions

- Check if correct tool.

- Decrease speed if needed.

- Perform a new tool change.

20501, ES panel open

Description

The emergency stop panel has previously been broken, and while broken, an attempt was made to operate the robot.

Consequences

The system remains in the Emergency Stop status.

Probable causes

An attempt has been made to manoeuvre a control, e.g. the enabling device.

Recommended actions

1) To resume operation, first reset the emergency stop panel button.

2) Then switch the system back to state Motors ON by pressing the Motors ON button on the Control Module.

20502, ES pendant open

Description

The emergency stop pendant has previously been broken, and while broken, an attempt was made to operate the robot.

Consequences

The system remains in the Emergency Stop status.

Probable causes

An attempt has been made to manoeuvre a control, e.g. the enabling device.

Recommended actions

1) To resume operation, first reset the emergency stop pendant button.

2) Then switch the system back to state Motors ON by pressing the Motors ON button on the Control Module.

20503, ES ext.cat.0 open

Description

The emergency stop external has previously been broken, and while broken, an attempt was made to operate the robot.

Consequences

The system remains in the Emergency Stop status.

Probable causes

An attempt has been made to manoeuvre a control, e.g. the enabling device.

Recommended actions

1) To resume operation, first reset the emergency stop external button.

2) Then switch the system back to state Motors ON by pressing the Motors ON button on the Control Module.

20505, Delayed stop open

Description

Delayed stop open.

Consequences

The system goes to status SYS HALT.

Recommended actions

1) To resume operation, first reset the delayed stop button.

2) Then switch the system back to state Motors ON by pressing the Motors ON button on the Control Module.

20506, Test Stop open

Description

The Test Mode Safeguarded Stop circuit has been broken.

Consequences

The system goes to status SYS HALT.

Probable causes

One or more of the switch connected in series with the Test Mode Safeguarded Stop circuit have been opened, which may be causes by a large number of faults. This is only possible while in the Manual operational mode

Recommended actions

1) Locate the switch, reset it and restart the system.

2) Check cables and connections.

20507, Hardware chain open

Description

Relays (KA16 and KA17) on Safety Interface Board (SIB) not activated.

Consequences

Motor on command rejected.

Recommended actions

Press motor ON button to close the chain.

20521, Test Stop conflict

Description

Status conflict for the Test Stop chain.

Consequences

The system goes to status SYS HALT.

Recommended actions

Please check the two-channel safety guard that caused the status conflict.

20525, ES panel conflict

Description

Status conflict for the Emergency Stop panel chain.

Consequences

The system goes to status emergency stop.

Recommended actions

Please check the two-channel safety guard that caused the status conflict.

20526, ES pendant conflict

Description

Status conflict for the Emergency Stop pendant chain.

Consequences

The system goes to status emergency stop.

Recommended actions

Please check the two-channel safety guard that caused the status conflict.

20527, ES ext.cat.0 conflict

Description

Status conflict for the Emergency Stop ext.cat.0 chain.

Consequences

The system goes to status emergency stop.

Recommended actions

Please check the two-channel safety guard that caused the status conflict.

20528, HV Interlock input conflict

Description

Only one of the two input signals in the high voltage chains is opened.

Consequences

Paint enable chain opens.

Recommended actions

Please check the two-channel safety guard that caused the status conflict.

20529, Cabin Interlock input conflict

Description

Only one of the two input signals in cabin interlock chains is opened.

Consequences

Paint enable chain opens.

Recommended actions

Check cables and connections.

20531, Delayed Stop conflict

Description

Status conflict for the delayed stop circuit.

Consequences

The system goes to status SYS HALT.

Recommended actions

Check cables and connections.

20534, Mode selector conflict

Description

Any of the connections to the mode selector are faulty.

Consequences

The system goes to status SYS HALT.

Recommended actions

Check cables and connections.

20535, AUX Interlock conflict

Description

Only one of the two AUX interlock chains was opened. Normally used on CBS door interlock.

Consequences

Paint enable chain opens.

Recommended actions

Check cables and connections.

20536, Motor on chain conflict

Description

Only one of the two motor on chain signals in run chain is opened.

Consequences

The system goes to status SYS HALT.

Recommended actions

Check cables and connections.

20556, Enable 2 AXC 1 open

Description

Status active when enable from Axis Computer 1 open.

Consequences

The system goes to status SYS HALT.

Recommended actions

1. Check other error messages for primary fault reason.

2. If no other error messages, please check line voltage for one phase missing.

20557, Enable 2 AXC 2 open

Description

Status active when enable from Axis Computer 2 open.

Consequences

The system goes to status SYS HALT.

Recommended actions

1. Check other error messages for primary fault reason.

2. If no other error messages, please check line voltage for one phase missing.

20558, Manipulator fault

Description

Status active when power to manipulator *arg* connected to Manipulator Interface Board (MIB) *arg* is lost, or manipulator's enable chain conditions is not OK.

Consequences

The system goes to status SYS HALT.

Recommended actions

1. Check the power to the manipulator.

2. Check that the enable chain on Manipulator Controller Board (MCOB) is OK.

20559, Collision sensor active

Description

Status active when digital collision sensor on Manipulator Controller Board (MCOB) is active.

Consequences

The system goes to status SYS HALT.

Recommended actions

Check the collision sensors connected to MCOB.

20560, Axis limit on MCOB

Description

Status active when limit sensor on Manipulator Controller Board (MCOB) is active.

Consequences

The system goes to status SYS HALT.

Recommended actions

Check the limit sensors connected to MCOB.

20561, MCOB software has opened enable chain

Description

Status active when Manipulator Controller Board (MCOB) software has opened the enable chain on MCOB.

Consequences

The system goes to status SYS HALT.

Recommended actions

Check the MCOB software.

20562, Reset ES fault

Description

Status active when Reset Emergency Stop input is activated for more than 3 seconds.

Consequences

The system goes to status SYS HALT.

Recommended actions

1. Check the connection of external reset of Emergency Stop.

2. Check the motor on push button.

20563, Servo disconnect open

Description

Status active when Servo disconnect switch on system *arg* is off.

Consequences

The system goes to status SYS HALT.

Recommended actions

If Servo disconnect switch is not installed, check the disable link on Manipulator Interface Board (MIB).

20564, Brake rel. on axes 1 & 7

Description

Status active when manual brake release on axes 1 and 7 enabled.

Consequences

The system goes to status SYS HALT.

Recommended actions

Check switch for manual brake release of axes 1 and 7.

20565, External enable 1 open

Description

Status active when external enable 1 on Manipulator Controller Board (MCOB) is open.

Consequences

The system goes to status SYS HALT.

Recommended actions

Check connection on MCCB X25.

20566, External enable 2 open

Description

Status active when external enable 2 on Manipulator Controller Board (MCOB) is open.

Consequences

The system goes to status SYS HALT.

Recommended actions

Check connection on MCCB X43.

20567, Power low on MCOB

Description

Status active when power below 16V on Manipulator Controller Board (MCOB).

Consequences

The system goes to status SYS HALT.

Recommended actions

Check power on MCOB.

20568, Hardware enable open on MCOB

Description

Status active when firmware on Manipulator Controller Board (MCOB) has opened the enable chain.

Consequences

The system goes to status SYS HALT.

20569, Watchdog fault on MCOB

Description

Status active when watchdog on Manipulator Controller Board (MCOB) fails.

Consequences

The system goes to status SYS HALT.

20570, TPU wiring error

Description

Status active when Process Interface Board (PIB) detects fault on emergency stop pendant and enabling device signals (glitch test).

Consequences

The system goes to status SYS HALT.

Recommended actions

1. Check cables and connections to Teach Pendant Unit (TPU).

2. Check Pendant Interface Board (TIB) and Manipulator Interface Board (MIB).

20571, HV Interlock open

Description

Paint system High Voltage (HV) interlock is opened by external interlock connection.

Consequences

Paint enable chain opens.

Recommended actions

Check manual switch for disconnecting of the HV system.

20572, Cabin Interlock open

Description

Cabin Interlock is opened by external interlock connection.

Consequences

Paint enable chain opens.

Recommended actions

Check cabin ventilation and other cabin safety functions.

20573, Controller ID is Missing

Description

Controller ID is the controller's unique identity. It is by default equal to the serial number of the controller's cabinet. The software configuration of the controller is missing this identity information.

Probable causes

This may happen if the storage media of the controller has been replaced or reformatted.

Recommended actions

Read the serial number of the controller from the controller cabinet to find out what the controller ID should be. Use RobotStudio tools to set this value for the controller.

20574, Process Interlock open

Description

Process Interlock is opened by external interlock connection.

Consequences

Paint enable chain opens.

Recommended actions

Check manual switch for disconnecting of the process system.

20575, AUX Interlock open

Description

AUX Interlock is opened by external interlock connection. Normally used for Cartridge Bell System (CBS).

Consequences

Paint enable chain opens.

Recommended actions

Check cables and equipments connected to AUX inputs.

20576, System 2 Interlock open

Description

System 2 Interlock is opened. Normally used for Cartridge Bell System (CBS) or paint pumps

Consequences

Paint enable chain opens.

Recommended actions

Check cables and equipments connected to system 2.

20577, HV ON open

Description

High Voltage (HV) switch on operating panel is opened.

Consequences

Paint enable chain opens.

Recommended actions

Give acknowledge on motor ON and switch on the HV key to close the HV interlock chain.

20581, SPI communication towards SIB is down

Description

Status active when cyclic enable 1 test fails from Safety Interface Board (SIB).

Consequences

The system goes to status SYS HALT.

Recommended actions

1. Check status on Serial Peripheral Interface (SPI) status.

2. Check cables between Process Interface Board (PIB) abd SIB.

20582, SPI communication towards MIB is down

Description

Status active when cyclic enable 1 test fails from Manipulator Interface Board (MIB) *arg*.

Consequences

The system goes to status SYS HALT.

Recommended actions

Check cables and Serial Peripheral Interface (SPI) status.

2. Check cables between SIB and Manipulator Interface Board (MIB).

20583, Watchdog towards PIB software fails

Description

Status active when firmware on Process Interface Board (PIB) discover watchdog fault between PIB firmware and PIB software.

Consequences

The system goes to status SYS HALT.

Probable causes

Too high processor load on PIB software.

20584, Fault on internal SPI

Description

Status active when firmware on Process Interface Board (PIB) discover watchdog fault towards Safety Interface Board (SIB) and Manipulator Interface Board (MIB).

Consequences

The system goes to status SYS HALT.

Probable causes

Serial Peripheral Interface (SPI) communication is down on SPI 1.

Recommended actions

Check cables between PIB, SIB and MIB.

20585, Enable chain opened from IPS

Description

Status active when enable chain is opened from signal Safety/PibSw/Enable.

Consequences

The system goes to status SYS HALT.

Recommended actions

Check the actuator connected to signal Safety/PibSw/Enable.

20586, Watchdog fault towards PIB firmware

Description

Status active when software on Process Interface Board (PIB) discover watchdog fault towards PIB firmware caused by fault on FPGA.

Consequences

The system goes to status SYS HALT.

20587, Watchdog fault towards PIB firmware

Description

Status active when software on Process Interface Board (PIB) discover watchdog fault towards PIB firmware caused by fault on the In-System Micro Controller.

Consequences

The system goes to status SYS HALT.

Probable causes

Firmware not running.

20588, Watchdog fault between PIB and MC

Description

Status active when software on Process Interface Board (PIB) discover watchdog fault towards Main Computer (MC).

Consequences

The system goes to status SYS FAIL.

Recommended actions

Check ethernet cable between PIB and MC.

20589, Watchdog fault between PIB and MCOB

Description

Status active when agent connection on CAN between Process Interface Board (PIB) and Manipulator Controller Board (MCOB) is down.

Consequences

The system goes to status SYS HALT.

Recommended actions

1. Check CAN cables.

2. Check MCOB status.

20590, Open circuit mask not set

Description

The open circuit mask for brakes on Manipulator Controller Board (MCOB) is not set. The mask should be set from Process Interface Board (PIB) during start-up.

Consequences

This message will be given every time the brakes are released, until the open circuit mask on MCOB is set.

Probable causes

IPS configuration on PIB is not loaded or configuration file for brake settings is missing.

Recommended actions

1. Check that IPS configuration is loaded during start-up.

2. Check that IPS configuration file for brake settings are installed on PIB.

20591, TPU hot plug timeout

Description

The TPU hot plug button is pressed for too long time.

Consequences

The system goes to status SYS HALT.

Recommended actions

Press motor ON button to close the chain.

20600, Unofficial RobotWare release

Description

The current RobotWare is not an officially supported release.

Unofficial RobotWare releases may only be used for time-limited test and validation purposes.

Consequences

ABB will not provide long-term support on unofficial releases.

Recommended actions

If this is a production system, install an official RobotWare release as soon as possible.

20601, Too long paths when unpacking RobotWare files

Description

The RobotWare installation package was not properly unpacked on the controller. Some files in the package have a path that is too long and could not be handled by the controller software.

During the installation process the controller software was upgraded to handle longer paths, so a re-installation of the system should solve the problem.

Consequences

Some RobotWare files are missing on the controller and your system may not be able to operate properly.

Recommended actions

Re-install the system by using SystemBuilder. If the error is still present after the re-installation, contact customer support.

20602, Unofficial RobotWare image

Description

The current RobotWare main computer image is not the original, and is hence not officially supported.

Consequences

ABB will not provide long-term support on unofficial RobotWare releases.

Probable causes

The officially released main computer image has been replaced, e.g., for the purpose of collecting diagnostic data for a specific problem.

Recommended actions

If this is a production system, install an official RobotWare release as soon as possible.

20610, Motor phase short circuit

Description

The drive unit for joint *arg* has reported short circuit. The joint is connected to drive module *arg* with unit position *arg* and node *arg*.

Consequences

No operation will be possible until the fault is corrected. The system goes to Motors Off state with zero torque.

Probable causes

1) Short circuit in cables or connectors between the phases or to ground.

2) Short circuit in motor between the phases or to ground.

Recommended actions

1) Check/replace cables and connectors.

2) Check/replace motor.

20620, The system has entered an internal test mode

Description

A feature to perform ABB Robotics internal tests has been enabled in *arg*.

Consequences

The system may not behave as expected.

Recommended actions

Restart the system when the test has been performed. If this was an unexpected message, please contact your contact your local ABB representative for assistance.

31810, DeviceNet master/slave board is missing

Description

The DeviceNet master/slave board does not work.

Consequences

No communication on the Devicenet is possible.

Probable causes

The DeviceNet master/slave board is either malfunctioning or missing.

Recommended actions

1. Make sure a DeviceNet master/slave board is installed.

2. Replace the board if faulty.

31811, Second DeviceNet master/slave board is missing

Description

Dual option is configured but only one DeviceNet master/slave board is installed.

Consequences

Only one DeviceNet bus is available.

Probable causes

The Second DeviceNet master/slave board is either malfunctioning or missing.

Recommended actions

1. Make sure a Second DeviceNet master/slave board is installed.

2. Replace the Second board if faulty.

31812, Incompatible DeviceNet Boards

Description

The system has detected incompatible types of DeviceNet boards.

Consequences

No communication on the DeviceNet is possible.

Probable causes

Incompatible types of DeviceNet boards have been installed in the system.

Recommended actions

Make sure that compatible board types are installed.

31910, Profibus-DP master/slave board is missing

Description

The Profibus-DP master/slave board does not work.

Consequences

No communication on the Profibus is possible.

Probable causes

The Profibus-DP master/slave board is either malfunctioning or missing.

Recommended actions

1. Make sure a Profibus-DP master/slave board is installed.

2. Replace the board if faulty.

31911, Profibus board update error

Description

The RobotWare software was not able to download new driver software to the Profibus-DP master/slave board. The *arg* channel (ch *arg*) of the Profibus board could not be programmed. Internal error code:*arg*.

Consequences

No communication on the Profibus is possible.

Probable causes

The RobotWare software may be corrupt or the board hardware may be malfunctioning.

Recommended actions

1. Restart the system to reattempt downloading the software.

2. Reinstall the present system files.

3. Create and run a new system to download the driver software.

4. Replace the board if faulty.

31912, Profibus-DP master/slave board failure

Description

The Profibus-DP master/slave board did not start up correctly.

Consequences

No communication on the Profibus is possible.

Probable causes

The Profibus-DP master/slave board hardware may be malfunctioning.

Recommended actions

1. Restart the system.

2. Replace the Profibus-DP master/slave board if faulty.

31913, Profibus-DP master/slave board internal error

Description

The Profibus-DP master/slave board reported internal error *arg*.

Consequences

No communication on the Profibus is possible.

Probable causes

The Profibus-DP master/slave board hardware may be malfunctioning.

Recommended actions

1. Restart the system.

2. Replace the Profibus-DP master/slave board if faulty.

31914, Profibus startup error

Description

- Profibus master bus error Error code *arg*. Check cabling, terminators and modules then restart.

Recommended actions

31915, Profibus Bus Error

Description

Profibus master bus error.

Internal error

Error code *arg*.

Consequences

Certain expected associated errors may be delayed.

Probable causes

Faulty profibus cabling, terminators and/or module(s).

Duplicated profibus addresses.

Recommended actions

Check cabling, terminators and modules.

31916, Profibus bus OK

Description

- Profibus regained contact   on the master bus.

Recommended actions

31917, Profibus-DP master/slave board exception

Description

A fatal error has occurred on the Profibus-DP master/slave board. *arg* channel in task *arg*. Parameters *arg*

Consequences

No communication on the Profibus is possible.

Probable causes

The Profibus-DP master/slave board hardware may be malfunctioning.

Recommended actions

1. Restart the system.

2. Replace the Profibus-DP master/slave board if faulty.

32500, Robot Communication Card is missing

Description

The system cannot contact the Robot Communication Card.

Consequences

No communication with the Safety System is possible. The system goes to status SYS FAIL.

Probable causes

The Robot Communication Card is either malfunctioning or missing.

Recommended actions

1. Make sure a Robot Communication Card is installed.

2. Replace the unit if faulty.

32501, Incorrect RCC firmware

Description

The FPGAR11-Firmware on the RCC (DSQC602) is of an incompatible version. Current version: *arg*.*arg* Requested version: *arg*.*arg*

Recommended actions

1. Replace the DSQC602 board

2. Restart the system

32502, Can't find file

Description

The system cannot find the file: [*arg*]

Recommended actions

Reinstall the system

32503, Requested info not in file

Description

The system cannot find information about what software to download to HardWare ID="*arg*", Version="*arg*", Revision="*arg*" in file [*arg*].

Probable causes

The file has either been damaged, or the actual hardware version of the unit is not supported.

Recommended actions

1. Reinstall the system

2. Replace the unit to a version which is supported by this SW-release.

32530, No Communication With The Safety System

Description

There is no serial communication between the Safety System and the robot communication card.

Consequences

The system goes to status SYS FAIL.

Probable causes

Probably hardware fault in cable between Safety System and Robot Communication Card. The Safety System, or it's power supply, may also be faulty.

Recommended actions

1) Restart the system to resume operation.

2) Make sure the cable between robot communication card and Safety System is working and correctly connected.

3) Check the Safety System power supply.

4) Replace the unit if faulty.

32540, Drive unit firmware reflash started

Description

In drive module *arg*, a required upgrade of the firmware in the drive unit at unit position *arg* has started. The old firmware revision *arg* is replaced with revision *arg*.

Recommended actions

Wait for the firmware upgrade process to complete. Do not turn off system power!

32541, Drive unit firmware reflash complete

Description

In drive module *arg*, the upgrade of the firmware in the drive unit with unit position *arg* is completed. New revision is *arg*.

32542, Drive unit hardware not supported

Description

In drive module *arg*, the system cannot use the drive unit with hardware identity *arg* because the hardware revision *arg* is not supported.

Consequences

The system is unable to use the drive unit. The system goes to System Failure state.

Probable causes

The RobotWare version is too old to support the drive unit.

Recommended actions

1) Upgrade the system to a RobotWare version supporting the drive unit revision.

2) Replace the drive unit to one with compatible revision.

32543, Drive unit firmware reflash failed

Description

In drive module *arg*, the upgrade of the firmware in the drive unit at unit position *arg* failed.

Consequences

The required upgrade of the drive unit firmware is not performed.

Recommended actions

1) Check other hardware eventlog messages for detailed explanation of the error condition.

2) Try again by restart the system using the main power switch.

32544, Drive unit firmware file not found

Description

The file *arg*, required to upgrade a drive unit's firmware, is not found.

Consequences

The required upgrade of the drive unit firmware is not performed.

Probable causes

The RobotWare installation does not contain the firmware file.

Recommended actions

Reinstall the system.

32545, Drive unit firmware file type error

Description

The file *arg*, required to upgrade a drive unit's firmware, is of wrong type.

Consequences

The required upgrade of the drive unit firmware is not performed.

Probable causes

The RobotWare installation is faulty.

Recommended actions

Reinstall the system.

32546, Drive unit firmware file error

Description

The file *arg*, required to upgrade a drive unit's firmware, is not usable because it failed the integrity check.

Consequences

The required upgrade of the drive unit firmware is not performed.

Probable causes

The RobotWare installation is faulty.

Recommended actions

Reinstall the system.

32550, Firmware reflash started

Description

A required update of the *arg* firmware has started. File used: [*arg*].

Recommended actions

Wait for the reflash to complete

32551, Firmware reflash completed

Description

The update of *arg* firmware has completed successfully.

32552, Firmware reflash failed

Description

The update of *arg* firmware failed.
Internal errorcode:*arg*

Recommended actions

1. Check other error messages for detailed explanation
2. Restart the system
3. Reinstall the system
4. Replace the *arg*

32553, Firmware file is corrupt

Description

The firmware file [*arg*] is corrupt. Internal errorcode:*arg*

Recommended actions

Reinstall the system

32554, Firmware file not found

Description

The firmware file [*arg*] is not found.

Recommended actions

Reinstall the system

32555, Safety System Unit Not Supported

Description

The system cannot use the Safety System unit *arg*, revision *arg*.

Consequences

The system is unable to use the affected hardware.

Recommended actions

1. Change the affected hardware to a compatible version.

32560, Axis computer firmware reflash started

Description

In drive module *arg*, a required upgrade of the firmware in the axis computer *arg* with hardware identity *arg* has started. The old firmware revision *arg* is replaced with revision *arg*.

Recommended actions

Wait for the firmware upgrade process to complete. Do not turn off system power!

32561, Axis computer firmware reflash complete

Description

In drive module *arg*, the upgrade of the firmware in the axis computer *arg* with hardware identity *arg* is completed. New revision is *arg*.

32562, Axis computer communication error

Description

The system failed to communicate with the axis computer in drive module *arg* when trying to read firmware information.

Consequences

The system is unable to determine if an upgrade is required of the firmware in the affected drive module. The system goes to System Failure state.

Probable causes

This may be due to a cable break, bad connector or high levels of interference in the cable between the main computer and the axis computer.

Recommended actions

1) Make sure the cable between the main computer and the axis computer is not damaged and that both connectors are correctly connected.

2) Make sure no extreme levels of electromagnetic interference are emitted close to the robot cabling.

32563, Axis computer hardware not supported

Description

In drive module *arg*, the system cannot use the axis computer with hardware identity *arg* because the hardware revision *arg* is not supported.

Consequences

The system is unable to use the axis computer. The system goes to System Failure state.

Probable causes

The RobotWare version is too old to support the axis computer unit.

Recommended actions

1) Replace the axis computer to one with compatible revision.

2) Upgrade the system to a RobotWare version supporting the axis computer revision.

32564, Axis computer firmware reflash failed

Description

In drive module *arg*, the upgrade of the firmware in the axis computer *arg* with hardware identity *arg* failed.

Consequences

The required upgrade of the axis computer firmware is not performed.

Recommended actions

1) Check other hardware eventlog messages for detailed explanation of the error condition.

2) Retry again by restarting the system using the main power switch.

32565, Axis computer firmware file not found

Description

The file *arg*, required to upgrade an axis computer's firmware, is not found.

Consequences

The required upgrade of the axis computer firmware is not performed.

Probable causes

The RobotWare installation does not contain the firmware file.

Recommended actions

Reinstall the system.

32567, Axis computer firmware file type error

Description

The file *arg*, required to upgrade an axis computer firmware, is of wrong type.

Consequences

The required upgrade of the axis computer's firmware is not performed.

Probable causes

The firmware file is corrupt.

Recommended actions

Reinstall the system.

32568, Axis computer firmware file error

Description

The file *arg*, required to upgrade an axis computer's firmware, is not usable because it failed the integrity check.

Consequences

The required upgrade of the axis computer firmware is not performed.

Probable causes

The firmware file is corrupt.

Recommended actions

Reinstall the system.

32569, Corrupt axis computer hardware

Description

In drive module *arg*, the axis computer flash memory has a corrupt content.

Recommended actions

1. Retry again by restarting the system using the main power switch.

2. If the problem remains then replace the axis computer.

32570, Firmware reflash started

Description

A required update of the *arg* firmware has started. Replacing old firmware version: [*arg*].

Recommended actions

Wait for the reflash to complete

32571, Firmware reflash completed

Description

The update of *arg* firmware has completed successfully. New version: [*arg*]. Internal code:[*arg*]

32572, Firmware reflash failed

Description

The upgrade of *arg* firmware failed.
 Current version:*arg*. Internal errorcode:*arg*.

Recommended actions

1. Check other hardware eventlog messages for detailed explanation of the error condition.

2. Reinstall the system.

32573, Unable to download firmware file

Description

The firmware file *arg* is not found. Internal error code:*arg*.

Recommended actions

Reinstall the system.

32574, Corrupt axis computer hardware

Description

The *arg* flash memory has a corrupt content. Internal error code:*arg*.

Recommended actions

1. Check other hardware eventlog messages for detailed explanation of the error condition.

2. Restart the system.

3. If failure occurs again, replace the axis computer.

32575, Found no axis computer board

Description

System failed to detect any connected axis computer.

Recommended actions

1. Check system for axis computer board.

2. Check ethernet cables between the main computer and the axis computer.

3. Restart the system.

32576, Axis firmware: No communication

Description

The system failed to communicate with axis board *arg* when trying to check the firmware version.

Consequences

The system is unable to check and if necessary upgrade the firmware in the affected axis computer.

Recommended actions

1. Check system for axis computer board.

2. Check ethernet cables between the main computer and the axis computer.

3. Restart system.

32577, Axis computer hardware data error

Description

In drive module *arg*, the axis computer has corrupt information stored on the unit.

Consequences

The system goes to System Failure state.

Probable causes

The integrity check of the axis computer information stored on the unit has failed.

Recommended actions

1) Retry again by restarting the system using the main power switch.

2) Replace the faulty axis computer.

32580, Firmware reflash started

Description

A required update of the *arg* firmware has started. Internal code: [*arg*]. File: [*arg*].

Recommended actions

Wait for the reflash to complete

32581, Firmware reflash completed

Description

The update of *arg* firmware has completed successfully . Internal code:[*arg*]

Recommended actions

No action required

32582, Firmware reflash failed

Description

The update of *arg* firmware failed.

Internal errorcode:*arg*

Recommended actions

1. Check other error messages for detailed explanation.

2. Reinstall the system.

32583, Firmware file corrupt

Description

The update of *arg* firmware failed.

The firmware file [*arg*] is corrupt.

Internal errorcode:*arg*.

Recommended actions

Reinstall the system

32584, Firmware file not found

Description

The update of *arg* firmware failed.

The firmware file [*arg*] is not found.

Internal errorcode:*arg*.

Recommended actions

Reinstall the system

32585, No Safety System Found By Axis Computer

Description

Axis computer failed to detect the Safety System.

Recommended actions

1. Check communication cables between the axis computer and the Safety System.

2. Check power supply to the Safety System.

3. Restart the system

32590, Firmware reflash started

Description

A required update of the *arg* firmware in drive module *arg* has started. File: [*arg*].

Recommended actions

Wait for the reflash to complete, this will take approximately 3.5 minutes.

32591, Firmware reflash completed

Description

The update of *arg* firmware in drive module *arg* has sucessfully completed.

Recommended actions

No action required

32592, Firmware reflash failed

Description

The update of *arg* firmware in drive module *arg* has failed.

Recommended actions

1. Check other error messages for detailed explanation.

2. Reinstall the system.

32593, Firmware file corrupt

Description

The update of *arg* firmware in drive module *arg* has failed.
The firmware file [*arg*] is corrupt.

Recommended actions

Reinstall the system

32594, Firmware file not found

Description

The update of *arg* firmware in drive module *arg* has failed.
The firmware file [*arg*] is not found.

Recommended actions

Reinstall the system

32601, Interbus master/slave board is missing

Description

The Interbus master/slave board does not work.

Consequences

No communication on the Interbus is possible.

Probable causes

The Interbus master/slave board is either malfunctioning or missing.

Recommended actions

1) Make sure a Interbus master/slave board is installed.

2) Replace the board if faulty.

32651, Serial port hardware is not accessible

Description

The system has tried to address the serial port *arg*, and failed.

Consequences

The optional serial port hardware can not be accessed. The connector and the physical channel using the connector will not be available for use.

Probable causes

The serial port hardware is missing or malfunctioning.

Recommended actions

1) Make sure the required serial port hardware has been correctly installed and is not faulty.

2) Replace the serial port hardware.

33503, Revolution counter update failure

Description

Update of the revolution counter for joint *arg* failed.

Consequences

Joint not synchronized

Probable causes

1. Joint missing or not active

2. Measurement system error

Recommended actions

1. Check if joint active

2. Check configuration files

3. Check measurement system

33601, Fieldbus Adapter is missing

Description

The Fieldbus Adapter is missing.

Consequences

No communication with the Fieldbus Adapter is possible.

Probable causes

The Fieldbus Adapter is either malfunctioning or missing.

Recommended actions

1. Make sure a Fieldbus Adapter is installed.

2. Replace the module if faulty.

34100, Drive system not supported

Description

The configured drive system in drive module *arg* is not of type Drive System '04.

Consequences

The system goes to System Failure state.

Probable causes

1. Wrong drive module key used, i.e., the configuration does not match hardware.

2. Wrong hardware used in the system.

Recommended actions

1. Reinstall the system with a drive module key that matches the hardware.

2. Replace the drive module with one that supports Drive System '04.

34101, Drive system not supported

Description

The configured drive system in drive module *arg* is not of type Drive System '09.

Consequences

The system goes to System Failure state.

Probable causes

1. Wrong drive module key used, i.e., the configuration does not match hardware.

2. Wrong hardware used in the system.

Recommended actions

1. Reinstall the system with a drive module key that matches the hardware.

2. Replace the drive module with one that supports Drive System '09.

34200, Lost communication with all drive units

Description

In drive module *arg*, the axis computer has lost communication with all drive units.

Consequences

No operation will be possible until the fault is corrected. The system goes to Motors Off state with zero torque.

Probable causes

Communication problem between drive units and the axis computer.

Recommended actions

1) Check that all cables are properly connected.

2) Check that the drive units have logic power.

3) Check/replace Ethernet cables.

4) Check for other hardware eventlog messages.

5) Check the event log for power supply unit error messages.

6) Check the cabling between the power supply unit and the drive unit.

7) Check the 24V output from the power supply unit.

34201, Connected drive unit not configured

Description

The drive unit in drive module *arg* with drive unit position *arg* is connected but not used in the configuration.

Consequences

Operation will be possible, but the extra drive unit will not be used.

Probable causes

The drive unit is not used in the configuration.

Recommended actions

1) Remove extra drive unit if not needed.

2) Reinstall the system with a drive module key supporting the extra drive unit.

34202, Lost communication with drive unit

Description

In drive module *arg*, the axis computer has lost communication with the drive unit at unit position *arg*.

Consequences

No operation will be possible until the fault is corrected. The system goes to Motors Off state with zero torque.

Probable causes

Communication problem between the drive unit and the axis computer.

Recommended actions

1) Check that all cables are properly connected.

2) Check that the drive unit has logic power.

3) Check/replace Ethernet cables.

4) Check for other hardware eventlog messages.

5) Check the event log for power supply unit error messages.

6) Check the cabling between the power supply unit and the drive unit.

7) Check the 24V output from the power supply unit.

34203, Motor current too high

Description

The motor current is too high for joint *arg*, connected to drive module *arg* with the drive unit at unit position *arg* and node *arg*.

Consequences

No operation will be possible until the fault is corrected. The system goes to Motors Off state.

Probable causes

1) The motor configuration is incorrect.

2) The axis load may be too high or the motor may have stalled (maybe due to a collision).

3) The motor is too small for the drive unit.

4) Short circuit between motor phases or ground.

Recommended actions

1) Check that the motor configuration is correct.

2) Check that the robot has not collided.

3) If possible, reduce the speed of the user program.

4) Check that the axis load is not too high for the motor.

5) Verify that the maximum motor current is not too small compared to the maximum current of the drive unit.

6) Check the motor cable and motor by measuring their resistance respectively. Disconnect before measuring.

34251, Incoming mains phase missing

Description

In drive module *arg*, the rectifier unit at drive unit position *arg* has detected a power loss in one phase.

Consequences

The system may stop with DC link too low voltage.

Probable causes

1) Incoming mains voltage loss of one phase.

2) Some malfunction in cabling or internal 3-phase components.

3) The rectifier unit is faulty.

Recommended actions

1) Check all incoming mains phases to the cabinet.

2) Check all internal 3-phase components (main switch, mains filter, fuse, contactors) and cabling in the drive module.

34252, Incoming mains missing

Description

In drive module *arg*, the rectifier unit at drive unit position *arg* has detected a mains voltage loss.

Consequences

No operation will be possible until the fault is corrected. The system goes to Motors Off state.

Probable causes

1) Incoming mains voltage loss.

2) Some malfunction in the cabling or in internal 3-phase components.

3) The rectifier unit is faulty.

Recommended actions

1) Check the incoming mains voltage.

2) Check all the internal 3-phase components (main switch, mains filter, fuse, contactors) and cabling in the drive module.

34255, Rectifier temperature error

Description

In drive module *arg*, the rectifier unit at drive unit position *arg* has reached a too high temperature level.

Consequences

No operation will be possible until the rectifier has cooled down. The system goes to Motors Off state.

Probable causes

1) The cooling fans may be faulty or the air flow may be obstructed.

2) The ambient temperature may be too high.

3) The system may be running with a too high torque for extended periods of time.

Recommended actions

1) Verify that the fans are running and that the air flow is not obstructed.

2) Verify that the ambient temperature does not exceed the cabinet's temperature rating.

3) If possible, rewrite the user program to reduce the amount of hard acceleration and hard deceleration.

4) Reduce the static torque due to gravity or external forces.

34256, Rectifier temperature warning

Description

In drive module *arg*, the rectifier unit at drive unit position *arg* is approaching a too high temperature level.

Consequences

It is possible to continue but the margin to maximum allowed temperature is too low to sustain long term operation.

Probable causes

1) The cooling fans may be faulty or the air flow may be obstructed.

2) The ambient temperature may be too high.

3) The system may be running with a too high torque for extended periods of time.

Recommended actions

1) Verify that the fans are running and that the air flow is not obstructed.

2) Verify that the ambient temperature does not exceed the cabinet's temperature rating.

3) If possible, rewrite the user program to reduce the amount of hard acceleration and hard deceleration.

4) Reduce the static torque due to gravity or external forces.

34257, Open circuit in bleeder resistor circuit

Description

In drive module *arg*, the bleeder resistor connected to the rectifier unit at drive unit position *arg* has too high resistance (open circuit).

Consequences

No operation will be possible until the fault is corrected. The system goes to Motors Off state.

WARNING HIGH VOLTAGE: THE DC LINK WILL NOT BE DISCHARGED WHEN THE SYSTEM IS POWERED OFF.

Probable causes

This may be caused by a faulty bleeder resistor cable or a faulty bleeder resistor.

Recommended actions

WARNING HIGH VOLTAGE CAN BE PRESENT.

1) Make sure the bleeder resistor cable is properly connected to the rectifier unit.

2) Disconnect the bleeder and check the cable and measure the bleeder resistance. The expected resistance should be approximately *arg* ohms.

34258, Short circuit in bleeder resistor circuit

Description

In drive module *arg*, the bleeder resistor connected to the rectifier unit at drive unit position *arg* is indicating a short circuit.

Consequences

No operation will be possible until the fault is corrected. The system goes to Motors Off state.

WARNING HIGH VOLTAGE: THE DC LINK WILL NOT BE DISCHARGED WHEN THE SYSTEM IS POWERED OFF.

Probable causes

This may be caused by a faulty bleeder resistor cable or a faulty bleeder resistor.

Recommended actions

WARNING HIGH VOLTAGE CAN BE PRESENT.

1) Make sure the bleeder resistor cable is correctly connected to the rectifier unit.

2) Disconnect the bleeder and check the cable and measure the bleeder resistance. The expected resistance should be approximately *arg* ohms.

3) Check for bleeder short circuit against ground.

34261, Rectifier startup error

Description

In drive module *arg*, the inrush control relay in the rectifier unit at drive unit position*arg* indicates an error.

Consequences

No operation will be possible until the fault is corrected. The system goes to Motors Off state.

Probable causes

This may be caused by a faulty rectifier inrush control relay.

Recommended actions

Restart the system and try again. If the problem remains then replace the unit.

34262, Incoming mains frequency warning

Description

In drive module *arg*, the incoming mains voltage has wrong frequency. The rectifier unit at drive unit position *arg* has reported the problem.

Consequences

The system may stop with DC link voltage too low.

Probable causes

1) The incoming mains frequency is not within specification.

2) Short circuit between motor phases or ground.

Recommended actions

1) Check and adjust incoming mains frequency.

2) Check the motor cable and motor by measuring their resistance respectively. Disconnect before measuring.

34263, Rectifier startup error

Description

In drive module *arg*, the inrush control resistor in the rectifier unit at drive unit position *arg* has too high resistance (open circuit).

Consequences

No operation will be possible until the fault is corrected. The system goes to Motors Off state.

Probable causes

This may be caused by a faulty rectifier inrush control resistor.

Recommended actions

Restart the system and try again. If the problem remains then replace the unit.

34264, Rectifier inrush limitation active in Motors On

Description

In drive module *arg*, the inrush control resistor in the rectifier unit at drive unit position *arg* is wrongly engaged.

Consequences

The system goes to Motors Off state to protect the hardware.

Probable causes

This error occur when the DC link voltage becomes too low and all mains phases are missing.

Recommended actions

1) Check the hardware eventlog for other errors.

2) Check incoming mains voltage.

3) Check that the correct voltage is selected with jumpers on the transformer (optional).

4) Check all internal 3-phase components (main switch, mains filter, fuse, contactors) and cabling in the drive module.

34265, DC link short circuit error

Description

In drive module *arg*, the DC link in the rectifier unit at drive unit position *arg* is short circuit.

Consequences

No operation will be possible until the fault is corrected. The system goes to Motors Off state.

Probable causes

1) DC link cables for an additional drive unit is damaged or wrongly connected.

2) Internal error in rectifier unit or drive unit.

Recommended actions

Check DC link cables and connectors.

34266, Rectifier inrush limitation and bleeder active

Description

In drive module *arg*, with rectifier unit at drive unit position *arg*, the inrush control resistor is active at the same time as the bleeder resistor is active.

The inrush control resistor is located in the rectifier unit.

The bleeder resistor is connected to the rectifier unit or the drive unit with embedded rectifier.

Consequences

The system goes to Motors Off state to protect the hardware.

Probable causes

This problem is most likely to occur when the incoming mains voltage is too high to the rectifier.

Recommended actions

1) Check that the incoming mains voltage is according to specification for the drive unit.

2) Check that the correct voltage is selected with jumpers on the transformer (optional).

34267, Too many rectifiers connected

Description

In drive module *arg* the system has detected more rectifers than the system can handle. The limit was reached when drive unit at unit position *arg* was detected.

Consequences

No operation will be possible until the fault is corrected. The system goes to System Failure state.

Probable causes

1) Too many drive unit that are equippted with rectifiers are connected.

2)

Recommended actions

1) Verify that the proper drive units types are connected to the drive unit communication link.

2) Disconnect unused drive unit(s).

34300, Unknown drive unit type

Description

In drive module *arg*, the drive unit at unit position *arg* has an unknown hardware identity *arg*.

Consequences

No operation will be possible until the fault is corrected. The system goes to System Failure state.

Probable causes

The drive unit is either unsupported or faulty.

Recommended actions

1) Verify that the drive unit is supported by the RobotWare version. Upgrade RobotWare if needed.

2) Replace drive unit.

34303, Motor current warning

Description

For joint *arg*, the current controller detected a too large torque current deviation for the motor. The joint is connected to drive module *arg* in the drive unit at unit position *arg* and node *arg*.

Consequences

Operation will be possible but system is close to a stopping error.

Probable causes

1) The motor data in the configuration files may be wrong.

2) The motor cables are not correctly connected or damaged.

3) Short circuit in motor cable between phase to phase or phase to ground.

4) The DC link voltage may be too low.

5) The incoming mains voltage is not within specification.

Recommended actions

1) Verify that the motor data in the configuration file is correct for this joint. How to check the configuration file is detailed in the Trouble Shooting Manual.

2) Verify that the motor cables are not damaged or badly connected.

3) Verify that the motor cables has no short circuits internally or to ground.

4) Verify that no DC link errors are present in the event log.

5) Verify that the incoming mains voltage is within the specification.

34304, Motor current warning

Description

For joint *arg*, the current controller detected a too large current deviation for the motor. The joint is connected to drive module *arg* in the drive unit at unit position *arg* and node *arg*.

Consequences

Operation will be possible but system is close to a stopping error.

Probable causes

1) The motor data in the configuration files may be wrong.

2) The motor cables are not correctly connected or damaged.

3) Short circuit in motor cable between phase to phase or phase to ground.

4) The DC link voltage may be too low.

5) The incoming mains voltage is not within specification.

Recommended actions

1) Verify that the motor data in the configuration file is correct for this joint. How to check the configuration file is detailed in the Trouble Shooting Manual.

2) Verify that the motor cables are not damaged or badly connected.

3) Verify that the motor cables has no short circuits internally or to ground.

4) Verify that no DC link errors are present in the event log.

5) Verify that the incoming mains voltage is within the specification.

34306, Drive unit temperature error

Description

The drive unit for joint *arg* has reached a too high temperature level. The joint is connected to drive module *arg* with the drive unit at unit position *arg* and node *arg*.

Consequences

No operation will be possible until the fault is corrected. The system goes to Motors Off state.

Probable causes

1) The cooling fans may be faulty or the air flow may be obstructed.

2) The cooling fins are covered by dust reducing the cooling effect.

3) The ambient temperature may be too high.

4) The joint may be running with a too high torque for extended periods of time.

Recommended actions

1) Verify that the fans are running and that the air flow is not obstructed.

2) Clean the cooling fins.

3) Verify that the ambient temperature does not exceed the cabinet's temperature rating.

4) If possible, rewrite the user program to reduce the amount of hard acceleration and hard deceleration.

5) Reduce the static torque due to gravity or external forces.

34307, Drive unit temperature warning

Description

The drive unit for joint *arg* is approaching a too high temperature level. The joint is connected to drive module *arg* with the drive unit at unit position *arg* and node *arg*.

Consequences

It is possible to continue but the margin to maximum allowed temperature is too low to sustain long term operation.

Probable causes

1) The cooling fans may be faulty or the air flow may be obstructed.

2) The cooling fins are covered by dust reducing the cooling effect.

3) The ambient temperature may be too high.

4) The joint may be running with a too high torque for extended periods of time.

Recommended actions

1) Verify that the fans are running and that the air flow is not obstructed.

2) Clean the cooling fins.

3) Verify that the ambient temperature does not exceed the cabinet's temperature rating.

4) If possible, rewrite the user program to reduce the amount of hard acceleration and hard deceleration.

5) Reduce the static torque due to gravity or external forces.

34308, Drive unit critical temperature error

Description

The drive unit for joint *arg* has reached a critical high temperature level. The joint is connected to drive module *arg* with the drive unit at unit position *arg* and node *arg*.

Consequences

No operation will be possible until the fault is corrected. The system goes to Motors Off state with zero torque.

Probable causes

1) The cooling fans may be faulty or the air flow may be obstructed.

2) The cooling fins are covered by dust reducing the cooling effect.

3) The ambient temperature may be too high.

4) The joint may be running with a too high torque for extended periods of time.

Recommended actions

1) Verify that the fans are running and that the air flow is not obstructed.

2) Clean the cooling fins.

3) Verify that the ambient temperature does not exceed the cabinet's temperature rating.

4) If possible, rewrite the user program to reduce the amount of hard acceleration and hard deceleration.

5) Reduce the static torque due to gravity or external forces.

34309, Drive transistor current too high

Description

The drive unit transistor current is too high for joint *arg*. The joint is connected to drive module *arg* with the drive unit at unit position *arg* and node *arg*.

Consequences

No operation will be possible until the fault is corrected. The system goes to Motors Off state.

Probable causes

1) The motor configuration is incorrect.

2) The axis load may be too high or the motor may have stalled (maybe due to a collision).

3) Short circuit between motor phases or ground.

Recommended actions

1) Check that the motor configuration is correct.

2) Check that the robot has not collided.

3) If possible, reduce the speed of the user program.

4) Check that the axis load is not too high for the drive unit.

5) Check the motor cable and motor by measuring their resistance respectively. Disconnect before measuring.

34311, Drive inverter saturated warning

Description

The drive unit for joint *arg* has reached maximum output voltage. The joint is connected to drive module *arg* with the drive unit at unit position *arg* and node *arg*.

Consequences

Operation will be possible but system is close to a stopping error.

Probable causes

1) The motor is not properly connected to the drive unit.

2) The motor data in the configuration is not correct.

3) The DC link voltage is too low.

4) Short circuit between motor phases or ground.

Recommended actions

1) Check motor cables and connectors.

2) Check configuration of motor parameters.

3) Check for other hardware eventlog messages.

4) Check incoming mains voltage to the rectifier unit.

5) Check the motor cable and motor by measuring their resistance respectively. Disconnect before measuring.

34312, Missing drive unit

Description

For joint *arg*, the system cannot find configured drive unit. The joint is configured for drive module *arg*, in the drive unit at unit position *arg*.

Consequences

The system goes to System Failure state.

Probable causes

A joint is configured but drive unit is not found.

Recommended actions

1) Verify that the drive module contains the drive unit for the configured joint.

2) Verify that the configuration for the drive unit position is correct.

3) Verify that the cables between drive units are correctly inserted in the correct connector position.

4) If the cable is correctly connected, then it may be damaged and should be replaced.

5) Check the event log for power supply unit error messages.

6) Check the cabling between the power supply unit and the drive unit.

7) Check the 24V output from the power supply unit.

34313, Wrong type of drive unit

Description

In drive module *arg*, the hardware identity for drive unit at unit position *arg* is different from the one specified in the configuration. Installed drive unit hardware identity is *arg*, and the configured identity is *arg*.

Consequences

No operation will be possible until the fault is corrected. The system goes to System Failure state.

Probable causes

The drive unit type does not match the one specified in the installation key.

Recommended actions

1) Verify that the drive unit positions are correct, i.e., the Ethernet cables are correctly connected.

2) Verify that the drive module key match the installed hardware.

3) Replace the drive unit with the one specified in the drive module key.

34314, Missing drive unit node

Description

For joint *arg*, the drive unit does not support the node number configured. The joint is configured for drive module *arg*, in the drive unit at unit position *arg* with node *arg*.

Consequences

The system goes to System Failure state.

Probable causes

The configured drive unit node is not supported for the configured type of drive unit.

Recommended actions

Check the drive unit node number in the configuration.

34316, Motor current error

Description

For joint *arg*, the current controller detected a too large torque current deviation for the motor. The joint is connected to drive module *arg* in the drive unit at unit position *arg* and node *arg*.

Consequences

The system goes to Motors Off state.

Probable causes

1) The motor data in the configuration files may be wrong.

2) The motor cables are not correctly connected or damaged.

3) Short circuit in motor cable between phase to phase or phase to ground.

4) The DC link voltage may be too low.

5) The incoming mains voltage is not within specification.

Recommended actions

1) Verify that the motor data in the configuration file is correct for this joint. How to check the configuration file is detailed in the Trouble Shooting Manual.

2) Verify that the motor cables are not damaged or badly connected.

3) Verify that the motor cables has no short circuits internally or to ground.

4) Verify that no DC link errors are present in the event log.

5) Verify that the incoming mains voltage is within the specification.

34317, Motor current error

Description

For joint *arg*, the current controller detected a too large current deviation for the motor. The joint is connected to drive module *arg* in the drive unit at unit position *arg* and node *arg*.

Consequences

The system goes to Motors Off state.

Probable causes

1) The motor data in the configuration files may be wrong.

2) The motor cables are not correctly connected or damaged.

3) Short circuit in motor cable between phase to phase or phase to ground.

4) The DC link voltage may be too low.

5) The incoming mains voltage is not within specification.

Recommended actions

1) Verify that the motor data in the configuration file is correct for this joint. How to check the configuration file is detailed in the Trouble Shooting Manual.

2) Verify that the motor cables are not damaged or badly connected.

3) Verify that the motor cables has no short circuits internally or to ground.

4) Verify that no DC link errors are present in the event log.

5) Verify that the incoming mains voltage is within the specification.

34318, Drive inverter saturated error

Description

The drive unit for joint *arg* has reached maximum output voltage. The joint is connected to drive module *arg* with the drive unit at unit position *arg* and node *arg*.

Consequences

The system goes to Motors Off state

Probable causes

1) The motor is not properly connected to the drive unit.

2) The motor data in the configuration is not correct.

3) The DC link voltage is too low.

4) Short circuit between motor phases or ground.

Recommended actions

1) Check motor cables and connectors.

2) Check configuration of motor parameters.

3) Check for other hardware eventlog messages.

4) Check incoming mains voltage to the rectifier unit.

5) Check the motor cable and motor by measuring their resistance respectively. Disconnect before measuring.

34319, Drive unit critical error

Description

The drive unit for joint *arg* gives an unspecified error, but is likely due to over temperature or short circuit. The joint is connected to drive module *arg* with the drive unit at unit position *arg* and node *arg*.

Consequences

No operation will be possible until the fault is corrected. The system goes to Motors Off state with zero torque.

Probable causes

1) The cooling fans may be faulty or the air flow may be obstructed.

2) The cooling fins are covered by dust reducing the cooling effect.

3) The ambient temperature may be too high.

4) The joint may be running with a too high torque for extended periods of time.

5) Short circuit in cables or connectors between the phases or to ground.

6) Short circuit in motor between the phases or to ground.

Recommended actions

　　1) Verify that the fans are running and that the air flow is not obstructed.

2) Clean the cooling fins.

3) Verify that the ambient temperature does not exceed the cabinet's temperature rating.

4) If possible, rewrite the user program to reduce the amount of hard acceleration and hard deceleration.

5) Reduce the static torque due to gravity or external forces.

6) Check/replace cables and connectors.

7) Check/replace motor.

34320, Too many drive nodes connected

Description

In drive module *arg* the system has detected more drive nodes than the system can handle. The limit was reached when drive unit at unit position *arg* was detected.

Consequences

No operation will be possible until the fault is corrected. The system goes to System Failure state.

Probable causes

1) Too many drive units is connected to the drive unit communication link.

2) Too many drive unit that are equippted with many drive nodes are connected.

Recommended actions

1) Verify that the proper drive units types are connected to the drive unit communication link.

2) Disconnect unused drive unit(s).

34400, DC link voltage too high

Description

　　In drive module *arg*, the drive unit at unit position *arg* has a DC link voltage that is too high.

Consequences

No operation will be possible until the fault is corrected. The system goes to Motors Off state.

WARNING HIGH VOLTAGE: THE DC LINK MAY BE DISCHARGED VERY SLOWLY (APPROXIMATELY 1 HOUR) WHEN THE SYSTEM IS POWERED OFF.

Probable causes

1) The bleeder resistor is not connected or faulty.

2) The user program may contain too much deceleration of the manipulator's axes. This fault is more likely if the system contains additional axes.

Recommended actions

　　WARNING HIGH VOLTAGE CAN BE PRESENT.

1) Make sure the bleeder resistor cable is properly connected to the rectifier unit.

2) Disconnect the bleeder and check the cable and measure the bleeder resistance. The expected resistance should be approximately *arg* ohms.

3) Rewrite the user program to reduce the amount of hard decelerations.

34401, DC link voltage too low warning

Description

In drive module *arg*, the drive unit at unit position *arg* has a DC link voltage that is close to minimum limit.

Consequences

Operation will be possible but the system is close to a stopping error.

Probable causes

The incoming mains voltage to the rectifier unit is out of specification.

Recommended actions

1) Check for other hardware eventlog messages regarding mains voltage problem.

2) Check incoming mains voltage.

3) Check that the correct voltage is selected with jumpers on the transformer (optional).

4) Check all internal 3-phase components (main switch, mains filter, fuse, contactors) and cabling in the drive module.

34402, DC link voltage too low

Description

　　In drive module *arg*, the DC link voltage is too low for the drive unit at unit position *arg*.

Consequences

No operation will be possible until the fault is corrected. The system goes to Motors Off state.

Probable causes

The incoming mains voltage to the rectifier unit is out of specification.

Recommended actions

　　1) Check for other hardware eventlog messages regarding mains voltage problem.

2) Check incoming mains voltage.

3) Check that the correct voltage is selected with jumpers on the transformer (optional).

4) Check all internal 3-phase components (main switch, mains filter, fuse, contactors) and cabling in the drive module.

34404, DC link voltage is critically high

Description

　　In drive module *arg*, the drive unit at unit position *arg* has a DC link voltage that is critically high.

Consequences

No operation will be possible until the fault is corrected. The system goes to Motors Off state with zero torque.

WARNING HIGH VOLTAGE: THE DC LINK MAY BE DISCHARGED VERY SLOWLY (APPROXIMATELY 1 HOUR) WHEN THE SYSTEM IS POWERED OFF.

Probable causes

1) The bleeder resistor is not connected or faulty.

2) The user program may contain too much deceleration of the manipulator's axes. This fault is more likely if the system contains additional axes.

Recommended actions

WARNING HIGH VOLTAGE CAN BE PRESENT.

1) Make sure the bleeder resistor cable is properly connected to the rectifier unit.

2) Disconnect the bleeder and check the cable and measure the bleeder resistance. The expected resistance should be approximately *arg* ohms.

3) Rewrite the user program to reduce the amount of hard decelerations.

34405, DC link voltage too high warning

Description

In drive module *arg*, the drive unit at unit position *arg* has a DC link voltage that is close to maximum limit.

Consequences

Operation will be possible but the system is close to a stopping error.

WARNING HIGH VOLTAGE: THE DC LINK MAY BE DISCHARGED VERY SLOWLY (APPROXIMATELY 1 HOUR) WHEN THE SYSTEM IS POWERED OFF.

Probable causes

1) The bleeder resistor is not connected or faulty.

2) The user program may contain too much deceleration of the manipulator's axes. This fault is more likely if the system contains additional axes.

Recommended actions

WARNING HIGH VOLTAGE CAN BE PRESENT.

1) Make sure the bleeder resistor cable is properly connected to the rectifier unit.

2) Disconnect the bleeder and check the cable and measure the bleeder resistance. The expected resistance should be approximately *arg* ohms.

3) Rewrite the user program to reduce the amount of hard decelerations.

34406, Drive unit power supply error

Description

In drive module *arg*, the drive unit with unit position *arg* has detected problem with the logic power.

Consequences

No operation will be possible until the fault is corrected. The system goes to Motors Off state with zero torque.

Probable causes

The 24V logic supply to the drive is temporary or constantly lost.

Recommended actions

1) Check the event log for power supply unit error messages.

2) Check the cabling between the power supply unit and the drive unit.

3) Check the 24V output from the power supply unit.

34407, Drive unit internal error

Description

In drive module *arg*, the drive unit at unit position *arg* has indicated an internal error.

Consequences

The system goes to System Failure state with zero torque.

Probable causes

An internal error has occurred in the drive unit firmware.

Recommended actions

Restart the system by using the main power switch.

34408, Drive unit hardware data error

Description

In drive module *arg*, the drive unit at unit position *arg* has corrupt information stored on the unit.

Consequences

The system goes to System Failure state.

Probable causes

The integrity check of the drive unit information stored on the drive unit has failed.

Recommended actions

1) Retry again by restarting the system using the main power switch.

2) Replace the faulty drive unit.

34409, Drive unit startup error

Description

The system has failed to complete the initialization phase of a drive unit. The drive unit is located in drive module *arg* at unit position *arg*.

Consequences

The system goes to System Failure state.

Probable causes

The system has failed to complete the initialization phase of the drive unit.

Recommended actions

1) Retry by restarting the system using the main power switch.

2) Check for other hardware eventlog messages.

34410, Too many drive units connected

Description

In drive module *arg* the system has detected more drive units than the system can handle. The maximum number of drive units supported is *arg*, but *arg* was detected.

Consequences

No operation will be possible until the fault is corrected. The system goes to System Failure state.

Probable causes

1) Too many drive unit that are connected.

Recommended actions

1) Disconnect unused drive unit(s).

37001, Motors ON contactor activation error

Description

Motors ON contactor *arg* in drive module *arg* failed to close when ordered.

Consequences

The mechanical unit can not be run manually or automatically.

Probable causes

1) The runchain for the contactor is open.

2) There are problems in the contactor itself, either mechanical or electrical.

3) The teach pendant enabling device may have been toggled too quickly, or the system may not be configured correctly. On rare occasions, this fault may occur in combination with other faults, in which case this may be found in the error log.

Recommended actions

1) To resume normal operation, first acknowledge the error, then release the enabling device and press it again after approx. one second.

2) Check cables and connections on the Safety System.

3) Check any other error log messages coinciding in time with this one for clues.

4) Check the system motion configuration regarding Motors ON relay. How to check the configuration file is detailed in the Trouble Shooting Manual.

37043, Safety signals overloaded

Description

The AC_ON or SPEED signals draw too much current.

Consequences

The Safety System shuts down the signals, causing the system to go to either status SYS FAIL (for AC_ON) or status SYS HALT (for SPEED).

Probable causes

A load connected to the circuit may be too high, or the Safety System may be malfunctioning. See the Circuit Diagram!

Recommended actions

1) Check all loads connected to the AC_ON and SPEED circuits

2) Check the Safety System cabling and connectors, and replace any faulty unit if required.

37044, Overload on Panel Board digital output signals

Description

The Panel Board User Digital outputs draw too much current.

Consequences

The Panel Board shuts down the signals, causing the system to go to status SYS HALT.

Probable causes

A load connected to the circuit may be too high, or the Panel Board may be malfunctioning. See the Circuit Diagram!

Recommended actions

1) Check all loads connected to the User Digital outputs

2) Check the Panel Board cabling and connectors, and replace any faulty unit if required.

37045, Faulty External Computer fan

Description

The External Computer fan in the Control Module spins too slowly.

Consequences

No system consequence. The Control Module temperature will rise.

Probable causes

Faulty fan, cabling or power supply. See the Circuit Diagram!

Recommended actions

1) Check the cabling to the External Computer fan.

2) Check the fan, and replace any faulty unit if required.

37046, Safety signals overloaded

Description

The 24 V PANEL supply draws too much current.

Consequences

The Safety System shuts down the signal, causing the system to go to status SYS HALT.

Probable causes

A load connected to the circuit may be too high, or the Safety System unit may be malfunctioning. See the Circuit Diagram!

Recommended actions

1) Check all loads connected to the 24V PANEL circuit.

2) Check cabling on the Safety System.

37049, Activation contactor activation error

Description

The activation relay for mechanical unit *arg* failed to close.

Consequences

The mechanical unit can not be run manually or automatically.

Probable causes

The activation relay configured within the system may be faulty, or the system may not be configured correctly.

Recommended actions

1) Check the contactor and make sure its connections are connected correctly.

2) Check the system motion configuration regarding the activation relay. How to check the configuration file is detailed in the Trouble Shooting Manual.

37050, Overtemperature in main computer

Description

The temperature in the main computer unit or the main computer processor is too high.

Consequences

The system might get damaged.

Probable causes

The unit may be overloaded, its fans may be malfunctioning or the air flow may be restricted.

Recommended actions

1) Make sure the fans are operating.

2) Check that air flow to the unit fans is not restricted.

37053, Low CMOS battery voltage level

Description

The CMOS battery on the computer board is empty.

Consequences

On restart, the system will use an erroneous setup or no restart will be possible.

Probable causes

Faulty battery.

Recommended actions

1. Replace the CMOS battery

37054, Faulty Computer Unit fan

Description

The fans in the Computer Unit spin too slowly.

Consequences

No system consequence. The Computer Unit temperature will rise.

Probable causes

Faulty fan, cabling or power supply. See the Circuit Diagram!

Recommended actions

1) Check the cabling to the Computer Unit fan.

2) Check the fan.

3) Check the fan power supply.

4) Replace the faulty component if required.

37056, Cooling fan error

Description

Cooling unit fan has stopped or is rotating very slowly (Less than *arg* rpm).

Recommended actions

1. Check the fan cables.

2. Replace the fan.

37062, Computer Module power supply warning

Description

The *arg* V voltage of the Computer Module power supply is *arg* V, which is out of the allowed range.

Consequences

-

Probable causes

The power supply unit, cabling, input voltage to the power supply or the output load may cause the faulty voltage level. See the Trouble Shooting Manual and Circuit Diagram!

Recommended actions

1) Check all cabling to the power supply unit.

2) Measure the output and input voltage levels.

3) Replace the faulty unit if required.

37069, Faulty backup Power Supply

Description

The backup energy bank in the Control Module supplying the backup voltage is faulty.

Consequences

After switching the power off, a B type restart must be performed. No system data changes will be saved at power off.

Probable causes

This may be caused by a faulty backup energy bank, cabling or charger.

Recommended actions

Do not turn the main power off until battery has been charged, or the system may perform a cold start!

1) Check the backup energy bank cabling and connectors.

2) Check the backup energy bank.

3) Check the power supply.

4) Replace the faulty unit if required.

37070, Overtemp in Control Module Power Supply

Description

The temperature in the control module power supply is too high.

Consequences

The system is shut down immediately.

Probable causes

This may be caused by poor cooling, too high a load on the power supply or by a faulty power supply.

Recommended actions

1) Check the cooling fan.

2) Check the output power.

3) Replace any faulty unit if required.

37074, Purge pressure too low

Description

Purge system number *arg* assosiated with Manipulator Interface Board (MIB) *arg*.

Recommended actions

Check the purge air supply and search for leaks in:

1. The purge unit.

2. The flexible hose conduit.

3. The manipulator itself.

37075, Purge pressure too high

Description

Purge system number *arg* assosiated with Manipulator Interface Board (MIB) *arg*.

Recommended actions

Check the purge unit and the air supply.

37076, Unexpected low purge flow

Description

Purge system number *arg* assosiated with Manipulator Interface Board (MIB) *arg*.

Recommended actions

Check the purge unit and the air supply. Search for leaks in the purge system.

37077, Unexpected high purge flow

Description

Purge system number *arg* assosiated with Manipulator Interface Board (MIB) *arg*.

Recommended actions

Check the purge unit and the air supply.

37078, Purge timers differ

Description

Unacceptable divergence between Process Interface Board (PIB) and Manipulator Interface Board (MIB) *arg* purge timers.

Consequences

The purge timer will be restarted.

Recommended actions

1. Check Serial Peripheral Interface (SPI) cables.

2. Replace MIB if faulty.

3. Replace PIB if faulty.

37080, Purge configuration not valid.

Description

The Purge Time Key on Manipulator Interface Board (MIB) *arg* X19 is not valid.

Consequences

Default time (300s) is used.

Probable causes

Faulty or missing Purge Time Key.

Recommended actions

1. Check that the Purge Time Key is correctly mounted.

2. Replace Purge Time Key.

37081, Purge timers differ

Description

Unacceptable divergence between CPLD and FPGA firmware on Manipulator Interface Board (MIB) *arg* purge timers.

Consequences

The purge timer will be restarted.

Recommended actions

Replace MIB if faulty.

37082, Divergence between PIB and MIB outputs

Description

Process Interface Board (PIB) and Manipulator Interface Board (MIB) *arg* are not agreed concerned to output status for purge relay and power relay.

Consequences

Purge sequence is restarted.

37090, Temp. too high, sensor *arg*

Description

System overheat detected. Sensors 1-7: motor 1-7, sensor 8: Serial measurement board. Run chain has been opened.

Recommended actions

37094, Activate connection error

Description

Could not activate *arg*. Connection relay input *arg* indicates no connection.

Recommended actions

1. Check that if mechanical unit is connected.

2. Check the connection relay input signal setup.

37095, Brake power fault

Description

The supervision of brake power on Manipulator Controller Board (MCOB) has detected fault on the power signal and turned ON all brakes.

Recommended actions

1. Check brake power on MCOB.

2. Check brake power relay in cabinet.

3. Check for disturbances on the brake power signal on MCOB/MCB.

4. Check for short circuit on brakes.

37096, Brake power fault

Description

The supervision of brake power on Manipulator Controller Board (MCOB/MCB) has detected fault on the power signal and turned ON all brakes.

Recommended actions

1. Check brake power on MCOB/MCB.

2. Check brake power relay in cabinet.

3. Check for disturbances on the brake power signal on MCOB/MCB.

37097, Brake short circuit fault

Description

The supervision of brakes on Manipulator Controller Board (MCOB/MCB) has detected a short circuit on axis *arg* and turned ON all brakes.

Recommended actions

1. Check for short circuit on brakes.

37098, Brake open circuit fault

Description

The supervision of brakes on Manipulator Controller Board (MCOB/MCB) has detected an open circuit on axis *arg* and turned ON all brakes.

Recommended actions

1. Check for open circuit on brakes.

37099, Temp. too high, sensor *arg*

Description

System overheat detected on motors, Serial measurement unit (SMU) or process equipment. Run chain has been opened.

Recommended actions

Sensors 1-8: Robot motors 1-8

Sensor 9: SMU

Sensors 10-14: Process 1-5

Please refer to current robot config. for more details.

37100, I/O node flash disk error

Description

Flash name: *arg*

Flash disk function: *arg*

Error description: *arg*

Recommended actions

Report error.

37101, Brake Failure

Description

The brakes for mechanical unit *arg* fail to engage.

Consequences

The mechanical unit may collapse when the motors are turned off.

Probable causes

The configuration of brake relay may be incorrect, or the brake relay may be faulty If an external brake relay is being used, the relay must be correctly defined in the motion configuration file.

Recommended actions

1) Check that the external brake relay (if used) is correctly defined in the configuration file.

2) Check that the corresponding I/O signal is correctly defined in the I/O configuration file. How to check the configuration files is detailed in the Trouble Shooting Manual.

37102, Power supply warning, faulty 24V COOL level

Description

The 24V COOL output of the Control Module Power Supply is out of range.

Consequences

No system consequence.

Probable causes

The Control Module Power Supply unit cabling or the output load may cause the faulty voltage level. The power supplies are shown in the Trouble Shooting Manual and the Circuit Diagram!

Recommended actions

1) Check all cabling to the Control Module Power Supply unit.

2) Check the output voltage level, and replace any faulty unit if required.

37103, Power supply warning, faulty 24V SYS level

Description

The 24V SYS output of the Control Module Power Supply is out of range.

Consequences

No system consequence.

Probable causes

The Control Module Power Supply unit, cabling or the output load may cause the faulty voltage level. The power supplies are shown in the Trouble Shooting Manual and the Circuit Diagram!

Recommended actions

1) Check all cabling to the Control Module Power Supply unit.

2) Check the output voltage level, and replace any faulty unit if required.

37104, There is no backup voltage available!

Description

The backup energy bank maintaining the backup voltage is not functional.

Consequences

After switching the power off, a B type restart must be performed. No system data changes will be saved at power off.

Probable causes

This may be caused by a faulty backup energy bank, cabling or charger.

Recommended actions

Before working on the system, perform a controlled shutdown to ensure all system data is correctly saved.

1) Check the cables and connectors of the backup energy bank.

2) Check the backup energy bank.

3) Check the power supply.

4) Replace the faulty unit if required.

37105, Regained communication with Power Supply

Description

The main computer has regained communication with the Control Module Power Supply.

37106, Low backup energy bank voltage level

Description

The voltage in the computer unit backup energy bank is too low to be functional.

Consequences

No system consequence. No system data changes will be saved at power off.

Probable causes

This may be caused by a faulty backup energy bank, cabling or charger.

Recommended actions

Before working on the system, perform a controlled shutdown to ensure all system data is correctly saved.

1) Check the cables and connectors of the backup energy bank.

2) Check the backup energy bank.

3) Check the power supply.

4) Replace the faulty unit if required.

37107, Faulty backup energy bank

Description

The backup energy bank in the Control Module maintaining the backup voltage is not functional.

Consequences

If switching the power off, a B type restart must be performed. No backup will be made at power off.

Probable causes

This may be caused by a faulty backup energy bank, cabling or charger.

Recommended actions

Before working on the system, perform a controlled shutdown to ensure all system data is correctly saved.

1) Check the backup energy bank cable and connector.

2) Check the backup energy bank.

3) Replace the faulty unit if required.

37108, Lost communication: Power Supply and Computer

Description

The main computer has lost communication with the Control Module Power Supply.

Consequences

The main computer cannot retrieve status info or switch the power supply off. No system data changes will be saved at power off.

Probable causes

The USB cable from the main computer to the Control Module Power Supply may be faulty or disconnected, or the power supply may be faulty.

Recommended actions

Before working on the system, perform a controlled shutdown to ensure all system data is correctly saved.

1) Check the cabling and connectors to the Control Module Power Supply.

2) Check the power supply unit, and replace any faulty unit if required.

37200, Power fault: Emergency Stop supply

Description

Power fault on 24V Emergency Stop supply. Feedback from Safety Interface Board (SIB).

Consequences

The system goes to status SYS HALT.

Recommended actions

1. Check cables and connections.

2. Check power supply.

37201, Power fault: 24V Failsafe supply

Description

Power fault on 24V Failsafe supply. Feedback from Safety Interface Board (SIB).

Consequences

The system goes to status SYS HALT.

Recommended actions

1. Check cables and connections.

2. Check power supply.

37202, Power fault: 24V I/O supply

Description

Power fault on 24V I/O supply. Feedback from Safety Interface Board (SIB).

Consequences

The system goes to status SYS HALT.

Recommended actions

1. Check cables and connections.

2. Check power supply.

37203, Power fault: 24V SYS supply

Description

Power fault reported when 24V SYS < 18V. Feedback from Manipulator Interface Board (MIB) *arg*.

Consequences

The system goes to status SYS HALT.

Recommended actions

1. Check cables and connections.

2. Check power supply.

37204, Power fault: 24V I/O supply

Description

Power fault reported when 24V I/O < 18V. Feedback from Manipulator Interface Board (MIB) *arg*.

Consequences

The system goes to status SYS HALT.

Recommended actions

1. Check cables and connections.

2. Check power supply.

37205, Power fault: 12V Purge supply

Description

Power fault reported when 12V Purge < 10.8V. Feedback from Manipulator Interface Board (MIB) *arg*.

Consequences

The system goes to status SYS HALT.

Recommended actions

1. Check cables and connections.

2. Check power supply.

37206, Power fault: 12V TPU supply

Description

Power fault on 12V Teach Pendant Unit (TPU) supply. Feedback from Pendant Interface Board (TIB).

Consequences

The system goes to status SYS HALT.

Recommended actions

1. Check cables and connections.

2. Check power supply.

37207, Battery charge low.

Description

Less than 2 months until the battery backup to Serial Measurement Board (SMB) is discharged. Counting from first time this message was displayed. The battery is mounted on Manipulator Interface Board (MIB).

Recommended actions

Replace battery mounted on MIB.

37208, Overtemperature in transformer

Description

The temperature in the transformer is too high.

Consequences

The system goes to status SYS HALT.

Probable causes

The unit may be overloaded, its fans may be malfunctioning or the air flow may be restricted.

Recommended actions

1) Make sure the fans are operating.

2) Check that air flow to the unit fans is not restricted.

37209, Overtemperature in cabinet

Description

The temperature in the cabinet is too high.

Consequences

The system goes to status SYS HALT.

Probable causes

The unit may be overloaded, its fans may be malfunctioning or the air flow may be restricted.

Recommended actions

1) Make sure the fans are operating.

2) Check that air flow to the unit fans is not restricted.

37210, Fault on contactor KM1

Description

A fault is observed on motor contactor KM1.

Consequences

The system goes to status SYS HALT.

Recommended actions

1. Check cables and connections.

2. Check contactor.

37211, Fault on contactor KM2

Description

A fault is observed on motor contactor KM2.

Consequences

The system goes to status SYS HALT.

Recommended actions

1. Check cables and connections.

2. Check contactor.

37212, Fault on contactor KM101

Description

A fault is observed on motor contactor KM101.

Consequences

The system goes to status SYS HALT.

Recommended actions

1. Check cables and connections.

2. Check contactor.

37213, Fault on contactor KM102

Description

A fault is observed on motor contactor KM102.

Consequences

The system goes to status SYS HALT.

Recommended actions

1. Check cables and connections.

2. Check contactor.

37214, Run chain 1 feedback conflict

Description

Safety Interface Board (SIB) and Manipulator Interface Board (MIB) *arg* reports divergence on Run chain 1 feedback signals.

Consequences

The system goes to status SYS HALT.

Recommended actions

1. Check cables and connections.

2. Replace SIB if faulty.

3. Replace MIB if faulty.

37215, Run chain 2 feedback conflict

Description

Safety Interface Board (SIB) and Manipulator Interface Board (MIB) *arg* reports divergence on Run chain 2 feedback signals.

Consequences

The system goes to status SYS HALT.

Recommended actions

1. Check cables and connections.

2. Replace SIB if faulty.

3. Replace MIB if faulty.

37216, Brake chain 1 feedback conflict

Description

Safety Interface Board (SIB) and Manipulator Interface Board (MIB) *arg* reports divergence on Brake chain 1 feedback signals.

Consequences

The system goes to status SYS HALT.

Recommended actions

1. Check cables and connections.

2. Replace SIB if faulty.

3. Replace MIB if faulty.

37217, Brake chain 2 feedback conflict

Description

Safety Interface Board (SIB) and Manipulator Interface Board (MIB) *arg* reports divergence on Brake chain 2 feedback signals.

Consequences

The system goes to status SYS HALT.

Recommended actions

1. Check cables and connections.

2. Replace SIB if faulty.

3. Replace MIB if faulty.

37218, Cabin Interlock chain 1 feedback conflict

Description

Safety Interface Board (SIB) and Manipulator Interface Board (MIB) *arg* reports divergence on Cabin Interlock chain 1 feedback signals.

Consequences

The system goes to status SYS HALT.

Recommended actions

1. Check cables and connections.

2. Replace SIB if faulty.

3. Replace MIB if faulty.

37219, Cabin Interlock chain 2 feedback conflict

Description

Safety Interface Board (SIB) and Manipulator Interface Board (MIB) *arg* reports divergence on Cabin Interlock chain 2 feedback signals.

Consequences

The system goes to status SYS HALT.

Recommended actions

1. Check cables and connections.

2. Replace SIB if faulty.

3. Replace MIB if faulty.

37220, HV Interlock chain 1 feedback conflict

Description

Safety Interface Board (SIB) and Manipulator Interface Board (MIB) *arg* reports divergence on High Voltage (HV) Interlock chain 1 feedback signals.

Consequences

The system goes to status SYS HALT.

Recommended actions

1. Check cables and connections.

2. Replace SIB if faulty.

3. Replace MIB if faulty.

37221, HV Interlock chain 2 feedback conflict

Description

Safety Interface Board (SIB) and Manipulator Interface Board (MIB) *arg* reports divergence on High Voltage (HV) Interlock chain 2 feedback signals.

Consequences

The system goes to status SYS HALT.

Recommended actions

1. Check cables and connections.

2. Replace SIB if faulty.

3. Replace MIB if faulty.

37222, System 2 Interlock chain feedback conflict

Description

Safety Interface Board (SIB) and Manipulator Interface Board (MIB) *arg* reports divergence on System 2 Interlock chain feedback signals.

Consequences

The system goes to status SYS HALT.

Recommended actions

1. Check cables and connections.

2. Replace SIB if faulty.

3. Replace MIB if faulty.

37223, Main relay chain feedback conflict

Description

Safety Interface Board (SIB) and Manipulator Interface Board (MIB) *arg* reports divergence on Main relay chain feedback signals.

Consequences

The system goes to status SYS HALT.

Recommended actions

1. Check cables and connections.

2. Replace SIB if faulty.

3. Replace MIB if faulty.

37224, Cabin Interlock chain 1 conflict

Description

Divergence on Cabin Interlock chain 1 between input and output signals on Safety Interface Board (SIB).

Consequences

Paint enable chain opens.

Recommended actions

1. Check cables and connections.

2. Replace SIB if faulty.

37225, Cabin Interlock chain 2 conflict

Description

Divergence on Cabin Interlock chain 2 between input and output signals on Safety Interface Board (SIB).

Consequences

Paint enable chain opens.

Recommended actions

1. Check cables and connections.

2. Replace SIB if faulty.

37226, HV Interlock chain 1 conflict

Description

Divergence on High Voltage (HV) Interlock chain 1 between input and output signals on Safety Interface Board (SIB).

Consequences

Paint enable chain opens.

Recommended actions

1. Check cables and connections.

2. Replace SIB if faulty.

37227, HV Interlock chain 2 conflict

Description

Divergence on High Voltage (HV) Interlock chain 2 between input and output signals on Safety Interface Board (SIB).

Consequences

Paint enable chain opens.

Recommended actions

1. Check cables and connections.

2. Replace SIB if faulty.

37228, Cabin Interlock chain conflict from SIB

Description

Only one of the two Cabin Interlock chains is opened. Reported from Safety Interface Board (SIB).

Consequences

Paint enable chain opens.

Recommended actions

Replace SIB if faulty.

37229, HV Interlock chain conflict from SIB

Description

Only one of the two High Voltage (HV) Interlock chains is opened. Reported from Safety Interface Board (SIB).

Consequences

Paint enable chain opens.

Recommended actions

Replace SIB if faulty.

37230, Brake Performance Warning

Description

The Cyclic Brake Check indicates that the brake for the mechanical unit *arg* axis no *arg* has not full braking torque.

Consequences

This is only a warning and no immediate action need to be taken.

37231, Brake Performance Error

Description

The Cyclic Brake Check has found that the brake for the mechanical unit *arg* axis no *arg* has too low braking torque.

This brake will not be approved by the Safety Controller for Drive Module no *arg*.

Consequences

WARNING: The brake performance is too low for this axis.

Until the brake has approved braking torque, it is only possible to move the robot with the specified "Reduced max speed (mm/s)" according to the setup in the Configurator for Cylic Brake Check.

Recommended actions

  1) Run the Cycle Brake Check once more.

2) Exchange the motor with its brake.

37232, Cyclic Brake Check Configuration Error

Description

  The Cyclic Brake Check has found that the brake for the mechanical unit *arg* axis no *arg* has no defined brake torque requirement level.

Consequences

The Cyclic Brake Check will continue but no valid brake check will be done for this axis.

Probable causes

The motion configuration data are not correct specified for this axis.

Recommended actions

  The motion configuration data are not correct specified for this axis:

1) Specify a value for parameter max_static_arm_torque if axis shell be tested.

2) Deactivate Cyclic Brake Check in motion configuration if axis not to be tested.

37233, Cyclic Brake Check Configuration Error

Description

  The Cyclic Brake Check has found that the brake for the mechanical unit *arg* axis no *arg* should be tested according to the configuration. But the actual mechanical unit can not be included in the Safety Controller, because activation/deactivation at runtime is allowed.

Consequences

The Cyclic Brake Check will continue with other mechanical units.

Probable causes

The motion configuration data are not correct specified for this axis.

Recommended actions

  The motion configuration data are not correct specified for this axis:

1) Cyclic Brake Check has been specified but should not be done for this axis

2) The mechanical unit must be active at startup and deactivation must not be allowed

37240, Cabin Interlock chain conflict from MIB

Description

Only one of the two cabin interlock chains is opened. Reported from Manipulator Interface Board (MIB) *arg*.

Consequences

Paint enable chain opens.

Recommended actions

Replace MIB if faulty.

37241, HV Interlock chain conflict from MIB

Description

Only one of the two High Voltage (HV) chains is opened. Reported from Manipulator Interface Board (MIB) *arg*.

Consequences

Paint enable chain opens.

Recommended actions

Replace MIB if faulty.

37242, Run chain conflict from SIB

Description

Only one of the two run chain feedback signals from Safety Interface Board (SIB) was opened.

Consequences

The system goes to status SYS HALT.

Recommended actions

Replace SIB if faulty.

37243, Brake chain conflict from SIB

Description

Only one of the two brake chain signals from Safety Interface Board (SIB) was opened.

Consequences

The system goes to status SYS HALT.

Recommended actions

Replace SIB if faulty.

37244, Run chain conflict from MIB *arg*

Description

Only one of the two run chain feedback signals from Manipulator Interface Board (MIB) was opened.

Consequences

The system goes to status SYS HALT.

Recommended actions

Replace MIB if faulty.

37245, Brake chain conflict from MIB *arg*

Description

Only one of the two brake chain feedback signals from Manipulator Interface Board (MIB) was opened.

Consequences

The system goes to status SYS HALT.

Recommended actions

Replace MIB if faulty.

37246, Emergency Stop relay conflict

Description

Only one of the two Emergency Stop chains was opened internal on Safety Interface Board (SIB).

Consequences

The system remains in the Emergency Stop status.

Recommended actions

1. Press emergency stop and reset emergency stop once again.
2. Replace SIB if faulty.

37247, Circulation Fan *arg* malfunction

Description

Circulation fan for the drive systems at the cabinet rear side has stopped or is rotating very slowly.

Consequences

The drive systems temperature will rise.

Probable causes

Faulty fan, cabling or power supply. See the Circuit Diagram!

Recommended actions

1. Check the fan cables.
2. Check the power supply.
3. Check the fan.

37248, Circulation Fan *arg* malfunction

Description

Circulation fan in the cabinet front door has stopped or is rotating very slowly.

Consequences

The temperature in the cabinet will rise.

Probable causes

Faulty fan, cabling or power supply. See the Circuit Diagram!

Recommended actions

1. Check the fan cables.
2. Check the power supply.
3. Check the fan.

37501, Filesystem unknown: USB Device

Description

The filesystem type on the USB device with logical unit *arg* is not supported.

Consequences

The USB device with the logical unit *arg* cannot be accessed. The filesystem is of type *arg*. The file(s) on the USB device with logical number *arg* will not be accessible.

Probable causes

The filesystem is formatted with an unsupported file system type.

Recommended actions

Format the USB device with the FAT32 filesystem.

37502, Mass storage device removed

Description

The mass storage device was removed.

Consequences

The system goes to sys fail. The filesystem on the mass storage device could be corrupt. The file(s) on the mass storage device could be corrupt. The file(s) on the mass storage device will not be accessible.

Probable causes

The mass storage device was removed or there was a malfunction of the mass storage device.

Recommended actions

Check that the mass storage device firmly is in place. If the problem persists, try with another device.

38100, Configuration failure

Description

Drive Module has detected configuration failure at measurement link.

Drive module: *arg*

Measurement link: *arg*

Board node: *arg*

Recommended actions

- Check configuration for measurement link.
- Check configuration for measurement board.
- Check configuration for measurement nodes.

38101, SMB Communication Failure

Description

A transmission failure has been detected between the axis computer and the serial measurement board on measurement link *arg* in Drive Module *arg*.

Consequences

The system goes to status SYS FAIL and loses its calibration information.

Probable causes

This may be caused by bad connections or cables (screening), especially if non-ABB cables are used for additional axes. Possible causes are also faulty serial measurement board or axis computer.

Recommended actions

1) Reset the robot's revolution counters as detailed in the robot Product Manual.

2) Make sure the cable between serial measurement board and axis computer is connected correctly, and that it meets the specification set by ABB.

3) Make sure the cable screen is correctly connected at both ends.

4) Make sure no extreme levels of electromagnetic interference are emitted close to the robot cabling.

5) Make sure the serial measurement board and axis computer are fully functional. Replace any faulty unit.

38102, Internal failure

Description

The measurement system has detected a hardware or software fault on measurement link *arg* in Drive Module *arg*.

Consequences

The system goes to status SYS HALT and loses its calibration information.

Probable causes

This may be caused by some temporary disturbance in the robot cell or by a faulty axis computer.

Recommended actions

1) Restart the system.

2) Reset the robot's revolution counters as detailed in the robot Product Manual.

3) Make sure no extreme levels of electromagnetic interference are emitted close to the robot cabling.

4) Make sure the axis computer is fully functional. Replace any faulty unit.

38103, Lost communication with the SMB

Description

The communication has been lost between the axis computer and the serial measurement board on measurement link *arg* in Drive Module *arg*.

Consequences

The system goes to status SYS HALT and loses its calibration information.

Probable causes

This may be caused by bad connections or cables (screening), especially if non-ABB cables are used for additional axes. Possible causes are also faulty serial measurement board or axis computer.

Recommended actions

1) Reset the robot's revolution counters as detailed in the robot Product Manual.

2) Make sure the cable between serial measurement board and axis computer is connected correctly, and that it meets the specification set by ABB.

3) Make sure the cable screen is correctly connected at both ends.

4) Make sure no extreme levels of electromagnetic interference are emitted close to the robot cabling.

5) Make sure the serial measurement board and axis computer are fully functional. Replace any faulty unit.

38104, Overspeed During Teach Mode

Description

One or more axes of the robot connected to drive module *arg* has exceeded the maximum speed for teach mode operation.

Consequences

The system goes to status SYS HALT.

Probable causes

The robot may have been moved manually while in state Motors OFF. The error may also be caused by a misadjustment in the relation, commutation, between motor shaft and resolver on an additional axis, primarily during installation.

Recommended actions

1) Press the Enabling Device to attempt resuming operation.

2) Check other event log messages occuring at the same time to determine the actual cause.

3) Perform a re-commutation of the motor at hand. How to do this is specified in the Additional Axes Manual.

38105, Data not found.

Description

Configuration data for measurement board not found.

System will use default data.

Drive module: *arg*

Measurement link: *arg*

Board node: *arg*

Recommended actions

Check configuration.

38200, Battery backup lost

Description

The battery backup to serial measurement board (SMB) *arg* in the robot connected to drive module *arg* on measurement link *arg* has been lost.

Consequences

When the SMB battery power supply is interrupted, the robot will lose the revolution counter data. This warning will also repeatedly be logged.

Probable causes

This may be due to an SMB battery that is discharged or not connected. For some robot models, the SMB battery power is supplied through a jumper in the robot signal cable (refer to the IRC5 Circuit Diagram), and disconnecting the cable interrupts the battery power supply. Some earlier robot versions used rechargeable batteries, and these must be charged for at least 18 hrs before working correctly.

Recommended actions

1) Make sure a charged SMB battery is connected to the board.

2) NOTE! Disconnecting the robot signal cable may disconnect the SMB battery power supply, triggering the battery warning to be logged.

3) Reset the battery power warning by updating the revolution counters as detailed in the Calibration or Product Manual.

4) Replace the battery if discharged.

38201, Serial Board not found

Description

Serial Measurement Board not found on measurement link.

Drive module: *arg*

Measurement link: *arg*

Measurement board: *arg*

Recommended actions

- Check system configuration parameters.

- Check connections and cables to Serial Measurement Board.

- Replace Serial Measurement Board.

38203, SMB offset X error

Description

Offset error for X signal at Serial Measurement Board.

Drive module: *arg*

Measurement link: *arg*

Measurement board: *arg*

Recommended actions

- Replace Serial Measurement Board.

38204, SMB offset Y error

Description

Offset error for Y signal at Serial Measurement Board.

Drive module: *arg*

Measurement link: *arg*

Measurement board: *arg*

Recommended actions

- Replace Serial Measurement Board

38205, SMB Linearity Error

Description

Linearity error for X-Y signal difference at Serial Measurement Board.

System may still operate with warning.

System will not function with error.

Drive module: *arg*

 Measurement link: *arg*

Measurement board: *arg*

Recommended actions

- Replace Serial Measurement Board.

38206, SMB Linearity X Error

Description

Linearity error for X signal on Serial Measurement Board.

Drive module: *arg*

Measurement link: *arg*

Measurement board: *arg*

Recommended actions

- Replace Serial Measurement Board.

38207, SMB Linearity Y Error

Description

Linearity error for Y signal at Serial Measurement Board.

Drive module: *arg*

Measurement link: *arg*

Measurement board: *arg*

Recommended actions

- Replace Serial Measurement Board.

