Error Codes Directory

All Robots

Original instructions (en)

PolyScope 5

Contents

1. Introduction

Error codes are used in the robot error messages, Date Log, saved error reports and URScript Programming Language.

If the software prompts an error, immediately press emergency stop, write down the conditions that led to the error, find the corresponding error codes on the log screen, and contact your supplier.

The abbreviations in this document mean the following:

- On the Safety Control Board: Processor A = A uP = SafetySys1
- On the Safety Control Board: Processor B = B uP = SafetySys2
- PSU = Power Supply
- PC = Controller
- LVD = Low Voltage Detected

1.1. C0 No error

If you unable to resolve the issue, log in to http://myUR.universal-robots.com and create a new case.

1.2. C1 Outbuffer overflow

If you unable to resolve the issue, log in to http://myUR.universal-robots.com and create a new case.

C1A1 Buffer of stored warnings overflowed

C1A2 Outbuffer to RS485 overflowed (problem with Controller message)

1.3. C2 Inbuffer overflow

If you unable to resolve the issue, log in to http://myUR.universal-robots.com and create a new case.

1.4. C3 Processor overloaded

If you unable to resolve the issue, log in to http://myUR.universal-robots.com and create a new case.

1.5. C4 Communication issue

You may find the following links helpful in addressing this issue:

- How to perform a complete reboot
- Find a distributor page

If you unable to resolve the issue, log in to http://myUR.universal-robots.com and create a new case.

C4A1 Lost communication with Controller

EXPLANATION
Communication was lost between the Safety Control Board and the Motherboard

SUGGESTION
Try the following actions to see which resolves the issue: (A) Check Ethernet cable between Safety Control Board and Motherboard, check that a script or UR+ software is not overloading the communication between the Safety Control Board and Motherboard, (B) Conduct a complete rebooting sequence, (C) Update the software

C4A2 Lost communication with Safety Control Board A uP

SUGGESTION
Try the following actions to see which resolves the issue: (A) Check TCP/IP connection between Motherboard and Safety Control Board, (B) Conduct a complete rebooting sequence, (C) Exchange Safety Control Board

C4A3 Communication with Safety Control Board B uP lost

SUGGESTION
Try the following actions to see which resolves the issue: (A) Check TCP/IP connection between Motherboard and Safety Control Board, (B) Conduct a complete rebooting sequence, (C) Exchange Safety Control Board

C4A4 Communication with primary Teach Pendant uP lost

SUGGESTION
Try the following actions to see which resolves the issue: (A) Check RS485-12V connection between Motherboard and Teach Pendant, (B) Conduct a complete rebooting sequence, (C) Exchange Teach Pendant

C4A5 Communication with secondary Teach Pendant uP lost

SUGGESTION
Try the following actions to see which resolves the issue: (A) Check RS485-12V connection between Motherboard and Teach Pendant, (B) Conduct a complete rebooting sequence, (C) Exchange Teach Pendant

C4A6 Communication with primary EUROMAP67 uP lost

SUGGESTION
Try the following actions to see which resolves the issue: (A)Check Euromap67 connection between Motherboard and Teach Pendant, (B) Conduct a complete rebooting sequence, (C) Exchange Teach Pendant

C4A7 Communication with secondary EUROMAP67 uP lost

SUGGESTION
Try the following actions to see which resolves the issue: (A)Check Euromap67 connection between Motherboard and Teach Pendant, (B) Conduct a complete rebooting sequence, (C) Exchange Teach Pendant

C4A8 Primary EUROMAP67 uP present, but euromap67 is disabled

EXPLANATION
Incorrect safety configuration

SUGGESTION
Try the following actions to see which resolves the issue: (A) Update the miscellaneous settings in the Safety Configuration, (B) Conduct a complete rebooting sequence

C4A9 Secondary EUROMAP67 uP present, but euromap67 is disabled

EXPLANATION
Incorrect safety configuration

SUGGESTION
Try the following actions to see which resolves the issue: (A) Update the miscellaneous settings in the Safety Configuration, (B) Conduct a complete rebooting sequence

C4A10 Primary Teach Pendant present, but Teach Pendant safety is disabled

EXPLANATION
Incorrect safety configuration

SUGGESTION
Try the following actions to see which resolves the issue: (A)Update the miscellaneous settings in the Safety Configuration, (B) Conduct a complete rebooting sequence

C4A11 Secondary Teach Pendant uP present, Teach Pendant safety is disabled

EXPLANATION
Incorrect safety configuration

SUGGESTION
Try the following actions to see which resolves the issue: (A) Update the miscellaneous settings in the Safety Configuration,(B) Conduct a complete rebooting sequence

C4A12 Communication with joint 0 lost

EXPLANATION
More than 1 package lost

SUGGESTION
Try the following actions to see which resolves the issue: (A)Verify the communication cables are connected properly, (B) Conduct a complete rebooting sequence

C4A13 Communication with joint 1 lost

EXPLANATION
More than 1 package lost

SUGGESTION
Try the following actions to see which resolves the issue: (A) Verify the communication cables are connected properly, (B) Conduct a complete rebooting sequence

C4A14 Communication with joint 2 lost

EXPLANATION
More than 1 package lost

SUGGESTION
Try the following actions to see which resolves the issue: (A) Verify the communication cables are connected properly, (B) Conduct a complete rebooting sequence

C4A15 Communication with joint 3 lost

EXPLANATION
More than 1 package lost

SUGGESTION
Try the following actions to see which resolves the issue: (A) Verify the communication cables are connected properly, (B) Conduct a complete rebooting sequence

C4A16 Communication with joint 4 lost

EXPLANATION
More than 1 package lost

SUGGESTION
Try the following actions to see which resolves the issue: (A) Verify the communication cables are connected properly (B) Conduct a complete rebooting sequence

C4A17 Communication with joint 5 lost

EXPLANATION
More than 1 package lost

SUGGESTION
Try the following actions to see which resolves the issue: (A) Verify the communication cables are connected properly, (B) Conduct a complete rebooting sequence

C4A18 Communication with tool lost

EXPLANATION
More than 1 package lost

SUGGESTION
Try the following actions to see which resolves the issue: (A) Verify the communication cables are connected properly (B) Conduct a complete rebooting sequence

C4A65 Lost package from Primary Teach Pendant

EXPLANATION
1 package lost

SUGGESTION
If this happens often, try the following actions to see which resolves the issue: (A) Verify the communication cables are connected properly, (B) Conduct a complete rebooting sequence

C4A66 Lost package from Secondary Teach Pendant

EXPLANATION
1 package lost

SUGGESTION
If this happens often, try the following actions to see which resolves the issue: (A) Verify the communication cables are connected properly, (B) Conduct a complete rebooting sequence

C4A67 Lost package from Primary Euromap67

EXPLANATION
1 package lost

SUGGESTION
If this happens often, try the following actions to see which resolves the issue: (A) Verify the communication cables are connected properly, (B) Conduct a complete rebooting sequence

C4A68 Lost package from Secondary Euromap67

EXPLANATION
1 package lost

SUGGESTION
If this happens often, try the following actions to see which resolves the issue: (A) Verify the communication cables are connected properly, (B) Conduct a complete rebooting sequence

C4A69 Lost package from Secondary Masterboard

EXPLANATION
1 package lost

SUGGESTION
If this happens often, try the following actions to see which resolves the issue: (A)Verify the communication cables are connected properly, (B) Conduct a complete rebooting sequence

C4A70 Lost package from joint 0

EXPLANATION
Serial communication problem with one or more joints

SUGGESTION
If this happens often, try the following actions to see which resolves the issue: (A) Verify the communication cables are connected properly, (B) Conduct a complete rebooting sequence

C4A71 Lost package from joint 1

EXPLANATION
Serial communication problem with one or more joints

SUGGESTION
If this happens often, try the following actions to see which resolves the issue: (A)Verify the communication cables are connected properly, (B) Conduct a complete rebooting sequence

C4A72 Lost package from joint 2

EXPLANATION
Serial communication problem with one or more joints

SUGGESTION
If this happens often, try the following actions to see which resolves the issue: (A) Verify the communication cables are connected properly, (B) Conduct a complete rebooting sequence

C4A73 Lost package from joint 3

EXPLANATION
Serial communication problem with one or more joints

SUGGESTION
If this happens often, try the following actions to see which resolves the issue: (A) Verify the communication cables are connected properly, (B) Conduct a complete rebooting sequence

C4A74 Lost package from joint 4

EXPLANATION
Serial communication problem with one or more joints

SUGGESTION
If this happens often, try the following actions to see which resolves the issue: (A) Verify the communication cables are connected properly, (B) Conduct a complete rebooting sequence

C4A75 Lost package from joint 5

EXPLANATION
Serial communication problem with one or more joints

SUGGESTION
If this happens often, try the following actions to see which resolves the issue: (A) Verify the communication cables are connected properly, (B) Conduct a complete rebooting sequence

C4A76 Lost package from tool

EXPLANATION
Serial communication problem with one or more joints

SUGGESTION
If this happens often, try the following actions to see which resolves the issue: (A) Verify the communication cables are connected properly, (B) Conduct a complete rebooting sequence

C4A77 Lost package from uPA to joints

EXPLANATION
1 package lost

SUGGESTION
If this happens often, try the following actions to see which resolves the issue: (A) Verify the communication cables are connected properly, (B) Conduct a complete rebooting sequence

C4A78 Lost package from uPA to teach pendant

EXPLANATION
1 package lost

SUGGESTION
If this happens often, try the following actions to see which resolves the issue: (A) Verify the communication cables are connected properly, (B) Conduct a complete rebooting sequence

C4A79 Lost package from uPA to uPB

EXPLANATION
1 package lost

SUGGESTION
If this happens often, try the following actions to see which resolves the issue: (A) Verify the communication cables are connected properly, (B) Conduct a complete rebooting sequence

C4A80 Lost package from uPB

EXPLANATION
1 package lost

SUGGESTION
If this happens often, try the following actions to see which resolves the issue: (A) Verify the communication cables are connected properly, (B) Conduct a complete rebooting sequence

C4A81 Packet counter disagreement in packet from Primary Screen

EXPLANATION
Safety processor 1 in Teach Pendant has a packet disagreement

SUGGESTION
If this happens often, try the following actions to see which resolves the issue: (A) Verify the communication cables are connected properly, (B) Conduct a complete rebooting sequence

C4A82 Packet counter disagreement in packet from Secondary Screen

EXPLANATION
Safety processor 2 in Teach Pendant has a packet disagreement

SUGGESTION
If this happens often, try the following actions to see which resolves the issue: (A) Verify the communication cables are connected properly, (B) Conduct a complete rebooting sequence

C4A83 Packet counter disagreement in packet from Primary Euromap67

SUGGESTION
If this happens often, try the following actions to see which resolves the issue: (A) Verify the communication cables are connected properly, (B) Conduct a complete rebooting sequence

C4A84 Packet counter disagreement in packet from Secondary Euromap67

SUGGESTION
If this happens often, try the following actions to see which resolves the issue: (A) Verify the communication cables are connected properly, (B) Conduct a complete rebooting sequence

C4A85 Packet counter disagreement in packet from Safety Control Board B

SUGGESTION
If this happens often, try the following actions to see which resolves the issue: (A) Verify the communication cables are connected properly, (B) Conduct a complete rebooting sequence

C4A86 Packet counter disagreement in packet from joint 0

SUGGESTION
If this happens often, try the following actions to see which resolves the issue: (A) Verify the communication cables are connected properly, (B) Conduct a complete rebooting sequence

C4A87 Packet counter disagreement in packet from joint 1

SUGGESTION
If this happens often, try the following actions to see which resolves the issue: (A) Verify the communication cables are connected properly, (B) Conduct a complete rebooting sequence

C4A88 Packet counter disagreement in packet from joint 2

SUGGESTION
If this happens often, try the following actions to see which resolves the issue: (A) Verify the communication cables are connected properly, (B) Conduct a complete rebooting sequence

C4A89 Packet counter disagreement in packet from joint 3

SUGGESTION
If this happens often, try the following actions to see which resolves the issue: (A) Verify the communication cables are connected properly, (B) Conduct a complete rebooting sequence

C4A90 Packet counter disagreement in packet from joint 4

SUGGESTION
If this happens often, try the following actions to see which resolves the issue: (A) Verify the communication cables are connected properly, (B) Conduct a complete rebooting sequence

C4A91 Packet counter disagreement in packet from joint 5

SUGGESTION
If this happens often, try the following actions to see which resolves the issue: (A) Verify the communication cables are connected properly, (B) Conduct a complete rebooting sequence

C4A92 Packet counter disagreement in packet from tool

SUGGESTION
If this happens often, try the following actions to see which resolves the issue: (A) Verify the communication cables are connected properly, (B) Conduct a complete rebooting sequence

C4A93 Packet counter disagreement in packet from processor A to joints

SUGGESTION
If this happens often, try the following actions to see which resolves the issue: (A) Verify the communication cables are connected properly, (B) Conduct a complete rebooting sequence

C4A94 Packet counter disagreement in packet from processor A to B

SUGGESTION
If this happens often, try the following actions to see which resolves the issue: (A) Verify the communication cables are connected properly, (B) Conduct a complete rebooting sequence

C4A95 Packet counter disagreement in packet from processor A to Teach Pendant and EUROMAP

SUGGESTION
If this happens often, try the following actions to see which resolves the issue: (A) Verify the communication cables are connected properly, (B) Conduct a complete rebooting sequence

C4A100 Communication lost due to Packet counter disagreements

SUGGESTION
If this happens often, try the following actions to see which resolves the issue: (A) Verify the communication cables are connected properly, (B) Conduct a complete rebooting sequence

1.6. C5 Heavy processor load warning

If you unable to resolve the issue, log in to http://myUR.universal-robots.com and create a new case.

1.7. C10 Controller communication issue

If you unable to resolve the issue, log in to http://myUR.universal-robots.com and create a new case.

C10A1 Lost packet from Controller

C10A101 Controller packet received too early

C10A102 Packet counter does not match

C10A103 Controller is sending packets too often

1.8. C11 Bad CRC

If you unable to resolve the issue, log in to http://myUR.universal-robots.com and create a new case.

1.9. C12 Unknown message error

If you unable to resolve the issue, log in to http://myUR.universal-robots.com and create a new case.

1.10. C14 Debug message

If you unable to resolve the issue, log in to http://myUR.universal-robots.com and create a new case.

C14A1 {float}

C14A2 {signed}

C14A3 {unsigned}

1.11. C17 Communication error between Safety Control Board and Motherboard

If you unable to resolve the issue, log in to http://myUR.universal-robots.com and create a new case.

1.12. C25 Motor Encoder index missing

If you unable to resolve the issue, log in to http://myUR.universal-robots.com and create a new case.

1.13. C26 Motor Encoder index drift detected

If you unable to resolve the issue, log in to http://myUR.universal-robots.com and create a new case.

1.14. C27 Calibration data is invalid or does not exist, selftest is needed!

If you unable to resolve the issue, log in to http://myUR.universal-robots.com and create a new case.

1.15. C29 Online Calibration data checksum failed

If you unable to resolve the issue, log in to http://myUR.universal-robots.com and create a new case.

1.16. C30 Master received data from too many joints

If you unable to resolve the issue, log in to http://myUR.universal-robots.com and create a new case.

1.17. C31 Caught wrong message (not from master)

If you unable to resolve the issue, log in to http://myUR.universal-robots.com and create a new case.

1.18. C32 Flash write verify failed

If you unable to resolve the issue, log in to http://myUR.universal-robots.com and create a new case.

1.19. C33 Calibration flash checksum failed

If you unable to resolve the issue, log in to http://myUR.universal-robots.com and create a new case.

1.20. C34 Program flash checksum failed

If you unable to resolve the issue, log in to http://myUR.universal-robots.com and create a new case.

C34A0 Program flash checksum failed during bootloading

C34A1 Program flash checksum failed at runtime

1.21. C35 Joint ID is undefined

If you unable to resolve the issue, log in to http://myUR.universal-robots.com and create a new case.

1.22. C36 Illegal bootloader command

If you unable to resolve the issue, log in to http://myUR.universal-robots.com and create a new case.

1.23. C37 Inbuffer parse error

If you unable to resolve the issue, log in to http://myUR.universal-robots.com and create a new case.