38208, Resolver error

Description

Too high voltage from X or Y resolver signals.

Sum of squared X and Y exceeds max.

Joint: *arg*

Drive module: *arg*

 Measurement link: *arg*

Measurement board: *arg*

Board node: *arg*

Recommended actions

- Check resolver and resolver connections.

- Replace Serial Measurement Board.

- Replace resolver.

38209, Resolver error

Description

Too low voltage from X or Y resolver signals.

Sum of squared X and Y too low.

Joint: *arg*

Drive module: *arg*

 Measurement link: *arg*

Measurement board: *arg*

Board node: *arg*

Recommended actions

- Check resolver and resolver connections.

- Replace Serial Measurement Board.

- Replace resolver.

38210, Transmission fault.

Description

Serial Measurement Board SMS communication failed.

Status: *arg*

Drive module: *arg*

 Measurement link: *arg*

Measurement board: *arg*

Board node: *arg*

Recommended actions

- Restart system.

- Check cable and connectors for SMB communication.

- Replace the Serial Measurement Board.

38211, Functionality error.

Description

The Serial Measurement Board does not support 7 axes.

Drive module: *arg*

Measurement link: *arg*

Measurement board: *arg*

Recommended actions

- Check configurations of the 7th axis.

- Replace Serial Measurement Board to a board with 7 axes functionality.

38212, Data not found.

Description

Configuration data for Serial Measurement Board not found. System will use default data.

Drive module: *arg*

 Measurement link: *arg*

Measurement board: *arg*

Recommended actions

- Check configuration.

38213, Battery charge low.

Description

Less than 2 months until battery on Serial Measurement Board is discharged. Counting from first time this message was displayed.

Drive module: *arg*

 Measurement link: *arg*

Measurement board: *arg*

Recommended actions

- Replace battery on serial measurement.

38214, Battery failure.

Description

Transportation shut down of battery failed. The battery will still be in normal mode.

Drive module: *arg*

 Measurement link: *arg*

Measurement board: *arg*

Recommended actions

- Retry shut down.

- Replace serial measurement board.

38215, Battery supervision failure.

Description

Failure occurred during reset of battery supervision circuit in Serial Measurement Board.

Drive module: *arg*

 Measurement link: *arg*

Measurement board: *arg*

Recommended actions

- Repete update of revolution counter for joint connected to the SMB.

- Replace serial measurement board.

38230, PMC card not connected correctly

Description

The PMC card that is configured in the motion configuration is not connected or is not working correctly.

Consequences

The application that needs this PMC card can not be ran.

Probable causes

The PMC card is not connected or the card is broken.

Recommended actions

Please check the PMC card that is attached to the axis computer in the drive module *arg*.

38231, PMC card can not be started

Description

The PMC card that is configured in the motion configuration is not set up correctly and can not be started.

Consequences

The application that uses this PMC card can not be ran.

Probable causes

The error is problably a error in the motion configuration.

Recommended actions

Please check the limits for channels for this card in the motion configuration.

38232, PMC max channels reached

Description

The PMC card that is configured in the motion configuration is not set up correctly and can not be started.

Consequences

The application that uses this PMC card can not be ran.

Probable causes

The error is problably a error in the motion configuration.

Recommended actions

Please check the limits for channels for this card in the motion configuration.

38233, Force sensor safety channel error

Description

The safety channel in the cable between the force sensor and measurment board is under configured safety channel voltage level. The force sensor is connected to the axis computer in drive module *arg*.

Consequences

The system will go to SYS HALT and the application that uses this sensor can not be ran until cable is connected or replaced. Safety channel supervision can be disconnected in the motion configuraion.

Probable causes

1. The cable is not attached correctly.

2. The cable has damage to the connectors or the cable itself.

3. The sensor cable does not have satefy channel.

Recommended actions

Assure that the cable is connected properlly and inspect the connectors at both ends of the cable and the cable itself. Replace if damaged.

38234, Max Force or Torque reached

Description

The measurend force or torque in the force sensor attached to the axis computer in drive module *arg* has higher value than it is configured for.

Consequences

The system will not stop due to this.

Probable causes

The appliced force or torque on the sensor is higher that configured. Too high ordered reference can be the cause. The configuration might also be faulty.

Recommended actions

Check the force and torque references in the program and if the environment have applied too high force or torque to the sensor.

38235, Saturation warning of force sensor input

Description

The analog input values of the measurment board connected to the force sensor have saturated and the time in saturation has reached the warning level.

The measurment board is connected to the axis computer in drive module *arg*

Recommended actions

Check the load that was applied to the force/torque sensor.

Check that the cable, sensor and measurment board is not damaged.

Increase the system parameter: time in satuartion before warning

38236, Saturation error of of force sensor input

Description

The analog input values of the measurment board connected to the force sensor have saturated and the time in saturation has reached the error level. The measurment board is connected to the axis computer in drive module *arg*

Consequences

system will stop

Recommended actions

Check the load that was applied to the force/torque sensor. Check that the cable, sensor and measurment board is not damaged. Increase the system parameter: time in satuartion before error

38237, Configuration error for Force Measurement Board

Description

The configuration input values for the Force Measurement Board connected to the force sensor is erroneous. The board is connected to drive module *arg*, link *arg*.

Consequences

The system goes to System Failure state.

Recommended actions

Check the configuration.

39401, Torque Current Reference Error

Description

The torque-current reference is increasing too quickly for joint *arg*, connected to drive module *arg*.

Consequences

-

Probable causes

The resolver feedback may be poor or the speed loop gain may be badly adjusted.

Recommended actions

1) Check the resolver cable and the resolver grounding for this joint. If this joint is an additional axis, then check that the motor data in the configuration file is correct. How to check the configuration file is detailed in the Trouble Shooting Manual.

2) Reduce the gain of the speed loop.

39402, Motor Angle Reference Warning

Description

The motor angle reference is increasing too quickly for joint *arg*, connected to drive module *arg*.

Consequences

-

Probable causes

The resolver feedback may be poor or the speed loop gain may be badly adjusted.

Recommended actions

1) Check the resolver cable and the resolver grounding for this joint. If this joint is an additional axis, then check that the motor data in the configuration file is correct. How to check the configuration file is detailed in the Trouble Shooting Manual.

2) Reduce the gain of the speed loop.

39403, Torque Loop Undercurrent

Description

The torque-current controller detected too low current for joint *arg*, connected to drive module *arg*.

Consequences

-

Probable causes

The motor data in the configuration files may be wrong or the DC bus voltage may be too low.

Recommended actions

1) Check that the motor data in the configuration file is correct for this joint. How to check the configuration file is detailed in the Trouble Shooting Manual.

2) Check that no DC bus errors are present in the event log.

3) Check that the incoming mains voltage is within the specification.

4) Check that the motor cables are not damaged or badly connected.

39404, Torque Loop Overcurrent

Description

The field-current controller detected too high current for joint *arg*, connected to drive module *arg*.

Consequences

-

Probable causes

The motor data in the configuration files may be wrong.

Recommended actions

1) Check that the motor data in the configuration file is correct for this joint. How to check the configuration file is detailed in the Trouble Shooting Manual.

2) Check that no DC bus errors are present in the event log.

3) Check that the incoming mains voltage is within the specification.

4) Check that the motor cables are not damaged or badly connected.

39405, Maximum PWM Reached in Torque Controller

Description

The torque-current control loop has been saturated for joint *arg*, connected to drive module *arg*.

Consequences

-

Probable causes

The mains voltage may be too low or the motor windings or motor cables may be broken.

Recommended actions

1) Check that no DC bus errors are present in the event log.

2) Check that the incoming mains voltage is within specified limits.

3) Check the motor cables and motor windings for open circuits.

39406, Field Loop overcurrent

Description

The field-current control loop has produced too high current for joint *arg*, connected to drive module *arg*.

Consequences

-

Probable causes

The motor data in the configuration files may be wrong.

Recommended actions

1) Check that no DC bus errors are present in the event log.

2) Check that the incoming mains is within specified limits.

3) Check the motor cables and motor windings.

39407, Drive Unit has the wrong type code

Description

The type code in drive unit for joint *arg* in drive module *arg* is different from the one specified in the configuration file. Installed drive unit type is *arg*, and the configured type is *arg*.

Consequences

No operation will be possible until after correcting the fault. The system goes to status SYS HALT.

Probable causes

The configuration file may contain incorrect values, the configuration key may be incorrect or the hardware may be of the wrong type. If the drive unit was recently replaced, a drive unit with the wrong type code may have been fitted or the key was not replaced with one for the correct hardware/software combination.

Recommended actions

1) Make sure the values in the configuration file match the installed hardware.

2) Make sure the configuration key match the installed hardware/software combination. How to check the configuration file is detailed in the Trouble Shooting Manual.

3) If the drive unit was recently replaced, make sure a unit of the correct type code is used.

39408, Rectifier Unit has the wrong type code

Description

The type code for rectifier unit *arg* in drive module *arg* is different from the one specified in the configuration file. Installed rectifier unit type is *arg*, and the configured type is *arg*.

Consequences

No operation will be possible until after correcting the fault. The system goes to status SYS HALT.

Probable causes

The configuration file may contain incorrect values, the configuration key may be incorrect or the hardware may be of the wrong type. If the rectifier unit was recently replaced, a rectifier unit with the wrong type code may have been fitted or the key was not replaced with one for the correct hardware/software combination.

Recommended actions

1) Make sure the values in the configuration file match the installed hardware.

2) Make sure the configuration key match the installed hardware/software combination. How to check the configuration file is detailed in the Trouble Shooting Manual.

3) If the rectifier unit was recently replaced, make sure a unit of the correct type code is used.

39409, Capacitor Unit has the wrong type code

Description

The type code for capacitor unit *arg* in drive module *arg* is different from the one specified in the configuration file. Installed capacitor unit type is *arg*, and the configured type is *arg*.

Consequences

No operation will be possible until after correcting the fault. The system goes to status SYS HALT.

Probable causes

The configuration file may contain incorrect values, the configuration key may be incorrect or the hardware may be of the wrong type. If the capacitor unit was recently replaced, a capacitor unit with the wrong type code may have been fitted or the key was not replaced with one for the correct hardware/software combination.

Recommended actions

1) Make sure the values in the configuration file match the installed hardware.

2) Make sure the configuration key match the installed hardware/software combination. How to check the configuration file is detailed in the Trouble Shooting Manual.

3) If the capacitor unit was recently replaced, make sure a unit of the correct type code is used.

39410, Drive Unit communication warning

Description

Many communication errors are being detected between the axis computer and drive unit number *arg* in drive module *arg*. (error rate per time unit)

Consequences

If the number of communication errors increases further, there is a risk that the controller will be forced to stop

Probable causes

External noise may interfere with the communication signals.

Recommended actions

1) Check the communication link cable between the axis computer and the main drive unit is correctly connected.

2) Check that the module is properly grounded.

3) Check for external electromagnetic noise sources close to the drive module.

39411, Too Many communication errors

Description

Four or more consecutive communication packets have been lost between the axis computer and drive unit *arg* in drive module *arg*.

Consequences

No operation will be possible until after correcting the fault. The system goes to status SYS HALT.

Probable causes

There may be a break in the communication link cable between the axis computer and the main drive unit, the drive module may be incorrectly grounded or excessive noise may interfere with the communication signals.

Recommended actions

1) Check the communication link cable between the axis computer and the main drive unit is correctly connected.

2) Check that the module is properly grounded.

3) Check for external electromagnetic noise sources close to the drive module.

39412, Too Many Missed Reference Updates

Description

Too many missed communication packets have been detected for joint *arg*, in drive module *arg*.

Consequences

No operation will be possible until after correcting the fault. The system goes to status SYS HALT.

Probable causes

There may be a break in the communication link cable between the axis computer and the main drive unit, the drive module may be incorrectly grounded or excessive noise may interfere with the communication signals.

Recommended actions

1) Check the communication link cable between the axis computer and the main drive unit is correctly connected.

2) Check that the module is properly grounded.

3) Check for external electromagnetic noise sources close to the drive module..

39413, Drive Software Not Synchronised

Description

The axis computer software in drive module *arg* has become unsynchronised with the drive software for joint *arg*. This is an unstable software state.

Consequences

No operation will be possible until after correcting the fault. The system goes to status SYS HALT.

Probable causes

There may be glitches in the system timing.

Recommended actions

1) Restart the controller.

2) If the problem persists, contact your local ABB representative..

39414, Unknown Capacitor Type Code

Description

The type code for the capacitor unit *arg* in drive module *arg* is not recognised by the system.

Consequences

No operation will be possible until after correcting the fault. The system goes to status SYS HALT.

Probable causes

The wrong type of capacitor unit may have been fitted or the capacitor version used is not supported by the software.

Recommended actions

1) Check the type of capacitor unit fitted. Replace if it is the wrong type.

2) If the problem persists, contact your local ABB representative.

39415, Communication with the Drive Unit Lost

Description

Communication with drive unit number *arg* in drive module *arg* has been lost.

Consequences

No operation will be possible until after correcting the fault. The system goes to status SYS HALT.

Probable causes

There may be a break in the communication link cable between the axis computer and the main drive unit, the drive module may be incorrectly grounded or excessive noise may interfere with the communication signals.

Recommended actions

1) Check the communication link cable between the axis computer and the main drive unit is correctly connected.

2) Check that the module is properly grounded.

3) Check for external electromagnetic noise sources close to the drive module..

39416, Drive Unit Not Responding

Description

The main drive unit in drive module *arg* is not responding.

Consequences

No operation will be possible until after correcting the fault. The system goes to status SYS HALT.

Probable causes

There may be a break in the communication link cable between the axis computer and the main drive unit, or there may be a lock-up in the software.

Recommended actions

1) Check the communication link cable between the axis computer and the main drive unit is correctly connected.

2) Restart the controller.

3) If the problem persists, contact your local ABB representative.

39417, Cannot find Drive Software Version File

Description

The system cannot locate a valid drive version file on the disk.

The file may have been erased my mistake. Without this file it is not possible to check if the drive units software needs updating.

Recommended actions

Contact your local ABB representative.

39418, Unknown Drive Unit type code

Description

The type code for the drive unit *arg* in drive module *arg* is not recognised by the system. Installed drive unit type is *arg*, and the configured type is *arg*.

Consequences

No operation will be possible until after correcting the fault. The system goes to status SYS HALT.

Probable causes

The connection to the drive unit may be bad or the hardware may be faulty.

Recommended actions

1) Make sure the cable connections on the drive unit are correct.

2) Make sure the drive unit is one supported by this controller.

3) If the drive unit was recently replaced, make sure a unit of the correct type code is used.

39419, Unknown Rectifier type code

Description

The type code for the rectifier unit *arg* in drive module *arg* is not recognised by the system. Installed rectifier unit type is *arg*, and the configured type is *arg*.

Consequences

No operation will be possible until after correcting the fault. The system goes to status SYS HALT.

Probable causes

The connection to the drive unit may be bad or the hardware may be faulty.

Recommended actions

1) Make sure the cable connections on the rectifier unit unit are correct.

2) Make sure the rectifier unit is one supported by this controller.

3) If the rectifier unit was recently replaced, make sure a unit of the correct type code is used.

39420, Drive Unit built in test failure

Description

Drive unit number *arg* in drive module *arg* has detected an internal hardware failure.

Consequences

No operation will be possible until after correcting the fault. The system goes to status SYS HALT.

Probable causes

The test software is not working correctly, or the actual hardware is faulty.

Recommended actions

1) Perform a shutdown and then restart the system.

2) If the problem persists, isolate the faulty drive unit and replace it.

39421, Drive Unit configuration test failure

Description

Drive unit number *arg* in drive module *arg* has detected an internal error.

Consequences

No operation will be possible until after correcting the fault. The system goes to status SYS HALT.

Probable causes

The connection to the drive unit may be bad or incorrect hardware may have been fitted.

Recommended actions

1) Perform a shutdown and then restart the system.

2) If the problem persists, isolate the faulty drive unit and replace it.

39422, Drive Unit watchdog timeout

Description

The time limit for watchdog timer for drive unit number *arg* in drive module *arg* has expired.

Consequences

No operation will be possible until after correcting the fault. The system goes to status SYS HALT.

Probable causes

The connection to the drive unit may be bad or incorrect hardware may have been fitted. It may also be caused by an internal error in the drive unit.

Recommended actions

1) Perform a shutdown and then restart the system.

2) If the problem persists, isolate the faulty drive unit and replace it.

39423, Drive Unit Internal Warning

Description

Internal measurement warning for drive unit number *arg* in drive module *arg*.

supervision code = *arg*

Consequences

No operation will be possible until after correcting the fault. The system goes to status SYS HALT.

Probable causes

There may be problems with the control cable, the DC link connection (bus bar or cable) or internal hardware.

Recommended actions

1) Check the control cables and DC link connection (bus bar or cable) are correctly inserted for this unit.

2) Restart the system.

39424, Drive Unit internal error

Description

Internal measurement warning for drive unit number *arg* in drive module *arg*.

Supervision Code = *arg*

Consequences

No operation will be possible until after correcting the fault. The system goes to status SYS HALT.

Probable causes

The connection to the drive unit may be bad or incorrect hardware may have been fitted. It may also be caused by faulty control cable, DC link connection (bus bar or cable) or internal hardware.

Recommended actions

1) Make sure the control cables and DC link connection (bus bar or cable) are correctly connected for this unit.

2) Perform a shutdown and then restart the system.

3) If the problem persists, isolate the faulty unit and replace it.

39425, Drive Unit measurement failure

Description

A current measurement circuit in drive unit number *arg*, drive module *arg*, attached to joint *arg* has failed.

Consequences

No operation will be possible until after correcting the fault. The system goes to status SYS HALT.

Probable causes

This may be caused by a faulty or lacking DC link connection between the rectifier and drive units.

Recommended actions

1) Make sure the DC link connection (bus bar or cable) is correctly connected between the rectifier and drive unit.

2) Check the indication LEDs on the rectifier and drive units. The significance of the LEDs is described in the Trouble Shooting Manual.

39426, Rectifier internal failure

Description

The rectifier on communication link *arg* attached to drive module *arg*has detected an internal failure.

Consequences

No operation will be possible until after correcting the fault. The system goes to status SYS HALT.

Probable causes

This may be caused by a faulty or lacking signal connection between the rectifier and drive units.

Recommended actions

1) Make sure the signal cable is correctly connected between the rectifier and drive unit.

2) Check the indication LEDs on the rectifier and drive units. The significance of the LEDs is described in the Trouble Shooting Manual.

39427, Rectifier communication missing

Description

The communication with the rectifier on drive comm link *arg*, drive module *arg* has been lost.

Consequences

No operation will be possible until after correcting the fault. The system goes to status SYS HALT.

Probable causes

This may be caused by a faulty or lacking signal connection between the rectifier and drive units.

Recommended actions

1) Make sure the signal cable is correctly connected between the rectifier and drive unit.

2) Perform a shutdown and then restart the system.

3) If the problem persists, isolate the faulty unit and replace it.

39428, Rectifier startup error

Description

The rectifier on drive comm link *arg*, drive module *arg* has detected a startup error.

Consequences

No operation will be possible until after correcting the fault. The system goes to status SYS HALT.

Probable causes

This may be caused by an internal error in the rectifier unit.

Recommended actions

1) Make sure the signal cable is correctly connected between the rectifier and drive unit.

2) Perform a shutdown and then restart the system.

3) If the problem persists, isolate the faulty rectifier unit and replace it.

39431, Update of Drive Unit Software in Progress

Description

The drive unit software in drive module *arg* is being updated.

Please wait for the upgrade to be completed. This will take approximately 3.5 minutes.

NOTE: Please do not turn off the power or restart the controller until the download is complete.

Recommended actions

Please wait...

39432, Incompatible boot version in drive unit

Description

The boot version in drive module *arg* is version *arg*, which is not allowed. The latest allowed boot version is *arg*.

Consequences

No operation will be possible until after correcting the fault. The system goes to status SYS HALT.

Probable causes

The boot version is not compatible with the hardware version.

Recommended actions

1) Replace the drive unit with one using a boot version equal to or greater than the latest allowed one.

39434, Drive Unit Start Failure

Description

The drive unit in drive module *arg* failed to start. drive boot status = *arg*. drive dsp1 status = *arg*

Consequences

The robot can not be operated.

Probable causes

A number of errors may cause this.

Recommended actions

1) Switch the main power off to the module and then switch it back on. Note that a normal restart will NOT suffice!

2) If the problem persists, replace the drive unit.

39435, Cannot find additional axis drive unit

Description

The system cannot detect an additional axis drive for joint *arg* in drive module *arg*.

Consequences

System goes to SYS_FAIL.

Probable causes

This can be due to:

1) Having an additional axis configured but not having a drive unit in the drive module.

2) Having an external drive unit but not connecting the cable to the X*arg* connector position on the main drive unit.

3) Damaged cable between the additional axis drive and the main drive unit.

Recommended actions

1) Check the drive module contains enough additional axis drives.

2) Check that the configuration key does not define more external drive units then are connected in the drive module

3) Check the cable between the additional axis drive unit and to the main drive unit is correctly inserted in the right connector position.

4) If the cable exists and is correctly inserted, then it may be damaged and should be replaced.

39440, Open circuit in bleeder resistor circuit

Description

The bleeder resistor connected to the rectifier on drive link *arg*, drive module *arg*, is an open circuit.

Consequences

No operation will be possible until after correcting the fault. The system goes to status SYS HALT.

Probable causes

This may be caused by a faulty bleeder resistor cable or bleeder resistor.

Recommended actions

1) Make sure the bleeder resistor cable is correctly connected to the rectifier unit.

2) Make sure the cable and resistor is working correctly by measuring their resistance respectively. Disconnect before measuring.

3) Replace any faulty component.

39441, Short circuit in bleeder resistor circuit

Description

The bleeder resistor connected to the rectifier on drive link *arg*, drive module *arg*, is a short circuit.

Consequences

No operation will be possible until after correcting the fault. The system goes to status SYS HALT.

Probable causes

This may be caused by a faulty bleeder resistor cable or bleeder resistor.

Recommended actions

1) Make sure the bleeder resistor cable is correctly connected to the rectifier unit.

2) Make sure the cable and resistor is working correctly by measuring their resistance respectively. Disconnect before measuring.

3) Replace any faulty component.

39442, Bleeder Resistance Too Low

Description

The bleeder resistance is too low for the rectifier on drive comm link *arg*, drive module *arg*.

Consequences

No operation will be possible until after correcting the fault. The system goes to status SYS HALT.

Probable causes

The bleeders may have the wrong resistance value or one of the bleeders may have failed, causing a short circuit.

Recommended actions

1) Check the bleeder resistors to see that they are the correct resistance value for this drive module configuration.

2) Check that none of the resistors have failed. How to check the configuration file is detailed in the Trouble Shooting Manual.

39443, Bleeder Resistor Overload Warning

Description

The power consumed by the bleeder resistors is approaching overload for the rectifier on drive communication link *arg*, drive module *arg*.

Consequences

No operation will be possible until after correcting the fault. The system goes to status SYS HALT.

Probable causes

The user program may contain too much hard braking of the manipulators, which is more likely if the system contains additional axes.

Recommended actions

1) Rewrite the user program to reduce the amount of hard braking.

39444, Bleeder resistor overload error

Description

The bleeder resistors have been overloaded for the rectifier on drive communication link *arg*, drive module *arg*.

Consequences

No operation will be possible until after correcting the fault. The system goes to status SYS HALT.

Probable causes

The user program may contain too much hard braking or too high a payload of the manipulators. This is more likely if the system contains additional axes.

Recommended actions

1) Rewrite the user program to reduce the amount of hard braking.

39450, Faulty Fan Unit Power Supply

Description

The power supply for the fan unit in drive module *arg* is not within its allowed voltage limits.

Consequences

-

Probable causes

The main fan power supply unit may be faulty or the supply to this power supply unit may not be within its allowed voltage limits.

Recommended actions

1) Check the fan cable is correctly inserted.

2) Check that all fans are working. 3) Check the input voltage to the main fan power supply unit. Replace any faulty unit.

39451, Fan Unit Malfunction

Description

The fan unit in drive module *arg* has malfunctioned.

Consequences

-

Probable causes

The fan unit may be faulty, a loss of power supply or the fan power cable may not be connected correctly.

Recommended actions

1) Make sure the fan cable is correctly connected.

2) Make sure all fans are working and that air flow is not obstructed.

3) Measure the output voltage from the drive unit supplying the fan. Replace any faulty unit.

39452, Axis Computer Cooling Fan Malfunction

Description

The cooling fan for the axis computer in drive module *arg* has malfunctioned.

Recommended actions

1) Check that the fan cable is correctly inserted.

2) Replace the faulty fan unit.

39453, Transformer Cooling Fan Malfunction

Description

The cooling fan for the transformer supplying drive module *arg* has malfunctioned.

Recommended actions

Check if fan cable is correctly inserted.

2) Replace the faulty fan unit.

39460, DC Link Voltage Too Low

Description

The DC link voltage is too low for the rectifier on drive communication link *arg*, drive module *arg*.

Consequences

No operation will be possible until after correcting the fault. The system goes to status SYS HALT.

Probable causes

The DC link bus bar may be incorrectly connected or the three-phase mains power may be interrupted while the robot is in the Motors ON state. The mains contactor may also have been opened whilst the robot is in Motors ON state (breaking the safety chain). The incoming main power supply may also be too low.

Recommended actions

1) Make sure the DC link bus bar is correctly connected.

2) Make sure the mains supply has not been interrupted.

3) Make sure the safety chain has not been broken.

4) Make sure the Drive Module Power Supply output voltage is within acceptable limits as specified in the Product Manual.

39461, DC Link Voltage Too High

Description

The DC link voltage is too high for the rectifier on drive communication link *arg*, drive module *arg*.

Consequences

No operation will be possible until after correcting the fault. The system goes to status SYS HALT.

Probable causes

The user program may contain too much hard braking of the manipulators, which is more likely if the system contains additional axes. The brake resistors may also be faulty.

Recommended actions

1) Check the bleeder resistors to see that they are the correct resistance value for this drive module configuration.

2) Check that none of the resistors have failed.

3) If possible, rewrite the user program to reduce the amount of hard braking.

39462, DC Link Voltage at Critical

Description

The DC link voltage is critically high for the rectifier on drive communication link *arg*, drive module *arg*.

Consequences

No operation will be possible until after correcting the fault. The system goes to status SYS HALT.

Probable causes

The user program may contain too much hard braking of the manipulators, which is more likely if the system contains additional axes. The brake resistors may also be faulty.

Recommended actions

1) Check the bleeder resistors to see that they are the correct resistance value for this drive module configuration.

2) Check that none of the resistors have failed.

3) Rewrite the user program to reduce the amount of hard braking.

39463, Motor Phase Short Circuit Warning

Description

A brief short circuit was detected in the motor/motor cable for the motor attached to joint *arg* in drive module *arg*.

Consequences

-

Probable causes

This may be due to dust or metal fragments contaminating the contacts or motor windings.

Recommended actions

No action is required if the problem does not persist.

39464, Short circuit in Motor phase circuit

Description

The motor or motor cable for joint *arg* in drive module *arg*, drive unit number *arg*, is a short circuit.

Consequences

No operation will be possible until after correcting the fault. The system goes to status SYS HALT.

Probable causes

This may be caused by a faulty motor or motor cable. It may also be caused by contamination in the contactors for the cables or a failure of the motor windings.

Recommended actions

1) Make sure the motor cable is correctly connected to the drive unit.

2) Check the cable and motor by measuring their resistance respectively. Disconnect before measuring.

3) Replace any faulty component.

39465, Motor current warning

Description

The motor current is higher than the allowed for joint *arg* in drive module *arg*, drive unit number *arg*.

Consequences

-

Probable causes

The motor load may be too high or the motor may have stalled (maybe due to a collision).

Recommended actions

1) Check that the robot has not collided with anything.

2) If possible, reduce the speed of the user program.

3) If the axis is an additional axis, check that the motor load is not too high for the drive unit.

39466, Motor Current Overload

Description

The motor current is too high for joint *arg* in drive module *arg*, drive unit number *arg*.

Consequences

No operation will be possible until after correcting the fault. The system goes to status SYS HALT.

Probable causes

The motor load may be too high or the motor may have stalled (maybe due to a collision).

Recommended actions

1) Check that the robot has not collided.

2) If possible, reduce the speed of the user program.

3) If the axis is an additional axis, check that the motor load is not too high for the drive unit.

39467, Drive Unit Temperature Warning

Description

The temperature has risen above the warning level in drive unit number *arg*, drive module *arg*, which is the lowest abnormal level of three.

Consequences

-

Probable causes

The ambient temperature may be too high, the cooling fans may have failed or the user program may consume more current than the drive system can supply.

Recommended actions

1) Check that the fans are running and that the air flow is not obstructed.

2) Check that the ambient temperature does not exceed the cabinet rating.

3) If the system contains additional axes then check that motors are not too large for the drive units.

4) If possible, rewrite the user program to reduce the amount of hard acceleration.

39468, Drive Unit Temperature Alarm

Description

The temperature has risen above the alarm level in drive unit number *arg*, drive module *arg*, which is the second abnormal level of three.

Consequences

No operation will be possible until after correcting the fault. The system goes to status SYS HALT.

Probable causes

The ambient temperature may be too high, the cooling fans may have failed or the user program may consume more current than the drive system can supply.

Recommended actions

1) Check that the fans are running and that the air flow is not obstructed.

2) Check that the ambient temperature does not exceed the cabinet rating.

3) If the system contains additional axes then check that motors are not too large for the drive units.

4) If possible, rewrite the user program to reduce the amount of hard acceleration.

39469, Drive Unit Temperature Critical

Description

The temperature has risen above the critical level in drive unit number *arg*, drive module *arg*, which is the top abnormal level of three.

Consequences

No operation will be possible until after correcting the fault. The system goes to status SYS HALT.

Probable causes

The ambient temperature may be too high, the cooling fans may have failed or the user program may consume more current than the drive system can supply.

Recommended actions

1) Check that the fans are running and that the air flow is not obstructed.

2) Check that the ambient temperature does not exceed the cabinet rating.

3) If the system contains additional axes then check that motors are not too large for the drive units.

4) If possible, rewrite the user program to reduce the amount of hard acceleration.

39470, Power Semiconductor Warning

Description

The power semiconductor is approaching overload for joint *arg*, in drive unit number *arg*, drive module *arg* .

Consequences

-

Probable causes

The motor load may be too high, the motor may have stalled (maybe due to a collision), the motor load may be too high or there may not be enough cooling.

Recommended actions

1) Check that the robot has not collided.

2) Check that the fans are running and that the air flow is not obstructed.

3) Check that the ambient temperature does not exceed the cabinet rating.

4) If the system contains additional axes then check that motors are not too large for the drive units.

5) If possible, rewrite the user program to reduce the amount of hard acceleration.

39471, Power Semiconductor Overload Error

Description

The power semiconductor has been overloaded for joint *arg*, in drive unit number *arg*, drive module *arg* .

Consequences

No operation will be possible until after correcting the fault. The system goes to status SYS HALT.

Probable causes

The motor load may be too high, the motor may have stalled (maybe due to a collision), the motor load may be too high or there may not be enough cooling.

Recommended actions

1) Check that the robot has not collided.

2) Check that the fans are running and that the air flow is not obstructed.

3) Check that the ambient temperature does not exceed the cabinet rating.

4) If the system contains additional axes then check that motors are not too large for the drive units.

5) If possible, rewrite the user program to reduce the amount of hard acceleration.

39472, Incoming Mains Phase Missing

Description

The rectifier connected to communication link *arg* in drive module *arg* detects a power loss in one phase.

Consequences

No operation will be possible until after correcting the fault. The system goes to status SYS HALT.

Probable causes

This may be caused by an actual mains power loss, some malfunction in the Motors ON contactors or its cabling or in another part of the three phase chain inside the cabinet. On rare occasions, this fault may occur in combination with other faults, in which case this may be found in the error log.

Recommended actions

1) Make sure the mains switch is closed and that there is mains voltage present. No volts means the problem is in mains cable connector or the factory power supply.

2) If the voltage is OK, disconnect the input mains cable and measure the resistance of all three phases across all the components in the 3 phase supply chain. Start from the contactor closest to the rectifier and work backwards towards the mains switch. The contactors can be closed manually to perform the test. Refer to the electrical drawings for the cabinet.

3) Check the indication LEDs on the rectifier unit. The significance of these is described in the Trouble Shooting Manual.

4) If the voltage is OK, check any other error log messages coinciding in time with this one for clues.

39473, All Incoming Mains Phases Missing

Description

The rectifier connected to communication link *arg* in drive module *arg* detects a power loss in one or more phases.

Consequences

No operation will be possible until after correcting the fault. The system goes to status SYS HALT.

Probable causes

This may be caused by an actual mains power loss, some malfunction in the Motors ON contactors or its cabling or in another part of the three phase chain inside the cabinet. On rare occasions, this fault may occur in combination with other faults, in which case this may be found in the error log.

Recommended actions

1) Make sure the mains switch is closed and that there is mains voltage present. No volts means the problem is in mains cable connector or the factory power supply.

2) If the voltage is OK, disconnect the input mains cable and measure the resistance of all three phases across all the components in the 3 phase supply chain. Start from the contactor closest to the rectifier and work backwards towards the mains switch. The contactors can be closed manually to perform the test. Refer to the electrical drawings for the cabinet.

3) Check the indication LEDs on the rectifier unit. The significance of these is described in the Trouble Shooting Manual.

4) If the voltage is OK, check any other error log messages coinciding in time with this one for clues.

39474, Rectifier Current Warning

Description

The rectifier connected to drive communication link *arg* in drive module *arg* is approaching overload.

Consequences

No operation will be possible until after correcting the fault. The system goes to status SYS HALT.

Probable causes

The total motor current may be greater than that which the rectifier can supply.

Recommended actions

1) If possible, rewrite the user program to reduce the amount of hard acceleration.

39475, Rectifier Current Error

Description

The rectifier connected to drive communication link *arg* in drive module *arg* has reached overload.

Consequences

No operation will be possible until after correcting the fault. The system goes to status SYS HALT.

Probable causes

The total motor current may be greater than that which the rectifier can supply.

Recommended actions

1) If possible, rewrite the user program to reduce the amount of hard acceleration.

39476, Rectifier Temperature Warning

Description

The temperature in the rectifier unit connected to drive communication link *arg* in drive module *arg* is approaching a too high a level.

Consequences

No operation will be possible until after correcting the fault. The system goes to status SYS HALT.

Probable causes

The cooling fans may be faulty or the air flow may be obstructed. The ambient temperature may be too high or the system may be running with a too high load for extended periods.

Recommended actions

1) Check that the fans are running and that the air flow is not obstructed.

2) Check that the ambient temperature does not exceed the cabinet rating.

3) If the system contains additional axes then check that motors are not too large for the drive units.

4) If possible, rewrite the user program to reduce the amount of hard acceleration.

39477, Rectifier Temperature Error

Description

The temperature in the rectifier unit connected to drive communication link *arg* in drive module *arg* has reached a too high a level.

Consequences

No operation will be possible until after correcting the fault. The system goes to status SYS HALT.

Probable causes

The cooling fans may be faulty or the air flow may be obstructed. The ambient temperature may be too high or the system may be running with a too high load for extended periods.

Recommended actions

1) Check that the fans are running and that the air flow is not obstructed.

2) Check that the ambient temperature does not exceed the cabinet rating.

3) If the system contains additional axes then check that motors are not too large for the drive units.

4) If possible, rewrite the user program to reduce the amount of hard acceleration.

39478, Internal Motor PTC Temperature Error

Description

The temperature in one or more robot motors connected to drive module *arg* is has reached a too high a level.

Consequences

No operation will be possible until after correcting the fault. The system goes to status SYS HALT.

Probable causes

The motor may have stalled (possibly due to a collision), the motor may be overloaded or the ambient temperature may be higher than the rated level for the robot.

Recommended actions

1) Check that the robot has not collided.

2) Check that the ambient temperature does not exceed the robot rating.

3) Allow the robot to cool down, and then run the system again. Replace any motors damaged by the excessive heat.

4) If possible, rewrite the user program to reduce the amount of hard acceleration.

39479, External Motor PTC Temperature Error

Description

One or more additional axis motors connected to drive module *arg* is has reached a too high a level.

Consequences

No operation will be possible until after correcting the fault. The system goes to status SYS HALT.

Probable causes

The motor may have stalled (possibly due to a collision), the motor may be overloaded or the ambient temperature may be higher than the rated level for the robot.

Recommended actions

1) Check that the additional axis has not collided.

2) Check that the ambient temperature does not exceed the rating.

3) Allow the motor to cool down, and then run the system again. Replace any motors damaged by the excessive heat.

4) If possible, rewrite the user program to reduce the amount of hard acceleration.

39482, Mains Voltage Too High

Description

The mains voltage detected in drive module *arg* is too high.

Consequences

The robot can not be operated.

Probable causes

The mains transformer may be incorrectly wired or the external supply voltage may be too high.

Recommended actions

1) Measure the incoming mains voltage at the main contactor in the drive module. Make sure it is within the range specified for this module.

2) Check the wiring of the mains transformer as detailed in the robot Product Manual.

39483, DC Link Short Circuit

Description

A short circuit has been detected on the DC link of drive module *arg*.

Consequences

The robot can not be operated.

Probable causes

The DC bus bar may be badly connected or its contact surfaces may be contaminated causing a short circuit.

Recommended actions

1) Check that all DC link bus bars have been correctly connected.

2) Check that all contacts are free from contamination.

39484, Run chain open in motor on state

Description

Run chain *arg* is open when system is in motor on state. The problem occurred in drive system *arg*.

Consequences

System goes to SYS_HALT.

Probable causes

1) Cables and connections on the Safety System are unplugged or damaged.

2) The contactor for this run chain in the drive module may be stuck due to mechanical problem in contactor itself.

3) The help contactor on the contactor can suffer from bad galvanic behavior or faulty cable to the Safety System.

Recommended actions

1) Check if a motor contactor is stucked.

2) Replace faulty motor contactor.

39485, Run chain close in motor off state

Description

Run chain *arg* is open when system is in motor on state. The problem occurred in drive system *arg*.

Consequences

System goes to SYS_HALT.

Probable causes

1) The contactor for this run chain placed in the drive module has been pulled down manually.

2) The contactor has been welded in close position.

Recommended actions

1) If the contactor is not released and stays in pulled position, shut down the system and replace the contactor.

2) If the contactor has been pulled down manually, take this message as a warning only.

39486, DC Link Not Connected

Description

The DC Link connection to the drive serving joint *arg* in drive module *arg*, drive unit number *arg* is missing or is not properly connected.

Consequences

The system goes to SYS_HALT.

Probable causes

1) The DC Bussbar is either missing or is not properly connected.

2) If the bussbar is correctly connected. The drive unit reporting the error may have a fault.

Recommended actions

1) Check the DC Bussbar is properly connected to all the drive units

39500, Logic Voltage to Drive Unit Warning

Description

The 24V supply from the Drive Module Power Supply to the main drive unit in drive module *arg* is out of range.

Consequences

-

Probable causes

The 24V supply from the Drive Module Power Supply may be out of range.

Recommended actions

1) Make sure the power cable from the Drive Module Power Supply to the main drive unit is connected correctly.

2) Check if the power supply unit LED is red. The full meaning of all LED indications are described in the Trouble Shooting Manual, IRC5.

39501, Logic Voltage to Drive Unit Error

Description

The 24V supply to the main drive unit in drive module *arg* is out of range.

Consequences

No operation will be possible until after correcting the fault. The system goes to status SYS HALT.

Probable causes

The 24V supply from the power supply unit may be out of range.

Recommended actions

1) Make sure the power cable from the power supply unit to the main drive unit is connected correctly.

2) Check if the power supply unit LED is red. The full meaning of all LED indications are described in the Trouble Shooting Manual, IRC5.

39502, Logic Voltage to Rectifier Error

Description

The 24V to the rectifier in drive module *arg* is out of range.

Consequences

-

Probable causes

The cable between the drive unit and the rectifier may be badly connected, or the power supply voltage to the drive unit may be out of range.

Recommended actions

1) Check that the power cable between the power supply unit and the rectifier unit has been connected correctly.

2) Check the 24 V voltage in the power cable to the drive unit..

39503, Power Supply Overtemperature

Description

The temperature in the Drive Module Power Supply of drive module *arg* has reached a critical level.

Consequences

No operation will be possible until after correcting the fault. The system goes to status SYS HALT.

Probable causes

The fan unit may be faulty, the cooling air flow may be obstructed or the ambient temperature may be too high.

Recommended actions

1) NOTE! Do not try to restart the controller for approx. ten minutes to let it cool down.

2) Make sure the fans are running and that the air flow is not obstructed.

3) Make sure the ambient temperature does not exceed the drive module rating.

4) Make sure the power supply connectors are correctly connected to the axis computer.

39504, Power Supply to Brakes Overload

Description

The brake power circuit in drive module *arg* draws too much current.

Consequences

No operation will be possible until after correcting the fault. The system goes to status SYS HALT.

Probable causes

The brake power cable may be faulty (short circuit), or additional axis motors with brakes consuming too much power may be used. The fault may also occur if the cable from the power supply unit is not correctly connected to the drive module.

Recommended actions

1) Make sure the power supply cable is correctly connected to the drive module.

2) Check the brake supply cable for short circuits.

3) Make sure the total current consumed by additional axes' motors does not exceed the specification for the drive module.

4) Make sure the power supply connectors are correctly connected to the axis computer.

5) Make sure the 24 V BRAKE voltage is within specified limits. See the Circuit Diagram in the Product Manual, IRC5.

39505, Mains Voltage to Power Supply Lost

Description

The mains power supply to the power supply unit in Drive Module *arg* is missing.

Consequences

No operation will be possible until after correcting the fault. The system goes to status SYS FAIL.

Probable causes

The main power switch on the Drive Module may be turned off. The incoming mains cable may be faulty (break), or the circuit breaker for the power supply may have tripped. The fault may also occur if the connector from the power supply unit is not correctly connected to the axis computer.

Recommended actions

1) Check that the main power switch in turned on for the Drive Module and restart the system.

2) Check that the connector from the power supply unit is correctly connected to the axis computer.

3) Measure the voltage at the mains contactor to ensure that the mains is present.

4) Check that the power supply fuses/circuit breakers in the drive module have not tripped.

39520, Communication lost with Drive Module

Description

The main computer has lost contact with drive module *arg*.

Consequences

The system goes to status SYS HALT No operation will be possible until the fault has been corrected.

Probable causes

This may be due to a cable break, badly connected connector or high levels of interference in the cable.

Recommended actions

1) Make sure the cable between Control Module and Drive Module is not damaged and that both connectors are correctly connected.

2) Make sure no extreme levels of electromagnetic interference are emitted close to the robot cabling.

39521, Drive Module Communication Warning

Description

There are a large number of communication errors being detected on the ethernet link to drive module *arg*.
This can be due to external noise sources interfering with the cable.

Recommended actions

Check that there are no electromagnetic interference sources running near the cable or the drive or computer modules.

39522, Axis computer not found

Description

The axis computer in drive module *arg* is not connected to the main computer.

Consequences

The system goes to status SYS FAIL. No operation will be possible until the fault has been corrected.

Probable causes

This may be due to a cable break, badly connected connectors or loss of power supply.

Recommended actions

1) Make sure the main power switch on Drive Module *arg* has been switched ON.

2) Make sure the cable between Control Module and Drive Module is not damaged and that both connectors are correctly connected.

3) Make sure the cable is connected to the correct AXC connector on the Main Computer Unit Robot Communication Card or EtherNet Board (if the MultiMove option has been installed).

4) Restart the system.

5) Make sure the Power Supply Unit in Drive Module *arg* is working correctly.

39523, Unused Axis computer connected

Description

Axis computer in the drive module *arg* is connected to the main computer but not in use.

Probable causes

This can be due to configuration problem.

Recommended actions

1. Disconnect the unused axis computer or setup the system to use the axis computer.

2. Restart the system.

39524, Drive Module Command timeout

Description

Drive Module *arg* does not respond to command *arg*. The system has stopped the program for safety reasons.

Recommended actions

1. Check that drive module is powered on.

2. Check the cable between the main computer and axis computer.

3. Restart the system.

39525, Drive Module startup error

Description

The system has failed to complete the initialization phase of drive module *arg* .

Consequences

The system goes to System Failure state.

Probable causes

The system has failed to complete the initialization phase of the drive module.

Recommended actions

1) Retry by restarting the system using the main power switch.

2) Check for other hardware eventlog messages.

39530, Axis Computer Lost Communication With Safety System

Description

Communication has been lost between axis computer and the Safety System in drive module *arg*.

Consequences

System goes to status SYS FAIL.

Probable causes

This may be due to a faulty communication cable or connection between the axis computer and the Safety System. It may also be due to severe interference or if the Safety System has lost its power.

Recommended actions

1) Check cable between the axis computer and the Safety System is intact and correctly connected.

2) Check power supply connected to the Safety System.

3) Make sure no extreme levels of electromagnetic interference are emitted close to the robot cabling.

39531, Run chain glitch test not running

Description

The glitch test of the run chain has not been performed. The problem was discovered by the Safety System connected to the axis computer in drive module *arg*.

Consequences

System goes to status SYS HALT.

Probable causes

This may be due internal errors.

Recommended actions

Contact your local ABB support office.

40001, Argument error

Description

The optional argument *arg* has been used more than once in the same routine call.

Recommended actions

1) Make sure the optional parameter is not used more than once in the same routine call.

40002, Argument error

Description

The argument *arg* has been specified for more than one parameter.

Recommended actions

The parameter list, from which the parameter is selected, contains parameters mutually exclusive.

1) Make sure the argument is used for one parameter only.

40003, Argument error

Description

An argument for the required parameter *arg* was expected, but the optional argument *arg* was found.

Recommended actions

1) Make sure all arguments are specified in the same order as the parameters for the routine called.

40004, Argument error

Description

The argument for REF parameter *arg* is not a data reference.

Recommended actions

1) Make sure the argument is a data or a parameter reference.

40005, Argument error

Description

The argument for INOUT parameter *arg* is not a variable or persistent reference, or it is read-only.

Recommended actions

1) Make sure the argument is a variable or a persistent variable parameter or a persistent parameter reference and that it is NOT read-only.

2) Also make sure the argument is NOT written within brackets ().

40006, Argument error

Description

Parameter *arg* is missing an optional argument value.

Recommended actions

The only parameters that may be specified by a name only are "switch" parameters. All others must be assigned a value.

1) Make sure parameter has a value.

40007, Argument error

Description

The optional argument *arg* is not found in its correct position in the argument list.

Recommended actions

1) Make sure all arguments are specified in the same order as the parameters for the routine called.

40008, Argument error

Description

A reference to the optional parameter *arg* is missing.

Recommended actions

Each optional parameter must have a reference argument, specified with a leading backslash character (\).

1) Change the required argument into an optional argument.

40009, Argument error

Description

A reference to the required parameter *arg* in a conditional argument is missing.

Recommended actions

Each conditional value for an optional parameter must refer to an optional parameter in the calling routine.

1) Change the conditional value.

40010, Argument error

Description

A reference to the required parameter *arg* in an optional argument is missing.

Recommended actions

Each required parameter must have a reference argument, specified with a leading backslash character (\).

1) Change the optional argument into a required argument.

40011, Argument error

Description

The required argument *arg* is not found in its correct position in the argument list.

Recommended actions

Make sure all arguments are specified in the same order as the parameters for the routine called.

40012, Argument error

Description

The "switch" argument *arg* has a value.

Probable causes

An argument corresponding to a "switch" parameter may not be assigned a value.

Recommended actions

1) Remove the value.

40013, Argument error

Description

The call to routine *arg* has too few arguments.

Recommended actions

A routine call must supply values for all required parameters of the routine being called. The argument list must have as many arguments, as the parameter list has parameters.

1) Add more arguments to fit the parameter list.

40014, Argument error

Description

The call to routine *arg* has too many arguments.

Recommended actions

No arguments, more than those defined by the called routine parameter list, must be supplied. The argument list must have as many arguments, as the parameter list has parameters.

1) Remove excessive arguments from the argument list.

40015, Data declaration error

Description

The number of array dimensions is *arg*, but may be 1, 2 or 3 only.

Recommended actions

1) Change the dimension expression.

40016, Data declaration error

Description

Too many dimensions in array definition.

Recommended actions

An array may have at most 3 dimensions.

Rewrite the program so that no more than 3 dimensions are needed.

40017, Type error

Description

Indexed data *arg*, *arg* is not of array type.

Recommended actions

Only data that have been declared to be arrays may be indexed.

1) Remove the index or indices.

2) Declare the data to be an array.

40018, Type error

Description

Data *arg*, *arg* is not of record type.

Recommended actions

Components are only available for data of record type.

1) Check the type and name of the referenced data.

40019, Limit error

Description

Task *arg*: Error when creating the persistent variable *arg*.

The error occurred when the persistent variable was to be inserted into the

database.

Program Ref. *arg*

Consequences

The created persistent variable can not be used in a RAPID program.

Probable causes

The program memory is full or fragmentated.

Recommended actions

Check if large data structures could be split into smaller blocks.

Use of installed modules can save program memory.

40020, Data declaration error

Description

Expression *arg* is not a constant expression.

Recommended actions

Any expression contained within a data declaration must be a constant expression.

1) Make sure no expression contains variables or persistent references, or function calls.

40021, Instruction error

Description

Missing expression in RETURN instruction.

Probable causes

A RETURN instruction within a function must specify a value to be returned.

Recommended actions

1) Add a value expression.

40022, Type error

Description

Illegal combination of operand types *arg* and *arg* for the '*' operator.

Recommended actions

Allowed operand type combinations are: "num"*"num", "num"*"pos", "pos"*"num", "pos"*"pos" and "orient"*"orient".

1) Check the operand types.

40023, Instruction error

Description

Cannot transfer control into another instruction list.

Recommended actions

It is not possible to jump into a program flow instruction.

1) Make sure that the label is located in the same instruction list as the GOTO instruction, at the same or an outer level.

40024, Type error

Description

Illegal type *arg* for left operand of binary '+' or '-' operator.

Recommended actions

Allowed operand types for the binary "+" operator are "num", "pos" and "string", and for the binary "-" operator "num" and "pos".

1) Check the operand types.

40025, Type error

Description

Illegal type *arg* for operand of unary '+' or '-' operator.

Recommended actions

Allowed operand types for the unary "+" and "-" operators are "num" and "pos".

1) Check the operand types.

40026, Type error

Description

Illegal type *arg* for right operand of binary '+' or '-' operator.

Recommended actions

Allowed operand types for the binary "+" operator are "num", "pos" and "string", and for the binary "-" operator "num" and "pos".

1) Check the operand types.

40027, Type error

Description

Illegal type *arg* for left operand of '/', 'DIV' or 'MOD' operator.

Recommended actions

Allowed operand type for the "/", "DIV" or "MOD" operators is "num".

1) Check the operand types.

40028, Type error

Description

Illegal type *arg* for right operand of '/', 'DIV' or 'MOD' operator.

Recommended actions

Allowed operand type for the "/", "DIV" or "MOD" operators is "num".

1) Check the operand types.

40029, Type error

Description

Illegal type *arg* for left operand of '<', '<=', '>' or '>=' operator.

Recommended actions

Allowed operand type for the "<", "<=", ">" or ">=" operators is "num".

1) Check the operand types.

40030, Type error

Description

Illegal type *arg* for right operand of '<', '<=', '>' or '>=' operator.

Recommended actions

Allowed operand type for the "<", "<=", ">" or ">=" operators is "num".

1) Check the operand types.

40031, Type error

Description

Illegal type *arg* for left operand of '*' operator.

Recommended actions

Allowed operand types for the "*" operator are "num", "pos" or "orient".

1) Check the operand types.

40032, Type error

Description

Illegal type *arg* for right operand of '*' operator.

Recommended actions

Allowed operand types for the "*" operator are "num", "pos" or "orient".

1) Check the operand types.

40033, Type error

Description

Illegal type *arg* for operand of 'NOT' operator.

Recommended actions

Allowed operand type for the "NOT" operator is "bool".

1) Check the operand types.

40034, Type error

Description

Illegal type *arg* for left operand of 'OR', 'XOR' or 'AND' operator.

Recommended actions

Allowed operand type for the "OR", "XOR" or "AND" operators is "bool".

1) Check the operand types.

40035, Type error

Description

Illegal type *arg* for right operand of 'OR', 'XOR' or 'AND' operator.

Recommended actions

Allowed operand type for the "OR", "XOR" or "AND" operators is "bool".

1) Check the operand types.

40036, Type error

Description

Incorrect number of indices in index list for array *arg* with *arg* dimension(s).

Recommended actions

1) Make sure that the number of indices in the index list corresponds to the number of dimensions of the indexed data array.

40037, Data declaration error

Description

LOCAL illegal in routine constant declaration.

Recommended actions

Only program data declarations may have the LOCAL attribute. Remove the LOCAL attribute or move the declaration outside of the routine.

40038, Data declaration error

Description

LOCAL illegal in routine variable declaration

Recommended actions

Only program data declarations may have the LOCAL attribute. Remove the LOCAL attribute or move the declaration outside of the routine.

40039, Name error

Description

Constant name *arg* ambiguous.

Recommended actions

Routine data must have names that are unique within the routine. Program data must have names that are unique within the module. Rename the data or change the conflicting name.

40040, Name error

Description

Global constant name *arg* ambiguous.

Recommended actions

Global data must have names that are unique among all the global types, data, global routines and modules in the entire program. Rename the data or change the conflicting name.

40041, Name error

Description

Global persistent name *arg* ambiguous.

Recommended actions

Global data must have names that are unique among all the global types, data, global routines and modules in the entire program. Rename the data or change the conflicting name.

40042, Name error

Description

Global routine name *arg* ambiguous.

Recommended actions

Global routines must have names that are unique among all the global types, data, global routines and modules in the entire program. Rename the routine or change the conflicting name.

40043, Name error

Description

Global variable name *arg* ambiguous.

Recommended actions

Global data must have names that are unique among all the global types, data, global routines and modules in the entire program. Rename the data or change the conflicting name.

40044, Name error

Description

Label name *arg* ambiguous.

Recommended actions

Labels must have names that are unique within the routine. Rename the label or change the conflicting name.

40045, Name error

Description

Module name *arg* ambiguous.

Recommended actions

Modules must have names that are unique among all the global types, global data, global routines and modules in the entire program. Rename the module or change the conflicting name.

40046, Name error

Description

Parameter name *arg* ambiguous.

Recommended actions

Parameters must have names that are unique within the routine. Rename the parameter or change the conflicting name.

40047, Name error

Description

Persistent name *arg* ambiguous

Recommended actions

Program data must have names that are unique within the module. Rename the data or change the conflicting name.

40048, Name error

Description

Routine name *arg* ambiguous.

Recommended actions

Routines must have names that are unique within the module. Rename the routine or change the conflicting name.

40049, Name error

Description

Variable name *arg* ambiguous.

Recommended actions

Routine data must have names that are unique within the routine. Program data must have names that are unique within the module. Rename the data or change the conflicting name.

40050, Type error

Description

Operand types *arg* and *arg* for binary '+' or '-' operator not equal

Recommended actions

The two operands of the '+' and '-' operators must have equal type. Check the operand types.

40051, Type error

Description

Operand types *arg* and *arg* for '=' or '<>' operator not equal

Recommended actions

The two operands of the '=' and '<>' operators must have equal type. Check the operand types.

40052, Instruction error

Description

RETURN with expression only allowed in function

Recommended actions

In a procedure or trap the return instruction must not specify a return value expression. Remove the expression.

40054, Type error

Description

Different dimension of array type (*arg*) and aggregate (*arg*)

Recommended actions

Make sure that the number of expressions in the aggregate is the same as the dimension of the data array.

40055, Type error

Description

Assignment target type *arg* is not value or semi-value type.

Recommended actions

The type, of the data to be assigned a value, must be a value or semi-value type. Data of non-value types may only be set by special type specific predefined instructions or functions.

40056, Type error

Description

Type *arg* for left operand of '=' or '<>' operator not value or semi-value type

Recommended actions

The '=' and '<>' operators may only be applied to expressions of value or semi-value type. If comparisons are to be made, special type specific predefined functions are needed.

40057, Type error

Description

Type *arg* for right operand of '=' or '<>' operator not value or semi-value type

Recommended actions

The '=' and '<>' operators may only be applied to expressions of value or semi-value type. If comparisons are to be made, special type specific predefined functions are needed.

40058, Type error

Description

TEST expression type *arg* not value or semi-value type

Recommended actions

The TEST instruction may only be applied to an expression of value or semi-value type. If comparisons are to be made, special type specific predefined functions are needed.

40059, Data declaration error

Description

Place holder for value expression not allowed in definition of named constant

Recommended actions

Complete the data declaration or change the data name to a place holder.

40060, Data declaration error

Description

Place holder for array dimension not allowed in definition of named constant or variable

Recommended actions

Complete the data declaration or change the data name to a place holder.

40061, Routine declaration error

Description

Place holder for parameter array dimensions not allowed in definition of named routine

Recommended actions

Complete the parameter declaration or change the routine name to a place holder.

40062, Name error

Description

Place holder for parameter name not allowed in definition of named routine

Recommended actions

Complete the routine declaration or change the routine name to a place holder.

40063, Data declaration error

Description

Place holder for initial value expression not allowed in definition of named persistent

Recommended actions

Complete the data declaration or change the data name to a place holder.

40064, Routine declaration error

Description

Place holder for parameter not allowed in definition of named routine

Recommended actions

Complete the parameter declaration, remove the place holder or change the routine name to a place holder.

40065, Reference error

Description

Place holder for type not allowed in definition of named data, record component or routine

Recommended actions

Complete the data or routine declaration or change the data or routine name to a place holder.

40066, Data declaration error

Description

Place holder for initial value expression not allowed in definition of named variable

Recommended actions

Complete the data declaration or change the data name to a place holder.

40067, Type error

Description

Too few components in record aggregate of type *arg*

Recommended actions

Make sure that the number of expressions in the aggregate is the same as the number of components in the record type.

40068, Type error

Description

Too many components in record aggregate of type *arg*

Recommended actions

Make sure that the number of expressions in the aggregate is the same as the number of components in the record type.

40069, Reference error

Description

Data reference *arg* is ambiguous

Recommended actions

At least one other object sharing the same name as the referred data is visible from this program position. Make sure that all object names fulfill the naming rules regarding uniqueness.

40070, Reference error

Description

function reference *arg* is ambiguous

Recommended actions

At least one other object sharing the same name as the referred function is visible from this program position. Make sure that all object names fulfill the naming rules regarding uniqueness.

40071, Reference error

Description

Label reference *arg* is ambiguous

Recommended actions

At least one other object sharing the same name as the referred label is visible from this program position. Make sure that all object names fulfill the naming rules regarding uniqueness.

40072, Reference error

Description

Procedure reference *arg* is ambiguous

Recommended actions

At least one other object sharing the same name as the referred procedure is visible from this program position. Make sure that all object names fulfill the naming rules regarding uniqueness.

40073, Reference error

Description

Trap reference *arg* is ambiguous.

Recommended actions

At least one other object sharing the same name as the referred trap is visible from this program position. Make sure that all object names fulfill the naming rules regarding uniqueness.

40074, Reference error

Description

arg
not entire data reference

Recommended actions

The specified name identifies an object other than data. Check if the desired

data is hidden by some other object with the same name.

40075, Reference error

Description
arg
not function reference

Recommended actions
The specified name identifies an object other than a function. Check if the desired function is hidden by some other object with the same name.

40076, Reference error

Description
arg
not label reference

Recommended actions
The specified name identifies an object other than a label. Check if the desired label is hidden by some other object with the same name.

40077, Reference error

Description
arg
not optional parameter reference in conditional argument value

Recommended actions
The specified name identifies an object other than an optional parameter. Change the name to refer to an optional parameter.

40078, Reference error

Description
arg
not optional parameter reference

Recommended actions
The specified name identifies an object other than an optional parameter. Change the name to refer to an optional parameter.

40079, Reference error

Description
Task *arg*: *arg* is not a procedure reference

Recommended actions
The specified name identifies an object other than a procedure. Check if the desired procedure is hidden by some other object with the same name.

40080, Reference error

Description
arg
not required parameter reference

Recommended actions
The specified name identifies an object other than a required parameter. Change the name to refer to a required parameter.

40081, Reference error

Description
arg
not trap reference

Recommended actions
The specified name identifies an object other than a trap. Check if the desired trap is hidden by some other object with the same name.

40082, Reference error

Description
arg
not type name

Recommended actions
The specified name identifies an object other than a type. Check if the desired type is hidden by some other object with the same name.

40083, Type error

Description
arg
not value type

Recommended actions
Only variables that lack initial value,

and 'VAR' mode parameters may be of
semi-value or non-value type.

40086, Reference error

Description

Reference to
unknown label *arg*

Recommended actions

The routine contains no label (or other
object) with the specified name.

40087, Reference error

Description

Reference to
unknown optional parameter
arg

Recommended actions

The called routine contains no optional
parameter (or other object) with the
specified name.

40089, Reference error

Description

Reference to
unknown record component
arg

Recommended actions

The record type contains no record
component with the specified name.

40090, Reference error

Description

Reference to
unknown required parameter
arg

Recommended actions

The called routine contains no required
parameter (or other object) with the
specified name.

40092, Reference error

Description

Unknown type name
arg

Recommended actions

No data type (or other object) with the
specified name is visible from this
program position.

40093, Instruction error

Description

Assignment target
is read only

Recommended actions

The data to be assigned a value may not
be a constant, read only variable or
read only persistent.

40094, Data declaration error

Description

Persistent
declaration not allowed in routine

Recommended actions

Persistents may only be declared at
module level. Move the persistent
declaration from the routine.

40095, Instruction error

Description

RAISE without
expression only allowed in error handler

Recommended actions

Add an error number expression to the
RAISE instruction.

40096, Instruction error

Description

RETRY only
allowed in error handler

Recommended actions

The RETRY instruction may only be used
in error handlers. Remove it.

40097, Instruction error

Description

TRYNEXT only
allowed in error handler

Recommended actions

The TRYNEXT instruction may only be used

in error handlers. Remove it.

40098, Parameter error

Description

'switch'
parameter must have transfer mode IN

Recommended actions

Remove the parameter transfer mode
specifier. If IN transfer mode is not
sufficient, change the data type of the
parameter.

40099, Parameter error

Description

'switch'
parameter cannot be dimensioned

Recommended actions

Remove the array dimension
specification, or change the data type
of the parameter.

40100, Parameter error

Description

'switch' only
allowed for optional parameter

Recommended actions

Change the parameter into an optional
parameter, or change the data type of
the parameter. If the object is not a
parameter, change the data type.

40101, Type error

Description

Type mismatch of
expected type *arg* and
found type *arg*

Recommended actions

The expression is not of the expected
data type.

40102, Type error

Description

Type mismatch of
aggregate, expected type
arg

Recommended actions

The aggregate does not match the
expected data type.

40103, Type error

Description

Persistent
arg, *arg* type
mismatch

Recommended actions

There is already a persistent data with
the same name but with another data
type. Rename the persistent, or change
its data type.

40104, Data declaration error

Description

Cannot determine
array dimensions (circular constant
references ?)

Recommended actions

Check that any referred constants are
correctly defined. If so, the program is
too complex. Try to rewrite the
declarations.

40105, Data declaration error

Description

Cannot determine
type of constant value (circular
constant references ?)

Recommended actions

Check that any referred constants are
correctly defined. If so, the program is
too complex. Try to rewrite the
declarations.

40106, Data declaration error

Description

Cannot evaluate
constant value expression (circular
constant references ?)

Recommended actions

Check that any referred constants are
correctly defined. If so, the program is
too complex. Try to rewrite the

declarations.

naming rules regarding uniqueness.

40107, Data declaration error

Description

Cannot determine

type of variable value (circular

constant references?)

Recommended actions

Check that any referred constants are

correctly defined. If so, the program is

too complex. Try to rewrite the

declarations.

40108, Type error

Description

Unknown aggregate

type

Recommended actions

An aggregate may not be used in this

position since there is no expected data

type. Declare data with the desired data

type and aggregate value. Use the name

of the data instead of the aggregate.

40109, Type definition error

Description

Cannot determine

type of record component

arg

(circular type definitions?)

Recommended actions

Check that the type of the component is

correctly defined. If so, it could be

a circular definition, the type of a

component could not refer to the its

own record type.

40110, Reference error

Description

Record name

arg is ambiguous

Recommended actions

At least one other object sharing the

same name as the referred record name is

visible from this program position. Make

sure that all object names fulfill the

40111, Name error

Description

Global record

name *arg* ambiguous

Recommended actions

Global type must have names that are

unique among all the global types, data,

global routines and modules in the

entire program. Rename the record

or change the conflicting name.

40112, Reference error

Description

Alias name

arg is ambiguous

Recommended actions

At least one other object sharing the

same name as the referred alias name is

visible from this program position. Make

sure that all object names fulfill the

naming rules regarding uniqueness.

40113, Name error

Description

Global alias

name *arg* ambiguous

Recommended actions

Global type must have names that are

unique among all the global types, data,

global routines and modules in the

entire program. Rename the alias

or change the conflicting name.

40114, Type definition error

Description

Type reference

of alias name *arg*

is an alias type

Recommended actions

Check that the type of the component is

correctly defined. If so, it could be

a circular definition. The type of a

component could not refer to its

own record type.

40115, Type definition error

Description

Cannot determine
type of alias *arg*
(circular type definitions?)

Recommended actions

Check that the type of the alias is
correctly defined. If so, it could be
a circular definition, the type of an
alias could not refer to a record that
use this alias as a component.

40116, Reference error

Description

Record component name
arg is ambiguous

Recommended actions

At least one other object sharing the
same name as the referred component is
visible from this program position. Make
sure that all object names fulfill the
aming rules regarding uniqueness.

40117, Type definition error

Description

Place holder for
record component not allowed in
definition of named record

Recommended actions

Complete the definition or change
the data name to a place holder.

40119, Reference error

Description

Cannot use the semi-value type
arg for record components

Recommended actions

40120, Reference error

Description

Illegal reference
to installed task object
arg from shared object

Recommended actions

Install the referred object shared, or

install the referring ReaL object/
archive or RAPID module in each task
(not shared).

40121, Reference error

Description

Cannot use semi-value type for arrays

Recommended actions

40122, Reference error

Description

arg not procedure reference

Recommended actions

The specified name identifies an object other than a procedure.
Check if the desired procedure is hidden by some other object with the
same name.

40123, Argument error

Description

Argument for 'PERS' parameter *arg* is not a persistent reference or is
read only

Recommended actions

Make sure the argument is just a persistent or persistent parameter
reference and that it is writable.
Do not use () around the argument.

40124, Argument error

Description

Argument for 'VAR' parameter *arg* is not variable reference or is read
only

Recommended actions

Make sure the argument is just a variable or variable parameter
reference and that it is writable.
Do not use () around the argument.

40125, Instruction error

Description

The Interrupt number is not static variable reference, or it is shared, or
it is read only

Recommended actions

Make sure the interrupt number is just a variable or variable parameter
reference. The variable must be static and not shared. The variable may
not be read only.

40126, Value error

Description

Integer value *arg* is too large

Recommended actions

The value of the expression must be an integer value. The current value is outside the integer range.

40127, Value error

Description

arg is not an integer value

Recommended actions

The value of the expression must be an exact integer value. The current value has a fraction part.

40128, Reference error

Description

Reference to unknown entire data *arg*

Recommended actions

No data (or other object) with the specified name is visible from this program position.

40129, Reference error

Description

Reference to unknown function *arg*

Recommended actions

No function (or other object) with the specified name is visible from this program position.

40130, Reference error

Description

Reference to unknown procedure *arg*

Recommended actions

No procedure (or other object) with the specified name is visible from this program position.

40131, Reference error

Description

Reference to unknown trap *arg*

Recommended actions

No trap (or other object) with the specified name is visible from this program position.

40135, Syntax error.

Description

Expected *arg*

Recommended actions

40136, Syntax error

Description

Unexpected *arg*

Recommended actions

40137, Syntax error

Description

Expected *arg* but found *arg*

Recommended actions

40138, Syntax error

Description

Syntax error, stack backed up

Recommended actions

40139, Syntax error

Description

Syntax error, parsing terminated

Recommended actions

40140, Numerical value for symbol *arg* is out of range.

Description

Numerical value for symbol *arg* is out of range.

Recommended actions

Make the value smaller

40141, String too long

Description

The string *arg* is too long.

Recommended actions

Make the string shorter.

40142, TxId is out of range

Description

The Text identifier *arg* is out of range.

Recommended actions

40143, Aggregate is out of range

Description

The aggregate *arg* is out of range.

Recommended actions

Make the aggregate smaller

40144, Integer out of range

Description

The integer *arg* is out of range.

Recommended actions

Make the integer smaller.

40145, Parser stack is full

Description

The parser stack is full.

Recommended actions

Reduce program complexity

40146, Not enough heap space.

Description

There is not enough heap space to fulfill the action.

Recommended actions

Rewrite your program

40147, Identifier is reserved word in current language

Description

The identifier *arg* is a reserved word in current language.

Recommended actions

Change the name of the identifier

40148, Identifier too long

Description

The name of the identifier *arg* is too long.

Recommended actions

Rename the identifier with a shorter name.

40149, Placeholder too long

Description

The placeholder *arg* is too long.

Recommended actions

Rename the placeholder with a shorter name.

40150, Unexpected unknown token

Description

Unexpected unknown token.

Recommended actions

Remove the unknown token.

40151, Initial value of PERS not updated.

Description

The initial value of PERS: *arg* will not be updated.

A PERS with the same name in another task has already an initial value of the PERS.

Recommended actions

 Check the value in the Program Data window to see that the PERS have the correct value.

if necessary, unload modules with that PERS from all tasks and reload with new initial value.

The PERS is of type: *arg*.

40152, Data declaration error

Description

TASK illegal in routine variable declaration

Recommended actions

Only program data declarations may have the TASK attribute. Remove the TASK attribute or move the declaration outside of the routine.

40155, Argument error

Description

Task *arg*: Argument for
'PERS' parameter *arg* is not
persistent reference or is read only

Recommended actions

Make sure the argument is just a persistent or persistent parameter reference and that it is writable. Do not use () around the argument.

40156, Argument error

Description

Task *arg*: Argument for 'VAR' parameter *arg* is not variable reference or is read only

Recommended actions

Make sure the argument
is just a variable or variable
parameter reference and that
it is writable.

Do not use () around the argument.

40157, Instruction error

Description

Task *arg*: Interrupt number is not a static variable reference,
is shared, or is read only.

Recommended actions

Make sure the interrupt number is just
a variable or variable parameter
reference. The variable must be
static and not shared. The variable may
not be read only.

40158, Value error

Description

Task *arg*: Integer value
arg too large

Recommended actions

The value of the expression must be an
integer value. The current value is
outside the integer range.

40159, Value error

Description

Task *arg*: *arg* not
integer value

Recommended actions

The value of the expression must be an
exact integer value. The current value
has a fraction part.

40160, Errors in RAPID program.

Description

Task *arg*: There are errors in the RAPID program.

Recommended actions

Check for RAPID errors using Check program
in the Program editor and correct
the program.

40161, Option is missing.

Description

The instruction *arg* requires the option *arg*.

Consequences

The program will not execute properly.

Probable causes

The system image doesn't include the required option.

Recommended actions

Update the system image with the required option.

40162, Errors in RAPID program.

Description

Task *arg*: There are errors in the RAPID program.

Recommended actions

Take the following actions to be able to debug the program:
1 Change the type of the task to NORMAL.
2 Restart the controller.
3 Check for RAPID errors and correct the program.

40165, Reference error

Description

Task *arg*: Reference to
unknown entire data *arg*

Recommended actions

No data (or other object) with the
specified name is visible from this
program position.

40166, Reference error

Description

Task *arg*: Reference to unknown function *arg*

Recommended actions

No function (or other object) with the
specified name is visible from this
program position.

40168, Reference error

Description

Task *arg*: Reference to unknown procedure *arg*

Recommended actions

No procedure (or other object) with the specified name is visible from
this program position.
To avoid run time errors like this, add code in error handler to handle
this.
 ERRNO will be set to "ERR_REFUNKPRC".

40170, Reference error

Description

Task *arg*: Reference to unknown trap *arg*

Recommended actions

No trap (or other object) with the
specified name is visible from this
program position.

40171, Reference error

Description

Task *arg*:

Reference to unknown data (or other object) found during execution of module *arg*.

Recommended actions

Check the program for unresolved references.

40172, Reference error

Description

Task *arg*:

Reference to unknown module *arg*.

Recommended actions

No module (or other object) with the specified name is visible from this program position. Check the program for incorrect module reference or if the module is missing.

40173, Reference error

Description

Task *arg*:

Reference to object *arg* that is not a module.

Recommended actions

The specified name identifies an object other than a module.

Check the program for incorrect module reference.

40174, Reference error

Description

Task *arg*:

Reference to module *arg* is ambiguous.

Recommended actions

At least one other object sharing the same name as the referred module is visible from this program position. Make sure that all object names fulfill the naming rules regarding uniqueness.

40175, Reference error

Description

Task *arg*:

Reference to procedure *arg* is ambiguous.

Recommended actions

At least one other object sharing the same name as the referred procedure is visible from this program position. Make sure that all object names fulfill the naming rules regarding uniqueness.

40191, Instruction error

Description

Task *arg*: Variable and trap
routine already connected

Recommended actions

It is not legal to connect a specific
variable with a trap routine
more than once.

40192, Argument error

Description

Task *arg*: *arg*
is second present conditional argument
for excluding parameters

Recommended actions

Arguments may not be present for more
than one parameter from a list of
parameters that exclude each other.

40193, Execution error

Description

Task *arg*: Late binding
procedure call error *arg*

Recommended actions

There is an error in the procedure call
instruction. See previous message for
the actual cause.

40194, Value error

Description

Task *arg*: Division by zero

Recommended actions

Cannot divide by 0. Rewrite the program
so that the divide operation is not
executed when the divisor is 0.

40195, Limit error

Description

Task *arg*:
The configured maximum
number of RETRYs (*arg* retries)

is exceeded.

Recommended actions

The error correction performed before the RETRY instruction is executed, is probably not enough to cure the error. Check the error handler.

40196, Instruction error

Description

Task *arg*: Attempt to execute place holder

Recommended actions

Remove the place holder or the instruction containing it, or make the instruction complete. Then continue execution.

40197, Execution error

Description

Task *arg*: Function does not return any value

Recommended actions

The end of the function has been reached without a RETURN instruction being executed. Add a RETURN instruction specifying a function return value.

40198, Value error

Description

Task *arg*: Illegal orientation value *arg*

Recommended actions

Attempt to use illegal orientation (quaternion) value

40199, Value error

Description

Task *arg*: Illegal error number *arg* in *arg*.

Recommended actions

Use error numbers in the range 1-90 or book error numbers with the instruction BookErrNo.

40200, Limit error

Description

Task *arg*: No more interrupt number available

Recommended actions

There is a limited number of interrupt numbers available. Rewrite the program to use fewer interrupt numbers. This message may also occur as a consequence of a system error.

40202, Type error

Description

Task *arg*: Dimensions *arg* and *arg* of conformant array dimension number *arg* are incompatible

Recommended actions

The array is not of the expected size. Array assignment may only be performed on arrays of identical size.

40203, Reference error

Description

Task *arg*: Optional parameter *arg* not present

Recommended actions

The value of a non-present optional parameter may not be referred. Use the predefined function 'Present' to check the presence of the parameter before using its value.

40204, Value error

Description

Task *arg*: Array index *arg* for dimension number *arg* out of bounds (1-*arg*)

Recommended actions

The array index value is non-positive or violates the declared size of the array.

40205, Value error

Description

Task *arg*: Rapid String *arg* too long

Recommended actions

String value exceeds the maximum allowed length. Rewrite the program to use strings of less length.

40206, Interrupt queue full

Description

Execution of all normal tasks has stopped. Too many interrupts has occurred in *arg* while executing a trap routine.

Consequences

The system goes to blocked state and can not be restarted before moving the program pointer to an arbitrary position.

Probable causes

Too many interrupts has occurred while executing a trap routine. This can be caused by heavy CPU load.

Recommended actions

1) Minimize execution time in the trap routine.

2) Disable/enable interrupts while executing a trap routine using the Isleep or Iwatch commands.

40207, Value error

Description

Task *arg*: Illegal error number *arg* in *arg*

Recommended actions

Error numbers used in an ERROR handler must be positive.

40208, Error event queue full

Description

Task *arg*: The program was already executing an error event when a new event occurred.

Recommended actions

Attend the cause of the error event and restart the program.

40209, Error context already consumed

Description

An error event in task *arg* has occurred. The context of the RAPID instruction that has generated this event is however already consumed. No error handling is therefore possible to execute.

Recommended actions

Attend the cause of the error event and restart the program.

40210, Interrupt removed from queue

Description

All interrupts have been deleted from the interrupt queue in task *arg*.

Consequences

No trap routines, connected with the interrupt, may be executed.

Probable causes

-The program has been stopped

-A service routine or an event routine may be executing.

-The program is executing in step mode.

Recommended actions

-

40221, Execution error

Description

Task *arg*: Execution aborted

Recommended actions

Execution was aborted due to a fatal error.

40222, Limit error

Description

Task *arg*: Execution stack overflow

Recommended actions

The program is too complex to execute. Probably the program contains recursive routines.

40223, Execution error

Description

The execution of task *arg* has been stopped by a runtime error.

Consequences

The program execution is immediately halted.

Probable causes

The program error is considered UNRECOVERABLE so no error recovery attempt by an error handler routine (if used) was allowed. The actual cause of the error may vary, and is likely to be specified in an event log message logged simultaneously as this one.

Recommended actions

1) Check other event log messages logged simultaneously to determine the actual cause.

40224, Execution error

Description

Task *arg*: Illegal return code *arg* from ReaL routine This is always caused by an internal error in the ReaL routine.

Recommended actions

40225, Execution error

Description

Task *arg*: Execution could
not be restarted
Execution of the program could not be
continued after power failure.

Recommended actions

 Restart the program.

40226, Name error

Description

Task *arg*: Procedure name
arg
is not a RAPID identifier excluding
reserved words

Recommended actions

The procedure name, must be a legal
RAPID identifier not equal to any of
the reserved words of the RAPID
language. Change the name expression.

40227, Limit error

Description

Task *arg* : Runtime stack
overflow
The program is too complex to execute.
Probably the program contains recursive
routines.

Recommended actions

40228, Execution error

Description

The execution of task *arg* has been stopped by a runtime error *arg*.

Consequences

The program execution is immediately halted.

Probable causes

The program error is considered RECOVERABLE but the error was
not recovered. The actual cause of the error may vary, and is likely to
be specified in an event log message logged simultaneously as this one.

Recommended actions

1) Check other event log messages logged simultaneously to determine
the actual cause.

40229, Execution error

Description

Task *arg* : Unhandled error

Recommended actions

An error occurred in called instruction but was not handled by any
ERROR clause in the program.
Check the previous error or warning in the common log for the cause.

40230, Execution error

Description

Task *arg*: Unhandled
non-fatal runtime error

Recommended actions

A non-fatal runtime error has occurred
but was not handled by any ERROR
clause.

40241, Value error

Description

Task *arg*: Array dimension
number *arg* out of range (1-*arg*)

Recommended actions

The value of the 'DimNo' parameter of
the 'Dim' function must be an integer
value in the specified range.

40242, Type error

Description

Task *arg*: Data is not an array

Recommended actions

The 'DatObj' parameter of the 'Dim' function must be an array.

40243, Value error

Description

Task *arg*: Unknown interrupt
number

Recommended actions

Check that the specified interrupt
variable has been initialized by
CONNECT, and that the interrupt has been
defined using the ISignalDI or other
interrupt definition instruction.

40244, Value error

Description

Task *arg*:

Object *arg* is of non-value type

Recommended actions

Use expression or data object of value or semivalue type.

40245, Parameter error

Description

Parameters in *arg*

and *arg* is not

matching (late binding)

Recommended actions

Make sure that all procedures that are
 called from the same late binding node
have matching parameters. I.e. they
should be matching concerning base type,
mode and required/optional parameters.

40246, Cannot Deactivate Safe Interrupt

Description

Task: *arg*

It is not possible to deactivate a Safe Interrupt with the instruction
ISleep.

Program ref. *arg*

Recommended actions

Recovery: *arg*

40251, Name error

Description

Task *arg*: Ambiguous symbol

name *arg*

Recommended actions

Installed objects must have names that

are unique. Rename the object or change

the conflicting name.

40252, Limit error

Description

Task *arg*: Error *arg* when

creating sdb entry for *arg*

Recommended actions

An error occurred when the persistent

was to be inserted into the shared

database. Probably the database is full.

40253, Type definition error

Description

Task *arg*: Alias

arg of alias

arg not allowed

Recommended actions

It is not possible to define an alias

type equal to another alias type.

Instead, define two alias types equal to

the same atomic or record type.

40254, Symbol definition error

Description

Task *arg*: 'ANYTYPE#'

parameter *arg* cannot be

dimensioned

Recommended actions

Remove the dimension specification.

'ANYTYPE#' includes array types.

40255, Symbol definition error

Description

Task *arg*: 'ANYTYPE#' only

allowed for parameter (not for

arg)

Recommended actions

Use another type.

40256, Parameter error

Description

Task *arg*: 'alt' must not be

set for first optional parameter

arg in alternatives list

Recommended actions

Make sure that only the second and

following in each list of excluding

optional parameters are marked as

alternatives.

40257, Parameter error

Description

Task *arg*: REF mode

parameter *arg* cannot be

dimensioned

Recommended actions

Remove the array dimension
specification, or change the mode of the
parameter.

40258, Parameter error

Description

Task *arg*: 'switch'
parameter *arg* can not be
dimensioned

Recommended actions

Remove the array dimension
specification, or change the data type
of the parameter.

40259, Parameter error

Description

Task *arg*: 'switch'
parameter *arg* must have
transfer mode IN (specified value
arg)

Recommended actions

Remove the parameter transfer mode
specifier. If IN transfer mode is not
sufficient, change the data type of the
parameter.

40260, Symbol definition error

Description

Task *arg*: 'switch' only
allowed for optional parameter
(not for *arg*)

Recommended actions

Change the parameter into an optional
parameter, or change the data type of
the parameter. If the object is not a
parameter, change the data type.

40261, Type definition error

Description

Task *arg*: Value type class
for *arg* must be one of
REAL_SYMVALTYP_VAL, _SEMIVAL, _NONVAL or
_NONE (specified value *arg*)

Recommended actions

Change the value type class.

40262, Data declaration error

Description

Task *arg*: Too many array
dimensions for *arg*
(specified value *arg*)

Recommended actions

An array may have at most 3 dimensions.

40263, Name error

Description

Task *arg*: Symbol name
arg
is not a RAPID identifier excluding
reserved words

Recommended actions

The names of installed objects,
including parameters and components,
must be legal RAPID identifiers not
equal to any of the reserved words of
the RAPID language. Change the name.

40264, Symbol definition error

Description

Task *arg*: Missing C
function for *arg*

Recommended actions

A C-function that executes the ReaL
function being defined, must be
specified.

40265, Symbol definition error

Description

Task *arg*: Missing value
initialization function for
arg

Recommended actions

A value initialization function must be
specified.

40266, Reference error

Description

Task *arg*: *arg*
is not a data type name (object
arg)
The specified name identifies an object

other than a type.

Recommended actions

40267, Reference error

Description

Task *arg*: *arg*
is not a value data type (object
arg)
Only record components, alias types,
variables and 'VAR' mode parameters may
be of semi-value or non-value type.

Recommended actions

40268, Symbol definition error

Description

Task *arg*: Missing value
conversion function for *arg*

Recommended actions

A value conversion function must be
specified for a semi-value type.

40269, Symbol definition error

Description

Task *arg*: Not enough
memory for value of data
arg

Recommended actions

More memory required.

40270, Type definition error

Description

Task *arg*: Private type
arg can only be semi-value
or non-value type (specified value
arg)

Recommended actions

Change the value type class.

40271, Type definition error

Description

Task *arg*: Private type
arg size must be multiple
of 4 (specified value *arg*)

Recommended actions

All RAPID types must have a size that is
a multiple of four. Change the specified
type size.

40272, Type error

Description

Task *arg*: Persistent type
mismatch for *arg*

Recommended actions

There is already a persistent data with
the same name but with another data
type. Rename the persistent, or change
its data type.

40273, Reference error

Description

Task *arg*: Unknown data type
name *arg* for
arg

Recommended actions

There is no data type (or other object)
with the specified name.

40274, Parameter error

Description

Task *arg*: Unknown parameter
transfer mode *arg* for
arg

Recommended actions

The specified parameter transfer mode is
not one of IN, 'VAR', 'PERS', 'INOUT' or
REF. Use corresponding REAL_SYMPARMOD_x.

40275, Symbol definition error

Description

Task *arg*: Unknown symbol
definition type *arg*
The symbol definition type tag does not
specify one of the allowed symbol
types (REAL_SYMDEF_x).

Recommended actions

40277, Undo Aborted

Description

Task *arg*

 The program execution was stopped while processing the UNDO statements.

UNDO was not fully executed.

The routine *arg* was executing when UNDO was stopped.

Recommended actions

If the processing of UNDO takes too long, try to remove time-consuming

instructions such as TPWrite from the UNDO-clause.

If the undo processing never seems to finish, make sure any loops in the undo-statements are correct.

40278, Undo Aborted

Description

 Task *arg*

 The processing of UNDO was aborted due to an EXIT-statement in the routine *arg*.

UNDO was not fully executed.

Recommended actions

40279, Undo Aborted

Description

 Task *arg*

 The processing of UNDO was aborted due to a run-time error in routine *arg*.

UNDO was not fully executed.

Recommended actions

Investigate the cause of the error.

40280, Undo Aborted

Description

Task *arg*

The instructions BREAK, RAISE, RETURN and STOP are not allowed to use in an

undo-clause or any routine that is called from an undo-clause.

The instruction *arg* was found in UNDO context when

executing the routine *arg*.

Recommended actions

Avoid executing the instruction when in undo-context.

40281, Undo Aborted

Description

Task *arg*

The program execution of UNDO statements was aborted due to edit operation.

40301, File access error

Description

Task *arg* is trying to access file *arg*, but failing.

Consequences

No data in the file may be accessed.

Probable causes

File may be write protected.

Recommended actions

1) Check if the file is write protected, and in such case change the setting.

40302, File access error

Description

Task *arg* is trying to access file *arg*, but does not find file or directory.

Consequences

If the missing file is a module, no automatic loading to a task is possible.

Probable causes

-File may not have been correctly copied to the target directory.

-File or directory may have incorrect name.

Recommended actions

1) Make sure the file and directory names are correct.

40303, File access error

Description

Task *arg* is trying to access file *arg*, but failing.

Consequences

No data in the file may be accessed.

Probable causes

No storage space available on device.

Recommended actions

1) Make sure there is enough storage space available.

40304, File access error

Description

Task *arg* is trying to access file *arg*, but failing.

Consequences

No data in the file may be accessed.

Probable causes

-File may be write protected.

-File or directory may have incorrect name.

-No storage space available on device.

Recommended actions

1) Check if the file is write protected, and in such case change the setting.

2) Make sure the file and directory names are correct.

3) Make sure there is enough storage space available.

40322, Load error

Description

Task *arg*: RAPID syntax
error(s) in file
arg

Recommended actions

The source file to be loaded contains
RAPID syntax errors. Correct the source
file.

40323, Load error

Description

Task *arg*: Syntax error(s)
in header in file
arg

Recommended actions

The source file to be loaded contains
syntax error in the file header. Correct
the source file. The syntax errors are
logged in a separate file.

40324, Load error

Description

Task *arg*: Keywords not
defined in specified language (file
arg)

Recommended actions

Cannot load RAPID source code in the
national language specified in the file
header.

40325, Load error

Description

Task *arg*:

A big enough free program memory block is not available. The ordered
operation could not be completed.

Probable causes

The program memory is full or fragmentated.

Recommended actions

Check if large data structures could be split into smaller blocks.

Use of installed modules can save program memory.

40326, Load error

Description

Task *arg* : Parser stack
full (file
arg)

Recommended actions

The program is too complex to load.

40327, Load error

Description

Task *arg*: Not current RAPID
version (file
arg)

Recommended actions

Cannot load RAPID source code of the
version specified in the file header.

40328, Load error

Description

Task: *arg*
Program memory is full.
arg

Recommended actions

The module *arg* could not be loaded because the program memory is
full.
Recovery: *arg*

40329, Module installation failure

Description

Task: *arg* It is not possible to install a module from file *arg*.

Consequences

The module will not be installed.

Probable causes

The RAPID module may have RAPID errors.

Recommended actions

1) Check the event messages in the Elog domain RAPID

2) Correct the RAPID errors and make a P-start.

40330, Rapid errors in installed module

Description

Task: *arg*. Module (line/column): *arg*

There is an error with symbol: *arg*.

Consequences

The module will not be installed.

40331, Type error

Description

Operand types *arg* and *arg* for the '/', 'DIV' or 'MOD' operator not equal

Recommended actions

The two operands of the '/', 'DIV' or 'MOD' operators must have equal type. Check the operand types.

40332, Type error

Description

Operand types *arg* and *arg* for the '<', '<=', '>' or '>=' operator not equal

Recommended actions

The two operands of the '<', '<=', '>' or '>=' operators must have equal type. Check the operand types.

40351, Memory allocation error

Description

Task *arg*: Failed to

allocate hash table, use linear list

Recommended actions

40352, Memory allocation error

Description

Task *arg*: Failed to

update persistent expression, keep old

one

Recommended actions

40353, Mechanical Unit *arg* Missing!

Description

The mechanical unit component of the workobject *arg* is faulty.

Probable causes

- No mechanical unit is defined.

- The mechanical unit defined can not be found.

- The robot can not move the workobject by itself.

Recommended actions

Check the mechanical unit component of the workobject.

40354, A copy of a dynamic loaded module has been saved.

Description

Task: *arg*

A dynamic loaded module *arg* has been changed.

The module is lost when PP is set to main.

A copy of the changed module is saved on *arg*

Probable causes

- A dynamic loaded module has been changed.

- PP is set to main.

- The dynamic loaded module is removed.

- A copy of the changed module is saved.

Recommended actions

If the changes shall be saved, replace the original file with the copy.

40355, A Stop/QStop event routine has been stopped.

Description

Task: *arg*

A *arg* event routine has been stopped by an external stop command. Any running Stop/QStop event routines will be stopped after *arg* ms when controller receives second stop command.

Recommended actions

Keep all event routines short and free from RAPID instructions of type WaitTime, WaitDI, etc.

40357, Missing Error Handler

Description

There is no error handler that deals with the process error for task *arg*.

Consequences

The program will not be able to execute past the next move instruction.

Probable causes

The error handler is missing.

Recommended actions

Add an error handler. The error handler should include the StartMove (StartMoveRetry) instruction.

40358, RMQ message discarded

Description

A RMQ message was discarded in task *arg*. *arg* received a RMQ message that couldn't be handled.

Consequences

The RMQ message was discarded without any notification to the sender.

Probable causes

There can be several different reasons.

1. No interrupt is connected to the type of the received message.

2. No interrupt could be created because the interrupt queue was full.

3. The received message was corrupt.

Recommended actions

Make sure that the task has connected an interrupt to all types of messages that is possible to receive. Read about IRMQMessage in the RAPID reference maunal.

40502, Digital Input Break

Description

Task: *arg*

A digital input interrupted the execution.

Program Ref. *arg*

Recommended actions

Recovery: *arg*

40504, Parameter error

Description

Task: *arg*

arg

arg

arg

Recommended actions

Recovery: *arg*

40506, System Access Error

Description

Task: *arg*

arg

arg

arg

Recommended actions

Recovery: *arg*

40507, Limit Error

Description

Task: *arg*

Can not step further back on path *arg*.

Program Ref. *arg*

Recommended actions

Recovery: *arg*

40508, Orientation Value Error

Description

Task: *arg*

Wrong orientation value in *arg*.

Program Ref. *arg*

Recommended actions

All used orientations must be normalized, i.e. the sum of the quaternion elements squares must equal 1.

40511, Parameter Error

Description

Task: *arg*

The parameter *arg* in *arg* is specified with a negative value.

Program Ref. *arg*

Recommended actions

The parameter must be set to a positive value.

40512, Missing External Axis Value

Description

Some active external axis have incorrect or no order value.

Recommended actions

Reprogram the position.

40513, Mechanical Unit Error

Description

Task: *arg*

Not possible to activate or deactivate mechanical unit. Previous message may contain more information.

Program Ref. *arg*

40514, Execution Error

Description

Task: *arg*

The robot is too far from path to perform StartMove of the interrupted movement.

Program Ref. *arg*

Recommended actions

Position the robot to the interrupted position in the program.

Recovery: *arg*

40515, Type Error

Description

Task: *arg*

Illegal data type of argument for parameter *arg*.

Recommended actions

Change the parameter to a legal type. Make sure the value type is value or semivalue.

40518, Type Error

Description

Task: *arg*

Expected type differs from read type in *arg*.

Program Ref. *arg*

Recommended actions

Check the type in the argument.

40519, End Of File

Description

Task: *arg*

End of file was found before all bytes were read in *arg*.

Program Ref. *arg*

Recommended actions

Recovery: *arg*

40522, Limit Error

Description

Task: *arg*

Stop watch overflow.

Program Ref. *arg*

Recommended actions

Recovery: *arg*

40523, Mechanical Unit Conflict

Description

Not possible to deactivate mechanical unit *arg* due to the configuration.

Recommended actions

Check the configuration.

40524, Conveyor Access Error

Description

Task: *arg*

The conveyor is not activated.

Program Ref. *arg*

Recommended actions

Recovery: *arg*

40525, Conveyor Access Error

Description

Task: *arg*

No single number defined.

Program Ref. *arg*

40526, Conveyor Access Error

Description

Task: *arg*

The mechanical unit *arg* is not a single.

Program Ref. *arg*

40527, File Access Error

Description

Task: *arg*

Unable to open *arg*.

Program Ref. *arg*

Probable causes

- The I/O device reference is already in use.

Recommended actions

- If the I/O device reference is already in use, close it or use another.

Recovery: *arg*

40528, File Access Error

Description

Task: *arg*

File or serial channel is not open.

ProgramRef. *arg*

Probable causes

- The I/O device reference is not open, or has already been closed

Recommended actions

- Check that device is open

 Recovery: *arg*

40529, File Access Error

Description

Task: *arg*

Could not access the file *arg*.

Program Ref. *arg*

Probable causes

- The path or filename is wrong.

- The I/O device reference is already in use.

- The maximum number of simultaneously opened files is exceeded.

- The disk is full.

Recommended actions

- Check the path or filename.

- If the I/O device reference is already in use, close it or use another.

- Check the disk space.

Recovery: *arg*

40530, Parameter Error

Description

Task: *arg*

The number of characters, parameter *arg* in WriteBin, you want to write to the serial channel is greater than the size of the array containing the characters to be written.

Program Ref. *arg*

Recommended actions

Make the array bigger or decrease the parameter.

40531, Parameter Error

Description

Task: *arg*

The array *arg* in WriteBin is smaller than 0 or greater than 255.

Program Ref. *arg*

Recommended actions

Change the size of the array to be 0 - 255.

40534, Timeout

Description

Task: *arg*

A timeout interrupted the execution.

Program Ref. *arg*

Recommended actions

Recovery: *arg*

40535, Type Error

Description

Task: *arg*

The data you was trying to read in the file was not a numeric type.

Program Ref. *arg*

Recommended actions

Recovery: *arg*

40536, System Access Error

Description

Task: *arg*

Too many pending read requests.

Program Ref. *arg*

40537, File Access Error

Description

Task: *arg*

The serial channel is not open, or you are trying to use the instruction on a file.

Program Ref. *arg*

Recommended actions

- Open the serial channel.

- Check that the instruction is used on a serial channel.

 Recovery: *arg*

40538, Max Time Expired

Description

Task: *arg*

The programmed waiting time has expired.

Program Ref. *arg*

Recommended actions

Recovery: *arg*

40539, System Access Error

Description

Task: *arg*

Not allowed option in this task.

Program Ref. *arg*

40540, File Access Error

Description

Task: *arg*

arg is not a directory.

ProgramRef. *arg*

Recommended actions

Check that the path is the correct path to the directory you want to open.

Recovery: *arg*

40541, File Access Error

Description

Task: *arg*

Directory *arg* is not accessible.

Program Ref. *arg*

Recommended actions

Check the directory you are trying to open.

Recovery: *arg*

40542, File Access Error

Description

Task: *arg*

Could not access the file system *arg*.

Program Ref. *arg*

Recommended actions

- Check the path and filename.

Recovery: *arg*

40543, File Access Error

Description

Task: *arg*

You can not open *arg*.

Program Ref. *arg*

Probable causes

There are too many directories already open.

Recommended actions

Close one of the already open directories.

Recovery: *arg*

40544, File Access Error

Description

Task: *arg*

Could not create the directory *arg*.

Program Ref. *arg*

Recommended actions

- Check the path.

- Check write and execute permission for the directory under which the new directory should be created.

Recovery: *arg*

40545, File Access Error

Description

Task: *arg*

Could not remove the directory *arg*.

Program Ref. *arg*

Recommended actions

- Check the path.

- Check write and execute permission for the directory under which the directory you want to remove is located.

Recovery: *arg*

40546, File Access Error

Description

Task: *arg*

Could not remove the file *arg*.

Program Ref. *arg*

Recommended actions

- Check the path.

- Check if you have write permission for the file.

- Check write and execute permission for the directory under which the file you want to remove is located.

Recovery: *arg*

40547, File Access Error

Description

Task: *arg*

Could not rename the file *arg*.

Program Ref. *arg*

Recommended actions

- Check the path.

- Check write permission for the file you want to rename.

- Check write and execute permission for the directory under which the file you want to remove is located.

Recovery: *arg*

40548, File Access Error

Description

Task: *arg*

Could not copy the file *arg*.

Program Ref. *arg*

Recommended actions

- Check the path.

- Check write permision for the directory that you want to copy the file to.

- Check the available space.

Recovery: *arg*

40549, System Access Error

Description

Task: *arg*

Unknown mechanical unit *arg*.

The data of type mecunit is unknown for the system.

Program Ref. *arg*

Probable causes

Data of type mecunit has been declared in the program.

Recommended actions

Remove the declaration of mecunit data in the program and use one of the predefined data of type mecunit (automatic defined by the system).

40555, I/O Error

Description

Task: *arg*

Unable to read I/O signal.

Program Ref. *arg*

40556, I/O Error

Description

Task: *arg*

Unable to write I/O signal.

Program Ref. *arg*

40557, I/O Error

Description

Task: *arg*

Configuration error for I/O signal.

Program Ref. *arg*

Recommended actions

Check the IO signal configuration or alias definition.

40558, I/O Error

Description

Task: *arg*

Unable to read the I/O signal *arg* in unit *arg*.

Program Ref. *arg*

40559, I/O Error

Description

Task: *arg*

Unable to write to the I/O signal *arg* in unit *arg*.

Program Ref. *arg*

40560, System Access Error

Description

Task: *arg*

Can't save program module *arg*.

Program Ref. *arg*

40561, System Access Error

Description

Task: *arg*

arg is not a module name.

Program Ref. *arg*

Consequences

You can not unload, save or erase this module.

Recommended actions

Check the name of the module.

40562, Parameter Error

Description

Task: *arg*

Unknown axis number for the mechanical unit *arg*.

Program Ref. *arg*

Recommended actions

Check the value for argument AxisNo.

Recovery: *arg*

40563, System Access Error

Description

Task: *arg*

Mechanical unit *arg* is not active.

Program Ref. *arg*

Recommended actions

Activate the mechanical unit.

Recovery: *arg*

40564, Argument Error

Description

Task: *arg*

Orientation definition error.

GripLoads attach frame in tool or work object (user + object) is
unnormalized.

Program Ref. *arg*

Recommended actions

Check the orientation. All used orientations must be normalized i.e. the
sum of the quaternion elements squares must equal 1.

40565, Parameter Error

Description

Task: *arg*

Both arguments must be > 0.

Program Ref. *arg*

Recommended actions

Check the value of the arguments.

40566, Parameter Error

Description

Task: *arg*

Both arguments must be > 0 and <= 100.

Program Ref. *arg*

Recommended actions

Check the value of the arguments.

40567, Parameter Error

Description

Task: *arg*

Quaternion error.

Program Ref. *arg*

Recommended actions

Check the aom component of loaddata.

40568, Parameter Error

Description

Task: *arg*

Axis may not have a value less than 0.

Program Ref. *arg*

Recommended actions

Change to a positive value.

40569, Argument Error

Description

Task: *arg*

The argument AccMax must be set if the argument AccLim is set to TRUE.

Program Ref. *arg*

Recommended actions

Set a value to argument AccMax.

40570, Argument Error

Description

Task: *arg*

The argument DecelMax must be set if argument DecelLim is set to TRUE.

Program Ref. *arg*

Recommended actions

Set a value to argument DecelMax.

40571, Argument Error

Description

Task: *arg*

The value of parameter AccMax is too low.

Program Ref. *arg*

Recommended actions

Increase the value of parameter AccMax.

Recovery: *arg*

40572, Argument Error

Description

Task: *arg*

The value of parameter DecelMax is too low.

Program Ref. *arg*

Recommended actions

Increase the value of parameter DecelMax.

Recovery: *arg*

40573, Argument Error

Description

Task: *arg*

The value of argument On is too low.

Program Ref. *arg*

Recommended actions

Increase the value of argument On.

Recovery: *arg*

40574, Search Warning

Description

Task: *arg*

Number of hits during search was *arg*.

Before performing next search, make sure that TCP is moved back to the start position of the search path.

Program Ref. *arg*

Consequences

If no repositioning is done, before restart of circular search, movement that can cause damage might occur.

Recommended actions

Recovery: *arg*

40576, ParId Error

Description

Task: *arg*

The array size of argument AxValid is not equal to number of axes.

Program Ref. *arg*

Recommended actions

Check the size of the array.

40577, ParId Error

Description

Task: *arg*

This parameter identification can not be done in this robot type.

Program Ref. *arg*

40578, ParId Error

Description

Task: *arg*

The optional argument PayLoad is missing. For PayLoad identification the argument must be given.

Program Ref. *arg*

Recommended actions

Give a value to the argument PayLoad.

40579, ParId Error

Description

Task: *arg*

The optional argument PayLoad may only be used for PayLoad identification.

Program Ref. *arg*

Recommended actions

Remove the argument PayLoad.

40580, ParId Error

Description

Task: *arg*

Faulty state for LoadIdInit.

Program Ref. *arg*

Recommended actions

Check the whole ParId sequence.

40581, ParId Error

Description

Task: *arg*

Faulty state for ParIdMoveSeq.

Program Ref. *arg*

Recommended actions

Check the whole ParId sequence.

40582, ParId Error

Description

Task: *arg*

Faulty state for LoadIdInit.

Program Ref. *arg*

Recommended actions

Check the whole ParId sequence.

40583, ParId Error

Description

Task: *arg*

Backward execution not allowed.

Program Ref. *arg*

40584, ParId Error

Description

Task: *arg*

ParIdMoveSeq / Parameter NextMove:

Faulty array size.

Program Ref. *arg*

Recommended actions

Check the size of the array.

40585, ParId Error

Description

Task: *arg*

Missed argument WObj in LoadId for PayLoad with roomfix TCP.

Program Ref. *arg*

Recommended actions

Add argument WObj.

40586, ParId Error

Description

Task: *arg*

Not allowed argument WObj. The argument is only to be used for PayLoad with roomfix TCP.

Program Ref. *arg*

Recommended actions

Remove argument WObj.

40587, ParId error

Description

Task: *arg*

ParIdMoveSeq / Parameter MoveData:

Faulty array size.

Program Ref. *arg*

Recommended actions

Check the size of the array.

40588, ParId Error

Description

Task: *arg*

ParIdMove / Parameter StartIndex:

Faulty StartIndex.

Program Ref. *arg*

Recommended actions

Check the StartIndex.

40589, ParId Error

Description

Task: *arg*

ParIdMove / Parameter StartIndex:

Point at negative movetype.

Program Ref. *arg*

40590, ParId error

Description

arg

arg

Recommended actions

arg

40591, Argument Error

Description

Task: *arg*

Unknown type of parameter identification.

Program Ref. *arg*

Recommended actions

Check the argument ParIdType.

40592, Program Stop During Load Identification

Description

Task: *arg*

No type of program stop is allowed during load identification.

Program Ref. *arg*

Recommended actions

Start the identification procedure from the beginning again.

Recovery: *arg*

40593, Power Fail During Load Identification

Description

Task: *arg*

A Power Fail during load identification results in faulty load result.

Program Ref. *arg*

Recommended actions

Restart the program execution again with the same run mode (without PP move) for load identification from the beginning.

Recovery: *arg*

40594, User Error During Load Identification

Description

Task: *arg*

Error resulting in raise of PP to the beginning of the parameter identification procedure.

Program Ref. *arg*

Recommended actions

Start the identification procedure from the beginning again.

Recovery: *arg*

40595, Argument Error

Description

Task: *arg*

Unknown type of load identification.

Program Ref. *arg*

Recommended actions

Check the argument LoadIdType.

40596, Program Stop During Load Identification

Description

Task: *arg*

Any type of program stop during load identification is not allowed.

Program Ref. *arg*

Recommended actions

Restart the program execution again for load identification from beginning.

40597, Speed Override

Description

Task: *arg*

Speed override is not 100 percent.

Program Ref. *arg*

Recommended actions

- Change the speed override to 100.

- Restart the program execution again for load identification from beginning.

40598, Program Stop during Load Identification

Description

No type of Program Stop is allowed during the Load Identification movements.

Consequences

Not possible to complete the Load Identification sequence.

Note that some axes for the actual mechanical unit are now in independent mode.

Probable causes

Interrupt of the Load Identification sequence with Program Stop or release of the Enable Device.

Recommended actions

1) Restart the program. The Load Identification service routine will then start from beginning.

2) Also possible to cancel the Service Routine to completly skip the Load Identification.

40603, Argument Error

Description

Argument *arg* may not have a negative value.

Recommended actions

Set argument *arg* to a positive value.

40607, Execution Error

Description

Task: *arg*

Not allowed to change run mode from forward to backward or vice versa

when running a circular movement.

Program Ref. *arg*

Recommended actions

If possible, select the original run mode and press start to continue the stopped circular movement. If this is not possible, move robot and program pointer for a new start.

40608, Argument Error

Description

Task: *arg*

Orientation definition error in *arg*.

Program Ref. *arg*

Recommended actions

All used orientations must be normalized i.e. the sum of the quaternion elements squares must equal 1.

40609, Argument Error

Description

Task: *arg*

Argument \WObj specifies a mechanical unit with too long name.

Program Ref. *arg*

Recommended actions

Use max. 16 characters to specify the name of a mechanical coordinated unit.

40611, Execution Error

Description

Task: *arg*

Not allowed to step backwards with this move instruction.

Program Ref. *arg*

Consequences

Step backwards to a position defined with another tool or work object could result in faulty path.

Recommended actions

Check tool and work object.

40612, Argument Error

Description

Task: *arg*

No argument programmed for the name of the output signal.

Program Ref. *arg*

Recommended actions

Possible to set one position fix IO such as digital, group of digital or analog output signals during the robot movement.

40613, Argument Error

Description

Task: *arg*

Optional argument *arg* can only be combined with output signal argument *arg*.

Program Ref. *arg*

Recommended actions

Check and change the arguments.

40614, Argument Error

Description

Task: *arg*

Argument *arg* is not 0 or 1.

Program Ref. *arg*

Recommended actions

Digital signals can only be set or checked to 0 or 1.

40615, Argument Error

Description

Task: *arg*

Argument *arg* is not an integer value.

Program Ref. *arg*

Recommended actions

Digital group of in/out signals, process identity or process selector can only have an integer value.

40616, Argument Error

Description

Task: *arg*

Argument *arg* is outside allowed limits.

Program Ref. *arg*

Recommended actions

Used group of digital in/out signals can only be set or checked within 0 to *arg* according to configuration in system parameters.

Recovery: *arg*

40617, Argument Error

Description

Task *arg*:

One of the arguments SetValue, SetDvalue, ScaleValue, CheckValue or CheckDvalue is outside allowed limits.

Program Ref. *arg*

Probable causes

The analog signal can only be set/checked within *arg* to *arg* according to the I/O system parameter configuration.

Recommended actions

Check the RAPID program or the I/O configuration.

Recovery: *arg*

40620, Argument Error

Description

Task: *arg*

Argument *arg* have too large negative value.

Program Ref. *arg*

Recommended actions

Set argument *arg* to *arg* or more.

40622, Argument Error

Description

Task: *arg*

The value of argument Time is too low for cyclic interrupts.

Program Ref. *arg*

Recommended actions

Change the value for Time, to a value greater than or equal to 0.1 s.

40623, Argument Error

Description

Task: *arg*

The value of argument Time is too low for single interrupts.

Program Ref. *arg*

Recommended actions

Change the value for Time to a value greater than or equal to 0.01 s.

40624, Argument Error

Description

Task: *arg*

Argument *arg* is not between 0 and 2.

Program Ref. *arg*

Recommended actions

Specify the flank to generate the interrupt.

0 = Negative flank (high -> low).

1 = Positive flank (low -> high).

2 = Both negative and positive flank.

40625, Limit Error

Description

Task: *arg*

The robot is outside its limits.

Program Ref. *arg*

Probable causes

- Axis outside working area.

- Limits exceeded for at least one coupled joint.

Recommended actions

Recovery: *arg*

40631, Instruction Error

Description

Task: *arg*

Too many move instructions in sequence with concurrent RAPID program execution.

Program Ref. *arg*

Recommended actions

Edit the program to max. 5 MoveX \Conc in sequence on the basic execution level of the program.

40632, Instruction Error

Description

Task: *arg*

No move instructions with concurrent RAPID program execution are allowed within the StorePath-RestoPath part of the program.

Program Ref. *arg*

Recommended actions

Edit the program so it does not contain any MoveX \Conc instructions within the StorePath-RestoPath part of the program.

40634, Reference Error

Description

Task: *arg*

The signal *arg* is unknown in the system.

Program Ref. *arg*

Probable causes

If the signal is defined in the RAPID program, it must be connected to the configured signal with instruction AliasIO.

Recommended actions

All signals (except AliasIO signals) must be defined in the system parameters and can not be defined in the RAPID program.

40636, Sensor Error

Description

Task: *arg*

No measurement from sensor.

Program Ref. *arg*

Recommended actions

Requested data is not available.

Recovery: *arg*

40637, Sensor Error

Description

Task: *arg*

Not ready yet.

Program Ref. *arg*

Recommended actions

Requested function is not ready yet.

Recovery: *arg*

40638, Sensor Error

Description

Task: *arg*

General error.

Program Ref. *arg*

Recommended actions

General error has occurred which is not specifically connected to the requested action. Read the block "Error log" if the function is available.

Recovery: *arg*

40639, Sensor Error

Description

Task: *arg*

Sensor busy, try later.

Program Ref. *arg*

Recommended actions

The sensor is busy with an other function.

Recovery: *arg*

40640, Sensor Error

Description

Task: *arg*

Unknown command.

Program Ref. *arg*

Recommended actions

The function requested from the sensor is unknown.

Recovery: *arg*

40641, Sensor Error

Description

Task: *arg*

Illegal variable or block number.

Program Ref. *arg*

Recommended actions

Requested variable or block is not defined in the sensor.

Recovery: *arg*

40642, Sensor Error

Description

Task: *arg*

External alarm.

Program Ref. *arg*

Recommended actions

Alarm from external equipment.

Recovery: *arg*

40643, Sensor Error

Description

Task: *arg*

Camera alarm.

Program Ref. *arg*

Recommended actions

Some error has been detected in the camera. Run Camcheck to test if the

camera is OK.

Recovery: *arg*

40644, Sensor Error

Description

Task: *arg*

Temperature alarm.

Program Ref. *arg*

Recommended actions

The camera is overheated it needs more cooling air or water.

Recovery: *arg*

40645, Sensor Error

Description

Task: *arg*

Value out of range.

Program Ref. *arg*

Recommended actions

The value of the data sent to the sensor is out of range.

Recovery: *arg*

40646, Sensor Error

Description

Task: *arg*

Camera check failed.

Program Ref. *arg*

Recommended actions

The CAMCHECK function failed. The camera is broken. Send it for repair.

Recovery: *arg*

40647, Sensor Error

Description

Task: *arg*

Communication time out.

Program Ref. *arg*

Recommended actions

Increase the time out time and check the connections to the sensor.

Recovery: *arg*

40648, Search Error

Description

Task: *arg*

Not allowed to do StorePath while searching is active on motion base path level.

Program Ref. *arg*

Consequences

Program is stopped.

Probable causes

Executing of instruction StorePath while searching is active.

Recommended actions

Not possible to use StorePath in TRAP, event or service routine while searching is active on motion base path level.

If using interupts in the program for execution of TRAPs, such interrupt must be deactivated during any search.

E.g. ISleep - SearchL - IWatch

40649, Path Limitation

Description

Task: *arg*

arg is already done or executing. Instruction *arg* must first be executed, before a new *arg* can be done.

Program Ref. *arg*

Recommended actions

Check the RAPID program.

40650, Wrong Combination Of Parameters

Description

Task: *arg*

Optional parameters and switches are not used in a correct combination.

Program Ref. *arg*

Recommended actions

- No optional parameters and no switch keep the old coordinate system.

- The switch Old has the same function.

- RefPos or RefNum has to be defined with Short, Fwd or Bwd.

40651, Use Numeric Input

Description

Task: *arg*

Use numeric input for the position instead of a robtarget.

Program Ref. *arg*

Recommended actions

The position can not be defined with a robtarget for robot axes.

Use the optional parameter for numeric input of the position.

40652, Axis Is Moving

Description

Task: *arg*

A Robot axis, an external axis or an independent axis is moving.

Program Ref. *arg*

Recommended actions

All Robot axes, external axes and independent axes have to stand still.

Use MoveL with Fine argument for the Robot and external axes.

Use IndRMove for the independent axes.

Recovery: *arg*

40654, Axis Not Active

Description

Task: *arg*

The axis destination position to move to is undefined (9E9) or

the axis to move is not active at present.

Program Ref. *arg*

Probable causes

1)The position to move to has been programmed or ModPos with not active

mechanical unit

2) The mechanical unit is not active at present

Recommended actions

The mechanical unit has to be activated before programming, ModPos or execution of this instruction.

Recovery: *arg*

40655, Axis Is Not Independent

Description

Task: *arg*

The axis is not in independent mode.

Program Ref. *arg*

Consequences

It is only possible to get the status from an axis in independent mode.

Recommended actions

Set the axis to independent.

Recovery: *arg*

40658, Parameter Error

Description

Task: *arg*

Parameter *arg* can only be used, if parameter *arg* is greater than zero.

Program Ref. *arg*

Recommended actions

Parameter *arg* has effect only in the first TriggX instruction, in a sequence of several TriggX instructions, that controls the speed proportional AO signal.

40661, Search Error

Description

Task: *arg*

The signal *arg* for the SearchX instruction is already high at the start of searching or the I/O-unit for the signal isn't up and running for the occasion.

Before performing next search, make sure that TCP is moved back to the start position of the search path.

Program Ref. *arg*

Consequences

If no repositioning is done, before restart of circular search, movement that can cause damage might occur.

Recommended actions

Recovery: *arg*

40662, Invalid Worldzone Type

Description

Task: *arg*

The switch \ *arg* must be associated with a *arg* worldzone.

Program Ref. *arg*

Recommended actions

If use of switch \Temp, the datatype must be wztemporary in WorldZone.

If use of switch \Stat, the datatype must be wzstationary in WorldZone.

40663, World Zone Not In Use

Description

Task: *arg*

The argument *arg* of the instruction *arg* refers to a not used worldzone.

Program Ref. *arg*

Recommended actions

The worldzone must have been defined and activated by a WZLimSup or WZDOSet instruction.

40664, World Zone Already In Use

Description

Task: *arg*

The ' *arg* ' worldzone has already been defined and activated.

A world zone can only be defined once.

Program Ref. *arg*

Recommended actions

Use a worldzone with another name.

40665, Too Many World Zones

Description

Task: *arg*

It is not possible to add the world zone *arg* . The world zone table is full.

Program Ref. *arg*

Recommended actions

Check the RAPID program to see if any word zone might be removed.

40666, Illegal World Zones

Description

Task: *arg*

Worldzone ' *arg* ' is defined locally in current routine.

Program Ref. *arg*

Recommended actions

Define the world zone as global or local in module.

40667, Illegal World Zones

Description

Task: *arg*

WorldZone *arg* is not entire data reference.

Program Ref. *arg*

Recommended actions

Check the value of argument WorldZone.

40668, Shapedata Not In Use

Description

Task: *arg*

The ' *arg* ' argument of the instruction *arg* must refer to a defined shapedata.

Program Ref. *arg*

Recommended actions

A shapedata is used to store a volume definition. It must have been defined

by WZBoxDef, WZSphDef or WZCylDef before it can be used by WZLimSup or WZDOSet.

40669, World Zone Too Small

Description

Task: *arg*

At least one side or radius is less than the minimal allowed in instruction *arg* .

Program Ref. *arg*

Recommended actions

Check previous volume definition instruction.

40670, Invalid World Zone

Description

Task: *arg*

The index of the world zone argument *arg* in *arg* is not a valid index defined by WZLimSup or WZDOSet.

Program Ref. *arg*

Recommended actions

Check the RAPID program.

40671, Illegal Use Of World Zone

Description

Task: *arg*

The argument ' *arg* ' for *arg* must be a temporary world zone.

Program Ref. *arg*

Recommended actions

Check the argument..

40672, World Zone Already In Use

Description

Task: *arg*

It is not possible to add the world zone *arg* . Another world zone with the same name is already defined in the system.

Program Ref. *arg*

Recommended actions

Check the name of the world zone.

40673, I/O Access Error

Description

Task: *arg*

The signal given in parameter *arg* is write protected for RAPID access.

Program Ref. *arg*

Recommended actions

Select other user signal or change the access mode for the signal.

40674, I/O Access Error

Description

Task: *arg*

The signal given in parameter *arg* is not write protected for user access from teach pendant or RAPID.

Program Ref. *arg*

Recommended actions

Change the access mode to system type for the signal in the I/O configuration.

40675, Execution Error

Description

Not allowed changing the run mode from forward to backward or vice versa when running an invisible trap routine.

Recommended actions

If possible, select the original run mode and press start to continue.

40676, Parameter Error

Description

Task: *arg*

The DeltaJointVal for robot axis *arg* is <= 0.

Program Ref. *arg*

Recommended actions

Check the value for DeltaJointVal. The DeltaJointVal for all axes to supervise must be > 0 mm or degrees.

40677, Parameter Error

Description

Task: *arg*

The DeltaJointVal for external axis *arg* is <= 0.

Program Ref. *arg*

Recommended actions

Check the value for DeltaJointVal. The DeltaJointVal for all axes to supervise must be > 0 mm or degrees.

40678, Parameter Error

Description

Task: *arg*

LowJointVal is higher than or equal to HighJointVal for robot axis *arg*.

Program Ref. *arg*

Recommended actions

Check the values for HighJointVal and LowJointVal. The HighJointVal must be higher than the LowJointVal for all axes with defined high or/ and low limits.

40679, Parameter Error

Description

Task: *arg*

LowJointVal is higher than or equal to HighJointVal for external axis *arg*.

Program Ref. *arg*

Recommended actions

Check the values for HighJointVal and LowJointVal. The HighJointVal must be higher than the LowJointVal for all axes with defined high or/ and low limits.

40680, Parameter Error

Description

Task: *arg*

Error in used WZHomeJointDef. It is not allowed to specify supervision of not active axis *arg*

Program Ref. *arg*

Recommended actions

Set the argument MiddleJointVal to 9E9 for the actual axis.

40681, Parameter Error

Description

Task: *arg*

Error in used WZLimJointDef. It is not allowed to specify limitation of not active axis *arg*.

Program Ref. *arg*

Recommended actions

Set the argument LowJointVal and HighJointVal to 9E9 for the actual axis.

40698, Read error

Description

Task *arg* is trying to read file *arg*, but is failing.

Consequences

It was not possible to read/load *arg*.

Probable causes

If trying to access file on FTP mounted disc, make sure that the size of *arg* isn't larger then the maximum file size configured in the FTP protocol settings.

40699, Program Memory Full

Description

The task *arg*, has only *arg* bytes in its program memory.

Consequences

It was not possible to load module *arg*.

Recommended actions

1. Remove some other module and try again.

2. Check if large data structures could be split into smaller blocks

3. Use of installed modules can save program memory.

40700, Syntax Error

Description

Task: *arg*

Syntax error.

arg

40701, Program Memory Full

Description

The task *arg* , has only *arg* free bytes in its user space.

Consequences

The ordered operation could not be completed.

Recommended actions

1. Remove some modules and try again.

2. Check if large data structures could be split into smaller blocks

3. Use of installed modules can save program memory.

40702, File Not Found

Description

Task: *arg*

The file *arg* was not found.

Program Ref. *arg*

Recommended actions

- Check the file path and the file name.

- Check if the file exists.

 Recovery: *arg*

40703, Unload Error

Description

Task: *arg*

The program module could not be unloaded.

The reason is that the module is changed but not saved.

Program Ref. *arg*

Recommended actions

The instruction UnLoad:

Use the optional switch ErrIfChanged, without recover from this situation, in an Error handler.

Recovery: *arg*

40704, UnLoad Error

Description

Task: *arg*

arg

The program module couldn't be unloaded.

Program Ref. *arg*

Probable causes

- Module not loaded with Load instr.

- Not same file path as used for Load

Recommended actions

- Check if the program module has been loaded with the instruction Load.

- Check if the file path and name are the same in the UnLoad and Load instruction.

Recovery: *arg*

40705, Syntax Error

Description

Task: *arg*

Syntax error

arg

Recommended actions

More syntax errors will follow this.

40706, Load Error

Description

Task: *arg*

The program module is already loaded.

Program Ref. *arg*

Probable causes

The module name in the head of the file *arg* already exists in the program memory.

Recommended actions

Recovery: *arg*

40707, I/O Unit Name Invalid

Description

Task: *arg*

The unit name *arg* does not exist.

Program Ref. *arg*

Recommended actions

- Check if the unit name is misspelled.

- Check if the unit is defined.

Recovery: *arg*

40708, I/O Unit Is Not Enabled

Description

Task: *arg*

 I/O unit *arg* was not enabled.

Program Ref. *arg*

Probable causes

The maximum period of waiting time was too short.

Recommended actions

Increase the waiting time or make a retry.

Recovery: *arg*

40709, I/O Unit Is Not Disabled

Description

Task: *arg*

I/O unit *arg* was not disabled.

Program Ref. *arg*

Probable causes

The maximum period of waiting time was too short.

Recommended actions

Increase the waiting time or make a retry.

Recovery: *arg*

40710, Argument Error

Description

Task: *arg*

The argument *arg* is an expression value, is not present or is of the type switch.

Program Ref. *arg*

Recommended actions

Change the parameter *arg* to a valid one.

Recovery: *arg*

40711, Alias Type Error

Description

Task: *arg*

The data types for the arguments FromSignal and ToSignal must be the same and must be of signalxx type.

Program Ref. *arg*

Recommended actions

Change the type to a valid one (signalai/ao, signaldi/do, signalgi/go).

Recovery: *arg*

40712, Event Routine Error

Description

Task: *arg*

Too many event routines, the routine *arg* will not be executed.

Recommended actions

Encapsulate the routine in one of the others that are specified for the same event.

40713, Alias Define Error

Description

Task: *arg*

The signal in argument FromSignal: *arg*, must be defined in the IO configuration and the signal in argument ToSignal: *arg*, must be declared in the RAPID program and not defined in the IO configuration.

Program Ref. *arg*

Recommended actions

Check the IO configuration and the RAPID program.

Recovery: *arg*

40714, Argument Error

Description

Task: *arg*

Orientation definition error in *arg* .

Program Ref. *arg*

Recommended actions

This is probably an off-line generated "dummy" position (undefined orienta-

tion), which needs to be modified with modpos.

40720, Alias IO Installation

Description

The system could not refresh all IO signals as RAPID symbols.

Consequences

No IO signals can be used in a RAPID program.

Probable causes

- Incorrect IO configuration

- Incorrect task configuration

Recommended actions

Restart the controller.

40721, IO Installation

Description

Task *arg*:

The system could not refresh all IO signals as RAPID symbols.

Consequences

No IO signals can be used in a RAPID program.

Probable causes

- Incorrect IO configuration

- Incorrect task configuration

Recommended actions

Restart the controller.

40722, Mechanical Units

Description

The system could not refresh all mechanical units as RAPID symbols.

Consequences

No mechanical units can be used in a RAPID program.

Probable causes

- Incorrect motion configuration

- Incorrect task configuration

Recommended actions

Restart the controller.

40724, Save or Erase Error

Description

Task: *arg*

The program module *arg* could not be saved or could not be erased.

Program Ref. *arg*

Recommended actions

- Check the spelling of the module name

- Check if the module is loaded.

Recovery: *arg*

40726, Reference Error

Description

Task: *arg*

The reference to the load session is not valid.

Program Ref. *arg*

Recommended actions

Check if the specified reference is the same as in StartLoad

Recovery: *arg*

40727, Save Error

Description

Task: *arg*

Missing file source *arg*.

Program Ref. *arg*

Recommended actions

Use FilePath argument to specify the file destination.

Recovery: *arg*

40728, Frame Error

Description

Task: *arg*

Unable to calculate new frame.

Program Ref. *arg*

Probable causes

The positions have not the required relations or are not specified with enough accuracy.

Recommended actions

Check if the positions are too close or not specified with enough accuracy.

Recovery: *arg*

40731, Value Error

Description

Task: *arg*

The value of the argument *arg* for signal *arg* is above its maximum logical value.

Program Ref. *arg*

Recommended actions

Change the argument or change the maximum logical value parameter for the signal.

Recovery: *arg*

40732, Value Error

Description

Task: *arg*

The value of the argument *arg* for signal *arg* is below its minimum logical value.

Program Ref. *arg*

Recommended actions

Change the argument or change the min logical value parameter for the signal.

Recovery: *arg*

40733, Value Error

Description

Task: *arg*

The value of the argument *arg* for signal *arg* is below the value for argument *arg*.

Program Ref. *arg*

Recommended actions

Change the values of the arguments.

40734, Symbol Definition Error

Description

Task: *arg*

The string in text table *arg* at index *arg* is too long.

Program Ref. *arg*

Recommended actions

Change the file for the text table and perform a cold start.

40735, Argument Error

Description

The axis is not defined.

Recommended actions

The axis has to be defined, before this instruction is executed.

40736, Mechanical Unit Error

Description

Task: *arg*

It is not possible to define a payload on the robot with this instruction.

Program Ref. *arg*

Recommended actions

Use the instruction GripLoad instead of MechUnitLoad.

40737, Symbol Definition Error

Description

Task: *arg*

The requested text or text package does not exist. Text table *arg*, Index *arg*.

Program Ref. *arg*

Recommended actions

Check the arguments.

Recovery: *arg*

40738, I/O Error

Description

Unable to access the I/O signal *arg* on unit *arg* .

Impossible to restart.

Probable causes

The connection with the I/O module is broken.

Recommended actions

Re-establish the connection with the I/O unit. To make it possible to restart the program move PP to a safe restart position.

40739, Parameter Error

Description

Task: *arg*

None of the option arguments DO1, GO1, GO2, GO3 or GO4 are specified.

Program Ref. *arg*

Recommended actions

Specify at least one of the arguments.

40740, Execution Error

Description

The PERS variable specified in the instruction TriggStopProc can not be

updated, because it does not exist any more.

Probable causes

The program module with the PERS variable is probably removed from the

program memory.

Recommended actions

Check if the module with the PERS variable is removed, if so put it back.

40741, Context Error

Description

Task: *arg*

Instruction *arg* may only be used in an event routine.

Program Ref. *arg*

Recommended actions

Remove the instruction.

40742, Parameter Error

Description

Task: *arg*

The timing parameter DipLag is larger than the system parameter Event preset time.

Program Ref. *arg*

Recommended actions

Increase the system parameter Event preset time or check the equipment dip lag (delay) compensation.

Recovery: *arg*

40743, Parameter Error

Description

Task: *arg*

Not a valid subtype in argument *arg*.

Program Ref. *arg*

Recommended actions

Check the argument.

40744, Parameter Error

Description

Task: *arg*

Invalid value in *arg* in argument *arg*.

Program Ref. *arg*

Recommended actions

Check the argument.

40745, Parameter Error

Description

Task: *arg*

arg is less than *arg* in argument *arg*.

Program Ref. *arg*

Recommended actions

Check the argument.

40746, Parameter Error

Description

Task: *arg*

arg TRUE in parameter *arg* in combination with conveyor coordination.

Program Ref. *arg*

Recommended actions

Cannot use fine points when leaving conveyors after coordinated stoppoint.

Use a zone instead.

40747, Access Error

Description

Task: *arg*

Can not read or write to the system parameter *arg*. The parameter is internal and protected from reading and writing.

Program Ref. *arg*

Recommended actions

Recovery: *arg*

40748, Value Error

Description

Task: *arg*

The data to write from parameter CfgData to the system parameter, is outside valid limits.

Program Ref. *arg*

Recommended actions

Recovery: *arg*

40749, Execution Error

Description

Task: *arg*

It is not possible to execute StartMove when the robot is moving.

Program Ref. *arg*

Recommended actions

Recovery: *arg*

40752, Argument Error

Description

Task: *arg*

Some load session with StartLoad - WaitLoad has not been finished.

Program Ref. *arg*

Recommended actions

Finish the load session with WaitLoad, cancel it with CancelLoad or set PP to main.

Recovery: *arg*

40753, Memory Fault

Description

Task: *arg*

Because of power fail in executed Load or StartLoad ... WaitLoad instruction, the RAPID program memory is inconsistent.

*** TO REPAIR DO P-START ***

Program Ref. *arg*

Recommended actions

Important to do P-start, because the RAPID program memory is destroyed:

- Faulty init value of PERS variables

- Reduction of the available program memory size

40754, Argument Error

Description

Task: *arg*

There are no arguments given.

Program Ref. *arg*

Recommended actions

If you want a limitation set the optional argument On with a value, otherwise set to Off.

40755, Context Error

Description

Task: *arg*

Instruction *arg* may only be used in a trap routine.

Program Ref. *arg*

Recommended actions

Remove the instruction.

40756, Context Error

Description

Task: *arg*

Instruction *arg* may only be used in a trap routine ordered through instruction *arg*.

Program Ref. *arg*

Recommended actions

Check that INTNO has the interrupt number used by *arg*.

40757, Argument Error

Description

Task: *arg*

The load session you are trying to cancel is not in use.

Program Ref. *arg*

Recommended actions

Recovery: *arg*

40758, I/O Error

Description

Unable to access the I/O signal *arg* unit *arg* .

Probable causes

The connection with the I/O module is broken.

Recommended actions

Re-establish the connection with the I/O unit.

40759, Parameter Error

Description

Task: *arg*

The argument Data in *arg* has improper data type.

Program Ref. *arg*

Recommended actions

Check the data type.Non-value and semi-value types may not be used.

40761, Parameter Error

Description

Task: *arg*

The argument *arg* has a negative value.

Program Ref. *arg*

Recommended actions

Set the value positive or to zero.

40762, Value Error

Description

Task: *arg*

The value of argument *arg* forces the robot out of workspace.

Program Ref. *arg*

Recommended actions

Decrease the value.

40763, Execution Error

Description

Task: *arg*

The instruction *arg* can not be executed while the system is in a stop state.

Program Ref. *arg*

40764, Switch Argument Error

Description

Task: *arg*

The instruction *arg* must be used with one switch argument.

Program Ref. *arg*

Recommended actions

Use one of the switch Total or Free.

40765, Argument Error

Description

Task: *arg*

In the instruction *arg* the argument *arg* is not an open directory.

Program Ref. *arg*

Recommended actions

Open the directory before trying to read it.

Recovery: *arg*

40766, Parameter Error

Description

Task: *arg*

In the instruction *arg* the argument *arg* can't be used without the argument *arg*.

Program Ref. *arg*

Recommended actions

Check the RAPID program.

40767, Search Error

Description

Task: *arg*

Object of the type *arg* could not be searched for.

Program Ref. *arg*

Recommended actions

Check the RAPID program.

40768, Symbol Access Error

Description

Task: *arg*

No system symbol *arg* is accessible in the system.

Program Ref. *arg*

Recommended actions

Recovery: *arg*

40769, Symbol Read Access Error

Description

Task: *arg*

The symbol *arg* is not a readable object.

Program Ref. *arg*

Recommended actions

Recovery: *arg*

40770, Symbol Type Error

Description

Task: *arg*

The symbol *arg* is of type *arg* and not the expected type *arg* .

Program Ref. *arg*

Recommended actions

Check the RAPID program.

40771, Symbol Access Error

Description

Task: *arg*

The symbol *arg* is not accessible in this scope.

Program Ref. *arg*

Recommended actions

Recovery: *arg*

40772, I\O Error

Description

Task: *arg*

The *arg* instruction has lost contact with the conveyor.

Program Ref. *arg*

40773, Instruction Interrupted

Description

Task: *arg*

The instruction *arg* was interrupted, reason unknown.

Program Ref. *arg*

40774, Object Dropped

Description

Task: *arg*

The object that the instruction *arg* was waiting for has been dropped.

Program Ref. *arg*

Probable causes

Start window passed or Checkpoint not satisfied.

Recommended actions

If Checkpoint not used, Checkpoint Distance and Checkpoint Window Width must be set to zero.

Rerun the instruction

Recovery: *arg*

40775, Conveyor Error

Description

Task: *arg*

Another *arg* instruction is waiting for a distance to the object.

Program Ref. *arg*

40776, Conveyor Error

Description

Task: *arg*

Another *arg* instruction is waiting for the object.

Program Ref. *arg*

40777, Conveyor Error

Description

Task: *arg*

The *arg* instruction is already connected.

Program Ref. *arg*

Recommended actions

Recovery: *arg*

40778, Value Error

Description

Task: *arg*

Booking of the new error number *arg* failed. The init value must be -1 or the old number.

Program Ref. *arg*

Recommended actions

Check the init value of the new errnum variable.

40779, Error Number Local

Description

Task: *arg*

The RAPID user error number *arg* must not be declared as local in routine.

Program Ref. *arg*

Recommended actions

Check the errnum declaration.

40780, Data Object Error

Description

Task: *arg*

There is no valid data object for the argument *arg* of the instruction *arg*.

Program Ref. *arg*

Recommended actions

Check if there is a right data object.

40781, File Error

Description

Task: *arg*

The parameter *arg* does not correspond to any loaded text file.

Program Ref. *arg*

Recommended actions

Check if the text file is (correct) installed.

40782, Mode Error

Description

Task: *arg*

File or serial channel is not opened for writing.

Program Ref. *arg*

Recommended actions

Check how the file or serial channel was opened..

40783, Mode Error

Description

Task: *arg*

File or serial channel is not opened in a character-based mode.

Program Ref. *arg*

Recommended actions

Check how the file or serial channel was opened.

40784, Mode Error

Description

Task: *arg*

File or serial channel is not opened in a binary mode.

Program Ref. *arg*

Recommended actions

Check how the file or serial channel was opened.

40785, Mode Error

Description

Task: *arg*

File or serial channel is not opened for reading.

Program Ref. *arg*

Recommended actions

Check how the file or serial channel was opened.

40786, Read Error

Description

Task: *arg*

One or more bytes is not read properly. The value of the read data might be

inconsistent.

Program Ref. *arg*

Consequences

Because the checksum for the received message is not the same as calculated at sending, the message data can not be used.

Probable causes

The reason can be:

- Communication problem

- Different WriteAnyBin - ReadAnyBin software version between the sending WriteAnyBin and the receiving ReadAnyBin

Recommended actions

Error Recovery for communication problem: *arg*

40787, User Frame Error

Description

Task: *arg*

Not possible to get the coordinated user frame.

Program Ref. *arg*

40788, Axis Error

Description

Task: *arg*

The single axis is not init correctly.

Program Ref. *arg*

40789, Limitation Error

Description

Task: *arg*

The string length of the argument for the file path is too long.

Program Ref. *arg*

Probable causes

The maximum allowed string length for the full system file path is *arg* characters.

Recommended actions

Shorten the length of the path.

40790, Value Error

Description

Task: *arg*

The RAPID string is too long.

Program Ref. *arg*

Probable causes

String value exceeds the maximum allowed length.

Recommended actions

Rewrite the program to use strings of less length.

Recovery: *arg*

40791, I/O Error

Description

Task: *arg*

No space left on device (file name *arg*).

Program Ref. *arg*

Recommended actions

Recovery: *arg*

40792, I/O Error

Description

Task: *arg*

File open/access error for path *arg*.

Program Ref. *arg*

Recommended actions

- Check permission, is the file write protected?
- Check if the file or directory exists.
- Check if there is any space left on device.

Recovery: *arg*

40793, Error Installing Text Table

Description

Task: *arg*

No or faulty text resource name or index number in the text file.

Program Ref. *arg*

Consequences

The contents of some of the text tables may have been destroyed.

Recommended actions

Correct the error, cold start the system and try again.

40794, Error Installing Text Table

Description

Task: *arg*

The specified index within the text resource already exists in the system.

Program Ref. *arg*

Probable causes

- Error in the index numbering.
- The file has been installed twice.

Recommended actions

If error in the index, correct it, cold start the system and try again.

40795, Error Installing Text Table

Description

Task: *arg*

System memory for text tables is full.

Program Ref. *arg*

Recommended actions

Reduce the amount of user defined text string installed from RAPID. Cold start the system and try again.

40796, Overload Error

Description

Task: *arg*

The system is overloaded so the actual order can not be ready in time.

Program Ref. *arg*

Recommended actions

 Reduce the main computer load, for example by:

 - Add WaitTime in RAPID loops

 - Increase filter time for I/O signals

 - Avoid cyclic interrupts

40797, I/O Error

Description

Unable to access the I/O signal *arg* on unit *arg*.

Probable causes

The connection with the I/O module is broken.

Recommended actions

Re-establish the connection with the I/O unit.

40798, System Access Error

Description

arg

40799, Execution Error

Description

Task: *arg*

TestSignRead is using a channel without a defined signal.

Program Ref. *arg*

Recommended actions

Use TestSignDefine to define a signal to the channel.

40800, Tool Error

Description

Task: *arg*

The component robhold in the tool has not got the correct value.

Program Ref. *arg*

Recommended actions

Change the value of robhold.

If the robot is holding the tool the value should be TRUE. If the robot is not holding the tool, i.e. a stationary tool, the value should be FALSE.

40801, Calculation error

Description

Task: *arg*

Can not calculate the tool frame.

Program Ref. *arg*

Probable causes

It is not possible to calculate the tool frame with the selected approach points.

Recommended actions

Select new approach points as accurate as possible.

40802, Execution Error

Description

Task: *arg*

Not possible to do subscribe.

Program Ref. *arg*

Probable causes

There is no memory left to make another subscription on this variable.

Recommended actions

To continue, PP must be moved to main!

40803, Error msg too long

Description

The length of the following error message was too long and has been cut.

This means you will not be able to read the whole message.

40804, Argument Error

Description

Task: *arg*

The argument "type" in stoppointdata may not be followtime in the instructions MoveJ, MoveAbsJ and MoveExtJ.

Program Ref. *arg*

Recommended actions

Change "type" to inpos or stoptime.

40805, Motion Error

Description

Task: *arg*

Error from MocGenInstr.

Ref to former message for reason.

Program Ref. *arg*

40806, IOF Error

Description

Task: *arg*

Error from IofGenInstr.

Ref to former message for reason.

Program Ref. *arg*

40807, File Error

Description

Task: *arg*

The file *arg* already exists.

Program Ref. *arg*

Recommended actions

To be able to rename or copy:

Change the file name or remove the existing file.

Recovery: *arg*

40811, No Contact With Unit

Description

Task: *arg*

There is no contact with unit.

Program Ref: *arg*

Probable causes

- The unit may have been disabled (IODisable "UNIT1", 1;)

- No power to the unit.

40812, Execution Error

Description

Task: *arg*

Not allowed to run this program in non_motion_execution_mode.

Program Ref. *arg*

Recommended actions

Change mode.

40813, Execution Error

Description

Task: *arg*

The task is not allowed to execute the instruction *arg*.

Program Ref. *arg*

Probable causes

The task is not configured to control mechanical units.

Recommended actions

Change the configuration or remove the instruction.

40814, Execution Error

Description

Task: *arg*

StartMove could not get the regain distance.

Program Ref. *arg*

Probable causes

Application error.

Recommended actions

Please restart the path.

Recovery: *arg*

40815, Non Existing Axis Number

Description

Task: *arg*

Unknown axis number for the mechanical unit *arg*

Program Ref. *arg*

Recommended actions

Check the value for the argument Axis.

40816, RolGenInstr Error

Description

Task: *arg*

Error from instruction RolGenInstr.

Ref. to former user or internal error message for reason.

Program Ref. *arg*

Recovery: *arg*

41000, Item source exists

Description

Item source *arg* already exists. Two item sources may not have the same name.

41001, Not a valid name

Description

Choose *arg* or *arg*

41002, Buffer size exceeded

Description

Fatal internal error for item source *arg*. Try warm start or cold start. Please report this error.

41003, Item source not defined

Description

The item source object has not been defined.

41004, Itmsrc internal error

Description

Internal error for item source *arg*.

Error type: *arg*.

41005, Flush item source first

Description

Item source *arg* must be flushed before it is used.

41006, Ack item target first

Description

Item target must be acknowledged before executing the GetItmTgt(s) instruction again.

Error occurred for item source *arg*.

41007, Item target buffer full

Description

Item target buffer full for item source *arg* .

41008, Conveyor I/O init error

Description

Error in the initialization of the I/O signal for item source *arg*, for conveyor

arg. I/O signal name *arg*.

41009, Conveyor does not exist

Description

Error for item source *arg*. The conveyor *arg* does not exist.

41010, No conveyor name given

Description

Error for item source *arg*. No conveyor name specified.

41011, Conveyor limits error

Description

Error for item source *arg*, conveyor *arg*. The limits are incorrectly specified.

41012, Conveyor data are defined late

Description

Error for item source *arg*, conveyor *arg*. The ItmSrcCnvDat instruction must be called before the ItmSrcFlush instruction.

41050, Record not activated

Description

Record not ready for activation

Consequences

Record not activated

Probable causes

Try to activate record too early

Recommended actions

Instruction Start Record must be called before activate record

41051, Record not stored

Description

No valid record to store

Consequences

Nothing stored

Probable causes

Try to store a record not existing or not activated .

Recommended actions

Instruction Activate must be called before

Store record

41052, Can't use this record file

Description

File not found or data not valid

Consequences

Record not used

Probable causes

File not found or data not valid .

Recommended actions

Check file directory and name and record data.

41100, Too Many Corrections

Description

Task: *arg*

Max 5 correction descriptors are allowed to be connected.

Program Ref. *arg*

Recommended actions

Check number of connected descriptors.

Recovery: *arg*

41101, Correction Not Connected

Description

Task: *arg*

Can not write to correction descriptor.

Program Ref. *arg*

Recommended actions

Check that the current correction descriptor is connected.

Recovery: *arg*

41102, No Corrections Connected.

Description

Task: *arg*

Correction unable to be read.

Program Ref. *arg*

Probable causes

No correction descriptor connected.

Recommended actions

Check if any correction generator is connected.

Recovery: *arg*

41200, Servo Tool Open Error.

Description

Task: *arg*

Not possible to open servo gun in motors off state.

Program Ref. *arg*

Recommended actions

Retry after setting motors on.

Recovery: *arg*

41201, Servo Tool Close Error.

Description

Task: *arg*

Not possible to close servo gun in motors off state.

Program Ref. *arg*

Recommended actions

Retry after setting motors on.

Recovery: *arg*

41202, Servo Tool Calibration Error.

Description

Task: *arg*

Not possible to calibrate servo gun in motors off state.

Program Ref. *arg*

Recommended actions

Retry after setting motors on.

Recovery: *arg*

41203, Servo Tool Error.

Description

Task: *arg*

Servo tool *arg* does not exist.

Program Ref. *arg*

Recommended actions

Check mechanical unit name.

Recovery:*arg*

41204, Servo Tool error.

Description

Task: *arg*

Emergency stop when executing instruction in background task.

Program Ref. *arg*

Recommended actions

Retry after emergency stop reset.

Recovery:*arg*

41205, Servo Tool Error.

Description

Task: *arg*

Not possible to close servo gun. The gun is not open.

Program Ref. *arg*

Recommended actions

Retry after opening the gun.

Recovery: *arg*

41206, Servo Tool Parameter Error.

Description

Task: *arg*

The parameter PrePos must be a positive value.

Program Ref. *arg*

Recommended actions

Change the parameter value.

Recovery: *arg*

41207, Servo Tool Init Error.

Description

Task: *arg*

The position for servo tool *arg* is not initialized.

Program Ref. *arg*

Recommended actions

Change the parameter value or perform a tip change calib.

Recovery: *arg*

41208, Servo Tool Synchronization Error.

Description

Task: *arg*

The tips for servo tool *arg* are not synchronized.

Program Ref. *arg*

Recommended actions

Synchronize via ManServiceCalib or perform a tool change calibration.

Recovery: *arg*

41209, Servo Tool Activation Error.

Description

Task: *arg*

Servo tool *arg* is not activated.

Program Ref. *arg*

Recommended actions

Use ActUnit to activate.

Recovery: *arg*

41210, Servo Tool Error.

Description

Task: *arg*

Not possible to execute instruction in motors off state for servo tool *arg*.

Program Ref. *arg*

Recommended actions

Retry after setting motors on.

Recovery: *arg*

41211, Servo Tool Error.

Description

Task: *arg*

Not possible to perform a recalibration of the gun *arg*.

Program Ref. *arg*

Recommended actions

Retry after checking values.

Recovery: *arg*

41300, Argument Error

Description

The argument Joint must be between 1 and *arg*.

Recommended actions

Check and change the value.

41301, Argument Error

Description

The argument Type doesn't correspond to a service value.

41302, Argument Error

Description

The argument Type does not correspond to a service value.

41303, Argument Error

Description

The argument Robot must be between 1 and *arg*.

Recommended actions

Check and change the value.

41304, Argument Error

Description

The argument Level doesn't correspond to a service level.

41400, Parameter Error

Description

Task: *arg*

Faulty AxisNo.

Program Ref. *arg*

Recommended actions

Check and change the value.

Press Start to continue.

41401, I/O Error

Description

Unable to access the I/O signal.

Signal and unit unknown.

Probable causes

The connection with the I/O module is broken.

Recommended actions

Re-establish the connection with the I/O unit.

41402, Value Error

Description

Task: *arg*

Illegal value of argument for parameter Axis or Strength.

Program Ref. *arg*

Recommended actions

Check and change the value.

41403, Value Error

Description

Task: *arg*

Illegal value of argument for parameter Speed Priority Type.

Program Ref. *arg*

41404, Parameter Error

Description

Task: *arg*

Argument On or Off missing.

Program Ref. *arg*

Recommended actions

Check the RAPID program. One of the switch On or Off must be given.

41405, Parameter Error

Description

Task: *arg*

Argument TuneValue not allowed together with argument Off.

Program Ref. *arg*

Recommended actions

Check and change the RAPID program.

41406, Parameter Error

Description

Task: *arg*

This TuneType is only valid for option Advanced Shape Tuning.

Program Ref.*arg*

Recommended actions

Change TuneType or install option.

41407, Parameter Error

Description

Task: *arg*

Symbol *arg* is read-only.

Program Ref. *arg*

Recommended actions

Recovery: *arg*

41408, Parameter Error

Description

Task: *arg*

The symbol *arg* was not found.

Program Ref. *arg*

Recommended actions

Recovery: *arg*

41409, Parameter Error

Description

Task: *arg*

Ambiguous symbol *arg*.

Program Ref. *arg*

Recommended actions

Check and change the RAPID program.

41410, Parameter Error

Description

Task: *arg*

Search error for symbol *arg*.

Program Ref. *arg*

Recommended actions

Recovery: *arg*

41411, Parameter Error

Description

Task: *arg*

Unknown module name *arg*.

Program Ref. *arg*

Probable causes

The module does not exist.

Recommended actions

Check and change the RAPID program.

41412, Parameter Error

Description

Task: *arg*

Ambiguous module *arg*.

Program Ref. *arg*

Recommended actions

Check and change the RAPID program.

41413, Parameter Error

Description

Task: *arg*

Ambiguous routine name *arg*.

Program Ref. *arg*

Recommended actions

Check and change the RAPID program.

41414, Parameter Error

Description

Task: *arg*

Unknown routine name *arg*.

Program Ref. *arg*

Probable causes

The routine does not exist.

Recommended actions

Check and change the RAPID program.

41415, Parameter Error

Description

Task: *arg*

The module name *arg* does not exist.

Program Ref. *arg*

Recommended actions

Check and change the RAPID program.

Recovery: *arg*

41416, Parameter Error

Description

Task: *arg*

The symbol *arg* is not a module.

Program Ref. *arg*

Recommended actions

Check and change the RAPID program.

Recovery: *arg*

41417, System Access Error

Description

Task: *arg*

Can not convert date.

Program Ref. *arg*

Recommended actions

Warm start and retry.

41419, Parameter Error

Description

Task: *arg*

arg must be num, bool or string.

Program Ref. *arg*

Recommended actions

Check and change the RAPID program.

41420, Parameter Error

Description

Task: *arg*

The argument type of *arg* is not compatible with cfg type. Expected *arg*.

Program Ref. *arg*

Recommended actions

Recovery: *arg*

41421, Parameter Error

Description

Task: *arg*

Unknown cfg domain in argument *arg*.

Program Ref. *arg*

Recommended actions

Check and change the RAPID program.

Recovery: *arg*

41422, Parameter error

Description

Task: *arg*

Unknown cfg type in argument *arg*.

Program Ref. *arg*

Recommended actions

Check and change the RAPID program.

Recovery: *arg*

41423, Parameter Error

Description

Task: *arg*

Unknown cfg instance in argument *arg*.

Program Ref. *arg*

Recommended actions

Check and change the RAPID program.

Recovery: *arg*

41424, Parameter Error

Description

Task: *arg*

Unknown cfg attribute in argument *arg*.

Program Ref. *arg*

Recommended actions

Check and change the RAPID program.

Recovery: *arg*

41425, Parameter Error

Description

Task: *arg*

The path '*arg*' in argument *arg* is incorrect.

Program Ref. *arg*

Recommended actions

Check and change the path.

Recovery: *arg*

41426, I/O Error

Description

Unable to access the I/O signal. Signal and unit unknown.

Consequences

Impossible to restart.

Probable causes

The connection with the I/O module is broken.

Recommended actions

Re-establish the connection with the I/O unit. To make it possible to restart the program move PP to a safe restart position.

41427, Argument Error

Description

Task *arg*:

The delaytime has to be positive.

Program Ref. *arg*

Recommended actions

Change the value of delaytime.

41428, Axis Error

Description

Task: *arg*

The single axis is not init correctly. The sensor is not activated.

Program Ref. *arg*

41429, Axis Error

Description

Task: *arg*

The single axis is not init correctly.

The sensor process is not init correctly.

Program Ref. *arg*

41430, Argument Error

Description

Task: *arg*

Orientation definition error in *arg* .

Program Ref. *arg*

Recommended actions

Check orientation.

All used orientations must be normalized i.e. the sum of the quaternion elements squares must equal 1.

41431, System Access Error

Description

Task: *arg*

Unknown LOGSRV instance.

Program Ref. *arg*

Recommended actions

Warm start and retry.

41432, System Access Error

Description

Task: *arg*

Can not set test signals.

Program Ref. *arg*

Recommended actions

Warm start and retry.

41433, Parameter Error

Description

Task: *arg*

Unknown mechanical unit.

Program Ref. *arg*

Recommended actions

Check if the mechanical unit exists in the system.

Recovery: *arg*

41434, Parameter Error

Description

Task: *arg*

Argument Axis is out of range.

Program Ref. *arg*

Recommended actions

Check and change the value of the argument axis.

Recovery: *arg*

41435, Parameter Error

Description

Task: *arg*

Argument Channel is out of range.

Program Ref. *arg*

Recommended actions

Check and change the value of argument Channel.

41437, System Access Error

Description

Task: *arg*

Can not reset all test signals.

Program Ref. *arg*

Recommended actions

Warm start and retry.

41438, Undefined Load

Description

Task: *arg*

WARNING!

Argument *arg* has undefined load (mass=0).

Program Ref. *arg*

Consequences

IMPORTANT TO DEFINE CORRECT LOAD to avoid mechanical damages of the robot.

Recommended actions

Define the actual load for the tool or the grip load before program movement or jogging. A good motion performance requires a correctly defined load.

41439, Undefined Load

Description

Task: *arg*

WARNING!

Argument *arg* has undefined load center of gravity.

Program Ref. *arg*

Consequences

IMPORTANT TO DEFINE CORRECT LOAD to avoid mechanical damage of the robot.

Recommended actions

Define the actual center of gravity for the tool load or the grip load before program movement or jogging (cog.x, cog.y and cog.z can not be 0 mm at the same time). Load identification can be done with the service routine

LoadIdentify.

41440, Argument Is Missing

Description

Task: *arg*

One of the switch parameter *arg* or *arg* has to be defined.

Program Ref. *arg*

Consequences

The called RAPID routine could not be executed.

Recommended actions

An argument of the data type switch must be specified.

41441, UnLoad Error

Description

Task: *arg*

Module loaded with path *arg* is active and therefore can not be erased.

Program Ref. *arg*

Probable causes

Instruction UnLoad or WaitLoad is executed in the same module as the module that should be removed.

Instruction UnLoad or WaitLoad is in a trap that is executed earlier then expected.

If there is a CONNECT to a trap routine in the module, an IDelete on the trap has to be done before the module can be unloaded.

Recommended actions

Check that the module does not contain routines or data that are still active, for example CONNECT.

Recovery: *arg*

41442, Reference Error

Description

Task: *arg*

The reference in argument *arg* is not an entire persistent variable.

Program Ref. *arg*

Recommended actions

It is not possible to use record component or array element in arg. *arg* .

It is only possible to use entire persistent variables for Tool, WObj or Load

in any motion instruction.

41443, Argument Error

Description

Task: *arg*

Argument Tool has negative load of the tool.

Program Ref. *arg*

Recommended actions

Define the correct load of the tool before use of the tool for jogging or program movement. Load identification of the tool can be done with the service

routine LoadIdentify.

41444, Argument Error

Description

Task: *arg*

Argument Tool has at least one inertia data component with negative value.

Program Ref. *arg*

Recommended actions

Define all inertia data components (ix, iy or iz) to actual positive values.

41445, Argument Error

Description

Task: *arg*

No \WObj specified for movement with stationary TCP.

Program Ref. *arg*

Recommended actions

Add argument \WObj for actual work object.

If not movement with stationary TCP, change the component "robhold" in argument Tool to TRUE (robot holds the tool).

41446, Argument Error

Description

Task: *arg*

Undefined if robot holds the tool or the work object.

Program Ref. *arg*

Recommended actions

Check if mismatch between argument Tool and argument \WObj for data component robhold.

41447, Argument Error

Description

Task: *arg*

Argument *arg* has at least one data component with negative value.

Program Ref. *arg*

Recommended actions

Set all data components in argument *arg* to positive values.

41448, Argument Error

Description

Task: *arg*

Argument *arg* may not have a negative value.

Program Ref. *arg*

Recommended actions

Set argument *arg* to a positive value.

41449, Value Error

Description

Task: *arg*

Illegal value in argument *arg*.

Program Ref. *arg*

Recommended actions

Check the RAPID program.

41450, Argument Error

Description

Task: *arg*

Argument \WObj specifies a mechanical unit name, which is not activated

or is unknown in the system.

Program Ref. *arg*

Recommended actions

The mechanical unit name defined in \WObj must correspond to the name earlier defined in the system parameters and must be activated.

41451, Argument Error

Description

Task: *arg*

Argument *arg* contains an illegal interrupt number.

Program Ref. *arg*

Probable causes

Input interrupt number is illegal because it has not been allocated by the instruction CONNECT.

Recommended actions

Use the instruction CONNECT to allocate and connect an interrupt number to a trap routine.

41452, Argument Error

Description

Task: *arg*

Argument *arg* contains an interrupt number, which is already in use for other purposes.

Program Ref. *arg*

Recommended actions

Before reuse of an interrupt variable in the program, it must have been cancelled with the instruction IDelete.

41453, Type Error

Description

Task: *arg*

Illegal data type of argument *arg*.

Program Ref. *arg*

Recommended actions

Check the RAPID program.

41454, Reference Error

Description

Task: *arg*

Trigg parameter number *arg*, reference to undefined trigg data.

Program Ref. *arg*

Recommended actions

Define trigg data by executing instruction TriggIO, TriggInt, TriggEquip, TriggSpeed or TriggCheckIO before execution of instruction TriggL, TriggC, TriggJ, CapL or CapC.

41455, System Access Error

Description

Task: *arg*

Operative system get time failed.

Program Ref. *arg*

Recommended actions

Warm start and retry.

41456, Argument Error

Description

Task: *arg*

Argument *arg* not within range.

Program Ref. *arg*

Recommended actions

The argument must be in range *arg*

41457, Argument Error

Description

Task: *arg*

Missing optional argument.

Program Ref. *arg*

Recommended actions

Add one of the optional arguments *arg* or *arg*.

41458, Argument Error

Description

Task: *arg*

Argument *arg* or *arg* not within range.

Program Ref. *arg*

Recommended actions

Check and change the value of the argument.

41459, Argument Error

Description

Task: *arg*

Argument *arg* not within range.

Program Ref. *arg*

Recommended actions

Check and change the value of the argument.

41460, Argument Error

Description

Task: *arg*

Argument *arg* or *arg* or *arg* not within range.

Program Ref. *arg*

Recommended actions

Check and change the argument.

41461, Value Error

Description

Task: *arg*

Illegal value of argument *arg*.

Program Ref. *arg*

Recommended actions

The index must be an integer and in range 1 to 1024.

41462, Value Error

Description

Task: *arg*

Illegal value of argument for parameter *arg*.

Program Ref. *arg*

Recommended actions

The value must be an integer and in the correct range.

41463, Argument Switch Is Missing.

Description

Task: *arg*

There is an argument missing.

Program Ref. *arg*

Recommended actions

One of the switch parameters \Hex1, \Long4, \Float4 or \ASCII has to be defined.

41464, Index To High.

Description

Task: *arg*

Illegal value in argument *arg*.

Program Ref. *arg*

Recommended actions

Check the RAPID program.

41465, The String Is Empty.

Description

Task: *arg*

Illegal value in argument *arg*.

Program Ref. *arg*

Recommended actions

Check the argument, and use a non-empty string.

41466, The Variables Are Equal.

Description

Task: *arg*

The argument FromRawData and ToRawData are equal.

Program Ref. *arg*

Recommended actions

Check and change the RAPID program.

41467, Value Error

Description

Task: *arg*

Illegal value in argument *arg*.

Program Ref. *arg*

Recommended actions

Check and change the value. It must be an integer and in range 0 to 255.

41468, Value Error

Description

Task: *arg*

Illegal value in argument *arg*.

Program Ref. *arg*

Recommended actions

Check and change the value. NoOfBytes must be an integer and in range 1 to 1024, and not higher than RawData length.

41469, Value Error

Description

Task: *arg*

Illegal value in argument *arg*.

Program Ref. *arg*

Recommended actions

Check the value. NoOfBytes must not be higher than RawData length.

41470, Argument Error

Description

Task: *arg*

Argument *arg* or *arg* not within range.

Program Ref. *arg*

Recommended actions

Check and change the value of the argument.

41471, Instruction Error

Description

Task: *arg*

You are not allowed to disable unit *arg*.

Program Ref. *arg*

Recommended actions

Recovery: *arg*

41472, Instruction Error

Description

Task: *arg*

There is no client e.g. a teach pendant taking care of instruction.

Program Ref. *arg*

Recommended actions

Recovery: *arg*

41473, System Access Error

Description

It was not possible to send data using SCWrite to external computer.

Failed to send variable *arg*

41474, Value Error

Description

Task: *arg*

Illegal value in argument *arg*.

Program Ref. *arg*

Recommended actions

Check the value: *arg*

arg must be a positive integer.

41475, Wrong size of tasklist

Description

Task: *arg*

The tasklist has wrong number of elements. It must not have less than 1 or more than *arg*.

Program Ref. *arg*

Recommended actions

Check and change the number of arguments in the tasklist.

41476, Non-consistent task list

Description

Task: *arg*

arg in the tasklist is not one of the tasks that are configured in the system (max *arg* tasks can be configured).

Program Ref. *arg*

Recommended actions

Add the task to the system (in sys.cfg) or remove it from the tasklist.

41477, TimeOut

Description

Task: *arg*

The time set in argument *arg* in instruction WaitSyncTask has expired.

Program Ref. *arg*

Recommended actions

Recovery: *arg*

41483, Argument Error

Description

Task: *arg*

The value of the ID is negative or is not an integer.

Program Ref. *arg*

Recommended actions

Check the value of the optional argument ID. The value must be a nonnegative integer.

41484, TimeOut

Description

Task: *arg*

The time set in argument *arg* in instruction SyncMoveOn has expired.

Program Ref. *arg*

Recommended actions

Recovery: *arg*

41486, Instruction Error

Description

Task: *arg*

The instruction *arg* is only available if there is a TCP-robot defined in the program task.

Program Ref. *arg*

Recommended actions

- Check the configuration.

- The instruction must be removed, if the task is not supposed to have a TCP-robot.

41487, Instruction Error

Description

Task: *arg*

The instruction *arg* only works if the TCP-robot is active.

Program Ref. *arg*

Recommended actions

Activate the TCP-robot in the task.

41488, Value Error

Description

Task: *arg*

There is no TCP-robot defined in the program task. One or several robot axis value input is not equal to 9E9.

Program Ref. *arg*

Recommended actions

Change the robot axis value to 9E9.

41489, Value error

Description

Task: *arg*

The robot axis *arg* is not moveable and therefore must not be supervised.

Program Ref. *arg*

Recommended actions

Change the value of axis *arg* to 9E9.

41490, TimeOut

Description

Task: *arg*

The time set in argument *arg* in instruction SyncMoveOff has expired.

Program Ref. *arg*

Recommended actions

Recovery: *arg*

41491, Instruction Error

Description

Task: *arg*

The instruction *arg* is not available if there is a TCP-robot defined in the program task.

Program Ref. *arg*

Recommended actions

- Check the configuration.

- The instruction must be removed, if the task is supposed to have a TCP-robot.

41492, Instruction Error

Description

Task: *arg*

The instruction *arg* only works if the mechanical unit is active.

Program Ref. *arg*

Recommended actions

Activate the mechanical unit in the task.

41493, Execution Error

Description

Task: *arg*

There is no TCP-robot available in the task.

Program Ref. *arg*

Recommended actions

To be able to run the instruction a TCP-robot must be available in the task.

41494, Instruction error

Description

Task: *arg*

The task does not control mechanical unit: *arg*.

Program Ref. *arg*

Recommended actions

Check the configuration.

41495, Move PP Error

Description

Task: *arg*

Not ready with the switch from independent to synchronized mode.

Program Ref. *arg*

Consequences

Restart of current instruction is blocked.

The system can either be in synchronized motion mode or still in independent motion mode.

Probable causes

Stop of program when having an active instruction. Then a PP movement within program has been done.

Recommended actions

Move PP to start the program again. PP must be moved in all program tasks. To have a well defined state of the system you should move PP to main.

41496, Move PP Error

Description

Task: *arg*

Not ready with the switch from synchronized to independent mode.

Program Ref. *arg*

Consequences

Restart of current instruction is blocked.

The system can either be in synchronized motion mode or still in independent motion mode.

Probable causes

Stop of program when having an active instruction. Then a PP movement within program has been done.

Recommended actions

Move PP to start the program again. PP must be moved in all program tasks. To have a well defined state of the system you should move PP to main.

41497, Move PP Notification

Description

Task: *arg*

Instruction *arg* was active in this task. Moving PP within the program can be dangerous in some cases.

Program Ref. *arg*

Consequences

Moving PP in the RAPID program can result in unsynchronized RAPID tasks or/and collision between robots.

Probable causes

PP movement within RAPID program when having active *arg* instruction.

Recommended actions

Move PP to suitable position in this program task.

41498, No Defined UserFrame In Mechanical Unit *arg*!

Description

The workobject *arg* contains a coordinated mechanical unit which has no defined userframe.

Recommended actions

Check the mechanical unit component of the workobject.

41499, Synchronized Mode

Description

Task: *arg*

System is in synchronized mode. Instruction must have an ID.

Program Ref. *arg*

Recommended actions

Add switch \ID with an identification number to the instruction.

41500, Independent Mode

Description

Task: *arg*

System is in independent mode. Instruction must not have an ID.

Program Ref. *arg*

Recommended actions

Remove switch \ID from the instruction.

41501, Illegal Id

Description

Task: *arg*

ErrorId has wrong value. It must be an integer in interval *arg* - *arg*.

Program Ref. *arg*

Recommended actions

Change the value.

41502, Illegal Domain

Description

Task: *arg*

Domain *arg* can not be used.

Program Ref. *arg*

Recommended actions

Choose another Elog Domain.

41503, Illegal Error Type

Description

Task: *arg*

Error type TYPE_ALL can not be used.

Program Ref. *arg*

Recommended actions

Use another Error Type.

41504, No Mechanical Unit Stated

Description

Task: *arg*

No TCP in the system and no Mechanical Unit added to the instruction.

Program Ref. *arg*

Recommended actions

Add a Mechanical Unit, that exists in the task, to the instruction .

41505, Mechanical Unit Not In Task

Description

Task: *arg*

The Mechanical Unit stated does not exist in the task.

Program Ref. *arg*

Recommended actions

Add another Mechanical Unit to the instruction.

41506, Task Does Not Read a TCP Robot

Description

Task: *arg*

The read task does not read a tcp robot.

Program Ref. *arg*

Recommended actions

Change the configuration or add a Mechanical Unit, that exists in the task, to the instruction.

41507, Task Reads Other Mechanical Unit

Description

Task: *arg*

Task reads another Mechanical Unit than the one stated in the instruction.

Program Ref. *arg*

Recommended actions

Change Mechanical Unit in the instruction.

41508, LoadId Error

Description

Task: *arg*

Load Identification is not available for this robot type.

Program Ref. *arg*

Recommended actions

Check next Event Log message, for the next user action to do.

41509, LoadId Error

Description

Task: *arg*

Not valid load identification position.

Program Ref. *arg*

Recommended actions

Change the position for the robot.

Check next Event Log message, for the next user action to do.

41510, LoadId Error

Description

Task: *arg*

Not allowed to identify (or use) tool0.

Program Ref. *arg*

Recommended actions

Set the tool that should be identified, active in the jogging window.

Check next Event Log message, for the next user action to do.

41511, LoadId Error

Description

Task: *arg*

Not allowed to identify load0.

Program Ref. *arg*

Recommended actions

Use another load for identification.

Check next Event Log message, for the next user action to do.

41512, Internal Error

Description

Task: *arg*

Measurement axes > 2 at the same time.

Program Ref. *arg*

Recommended actions

Check next Event Log message, for the next user action to do.

41513, LoadId Error

Description

Task: *arg*

Selection of PayLoad out of limits.

Program Ref. *arg*

Recommended actions

Select a PayLoad in the system.

Press Start to continue.

41514, LoadId Error

Description

Task: *arg*

wobj0 can not be active for roomfix TCP.

Program Ref. *arg*

Recommended actions

Select another Work Object.

Check next Event Log message, for the next user action to do.

41515, LoadId Error

Description

Task: *arg*

Selection of method out of limits.

Program Ref. *arg*

Recommended actions

Select one of the identification methods given.

Press Start to continue.

41516, LoadId Error

Description

Task: *arg*

The configuration angle is not adequate.

Program Ref. *arg*

Consequences

It is not possible to run the identification.

Probable causes

The selected value of the configuration angle is less than 30, or has another value that is not possible to use for identification.

Recommended actions

Select a configuration angle between +/- 30 and +/- 90 degrees.

Press Start to continue.

41517, LoadId Error

Description

Task: *arg*

PP has been moved to the beginning of the Load Identification routine and is now ready for a new restart.

Program Ref. *arg*

Probable causes

Service routine was stopped during measurement, interruped with cancel by the user or interrupted because some type of other error. Check former Event Log message for reason.

Recommended actions

1) Start service routine again

2) Use Debug - Cancel Call Routine to quit execution of service routine.

NOTE: Cancel Call Routine result in loose of Program Pointer.

Use Debug - PP to Main to get a new Program Pointer.

41518, LoadId Error

Description

Task: *arg*

Selection of MechUnit out of limits.

Program Ref. *arg*

Recommended actions

Select one of the Mechanical Units displayed.

Press Start to continue.

41519, LoadId Error

Description

Task: *arg*

Mass must be > 0 kg.

Program Ref. *arg*

Recommended actions

Specify the mass to something greater than 0.

Press Start to continue.

41520, Error Recovery Constant Not Booked

Description

Task: *arg*

Error recovery constant *arg* is not booked.

Program Ref. *arg*

Recommended actions

Use instruction BookErrNo to book the constant or use an error recovery constant booked by the system (can not be used with ErrRaise).

41521, Task Status Error

Description

Task: *arg*

None of the tasks in the tasklist is a NORMAL, activated task.

Program Ref. *arg*

Recommended actions

Check in the Task Selection Panel that at least one of the tasks in the tasklist are selected = activated.

Check in the .cfg-file that at least one of the tasks selected is NORMAL.

41522, Wrong Error Recovery Constant Used

Description

Task: *arg*

Error recovery constant *arg* has been booked by the system. The constant can not be used with instruction ErrRaise.

Program Ref. *arg*

Recommended actions

Book a new error recovery constant with instruction BookErrNo.

41523, Argument Error

Description

Task: *arg*

Argument *arg* is not an integer or is negative.

Program Ref. *arg*

Recommended actions

Change the value of the argument to a non-negative integer.

41524, Instruction Error

Description

Task: *arg*

The program is executing in an UNDO handler. It is not allowed to execute the instruction *arg* in an UNDO handler.

Program Ref. *arg*

Recommended actions

Remove the instruction.

41525, Instruction Error

Description

Task: *arg*

The program is executing in an EVENT routine. It is not allowed to execute the instruction *arg* in an EVENT routine.

Program Ref. *arg*

Recommended actions

Remove the instruction.

41526, Instruction Error

Description

Task: *arg*

Instruction *arg* may only be used in an ERROR handler.

Program Ref. *arg*

Recommended actions

Remove the instruction or move it to an ERROR handler.

41527, Argument Switch Is Missing.

Description

Task: *arg*

There is an argument missing.

Program Ref. *arg*

Recommended actions

One of the switch parameters \Continue or \BreakOff in *arg* has to be defined.

41528, Instruction Error

Description

Task: *arg*

Instruction *arg* may only be used in a no stepin routine.

Recommended actions

Remove the instruction or move it to a no stepin routine.

41529, Instruction Error

Description

Task: *arg*

The switch \Inpos is only allowed when the task is in control of a mechanical unit.

Program Ref. *arg*

Recommended actions

Remove the switch \Inpos from the instruction

41530, Instruction error

Description

Task: *arg*

It is not possible to execute the instruction *arg*, while the coordinated workobject has a reference to the mechanical unit *arg*, located in another task.

Program Ref. *arg*

Recommended actions

Change to a workobject with reference to a mechanical unit located in the same task as the TCP robot.

Function CalcJointT can be used even when the coordinated workobject is located in another task if:

- Switch \UseCurWObjPos is used

- The coordinated workobject is standing still

41531, Task Not In TaskList

Description

Task: *arg*

arg is not one of the tasks in the TaskList, or there is a mismatch between the tasklists in the different tasks.

Program Ref. *arg*

Recommended actions

- Add current task to the TaskList.

- Check that the tasklists in the different tasks are similar.

When using PERS variables, it might be necessary to unload the modules containing the tasklists, and then reload them again.

41532, Mismatch of task list

Description

Task: *arg*

Failed to synchronize because of:

1) The task list, *arg*, does not match with the task lists with the same SyncID in the other tasks, or a task name is used multiple times in the task list.

2) Not the same active tasks in task selection panel in the first executed instruction as in the following instructions.

Program Ref. *arg*

Consequences

The program execution is immediately halted.

Probable causes

The reason for this error is one of the following:

1) Tasklists do not have the same content for the same SyncID or a taskname is used multiple times.

2) One or several tasks has been enabled/disabled in the task selection panel after first instruction was executed.

Recommended actions

1) Check and modify tasklists and SyncIDs, or the same error will occur again.

2) Start again. The instructions will be executed with the current status of the task selection panel.

41533, Mismatch Of SyncID

Description

Task: *arg*

SyncID *arg* does not match with SyncID in the other task/tasks.

Program Ref. *arg*

Probable causes

Use of tasklists that are non global can cause this error.

Recommended actions

Change SyncID and check the tasklists.

PP must be moved to main in all tasks before you can continue.

41534, Inconsistent Synch Data

Description

Task: *arg*

Inconsistent synchdata in TaskList *arg*.

Program Ref. *arg*

Recommended actions

Change content of the TaskList.

PP must be moved to main in all tasks before you can continue.

41535, Unexpected SyncMoveOn

Description

Task: *arg*

Unexpected SyncMoveOn (SyncID *arg*). The system is already in synchronized mode.

Program Ref. *arg*

Probable causes

The program task is already in synchronized mode becuase SyncMoveOn has already been executed.

Use of tasklists that are non global can cause this error.

Recommended actions

PP must be moved to main in all task before you can continue the program execution.

Remove the SyncMoveOn instruction. Every SyncMoveOn must be followed by a SyncMoveOff instruction.

Check your tasklists.

41536, Unexpected SyncMoveOn

Description

Task: *arg*

Unexpected SyncMoveOn (SyncID *arg*). The system is waiting for a SyncMoveOff.

Program Ref. *arg*

Recommended actions

Remove the SyncMoveOn instruction. Every SyncMoveOn must be followed by a SyncMoveOff instruction.

41537, Unexpected SyncMoveOff

Description

Task: *arg*

Unexpected SyncMoveOff (SyncID *arg*). The system is waiting for a SyncMoveOn.

Program Ref. *arg*

Recommended actions

Remove the SyncMoveOff instruction. Every SyncMoveOn must be followed by a SyncMoveOff instruction.

41538, Wrong TaskList

Description

Task: *arg*

The task, *arg*, in the TaskList is a read task and can not be synchronized.

Program Ref. *arg*

Recommended actions

Change the TaskList or the configuration.

41539, Speed Too High

Description

Task: *arg*

Speed is over 100 mm/s. This is too fast when Stiff Stop (switch \Stop) is used.

Program Ref. *arg*

Recommended actions

Change the speed.

41540, Wrong Mechanical Unit

Description

Task: *arg*

The task reads the control task, *arg*, which does not control the mechanical unit *arg*.

Program Ref. *arg*

Recommended actions

Change \MechUnit or the configuration.

41541, Not Allowed From a Read Task

Description

Task: *arg*

The instruction is not allowed to execute in a read task.

Program Ref. *arg*

Recommended actions

Remove the instruction.

41542, Program Stop

Description

Task: *arg*

Not possible to regain to path because of program stop in the system.

Program Ref. *arg*

Recommended actions

Recovery: *arg*

41543, Argument Error

Description

Task: *arg*

A loaddata has been defined, but is no longer available in the system.

Program Ref. *arg*

Probable causes

The instruction GripLoad might have been run in a module that is no longer available in the system.

Recommended actions

Be sure to run GripLoad Load0, to reset loaddata.

41544, Obsolete Instruction

Description

Task: *arg*

The procedure *arg* is obsolete and will not have the expected behavior.

PFIOResto will do nothing at all.

PFDOVal and PFGOVal will act as the functions DOutput and GOutput respectively.

Program Ref. *arg*

41545, Argument Error

Description

Task: *arg*

The argument *arg* may not be of type LOCAL PERS.

Program Ref. *arg*

Recommended actions

Remove the directive LOCAL from the data declaration.

41546, Argument Error

Description

Task: *arg*

The object *arg* does not exist in the system or is of type LOCAL PERS.

Program Ref. *arg*

Recommended actions

- Declare the object
- Remove the directive LOCAL from the data declaration

41547, Argument Error

Description

Task:*arg*

The \Corr switch can not be used without the option Path Offset.

Program Ref. *arg*

Recommended actions

Remove the argument or install the option.

41548, Module Error

Description

Task: *arg*

The module you are trying to erase, *arg*, is active and thus can not be removed.