1.24. C38 Online RAM test failed

If you unable to resolve the issue, log in to http://myUR.universal-robots.com and create a new case.

C38A1 Data-bus test failed

C38A2 Address-bus stuck-high test failed

C38A3 Address-bus stuck-low test failed

C38A4 Address-bus shorted test failed

C38A5 Memory-cell test failed

1.25. C39 Logic and Temporal Monitoring Fault

You may find the following links helpful in addressing this issue:

- How to perform a complete reboot
- Find a distributor page

If you unable to resolve the issue, log in to http://myUR.universal-robots.com and create a new case.

C39A1 Max current deviation failure

SUGGESTION
Try the following actions to see which resolves the issue: (A) Conduct a complete rebooting sequence, (B) If this happens more than twice, replace joint

C39A2 Max joint-encoder speed exceeded

SUGGESTION
Try the following actions to see which resolves the issue: (A) Conduct a complete rebooting sequence, (B) If this happens more than twice, replace joint

C39A3 Max motor-encoder speed exceeded

SUGGESTION
Try the following actions to see which resolves the issue: (A) Conduct a complete rebooting sequence, (B) If this happens more than twice, replace joint

C39A4 Illegal state change in joint detected

C39A5 A timing issue occurred during startup.

EXPLANATION
Too fast state change in joint detected

SUGGESTION
Conduct a complete rebooting sequence

C39A6 5V regulator voltage too low

SUGGESTION
Try the following actions to see which resolves the issue: (A) Conduct a complete rebooting sequence, (B) If this happens more than twice, replace joint

C39A7 5V regulator voltage too high

SUGGESTION
Try the following actions to see which resolves the issue: (A) Conduct a complete rebooting sequence, (B) If this happens more than twice, replace joint

C39A100 Watchpoint fault: ADC task timeout

C39A101 Watchpoint fault: Motor-Control task timeout

C39A102 Watchpoint fault: Motor-encoder task timeout

C39A103 Watchpoint fault: Joint-encoder task timeout

C39A104 Watchpoint fault: Communication task timeout

C39A105 Watchpoint fault: RAM-test task timeout

C39A106 Watchpoint fault: CalVal-test task timeout

C39A107 Watchpoint fault: ROM-test task timeout

1.26. C40 AD-Converter hit high limit joint

If you unable to resolve the issue, log in to http://myUR.universal-robots.com and create a new case.

1.27. C41 RC Oscillator Trim register hit high limit

If you unable to resolve the issue, log in to http://myUR.universal-robots.com and create a new case.

1.28. C42 RC Oscillator Trim register hit low limit

If you unable to resolve the issue, log in to http://myUR.universal-robots.com and create a new case.

1.29. C43 Change in invariant memory detected

If you unable to resolve the issue, log in to http://myUR.universal-robots.com and create a new case.

C43A1 Current sensor gain

1.30. C44 CRC check failure on primary bus

If you unable to resolve the issue, log in to http://myUR.universal-robots.com and create a new case.

C44A0 Base

C44A1 Shoulder

C44A2 Elbow

C44A3 Wrist 1

C44A4 Wrist 2

C44A5 Wrist 3

C44A6 Tool

C44A80 CRC Check failure on primary bus.

EXPLANATION
Most likely an interference on the communication bus.

1.31. C45 AD-Converter error

If you unable to resolve the issue, log in to http://myUR.universal-robots.com and create a new case.

1.32. C46 Loose gearbox or bad encoder mounting

If you unable to resolve the issue, log in to http://myUR.universal-robots.com and create a new case.

1.33. C47 AD-Converter hit low limit

If you unable to resolve the issue, log in to http://myUR.universal-robots.com and create a new case.

1.34. C49 RS485 receive warning

If you unable to resolve the issue, log in to http://myUR.universal-robots.com and create a new case.

C49A200 Secondary RS485 bus is down

EXPLANATION
Bus for: Teach Pendant, Processor A and Processor B on SCB

SUGGESTION
Check TCP/IP-12V cable to Teach Pendant

1.35. C50 Robot powerup issue

If you unable to resolve the issue, log in to http://myUR.universal-robots.com and create a new case.

C50A1 Voltage detected at 24V rail before startup

C50A2 Voltage present at unpowered robot

C50A5 Powersupply voltage too low

SUGGESTION
Check 48 V cable between power supply and SCB

C50A6 Powersupply voltage too high

C50A11 Voltage not detected at 24V rail after startup

C50A15 Warning, waiting for SafetySYS2

C50A16 The Teach Pendant does not respond

EXPLANATION
Loose wire or incorrect safety configuration

SUGGESTION
Try the following actions to see which resolves the issue: (A) Check the Teach Pendant cable and connections, (B) Check the settings in the miscellaneous tab in the Safety menu

C50A17 The Euromap67 interface does not respond

EXPLANATION
Loose wire or incorrect safety configuration

SUGGESTION
Try the following actions to see which resolves the issue: (A)Check the Euromap67 cable and connections, (B) Check the settings in the miscellaneous tab in the Safety menu

C50A18 Warning, waiting for SafetySYS1

EXPLANATION
SafetySYS1 = Processor A on Safety Control Board

C50A19 Warning, Waiting for a valid "euromap67 activated" status bit from secondary Safety Control Board

C50A20 5V, 3V3 or ADC error (5V too high)

C50A21 5V, 3V3 or ADC error (5V too low)

C50A22 Robot current sensor reading too high

C50A23 Robot current sensor reading too low

C50A24 48V not present (Check internal connection)

C50A25 Robot voltage present at 48V PSU powereup

C50A26 Voltage present on unpowered 48V power supply

C50A27 12V, 3V3 or ADC error (12V too high)

C50A28 12V, 3V3 or ADC error (12V too low)

C50A29 Analog I/O error (-12V too high)

C50A30 Analog I/O error (-12V too low)

C50A31 The other safetySYS do not initialize

C50A40 Wrong voltage from PSU1

C50A41 Wrong voltage from PSU2

C50A42 Voltage will not disappear from PSU

C50A43 Warning, waiting for CB2 type answer from primary processor

C50A50 Processor A 3.3V supply voltage out of bounds

C50A51 Robot voltage below threshold

C50A52 Robot voltage above threshold

C50A53 58V generator deviation error

C50A54 5V regulator too low

C50A55 5V regulator too high

C50A56 -4V generator too low

C50A57 -4V generator too high

C50A80 Last CPU reset caused by Low-Power-Reset

C50A81 Last CPU reset caused by Window-Watchdog-Reset

C50A82 Last CPU reset caused by Independent-Watchdog-Reset

C50A83 Last CPU reset caused by Software-Reset

EXPLANATION
The safety control board was reset on explicit request.

SUGGESTION

C50A84 Last CPU reset caused by External-Pin-Reset

C50A85 Last CPU reset caused by Brown-Out-Reset

C50A99 Wrong software on PCB

C50A100 Cable not connected

SUGGESTION
Check cable and connections between robot and Control Box

C50A101 Short circuit in robot detected or wrong robot connected to Control Box

SUGGESTION
Check robot type. Look for short circuit in cable and in Robot Arm

C50A102 Voltage rising too slowly

C50A103 Voltage failed to reach acceptable level

C50A104 The IMMI module does not respond

EXPLANATION
Missing IMMI module, hardware failure or incorrect safety configuration

SUGGESTION
Try the following actions to see which resolves the issue: (A) Check the IMMI module and connections, (B) Check the settings in the Hardware tab in the Safety section of the installation

1.36. C51 CRC check failure on secondary bus

If you unable to resolve the issue, log in to http://myUR.universal-robots.com and create a new case.

C51A0 Processor B

C51A1 Primary screen processor

EXPLANATION
CRC check failure on safety processor 1 in Teach Pendant

C51A2 Secondary screen processor

EXPLANATION
CRC check failure on safety processor 2 in Teach Pendant

C51A3 Primary E67

C51A4 Secondary E67

1.37. C53 IO overcurrent detected

If you unable to resolve the issue, log in to http://myUR.universal-robots.com and create a new case.

C53A1 , max is 800mA

C53A2 , max is 600mA

1.38. C55 Safety system error

You may find the following links helpful in addressing this issue:

- How to perform a complete reboot
- Find a distributor page

If you unable to resolve the issue, log in to http://myUR.universal-robots.com and create a new case.

C55A23 Safety relay error (minus connection)

EXPLANATION
Current distributor error

SUGGESTION
Try the following actions to see which resolves the issue: (A) Check cable from Safety Control Board to Current distributor or 48V Power supply and Current distributor for issues, (B) Conduct a complete rebooting sequence

C55A24 Safety relay error (plus connection)

EXPLANATION
Current distributor error

SUGGESTION
Try the following actions to see which resolves the issue: (A) Check cable from Safety Control Board to Current distributor or 48V Power supply and Current distributor for issues, (B) Conduct a complete rebooting sequence

C55A33 Safety relay error (a relay is stuck)

EXPLANATION
Current distributor error

SUGGESTION
Try the following actions to see which resolves the issue: (A) Check cable from Safety Control Board to Current distributor or 48V Power supply and Current distributor for issues (B) Conduct a complete rebooting sequence

C55A34 Safety relay error (relays are not on)

EXPLANATION
Current distributor error

SUGGESTION
Try the following actions to see which resolves the issue: (A) Check cable from Safety Control Board to Current distributor or 48V Power supply and Current distributor for issues (B) Conduct a complete rebooting sequence

C55A50 Voltage present at unpowered robot

EXPLANATION
Safety Control Bord hardware fault

SUGGESTION
Try the following actions to see which resolves the issue: (A) Conduct a complete rebooting sequence, (B) If this happens more than twice in a row, replace Safety Control Board

C55A51 Voltage will not disappear from robot

EXPLANATION
Safety Control Bord hardware fault

SUGGESTION
Try the following actions to see which resolves the issue: (A) Conduct a complete rebooting sequence, (B) If this happens more than twice in a row, replace Safety Control Board

C55A52 5V, 3V3 or ADC error (5V too low)

EXPLANATION
Safety Control Bord hardware fault

SUGGESTION
Try the following actions to see which resolves the issue: (A) Conduct a complete rebooting sequence, (B) If this happens more than twice in a row, replace Safety Control Board

C55A53 5V, 3V3 or ADC error (5V too high)

EXPLANATION
Safety Control Bord hardware fault

SUGGESTION
Try the following actions to see which resolves the issue: (A) Conduct a complete rebooting sequence, (B) If this happens more than twice in a row, replace Safety Control Board

C55A90 Bootloader error, robot voltage too low or current too high

C55A91 Bootloader error, robot voltage too high

C55A100 Safety violation

C55A101 Safety Channel Error In Safety Control Board

C55A102 Safety Channel Error In Screen

C55A103 Safety Channel Error In Euromap67 Interface

C55A109 Received fault message from Controller

C55A110 Safety State is changing too often

C55A111 On/Off State is changing too often

C55A112 Robot current sensors readings differ

C55A120 Robot current is too high while emergency stopped

C55A121 Robot current is too high while safeguard stopped

1.39. C56 Overvoltage shutdown

If you unable to resolve the issue, log in to http://myUR.universal-robots.com and create a new case.

1.40. C57 Brake release failure

If you unable to resolve the issue, log in to http://myUR.universal-robots.com and create a new case.

C57A1 Joint did not move or motor encoder is not functioning

C57A2 Large movement detected during brake release

C57A3 Robot was not able to brake release, see log for details

1.41. C58 Motor encoder not calibrated

If you unable to resolve the issue, log in to http://myUR.universal-robots.com and create a new case.

1.42. C59 Overcurrent shutdown

If you unable to resolve the issue, log in to http://myUR.universal-robots.com and create a new case.

1.43. C60 Energy surplus shutdown

If you unable to resolve the issue, log in to http://myUR.universal-robots.com and create a new case.

1.44. C61 Idle power consumption to high

If you unable to resolve the issue, log in to http://myUR.universal-robots.com and create a new case.

1.45. C62 Thermal issue

If you unable to resolve the issue, log in to http://myUR.universal-robots.com and create a new case.

C62A1 Joint temperature: High (80(C)

C62A3 Warning: Static load too high

C62A11 Joint temperature: Shut down (85(C)

C62A13 Shutdown: Static load too high

1.46. C63 Motor test failed in step {unsigned}.

If you unable to resolve the issue, log in to http://myUR.universal-robots.com and create a new case.

1.47. C64

If you unable to resolve the issue, log in to http://myUR.universal-robots.com and create a new case.

1.48. C65 PSU voltage to high

If you unable to resolve the issue, log in to http://myUR.universal-robots.com and create a new case.

1.49. C68 SPI error

If you unable to resolve the issue, log in to http://myUR.universal-robots.com and create a new case.

1.50. C70 Close to gearbox shear limit

If you unable to resolve the issue, log in to http://myUR.universal-robots.com and create a new case.

1.51. C71 Startup check error

If you unable to resolve the issue, log in to http://myUR.universal-robots.com and create a new case.

C71A0 Hardware is size0, wrong firmware at the joint

SUGGESTION
Update firmware

C71A1 Hardware is size1, wrong firmware at the joint

SUGGESTION
Update firmware

C71A2 Hardware is size2, wrong firmware at the joint

SUGGESTION
Update firmware

C71A3 Hardware is size3, wrong firmware at the joint

SUGGESTION
Update firmware

C71A4 Hardware is size4, wrong firmware at the joint

SUGGESTION
Update firmware

C71A5 Invalid hardware revision

C71A6 ADC calibration failed

C71A7 Unknown error result

EXPLANATION
The motor wires are damaged, bad connection in screw terminals or defect PCB

SUGGESTION
Try the following actions to see which resolves the issue: (A) Check joint for damaged or loose connections, (B) Replace the joint

C71A8 Motor short circuit to ground or H-bridge problems

EXPLANATION
The motor wires are damaged, bad connection in screw terminals or defect PCB

SUGGESTION
Try the following actions to see which resolves the issue: (A) Check joint for damaged or loose connections, (B) Replace the joint

C71A9 Motor indication signal does not work

EXPLANATION
The motor wires are damaged, bad connection in screw terminals or defect PCB

SUGGESTION
Try the following actions to see which resolves the issue: (A) Check joint for damaged or loose connections, (B) Replace the joint

C71A10 Phase 1 is unconnected or not working

EXPLANATION
The motor wires are damaged, bad connection in screw terminals or defect PCB

SUGGESTION
Try the following actions to see which resolves the issue: (A) Check joint for damaged or loose connections, (B) Replace the joint

C71A11 Phase 2 is unconnected or not working

EXPLANATION
The motor wires are damaged, bad connection in screw terminals or defect PCB

SUGGESTION
Try the following actions to see which resolves the issue: (A) Check joint for damaged or loose connections, (B) Replace the joint

C71A12 Phase 3 or multiple phases is unconnected or not working

EXPLANATION
The wire is (1) damaged or (2) has been disconnected from the PCB (not likely) or (3) defect PCB

SUGGESTION
Try the following actions to see which resolves the issue: (A) Check joint for damaged or loose connections, (B) Replace the joint

C71A50 Current sensor test failed

EXPLANATION
Sensor reported wrong current when probed

SUGGESTION
Try the following actions to see which resolves the issue: (A) Check joint for damaged or loose connections, (B) Replace the joint

C71A51 Current sensor test failed

EXPLANATION
Sensor reported wrong current when probed

SUGGESTION
Try the following actions to see which resolves the issue: (A) Check joint for damaged or loose connections, (B) Replace the joint

C71A52 Current sensor test failed

EXPLANATION
Sensors reported different currents when probed

SUGGESTION
Try the following actions to see which resolves the issue: (A) Check joint for damaged or loose connections, (B) Replace the joint

C71A101 Wrong firmware on RLS encoder

1.52. C72 Power Supply Unit failure

If you unable to resolve the issue, log in to http://myUR.universal-robots.com and create a new case.

C72A1 0 PSUs are active

EXPLANATION
PSU was not able to deliver 48V

SUGGESTION
Check power connection between power supply and Safety Control Board

C72A2 1 PSU active, but we expect 2 (UR10)

EXPLANATION
PSU was not able to deliver 48V or UR10 flash card in UR5 robot

SUGGESTION
Check power connection between power supply and Safety Control Board and check that the flash card and robot match

C72A3 2 PSUs active, but we expect 1 (UR5)

EXPLANATION
UR5 flash card in UR10 robot

SUGGESTION
Check that the flash card and robot match

1.53. C73 Brake test failed during selftest, check brakepin

If you unable to resolve the issue, log in to http://myUR.universal-robots.com and create a new case.

1.54. C74 Joint encoder warning

If you unable to resolve the issue, log in to http://myUR.universal-robots.com and create a new case.

C74A1 Invalid decode: Readhead misalignment, ring damaged or external magnetic field present.

SUGGESTION
Check grounding and shielding for EMC problems

C74A2 Speed reading is not valid

C74A4 System error=malfunction or inconsistent calibration detected

C74A8 Supply voltage is out of range

C74A16 Temperature is out of range

C74A32 Signal lost =Misaligned readhead or damaged ring

C74A64 Signal low =Too far from magnetic ring

C74A128 Signal saturation =Too close to magnetic ring

1.55. C75 Joint encoder error

You may find the following links helpful in addressing this issue:

- How to perform a complete reboot
- Find a distributor page

If you unable to resolve the issue, log in to http://myUR.universal-robots.com and create a new case.

C75A1 Invalid decode: Readhead misalignment, ring damaged or external magnetic field present.

SUGGESTION
Try the following actions to see which resolves the issue: (A) Conduct a complete rebooting sequence, (B) Check grounding and shielding for EMC problems, (C) If this happens more than twice, replace joint

C75A2 Speed reading is not valid

SUGGESTION
Try the following actions to see which resolves the issue: (A) Conduct a complete rebooting sequence, (B) If this happens more than twice, replace joint

C75A4 System error=malfunction or inconsistent calibration detected

SUGGESTION
Try the following actions to see which resolves the issue: (A) Conduct a complete rebooting sequence, (B) If this happens more than twice, replace joint

C75A8 Supply voltage is out of range

C75A16 Temperature is out of range

C75A32 Signal lost =Misaligned readhead or damaged ring

SUGGESTION
Try the following actions to see which resolves the issue: (A) Conduct a complete rebooting sequence, (B) Check grounding and shielding for EMC problems, (C) If this happens more than twice, replace joint

C75A64 Signal low =Too far from magnetic ring

SUGGESTION
Try the following actions to see which resolves the issue: (A) Conduct a complete rebooting sequence, (B) Check grounding and shielding for EMC problems, (C) If this happens more than twice, replace joint

C75A128 Signal saturation =Too close to magnetic ring

SUGGESTION
Try the following actions to see which resolves the issue: (A) Conduct a complete rebooting sequence, (B) Check grounding and shielding for EMC problems, (C) If this happens more than twice, replace joint

C75A200 Position from joint encoder does not change while motor is running

1.56. C76 Joint encoder communication CRC issue

If you unable to resolve the issue, log in to http://myUR.universal-robots.com and create a new case.

1.57. C77 Sudden position change detected on the joint-encoder

If you unable to resolve the issue, log in to http://myUR.universal-robots.com and create a new case.

1.58. C78 Large sudden position change detected on the joint-encoder

If you unable to resolve the issue, log in to http://myUR.universal-robots.com and create a new case.

1.59. C85 Motor encoder error

If you unable to resolve the issue, log in to http://myUR.universal-robots.com and create a new case.

C85A200 Position from motor encoder does not change while motor is running

1.60. C100 Robot changed mode

If you unable to resolve the issue, log in to http://myUR.universal-robots.com and create a new case.

1.61. C101 Real Robot Connected

If you unable to resolve the issue, log in to http://myUR.universal-robots.com and create a new case.

1.62. C102 Real Robot not connected - Simulating Robot

If you unable to resolve the issue, log in to http://myUR.universal-robots.com and create a new case.

1.63. C103 Communication issue

You may find the following links helpful in addressing this issue:

- How to perform a complete reboot
- Find a distributor page

If you unable to resolve the issue, log in to http://myUR.universal-robots.com and create a new case.

C103A1 Connection to Safety Control Board lost

EXPLANATION
PC did not receive 3 packets in a row

SUGGESTION
Try the following actions to see which resolves the issue: (A) Check that the Ethernet cable between Motherboard and Safety Control Board is connected, (B) Conduct a complete rebooting sequence

C103A2 Package lost from Safety Control Board

C103A3 Ethernet connection initialization with Safety Control Board failed

1.64. C104 Error=Empty command sent to robot

If you unable to resolve the issue, log in to http://myUR.universal-robots.com and create a new case.

1.65. C111 Something is pulling the robot

If you unable to resolve the issue, log in to http://myUR.universal-robots.com and create a new case.

1.66. C115 Unknown robot type

If you unable to resolve the issue, log in to http://myUR.universal-robots.com and create a new case.

1.67. C116 Realtime part warning

If you unable to resolve the issue, log in to http://myUR.universal-robots.com and create a new case.

1.68. C117 Restart SCB failed

If you unable to resolve the issue, log in to http://myUR.universal-robots.com and create a new case.

1.69. C150 Position close to joint limits

If you unable to resolve the issue, log in to http://myUR.universal-robots.com and create a new case.

1.70. C151 Tool orientation close to limits

If you unable to resolve the issue, log in to http://myUR.universal-robots.com and create a new case.

1.71. C152 Position close to safety plane limits

If you unable to resolve the issue, log in to http://myUR.universal-robots.com and create a new case.

1.72. C153 Position deviates from path

If you unable to resolve the issue, log in to http://myUR.universal-robots.com and create a new case.

C153A0 Detected by the Base joint.

EXPLANATION
Robot could not follow the path, either there was a collison, or a setting was incorrect. If protective stops occur frequently, resolve the cause.

SUGGESTION
Make sure no objects are in the path, check payload, center of gravity and acceleration settings.

C153A1 Detected by the Shoulder joint.

EXPLANATION
Robot could not follow the path, either there was a collison, or a setting was incorrect. If protective stops occur frequently, resolve the cause.

SUGGESTION
Make sure no objects are in the path, check payload, center of gravity and acceleration settings.

C153A2 Detected by the Elbow joint.

EXPLANATION
Robot could not follow the path, either there was a collison, or a setting was incorrect. If protective stops occur frequently, resolve the cause.

SUGGESTION
Make sure no objects are in the path, check payload, center of gravity and acceleration settings.

C153A3 Detected by the Wrist 1 joint.

EXPLANATION
Robot could not follow the path, either there was a collison, or a setting was incorrect. If protective stops occur frequently, resolve the cause.

SUGGESTION
Make sure no objects are in the path, check payload, center of gravity and acceleration settings.

C153A4 Detected by the Wrist 2 joint.

EXPLANATION
Robot could not follow the path, either there was a collison, or a setting was incorrect. If protective stops occur frequently, resolve the cause.

SUGGESTION
Make sure no objects are in the path, check payload, center of gravity and acceleration settings.

C153A5 Detected by the Wrist 3 joint.

EXPLANATION
Robot could not follow the path, either there was a collison, or a setting was incorrect. If protective stops occur frequently, resolve the cause.

SUGGESTION
Make sure no objects are in the path, check payload, center of gravity and acceleration settings.

1.73. C154 Position in singularity

If you unable to resolve the issue, log in to http://myUR.universal-robots.com and create a new case.

1.74. C155 Robot cannot maintain its position, check if payload is correct

If you unable to resolve the issue, log in to http://myUR.universal-robots.com and create a new case.

1.75. C156 Wrong payload or mounting detected, or something is pushing the robot when entering Freedrive mode

If you unable to resolve the issue, log in to http://myUR.universal-robots.com and create a new case.

1.76. C157 Collision detected by joint

If you unable to resolve the issue, log in to http://myUR.universal-robots.com and create a new case.

C157A0 Detected by the Base joint.

EXPLANATION
Robot could not follow the path, either there was a collison, or a setting was incorrect. If protective stops occur frequently, resolve the cause.

SUGGESTION
Make sure no objects are in the path, check payload, center of gravity and acceleration settings.

C157A1 Detected by the Shoulder joint.

EXPLANATION
Robot could not follow the path, either there was a collison, or a setting was incorrect. If protective stops occur frequently, resolve the cause.

SUGGESTION
Make sure no objects are in the path, check payload, center of gravity and acceleration settings.

C157A2 Detected by the Elbow joint.

EXPLANATION
Robot could not follow the path, either there was a collison, or a setting was incorrect. If protective stops occur frequently, resolve the cause.

SUGGESTION
Make sure no objects are in the path, check payload, center of gravity and acceleration settings.

C157A3 Detected by the Wrist 1 joint.

EXPLANATION
Robot could not follow the path, either there was a collison, or a setting was incorrect. If protective stops occur frequently, resolve the cause.

SUGGESTION
Make sure no objects are in the path, check payload, center of gravity and acceleration settings.

C157A4 Detected by the Wrist 2 joint.

EXPLANATION
Robot could not follow the path, either there was a collison, or a setting was incorrect. If protective stops occur frequently, resolve the cause.

SUGGESTION
Make sure no objects are in the path, check payload, center of gravity and acceleration settings.

C157A5 Detected by the Wrist 3 joint.

EXPLANATION
Robot could not follow the path, either there was a collison, or a setting was incorrect. If protective stops occur frequently, resolve the cause.

SUGGESTION
Make sure no objects are in the path, check payload, center of gravity and acceleration settings.

1.77. C158 Collision detected by joint

If you unable to resolve the issue, log in to http://myUR.universal-robots.com and create a new case.

C158A0 Base. The user specified payload is 0kg, please make sure this is correct.

EXPLANATION
Specifying an incorrect payload mass and/or center of gravity may cause poor robot performance and/or protective stops.

SUGGESTION
Make sure the payload mass and center of gravity are correctly specified.

C158A1 Shoulder. The user specified payload is 0kg, please make sure this is correct.

EXPLANATION
Specifying an incorrect payload mass and/or center of gravity may cause poor robot performance and/or protective stops.

SUGGESTION
Make sure the payload mass and center of gravity are correctly specified.

C158A2 Elbow. The user specified payload is 0kg, please make sure this is correct.

EXPLANATION
Specifying an incorrect payload mass and/or center of gravity may cause poor robot performance and/or protective stops.

SUGGESTION
Make sure the payload mass and center of gravity are correctly specified.

C158A3 Wrist 1. The user specified payload is 0kg, please make sure this is correct.

EXPLANATION
Specifying an incorrect payload mass and/or center of gravity may cause poor robot performance and/or protective stops.

SUGGESTION
Make sure the payload mass and center of gravity are correctly specified.

C158A4 Wrist 2. The user specified payload is 0kg, please make sure this is correct.

EXPLANATION
Specifying an incorrect payload mass and/or center of gravity may cause poor robot performance and/or protective stops.

SUGGESTION
Make sure the payload mass and center of gravity are correctly specified.

C158A5 Wrist 3. The user specified payload is 0kg, please make sure this is correct.

EXPLANATION
Specifying an incorrect payload mass and/or center of gravity may cause poor robot performance and/or protective stops.

SUGGESTION
Make sure the payload mass and center of gravity are correctly specified.

1.78. C159 Position deviates from path

If you unable to resolve the issue, log in to http://myUR.universal-robots.com and create a new case.

C159A0 Base. The user specified payload is 0kg, please make sure this is correct.

EXPLANATION
Specifying an incorrect payload mass and/or center of gravity may cause poor robot performance and/or protective stops.

SUGGESTION
Make sure the payload mass and center of gravity are correctly specified.

C159A1 Shoulder. The user specified payload is 0kg, please make sure this is correct.

EXPLANATION
Specifying an incorrect payload mass and/or center of gravity may cause poor robot performance and/or protective stops.

SUGGESTION
Make sure the payload mass and center of gravity are correctly specified.

C159A2 Elbow. The user specified payload is 0kg, please make sure this is correct.

EXPLANATION
Specifying an incorrect payload mass and/or center of gravity may cause poor robot performance and/or protective stops.

SUGGESTION
Make sure the payload mass and center of gravity are correctly specified.

C159A3 Wrist 1. The user specified payload is 0kg, please make sure this is correct.

EXPLANATION
Specifying an incorrect payload mass and/or center of gravity may cause poor robot performance and/or protective stops.

SUGGESTION
Make sure the payload mass and center of gravity are correctly specified.

C159A4 Wrist 2. The user specified payload is 0kg, please make sure this is correct.

EXPLANATION
Specifying an incorrect payload mass and/or center of gravity may cause poor robot performance and/or protective stops.

SUGGESTION
Make sure the payload mass and center of gravity are correctly specified.

C159A5 Wrist 3. The user specified payload is 0kg, please make sure this is correct.

EXPLANATION
Specifying an incorrect payload mass and/or center of gravity may cause poor robot performance and/or protective stops.

SUGGESTION
Make sure the payload mass and center of gravity are correctly specified.

1.79. C160 The robot was powered off last time due to a joint position disagreement

If you unable to resolve the issue, log in to http://myUR.universal-robots.com and create a new case.

1.80. C161 Large movement of the robot detected while it was powered off. The joints were moved while it was powered off, or the encoders do not function

If you unable to resolve the issue, log in to http://myUR.universal-robots.com and create a new case.

1.81. C162 The protective stop was likely caused by incorrectly specified payload mass and/or center of gravity.

If you unable to resolve the issue, log in to http://myUR.universal-robots.com and create a new case.

1.82. C163 More than 50 Protective Stops are detected on the same joint within 8 hours of operation.

If you unable to resolve the issue, log in to http://myUR.universal-robots.com and create a new case.

C163A0 Base joint. Something is wrong in the application. Recurring protective stops should be resolved, ignoring it can void warranty.

EXPLANATION
Frequent protective stops is an indication of either an error in the application, or a hardware failure in a joint.

SUGGESTION
Check that the motions of the robot do not cause collision, check payload, center of gravity and acceleration settings, if these settings are correct, the joint needs repair.

C163A1 Shoulder joint. Something is wrong in the application. Recurring protective stops should be resolved, ignoring it can void warranty.

EXPLANATION
Frequent protective stops is an indication of either an error in the application, or a hardware failure in a joint.

SUGGESTION
Check that the motions of the robot do not cause collision, check payload, center of gravity and acceleration settings, if these settings are correct, the joint needs repair.

C163A2 Elbow joint. Something is wrong in the application. Recurring protective stops should be resolved, ignoring it can void warranty.

EXPLANATION
Frequent protective stops is an indication of either an error in the application, or a hardware failure in a joint.

SUGGESTION
Check that the motions of the robot do not cause collision, check payload, center of gravity and acceleration settings, if these settings are correct, the joint needs repair.

C163A3 Wrist 1 joint. Something is wrong in the application. Recurring protective stops should be resolved, ignoring it can void warranty.

EXPLANATION
Frequent protective stops is an indication of either an error in the application, or a hardware failure in a joint.

SUGGESTION
Check that the motions of the robot do not cause collision, check payload, center of gravity and acceleration settings, if these settings are correct, the joint needs repair.

C163A4 Wrist 2 joint. Something is wrong in the application. Recurring protective stops should be resolved, ignoring it can void warranty.

EXPLANATION
Frequent protective stops is an indication of either an error in the application, or a hardware failure in a joint.

SUGGESTION
Check that the motions of the robot do not cause collision, check payload, center of gravity and acceleration settings, if these settings are correct, the joint needs repair.

C163A5 Wrist 3 joint. Something is wrong in the application. Recurring protective stops should be resolved, ignoring it can void warranty.

EXPLANATION
Frequent protective stops is an indication of either an error in the application, or a hardware failure in a joint.

SUGGESTION
Check that the motions of the robot do not cause collision, check payload, center of gravity and acceleration settings, if these settings are correct, the joint needs repair.

1.83. C171 Issue with blends

If you unable to resolve the issue, log in to http://myUR.universal-robots.com and create a new case.

C171A0 A MoveC-Waypoint were skipped due to a blend.

EXPLANATION
The value for the blend radius is too large compared to the distance between the Waypoints.

SUGGESTION
Decrease the blend radius or choose Waypoints that are further apart.

C171A1 Blend radius too small in a MoveC

SUGGESTION
Increase blend in MoveC

C171A3 A ServoC-Waypoint were skipped due to a blend.