Program Ref. *arg*

Recommended actions

Check that the module you want to erase is not active.

41549, Unexpected SyncMoveOn or SyncMoveOff

Description

Task: *arg*

Wrong path level. It is not possible to use SyncMoveOn or SyncMoveOff on StorePath level.

Used *arg*: *arg*

Program Ref. *arg*

Recommended actions

Check the RAPID program.

41550, PathRecorder Start/Stop Error

Description

Task: *arg*

Unable to execute *arg*

Program Ref. *arg*

Recommended actions

Ensure that a backward motion has not been initiated with PathRecMoveBwd

without being terminated with PathRecMoveFwd.

41551, PathRecorder Move Error

Description

Task: *arg*

Unable to execute *arg*. The given identifier can not be reached.

Program Ref. *arg*

Recommended actions

Ensure that the PathRecorder has been started.

Ensure that the program pointer not is being moved manually.

Ensure that the limit of *arg* recorded move instructions is not exceeded.

41552, PathRecorder Path Level Error

Description

Task: *arg*

Can not execute *arg* on current path level.

Program Ref. *arg*

Recommended actions

- Switch to trap-level.

- Execute StorePath to switch path level.

41553, Destroyed Data

Description

System data *arg* in one of the tasks has been changed. It is NOT allowed to change this data.

Recommended actions

The system has restored the data when it was started, but the program has to be checked. Remove where *arg* has been assigned a value.

41554, Synchronized Mode

Description

Task: *arg*

It is not possible to use the optional parameter \Conc when the system is in synchronized mode.

Program Ref. *arg*

Recommended actions

Remove the optional parameter \Conc from any move instruction used in synchronized mode.

41555, No Contact With Unit

Description

Task: *arg*

There is no contact with the unit *arg*.

Program Ref. *arg*

Probable causes

The unit may have been disabled (IODisable "UNIT1", 1;)

No power to the unit.

Recommended actions

Recovery: *arg*

41556, No Contact With Unit

Description

Task: *arg*

There is no contact with unit.

Program Ref. *arg*

Probable causes

The unit may have been disabled (IODisable "UNIT1", 1;)

No power to the unit.

Recommended actions

Recovery: *arg*

41557, Mec. Unit not stopped

Description

Task: *arg*

Not allowed to change run mode, if not all motion program tasks are stopped.

Program Ref. *arg*

Recommended actions

Do program stop and try again.

41558, Argument Switch Missing

Description

Task: *arg*

An argument is missing to instruction *arg*.

Program Ref. *arg*

Recommended actions

Add switch SyncOrgMoveInst or SyncLastMoveInst to the instruction.

41559, Not PERS variable

Description

Task: *arg*

The task list, *arg*, is either LOCAL or TASK persistent. It is not allowed. It has to be global.

Program ref. *arg*

Recommended actions

Change the task list to PERS.

41560, No Start of Movement

Description

Task: *arg*

It was not possible to start the movement.

Program Ref. *arg*

Probable causes

1. There has been an emergency stop.

2. There was another error in the system.

Recommended actions

1. Reset the emergency stop, if there has been one.

2. Check former error messages for reason.

Recovery: *arg*

41561, No Text in Function Key

Description

Task: *arg*

The instruction TPReadFK has no text in either of the function keys.

Program Ref. *arg*

Consequences

When the instruction is executing there will be no button available to press.

Recommended actions

Put a text in at least one of the function keys TPFK1 .. TPFK5

41562, Risk for faulty circular movement

Description

Task: *arg*

Risk for faulty circular movement because of:

1) An asynchronous process error has occurred and was not handled in any error handler

2) Program Pointer at circular instruction in combination with done MODPOS of any previous move instruction

Program Ref. *arg*

Consequences

The Program may not be started from the current position, because there is a risk that the robot might perform an unexpected movement.

Probable causes

One of following:

1) The RAPID program is missing an error handler or the error handler does not handle this specific error

2) MODPOS operation done when not running in step or move step mode

Recommended actions

One of following:

1) Edit the program

2) Move the program pointer to be able to start the program.

41563, Argument Error

Description

Task: *arg*

The Mechanical Unit *arg* specified in the WObj for this MOVE instruction is the same Mechanical Unit *arg* as the robot for this program task.

Program Ref. *arg*

Consequences

It is not possible that the robot moves the work object itself.

Recommended actions

Edit the used wobjdata.

41564, Not allowed to run from a Motion Task

Description

Task: *arg*

The instructions StopMove, StartMove and StopMoveReset with the option parameter \AllMotionTasks are not allowed to run from a motion program task.

Program Ref. : *arg*

Probable causes

It is only allowed to do stop and restart of all movements in the system from

a supervision program task running as a read (or background) program task.

Recommended actions

Remove the instruction.

41565, Not allowed value

Description

Task: *arg*

Illegal value in argument *arg*.

Program ref. *arg*

Recommended actions

Check and change the value. It must be an integer between *arg* and *arg*.

41566, Signal exceeds max number of allowed bits

Description

Task: *arg*

The signal *arg* is too big.

Program ref. *arg*

Recommended actions

Group signals consisting of 23 bits or less can be represented by the num datatype, and group signals of 32 bits or less can be represented by the dnum datatype, if they are used in a RAPID program

41567, Digital Output Break

Description

Task: *arg*

A digital output interrupted the execution.

Program Ref. *arg*

Recommended actions

Recovery: *arg*

41568, Specified name is not a bus

Description

Task: *arg*

The bus name *arg* doesn't exist.

Program Ref.*arg*

Probable causes

The unit name is misspelled or not defined.

Recommended actions

Recovery: *arg*

41569, Socket error

Description

Task: *arg*

The socket is already connected and can not be used to listen for incoming connections.

Program Ref. *arg*

Recommended actions

Use another socket to listen for incoming connections.

41570, Socket error

Description

Task: *arg*

The socket can not accept incoming connection requests since it is not set to listen state.

Program Ref. *arg*

Probable causes

SocketAccept is used before SocketListen.

Recommended actions

Set socket to listen for incoming connections before trying to accept.

41571, Socket error

Description

Task: *arg*

The address and port is already in use and can not be used by this socket.

Program Ref. *arg*

Recommended actions

Recovery: *arg*

41572, Socket error

Description

Task: *arg*

Unexpected error creating socket.

Check log for further messages of possible cause.

Program Ref. *arg*

Recommended actions

Move program pointer to main and restart program.

41573, Socket error

Description

Task: *arg*

No more sockets can be created. The maximum number of concurrent sockets is eight.

Program Ref. *arg*

Recommended actions

Close one or more sockets, to allow a new socket to be created.

41574, Socket error

Description

Task: *arg*

The socket must be created before it can be used in any socket instruction.

Program Ref. *arg*

Probable causes

The reason for this error is one of the following:

1) Socket not created at all.

2) PP movements has been done.

3) Start of program after power fail.

4) The socket has been closed after SocketCreate.

Recommended actions

Insert an SocketCreate instruction at a suitable place in the program before the socket is used.

Recovery: *arg*

41575, Socket error

Description

Task: *arg*

The specified address is invalid. The only valid addresses are the LAN address of the controller or the service port address, 192.168.125.1.

Program Ref. *arg*

Recommended actions

Specify the LAN address or the service port address.

41576, Socket error

Description

Task: *arg*

The specified port is invalid.

Program Ref. *arg*

Recommended actions

It is recommended that a port number in the range 1025-4999 is used.

41577, Socket error

Description

Task: *arg*

The timeout specified in the instruction is too low. The timeout is specified in seconds and must not be zero.

Program Ref. *arg*

Recommended actions

Use a timeout value greater than zero.

41578, Socket error

Description

Task: *arg*

Unexpected error when connecting socket.

Check event log for other messages for possible cause.

Program Ref. *arg*

Recommended actions

Move program pointer to Main and restart program.

41579, Socket error

Description

Task: *arg*

The connection was refused by the remote host.

Program Ref. *arg*

41580, Socket error

Description

Task: *arg*

The socket is already connected and can not be connected again.

Program Ref. *arg*

Probable causes

SocketConnect has already been executed for the specified socket.

Recommended actions

Close the socket and recreate before connecting.

41581, Socket error

Description

Task: *arg*

The instruction was not finished within the timeout period.

Program Ref. *arg*

Recommended actions

Use a higher timeout value or use an error handler to retry the instruction.

Recovery: *arg*

41582, Socket error

Description

Task: *arg*

Empty data was specified to be sent or as storage in receive.

Program Ref. *arg*

Recommended actions

Use a string, rawbyte or byte array with size greater than zero.

41583, Socket error

Description

Task: *arg*

The specified data is too big.

Program Ref. *arg*

Recommended actions

A socket can handle at most 1024 bytes in one instruction.

41584, Socket error

Description

Task: *arg*

The specified string or data to be sent is empty.

Program Ref. *arg*

Recommended actions

Check that the data is correct.

41585, Socket error

Description

Task: *arg*

The number of bytes to send has to be a value bigger than zero.

Program Ref. *arg*

Recommended actions

Change the value for the optional parameter NoOfBytes to a value bigger than zero.

41586, Socket error

Description

Task: *arg*

The specified number of bytes to be sent is longer than the length of the actual data.

Program Ref. *arg*

Recommended actions

Change the value for the optional parameter NoOfBytes to be less than or equal to the actual data.

If all data should be sent remove the optional parameter.

41587, Socket error

Description

Task: *arg*

An unexpected error occurred when sending data.

Check the event log for other messages for the possible cause.

Program Ref. *arg*

Recommended actions

Move the programpointer to Main and restart the program.

41590, Socket error

Description

Task: *arg*

The byte array is invalid. A byte array can only contain integers between 0 and 255.

Program Ref. *arg*

Recommended actions

Change the byte array to contain valid data or use rawbytes to send complex data.

41591, Socket error

Description

Task: *arg*

Unexpected error when trying to get socket state.

Program Ref. *arg*

Recommended actions

Move programpointer to Main and restart program.

41592, Socket error

Description

Task: *arg*

No data was received.

Program Ref. *arg*

Probable causes

The connection may have been closed by the remote host.

Recommended actions

Move programpointer to Main and restart program.

41593, Socket error

Description

Task: *arg*

The data received is too long to be stored in a string. The maximum length of data that can be stored in a string is 80 characters.

Program Ref. *arg*

Recommended actions

Use an byte array or rawbytes to receive data longer than 80 bytes.

41594, Socket error

Description

Task: *arg*

The socket is not connected.

Program Ref. *arg*

Probable causes

For client, use SocketConnect before receiving/sending data.

For server, use SocketAccept before receiving/sending data.

Recommended actions

Use SocketConnect or SocketAccept to connect socket before trying to receive/send.

41595, Socket error

Description

Task: *arg*

The connection has been closed by the remote host.

Program Ref. *arg*

Recommended actions

Use error handler to re-establish connection before retrying to send/receive.

Recovery: *arg*

41596, Socket error

Description

Task: *arg*

Unexpected error binding socket.

Program Ref. *arg*

Recommended actions

Move programpointer to Main and restart program.

41597, Socket error

Description

Task: *arg*

The socket has already been bound to an address and can not be bound again.

Program Ref. *arg*

Recommended actions

Close socket and recreate before trying to bind socket to a new address.

41598, Socket error

Description

Task: *arg*

Unexpected error trying to listen for connections.

Program Ref. *arg*

Recommended actions

Move programpointer to Main and restart program.

41599, Socket error

Description

Task: *arg*

The socket has not been bound to an address.

Program Ref. *arg*

Recommended actions

Use SocketBind to specify which address to listen for incoming connections.

41600, Socket error

Description

Task: *arg*

The specified client socket is already in use. The client socket must not be created before calling SocketAccept.

Program Ref. *arg*

Probable causes

SocketAccept has already been executed for the specified socket.

Recommended actions

Close the client socket before using it in the call to SocketAccept, or remove multiple SocketAccept with same client socket.

41601, Socket error

Description

Task: *arg*

Unexpected error accepting connection.

Program Ref. *arg*

Recommended actions

Move programpointer to Main and restart program.

41602, Socket error

Description

Task: *arg*

Unexpected error receiving data.

Program Ref. *arg*

Recommended actions

Move programpointer to Main and restart program.

41603, Socket error

Description

Task: *arg*

The socket has already been created.

A socket can only be created once and must be closed before it can be created again.

Program Ref. *arg*

Recommended actions

Use another socket or close socket before creating.

41604, Socket error

Description

Task: *arg*

The socket is already listening for incoming connections.

A socket can only be used once to listen for incoming connections.

Program Ref. *arg*

Probable causes

Multiple use of SocketListen with same socket.

Recommended actions

Use another socket or close socket before using it again.

41611, UIMsgBox - No user or program action defined

Description

Task: *arg*

The instruction UIMsgBox or function UIMessageBox has no user or program action defined.

None of the option arguments \Buttons, \BtnArray,\MaxTime, \DIBreak or

\DOBreak are used.

Program Ref. *arg*

Consequences

The RAPID program will be executed for ever.

Recommended actions

Use one or several of the arguments \Buttons, \BtnArray, \MaxTime, \DIBreak or \DObreak.

Recovery: *arg*

41612, MinValue greater than MaxValue

Description

Task: *arg*

In function *arg*, the argument \MinValue is greater than \MaxValue.

Program Ref. *arg*

Consequences

Not possible to continue the program execution.

Recommended actions

Change the RAPID program so argument \MaxValue is greater than \MinValue.

Recovery: *arg*

41613, InitValue not within specified value range

Description

Task: *arg*

In function *arg*, the argument \InitValue is not specified within the range \MaxValue ... \MinValue.

Program Ref. *arg*

Consequences

Not possible to continue the program execution.

Recommended actions

Change the argument \InitValue so it's inside the value range.

Recovery: *arg*

41614, InitValue is not an integer

Description

Task: *arg*

In function *arg*, the argument \InitValue is not an integer value as specified in argument \AsInteger.

Program Ref. *arg*

Consequences

The program execution can not continue.

Recommended actions

Change the argument \InitValue to an integer.

Recovery: *arg*

41615, Reference Error

Description

Task: *arg*

The datapos *arg* is undefined.

Program Ref. *arg*

Recommended actions

All datapos is retrieved with the function GetNextSym.

41616, Reference Error

Description

Task: *arg*

The taskid *arg* is unknown in the system.

Program Ref. *arg*

Recommended actions

Program tasks must be defined in the system parameter and not in the RAPID program. (Taskid can be used as a parameter when declaring a routine).

41617, Too intense frequency of Write Instructions

Description

A high usage frequency of user interface write instructions, such as TPWrite, has forced the program execution to slow down.

Recommended actions

Decrease the usage frequency of user interface write instructions. Add wait instructions, such as WaitTime, when many write instructions are used in conjunction.

41618, Argument error buttondata

Description

Task: *arg*

The argument Buttons of type buttondata has not allowed value.

Only allowed to use the predefined data of type buttondata.

Program Ref. *arg*

Probable causes

Buttondata must be:

- an integer

- have a value within the predefined range

Recommended actions

Edit the program.

41619, Argument error icondata

Description

Task: *arg*

The argument Icon of type icondata has not allowed value.

Only allowed to use the predefined data of type icondata.

Program Ref. *arg*

Probable causes

Icondata must be:

- an integer

- have a value within the predefined range.

Recommended actions

Edit the program.

41620, Socket Error

Description

Task: *arg*

The Socket Messaging subsystem is overloaded.

Program Ref. *arg*

Probable causes

This can happen if sockets are created and closed frequently and very rapidly.

Recommended actions

Try to rewrite the program in such a way that sockets are reused instead of closed and then recreated.

41621, StorePath Error

Description

Task: *arg*

Instruction *arg* is used with *arg* switch in one or several tasks together with *arg* without *arg* switch.

Program Ref. *arg*

Consequences

The program execution is immediately halted.

Probable causes

Error in the RAPID programs.

Recommended actions

Check that no mix of StorePath and StorePath \KeepSync is used.

Change the program.

PP must be moved in all tasks before you can continue.

41622, Unexpected instruction

Description

Task: *arg*

The instruction *arg* can only be used in between instruction

arg and instruction *arg* (on store path level).

Program Ref. *arg*

Consequences

The program execution is immediately halted.

Probable causes

Error in the RAPID program.

Recommended actions

Check and change the RAPID program.

PP must be moved in all tasks before you can continue.

41623, Faulty use of *arg*

Description

Task: *arg*

Instruction *arg* is used multiple times, or the instruction is used when already in synchronized motion mode.

arg suspends synchronized coordinated movements.

arg resumes synchronized coordinated movements.

Program Ref. *arg*

Consequences

The program execution is immediately halted.

Probable causes

Error in the RAPID program.

Recommended actions

Check and change the RAPID program.

PP must be moved in all tasks before you can continue.

41625, Unexpected *arg*

Description

Task: *arg*

Instruction *arg* is used directly after instruction *arg*, or the system is not in synchronized motion mode.

A change to independent motion mode can not be done.

Program Ref. *arg*

Consequences

The program execution is immediately halted.

Probable causes

Error in the RAPID program.

Recommended actions

Check and change the RAPID program.

PP must be moved in all tasks before you can continue.

41626, Unexpected *arg \arg*

Description

Task: *arg*

Instruction *arg \arg* is used in independent motion mode.

Program Ref. *arg*

Consequences

The program execution is immediately halted.

Probable causes

Error in the RAPID program.

Recommended actions

Check and change the RAPID program.

PP must be moved in all tasks before you can continue.

41627, Faulty use of *arg*

Description

Task: *arg*

arg is used on store path level and system was not in synchronized motion mode before *arg*.

Program Ref. *arg*

Consequences

The program execution is immediately halted.

Probable causes

Error in the RAPID program.

Recommended actions

Check and change the RAPID program.

PP must be moved in all tasks before you can continue.

41630, Unsafe Synchronization

Description

Task: *arg*

To reach safe synchronization functionality, variable *arg* should be used only one time, not in several *arg* or *arg* instructions.

Program Ref. *arg*

Consequences

Program tasks/movements may not always be synchronized.

Probable causes

Use of *arg* several times in the same program.

Recommended actions

Check and change the RAPID program.

41631, Instruction Error

Description

Task: *arg*

The program is executing in an EVENT routine. It is not allowed to execute the instruction *arg* in an EVENT routine with shelf *arg*.

Program Ref. *arg*

Recommended actions

Remove the instruction

41632, Argument does not exist

Description

Task: *arg*

The functionality when using arguments TP_SCREENVIEWER and TP_PROGRAM in instruction TPShow has been removed.

Program Ref. *arg*

Consequences

When the instruction with these arguments is executing nothing will happen.

Recommended actions

Remove the instruction.

41633, Can only be used in an UNDO handler

Description

Task: *arg*

The instruction *arg* can only be used in an UNDO handler.

Program Ref. *arg*

Consequences

Program execution will be stopped.

Recommended actions

Use another instruction and/or move this instruction to the UNDO handler.

41634, Unknown Task Name

Description

Task: *arg*

The task name *arg* is unknown in the system.

Program Ref. *arg*

Consequences

It is not possible to execute this instruction with a task name that is not found in the system.

Probable causes

1. The program task is not defined in the system parameters.

2. The task name is wrong spelled.

Recommended actions

Recovery: *arg*

41635, Unexpected SyncMoveOff

Description

Task: *arg*

Unexpected SyncMoveOff (SyncID *arg*). The system is already in unsynchronized mode.

Program Ref. *arg*

Probable causes

Use of tasklists that are non global can cause this error.

Recommended actions

Remove the SyncMoveOff instruction. Every SyncMoveOn must be followed by one SyncMoveOff instruction.

Check your tasklists.

41636, Unexpected SyncMoveOff

Description

Task: *arg*

Unexpected SyncMoveOff (SyncId *arg*) from Task not included in synchronized group.

Program Ref.*arg*

Probable causes

Use of tasklists that are non global can cause this error.

Recommended actions

Remove the SyncMoveOff instruction. Every SyncMoveOn must be followed by one SyncMoveOff instruction.

Check your tasklists.

41637, Task not active in task selection panel anymore

Description

Task: *arg*

The task *arg* is not active in the task selection panel anymore.

The task *arg* was active in task selection panel at start from main.

Because of that not possible to pass this *arg* instruction.

Program Ref. *arg*

Consequences

The program execution is immediately stopped..

Probable causes

The task *arg* has been deactivated in the task selection panel.

Recommended actions

1) Activate task *arg* in the task selection panel.

2) To permanent skip task *arg* for the rest of this cycle run the service routine SkipTaskExec.

After that restart the instruction *arg*.

41638, Not allowed task activation

Description

Task: *arg*

The task *arg* is active in the task selection panel. This task was not active in the task selection panel when start from main was done. It is not allowed to add tasks in the task selection panel after start from main.

Program Ref. *arg*

Consequences

The program execution is immediately stopped.

Probable causes

1) The task *arg* was not active when start from main was done.

2) Deactivation of task *arg* with service routine *arg*, but not deactivating the task in the task selection panel.

3) Activation of task *arg* that earlier was deactivated in task selection panel and deactivated with service routine *arg*.

Recommended actions

Move PP to main to reset tasks used at start from main. Then use the task selection panel to select which tasks that you want to execute.

41640, Move PP Warning

Description

Task: *arg*

Move of program pointer when path is stored may cause problems if moved to a place after the path restore.

Consequences

Path may unintentionally stay in a stored state.

Probable causes

Stop of program when having a stored path. Then a PP movement within the program has been done.

Recommended actions

Ensure that restore of path is not skipped by moving PP to a RestoPath instruction if necessary.

41641, Move PP Warning

Description

Task: *arg*

Move of program pointer when stop motion is active may cause problems if moved to a place after stop motion deactivation.

Consequences

Restart of motion may be blocked.

Program execution may be waiting at motion instructions.

Probable causes

Stop of program when stop motion is active. Then a PP movement within the program has been done.

Recommended actions

Ensure that stop motion deactivation is not skipped.

41642, Argument Error

Description

Task: *arg*

Argument *arg* not within range.

Program Ref. *arg*

Recommended actions

arg must be > 0 when *arg* = 0.

41643, Argument Error

Description

Task: *arg*

Argument *arg* not within range.

Program Ref. *arg*

Recommended actions

arg must be an integer when *arg* < 0

41644, Argument Error

Description

Task: *arg*

Argument *arg* not within range.

Program Ref. *arg*

Recommended actions

arg must greater or equal to 0.

41645, Program Stopped from RAPID

Description

Task: *arg*

Program and movement are stopped with System Stop from RAPID.

Program Ref. *arg*

Consequences

Due to a programmed System Stop in RAPID both program execution and movements are stopped. The problem causing the stop has preferable been presented in another log.

Recommended actions

Find out why the program has been stopped (maybe in other logs), correct the problem and restart the program.

41646, Program Blocked from RAPID

Description

Task: *arg*

Program and movement are stopped and blocked with System Stop RAPID Block from RAPID.

Program Ref. *arg*

Consequences

Due to a programmed System Stop RAPID Block in RAPID both program execution and movements are stopped. The problem causing the stop has preferable been presented in another log.

If the robot is performing a circular movement, the robot has to be moved to the beginning of the circular movement before restarting the program.

Recommended actions

Find out why the program has been blocked (maybe in other logs), correct the problem and move program pointer in all motion tasks before restarting the program.

41647, Program Halted from RAPID

Description

Task: *arg*

Program and movement are halted with System Halt from RAPID.

Program Ref. *arg*

Consequences

Due to a programmed System Halt in RAPID both program execution and movements are stopped. The problem causing the stop has preferable been presented in another log.

Recommended actions

Find out why the program has been halted (maybe in other logs), correct the problem and turn motors on before restarting the program.

41648, Execution Error

Description

Task: *arg*

Not allowed to change run mode from forward to backward, from continues to stepwise or vice versa.

Program Ref. *arg*

Recommended actions

Select the original run mode and continue program execution.

41649, Incorrect Error Message

Description

Task: *arg*

At least one of the arguments in the instruction *arg* exceeds the limitations described in the manual.

Program Ref. *arg*

Probable causes

The arguments to instruction *arg* contain limitations both on each string and the total amount of characters used in the instruction. This is described in the manual.

Recommended actions

Consult the manual and correct the arguments.

41650, Task already stopped by another task

Description

The non motion task *arg* has executed a StopMove instruction. No stop action has, however, been taken because the motion task *arg* was already stopped by task *arg*.

Program Ref. *arg*

Consequences

The motion task must be started, with the instruction StartMove, from the task that stopped it or the switch \AllMotionTasks has to be used in StartMove from this task.

41651, Ignored StartMove actions for task

Description

The non motion task *arg* has executed a StartMove instruction. The motion task *arg* has, however, not been started.

Program Ref. *arg*

Consequences

No movements can be performed if the motion task has been stopped by another non motion task.

Probable causes

1. The motion task has not been stopped.

2. The motion task was stopped by another non motion task *arg*.

This time the cause was *arg*.

Recommended actions

Use the switch \AllMotionTasks in StartMove if this instruction should start a movement that is stopped by another non motion task.

41652, Forced StartMove action

Description

The non motion task *arg* has executed a StartMove instruction. The instruction discovered that the motion task *arg* has been stopped by this task. That motion task will be started to prevent inexplicable stopped movements.

Program Ref.*arg*

Probable causes

1. The motion task has been stopped with the switch \AllMotionTasks active in the StopMove instruction but not in the StartMove instruction.

2. The StopMove instruction has been executed in synchronized mode and the StartMove in independent mode.

41653, Argument error CalcJointT

Description

Task: *arg*

It is not possible to execute the function CalcJointT with argument \UseCurWObjPos, if the coordinated workobject moved by some mechanical unit is located in the same task as the TCP robot or if the workobject is not moved by any mechanical unit at all.

Program Ref. *arg*

Recommended actions

Remove the argument \UseCurWObjPos, so can the function CalcJointT be executed and the calculation can be done with data solely from the RAPID program.

41654, Execution error CalcJointT

Description

Task: *arg*

It was not possible to execute the function CalcJointT with argument \UseCurWObjPos, because the mechanical unit *arg* was moving at the time of execution of CalcJointT.

Program Ref. *arg*

Recommended actions

Function CalcJointT with argument \UseCurWObjPos can only be exected without error, if the coordinated workobject moved by another task is standing still.

Recovery: *arg*

41655, Argument not a motion task

Description

Task: *arg*

The function CRobT or CJointT has been used with an argument that refer to an other task, *arg*. That task is not a motion task (controlling mechanical units) and can therefore not be used.

Program Ref. *arg*

Probable causes

CRobT or CJoinT with argument \TaskRef or \TaskName can only be used without errors if the task that the arguments refer to is a motion task.

Recommended actions

Change the argument \TaskRef or \TaskName or remove it and restart the program execution.

Recovery: *arg*

41656, Not allowed value

Description

Task: *arg*

Illegal value in argument *arg*.

Program ref. *arg*

Recommended actions

Check and change the value. It must be between *arg* and *arg*.

41657, File Access Error

Description

Task: *arg*

Could not access the file/device *arg*.

Program Ref. *arg*

Probable causes

- The path or filename is wrong.
- The maximum number of simultaneously opened files is exceeded.
- The disk is full.
- Function does not support check of selected device.

Recommended actions

- Check the path or filename.
- Check the disk space.

Recovery: *arg*

41658, Program task is in StopMove state

Description

Task: *arg*

No movement will be performed in this motion task, because the task is currently set in StopMove state ordered by some non-motion task.

Consequences

Not possible to start any movements.

Probable causes

Some non-motion task connected to this motion task has set the task in StopMove state.

Recommended actions

To perform movements in this motion task, the StopMove state must be reset by the responsible non-motion task with one of the following actions:

1) Execute StartMove

2) Start the non-motion task from main

a) Do power off-on if semi static non-motion task

b) Do installation start if static non-motion task

c) Set PP to main if normal non-motion task

41660, No space left for the new view

Description

Task: *arg*

Maximum number of views has been exceeded.

There is no space left on the FlexPendant for the new view.

Program Ref. *arg*

Consequences

The view will not be launched.

Probable causes

Too many open views.

Recommended actions

Close one view and try again.

Recovery: *arg*

41661, Assembly could not be found

Description

Task: *arg*

1) The assembly could not be found, or does not exist.

2) The FlexPendant Interface option is missing.

Status *arg*.

Program Ref.*arg*

Consequences

The view will not be launched.

Probable causes

1) The assembly *arg* could not be found.

2) The system image does not include the required option FlexPendant Interface.

Recommended actions

1) Check inparameters. Make sure that the modules been loaded correctly

to the robot controller.

2) Check that FlexPendant Interface option is used.

Recovery: *arg*

41662, Assembly could not be loaded

Description

Task: *arg*

The assembly was found but could not be loaded.

Status *arg*.

Program Ref.*arg*

Consequences

The view will not be launched.

Recommended actions

Make sure that the loaded modules are executable files for the FlexPendant.

Recovery: *arg*

41663, Instance could not be created

Description

Task: *arg*

The assembly exist but no new instance could be created.

Status *arg*.

Program Ref.*arg*

Consequences

The view will not be launched.

Recommended actions

Make sure that the loaded modules are executable files for the
FlexPendant.

Recovery: *arg*

41664, The typename is invalid for this assembly

Description

Task: *arg*

The inparameter *arg* is invalid. The typename does not match the
assembly.

Status *arg*.

Program Ref *arg*.

Consequences

The view will not be launched.

Recommended actions

Check the inparameters.

Recovery: *arg*

41665, *arg* does not match assembly to load

Description

Task: *arg*

The type or name of the assembly does not match with the used *arg*.

Status *arg*.

Program Ref *arg*.

Consequences

The view will not be launched.

Probable causes

Use of *arg* without setting it to 0 first.

Recommended actions

Set *arg* to 0 before using it.

Recovery: *arg*

41666, Fatal UIShow error

Description

Task: *arg*

Unknow error code *arg* received.

Program Ref. *arg*

Consequences

The program execution is immediately stopped.

Recommended actions

Report this to ABB Robotics.

41670, Entire Array Not Allowed As Argument

Description

Task: *arg*

The argument *arg* is of data type any type and can for that reason only
be checked during runtime.

An entire array can not be used as argument even if the array is of right
data type.

Program ref. *arg*

Consequences

The program execution is immediately stopped.

Recommended actions

Replace the array with a valid argument.

41671, Too high poll rate

Description

Task: *arg*

The specified poll rate is too high for the robot system.

Program Ref. *arg*

Consequences

The system can be overloaded.

Recommended actions

Change instruction WaitUntil, argument \PollRate to a value greater
than or

equal to 0.01 s.

41672, Invalid Combination

Description

Task: *arg*

Invalid combination of paramters in Trigg

Program Ref: *arg*

Recommended actions

Either run Trigg without /Time option or use TriggRampAO with
option \Time on ramplength.

41673, Index Out Of Bounds

Description

Task: *arg*

Index for cfg instance was out of bounds

Program Ref: *arg*

Recommended actions

Check and change the RAPID program.

Recovery: *arg*

41674, Value Out Of Bounds

Description

Task: *arg*

Parameter *arg* is not between the range of 0 to 100.

Program Ref: *arg*

Recommended actions

Check and change the RAPID program.

Recovery: *arg*

41675, Not Integer

Description

Task: *arg*

Parameter *arg* is not an integer.

Program Ref: *arg*

Recommended actions

Check the RAPID program, or use ERROR handler

Recovery: *arg*

41676, Device access error

Description

Task:*arg*

Unable to open File or Serial channel, '*arg*' does not exist.

Program Ref: *arg*

Recommended actions

Check file or serial channel name.

Recovery: *arg*

41677, Device access error

Description

Task: *arg*

Unable to write to file: *arg*, the disc is full.

Program Ref: *arg*

Recommended actions

Make sure there are enough free space on the disc.

Recovery: *arg*

41678, Device access error

Description

Task: *arg*

Unable to write to file : *arg*, The file is write protected.

Program Ref:*arg*

Recommended actions

Remove the write protection of the file or select a different filename.

Recovery: *arg*

41679, Device access error

Description

Task: *arg*

The maximum number of simultaneously opend files is exceeded.

Program Ref: *arg*

Recommended actions

Close one or more I/O devices and try again

Recovery: *arg*

41680, String too long

Description

Task: *arg*

The string *arg* exceeds the maximum number of characters allowed for a module.

Program Ref: *arg*

Recommended actions

Change the string for module name.

Recovery: *arg*

41682, Too many subscriptions from I/O

Description

Task: *arg*

The number of simultaneous subscriptions on signal events has been exceeded.

Program Ref: *arg*

Recommended actions

Remove some subscriptions on signals or change the time for the event.

(i.e any ISignalXX or TriggIO)

41683, Argument Error

Description

Task: *arg*

The argument *arg* must be given when searching for a not named parameter.

Program Ref: *arg*

Recommended actions

Add the parameter *arg* to the instruction.

41684, Value Error

Description

Task: *arg*

The argument *arg* is outside the range of value type unsigned long.

Program Ref: *arg*

Probable causes

The value is to large.

Recommended actions

Use a smaller value for *arg*

41685, Not valid value

Description

Task: *arg*

A wrong combination of switch and value is used.

The signal can have values between:

Min: *arg*

Max: *arg*

Switch and value used: *arg*

Program Ref. *arg*

Consequences

The program execution is immediately stopped.

Probable causes

Wrong value used, or wrong switch used.

Recommended actions

Change the value used, or change the switch argument.

41687, File Open Error

Description

Task: *arg*

Unable to open *arg*

Program Ref: *arg*

An unknown error occured while opening the file.

Probable causes

- If the file was located on an USB disk, check that the disk is not removed, or has to many files in root folder.

- Check that the given file is not a directory

Recommended actions

Do a check of Probable Causes.

Recovery: *arg*

41688, Invalid Argument

Description

Task: *arg*

Inparameter *arg* is declared as a PERS.

Program Ref: *arg*

Consequences

The program execution is immediately stopped.

Probable causes

Using a PERS in argument *arg* to instruction *arg*.

Recommended actions

Replace the PERS with a valid argument.

41690, Parameter Error

Description

Task: *arg*

The argument *arg* is of the type *arg* and is not valid to use.

Program Ref. *arg*

Consequences

The program execution is immediately stopped.

Recommended actions

Check the data type. Non-value, semi-value types or motsetdata data type can not be used.

41691, RMQ Error - Client name not valid

Description

Task: *arg*

The name *arg* can not be found. It is not a valid RMQ client name.

Program Ref. *arg*

Probable causes

A non valid name is used.

Recommended actions

Change name to search for.

Recovery: *arg*

41692, RMQ Error - Not valid Slot

Description

Task: *arg*

The *arg* used is not valid.

Program Ref. *arg*

Consequences

Communication with client with current *arg* is no longer possible.

Probable causes

1) The *arg* has not been initialized.

2) The destination slot is not valid anymore. This can happen if a remote client has disconnected from the controller.

3) Instruction RMQSendWait was restarted after a power fail. When the instruction is restarted, the *arg* is set to 0.

Recommended actions

Recovery: *arg*

41693, RMQ Error - Max size for message exceeded

Description

Task: *arg*

The size of the data in *arg* exceeds maximum size.

Program Ref. *arg*

Consequences

The message will not be sent.

Probable causes

Trying to send larger messages then *arg*. Due to limitations in RMQ, such big messages can not be sent.

Recommended actions

Send smaller messages.

Recovery: *arg*

41694, RMQ Error - Not equal datatypes

Description

Task: *arg*

The datatype in the rmqmessage is of the type *arg* and the datatype in argument Data is of the type *arg*.

Program Ref. *arg*.

Consequences

No data can be fetched.

Probable causes

1) The data type in the rmqmessage is of type *arg* and the data type used in argument Data is of type *arg*.

2) If the data types has equal names, the structure of the data can be different.

Recommended actions

1) Use datatype *arg* in argument Data.

2) Check that the data types are equal defined in both sender and receiver code.

Recovery: *arg*

41695, RMQ Error - Not equal dimensions on data

Description

Task: *arg*

The data types are equal, but the dimensions differs between the data in the message and the parameter used in argument *arg*

Program Ref. *arg*

Consequences

The data could not be copied.

Recommended actions

Use a parameter in argument *arg* with equal dimensions as the data in the message.

Recovery: *arg*

41696, RMQ Error - Not valid use of instruction

Description

Task: *arg*

The instruction *arg* is only supported on TRAP level.

Program Ref. *arg*

Consequences

The program execution is immediately stopped.

Probable causes

Instruction *arg* is used either on user execution level or normal execution level.

Recommended actions

Remove instruction, or move it to a TRAP routine.

41697, RMQ Error - No RMQ configured

Description

Task: *arg*

No RMQ is configured for task *arg*.

Program Ref. *arg*

Consequences

The program execution is immediately stopped.

Probable causes

No configuration has been added for the RAPID Message Queue.

Recommended actions

Add configuration for the RAPID Message Queue.

41698, RMQ Error - Faulty use of instruction

Description

Task: *arg*

Instruction *arg* can only be used on normal level, not in a TRAP routine or service routine.

Program Ref. *arg*

Consequences

The program execution is immediately stopped.

Probable causes

Instruction *arg* used on wrong level.

Recommended actions

Use instruction on normal level.

41699, RMQ Error - Max size for message exceeded

Description

Task: *arg*

The size of the data in *arg* exceeds maximum size.

Program Ref. *arg*

Consequences

The message will not be sent.

Probable causes

Trying to send larger messages then allowed. The receiving client is not configured to receive the size of the message sent.

Recommended actions

Change the size of the RMQ for the receiver, or send smaller messages.

Recovery:*arg*

41700, RMQ Error - Interrupt setup failed

Description

Task: *arg*

Two different interrupt identities can not be used for the same data type in instruction *arg*. Each data type need a unic interrupt identity and unic TRAP routine.

Program Ref. *arg*

Consequences

The program execution is immediately stopped.

Probable causes

Same data type is used in two *arg* instructions with two different interrupt identities.

Recommended actions

An unic interrupt identity is needed for each data type when order and enable interrupts for a specific data type.

41701, RMQ Error - No message to collect

Description

Task: *arg*

Instruction *arg* failed. There was no message to collect.

Program Ref. *arg*

Consequences

No message was collected.

Probable causes

1) This can happen if ta power fail occur between the trap was ordered and the instruction *arg* was executed.

2) If multiple use of *arg* in a TRAP routine.

3) If using *arg* in a TRAP routine that execute without any new message in the RMQ.

Recommended actions

Recovery: *arg*

41702, RMQ Error - *arg* not valid

Description

Task: *arg*

Use of non-valid data in argument *arg*.

Program Ref.*arg*

Consequences

The program execution is immediately stopped

Probable causes

Use of a variable *arg* that not contain any valid data. The variable has only been initialized, no valid data has been copied to the variable.

Recommended actions

Check the RAPID program.

41703, RMQ Error - Data could not be copied

Description

Task: *arg*

The data type *arg* exceeds the maximum size supported for the RMQ configured for task *arg*.

Program Ref. *arg*

Consequences

No message has been received.

Probable causes

The RMQ of the receiving task is not configured for the size of the data sent. The sending client have sent data that is bigger then the size the RMQ for task *arg* can receive.

Recommended actions

Increase the size of the RMQ for task *arg*.

Or, send less data.

Recovery: *arg*

41704, RMQ Error - Full Queue

Description

Task: *arg*

The client named *arg* can not receive more messages.

Program Ref. *arg*

Consequences

The sent message will be thrown.

Probable causes

The client does not receive in the same pace as the sender is sending messages. If using instruction *arg*, you might need a wait time between each *arg* instruction.

Recommended actions

The client should receive messages to make room for new messages.

Or the sender should limit the number of messages sent.

Recovery: *arg*

41705, RMQ Error - Max Time Expired

Description

Task: *arg*

The programmed waiting time has expired.

Program Ref. *arg*

Consequences

There is no guarantee that the message has arrived to the client.

Probable causes

1) The client that should receive the message is not interested of receiving data of the specified data type. The message has been discarded.

2) The client has received the message, and in the answer sent a data type not matching with the specified data type used in *arg* of instruction *arg*.

3) The client has received the message. The answer is delayed so the time out time for instruction *arg* expired.

Recommended actions

1) Check the client program.

2) Increase the waiting time for instruction *arg*.

Recovery: *arg*

41706, RMQ Error - Max Time Expired

Description

Task: *arg*

The programmed waiting time has expired.

Program Ref. *arg*

Consequences

No message has been received.

Probable causes

The time out time for instruction *arg* expired.

Recommended actions

Increase the waiting time for instruction *arg*.

Recovery: *arg*

41707, RMQ Error - Instruction invalid in current mode

Description

Task: *arg*

arg is only allowed when RMQ is configured in *arg* mode.

Program Ref: *arg*

Consequences

The program execution is immediately stopped

Probable causes

The RMQ is configured in *arg* mode

Recommended actions

Change the configuration of the RAPID Message Queue in *arg* to *arg* mode, or use an instruction that is allowed in the current mode.

41708, RMQ Error - Invalid message

Description

Task: *arg*

The received RMQ message was invalid.

Program Ref: *arg*

Consequences

The received RMQ message was discarded.

Probable causes

A received RMQ message had a corrupt header or data part.

Recommended actions

Recovery: *arg*

41711, Value is not percent

Description

Task: *arg*

The value of argument *arg* is not a valid percent.

Program Ref: *arg*

Recommended actions

Check that the value is in the range of 0 to 100.

41712, Argument Error

Description

Task: *arg*

Tooldata *arg* has been defined, but is no longer available in the system.

Program Ref: *arg*

Probable causes

Tooldata might have been defined in a module that is no longer available in the system.

41713, Argument Error

Description

Task: *arg*

Wobjdata *arg* has been defined, but is no longer available in the system.

Program Ref: *arg*

Consequences

Wobjdata might have been defined in a module that is no longer available in the system.

41714, Too many error events

Description

Execution of task *arg* has stopped. There are too many unhandled error events in queue. The system can only handle one error event at a time.

Consequences

The system goes to blocked state and can not be restarted before moving the program pointer to an arbitrary position.

Probable causes

A power fail restart (warm start) occurred while handling a process error.

Recommended actions

Never warm start the system while handling a process error. If warm start is needed, first move PP to Main in all tasks to reset the process error.

41715, Invalid Direction

Description

Task: *arg*

The argument *arg* must be either CSS_X, CSS_Y or CSS_Z.

Program Ref: *arg*

Recommended actions

Check the value of *arg*

41716, Invalid Offset Direction

Description

Task: *arg*

The argument *arg* must be either

CSS_POSX, CSS_NEGX, CSS_POSY, CSS_NEGY, CSS_POSZ, CSS_NEGZ

Program Ref: *arg*

Recommended actions

Check the value of *arg*

41717, Too Low Value

Description

Task: *arg*

The value of argument *arg* is too low.

Program Ref: *arg*

Recommended actions

Increase the value of *arg*

41718, Invalid Dimensions

Description

Task: *arg*

Dimension *arg* on searched symbol is incompatible with dimension *arg* in argument.

Program Ref: *arg*.

A dimension of '{0}' means given symbol is of non array type.

Recommended actions

Recovery: *arg*

41719, Illegal Parameter

Description

Task: *arg*

The symbol in argument *arg* is an array from a parameter. Arrays from paramters are illegal to use in SetDataVal/GetDataVal.

Program Ref: *arg*

41720, Path Not In Stop Point

Description

Task: *arg*

The path did not finish for the following task(s): *arg* make sure the task is running.

Program Ref: *arg*

Probable causes

The task is not running or the movement has been stopped.

Recommended actions

Recovery: *arg*

41721, Invalid Argument

Description

Task: *arg*

The type *arg* in argument *arg* is invalid.

Program Ref: *arg*

Recommended actions

Change the type to a valid one (*arg*).

41722, Too High Value

Description

　　　Task: *arg*

The value of argument *arg* is too high. The value must be between *arg* and *arg*.

Program Ref: *arg*

41723, Bus is in error state

Description

Task: *arg*

The I/O unit *arg* can not be activated. The bus *arg* is in error state.

Program Ref. *arg*

Consequences

Unit *arg* could not be activated.

Probable causes

Bus is in error state.

Recommended actions

Recovery:*arg*

41724, Current Work Object is Invalid

Description

Task: *arg*

Cartesian Soft Servo Activation is not allowed with a moving work object. Only a programmed user frame is allowed.

Program Ref: *arg*

41725, Invalid Configuration Settings

Description

Task: *arg*

The configuration parameters for Cartesian Soft Servo are invalid.

The current combination can lead to unstable behaviour.

Program Ref *arg*

Recommended actions

Change the configuration for Cartesian Soft Servo

41726, Ignored StopMoveReset actions for task

Description

Task: *arg*

The StopMoveReset instruction had no impact on the system

Program Ref: *arg*

Consequences

The StopMove was not reset.

Probable causes

1. The motion task has not been stopped.

2. The motion task was stopped by another non motion task: *arg*.

This time the cause was *arg*.

Recommended actions

Use the switch \AllMotionTasks in StopMoveReset if this instruction should reset a StopMove from another non motion task.

41727, The size can not be represented in a num

Description

Task: *arg*

When using instruction *arg* to read the size of the file system, it was detected that the value is to big to be set in a num.

Program Ref:*arg*

Consequences

The size can not be read.

Probable causes

The value can not be represented in a num.

Recommended actions

Use a switch to specify another unit to show the size in.

Recovery: *arg*

41730, Signal exceeds max number of allowed bits

Description

Task: *arg*

The signal *arg* is too big. If using signals over 23 bits, use the datatype triggiosdnum that accept signals up to 32 bits.

Program ref. *arg*

Recommended actions

Group signals can have 23 bits or less if using datatype triggios in *arg* instruction.

41731, Signal name undefined

Description

Task: *arg*

The signal *arg* is unknown in the system.

Program Ref. *arg*

Consequences

The program execution is immediately stopped.

Probable causes

The signal must be defined in the system parameters.

Recommended actions

Define the signal in the system parameters.

41732, Too many trigs used

Description

Task: *arg*

Too many trigs has been set up for instruction *arg*. The limit is *arg*.

Program Ref. *arg*

Consequences

The program execution is immediately stopped.

Recommended actions

Remove some trig actions in *arg* instruction.

41737, Instruction order Error

Description

Task: *arg*

The instruction *arg* needs to be executed before instruction *arg*.

Program Ref. *arg*.

Probable causes

Instruction *arg* was executed before instruction *arg*.

Recommended actions

Execute instructions in right order.

Recovery: *arg*

41738, Wrist Interpolation option needed

Description

Task: *arg*

Instruction *arg* is used with a switch that requires option Wrist Interpolation.

Program Ref.*arg*

Consequences

The program execution is immediately stopped

Probable causes

Missing a Robotware option.

Recommended actions

Do not use any of the following switches: *arg*.

41739, StorePath required

Description

Task: *arg*

Instruction *arg* is executing in an error handler or a trap routine. Use *arg* before using a movement instruction on other level then base.

Program Ref. *arg*

Consequences

The program execution is immediately stopped.

Probable causes

A movement instruction executed without having the path stored.

Recommended actions

Execute *arg* before using movement instruction *arg*.

Read Programming type examples in the RAPID manual to see how to use movement instructions in TRAP routines and error handlers.

41740, Load Identification failed

Description

Task: *arg*

WARNING!

Not possible to identify the mass for the *arg* because of too small weight for automatic load identification.

Program Ref. *arg*

Recommended actions

Do a manually estimation of the actual load and manually edit the RAPID program.

41741, Calculation overflow

Description

Task: *arg*

The calculation result is not within the range 0 - 4294967295.

Program Ref. *arg*

Consequences

The calculation will return error.

Probable causes

The values in the operation is probably to big.

Recommended actions

Recovery: *arg*

41742, Negative subtraction

Description

Task: *arg*

The subtraction result is negative.

Program Ref.*arg*

Consequences

The calculation will return error.

Probable causes

The first value in the subtraction is smaller than the second value.

Recommended actions

Make sure the first value is larger than the second upon subtraction.

Recovery: *arg*

41743, Division with zero

Description

Task: *arg*

Division with zero

Program Ref. *arg*

Consequences

Calculation will return error.

Probable causes

Division with zero.

Recommended actions

Recovery: *arg*

41744, Instruction Error

Description

Task: *arg*

The program is executing in an ERROR handler. It is not allowed to execute the instruction *arg* in an ERROR handler.

Program Ref. *arg*

Recommended actions

Remove the instruction

41745, Instruction Error

Description

Task: *arg*

The program is executing in an BACKWARD handler. It is not allowed to execute the instruction *arg* in an BACKWARD handler.

Program Ref. *arg*

Recommended actions

Remove the instruction

41746, Instruction Error

Description

Task: *arg*

The program is executing at USER level, i.e. in an event routine or a service routine. It is not allowed to execute the instruction *arg* at USER level.

Program Ref. *arg*

Recommended actions

Remove the instruction

41747, Process signal off

Description

Task: *arg*

The process signal *arg* is set to off (0).

Program Ref. *arg*

Consequences

A recoverable error ERR_PROCSIGNAL_OFF is thrown.

Probable causes

The optional argument \ProcSignal has been used for the instruction ProcerrRecovery. The signal makes it possible for the user to turn on/ off the instruction ProcerrRecovery.

Recommended actions

Add an error handler for ERR_PROCSIGNAL_OFF error or remove the optional argument \ProcSignal from the instruction call.

41748, Value Error

Description

Task: *arg*

Illegal value in argument *arg*.

Program Ref. *arg*

Recommended actions

Check the RAPID program.

Recovery: *arg*

41749, Value Error

Description

Task: *arg*

The value for parameter *arg* is out of limit.

Program Ref: *arg*

Probable causes

The value is to large.

Recommended actions

Use a smaller value for *arg*.

Recovery: *arg*

41750, Not allowed value

Description

Task: *arg*

Illegal value in argument *arg*.

Program ref. *arg*

Probable causes

1) The system has interpreted the expression as a num data type, and the value is above the maximum integer value for num (value 8388608).

2) The system has interpreted the expression as a dnum data type, and the value is above the maximum integer value for a dnum (value 4503599627370496).

Recommended actions

Check and change the value.

The parameter name *arg* can give you information about how the system interpreted the indata.

41751, Array size error

Description

Task: *arg*

The array *arg* is not big enough to fit *arg* number of elements.

Program Ref. *arg*

Consequences

The program execution is immediately stopped.

Recommended actions

Change the size of the array to fit all elements.

41752, Num Limit Error

Description

Task: *arg*

The value for parameter *arg* is out of limit.

Program Ref. *arg*

Recommended actions

Recovery: *arg*

41753, Invalid path level

Description

Task: *arg*

Program Ref. *arg*

arg requires the robot to run at the first path level.

Consequences

The program execution is immediately stopped.

Probable causes

Executing *arg* on wrong path level.

Recommended actions

Check the RAPID program.

41754, Path Recorder cleared

Description

Task: *arg*

WARNING!

Path Recorder is cleared. The stored path is cleared before doing friction identification.

Program Ref. *arg*

41755, Path time too long

Description

Task: *arg*

Execution time is too long for friction tuning. *arg* > *arg*, which is the maximum time in seconds.

Program Ref. *arg*

Consequences

The program execution is immediately stopped.

Recommended actions

Increase speed or shorten the length of the path.

41756, Missing FricIdInit

Description

Task: *arg*

arg must be executed before *arg*.

Program Ref. *arg*

Consequences

The program execution is immediately stopped.

41757, Mechanical unit not found

Description

Task: *arg*

Mechanical unit *arg* not found.

Program Ref. *arg*

Consequences

The program execution is immediately stopped.

Recommended actions

Specify another mechanical unit.

41758, Array too small

Description

Task: *arg*

The array used is too small.

The size of the array *arg* must be equal to *arg*, the number of robot axes.

Program Ref. *arg*

Consequences

The program execution is immediately stopped.

Recommended actions

Increase the size of the array *arg*.

41759, Signal exceeds max number of allowed bits

Description

Task: *arg*

The signal *arg* is too big.

Program ref. *arg*

Recommended actions

Group signals consisting of 23 bits or less can be used in IF statements and assigned to the num datatype.

Group signals consisting of 24 - 32 bits can not be used in IF statements. Instead use the functions *arg* or *arg*.

41760, *arg* when in synchronized mode

Description

Task: *arg*

arg cannot be used together with synchronized movement.

Program ref.: *arg*

Consequences

The program execution is immediately stopped.

Recommended actions

Remove any SyncMoveOn between *arg* and *arg*

41761, Value out of range

Description

Task: *arg*

The integer value *arg* can not be copied to a *arg* datatype. The value is out of limit for the data type *arg*.

Program ref.: *arg*

Consequences

The program execution is immediately stopped.

Recommended actions

Use a variable of the type *arg* instead of a variable of type *arg*.

41762, The argument string value is invalid

Description

Task: *arg*

The argument string *arg* is invalid and can not be converted.

Program ref.: *arg*

Consequences

The program execution is immediately stopped.

Probable causes

1) The only valid letter characters is a-f and A-F and only for HexToDec.

2) The ., - and + characters is not valid for HexToDec.

3) The - character is not valid for DecToHex.

4) The value is not an valid integer.

Recommended actions

Edit the argument value string so it gets valid and can be converted.

41763, The argument string value is too high

Description

Task: *arg*

The argument string *arg* value exceeds the highest supported value in the system.

Program ref.: *arg*

Consequences

The argument value string is converted but it is set to the highest supported value (9223372036854775807).

Probable causes

The argument string value exceeds the highest supported value.

Recommended actions

Edit the argument value string so it do not exceed the highest supported value.

41764, Wrong combination in *arg*

Description

Task: *arg*

When using instruction *arg*, you can not add a dnum variable/persistent to a num variable/persistent.

Program ref.: *arg*

Probable causes

The value to be added is of the type dnum, and the variable/persistent that should be changed is a num.

Recommended actions

Read about *arg* in RAPID reference manual

41765, The argument value is too high

Description

Task: *arg*

Too high value in argument *arg*.

Program Ref. *arg*

Probable causes

The argument value exceeds the highest supported value. (*arg*)

Recommended actions

Decrease the value for argument *arg*.

Recovery: *arg*

41766, Illegal combination of inarguments

Description

Task: *arg*

It is not allowed to combine argument *arg* with argument *arg*.

The value to be stored in the variable can be higher then the maximal value for a num integer.

Program Ref. *arg*

Consequences

The program execution is immediately stopped.

Recommended actions

Use argument *arg* instead.

50021, Joint position error

Description

Actual position of joint *arg* is too far away from the ordered position.

Recommended actions

Check tuning parameters, external forces or hardware.

50022, Too low DC-link voltage

Description

The drive units cannot detect the dc link voltage, or the voltage is too low.

This can occur if the DC link bus bar is not correctly inserted or if the mains contactors do not close properly.

Recommended actions

Check the DC bus bar is correctly inserted between the drive unit and the rectifier.

Check that the motors on contactors are closed and that there is voltage on the side connected to the rectifier.

50024, Corner path failure

Description

Task: *arg*

Corner path executed as stop point due to some of the following reasons:

- Time delay.

- Closely programmed points.

- System requires high CPU-load.

Program Ref. *arg*

Recommended actions

- Reduce the number of instructions between consecutive move instructions.

- Reduce speed, use wider spaced points, use /CONC option.

- Increase ipol_prefetch_time.

50025, Restart interrupted

Description

Current position is too far from path.

Recommended actions

Make a new restart with regain.

50026, Close to singularity

Description

Task: *arg*

Robot too close to singularity.

Program Ref. *arg*

(Internal code: *arg*)

Recommended actions

Modify path away from the singularity or change to joint interpolation.

50027, Joint Out of Range

Description

Position for *arg* joint *arg* is out of working range.

Recommended actions

Use the joystick to move the joint into its working range.

50028, Jog in wrong direction

Description

Position for *arg* joint *arg* is out of working range.

Recommended actions

Use the joystick to move the joint in opposite direction.

50029, Robot outside its limits

Description

The robot *arg* has reached the configuration limit for the parallelogram transmission.

Recommended actions

Use the joystick to move the involved joint into the working range again.

50030, Robot outside its limits

Description

Jogging was made in wrong direction when parallelogram was out of working range for robot *arg*.

Recommended actions

Use the joystick to move the joint in opposite direction.

50031, Command not allowed

Description

System parameters cannot be changed in MOTORS ON state.

Recommended actions

Change to MOTORS OFF.

50032, Command not allowed

Description

An attempt was made to calibrate while in MOTORS ON state.

Recommended actions

Change to MOTORS OFF.

50033, Command not allowed

Description

An attempt was made to commutate the motors in MOTORS ON state.

Recommended actions

Change to MOTORS OFF.

50035, Command not allowed

Description

An attempt was made to synchronize in MOTORS ON state.

Recommended actions

Change to MOTORS OFF.

50036, Correct regain impossible

Description

A stop occurred with too many close points with corner zones. At restart the robot will move to a point farther forward in the program.

Recommended actions

Reduce the number of close points, increase the distance between them or reduce the speed.

50037, MOTORS ON order ignored

Description

MOTORS ON order ignored since the previous stop was not yet acknowledged.

Recommended actions

Order MOTORS ON again.

50041, Robot in a singularity

Description

The robot is too close to a singularity.

Recommended actions

During program execution, use SingArea instruction or joint interpolation.

During jogging, use axis by axis.

50042, Could not create path

Description

The path could not be created.

Recommended actions

Increase the distance between close points and/or decrease speed and/or change acceleration value.

50050, Position outside reach

Description

Position for *arg* joint *arg* is outside working area.

Joint 1-6 : Number of the axis which causes the error.

Joint 23: Combination of axis 2 and 3 causes the error.

Probable causes

The reason may be that ConfL_Off is used and a movement is too large, more than 90 degrees for an axis.

Recommended actions

- Check work object or working range.

- Move the joint in joint coordinates.

- Check motion configuration parameters.

- Insert intermediate points on large movements.

50052, Joint speed error

Description

The speed of joint *arg* is wrong relative the ordered speed due to error in system or collision.

Recommended actions

- Check the tune parameters, external forces on the joint and hardware.

- Reduce programmed speed.

50053, Too large revolution counter difference

Description

Too large revolution counter difference for joint *arg*. The system has detected too large a difference between the actual revolution counter value on the serial measurement board and the value anticipated by the system.

Consequences

The robot is not calibrated and may be jogged manually, but no automatic operation is possible.

Probable causes

The position of the robot arm may have been changed manually while the power supply was switched off. The serial measurement board, resolver or cables may also be faulty.

Recommended actions

1) Update the revolution counter.

2) Check resolver and cables.

3) Check the serial measurement board to determine whether it is faulty. Replace the unit if faulty.

50055, Joint load too high

Description

Actual torque on joint *arg* too high. Might be caused by incorrect load data, too high acceleration, high external process forces, low temperature or hardware error.

Recommended actions

-Check load data.

-Reduce acceleration or speed.

-Check hardware.

50056, Joint collision

Description

Actual torque on joint *arg* is higher than ordered while at low or zero speed. Might be caused by jam error (the arm has got stuck) or hardware error.

Recommended actions

Check that arm is not stuck.

Check hardware.

Check for other hardware eventlogs.

50057, Joint not synchronized

Description

The position of joint *arg* after power down/failure is too far away from the position before the power down/failure.

Recommended actions

Make a new update of the revolution counter.

50058, Tool coord. system error

Description

The z-direction of the tool coordinate system is almost parallel with the path direction.

Recommended actions

Change the tool coordinate system to achieve at least 3 degrees deviation between z-direction and path direction.

50060, Incorrect tool

Description

The definition of stationary tool is not valid.

Recommended actions

Check the tool and object data.

50063, Circle uncertain

Description

Task: *arg*

The points are misplaced, reason*arg*:

1 End point too close to start point.

2 Circle point too close to start point.

3 Circle point too close to end point.

4 Uncertain reorientation.

5 Circle too large > 240 degrees.

Program Ref. *arg*

Recommended actions

Check the points of the circle and the end point of the move instruction before. The points of the circle can be verified by stepping trough the circle in manual mode.

50065, Kinematics error

Description

The destination of the movement is outside the reach of the robot or too close to a singularity. Robot *arg*.

Recommended actions

Change the destination position.

50066, Robot not active

Description

Attempt to coordinate motion or calculate position of deactivated robot *arg*.

Recommended actions

Activate robot via the Motion Unit key, then Jogging window, or program. Check work object and program.

50067, Unit not active

Description

Attempt to coordinate motion or calculate position of deactivated single unit *arg*.

Recommended actions

Activate unit via Motion Unit key, then Jogging window, or program. Check work object and program.

50076, Orientation not correct

Description

Orientation is incorrectly defined.

Recommended actions

Make an accurate normalization of the quaternion elements.

50078, Too many close positions

Description

Too many consecutive closely spaced positions.

Recommended actions

Increase the distance between consecutive close positions.

50079, Cannot use wrist weaving

Description

Wrist weaving not possible.

Recommended actions

Use smaller weaving amplitude or a larger TCP.

50080, Position not compatible

Description

The desired position cannot be reached with the given robot configuration. Robot *arg*.

Recommended actions

Modify the robot position in the program.

50082, Deceleration limit

Description

The path calculation for mechanical units running in motion planner *arg* exceeds internal limit. The motion planner task did not execute within its time limit.

Probable causes

The cpu load is to high. Could for example be generated by to frequent EIO communication.

Recommended actions

1. Set system parameter High Interpolation Priority for the affected Motion Planner.

2. Try to reduce the cpu load by one or more of the following actions:

- Reduce speed

- Change AccSet

- Avoid singularity (SingArea\Wrist).

- Increase Path Resolution for the affected Motion Planner using system parameter or by using the Rapid instruction PathResol for critical movements.

50083, Speed lowered by system.

Description

The speed has been lowered by the system due to dynamic limitations.

Recommended actions

Decrease speed and/or do not use close positions at high speed and/or increase acceleration (if below 100%).

50085, Too many user frames.

Description

For mechanical unit *arg* more than one user frame has been defined.

Recommended actions

Take away one user frame or define one more mechanical unit.

50086, Singularity problem

Description

Too close to wrist singularity with respect to numerical resolution for joint 4 of *arg*.

Recommended actions

Change destination position a few increments.

50087, Singularity problem

Description

Too close to wrist singularity with respect to numerical resolution for joint 6 of *arg*.

Recommended actions

Change destination position a few increments.

50088, Restart not possible

Description

It is not possible to restart the path due to a previous error.

Recommended actions

Move the program pointer to clear the path and start a new movement.

50089, Weaving changed

Description

Task: *arg*

The ordered weaving is not achieved due to:

- high weaving frequency

- not allowed shift of weave method or

- that SingArea/Wrist is used with wrist weave.

Program Ref. *arg*

Recommended actions

Increase weave length or period time.

Don't shift between arm and wrist weave.

Use SingArea/Off with wrist weave.

50091, Restart not possible.

Description

Restart no longer possible. Change of unit state made restart of program impossible.

Recommended actions

Move the program pointer and start a new movement.

50092, Axis computer response

Description

Incorrect response from axis computer.

Recommended actions

Check motion configuration parameters.

Check axis computer hardware.

50094, TuneServo not possible

Description

Tuning is not implemented for the specified joint.

Recommended actions

Verify that a parameter and/or joint that can be used with TuneServo is chosen.

50095, Cannot access joint.

Description

Cannot access external joint.

Recommended actions

Check configuration and activation of external Joints.

50096, TuneServo not allowed

Description

Tuning is not allowed for the specified joint.

Recommended actions

Verify that a parameter and/or joint that can be used with TuneServo is chosen.

50100, Manipulator configuration

Description

There are more configurations or numerical errors in motion domain.

Recommended actions

Correct previous ones and try again.

50101, Manipulator configuration

Description

'*arg*' is not free for the param.

'*arg*' in type '*arg*' named '*arg*'.

Recommended actions

Use another one. For internal names, see moc_chk.log.

50102, Manipulator configuration

Description

'*arg*' used in the parameter '*arg*' in type '*arg*' named '*arg*' is not defined.

Recommended actions

Use another one that is defined or define the used one. For internal names, see moc_chk.log.

50103, Manipulator configuration

Description

The orientation defined by quaternions including '*arg*' in the type '*arg*' named

'*arg*' is not normalized.(SQRSUM =1)

Recommended actions

Check the quaternions and/or recalculate them. For internal names, see moc_chk.log.

50104, Manipulator configuration

Description

The parameter '*arg*' in type '*arg*' named '*arg*' is not '*arg*'.

Recommended actions

Check the value. For internal names, see moc_chk.log.

50128, Manipulator configuration

Description

Terminating the topic check for manipulator due to earlier errors.

Recommended actions

Correct the reported errors and run topic check again.

50132, Commutation failed

Description

Commutation failed for joint *arg*.

Recommended actions

- Make a new commutation.

- Restart the system.

50133, Test signal error.

Description

No test signals are available for robot *arg*.

Recommended actions

Verify that correct test signals are defined.

50134, Corr. vector warning

Description

Sensor correction vector calculations failed due to previous error.

Recommended actions

50135, SoftAct not possible.

Description

Soft servo is not possible to activate.

Recommended actions

Verify that a joint that can be used with SoftAct is chosen.

50137, No finepoint

Description

Continous mode without any finepoint in the program.

Recommended actions

Change at least one corner zone in the program to a fine point.

50138, Arm check point limit

Description

The robot *arg* has reached the limit for arm check point.

Recommended actions

Use the joystick to move the involved joint into the working range again.

50139, Arm check point limit

Description

Jogging was made in wrong direction when arm check point was out of working range for robot *arg*.

Recommended actions

Use the joystick to move the joint in opposite direction.

50140, Payload too large

Description

Heavy payload caused static torque limit to be exceeded on joint *arg*.

Recommended actions

Check and reduce payload for arm and/or wrist. Reduce joint working range to decrease static torque due to gravity.

50141, Jog or Speed error

Description

One of the following problems occured:

-Jogging error

-High speed error

-Robot too close to singularity

Recommended actions

-Jog with incremental movement

-Reduce the programmed speed

50142, Manipulator configuration

Description

Configuration of the manipulator failed.

arg

arg

Recommended actions

Check the parameter values under System parameters:Manipulator. If mismatch between int/ext parameters i.e. wrong MOC.cfg loaded - cold start the system with correct parameters.

50143, Robot axes configuration

Description

Actual configuration is not the same as ordered and/or movement of any robot axis is larger than 90 degrees. Robot *arg*, axis *arg*.

Recommended actions

Use SingArea_Wrist, ConfL_Off, modify position or insert intermediary point.

Proceding in Auto mode will not be possible without correcting the configuration. To be able to move to the position anyway change to Manual mode and repeat start.

50144, Displ frame uncertain

Description

Calibration of displacement frame uncertain for robot *arg*, due to one or several of:

- Wrong TCP.

- Reference points inaccurate.

- Reference points badly spaced.

Recommended actions

If estimated error is unacceptable:

- Verify that correct TCP is used.

- Try more than 3 reference points.

- Be careful when positioning robot to reference points.

50145, Kinematic limitation

Description

Kinematic limitation for robot *arg*, no solution found.

- Long segment.

- Position close to singularity.

- Joint 1, 2 or 3 out of range.

- Position outside reach.

Recommended actions

- Insert an intermediary point to reduce the length of the segment.

- Use MoveAbsJ.

- Check working range.

50146, Restart limitation

Description

Corner path executed as a stop point. Power fail restart not possible near the stop point.

Recommended actions

Use finepoint in the Move-instr before RestoPath, ActUnit, Wait or Stop-instr to make power fail restart possible.

50147, Power fail restart failed

Description

Re-creation of the path failed.

Recommended actions

Move the program pointer and start a new movement.

50153, Command not allowed

Description

Task: *arg*

The given instruction, or command, was not allowed since the robot program was executing in a hold state.

(Internal code: *argarg*)

Program Ref. *arg*

Recommended actions

Modify program or stop program execution before issuing command.

50154, Command not allowed

Description

SingArea\Wrist mode interpolation is not supported for the *arg* robot.

Recommended actions

Replace SINGAREA\WRIST instruction with SINGAREA\OFF.

50155, Power fail restart failed

Description

Not possible to restart the Move-instruction before RestoPath, ActUnit, Wait or Stop-instruction.

Recommended actions

Remove MOTION WARNING 50146 Restart limitation, by changing the Move-instruction to finepoint. Move the program pointer and start a new movement.

50156, Not an independent joint

Description

Joint *arg* is not configured as an independent joint.

Recommended actions

Modify the program or configure the joint as an independent joint.

50157, Corr. vector warning

Description

Sensor correction vector X calculations failed due to previous error.

Recommended actions

50158, Sensor process missing

Description

Sensor process missing during initialization. Named sensor process *arg* could not be found or initialized.

Recommended actions

Check process name in motion and process configuration files.

50159, No external process

Description

Attempt to coordinate motion or calculate position of single *arg* without an external process.

Recommended actions

Check process name in motion and process configuration files.

50160, Cannot reach position

Description

Programmed position of independent joint *arg* is outside working range and thus cannot be reached.

Recommended actions

- Change the position.

- Check the joint working area limits.

- Check the used work object.

50161, Singularity area

Description

Robot *arg* is close to a singularity. Work area with kinematic limitations.

Recommended actions

During jogging, use axis by axis. During program execution, use MoveAbsJ.

50162, Internal position error

Description

Error caused by internal numerical limitation.

Recommended actions

- Reset independent joint.

- Reduce work area if extended.

- Remove or separate close points.

50163, Position adjustment

Description

External position adjustment too large. TCP speed, orientation speed, or external position speed exceed allowed robot performance.

Recommended actions

- Reduce programmed TCP- and orientation speeds.

- Modify the path.

- WaitWObj closer to sync.

- Run in AUTO.

50164, Deactivation not possible

Description

Deactivation of mechanical unit may not be done while in independent mode.

Recommended actions

Make sure that independent mode is not used and try to deactivate again.

50167, Warning: new sync

Description

Warning: a new object sync signal has arrived while conveyor is active and program is running.

Recommended actions

50168, New sync on *arg*

Description

New object sync arrived while conveyor was tracking the previous object. Cannot track two objects simultaneously.

Recommended actions

Reduce speed of conveyor. Increase programmed speed.

50171, Speed too low

Description

Numerical problem when interpolation of long segments with low speed and heavy additional axes or when interpolation close to singularity.

Recommended actions

Split segments with long interpolation time (path_resolution * 4 minutes) or change to joint interpolation or move position away from singularity.

50172, MoveJ not allowed

Description

MoveJ not allowed with work object coordinated with external position mechanical unit.

Recommended actions

Change interpolation mode or work object.

50173, Fine point necessary

Description

Use fine point when changing tool or work object coordination when work object is coordinated with external position mechanical unit.

Recommended actions

Create a fine point and then change the tool.

50174, WObj not connected

Description

The WObj is not connected to the conveyor *arg*. Robot TCP cannot be coordinated to work object. Object can be dropped because of time synchronization fault on conveyor node.

Recommended actions

Check for missing WaitWObj.

Check for DropWObj occuring before end of coordination.

Check for time synchronization fault, see status on conveyor node.

50175, Conveyor moving

Description

Conveyor *arg* moving while attempt to coordinate robot TCP to conveyor work object while in prohibited mode.

Recommended actions

It is not possible to coordinate to conveyor while in Manual Reduced Speed, or stepping in Auto, and the conveyor is moving.

50176, Conveyor not active

Description

Conveyor *arg* was not active when attempt to coordinate robot TCP to conveyor work object.

Recommended actions

Make sure conveyor mechanical unit is active. Check for fine point for last coordinated motion before DeactUnit.

50177, Unable to restart

Description

Conveyor *arg* moving while attempting to restart or before pressing Stop or stepping through program.

Recommended actions

Make sure conveyor is standing still. Move the program pointer and start a new movement.

50178, Non optimal movement

Description

Required torque too high. Manual adjustment of acceleration or speed is needed.

Recommended actions

Reduce acceleration (AccSet 50 100) in this movement, restore it afterwards (AccSet 100 100). Optimize performance by search for max acceleration 50-99. Alternatively, reduce speed.

50181, Out of coupled range

Description

Joint *arg* and *arg* are out of coupled working range.

Recommended actions

Use the joystick to move joints into their coupled working range.

50182, Jog in wrong direction

Description

Joint *arg* and *arg* are out of coupled working range.

Recommended actions

Use the joystick to move joints into their coupled working range.

50183, Robot outside work area.

Description

The robot has reached the World Zone *arg*, *arg*

Recommended actions

Check the reason of the World Zone. Use the joystick to move the robot out of the World Zone if needed.

50184, Corr. vector warning

Description

Sensor correction vector calculations failed due to previous error.

Recommended actions

50185, Corr. vector warning

Description

Sensor correction vector calculations failed due to previous error.

Recommended actions

50186, Missing function

Description

Not possible to run robot *arg* with coordinated base frame. Function not installed in this system.

Recommended actions

Install the option Multiple Axis Positioner.

50187, Missing function

Description

Not possible to coordinate user frame with robot *arg* Function not installed in this system.

Recommended actions

Install the option Multiple Axis Positioner.

50188, Non optimal movement

Description

Required torque too high. Manual adjustment of weave frequency or amplitude is needed.

Recommended actions

Reduce weave frequency or weave amplitude in this movement. Alternatively, reduce speed.

50189, Relay signal not found

Description

The signal *arg* for relay *arg* is not found in the I/O configuration. The mechanical unit using this relay is ignored.

Recommended actions

Check I/O signal definitions and System Parameters definition of Manipulator, Types: Relay.

50190, Permanent interpolator lock error

Description

Scanned number of active joints not equal to expected number of joints.

Recommended actions

Check configuration of the unit that is using general kinematics.

50191, Too many TCP speed's

Description

The number of TCP speed's in one segment is too large. Maximum number of TCP speed's is *arg*.

Recommended actions

Check if one segment has too many TCP speed's set or if a sequence of segments have increasing DipLag.

50192, Jogging error

Description

Jogging is started too soon after program stop.

Recommended actions

Try to jog the robot again.

50193, Joint not synchronized

Description

The speed of joint *arg* before power down/failure was too high.

Recommended actions

Make a new update of the revolution counter.

50194, Internal position error

Description

Error caused by internal numerical limitation. Joint number *arg*. Calculated reference position = *arg*.

Recommended actions

- Adjust the system parameters in Uncal ctrl master 0.
- If TuneServo is used, adjust parameter Tune_df.

50195, Cannot move independent

Description

Joint *arg* cannot be moved in independent mode.

Recommended actions

Make sure that independent mode is not used when trying to move joint.

50196, Calibration failed

Description

Points 0 and 1 too close.

Recommended actions

Make a new calibration with larger distance between points 0 and 1.

50197, Calibration failed

Description

Points 0, 1, 2 on a line or point 2 too close to points 0 or 1.

Recommended actions

Make a new calibration with points moved so that 0, 1 and 2 are not on a line or with larger distance between point 2 and points 0 and 1.

50198, Calibration failed

Description

Internal error during calibration due to unknown origin switch.

Recommended actions

- Report the occurance to ABB.

- Make a new calibration.

50200, Torque error

Description

Torque calculation error due to high speed for mechanical unit *arg*. Internal info code *arg*

Recommended actions

- Check load data.

- Reduce speed.

50201, Orientation outside reach

Description

The error of the programmed orientation exceeds the acceptance limit.

Recommended actions

- Adjust robtarget orientation.

- Adjust/check orientations of currently used frames: tool frame, base frame, user frame, object frame.

- It is possible (but not recommendable) to switch off the orientation supervision using the corresponding system parameter. Please see system parameters documentation for details (Topic Motion/Type Robot).

50203, Measurement node used

Description

The measurement node for joint *arg* is already used.

Recommended actions

Select another node.

50204, Motion supervision

Description

Motion supervision triggered for axis *arg* on mechanical unit *arg*.

Consequences

The movement of mechanical unit *arg* is halted immediately. It then returns to a position on the path on which it was running. There, it will remain in status Motors ON, awaiting a start request.

Probable causes

Triggering of the motion supervision may be caused by a collision, incorrect load definition or forces in external process.

Recommended actions

1) If possible, acknowledge the fault, and resume operation by pressing the Start button on the teach pendant.

2) Make sure any loads are defined and identified correctly.

3) If the mechanical unit is exposed to forces from the external processes, use RAPID command or system parameters to raise the supervision level.

50205, Data logger error:

Description

arg

Recommended actions

Solution:

arg

50206, Probe warning

Description

Probe buffer is full.

Recommended actions

50207, Add intermediate point

Description

Intermediate point not coordinated to external pos mechanical unit is necessary when changing conveyor.

Recommended actions

Create an intermediate point then change the conveyor.

50208, Missing function

Description

Friction compensation can not be activated for joint *arg*.

Recommended actions

Install the option Advanced Shape Tuning.

50209, Kinematic limitation

Description

No acceptable solution found. Residual: *arg* deg in orientation, *arg* mm in x,

arg mm in y, *arg* mm in z.

Recommended actions

Insert an intermediary point. Check singularity. Increase position and orient. tolerance. Use MoveAbsJ. Check working range.

50210, Load identification fail

Description

Cannot perform load identification because configuration angle is too small.

Recommended actions

- Increase configuration angle.

50212, Missing option

Description

General kinematics can not be used without the option 'GKIN'.

Recommended actions

Install the option 'GKIN'.

50214, Work area config failed

Description

Possibly the defined work area is larger than max allowed area for robot *arg*.

Recommended actions

Adjust the work area parameters in Robot system parameters and try again.

50215, Load identification fail

Description

Axis *arg* will move outside working range.

Recommended actions

Move the axis to a position further from the working range limit.

50218, Path not finished

Description

Task: *arg*

Previous motion path was not finished before new motion was sent.

Program Ref. *arg*

Recommended actions

Use StorePath when in Trap routines. Move the program pointer and start a new movement.

50220, No input signal

Description

No input signal to contactor relay for mechanical unit *arg*

Recommended actions

Ensure that an input signal is connected and configured.

50221, Object outside limit

Description

Object on conveyor *arg* is outside max dist or min dist limits. Object Dropped.

Recommended actions

Check limits or reduce conveyor speed.

50222, Mismatch type - MechUnit

Description

Mismatch between selected manipulator type and selected mechanical unit.

Recommended actions

Make sure that selected manipulator corresponds to selected mechanical unit and try again.

50224, Cannot define load

Description

It is not allowed to define a load on axis *arg* for mechanical unit *arg* or the interpolation is not stopped in a finepoint.

Recommended actions

Change axis number, mechanical unit or change the move before to finepoint.

50225, Old boot safe area lost

Description

Error in boot safe memory area.

- Area updated with new data.

- System unsynchronized.

Recommended actions

Update all revolution counters.

50226, Motor reference error

Description

Calculation time for motor references exceeds internal limits.

Recommended actions

- Reduce load on main computer.

- Restart controller.

50227, Test signal error

Description

Invalid channel number *arg*.

Recommended actions

Allowed channel numbers are 1 - 12 for test signals and 1 - 6 for data log signals.

50228, Test signal error

Description

Unknown test signal number *arg*.

Recommended actions

Make sure that a valid test signal number is defined.

50229, Test signal error

Description

Unknown mechanical unit *arg*.

Recommended actions

Check spelling or configuration.

50230, Test signal error

Description

Invalid axis number *arg* for mechanical unit *arg*.

Recommended actions

Check mechanical unit and axis number.

50231, Test signal error

Description

Mechanical unit *arg* not active.

Recommended actions

Activate mechanical unit before defining test signals.

50234, Overflow during logging

Description

An overflow occured when logging test signals or data log signals.

Recommended actions

- Define fewer signals.
- Reduce load on main computer.
- Reduce network load.

50235, No interrupts received

Description

No interrupts received from the robot communication card within timeout.

Consequences

The system goes to status SYS FAIL.

Probable causes

The robot communication card may be faulty.

Recommended actions

1) Restart the system to resume operation.

2) Replace the robot communication card if faulty.

3) Check any other error log messages coinciding in time with this one for clues.

50236, Reference underrun

Description

Reference underrun in Main computer interrupt routine for Axis computer connected to connector board *arg*.

Recommended actions

- Reduce load on main computer.
- Restart controller.
- Replace Axis computer board.

50237, Reference task error

Description

Reference task queue full (Slot id = *arg*)

Recommended actions

- Reduce load on main computer.
- Restart controller.
- Replace Axis computer board(s).

50239, Optimal Em. Stop change

Description

Optimal Emergency Stop changed to Electrical brake mode because of acceleration limitation.

Recommended actions

Limit acceleration in the program.

50240, Optimal Em. Stop change

Description

Optimal Emergency Stop changed to Electrical brake mode because of torque limitation.

Recommended actions

Check load data.

50241, Missing function

Description

Absolute Accuracy not purchased.

Recommended actions

Change Robot system parameter use_robot_calib to uncalib.

50242, Unsync due to CFG data

Description

- Mismatch between controller and cfg data for joint *arg* (calibration offset or calibration position), or

- Valid flags for calibration offset or commutation offset not true in cfg.

Recommended actions

Update measurement system:

- Update revolution counter.

- Recalibrate joint.

- Change cfg data.

50243, No acceleration limit

Description

Acceleration limitation is not implemented for robot *arg*.

50244, AbsAcc calibration failed

Description

Could not perform an AbsAcc calibration.

Recommended actions

- Restart controller.

- Check that the harddrive isn't full.

- Install more memory.

50245, Command not allowed

Description

Cannot set non motion execution mode when in MOTORS ON state.

Recommended actions

Change to MOTORS OFF.

50246, Linked motor error

Description

Large position offset between follower axis and master axis.

Recommended actions

Start linked motor service program. Jogg the follower axis to same position as the master axis.

50247, Clear of Path failed

Description

The movement has to be stopped when the path is to be cleared.

Recommended actions

Use StopMove before the ClearPath instruction. Move the program pointer and start a new movement.

50248, Internal Servo Tool error

Description

Internal error for tool *arg* in state *arg*

arg

arg

arg

Recommended actions

Contact ABB.

50249, Programmed force reduced

Description

Programmed tip force too high for tool *arg*. Requested motor torque (Nm)= *arg*. Force was reduced to max motor torque.

Recommended actions

1) Reduce programmed tip force.

2) Check force vs torque calibration in system parameters.

3) Check max motor torque in system parameters.

50250, Calibration force reduced

Description

Requested calibration force too high for tool *arg*. Requested motor torque (Nm)= *arg*. Force was reduced to max motor torque

Recommended actions

1) Check calib forces in sys par.

2) Check force vs torque calibration in system parameters.

3) Check max motor torque in system parameters.

50251, Tool opening failed

Description

An ordered tool axis movement of *arg* was detected during tool opening.

Recommended actions

Make sure the tool opening is ready before executing next tool axis movement. Decrease the system parameter 'post sync time'.

50252, Tool opening failed

Description

An ordered tool axis movement of *arg* was detected during tool opening in calibration.

Recommended actions

Make sure no movements of the tool axis are ordered during calibration.

50253, Cannot deactivate unit

Description

Deactivation of mechanical unit may not be done while in process mode.

Recommended actions

Make sure to leave process mode before deactivating mechanical unit.

50254, Linked motor error.

Description

Too large speed for follower axis when follower axis is in jog mode.

Recommended actions

Start linked motor service program. Reset jog mode.

50255, Missing function

Description

Linked motors can't be used without installing appropriate option.

Recommended actions

Install the option 'Electronically linked motors'.

50256, Sync pos warning

Description

Sensor movement outside limits. The sensor start pos should be *arg* than *arg* and found *arg*.

Recommended actions

Check programmed sensor position in robtarget. Start sync earlier or change robtarget.

50257, Sync speed warning

Description

Programmed speed outside limits. The speed should be *arg* than *arg* and found *arg*.

Recommended actions

- Check programmed robot speed
- Check sensor teach pos
- Check sensor nominal speed.

50258, Sensor direction error

Description

Programmed sensor pos speed *arg* and found sensor speed *arg* in opposite direction.

Recommended actions

- Check programmed sensor positions in robtarget.
- Start sync earlier or reduce waitsensor dist .

50259, Sensor max dist error

Description

Distance between sensor position and programmed position too large. *arg*

Recommended actions

- Check programmed sensor positions in robtarget.
- Check sensor speed.
- Start sync earlier or reduce waitsensor dist.

50260, Sensor Check dist error

Description

Distance sensor pos to programmed pos *arg* too large *arg*.

Recommended actions

- Check programmed sensor positions in robtarget.
- Check sensor speed
- Increase max deviation.

50261, WZone outside work area

Description

The definition of minimum limit for the World Zone *arg* is outside work area for: *argargarg*...

Recommended actions

Change the definition of the World Zone so the limit will be inside work area or insert 9E9 to remove an axis from test by the WZone.

50262, WZone outside work area

Description

The definition of maximum limit for the World Zone *arg* is outside work area for: *argargarg*...

Recommended actions

Change the definition of the World Zone so the limit will be inside work area or insert 9E9 to remove an axis from test by the WZone.

50263, Duty factor warning

Description

The duty factor for the gearbox of joint *arg* of robot *arg* is too high. Continued running without adjustment may cause damage to motor and gearbox. Contact your local ABB service support center.

Recommended actions

Reduce the speed or increase the wait time.

50264, Saved parameters used

Description

Valid calibration data was found after system update and will be used unless a calib.cfg file is added with RobInstall or in syspar directory.

Recommended actions

If calibration data from file should be used, add a calib.cfg file with RobInstall or in syspar directory and make a new installation of system.

50265, Thickness out of reach

Description

Servo Tool: *arg* Programmed thickness *arg* mm is out of reach

Recommended actions

- Adjust programmed thickness
- Check working range (min. stroke)

50266, Close request failed

Description

Not allowed to close Servo Tool:*arg* in reverse direction

Pre close position: *arg* mm

Programmed thickness: *arg* mm

Recommended actions

- Adjust pre close position
- Adjust programmed thickness

50267, Open request failed

Description

Not allowed to open Servo Tool:*arg* in reverse direction

Recommended actions

Check that programmed robtarget positions of the Servo Tool are larger than programmed thickness.

50268, Calibration failed

Description

Not allowed to calibrate Servo Tool:*arg* from negative position

Recommended actions

Adjust Servo Tool position before calibration

50269, Tune value out of limit

Description

Tune value for Servo Tool: *arg* is out of limit. Parameter: *arg*

Recommended actions

Adjust tune value

50271, Poor event accuracy

Description

Task: *arg*

The system is presently configured with time event supervision, and now an event could not be accurately activated.

Program Ref. *arg*

Recommended actions

Decrease the programmed speed or increase the distance between the programmed positions. Turn off this check by changing the system parameters.

50272, Manipulator configuration

Description

Failed to read *arg* data for *arg* , from the configuration file.

Recommended actions

Check the configuration file - cold start the system with correct parameters.

Check both configuration data for the current instance and any instances below in the structure.

50273, Manipulator configuration

Description

Incorrect configuration parameter *arg* for *arg*. The configuration parameter could for instance be an unknown type or a numerical value that is out of range.

Recommended actions

Check the configuration file - cold start the system with correct parameters.

50274, Manipulator configuration

Description

Failed to read or create *arg* with the name: *arg*. If the current instance exists it is read, else it is created. In other words, the instance could not be read or created.

Recommended actions

Check the configuration file - cold start the system with correct parameters.

50275, Manipulator configuration

Description

Failed to read next *arg* name, previous name is *arg*. The previous instance is ok, but the next instance cannot be read.

Check also the configuration error log for more details.

Recommended actions

Check the configuration file - cold start the system with correct parameters.

50276, Manipulator configuration

Description

Standard servo queue length (*arg*) out of range (min=1, max=*arg*).

Recommended actions

Check std_servo_queue_length in the configuration file - cold start the system with correct parameters.

50277, Manipulator configuration

Description

Number of joints (*arg*) in dynamic group override. Allowed number is *arg*.

Recommended actions

Check the configuration file - cold start the system with correct parameters.

50278, Manipulator configuration

Description

Failed to configure servo gun (*arg*).

Recommended actions

Check the servo gun data in the configuration file. Cold start the system with correct parameters.

50279, Manipulator configuration

Description

Servo tool change requires option Servo Tool Change.

Without this option, installation of this mechanical unit is not allowed.

Recommended actions

Check the configuration file - cold start the system with correct parameters.

50280, System configuration

Description

Mechanical Unit *arg* is defined in more than one Rapid program.

Recommended actions

Check the configuration file - cold start the system with correct parameters.

50281, Process failed

Description

Task: *arg*

A process in the task *arg* has failed. This is caused by a failure of a process in this task or a synchronized task if MultiMove is used.

arg

Recommended actions

Check other messages occuring at the same time for the reason.

Recovery: *arg*

50282, Record not ready

Description

Record not ready to activate

Recommended actions

Make sure that record is finished before activating.

Check sensor_start_signal

50283, Unknown record file name

Description

Record file name: *arg* is unknown.