EXPLANATION
The value for the blend radius is too large compared to the distance between the Waypoints.

SUGGESTION
Decrease the blend radius or choose Waypoints that are further apart.

C171A4 Overlapping Blends in a MoveJ, a Waypoint was skipped

SUGGESTION
Decrease the blend radius or choose Waypoints that are further apart.

C171A5 Overlapping Blends in a MoveJ, a Waypoint was skipped

SUGGESTION
Decrease the blend radius or choose Waypoints that are further apart.

C171A6 Overlapping Blends in a MoveJ, a Waypoint was skipped

SUGGESTION
Decrease the blend radius or choose Waypoints that are further apart.

C171A7 Overlapping Blends in a MoveJ, a Waypoint was skipped

SUGGESTION
Decrease the blend radius or choose Waypoints that are further apart.

C171A9 A MoveP-Waypoint were skipped due to a blend.

EXPLANATION
The value for the blend radius is too large compared to the distance between the Waypoints.

SUGGESTION
Decrease the blend radius or choose Waypoints that are further apart.

C171A10 Blend radius too small error in a MoveP

C171A11 Overlapping Blends in a MoveL, a Waypoint was skipped

SUGGESTION
Decrease the blend radius or choose Waypoints that are further apart.

C171A12 Overlapping Blends in a MoveL, a Waypoint was skipped

SUGGESTION
Decrease the blend radius or choose Waypoints that are further apart.

C171A13 Overlapping Blends in a MoveL, a Waypoint was skipped

SUGGESTION
Decrease the blend radius or choose Waypoints that are further apart.

C171A14 Overlapping Blends in a MoveL, a Waypoint was skipped

SUGGESTION
Decrease the blend radius or choose Waypoints that are further apart.

1.84. C172 Illegal control mode

If you unable to resolve the issue, log in to http://myUR.universal-robots.com and create a new case.

1.85. C173 Robot motion causes too high joint torques

If you unable to resolve the issue, log in to http://myUR.universal-robots.com and create a new case.

C173A0 Base.

C173A1 Shoulder.

C173A2 Elbow.

C173A3 Wrist 1.

C173A4 Wrist 2.

C173A5 Wrist 3.

C173A6 Base. Problem identified when executing program line {unsigned}.

C173A7 Shoulder. Problem identified when executing program line {unsigned}.

C173A8 Elbow. Problem identified when executing program line {unsigned}.

C173A9 Wrist 1. Problem identified when executing program line {unsigned}.

C173A10 Wrist 2. Problem identified when executing program line {unsigned}.

C173A11 Wrist 3. Problem identified when executing program line {unsigned}.

1.86. C174 Robot motion causes too high jump in joint torques

If you unable to resolve the issue, log in to http://myUR.universal-robots.com and create a new case.

C174A0 Base.

C174A1 Shoulder.

C174A2 Elbow.

C174A3 Wrist 1.

C174A4 Wrist 2.

C174A5 Wrist 3.

C174A6 Base. Problem identified when executing program line {unsigned}.

C174A7 Shoulder. Problem identified when executing program line {unsigned}.

C174A8 Elbow. Problem identified when executing program line {unsigned}.

C174A9 Wrist 1. Problem identified when executing program line {unsigned}.

C174A10 Wrist 2. Problem identified when executing program line {unsigned}.

C174A11 Wrist 3. Problem identified when executing program line {unsigned}.

1.87. C184 Joint self test not received by controller

If you unable to resolve the issue, log in to http://myUR.universal-robots.com and create a new case.

1.88. C185

If you unable to resolve the issue, log in to http://myUR.universal-robots.com and create a new case.

C185A1 START_NORMAL_OPERATION is not allowed on selftest firmware

C185A2 GOTO_BACKDRIVE_COMMAND is not allowed on selftest firmware

1.89. C186

If you unable to resolve the issue, log in to http://myUR.universal-robots.com and create a new case.

C186A1 joint_mode == JOINT_RUNNING_MODE is not allowed on selftest firmware

1.90. C187 Temperature sensor test failed

If you unable to resolve the issue, log in to http://myUR.universal-robots.com and create a new case.

C187A1 Starting temperature were lower than expected

C187A2 Starting temperature were higher than expected

C187A3 Temperature increased less than expected during warm up

C187A4 Temperature increased more than expected during warm up

1.91. C190 Joint failed during selftest

If you unable to resolve the issue, log in to http://myUR.universal-robots.com and create a new case.

C190A0 Motor encoder index mark not found

C190A1 Phases not mounted correctly

C190A2 Motor encoder counting the wrong way

C190A3 Joint encoder counting the wrong way

C190A4 No movement detected while trying to move the motor

C190A11 Temperature alignment did not warm up to 45 degrees C within 30 minutes

C190A12 Temperature alignment did not cool down to 45 degrees C within 60 minutes

1.92. C191 Safety system violation

You may find the following links helpful in addressing this issue:

- How to perform a complete reboot
- Find a distributor page

If you unable to resolve the issue, log in to http://myUR.universal-robots.com and create a new case.

C191A1 Joint position limit violated

C191A2 Joint speed limit violated

C191A3 TCP speed limit violated

C191A4 TCP position limit violated

C191A5 TCP orientation limit violated

C191A6 Power limit violated

C191A7 Joint torque window violated

C191A8 Joint torque window too large

C191A9 Reduced mode output violation

C191A10 Safeguard stop output violation

C191A11 Emergency stop output violation

C191A12 Momentum limit violation

C191A13 Robot moving output violation

C191A14 Robot is not braking in stop mode

EXPLANATION
During the braking process, the safety system monitors if the robot brakes as expected. If this is not the case, this error is generated

SUGGESTION
Check TCP configuration, payload, and mounting settings

C191A15 Robot is moving in stop mode

EXPLANATION
When the robot is stopped due to a safety violation or a safeguard stop, the safety system generates this error, if the robot moves while in this mode

SUGGESTION
(A) Check if the robot is physically pushed while safeguard stopped, (B) Check TCP configuration, payload, and mounting settings

C191A16 Robot did not stop in time

C191A17 Received a null vector for TCP orientation

C191A18 Robot not stopping output violation

C191A19 Invalid safety IO configuration

C191A20 Configuration information or limit sets not received

C191A21 The other safety processor detected a violation

C191A22 Received unknown command from Controller

C191A23 Invalid setup of safety limits

SUGGESTION
Try the following actions to see which resolves the issue: (A) Check Firmware/update firmware, (B) Conduct a complete rebooting sequence

C191A24 Reduced Mode Output set, while it should not be

SUGGESTION
Try the following actions to see which resolves the issue: (A) Check Firmware/update firmware, (B) Conduct a complete rebooting sequence

C191A25 Reduced Mode Output not set, while it should be

SUGGESTION
Try the following actions to see which resolves the issue: (A) Check Firmware/update firmware, (B) Conduct a complete rebooting sequence

C191A26 Not Reduced Mode Output set, while it should not be

SUGGESTION
Try the following actions to see which resolves the issue: (A) Check Firmware/update firmware, (B) Conduct a complete rebooting sequence

C191A27 Not Reduced Mode Output not set, while it should be

SUGGESTION
Try the following actions to see which resolves the issue: (A) Check Firmware/update firmware, (B) Conduct a complete rebooting sequence

C191A28 Robot Emergency Stop exceeded maximum stop time

EXPLANATION
Too high payload

SUGGESTION
Try the following actions to see which resolves the issue: (A) Check that max payload of the robot has not been exceeded, (B) Check TCP configuration, payload, and mounting settings

C191A29 System Emergency Stop exceeded maximum stop time

EXPLANATION
Too high payload

SUGGESTION
Try the following actions to see which resolves the issue: (A)Check that max payload of the robot has not been exceeded, (B) Check TCP configuration, payload, and mounting settings

C191A30 Safeguard Stop exceeded maximum stop time

EXPLANATION
Too high payload

SUGGESTION
Try the following actions to see which resolves the issue: (A)Check that max payload of the robot has not been exceeded, (B) Check TCP configuration, payload, and mounting settings

C191A31 Operation mode switch is present while the three position switch is missing

C191A32 Joint speed limit violated - Base

C191A33 Joint speed limit violated - Shoulder

C191A34 Joint speed limit violated - Elbow

C191A35 Joint speed limit violated - Wrist 1

C191A36 Joint speed limit violated - Wrist 2

C191A37 Joint speed limit violated - Wrist 3

1.93. C192 Safety system fault

If you unable to resolve the issue, log in to http://myUR.universal-robots.com and create a new case.

C192A1 Robot still powered in emergency stop

EXPLANATION
When the emergency stop is active, the Robot Arm powers off. The controller is responsible for sending the power off command. This error is generated if the safety system detects that the Robot Arm still has power

C192A2 Robot emergency stop disagreement

EXPLANATION
E-stop in teach pendant or in robot E-stop circuit problem

SUGGESTION
Check safety devices and cables/connections to these devices.

C192A3 System emergency stop disagreement

EXPLANATION
System E-stop circuit problem

SUGGESTION
Check safety devices and cables/connections to these devices.

C192A4 Safeguard stop disagreement

EXPLANATION
Safeguard circuit problem

SUGGESTION
Check safety devices and cables/connections to these devices.

C192A5 Euromap safeguard stop disagreement

EXPLANATION
Euromap circuit problem

SUGGESTION
Check cables from Safety Control Board to Euromap and to external machine

C192A6 Joint position disagreement

SUGGESTION
Try the following actions to see which resolves the issue: (A)Check TCP configuration, payload and mounting settings, (B) Check that safety settings respected

C192A7 Joint speed disagreement

SUGGESTION
Try the following actions to see which resolves the issue: (A) Check TCP configuration, payload and mounting settings, (B) Check that safety settings respected

C192A8 Joint torque disagreement

SUGGESTION
Try the following actions to see which resolves the issue: (A) Check TCP configuration, payload and mounting settings, (B) Check that safety settings respected

C192A9 TCP speed disagreement

SUGGESTION
Try the following actions to see which resolves the issue: (A) Check TCP configuration, payload and mounting settings, (B) Check that safety settings respected

C192A10 TCP position disagreement

SUGGESTION
Try the following actions to see which resolves the issue: (A) Check TCP configuration, payload and mounting settings, (B) Check that safety settings respected

C192A11 TCP orientation disagreement

SUGGESTION
Try the following actions to see which resolves the issue: (A) Check TCP configuration, payload and mounting settings, (B) Check that safety settings respected

C192A12 Power disagreement

EXPLANATION
Power calculation: uP-A and uP-B disagreement

C192A13 Joint torque window disagreement

C192A14 Reduced mode input disagreement

EXPLANATION
Safety I/O uP-A and uP-B disagreement

SUGGESTION
Check safety devices and cables/connections to these devices

C192A15 Reduced mode output disagreement

EXPLANATION
Safety I/O uP-A and uP-B disagreement

SUGGESTION
Check safety devices and cables/connections to these devices

C192A16 Safety output failed

EXPLANATION
The safety output did not reach the correct value in the expected time

SUGGESTION
Check for short circuit on I/O or for wrong connection to output.

C192A17 Safeguard stop output disagreement

EXPLANATION
Safety I/O uP-A and uP-B disagreement

SUGGESTION
Check safety devices and cables/connections to these devices

C192A18 The other safety processor is in fault

C192A19 Emergency stop output disagreement

EXPLANATION
Safety I/O uP-A and uP-B disagreement

SUGGESTION
Check safety devices and cables/connections to these devices

C192A20 SPI output error detected

EXPLANATION
Powersupply for the I/O is not detected

SUGGESTION
Check if the connection to the internal power supply is correct. If an external power supply is being used, check if it is powered on and at the correct voltage.

C192A21 Momentum disagreement

C192A22 Robot moving output disagreement

SUGGESTION
Check safety devices and cables/connections to these devices

C192A23 Wrong processor ID

C192A24 Wrong processor revision

C192A25 Potential brownout detected

EXPLANATION
Voltage drop on Safety Control Board or defect Safety Control Board

C192A26 Emergency stop output disagreement

SUGGESTION
Check safety devices and cables/connections to these devices

C192A27 Safeguard stop output disagreement

SUGGESTION
Check safety devices and cables/connections to these devices

C192A28 Robot not stopping output disagreement

SUGGESTION
Check safety devices and cables/connections to these devices

C192A29 Safeguard reset input disagreement

SUGGESTION
Check safety devices and cables/connections to these devices

C192A30 Safety processor booted up in fault mode

C192A31 Reduced Mode Output disagreement

SUGGESTION
Check safety devices and cables/connections to these devices

C192A32 Not Reduced Mode Output disagreement

SUGGESTION
Check safety devices and cables/connections to these devices

C192A33 A timing issue occurred during startup. Please restart to proceed

EXPLANATION
Checksum disagreement between safety processors uA and uB

C192A34 User safety config checksum disagreement between uA and GUI

C192A35 Robot config checksum disagreement between uA and GUI

C192A36 Online RAM test failed

C192A37 Not all safety related functionalities are running

C192A38 Package too short for CRC calculation

C192A39 Three position switch input disagreement

C192A40 Operation mode switch input disagreement

1.94. C193 One of the nodes is in fault mode

You may find the following links helpful in addressing this issue:

- How to perform a complete reboot
- Find a distributor page

If you unable to resolve the issue, log in to http://myUR.universal-robots.com and create a new case.

C193A0 Base Joint

SUGGESTION
Try the following actions to see which resolves the issue: (A) See previous error, (B) Update the firmware on the joint, (C) Conduct a complete rebooting sequence

C193A1 Shoulder Joint

SUGGESTION
Try the following actions to see which resolves the issue: (A) See previous error, (B) Update the firmware on the joint, (C)Conduct a complete rebooting sequence

C193A2 Elbow Joint

SUGGESTION
Try the following actions to see which resolves the issue: (A) See previous error, (B) Update the firmware on the joint, (C) Conduct a complete rebooting sequence

C193A3 Wrist 1 Joint

SUGGESTION
Try the following actions to see which resolves the issue: (A) See previous error, (B) Update the firmware on the joint, (C) Conduct a complete rebooting sequence

C193A4 Wrist 2 Joint

SUGGESTION
Try the following actions to see which resolves the issue: (A) See previous error, (B) Update the firmware on the joint, (C) Conduct a complete rebooting sequence

C193A5 Wrist 3 Joint

SUGGESTION
Try the following actions to see which resolves the issue: (A) See previous error, (B) Update the firmware on the joint, (C) Conduct a complete rebooting sequence

C193A6 Tool

SUGGESTION
Try the following actions to see which resolves the issue: (A) See previous error, (B) Conduct a complete rebooting sequence

C193A7 Screen 1

EXPLANATION
Safety Control Board has detected an error on Safety processor 1 in Teach pendant

SUGGESTION
Try the following actions to see which resolves the issue: (A) See previous error, (B) Conduct a complete rebooting sequence

C193A8 Screen 2

EXPLANATION
Safety Control Board has detected an error on Safety processor 2 in Teach pendant

SUGGESTION
Try the following actions to see which resolves the issue: (A) See previous error, (B) Conduct a complete rebooting sequence

C193A9 Euromap 1

SUGGESTION
Try the following actions to see which resolves the issue: (A) See previous error, (B)Conduct a complete rebooting sequence

C193A10 Euromap 2

SUGGESTION
Try the following actions to see which resolves the issue: (A) See previous error, (B) Conduct a complete rebooting sequence

1.95. C194 One of the nodes is not booted or not present

If you unable to resolve the issue, log in to http://myUR.universal-robots.com and create a new case.