Recommended actions

Check file name or existence with file manager.

Record a new file

50284, Cannot activate Mechanical Unit

Description

The Mechanical Unit *arg* cannot be activated because it is not connected to a Rapid task.

Recommended actions

Check that the connection between Mechanical Unit and Rapid task is done correctly in the SYS.cfg.

50285, DitherAct not possible

Description

Dithering is not possible to activate.

Recommended actions

Verify that a joint that can be used with DitherAct is chosen.

50286, Mix of coordinated frames

Description

Task: *arg*

More than one unit move frames, reason*arg*:

1 It is not allowed to have a chain of coordinated frames.

2 It is not allowed to exchange the unit that control the frame in a cornerzone.

Program Ref. *arg*

Recommended actions

1 Rearrange the units so that all units, which perform coordinated movements, are following the same unit.

2 Insert a finepoint or a not coordinated movement between the two coordinated movements.

50287, Unit out of position

Description

The robot *arg* is semi coordinated to Unit *arg* and the Unit must stand in a finepoint when the Robot is moving in the user_frame.

Recommended actions

Use WaitSyncTask to separate the semi coordinated move from other moves, SyncMoveOn, SyncMoveResume and SyncMoveOff. After a SyncMoveOff the Unit must also be moved (MoveL or MoveExtJ) to a finepoint to make regain possible after a stop during the semi coordinated move. Keep the program active for the Unit in the task selection panel to get a regain of the Unit at restart, the reason is that the Unit can move a little when doing motors off and on.

50288, Sync ID mismatch

Description

The specified id number for the move instruction has to be equal for all cooperating program tasks.

Current id number mismatch *arg*, *arg*.

Recommended actions

Verify that the specified id numbers are equal and that all PP are synchronized before program start.

50289, Point type mismatch at sync

Description

The move instructions with syncId = *arg*, have a mix between finepoints and zonepoints.

Recommended actions

Make sure that the move instruction in all cooperating program tasks specifies the same kind of point type, either finepoints or zonepoints.

50290, Service unavailable

Description

Unable to obtain correct license.

Recommended actions

Please check the license settings.

50291, Deactivation not allowed

Description

Deactivation of mechanical unit *arg* is not allowed when task is in synchronized motion mode.

Probable causes

Instruction DeactUnit is used in a synchronized part of the program.

Recommended actions

- Make sure no DeactUnit instruction is used in a synchronized part of the program.

- Move the program pointer to main.

50292, Activation not allowed

Description

Activation of mechanical unit *arg* is not allowed when task is in synchronized motion mode.

Probable causes

Instruction ActUnit is used in a synchronized part of the program.

Recommended actions

- Make sure no ActUnit instruction is used in a synchronized part of the program.

- Move the program pointer to main.

50293, Configuration error

Description

The configuration file is erroneous concerning SMB memory storage.

Probable causes

Wrong parameter set up in configuration file. Wrong type of SMB-board.

Recommended actions

- Make sure that parameter memory_index is defined.

- Use SMB-board with memory functionality.

50294, Transmission error of data

Description

Transmission of data between cabinet and SMB-memory has failed.

Probable causes

Cable, or transmission electronics failed. Electrical interference high.

Recommended actions

- Restart try once more.
- Check cables.
- Check SMB-board.
- Check drive module.

50295, Manipulator data missing

Description

Data in SMB- and cabinet memory missing for mechanical unit *arg*.

Probable causes

Configuration file missing. New SMB-board together with new cabinet.

Recommended actions

- Load new configuration files.

50296, SMB memory data difference

Description

Data in SMB memory is not same as in cabinet for mechanical unit *arg*.

Probable causes

Not the same data or serial number in SMB memory and cabinet. Manipulator (SMB module) or cabinet exchanged or configuration parameters changed.

Recommended actions

Check status via teach pendant and check if right configuration data (serial number) loaded in cabinet. Check that serial number belongs to the manipulator connected to the cabinet. If not, replace configuration files or manually transfer data from SMB memory to cabinet if cabinet has been exchanged.

If Serial Measurement Board replaced with board from another manipulator (serial numbers not the same), clear first SMB memory via teach pendant and then transfer data from cabinet to SMB.

50297, Memory updated in SMB

Description

Data for mechanical unit *arg* is moved from cabinet to SMB-memory.

Probable causes

Recommended actions

50298, Memory updated in cabinet

Description

Data for mechanical unit *arg* is moved from SMB-memory to cabinet.

Probable causes

Recommended actions

50299, Speed control warning

Description

Speed for Unit *arg* is reduced due to limiting Unit *arg*.
Task: *arg* Intruction line: *arg*

Probable causes

Programmed speed too high on this Unit or movement too long on limiting Unit

Recommended actions

Change path or programmed speed .
Set speed control off

50300, SMB memory not used

Description

SMB-memory is not used for this mechanical unit.

Probable causes

Additional axes can't and should not use the SMB-memory.

Recommended actions

50301, All SMB data missing

Description

All data is missing in SMB-memory at board *arg*, link *arg*, drive module *arg*.

Probable causes

An error in SMB-memory or communication has occurred. The data has been cleared.

Recommended actions

If proper data exists in cabinet - transfer the data to SMB-memory. If still problem - check communication cable to SMB-board. Replace SMB-board.

50302, Sensor data missing

Description

No serial number is defined for mechanical unit *arg* in SMB-memory.

Probable causes

The SMB-memory has been cleared or new SMB-board has been installed.

Recommended actions

If proper data exists in cabinet - transfer the data to SMB-memory.

50303, Cabinet data missing

Description

No serial number is defined for mechanical unit *arg* in cabinet.

Probable causes

The cabinet memory has been cleared or new cabinet has been installed..

Recommended actions

If proper data exists in SMB-memory - transfer the data to cabinet memory.

50304, Transfer of data not allowed

Description

The SMB-memory for mechanical unit *arg* has another serial number, than used in the cabinet.

Probable causes

A SMB-board from another robot has been installed in the used robot.

Recommended actions

Clear first the data in SMB-memory via calibration/SMB-memory/ advanced/. Then repeat the transfer command once again.

50305, Old SMB board used

Description

Old SMB board used without data memory.

Probable causes

Recommended actions

Replace board with a new with data memory or set parameter "Use old SMB" in configuration MOTION/ROBOT.

50306, Load identification error

Description

Cannot perfom load identification because configuration angle makes inertia matrix singular.

Recommended actions

- Move axis 6 on the robot about 30 degrees in any direction.

50307, Extended working range

Description

The option Extended working range has been installed.

Make sure that the mechanical stop has been removed.

50308, In Position timeout

Description

Condition for finepoint not fulfilled within *arg* seconds.

Recommended actions

Check tuning of additional axes, In Position Conditions (In Position Range, Zero Speed) and check if disturbance of resolver cables.

50309, AbsAcc error

Description

Data moved from SMB-memory to cabinet. AbsAcc data not valid in SMB-memory. AbsAcc cleared in cabinet for mechanical unit *arg*.

Recommended actions

Load new AbsAcc data if data available.

50310, Independent joint not active

Description

Mechanical unit *arg* with independent joint is not active.

Recommended actions

Activate the mechanical unit before executing the independent joint instruction.

50311, Cannot activate Mechanical Unit in task

Description

The Mechanical Unit *arg* cannot be activated in specified task.

Recommended actions

Check the connection between Mechanical Unit and Rapid task in the SYS.cfg.

50312, Mechanical Unit already active in other task

Description

Cannot activate Mechanical Unit *arg*, since it is already active in another Rapid task.

50313, Independet move reset failed

Description

Independent reset movement failed for *arg*, a synchronized movement (MoveL/MoveJ) of the servo tool occured during the the independent reset movement.

Recommended actions

Make sure the synchronized speed of the servo tool is zero during execution of independent reset movements.

50314, Independent move outside reach

Description

Programmed independent move position for *arg* is outside reach. Programmed position = *arg* mm.

Recommended actions

Adjust independent move position.

Check working range of the servo tool.

50315, Corner path failure

Description

Task: *arg*

Interpolation and process stopped before the corner path due to some of the following reasons:

- Time delay.
- Closely programmed points.
- System requires high CPU-load.

arg

Recommended actions

- Reduce the number of instructions between consecutive move instructions.
- Reduce speed, use wider spaced points, use /CONC option.
- Increase ipol_prefetch_time.

Recovery: *arg*

50316, Absolute accuracy not activated

Description

Absolute accuracy function not activated.

Consequences

Robot positioning will not be absolute accurate.

Recommended actions

Make sure absacc.cfg is loaded into controller memory and switch AbsAcc on. Verfiy status in jogging window.

50317, Disconnecting the Drive Module not allowed

Description

An attempt was made to disconnect drive module *arg*, which is not allowed.

Consequences

The system goes to state Motors OFF, and then disconnects the Drive Module.

Probable causes

Disconnecting drive modules is only allowed in the Motors OFF state.

Recommended actions

Make sure that the system is in Motors OFF state before disconnecting the Drive Module.

50318, Reconnecting the Drive Module not allowed

Description

Drive Module should not be reconnected since the system is not in the state Motors OFF.

Consequences

An attempt was made to reconnect drive module *arg*, which is not allowed.

Probable causes

Reconnecting drive modules is only allowed in the Motors OFF status.

Recommended actions

Make sure that the system is in Motors OFF state before reconnecting the Drive Module.

50319, Cannot activate Mechanical Unit

Description

An attempt was made to activate mechanical unit *arg*, which failed.

Consequences

The mechanical unit remains deactivated.

Probable causes

The mechanical unit is connected to Drive Module *arg* which is disconnected.

Recommended actions

1) Reconnect the Drive Module. 2) Retry to activate the Mechanical Unit.

50320, Drive Module has been disconnected

Description

Drive Module *arg* has been disconnected.

Consequences

No mechanical units connected to the drive module may be operated.

50321, Drive Module has been reconnected

Description

Drive Module *arg* has been reconnected after being disconnected.

Consequences

All mechanical units connected to drive module *arg* may be operated.

50322, Mechanical Unit not connected to motion task

Description

Cannot activate Mechanical Unit *arg*, since it is not connected to any motion task.

Recommended actions

Check the connection between Mechanical Unit and Rapid task in the SYS.cfg.

50323, Failed to read force sensor

Description

Failed to return calibrated force sensor reading.

Probable causes

Force control system not calibrated.

Recommended actions

Use the instruction FCCalib before using this instruction.

50324, Force control calibration failed

Description

Failed to calibrate the force control system.

Probable causes

The system is not in position control.

Recommended actions

Make sure the robot is in position control mode before using the FCCalib instruction.

50325, Failed to activate force control

Description

Activation of force control failed.

Probable causes

The system is either not calibrated or we are already in force control. Another reason for this could be incorrect arguments.

Recommended actions

Only use the FCAct or FCPress1LStart instruction when the force control system is calibrated and we are in position control. Check all arguments to the activation instruction.

50326, Failed to deactivate force control

Description

Failed to return to position control.

Probable causes

Can not set position control if the robot is moving due to external forces or ordered references.

Recommended actions

Stop any active references and remove any external forces and try again.

50327, Failed to start references

Description

Failed to start the user specified references

Probable causes

Only allowed to start references when in force control.

Recommended actions

Must activate force control before trying to start references.

50328, Parameter error in FCRefSprForce or FCRefSprTorque

Description

Error in parameter Stiffness in instruction FCRefSprForce or FCRefSprTorque.

Recommended actions

Change the parameter Stiffness in instruction FCRefSprForce or FCRefSprTorque to a value larger than zero.

50329, Parameter error in FCRefSprForce

Description

Error in parameter MaxForce in instruction FCRefSprForce.

Recommended actions

Change the parameter MaxForce in instruction FCRefSprForce to a value larger than zero.

50330, Parameter error in FCRefSprTorque

Description

Error in parameter MaxTorque in instruction FCRefSprTorque.

Recommended actions

Change the parameter MaxTorque in instruction FCRefSprTorque to a value larger than zero.

50331, Parameter error in FCRefForce

Description

Error in parameter Amp in instruction FCRefForce.

Recommended actions

Change the parameter Amp in instruction FCRefForce to a value larger than zero.

50332, Parameter error in FCRefTorque

Description

Error in parameter Amp in instruction FCRefTorque.

Recommended actions

Change the parameter Amp in instruction FCRefTorque to a value larger than zero.

50333, Error FCRefLine, FCRefRot or FCRefCircle

Description

The parameter Distance in instruction FCRefLine or instruction FCRefRot and the parameters Radius and Speed in instruction FCRefCircle have to be larger than zero.

Recommended actions

Change the parameters above according to the manual.

50334, Parameter error in FCRefLine

Description

Not allowed parameter value used in function FCRefLine.

Probable causes

Error in parameter values of function FCRefLine.

Recommended actions

Modify the parameter values in function FCRefLine.

50335, Parameter error in FCRefSpiral

Description

Not allowed parameter value used in function FCRefSpiral.

Probable causes

Error in parameter values of function FCRefSpiral.

Recommended actions

Modify the parameter values in function FCRefSpiral.

50336, Parameter error in FCGetProcessData

Description

Failed to retrieve process information.

Probable causes

Using the optional parameter DataAtTrigTime in instruction FCGetProcessData. If no trig has occured this error is reported.

Recommended actions

Remove the optional parameter.

50337, Force sensor not setup

Description

Error in the force sensor parameters.

Recommended actions

Check the force sensor configuration parameters.

50338, Parameter error in FCCondAdvanced

Description

Error in parameter LogicCond in instruction FCCondAdvanced.

Recommended actions

Modify the parameter LogicCond in instruction FCCondAdvanced.

50339, Parameter error in FCCondTime

Description

Error in parameter Time in instruction FCCondTime.

Recommended actions

Change the parameter Time in instruction FCCondTime to a value larger than zero.

50340, Error in force control box definition

Description

An error in the parameter Box in either FCCondPos or FCSupvPos.

Recommended actions

Change the parameter Box in either FCCondPos or FCSupvPos.

50341, Error in force control cylinder definition

Description

An error in the parameter Cylinder in either FCCondPos or FCSupvPos.

Recommended actions

Change the parameter Cylinder in either FCCondPos or FCSupvPos.

50342, Error in force control sphere definition

Description

An error in the parameter Sphere in either FCCondPos or FCSupvPos.

Recommended actions

Change the parameter Sphere in either FCCondPos or FCSupvPos.

50343, Error in force control cone definition

Description

An error in the parameters for either FCCondOrient or FCSupvOrient.

Recommended actions

Change the parameters in either FCCondOrient or FCSupvOrient.

50344, Joints outside limits in force control

Description

One or more joints are outside their working range in force control.

Recommended actions

Modify the program to avoid the physical joint limits.

50345, Force control supervision error

Description

The user specified supervision has trigged. The type is *arg*.

Types:

1: TCP position

2: Tool Orientation

3: TCP speed

4: Reorientation speed

5: Force

6: Torque

7: Teach TCP Speed

8: Teach Reorientation Speed

Consequences

The robot will stop.

Recommended actions

Modify the supervision or the program.

50346, Motor temperature error

Description

Motor temperature for joint *arg* is too high.

Consequences

It is not possible to continue until the motor has cooled down.

50347, Progam pointer moved in Force Control mode

Description

Program pointer has been moved in Force Control mode.

Consequences

Robot is stopped and the mode is changed from Force Control mode to normal mode.

If Force Contol mode is desired the program pointer must be moved to the FCAct instruction.

50348, Test signal error

Description

Definition of a test signal failed for *arg*, axis *arg* on channel *arg*.

Probable causes

The Mechanical Unit is not active.

The test signal number does not correspond to an actual test signal.

The channel number is too high.

50349, Synchronization ID Warning

Description

Two consecutive synchronized move instructions in *arg* have the same syncronization ID value *arg*.

Consequences

If the ID value is repeated for more than one move instruction it can be very difficult to keep track of which move instructions are synchronized. This can, for example, cause problems when modifying positions.

Recommended actions

Change the synchronized move instruction *arg* in *arg* so that it has a unique synchronization ID value.

50350, Software Equalizing Not Allowed

Description

It is not possible to run Software Equalizing since Independent Move is active.

Recommended actions

Make sure independent move is not active when executing a Software Equalizing servo spot.

50351, Independent Move not allowed

Description

It is not possible to execute an Independent Move when Software Equalizing is active.

Recommended actions

Make sure Software Equalizing is off when executing an Independent Gun Move.

50352, Number of move instruction mismatch

Description

Using the path recorder within syncronised motion requires:

That Tool offset must be present for all or none cooperating program tasks.

That all cooperating program tasks move backwards/forwards the same number of move instructions.

Recommended actions

Verify that the all tasks or none of the tasks use the optional argument Tool Offset.

Verify that the pathrec identifier moving towards are at the same position in all tasks within the syncronised block.

50353, Failed to read data from encoder card

Description

The system has failed to read data from one encoder card.

Consequences

The tracking accuracy during acceleration and deceleration might be reduced.

Probable causes

Wrong unit name has probably been specified in the process parameter for

arg

Recommended actions

1) Check that the correct unit name is specified in the process parameter

 eio unit name for *arg*

50354, Ordered force reference is too large

Description

The ordered force reference is larger than the configured maximum value.

Consequences

The ordered force reference has been reduced to the configured value.

Recommended actions

To allow a larger reference force the system parameters need to be updated. Note that there is an absolute limit of force reference size that depends on the robot type.

50355, Ordered torque reference is too large

Description

The ordered torque reference is larger than the configured maximum value.

Consequences

The ordered torque has been reduced to the configured maximum value.

Recommended actions

To allow a larger reference torque the system parameters need to be updated.

50356, Ordered MaxForce is too large

Description

The parameter MaxForce in instruction FCRefSprForce is larger than the configured maximum value.

Consequences

The parameter MaxForce has been reduced to the configured maximum value.

Recommended actions

To allow a larger value the system parameters need to be updated.

50357, Ordered MaxTorque is too large

Description

The parameter MaxTorque in instruction FCRefSprTorque is larger than the configured maximum value.

Consequences

The parameter MaxTorque has been reduced to the configured maximum value.

Recommended actions

To allow a larger value the system parameters need to be updated.

50358, Close to singularity when in force control

Description

Close to singularity when in force control mode for robot *arg*.

Recommended actions

Modify path away from the singularity or change to joint interpolation.

50359, Path Recorder on StorePath level not allowed

Description

The Path Recorder can only be used on base path level. The Path Recorder has been stopped.

Recommended actions

Stop Path Recorder before StorePath, restart it after RestoPath.

50361, Brake release error

Description

Too large position error of joint *arg* after brake release.

Recommended actions

Try once more. Check cables. Check hardware. Check tuning if error on additional axis.

50362, Brake release time out

Description

Joint *arg* was not in position after max time for brake release.

Recommended actions

Try once more. Check cables. Check hardware. Check tuning if error on additional axis.

50363, SyncMoveOn failed

Description

Starting synchronized movements failed due to an internal error.

Consequences

It is not possible to restart the programs from the current position.

Recommended actions

Move the program pointers and try again.

50364, Axis in current vector mode

Description

Warning: Joint *arg* is configed in *arg* data as a current vector axis. Drive system will be disconnected for this axis during normal operation.

Recommended actions

Run service program to activate the current vector.

Set configuration data for the DRIVE SYSTEM parameter current_vector_on to FALSE, for normal operation..

50365, Cyclic Brake Check Warning

Description

Cyclic Brake Check has failed

Consequences

Cyclic Brake Check has detected that robot *arg* may have reduced brake perfomance on axis *arg*.

Recommended actions

Repeat the test to verify the result.

50366, Reference Error

Description

An error has occurred in the reference calculation. Internal status *arg*.

Consequences

The controller goes to Motors Off

Recommended actions

Check the error logs for previous errors that could be causing this problem.

Try to restart the program possibly after moving the program pointer.

Restart the controller.

50367, Sensor Sync machine stop

Description

Sensor Sync device *arg* has set machine stop signal *arg*.

Recommended actions

Do not restart robot before machine is open. Sensor sync is disabled.

50368, Too Short distance between equidistant events

Description

The events are too close together. End of internal resources (events).
Task: *arg*

Program Ref. *arg*

Recommended actions

Increase the distance between equidistant events or use intermediate positions to decrease segment length.

50369, Calibration using stored offset failed

Description

Failed to calibrate the sensor using stored offset.

Consequences

The force control system is not calibrated. It is not possible to activate force control.

Probable causes

Calibration using stored offset is only possible if a normal calibration has been performed earlier.

50370, Transfer of data to SMB memory failed

Description

Transfer of data from cabinet to SMB memory not allowed or interrupted for mechanical unit *arg* due to disconnect of SMB.

Probable causes

SMB was disconnected before or during calibration or manual move of data to SMB memory.

Recommended actions

Retry to calibrate or manually move data from cabinet to SMB memory when SMB is reconnected.

50371, The programmed speed is too high

Description

The speed change functionality is only allowed for low programmed speed.

Probable causes

The programmed speed is too high.

Recommended actions

Lower the programmed speed or modify the configuration parameters.

50372, Contact force too high

Description

The contact force is too high during the recover phase.

Probable causes

The programmed path in the recover function causes too high contact forces.

Recommended actions

Check and modify the recover function or allow higher contact force.

50373, Too high Event Preset Time

Description

The configured Event Preset Time is too high. The maximum value is *arg*.

Consequences

The Event Preset Time is reduced to the maximum value.

Probable causes

This error can occur for robots with a low Dynamic Resolution and a high Event Preset Time. The reason is a computer memory limitation.

Recommended actions

Reduce the Event Preset Time in the configuration parameters to a value no higher than *arg*.

50375, Dynamic load too high

Description

Required torque for robot *arg* axis *arg* too high.

Recommended actions

If weaving one of these actions may help:

- Reduce weave frequency or weave amplitude for this movement.

- Reduce process speed.

- Increase zone size if small zones are used.

- Increase distance between programmed points if they are close.

If Conveyor Tracking: Reduce conveyor speed.

50376, Geometric interpolation failed.

Description

Task. *arg*

Failed to interpolate the desired geometry.

Program Ref. *arg*

(Internal code: *arg*)

Recommended actions

Increase the zone size, move the programmed point, change tool orientation or change interpolation method.

50377, Only allowed in position control

Description

The instruction is only allowed when the robot is in position control mode.

Probable causes

The error depends on calling an instruction that is only allowed to be used in position control while in force control mode.

Recommended actions

Call the instruction only when the robot is in position control mode.

50378, Error in FCSetMaxForceChangeTune

Description

Incorrect value of the parameter ForceChange in instruction FCSetMaxForceChangeTune.

Consequences

The program will stop.

Probable causes

The parameter must be set larger than zero and less than the configured value.

Recommended actions

Change the parameter value.

50379, Active mechanical units have changed

Description

When calling RestoPath all mechanical units have to be in the same active state as when StorePath was called.

Recommended actions

Make sure that all mechanical units that were active when calling StorePath still are and that no other mechanical unit is active when calling RestoPath.

50380, Checksum error

Description

Data in SMB memory for mechanical unit *arg* has erroneous checksum.

Probable causes

New SMB-board. System shut down before data save finished.

Recommended actions

- Load new configuration files.

50381, Speed too low.

Description

Task. *arg*

The speed is too low (numerical resolution).

Program Ref. *arg*

Recommended actions

Increase the programmed speed.

Check also the other synchronized tasks in a multimove application.

50382, Weave pattern error

Description

Calculation of weave pattern has failed due to an internal error.

Recommended actions

Try to restart.

50383, Cartesian Soft Servo configuration error

Description

Some configuration parameter for Cartesian Soft Servo is not valid.

Consequences

The system will not start.

Probable causes

Some configuration parameter has been set to a value that is not allowed.

Recommended actions

Verify that any modifed parameter are within allowed limits.

50384, Cartesian Soft Servo quaternions invalid

Description

The quaternions of the tool, workobject or the argument RefOrient in the CSSAct instruction are invalid.

Consequences

Cartesian Soft Servo will not activate.

Recommended actions

Check the quaternions of the tool, workobject or the argument RefOrient in the CSSAct instruction.

50385, Cartesian Soft Servo activation failed

Description

The instruction CSSAct failed.

Probable causes

Cartesian Soft Servo already active.

Recommended actions

Cartesian Soft Servo needs to be deativated before it can be activated.

50386, Cartesian Soft Servo offset activation failed

Description

The instruction CSSForceOffsetAct failed.

Consequences

Force offset was not activated.

Probable causes

CSSForceOffsetAct instruction is only allowed when Cartesian Soft Servo is active.

Recommended actions

Activate Cartesian Soft Servo with the instruction CSSAct before using the instruction CSSForceOffsetAct .

50387, Cartesian Soft Servo close to unstable

Description

Cartesian Soft Servo is close to unstable.

Consequences

The robot is halted as a security measure.

Probable causes

The system damping is too low.

Recommended actions

Increase the value of Damping in the CSSAct instruction or if that does not help increase the value of the configuration parameter Damping Stability Limit.

50388, Cartesian Soft Servo position supervision error

Description

The user defined position supervision in Cartesian Soft Servo mode trigged.

Consequences

The robot halts.

Probable causes

The position error is larger than the allowed range specified in the configuration.

Recommended actions

Increase the allowed position error in the configuration or modify the program.

50389, Cartesian Soft Servo singularity

Description

The robot is too close to singularity which effects the Cartesian Soft Servo behaviour.

Consequences

The robot behaviour will be different from specified.

Recommended actions

Modify the program to avoid the singularity.

50390, Cartesian Soft Servo speed supervision

Description

The user defined speed supervision in Cartesian Soft Servo mode trigged.

Consequences

The robot halts.

Probable causes

The speed error is larger than the allowed range specified in the configuration.

Recommended actions

Increase the allowed speed error in the configuration or modify the program.

50391, Cartesian Soft Servo movement not allowed

Description

Jogging or a programmed movement has been detected.

Consequences

The ordered movement is ignored.

Recommended actions

Movement during Cartesian Soft Servo is only allowed if the switch AllowMove has been used in the CSSAct instruction.

50392, SafeMove communication error

Description

Communication with SafeMove controller on drive module *arg* has failed.

Consequences

Brake tests can not be done.

Recommended actions

Check if SafeMove hardware is connected.

50393, Force offset applied in non-soft direction

Description

The force-offset direction in CSSForceOffsetAct is not the same as the soft direction specified by CSSAct.

Consequences

The robot will not become easier to push in the soft direction. There can also be position deviations from the programmed path in the non-soft directions.

Recommended actions

Make sure the direction given in CSSForceOffsetAct is compatible with the direction given in CSSAct.

50394, Unit out of position

Description

The Robot *arg* is semi coordinated to Unit *arg* and the Unit must stand in a fine point when the Robot is moving in the user frame.

Consequences

The restart will be interrupted.

Recommended actions

Use WaitSyncTask to separate the semi coordinated move from other moves, SyncMoveOn, SyncMoveResume and SyncMoveOff. After a SyncMoveOff the Unit must also be moved (MoveL or MoveExtJ) to a finepoint to make regain possible after a stop during the semi coordinated move. If the programmed position of the Unit is moved by modpos the Robot program must be reset by moving the PP to be able to restart the program. Step also the unit to the new position to make stepping of the robot possible.

50395, Too long programmed move

Description

Task: *arg*

This move is too long for the programmed speed. The numerical resolution in the path planning is not enough.

Program Ref. *arg*

Consequences

The speed will be increased i.e. higher than the programmed speed.

Recommended actions

Insert intermediate points or increase the speed.

50396, Default FC force supervision error

Description

The default force supervision has trigged because the programmed or measured external forces are larger than the safety limit for the robot type.

Consequences

The robot will stop.

Recommended actions

Modify the program to decrease the total external force acting on the robot.

50397, Path frame rotation speed error

Description

The rotation speed of the path frame is too high when using FC Machining with ForceFrameRef set to FC_REFFRAME_PATH.

Consequences

The robot will stop.

Recommended actions

Reduce programmed speed, increase corner zones, or decrease the distance between the programmed path and the surface.

50398, AbsAcc circle begins with a frame change

Description

Task: *arg*

When having the AbsAcc option, MoveC instructions that are coordinated to another robot must use the same tool and work object as the previous move instruction.

Consequences

The robot will stop.

Recommended actions

Change the move instruction before *arg* so that they both use the same frames. Alternatively, add a (redundant) MoveL to the start point of the circle arc, using the same frames as the MoveC instruction.

50399, AbsAcc circle is first movement instruction

Description

Task: *arg*

When having the AbsAcc option, MoveC cannot be the first movement instruction.

Consequences

The robot will stop.

Recommended actions

Add a movement instruction before *arg*, using the same tool and frames.

50400, Manipulator configuration error

Description

The parameter disconnect_link_at_deactivate for MEASUREMENT_CHANNEL was inconsistent for measurement_link *arg*. All channels on the same link have to have the same setting for this parameter.

Recommended actions

Check the configuration file - cold start the system with correct parameters.

50401, Startup synchronization failed

Description

The system relay '*arg*' is defined but no response was received during the startup(waited for *arg* minutes).

Recommended actions

Make sure that the in_signal of the relay is configured and connected and startup all synchronized systems simultaneously.

50402, Correction is not ended in a finepoint

Description

Task: *arg*

The last move instruction with correction specified has to be a finepoint.

Program Ref. *arg*

Recommended actions

Change the zone parameter to fine.

50403, AW board not connected

Description

During startup, no communication was established with unit <*arg*> on bus <*arg*>.

Consequences

It is not possible to access the unit or signals on the unit, since it is currently not communicating with the controller.

Probable causes

The unit is either not connected to the system, or it is connected, but has been assigned the wrong address.

Recommended actions

1. Make sure all unit addresses match the configuration.

2. Make sure all addresses are unique, and not used by more than one unit.

3. Change the address and/or connect the missing unit.

4. If you changed the address, the power supply to the unit must be cycled (switched OFF and then back ON), to make sure the address has been changed.

50404, Additional axis movement during Wrist Interpolation

Description

Task: *arg*

Program Ref. *arg*

An additional axis is programmed to move during Wrist Interpolation.

Consequences

The task execution will stop.

Recommended actions

Make sure that no additional axis is programmed to move while doing Wrist Interpolation.

50405, Coordinated movement during Wrist Interpolation

Description

Task: *arg*

Program Ref. *arg*

Attempt to do Wrist Interpolation against a moving frame.

Consequences

The task execution will stop.

Recommended actions

Remove movement coordination while doing the Wrist Interpolation.

50406, Wrist Interpolation point not on circle plane

Description

Task: *arg*

Program Ref. *arg*

The target *arg* is not on the circle plane. The deviation is *arg* mm.

p1 = starting point

p2 = circle point

p3 = end point

Consequences

For a cutting process, the cut hole will not be circular.

Recommended actions

If a circular arc is intended, then change the corresponding target so that it is on the circle plane.

50407, Wrist axis locked

Description

Task: *arg*

Program Ref. *arg*

Cannot do Wrist Interpolation using *arg* because axis *arg* is locked.

Consequences

The task execution will stop.

Recommended actions

Change to another wrist axis combination that does not involve the locked axis. Note that the robot must have at least two movable wrist axes to do Wrist Interpolation.

50408, Wrist joint limit

Description

Task: *arg*

Program Ref. *arg*

Cannot do Wrist Interpolation because robot axis *arg* will violate a joint limit.

Consequences

The task execution will stop.

Recommended actions

Choose another robot configuration or another wrist axis combination.

50409, Wrist Interpolation not possible

Description

Task: *arg*

Program Ref. *arg*

The programmed Wrist Interpolation is not kinematically possible using *arg*.

Consequences

The task execution will stop.

Recommended actions

Choose another robot configuration or another wrist axis combination. Possible wrist axis combinations are: Wrist45, Wrist46, and Wrist56.

50410, Collinear targets in wrong order

Description

Task: *arg*

Program Ref. *arg*

The programmed targets are collinear, but the end point is between the start point and the circle point.

Consequences

The task execution will stop.

Recommended actions

If a straight line is intended, then let the circle point and the end point swap places with each other.

50411, Maximum allowed programmed TCP load exceeded

Description

The currently defined TCP load for robot *arg* exceeds the maximum allowed load for the robot model.

Consequences

The robot will stop.

Probable causes

The combination of the current tool load and payload exceeds the maximum load allowed for the robot model.

Recommended actions

Make sure that the total TCP load is inside the load diagram for the robot.

50412, Error in speed change tuning instruction

Description

The speed change tuning instruction resulted in an error.

Consequences

The robot will stop.

Probable causes

The speed change tuning instruction was not allowed, or the parameters given were invalid.

Recommended actions

Check the values for the parameter and tuning type, and make sure the correct force control option is installed and configured correctly.

50413, Bleeder resistor overload error

Description

In drive module *arg*, the bleeder resistor connected to the rectifier unit at drive unit position *arg* was overloaded.

Consequences

No operation will be possible until the bleeder resistor has cooled down. The system goes to Motors Off state.

Probable causes

1) The user program may contain too much deceleration of the manipulator's axes. This fault is more likely if the system contains additional axes.

2) Bleeder resistor has wrong resistance.

3) Short circuit in motor cable between phase to phase or phase to ground.

Recommended actions

1) Rewrite the user program to reduce the amount of hard decelerations.

2) Disconnect the bleeder and check the cable and measure the bleeder resistance. The expected resistance should be approximately *arg* ohms.

3) Verify that the motor cables has no short circuits internally or to ground.

50414, Bleeder resistor overload warning

Description

In drive module *arg*, the bleeder resistor connected to the rectifier unit at drive unit position *arg* is close to overload.

Consequences

Operation will be possible but system is close to a stopping error.

Probable causes

1) The user program may contain too much deceleration of the manipulator's axes. This fault is more likely if the system contains additional axes.

2) Bleeder resistor has wrong resistance.

3) Short circuit in motor cable between phase to phase or phase to ground.

Recommended actions

1) Rewrite the user program to reduce the amount of hard decelerations.

2) Disconnect the bleeder and check the cable and measure the bleeder resistance. The expected resistance should be approximately *arg* ohms.

3) Verify that the motor cables has no short circuits internally or to ground.

50415, Motor temperature error

Description

Motor temperature for joint *arg* is too high.

Consequences

It is not possible to continue until the motor has cooled down. The system goes to Motors Off state.

Probable causes

The user program may contain too much hard acceleration and deceleration of the joint. Gravity torque or external forces for the joint can also be too high.

Recommended actions

Rewrite the user program to reduce the motor utilization.

50416, Motor temperature warning

Description

The motor temperature for joint *arg* is close to maximum value.

Consequences

It is possible to continue but the margin to maximum allowed temperature is too low to sustain long term operation.

Probable causes

The user program may contain too much hard acceleration and hard deceleration of the joint. The gravity torque or external forces for the joint can also be too high.

Recommended actions

Rewrite the user program to reduce the motor utilization.

50417, Drive unit overload error

Description

The drive unit for joint *arg* has reached a too high temperature level. The joint is connected to drive module *arg* with the drive unit at unit position *arg* and node *arg*.

Consequences

No operation will be possible until the drive has cooled down. The system goes to Motors Off state.

Probable causes

1) The joint may be running with a too high torque for extended periods of time.

2) Short circuit in the manipulator using long motor cables.

Recommended actions

1) If possible, rewrite the user program to reduce the amount of hard acceleration and hard deceleration.

2) Reduce the static torque due to gravity or external forces.

3) Check for short circuit in the motor cable or in the motor.

4) Check for other hardware eventlogs.

50418, Drive unit overload warning

Description

The drive unit for joint *arg*, connected to drive module *arg* with the drive unit at unit position *arg* and node *arg* is approaching a too high temperature level.

Consequences

It is possible to continue but margin to max temperature is too low for long term operation.

Probable causes

1) The joint may be running with a too high torque for extended periods of time.

2) Short circuit in the manipulator using long motor cables.

Recommended actions

1) If possible, rewrite the user program to reduce the amount of hard acceleration and hard deceleration.

2) Reduce the static torque due to gravity or external forces.

3) Check for short circuit in the motor cable or in the motor.

4) Check for other hardware eventlogs.

50419, Common base_frame error

Description

Task: *arg*

The base_frame is moved by another task than the robot and could not be solved, reason*arg*:

1 SingArea\Wrist not supported with MoveC.

2 The base_frame must be moved by first synchronized motion_group.

3 Only one common base_frame can be handled.

4 Absacc not supported with MoveC.

5 The common base_frame can only be solved in synchronized move.

Program Ref. *arg*

Recommended actions

1 Use SingArea\Off. The CirPathMode can also be used.

2,3 Check SYS.cfg and MOC.cfg.

4 Use MoveL or remove absacc.

5 Use MoveAbsJ.

50420, IndCnv Mechanical Unit Error

Description

The mechanical unit *arg* is not correctly configured for IndCnv functionality.

Consequences

Program execution is stopped.

Probable causes

The mechanical unit *arg* consists of more than one single.

The single connected to *arg* is not of type FREE_ROT.

The single connected to *arg* is not defined as an Indexing Move single.

Recommended actions

Make sure mechanical unit *arg* consists of only one single.

Make sure configuration parameter Motion/Single Type/Mechanics is of type FREE_ROT.

Make sure configuration parameter Motion/Single Type/Indexing Move is TRUE.

50421, IndCnv Tracking Single Error

Description

The single *arg* is not configured as an Indexing Move single

Consequences

Program execution is stopped.

Recommended actions

Make sure configuration parameter Process/Can Interface/Single To Track refers to a single with Motion/Single Type/Indexing Move set to TRUE.

50422, IndCnv and Independent joint error

Description

Independent joint instructions are not allowed when single *arg* is in indexing mode.

Consequences

Program execution is stopped.

Recommended actions

Execute the RAPID instruction IndCnvReset before using the axis as an independent joint.

50423, IndCnv Time before indexing move too low

Description

The time between trig signal and start of indexing movement is configured too low.

Consequences

The program execution is stopped.

Recommended actions

Increase system parameter "Motion/Single Type/Time before indexing move" to at least *arg* (ms).

Remove or decrease robot acceleration limitations if possible.

Please consult the Conveyor Tracking application manual for further actions.

50424, IndCnv Robot type not supported

Description

The IndCnv functionality does not support the installed robot type.

Consequences

The program execution is stopped.

50425, Friction FFW parameter is not On

Description

Tuning friction parameters requires Friction FFW On to be set to True.

Consequences

Friction tuning for joint *arg* will have no effect.

Recommended actions

Set parameter Friction FFW On to True for joint *arg* in the type *arg* that belongs to the topic Motion.

50426, Out of interpolation objects

Description

The maximum number of available interpolation objects has been reached. This can occur if the dynamic performance is set to a very low value e.g. by use of the AccSet command.

Consequences

The program execution is stopped and the system goes to motors off.

Recommended actions

Increase the number of objects by adding 'extended_dec_dist 1' in cfg instance MOTION_PLANNER.

6,

Description

71001, Duplicated address

Description

The I/O configuration is invalid.

The same addresses have been given for I/O unit *<arg>* and I/O unit *<arg>*.

I/O units connected to the same I/O bus must have unique addresses.

This I/O unit has been rejected.

Recommended actions

1. Check that addresses are correct.

2. Check that the I/O units are connected to the correct I/O bus.

71002, Unit type undefined

Description

The I/O configuration for I/O unit *<arg>* is invalid.

Consequences

This unit type has been rejected, and no functions depending on this unit type will work.

Probable causes

The unit type *<arg>* is unknown. All I/O units must refer to an existing, defined unit type.

Recommended actions

1. Make sure the unit type is defined.

2. Make sure the unit type is correctly spelt.

71003, I/O unit undefined

Description

The I/O configuration for I/O signal *<arg>* is invalid.

Consequences

This I/O signal has been rejected, and no functions depending on it will work.

Probable causes

The I/O unit *<arg>* is unknown. All I/O signals must refer to an existing/defined I/O unit.

Recommended actions

1. Make sure the I/O unit is defined.

2. Make sure the I/O unit name is correctly spelt.

71005, Invalid filter time

Description

The I/O configuration for I/O signal *<arg>* is invalid.

The passive filter time should either be 0 ms or in the range [*arg*, *arg*] ms.

This I/O signal has been rejected.

Recommended actions

Correct the passive filter time for the I/O signal.

71006, Invalid filter time

Description

The I/O configuration for I/O signal *<arg>* is invalid.

The active filter time should either be 0 ms or in the range [*arg*, *arg*] ms.

This I/O signal has been rejected.

Recommended actions

Correct the active filter time for the I/O signal.

71007, Logical values out of range

Description

The I/O configuration for I/O signal *<arg>* is invalid.

The logical minimum value must be less than the logical maximum value.

This I/O signal has been rejected.

Recommended actions

Correct the logical values for the I/O signal so that the minimum value becomes less than the maximum value.

71008, Physical values out of range

Description

The I/O configuration for I/O signal *<arg>* is invalid.

The physical minimum value must be less than the physical maximum value.

This I/O signal has been rejected.

Recommended actions

Correct the physical values for the I/O signal so that the minimum value becomes less than the maximum value.

71017, Cross connection without actor I/O signal

Description

The I/O configuration is invalid.

The parameter <Actor *arg*> of one of the cross connections have been omitted.

Rules:

1. All cross connections must specify at least one actor signal, i.e. parameter <Actor I/O signal 1> must always be specified.

2. For each operator specified an actor I/O signal must follow, e.g. if parameter <Operator 2> is specified then parameter <Actor 3> must also be specified.

This cross connection has been rejected.

Recommended actions

Correct the cross connection so the required actor I/O signals are specified.

71019, I/O signal undefined

Description

The I/O configuration of a cross connection is invalid.

Consequences

The cross connection has been rejected, and no functions depending on it will work.

Probable causes

The parameter <Actor *arg*> of one of the cross connections contains a reference to an undefined I/O signal *<arg>*.

Recommended actions

1. Make sure the I/O signal is defined.

2. Make sure the I/O signal name is correctly spelt.

71020, Cross connection without resultant I/O signal

Description

The I/O configuration is invalid.

The parameter <Resultant I/O signal> of one of the cross connections have been omitted.

All cross connections must specify a resultant I/O signal.

This cross connection has been rejected.

Recommended actions

Correct the cross connection so that there are one resultant I/O signal per cross connection.

71021, Duplicated cross connection resultants

Description

The I/O configuration is invalid.

Multiple cross connections have the same resultant I/O signal *<arg>*.

Having more than one cross connection that result in the setting of the same signal may cause unpredictable behaviours, as you cannot control their order of evaluation.

The complete cross connection configuration has been rejected.

Recommended actions

Make sure that the I/O signal is not specified as the resultant of several cross connections.

71037, Closed chain in cross connection

Description

The I/O configuration is invalid.

The I/O signal *<arg>* is part of a cross connection chain that is closed (i.e. forms a circular dependence that cannot be evaluated).

The complete cross connection configuration has been rejected.

Recommended actions

Correct the configuration for the cross connections where the I/O signal above is part.

71038, Cross connection max depth exceeded

Description

The I/O configuration is invalid.

The I/O signal *<arg>* is part of a cross connection chain that is too deep.

The maximum depth of a cross connection chain is *<arg>*.

The complete cross connection configuration has been rejected.

Recommended actions

Make the cross connection less deep.

71045, Invalid filter specification

Description

The I/O configuration for I/O signal *<arg>* is invalid.

No filter times can be specified for this type of I/O signal.

This I/O signal has been rejected.

Recommended actions

Set filter time to 0 or remove the statement.

71049, Analog I/O signal inverted

Description

The I/O configuration for I/O signal *<arg>* is invalid.

Analog I/O signals must not be inverted.

Only digital and group I/O signals can be inverted.

This I/O signal has been rejected.

Recommended actions

Remove the invert for the I/O signal (or change the signal type).

71050, Cross connection with non-digital actor I/O signal

Description

The I/O configuration is invalid.

The parameter <Actor *arg*> of one of the cross connections refer to a I/O signal *<arg>*, that is not digital.

Only digital I/O signals can be cross connected.

This cross connection has been rejected.

Recommended actions

Remove the non-digital I/O signal from the cross connection.

71052, Max number of cross connections exceeded

Description

The I/O configuration is invalid.

The maximum number of cross connections, *arg* ,in the I/O system has been exceeded.

Not all the cross connections have been accepted.

Recommended actions

Modify the configuration of the I/O system (by reducing the number of cross connections) so that the maximum limit is not exceeded.

71054, Invalid signal type

Description

The I/O configuration for I/O signal *<arg>* is invalid.

The specified signal type *<arg>* is invalid/unknown.

Valid signal types are:

- DI (Digital input)

- DO (Digital output)

- AI (Analog input)

- AO (Analog output)

- GI (Group input)

- GO (Group output)

This I/O signal has been rejected.

Recommended actions

Correct the signal type of the I/O signal.

71058, Lost communication with I/O unit

Description

The previously working communication with I/O unit *<arg>* on I/O bus *<arg>* has been lost.

Consequences

It is not possible to access the I/O unit itself or I/O signals on the I/O unit since it is currently not communicating with the controller. The system will go to state SYS FAIL, if the I/O unit has been assigned Unit Trustlevel Required (0) in the configuration.

Probable causes

The I/O unit may have been disconnected from the system.

Recommended actions

1. Make sure the I/O unit has been correctly installed.

2. Make sure the cabling to the I/O unit is correctly connected.

71061, Communication failure on I/O bus

Description

A communication failure on I/O bus *<arg>* has been detected.

Recommended actions

1. Check other messages for fieldbus specific error.

2. If no I/O units are configured to I/O bus, configure I/O units or remove bus configuration.

71072, Cannot read stored signal value

Description

Cannot read the stored signal value for I/O signal *<arg>* as it is not stored.

Recommended actions

Change the configuration of the I/O signal by setting the store attribute.

71076, Communication error from rtp1

Description

No response from the serial line.

Recommended actions

Check the device or connection.

71077, Communication error from rtp1

Description

Not possible to deliver the received message.

Recommended actions

Check the communication flow.

71078, Communication error from rtp1

Description

The response from the device has an invalid frame sequence.

Recommended actions

Check for noise on the serial line.

71080, Max number of unit types exceeded

Description

The I/O configuration is invalid.

The maximum number, *arg*, of unit types in the I/O system has been exceeded.

Recommended actions

Modify the configuration of the I/O system (by reducing the number of unit types) so that the maximum limit is not exceeded.

71081, Max number of physical I/O signals exceeded

Description

The I/O configuration is invalid.

The maximum number, *arg*, of physical I/O signals (bit-mappings) in the I/O system has been exceeded.

Recommended actions

Modify the configuration of the I/O system (by reducing the number of physical I/O signals) so that the maximum limit is not exceeded.

71082, Max number of user I/O signals exceeded

Description

The I/O configuration is invalid.

The maximum number, *arg*, of user I/O signals in the I/O system has been exceeded.

Recommended actions

Modify the configuration of the I/O system (by reducing the number of I/O signals) so that the maximum limit is not exceeded.

71083, Max number of symbols exceeded

Description

The I/O configuration is invalid.

The maximum number, *arg*, of symbols in the I/O system has been exceeded.

The number of symbols is the sum of all namned configuration instances:

- I/O Buses
- Unit types
- I/O Units
- I/O Signals

- Command types
- Commands
- I/O Access levels
- CIP Routes

Recommended actions

Modify the configuration of the I/O system (by reducing the number of symbols) so that the maximum limit is not exceeded.

71084, Max number of subscribed I/O signals exceeded

Description

The I/O configuration is invalid.

The maximum number, *arg*, of subscribed I/O signals in the I/O system has been exceeded.

Recommended actions

Modify the configuration of the I/O system (by reducing the number of subscriptions) so that the maximum limit is not exceeded.

71085, Max number of I/O units exceeded

Description

The I/O configuration is invalid.

The maximum number, *arg*, of I/O units in the I/O system has been exceeded.

Recommended actions

Modify the configuration of the I/O system (by reducing the number of I/O units) so that the maximum limit is not exceeded.

71097, Input I/O signal stored

Description

The I/O configuration for I/O signal *<arg>* is invalid.

Input I/O signals must not be stored.

Only output I/O signals can be stored.

This I/O signal has been rejected.

Recommended actions

Remove the store for the I/O signal (or change the signal type).

71098, NFS server lost

Description

The contact with the NFS server *<arg>* is lost.

Recommended actions

1. The NFS server.
2. The network connection.
3. The controller configuration.

71099, Trusted NFS server lost

Description

The contact with the trusted NFS server *<arg>* is lost.

Recommended actions

1. The NFS server.
2. The network connection.
3. The controller configuration.

71100, Max number of I/O buses exceeded

Description

The I/O configuration is invalid.

The maximum number, *arg*, of I/O buses in the I/O system has been exceeded.

Recommended actions

Modify the configuration of the I/O system (by reducing the number of I/O buses) so that the maximum limit is not exceeded.

71101, I/O bus undefined

Description

The I/O configuration for I/O unit *<arg>* is invalid.

The I/O bus *<arg>* cannot be found in the system. An I/O unit must refer to a defined I/O bus.

Installed I/O buses are:*argargarg*

Consequences

This I/O unit has been rejected, and no functions depending on it will work.

Recommended actions

1. Make sure the I/O bus is defined.
2. Make sure the I/O bus name is correctly spelt.

71108, Interbus I/O unit failure

Description

I/O unit *<arg>* at address *<arg>* reported peripheral fault. Interbus specific error code: *arg*.

Consequences

The I/O unit cannot be contacted by the control system. Parts of the Interbus network will not be accessible, depending on the network topology and the nature of the fault.

Probable causes

A number of errors may cause this. Further information may be found in the standard Interbus documentation.

Recommended actions

1. Make sure the I/O unit at the above address is functioning correctly.
2. Check the Interbus specific error code as specified in the Interbus Manuals: Firmware Service and Error Messages.

71109, Interbus bus failure

Description

The control system has lost communication with the Interbus network. There is no error message from any Interbus board.

Consequences

Parts of the Interbus network will not be accessible, depending on the network topology and the nature of the fault.

Probable causes

A number of errors may cause this. Further information may be found in the standard Interbus documentation.

Recommended actions

1. Make sure the Customer Power Supply unit, supplying the Interbus network with power, is working correctly. Replace any faulty I/O unit.

2. Make sure any fuses are correctly connected.

3. Make sure all communication cables and connectors are working correctly and of the recommended type.

4. Check network topology and cable length.

5. Restart the system.

71110, Interbus bus failure

Description

The control system has lost communication with the I/O unit at address <*arg.arg*>. Interbus specific error code: *arg*.

Consequences

Parts of the Interbus network will not be accessible, depending on the network topology and the nature of the fault.

Probable causes

A number of errors may cause this. Further information may be found in the standard Interbus documentation.

Recommended actions

1. Make sure the I/O unit at the above address is functioning correctly.

2. Check the Interbus specific error code as specified in the Interbus Manuals: Firmware Service and Error Messages.

71111, ID code mismatch

Description

The ID code <*arg*> read from Interbus I/O unit <*arg*> doesn't match the expected value *arg* from the unit type configuration.

Consequences

The I/O unit has not been configured, and cannot be used by the system.

Probable causes

Wrong ID code value may have been introduced to the system parameters. The Interbus network may have been configured with a I/O unit with the wrong ID code.

Recommended actions

Check the ID code of the I/O unit's unit type in the system parameters. How to check the configuration file is detailed in the Trouble Shooting Manual.

2. Replace the I/O unit with another using the correct ID code in the Interbus configuration as specified in the supplier's documentation.

3. Specify a generic unit type in the system parameters: ibsGeneric and ibsSlave.

71114, Invalid IP address

Description

The IP address <*arg*> is not valid.

Recommended actions

Check the communication configuration.

71115, Invalid subnet mask

Description

The subnet mask <*arg*> is not valid.

Recommended actions

Check the communication configuration.

71116, Deactivated I/O unit with Unit Trustlevel <Required (0)>

Description

The I/O configuration of I/O unit <*arg*> is invalid.

I/O units with Unit Trustlevel Required (0) are not allowed to be Deactivated.

Consequences

This I/O unit has been rejected, and no functions depending on it will work.

Recommended actions

Correct the configuration of the I/O unit by either Activating it or changing the Unit Trustlevel.

71122, Incorrect IP address

Description

The address <*arg*> in protocol <*arg*> is not a correct IP address.

Recommended actions

Correct the address.

71123, No transmission protocol

Description

The transmission protocol <*arg*> given for application protocol <*arg*> could not be found.

Recommended actions

Change the transmission protocol.

71125, Mount Permission denied

Description

Permission was denied to mount the directory *<arg>* on the server *<arg>*.

Recommended actions

Change the User or Group ID.

71126, Directory not exported

Description

Mounting directory *<arg>* as *<arg>* failed since it is not exported on the server computer *<arg>*.

Protocol: *<arg>*.

Recommended actions

Export the directory on the server computer.

71128, Ethernet not installed

Description

The Ethernet Services option has to be installed when using remote mounted disk.

Recommended actions

Reboot and install the Ethernet Services option.

71129, Too many remote disks

Description

The maximum number of remote mounted disks have been exceeded.

The maximum number is *arg*.

Recommended actions

Reduce the number of remote mounted disks.

71130, Too many remote servers

Description

The maximum number of servers for remote mounted disks have been exceeded.

The maximum number is *arg*.

Recommended actions

1. Reduce the number of servers.

71131, Could not mount directory

Description

Mounting directory *<arg>* on the computer *<arg>* failed.

Protocol: *<arg>*.

Recommended actions

Check the server setup.

71139, Access error from I/O system

Description

Cannot read or write I/O signal *<arg>* due to communication down.

Recommended actions

Check 'No contact with I/O unit' report for more detailed information.

71141, Default value for I/O signal out of range

Description

The I/O configuration for I/O signal *<arg>* is invalid.

The default value is out of range.

This I/O signal has been rejected.

Recommended actions

Change the default value for the I/O signal.

71145, Interbus bus has been deactivated

Description

The Interbus bus has switched to a none running mode.

Recommended actions

Restart the system.

2. Check that correct Interbus boot project is selected.

71147, No response from the Interbus network

Description

Access to the Interbus network is denied.

Recommended actions

1. Check the Interbus board.

2. Check the internal Interbus configuration.

3. Reduce the cycle time on the slave I/O unit.

71148, No access to the Interbus network

Description

Access to the Interbus service interface is denied during *arg*, error code is 0x*arg*.

Recommended actions

1. Check the internal Interbus configuration.

2. The Interbus may be faulty. Replace any faulty I/O unit if required.

71156, IPC queue full

Description

The interprocess communication (IPC) queue *<arg>* was full, when sending to trap routine.

Recommended actions

Restart the system.

71158, Address out of range

Description

The I/O configuration is invalid.

The address of I/O unit *<arg>* is invalid (out of range).

This I/O unit has been rejected.

Recommended actions

1. Change the address.

2. Check the address syntax.

71163, I/O signal on internal I/O unit

Description

The I/O configuration is invalid.

The user-defined I/O signal *<arg>* must not be connected to the internal I/O unit *<arg>*

User defined I/O signals are not allowed to be connected to internal I/O units.

This I/O signal has been rejected.

Recommended actions

Connect the I/O signal to another I/O unit.

71164, Internal I/O signal in cross connection

Description

The I/O configuration contains an invalid cross connection.

The *<Actorargarg>* is a user-defined I/O signal whereas the resultant I/O signal *<arg>* is an internal I/O signal.

It is not allowed to define cross connections where user-defined I/O signals affect internal I/O signals.

Recommended actions

Correct the cross connection so that there are no internal I/O signals in the resultant expression.

71165, FTP server went down

Description

The connection to a non-trusted FTP server has been lost.

IP address: *<arg>*.

Recommended actions

Check cable and FTP server settings.

71166, FTP server went down

Description

The connection to a trusted FTP server has been lost.

IP address: *<arg>*.

Recommended actions

Check cable and FTP server settings.

71167, Wrong transmission protocol

Description

No matching transmission protocol was found in the configuration.

Recommended actions

Change the transmission protocol.

71169, Ethernet not installed

Description

The option Ethernet Services with FTP is not installed on this system.

Recommended actions

Reboot and install the Ethernet Services with FTP option.

71182, I/O signal undefined

Description

The I/O configuration is invalid.

The parameter <Resultant I/O signal> of one of the cross connections contains a reference to an undefined I/O signal *<arg>*.

This cross connection has been rejected.

Recommended actions

Correct the cross connection so that the resultant I/O signal refers to an existing I/O signal.

71183, Cross connection with invalid operator

Description

The I/O configuration is invalid.

The parameter <Operator *arg*> of one of the cross connections contains an invalid/unknown operator *<arg>*.

Valid values for the logical operator are:

- AND

- OR

This cross connection has been rejected.

Recommended actions

Correct the operator.

71185, Duplicated name

Description

The I/O configuration is invalid.

The identifier *<arg>* has already been used as the name of another configuration instance.

The following configuration instances must have unique names:

- I/O Buses

- Unit types

- I/O Units

- I/O Signals

- Command types

- Commands

- I/O Access levels

- CIP Routes

This configuration instance has been rejected.

Recommended actions

1. Rename one of the configuration instances in system parameters.

2. Restart the system.

71193, Invalid physical I/O mapping

Description

I/O mapping error on I/O unit *<arg>*.

Recommended actions

Check configuration for physical signal mapping.

71196, Invalid encoding type

Description

The I/O configuration for I/O signal *<arg>* is invalid.

The encoding type *<arg>* is not valid for signal type *<arg>*.

Valid encoding types are:

- UNSIGNED

- TWO_COMP

This I/O signal has been rejected.

Recommended actions

Correct the encoding type for the I/O signal.

71201, Unknown I/O bus

Description

The I/O configuration is invalid.

The I/O bus *<arg>* cannot be found in the system.

Installed I/O buses are:*argargargarg*

Consequences

This I/O bus has been rejected, and no functions depending on it will work.

Recommended actions

1. Make sure the system has been configured with the desired I/O bus.

2. Make sure the I/O bus option at hand is installed.

3. Check the configuration for I/O bus.

71205, Could not mount directory

Description

Mounting directory *<arg>* on the computer *<arg>* failed.

Protocol: *<arg>*.

Recommended actions

1. Check the FTP server setup.

2. Check the FTP client configuration.

3. Check communication hardware, cabling.

71220, No Profibus option has been installed

Description

A Profibus-DP master/slave board has been fitted, but no Profibus option has been installed.

Consequences

No communication on the Profibus is possible. There may be consequential errors from configuring Profibus when no such option has been installed.

Probable causes

An attempt may have been made to add the Profibus functionality, without installing the option correctly.

Recommended actions

1. If the Profibus option is required: configure a new system with this option, and install the system.

2. If the Profibus option is not required: configure a new system without this option, and install the system.

71221, Profibus firmware file not found

Description

The Profibus *<arg>* firmware file not found or not readable.

The board firmware may be out of date.

Recommended actions

Reinstall the system.

71222, Profibus configuration file not found

Description

The binary Profibus configuration file was not found.

- File: *<arg>*

- Path: *<arg>*.

Recommended actions

1. Make sure the file exists.

2. Change the path in the I/O configuration.

71223, Profibus file parse error

Description

The binary Profibus configuration file is corrupt. (Internal error: *arg*)

- File: *<arg>*

- Path: *<arg>*.

Recommended actions

Recreate and download the binary configuration file using the external Profibus configuration tool.

71224, Profibus channel has been reflashed

Description

The *arg* channel firmware of the Profibus board has been updated from *<arg>* to *<arg>*.

71225, Profibus configuration error

Description

The local slave channel has more DI/DO than the configuration in its master.

Recommended actions

Make the number of DI/DO of the external Profibus master more or equal than the local slave.

71226, Profibus configuration ok

Description

The number of DI/DO of the external Profibus master is now more or equal than for the I/O unit of DP_SLAVE type.

Recommended actions

71227, Initialization of Profibus slave failed

Description

The slave channel on the Profibus-DP master/slave board did not start up correctly.

Consequences

No communication on the Profibus slave channel is possible.

Probable causes

The board hardware may be malfunctioning.

Recommended actions

1. Restart the system.

2. Replace the Profibus slave board if faulty.

71228, Profibus binary configuration fault

Description

The configuration data in the binary file is not accepted by the slave at address *<arg>*.

Recommended actions

Make the configuration data in the binary file match the configuration for the slave and reboot the system

71229, Profibus binary parameter fault

Description

The parameter data in the binary file is not accepted by the slave at address *<arg>*.

Recommended actions

Make the parameter data in the binary file match the parameters for the slave and reboot the system.

71230, I/O unit configuration error

Description

I/O unit *<arg>* is configured in system parameters but is missing or incorrect in Profibus binary file.

Recommended actions

1. Check/change system parameters.

2. Check/change Profibus binary file.

71231, Wrong Profibus I/O unit is connected

Description

Profibus I/O unit *<arg>* at address *<arg>* has the wrong identity number. Reported identity number is *arg*. Expected identity number is *arg*.

Consequences

The system will not be able to Activate the I/O unit and no communication on the Profibus will be possible.

Probable causes

-The I/O unit at address *<arg>* may be the wrong type of I/O unit.

-The configuration may be incorrect, i.e. an incorrect binary configuration file and in some cases incorrect system parameters.

Recommended actions

1. Make sure the system parameters are correct.

2. Make sure the Profibus binary file is correct.

3. Replace the I/O unit.

71232, Too many internal Profibus slaves

Description

There are too many internal Profibus slaves defined in the system.

Consequences

Profibus I/O unit *<arg>* will not be configured. No communication with this unit
will be possible.

Probable causes

Profibus I/O unit *<arg>* is defined as an internal slave while another internal slave has already been configured.

The maximum number of internal slaves is 1.

Recommended actions

1. Make sure the system parameters are correct.

2. Make sure the Profibus binary file is correct.

71241, Too many I/O units on I/O bus

Description

The I/O configuration for I/O unit *<arg>* is invalid.

The number of I/O units on I/O bus *<arg>* must not exceed *arg*.

This I/O unit has been rejected.

Recommended actions

Reduce the number of defined I/O units and reboot the system.

71244, Incorrect Interbus unit type

Description

I/O unit *<arg>* at address *<arg>* has a unit type not supported by the system.

Consequences

The I/O unit has not been configured, and cannot be used by the system.

Probable causes

One or more of the units connected to the network is of a hardware version not supported by the system.

Recommended actions

1. Replace the unsupported I/O unit with one of the correct version.

2. Make sure the system parameters are correct.

3. Reconfigure the Interbus network.

71245, I/O unit not defined in Interbus configuration

Description

I/O unit *<arg.arg>* is not assigned to any address in the Interbus configuration.

Consequences

The I/O unit has not been configured, and cannot be used by the system.

Probable causes

Data for defining the I/O unit is missing in the Interbus configuration.

Recommended actions

Change the Interbus configuration using the CMD tool under the Process Data menu. Add an address for the I/O unit. The CMD tool is available from your local ABB representative.

71246, No access to Interbus data

Description

Access to the Interbus board data interface is denied. *arg* not performed, error code *arg*.

Recommended actions

1. The Interbus board may be faulty. Replace any faulty boards if required.

2. Check the Interbus internal configuration.

71248, Interbus I/O unit configuration mismatch

Description

The Interbus I/O unit with address *<arg>* is configured in the system parameters, but not in the Interbus configuration.

Consequences

The I/O unit has not been configured, and cannot be used by the system.

Probable causes

The Interbus unit address in the Interbus configuration differs from that in the system parameters, or the I/O unit may not have been configured at all in the Interbus configuration.

Recommended actions

1. Make sure system parameters are correct.

2. Reconfigure the Interbus network.

71249, Interbus I/O unit configuration mismatch

Description

The Interbus I/O unit with address *<arg.arg>* is configured in the Interbus configuration, but not in the system parameters.

Consequences

The I/O unit has not been configured, and cannot be used by the system.

Probable causes

The Interbus unit address in the Interbus configuration differs from that in the system parameters, or the I/O unit may not have been configured at all in the system parameters.

Recommended actions

1. Make sure system parameters are correct.

2. Reconfigure the Interbus network.

71250, Cannot configure Interbus board

Description

An error has occurred when downloading Interbus configuration file to the Interbus board. Interbus specific error code: *arg*.

Consequences

The I/O bus has not been configured, and cannot be used by the system.

Probable causes

The path specifying the Interbus configuration files points out the wrong files or that configuration file is incorrect.

Recommended actions

1. Use RobotStudio to check the path to the configuration files.

2. Make sure the configuration files are correct.

3. Check the Interbus specific error code as specified in the Interbus Manuals: Firmware Service and Error Messages.

71258, Interbus configuration file not found

Description

The Interbus configuration file *<arg>*, configured in the system parameters, was not found.

Consequences

The I/O bus has not been configured, and cannot be used by the system.

Probable causes

The Interbus configuration file does not exist or the path specified in the system parameters was incorrect.

Recommended actions

1. Make sure the Interbus configuration files are correctly located.

2. Use RobotStudio to check the path to the configuration files.

71259, Cannot read the Interbus configuration file

Description

An error occurred when attempting to read the Interbus board configuration file *<arg>*.

Consequences

The I/O bus has not been configured, and cannot be used by the system.

Recommended actions

1. Reload the Interbus configuration file to the robot controller.

2. Restart the system.

71260, Interbus bus failure

Description

The control system has lost communication with the Interbus network. Interbus specific error code: *arg*.

Consequences

Parts of the Interbus network will not be accessible, depending on the network topology and the nature of the fault.

Probable causes

A number of errors may cause this. Further information may be found in the standard Interbus documentation.

Recommended actions

1. Make sure all communication cables and connectors are working correctly and of the recommended type

2. Check the Interbus specific error code as specified in the Interbus Manuals: Firmware Service and Error Messages.

71261, Transport layer failure

Description

The physical channel for transport layer *arg* is invalid.

Recommended actions

Verify that the physical channel is valid, see manual.

71273, I/O unit configuration mismatch

Description

I/O unit *<arg>* is configured in the system parameters, but it cannot be found in the I/O bus specific configuration.

Probable causes

1. The address of the I/O unit in the system parameters are not the same as in the I/O bus specific configuration.

2. The I/O unit has not been configured at all in the I/O bus specific configuration.

Recommended actions

1. Check I/O unit configuration in system parameters

2. Check I/O bus specific configuration

71274, Interbus bus failure

Description

The control system was unable to determine the bus operating mode of the Interbus board.

Recommended actions

Restart the system.

71276, Communication established with I/O unit

Description

Communication established with I/O unit *<arg>*.

71278, Mount permission denied

Description

Permission was denied to mount the directory *<arg>* on the server *<arg>*.

Recommended actions

Check the username and password.

71288, Mount path is too large

Description

Mount path is too large. Mount path consists of FTP server mount point and server path.

- Max length: *<arg>*

- Protocol used: *<arg>*

Recommended actions

Change FTP server mount point or server path.

71289, Memory partition is too big

Description

The memory partition for communication purposes cannot be allocated. The requested partition *arg* kB. System partition will be used.

Recommended actions

Decrease commPartSize.

71290, Could not add FTP device

Description

Adding the FTP device *<arg>* to the operating system failed.

Application protocol *<arg>*.

Recommended actions

Change the local path of the configuration of the FTP device.

71291, Invalid local path

Description

Local path of the FTP device *<arg>* is invalid.

Recommended actions

Local path must end with :

71293, Invalid input size

Description

On DeviceNet I/O unit *<arg>* the connection 1 input size does not match the I/O unit.

Recommended actions

1. Change size in configuration.
2. Check module.
3. Use DN_GENERIC unit type

71294, Invalid output size

Description

On DeviceNet I/O unit *<arg>* the connection 1 output size does not match the I/O unit.

Recommended actions

1. Change size in configuration.
2. Check module.
3. Use DN_GENERIC unit type

71295, Invalid input size

Description

On DeviceNet I/O unit *<arg>* the connection 2 input size does not match the I/O unit.

Recommended actions

1. Change size in configuration.
2. Check module.

71296, Invalid output size

Description

On DeviceNet I/O unit *<arg>* the connection 2 output size does not match the I/O unit.

Recommended actions

1. Change size in configuration.
2. Check module.

71297, Invalid connection type

Description

The DeviceNet I/O unit *<arg>* does not support *arg* connection.

Recommended actions

1. Change connection 1 type and/or connection 2 type in configuration.
2. Use DN_GENERIC unit type.

71298, Duplicated address

Description

The address *<arg>* for the DeviceNet master on I/O bus *<arg>* is occupied by another I/O unit on the network.

Recommended actions

1. Change master address in configuration.
2. Disconnect I/O unit occupying the address from the network.
3. Restart the system.

71299, No power on DeviceNet bus

Description

The 24 V power supply from the DeviceNet power supply is missing.

Consequences

No communication on the DeviceNet bus *<arg>* is possible.

Probable causes

The power supply unit, cabling, input voltage to the power supply or the output load may cause the power loss. See the Trouble Shooting Manual and Circuit Diagram!

Recommended actions

1. Check all cabling to the power supply unit.
2. Measure the output and input voltage levels.
3. Replace the faulty I/O unit if required.

71300, DeviceNet bus communication warning

Description

A minor number of communication errors occurred on DeviceNet bus *<arg>*.

Consequences

Normal operation will be maintained, even on the DeviceNet.

Probable causes

The fault may be caused by interference, power supply units and cables, or communication cables.

Recommended actions

1. Make sure any terminating resistors are correctly connected.

2. Make sure all communication cables and connectors are working correctly and of the recommended type.

3. Check network topology and cable length.

4. Make sure the DeviceNet Power Supply unit is working correctly. Replace any faulty unit.

71301, Bus off, DeviceNet bus communication failure

Description

A major number of communication errors occurred on DeviceNet bus *<arg>*.

Consequences

All communication on the DeviceNet Bus has stopped.

Probable causes

The fault may be caused by interference, power supply units and cables, or communication cables.

Recommended actions

1. Make sure the DeviceNet Power Supply unit is working correctly. Replace any faulty I/O unit.

2. Make sure any terminating resistors are correctly connected.

3. Make sure all communication cables and connectors are working correctly and of the recommended type.

4. Check network topology and cable length.

5. Restart the system.

71302, No DeviceNet option has been installed

Description

A DeviceNet master/slave board has been fitted, but no DeviceNet option has been installed.

Consequences

No communication on the DeviceNet is possible. There may be consequential errors from configuring DeviceNet when no such option has been installed.

Probable causes

An attempt may have been made to add the DeviceNet functionality, without installing the option correctly.

Recommended actions

1. If the DeviceNet option is required: configure a new system with this option, and install the system.

2. If the DeviceNet option is not required: configure a new system without this option, and install the system.

71303, Invalid DeviceNet vendor id

Description

The vendor id read from DeviceNet I/O unit *<arg>* doesn't match value in unit type configuration.

- Configuration: *<arg>*

- Actual: *<arg>*

Recommended actions

1. Change vendor id in configuration.

2. Check that the type of I/O unit is correct.

71304, Invalid DeviceNet device type

Description

The device type read from DeviceNet I/O unit *<arg>* doesn't match value in unit type configuration.

- Configuration: *<arg>*

- Actual: *<arg>*

Recommended actions

1. Change device type in configuration.

2. Check that the type of I/O unit is correct.

71305, Invalid DeviceNet product code

Description

The product code read from DeviceNet I/O unit *<arg>* doesn't match value in unit type configuration.

- Configuration: *<arg>*

- Actual: *<arg>*

Recommended actions

1. Change product code in configuration.

2. Check that the type of I/O unit is correct.

71306, DeviceNet unknown error

Description

An unknown error is reported from I/O unit *<arg>* error code *arg*.

Recommended actions

1. Restart the system.

2. Report problem to ABB.

71307, DeviceNet generic connection 1

Description

On DeviceNet I/O unit *<arg>* connection 1 configuration are generic.

Real values:

- Connection 1 type: *<arg>*

- Connection 1 input size: *<arg>*

- Connection 1 output size: *<arg>*

Recommended actions

1. Create a new unit type with correct values.

2. Update your current unit type configuration.

71308, DeviceNet generic connection 2

Description

On DeviceNet I/O unit *<arg>* connection 2 configuration are generic.

Real values:

- Connection 2 type: *<arg>*

- Connection 2 input size: *<arg>*

- Connection 2 output size: *<arg>*

Recommended actions

1. Create a new unit type with correct values.

2. Update your current unit type configuration.

71309, DeviceNet generic unit identification

Description

On DeviceNet I/O unit *<arg>* identity configuration are generic.

Real values:

- Vendor Id: *<arg>*

- Product code: *<arg>*

- Device type: *<arg>*

Recommended actions

1. Create a new unit type with correct values.

2. Update your current unit type configuration.

71310, DeviceNet I/O unit connection error

Description

DeviceNet I/O unit *<arg>* is occupied by another master.

Recommended actions

1. Check configuration.

2. Cycle power on I/O unit.

71311, Unable to established communication on DeviceNet bus

Description

Unable to established communication on DeviceNet bus *<arg>* because no I/O units are physically connected.

Recommended actions

1. Check cables and connectors.

2. Connect I/O units to I/O bus.

3. Restart the system.

4. Remove I/O units on the I/O bus *<arg>* from the configuration.

71312, DeviceNet I/O unit explicit connection not enabled

Description

DeviceNet I/O unit *<arg>* does not have the explicit message connection enabled.

Recommended actions

Change configuration.

71313, Fieldbus command type order number not unique.

Description

The I/O configuration is invalid.

Fieldbus command *<arg>* and *<arg>* are connected to the same unit type *<arg>* and have the same order number *<arg>*.

The order number of commands connected to the same I/O unit must be unique.

This command has been rejected.

Recommended actions

Correct the configuration.

71314, Invalid fieldbus command type

Description

The I/O configuration is invalid.

One of the fieldbus commands has a reference to an invalid/unknown command type *< arg>*.

All fieldbus commands must refer to an existing command type.

This fieldbus command has been rejected.

Recommended actions

Correct the fieldbus command type for the command.

71315, Max number of fieldbus commands exceeded

Description

The I/O configuration is invalid.

The maximum number, *arg*, of fieldbus commands in the I/O system has been exceeded.

Recommended actions

Modify the configuration of the I/O system (by reducing the number of fieldbus commands) so that the maximum limit is not exceeded.

71316, Max number of fieldbus command types exceeded

Description

The I/O configuration is invalid.

The maximum number *arg*, of fieldbus command types in the I/O system has been exceeded.

Recommended actions

Modify the configuration of the I/O system (by reducing the number of fieldbus command types) so that the maximum limit is not exceeded.

71317, DeviceNet I/O unit reset

Description

DeviceNet I/O unit *<arg>* have been restarted through fieldbus command *arg*,

to make sure fieldbus command values are activated.

This will cause the I/O unit to loose contact while the I/O unit is restarted and then automatically be reconnected.

Recommended actions

1. Do nothing.

2. If restart not necessary remove fieldbus command configuration on unit type.

71318, Failed to send fieldbus command

Description

Fieldbus command *<arg>* to I/O unit *<arg>* was not successfully sent.

Recommended actions

Check fieldbus command configuration.

71320, Max number of I/O access levels exceeded

Description

The I/O configuration is invalid.

The maximum number, *arg*, of I/O access levels in the I/O system has been exceeded.

Recommended actions

Modify the configuration of the I/O system (by reducing the number of I/O access levels) so that the maximum limit is not exceeded.

71321, Invalid I/O access level

Description

The I/O configuration is invalid.

The I/O signal *<arg>* has a reference to an invalid/undefined I/O access level *<arg>*.

All I/O signals must either omit the access level or refer to an existing access level.

This I/O signal has been rejected.

Recommended actions

Change I/O access level to one that exist or define a new I/O access level.

71323, Invalid bit values

Description

The I/O configuration for I/O signal *<arg>* is invalid.

The minimum bit value *<arg>* must not be less than *<arg>*.

The maximum bit value *<arg>* must not exceed *<arg>*.

The minimum bit value must be less than the maximum bit value.

This I/O signal has been rejected.

Recommended actions

1. Check that the I/O signal is configured with the correct encoding type.

2. Check that the min and max bit values are correct.

71324, Physical limitation values out of range

Description

The I/O configuration for I/O signal *<arg>* is invalid.

The physical limitation minimum value must be less than the physical limitation maximum value.

This I/O signal has been rejected.

Recommended actions

Correct the physical limitation values for the I/O signal so that the minimum value becomes less than the maximum value.

71325, Invalid I/O bus configuration

Description

The I/O configuration for I/O bus *<arg>* is invalid.

User-defined (externally loaded) I/O buses must no be specified as local.

This I/O bus has been rejected.

Recommended actions

Change the bus type of the I/O bus.

71326, Invalid unit type configuration

Description

The I/O configuration for unit type *< arg>* is invalid.

User-defined (externally loaded) unit types must no be specified as local.

This I/O bus has been rejected.

Recommended actions

Change the bus type of the I/O unit type.

71328, Invalid name

Description

The I/O configuration is invalid.

The configuration instance *<arg>* does not comply with the rules of RAPID identifiers.

This configuration instance has been rejected.

Recommended actions

Correct the name of the configuration instance so that it complies with the following rules:

Rules of RAPID identifiers:

1, The length must not exceed 16 characters.

2, The first character must be a letter (a-z or A-Z).

3, Subsequent characters must be letters (a-z or A-Z), digits (0-9) or underscores (_).

71329, Invalid Connector ID

Description

The I/O configuration for I/O bus *<arg>* is invalid.

No or invalid connector ID is selected for the *<arg>* bus type.

This I/O bus has been rejected.

Recommended actions

Select a valid connector ID for the I/O bus.

71330, Conflicting bus types

Description

The I/O configuration for I/O bus *<arg>* is invalid.

There are duplicated *<arg>* I/O buses with same connector ID *<arg>*.

I/O buses of the same type must have unique connector ID:s.

This I/O bus has been rejected.

Recommended actions

Correct the connector ID for the I/O bus.

71331, Invalid bus type

Description

The I/O configuration for I/O bus *<arg>* is invalid.

The bus type *<arg>* is invalid or unknown

Installed valid bus types are:*argargarg*

Consequences

This I/O bus has been rejected, and no functions depending on it will work.

Recommended actions

Correct the bus type for the I/O bus.

71332, Invalid recovery time

Description

The I/O configuration for I/O bus *<arg>* is invalid.

The value of the recovery time parameter *<arg>* is incorrect.

The recovery time (how often to try regaining contact with lost I/O units) must not be less than 5 seconds.

This I/O bus has been rejected.

Recommended actions

Correct the recovery time for the I/O bus.

71333, Invalid DeviceNet baud rate

Description

The I/O configuration for I/O bus *<arg>* is invalid.

The value of the DeviceNet baud rate parameter *<arg>* is incorrect.

Valid DeviceNet baud rates are:

- 125

- 250

- 500

This I/O bus has been rejected.

Recommended actions

Correct the DeviceNet baud rate for the I/O bus.

71334, Command type without reference to unit type

Description

The I/O configuration is invalid.

No reference to a unit type is defined for the command type *<arg>*.

All command types must have a reference to an existing unit type.

This command type has been rejected.

Recommended actions

Define a unit type reference for the command type.

71335, Invalid unit type

Description

The I/O configuration for command type *< arg >* is invalid.

The unit type *<arg>* is invalid/unknown.

All command types must refer to an existing/defined unit type.

This command type has been rejected.

Recommended actions

Correct the unit type for the command type.

71336, Command type without DeviceNet path

Description

The I/O configuration is invalid.

No DeviceNet path is defined for the command type *<arg>*.

This command type has been rejected.

Recommended actions

Define a DeviceNet path *<arg>* for the command type.

71337, Command type without DeviceNet service identifier

Description

The I/O configuration is invalid.

No DeviceNet service identifier is defined for the command type *<arg>*.

This command type has been rejected.

Recommended actions

Define a DeviceNet service identifier *<arg>* for the command type.

71338, Invalid DeviceNet service identifier

Description

The I/O configuration is invalid.

DeviceNet service identifier *<arg>* is not valid for command type *<arg>*.

Valid DeviceNet service identifiers are:

<arg>

<arg>

<arg>

This command type has been rejected.

Recommended actions

Correct the DeviceNet service identifier for the command type.

71339, Fieldbus command without reference to I/O unit

Description

The I/O configuration is invalid.

One of the fieldbus commands has no reference to a I/O unit.

All fieldbus commands must have a reference to an existing I/O unit.

This fieldbus command has been rejected.

Recommended actions

Define a I/O unit reference for the fieldbus command.

71340, Invalid I/O unit

Description

The I/O configuration is invalid.

One of the fieldbus commands has a reference to an invalid/unknown I/O unit *<arg>*.

All fieldbus commands must have a reference to an existing I/O unit.

This fieldbus command has been rejected.

Recommended actions

Correct the I/O unit for the fieldbus command.

71341, Fieldbus command, no reference to command type

Description

The I/O configuration is invalid.

One of the fieldbus commands has no reference to a command type.

All fieldbus commands must have a reference to an existing command type.

This fieldbus command has been rejected.

Recommended actions

Define a command type reference for the fieldbus command.

71342, Unit type mismatch

Description

The I/O configuration is invalid.

One of the fieldbus commands refers to a I/O unit *<arg>* and a command type *<arg>* that refer to different unit types.

The I/O unit and command type referred to by a fieldbus command must refer to the same unit type.

This fieldbus command has been rejected.

Recommended actions

Correct the configuration.

71344, Unit map undefined

Description

The I/O configuration for I/O signal *<arg>* is invalid.

Unit map is undefined or empty.

A unit map must be specified for all physical I/O signals (i.e. signals connected to an unit).

This I/O signal has been rejected.

Recommended actions

Define a unit map for the I/O signal.

71346, Unit map out of range

Description

The I/O configuration for I/O signal *<arg>* is invalid.

The unit map *<arg>* is invalid since bit *<arg>* is out of range.

All bits in the unit map must be in the range [0, *arg*].

This I/O signal has been rejected.

Recommended actions

Correct the unit map.

71347, Unit map with overlapping segments

Description

The I/O configuration for I/O signal *<arg>* is invalid.

The unit map *<arg>* contains segments (e.g bit *arg*) that overlap each other.

This I/O signal has been rejected.

Recommended actions

Correct the unit map.

71348, Unit map with unexpected character

Description

The I/O configuration for I/O signal *<arg>* is invalid.

Found unexpected end or character at position *<arg>* in the unit map: *<arg>*.

This I/O signal has been rejected.

Recommended actions

Correct the unit map so that is comply with the following syntax:

- {bit} = ([0-9]+)

- {range} = ([0-9]+[-][0-9]+)

- {segment} = ({bit} | {range})

- {unit map} = ({segment}[,])*{segment}

Examples of valid unit maps:

- "1"

- "0-7, 15-8"

- "1,4-3,7"

71349, Invalid signal size

Description

The I/O configuration for I/O signal *<arg>* is invalid.

There is a mismatch between the signal type and the size of the signal.

The signal size *<arg>* is given by the unit map: *<arg>*.

This I/O signal has been rejected.

Recommended actions

Correct either the signal type or the unit map so that the following rules are fulfilled:

- The size of digital I/O signals must be exactly one bit.

- The size of analog and group I/O signals must be between 2 and 32 bits.

71350, Invalid bus type

Description

The I/O configuration is invalid.

The unit type *<arg>* has an invalid/unknown bus type *<arg>*.

Installed valid bus types are:*argargarg*

Consequences

This unit type has been rejected, and no functions depending on it will work.

Recommended actions

Correct the bus type for the unit type.

71351, Invalid connection 1 type

Description

The I/O configuration is invalid.

The unit type *<arg>* has an invalid/unknown type for connection 1 *<arg>*.

The type for connection 1 must be one of the following:

- POLLED

- STROBE

- COS

- CYCLIC

- COS_ACKSUP

- CYCLIC_ACKSUP

This unit type has been rejected.

Recommended actions

Correct the connection 1 type of the unit type.

71352, Invalid connection 2 type

Description

The I/O configuration is invalid.

The unit type *<arg>* has an invalid/unknown type for connection 2 *<arg>*.

The type for connection 2 must either be omitted or one of the following:

- POLLED

- STROBE

- COS

- CYCLIC

- COS_ACKSUP

- CYCLIC_ACKSUP

This unit type has been rejected.

Recommended actions

Correct the connection 2 type of the unit type.

71353, Unit without reference to unit type

Description

The I/O configuration is invalid.

No reference to a unit type is defined for the I/O unit *<arg>*.

This I/O signal has been rejected.

Recommended actions

Define a unit type reference for the I/O unit.

71354, I/O unit without reference to I/O bus

Description

The I/O configuration is invalid.

No reference to a I/O bus is defined for the I/O unit *<arg>*.

This I/O unit has been rejected.

Recommended actions

Define a I/O bus reference for the I/O unit.

71355, Invalid trustlevel

Description

The I/O configuration is invalid.

Unit type *<arg>* has an invalid/unknown trustlevel *<arg>*.

Valid trustlevel values are:

- 0 (Required)

- 1 (Error when lost)

- 2 (Loss accepted)

- 3 (Stop when lost)

This command type has been rejected.

Recommended actions

Correct the trustlevel for the unit type.

71356, Bus type mismatch

Description

The I/O configuration is invalid.

Unit <*arg*> refers to a I/O bus and a unit type with different bus types.

This I/O unit has been rejected.

Recommended actions

1. Check that the I/O unit is connected to the correct I/O bus and that the bus type of that I/O bus is correct.

2. Check that the I/O unit refers to the correct unit type and that the bus type of that unit type is correct.

71357, Duplicated I/O units on I/O bus <Local>

Description

The I/O configuration for I/O unit <*arg*> is invalid.

There is already another user-defined I/O unit connected to the I/O bus <Local>.

Only one user-defined I/O unit may be connected to the I/O bus <Local>.

This I/O unit has been rejected.

Recommended actions

Correct the I/O configuration.

71358, Power fail restore full

Description

I/O unit <*arg*> could not be setup for power failure restore.

The table for power fail is full.

Recommended actions

Remove some other I/O units from the restore list.

71359, Option Multiple Serial Ports is not installed

Description

The system has attempted to address the serial port <*arg*>, and failed.

Consequences

The connector and the physical channel using the connector will not be available for use.

Probable causes

The option, Multiple Serial Ports, has not been installed in the system.

Recommended actions

1. If the option is required: configure a new system WITH this option, and install the system.

2. If the option is NOT required: remove the unsupported communication channels from the configuration.

71361, Cross connection with non digital resultant signal

Description

The I/O configuration is invalid.

The parameter <Resultant I/O signal> of one of the cross connections refer to a I/O signal <*arg*>, that is not digital.

Only digital I/O signals can be cross connected.

This cross connection has been rejected.

Recommended actions

Remove the non-digital I/O signal from the cross connection.

71362, I/O signal mapped outside the I/O unit data area

Description

Cannot change physical state of I/O signal <*arg*> to VALID.

The reason is that the I/O signal is mapped to bit(s) that lies outside the data area of the I/O unit it is assigned to.

I/O signal assigned to I/O unit <*arg*>

I/O signal mapped to bit(s): <*arg*>

Output data area size for the I/O unit is *arg* bits

Input data area size for the I/O unit is *arg* bits

Consequences

The physical state of this I/O signal remains NOT VALID.

Recommended actions

1. Check that the unit mapping of the I/O signal is correct.

2. Check that the I/O signal is assigned to the correct I/O unit.

3. Check the system parameters Connection Input/Output size on the unit type, it is possible to increase those parameters on some unit types.

71363, Slave configuration invalid

Description

The I/O unit <*arg*> configured on the master address is not valid as an internal slave.

Recommended actions

1. Change the address on the I/O unit.

2. Change the unit type on the unit to DN_SLAVE.

71364, I/O queue overload

Description

The I/O queue handling input and output I/O signals to and from the system has been overloaded.

Consequences

The system will go to status SYS STOP.

Probable causes

This is caused by too frequent signal changes or too large bursts of signal changes, generated by input I/O signals or cross connections between I/O signals.

Recommended actions

Check the cross connections. How to check the configuration file is detailed in the Trouble Shooting Manual.

2. Check the frequency of input I/O signals from any external equipment connected to the system. Make sure it is not abnormal, and change if required.

3. If an extremely heavy I/O load is normal and required, investigate whether programming delays in the RAPID application may solve the problem.

71365, Safety I/O queue overload

Description

The safety I/O queue handling safety input and output I/O signals has been overloaded.

Consequences

The system will go to status SYS HALT.

Probable causes

This is caused by too frequent signal changes of safety I/O signals. Sometimes this may be due to erratic ground connection in I/O signals from external equipment.

Recommended actions

1. Repeated safety input I/O signals will cause the system to halt. See the error log for other faults that may cause the condition.

2. Check the grounding of each signal from any external equipment affecting the safety I/O signals.

3. Check the frequency of input I/O signals from any external equipment connected to the system. Make sure it is not abnormal, and change is required.

71366, Cross connection I/O queue overload

Description

The cross connection I/O queue handling input and output I/O signals to and from the system has been overloaded.

Consequences

The system will go to status SYS STOP.

Probable causes

This is caused by too frequent signal changes or too large bursts of signal changes, generated by input or output I/O signals being actors in cross connections.

Recommended actions

Check the cross connections. How to check the configuration file is detailed in the Trouble Shooting Manual.

2. Check the frequency of input and output I/O signals being actors in cross connections.

3. If an extremely heavy I/O load is normal and required, investigate whether programming delays in the RAPID application may solve the problem.

71367, No communication with I/O unit

Description

During start-up, no communication was established with I/O unit *<arg>* on the I/O bus *<arg>*.

Consequences

It is not possible to access the I/O unit or I/O signals on it, since it is currently not communicating with the controller. The system will go to state SYS FAIL, if the I/O unit has been assigned Unit Trustlevel <Required (0)> in the configuration.

Probable causes

The I/O unit is either not connected to the system, or it is connected, but has been assigned the wrong address.

Recommended actions

1. Make sure all I/O unit addresses match the configuration.

2. Make sure all addresses are unique, and not used by more than one I/O unit.

3. Change the address and/or connect the missing I/O unit.

4. If you changed the address, the power supply to the I/O unit must be cycled (switched OFF and then back ON), to make sure the address has been changed.

71368, No Interbus option has been installed

Description

A Interbus master/slave board has been fitted, but no Interbus option has been installed.

Consequences

No communication on the Interbus is possible. There may be consequential errors from configuring Interbus when no such option has been installed.

Probable causes

An attempt may have been made to add the Interbus functionality, without installing the option correctly.

Recommended actions

1. If the Interbus option is required: configure a new system WITH this option, and install the system.

2. If the Interbus option is NOT required: configure a new system WITHOUT this option, and install the system.

71377, Dengensha board failure

Description

No contact with Dengensha PCI board.

Consequences

Dengensha Spot Welding will not be available for use.

Probable causes

-Dengensha board not present in PCI contact.

Recommended actions

1. Install the PCI card into one of the main computers PCI slots.

2. Make sure the PCI card is working.

71378, Failed to access the Dengensha PCI board.

Description

The Dengensha PCI board has stopped responding.

Consequences

Dengensha Spot Welding will not be available for use.

Probable causes

-The board may have internal software or hardware problems.

Recommended actions

Power off and try again

71379, Unknown communication physical channel connector

Description

The connector *<arg>* defined for the physical channel *<arg>* is unknown.

Consequences

The physical channel will not be available for use.

Probable causes

-The connector defined in the physical channel configuration may be misspelt or refers to a connector not available for use.

- Connector configuration is missing.

Recommended actions

1. Make sure the connector defined in the physical channel configuration is referring to an available connector.

2. Make sure the option Multiple Serial Ports is installed if required by the used configuration.

3. Reinstall the system to make sure the system configuration files are OK.

71380, Communication connector driver is already in use

Description

The connector *<arg>* cannot use the driver *<arg>*. The driver is already in use by connector *<arg>*.

Consequences

The connector and the physical channel using the connector will not be available for use.

Probable causes

-The configuration files may have been faulty.

-A configuration file with improperly configured Physical Channels may have been loaded.

Recommended actions

1. Make sure physical connector configuration is valid.

2. Reinstall the system to make sure the system configuration files are OK.

71381, Communication connector is already in use

Description

The physical channel *<arg>* cannot use connector *<arg>*. The connector is already in use by physical channel *<arg>*.

Consequences

The connector and the physical channel using the connector will not be available for use.

Probable causes

Several physical channels may have been assigned to the same connector in the configuration.

Recommended actions

Make sure each connector is used by one physical channel only.

71382, DeviceNet watchdog time has expired

Description

The system has not received any reply from the DeviceNet unit, and the watchdog timer has timed out.

Consequences

The DeviceNet bus is NOT running, and no communication on the DeviceNet bus *<arg>* will be possible. The system goes to status SYS FAIL. The full meaning of this status is described in the Trouble Shooting Manual, IRC5.

Probable causes

The I/O load on the DeviceNet bus may be too high, for instance if a RAPID program is trying to set I/O signals at a rate that exceeds the bandwidth available on the DeviceNet bus.

Recommended actions

Reduce the I/O load on the DeviceNet bus.

71383, User defined I/O units can't be connected to the I/O bus <Local>

Description

The I/O configuration for I/O unit *<arg>* is invalid.

No user-defined unit may be connected to the I/O bus <Local>.

This I/O unit has been rejected.

Recommended actions

Correct the I/O configuration.

71385, Request message resource exhausted

Description

Unable to handle more concurrent IO requests.

Out of concurrent I/O request using delay, pulse, or timeout argument.

Consequences

I/O request cannot be fulfilled.

Probable causes

To many I/O instructions with pulse or delay argument.

To many process instructions with pulse, delay or timeout.

Recommended actions

1. Reduce the number of concurrent I/O instructions with pulse or delay argument.

2. Reduce the number of concurrent process instructions that use pulse, delay or timeout argument.

71386, DeviceNet Quick Connect not supported

Description

The unit type *<arg>* may not be connected to the DeviceNet bus as a Quick Connect I/O unit.

Consequences

This unit type has been rejected, and no functions depending on this unit type will work.

Probable causes

The unit connected may be of a too early version.

Recommended actions

1. Disable the Quick Connect configuration parameter.

2. Replace the DeviceNet master/slave board with a later version.

71389, Configuration file error

Description

Errors occurred during loading of configuration data.

All configuration errors are placed in the cfg Event Log.

Consequences

The configuration in file will not be installed.

Recommended actions

View the errors in the cfg Event log.

71390, The DeviceNet bus have recovered from bus off

Description

The DeviceNet bus *<arg>* have recovered from bus off state.

71391, System Signal configuration

Description

There was an error during the configuration of a System Input/Output Signal.

System I/O name: *arg*

Consequences

The system will go to state SYS FAIL.

Probable causes

All errors during configuration of System Input/Output Signals are considered fatal and the system will go to state SYS FAIL.

Recommended actions

1. Check the connection of the Unit to which the System Signal is connected.

2. Check the configuration of the I/O unit.

71392, Invalid output size

Description

On DeviceNet I/O unit *<arg>* the connection 1 output size *<arg>* does not match the I/O unit. When using strobe connection the only valid output size are 1 or -1.

Recommended actions

1. Change size in configuration.

2. Check module.

3. Use DN_GENERIC unit type.

71393, Error when allocating generic size

Description

Failed to allocate generic *arg* size (-1) on DeviceNet I/O unit *<arg>*.

Probable causes

The DeviceNet I/O unit *<arg>* cannot be configured with unit type DN_GENERIC or with a generic *arg* size (-1).

Recommended actions

1. Update your current unit type configuration with new *arg* size.

2. Do not use DN_GENERIC unit type.

71394, Invalid physical communication channel

Description

The communication channel *arg* is out of range.

Consequences

The communication channel *arg* is unavailable.

Probable causes

Option not installed or the communication channel *<arg>* is out of range.

Recommended actions

1. Check the allowed minimum and maximum of connectors.

2. Check options required.

71395, No transport protocol

Description

The transport protocol *<arg>* for channel *<arg>* is missing.

Consequences

The transport instance *<arg>* is unavailable.

Probable causes

The option holding the transport protocol *<arg>* is not installed or the protocol name is faulty.

Recommended actions

1. Install missing option.

2. Change the transport protocol name.

71396, No transmission protocol

Description

The transport protocol *<arg>* is missing or the name of the transport protocol is faulty for *<arg>*.

Consequences

The application protocol instance *<arg>* is unavailable.

Probable causes

The option holding the transport is not installed or the application name is faulty.

Recommended actions

1. Install the option.

2. Change the name of the transport in the configuration.

71397, No application protocol

Description

The application protocol *<arg>* is missing or the name is faulty.

Consequences

The application instance *<arg>* is unavailable.

Probable causes

The option holding the application protocol is not installed or the protocol name is faulty.

Recommended actions

1. Install the option.

2. Change the name of the application protocol.

71398, Communication error from bosv24

Description

No response from the serial line.

Recommended actions

Check the device or connection.

71399, Communication error from bosv24

Description

Not possible to deliver the received message.

Recommended actions

Check the communication flow.

71400, Communication error from bosv24

Description

The response from the device has an invalid frame sequence.

Recommended actions

Check for noise on the serial line.

71401, No option exist for the *<arg>* Fieldbus Adapter

Description

A *<arg>* Fieldbus Adapter has been found, but no option has been installed.

Consequences

No communication on *<arg>* Fieldbus Adapter is possible. There may be consequential errors from configuring when no such option has been installed.

Probable causes

An attempt may have been made to add the *<arg>* Fieldbus Adapter functionality, without installing the option correctly.

Recommended actions

If the *<arg>* Fieldbus Adapter option is required: configure a new system with this option, and install the system.

71402, Duplicated address on the *arg* I/O bus

Description

The *arg* I/O bus address is duplicated on the network.
Conflicting address *<arg>*.

Consequences

No communication on the *arg* I/O bus is possible.

Recommended actions

1. Change the address on the conflicting I/O unit (or physically disconnect the I/O unit) or change the address for the *arg* I/O bus.

2. Restart the system.

71403, The interval time is invalid

Description

For the DeviceNet unit type *<arg>* the connection *arg* interval time is invalid.

Probable causes

The interval time have a lower value than the production inhibit time.

Recommended actions

Change the connection *arg* interval time to be higher than the production inhibit time for the unit type *<arg>* in the I/O configuration.

71404, Invalid input/output size

Description

The I/O unit *<arg>* have a invalid value (zero) for the input or output size.

Recommended actions

Change the input/output size to a value greater value then zero.

71405, Duplicate I/O unit mapping

Description

The I/O signal *<arg>* has the same unit mapping as I/O signal *<arg>*.

Consequences

Mapping more than one I/O signal against the same bit(s) in the I/O unit map can cause unpredictable values for these I/O signals since their order of evaluation cannot be controlled. E.g. if an inverted group output I/O signal is mapped to the same bits as some digital output I/O signals, the status of these bits are depending on the order the I/O signals are set.

Recommended actions

It is highly recommended that mapping of several I/O signals to the same bit(s) is avoided.

71406, Communication established on DeviceNet bus

Description

The DeviceNet bus *<arg>* has established communication.

71407, Route interface not found

Description

The route interface *<arg>* for I/O bus *<arg>* is not found in the system.

Consequences

The route is not available. Messages to devices connected to *<arg>* will not forwarded.

Probable causes

The I/O bus *<arg>* not defined or spelled wrong.

Recommended actions

Change the I/O bus identifier.

71408, Route port number out of range

Description

The given port number *arg* of route *<arg>* is outside its range.

Consequences

The route is not available. Messages to devices connected to *<arg>* will not be forwarded.

Probable causes

The number *arg* is outside its range.

Recommended actions

Change port number.

71409, Not able to add a port to *arg*

Description

Not able to define port *arg* of route *<arg>* due to lack of resources.

Consequences

The route is not available. Messages to devices connected to port *argarg* is not forwarded.

Probable causes

The *<arg>* doesn't support this many ports.

Recommended actions

When possible reduce the number of ports or report the problem to ABB.

71410, CIP route option not installed

Description

The CIP route option is not enabled since it was not selected at system creation.

Consequences

Any CIP route definitions will be omitted.

Probable causes

The CIP route option is not installed in the system.

Recommended actions

Create and install a system with the CIP route option.

71411, Out of route resources

Description

Not able to add anymore routes due to no more route resources in the system.

Consequences

Route *<arg>* will not be added to the system.

Probable causes

Too many routes have been defined. The system only allows *arg* routes.

Recommended actions

Reduce the number of routes.

71412, The DeviceNet bus has regained the bus power

Description

The DeviceNet bus *<arg>* has regained the 24 V bus power.

71413, Dengensha option not installed

Description

The Dengensha option has not been correctly installed in the system.

Recommended actions

Reinstall the system using a proper key containing the Dengensha option.

71414, Concurrent changes of signal value

Description

Concurrent changes of I/O signal *<arg>* value have been detected.

Consequences

A signal value change of I/O signal *<arg>* is aborted due to another value change of the same I/O signal.

Probable causes

The concurrent value change is due to an undesired signal change sequence in a program. Multiple changes of I/O signal *arg* might appear when a I/O signal is pulsed, e.g.

SetDO *arg*, 0;

PulseDO /High /PLength = 0.01, *arg*;

WaitTime 0.01;

SetDO *arg*, 1;

The I/O signal *arg* will be 1 at the end, but at rare occasions there will not be any visible pulse. This type of sequence should be avoided.

Recommended actions

Verify that concurrent value changes are desired of I/O signal *<arg>*, otherwise modify the signal change sequence.

71415, No bus power

Description

The 24 V power to the DeviceNet Lean bus is missing.

Consequences

No communication on the DeviceNet Lean bus is possible.

Probable causes

The power supply unit, cabling, input voltage to the power supply or the output load may cause the power loss. See the trouble shooting section in the manual.

Recommended actions

1. Make sure that the DeviceNet Lean bus contact is connected.

2. Check all cabling to the power supply unit.

3. Measure the output and input voltage levels.

4. Replace the faulty unit if required.

71416, Bus power restored

Description

The 24 V power to the DeviceNet Lean bus is restored.

71417, DeviceNet Lean hardware missing

Description

The DSQC 572 hardware adapter with the DeviceNet Lean bus contact is missing.

Consequences

No communication on the DeviceNet Lean bus is possible.

Probable causes

DSQC 572 is missing or the cabling between the main computer unit and DSQC 572 is not inserted.

Recommended actions

1. Check all cabling.

2. Replace the faulty DSQC 572 hardware adapter if required.

71418, Not allowed vendor

Description

The I/O unit *<arg>* connected to the DeviceNet Lean bus is not supported. Reported vendor ID was *arg*, expected *arg*.

Consequences

No communication to the I/O unit is possible.

Recommended actions

1. Remove the I/O unit from the configuration.

2. Replace the I/O unit with a supported type.

71419, Not allowed unit type

Description

The I/O unit *<arg>* connected to the DeviceNet Lean bus is not a supported DeviceNet Lean module type.

Consequences

No communication to the I/O unit is possible.

Recommended actions

1. Remove the I/O unit from the configuration.

2. Replace the I/O unit with a supported I/O unit type.

71420, Wrong unit type

Description

The I/O unit *<arg>* connected to the DeviceNet Lean bus is not of the same type as configured.

Reported product code was *arg*, expected was *arg*.

Consequences

No communication to the I/O unit is possible.

Recommended actions

Change the I/O unit configuration.

71421, Duplicated address on the DeviceNet Lean bus

Description

The reserved address *arg* for the DeviceNet Lean master is occupied by an another I/O unit on the network.

Recommended actions

1. Change the address on the conflicting I/O unit.

2. Disconnect the I/O unit occupying the masters address from the network.

71422, High load on the DeviceNet Lean bus

Description

The amount of traffic on the DeviceNet Lean bus is too high, or the system is too busy to handle all messages on the DeviceNet Lean bus.

Consequences

I/O data might be lost or delayed.

Recommended actions

1. Change the production inhibit parameter on all configured I/O units.

2. Reduce system load.

71423, Minor error on the DeviceNet Lean bus

Description

A minor amount of communication errors have occurred on the DeviceNet Lean bus.

Consequences

I/O data might be lost or delayed.

Recommended actions

Check all cabling

71424, DeviceNet Lean bus off

Description

A major amount of errors has occurred on the DeviceNet Lean bus. The bus will try to recover when possible.

Consequences

No data exchange with configured I/O units will be possible.

Recommended actions

Check all cabling

71425, DeviceNet Lean too many I/O units

Description

There are too many I/O units configured on the DeviceNet Lean bus. The maximum allowed number is *arg*. The I/O unit <*arg*> is rejected.

Consequences

No data exchange with I/O unit <*arg*> will be possible.

Recommended actions

Remove the I/O unit from I/O configuration.

71426, DeviceNet Lean bus regained

Description

The operating mode of the DeviceNet Lean bus has changed to state running.

Consequences

Data exchange with configured I/O units will be possible.

71427, DeviceNet Lean option key missing

Description

The option key needed to run DeviceNet Lean on the IRC5 controller was not detected.

Consequences

No communication on I/O bus DeviceNet Lean is possible.

Probable causes

An attempt may have been made to add the DeviceNet Lean functionality, without installing the option correctly.

Recommended actions

1. Configure a new system with the DeviceNet Lean option, and install the system.

2. If DeviceNet Lean is not required: configure a new system without this option, and install that system.

71428, DeviceNet Lean I/O unit configured

Description

A new I/O unit has been found and configured on the DeviceNet Lean bus.

Unit name: *arg*

Unit address: *arg*

Input bytes / Output bytes: *arg*

Vendor ID: *arg*

Product code: *arg*

Recommended actions

1. Restart the IRC5 controller to activate the I/O unit configuration.

2. Edit or delete the configuration.

71429, No configuration in the Profinet PCI board

Description

There is no bus configuration in the Profinet PCI board.

Recommended actions

Download a configuration to the board using an external software tool.

71430, Incompatible firmware in Profinet board

Description

The current firmware in the Profinet PCI board, version *<arg>*, is incompatible with this RobotWare release.

Consequences

No communication on Profinet is possible.

Recommended actions

Download firmware of version *<arg>* to the Profinet PCI board using the Firmware Loader in Siemens Step7. Contact ABB support for more information about how to do that.

71431, Configuration update in progress

Description

No configuration found in the Profinet PCI board or an external software tool has stopped the Profinet bus.

DO NOT restart the IRC5 controller until the Profinet configuration is fully downloaded.

Consequences

No connection to I/O units will be possible.

Recommended actions

Use an external software tool to download a configuration and to start the Profinet bus.

71432, Profinet hardware exception

Description

The Profinet PCI board has reported an internal software exception in its firmware. The exception occurred before this restart. Follow the actions steps below to recover from this error state.

Consequences

No connection to I/O units will be possible.

Probable causes

A configuration download from an external Profinet tool might have been interrupted before it was completed.

Recommended actions

1. Clear all configuration data in the Profinet PCI board using an external software tool.

2. Reconfigure the Profinet PCI board using an external software tool.

3. Warmtart the IRC5 controller.

71433, No contact with Profinet PCI board

Description

The Profinet PCI board could not be contacted. Error code returned *arg*.

Consequences

No connection to I/O units will be possible.

Probable causes

1. The Profinet board is missing or malfunctioning.

2. A new configuration is being downloaded from an external software tool.

Recommended actions

Make sure the Profinet PCI board is installed in the IRC5 controller.

71434, Profinet bus stopped

Description

A new Profinet configuration has been downloaded using an external software configuration tool. Since the new configuration has major changes, the IRC5 controller could not reuse the I/O configuration in the IRC5 controller. A restart is needed.

Consequences

No connection to I/O units will be possible.

Recommended actions

Restart the IRC5 controller.

71435, Profinet I/O unit not configured

Description

A Profinet I/O unit at address *<arg>* has generated an alarm. The I/O unit is configured in the Profinet PCI board, but not in the IRC5 controller.

The I/O unit needs to be configured in the IRC5 controller for the alarm to be handled.

Consequences

No connection to the I/O unit will be possible.

Recommended actions

1. Add the I/O unit to the IRC5 controller I/O configuration.

2. Remove the configuration in the Profinet PCI board.

71436, Profinet configuration missing

Description

The I/O unit *<arg>* is configured in the IRC5 controller, but is not found in the Profinet PCI board configuration.

Consequences

No connection to the I/O unit will be possible.

Recommended actions

1. Add the configuration for the I/O unit in the Profinet PCI board using an external configuration tool.

2. Remove the I/O unit configuration from the IRC5 controller configuration.

71437, Profinet internal slave config warning

Description

The Profinet internal slave is configured in the IRC5 controller with the following modules:

*arg*The connecting Profinet master have an different module configuration.

Mismatch detected in slot *arg*.

Consequences

The connection attempt is rejected.

Recommended actions

1. Reconfigure the connecting Profinet master.

2. Reconfigure the Profinet internal slave in the IRC5 controller.

71438, Profinet internal slave configuration warning

Description

The Profinet internal slave is configured in the IRC5 controller as a *arg* byte input module in slot *arg* and a *arg* byte output module in slot *arg*, but the connecting Profinet master have a module configure in slot *arg*.

Consequences

The connection attempt is rejected.

Recommended actions

Reconfigure the connecting Profinet master.

71439, Profinet diagnostics received

Description

The I/O unit *<arg>* has reported diagnostic data in slot *arg*.

Use I/O unit specific documentation for more explaination on the diagnostics data.

Data received:

arg

71440, Profinet configuration mismatch

Description

Profinet-IO routing has been configured using an external Profinet configuration tool. To be able to use Profinet-IO routing on the IRC5 controller, the Profinet internal slave needs to be configured in the IRC5 controller.

Consequences

No Profinet-IO routing will be possible.

Recommended actions

1. Add the Profinet internal slave to the I/O configuration.

2. Remove the Profinet-IO routing configuration from the DSQC 678.

71441, Profinet-IO routing warning

Description

Since Profinet-IO routing is configured on I/O unit *<arg>*, some data bits might be dependent on the PLC connection status and operating mode.

If the I/O unit *<arg>* has I/O signals mapped on digital output bits controlled by the PLC, these I/O signals can be set by the IRC5 controller, but will not affect the I/O units output values.

Consequences

Some I/O signals might not be handled by the IRC5 controller.

Recommended actions

1. Configure write protection on digital outputs I/O signals mapped by the IRC5 controller, but controlled by the PLC.

2. Name I/O signals to reflect the fact that they are controlled by the PLC.

71442, Profinet option key missing

Description

The option needed to run Profinet on the IRC5 controller was not detected.

Consequences

No communication on Profinet bus is possible.

Probable causes

An attempt may have been made to add the Profinet functionality, without installing the option correctly.

Recommended actions

1. Configure a new system with the Profinet option, and install the system.

2. If Profinet is not required, configure a new system without this option, and install that system.

71443, Too many Profinet internal slaves

Description

There are too many Profinet internal slaves defined in the IRC5 controller.

Consequences

Profinet I/O unit *<arg>* will not be configured. No communication with this I/O unit will be possible.

Probable causes

Profinet I/O unit *<arg>* is defined as an Profinet internal slave while another Profinet internal slave has already been configured.

Recommended actions

Remove I/O unit *<arg>* from the configuration.

71444, Profinet diagnostics received

Description

The I/O unit <*arg*> has reported diagnostic data in slot *arg*.

arg

71445, Profinet PCI board error

Description

The Profinet PCI board could not be found.

Consequences

No connection to I/O units will be possible.

Probable causes

The Profinet PCI board is not installed or a 'reset to factory settings' command has been performed. The 'reset to factory settings' command demands another restart of the IRC5 controller in order to be completed.

Recommended actions

1. Install the Profinet PCI board in the IRC5 controller.

2. Restart the IRC5 controller to perform the 'reset to factory settings' command.

71446, Profinet configuration mismatch

Description

Configuration mismatch between the Fieldbus Adapter and the connecting Profinet master in slot *arg*.

Consequences

The Fieldbus Adapter will indicate a diagnostic error and no communication will be established between the Fieldbus Adapter and the connecting Profinet master.

Probable causes

Mismatch of the data type/size in slot *arg* for the Profinet master configuration. The expected data type/size is *argarg* bytes.

Recommended actions

Correct the data type/size in slot *arg* in the external configuration tool or change the data size in the IRC5 controller configuration.
NOTE:
In the Profinet master configuration input data shall be in slot 1 and output data in slot 2.

71447, Profinet internal slave error

Description

The I/O unit <*arg*> is configured as an internal slave. The unit address must then be 0, but is configured to *arg*.

Consequences

The I/O unit <*arg*> will not be configured.

Recommended actions

Change the unit address to 0.

71448, I/O bus recovered from communication failure

Description

The I/O bus <*arg*> has recover from the previous communication failure.

71449, Too many fieldbus adapters configured

Description

Too many fieldbus adapters configured. It is only allowed to have one fieldbus adapter configured.

Consequences

The fieldbus adapter <*arg*> has been rejected, and no functions depending on it will work.

Recommended actions

1. Remove a fieldbus adapter in the configuration.

2. Restart the system.

71450, EtherNet/IP Master/Slave option not installed

Description

A EtherNet/IP I/O bus is configured, but the EtherNet/IP Master/Slave option has not been installed.

Consequences

No communication on the EtherNet/IP is possible. There may be consequential errors from configuring EtherNet/IP when no such option has been installed.

Probable causes

An attempt may have been made to add the EtherNet/IP functionality, without installing the option correctly.

Recommended actions

1. If the EtherNet/IP option is required: configure a new system with this option, and install the system.

2. If the EtherNet/IP option is not required: configure a new system without this option, and install the system.

71451, Ethernet extra port option not installed

Description

A EtherNet/IP I/O bus is configured to use the extra Ethernet port, but the Ethernet extra port option has not been installed.

Consequences

No communication on the EtherNet/IP bus is possible.

Probable causes

An attempt may have been made to add the EtherNet/IP functionality, without installing the correct option.

Recommended actions

1. If the Ethernet extra port option is required: configure a new system with this option, and install the system.

2. If the Ethernet extra port option is not required: change the configuration and restart the system.

71452, Too many EtherNet/IP buses are configured

Description

Too many EtherNet/IP I/O buses are configured. There is only possibly to have one I/O bus for EtherNet/IP Master/Slave.

Recommended actions

1. Remove one the EtherNet/IP buses from the configuration.

2. Restart the system.

71453, Wrong identity for a EtherNet/IP I/O unit

Description

Wrong identity for the I/O unit *<arg>*.

The correct identity is:

Vendor ID *<arg>*

Device Type *<arg>*

Product Code *<arg>*

Consequences

No contact will be established with this I/O unit.

Recommended actions

1. Correct the configuration for the I/O unit type *<arg>* with the identity information above.

2. Restart the system.

71454, The *arg*address is missing

Description

No IP address is specified for the *arg* I/O bus.

Consequences

No communication on the *arg* I/O bus is possible.

Recommended actions

1. Specify a valid IP address in the I/O bus configuration.

2. Restart the system.

71455, EtherNet/IP connection type unknown

Description

The I/O configuration is invalid.

The unit type *<arg>* has an invalid/unknown connection type *<arg>*.

The connection type must be one of the following:

- MULTICAST

- POINT2POINT

Consequences

This unit type has been rejected.

Recommended actions

1. Correct the connection type of the unit type.

2. Restart the system.

71456, EtherNet/IP hardware is missing

Description

The DSQC 612 hardware needed for running EtherNet/IP is missing.

Consequences

No communication on the EtherNet/IP bus is possible.

Probable causes

An attempt may have been made to add EtherNet/IP functionality on the first Ethernet port, without installing the correct hardware.

Note: If you are running MultiMove two DSQC 612 boards are required, otherwise one board.

Recommended actions

1. Install a DSQC 612 board in the IRC5 controller.

2. Restart the system.

71457, The EtherNet/IP gateway address is invalid

Description

It is not possible to have the gateway address same as the IP address.

Or the gateway address can not be same as the default destination <0.0.0.0>.

Consequences

The default IRC5 controller gateway address *<arg>* will be used and not the specified gateway address *<arg>*.

Recommended actions

1. If no physical gateway is used, do not specify any gateway address in the configuration.

2. Restart the system.

71458, Could not change the default gateway address

Description

If no destination address is specified in the Ethernet/IP configuration, the default IRC5 controller gateway address will be changed. The destination address was not given and the specified gateway address *<arg>* was not valid and could not be used..

Consequences

No communication on the EtherNet/IP bus is possible.

Recommended actions

1. Correct the gateway in the EtherNet/IP I/O bus configuration.

2. Restart the system.

71459, Illegal address for EtherNet/IP

Description

The address *<arg>* for the EtherNet/IP bus is illegal.

Consequences

No communication on the EtherNet/IP bus is possible.

Recommended actions

1. Correct the address in the EtherNet/IP bus configuration.

2. Restart the system.

71460, Not able to connect to EtherNet/IP I/O unit

Description

The configured I/O unit *<arg>* with address *<arg>* does not physically exist on the EtherNet/IP bus.

Consequences

It is not possible to access the I/O unit or I/O signals on it, since it is currently not communicating with the controller. The system will go to state SYS FAIL, if the I/O unit has been assigned Unit Trust level Required (0) in the configuration.

Probable causes

The I/O unit does not exist physically.

The I/O unit address is wrong.

The I/O unit is malfunctioning.

Recommended actions

1. Check if the I/O unit physically exist on the EtherNet/IP bus or if the address is correct.

2. If the address has been changed, restart the system.

71461, Duplicated address on the EtherNet/IP I/O bus

Description

The I/O unit *<arg>* and the EtherNet/IP master have been configured with the same address in the controller.

Consequences

It is not possible to access the I/O unit or I/O signals on it, since it is currently not communicating with the controller.

Recommended actions

1. Change the address for the I/O unit *<arg>* or the address for the EtherNet/IP master in the configuration. If changing the I/O unit address and it have this address physically it must also be changed in the I/O unit.

2. Restart the system.

71462, Illegal subnet mask for EtherNet/IP

Description

The subnet mask *<arg>* for the EtherNet/IP bus is illegal.

Consequences

No communication on the EtherNet/IP bus is possible.

Recommended actions

1. Correct the subnet mask in the EtherNet/IP bus configuration.

2. Restart the system.

71463, Illegal address for EtherNet/IP bus

Description

The EtherNet/IP address *<arg>* is reserved.

Consequences

No communication on the EtherNet/IP bus is possible.

Probable causes

The specified address is on a subnet reserved by another Ethernet port. Two Ethernet ports on the IRC5 controller can not be on the same subnet.

Example:

EtherNet/IP port: 192.168.125.x

Service port: 192.168.125.x

Note:

The subnets within the range 192.168.125.xxx - 192.168.130.xxx are predefined and can not be used.

Recommended actions

1. Change the address to another subnet.

2. Restart the system.

71464, Could not add a new gateway for EtherNet/IP

Description

Could not add the gateway address *<arg>* with the destination address *<arg>* for EtherNet/IP.

Consequences

No communication on the EtherNet/IP bus is possible.

Probable causes

1. The gateway address or the destination address are invalid.

2. No destination address have been specified.

Recommended actions

1. Correct the gateway address or the destination address in the EtherNet/IP bus configuration.

2. Restart the system.

71465, DeviceNet Lean error response

Description

The I/O unit *<arg>* has reported an error response.

General Error Code *arg*.

Additional Code *arg*

Recommended actions

1. Read about the General Error Code in the DeviceNet specification Appendix H.

2. The I/O unit might be occupied by another master.

3. Cycle the power of the I/O unit.

71466, Profinet configuration failed

Description

The configuration file <*arg*> was not accepted by the DSQC 678.

Error code returned *arg*.

Consequences

No new configuration will be stored in the DSQC 678.

Recommended actions

Make sure that the correct filetype is used.

71467, Profinet configuration file missing

Description

The configuration file <*arg*> was not found.

Consequences

No new configuration will be stored in the DSQC 678.

Recommended actions

1. Make sure the file exists.

2. Make sure that the configuration file is placed in the HOME directory of your current system.

71468, Profinet board DSQC 678 upgraded

Description

The Profinet board DSQC 678 have been upgraded to a new firmware with version <*arg*>

Consequences

The new firmware might affect some of the configuration parameters or other communication behaviour.

Recommended actions

1. Make sure that no configuration changes are needed for connecting controllers.

2. Make sure that current Step 7 configuration in the DSQC 678 is compatible with the new firmware.

71469, Max number of internal I/O signals exceeded

Description

The I/O configuration is invalid.

The maximum number, *arg*, of internal I/O signals in the I/O system has been exceeded.

Recommended actions

Modify the configuration of the I/O system (by reducing the number of I/O signals specfied in the additional option configuration) so that the maximum limit is not exceeded.

71470, Wrong unit type

Description

The I/O unit <*arg*> connected to the DeviceNet Lean bus is not of the same type as configured.

Reported vendor ID was *arg*, expected was *arg*.

Consequences

No communication to the I/O unit is possible.

Recommended actions

Change the I/O unit configuration.

71471, Duplicated address on DeviceNet Lean bus

Description

The I/O unit <*arg*> and the DeviceNet Lean master is configured with the same address.

Consequences

The I/O unit <*arg*> has been rejected.

Recommended actions

1. Change address for I/O unit <*arg*> or the DeviceNet Lean master.

71472, Fieldbus command error

Description

Could not send fieldbus command to I/O unit <*arg*> because there is a syntax error in the command path string.

Fieldbus command type name <*arg*>.

Additional info:

arg

Consequences

The fieldbus command was not sent.

Recommended actions

1. Correct the fieldbus command path string.

71473, DeviceNet Lean bus scan result

Description

Address: Product: Vendor ID: Product code:

arg

80001, *arg*

Description

arg

arg

arg

arg

Recommended actions

80002, *arg*

Description

arg

arg

arg

arg

Recommended actions

80003, *arg*

Description

arg

arg

arg

arg

Recommended actions

9,

Description

10,

Description

110001, Process Supervision Phase PRE

Description

Task: *arg*

Supervision failed for process phase PRE.

arg

Recommended actions

Check the signal(s) that failed:

arg

arg

Recovery:

You might want to handle errno *arg* in your error handler

110002, Process Supervision Phase PRE_START

Description

Task: *arg*

Supervision failed for process phase PRE_START.

arg

Recommended actions

Check the signal(s) that failed:

arg

arg

Recovery:

You might want to handle errno *arg* in your error handler

110003, Process Supervision Phase START

Description

Task: *arg*

Supervision failed for process phase START.

arg

Recommended actions

Check the signal(s) that failed:

arg

arg

Recovery:

You might want to handle errno *arg* in your error handler

110004, Process Supervision Phase MAIN

Description

Task: *arg*

Supervision failed for process phase MAIN.

arg

Recommended actions

Check the signal(s) that failed:

arg

arg

Recovery:

You might want to handle errno *arg* in your error handler

110005, Process Supervision Phase END_MAIN

Description

Task: *arg*

Supervision failed for process phase END_MAIN.

arg

Recommended actions

Check the signal(s) that failed:

arg

arg

Recovery:

You might want to handle errno *arg* in your error handler

110006, Process Supervision Phase POST1

Description

Task: *arg*

Supervision failed for process phase POST1.

arg

Recommended actions

Check the signal(s) that failed:

arg

arg

Recovery:

You might want to handle errno *arg* in your error handler

110007, Process Supervision Phase END_POST1

Description

Task: *arg*

Supervision failed for process phase END_POST1.

arg

Recommended actions

Check the signal(s) that failed:

arg

arg

Recovery:

You might want to handle errno *arg* in your error handler

110008, Process Supervision Phase POST2

Description

Task: *arg*

Supervision failed for process phase POST2.

arg

Recommended actions

Check the signal(s) that failed:

arg

arg

Recovery:

You might want to handle errno *arg* in your error handler

110009, Process Supervision Phase END_POST2

Description

Task: *arg*

Supervision failed for process phase END_POST2.

arg

Recommended actions

Check the signal(s) that failed:

arg

arg

Recovery:

You might want to handle errno *arg* in your error handler

110012, Movement start timeout

Description

Task: *arg*

Time (*arg* second(s)) between start of process and Robot movement is too long.

Recommended actions

 Check your process equipment.

110013, Application process interrupted

Description

Task: *arg*

The application process was not terminated properly.

arg

Consequences

Eventual post-motion phases were not executed.

Probable causes

1. Logical RAPID instructions in a sequence of application movement instructions consuming too much execution time.

2. The last instruction in the sequence of application movement instructions, that does not indicate the sequence end.

3. A process error occurred too close to the endpoint of the process: a process restart is not performed.

Recommended actions

Remove the logical instructions, that cause the delay,

or

check, that the last application movement instruction indicates, that it is the last one.

110014, Option 'Optical Tracking' or 'Weldguide' is missing

Description

Task: *arg*

The optional argument '\Track' may not be used without the option 'Optical Tracking' or 'Weldguide'.

arg

Recommended actions

Remove the optional argument '\Track'

or

Order a RobotWare key that, depending on your equipment, contains the option 'Optical Tracking' or 'Weldguide'.

110015, Option Path Offset is missing

Description

Task: *arg*

The switch '\Corr' may not be used without the option Path Offset.

arg

Recommended actions

Remove the switch '\Corr'

or

Order a RobotWare key, that contains the option 'Path Offset'.

110016, Unsafe flying end

Description

Program execution has proceeded to the next RAPID instruction before the application process finished.

Consequences

If a process error occurs, the application process will be stopped on the fly, but the robot movement will not be stopped.

Probable causes

The zone size and the fly_end distance of the flying end instruction do not fit together.

Recommended actions

Increase fly_end distance or decrease the zone size of the instruction with flying end.

110020, Supervision limit

Description

Task: *arg*

The maximum number of signals to be supervised (max. 32) has been exceeded in one of the supervision phases.

arg

Recommended actions

Remove signals from supervision for phase *arg* in order to meet the limit of 32.

110021, Unknown supervision list

Description

Task: *arg*

The Supervision list type *arg* is unknown.

arg

Consequences

Supervision is not set up or removed.

Recommended actions

Change the supervision list type.

110025, No active CAP process

Description

Task: *arg*

There is no active CAP process for this instruction.

arg

Recommended actions

Verify that *arg* is used according to documentation.

110030, Invalid ICap Event

Description

Task: *arg*

arg is invalid as event for the instruction ICap.

arg

Recommended actions

Use one of the valid ICap events described in the reference manual for CAP.

110032, No TRAP routine for CAP_STOP

Description

Task: *arg*

CAP requires a RAPID TRAP routine to be defined for the event CAP_STOP.

This is necessary as to stop external equipment when RAPID execution stops.

arg

Recommended actions

Add a TRAP routine for CAP_STOP in your RAPID code.

110034, Skip without process finished

Description

The robot has reached the end of the distance it was requested to move without active application process.

Recommended actions

Recovery:

You might want to handle errno *arg* in your error handler

110040, Process Supervision Phase END_PRE

Description

Task: *arg*

Supervision failed for process phase END_PRE.

arg

Recommended actions

Check the signal(s) that failed:

arg

arg

Recovery:

You might want to handle errno *arg* in your error handler

110041, Process Supervision Phase START_POST1

Description

Task: *arg*

Supervision failed for process phase START_POST1.

arg

Recommended actions

Check the signal(s) that failed:

arg

arg

Recovery:

You might want to handle errno *arg* in your error handler

110042, Process Supervision Phase START_POST2

Description

Task: *arg*

Supervision failed for process phase START_POST2.

arg

Recommended actions

Check the signal(s) that failed:

arg

arg

Recovery:

You might want to handle errno *arg* in your error handler

110100, Fatal process error

Description

Task: *arg*

A fatal process error has been reported. Check previous error messages for more information about the reason of the error.

Recommended actions

A restart of the system or move of program pointer is highly recommended.

110101, Invalid weave shape

Description

Task: *arg*

The weave shape used is invalid:

[No shape = 0, Zig-zag shape = 1, V-shape = 2, Triangular shape = 3]

Recommended actions

Correct the shape component.

110102, Invalid weave length

Description

Task: *arg*

The weave length used is invalid:

(0 - 1) [m]

Recommended actions

Correct the component length.

110103, Invalid weave cycle time

Description

Task: *arg*

The weave cycle time used is invalid:

(0 - 100) [s]

Recommended actions

Correct the component cycle_time.

110104, Invalid weave width

Description

Task: *arg*

The weave width used is invalid:

(0 - 1) [m]

Recommended actions

Correct the component width.

110105, Invalid weave height

Description

Task: *arg*

The weave height used is invalid:

(0 - 1) [m]

Recommended actions

Correct the component height

110106, Invalid weave dwell left

Description

Task: *arg*

The weave dwell_left used is invalid:

(0 - 1) [m]

Recommended actions

Correct the component dwell_left

110107, Invalid weave dwell center

Description

Task: *arg*

The weave dwell_center used is invalid:

(0 - 1) [m]

Recommended actions

Correct the component dwell_center

110108, Invalid weave dwell right

Description

Task: *arg*

The weave dwell_right used is invalid:

(0 - 1) [m]

Recommended actions

Correct the component dwell_right

110109, Invalid weave bias

Description

Task: *arg*

The weave bias used is invalid:

(-1 - 1) [m]

Recommended actions

Correct the component bias

110110, Invalid weave direction angle

Description

Task: *arg*

The weave direction angle used is invalid:

(-PI/2 - PI/2) [rad]

Recommended actions

Correct the component dir

110111, Invalid weave tilt angle

Description

Task: *arg*

The weave tilt angle used is invalid:

(-PI/2 - PI/2) [rad]

Recommended actions

Correct the component tilt

110112, Invalid weave rotation angle

Description

Task: *arg*

The weave rotation angle used is invalid:

(-PI/2 - PI/2) [rad]

Recommended actions

Correct the component rot

110113, Invalid horizontal weave offset

Description

Task: *arg*

The horizontal weave offset is invalid:

110114, Invalid vertical weave offset

Description

Task: *arg*

The vertical weave offset is invalid:

110115, Invalid weave sync left

Description

Task: *arg*

The weave sync left value is invalid:

(0 - 100) [%]

Recommended actions

Correct the component ptrn_sync_left in capweavedata.

110116, Invalid weave sync right

Description

Task: *arg*

The weave sync right value is invalid:

(0 - 100) [%]

Recommended actions

Correct the component ptrn_sync_right in capweavedata.

110117, Weave bias not allowed

Description

Task: *arg*

It is not allowed to use bias for shapes other than Zig-zag (=1).

Recommended actions

Correct the components 'bias' and/or 'shape' in capweavedata.

110118, Weave bias too big

Description

Task: *arg*

It is not allowed to use a bias that is bigger than half the width.

Recommended actions

Correct the components 'bias' and/or 'width' in capweavedata.

110119, Weave dwell too big

Description

Task: *arg*

It is not allowed to use a dwell that is bigger than the length.

The ramp slope (amplitude/length) is limited.

Recommended actions

Correct the components 'dwell_right/center/left' and/or 'length' in capweavedata.

110120, Weave bias change too big

Description

Task: *arg*

The weave bias change is bigger than allowed.

Max *arg* [m]

Recommended actions

Adjust weave tuning increment for bias, and/or check that the change of the bias is less than the maximum.

110121, Weave width tuning error

Description

Task: *arg*

The weave width change is bigger than allowed.

Max *arg* [m]

Recommended actions

Adjust weave tuning increment for width, and/or check that the change of the width is less than the maximum.

110122, Weave height tuning error

Description

Task: *arg*

The weave height change is bigger than allowed.

Max *arg* [m]

Recommended actions

Adjust weave height tuning increment, and/or check that the change of the height is less than the maximum.

110130, Signal not defined

Description

Task: *arg*

The signal *arg* is not defined.

arg

Recommended actions

Define the signal *arg* in eio.cfg

110131, No Signal specified

Description

Task: *arg*

No signal specified!

arg

Recommended actions

Specify a DI signal

110132, An internal error occurred

Description

Task: *arg*

arg

Recommended actions

Check the 'Internal' Log.

110160, Track error

Description

Task: *arg*

Track error.

arg

Recommended actions

Check joint definition.

Recovery: *arg*

110161, Track start error

Description

Task: *arg*

Track start error.

arg

Recommended actions

Check joint definition in captrackdata.

Recovery: *arg*

110162, Track max path corr error

Description

Task: *arg*

Track max path corr error.

arg

Recommended actions

Check joint definition and max_corr in captrackdata.

Recovery: *arg*

110163, Track communication error

Description

Task: *arg*

No communication between sensor and controller.

Recommended actions

Check the hardware

110164, Track correction lost

Description

Task: *arg*

Track lost due to power fail.

arg

Recommended actions

Move PP to main, or step through the rest of the CAP sequence.

110165, No Sensor Measurement

Description

Task: *arg*

No sensor measurement available.

arg

110166, Sensor Not ready yet

Description

Task: *arg*

The sensor is not ready.

arg

110167, General error from sensor

Description

Task: *arg*

General sensor error.

arg

110168, Sensor busy

Description

Task: *arg*

The sensor is busy.

arg

110169, Unknown command to sensor

Description

Task: *arg*

Some for the sensor unknown command was sent.

arg

110170, Illegal variable or block number in sensor

Description

Task: *arg*

The variable number or block number is unknown to the sensor.

arg

110171, External alarm from sensor

Description

Task: *arg*

An external sensor alarm occurred.

arg

110172, Camera alarm from sensor

Description

Task: *arg*

The sensor camera sent an alarm.

arg

110173, Temperature alarm from sensor

Description

Task: *arg*

The sensor temperature is out of admitted bounds.

arg

110174, Value to sensor out of range

Description

Task: *arg*

The value sent to the sensor is out of bounds.

arg

110175, Camera check failed

Description

Task: *arg*

It was not possible to perform a sensor camera check.

arg

110176, Sensor communication time out

Description

Task: *arg*

Timeout occured in communication with the sensor.

arg

110177, Tracker calibration error

Description

Task: *arg*

Sensor: *arg*

It was not possible to perform a valid tracker calibration.

Consequences

The sensor *arg* is not calibrated, thus should not be used for tracking.

Probable causes

The average calibration precisions obtained in the x-, y-, z- directions of the sensor tool are: *arg*. The desired ones are: *arg*.

Recommended actions

Verify that the calibration plate has not been moved. Check the sensor settings. Start LTC to run a manual calibration setup followed by a new calibration.

110178, Tracker verification error

Description

Task: *arg*

Sensor: *arg*

It was not possible to perform a valid tracker calibration verification.

Consequences

The sensor *arg* does not meet the calibration precision and will therefore be unreliable for tracking.

Probable causes

The average verification precisions obtained in the x-, y-, z- directions of the sensor tool are: *arg*. The desired ones are: *arg*.

Recommended actions

Start LTC to run a manual verification with a different number of measurements. If problems persist, run a new manual calibration from LTC.

110179, Left lap joint definition not correct

Description

Task: *arg*

Sensor: *arg*

The definition of the left joint (number *arg*) is not correct.

Consequences

It will not be possible to perform a sensor calibration.

Probable causes

The measure obtained in the y-direction of the sensor tool on the left lap-joint is : *arg* mm. The value should be positive.

Recommended actions

Check the left-lap joint definition (*arg*) in the sensor's (*arg*)PC interface. Possibly switch between the right and left lap-joint definitions.

110180, Sensor Calibration Data updated

Description

The sensor calibration data for *arg* (*arg* and *arg*) are updated.

Task: *arg*

Recommended actions

If you use CAP without RW Arc, you have to rerun the RAPID instruction

CapLATRSetup *arg*,*arg*,*arg*\SensorFreq:=xxx;

to make CAP use the updated sensor calibration data.

110203, Application error

Description

Task: *arg*

The maximum program number, 'DA_PROG_MAX' is above the num data type limit.

Current value: *arg*

Consequences

The maximum configured program number will not be set.

Probable causes

The specified program number *arg* is above the maximum integer value for the num data type, max value 8388608.

Recommended actions

Check the program.

110204, Application error

Description

Task: *arg*

Any return code other than DAOK is rejected from *arg*

Recommended actions

110205, Application error

Description

Task: *arg*

Forward sequence jumping is not allowed.

Recommended actions

Check the program sequence.

110206, Application error

Description

Task: *arg*

Missing I/O-signal *arg*.

Recommended actions

Check the I/O configuration.

110207, Application error

Description

Task: *arg*

Process number *arg* of application *arg* was already installed.

Recommended actions

110208, Application error

Description

Task: *arg*

Number *arg* is not a valid start number.

Recommended actions

110209, Application error

Description

Task: *arg*

The user hook *arg* is not a valid sequence entry.

Recommended actions

Check the program sequence.

110210, Application error

Description

Task: *arg*

The program number *arg* is above the num data type limit.

Consequences

The program number will not be set.

Probable causes

The specified program number *arg* is above the maximum integer value for the num data type, max value 8388608.

Recommended actions

Check the program.

110211, Application error

Description

Task: *arg*

The instruction *arg* reported a fatal error.

Recommended actions

110212, Application error

Description

Task: *arg*

arg tried to use a non existent process descriptor.

A fatal error in damastr class.

arg

Probable causes

The XXShPowerOn has not been executed.

Recommended actions

Check if XXShPowerOn was done.

110214, Application error

Description

Task: *arg*

arg tried to use a non existent application descriptor.

arg

Probable causes

The XXShPowerOn has not been executed, or to few DA_PROC task are specified.

Recommended actions

Check if XXShPowerOn was done.

If using only DAP you should save a sys.cfg, and add a new DA_PROCX task in that file. Check what files are loaded for DA_PROC1 task and add them to your new task.

110216, Application error

Description

Task: *arg*

Attempt to install a process number

outside it's limits.

arg

arg

Recommended actions

Check the program, max number of processes are limited to 4.

110220, Application error

Description

Task: *arg*

The user data variable choice does not exist.

arg

arg

110221, Application error

Description

Task: *arg*

The user data variable has incorrect type.

arg

arg

110222, Application error

Description

Task: *arg*

The internal process data type lacks daintdata as first element.

arg

arg

Recommended actions

Check the program.

110223, Application error

Description

Task: *arg*

The user data type definitions exceed the maximum data storage size.

arg

arg

Recommended actions

Check the program.

110224, Application error

Description

Task: *arg*

The user data type definitions does not correspond to what was defined.

arg

arg

110226, Application error

Description

Task: *arg*

An error occurred while attempting to reload the Power Failure area. An automatic restart of the processes will not be possible.

arg

arg

110229, Application error

Description

 Task *arg* :

 Error from *arg* . The data type definitions exceed the maximum data storage size.

arg

Recommended actions

Check the data size.

110230, Application error

Description

Task *arg* :

Not possible to execute instruction in motors off state for servo tool *arg* .

Recommended actions

Retry after setting motors on.

110300, Parameter error

Description

Task: *arg*

The max string length of the parameter *arg* is 5 characters.

Current used name is *arg*.

See specification in *arg*.

arg

Recommended actions

Check the length of the string data value.

110302, Parameter error

Description

Task: *arg*

The specified signal *arg* in the instruction *arg* has no reference.

arg

Recommended actions

Check the EIO configuration.

110303, Parameter error

Description

Task: *arg*

The optional signals *arg* and *arg* must be used together.

See specification in *arg*.

arg

Recommended actions

Check the program.

110304, Parameter error

Description

Task: *arg*

The parameter *arg* of the instruction *arg* is not an array.

arg

Recommended actions

Check the data definition.

110305, Parameter error

Description

Task: *arg*

The dimension of the data array *arg* is to big.

See specification in *arg*.

arg

Recommended actions

Check the data declaration.

110306, Parameter error

Description

Task: *arg*

The array *arg* of the instruction *arg* is not right defined.

arg

Recommended actions

Check the data against the specification.

110307, Parameter error

Description

Task: *arg*

The event time array element *arg.arg* is less than 0.

See specification in *arg*.

arg

Recommended actions

Check the time event data.

110308, Parameter error

Description

Task: *arg*

The data selector *arg* in the instruction *arg* is not valid.

arg

Recommended actions

Check the selector against the specification.

110309, Parameter error

Description

Task: *arg*

The selector *arg* in the instruction *arg* is not valid.

arg

Recommended actions

Check the selector against the specification.

110310, Parameter error

Description

Task: *arg*

The selector *arg* in the instruction *arg* is not valid.

arg

Recommended actions

Check the selector against the specification.

110311, No Spot task

Description

Task: *arg*

No motion task is configured for Spot.

arg

Probable causes

Check the configuration

110312, Wrong number of DAPROC tasks

Description

Task: *arg*

Error from *arg*. *arg* DA_PROC task(s) are configured in the system. Number of daprocs must be in the interval 1 - *arg*.

arg

Recommended actions

Check the configuration.

110313, Not possible to activate/deactivate

Description

Task: *arg*

Error in *arg*. This daproc is not possible to activate/deactivate.

arg

Recommended actions

Check index in the daproc descriptor.

110401, Gas supervision

Description

Task:*arg*

arg

Gas supervision signal not set at start of welding.

Recommended actions

Check the gas equipment.

Recovery: You might want to handle errno *arg* in your error handler.

110402, Water supervision

Description

Task: *arg*

arg

Water supervision signal not set at start of welding.

Recommended actions

Check the water cooling equipment.

Recovery: You might want to handle errno *arg* in your error handler.

110403, Arc supervision

Description

Task: *arg*

arg

Arc ignition supervision signal not set at start of welding.

Recommended actions

Check the power source.

Recovery: You might want to handle errno *arg* in your error handler.

110404, Voltage supervision

Description

Task: *arg*

arg

Voltage supervision signal not set at start of welding.

Recommended actions

Check the power source.

Recovery: You might want to handle errno *arg* in your error handler.

110405, Current supervision

Description

Task: *arg*

arg

Current supervision signal not set at start of welding.

Recommended actions

Check the power source.

Recovery: You might want to handle errno *arg* in your error handler.

110406, Wirefeed supervision

Description

Task: *arg*

arg

Wirefeed supervision signal not set at start of welding.

Recommended actions

Check the wirefeed unit.

Recovery: You might want to handle errno *arg* in your error handler.

110407, Wirestick supervision

Description

Task: *arg*

arg

Wirestick supervision signal set at start of welding.

Recommended actions

Check, if the wire got stuck at the object.

Recovery: You might want to handle errno *arg* in your error handler.

110408, Arc ignition failed

Description

Task: *arg*

arg

Arc ignition failed at start of welding.

Recommended actions

Check the welding equipment.

Recovery: You might want to handle errno *arg* in your error handler.

110409, Schedule strobe undefined

Description

Task: *arg*

arg

Schedule strobe undefined.

Recommended actions

Define a weld schedule strobe input.

Recovery: You might want to handle errno *arg* in your error handler.

110410, Schedule transfer error

Description

Task: *arg*

arg

It was not possible to transfer the schedule.

Probable causes

The schedule port was busy with previous transfer.

Recommended actions

Recovery: You might want to handle errno *arg* in your error handler.

110411, Process stopped

Description

Task: *arg*

arg

Process was stopped by the digital input 'stop process'.

Recommended actions

Check the digital input 'stop process'.

Recovery: You might want to handle errno *arg* in your error handler.

110412, Arc fill ignition failed

Description

Task: *arg*

arg

Arc fill ignition failed.

Recommended actions

Check the welding equipment.

Recovery: You might want to handle errno *arg* in your error handler.

110413, Torch supervision

Description

Task: *arg*

arg

Torch supervision signal went low during welding.

Recommended actions

Check the welding equipment.

Recovery: You might want to handle errno *arg* in your error handler.

110414, Weld supervision

Description

Task: *arg*

arg

Weld ignition supervision signal not set at start of welding.

Recommended actions

Check the power source.

Recovery: You might want to handle errno *arg* in your error handler.

110415, Weld Off Supervision timeout

Description

Task: *arg*

arg

The ArcEst signal was not reset at the end of the weld within the specified time. (*arg* seconds)

Recommended actions

Check the welding equipment and/or adjust the Weld Off timeout value,

found in Arc Equipment Properties.

110416, Weld Off Supervision timeout

Description

Task: *arg*

arg

The WeldOK signal was not reset at the end of the weld within the specified time.

(*arg* seconds)

Recommended actions

Check the welding equipment and/or adjust the Weld Off timeout value,

found in Arc Equipment Properties.

110421, Gas supervision

Description

Task: *arg*

arg

Gas supervision signal went low during welding.

Seam name: *arg*.

Time from weld start: *arg* min.

Recommended actions

Check the gas equipment.

Recovery: You might want to handle errno *arg* in your error handler.

110422, Water supervision

Description

Task: *arg*

arg

Water supervision signal went low during welding.

Seam name: *arg*.

Time from weld start: *arg*.

Recommended actions

Check the cooling water equipment.

Recovery: You might want to handle errno *arg* in your error handler.

110423, Arc supervision

Description

Task: *arg*

arg

Arc supervision signal went low during welding.

Seam name: *arg*.

Time from weld start: *arg*.

Recommended actions

Check the welding equipment.

Recovery: You might want to handle errno *arg* in your error handler.

110424, Voltage supervision

Description

Task: *arg*

arg

Voltage supervision signal went low during welding.

Seam name: *arg*

Time from weld start: *arg*.

Recommended actions

Check the welding equipment.

Recovery: You might want to handle errno *arg* in your error handler.

110425, Current supervision

Description

Task: *arg*

arg

Current supervision signal went low during welding.

Seam name: *arg*

Time from weld start: *arg*

Recommended actions

Check the welding equipment.

Recovery: You might want to handle errno *arg* in your error handler.

110426, Wirefeed supervision

Description

Task: *arg*

arg

Wirefeed supervision signal went low during welding.

Seam name: *arg*

Time from weld start: *arg*

Recommended actions

Check the wirefeed unit.

Recovery: You might want to handle errno *arg* in your error handler.

110427, Process stopped

Description

Task: *arg*

arg

Process was stopped during welding by the digital input 'stop process'.

Seam name: *arg*

Time from weld start: *arg*

Recommended actions

Recovery: You might want to handle errno *arg* in your error handler.

110428, Torch supervision

Description

Task: *arg*

arg

Torch supervision signal went low during welding.

Seam name: *arg*.

Time from weld start: *arg*.

Recommended actions

Check the welding equipment.

Recovery: You might want to handle errno *arg* in your error handler.

110429, Arc ignition failed

Description

Task: *arg*

arg

Seam name: *arg*.

Time from weld start: *arg*.

Recommended actions

Check the welding equipment.

Recovery: You might want to handle errno *arg* in your error handler.

110430, Arc fill ignition failed

Description

Task: *arg*

arg

Arc ignition failed during crater fill.

Seam name: *arg*.

Time from weld start: *arg*.

Recommended actions

Check the welding equipment.

Recovery: You might want to handle errno *arg* in your error handler.

110431, Weld supervision

Description

Task: *arg*

arg

Weld supervision signal went low during welding.

Seam name: *arg*.

Time from weld start: *arg*.

Recommended actions

Check the welding equipment.

Recovery: You might want to handle errno *arg* in your error handler.

110432, Arc ignition failed

Description

Task: *arg*

arg

Seam name: *arg*.

Time from weld start: *arg*.

Recommended actions

Check the welding equipment. Signal WeldOK.

Recovery: You might want to handle errno *arg* in your error handler.

110433, Arc fill ignition failed

Description

Task: *arg*

arg

Arc ignition failed with signal WeldOk during crater fill.

Seam name: *arg*.

Time from weld start: *arg*.

110435, User defined signal supervision

Description

Task: *arg*

arg

User defined signal defined by USERIO1 went low during welding.

Seam name: *arg*.

Time from weld start: *arg*.

Recommended actions

Recovery: You might want to handle errno *arg* in your error handler.

110436, User defined signal supervision

Description

Task: *arg*

arg

User defined signal defined by USERIO2 went low during welding.

Seam name: *arg*.

Time from weld start: *arg*.

Recommended actions

Recovery: You might want to handle errno *arg* in your error handler.

110437, User defined signal supervision

Description

Task: *arg*

arg

User defined signal defined by USERIO3 went low during welding.

Seam name: *arg*.

Time from weld start: *arg*.

Recommended actions

Recovery: You might want to handle errno *arg* in your error handler.

110438, User defined signal supervision

Description

Task: *arg*

arg

User defined signal defined by USERIO4 went low during welding.

Seam name: *arg*.

Time from weld start: *arg*.

Recommended actions

Recovery: You might want to handle errno *arg* in your error handler.

110439, User defined signal supervision

Description

Task: *arg*

arg

User defined signal defined by USERIO5 went low during welding.

Seam name: *arg*.

Time from weld start: *arg*.

Recommended actions

Recovery: You might want to handle errno *arg* in your error handler.

110440, User defined signal supervision

Description

Task: *arg*

User defined signal *arg* defined by USERIO1 went low during welding.

110441, User defined signal supervision

Description

Task: *arg*

User defined signal *arg* defined by USERIO2 went low during welding.

110442, User defined signal supervision

Description

Task: *arg*

User defined signal *arg* defined by USERIO3 went low during welding.

110443, User defined signal supervision

Description

Task: *arg*

User defined signal *arg* defined by USERIO4 went low during welding.

110444, User defined signal supervision

Description

Task: *arg*

User defined signal *arg* defined by USERIO5 went low during welding.

110445, Gas supervision

Description

Task: *arg*

arg

Gas supervision signal went low during welding.

Seam name: *arg*

Time from weld start: *arg*.

110446, Water supervision

Description

Task: *arg*

arg

Water supervision signal went low during welding.

Seam name: *arg*

Time from weld start: *arg*.

110447, Arc supervision

Description

Task: *arg*

arg

Arc supervision signal went low during welding.

Seam name: *arg*

Time from weld start: *arg*.

110448, Voltage supervision

Description

Task: *arg*

arg

Voltage supervision signal went low during welding.

Seam name: *arg*

Time from weld start: *arg*.

110449, Current supervision

Description

Task: *arg*

arg

Current supervision signal went low during welding.

Seam name: *arg*

Time from weld start: *arg*.

110450, Wirefeed supervision

Description

Task: *arg*

arg

Wirefeed supervision signal went low during welding.

Seam name: *arg*

Time from weld start: *arg*.

110451, Torch supervision

Description

Task: *arg*

arg

Torch supervision signal went low during welding.

Seam name: *arg*

Time from weld start: *arg*.

110460, Weld Error Recovery

Description

PROC Parameters was loaded by *arg*

Configuration of Weld Error Recovery is Complete.

110461, Weld Error Recovery

Description

PROC Parameters for Weld Error Recovery could not be loaded in task *arg*

110462, Weld Error Recovery

Description

Robot *arg* moved from error location.

Robot will attempt to move back to the error location.

110463, Weld Error Recovery Failed

Description

Incorrect Weld Error Recovery Usage.

A user-defined service routine must return the robot to within 50mm of breakpoint.

Recommended actions

Re-program your service routine.

110464, EquipmentClass Error

Description

Task: *arg*

The Specified EquipmentClass *arg* could not be unloaded.

110465, EquipmentClass Error

Description

Task: *arg*

The Specified EquipmentClass *arg* could not be found at path:

arg

110466, RW Arc Installation

Description

Weld System *arg* (of *arg* installed) started in task *arg*

Active EquipmentClass *arg*

Status OK

110467, RW Arc Installation

Description

Deactivation and Unload of EquipmentClass *arg* failed.

110468, RW Arc Installation

Description

Weld System *arg* deactivated in task *arg*

Status OK

110469, RW Arc Installation

Description

Load and Init of EquipmentClass *arg* failed.

110470, Configuration Parameter Error

Description

Task: *arg*

PROC Configuration Parameter *argarg*

could not be found in cfg database.

Recommended actions

Check the installation of PROC domain parameters.

110471, Undefined Signal Error

Description

arg

Failing signal during weld phase *arg* could not be determined.

110472, Configuration Parameter Error

Description

Task: *arg*

PROC Configuration Parameter *argarg*

is a required parameter.

Recommended actions

Check the installation of PROC domain parameters.

110473, Weld Equipment Error

Description

Task: *arg*

arg

Error: *arg*

(format: ErrorCode ErrorText)

Recommended actions

Check the Power Source.

110474, RW Arc EIO signal error

Description

There is no communication with signal *arg* on unit *arg*.

Consequences

Welding will not be possible without communication with this EIO unit.

Recommended actions

Check the communication link with the EIO unit.

110475, Calibration variable missing

Description

Task: *arg*

No Calibration variable is specified in Arc Sensor Properties.

Default calibration data is used. *arg=arg*

Consequences

Calibration data is needed for optimal sensor performance.

110476, Calibration variable error

Description

Task: *arg*

The specified Calibration variable *arg* in in Arc Sensor Properties could not be found in any loaded RAPID modules.

Default calibration data is used. *arg=arg*

Consequences

Calibration data is needed for optimal sensor performance.

Recommended actions

Check variable name in Arc Sensor Properties and make sure that the Sensor Calibration program is loaded.

110477, Device name mismatch

Description

Task: *arg*

Device name *arg* in in Arc Sensor Properties and Communication settings does not match.

Consequences

The same device name must be specified in both Arc Sensor Properties and Communication settings for the sensor to work properly.

110478, Process stop due to WDM Stability error

Description

Task: *arg*

arg

Consequences

RW Arc has stopped the welding process due to a Weld Data Monitor stability infraction.

Recommended actions

See Weld Data Monitor elog for more information.

110479, Process stop due to WDM Signature error

Description

Task: *arg*

arg

Consequences

RW Arc has stopped the welding process due to a Weld Data Monitor signature infraction.

Recommended actions

See Weld Data Monitor elog for more information.

110480, Arc Welding Task Busy

Description

Task: *arg*

arg

Serious File System problem encountered.

Recommended actions

The Controller must be warmstarted to solve the problem.

110481, System Retry limit

Description

Task: *arg*

arg

Max number of retries has been reached on system level.

System Misc, NoOfRetry=*arg*

Recommended actions

Increase parameter value to avoid reaching the limit.

110482, Sensor calibration data updated

Description

Sensor calibration data updated in task: *arg*

Active calibration data: *arg=arg*

110490, Weld Error Recovery IO Error

Description

Task: *arg*

arg

The breakout input was left on. The external device must reset the signal.

The Weld Error Recovery IO interface is disabled. Respond to FlexPendant.

110491, Weld Error Recovery IO Error

Description

Task: *arg*

arg

Invalid response *arg* supplied on signal agiWER_Response.

Valid range: (*arg*)

Request has been changed to Abort.

110492, Weld Error Recovery IO Error

Description

Task: *arg*

arg

Escape option is not available. Request has been changed to MoveOut.

110493, Weld Error Recovery IO Error

Description

Task: *arg*

arg

System is waiting for the diWERAck input to go low.

110494, Weld Error Recovery IO Error

Description

Task: *arg*

arg

Supplied value on giWER_Response (*arg*) is not within range: (*arg*)

Request has been changed to: *arg*

110495, Weld Error Recovery IO Interface

Description

Task: *arg*

The Weld Error Recovery IO Interface is successfully configured for

arg

and is ready for use.

110500, Track error

Description

Task: *arg*

arg

The robot controller has been asking 'blindcount'(trackdata) times for correction data from the sensor, but did not get any.

Recommended actions

Check sensor setup and trackdata. Recovery: You might want to handle errno *arg* in your error handler.

110501, Track start error

Description

Task: *arg*

arg

Not any valid correction data from the sensor while executing the current ArcX instruction.

Recommended actions

Check sensor setup and trackdata. Recovery: You might want to handle errno *arg* in your error handler.

110502, Track correction error

Description

Task: *arg*

arg

The correction is too big.

Recommended actions

1. Check that the seam definitions in the program reflect the actual seams. 2. Increase 'max_corr' in 'trackdata'. Recovery: You might want to handle errno *arg* in your error handler.

110503, Illegal arcflydata specified

Description

Task: *arg*

arg

The value of parameter *arg* in arcflydata is *arg*

Consequences

Flying *arg* will not work correctly with this value.

Recommended actions

Increase the value of *arg* in arcflydata to a value greater than zero.

110504, Illegal flydata combination

Description

Task: *arg*

arg

Flying *arg* is not possible with finepoint.

Consequences

There will be no flying *arg*

Recommended actions

Change to zonepoint in ArcX*arg* instruction.

110505, Illegal zonepoint specified

Description

Task: *arg*

arg

A zonepoint is used in the weld *arg* instruction without any optional arcflydata in the instruction.

Consequences

The zonepoint will be converted to a finepoint.

Recommended actions

Add the optional argument arcflydata to the ArcX*arg* instruction if flying *arg* is wanted.

110506, Illegal arcflydata combination

Description

Task: *arg*

arg

The arcflydata parameter *arg* has a value which is greater than the value of parameter *arg*.

Consequences

The value of *arg* will be reduced to the value of *arg*.

Recommended actions

Reduce the value of parameter *arg* so that the value is lower than or equal to the value of parameter *arg*.

110507, RW Arc EIO signal error

Description

Task: *arg*

arg

The value of *arg* for signal *arg* is below its minimum logical value (*arg*)

Consequences

The value of signal *arg* will be set to the minimum value *arg*.

Recommended actions

Check the values of *arg* components in seamdata and welddata. Change the value or change the min logical parameter for signal *arg* to avoid this message.

110508, Wirestick supervision

Description

Task: *arg*

arg

Wirestick supervision signal set at end of welding.

Recommended actions

Check, if the wire got stuck at the object.

Recovery: You might want to handle errno *arg* in your errorhandler.

110601, Spot application invalid data error

Description

Task:*arg*

The number of configured guns in 'SW_NOF_GUNS' are less than one(1).

Current value is *arg*.

Consequences

It will not be possible to run any spot instructions.

Probable causes

1. The setup data 'SW_NOF_GUNS' has been assigned a value less than 1.

2. The user module swdefusr.sys has not been loaded correctly.

Recommended actions

1. Check the value of the data 'SW_NOF_GUNS' in the swdefusr.sys module.

2. Check that the user module swdefusr.sys has been loaded.

110602, Spot application invalid data error

Description

Task:*arg*

The number of configured guns in 'SW_NOF_GUNS' are more than 10.

Current value is *arg*.

Consequences

It will not be possible to run any spot instructions.

Probable causes

The setup data 'SW_NOF_GUNS' has been assigned a value larger than 10.

Recommended actions

Check the value of the data 'SW_NOF_GUNS' in the swdefusr.sys module.

110603, Spot application optional argument error

Description

Task:*arg*

No optional argument has been selected.

At least one optional argument is required.

Consequences

The instruction will not work correctly.

Recommended actions

Select an optional argument for this instruction.

110604, Gun error

Description

Task:*arg*

arg

Can not close a closed gun, the gun is not open!

110605, Spot application pre position error

Description

Task:*arg*

The optional argument PrePos are less than zero(0).

Consequences

It will not be possible to run this instruction until the argument are changed.

Recommended actions

Change the value to a higher value than zero(0).

110606, Spot application gun activation error

Description

Task:*arg*

The servo gun *arg* is not activated.

Consequences

It will not be possible to run any spot instructions until the servo gun is activated.

Probable causes

The servo gun has not been activated before trying to run this instruction.

Recommended actions

Activate the servo gun *arg*.

Use the instruction 'ActUnit' to activate the servo gun, or set the 'Activate at Start Up' motion parameter to yes.

110607, Spot application gun initialization error

Description

Task:*arg*

The gun position is not initialized for the servo gun *arg*.

A service calibration to find the gun contact position is required before continuing the program execution.

Consequences

It will not be possible to run any spot instructions until a service calibration is done.

Probable causes

The servo gun has probably been fine calibrated and a service calibration has not been done.

Recommended actions

1. Run the service routine 'ManServiceCalib' to find the contact position of the gun, use option 2 - Initialize the servo gun position.

This needs to be done after the gun has been fine calibrated.

2. If tuning a gun it is possible to turn off the gun synchronization check, set the motion parameter 'Sync check off' to Yes.

Location: Configuration/Motion/SG_PROCESS.

110608, Spot application gun synchronization error

Description

Task:*arg*

The gun position is not synchronized for the servo gun *arg*.

A service calibration to find the gun contact position is required before continuing the program execution.

Consequences

It will not be possible to run any spot instructions until a service calibration is done.

Probable causes

The revolution counters for the servo gun has probably been updated and a service calibration has not been done.

Recommended actions

1. Run the service routine 'ManServiceCalib' to find the contact position of the gun, use option 1 - Synchronize the servo gun position.

This needs to be done after the revolution counters has been lost or updated.

2. If tuning a gun it is possible to turn off the gun synchronization check, set the motion parameter 'Sync check off' to Yes.

Location: Configuration/Motion/SG_PROCESS.

110609, Spot application no guns defined error

Description

Task:*arg*

No guns has been defined, the setup data 'SW_NOF_GUNS' can not be read.

The setup data 'SW_NOF_GUNS' should be in the range of: 1 to maximum *arg*.

Consequences

It will not be possible to run any spot instructions until this data has been defined.

Probable causes

The setup data 'SW_NOF_GUNS' has been deleted or the user module has not been loaded correctly.

Recommended actions

1. Check that the setup data is defined in the user modules and that the modules are loaded.

2. Check that no syntax error are present in the user modules.

110610, Spot application gun name error

Description

Task:*arg*

The servo gun *arg* specified in curr_gundata{*arg*}, does not exist in the motion parameters.

Consequences

It will not be possible to run any spot instruction until the correct servo gun name is specified in curr_gundata.

Probable causes

The gun name in curr_gundata does not match any mechanical unit in the system or no configuration for a servo gun has been loaded.

Recommended actions

1. Run the service routine 'ManAddGunName' to search the system for servo guns and to update the gun name parameter in curr_gundata,

2. Load motion configuration for the servo gun.

110611, Spot application invalid data error

Description

Task:*arg*

Invalid value of data *arg*. Allowed values are: 0, 1 or 2.

Current value is *arg*

Consequences

It will not be possible to run any spot instruction until this data is changed.

Probable causes

A invalid value has been defined.

Recommended actions

Change the value of *arg*.

110612, Spot application invalid robot error

Description

Task:*arg*

Invalid robot number, robot number *arg*.

Recommended actions

Check that *arg* was done.

110613, Spot application invalid error id

Description

Task:*arg*

Invalid error number Id

Invalid use of *arg*.

Current Error Id: *arg*

Probable causes

The error number id was larger than *arg*.

Recommended actions

Don't use *arg*. This routine is for the Spot application use only.

110614, Gun error

Description

Task:*arg*

arg

Gun error (*arg*).

Force calibration failed. Check the values and try again. Do not restart system until a valid force calibration is made.

Recommended actions

Check values and do a force calibration again.

110615, Spot application gun control error

Description

Task:*arg*

It is not possible to close or open the servo gun *arg* in motors off or emergency stop state.

Consequences

The gun has not opened or closed.

Probable causes

The system was set to motors off state during process for some reason.

Recommended actions

Go to motors on state again and restart the instruction.

110616, Spot application weld position aborted

Description

Task:*arg*

The weld position was aborted, current rob target *arg*.

Current gun: *arg*

Consequences

This weld position was not welded.

The strength of the welded object has been reduced.

Probable causes

The spot instruction was aborted for some reason, the PP was moved or the instruction was skipped.

Recommended actions

Check that it was OK to skip this position.

110617, Spot application invalid data error

Description

Task: *arg*

Invalid value of data 'gun_type' in curr_gundata{*arg*}.

Allowed values for the gun type are: 1 = servo gun or 2 = pneumatic gun.

Current value is *arg*.

Consequences

This instruction will not work properly.

Recommended actions

Change the value of 'gun_type' in curr_gundata{*arg*}.

110618, Spot application invalid data error

Description

Task: *arg*

Invalid value of data 'pre_close_time' in curr_gundata{*arg*}.

Allowed interval: 0 to max *arg* seconds.

Current value: *arg* seconds.

Current gun: *arg*

Consequences

It will not be possible to run any spot instructions until this value is changed.

Recommended actions

Change the value of 'pre_close_time' in curr_gundata{*arg*}.

110619, Spot application invalid data error

Description

Task: *arg*

Invalid value of data 'pre_equ_time' in curr_gundata{*arg*}.

Allowed interval: 0 to max *arg* seconds.

Current value: *arg* seconds.

Current gun: *arg*

Consequences

It will not be possible to run any spot instructions until this value is changed.

Recommended actions

Change the value of 'pre_equ_time' in curr_gundata{*arg*}.

110620, Spot application invalid data error

Description

Task: *arg*

Invalid value of 'weld_timeout' in curr_gundata{*arg*}.

Allowed interval: *arg* to *arg* seconds.

Current value: *arg* seconds.

Current gun: *arg*

Consequences

It will not be possible to run any spot instructions until this value is changed.

Recommended actions

Change the value of 'weld_timeout' in curr_gundata{*arg*}.

110621, Spot application invalid data error

Description

Task: *arg*

Invalid value of the 'tip_force' parameter in spotdata.

Allowed values are: 0 to max *arg*.

Current value: *arg*.

Consequences

It will not be possible to run any spot instructions until this value is changed.

Recommended actions

Change the value of the 'tip_force' parameter in spotdata.

110622, Spot application invalid data error

Description

Task: *arg*

Invalid value of the 'plate_thickness' in spotdata.

Allowed values are: 0 to max *arg* mm.

Current value: *arg* mm.

Consequences

It will not be possible to run any spot instructions until this value is changed.

Recommended actions

Change the value of the 'plate_thickness' parameter in spotdata.

110623, Spot application invalid data error

Description

Task: *arg*

Invalid value of the 'plate_tolerance' parameter in spotdata.

Allowed values are: 0 to max *arg* mm.

Current value: *arg* mm.

Consequences

It will not be possible to run any spot instructions until this value is changed.

Recommended actions

Change the value of the 'plate_tolerance' parameter in spotdata.

110624, Spot application invalid data error

Description

Task: *arg*

Invalid value of the 'prog_no' parameter in spotdata.

Allowed values are: 0 to max *arg*.

Current value: *arg*.

Consequences

It will not be possible to run any spot instructions until this value is changed.

Recommended actions

Change the value of the 'prog_no' parameter in spotdata.

110625, Spot application invalid data error

Description

Task: *arg*

Invalid value of the 'sim_type' parameter in simdata.

Allowed values are: 0 to *arg*.

Current value: *arg*.

Consequences

It will not be possible to run any spot instructions until this value is changed.

Recommended actions

Change the value of the 'sim_type' parameter in simdata

110626, Spot application invalid data error

Description

Task: *arg*

Invalid value of the 'tip_force' parameter in forcedata.

Allowed values are: 0 to *arg*.

Current value: *arg*.

Consequences

It will not be possible to run any spot instructions until this value is changed.

Recommended actions

Change the value of the 'tip_force' parameter in forcedata.

110627, Spot application invalid data error

Description

Task: *arg*

Invalid value of the 'plate_thickness' parameter in forcedata.

Allowed values are: 0 to max *arg* mm.

Current value: *arg* mm.

Consequences

It will not be possible to run any spot instructions until this value is changed.

Recommended actions

Change the value of the 'plate_thickness' parameter in forcedata.

110628, Spot application invalid data error

Description

Task: *arg*

Invalid value of the 'plate_tolerance' parameter in forcedata.

Allowed values are: 0 to *arg* mm.

Current value: *arg* mm.

Consequences

It will not be possible to run any spot instructions until this value is changed.

Recommended actions

Change the value of the 'plate_tolerance' parameter in forcedata.

110629, Spot application invalid data error

Description

Task: *arg*

Invalid value of the 'force_time' parameter in forcedata.

Allowed values are: *arg* to *arg* s.

Current value: *arg* s.

Consequences

It will not be possible to run any spot instructions until this value is changed.

Recommended actions

Change the value of the 'force_time' parameter in forcedata.

110630, Spot application weld complete timeout

Description

Task: *arg*

arg

Current robtarget: *arg*

Current gun: *arg*

Consequences

The weld was not completed.

Probable causes

The weld controller did not reply with weld complete within the configured time.

Recommended actions

1. Try to reweld the position.

2. Check the weld controller for any errors.

3. Increase the weld_timeout parameter in curr_gundata{*arg*}.

110631, Spot application weld error reported

Description

Task: *arg*

arg

Current robtarget: *arg*

Current gun: *arg*

Consequences

The weld was not completed.

Probable causes

The weld controller reported an error and stopped the current ongoing weld.

Recommended actions

1. Try to reweld the position.

2. Check the weld controller for any errors.

110632, Current error ignored

Description

Task: *arg*

arg

arg

110633, Spot application no mechanical unit error

Description

Task: *arg*

arg

The servo gun does not exist in the motion parameters, no servo gun parameters has been loaded.

Current gun name: *arg*.

Consequences

It will not be possible to run any spot instructions until configurations for a servo gun is added.

Probable causes

No configuration for servo gun parameters has been loaded.

Recommended actions

Load configurations for servo gun.

110634, Spot application cfg data limit error

Description

Task: *arg*

The data value is outside the limit.

Recommended actions

Change the value.

110635, Spot application tip position error

Description

Task: *arg*

Tip position error.

arg

Current gun: *arg*

Probable causes

1. The geometry of the plates are wrong or the tips are damaged.

2. The value of the plate_thickness parameter in *arg* is not the same as the actual thickness of the plates.

Recommended actions

1. Check that the thickness of the plates are correct and corresponds to the value in the plate_thickness parameter in *arg*.

2. Check that the tips are OK.

110636, Spot application process error

Description

Task: *arg*

Process error.

arg

arg

Current gun: *arg*

Consequences

The position was not welded.

Probable causes

An error occurred during the weld process.

Recommended actions

Check the welding equipment.

110637, Spot application text index too high error

Description

Task: *arg*

Text index out of bounds in SwTextGet.

Current index number: *arg*

Probable causes

The index number is too high

Recommended actions

Change the index number.

110638, Gun error

Description

Task: *arg*

arg

arg

110639, Gun error

Description

Task: *arg*

arg

A ManServiceCalib is required before continuing the program execution.

arg

110640, Spot application missing signal error

Description

Task: *arg*

The signal *arg* is missing in the EIO configuration.

Consequences

It will not be possible to use some internal functionality.

Probable causes

The signal *arg* was removed from the EIO configuration.

Recommended actions

Add the missing signal *arg*.

110641, Spot application invalid data error

Description

Task: *arg*

Invalid value of the sim_time parameter in simdata.

Allowed values are: 0 to *arg* s.

Current value: *arg* s.

Consequences

It will not be possible to run any spot instructions until this value is changed.

Recommended actions

Change the value of the sim_time parameter in simdata

110642, Spot application invalid speed error

Description

Task: *arg*

It is not possible to run with reduced speed for SW Equalizing.

Allowed value (in percent): *arg* %.

arg

arg

Consequences

The instruction will not work until this value is changed.

Probable causes

The speed was probably lowered by the operator.

Recommended actions

Set the speed to *arg* %.

110643, Spot application gun conflict error

Description

Task: *arg*

More than one robot try to use the same gun at the same time.

arg

Consequences

All the robots in the system are stopped.

Probable causes

The same gun is used from more than one motion task.

Recommended actions

Change the gun number or wait for the other robot to finish. You have to deactivate the used gun before another robot can use it. This is done with the instruction "DeactProc".

110644, Could not save the module

Description

Task:*arg*

arg

Could not save the module *arg*

The disk is full or the file is write protected.

110645, Spot application invalid data

Description

Task: *arg*

Software equalizing error.

The instructions SpotML and SpotMJ can not be used with Software Equalizing activated.

Consequences

The instruction will be stopped.

Probable causes

Software Equalizing is activated in curr_gundata.

Recommended actions

1. Do not use the instructions SpotML and SpotMJ together with Software Equalizing.

2. Reset the 'softw_equ' variable in curr_gundata and run the instruction without Software Equalizing.

110646, Spot application invalid data

Description

Task: *arg*

Invalid value of release_dist in curr_gundata{*arg*}.

Allowed interval: 0 to max *arg* mm.

Current value: *arg* mm.

Current gun: *arg*

Consequences

It will not be possible to run any spot instructions until this value is changed.

Recommended actions

Change the value of 'release_dist' in curr_gundata{*arg*}

110647, Spot application invalid data

Description

Task: *arg*

The calculated deflection distance for this gun is invalid.

Allowed interval: -*arg* to max *arg* mm.

Current value: *arg* mm.

Current gun: *arg*

deflection = spotdata.tip_force * curr_gundata{*arg*}.deflection_dist / curr_gundata{*arg*}.deflection_force

Consequences

The instruction will not work until this value is changed.

Probable causes

A too big gun deflection has been entered in curr_gundata{*arg*} or the deflection force in curr_gundata is set too low.

Recommended actions

1. Check the deflection distance in curr_gundata{*arg*}.

2. Check the deflection force in curr_gundata{*arg*}.

3. Check and increase the maximum limit in the setup data 'MAX_DEFLECTION' if needed.

110648, Spot application invalid data

Description

Task: *arg*

The value of 'deflection_time' in curr_gundata{*arg*} is invalid.

Allowed values are: 0 to max *arg* s.

Current value: *arg* s.

Current gun: *arg*

Consequences

The instruction will not work until this value is changed.

Probable causes

A too high gun deflection time has been entered in curr_gundata{*arg*}.

Recommended actions

Check the deflection time in curr_gundata{*arg*}.

110649, Spot application IO error

Description

Task: *arg*

It is not possible to set the signal, the I/O unit is lost.

Consequences

The signal will not be set.

Probable causes

The power to the IO unit is lost or the cable is damaged.

Recommended actions

1. Check the power to IO units.

2. Check that the cabling is OK.

110650, Spot application search error

Description

Task: *arg*

Touch up error, no surface was found during the search sequence in MeasureWearL

Current gun: *arg*

Consequences

The tool will not be updated.

Probable causes

Check for missing or wrong tips and the the reference plate is located in the correct position.

Recommended actions

1. Check that the correct tips are mounted on the gun.

2. Check that the reference plate is in the correct position.

3. Increase the setup data *arg* is needed.

110651, Spot application tip range error

Description

Task: *arg*

New tips with unexpected size, the size of the tips exceeds the configured tip change supervision value.

Difference between new and old (worn) tips): *arg* mm.

Tip change tolerance: *arg* to *arg* mm.

Current gun: *arg*

Probable causes

Tips with unexpected size was mounted on the gun or the size exceeds the maximum allowed value defined in the tip change tolerance setup data tipchg_superv{*arg*}.

Recommended actions

1. Check that the correct tips are mounted on the gun.

2. Check that the maximum allowed supervision value in tipchg_superv{*arg*} is enough.

110652, Spot application touch up error

Description

Task: *arg*

The calculated touch up force is to high!

Overload at least of axis *arg*.

Probable causes

The touch up contact force is probably too high.

Recommended actions

Lower the setup data touch up contact force, 'm_touch_force'.

110653, Spot application tip range error

Description

Task: *arg*

New moveable tip with unexpected size, the size of the tips exceeds the configured tip change supervision value.

Difference between new and old (worn) tips: *arg* mm.

Tip change tolerance: *arg* to *arg* mm.

Current gun: *arg*

Probable causes

Tips with unexpected size was mounted on the gun or the size exceeds the maximum allowed value defined in the tip change tolerance setup data tipchg_superv{*arg*}.

Recommended actions

1. Check that the correct tips are mounted on the gun.

2. Check that the maximum allowed supervision value in tipchg_superv{*arg*} is enough.

110654, Spot application tip change range error

Description

Task: *arg*

New fixed tip with unexpected size, the size of the tips exceeds the tip change supervision value.

Difference between actual tip and reference tip: *arg* mm.

Tip change tolerance: *arg* to *arg* mm.

Current gun: *arg*

Probable causes

Tips with unexpected size was mounted on the gun or the size exceeds the maximum allowed value defined in the tip change tolerance setup data tipchg_superv{*arg*}.

Recommended actions

1. Check that the correct tips are mounted on the gun.

2. Check that the maximum allowed supervision value in tipchg_superv{*arg*} is enough.

110655, Spot application tip wear range error

Description

Task: *arg*

Tip wear out of range, the tip wear exceeds the configured tip wear tolerance!

Actual tip wear (moveable tip): *arg* mm.

Tip wear tolerance: *arg* to *arg* mm.

Current gun: *arg*

Probable causes

The tips has probably been worn out, and the current tip wear exceeds the maximum allowed value defined in the tip wear tolerance setup data tipwear_superv{*arg*}.

Recommended actions

Check that the maximum allowed supervision value in tipwear_superv{*arg*} is enough.

110656, Spot application tip wear range error

Description

Task: *arg*

Tip wear out of range, the tip wear exceeds the configured tip wear tolerance!

Actual tip wear (fixed tip): *arg*mm.

Tip wear tolerance: *arg* to *arg* mm.

Current gun: *arg*

Probable causes

The tips has probably been worn out, and the current tip wear exceeds the maximum allowed value defined in the tip wear tolerance setup data tipwear_superv{*arg*}.

Recommended actions

Check that the maximum allowed supervision value in tipwear_superv{*arg*} is enough.

110657, Spot application independent mode error

Description

Task:*arg*

It is not possible to use independent mode in Spot instructions when software equalizing is activated.

Current gun: *arg*

Consequences

It will not be possible to run any spot instruction until the independent mode is deactivated.

Probable causes

The independent mode is activated.

Recommended actions

Reset the independent mode with the instruction 'IndGunMoveReset'.

110658, Spot application error singularity error

Description

Task:*arg*

The robot is close to singularity. The performance of the Software Equalizing will be poor.

Consequences

The performance of the Software Equalizing will be poor.

Probable causes

The robot is close to singularity.

Recommended actions

Reorient the robot or move the point.

110659, Spot application robot limit error

Description

Task:*arg*

The robot is outside it's working area.

Consequences

The position is not possible to reach.