C194A0 Base Joint

C194A1 Shoulder Joint

C194A2 Elbow Joint

C194A3 Wrist 1 Joint

C194A4 Wrist 2 Joint

C194A5 Wrist 3 Joint

C194A6 Tool

C194A7 Screen 1

EXPLANATION
Safety Control Board has detected an error on Safety processor 1 in Teach pendant

C194A8 Screen 2

EXPLANATION
Safety Control Board has detected an error on Safety processor 2 in Teach pendant

C194A9 Euromap 1

C194A10 Euromap 2

C194A128 Base not ready while brake release requested

EXPLANATION
Must be at least in IDLE mode when the brake release is requested

SUGGESTION
Check for loose communication cable

C194A129 Shoulder not ready while brake release requested

EXPLANATION
Must be at least in IDLE mode when the brake release is requested

SUGGESTION
Check for loose communication cable

C194A130 Elbow not ready while brake release requested

EXPLANATION
Must be at least in IDLE mode when the brake release is requested

SUGGESTION
Check for loose communication cable

C194A131 Wrist 1 not ready while brake release requested

EXPLANATION
Must be at least in IDLE mode when the brake release is requested

SUGGESTION
Check for loose communication cable

C194A132 Wrist 2 not ready while brake release requested

EXPLANATION
Must be at least in IDLE mode when the brake release is requested

SUGGESTION
Check for loose communication cable

C194A133 Wrist 3 not ready while brake release requested

EXPLANATION
Must be at least in IDLE mode when the brake release is requested

SUGGESTION
Check for loose communication cable

C194A134 Tool not ready while brake release requested

EXPLANATION
Must be at least in IDLE mode when the brake release is requested

SUGGESTION
Check for loose communication cable

1.96. C195 Conveyor speed too high

If you unable to resolve the issue, log in to http://myUR.universal-robots.com and create a new case.

C195A1 for joint speed safety limit

C195A2 for TCP speed safety limit

C195A3 for momentum safety limit

1.97. C196 MoveP speed too high

If you unable to resolve the issue, log in to http://myUR.universal-robots.com and create a new case.

1.98. C197 Blend overlap warning

If you unable to resolve the issue, log in to http://myUR.universal-robots.com and create a new case.

1.99. C200 Safety Control Board hardware error

You may find the following links helpful in addressing this issue:

- How to perform a complete reboot
- Find a distributor page

If you unable to resolve the issue, log in to http://myUR.universal-robots.com and create a new case.

C200A1 Hardware ID is wrong

EXPLANATION
Safety Control Board: uP-A has detected an error: Wrong Safety Control Board

SUGGESTION
Try the following actions to see which resolves the issue: (A) Conduct a complete rebooting sequence, (B) If this happens more than twice in a row, replace Safety Control Board

C200A2 MCU type is wrong

EXPLANATION
Safety Control Board: uP-A has detected an error

SUGGESTION
Try the following actions to see which resolves the issue: (A) Conduct a complete rebooting sequence, (B) If this happens more than twice in a row, replace Safety Control Board

C200A3 Part ID is wrong

EXPLANATION
Safety Control Board: uP-A has detected an error

SUGGESTION
Try the following actions to see which resolves the issue: (A) Conduct a complete rebooting sequence, (B) If this happens more than twice in a row, replace Safety Control Board

C200A4 RAM test failed

EXPLANATION
Safety Control Board: uP-A has detected an error

SUGGESTION
Try the following actions to see which resolves the issue: (A) Conduct a complete rebooting sequence, (B) If this happens more than twice in a row, replace Safety Control Board

C200A5 Register test failed

EXPLANATION
Safety Control Board: uP-A has detected an error

SUGGESTION
Try the following actions to see which resolves the issue: (A) Conduct a complete rebooting sequence, (B) If this happens more than twice in a row, replace Safety Control Board

C200A6 pRom Crc test failed

EXPLANATION
Safety Control Board: uP-A has detected an error: firmware error

SUGGESTION
Try the following actions to see which resolves the issue: (A) Conduct a complete rebooting sequence, (B) If this happens more than twice in a row, replace Safety Control Board

C200A7 Watchdog reset the processor

EXPLANATION
Safety Control Board: uP-A has detected an error

C200A8 OVG signal test not passed

EXPLANATION
Safety Control Board: uP-A has detected an error: over voltage generator

SUGGESTION
Try the following actions to see which resolves the issue: (A) Conduct a complete rebooting sequence, (B)If this happens more than twice in a row, replace Safety Control Board

C200A9 3V3A power good pin is low

EXPLANATION
Safety Control Board: uP-A has detected an error

SUGGESTION
Try the following actions to see which resolves the issue: (A) Conduct a complete rebooting sequence, (B) If this happens more than twice in a row, replace Safety Control Board

C200A10 3V3B power good pin is low

EXPLANATION
Safety Control Board: uP-A has detected an error

SUGGESTION
Try the following actions to see which resolves the issue: (A) Conduct a complete rebooting sequence, (B) If this happens more than twice in a row, replace Safety Control Board

C200A11 5V power good is low

EXPLANATION
Safety Control Board: uP-A has detected an error

SUGGESTION
Try the following actions to see which resolves the issue: (A) Conduct a complete rebooting sequence, (B) If this happens more than twice in a row, replace Safety Control Board

C200A12 3V3 voltage too low

EXPLANATION
Safety Control Board: uP-A has detected an error

SUGGESTION
Try the following actions to see which resolves the issue: (A) Conduct a complete rebooting sequence, (B) If this happens more than twice in a row, replace Safety Control Board

C200A13 3v3 voltage too high

EXPLANATION
Safety Control Board: uP-A has detected an error

SUGGESTION
Try the following actions to see which resolves the issue: (A) Conduct a complete rebooting sequence, (B) If this happens more than twice in a row, replace Safety Control Board

C200A14 48V input is too low

SUGGESTION
Try the following actions to see which resolves the issue: (A) Conduct a complete rebooting sequence, (B) Check 48 V Power supply, current distributer, energy eater and Safety Control Board for issues

C200A15 48V input is too high

SUGGESTION
Try the following actions to see which resolves the issue: (A) Conduct a complete rebooting sequence, (B) Check 48 V Power supply, current distributer, energy eater and Safety Control Board for issues

C200A16 24V IO short circuited

EXPLANATION
Too high current

SUGGESTION
Try the following actions to see which resolves the issue: (A) Conduct a complete rebooting sequence, (B) Disconnect external I/O connections and check external power supply if connected

C200A17 PC current is too high

EXPLANATION
Motherboard takes too high current

SUGGESTION
Try the following actions to see which resolves the issue: (A) Conduct a complete rebooting sequence, (B) Check cable between Safety Control Board and Motherboard and check all connections to Motherboard. Also check for short circuit

C200A18 Robot voltage is too low

SUGGESTION
Try the following actions to see which resolves the issue: (A) Conduct a complete rebooting sequence, (B) Check for short circuit in Robot Arm, (C) Check 48 V Power supply, current distributer, energy eater and Safety Control Board for issues

C200A19 Robot voltage is too high

SUGGESTION
Try the following actions to see which resolves the issue: (A) Conduct a complete rebooting sequence, (B) Check 48 V Power supply, current distributer, energy eater and Safety Control Board for issues

C200A20 24V IO voltage is too low

SUGGESTION
Try the following actions to see which resolves the issue: (A) Conduct a complete rebooting sequence, (B) Disconnect I/O, check external power supply if connected and check Safety Control Board for issues

C200A21 12V voltage is too high

SUGGESTION
Try the following actions to see which resolves the issue: (A) Conduct a complete rebooting sequence, (B) Check 12 V Power supply, cables and Safety Control Board for issues

C200A22 12V voltage is too low

SUGGESTION
Try the following actions to see which resolves the issue: (A) Conduct a complete rebooting sequence, (B) Check 12 V Power supply, cables and Safety Control Board for issues

C200A23 It took too long to stabilize 24V

SUGGESTION
Try the following actions to see which resolves the issue: (A) Conduct a complete rebooting sequence, (B) Check 24 V and Safety Control Board for issues

C200A24 It took too long to stabilize 24V IO

SUGGESTION
Try the following actions to see which resolves the issue: (A) Conduct a complete rebooting sequence, (B) Check 24 V and Safety Control Board for issues

C200A25 24V voltage is too high

SUGGESTION
Try the following actions to see which resolves the issue: (A) Check external 24 V and Safety Control Board for issues, (B) Conduct a complete rebooting sequence, (C) If this happens more than twice in a row, replace Safety Control Board.

C200A26 24V IO voltage is too high

SUGGESTION
Try the following actions to see which resolves the issue: (A) Disconnect I/O's, (B) Conduct a complete rebooting sequence, (C) Check external 24 V and Safety Control Board for issues

1.100. C201 Setup of Safety Control Board failed

You may find the following links helpful in addressing this issue:

- How to perform a complete reboot
- Find a distributor page

If you unable to resolve the issue, log in to http://myUR.universal-robots.com and create a new case.

C201A0 Setup of Safety Control Board failed

EXPLANATION
No data was received from the Safety Control Board at initialization or invalid safety parameters have been received

SUGGESTION
Try the following actions to see which resolves the issue: (A) Conduct a complete rebooting sequence, (B) Check that the ethernet cable between Motherboard and Safety Control Board is connected and verify that the setup of the Safety Configuration is valid.

C201A1 SCB uA is not responding

EXPLANATION
No data or invalid data was received from the Safety Control Board uA at initialization

SUGGESTION
Try the following actions to see which resolves the issue: (A) Conduct a complete rebooting sequence, (B) Check that the ethernet cable between Motherboard and Safety Control Board is connected and verify that the setup of the Safety Configuration is valid.

C201A2 SCB uB is not responding

EXPLANATION
No data or invalid data was received from the Safety Control Board uB at initialization

SUGGESTION
Conduct a complete rebooting sequence.

C201A3 SCB is not responding

EXPLANATION
No data or invalid was received from Safety Control Board when requested for configuration parameters

SUGGESTION
Conduct a complete rebooting sequence.

1.101. C202 SCE configuration was illegal, after applying tolerances

If you unable to resolve the issue, log in to http://myUR.universal-robots.com and create a new case.

1.102. C203 PolyScope detected a mismatch between the shown and (to be) applied safety parameters

If you unable to resolve the issue, log in to http://myUR.universal-robots.com and create a new case.

1.103. C204 Path sanity check failed

If you unable to resolve the issue, log in to http://myUR.universal-robots.com and create a new case.

C204A1 Sudden change in target position

C204A2 Inconsistency between target position and speed

C204A3 Sudden stop

EXPLANATION
The program contains motions that are not ramped correctly down

SUGGESTION
To abort a motion, use "stopj" or "stopl" script commands to generate a smooth deceleration before using "wait". Avoid aborting motions between Waypoints with blend

C204A4 Robot has not stopped in the allowed reaction and braking time

C204A5 Robot program resulted in invalid setpoint

C204A6 Blending failed and resulted in an invalid setpoint

SUGGESTION
Try the following actions to see which resolves the issue: (A) Try changing the blend radius, (B) Contact your local Universal Robots technical support

C204A7 Robot approaching singularity - Acceleration threshold failed

1.104. C205 Target speed does not match target position

If you unable to resolve the issue, log in to http://myUR.universal-robots.com and create a new case.

C205A0 Inconsistency between target position and speed

1.105. C206 Sanity check failed

If you unable to resolve the issue, log in to http://myUR.universal-robots.com and create a new case.

C206A0 Target joint speed does not match target joint position change - Base

C206A1 Target joint speed does not match target joint position change - Shoulder

C206A2 Target joint speed does not match target joint position change - Elbow

C206A3 Target joint speed does not match target joint position change - Wrist 1

C206A4 Target joint speed does not match target joint position change - Wrist 2

C206A5 Target joint speed does not match target joint position change - Wrist 3

1.106. C207 Fieldbus input disconnected

If you unable to resolve the issue, log in to http://myUR.universal-robots.com and create a new case.

1.107. C208 Debug Assertion failed

If you unable to resolve the issue, log in to http://myUR.universal-robots.com and create a new case.

1.108. C209 A protective stop was triggered (for test purposes only)

If you unable to resolve the issue, log in to http://myUR.universal-robots.com and create a new case.

1.109. C210 Socket is read-only when the robot is in local (Teach pendant) control

If you unable to resolve the issue, log in to http://myUR.universal-robots.com and create a new case.

1.110. C211 Operational mode changed

If you unable to resolve the issue, log in to http://myUR.universal-robots.com and create a new case.

C211A0 Disabled

C211A1 Automatic

C211A2 Manual

1.111. C212 Name conflict in loaded program

If you unable to resolve the issue, log in to http://myUR.universal-robots.com and create a new case.

C212A1 {unsigned} name conflict(s) occurred between feature names and program variables

EXPLANATION
Some feature names and program variables share the same name, which may cause confusion.

SUGGESTION
Rename the program variables.

1.112. C213 No Kinematic Calibration found (calibration.conf file is either corrupt or missing)

If you unable to resolve the issue, log in to http://myUR.universal-robots.com and create a new case.

1.113. C214 Kinematic Calibration for the robot does not match the joint(s)

If you unable to resolve the issue, log in to http://myUR.universal-robots.com and create a new case.

C214A1 The Kinematic Calibration checksum does not match the Base checksum

C214A2 The Kinematic Calibration checksum does not match the Shoulder checksum

C214A3 The Kinematic Calibration checksum does not match the Elbow checksum

C214A4 The Kinematic Calibration checksum does not match Wrist 1 checksum

C214A5 The Kinematic Calibration checksum does not match for Wrist 2 checksum

C214A6 The Kinematic Calibration checksum does not match for Wrist 3 checksum

1.114. C215 Kinematic Calibration does not match the robot

If you unable to resolve the issue, log in to http://myUR.universal-robots.com and create a new case.

1.115. C216 The offset of the joint has changed

If you unable to resolve the issue, log in to http://myUR.universal-robots.com and create a new case.

C216A1 Base

C216A2 Shoulder

C216A3 Elbow

C216A4 Wrist 1

C216A5 Wrist 2

C216A6 Wrist 3

1.116. C217 White space detected at the beginning of a string token at line {unsigned}

If you unable to resolve the issue, log in to http://myUR.universal-robots.com and create a new case.

1.117. C218 A thread used a lot of time

If you unable to resolve the issue, log in to http://myUR.universal-robots.com and create a new case.

C218A0 Main Robot Program.

C218A1 Thread: {string}

1.118. C219 Path Offset

If you unable to resolve the issue, log in to http://myUR.universal-robots.com and create a new case.

C219A1 Change in offset is too high to meet joint speed safety limit

EXPLANATION
Following the specified offsets would result in the robot exceeding safety limits

SUGGESTION
Reduce the change in offset between steps and/or apply more offset filtering using path_offset_set_alpha_filter()

C219A2 Change in offset is too high to meet tool speed safety limit

EXPLANATION
Following the specified offsets would result in the robot exceeding safety limits

SUGGESTION
Reduce the change in offset between steps and/or apply more offset filtering using path_offset_set_alpha_filter()

C219A3 Change in offset is too high to meet momentum safety limit

EXPLANATION
Following the specified offsets would result in the robot exceeding safety limits

SUGGESTION
Reduce the change in offset between steps and/or apply more offset filtering using path_offset_set_alpha_filter()

1.119. C220 Kinematic Calibration

You may find the following links helpful in addressing this issue:

- How to perform a complete reboot
- Find a distributor page

If you unable to resolve the issue, log in to http://myUR.universal-robots.com and create a new case.

C220A1 Version {unsigned} on the robot arm is not supported

EXPLANATION
The kinematic calibration saved on the robot arm is an unsupported version.

SUGGESTION
(A) Conduct a complete rebooting sequence, (B) Update software, (C) Contact your local Universal Robots service provider for assistance

C220A2 Kinematic Calibration file was replaced with file from the arm.

EXPLANATION
The calibration.conf file was overwritten with the version stored in the arm. This is likely because the arm connected to the control box was changed

C220A3 Kinematic Calibration uploaded to the arm.

EXPLANATION
The calibration.conf file was changed and uploaded to the arm.

C220A4 Kinematic Calibration reuploaded to the arm.

EXPLANATION
The kinematic calibration was reuploaded to the arm as not all joints matching the calibration had it saved.

1.120. C221 GUI Communication

If you unable to resolve the issue, log in to http://myUR.universal-robots.com and create a new case.

C221A0 High load, messages dropped

EXPLANATION
GUI Communication is under high load causing user messages to be dropped

SUGGESTION
(A) Reduce the number of textmsg() and varmsg() being executed in one time-step (B) Insert wait() or sync() in the thread or main program

C221A1 Overload

EXPLANATION
GUI Communication is overloaded

SUGGESTION
(A) Reduce the number of textmsg() and varmsg() being executed in one time-step (B) Insert wait() or sync() in the thread or main program

C221A2 A variable is too large to be sent to polyscope.