Probable causes

The robot is outside it's working area or the robot is very close to it when the gun arm deflection compensation is working.

Recommended actions

Reorient the robot or move the point.

110660, Spot application user module version warning

Description

Task:*arg*

The version number of the user module(s) are different than the current spot application version.

Current version of the spot application is *arg*.

Currently loaded user module and version number, *arg*, *arg*.

Consequences

The spot application might not work correctly, there is a possibility that the customizable user modules has changed since previous RobotWare releases.

There is a risk that improvements and/or corrections added since previous RobotWare releases are unavailable.

Probable causes

The user modules probably originates from an backup taken from an older system.

Recommended actions

1. Check that the user modules are up to date, compare them to the versions in this RobotWare release.

2. Load the correct module(s) and make a P-start of the system.

3. This warning can be ignored if the improvements and/or corrections in the user modules are not critical to the customer application.

110661, Spot application error signal label error

Description

Task: *arg*

The 'SignalLabel' name *arg* is not defined in the EIO configuration.

Probable causes

The 'SignalLabel' name is not defined in the EIO configuration.

Recommended actions

1. Check that the 'SignalLabel' is defined in the EIO configuration.

2. Add the missing 'SignalLabel'.

110662, Spot application missing routine error

Description

Task:*arg*

A Spot user routine is missing, routine *arg*

This software option will not work correctly without this routine.

Consequences

This software option will not work correctly without this routine.

Probable causes

The module with the routine is not loaded or the routine has been removed from the module.

Recommended actions

1. Check that the module with the routine is loaded.

2. Load or add the missing module or routine.

110663, Spot application user data missing error

Description

Task:*arg*

A Spot user data is missing, data *arg*

This software option may not work correctly without this data.

Consequences

This software option may not work correctly without this data.

Probable causes

The module with the data is not loaded or the data has been removed.

Recommended actions

1. Check that the module with the data is loaded.

2. Load or add the missing module or data.

3. Ignore this warning if the data has been intentionally removed.

110664, Spot application sw equalizing active error

Description

Task:*arg*

It is not possible to run synchronized Spot instructions when the software equalizing mode is activated.

It is only possible to run spot instructions with software equalizing activated in semi coordinated mode.

Consequences

It will not be possible to run any spot instructions with software equalizing activated until the synchronized mode is disabled.

Probable causes

Synchronized mode is selected in the spot instruction.

Recommended actions

Turn off software equalizing to be able to run in synchronized mode or change the spot instructions to semi coordinated movements instead.

110665, *arg*

Description

Task:*arg*

arg

arg

Recommended actions

arg

110666, Spot application servo gun close error

Description

Task:*arg*

Can not close a closed servo gun, the servo gun *arg* is not open!

Probable causes

The gun is already closed.

Recommended actions

Open the gun before trying to close it.

110667, Spot application force calib error

Description

Task:*arg*

Force calibration failed for servo gun *arg*.

Check the force calibration values and try again. Do not restart system until a valid force calibration is made.

Consequences

The force calibration data will not be saved to the motion parameters.

Recommended actions

Check the values and try to do a force calibration again.

110668, Spot application thickness error ignored

Description

Task: *arg*

arg

The current thickness error was ignored.

Current gun: *arg*

argarg

Probable causes

The operator probably ignored the thickness error.

Recommended actions

Check that it was OK to ignore the thickness error.

110669, Spot application gun number error

Description

Task: *arg*

The gun number *arg* is not a valid gun number, the gun index is out of range.

Allowed values are: *arg* to max *arg*.

Consequences

It will not be possible run this instruction until this value is changed.

Probable causes

A gun index number that was out of range was programmed in the instruction.

Current configured size of 'curr_gundata' is *arg*

Recommended actions

1. Change the gun index number in the instruction.

2. Increase the setup data 'SW_NOF_GUNS' and the spot application data types if needed.

110670, Spot application user module changed

Description

Task: *arg*

The routine *arg* has a newer syntax, the user module has changed since previous RobotWare releases.

Current module: *arg*

Current version: *arg*

Consequences

This instruction might not work correctly, some data(s) may not be updated correctly.

There is a risk that improvements and/or corrections added since previous RobotWare releases are unavailable.

Probable causes

The user modules probably originates from an backup taken from an older system.

Recommended actions

Compare and upgrade the user modules to the latest version supplied in this RobotWare release.

110671, Spot application error module not saved

Description

Task:*arg*

Could not save the module *arg*.

Consequences

The module *arg* was not saved.

Data needed for the process was not saved and can if e.g. an p-start is done be lost.

Probable causes

The module does not exist, or the disk is full or the file is write protected.

Recommended actions

1. Check that the module exists in the specified location on the disk.

2. Try to save the module manually from the FlexPendant.

110672, Spot application configuration error

Description

Task: *arg*

The weld program number is out of limits for the defined weld program group output (GO).

Current value: *arg*.

Consequences

It will not be possible to run any spot instructions until this value is changed.

Probable causes

The weld program signal group size is smaller than the specified weld program.

Recommended actions

1. Increase the size of the weld program output group.

2. Decrease the weld program number.

110673, Spot application tool load definition error

Description

Task:*arg*

The current used tool seems to have undefined load data.

The load of the tool is less or equal to 0 and/or the load center of gravity is 0.

Current tool: *arg*.

Consequences

It will not be possible run this instruction until a correctly defined tool is used.

Probable causes

The current tool is not correctly defined.

Recommended actions

Check that the load data for the tool is correctly defined before running this routine.

110674, Spot application gun type error

Description

Task:*arg*

This routine can not be used with this type of gun.

Current gun type: *arg*.

Consequences

It will not be possible run this instruction with this gun type is used.

Probable causes

The 'gun_type' parameter in the used 'gundata' is not correctly defined.

Recommended actions

Check that the 'gun_type' parameter in the used 'gundata' is correctly defined before running this routine.

110675, Spot application process task error

Description

Task:*arg*

The number of guns exceeds the number of activated process tasks.

Current gun: *arg*.

Consequences

It will not be possible to weld with more guns than the number of activated process tasks.

Recommended actions

Configure more process tasks.

110676, Spot application power on error

Description

Task:*arg*

The power on sequence has not been done.

Consequences

The spot application will not work correctly.

Probable causes

An error occurred during the startup sequence.

Recommended actions

1. Check the event log for other errors occurring at the same time.

2. Correct the error and perform a p-start of the system.

110677, Spot application instruction aborted

Description

Task:*arg*

The instruction was aborted.

Instruction: *arg*

Consequences

Some data may not have been correctly updated.

Probable causes

The instruction was aborted by the operator and/or the PP was moved.

Recommended actions

Check that it was OK to abort this instruction.

110678, Spot application reference not done error

Description

Task: *arg*

A reference measurement must be done before a tip wear or tip change measurement can be done.

Instruction: *arg*

Probable causes

This instruction was run for the first time without the reference switch selected.

Recommended actions

Run this instruction with the reference switch selected first.

110700, No weld internal.

Description

Task:*arg*

arg

Weld signal switched off at programming terminal.

Recommended actions

Check programming unit setting Operating mode for Weld on/off, int.(S)/Weld/No weld (T).

110701, No weld external.

Description

Task:*arg*

arg

External weld signal was deactivated.

Recommended actions

Check signal at weld external input.

110702, The weld sequence is inhibited, weld schedule stopped.

Description

Task:*arg*

arg

The started program was inhibited for the sequence/schedule

Recommended actions

Enable program at the programming terminal at Operation - Modify - Programming - Sequence Setup Inhibit Sequence (S)/Start- Inhibit (T) for all programs or Inhibit Sequence (P)/Start-Inhibit (P) for one program - check program selection, select proper program.

110703, No valid weld program, no schedule programmed.

Description

Task:*arg*

arg

wrong program selected - invalid spot selection - invalid parameters in started program

Recommended actions

Check program selection - check spot selection - check value range of the following parameters: power unit number, electrode/stepper number, program number.

110704, The battery backup is low.

Description

Task:*arg*

arg

The buffer battery voltage has dropped

Recommended actions

Replace the backup battery in the weldtimer.

110705, Memory has been deleted.

Description

Task:*arg*

arg

All data of this weld timer has been deleted: - new timer firmware was copied to system - battery is low or defective.

Recommended actions

Copy data (Operation - Services - Restore/Download) if the error occurs repeatedly, replace timer.

110706, There is a hardware fault.

Description

Task:*arg*

arg

Defective module. When booting, a module is detected which does not match the firmware: - a firmware was introduced into the weld timer which is not permitted for the existing hardware.

Recommended actions

Replace module or timer - replace module - load proper firmware to the timer.

110707, External temperature too high.

Description

Task:*arg*

arg

Message of an external temperature input: - cable between thermostatic switch and timer interrupted - insufficient cooling - excessive welding heat/%I / duty cycle

Recommended actions

check cable/connector - check cooling circuit - reduce welding heat.

110708, Stop circuit open, no +24V.

Description

Task:*arg*

arg

+24V supply at stop circuit input missing.

Recommended actions

Close stop contact - check +24V supply at the inputs of the stop circuit.

110709, Circuit breaker tripped, weld without command.

Description

Task:*arg*

arg

The timer module has activated the main switch relay: the related main switch/circuit breaker is tripped.

Recommended actions

-

110710, Current feedback open.

Description

Task:*arg*

arg

Broken sensor cable - detached plug connections - incorrect connector assignment - defective sensor.

Recommended actions

Replace cable - check plug-in connections - check connector assignment - replace sensor.

110711, Current feedback short circuit.

Description

Task:*arg*

arg

Squeezed sensor cable - incorrect connector assignment - defective sensor.

Recommended actions

Replace cable - check connector assignment - replace sensor.

110712, No primary voltage on first half wave.

Description

Task:*arg*

arg

No primary voltage was measured in KUR mode.

Recommended actions

Check connectors and cables.

110713, No current, weld 1 to 3.

Description

Task:*arg*

arg

Electrodes not closed - no electrical contact at the point to be welded - contamination of sheets - use of sealant.

Recommended actions

Check closing mechanisms (robot, machine) - check position and pressure of electrodes - clean sheets - check conductivity.

110714, Current is too low, weld 1 to 3.

Description

Task:*arg*

arg

Current measured is below tolerance band: - tolerance band too narrow - programmed value too high, e.g., because of stepping - contamination of electrodes - contamination of sheets - bad electrode positioning - welding transformer too small.

Recommended actions

Check tolerance band - check programmed value, stepper values - repeat weld, clean electrodes - repeat weld, clean sheets - improve positioning - change over or replace welding transformer.

110715, Current is too high, weld 1 to 3.

Description

Task:*arg*

arg

Current measured exceeds tolerance band: - programmed value jump to lower current values - handling of different sheet thicknesses or sheet layers - variant electrode pressure conditions - variant resistances (impedance) in secondary circuit, e.g. shunt resistor - mains voltage fluctuations.

Recommended actions

Increase tolerance band, reduce programmed value jumps - use several programs with different parameters - check electrode force system - check secondary circuit - increase tolerance band, ensure constant conditions.

110716, Current is low in consecutive welds, weld 1 to 3.

Description

Task:*arg*

arg

Current measured is below the limited tolerance band after n repetitions: - programmed value jump to higher current values - handling of different sheet thicknesses or sheet layers - variant electrode pressure conditions - variant resistance conditions in secondary circuit - mains voltage fluctuations.

Recommended actions

Value jumps - use several programs with different parameters - check electrode force system - ensure constant conditions - increase tolerance band, ensure constant conditions.

110717, Weld time is too short, weld 1 to 3.

Description

Task:*arg*

arg

The permitted time tolerance is not reached - external termination of weld signal.

Recommended actions

Check setting at Operation - Modify - Programming - Welding parameters - Time monitoring - check signal.

110718, Weld time is too long, weld 1 to 3.

Description

Task:*arg*

arg

The permitted time tolerance is exceeded.

Recommended actions

Check setting at Operation - Modify - Programming - Welding parameters - Time monitoring.

110719, Faulty configuration

Description

Number of configured weld timers are *arg*.

The configuration file(s) for Bosch weld timer interface does not contain all expected data.

Consequences

The Bosch weld timer interface will not be able to connect to any weld timer.

Probable causes

Wrong version or corrupt configuration file(s).

Recommended actions

1. Re-install correct Bosch weld timer interface configuration files.

2. Check internal elog messages.

110720, Data value outside limits.

Description

Task:*arg*

Program Ref. *arg*

The value of 'TimerNo' is outside limits, current value: *arg*.

Allowed values are: 1 to *arg*.

Consequences

The instruction will not work until a valid value is entered.

Probable causes

An invalid value was entered.

Recommended actions

Change the value.

Recovery: *arg*

110721, Timer not connected

Description

Weld timer not connected, timer *arg*.

Consequences

It will not be possible to access the timer.

Probable causes

Faulty configuration or disconnected hardware.

Recommended actions

1. Check configuration and cables.

2. Check internal elog messages.

110722, Unknown fault in weld timer.

Description

Task:*arg*

arg

There is a unknown fault in the weld timer, code *arg*.

Recommended actions

Connect the BOS5000/6000 application and check the reason for the fault.

110723, Power unit not ready.

Description

Task:*arg*

arg

The power unit temperature is too high.

Recommended actions

1. Check cooling.

2. Check duty cycle, load.

3. Check cables, connectors.

110724, 27~V Synchronisation, power fault.

Description

Task:*arg*

arg

Welding network has been switched off, or is outside the range of 50 to 60 Hz +- 5%.

Recommended actions

1. Switch on and check weldin network.

2. Reset error, check all line phases.

3. Check synchronisation voltage.

4. Check fuses in power unit or replace power unit.

110725, 24V off or too low.

Description

Task:*arg*

arg

The 24V supply for the internal logic is too low(approx. 19V).

Recommended actions

1. Check 24V supply.

2. Check the connectors.

110726, Transformer temperature too high.

Description

Task:*arg*

arg

The temperature of the welding transformer is too high.

Recommended actions

1. Check cables and connectors.

2. Check cooling circuit of the welding transformer.

3. Reduce welding heat.

110727, Cooling temperature too high.

Description

Task:*arg*

arg

The heat sink is too hot(above 70ºC) or the ambient temperature is too high(above 70ºC).

Recommended actions

1. Check cooling.

2. Check duty cycle, load.

3. Check temperature inside the process cabinet or check process cabinet cooling.

110728, IO bus fault.

Description

Task:*arg*

arg

The serial IO module has signalled a bus fault to the timer module.

Recommended actions

Replace IO module or timer.

110729, Electrode life has expired, end of stepper.

Description

Task:*arg*

arg

The specified electrode has reached the Electrode life Expired, End of stepper condition.

Recommended actions

The electrode must be replaced.

110730, Tip dress request.

Description

Task:*arg*

arg

The specified electrode has reached the Tip dress request, Tip dress inq. condition.

Recommended actions

The electrode tip must be dressed.

110760, Tool Change Error

Description

Task:*arg*

arg

arg

arg

Recommended actions

arg

110790, Medar WT: No contact with Medar.

Description

No communication with Medar weld timer *arg*, or the Medar unit does not respond.

No contact on address *arg*.

Recommended actions

1.Check the address.

2.Check the serial cable.

3.Check the Medar unit.

110801, Dispense Error

Description

Task:*arg*

arg

Not possible to start without On argument.

arg

Recommended actions

Add On switch to first instruction.

110802, Dispense Error

Description

Task: *arg*

arg

Value for DPUSER data dp_fl1_corr is out of limits.

arg

110803, Dispense Error

Description

Task: *arg*

arg

Value for DPUSER data dp_fl2_corr is out of limits.

arg

110804, Dispense Error

Description

Task: *arg*

arg

Value for flow1_type in beaddata is out of limits.

arg

110805, Dispense Error

Description

Task: *arg*

arg

Value for flow2_type in beaddata is out of limits.

arg

110806, Dispense Error

Description

Task: *arg*

arg

Not possible to use two On instructions in sequence.

arg

Recommended actions

Remove one instruction with On switch.

110807, Dispense Error

Description

Task: *arg*

arg

Value for fl1_delay in equipdata is out of limits.

arg

110808, Dispense Error

Description

Task: *arg*

arg

Value for fl2_delay in equipdata is out of limits.

arg

110809, Dispense Error

Description

Task: *arg*

arg

Value for ref_speed in equipdata is out of limits.

arg

110810, Dispense Error

Description

Task: *arg*

arg

Value for equip_no in beaddata is out of limits.

arg

110811, Dispense Error

Description

Task: *arg*

arg

Unexpected Stop. Stopped while dispensing was active.

arg

arg

110812, Dispense Error

Description

Task: *arg*

arg

Unknown error during dispensing.

arg

110813, Dispense Error

Description

Task: *arg*

arg

Value for DPUSER data dp_nof_equip is out of limits.

arg

110814, Dispense Error

Description

Task: *arg*

arg

Value for flow1 in beaddata is out of limits.

arg

110815, Dispense Error

Description

Task: *arg*

arg

Value for flow2 in beaddata is out of limits.

arg

110816, Dispense Error

Description

Task: *arg*

arg

Value for fl1_corr in equipdata is out of limits.

arg

110817, Dispense Error

Description

Task: *arg*

arg

Value for fl2_corr in equipdata is out of limits.

arg

110818, Dispense Error

Description

Task: *arg*

arg

Not possible to change equipment in the middle of a string.

arg

110819, Dispense Error

Description

Task: *arg*

arg

Value for acc_max or decel_max in equipdata is too low.

arg

110820, Dispense Error

Description

Task: *arg*

arg

The calculated flow value is out of limits.

arg

110821, Dispense Error

Description

Task: *arg*

arg

fl1_delay or fl2_delay in equipdata is out of limits.

arg

111000, Itemsource exists

Description

Itemsource *arg* already exists.

Two itemsources may not have the same name.

Recommended actions

Check itemsource name at:

arg

Recovery: *arg*

111001, Not a valid itemsource name

Description

Name *arg* is not a valid itemsource name.

Recommended actions

Check itemsource name at:

arg

Recovery: *arg*

111002, Buffer size exceeded

Description

Fatal internal error for itemsource *arg*.

Recommended actions

Try warm start or cold start. Please report this error.

111003, Itemsource not defined

Description

The itemsource object has not been defined.

Recommended actions

Check itemsource at:

arg

Recovery: *arg*

111004, Itmsrc internal error

Description

Internal error for itemsource *arg*.

Error type: *arg*.

Recommended actions

Instruction: *arg*

Recovery: *arg*

111005, Flush itemsource first

Description

Itemsource *arg* must be flushed before it is used.

arg

arg

Recommended actions

Instruction: *arg*

Recovery: *arg*

111006, Ack item target first

Description

Item target must be acknowledged before executing the GetItmTgt(s) instruction again.

Itemsource: *arg*.

arg

arg

Recommended actions

Instruction: *arg*

Recovery: *arg*

111007, Item target buffer full

Description

Item target buffer full for itemsource *arg*.

Recommended actions

Instruction: *arg*

Recovery: *arg*

111008, Too many item targets

Description

Too many item targets pushed to itemsource *arg*.

arg

arg

Recommended actions

Instruction: *arg*

Recovery: *arg*

111009, Conveyor eio init error

Description

Error in the initialisation of the I/O signals for itemsource *arg*, for conveyor *arg*.

Recommended actions

Instruction: *arg*

Recovery: *arg*

111010, Conveyor does not exist

Description

Error for itemsource *arg*.

The conveyor *arg*

does not exist.

Recommended actions

Instruction: *arg*

Recovery: *arg*

111011, No conveyor name given

Description

Error for itemsource *arg*.

No conveyor name specified.

Recommended actions

Instruction: *arg*

Recovery: *arg*

111012, Conveyor limits error

Description

Error for itemsource *arg*, conveyor *arg*.

The limits are incorrect specified.

Recommended actions

Instruction: *arg*

Recovery: *arg*

111013, Cnv data defined late

Description

Error for itemsource *arg*, conveyor *arg*. The ItmSrcCnvDat instruction must be called before the ItmSrcFlush instruction.

arg

Recommended actions

Instruction: *arg*

Recovery: *arg*

111014, Timeout

Description

Instruction reached timeout

Recommended actions

Instruction: *arg*

Recovery: *arg*

111015, Sortdata overridden

Description

Use of selection data will override the sortdata.

Recommended actions

Instruction: *arg*

Recovery: *arg*

111016, Orientation error

Description

The orientation in selection data is not correct defined.

 Itemsource: *arg*

Recommended actions

All used orientations must be normalized i.e. the sum of the quaternion elements squares must equal 1.

Instruction: *arg*

Recovery: *arg*

111017, Uplink message failed

Description

The system failed to send a rapid uplink message

Consequences

Program execution may run as expected.

Statistics may not be updated.

Probable causes

Network interrupt.

CPU overload in controller system.

CPU overload in remote system.

Remote system may not run as expected.

Recommended actions

Check network connection.

Check state of remote system.

Check robot program for infinite loops.

111100, Work object buffer full

Description

Too many conveyor strobes stored in

buffer for itemsource *arg*

In queue index: *arg*

Out queue index: *arg*

111101, Item target buffer full

Description

Item target buffer full for itemsource *arg*.

Item tag: *arg*.

Scene number *arg*.

111102, Too many item targets

Description

Too many item targets pushed to itemsource *arg*.

Number of items: *arg*.

Scene number *arg*.

111103, Push without any strobe

Description

Push received without any corresponding strobe signal is received for itemsource *arg*.

Push scene number *arg*

Latest received strobe *arg*

Recommended actions

Check hardware connections

111104, Push received too late

Description

Push of items was received too late in itemsource *arg*.

Corresponding wobj already overwritten.

Push scene number *arg*.

Latest received strobe *arg*.

Recommended actions

Check the position generation frequency.

111105, Conveyor limits error

Description

Error in itemsource *arg*

Conveyor *arg*

The limits are incorrect specified.

Recommended actions

Required: Enter < Exit

or: Enter < Start < Stop < Exit

Given: *arg*

111106, Trig distance warning

Description

Trig distance is too long for conveyor *arg*.

Trig distance is set to maximum.

 Max: *arg*.

Given: *arg*.

111107, Trig distance warning

Description

Trig distance is too short for conveyor *arg*.

Trig distance is set to minimum.

Min: *arg*

Given: *arg*.

111108, Failed to send data

Description

An error occured when sending variable *arg* from the itemsource *arg* to remote system.

Status *arg*.

Recommended actions

Check the position generation frequency and the network connections.

111109, Failed to open signal

Description

An error occured when opening Position Generator signal: *arg* for itemsource: *arg*.

Status *arg*.

Recommended actions

Check the Position Generator signal name.

111110, Failed to open signal

Description

An error occured when opening Trig signal: *arg* for itemsource: *arg*.

Status *arg*.

Recommended actions

Check the Trig signal name.

111111, Failed to open signal

Description

An error occured when opening Strobe signal: *arg* for itemsource: *arg*.

 Status *arg*.

Recommended actions

Check the Strobe signal name.

111112, Failed to open signal

Description

An error occured when opening Robot Execution signal: *arg* for itemsource: *arg*.

 Status *arg*.

Recommended actions

Check the Robot Execution signal name.

111113, Failed to open signal

Description

An error occured when opening Queue Idle signal: *arg* for itemsource: *arg*.

 Status *arg*.

Recommended actions

Check the Queue Idle signal name.

111114, Failed to open signal

Description

An error occured when opening Position Available signal: *arg* for itemsource: *arg*.

 Status *arg*.

Recommended actions

Check the Position Available signal name.

111115, Failed to open signal

Description

An error occured when opening Conveyor Control signal: *arg* for itemsource: *arg*.

Status *arg*

Recommended actions

Check the Conveyor Control signal name.

111116, Prepared for PickMaster option not installed.

Description

The Prepared for PickMaster option has not been correctly installed in the system.

Recommended actions

Reinstall the system using a proper key containing the Prepared for PickMaster option.

111117, Uplink message failed

Description

The system failed to send a process uplink message.

Consequences

Item targets may not be picked.

The system may not run as expected.

Probable causes

Network interrupt.

CPU overload in controller system.

CPU overload in remote system.

Remote system may not run as expected.

Recommended actions

Check network connection.

Check state of remote system.

Check robot program for infinite loops.

111400, GAP IO Error

Description

Task: *arg*

Context: *arg*

111402, GAP Execution Error

Description

Task: *arg*

Context: *arg*

Failed to access routine, *arg*

111403, Failed to advance to station

Description

Task: *arg*, failed to advance to station *arg*

111404, GAP Error

Description

Task: *arg* ,

GAP Error posted from PartCrossCheckOK routine.

PartCrossCheckOK not ok.

111405, GAP Execution Error

Description

BeforePart or AfterPart Sync Timeout in *arg*.

111406, Event execution error

Description

Event procedure: *arg* in task *arg* does not exist

Recommended actions

Create the procedure *arg* or change the procedure in the ee_event data *arg* to an existing procedure.

111407, GAP Execution Error

Description

Error in GAPExecCycle: *arg*

111408, GAP Execution Error

Description

WaitSyncPart Timeout: *arg* in *arg*.

111409, GAP Execution Error

Description

Error in GapExecPart: *arg*.

111410, No part selected for station

Description

No part selected for station *arg* in task *arg*.

111411, GAP Execution Error

Description

Part station number is invalid: *arg*

Valid station: *arg*

Next station: *arg*

111412, Not matching tasklists in tasks

Description

Tasklist in partdata *arg* in task *arg* does not match tasklist in partdata *arg* in task *arg*.

Recommended actions

Check and change the tasklists so they match.

111413, Invalid task name

Description

Taskname *arg* in partdata is invalid

111414, GAP Execution Error

Description

The tasklist must include 'this' task: *arg*

111415, GAP Execution Error

Description

Task: *arg*

Tasks could not be cross-checked. Station: *arg*

111416, GAP Execution Error

Description

GapEE_Stopped failed in task: *arg*

111417, GAP Access IO Error

Description

GAP Access IO Error in task: *arg*

111419, GAP cfg data error

Description

Cfg data not found in InstancePath: *arg*

Attribute: *arg*

111420, GAP IO Error

Description

GAP IO Error in shared module.

111421, GAP Task Error

Description

Maximum of GAP tasks defined (*arg*).

111422, GAP event error

Description

arg GAP_EE_EVT

Unknown event id: *arg*

111423, GAP proc error

Description

GAP_EE_EVT Unknown proc *arg*

111424, Partdata not found for PLC code

Description

No matching partdata found in task *arg* for PLC code *arg*

Recommended actions

Create partdata with matching plc code.

111425, Menudata not found for PLC code

Description

No matching menudata found in task *arg* for PLC code *arg*

Recommended actions

Create menudata with matching plc code.

111426, Not valid task state for menudata

Description

The state of task *arg* should be at safe or at service when running selected menudata.

111427, Not valid station for menudata

Description

Current station (*arg*) in task *arg* does not match valid station *arg* in menudata

111428, Not valid user level for menudata

Description

Not valid menudata. Current user level *arg* does not match minimum user level *arg* defined in menudata

111429, Part execution error

Description

Part procedure: *arg* in task *arg* does not exist

Recommended actions

Create the procedure *arg* or change the procedure in the partdata to an existing procedure.

111430, Menu execution error

Description

Menu procedure: *arg* in task *arg* does not exist

Recommended actions

Create the procedure *arg* or change the procedure in the menu to an existing procedure.

111431, Timeout during handshaking

Description

Timeout during handshaking in task *arg*.

Probable causes

The configured signal run_part_signal_in or run_menu_signal_in wasn't set to 0 within configured timeout (*arg* seconds) after the configured signal run_ack_out was set to 1.

Recommended actions

Make sure to reset configured signal run_part_signal_in or run_menu_signal_in after configured signal run_ack_out is set to 1.

111432, Not valid plc code in task

Description

Not valid plc code in task *arg*.

Probable causes

The configured group signal plc_cmd_group_in has a not valid value *arg*.

Values in the range of 1-99 is reserved for error codes.

Recommended actions

Make sure requests are higher than 99.

111433, Next station configuration error

Description

PROC configuration for next_stn_*arg*_signal_in not configured.

Consequences

Order for station *arg* may not be executed.

Recommended actions

Configure next_stn_*arg*_signal_in to ensure that orders for station *arg* will be executed.

111434, At station configuration error

Description

PROC configuration for at_stn_*arg*_signal_in not configured.

Consequences

Order for station *arg* may not be executed.

Recommended actions

Configure at_stn_*arg*_signal_in to ensure that orders for station *arg* will be executed.

111501, BullsEye Text Error

Description

BullsEye could not access text.

Index given: *arg*

Text Table: *arg*

Consequences

BullsEye will be unable to generate proper message dialogs.

Recommended actions

Please report this error to your ABB support representative.

111502, BullsEye Obsolete Message

Description

BullsEye Obsolete Message

111503, BullsEye Error

Description

Range-of-motion test failed.

111504, BullsEye Error

Description

RangeCheck feature does not support coordinated work objects.

111505, BullsEye Error

Description

RangeCheck feature does not support uframe transforms.

111506, BullsEye Data Loaded

Description

Stored reference data was loaded successfully.

111507, BullsEye Error

Description

No reference data file was found.

Probable causes

No previous data was stored.

111508, BullsEye Error

Description

The reference data file is already loaded.

111509, BullsEye Error

Description

An error occurred while unloading the reference data module.

Recommended actions

Reset program by moving the program pointer to the main routine and restart program execution.

111510, BullsEye Error

Description

An error occured while reading data from the stored reference data module.

111511, BullsEye Data Saved

Description

The reference data has been saved successfully.

111512, BullsEye Error

Description

An error occured while saving the reference data.

111513, BullsEye Tool Initialized

Description

The tool, *arg*, has been initialized in the BullsEye data collection.

Task: *arg*

111514, BullsEye Tool Added

Description

The tool, *arg*, has been added to the BullsEye data collection.

Task: *arg*

111515, BullsEye Tool Removed

Description

The tool, *arg*, has been removed from the BullsEye data collection.

Task: *arg*

Consequences

BullsEye will no longer be able to evaluate this tool.

Recommended actions

Execute the BESetupToolJ setup instruction to add and initialize the tool.

111516, BullsEye IO Error

Description

Invalid input name: *arg*

Tool: *arg*

Task: *arg*

Consequences

No connection to the digital input could be established. Initialization has failed.

Recommended actions

Check that the specified input exists in the system.

111517, BullsEye Error

Description

The tool, *arg*, is not included in the BullsEye data collection.

Task: *arg*

Consequences

BullsEye will not be able to evaluate this tool.

Recommended actions

Execute the BESetupToolJ setup instruction to add and initialize the tool.

111518, BullsEye IO Error

Description

BullsEye attempted to reconnect a previously connected IO signal.

Input Name: *arg*

Tool: *arg*

Task: *arg*

Recommended actions

If problem persists, run the BESetupToolJ instruction to reinitialize the tool.

111519, BullsEye RangeCheck Failed

Description

Joint Limit Check failed for a Twist of *arg* and a Tilt of *arg*

Task: *arg*

Consequences

BullsEye will not be able to evaluate this tool.

Recommended actions

Try a different start position or relocate the BullsEye device. If no acceptable position can be found, try reducing the requested Tilt and Twist in the be_scan data. However, be aware that reducing these values may reduce the accuracy.

111520, BullsEye RangeCheck Failed

Description

Singularity Check failed for a Twist of *arg* and a Tilt of *arg*

Task: *arg*

Consequences

BullsEye will not be able to evaluate this tool.

Recommended actions

Try a different start position or relocate the BullsEye device.

111521, BullsEye RangeCheck Failed

Description

No solution could be found within acceptable Joint Limits and Singularity checks.

A Twist of *arg* and a Tilt of *arg* was specified.

Task: *arg*

Consequences

BullsEye will not be able to evaluate this tool.

Recommended actions

Try a different start position or relocate the BullsEye device. If no acceptable position can be found, try reducing the requested Tilt and Twist in the be_scan data. However, be aware that reducing these values may reduce the accuracy.

111522, BullsEye RangeCheck Failed

Description

No solution could be found within acceptable Joint Limits and Singularity checks with adequate face-plate clearance.

A Twist of *arg* and a Tilt of *arg* was specified.

Task: *arg*

Consequences

BullsEye will not be able to evaluate this tool.

Recommended actions

Try a different start position or relocate the BullsEye device. If no acceptable position can be found, try reducing the requested Tilt and Twist in the be_scan data. However, be aware that reducing these values may reduce the accuracy.

111523, BullsEye BaseFrame Read Error

Description

BullsEye was unable to read the BaseFrame definition for the robot.

Task: *arg*

Consequences

BullsEye will not be able to evaluate this tool.

Recommended actions

The Motion Configuration Database (MOC) may have excessive protections implemented. Please ensure that the baseframe definition is accessible.

111524, BullsEye TCP Extended

Description

The instruction, BETcpExtend, was used to shift the TCP of *arg*.

Task: *arg*

New Extension: *arg*

Change: *arg*

111525, BullsEye Setup Complete

Description

Setup complete for:

Tool: *arg*

Task: *arg*

New work object: *arg*

New TCP: *arg*

Max, Mean Deviation: *arg*

111526, BullsEye Setup Failed

Description

The setup for Tool, *arg*, failed.

Task: *arg*

Consequences

BullsEye will not be able to evaluate this tool.

Recommended actions

1. Check error log for additional messages.

2. Check setup parameters, sensor device, and start positions before attempting the setup again.

111527, BullsEye Error

Description

The start position for Tool, *arg*, is not defined.

Task: *arg*

Consequences

BullsEye will not be able to evaluate this tool.

Recommended actions

Execute the BESetupToolJ setup instruction to define the position.

111528, BullsEye Beam Moved

Description

Beam has moved or calibration changed.

Tool: *arg*

Task: *arg*

Consequences

BullsEye will not be able to evaluate this tool.

Recommended actions

Execute the BESetupToolJ setup instruction to define the beam position.

111529, BullsEye Updated TCP

Description

The TCP for Tool, *arg*, has been updated by BEUpdateTool.

Task: *arg*

New TCP: *arg*

Change: *arg*

Elapsed Time: *arg*

111530, BullsEye Error

Description

Beam location could not be determined.

Tool: *arg*

Task: *arg*

Consequences

BullsEye will not be able to evaluate this tool.

Recommended actions

1. Check that the sensor device is working properly.

2. Execute the BESetupToolJ setup instruction to define the beam position.

111531, BullsEye Error

Description

The start position was changed.

Tool: *arg*

Task: *arg*

Consequences

BullsEye will not be able to evaluate this tool.

Recommended actions

Execute the BESetupToolJ setup instruction to redefine the new start position.

111532, BullsEye Error

Description

The tool, *arg*, is not set up.

Task: *arg*

Consequences

BullsEye will not be able to evaluate this tool.

Recommended actions

Execute the BESetupToolJ setup instruction to add and initialize the tool.

111533, BullsEye Error

Description

A full TCP measurement failed.

Tool: *arg*

Task: *arg*

Consequences

BullsEye will not be able to evaluate this tool.

Recommended actions

If problem persists, execute the BESetupToolJ setup instruction to add and initialize the tool.

111534, BullsEye Day1 TCP Updated

Description

The Day1 TCP has been updated due to a change in the beam location.

Tool: *arg*

Task: *arg*

Consequences

New TCP: *arg*

Change: *arg*

111535, BullsEye Day1 TCP Updated

Description

The operator has permitted the Day1 TCP to be updated.

Tool: *arg*

Task: *arg*

Consequences

New TCP: *arg*

Change: *arg*

111536, BullsEye New TCP Rejected

Description

The operator rejected the TCP measurement.

Tool: *arg*

Task: *arg*

Consequences

TCP will remain unchanged.

Original TCP: *arg*

Measured TCP: *arg*

111537, BullsEye Updated TCP

Description

The TCP for Tool, *arg*, has been updated by BECheckTcp.

Task: *arg*

New TCP: *arg*

Change: *arg*

Elapsed Time: *arg*

111538, BullsEye Debug On

Description

Debug mode has been turned on.

Task: *arg*

111539, BullsEye Debug Off

Description

Debug mode has been turned off.

Task: *arg*

111540, BullsEye Error

Description

An error has occurred. The cause has not been identified.

Task: *arg*

Recommended actions

If problems persists, try:

1. Execute the BESetupToolJ setup instruction to reinitialize the tool.

2. Please contact your ABB support representative if problem cannot be corrected.

111541, BullsEye TCP OK

Description

The TCP for Tool, *arg*, has not been updated by BECheckTcp, because it is within tolerance.

Task: *arg*

Measured TCP: *arg*

Current TCP: *arg*

Elapsed Time: *arg*

111551, SmarTac Configuration Error

Description

Signal names supplied in PROC cannot be found in EIO.

Recommended actions

Please check the PROC config and EIO config.

111552, SmarTac Configuration Error

Description

An error occurred while attempting to establish connections to I/O.

Recommended actions

Please check the PROC config and EIO config.

111553, SmarTac Configuration Error

Description

SmarTac was unable to find:

arg

in PROC configuration.

Probable causes

A PROC configuration file was loaded with errors.

111554, SmarTac Configuration Error

Description

SmarTac tried to access an illegal type:

arg

in PROC configuration.

Probable causes

A PROC configuration file was loaded with errors.

111555, SmarTac Configuration Error

Description

SmarTac experienced an unknown error trying to access:

arg

in PROC configuration.

Probable causes

A PROC configuration file was loaded with errors.

111556, SmarTac Result

Description

Search Result: *arg*

Search Type: Search 1D

Search Name: *arg*

111557, SmarTac Search Override

Description

Optional limit exceeded on Search_1D!

Search Name: *arg*

The magnitude of the offset = *arg*

The preset limit = *arg*

111558, SmarTac Search Override

Description

Default search result selected after failed search.

Manual override selected.

Search Type: Search 1D

Search Name: *arg*

111559, SmarTac Result

Description

Part detected.

Search Type: Part Search

111560, SmarTac Search Override

Description

Default search result selected.

No part found during part search.

Manual override 'TRUE' selected.

Search Type: Part Search

111561, SmarTac Search Override

Description

Default search result selected.

No part found during part search.

Manual override 'FALSE' selected.

Search Type: Part Search

111562, SmarTac Result

Description

Location Result: *arg*

Width Result: *arg*

Search Type: Groove

Search Name: *arg*

111563, SmarTac Search Override

Description

Default search result was selected after a failed Groove Search.

Manual override selected.

Search Type: Groove

Search Name: *arg*

111564, SmarTac Text Error

Description

SmarTac could not access text.

Index given: *arg*

Text Table: *arg*

Consequences

SmarTac will not be able to display messages correctly.

Recommended actions

Report to ABB.

111601, DB Table Creation Failed

Description

Failed to create WebWare table: tblBullsEye

Consequences

Production Monitor will be unable to log data to the database.

Recommended actions

Check the WebWare server.

111602, DB Table Created

Description

The table, tblBullsEye, was successfully added to the WebWare database.

111603, Production Monitor Error

Description

Configuration Error.

Production Monitor was unable to find:

arg

in the PROC configuration.

Recommended actions

Check the PROC configuration file for errors.

111604, Production Monitor Error

Description

Configuration Error.

Production Monitor tried to access an illegal type:

arg

in the PROC configuration.

Recommended actions

Check the PROC configuration file for errors.

111605, Production Monitor Error

Description

Configuration Error.

Production Monitor experienced an unknown error trying to access:

arg

in the PROC configuration.

Recommended actions

Check the PROC configuration file for errors.

111606, Production Monitor Error

Description

Text Resource Error.

Production Monitor could not access text.

Index: *arg*

File: *arg*

Recommended actions

Report to ABB.

111607, Production Monitor DB

Description

Creating the tblCycRes table in the WebWare database...

111608, DB Table Creation Failed

Description

Failed to create WebWare table: tblCycRes

Consequences

Production Monitor will be unable to log data to the database.

Recommended actions

Check the WebWare server.

111609, DB Table Created

Description

The table, tblCycRes, was successfully added to the WebWare database.

111610, Production Monitor DB

Description

Creating the tblSeamRes table in the WebWare database...

111611, DB Table Creation Failed

Description

Failed to create WebWare table: tblSeamRes

Consequences

Production Monitor will be unable to log data to the database.

Recommended actions

Check the WebWare server.

111612, DB Table Created

Description

The table, tblSeamRes, was successfully added to the WebWare database.

111613, Production Monitor DB

Description

Creating the tblSeamEv table in the WebWare database...

111614, DB Table Creation Failed

Description

Failed to create WebWare table: tblSeamEv

Consequences

Production Monitor will be unable to log data to the database.

Recommended actions

Check the WebWare server.

111615, DB Table Created

Description

The table, tblSeamEv, was successfully added to the WebWare database.

111616, DB Table Creation Failed

Description

Failed to create WebWare table: tblCycleEv

Consequences

Production Monitor will be unable to log data to the database.

Recommended actions

Check the WebWare server.

111617, DB Table Created

Description

The table, tblCycleEv, was successfully added to the WebWare database.

111618, DB Table Creation Failed

Description

Failed to create WebWare table: tblGapEv

Consequences

Production Monitor will be unable to log data to the database.

Recommended actions

Check the WebWare server.

111619, DB Table Created

Description

The table, tblGapEv, was successfully added to the WebWare database.

111620, Production Monitor Mismatch

Description

The part information for, *arg*, has changed in task, *arg*.

Consequences

The reference data stored for this part can no longer be linked to the part program.

Recommended actions

Please delete the reference file to store new data.

111621, Production Monitor Error

Description

The reference data module for part, *arg*, is already loaded.
An attempt will be made to unload the module and then reload.
Task Name: *arg*

111622, Production Monitor Error

Description

The reference data module for part, *arg*, is already loaded. An attempt to unload the module failed.
Task Name: *arg*

Consequences

This is an abnormal condition that will prevent Production Monitor from working properly until the problem is resolved.

Recommended actions

Delete the reference module from this task and restart program execution from the main.

111623, Production Monitor Error

Description

The reference data module for part, *arg*, could not be unloaded.
Task Name: *arg*

Recommended actions

Restart the program execution from the main.

111624, Production Monitor Error

Description

The reference data for part, *arg*, could not be read from the stored data file.
Task Name: *arg*

Probable causes

The data file may contain syntax errors.

Recommended actions

Please delete the reference data file to allow new data to be stored.

111625, Monitor Data Saved

Description

Nominal data was saved successfully for, *arg*.
Task Name: *arg*

111626, Production Monitor Error

Description

An error occured while saving reference data file for part, *arg*.
Task Name: *arg*

Consequences

Production Monitor will not be able to perform monitoring activities.

Recommended actions

Report to ABB.

111627, Production Monitor Timer Reset

Description

The cycle timer has been reset to prevent a possible overflow.
Task Name: *arg*

111628, Production Monitor Timer Reset

Description

The arc timer has been reset to prevent a possible overflow.
Task Name: *arg*

111629, DB Table Creation Failed

Description

Failed to create WebWare table: tblSmtc1D

Consequences

Production Monitor will be unable to log data to the database.

Recommended actions

Check the WebWare server.

111630, DB Table Created

Description

The table, tblSmtc1D, was successfully added to the WebWare database.

111631, DB Table Creation Failed

Description

Failed to create WebWare table: tblSmtcPart

Consequences

Production Monitor will be unable to log data to the database.

Recommended actions

Check the WebWare server.

111632, DB Table Created

Description

The table, tblSmtcPart, was successfully added to the WebWare database.

111633, DB Table Creation Failed

Description

Failed to create WebWare table: tblSmtcGroove

Consequences

Production Monitor will be unable to log data to the database.

Recommended actions

Check the WebWare server.

111634, DB Table Created

Description

The table, tblSmtcGroove, was successfully added to the WebWare database.

111635, DB Table Creation Failed

Description

Failed to create WebWare table: tblTchClean

Consequences

Production Monitor will be unable to log data to the database.

Recommended actions

Check the WebWare server.

111636, DB Table Created

Description

The table, tblTchClean, was successfully added to the WebWare database.

111637, DB Table Creation Failed

Description

Failed to create WebWare table: tblNavigSrchSp.

Consequences

Production Monitor will be unable to log data to the database.

Recommended actions

Check the WebWare server.

111638, DB Table Created

Description

The table, tblNavigSrchSp, was successfully added to the WebWare database.

111639, DB Table Creation Failed

Description

Failed to create WebWare table: tblNavigMeas1D.

Consequences

Production Monitor will be unable to log data to the database.

Recommended actions

Check the WebWare server.

111640, DB Table Created

Description

The table, tblNavigMeas1D, was successfully added to the WebWare database.

111641, DB Table Creation Failed

Description

WebWare database tables must be created in Automatic Mode.

Consequences

Production Monitor will be unable to log data to the database.

Recommended actions

Switch to Automatic Mode and try again.

111701, Torch Services Error

Description

Torch services MechClean configuration error. IO *arg* NOT found.

111702, Torch Services Error

Description

Torch services MechClean configuration error. Check PROC cfg domain.

111703, Torch Services Error

Description

Torch services MechClean configuration error. Torch Services was unable to find: *arg*/*arg* in PROC configuration.

111704, Torch Services Error

Description

Torch services MechClean configuration error. Torch Services tried to access an illegal type: *arg*/*arg* in PROC configuration.

111705, Torch Services Error

Description

Torch services MechClean configuration error. Torch Services experienced an unknown error trying to access: *arg*/*arg* in PROC configuration.

111706, Torch Services Error

Description

Torch services Wirecut configuration error. Torch Services was unable to find: *arg*/*arg* in PROC configuration.

111707, Torch Services Error

Description

Torch services Wirecut configuration error. Torch Services tried to access an illegal type: *arg*/*arg* in PROC configuration.

111708, Torch Services Error

Description

Torch services Wirecut configuration error. Torch Services experienced an unknown error trying to access: *arg*/*arg* in PROC configuration.

111709, Torch Services Error

Description

Torch services Wirecut configuration error. IO *arg* NOT found.

111710, Torch Services Error

Description

Torch services MechClean configuration error. Check PROC cfg domain.

111711, Torch Services Error

Description

Torch services Spray configuration error. Check PROC cfg domain.

111712, Torch Services Error

Description

Torch services Spray configuration error. Torch Services was unable to find: *arg*/*arg* in PROC configuration.

111713, Torch Services Error

Description

Torch services Spray configuration error. Torch Services tried to access an illegal type: *arg*/*arg* in PROC configuration.

111714, Torch Services Error

Description

Torch services Spray configuration error. Torch Services experienced an unknown error trying to access: *arg*/*arg* in PROC configuration.

111715, Torch Services Warning

Description

Torch services Spray has unconfigured IO.

111716, Torch Services Warning

Description

Torch services Wirecut has unconfigured IO.

111717, Torch Services Warning

Description

Torch services MechClean has unconfigured IO.

111751, Navigator Configuration Error

Description

Navigator configuration error. IO *arg* NOT found.

111752, Navigator Configuration Error

Description

Navigator configuration error. Navigator was unable to find: *arg*/*arg* in PROC configuration.

111753, Navigator Configuration Error

Description

Navigator configuration error. Navigator tried to access an illegal type: *arg*/*arg* in PROC configuration.

111754, Navigator Configuration Error

Description

Navigator configuration error. Navigator experienced an unknown error trying to access: *arg*/*arg* in PROC configuration.

111755, Navigator error

Description

Sphere with name *arg* could not be localized.

Probable causes

Nominal point doesn't have sufficient accuracy.

Search radius is too small.

111756, Navigator Configuration Warning

Description

Navigator has unconfigured IO.

111800, Illegal tuning parameter

Description

Task:*arg*

Context: *arg*

arg is not a valid tuning parameter.

Arcitune only allows parameters 20 to 29 and 31 to 41.

111801, Illegal Schedule Number

Description

Task:*arg*

Context: *arg*

arg is not a valid schedule number.

Arcitune only allows schedules 1 to 99.

111802, Unsupported SID-file version

Description

Task:*arg*

Context: *arg*

The SID-file version is not supported.

111803, Default I/O Unit is Not Specified

Description

Task:*arg*

No default io unit specified

InstancePath: /PROC/ARCI_USER_PROP/*arg*

Attribute: use_default_io

111804, Configuration Data is Not Found

Description

Task:*arg*

InstancePath: *arg*

Attribute: *arg*

111805, EPROM Error

Description

I/O unit: *arg*

Error code: *arg*

Internal unit: *arg*

111806, RAM Error

Description

I/O unit: *arg*

Error code: *arg*

Internal unit: *arg*

111807, External RAM Error

Description

I/O unit: *arg*

Error code: *arg*

Internal unit: *arg*

111808, Power Supply Voltage 5V Error

Description

I/O unit: *arg*

Error code: *arg*

Internal unit: *arg*

111809, High DC Voltage Error

Description

I/O unit: *arg*

Error code: *arg*

Internal unit: *arg*

111810, High Temperature Error

Description

I/O unit: *arg*

Error code: *arg*

Internal unit: *arg*

111811, High Primary Current Error

Description

I/O unit: *arg*

Error code: *arg*

Internal unit: *arg*

111812, DC Voltage Error

Description

WDU: 3 V (battery)

PS: +15 VC

I/O unit: *arg*

Error code: *arg*

Internal unit: *arg*

111813, DC Voltage Error

Description

PS: -15 VC

I/O unit: *arg*

Error code: *arg*

Internal unit: *arg*

111814, DC Voltage Error

Description

PS: +15 VB

I/O unit: *arg*

Error code: *arg*

Internal unit: *arg*

111815, Current-servo / Wire speed-servo Error

Description

I/O unit: *arg*

Error code: *arg*

Internal unit: *arg*

111816, Communication Error

Description

Internal bus warning.

I/O unit: *arg*

Error code: *arg*

Internal unit: *arg*

111818, Communication Error

Description

Internal bus is off.

I/O unit: *arg*

Error code: *arg*

Internal unit: *arg*

111819, Message Lost

Description

A message has been lost on the internal bus.

I/O unit: *arg*

Error code: *arg*

Internal unit: *arg*

111821, Lost Contact with MEK

Description

I/O unit: *arg*

Error code: *arg*

Internal unit: *arg*

111822, Lost Contact with LUD

Description

I/O unit: *arg*

Error code: *arg*

Internal unit: *arg*

111823, Battery Driven Memory Error

Description

I/O unit: *arg*

Error code: *arg*

Internal unit: *arg*

111824, Unaccepted Settings

Description

I/O unit: *arg*

Error code: *arg*

Internal unit: *arg*

111825, Incompatible Settings

Description

I/O unit: *arg*

Error code: *arg*

Internal unit: *arg*

111826, Overflow in Transmit Buffer

Description

I/O unit: *arg*

Error code: *arg*

Internal unit: *arg*

111827, Overflow in Receive Buffer

Description

I/O unit: *arg*

Error code: *arg*

Internal unit: *arg*

111829, Incompatible Weld Data Format

Description

I/O unit: *arg*

Error code: *arg*

Internal unit: *arg*

111830, Watchdog Error

Description

I/O unit: *arg*

Error code: *arg*

Internal unit: *arg*

111832, Stack Overflow

Description

I/O unit: *arg*

Error code: *arg*

Internal unit: *arg*

111833, No Water Flow

Description

I/O unit: *arg*

Error code: *arg*

Internal unit: *arg*

111834, Lost Contact with TIG Card

Description

I/O unit: *arg*

Error code: *arg*

Internal unit: *arg*

111850, Invalid Tuning Parameter

Description

Task:*arg*

Context: *arg*

arg is not valid as a tuning parameter.

MigRobTune allows parameters 20 to 29 and 31 to 41.

111851, Invalid Schedule Number

Description

Task:*arg*

Context: *arg*

arg is not a valid schedule number.

MigRobTune only allows schedules 1 to 99.

111852, Unsupported SID File

Description

Task:*arg*

Context: *arg*

The SID file version is not supported.

111853, Default I/O Unit is Not Specified

Description

Task: *arg*

Default I/O unit is not specified.

InstancePath: /PROC/MIGROB_USER_PROP/*arg*

Attribute: use_default_io

111854, Configuration Data is Not Found

Description

Task:*arg*

InstancePath: *arg*

Attribute: *arg*

111855, Schedule does not exist

Description

The schedule *arg* does not exist in the power source *arg*, in *arg*.

Consequences

The welding results will not be as expected.

Recommended actions

Make sure that the schedule has been created before using it in a weld instruction.

111856, Program memory error (EPROM)

Description

The program memory is damaged in unit *arg*.

Fault code: *arg*

Internal unit: *arg*

Recommended actions

Restart the machine. If the fault persists, send for a service technician.

111857, Microprocessor RAM error

Description

The microprocessor is unable to print/read to the internal memory in unit *arg*.

Fault code: *arg*

Internal unit: *arg*

Recommended actions

Restart the machine. If the fault persists, send for a service technician.

111858, External RAM error

Description

The microprocessor is unable to print/read to the external memory in unit *arg*.

Fault code: *arg*

Internal unit: *arg*

Recommended actions

Restart the machine. If the fault persists, send for a service technician.

111859, 5V power supply low

Description

The power supply voltage is too low in unit *arg*.

Fault code: *arg*

Internal unit: *arg*

Consequences

The current welding process is stopped and starting is prevented.

Recommended actions

Turn off the mains power supply to reset the unit. If the fault persists, send for a service technician.

111860, Intermediate DC voltage outside limits

Description

The voltage is too high or too low in unit *arg*.

Fault code: *arg*

Internal unit: *arg*

Consequences

The power unit is stopped and cannot be started.

Probable causes

Too high a voltage can be due to severe transients on the mains power supply or to a weak power supply (high inductance of the supply or a phase missing).

Recommended actions

Turn off the mains power supply to reset the unit. If the fault persists, send for a service technician.

111861, High temperature

Description

The thermal overload-cut has tripped in unit *arg*.

Fault code: *arg*

Internal unit: *arg*

Consequences

The current welding process is stopped and cannot be restarted until the cut-out has reset.

Recommended actions

Check that the cooling air inlets or outlets are not blocked or clogged with dirt. Check the duty cycle being used, to make sure that the equipment is not being overloaded.

111862, High primary current

Description

The power unit *arg* takes too much current from the DC voltage that supplies it.

Fault code: *arg*

Internal unit: *arg*

Consequences

The power unit is stopped and cannot be started.

Recommended actions

Turn off the mains power supply to reset the unit. If the fault persists, send for a service technician.

111863, Low battery voltage or power supply

Description

Unit: *arg*

See description corresponding to the internal unit: *arg*

WDU: Low battery voltage +3 V

Battery voltage too low in unit *arg*. If the battery is not replaced, all stored data will be lost.

PS: +15 V power supply

The power supply is too high or too low in unit *arg*.

Fault code: *arg*

Recommended actions

Send for a service technician.

111864, -15 V power supply

Description

The power supply is too high or too low in unit *arg*.

Fault code: *arg*

Internal unit: *arg*

Recommended actions

Send for a service technician.

111865, +24 V power supply

Description

The power supply is too high or too low in unit *arg*.

Fault code: *arg*

Internal unit: *arg*

Recommended actions

Send for a service technician.

111866, Current-servo / wire speed-servo error

Description

I/O unit: *arg*

Error code: *arg*

Internal unit: *arg*

111867, Communication error (warning)

Description

The load on the system's CAN-bus is temporarily too high in unit *arg*.

Fault code: *arg*

Internal unit: *arg*

Consequences

The power unit/wire feed unit has lost contact with the welding data unit.

Recommended actions

Check that all the equipment is correctly connected. If the fault persists, send for a service technician.

111869, Communication error

Description

The system's CAN-bus has temporarily stopped working due to the load being too high.

Fault code: *arg*

Internal unit: *arg*

Consequences

The current welding process stops.

Recommended actions

Check that all the equipment is correctly connected. Turn off the mains power supply to reset the unit. If the fault persists, send for a service technician.

111870, Messages lost

Description

The microprocessor is unable to process incoming messages sufficiently quickly and information has been lost in unit *arg*.

Fault code: *arg*

Internal unit: *arg*

Recommended actions

Turn off the mains power supply to reset the unit. If the fault persists, send for a service technician.

111872, Lost contact with MEK

Description

Unit: *arg*

Fault code: *arg*

Internal unit: *arg*

111873, Lost contact

Description

The welding data unit(WDU) has lost contact with the power unit(PS) in unit *arg*.

Fault code: *arg*

Internal unit: *arg*

Consequences

The current welding process stops.

Recommended actions

Check the cables. If the fault persists, send for a service technician.

111874, Memory error in battery-supplied data memory RAM

Description

The battery has lost voltage in unit *arg*.

Fault code: *arg*

Internal unit: *arg*

Recommended actions

Turn off the mains power supply to reset the unit. The welding data unit is reset.

111875, Non-permitted set values stored in RAM

Description

Non-permitted values have been discovered at start-up in unit *arg*.

Fault code: *arg*

Internal unit: *arg*

Recommended actions

Delete all data contained in the welding data unit.

Turn off the mains power supply to reset the unit. The welding unit is reset.

111876, Incompatible set values stored in RAM

Description

Non-permitted welding data combinations have been specified in unit *arg*.

Fault code: *arg*

Internal unit: *arg*

Recommended actions

Turn off the mains power supply to reset the unit. If the fault persists, send for a service technician.

111877, Transmit buffer overflow

Description

The welding data unit does not manage to transmit information to the other units sufficiently quickly in unit *arg*.

Fault code: *arg*

Internal unit: *arg*

Recommended actions

Turn off the mains power supply to reset the unit.

111878, Receiver buffer overflow

Description

The welding data unit does not manage to process information from the other units sufficiently quickly.

Fault code: *arg*

Internal unit: *arg*

Recommended actions

Turn off the mains power supply to reset the unit.

111880, Incompatible weld data format

Description

I/O unit: *arg*

Error code: *arg*

Internal unit: *arg*

111881, Program error

Description

Something has prevented the processor from performing its normal duties in the program in unit *arg*.

Fault code: *arg*

Internal unit: *arg*

Consequences

The program restarts automatically. The current welding process will be stopped.

Recommended actions

Review the handling of welding programs during welding. If the fault is repeated, send for a service technician.

111883, Lost program data

Description

Program execution does not work in unit *arg*.

Fault code: *arg*

Internal unit: *arg*

Recommended actions

Turn off the mains power supply to reset the unit. If the fault persists, send for a service technician.

111884, No water flow

Description

I/O unit: *arg*

Error code: *arg*

Internal unit: *arg*

111885, Lost contact with TIG card

Description

I/O unit: *arg*

Error code: *arg*

Internal unit: *arg*

111900, Item target buffer full

Description

Target buffer full for Work Area *arg*.

Target number: *arg*.

Scene number *arg*.

111901, Push without any strobe

Description

Push received without any corresponding strobe signal is received for Work Area *arg*.

Push scene number *arg*

Latest received strobe *arg*

Recommended actions

Check hardware connections

111902, Push received too late

Description

Push of items was received too late to Work Area *arg*.

Corresponding Work Object already overwritten.

Push scene number *arg*.

Latest received strobe *arg*.

Recommended actions

Check the position generation frequency.

111903, Conveyor limits error

Description

Error in Work Area *arg*

Conveyor *arg*

The limits are incorrect specified.

Recommended actions

Required: Enter < Exit

or: Enter < Start < Stop < Exit

Given: *arg*

111904, Trig distance warning

Description

Trig distance is too long for conveyor *arg*.

Trig distance is set to maximum.

 Max: *arg*.

Given: *arg*.

111905, Trig distance warning

Description

Trig distance is too short for conveyor *arg*.

Trig distance is set to minimum.

Min: *arg*

Given: *arg*.

111913, Prepared for PickMaster option not installed.

Description

The Prepared for PickMaster option has not been correctly installed in the system.

Recommended actions

Reinstall the system using a proper key containing the Prepared for PickMaster option.

111914, Uplink message failed

Description

The system failed to send an uplink message.

Status: *arg*

Recommended actions

Check network connection.

Check state of remote system.

111915, Failed to open Work Object

Description

An error occurred when opening Work Object: *arg* for Work Area: *arg*.

Status *arg*.

Consequences

The program execution is immediately halted.

Probable causes

No Work Object *arg* exist in loaded RAPID modules.

Recommended actions

Check that the Work Object data name exists.

111916, Tool name is missing for target

Description

There was no tool for target in Work Area: *arg*.

Status *arg*.

Recommended actions

Check the tool name for target.

111917, Action list name missing

Description

There was no action list name for target in Work Area: *arg*.

Status *arg*.

Recommended actions

Check the tool name for target.

111918, Work Object name is missing for Work Area

Description

There was no Work Object for Work Area: *arg*.

Status *arg*.

Recommended actions

Check the Work Object name for Work Area.

111920, Missing tooldata for generated operation set

Description

Tooldata not found for generated operation set on work area *arg*.

Consequences

The project can not be run.

Probable causes

Tooldata not properly configured for the robot in the PickMaster line configuration.

Recommended actions

Check used tooldatas in the PickMaster line configuration.

111921, Target reset after move of Program Pointer

Description

The current target in work area "*arg*" with *arg* products are reset to its origin and will be executed again.

Consequences

The current target and operation *arg* from layer *arg* will be executed once again.

Probable causes

The PP was moved without any target was finished.

Since the program context cannot be secured, the whole operation will be executed from beginning.

Recommended actions

Make sure the tool is empty and cleared, since the whole cycle will be executed from beginning.

Restart in reduced speed to avoid unexpected behavior.

111922, Targets lost after move of Program Pointer

Description

arg targets with *arg* products in work area "*arg*" are lost because the operation was interrupted.

Consequences

The current target and operation *arg* from layer *arg* will be lost.

Probable causes

The PP was moved after at least one target in the operation was finished.

Since the program context cannot be secured, next operation will be executed.

Recommended actions

Make sure the tool is empty and cleared, since the whole cycle will be executed from beginning. An unfinished operation may be finished manually.

Restart in reduced speed to avoid unexpected behavior.

111923, Targets lost after LOST acknowledge

Description

arg targets with *arg* products in Work Area "*arg*" are lost because the operation was interrupted.

Consequences

The current target and operation *arg* from layer *arg* will be lost.

Probable causes

The last target acknowledge was set to LOST after at least one target in the operation was finished.

Since the operation cannot be finished, next operation will be executed.

Recommended actions

Make sure the tool is empty and cleared, since the whole cycle will be executed from beginning. An unfinished operation may be finished manually.

Restart in reduced speed to avoid unexpected behavior.

111924, Operation handler not in use

Description

Task: *arg*

Function *arg* failed. The current targets in this operation are lost.

Program Ref. *arg*

Consequences

It is not possible to finish this operation. The execution will stop if no action is taken in an ERROR handler.

Probable causes

This might be caused by a pulse on the Robot Execution signal after the operation descriptor has been fetched. It is more likely to occur if the operation is a multidrop.

Recommended actions

1. Move PP to main and restart the execution.

2. Use an ERROR handler and run i.e. ExitCycle.

Recovery: *arg*

111925, Failed to open PM work area signal

Description

An error occurred when opening signal *arg* configured in PickMaster for work area: *arg*. (Internal status *arg*.)

Consequences

The current PickMaster project will not execute.

Probable causes

The work area signal is missing in the I/O configuration of the robot controller.

The I/O unit is not running.

Recommended actions

1. Check the signal name in the Work Area configuration of PickMaster.

2. Check the signal name in the I/O configuration of the robot controller.

3. Check if the I/O unit is running.

111926, Triggering too frequently

Description

A new pulse on signal *arg* is to be requested before the previous pulse has finished. The signal is still high. The configured pulse length is *arg* ms.

Consequences

The operation fails to complete its task.

Probable causes

The pulse length is too long or the pick and place operation is very short.

Recommended actions

Decrease the configured pulse length.

111927, PM group signal too short for work area

Description

PickMaster group signal *arg* configured for work area *arg* has too few bits. Required number of bits is *arg*.

Consequences

The current project can not execute.

Probable causes

The signal has to few bits defined in the I/O configuration of the controller.

Recommended actions

Check the controller I/O configuration of the signal.

111950, No PickMaster Flow to Retrieve

Description

Task: *arg*

Instruction *arg* failed.

Program Ref. *arg*

Probable causes

There is no flow ready when executing instruction.

No *arg* or a low value is used on *arg* in this instruction.

Recommended actions

Use an error handler and do a RETRY on instruction. If a *arg* is used, and

this error occur often, increase the *arg*.

Recovery: *arg*

111951, Value Error

Description

Task: *arg*

Illegal value in argument *arg*.

Program Ref. *arg*

Consequences

The program execution is immediately halted.

Probable causes

Error in the RAPID program.

Recommended actions

Check the value.*arg* must be a positive integer.

111952, Execution Error

Description

Task: *arg*

The task is not allowed to execute the instruction *arg*.

Program Ref. *arg*

Probable causes

The task is not configured to control mechanical units

Recommended actions

Change the configuration or remove the instruction.

111953, Can not retrieve operation

Description

Task: *arg*

Instruction *arg* failed.

Program Ref. *arg*

Probable causes

There is no operation to retrieve when executing instruction.

No *arg* or a low value is used on *arg* in this instruction.

Recommended actions

Use an error handler and do a RETRY on instruction. If a *arg* is used, an this error occur often, increase the *arg*.

Recovery: *arg*

111954, Can not retrieve targets

Description

Task: *arg*

Instruction *arg* failed.

Program Ref. *arg*

Probable causes

There is no target ready when executing instruction.

No *arg* or a low value is used on *arg* in this instruction.

Recommended actions

Use an error handler and do a RETRY on instruction. If a *arg* is used, an this error occur often, increase the *arg*.

Recovery: *arg*

111956, Wrong value on in parameter *arg*

Description

Task: *arg*

Parameter *arg* has value *arg*. The only values that can be used for *arg* are the predefined values for:

arg

Program Ref: *arg*

Consequences

The program execution is immediately halted.

Probable causes

Wrong value on in parameter *arg*.

Recommended actions

Change value on in parameter *arg*.

111957, No active project

Description

Task: *arg*

Instruction/function *arg* has detected that the project has been stopped. The RAPID can not continue its execution without an active project.

Program Ref:*arg*

Consequences

The program execution is immediately halted.

Probable causes

1) Project has been stopped.

2) A power fail has occurred, and the RAPID program has been started without starting the project again.

3) A warm start has been done, and the RAPID program has been started without starting the project again.

Recommended actions

Start a project.

In some cases PP must be moved to main.

111958, No active project

Description

Task: *arg*

Instruction *arg* failed.

Program Ref. *arg*

Consequences

The program execution is immediately halted.

Probable causes

There is no project running when executing instruction.

No *arg* or a low value is used on *arg* in this instruction.

Recommended actions

Use an error handler and do a RETRY on instruction.

Recovery: *arg*

111959, Not valid work object data

Description

Task: *arg*

Instruction *arg* failed.

No Work Area has reference to work object data named *arg*.

Program Ref. *arg*

Consequences

The program execution is immediately halted.

Recommended actions

Use an error handler and do a RETRY on instruction with another work object data as parameter.

Recovery: *arg*

111960, Invalid descriptor used

Description

Task: *arg*

Instruction *arg* failed.

The Work Area descriptor that is used refers to an object that does not exist.

Program Ref.*arg*

Consequences

The program execution is immediately halted.

Probable causes

An instruction/function is executed without a valid descriptor.

The Work Area descriptor has not been fetched correctly, or it is a restart after power fail.

Recommended actions

Check manual about how to get valid descriptors for Work Areas.

111961, No PickMaster Flow to Retrieve

Description

Task: *arg*

Instruction *arg* failed.

Program Ref. *arg*

The flow has been deleted when the instruction *arg* returned the flow.

Consequences

The program execution is immediately halted.

Probable causes

The flow has been removed.

Recommended actions

Restart project.

111962, Invalid target handle

Description

Task: *arg*

Instruction *arg* failed.

The target handle that is used refer to an object that does not exist or is not initialized.

Program Ref. *arg*

Consequences

The program execution is immediately halted.

Probable causes

An instruction/function is executed without a valid descriptor.

The target handle has not been fetched correctly, or it is a restart after power fail.

Recommended actions

Restart the project or rewrite the RAPID program.

111963, Invalid action handle

Description

Task: *arg*

Instruction *arg* failed.

The action handle that is used refer to an object that does not exist or is not initialized.

Program Ref. *arg*

Consequences

The program execution is immediately halted.

Probable causes

An instruction/function is executed without a valid handle.

The action handle has not been fetched correctly, or it is a restart after power fail.

Recommended actions

Restart the project or rewrite the RAPID program.

111964, Error event trigged

Description

Task: *arg*

Instruction *arg* failed.

The Work Area *arg* is set in error state after an error event.

Program Ref. *arg*

Consequences

It is not possible to execute the program until the error is solved.

Probable causes

1. The error source signal has set the Work Area in error state.

2. Stop immediately has been used from FlexPendant.

3. An internal process error has occurred.

Recommended actions

Solve the cause of the error situation and use one of the restart options from FlexPendant

112000, Failed to open signal

Description

An error occurred when opening signal *arg* for *arg*.

The signal should be of type *arg*.

Status *arg*.

Consequences

The execution is stopped immediately.

Probable causes

Wrong signal type or signal name.

Recommended actions

Check the signal name and type.

112001, PickMaster Flow Error

Description

The flow with name *arg* is in an internal error state.

Consequences

The flow is stopped and will not be used until the project is stopped and restarted again.

Probable causes

An internal error has occurred.

Recommended actions

Save the system diagnostics under Control Panel - Diagnostics and send to Robotics Product Support.

112002, Failed to Retrieve PickMaster Format

Description

The flow *arg* failed to request a format with index *arg*.

The reply came from Work Area *arg*.

Consequences

The flow is stopped immediately.

Probable causes

The setup file is corrupted or incomplete.

Wrong response from IO signals.

Recommended actions

Verify the project setup using PickMaster PC application.

Look for internal errors.

112003, Uplink message failed

Description

The system failed to send an uplink message.

Status: *arg*

Recommended actions

Check network connection.

Check state of remote system.

112050, Project *arg* starting

Description

Project *arg* is starting.

112051, Project *arg* started

Description

Project *arg* is now started.

112052, Project *arg* stopped

Description

Project *arg* stopped

112053, Failed to start project *arg*

Description

Failed to start project *arg*.

Check event logs for more information why the project could not be started.

Check for internal errors too.

Consequences

The project is not started, it is set in stop state.

Probable causes

The XML file is corrupted, or some internal error occurred.

Recommended actions

Check XML file, and check event logs for more information why the project could not be started.

112054, Project *arg* already started

Description

Project *arg* is already started.

Stop the project, and start it again if the project has been changed.

Consequences

The execution will continue.

Probable causes

Multiple use of RAPID instruction PmStartProj with the same project name *arg*.

Recommended actions

Stop project if the setup has been changed, and start it again.

112055, A project is already started

Description

A project *arg* is already started. Another project
can not be started until the already started project is stopped.

Consequences

The project *arg* is not started.

The program execution is immediately halted if the start
order was from RAPID.

Probable causes

Multiple start orders using different project names.

Recommended actions

Check the projects that are started. Remove one of the starts.

112056, Data List Full

Description

Internal data list was full when trying to store the variable *arg*.

Consequences

Targets depending on this variable will not be executed.

Probable causes

The project is probably too large.

Recommended actions

Reconfigure the project.

112057, Project name is an empty string

Description

The name of the project to start is not valid.

Consequences

Project not started. The program execution is
immediately halted

Probable causes

The project name has not been initiated.

Recommended actions

Check the project name used when starting project.

112058, Stop of project ordered during start

Description

A stop order has been received during startup of project *arg*.

Consequences

Project *arg* is not started.

Probable causes

Stop during start of project. The stop can be from another client or
another RAPID task.

Recommended actions

Do not stop project until it has been started correctly.

112059, Ongoing start of project

Description

A start of the project *arg* is executed right now.

Consequences

If the start order comes from RAPID, the RAPID execution is
immediately stopped.

Probable causes

Start orders from multiple clients or RAPID tasks at the same time

Recommended actions

Start project only one time.

112060, Stop of project ordered during start

Description

RAPID execution stopped during start of project.
The project *arg* is not started.

Consequences

RAPID execution is immediately stopped. Project *arg* is not started.

Probable causes

A project stop order from PickMaster, FlexPendant or RAPID when a
start of a project is executed.

Recommended actions

Try to start project again.

112100, PickMaster project file is too old

Description

The *arg* file is not supported by this RobotWare.

Consequences

The required project file is too old and the project is therefore stopped.

Probable causes

The PickMaster version used to configure this project is too old for this
RobotWare.
Required version by RobotWare: *arg*
PickMaster version used to create file: *arg*

Recommended actions

Update the project using at least version *arg* of PickMaster.

112101, Required PickMaster file could not be opened

Description

The file below could not be opened.
arg
Status: *arg*

Consequences

The project can not be loaded or can not continue execution.

Probable causes

The file is missing or has been tampered.

Recommended actions

Re-transfer the project from the PickMaster PC.

112102, Missing attribute in node

Description

The node is missing attribute "*arg*".

Consequences

The requested information could not be found. The execution of the project is stopped.

Probable causes

The PickMaster project file has been tampered.

Recommended actions

Re-transfer the project from the PickMaster PC.

112150, Failed to request new target set

Description

The target pump process "*arg*" failed to request new target set from project.

Consequences

Last trigged operation set can not be pushed into the Work Area queue.

Probable causes

The trigged operation set (*arg*) is not configured in the project.

The trigged combination of product I/O value (*arg*) and format I/O value (*arg*) is not configured in the project.

Status: *arg*

Recommended actions

Review the project setup.

Check the product and format selection groups signal values.

112151, Incorrect target set

Description

The target set sent to the pump process "*arg*" is not the requested one.

Consequences

Last trigged operation set can not be pushed into the Work Area queue.

Probable causes

The trigged operation set is not correct (*arg*) or the trigged I/O values are not correct (*arg*)

Status: *arg*

Recommended actions

Review the project setup.

Check the selection group signal values.

112152, Response error for work area

Description

Response error occured for slave work area *arg*.

Targets generated (product = *arg*, format = *arg*) does not match positions requested (product = *arg*, format = *arg*).

Consequences

The work area has entered a reponse error state.

The robot will not access the work area until the correct targets are generated.

Any flow using the work area may become blocked from execution.

Probable causes

The product selection I/O values for position request and target generation is not the same.

The format selection I/O values for position request and target generation is not the same.

Recommended actions

Verify sequence logic and I/O values of external equipment setting the product and/or format I/O signals (i.e. a PLC).

To recover from the response error:

1) Verify that the requested targets are available on the work area.

2) Trigger a new target generation with correct I/O selection values.

112200, Failed to Open Signal

Description

 An error occurred when opening the Trigger Event Signal.

Signal name: *arg*

Consequences

It will not be possible to use any PickMaster error recovery functionalities that can be generated from IO signals.

Probable causes

The signal name is not configured in the IO configuration.

Recommended actions

Verify theTrigger Event Signal name using the PickMaster PC application.

112201, Failed to Open Signal

Description

 An error occurred when opening the Error Source Signal.

Signal name: *arg*

Consequences

It will not be possible to set any PickMaster source in an error state.

Probable causes

The signal name is not configured in the IO configuration.

Recommended actions

Verify the Error Source name using the PickMaster PC application.

112202, Failed to Open Signal

Description

 An error occurred when opening the Event Message Signal.

Signal name: *arg*

Consequences

It will not be possible to use the PickMaster message functionality.

Probable causes

The signal name is not configured in the IO configuration.

Recommended actions

Verify the Event Message name using the PickMaster PC application.

112203, Wrong PickMaster Error Source Value

Description

The value that was read, *arg*, after an event was trigged does not match one or several configured bits in the IO signal *arg*.

Consequences

The system goes to SYS STOP state.

Recommended actions

Verify the configuration using the PickMaster PC application.

Verify external equipment generating the signal value.

112204, Wrong PickMaster Message value

Description

The value that was read, *arg*, after an event was trigged does not match any configured values in the IO signal *arg*.

Recommended actions

Verify the configuration using the PickMaster PC application.

Verify external equipment generating signal value.

112250, PickMaster project size limitation

Description

Not enough memory for PickMaster project.

Consequences

Not possible to run the selected PickMaster project.

Probable causes

The selected project contains too much data to be handled by the robot controller.

Recommended actions

Reduce number of objects in the PickMaster project, e.g. reduce number of work areas, operation sets, flows, formats and products. Reduce object complexity in the PickMaster project, e.g. reduce number of layers in used pallet patterns.

112350, Target configuration outside reach

Description

Task: *arg*

A valid robot configuration within reach was not found for target.

Program Ref: *arg*

Consequences

The robot is not able to move to the target position.

Probable causes

The target position is outside reach.

A robot configuration was not found within reach for the target.

Recommended actions

Move the target position within the reach of the robot.

Check if the target position is possible to reach without robot configuration control (ConfJ\Off, ConfL\Off). Use an error handler and do a RETRY on instruction. ERRNO for recovery = *arg* .

112351, Failed to calculate axis limit

Description

Task: *arg*

Calculating the axis limit failed.

Program Ref: *arg*

Consequences

The axis angle can not be calculated due to the angel limitations.

Probable causes

Too narrow angel limits.

Recommended actions

Review the limits for the instructions.

Use an error handler and do a RETRY on instruction.

Recovery: *arg*

112352, Wrong limitation value

Description

Task: *arg*

The coordinate limits are not valid.

Program Ref: *arg*

Consequences

The coordinate is not possible to calculate.

Probable causes

Wrong limit values.

Recommended actions

Review the limits for the instructions.

Use an error handler and do a RETRY on instruction.

Recovery: *arg*

112353, Wrong intermediate part value

Description

Task: *arg*

The intermediate part value is not valid. The InterMidPart argument must be between 0 and 1.

Program Ref: *arg*

Consequences

The intermediate position is not possible to calculate.

Probable causes

Wrong InterMidPart value.

Recommended actions

Review the InterMidPart for the instruction.

112354, Unknown event signal name

Description

Task: *arg*

The event signal name *arg* is unknown.

Program Ref: *arg*

Consequences

The event can not be defined.

Probable causes

Wrong signal name in the PickMaster project or line configuration.

Recommended actions

Review the signal name in the PickMaster project or line configuration.

112355, Too many events

Description

Task: *arg*

There are too many trig events defined for one move. Maximum 6 are allowed but in this case there are *arg* defined.

Program Ref: *arg*

Consequences

All events can't be set.

Probable causes

Error in the PickMaster configuration.

Recommended actions

Review the PickMaster configuration.

112356, Unknown event type

Description

Task: *arg*

The event type *arg* is unknown.

Program Ref: *arg*

Consequences

The event can't be set.

Probable causes

Error in the RAPID code.

Error in the PickMaster configuration.

Recommended actions

Check if the event type number is defined among the built-in variables of type pm_eventtype.

Review the PickMaster configuration.

112357, Unknown target action type

Description

Task: *arg*

The target action type *arg* is unknown.

Program Ref: *arg*

Consequences

The action can't be performed.

Probable causes

Error in the RAPID code.

Error in the PickMaster configuration.

Recommended actions

Check if the action type number is defined among the built-in variables of type pm_actiontype.

Review the PickMaster configuration.

112358, Unknown move type

Description

Task: *arg*

The move type *arg* is unknown.

Program Ref: *arg*

Consequences

The move can't be performed.

Probable causes

Error in the RAPID code.

Error in the PickMaster configuration.

Recommended actions

Check if the move type number is defined among the built-in variables of type pm_movetype.

Review the PickMaster configuration.

112359, Stack search detected empty stack

Description

Stack search detected empty stack.

Task: *arg*

Instruction *arg* failed.

Program Ref. *arg*

Consequences

Not possible to finish current operation unless an error handler is implemented.

Probable causes

1) Stack is empty or:

2) Tool center point for Search Tool data, Tool configuration, is not correctly defined.

3) The expected location of the stack is not correct.

4) The search stop signal was not triggered correctly.

Recommended actions

If the stack not is empty:

Check definition of tool center point for Search Tool data.

Check definition of work object, tune frame, work area frame
and displacement frame.

Check that the search stop signal is triggered correctly.

If the stack is empty:

This error can be recovered using the error handlers of the
Operate() and OperateSequence() routines.

Recovery: *arg*.

1) Set the Redo Search signal after adjusting the stack.

2) Use RETRY to rerun Operate.

112360, Stack search adjusted stack layers

Description

Stack search adjusted the number of available layers in stack.

Task: *arg*

Instruction: *arg*.

Program Ref. *arg*

Probable causes

Actual stack height was lower than configured in PickMaster.

Recommended actions

No actions are required.

The default error handlers of the Operate() and OperateSequenc()
routines will

recover the error.

Recovery: *arg*

112361, Unknown search type

Description

Task: *arg*

Search type *arg* is unknown.

Program Ref: *arg*

Consequences

Stack search can not be completed.

Probable causes

Errors in rapid code.

112362, Unknown search stop type

Description

Task: *arg*

Search stop type *arg* is unknown.

Program Ref: *arg*

Consequences

Stack search can not be completed.

Probable causes

Errors in rapid code.

112363, Stack search stop height mismatch

Description

Task: *arg*

The configured stop height = *arg* mm, was reached during stack search
movement without detecting the stack height. The bottom layer of the
stack is expected below the stop height.

Program Ref: *arg*

Consequences

The stack height could not be properly adjusted after stack search.

Probable causes

The configured stop height is set too high.

The configured displacement frame offset for the operation set is set
too low.

The work area on-line tuning offset is set too low.

Recommended actions

Check the configured stop height.

Check the configured displacement frame offset for the operation set.

Check the work area tuning offset.

112364, PickMaster Tool Event Timeout

Description

Task: *arg*

A timeout has occurred while waiting for signal *arg* to get its correct
value(*arg*).

Program Ref: *arg*

Consequences

The robot movement is halted until the signal condition is met.

A new wait period is requested and the timeout is set to *arg* s.

112365, Not Valid Signal

Description

Task: *arg*

The signal *arg* is not correct used for current instruction.

Program Ref: *arg*

Consequences

The RAPID execution will stop immediately and it is not possible to
recover from this error until the faulty signal is corrected.

Probable causes

1. The signal is unknown in the system. If the signal is defined in the
RAPID program, it must be connected to the configured signal with
instruction AliasIO.

2. Signal argument is outside allowed limits.

3. There is no contact with the IO unit. The unit may have been
disabled (IODisable "UNIT1", 1;). No power to the unit.

Recommended actions

All signals (except AliasIO signals) must be defined in the system parameters and can not be defined in the RAPID program.

Used group digital signal can not set required value according to configuration in system parameters.

112367, The Requested Project Could Not Be Found

Description

Task: *arg*

The requested project *arg* could not be found in the PickMaster project folder. The project can be identified both with its name and its selection value.

Program Ref: *arg*

Consequences

It is not possible to get any information about the project.

Probable causes

1. The requested project is not transferred from PickMaster PC.
2. The mapping between project and signal is wrong or missing.

Recommended actions

Recovery: *arg*

112368, The Requested Flow Could Not Be Found

Description

Task: *arg*

The requested flow *arg* could not be found in the loaded project. The flow can be identified both with its name and its selection value.

Program Ref: *arg*

Consequences

It is not possible to get any information about the flow.

Probable causes

1. The requested flow is not configured in the project.
2. The mapping between flow and signal is wrong or missing.

Recommended actions

Recovery: *arg*

112369, The Requested Flow Could Not Be Found

Description

Task: *arg*

The requested flow *arg* could not be found in the loaded project.

Program Ref: *arg*

Consequences

The RAPID program will immediately be halted.

Probable causes

The requested flow is not configured in the project.

Recommended actions

Check that the flow name is a member of the project.

112370, Not a Valid Stop Option

Description

Task: *arg*

The supplied stop options value is *arg*. The supported value must be in the range *arg*.

Program Ref: *arg*

Consequences

It is not possible to stop the flow *arg*.

Recommended actions

Recovery: PM_ERR_INVALID_FLOW_STOP_OPTION

112371, No Running Project

Description

Task: *arg*

There is no running project and the flow *arg* can for that reason not be accessed.

Program Ref: *arg*

Probable causes

The project has been stopped or is not yet started.

Recommended actions

Recovery: *arg*

112372, Missing PickMaster signals

Description

Task: *arg*

One or more of the IO signals that is used for managing projects and flows are missing.

Program Ref: *arg*

Consequences

It is not possible to start or stop flows from the IO interface. Project status signal might also be incorrect.

Probable causes

The signals are not and/or wrong configured in the IO configuration. One reason can be that an old backup is used.

Recommended actions

This message can be ignored if the IO interface is not used.

112373, The Requested Work Area Could Not Be Found

Description

Task: *arg*

The requested Work Area with selection number or variable name *arg* could not be found in the loaded project. The Work Area can be identified both with its descriptor and its selection value.

Program Ref: *arg*

Consequences

It is not possible to get any information about the Work Area.

Probable causes

1. The requested Work Area is a RAPID variable that is not initialized.

2. The mapping between Work Area and signal value is wrong or missing.

Recommended actions

Recover: *arg*

112374, Intermediate position outside reach

Description

An intermediate position cannot be reached by *arg* when moving from work area *arg* to work area *arg*. Part of intermediate movement = *arg* %.

Program reference: *arg*

Consequences

The robot cannot perform the movement.

Probable causes

Restrictions on x, y or z of the intermediate position.

Recommended actions

Reduce restrictions on x, y, or z of the intermediate position in the RAPID program, i.e. increase MaxZ or decrease MinZ.

112375, Intermediate axis position outside reach

Description

An intermediate axis position cannot be reached by *arg* when moving from work area *arg* to work area *arg*. Part of intermediate movement = *arg* %.

Program reference: *arg*

Consequences

The robot cannot perform the movement.

Probable causes

Restrictions on axis angles of the intermediate position.

Recommended actions

Reduce restrictions on axes angles of the intermediate position in the RAPID program, e.g. increase MaxAngle, decrease MinAngle.

112376, Required WorkArea is not valid

Description

Task: *arg*

PmSetRecoverAction with selected recover action requires a valid WokArea descriptor.

Program Ref: *arg*

Probable causes

1. Recover action PM_RECOVER_REDO_LAYER and PM_RECOVER_NEXT_PALLET requires the optional argument WorkArea to be set.

2. The WorkArea descriptor is not initialized.

3. The WorkArea is not a part of the flow *arg*.

Recommended actions

Recover: *arg*

112377, Faulty Recover Action

Description

Task: *arg*

arg is not one of the supported recover actions.

Program Ref: *arg*

Consequences

It will not be possible to start the Flow *arg* if it is set in error state.

Probable causes

The recover action is not one of PM_RECOVER_CONTINUE_OPERATION, PM_RECOVER_REDO_LAYER, PM_RECOVER_NEXT_PALLET or PM_RECOVER_REDO_LAST_PICK.

Recommended actions

Recover: *arg*

112378, Flow is already starting up

Description

Task: *arg*

The flow *arg* is already starting up. Only one call to PmFlowStart is allowed at each time.

Program Ref: *arg*

Consequences

The RAPID program is immediately halted.

Recommended actions

Check the RAPID program for multiple use of PmFlowStart to same flow.

112379, Wrong flow state

Description

Task: *arg*

It is not possible to start flow *arg* in current state.

Program Ref: *arg*

Consequences

The RAPID program is immediately halted.

Probable causes

The flow is probably set in a sever error state that can not be recover from.

Recommended actions

Recover: *arg*

112380, Failed to recover from an error state

Description

Task: *arg*

The start of flow *arg* from an error state failed.

Program Ref: *arg*

Consequences

The RAPID program is immediately halted.

112381, Redo last pick is not allowed in current position

Description

Task: *arg*

The flow *arg* can not recover from the error situation with recover action PM_RECOVER_REDO_LAST_PICK.

Program Ref: *arg*

Consequences

The flow can not be started until a valid recover action has been set.

Probable causes

The flow can only recover from an error with PM_RECOVER_REDO_LAST_PICK if the first item is picked and no items are placed.

Recommended actions

Recover: *arg*

112382, Project info contains no valid data for current task

Description

Task: *arg*

Failed to read project info data.

Program Ref: *arg*

Consequences

It is not possible to get any information about project settings, i.e. the names on modules that should be loaded.

Probable causes

The project is already started when a start order from the IO interface is received.

Recommended actions

Stop project and start it again via the IO interface.

112383, No Running Project

Description

Task: *arg*

There is no running project and the work area with selection number or variable name *arg* can for that reason not be accessed.

Program Ref: *arg*

Probable causes

The project has been stopped or is not yet started.

Recommended actions

Recovery: *arg*

112384, Invalid default height

Description

Task: *arg*

The I/O value of signal *arg* does not correspond to a valid default height.

Program Ref: *arg*

Consequences

It was not possible to set the default height.

Probable causes

The I/O value of *arg* does not correspond to a valid default height selection.

Recommended actions

Make sure that *arg* is set to a proper value before *arg* is pulsed.

112393, Flow recover with redo last pick

Description

The Flow *arg* will redo last unfinished operation at next flow start.

Recommended actions

Verify that:
- The tool is empty
- Products from last operation are restored on *arg*
- The reason for the stop is solved.

112394, Flow recover with continue pick-place

Description

The Flow *arg* will restart from where it was stopped at next flow start. Verify that the fault causing the stop has been handled.

Recommended actions

Verify expected number of products:

Tool: *arg*

WorkArea name/Number of products/Layer number

arg

arg

arg

112395, Flow recover with restart layer

Description

The Flow *arg* will restart from beginning of layer *arg* on WorkArea *arg* at next flow start.

Recommended actions

Verify that:

- The reason for the stop is solved

- The tool is empty

- Following WorkAreas are empty:

arg

arg

112396, Flow recover with next pallet

Description

The Flow *arg* will restart from beginning of next pallet on WorkArea *arg* at next flow start.

Recommended actions

Verify that:

- The reason for the stop is solved.

- The tool is empty

- Following WorkAreas are empty:

arg

arg

arg

112397, Flow recover with redo last pick

Description

The Flow *arg* will redo last unfinished operation at next flow start.

Recommended actions

Verify that:

- The tool is empty

- New products can be supplied on *arg*

- The reason for the stop is solved.

112398, *arg*

Description

arg

112399, PickMaster Flow Stopped Immediately

Description

The stop option Stop Immediately has been used from the PickMaster application on FlexPendant.

Consequences

The Flow *arg* is stopped immediately and a restart of the flow has to be performed from one of the error restart options. The RAPID program is stopped if the flow is active in any palletizing operation.

112400, Invalid tuning parameter

Description

Task:*arg*

Context: *arg*

arg is not a valid tuning parameter.

112401, Schedule number out of range

Description

Task:*arg*

Context: *arg*

arg is not a valid schedule number.

Valid schedules numbers are in the range: *arg* to *arg*.

112402, SID file is not compatible

Description

Task:*arg*

Context: *arg*

The SID file version is not compatible.

Consequences

The SID file has not been loaded into power source memory.

Probable causes

The SID file was saved from a different power source type or the SID file has become corrupted.

Recommended actions

If the file has been transfered with FTP program. Are you sure that the FTP program uses binary transfer mode for this SID file?

If possible, try to recreate the SID file from the origin.

112403, Default I/O unit not defined

Description

Task: *arg*

The default I/O unit is not defined in configuration.

InstancePath: /PROC/ARISTOMIG_INT_USER_PROP/*arg*

Attribute: use_default_io

112404, Configuration data not found

Description

Task:*arg*

InstancePath: *arg*

Attribute: *arg*

112405, SID file corrupt

Description

Task:*arg*

Context: *arg*

The SID file is not in the correct format or the file size is incorrect.

Consequences

All the data was not recovered from the file.

Recommended actions

Verify the schedules in the power source. All data might not be recovered.

112406, Invalid tuning parameter

Description

Task:*arg*

Context: *arg*

arg is not a valid tuning parameter in instance *arg*.

112407, Schedule does not exist

Description

The schedule *arg* does not exist in the power source *arg*, in *arg*.

Consequences

The welding results will not be as expected.

Recommended actions

Make sure that the schedule has been created before using it in a weld instruction.

112410, Program memory error (EPROM)

Description

The program memory is damaged in unit *arg*.

Fault code: *arg*

Internal unit: *arg*

Recommended actions

Restart the machine. If the fault persists, send for a service technician.

112411, Microprocessor RAM error

Description

The microprocessor is unable to print/read to the internal memory in unit *arg*.

Fault code: *arg*

Internal unit: *arg*

Recommended actions

Restart the machine. If the fault persists, send for a service technician.

112412, External RAM error

Description

The microprocessor is unable to print/read to the external memory in unit *arg*.

Fault code: *arg*

Internal unit: *arg*

Recommended actions

Restart the machine. If the fault persists, send for a service technician.

112413, 5V power supply low

Description

The power supply voltage is too low in unit *arg*.

Fault code: *arg*

Internal unit: *arg*

Consequences

The current welding process is stopped and starting is prevented.

Recommended actions

Turn off the mains power supply to reset the unit. If the fault persists, send for a service technician.

112414, Intermediate DC voltage outside limits

Description

The voltage is too high or too low in unit *arg*.

Fault code: *arg*

Internal unit: *arg*

Consequences

The power unit is stopped and cannot be started.

Probable causes

Too high a voltage can be due to severe transients on the mains power supply or to a weak power supply (high inductance of the supply or a phase missing).

Recommended actions

Turn off the mains power supply to reset the unit. If the fault persists, send for a service technician.

112415, High temperature

Description

The thermal overload-cut has tripped in unit *arg*.

Fault code: *arg*

Internal unit: *arg*

Consequences

The current welding process is stopped and cannot be restarted until the cut-out has reset.

Recommended actions

Check that the cooling air inlets or outlets are not blocked or clogged with dirt. Check the duty cycle being used, to make sure that the equipment is not being overloaded.

112416, High primary current

Description

The power unit *arg* takes too much current from the DC voltage that supplies it.

Fault code: *arg*

Internal unit: *arg*

Consequences

The power unit is stopped and cannot be started.

Recommended actions

Turn off the mains power supply to reset the unit. If the fault persists, send for a service technician.

112417, Low battery voltage or power supply

Description

Unit: *arg*

See description corresponding to the internal unit: *arg*

WDU: Low battery voltage +3 V

Battery voltage too low in unit *arg*. If the battery is not replaced, all stored data will be lost.

PS: +15 V power supply

The power supply is too high or too low in unit *arg*.

Fault code: *arg*

Recommended actions

Send for a service technician.

112418, -15 V power supply

Description

The power supply is too high or too low in unit *arg*.

Fault code: *arg*

Internal unit: *arg*

Recommended actions

Send for a service technician.

112419, +24 V power supply

Description

The power supply is too high or too low in unit *arg*.

Fault code: *arg*

Internal unit: *arg*

Recommended actions

Send for a service technician.

112420, Current-servo / wire speed-servo error

Description

I/O unit: *arg*

Error code: *arg*

Internal unit: *arg*

112421, Communication error (warning)

Description

The load on the system's CAN-bus is temporarily too high in unit *arg*.

Fault code: *arg*

Internal unit: *arg*

Consequences

The power unit/wire feed unit has lost contact with the welding data unit.

Recommended actions

Check that all the equipment is correctly connected. If the fault persists, send for a service technician.

112423, Communication error

Description

The system's CAN-bus has temporarily stopped working due to the load being too high.

Fault code: *arg*

Internal unit: *arg*

Consequences

The current welding process stops.

Recommended actions

Check that all the equipment is correctly connected. Turn off the mains power supply to reset the unit. If the fault persists, send for a service technician.

112424, Messages lost

Description

The microprocessor is unable to process incoming messages sufficiently quickly and information has been lost in unit *arg*.

Fault code: *arg*

Internal unit: *arg*

Recommended actions

Turn off the mains power supply to reset the unit. If the fault persists, send for a service technician.

112426, Lost contact with MEK

Description

Unit: *arg*

Fault code: *arg*

Internal unit: *arg*

112427, Lost contact

Description

The welding data unit(WDU) has lost contact with the power unit(PS) in unit *arg*.

Fault code: *arg*

Internal unit: *arg*

Consequences

The current welding process stops.

Recommended actions

Check the cables. If the fault persists, send for a service technician.

112428, Memory error in battery-supplied data memory RAM

Description

The battery has lost voltage in unit *arg*.

Fault code: *arg*

Internal unit: *arg*

Recommended actions

Turn off the mains power supply to reset the unit. The welding data unit is reset.

112429, Non-permitted set values stored in RAM

Description

Non-permitted values have been discovered at start-up in unit *arg*.

Fault code: *arg*

Internal unit: *arg*

Recommended actions

Delete all data contained in the welding data unit.

Turn off the mains power supply to reset the unit. The welding unit is reset.

112430, Incompatible set values stored in RAM

Description

Non-permitted welding data combinations have been specified in unit *arg*.

Fault code: *arg*

Internal unit: *arg*

Recommended actions

Turn off the mains power supply to reset the unit. If the fault persists, send for a service technician.

112431, Transmit buffer overflow

Description

The welding data unit does not manage to transmit information to the other units sufficiently quickly in unit *arg*.

Fault code: *arg*

Internal unit: *arg*

Recommended actions

Turn off the mains power supply to reset the unit.

112432, Receiver buffer overflow

Description

The welding data unit does not manage to process information from the other units sufficiently quickly.

Fault code: *arg*

Internal unit: *arg*

Recommended actions

Turn off the mains power supply to reset the unit.

112434, Incompatible weld data format

Description

I/O unit: *arg*

Error code: *arg*

Internal unit: *arg*

112435, Program error

Description

Something has prevented the processor from performing its normal duties in the program in unit *arg*.

Fault code: *arg*

Internal unit: *arg*

Consequences

The program restarts automatically. The current welding process will be stopped.

Recommended actions

Review the handling of welding programs during welding. If the fault is repeated, send for a service technician.

112436, No wire

Description

I/O unit: *arg*

Error code: *arg*

Internal unit:*arg*

112437, Lost program data

Description

Program execution does not work in unit *arg*.

Fault code: *arg*

Internal unit: *arg*

Recommended actions

Turn off the mains power supply to reset the unit. If the fault persists, send for a service technician.

112438, No water flow

Description

I/O unit: *arg*

Error code: *arg*

Internal unit: *arg*

112439, Lost contact with TIG card

Description

I/O unit: *arg*

Error code: *arg*

Internal unit: *arg*

112441, No gas flow

Description

I/O unit: *arg*

Error code: *arg*

Internal unit:*arg*

112500, Weld Data Monitor

Description

The configuration is complete for *arg*

112501, WDM Configuration Error

Description

The configuration failed for *arg*

Consequences

Weld Data Monitor will be inoperable.

Recommended actions

Please review PROC settings to correct.

112502, WDM Alias IO Error

Description

The signals defined in the PROC are invalid.

Task: *arg*

Consequences

Weld Data Monitor will be inoperable.

Recommended actions

Please review PROC settings to correct.

112503, WDM Failed to Read WDM_SETTINGS

Description

The 'chart' setting in the WDM_SETTINGS section
of the PROC could not be read.

Task: *arg*

Consequences

Weld Data Monitor not save charting files.

Recommended actions

Please review PROC settings to correct.

112504, WDM Failed to Read WDM_SETTINGS

Description

The IO signal setting in the WDM_SETTINGS section
of the PROC could not be read.

Task: *arg*

Consequences

Weld Data Monitor will be inoperable.

Recommended actions

Please review PROC settings to correct.

112505, WDM Failed to Read WDM_STABILITY

Description

The WDM_STABILITY section of the PROC could not be found.

Default values have been applied.

Task: *arg*

112506, WDM Failed to Read WDM_STABILITY

Description

The WDM_STABILITY section of the PROC could not be read.

Task: *arg*

Consequences

Weld Data Monitor may be inoperable.

Recommended actions

Please review PROC settings to correct.

112507, WDM Failed to Read WDM_SIGNATURE

Description

The WDM_SIGNATURE or WDM_SIGNATURE_DATA section of
the PROC could not be found.

Default values have been applied.

Task: *arg*

112508, WDM Failed to Read WDM_SIGNATURE

Description

The WDM_SIGNATURE or WDM_SIGNATURE_DATA section of the PROC could not be read.

Task: *arg*

Consequences

Weld Data Monitor may be inoperable.

Recommended actions

Please review PROC settings to correct.

112509, WDM Failed to Read WDM_TOLERANCE

Description

The WDM_TOLERANCE section of the PROC could not be read.

Task: *arg*

Consequences

Weld Data Monitor may be inoperable.

Recommended actions

Please review PROC settings to correct.

112510, WDM Learning Results Stored

Description

A learning cycle has finished for *arg* in task *arg*

arg of *arg* learning cycles completed.

Sample size: *arg*

112511, WDM Learning Complete

Description

Learning is complete for *arg* in task *arg*

arg of *arg* learning cycles completed.

Sample size: *arg*

Consequences

Monitoring will be active the next time this seam is welded.

112512, WDM Signature File Inaccessible

Description

The stored signature could not be read.

Seam Name: *arg*

Task: *arg*

The file may have been left open by another application.

Consequences

Weld Data Monitor is unable to evaluate this weld seam.

Recommended actions

Warm starting the controller and starting from the main may resolve the problem for the next learning cycle.

112513, WDM Signature File Inaccessible

Description

The stored signature could not be written to.

Seam Name: *arg*

Task: *arg*

The file may have been left open by another application.

Consequences

Weld Data Monitor is unable to evaluate this weld seam.

Recommended actions

Warm starting the controller and starting from the main may resolve the problem for the next learning cycle.

112514, WDM Results File Inaccessible

Description

The measured results could not be read.

Seam Name: *arg*

Task: *arg*

The file may have been left open by another application.

Consequences

Weld Data Monitor is unable to evaluate this weld seam.

Recommended actions

Warm starting the controller and starting from the main may resolve the problem for the next learning cycle.

112515, WDM Data Reading Timeout

Description

Data could not be read from the binary file within a reasonable time.

Seam Name: *arg*

Task: *arg*

Timeout: *arg* seconds

Consequences

Weld Data Monitor is unable to evaluate this weld seam.

Recommended actions

Delete the stored WDM files and relearn.

112516, WDM Data Checksum Error

Description

Data read from the binary file did not match the expected size.

Seam Name: *arg*

Task: *arg*

Consequences

Weld Data Monitor is unable to evaluate this weld seam.

Recommended actions

Delete the stored WDM files and relearn.

112517, WDM Unknown Error

Description

An unexpected error occurred in WriteSigData.

Seam Name: *arg*

Task: *arg*

Consequences

Weld Data Monitor is unable to evaluate this weld seam.

Recommended actions

Please report to your ABB representative.

112518, WDM Unknown Error

Description

An unexpected error occurred in EvalSigData.

Seam Name: *arg*

Task: *arg*

Consequences

Weld Data Monitor is unable to evaluate this weld seam.

Recommended actions

Please report to your ABB representative.

112519, WDM Signature File Too Short

Description

The end of the signature file was reached before welding stopped.

Seam Name: *arg*

Task: *arg*

Current number of samples: *arg*

Consequences

Weld Data Monitor is unable to evaluate this weld seam.

112520, WDM File Access Error

Description

Could not open the binary data file described below.

File: *arg*

Task: *arg*

The file may have been left open by another application.

Consequences

Weld Data Monitor will be inoperable.

Recommended actions

Warm starting the controller and starting from the main may resolve the problem for the next learning cycle. Deleting the file may also resolve the problem.

112521, WDM File Access Error

Description

Could not close a binary data file.

Task: *arg*

Consequences

Weld Data Monitor may be inoperable.

Recommended actions

Warm starting the controller and starting from the main may resolve the problem for the next learning cycle. Deleting the file may also resolve the problem.

112522, WDM File Access Error

Description

Could not seal the binary data file described below.

File: *arg*

Task: *arg*

Consequences

Weld Data Monitor will be inoperable.

Recommended actions

Warm starting the controller and starting from the main may resolve the problem for the next learning cycle. Deleting the file may also resolve the problem.

112523, WDM Sample Size Error

Description

The number of points stored in the last weld seam does not match the number stored in the existing signature file.

Seam Name: *arg*

Task: *arg*

Measured samples: *arg*

Signature samples: *arg*

Consequences

Weld Data Monitor will be unable to evaluate the data from this seam.

112524, WDM Weld End Error

Description

An unspecified error occurred at the end of the seam.

Task: *arg*

Consequences

Weld Data Monitor may be inoperable.

Recommended actions

Please contact your ABB representative.

112525, WDM Weld Start Error

Description

An unspecified error occurred at the start of the seam.

Task: *arg*

Consequences

Weld Data Monitor may be inoperable.

Recommended actions

Please contact your ABB representative.

112526, WDM Learning Started

Description

No previously stored signature exists for *arg* in task *arg*. Learning will begin now.

Learning cycles required: *arg*

112527, WDM Text Resource Error

Description

Text Resource Error.

Weld Data Monitor could not access text.

Index: *arg*

File: *arg*

Task: *arg*

Recommended actions

Please contact your ABB representative.

112528, WDM Minor Infraction

Description

A minor *arg* infraction has occurred in seam *arg*.

Measured value: *arg*

Maximum limit: *arg*

Minimum limit: *arg*

112529, WDM Major Infraction

Description

A major *arg* infraction has occurred in seam *arg*.

Measured value: *arg*

Maximum limit: *arg*

Minimum limit: *arg*

112530, WDM Error

Description

An unspecified error has occurred in the Weld Data Monitor for task *arg*

Recommended actions

Please contact your ABB representative.

112531, WDM Trigger Ready

Description

Weld Data Monitor is ready to sample data for task *arg*

112532, WDM Trigger Subscriptions Failed

Description

Weld Data Monitor trigger subscriptions failed for task *arg*

Consequences

Weld Data Monitor will be inoperable.

112533, WDM Trigger IO Setup Failed

Description

Weld Data Monitor trigger IO connections failed for task *arg*

Consequences

Weld Data Monitor will be inoperable.

112534, WDM Weave Frequency Error

Description

Weave frequency is too fast for *arg* in task *arg*.

Consequences

WDM will reduce sampling rate to a fraction of the weave frequency.

112535, WDM Weave Frequency Error

Description

Weave frequency is too fast for *arg* in task *arg*.

Consequences

No monitoring will occur.

Recommended actions

Please reduce weave frequency to enable Weld Data Monitoring.

112536, WDM Weave Change Error

Description

The weave parameters have changed since learning of seam *arg* in task *arg*.

Consequences

No monitoring will occur.

Recommended actions

Please remove the stored signature and relearn with new parameters.
Or, reinstate old parameters.

112537, WDM Speed Change Error

Description

The weld travel speed has changed since learning of seam *arg* in task *arg*.

Consequences

No monitoring will occur.

Recommended actions

Please remove the stored signature and relearn with new parameters.
Or, reinstate old parameters.

112538, WDM Seam Length Changed

Description

The weld seam length has changed since learning of seam *arg* in task *arg*.

Consequences

No monitoring will occur.

Recommended actions

If the targets defining the seam were intentionally modified, please remove the stored signature and relearn with the new targets.

112539, WDM Sample Frequency Error

Description

Sampling frequency is too fast for *arg* in task *arg*.

Consequences

WDM will reduce sampling rate to a fraction of the requested frequency.

112540, WDM Sample Frequency Error

Description

Sampling frequency is too fast for *arg* in task *arg*.

Consequences

No monitoring will occur.

Recommended actions

Please reduce sampling frequency to enable Weld Data Monitoring.

112541, WDM welddata Change Error

Description

The weld parameters have changed since learning of seam *arg* in task *arg*.

Consequences

No monitoring will occur.

Recommended actions

Please remove the stored signature and relearn with new parameters.
Or, reinstate old parameters.

112542, WDM Synchronizing Samples

Description

The segment number of the stored data is lagging the actual sample.
This is normal behavior associated with execution stops.

Seamname: *arg*

Task: *arg*

Consequences

Some samples may have been ignored during the transition between segments.

112543, WDM Synchronizing Samples

Description

The segment number of the actual sample is lagging the stored data.
This is normal behavior associated with execution stops.

Seamname: *arg*

Task: *arg*

Consequences

Some samples may have been ignored during the transition between segments.

112544, WDM Sample Distance Changed

Description

The weave parameters, or no-weave sample distance, have changed since learning was finished for seam *arg* in task *arg*.

Consequences

No monitoring will occur.

Recommended actions

Please remove the stored signature and relearn with new parameters.
Or, reinstate old parameters.

112600, Init of communication interface failed

Description

Task *arg*

Communication interface could not be initialized.

Program Ref. *arg*

Recommended actions

Check communication settings and parameters and restart application.

Recovery: *arg*

112601, Incorrect data received.

Description

The data received from remote system is incorrect. It is either a data error of the remote system, or a wrong message was received.

Recommended actions

Check data and program logic.

112602, Communication interface error.

Description

There is an error detected in the communication with the external system.

Recommended actions

Check remote system and connection. Restart communication.

112603, Failed to access the config files

Description

The configuration and settings files for the communication interface is not found in the HOME/GSI folder.

Recommended actions

Check that the HOME/GSI folder exists and that the configuration and settings files can be found there. Restart communciation.

118800, Integrated PLC not connected

Description

The connection to the integrated PLC was not established or has been lost.

Consequences

No interaction with the integrated PLC can take place.

Recommended actions

Check the DeviceNet connection between the integrated PLC and the main computer.

118801, Integrated PLC not application master

Description

The requested command *arg* can only be executed if the integrated PLC is operating as the application master.

Consequences

Certain commands can only be executed when the PLC is operating as the application master.

Recommended actions

Check that the correct application role is defined in FlexPedant interface for the integrated PLC.

118802, Integrated PLC not application slave

Description

The requested command *arg* can only be executed if the integrated PLC is operating as the application slave.

Consequences

Certain comands can only be executed when the PLC is operating as the application slave.

Recommended actions

Check that correct application role is defined in the FlexPendant interface of the integrated PLC.

118803, PLC program number invalid

Description

The program number that was specified to be executed on the intergrated PLC is invalid or not available.

Consequences

This program number can not be executed on the integrated PLC.

Recommended actions

Check that the specified program is handled on the integrated PLC.

118804, PLC program execution running

Description

There is still a program executing on the integrated PLC. A new program number can first be ordered when the execution has finished.

Recommended actions

Use the optional callback parameter to raise an event when the program execution has been finished

118805, PLC program number mismatch

Description

The specified program number does not match the number requested from the integrated PLC.

Recommended actions

Verify the program that the requested program number is handed back to the acknowledge methods.

118806, Maxiumum execution time exceeded

Description

The maximum time specified for a synchronous program execution has been exceeded.

Recommended actions

Verify the maximum exuction time defined in the program and increase it if needed.

118807, Internal execution error

Description

This error indicates a bug of the implementation on robot controller or integrated PLC side.

Recommended actions

Please inform your responsible ABB contact person about the error.

118810, Fatal error on integrated PLC

Description

A fatal error occured on the integrated PLC.

Component: *arg*

Device: *arg*

Module: *arg*

Channel: *arg*

Error: *arg*

Consequences

A safe operation of the integrated PLC is no longer quaranteed.

Recommended actions

Look up the error code in the AC500 documentation and follow the instructions to remove the error.

118811, Severe error on integrated PLC

Description

A severe error occured on the integrated PLC.

Component: *arg*

Device: *arg*

Module: *arg*

Channel: *arg*

Error: *arg*

Consequences

The integrated PLC is functioning without problems, but the error-free processing of the user program is no longer quaranteed.

Recommended actions

Look up the error code in the AC500 documentation and follow the instructions to remove the error.

118812, Light error on integrated PLC

Description

A severe error occured on the integrated PLC.

Component: *arg*

Device: *arg*

Module: *arg*

Channel: *arg*

Error: *arg*

Consequences

It depends on the application if the user program should be stopped by integrated PLC.

Recommended actions

Look up the error code in the AC500 documentation and follow the instructions to remove the error.

118813, Warning on integrated PLC

Description

A warning occured on the integrated PLC.

Component: *arg*

Device: *arg*

Module: *arg*

Channel: *arg*

Error: *arg*

Consequences

It depends on the application if the user program should be stopped by integrated PLC.

Recommended actions

Look up the error code in the AC500 documentation and follow the instructions to remove the error.

120001, Out of memory in cfg

Description

There is not enough memory in the cfg database for this operation.

Consequences

The configuration file will not be installed.

Recommended actions

1) Try to use the option: delete existing parameters before loading when loading the configuration file. This will delete all previous configuration settings for the domain.

2) Increase the size of the configuration database.

120002, Instance can not be saved

Description

Not allowed to overwrite instance in line *arg* of file *arg*.

Consequences

The instance may be write protected and the configuration in file will not be installed.

Probable causes

-

Recommended actions

You are not allowed to change the instance.

120003, Wrong domain version or incorrect file

Description

The cfg domain version of file *arg* is wrong. The software is made for version *arg*.

Consequences

The configuration in file will not be installed.

Probable causes

-

Recommended actions

1) Re-edit the configuration file, and change the version of the cfg domain.

120004, Line too long

Description

Line *arg* in file *arg* contains *arg* characters, which is more than the allowed *arg*.

Consequences

The configuration in file will not be installed.

Probable causes

-

Recommended actions

1) Re-edit the configuration file and reduce the number of characters, e.g. by splitting the instance into several lines. End each line, except the last one, with a trailing backslash "\" to achieve this.

120005, Attribute value out of allowed range

Description

Attribute *arg* on line *arg* in file *arg* is out of the allowed range. The allowed range is < *arg*> - < *arg*>.

Consequences

The configuration in file will not be installed.

Probable causes

-

Recommended actions

1) Re-edit the configuration file and change the value on the attribute to fit inside the allowed range.

120006, Instance name occupied

Description

Instance in line *arg* in file *arg* is already occupied.

Consequences

The configuration in file will not be installed.

Probable causes

-

Recommended actions

1) Re-edit the configuration file and change the instance name to add it to the file OR

2) Use the "Replace" mode to overwrite the instance previously using the name. This may be selected when loading the configuration file using RobotStudio, and the procedure is detailed in the RobotStudio Manual.

120007, Unknown type or attribute in cfg file

Description

Type/attribute in position *arg* on line *arg* of file *arg* is not recognized.

Consequences

The configuration in file will not be installed.

Probable causes

The configuration type may not be installed, illegal/mistyped attribute, or the name is too long.

Recommended actions

1) Re-edit the configuration file.

120008, Mandatory attribute is missing in cfg file

Description

Missing mandatory attribute *arg* on line *arg* in file *arg*.

Consequences

The configuration in file will not be installed.

Probable causes

Missing/mistyped mandatory attribute.

Recommended actions

1) Re-edit the configuration file.

120009, Missing instance name in cfg file

Description

Missing instance name on line *arg* in file *arg*.

Consequences

The configuration in file will not be installed.

Probable causes

-

Recommended actions

1) Re-edit the configuration file.

120010, Configuration attribute value out of the allowed range

Description

Configuration attribute *arg* on line *arg* in file *arg* is out of the allowed range. The max. allowed length is *arg* characters.

Consequences

The configuration in file will not be installed.

Probable causes

-

Recommended actions

1) Re-edit the configuration file and change the value on the attribute to fit inside the allowed range.

120011, Illegal version string

Description

The version string in configuration file *arg* has illegal format.

Consequences

The configuration in file will not be installed.

Probable causes

The configuration file is made for a different system version/revision.

The version string in the configuration file is mistyped/missing.

The configuration file is corrupted.

Recommended actions

1) Re-edit the configuration file and change the version string according to this layout:

"domain":"cfg domain version":"version":"revision"::.

120012, Illegal domain name

Description

The domain name *arg* in configuration file *arg* is illegal.

Consequences

The configuration in file will not be installed.

Probable causes

The domain name may be mistyped or the domain is not installed in the system.

Recommended actions

1) Re-edit the configuration file and change the domain name.

130001, Equipment error

Description

Paint process and motion stopped.

Recommended actions

Check the paint equipment.

130002, Equipment error

Description

Paint process stopped.

Recommended actions

Check the paint equipment.

130003, Trig plane error

Description

In PaintL *arg*: One trig plane, *arg*, are defined outside the programmed path.

Recommended actions

Change eventdata or reprogram path.

130004, Trig plane error

Description

In PaintL *arg*: Two trig planes, *arg* and *arg*, are defined outside the programmed path.

Recommended actions

Change eventdata or reprogram path.

130005, Trig plane error

Description

In PaintL *arg*: Three trig planes, *arg*, *arg*, and *arg*, are defined outside the programmed path.

Recommended actions

Change eventdata or reprogram path.

130006, Trig plane error

Description

In PaintL *arg*: Four trig planes, *arg*, *arg*, *arg* and *arg*, are defined outside the programmed path.

Recommended actions

Change eventdata or reprogram path.

130007, Trig plane error

Description

In PaintL *arg*: Four trig planes, *arg*, *arg*, *arg* and *arg* and more are defined outside the programmed path.

Recommended actions

Change eventdata or reprogram path.

130008, Trig plane error

Description

In 'SetBrush n': One trig plane, *arg*, is defined outside

the programmed path.

Recommended actions

Change eventdata or reprogram path.

130009, Trig plane error

Description

More than four 'SetBrush' trig plane
events are defined outside the
programmed path

Recommended actions

Change eventdata or reprogram path.

130010, Conv pos out of reach

Description

Programmed position for conveyor axis
has passed out of reach
Programmed conv pos: *arg*
Actual conv pos: *arg*
Note: Only first occasion is reported

Recommended actions

Reduce conveyor speed or modify
programmed robtarget(s).

130011, Trig counter error

Description

Can't allocate trig counters
or there is no free counter
Trig error supervision disabled.

Recommended actions

Reload program to enable
trig error supervision.

130012, ConveyorSync Off

Description

ConveyorSync was turned off because
conveyor speed exceded lower limit
arg per cent
of nominal speed *arg*

Recommended actions

Check minimum sync speed in PaintWare
parameter.
Check conveyor speed setting.

130013, ConveyorSync On

Description

ConveyorSync was turned on because
conveyor regain nominal speed
arg per cent
of nominal speed *arg*

Recommended actions

No action needed
The conveyor speed is Ok.

130014, 'Process ready' Timeout

Description

'process ready input' not OK.

Recommended actions

Check equipment connected TO
'process ready input'
Increase 'Proc Ready timeout'

130015, Conveyor running

Description

Signal 'c1NullSpeed' not OK

Recommended actions

Stop conveyor before proceeding
with program execution.

131000, Argument error.

Description

The argument is not an integer.

Recommended actions

Change the argument to an integer.

131001, Argument error.

Description

The argument is not an array.

Recommended actions

Change the argument to an array.

131002, Argument error.

Description

The argument is not a persistent
variable.

Recommended actions

Change the argument to a persistent.

131003, Argument error.

Description

The array argument has too many
dimensions.

Recommended actions

Change the array to one dimension.

131004, Brush table error.

Description

Only brush table *arg* is allowed.

Recommended actions

Change to allowed brush table.

131005, Brush number error.

Description

Only brush numbers less than or
equal to *arg* is allowed.

Recommended actions

Change to allowed brush number.

131006, Argument value error

Description

Negative value for argument no. *arg*

Recommended actions

Change argument value to
a positive number.

131007, Signal '*arg*' does not exist

Description

Signal: *arg*

Task: *arg*

Context: *arg*

Recommended actions

Check signal definitions.

Define signal or find an existing signal.

131008, Applicator number error

Description

Applicator number is greater than
number of applicators installed.

Recommended actions

'App' argument (if present) must
be in range from 1 to
'Number of apps'.

131009, Brushfactor too high

Description

Recommended actions

Change brushfactor to a number between
1 and 500.

131010, Brushtable does not exist

Description

The following brushtable does not
exist: *arg*

Recommended actions

Brushtable must be a persistent array
of datatype brushdata.

131011, Brushtable not an array

Description

The following brushtable is not an
array: '*arg*'

Recommended actions

Brushtable must be a persistent array
of datatype brushdata.

131012, Wrong datatype for table

Description

The following brushtable is not of
datatype brushdata:
'*arg*'

Recommended actions

Brushtable must be a persistent array
of datatype brushdata.

131013, Non-existing signal

Description

The following signal did not exist:
'*arg*'

Recommended actions

Check signal definitions.
Define signal or find an existing signal

131014, Channel not installed

Description

The factor no. specified in arg *arg* is
greater than the number of installed
channels

Recommended actions

Check installed options:

Gun control : Factor no range = <1>

3 ch. system: Factor no range = <1-3>

4 ch. system: Factor no range = <1-4>

131015, Too many trig events

Description

The maximum number of trig events (10) between two PaintL instructions is exceeded.

Task: *arg*

Instruction: *arg*

Context: *arg*

Recommended actions

Reduce the number of trig events.

131016, Illegal value for signal *arg*

Description

An attempt was made to set an illegal value *arg* for signal *arg*.

Consequences

Signal will not be set.

Recommended actions

Check that signal is within defined limits.

132000, Brush number error.

Description

The brush number is outside the limits for the activated brush table.

Recommended actions

Change argument within limits.

132001, Brush table error.

Description

There is no brush table activated.

Recommended actions

Activate a brush table.

132002, Brush not activated.

Description

Brush outputs blocked because IpsEnable for Applicator *arg* was not active.

Recommended actions

Activate IpsEnable output for this Applicator.

132003, Equipment Enable rejected

Description

Equipment could not be enabled due to the following active stop signals:

arg

Recommended actions

Check Emy stop buttons, General mode stop input and Cabin Interlock input.

Press Emy stop reset

132500, Unable to open symbol.

Description

Output for symbol *arg* not found.

NOTE: No paint-related outputs available due to this error.

Recommended actions

1. Output for symbol not defined.

2. Output for symbol has wrong name.

3. Internal problem (memory etc..)

   Try a restart.

132501, Paint System not inst.

Description

Paint System not available or not installed.

Recommended actions

PaintWare process not activated, due to incomplete Paint System configuration.

1. Use IPS option diskette to install.

2. Custom-configure Paint System using the Teach Pendant.

132601, PIB contact lost

Description

Controller has lost connection to the PIB board.

Consequences

Controller has entered system failure state.

Probable causes

1. Broken cable

2. High network load.

Recommended actions

Check MainComputer <-> PIB Ethernet cable.

Restart controller

132602, Invalid signal path for signal *arg*

Description

The path *arg* is invalid for signal *arg*

Consequences

This signal will be disabled

Recommended actions

Check that the named device exist on PIB.

132999, Process error context

Description

arg, *arg*, *arg*, *arg*, *arg*

133000, IPS Cfg Error

Description

Cfg Error: *arg*

Error accessing IPS config file *arg*. This config file is stored on one of the installed IPS nodes.

Recommended actions

1. Check IPS config file for errors.

2. Check if config file is stored on the correct IPS node.

133001, IPS Cfg Error

Description

Cfg Error: *arg*.

Error in IPS config file *arg* in line *arg*. This IPS config file is located on one of the IPS nodes.

Recommended actions

1. Check in IPS config file for error in given line.

133002, IPS Cfg Error

Description

Syntax Error: *arg*.

Faulty value for argument *arg*, in IPS config file *arg* in line *arg*. This IPS config file is located on one of the IPS nodes.

Recommended actions

1. Check in IPS config file for error in given line.

133003, IPS Cfg Error

Description

Assertion error: *arg*.

Error in IPS config file *arg* in line *arg*. This IPS config file is located on one of the IPS nodes.

Recommended actions

1. Check in IPS config file for error in given line.

133004, IPS Cfg Token Error

Description

Cfg Token Error: *arg*.

Error in token *arg*, in IPS config file *arg* in line *arg* and character position *arg*. This IPS config file is located on one of the IPS nodes.

Recommended actions

1. Check in IPS config file for error in given line.

133005, IPS License Error

Description

License server is not found.

Could not obtain option: *arg*

Reference: *arg*

Recommended actions

1. Check that the system has a license server.

2. Check status on license server.

3. Check communication towards license server.

133006, IPS License Error

Description

ID chip is not found.

Could not obtain option: *arg*

Reference: *arg*

Recommended actions

1. Check that ID chip is mounted on ACCB.

133007, IPS License Error

Description

Wrong serial number.

Could not obtain option: *arg*

Reference: *arg*

Recommended actions

1. Check serial number in license file.

2. Check that correct ID chip is mounted.

133008, IPS License Error

Description

License file is not found. File name must be 'option.lic'.

Could not obtain option: *arg*

Reference: *arg*

Recommended actions

1. Check that license file exist on license server.

133009, IPS License Error

Description

License code in license file is not correct.

Could not obtain option: *arg*

Reference: *arg*

Recommended actions

1. Check that the license file on license server is identical to the original license file.

133010, IPS License Error

Description

Syntax error in license file.

Could not obtain option: *arg*

Reference: *arg*

Recommended actions

1. Make sure the original license file is used.
2. Order new license file.

133011, IPS License Error

Description

Option does not exist in license file.

Could not obtain option: *arg*

Reference: *arg*

Recommended actions

1. Check if option exist in license file.
2. Check if correct license file loaded.
3. Check in IPS config file for errors.
4. Order new license file.

133012, IPS License Error

Description

Counting option has no free licenses.

Could not obtain option: *arg*

Reference: *arg*

Recommended actions

1. Check number of uses vs. license file.
2. Check if correct license file loaded.
3. Check in IPS config file for errors.

133013, IPS License Error

Description

Protocol error in communication towards license server.

Could not obtain option: *arg*

Reference: *arg*

Recommended actions

1. Contact customer support.

133014, IPS License Error

Description

Communication fault. License server has been found, but communication is lost.

Could not obtain option: *arg*

Reference: *arg*

Recommended actions

1. Check communication towards license server.

133200, *arg*:Trig error

Description

IPS has discovered an impossible trig time error.
This situation may occur if trig-events are programmed too close each other in e.g. a cleaning sequence.

Recommended actions

1. Check if events for named device are programmed too close each other.
2. Check compensation delays for named device.

133201, *arg*:Locked

Description

The named device is locked by IPS.
Can't set a value to this device when locked, and there is no direct access to it.

Recommended actions

1. Check if system tries to run named device, when it is already locked (connected) to another device.

133202, *arg*:Disabled

Description

Impossible to set a command value to named device when it is disabled.
When a device is disabled, it is not possible to operate it.

Recommended actions

1. Enable named device and set a new command to it.
2. Check if IPS config is set up to

disable the named device.

133203, *arg*:Disconn.

Description

The resource(s) for named device is disconnected and named device is not operational. The connect signal for the device is set to 0.

Recommended actions

1. Set the connect signal for the named device to 1.
2. Check if the system sets the connect signal to 0 in some special cases.

133204, *arg*:Not ready

Description

Can't set value: Named device is not ready and is halted by some supervision functions or it have a general problem.

Recommended actions

1. Check if IPS is setup with any supervision functions for named device.
2. Check if named device have any problem, fix the problem and retry.

133205, *arg*:Sprv. alarm

Description

Can't set value:An alarm that is supervising named device is active. One of the installed alarms prevents the named device from being operational.

Recommended actions

1. Check for supervision alarms that sets named device in a not ready state.
2. Fix the actual alarm state.

133206, Lock *arg* failed

Description

Locking of a resource for named device failed. The same resource may have been allocated by another device.

Recommended actions

1. Check in IPS config if several IPS devices are using the same resource.

133207, *arg*:Val hi

Description

Value for named sensor or device has exceeded maximum limit.
IPS has discovered an alarm state for named sensor or device.

Recommended actions

1. Check if value for named sensor or device is too high.
2. Check for IPS configured LIMIT-alarms and verify that limits are OK.

133208, *arg*:Val lo

Description

Value for named sensor or device has exceeded minimum limit.
IPS has discovered an alarm state for named sensor or device.

Recommended actions

1. Check if value for named sensor or device is too low.
2. Check for IPS configured LIMIT-alarms and verify that limits are OK.

133209, *arg*:Act.val hi

Description

Actual value for named device has exceeded maximum limit. IPS has discovered too high actual value compared to the setpoint value.

Recommended actions

1. Check for IPS configured DEVIATION-alarms and verify that parameter limits are OK.
2. Check if the sensor, used by named device, is noisy.

133210, *arg*:Act.val lo

Description

Actual value for named device has exceeded minimum limit. IPS has discovered too low actual value compared to the setpoint value.

Recommended actions

1. Check for IPS configured DEVIATION-alarms and verify that parameter limits

are OK.

2. Check if the sensor, used by named device, is noisy or sending values.

133211, *arg*:Comp. hi

Description

Regulator for named device has compensated too much compared to the calibrated curve and its compensations parameter limits.

Recommended actions

1. Check in IPS config if compensation limits for named device are too tight.

2. Check supply pressures, hoses, sensor and transducer used by named device.

133212, *arg*:Comp. lo

Description

Regulator for named device has compensated too much compared to the calibrated curve and its compensations parameter limits.

Recommended actions

1. Check in IPS config if compensation limits for named device are too tight.

2. Check supply pressures, hoses, sensor and transducer used by named device.

133213, *arg*:Potlife

Description

The potlife time for named device has expired and the fluid will start to cure! Paint equipment may be destroyed! Start to flush system at once!

Recommended actions

1. Check if flushing of system is performed.

2. Check if potlife time is correct.

133214, *arg*:Setp. hi

Description

Setpoint value for named device is too high. The setpoint value is set to the maximum configured value for named device.

Recommended actions

1. Check if setpoint to named device is set too high.

2. Change the maximum value in the IPS config file if needed.

133215, *arg*:Setp. lo

Description

Setpoint value for named device is too low. The setpoint value is set to the minimum configured value for named device.

Recommended actions

1. Check if setpoint to named device is set too low.

2. Change the minimum value in the IPS config file if needed.

133216, *arg*:Seq. error

Description

IPS has discovered a trig sequence error. The Dynamic Delay Compensation function for named device measured an 'on'- transition while expecting an 'off'- transition. (Or opposite)

Recommended actions

1. Check if the sensor signal has the correct level.

2. Check if the sensor signal is noisy.

133217, *arg*:Unexp. trans.

Description

IPS has discovered an unexpected transition. The Dynamic Delay Compensation function for named device measured a transition at a time when none was expected.

Recommended actions

1. Check relay and electrical connections for the sensor.

2. Check if the sensor signal is noisy.

133218, *arg*:Timeout On

Description

IPS has discovered a trig timeout

for an 'on'- transition. The Dynamic
Delay Compensation function has timed
out for an 'on'- transition.

Recommended actions

1. Check sensor for named device.
2. Check wiring or relay for sensor.

133219, *arg*:Timeout Off

Description

IPS has discovered a trig timeout
for an 'off'- transition. The Dynamic
Delay Compensation function has timed
out for an 'off'- transition.

Recommended actions

1. Check sensor for named device.
2. Check wiring or relay for sensor.

133220, *arg*:No signal

Description

IPS is reading a zero value from the
sensor used by the named device. Wiring
or supply to this sensor can be
the reason.

Recommended actions

1. Check if used sensor is broken.
2. Check wiring of used sensor.
3. Check process supply for used sensor.

133221, *arg*:Max output

Description

The closed loop regulator for named
device has reached the maximum output.

Recommended actions

1. Check if the commanded value to the
regulator is higher than possible for
the application equipment.
2. Reduce setpoint to operate regulator
within controllable range.

133222, *arg*:Min output

Description

The closed loop regulator for named
device has reached the minimum output.

Recommended actions

1. Check if the commanded value to the
regulator is lower than possible for

the application equipment.
2. Increase setpoint to operate
regulator within controllable range.

133223, *arg*:Interlock

Description

IPS has discovered an interlock
conflict error. An attempt was made to
operate more than one valve or device
in an interlocked group.

Recommended actions

1. Set active valve or device to zero
before activating a new one.

133224, Acknowledge needed

Description

arg is currently halted by
an alarm supervision and an acknowledge
of named device is needed.

Recommended actions

1. Check the alarms that is halting
the named device.
2. Recover the alarm situation.
3. Acknowledge the alarm for named
device and retry.

133225, DMC error

Description

Following Digital Motor Controller (DMC) error message was sent to
IPS:
arg.
IPS has lost communication or discovered an error sent from the
named DMC driver.

Recommended actions

1. Check cables to the DMC.
2. Check power supply to the DMC.
3. For more info, see the Unit Description, Paint manual.

133226, *arg*.

Description

Setpoint error.
IPS has discovered an error
to set a signal on the named device.

Recommended actions

1. Check if signal is available for
named device.

133250, *arg*:Comm. err

Description

IPS has discovered an internal
CAN-communication error. Communication
on CAN-bus between IPS nodes is lost.
System will try to reconnect if
possible.

Recommended actions

1. Check CAN-bus cables for IPS nodes.
2. Check IPS nodes for correct MacID.
3. Check CAN-bus termination resistors.

133251, *arg*:New curve

Description

IPS has created a new dynamic or
calibrated curve, number *arg*, for
named device.

Recommended actions

133252, *arg*:Calc. curve

Description

IPS has recalculated a dynamic or
calibrated curve, number *arg*, for named
device. The range of curve is modified
due to modified range of regulator.

Recommended actions

133253, *arg*:Resizing

Description

IPS has resized a dynamic or
calibrated curve, number *arg*, for named
device. Due to change in curvesize
parameter, the existing curves are
transformed to the new curvepoint size.

Recommended actions

133254, *arg*:DMC error

Description

IPS has lost communication or
discovered an error sent from named
DMC-driver.
DMC error code is: *arg*.

Recommended actions

1. Check DMC-driver status LEDs.
2. Check power supply on the DMC-driver.

3. Turn off and on the DMC-driver power.

133255, Apmb error

Description

IPS has discovered an Apmb-driver
(Berger-Lahr driver) error.
Apmb-driver, number: *arg*, has issued an
error.

Recommended actions

1. Check the fault LEDs codes on the
Berger-Lahr Drive unit.
2. Check stepper motor.
3. Check wiring for Berger-Lahr driver.

133256, *arg*:Curve err

Description

IPS has discovered a number
format on named dynamic/calibrated
curve that is not correct.

Recommended actions

1. Check if an already saved curve on
the IPS node has an incompatible number
format than expected.
2. Delete the saved curve on the
IPS board.

133257, SDI error

Description

SDI board have issued following
error:*arg*,
with error code:*arg*.

Recommended actions

1. Check SDI board for errors.

133258, VCD error,MacID:*arg*

Description

IPS has discovered an error
on a VCD board with following
details:*arg*.

Recommended actions

1. Check VCD board for the error reason
given.
2. Replace the VCD board.

133259, File Access Error

Description

IPS has discovered a File Access

Error on following file: *arg*.

Recommended actions

1. Check if named file exists.

2. Check if file is currently in use.

133260, File Defaulted

Description

IPS has created a default file

of type: '*arg*' with

following file name: *arg*.

Recommended actions

133261, File Parse Error

Description

IPS failed to load the following file *arg* in line *arg*.

Detailed error text: *arg*.

Recommended actions

1. Check that named file has the correct format for its use.

133262, New index entry in file

Description

IPS has created in file: *arg*

a new index entry with value: *arg*

Recommended actions

133263, PPRU CAN Error

Description

PPRU unit: *arg*,

register '*arg*' = *arg*

133264, PPRU Error

Description

PPRU unit: *arg*,

message = '*arg*'

133265, SPI down: *arg*

Description

IPS on node *arg* has discovered an SPI-communication error.

arg

System will try to reconnect.

Recommended actions

1. Check serial cable to SPI board.

2. Check power cable to SPI board.

3. Check/replace SPI board.

133266, SPI up: *arg*

Description

SPI reconnected on node *arg*.

133280, Servo create error

Description

SDI board has discovered an error while

loading configuration.

Recommended actions

1. Check SDI configuration.

2. Check/replace SDI board.

3. Contact customer support.

133281, Servo meas. system error

Description

SDI board has discovered an error on the

serial line for the measurement system.

Recommended actions

1. Check cables and connectors.

2. Check measurement board.

3. Contact customer support.

133282, Servo drive system error

Description

SDI board has discovered an error on the

serial line for the drive system.

Recommended actions

1. Check cables and connectors.

2. Check serial line, maybe a loop-link

is required.

3. Check drive units.

4. Contact customer support.

133283, Servo calibration done

Description

SDI board has performed calibration.

133284, Servo calibration error

Description

SDI board has discovered an error while
doing calibration.

Recommended actions

1. Retry calibration.
2. Contact customer support.

133285, Servo calibration timeout

Description

SDI board has discovered that the
calibration job has timed out.

Recommended actions

1. Retry calibration.
2. Contact customer support.

133286, Servo config. timeout

Description

SDI board has discovered an error while
loading configuration.

Recommended actions

1. Check SDI configuration.
2. Check/replace SDI board.
3. Contact customer support.

133287, Servo coeff. set error

Description

SDI board has discovered a problem to
assign a specified set of coeffisients.

Recommended actions

1. Check FILTERASSIGN section in
SDI configuration file for errors.
2. Check/replace SDI board.
3. Contact customer support.

133288, Servo illegal hardware

Description

SDI board has discovered an error while loading configuration.

Recommended actions

1. Check SDI hardware version.
2. Check/replace SDI board.
3. Contact customer support.

133300, Drive units power up

Description

After power up or reset of Drive units
the 'POWER_UP'-error bit is set. This is
to indicate that the Drive units needs
to be initialized by downloaded
parameters.

Recommended actions

1. This is info only, the software on
the SDI board should automatically
download parameters to the drives.

133301, SDI Servo WatchDog

Description

SDI board has discovered a watchdog
reset from the Drive unit used
by: *arg*.

Recommended actions

1. Restart robot controller.
2. Replace Drive unit.

133302, SDI logic +/-15V error

Description

The SDI supply voltage for +/-15V is
out of range, received from the Drive
unit used by: *arg*.

Recommended actions

1. Check cabling on SDI board.
2. Check supply voltage of +/-15V from
SDI board.
3. Replace Drive unit.

133303, SDI Comm. error

Description

SDI board has discovered too many
consecutive communication errors
reported by the Drive unit
used by: *arg*.

Recommended actions

1. Check cabling.
2. Replace Drive unit.
3. Replace SDI board.

133304, Int. Drive unit error

Description

SDI board has discovered an internal
error in the Drive unit used
by: *arg*.

Recommended actions

1. Ignore if any other Drive unit
errors are present.
2. Replace Drive unit.

133305, Drive glitch warning

Description

SDI board has discovered a glitch in
the short circuit detector for the Drive
unit used by: *arg*.

Recommended actions

1. Check for short circuit in cabling.
2. Check for short circuit in servo
motor.
2. Replace Drive unit.

133306, Servo short circuit

Description

SDI board has discovered an short
circuit in the Drive unit used
by: *arg*

Recommended actions

1. Check for short circuit in cabling.
2. Check for short circuit in servo
motor.
3. Replace Drive unit.

133307, Servo temp. warning

Description

SDI board has discovered a high
temperature warning in the Drive unit
used by: *arg*.
ALLOW SYSTEM TO COOL DOWN!

Recommended actions

1. Check cooling fans and filters for
the Drive unit.
2. Too high ambient temperature.
3. Check power consumption of the Drive.
4. Replace Drive unit.

133308, Servo Temp. alarm

Description

SDI board has discovered a high
temperature alarm in the Drive unit
used by: *arg*.
ALLOW SYSTEM TO COOL DOWN!

Recommended actions

1. Check cooling fans and filters for
the Drive unit.
2. Too high ambient temperature.
3. Check power consumption of the Drive.
4. Replace Drive unit.

133309, Servo over temperature

Description

SDI board has discovered an over
temperature error in the Drive unit
used by: *arg*.
ALLOW SYSTEM TO COOL DOWN!

Recommended actions

1. Check cooling fans and filters for
the Drive unit.
2. Too high ambient temperature.
3. Check power consumption of the Drive.
4. Replace Drive unit.

133310, Servo Drive overload

Description

SDI board has discovered high
temperature in transistors on the Drive
unit used by: *arg*.
This problem is caused by overload for
the actual Drive.

Recommended actions

1. Too much torque for the Drive unit.
Check system for overload in torque.
2. Check if robot or pump is jammed.
3. Replace Drive unit.

133311, Servo high voltage

Description

SDI board has discovered a DC-bus
voltage higher than allowed.
This is detected in the Drive unit
used by: *arg*.

Recommended actions

1. Check incoming mains.

2. Check/replace bleeder resistors
and cabling.

3. Check/replace DC-link.

4. Replace Drive Unit.

133312, Servo over voltage

Description

SDI board has discovered a critical
over voltage on DC-bus detected in the
Drive unit used by: *arg*.

Recommended actions

1. Check incoming mains.

2. Check/replace bleeder resistors.

3. Check/replace DC-link.

133313, Servo DC low voltage

Description

SDI board has discovered a low voltage
on DC-bus detected in the Drive unit
used by: *arg*.

Recommended actions

1. Check incoming mains.

2. Check/replace bleeder resistors
and cabling.

3. Check/replace DC-link.

4. Replace Drive Unit.

133314, Servo torque command err.

Description

SDI board has discovered a servo torque
command error with too big difference
in 3 consecutive torque references.
This error is received from the Drive
unit used by: *arg*.

Recommended actions

1. Check resolver cabling and external
noise in resolver cabling.

2. Check resolver ground connections.

3. Check SDI configuration if gain
is too high.

133315, Servo resolver pos. err.

Description

SDI board has discovered a resolver
postion error with too big difference

in 3 consecutive rotor positions.
This error is received from the Drive
unit used by: *arg*.

Recommended actions

1. Check resolver cabling and external
noise in resolver cabling.

2. Check resolver ground connections.

133316, Saturated current contr.

Description

SDI board has discovered that the Drive
unit is unable to supply ordered current
due to low DC-voltage or broken motor
connections, received from the Drive
unit used by: *arg*.

Recommended actions

1. Check DC-bus voltage.

2. Check servomotor/cables.

3. Check SDI configuration.

4. Replace Drive Unit.

133317, Servo cable error

Description

SDI board has discovered a servo
cable error between Drive unit and
servomotor. This error is received from
the Drive unit used by: *arg*.

Recommended actions

1. Check servomotor/cables.

2. Replace Drive unit.

3. Replace SDI board.

133318, Servo under current error

Description

SDI board has discovered a torque
that is producing a current lower than
ordered, received from the Drive unit
used by: *arg*.

Recommended actions

1. Check SDI configuration.

2. Check DC-bus voltage.

3. Check servomotor/cables.

133319, Servo over current error

Description

SDI board has discovered a torque

that is producing a current higher than ordered, received from the Drive unit used by: *arg*.

Recommended actions

1. Check SDI configuration.
2. Check DC-bus voltage.
3. Check servomotor/cables.

133320, Drive unit regulator err.

Description

SDI board has discovered an error in the Drive unit regulator (d-part) used by: *arg*.

Recommended actions

1. Check SDI configuration.
2. Check servomotor/cables.
3. Check resolver and resolver cabling.
4. Replace SDI board.

133321, Servo max. current error

Description

SDI board has discovered a maximum current error, received from the Drive unit used by: *arg*.

Recommended actions

1. Check SDI configuration.
2. Check DC-bus voltage.
3. Check servomotor/cables.

133322, Servo unknown error code

Description

SDI board has discovered an unknown extended servo error code. This is an internal error, received from Drive unit used by: *arg*

Recommended actions

1. Check/replace Drive unit.
2. Check/replace SDI board.
3. Contact customer support.

133323, Servo overrun error

Description

SDI board has discovered a receiver overrun. This is an internal error, received from Drive unit used by: *arg*

Recommended actions

1. Check SDI configuration.
2. Check/replace Drive unit.
3. Check/replace SDI board.
4. Contact customer support.

133324, Servo illegal node

Description

SDI board has discovered a servo illegal node address error. This is an internal error, received from Drive unit used by: *arg*

Recommended actions

1. Check SDI configuration.
2. Check/replace Drive unit.
3. Check/replace SDI board.
4. Contact customer support.

133325, Servo illegal key

Description

SDI board has discovered a servo illegal key value when connecting to an Drive unit. This is an internal error, received from the Drive unit used by: *arg*

Recommended actions

1. Check SDI configuration.
2. Check/replace Drive unit.
3. Check/replace SDI board.
4. Contact customer support.

133326, Servo no parameter

Description

SDI board has discovered that no parameter is used. This is an internal error, received from the Drive unit used by: *arg*

Recommended actions

1. Check SDI configuration.
2. Check/replace Drive unit.
3. Check/replace SDI board.
4. Contact customer support.

133327, Servo read only par.

Description

SDI board has discovered an attempt to write parameter values to read only

parameters on a Drive unit. This is an
internal error, received from the Drive
unit used by: *arg*

Recommended actions

1. Check SDI configuration.
2. Check/replace Drive unit.
3. Check/replace SDI board.
4. Contact customer support.

133328, Servo locked parameter

Description

SDI board has discovered an attempt to
write parameter values to locked
parameters on a Drive unit. This is an
internal error, received from the Drive
unit used by: *arg*

Recommended actions

1. Check SDI configuration.
2. Check/replace Drive unit.
3. Check/replace SDI board.
4. Contact customer support.

133329, Servo diagnosis no par.

Description

SDI board has asked for a non existing
parameter from the Drive unit
used by: *arg*

Recommended actions

1. Check SDI configuration.
2. Check/replace Drive unit.
3. Check/replace SDI board.
4. Contact customer support.

133330, Servo current meas. error

Description

SDI board has discovered a servo current
measurement error, caused by an error in
the current measurement bridge.
This is an internal error, received from
the Drive unit used by: *arg*

Recommended actions

1. Check/replace Drive unit.
2. Check/replace SDI board.
3. Contact customer support.

133331, Servo syncslot occupied

Description

SDI board has discovered a syncslot
occupy error received from the Drive
unit used by: *arg*.

Recommended actions

1. Check SDI configuration.
2. Check/replace Drive unit.
3. Check/replace SDI board.
4. Contact customer support.

133332, Servo sync insert error

Description

SDI board has discovered a sync insert
error received from the Drive unit
used by: *arg*.

Recommended actions

1. Check how motor and resolver are
configured on the SDI board.
2. Check/replace Drive unit.
3. Check/replace SDI board.
4. Contact customer support.

133333, Servo sync no load par.

Description

SDI board has discovered a sync with no
parameters, received from the Drive unit
used by: *arg*.

Recommended actions

1. Check SDI configuration.
2. Check/replace Drive unit.
3. Check/replace SDI board.
4. Contact customer support.

133334, Servo position reg. error

Description

SDI board has discovered a servo
position regulator error,
for: *arg*. This error is
typical if the resolver feedback
is noisy.

Recommended actions

1. Check resolver cabling.
2. Contact customer support.

133335, Servo speed reg. overflow

Description

SDI board has discovered a servo speed
regulator overflow error,
for: *arg*. This error is
typical if the resolver feedback
is noisy.

Recommended actions

1. Check resolver cabling.
2. Contact customer support.

133336, Servo speed flt overflow

Description

SDI board has discovered a servo speed
filter overflow error,
for: *arg*.

Recommended actions

1. Change SDI board.
2. Contact customer support.

133337, Servo res. angle overflow

Description

SDI board has discovered a resolver
angle calculation overflow error,
for: *arg*.

Recommended actions

1. Check resolver and resolver cabling.
2. Contact customer support.

133338, Servo resolver error

Description

SDI board has discovered a failure in
resolver angle square root calculation,
for: *arg*. The squared
result for x- and y-signal on resolver
exceeded a limit.

Recommended actions

1. Check resolver and resolver cabling.
2. Replace serial measurement boards.

133339, Servo torque limit error

Description

SDI board has discovered a servo torque
limit error, for: *arg*.

Recommended actions

1. Check motorcables or servomotor.2. Check torque limits in
configuration.
3. Check if servomotor/gearbox is stuck.
4. Check if configuration is correct
for used setup.

133340, Drive unit comm. lost

Description

SDI board has lost communication with
the Drive unit used by: *arg*.

Recommended actions

1. Check cable between SDI board and
Drive unit.
2. Replace SDI board.
3. Replace Drive unit.

133341, Sms board comm. lost

Description

SDI board has lost contact with the
serial measurement board,
used by: *arg*.

Recommended actions

1. Check cable between SDI board and
measurement board.
2. Replace SDI board.
3. Replace serial measurement board.

133342, Sms board comm. lost

Description

SDI board has lost contact with the
serial measurement board,
used by: *arg*.

Recommended actions

1. Check cable between SDI board and
measurement board.
2. Replace SDI board.
3. Replace serial measurement board.

133343, Sms board comm. lost

Description

SDI board has lost contact with the
serial measurement board,
used by: *arg*.

Recommended actions

1. Check cable between SDI board and

measurement board.

2. Replace SDI board.

3. Replace serial measurement board.

133344, Position step error

Description

SDI board has discovered an ordered position step length larger than the maximum specified step length, configured for: *arg*.

Recommended actions

1. Check the 'MaxStepSize' parameter in the configuration for named servo.

2. Check acc./speed for superior interpolator.

3. Check resolver and resolver cabling.

133345, Speed error

Description

SDI board has discovered a speed error for: *arg*.

Recommended actions

1. Check acc./speed for superior interpolator.

2. Check gain parameters for named servo.

3. Check resolver and resolver cabling.

133428,

Description

Recommended actions

133429,

Description

Recommended actions

133430, Servo DC-link overtemp.

Description

SDI board has discovered an over-temperature in DC-link: *arg*.

Recommended actions

1. Check cooling fans and filters for the DC-link.

2. Too high ambient temperature.

3. Check main supply for DC-link.

4. Replace DC-link unit.

133431, Servo bleeder overload

Description

SDI board has discovered a bleeder overload for DC-link: *arg*.

Recommended actions

1. Check bleeder connections.

2. Too much deceleration.

3. Check AC voltage to DC-link.

4. Replace DC-link unit.

133432,

Description

Recommended actions

133433, Servo mains error

Description

SDI board has discovered an error on the main supply for the DC-link unit: *arg*.

Recommended actions

1. Check power supply to the DC-link.

2. Replace DC-link unit.

133434, Low DC voltage

Description

SDI board has discovered low DC voltage on the DC-link unit: *arg*.

Recommended actions

1. Check power supply to the DC-link.

2. Replace DC-link unit.

133435, DC-link +/-15V error

Description

The DC-link supply voltage for +/-15 volt is out of range, detected by the DC-link unit: *arg*.

Recommended actions

1. Check cabling.

2. Check +/-15V from power supply.

3. Replace DC-link unit.

133436, Open circuit in bleeder resistor circuit

Description

The bleeder resistor connected to the rectifier is an open circuit, detected by: *arg*.

Recommended actions

1. Make sure the bleeder resistor cable is correctly connected to the rectifier unit.

2. Make sure the cable and resistor is working correctly by measuring their resistance respectively. Disconnect before measuring.

3. Replace any faulty component.

133437, Short circuit in bleeder resistor circuit

Description

The bleeder resistor connected to the rectifier is a short circuit, detected by: *arg*.

Recommended actions

1. Make sure the bleeder resistor cable is correctly connected to the rectifier unit.

2. Perform a shutdown and then restart the system.

3. If the problem persists, isolate the faulty rectifier unit and replace it.

133501, Handler is not calibrated

Description

Could not enable the handler, because the handler was not calibrated.

Recommended actions

Calibrate the handler.

133502, Belt on the handler is not calibrated

Description

Could not enable the handler, because the belt on the handler is not calibrated.

Recommended actions

1. Be sure to calibrate the handler in two postions.

2. Update SDI-configuration to one point calibration.

133503, Belt calibration error

Description

The result of the belt-calibration was too inaccurate.

Recommended actions

1. Check SDI-configuration for position of calibration points.

2. Make sure that you calibrate in the the correct order and that the handler is positioned accurately.

133504, Move not allowed

Description

A new move command was given to the interpolator on the SDI board when it was already interpolating two paths.

Recommended actions

1. Check in program if several moves is performed, without waiting for the interpolator to be ready for next move.

133505, No servo response on SDI

Description

SDI board has discovered that a servo did not request for a new step from the interpolator.

Recommended actions

1. Check in error log for the servo errors given.
2. Fix the actual servo problem and retry the system.

133507, Invalid interpolator step

Description

SDI board has discovered an invalid interpolator step in the system. The interpolator on the SDI board has tried to set an illegal step length, or too high speed is set in the move program.

Recommended actions

1. Check program for too high speed.
2. Check for configuration error (gear ratio, etc.).
3. Interpolator error.
4. Contact customer support.

133508, Servo read error

Description

SDI board has discovered a servo read error. The interpolator on the SDI board has failed to read from a servo.

Recommended actions

1. Check in error log for the servo errors given.
2. Replace SDI board.

133509, Handler not in position

Description

SDI board has discovered that the handler has not reached the correct position, after a specified time.

Recommended actions

1. Check for servo errors.
2. Check for interpolator errors.
3. Replace SDI board.

133512, Command toggle error.

Description

A command toggle was sent to the SDI board while the acknowledge signal was high.

Recommended actions

1. Assure that the command toggle signal is low before toggling a new command.

133550, Joint speed error

Description

The speed of joint *arg* deviates too much relative to the ordered speed.

Recommended actions

1. Check the parameters.
2. Check for external forces.
3. Reduce programmed speed and acceleration.

133551, Move not allowed

Description

The handler is ordered to move to an illegal position: *arg= arg*

Recommended actions

1. Check position limits.
2. Check position data.
3. Check signal CPYLimOverride.

134001, Fatal queue error

Description

It was not possible to pop the job queue, due to an unexpected error.

134002, Queue overflow

Description

The last job in the queue was removed because the queue is full.

Consequences

The last job will not be executed.

Recommended actions

Wait for queue size to decrease before inserting more jobs.

134003, Invalid token

Description

Token *arg* is out of bounds.

Recommended actions

Check client parameters.

134004, Invalid client

Description

Client *arg* is out of bounds.

Recommended actions

Check client parameters.

134005, *arg* can only get master in Auto mode

Description

It is only allowed to get master in Auto mode.

Recommended actions

Switch the controller to Auto mode and execute the command again.

134006, *arg* failed to get master

Description

arg could not get master, because master is already taken by *arg*.

134007, *arg* failed to release master

Description

arg could not release master, because *arg* has master.

134008, Too many subscribers

Description

The routine *arg* could not be subscribed to the *arg* event due to too many subscribers.

134009, Subscriber file error

Description

The system failed to create the file *arg*.

134010, Subscriber reference error

Description

arg did not contain the procedure *arg*.

134011, Subscriber unknown error

Description

Unknown error during init. of subscribers.

134017, Buffer full

Description

Buffer1: *arg*

Buffer2: *arg*

134018, Log semaphore timeout

Description

Log: *arg*

Message: *arg*

134019, Master required

Description

arg must be master to execute the command (*arg*).

134020, File not found

Description

arg could not be found.

Recommended actions

Make sure that the file exists.

134021, Syntax Error

Description

The file "*arg*" contains syntax errors or reference errors.

Consequences

The file was not loaded.

Recommended actions

Check error and rapid logs for the cause and fix the file.

134022, Duplicate attempt to load program

Description

Duplicate attempt to load program index: *arg*.

Recommended actions

Wait for the current directly loaded program to finish executing.

134023, Duplicate attempt to load program

Description

Duplicate attempt to load module name: *arg*.

Recommended actions

Wait for the current directly loaded program to finish executing.

134025, Material Change Suspended

Description

Material change was suspended because of an error or stop.

Recommended actions

Fix the problem, reset error and restart.

134026, Material Change Cancelled

Description

Material change was cancelled.

134027, Illegal Material Change Event

Description

Start of material change was issued while material change was already running.

134028, Illegal Material Change Event

Description

Proceed of material change was issued unexpectedly.

134030, Material Change Skipped

Description

Material supply is turned off.

Consequences

Material change will be skipped for this job.

134032, Protocol Error

Description

A material change command was sent to the robot before the previous was done.

134033, Enable Material Supply Error

Description

Could not enable the material supply.

134034, Material Change Time Out

Description

Material change decision timed out.

Consequences

Material change decision may not be reliable.

Recommended actions

Procedures subsribed to the decide event should be checked for delays.

134039, Toggle lowered before command was finished

Description

The command toggle was lowered before the command was finished.

Consequences

The external controls system will not receive command result.

Probable causes

External controls system not compliant to protocol

134040, Previous command not finished

Description

A command (*arg*) was sent before the previous (*arg*) was done.

Probable causes

External controls system not compliant to protocol

134041, Missing Signal Definition

Description

The signal *arg* could not be found.

134042, Volume not recorded

Description

Total consumed volume for the job is outside accepted tolerance. Volume: *arg*

Consequences

Accuvol table will not be updated.

134050, Applicator Timeout

Description

A timeout occured while waiting for the applicator to get ready.

Recommended actions

Check other process messages for additional information.

134051, External Start when no program

Description

An External Start command (*arg*) was received when no program was loaded

Probable causes

External controls system not compliant to protocol

134052, Overpush

Description

The system has pushed to much material

Consequences

The current paint job might be contaminated

Recommended actions

Disable paint push and then check push parameters

134053, Applicator configuration mismatch

Description

There is a mismatch between the number of applicator enable signals and the number of brush signals.

Consequences

Robotware paint will not work properly

Recommended actions

Check the process configuration

134054, Command failed in e-stop state

Description

Command *arg* not allowed when the controller is in e-stop state.

Recommended actions

Remove emergency stop conditions and reset emergency stop state.

134055, Configuration error

Description

Could not add *arg*.xml into the configuration settings. There are too many configuration files.

Consequences

The option "*arg*" will be set to zero.

Recommended actions

Merge the configuration into another file, or increase the buffer size.

134056, Configuration error

Description

Could not find the file: *arg*.xml

Consequences

The option "*arg*" will be set to zero.

Recommended actions

Make sure the file exists.

134057, Configuration error

Description

Could not parse the file: *arg*.xml

Consequences

The option "*arg*" will be set to zero.

Recommended actions

Fix the markup in the XML file.

134058, Configuration error

Description

Did not find the option in the file: *arg*.xml

Consequences

The option "*arg*" will be set to zero.

Recommended actions

Add the option into the XML file.

134059, XML-parser error

Description

First dimension passed to XML-parser was to big.

Recommended actions

Contact customer service.

134060, XML-parser error

Description

Third dimension passed to XML-parser was not big enough.

Recommended actions

Contact customer service.

134061, XML-parser overflow

Description

There were too many options in the file: *arg*

Consequences

Only *arg* options were parsed.

Recommended actions

Remove some options or increase the buffer size.

134062, XML-parser error

Description

Could not open the file: *arg* for reading.

Recommended actions

Make sure the file exists, and is accessible.

134063, XML-parser error

Description

Did not find a specified set of symbols.

Recommended actions

Fix the markup in the XML file.

134064, CSV-parser error

Description

Row out of range in the file: *arg*

Consequences

The rows out of range in the file will be skipped.

Recommended actions

Remove the offending rows, or increase the buffer size.

134065, CSV-parser error

Description

Encountered a row number that was not a positive integer in the file: *arg*

Consequences

The row/line in the file will be skipped.

Recommended actions

Change the row number to a positive integer.

134066, CSV-parser error

Description

There were too many columns on a row in the file: *arg*

Consequences

The remaining columns on the row/line in the file will be skipped.

Recommended actions

Reduce the amount of columns, or increase the buffer size.

134067, CSV-parser error

Description

Could not open the file: *arg* for reading.

Recommended actions

Make sure the file exists, and is accessible.

134100, CBS servo not enabled.

Description

CBS servo was not enabled when deciding to do material change.

Consequences

The material change or maintenance operation will be skipped.

Recommended actions

Enable the CBS servo.

134101, CBS restarted while performing operations.

Description

CBS was restarted in state: *arg*

Consequences

The CBS is in an unreliable state.

Recommended actions

The integrity of the system must be restored manually by moving cartridges back to their home stations.

134102, Unrecoverable CBS error.

Description

An unrecoverable error has occured.

Consequences

The CBS is in an unreliable state.

Recommended actions

The integrity of the system must be restored manually by moving cartridges back to their home stations.

134103, No solution for material index.

Description

No cartridge and IFS combination found for selected material index.

Consequences

The material change will be skipped.

Recommended actions

Reconfigure the system by adding the material index.

134104, No station for material index.

Description

No IFS station can supply the selected material index.

134105, No cartridge for material index.

Description

No cartridge is available for the selected station and material index.

134106, Not able to empty auxiliary station.

Description

Not able to empty auxiliary station due to a unrecoverable CBS error.

Recommended actions

The integrity of the system must be restored manually by moving cartridges back to their home stations.

134107, Storage station is not an IFS.

Description

The returned cartridge was not stored in an IFS.

Consequences

The post processing of the cartridge will be skipped.

134108, Possible CBS collision.

Description

Robot execution has been stopped in order to avoid a collision with the CBS handler.*arg*

Recommended actions

Manually move CBS handler away from robot and resume execution.

134110, Safe Move to address failed.

Description

Not allowed to move to address: *arg*, with gripper: *arg*

Recommended actions

Reconfigure gripper access.

134111, Safe Move to address failed.

Description

CBS servo is not enabled.

Recommended actions

Enable the CBS servo.

134112, Safe Move to address failed.

Description

Arm could not be moved up.

134113, Safe Move to address failed.

Description

CBS servo could not be controlled.

134114, Move to address failed.

Description

Invalid angle configured for address: *arg*

134115, Move to address failed.

Description

Invalid distance configured for address: *arg*

134116, Move to address failed.

Description

Timeout while waiting for servo controller to complete previous command.

Recommended actions

Check that servo controller and communication interface is ok.

134117, Move to address failed.

Description

Timeout while waiting for acknowledge from servo controller.

Recommended actions

Check that servo controller and communication interface is ok.

134118, Servo on failed.

Description

Timeout while waiting for servo controller feedback.

Recommended actions

Check that servo controller and communication interface is ok.

134119, Servo off failed.

Description

Timeout while waiting for servo controller feedback.

Recommended actions

Check that servo controller and communication interface is ok.

134120, Calibrate servo failed.

Description

Timeout while waiting for servo controller to complete previous command.

Recommended actions

Check that servo controller and communication interface is ok.

134121, Calibrate servo failed.

Description

Timeout while waiting for acknowledge from servo controller.

Recommended actions

Check that servo controller and communication interface is ok.

134122, Set servo acceleration failed.

Description

Specified setting is out of range.

134123, Set servo acceleration failed.

Description

Timeout while waiting for servo controller to complete previous command.

Recommended actions

Check that servo controller and communication interface is ok.

134124, Set servo acceleration failed.

Description

Timeout while waiting for acknowledge from servo controller.

Recommended actions

Check that servo controller and communication interface is ok.

134125, Set servo speed failed.

Description

Specified setting is out of range.

134130, Move arm up failed.

Description

Timeout while waiting for sensor feedback.

Recommended actions

Check that arm sensors are working.

134131, Move arm down failed.

Description

Timeout while waiting for sensor feedback.

Recommended actions

Check that arm sensors are working.

134132, Gripper open failed.

Description

Opening gripper attempted while arm was not down.

Recommended actions

Make sure handler arm is down.

134133, Gripper open failed.

Description

Unknown gripper specified: *arg*

134134, Gripper open failed.

Description

Timeout while waiting for sensor feedback.

Recommended actions

Check that gripper sensors are working.

134135, Gripper close failed.

Description

Unknown gripper specified: *arg*

134136, Gripper close failed.

Description

Timeout while waiting for sensor feedback.

Recommended actions

Check that gripper sensors are working.

134137, Unexpected cartridge presence.

Description

An unknown cartridge is blocking gripper: *arg*

Recommended actions

Remove the offending cartridge and verify the integrity of the system.

134138, No cartridge present.

Description

Expected a cartridge in gripper: *arg*

Recommended actions

Locate missing cartridge and verify the integrity of the system.

134139, Gripper sense failed.

Description

Unknown gripper specified: *arg*

134140, Gripper access check failed.

Description

Unknown gripper specified: *arg*

134145, Vacuum check error.

Description

Timeout while waiting for sensor feedback.

134150, Unlock station failed.

Description

Unable to unlock station at address: *arg*

Recommended actions

Verify that locking signal for station is ok.

134151, Lock station failed.

Description

Unable to lock station at address: *arg*

Recommended actions

Verify that locking signal for station is ok.

134152, Set primary IFS selector failed.

Description

Unable to set primary IFS selector to address: *arg*

Recommended actions

Verify that primary IFS selector signal is ok.

134153, Set primary CC selector failed.

Description

Unable to set primary CC selector to address: *arg*

Recommended actions

Verify that primary CC selector signal is ok.

134154, Set secondary IFS selector failed.

Description

Unable to set secondary IFS selector to address: *arg*

Recommended actions

Verify that secondary IFS selector signal is ok.

134155, Set secondary CC selector failed.

Description

Unable to set secondary CC selector to address: *arg*

Recommended actions

Verify that secondary CC selector signal is ok.

134160, Arm sensors bypassed.

Description

Arm sensors bypassed.

Consequences

Speed of CBS handler may be reduced.

134161, Right gripper sensor bypassed.

Description

Right gripper sensor bypassed.

Consequences

Some integrity failures will not be detected, and cannot avoid damage to the system.

134162, Left gripper sensor bypassed.

Description

Left gripper sensor bypassed.

Consequences

Some integrity failures will not be detected, and cannot avoid damage to the system.

134163, Right cartridge sensor bypassed.

Description

Right cartridge sensor bypassed.

Consequences

Some integrity failures will not be detected, and cannot avoid damage to the system.

134164, Left cartridge sensor bypassed.

Description

Left cartridge sensor bypassed.

Consequences

Some integrity failures will not be detected, and cannot avoid damage to the system.

134165, Release sensor bypassed.

Description

Release sensor bypassed.

134166, Vacuum sensor bypassed.

Description

Vacuum sensor bypassed.

Consequences

Failure to produce vacuum will not be detected, and may cause cartridges to drop from applicator.

134167, Servo position feedback bypassed.

Description

Servo position feedback bypassed.

Consequences

Speed optimalization features will not be used.

134168, Servo command acknowledge bypassed.

Description

Servo command acknowledge bypassed.

Consequences

Servo may not behave correctly.

134170, CBS configuration error.

Description

Delivery address is not specified.

Consequences

System will not work correctly.

134171, CBS configuration error.

Description

Home address is not specified.

Consequences

System will not work correctly.

134172, CBS configuration error.

Description

Home gripper is not specified.

Consequences

System will not work correctly.

134173, CBS configuration error.

Description

Default cartridge volume is not specified.

Consequences

System will not work correctly.

134174, CBS configuration error.

Description

No cartridges has been defined.

Consequences

System will not work correctly.

134175, CBS configuration error.

Description

No materials has been defined.

Consequences

System will not work correctly.

134176, CBS configuration error.

Description

No addresses has been defined.

Consequences

System will not work correctly.

134177, CBS configuration error.

Description

No home station specified for cartridge: *arg*

Consequences

Cartridge will be skipped.

134178, CBS configuration error.

Description

Too many IFS stations have been defined.

Consequences

Some IFS stations will be skipped.

134180, Could not set baseplate data.

Description

Address: *arg* Content: *arg*

134181, Could not get baseplate data.

Description

Content: *arg*

134182, Could not get baseplate data.

Description

Type: *arg*

134183, Could not get baseplate data.

Description

Access: *arg*

134184, Could not get baseplate data.

Description

Angle: *arg*

134185, Could not get baseplate data.

Description

Distance: *arg*

134186, Could not get cartridge access data.

Description

Cartridge: *arg* Address: *arg*

134187, Could not set cartridge data.

Description

Cartridge: *arg* Data: *arg*

134188, Could not get cartridge data.

Description

Cartridge: *arg* Data: *arg*

134189, Could not set IFS data.

Description

Index: *arg* Data: *arg*

134190, Could not get IFS data.

Description

Index: *arg* Data: *arg*

134191, IFS index from address resolution failed.

Description

Address: *arg*

134192, IFS address from index resolution failed.

Description

Index: *arg*

134193, Could not get station valve or material data.

Description

Station: *arg* Material: *arg*

134195, No auxiliray station found.

Description

No auxiliary station found after trying different options.

Recommended actions

Cancel the handler and reconfigure the system.

134196, No storage station found.

Description

No storage station found after trying different options.

Recommended actions

Cancel the handler and reconfigure the system.

134200, Move cartridge failed.

Description

Move cartridge failed in state: *arg*

Recommended actions

Fix the problem causing the failure and resume the operation.

134201, Cancel move cartridge failed.

Description

Cancel move cartridge failed in state: *arg*

Recommended actions

Fix the problem causing the failure and resume the operation.

134202, Exchange cartridge step one failed.

Description

Exchange cartridge failed in state: *arg*

Recommended actions

Fix the problem causing the failure and resume the operation.

134203, Exchange cartridge step two failed.

Description

Exchange cartridge failed in state: *arg*

Recommended actions

Fix the problem causing the failure and resume the operation.

134204, Exchange cartridge step three failed.

Description

Exchange cartridge failed in state: *arg*

Recommended actions

Fix the problem causing the failure and resume the operation.

134210, Move cartridge error.

Description

There is already a cartridge at the 'To' address: *arg*

Consequences

Cannot continue with the operation.

134211, Move cartridge error.

Description

There is already a cartridge at the 'From' address: *arg*

Consequences

Cannot continue with the operation.

134212, Move cartridge error.

Description

An impossible to reach 'From' address was specified: *arg*

Consequences

Cannot continue the operation.

Recommended actions

Reconfigure baseplate access.

134213, Move cartridge error.

Description

An impossible to reach 'To' address was specified: *arg*

Consequences

Cannot continue the operation.

Recommended actions

Reconfigure baseplate access.

134214, Move cartridge error.

Description

The cartridge at 'From' address is not allowed at the 'To' address. Cartridge: *arg* Address: *arg*

Consequences

Cannot continue the operation.

Recommended actions

Reconfigure cartridge access.

134215, Exchange cartridge error.

Description

There is no cartridge to get at delivery address.

Consequences

Cannot continue with the operation.

134216, Exchange cartridge error.

Description

Cannot find suitable station to put returned cartridge in.

Consequences

Cannot continue with the operation.

134217, Exchange cartridge error.

Description

There is no cartridge at the 'From' address: *arg*

Consequences

Cannot continue with the operation.

134218, Exchange cartridge error.

Description

An impossible to reach 'From' address was specified: *arg*

Consequences

Cannot continue the operation.

Recommended actions

Reconfigure baseplate access.

134219, Unexpected cartridge in applicator.

Description

An unexpected cartridge was found while probing applicator.

Recommended actions

Remove the offending cartridge and resume the operation.

134220, Unexpected cartridge presence.

Description

An unexpected cartridge was found during start check.

Recommended actions

Remove the offending cartridge and verify the integrity of the system.

134221, No cartridge found while probing.

Description

Expected to find a cartridge in the station to process.

Consequences

Process operations on cartridge have been prevented.

Recommended actions

Manually verify the integrity of the system.

134230, Integrity check error.

Description

An unexpected cartridge was found during integrity check at address: *arg*

Recommended actions

Manually verify the integrity of the system.

134231, Integrity check error.

Description

Did not find expected cartridge during integrity check at address: *arg*

Recommended actions

Manually verify the integrity of the system.

134240, Maintenance operation error.

Description

Unknown maintenance operation specified: *arg*

134241, Maintenance operation error.

Description

Unknown cartridge process operation specified: *arg*

134242, Maintenance operation error.

Description

Not possible to move a cartridge from or to a hole.

134243, Maintenance operation error.

Description

Unknown cartridge specified: *arg*

134244, Maintenance operation error.

Description

No IFS solution for the cartridge specified: *arg*

134245, Maintenance operation failure.

Description

Integrity check failed.

Recommended actions

Fix the problem causing the failure and resume the operation.

134250, Cartridge PotLife timeout.

Description

System detected potlife timeout in cartridge: *arg*

Consequences

The cartridge will be cleaned.

134251, Cartridge reached continous use limit.

Description

System detected a maximum continous use of cartridge: *arg*

Consequences

The cartridge will be cleaned.

134260, Halt exchange timeout.

Description

A timeout occured while waiting for another task to resume the exchange process.

134270, DCL pressure release timeout.

Description

A timeout occured while waiting pressure to drop in DCU. Current pressure: *arg*

134310, DSF cartridge 1 sensor bypassed.

Description

DSF cartridge 1 sensor bypassed.

Consequences

System will run slower, and integrity failures will not be detected.

134311, DSF cartridge 2 sensor bypassed.

Description

DSF cartridge 2 sensor bypassed.

Consequences

System will run slower, and integrity failures will not be detected.

134312, Cartridge 1 home sensor bypassed.

Description

Cartridge 1 home sensor bypassed.

Consequences

System will run slower, and integrity failures will not be detected.

134313, Cartridge 2 home sensor bypassed.

Description

Cartridge 2 home sensor bypassed.

Consequences

System will run slower, and integrity failures will not be detected.

134314, Cartridge 1 DSD sensor bypassed.

Description

Cartridge 1 DSD sensor bypassed.

Consequences

System will run slower, and integrity failures will not be detected.

134315, Cartridge 2 DSD sensor bypassed.

Description

Cartridge 2 DSD sensor bypassed.

Consequences

System will run slower, and integrity failures will not be detected.

134316, Cartridge 1 DSF sensor bypassed.

Description

Cartridge 1 DSF sensor bypassed.

Consequences

System will run slower, and integrity failures will not be detected.

134317, Cartridge 2 DSF sensor bypassed.

Description

Cartridge 2 DSF sensor bypassed.

Consequences

System will run slower, and integrity failures will not be detected.

134320, Move DSF failed.

Description

Unknown position specified: *arg*

134321, Move DSF failed.

Description

Timeout while waiting for sensor feedback.

Recommended actions

Check that DSF sensors are working.

134325, Move Cartridge failed.

Description

Unknown cartridge position specified: *arg*

134326, Move Cartridge failed.

Description

Unknown cartridge specified: *arg*

134327, Move Cartridge failed.

Description

Timeout while waiting for sensor feedback. Cartridge: *arg* Position: *arg*

Recommended actions

Check that cartridge sensors are working.

134329, Get cartridge position failed.

Description

Unknown cartridge specified: *arg*

134340, VB configuration error.

Description

Maximum catridge volume not specified.

Consequences

System will not behave correctly. Cartridges may not be filled.

Recommended actions

Add the missing value into the VB configuration file.

134341, VB configuration error.

Description

Swap cartridge volume not specified.

Consequences

System will not behave optimally. Cartridges will run completely empty before swapping occurs.

Recommended actions

Add the missing value into the VB configuration file.

134342, VB configuration error.

Description

Enough catridge volume not specified.

Consequences

System will not behave optimally. Filling will always occur, even if cartridges have enough volume.

Recommended actions

Add the missing value into the VB configuration file.

134343, VB configuration error.

Description

Split volume not specified.

Consequences

System will not behave optimally. Last cartridge may delay material change.

Recommended actions

Add the missing value into the VB configuration file.

134350, Move cartridge to home failed.

Description

Operation failed in state: *arg*

134351, Move cartridge to DSD failed.

Description

Operation failed in state: *arg*

134352, Move cartridge to DSF failed.

Description

Operation failed in state: *arg*

134353, Move DSF to cartridge failed.

Description

Operation failed in state: *arg*

134360, VB maintenance operation error.

Description

Unknown maintenance operation specified: *arg*

134400, Out of paint.

Description

Cartridge *arg* ran out of paint before cartridge *arg* was ready.

Consequences

The robot has been stopped to prevent additional fluid consumption.

Recommended actions

Start the robot once the new cartridge is ready. Reduce the fluid brush and speed and check other process messages.

134401, Applicator fill problem.

Description

Paint line and applicator was not filled properly. *arg* > *arg*.

Recommended actions

Refill applicator or paint line and check other process messages.

134402, Cartridge fill problem.

Description

Cartridge *arg* was not filled properly. *arg* > *arg*.

Recommended actions

Refill cartridge and check other process messages.

134405, Illegal VB state.

Description

A statemachine entered an unknown state.

134406, DCL not ready.

Description

The status of DCL system *arg* is not in ready state.

Recommended actions

Run the maintenance operation to refill DCL for this system.

134410, Unknown sensor specified.

Description

Unknown sensor ID: *arg*.

Recommended actions

Check that paint command paramters are correct.

134411, Unknown cartridge specified.

Description

Unknown cartridge ID: *arg*.

Recommended actions

Check that paint command paramters are correct.

134412, Unknown position specified.

Description

Unknown position ID: *arg*.

Recommended actions

Check that paint command paramters are correct.

134420, Bypass cartridge error.

Description

Not allowed to run system with two or more sensors disabled for cartridge *arg*.

Recommended actions

Enable more sensors.

134421, Bypass DSF error.

Description

Not allowed to run system with both DSF sensors disabled.

Recommended actions

Enable one of the sensors.

134425, Unknown DSF position.

Description

The DSF is not in a known position.

Recommended actions

Put it in a known position or verify its sensors.

134426, Unknown cartridge position.

Description

Cartridge *arg* is not in a known position.

Recommended actions

Put it in a known position or verify its sensors.

134430, DSF move error.

Description

Could not move DSF to cartridge *arg*.

134431, Cartridge move error.

Description

Could not move cartridge *arg* to home position.

134432, Cartridge move error.

Description

Could not move cartridge *arg* to DSF position.

134433, Cartridge move error.

Description

Could not move cartridge *arg* to DSD position.

14,

Description

150330, RAPID error in module

Description

Task:*arg*

Module (line/column): *arg*

There is an error with symbol: *arg*

3HAC020738-001 Revision: K

3HAC020738-001 Revision: K

Contact us

Power and productivity
for a better world™

ABB