EXPLANATION
The size of the variable is too big to be sent and cannot be shown in the variables tab or saved as an installation variable. This does not affect any other functionality.

SUGGESTION
To use the list as an installation variable or in the variable tab, make sure to limit its size by dividing it into smaller lists.

1.121. C222 Frame Tracking

If you unable to resolve the issue, log in to http://myUR.universal-robots.com and create a new case.

C222A1 Change in offset is too high to meet joint speed safety limit

EXPLANATION
Tracking the specified frame would result in the robot exceeding safety limits

SUGGESTION
Smooth or slow the tracked frame if possible. Additionally, avoid singular arm configurations.

C222A2 Change in offset is too high to meet tool speed safety limit

EXPLANATION
Tracking the specified frame would result in the robot exceeding safety limits

SUGGESTION
Smooth or slow the tracked frame if possible. Additionally, avoid singular arm configurations.

C222A3 Change in offset is too high to meet momentum safety limit

EXPLANATION
Tracking the specified frame would result in the robot exceeding safety limits

SUGGESTION
Smooth or slow the tracked frame if possible. Additionally, avoid singular arm configurations.

C222A4 Change in offset is too high to meet joint speed safety limit

EXPLANATION
Tracking the moving external axis would result in the robot exceeding safety limits

SUGGESTION
Reduce the acceleration of the external axis if possible. Additionally, avoid singular arm configurations.

C222A5 Change in offset is too high to meet tool speed safety limit

EXPLANATION
Tracking the moving external axis would result in the robot exceeding safety limits

SUGGESTION
Reduce the acceleration of the external axis if possible. Additionally, avoid singular arm configurations.

C222A6 Change in offset is too high to meet momentum safety limit

EXPLANATION
Tracking the moving external axis would result in the robot exceeding safety limits

SUGGESTION
Reduce the acceleration of the external axis if possible. Additionally, avoid singular arm configurations.

1.122. C223 Flexible EtherNet/IP Fieldbus input (custom instance) disconnected

If you unable to resolve the issue, log in to http://myUR.universal-robots.com and create a new case.

1.123. C224 {string}

If you unable to resolve the issue, log in to http://myUR.universal-robots.com and create a new case.

2. Modern Error Codes

Error codes with numbers below 256 apply only to CB3 and earlier robot models.

e-Series and later robot models use codes numbered above 255.

2.1. C257 An unexpected message was received (header {hex})

If you unable to resolve the issue, log in to http://myUR.universal-robots.com and create a new case.

2.2. C258 Message contains invalid payload, data {unsigned}

If you unable to resolve the issue, log in to http://myUR.universal-robots.com and create a new case.

2.3. C259 Filesystem-related issue

You may find the following links helpful in addressing this issue:

- How to perform a complete reboot
- Find a distributor page

If you unable to resolve the issue, log in to http://myUR.universal-robots.com and create a new case.

C259A0 Critical error

EXPLANATION
A critical error occurred in the filesystem

SUGGESTION
Try the following actions to see which resolves the issue: (A) Conduct a complete rebooting sequence, (B) Reimage SD card, (C) Contact your local Universal Robots service provider for assistance

C259A80

EXPLANATION
The data stored in joint is obsolete

SUGGESTION
Updating firmware needs to be done incrementally from such old persistent joint data. Re-deploy the previous firmware, and perform incremental upgrade up to SW 5.5 before deploying this version. IMPORTANT: Power on the robot arm between each update and validate it reaches IDLE state. Contact your local Universal Robots service provider for assistance

2.4. C260 Brake Release - old procedure

You may find the following links helpful in addressing this issue:

- How to perform a complete reboot
- Find a distributor page

If you unable to resolve the issue, log in to http://myUR.universal-robots.com and create a new case.

C260A0 Critical error

EXPLANATION
A critical error occurred during Brake Release

SUGGESTION
Try the following actions to see which resolves the issue: (A) Conduct a complete rebooting sequence, (B) Ensure the mounted payload, TCP, and CoG matches your configuration, (C) Contact your local Universal Robots service provider for assistance

2.5. C261 Temperature Sensor

You may find the following links helpful in addressing this issue:

- How to perform a complete reboot
- Find a distributor page

If you unable to resolve the issue, log in to http://myUR.universal-robots.com and create a new case.

C261A0 Critical error

EXPLANATION
A critical error occurred in the temperature sensor

SUGGESTION
Try the following actions to see which resolves the issue: (A) Conduct a complete rebooting sequence (B) Contact your local Universal Robots service provider for assistance

C261A3 Temperature changed more than allowed: {float} Celsius

EXPLANATION
The maximum allowed difference between two sequential temperature readings was exceeded

SUGGESTION
Try the following actions to see which resolves the issue: (A) Conduct a complete rebooting sequence (B) Update software (C) Contact your local Universal Robots service provider for assistance

C261A4 Temperature is too high ({float} degrees Celsius)

EXPLANATION
Ambient temperature is too high or robot is overloaded

SUGGESTION
Try the following actions to see which resolves the issue: (A) Cool down the robot's environment and make sure the robot is operating within recommended limits, (B) Conduct a complete rebooting sequence, (C) Contact your local Universal Robots service provider for assistance

C261A5 Temperature is too low ({float} degrees Celsius)

EXPLANATION
Ambient temperature is too low

SUGGESTION
Try the following actions to see which resolves the issue: (A) Make sure the robot is operating within recommended limits, (B) Conduct a complete rebooting sequence, (C) Contact your local Universal Robots service provider for assistance

2.6. C262 Communication

You may find the following links helpful in addressing this issue:

- How to perform a complete reboot
- Find a distributor page

If you unable to resolve the issue, log in to http://myUR.universal-robots.com and create a new case.

C262A0 Critical error

EXPLANATION
A critical error occurred in the communication framework

SUGGESTION
Try the following actions to see which resolves the issue: (A) Conduct a complete rebooting sequence, (B) Check for ESD noise, (C) Update software, (D) Contact your local Universal Robots service provider for assistance

C262A17 Failed to communicate with {deviceName} Joint

EXPLANATION
Joint failed to start communicating as expected.

SUGGESTION
Try the following actions to see which resolves the issue: (A) Make sure the cable between Control Box and Robot Arm is correctly connected and it has no damage, (B) Check for loose connections, (C) Conduct a complete rebooting sequence, (D) Update software, (E) Contact your local Universal Robots service provider for assistance

C262A18 Failed to communicate with TOOL

EXPLANATION
Tool failed to start communicating as expected.

SUGGESTION
Try the following actions to see which resolves the issue: (A) Conduct a complete rebooting sequence, (B) Update software, (C) Contact your local Universal Robots service provider for assistance

C262A25 Unexpected message version received: {unsigned}

EXPLANATION
The received message version is not supported.

SUGGESTION
Try the following actions to see which resolves the issue: (A) Update software, (B) Contact your local Universal Robots service provider for assistance.

C262A27 Failed to communicate with the Base Filter Board

EXPLANATION
The Base Filter Board failed to start communicating as expected.

SUGGESTION
Try the following actions to see which resolves the issue: (A) Conduct a complete rebooting sequence, (B) Update software, (C) Contact your local Universal Robots service provider for assistance

C262A28 Failed to properly instantiate a multi-subscriber message or special command

EXPLANATION
The value use to store the element must be placed at the persistance RAM, i.e. not on the stack

SUGGESTION
Try the following actions to see which resolves the issue: (A) Conduct a complete rebooting sequence, (B) Update software, (C) Contact your local Universal Robots service provider for assistance

C262A29 Failed to communicate with the Cable Extender with ID: {hex}

EXPLANATION
The Cable Extender Board failed to start communicating as expected.

SUGGESTION
Try the following actions to see which resolves the issue: (A) Conduct a complete rebooting sequence, (B) Update software, (C) Contact your local Universal Robots service provider for assistance

2.7. C263 Motor Encoder

You may find the following links helpful in addressing this issue:

- How to perform a complete reboot
- Find a distributor page

If you unable to resolve the issue, log in to http://myUR.universal-robots.com and create a new case.

C263A0 Critical error

EXPLANATION
A critical error occurred in the Motor Encoder.

SUGGESTION
Contact your local Universal Robots service provider for assistance.

C263A1 Motor Encoder is unavailable

EXPLANATION
The Motor Encoder's sense signal indicates a bad connection.

SUGGESTION
Try the following actions to see which resolves the issue: (A) Conduct a complete rebooting sequence, (B) Update software, (C) Contact your local Universal Robots service provider for assistance

C263A2 Calibration has been invalidated and can lead to reduced performance.

EXPLANATION
An error in the file handling caused the invalid calibration, which can alter joint performance.

SUGGESTION
Try the following actions to see which resolves the issue: (A) Conduct a complete rebooting sequence, (B) Update software, (C) Contact your local Universal Robots service provider for assistance

C263A21 Validation of the detected Index Mark ({signed}) failed

EXPLANATION
The absolute Motor Encoder position cannot be validated because the Motor position calculated by the Joint Encoder is invalid.

SUGGESTION
Try the following actions to see which resolves the issue: (A) Conduct a complete rebooting sequence, (B) Update software, (C) Contact your local Universal Robots service provider for assistance

C263A26 Failure to log missing Index Mark, index out of range: {unsigned}

EXPLANATION
Failed to log the missing index mark position because the index is out of range

SUGGESTION
Try the following actions to see which resolves the issue: (A) Conduct a complete rebooting sequence, (B) Update software, (C) Contact your local Universal Robots service provider for assistance

C263A27 Failure to log index drift, position out of range: {unsigned}

EXPLANATION
Failed to log the index drift position because the position is out of range

SUGGESTION
Try the following actions to see which resolves the issue: (A) Conduct a complete rebooting sequence, (B) Update software, (C) Contact your local Universal Robots service provider for assistance

C263A38 Time sanity check failed, difference is too great: {float}

EXPLANATION
The time difference (in µs) since the last motor encoder read is too great

SUGGESTION
Try the following actions to see which resolves the issue: (A) Conduct a complete rebooting sequence, (B) Update software, (C) Contact your local Universal Robots service provider for assistance

2.8. C264 Task Manager

You may find the following links helpful in addressing this issue:

- How to perform a complete reboot
- Find a distributor page

If you unable to resolve the issue, log in to http://myUR.universal-robots.com and create a new case.

C264A0 Critical error

EXPLANATION
A critical error occurred in the task manager

SUGGESTION
Try the following actions to see which resolves the issue: (A) Conduct a complete rebooting sequence, (B) Update software, (C) Contact your local Universal Robots service provider for assistance

C264A7 Start of Cycle pulse was required but did not occur after {unsigned}ms.

EXPLANATION
A Start of Cycle pulse did not happen within the required time. The issue may be due to a damaged internal communication cable to the node or a bad internal connection.

SUGGESTION
Try the following actions to see which resolves the issue: (A) Conduct a complete rebooting sequence, (B) Update software, (C) Contact your local Universal Robots service provider for assistance

C264A8 Systick timer and Start of Cycle pulse was misaligned by {float}us.

EXPLANATION
The internal systick timer and the Start of Cycle pulse was not aligned as expected. The issue may be due to a damaged internal communication cable to the node or a bad internal connection.

SUGGESTION
Try the following actions to see which resolves the issue: (A) Conduct a complete rebooting sequence, (B) Update software, (C) Contact your local Universal Robots service provider for assistance

C264A9 {signed} unexpected (+) or missing (-) Start of Cycle pulses was detected within a 1 second period.

EXPLANATION
The number of Start of Cycle pulses within a 1 second period was different than expected. The issue may be due to a damaged internal communication cable to the node or a bad internal connection.

SUGGESTION
Try the following actions to see which resolves the issue: (A) Conduct a complete rebooting sequence, (B) Update software, (C) Contact your local Universal Robots service provider for assistance

C264A10 {unsigned} invalid Start of Cycle pulses was detected within a 1 second period.

EXPLANATION
Too many misaligned Start of Cycle pulses was detected within a 1 second period. The issue may be due to a damaged internal communication cable to the node or a bad internal connection.

SUGGESTION
Try the following actions to see which resolves the issue: (A) Conduct a complete rebooting sequence, (B) Update software, (C) Contact your local Universal Robots service provider for assistance

C264A11 {unsigned} Start of Cycle pulses was lost in a row

EXPLANATION
Too many Start of Cycle pulses was lost in a row. The issue may be due to a damaged internal communication cable to the node or a bad internal connection.

SUGGESTION
Try the following actions to see which resolves the issue: (A) Conduct a complete rebooting sequence, (B) Update software, (C) Contact your local Universal Robots service provider for assistance

2.9. C265 Joint Encoder

You may find the following links helpful in addressing this issue:

- How to perform a complete reboot
- Find a distributor page

If you unable to resolve the issue, log in to http://myUR.universal-robots.com and create a new case.

C265A0 Joint encoder position invalid. Detailed error: {hex}

EXPLANATION
A critical error occurred in the Joint Encoder. The reported position is not valid.

SUGGESTION
Try the following actions to see which resolves the issue: (A) Conduct a complete rebooting sequence, (B) Check for ESD noise, (C) Update software, (D) Contact your local Universal Robots service provider for assistance

C265A5 Near operation limits. Status: {hex}

EXPLANATION
The joint encoder is close to operational limits. Reported positions have reduced precision.

SUGGESTION
Try the following actions to see which resolves the issue: (A) Conduct a complete rebooting sequence, (B) Check for ESD noise, (C) Update software, (D) Contact your local Universal Robots service provider for assistance

C265A6 Not present. Status: {hex}

EXPLANATION
The Joint Encoder is not responding to commands

SUGGESTION
Try the following actions to see which resolves the issue: (A) Conduct a complete rebooting sequence, (B) Check for ESD noise, (C) Update software, (D) Contact your local Universal Robots service provider for assistance

C265A41 The read head temperature is outside the allowed range.

EXPLANATION
The encoder read head is too cold or hot, either the ambient temperature is too high or the robot is overloaded.

SUGGESTION
Cool down the environment and make sure the robot is operating within the recommended limits.

C265A42 Signal amplitude low.

EXPLANATION
The distance between the readhead and the ring is too large.

SUGGESTION
Try the following actions to see which resolves the issue: (A) Conduct a complete rebooting sequence, (B) Update software, (C) Contact your local Universal Robots service provider for assistance

C265A43 Signal amplitude too high.

EXPLANATION
The readhead is too close to the ring.

SUGGESTION
Try the following actions to see which resolves the issue: (A) Conduct a complete rebooting sequence, (B) Update software, (C) Contact your local Universal Robots service provider for assistance

C265A44 Signal decoding below confidence threshold - position decoding might be inaccurate or fail.

EXPLANATION
At least one-out-of-two decoding algorithms, from the sensor image, falls below the confidence threshold. The read head might be tilted.

SUGGESTION
Try the following actions to see which resolves the issue: (A) Conduct a complete rebooting sequence, (B) Update software, (C) Contact your local Universal Robots service provider for assistance

C265A45 Internal speed data is not valid.

EXPLANATION
The time delta between last two position requests exceeded the maximum time allowed

SUGGESTION
Try the following actions to see which resolves the issue: (A) Conduct a complete rebooting sequence, (B) Update software, (C) Contact your local Universal Robots service provider for assistance

C265A46 Encoder acceleration too high.

EXPLANATION
The position data changed unexpectedly. A stray magnetic field is present or metal particles are present between the read head and the ring.

SUGGESTION
Try the following actions to see which resolves the issue: (A) Remove any sources of magnetic fields external to the robot, and conduct a complete rebooting sequence, (B) Update software, (C) Contact your local Universal Robots service provider for assistance

C265A47 Magnetic pattern decoding error

EXPLANATION
A stray magnetic field is present or metal particles are present between the read head and the ring or radial positioning between the read head and the ring is out of tolerances.

SUGGESTION
Try the following actions to see which resolves the issue: (A) Remove any sources of magnetic fields external to the robot, and conduct a complete rebooting sequence, (B) Update software, (C) Contact your local Universal Robots service provider for assistance

C265A48 Signal lost.

EXPLANATION
Signal lost. The read head is out of alignment with the ring or the ring is damaged.

SUGGESTION
Try the following actions to see which resolves the issue: (A) Conduct a complete rebooting sequence, (B) Update software, (C) Contact your local Universal Robots service provider for assistance

C265A49 Signal amplitude too high. External magnetic field is present

EXPLANATION
External magnetic field disturbing the jointencoder position reading

SUGGESTION
Try the following actions to see which resolves the issue: (A) Remove any sources of magnetic fields external to the robot, and conduct a complete rebooting sequence, (B) Update software, (C) Contact your local Universal Robots service provider for assistance

C265A50 System error. Malfunction inside the circuitry.

EXPLANATION
Malfunction inside the circuitry. To reset the System error bit try to cycle the power supply. The power-supply rise time should be shorter than 20 ms.

SUGGESTION
Try the following actions to see which resolves the issue: (A) Conduct a complete rebooting sequence, (B) Update software, (C) Contact your local Universal Robots service provider for assistance

C265A51 Power supply voltage out of range.

EXPLANATION
Internal power supply error

SUGGESTION
Try the following actions to see which resolves the issue: (A) Conduct a complete rebooting sequence, (B) Update software, (C) Contact your local Universal Robots service provider for assistance

C265A52 System error. Inconsistent calibration data is detected.

EXPLANATION
Inconsistent calibration data is detected. To reset the System error bit try to cycle the power supply. The power-supply rise time should be shorter than 20 ms.

SUGGESTION
Try the following actions to see which resolves the issue: (A) Conduct a complete rebooting sequence, (B) Update software, (C) Contact your local Universal Robots service provider for assistance

C265A53 Too many warnings in a row.

EXPLANATION
The joint encoder reporting too many warnings in row

SUGGESTION
Try the following actions to see which resolves the issue: (A) Conduct a complete rebooting sequence, (B) Update software, (C) Contact your local Universal Robots service provider for assistance

2.10. C266 Self-test

You may find the following links helpful in addressing this issue:

- How to perform a complete reboot
- Find a distributor page

If you unable to resolve the issue, log in to http://myUR.universal-robots.com and create a new case.

C266A0 Critical error

EXPLANATION
A critical error occurred in the Joint Self-test

SUGGESTION
Try the following actions to see which resolves the issue: (A) Conduct a complete rebooting sequence, (B) Update software, (C) Contact your local Universal Robots service provider for assistance

2.11. C267 Bootloader error

You may find the following links helpful in addressing this issue:

- How to perform a complete reboot
- Find a distributor page

If you unable to resolve the issue, log in to http://myUR.universal-robots.com and create a new case.

C267A0 Critical error

EXPLANATION
A critical error occurred during Firmware upgrade.

SUGGESTION
Try the following actions to see which resolves the issue: (A) Conduct a complete rebooting sequence, (B) Update software, (C) Contact your local Universal Robots service provider for assistance

C267A11 Hardware configuration issue

EXPLANATION
Hardware configuration mismatch

SUGGESTION
Contact your local Universal Robots service provider for assistance.

C267A13 Required firmware file is missing for device ID: {hex}

EXPLANATION
A firmware file for a device is missing and the device does not have the required information to boot

SUGGESTION
Try the following actions to see which resolves the issue: (A) Conduct a complete rebooting sequence, (B) Update software, (C) Contact your local Universal Robots service provider for assistance

C267A14 Device not supported by the firmware file, device ID: {hex}

EXPLANATION
A firmware file does not support a device and the device does not have the required information to boot

SUGGESTION
Try the following actions to see which resolves the issue: (A) Conduct a complete rebooting sequence, (B) Update software, (C) Contact your local Universal Robots service provider for assistance

C267A15 No firmware to boot from for device ID: {hex}

EXPLANATION
The device does not have the required information to boot

SUGGESTION
Try the following actions to see which resolves the issue: (A) Conduct a complete rebooting sequence, (B) Update software, (C) Contact your local Universal Robots service provider for assistance

2.12. C268 Special Command

If you unable to resolve the issue, log in to http://myUR.universal-robots.com and create a new case.

C268A4 Reboot command received but the device is not allowed to reboot

EXPLANATION
Device received a reboot request but the system is in a state where the device is not allowed to reboot

SUGGESTION
Contact your local Universal Robots service provider for assistance.

2.13. C269 Transceiver - deprecated

You may find the following links helpful in addressing this issue:

- How to perform a complete reboot
- Find a distributor page

If you unable to resolve the issue, log in to http://myUR.universal-robots.com and create a new case.

C269A70 Flash device is not supported, JEDEC data for device is: {hex}

EXPLANATION
The flash device's JEDEC ID does not match a supported flash device

SUGGESTION
Try the following actions to see which resolves the issue: (A) Conduct a complete rebooting sequence, (B) Update software, (C) Contact your local Universal Robots service provider for assistance

2.14. C270 Self-test SYNC

C270A1 Unexpected ACK received with tag {unsigned}

C270A2 Unexpected NACK received with tag {unsigned}

C270A3 Timeout while waiting for ACK/NACK with tag {unsigned}

C270A4 Expected ACK received with tag {unsigned}.

If you unable to resolve the issue, log in to http://myUR.universal-robots.com and create a new case.

2.15. C271 Low level real-time thread

If you unable to resolve the issue, log in to http://myUR.universal-robots.com and create a new case.

C271A1 Runtime is too much behind.

EXPLANATION
One of the threads might be using too much time (see log for more details).

SUGGESTION
Consider using a Wait or sync() to split long program sequences that do not move the robot.

2.16. C272 Missing calibration

If you unable to resolve the issue, log in to http://myUR.universal-robots.com and create a new case.

C272A0 Critical error - the calibration is missing

EXPLANATION
Calibration could not be loaded

SUGGESTION
Contact your local Universal Robots service provider for assistance.

2.17. C273 Cross monitoring

You may find the following links helpful in addressing this issue:

- How to perform a complete reboot
- Find a distributor page

If you unable to resolve the issue, log in to http://myUR.universal-robots.com and create a new case.

C273A0 Critical error

EXPLANATION
A critical disagreement error occurred in the safety system

SUGGESTION
Try the following actions to see which resolves the issue: (A) Conduct a complete rebooting sequence, (B) Update software, (C) Contact your local Universal Robots service provider for assistance

C273A5 Disagreement on Safety Control Board State

EXPLANATION
A critical disagreement occurred within the safety system.

SUGGESTION
Try the following actions to see which resolves the issue: (A) Conduct a complete rebooting sequence, (B) Update software, (C) Contact your local Universal Robots service provider for assistance

C273A6 Disagreement on Robot State

EXPLANATION
A critical disagreement occurred within the safety system.

SUGGESTION
Try the following actions to see which resolves the issue: (A) Conduct a complete rebooting sequence, (B) Update software, (C) Contact your local Universal Robots service provider for assistance

C273A7 Disagreement on Safety State

EXPLANATION
A critical disagreement occurred within the safety system

SUGGESTION
Try the following actions to see which resolves the issue: (A) Conduct a complete rebooting sequence, (B) Update software, (C) Contact your local Universal Robots service provider for assistance

C273A8 Disagreement on position

EXPLANATION
A critical disagreement occurred within the safety system

SUGGESTION
Try the following actions to see which resolves the issue: (A) Conduct a complete rebooting sequence, (B) Update software, (C) Contact your local Universal Robots service provider for assistance

C273A9 Disagreement on velocity

EXPLANATION
A critical disagreement occurred within the safety system

SUGGESTION
Try the following actions to see which resolves the issue: (A) Conduct a complete rebooting sequence, (B) Update software, (C) Contact your local Universal Robots service provider for assistance

C273A10 Disagreement on current

EXPLANATION
A critical disagreement occurred within the safety system

SUGGESTION
Try the following actions to see which resolves the issue: (A) Conduct a complete rebooting sequence, (B) Update software, (C) Contact your local Universal Robots service provider for assistance

C273A11 Disagreement on temperature

EXPLANATION
A critical disagreement occurred within the safety system

SUGGESTION
Try the following actions to see which resolves the issue: (A) Conduct a complete rebooting sequence, (B) Update software, (C) Contact your local Universal Robots service provider for assistance

C273A12 Disagreement on Teach Pendant State

EXPLANATION
A critical disagreement occurred within the safety system

SUGGESTION
Try the following actions to see which resolves the issue: (A) Conduct a complete rebooting sequence, (B) Update software, (C) Contact your local Universal Robots service provider for assistance

C273A13 Disagreement on Teach Pendant Emergency Stop

EXPLANATION
A critical disagreement occurred within the safety system

SUGGESTION
Try the following actions to see which resolves the issue: (A) Conduct a complete rebooting sequence, (B) Update software, (C) Contact your local Universal Robots service provider for assistance

C273A14 One processor entered Fault State

EXPLANATION
A critical disagreement occurred within the safety system

SUGGESTION
Try the following actions to see which resolves the issue: (A) Conduct a complete rebooting sequence, (B) Update software, (C) Contact your local Universal Robots service provider for assistance

C273A15 One processor entered Violation State

EXPLANATION
A critical disagreement occurred within the safety system

SUGGESTION
Try the following actions to see which resolves the issue: (A) Conduct a complete rebooting sequence, (B) Update software, (C) Contact your local Universal Robots service provider for assistance

C273A16 Joint State disagreement

EXPLANATION
A critical disagreement occurred within the safety system

SUGGESTION
Try the following actions to see which resolves the issue: (A) Conduct a complete rebooting sequence, (B) Update software, (C) Contact your local Universal Robots service provider for assistance

C273A17 Joint Constant Data CRC disagreement

EXPLANATION
A critical disagreement occurred within the safety system

SUGGESTION
Try the following actions to see which resolves the issue: (A) Conduct a complete rebooting sequence, (B) Update software, (C) Contact your local Universal Robots service provider for assistance

C273A18 Joint target current disagreement

EXPLANATION
A critical disagreement occurred within the safety system

SUGGESTION
Try the following actions to see which resolves the issue: (A) Conduct a complete rebooting sequence, (B) Update software, (C) Contact your local Universal Robots service provider for assistance

C273A19 Torque Window disagreement

EXPLANATION
A critical disagreement occurred within the safety system

SUGGESTION
Try the following actions to see which resolves the issue: (A) Conduct a complete rebooting sequence, (B) Update software, (C) Contact your local Universal Robots service provider for assistance

C273A20 Torque Error disagreement

EXPLANATION
A critical disagreementoccurred within the safety system

SUGGESTION
Try the following actions to see which resolves the issue: (A) Conduct a complete rebooting sequence, (B) Update software, (C) Contact your local Universal Robots service provider for assistance

C273A21 Target Velocity disagreement

EXPLANATION
A critical disagreement occurred within the safety system

SUGGESTION
Try the following actions to see which resolves the issue: (A) Conduct a complete rebooting sequence, (B) Update software, (C) Contact your local Universal Robots service provider for assistance

C273A22 Target Acceleration disagreement

EXPLANATION
A critical disagreement occurred within the safety system

SUGGESTION
Try the following actions to see which resolves the issue: (A) Conduct a complete rebooting sequence, (B) Update software, (C) Contact your local Universal Robots service provider for assistance

C273A23 Recovery Mode CRC disagreement

EXPLANATION
A critical disagreement occurred within the safety system

SUGGESTION
Try the following actions to see which resolves the issue: (A) Conduct a complete rebooting sequence, (B) Update software, (C) Contact your local Universal Robots service provider for assistance

C273A24 Robot Configuration CRC disagreement

EXPLANATION
A critical disagreement occurred within the safety system

SUGGESTION
Try the following actions to see which resolves the issue: (A) Conduct a complete rebooting sequence, (B) Update software, (C) Contact your local Universal Robots service provider for assistance

C273A25 User Configuration CRC disagreement

EXPLANATION
A critical disagreement occurred within the safety system

SUGGESTION
Try the following actions to see which resolves the issue: (A) Conduct a complete rebooting sequence, (B) Update software, (C) Contact your local Universal Robots service provider for assistance

C273A26 Maximum stopping time disagreement

EXPLANATION
A critical disagreement occurred within the safety system

SUGGESTION
Try the following actions to see which resolves the issue: (A) Conduct a complete rebooting sequence, (B) Update software, (C) Contact your local Universal Robots service provider for assistance

C273A27 Stopping Time Torque Overload disagreement

EXPLANATION
A critical disagreement occurred within the safety system

SUGGESTION
Try the following actions to see which resolves the issue: (A) Conduct a complete rebooting sequence, (B) Update software, (C) Contact your local Universal Robots service provider for assistance

C273A28 Disagreement error on joint {unsigned}

EXPLANATION
A critical disagreement occurred within the safety system

SUGGESTION
Try the following actions to see which resolves the issue: (A) Conduct a complete rebooting sequence, (B) Update software, (C) Contact your local Universal Robots service provider for assistance

C273A29 Tool speed disagreement

EXPLANATION
A critical disagreement occurred within the safety system

SUGGESTION
Try the following actions to see which resolves the issue: (A) Conduct a complete rebooting sequence, (B) Update software, (C) Contact your local Universal Robots service provider for assistance

C273A30 Safety Mode Limit disagreement

EXPLANATION
A critical disagreement occurred within the safety system

SUGGESTION
Try the following actions to see which resolves the issue: (A) Conduct a complete rebooting sequence, (B) Update software, (C) Contact your local Universal Robots service provider for assistance

C273A31 Hand Protection Distance disagreement

EXPLANATION
A critical disagreement occurred within the safety system

SUGGESTION
Try the following actions to see which resolves the issue: (A) Conduct a complete rebooting sequence, (B) Update software, (C) Contact your local Universal Robots service provider for assistance

C273A32 Elbow Sphere speed disagreement

EXPLANATION
A critical disagreement occurred within the safety system

SUGGESTION
Try the following actions to see which resolves the issue: (A) Conduct a complete rebooting sequence, (B) Update software, (C) Contact your local Universal Robots service provider for assistance

C273A33 Momentum disagreement

EXPLANATION
A critical disagreement occurred within the safety system

SUGGESTION
Try the following actions to see which resolves the issue: (A) Conduct a complete rebooting sequence, (B) Update software, (C) Contact your local Universal Robots service provider for assistance

C273A34 Power disagreeement

EXPLANATION
A critical disagreement occurred within the safety system

SUGGESTION
Try the following actions to see which resolves the issue: (A) Conduct a complete rebooting sequence, (B) Update software, (C) Contact your local Universal Robots service provider for assistance

C273A35 Elbow position disagreement

EXPLANATION
A critical disagreement occurred within the safety system

SUGGESTION
Try the following actions to see which resolves the issue: (A) Conduct a complete rebooting sequence, (B) Update software, (C) Contact your local Universal Robots service provider for assistance

C273A36 Workpiece Rotation disagreement

EXPLANATION
A critical disagreement occurred within the safety system

SUGGESTION
Try the following actions to see which resolves the issue: (A) Conduct a complete rebooting sequence, (B) Update software, (C) Contact your local Universal Robots service provider for assistance

C273A37 Disagreement on Workpiece Position

EXPLANATION
A critical disagreement occurred within the safety system

SUGGESTION
Try the following actions to see which resolves the issue: (A) Conduct a complete rebooting sequence, (B) Update software, (C) Contact your local Universal Robots service provider for assistance

C273A38 Disagreement on motor parameter (R_pp)

EXPLANATION
A critical disagreement occurred within the safety system

SUGGESTION
Try the following actions to see which resolves the issue: (A) Conduct a complete rebooting sequence, (B) Update software, (C) Contact your local Universal Robots service provider for assistance

C273A39 Disagreement on motor parameter (L_pp)

EXPLANATION
A critical disagreement occurred within the safety system

SUGGESTION
Try the following actions to see which resolves the issue: (A) Conduct a complete rebooting sequence, (B) Update software, (C) Contact your local Universal Robots service provider for assistance

C273A40 Disagreement on motor parameter (Kb)

EXPLANATION
A critical disagreement occurred within the safety system

SUGGESTION
Try the following actions to see which resolves the issue: (A) Conduct a complete rebooting sequence, (B) Update software, (C) Contact your local Universal Robots service provider for assistance

C273A41 Disagreement on motor parameter (Kt)

EXPLANATION
A critical disagreement occurred within the safety system

SUGGESTION
Try the following actions to see which resolves the issue: (A) Conduct a complete rebooting sequence, (B) Update software, (C) Contact your local Universal Robots service provider for assistance

C273A42 Disagreement on motor parameter (T)

EXPLANATION
A critical disagreement occurred within the safety system

SUGGESTION
Try the following actions to see which resolves the issue: (A) Conduct a complete rebooting sequence, (B) Update software, (C) Contact your local Universal Robots service provider for assistance

C273A43 Disagreement on the Teach Pendant's Three-Position Enabling Device

EXPLANATION
A critical disagreement occurred within the safety system

SUGGESTION
Try the following actions to see which resolves the issue: (A) Conduct a complete rebooting sequence, (B) Update software, (C) Contact your local Universal Robots service provider for assistance

C273A44 Disagreement on the active status of the Teach Pendant's Three-Position Enabling Device

EXPLANATION
A critical disagreement occurred within the safety system

SUGGESTION
Try the following actions to see which resolves the issue: (A) Conduct a complete rebooting sequence, (B) Update software, (C) Contact your local Universal Robots service provider for assistance

C273A47 Disagreement on state

EXPLANATION
A critical disagreement occurred within the safety system

SUGGESTION
Try the following actions to see which resolves the issue: (A) Conduct a complete rebooting sequence, (B) Update software, (C) Contact your local Universal Robots service provider for assistance

C273A48 Disagreement on Injection-Molding-Machine-Interface Emergency Stop input

EXPLANATION
A critical disagreement occurred within the safety system

SUGGESTION
Try the following actions to see which resolves the issue: (A) Conduct a complete rebooting sequence, (B) Update software, (C) Contact your local Universal Robots service provider for assistance

C273A49 Disagreement on Injection-Molding-Machine-Interface Emergency Stop output

EXPLANATION
A critical disagreement occurred within the safety system

SUGGESTION
Try the following actions to see which resolves the issue: (A) Conduct a complete rebooting sequence, (B) Update software, (C) Contact your local Universal Robots service provider for assistance

C273A50 Disagreement on Injection-Molding-Machine-Interface Safeguard input

EXPLANATION
A critical disagreement occurred within the safety system

SUGGESTION
Try the following actions to see which resolves the issue: (A) Conduct a complete rebooting sequence, (B) Update software, (C) Contact your local Universal Robots service provider for assistance

C273A51 Disagreement on Injection-Molding-Machine-Interface type

EXPLANATION
A critical disagreement occurred within the safety system

SUGGESTION
Try the following actions to see which resolves the issue: (A) Conduct a complete rebooting sequence, (B) Update software, (C) Contact your local Universal Robots service provider for assistance

C273A52 Disagreement on Torque Parameters CRC

EXPLANATION
A critical disagreement occurred within the safety system

SUGGESTION
Try the following actions to see which resolves the issue: (A) Conduct a complete rebooting sequence, (B) Update software, (C) Contact your local Universal Robots service provider for assistance

C273A53 Target Torque disagreement

EXPLANATION
A critical disagreement occurred within the safety system

SUGGESTION
Try the following actions to see which resolves the issue: (A) Conduct a complete rebooting sequence, (B) Update software, (C) Contact your local Universal Robots service provider for assistance

C273A54 Disagreement on hardware configuration CRC

EXPLANATION
A critical disagreement occurred within the safety system

SUGGESTION
Try the following actions to resolve the issue: (A) Conduct a complete rebooting sequence, (B) Update software, (C) Contact your local Universal Robots service provider for assistance

C273A55 Disagreement on compensation current

EXPLANATION
A critical disagreement occurred within the safety system

SUGGESTION
Try the following actions to resolve the issue: (A) Conduct a complete rebooting sequence, (B) Update software, (C) Contact your local Universal Robots service provider for assistance

C273A56 Disagreement on external torque target

EXPLANATION
A critical disagreement occurred within the safety system

SUGGESTION
Try the following actions to resolve the issue: (A) Conduct a complete rebooting sequence, (B) Update software, (C) Contact your local Universal Robots service provider for assistance

C273A57 Safety Target Torque disagreement

EXPLANATION
A critical disagreement occurred within the safety system

SUGGESTION
Try the following actions to see which resolves the issue: (A) Conduct a complete rebooting sequence, (B) Update software, (C) Contact your local Universal Robots service provider for assistance

C273A58 Disagreement on all motors off in arm

EXPLANATION
A critical disagreement occurred within the safety system.

SUGGESTION
Try the following actions to see which resolves the issue: (A) Conduct a complete rebooting sequence, (B) Update software, (C) Contact your local Universal Robots service provider for assistance

C273A61 Disagreement on joint gear temperature

EXPLANATION
Safety system disagrees on the gear temperature

SUGGESTION
Try the following actions to see which resolves the issue: (A) Conduct a complete rebooting sequence, (B) Update software, (C) Contact your local Universal Robots service provider for assistance

C273A62 Disagreement on joint house temperature

EXPLANATION
Safety system disagrees on the house temperature

SUGGESTION
Try the following actions to see which resolves the issue: (A) Conduct a complete rebooting sequence, (B) Update software, (C) Contact your local Universal Robots service provider for assistance

C273A63 Disagreement on the tool safety input

EXPLANATION
A critical disagreement occurred within the safety system

SUGGESTION
Try the following actions to see which resolves the issue: (A) Conduct a complete rebooting sequence, (B) Update software, (C) Contact your local Universal Robots service provider for assistance

C273A64 One processor entered Critical Fault State

EXPLANATION
A critical disagreement occurred within the safety system

SUGGESTION
Try the following actions to see which resolves the issue: (A) Conduct a complete rebooting sequence, (B) Update software, (C) Contact your local Universal Robots service provider for assistance

2.18. C274 Control box fan error

You may find the following links helpful in addressing this issue:

- How to perform a complete reboot
- Find a distributor page

If you unable to resolve the issue, log in to http://myUR.universal-robots.com and create a new case.

C274A1 Fan is not running

EXPLANATION
The control box fan must be running to prevent the control box from overheating

SUGGESTION
Ensure the fan in the control box can rotate freely and the connector is attached. The control box fan is located between the air filter and the energy eater in the control box. See the Service Manual for details.

C274A2 Monitoring data timed out

EXPLANATION
The monitoring signals for the fan speed was not received by the system in a timely manner

SUGGESTION
Try the following actions to resolve the issue: (A) Conduct a complete rebooting sequence, (B) Update software, (C) Contact your local Universal Robots service provider for assistance

2.19. C275 Brake Pin

C275A1 Boost on

C275A2 Boost off

C275A4 Released

C275A6 Locked

If you unable to resolve the issue, log in to http://myUR.universal-robots.com and create a new case.

2.20. C276 Uart

You may find the following links helpful in addressing this issue:

- How to perform a complete reboot
- Find a distributor page

If you unable to resolve the issue, log in to http://myUR.universal-robots.com and create a new case.

C276A0 Critical error

EXPLANATION
A critical error occurred in the UART driver

SUGGESTION
Try the following actions to see which resolves the issue: (A) Conduct a complete rebooting sequence, (B) Update software, (C) Contact your local Universal Robots service provider for assistance

2.21. C277 Memory

You may find the following links helpful in addressing this issue:

- How to perform a complete reboot
- Find a distributor page

If you unable to resolve the issue, log in to http://myUR.universal-robots.com and create a new case.

C277A1 Failed to allocate memory

EXPLANATION
Failed to allocate mamory.

SUGGESTION
Try the following actions to see which resolves the issue: (A) Conduct a complete rebooting sequence, (B) Update software, (C) Contact your local Universal Robots service provider for assistance

2.22. C278 Servo

You may find the following links helpful in addressing this issue:

- How to perform a complete reboot
- Find a distributor page

If you unable to resolve the issue, log in to http://myUR.universal-robots.com and create a new case.

C278A0 Critical error

EXPLANATION
A critical error occurred in the servo module

SUGGESTION
Try the following actions to see which resolves the issue: (A) Conduct a complete rebooting sequence, (B) Update software, (C) Contact your local Universal Robots service provider for assistance

2.23. C279 Flash

You may find the following links helpful in addressing this issue:

- How to perform a complete reboot
- Find a distributor page

If you unable to resolve the issue, log in to http://myUR.universal-robots.com and create a new case.

C279A0 Critical error

EXPLANATION
A critical error occurred in the flash driver

SUGGESTION
Try the following actions to see which resolves the issue: (A) Conduct a complete rebooting sequence, (B) Update software, (C) Contact your local Universal Robots service provider for assistance

C279A38 Timed out waiting for system voltage to reach {float}V

EXPLANATION
System voltage is too low to ensure safe flash operations

SUGGESTION
Try the following actions to see which resolves the issue: (A) Investigate power supply to the robot, (B) Conduct a complete rebooting sequence, (C) Update software, (D) Contact your local Universal Robots service provider for assistance

2.24. C280 Real-time error

You may find the following links helpful in addressing this issue:

- How to perform a complete reboot
- Find a distributor page

If you unable to resolve the issue, log in to http://myUR.universal-robots.com and create a new case.

C280A0 Critical error

EXPLANATION
A critical real-time error occurred

SUGGESTION
Try the following actions to see which resolves the issue: (A) Conduct a complete rebooting sequence, (B) Update software, (C) Check communication between joints, (D) Contact your local Universal Robots service provider for assistance

2.25. C281 Robot State Machine

You may find the following links helpful in addressing this issue:

- How to perform a complete reboot
- Find a distributor page

If you unable to resolve the issue, log in to http://myUR.universal-robots.com and create a new case.

C281A0 Critical error

EXPLANATION
A critical State Machine error occurred

SUGGESTION
Try the following actions to see which resolves the issue: (A) Conduct a complete rebooting sequence, (B) Update software, (C) Contact your local Universal Robots service provider for assistance

C281A3 {deviceName} joint entered the Fault State

SUGGESTION
Try the following actions to see which resolves the issue: (A) Conduct a complete rebooting sequence, (B) Update software, (C) Contact your local Universal Robots service provider for assistance

C281A4 {deviceName} joint entered the Violation State

SUGGESTION
Try the following actions to see which resolves the issue: (A) Conduct a complete rebooting sequence, (B) Update software, (C) Contact your local Universal Robots service provider for assistance

C281A7 Teach Pendant entered the Fault State

SUGGESTION
Try the following actions to see which resolves the issue: (A) Conduct a complete rebooting sequence, (B) Update software, (C) Contact your local Universal Robots service provider for assistance

C281A8 Teach Pendant entered the Violation State

SUGGESTION
Try the following actions to see which resolves the issue: (A) Conduct a complete rebooting sequence, (B) Update software, (C) Contact your local Universal Robots service provider for assistance

C281A9 {deviceName} joint moved too far before robot entered RUNNING State

EXPLANATION
A Joint moved more than the permissible range during the Brake Release procedure.

SUGGESTION
Try the following actions to see which resolves the issue: (A) Conduct a complete rebooting sequence, (B) Ensure the mounted payload, TCP, and CoG matches your configuration, (C) Update software, (D) Contact your local Universal Robots service provider for assistance

C281A14 IMMI entered the Fault State

SUGGESTION
Try the following actions to see which resolves the issue: (A) Conduct a complete rebooting sequence, (B) Update software, (C) Contact your local Universal Robots service provider for assistance

C281A15 IMMI entered the Violation State

SUGGESTION
Try the following actions to see which resolves the issue: (A) Conduct a complete rebooting sequence, (B) Update software, (C) Contact your local Universal Robots service provider for assistance

C281A16 {deviceName} joint did not reach correct state before timeout was exceeded

EXPLANATION
The robot is not in the expected state. An issue occured during the state transition.

SUGGESTION
Try the following actions to see which resolves the issue: (A) Update software, (B) Contact your local Universal Robots service provider for assistance

C281A17 {deviceName} joint entered the Brake Failure State

EXPLANATION
The joint brake system failed to engage while powering down the robot.

SUGGESTION
Keep the robot powered on and contact your local Universal Robots service provider for assistance

C281A18 Not all joints reached parking within the expected time of {unsigned} ms

EXPLANATION
One or more joints did not transition to parking within the time allowed from when the first joint began to park

SUGGESTION
Try the following actions to see which resolves the issue: (A) Conduct a complete rebooting sequence, (B) Update software, (C) Contact your local Universal Robots service provider for assistance

C281A20 {deviceName} joint entered the Critical Fault State

SUGGESTION
Try the following actions to see which resolves the issue: (A) Conduct a complete rebooting sequence, (B) Update software, (C) Contact your local Universal Robots service provider for assistance

2.26. C282 Systick

C282A1 Systick Sync: SoC frequency synchronization started

C282A2 Systick Sync: SoC frequency synchronization in progress, sample number: {unsigned} of 16

C282A3 Systick Sync: SoC frequency synchronization in progress, received 'SoC period' sample of: {float_4_4} [us]

C282A4 Systick Sync: SoC frequency synchronization in progress, received 'SoC ISR Latency' sample of: {float_3_5} [us]

C282A5 Systick Sync: SoC period determined to be: {float} [us]

C282A6 Systick Sync: SysTick timer LOAD value set to: {unsigned} [cpu-clock-cycles]

C282A7 Systick Sync: SoC frequency synchronization finished

C282A8 Systick Sync: SoC Phase synchronization started

C282A9 Systick Sync: SysTick<>SoC Phase error: {signed}

EXPLANATION
Negative number means the Systick counter was behind (too late), positive number means the Systick counter was ahead (too early)

C282A10 Systick Sync: Estimated Systick counter value at SoC: {unsigned}

C282A11 Systick Sync: Estimated Systick counter ticks to next SoC: {unsigned}

C282A12 Systick Sync: SoC Phase synchronization finished

C282A13 The internal SoC count value has been resynchronized with the FPGA SoC count. Data: {hex}

EXPLANATION
Data: [Number of resyncs, 16 bits][FPGA SoC count (new), 8 bit][Device SoC count (old), 8 bit]

C282A14 SOC status data failed to update in a timely manner

If you unable to resolve the issue, log in to http://myUR.universal-robots.com and create a new case.

2.27. C283 Safety system

You may find the following links helpful in addressing this issue:

- How to perform a complete reboot
- Find a distributor page

If you unable to resolve the issue, log in to http://myUR.universal-robots.com and create a new case.

C283A0 Critical error

EXPLANATION
A critical error occurred in the safety system

SUGGESTION
Try the following actions to see which resolves the issue: (A) Conduct a complete rebooting sequence, (B) Update software, (C) Contact your local Universal Robots service provider for assistance

C283A1 Robot is not braking when in Stop Mode

C283A2 Robot is moving when in Stop Mode

C283A3 Power not removed from the motors while in Emergency Stop

C283A4 Failed to power on the Robot Arm

C283A5 Invalid pin-configuration received: {hex}

C283A6 Trying to reassign pin configuration with configuration {hex}

C283A7 {deviceName} joint exceeded the speed limit of the safety settings

SUGGESTION
Try each of the following actions (in order) to see which resolves the issue: (A) Ensure the mounted payload and center of gravity matches your installation settings, (B) Slow down movements. You can exceed speed limits if you move the robot too fast in Freedrive, in that case, move the robot slower, (C) Check safety settings

C283A8 The System Emergency Stop Output is not active

EXPLANATION
Failed to activate the System Emergency Stop Output. The output is active when voltage is low

SUGGESTION
Make sure output is not short circuited to a power supply

C283A9 System Emergency Stop Output disagreement within the safety system

EXPLANATION
The input signals are not switching simultaneously, or are incorrectly connected.

SUGGESTION
Try the following actions to see which resolves the issue: (A) Ensure both inputs are properly connected, (B) Contact your local Universal Robots service provider for assistance

C283A10 Robot Emergency Stop Input disagreement within the safety system

EXPLANATION
The input signals are not switching simultaneously, or are incorrectly connected.

SUGGESTION
Try the following actions to see which resolves the issue: (A) Ensure both inputs are properly connected, (B) Contact your local Universal Robots service provider for assistance

C283A11 System Emergency Stop Input disagreement within the safety system

EXPLANATION
The input signals are not switching simultaneously, or are incorrectly connected.

SUGGESTION
Try the following actions to see which resolves the issue: (A) Ensure both inputs are properly connected, (B) Contact your local Universal Robots service provider for assistance

C283A12 Safeguard Stop Input disagreement within the safety system

EXPLANATION
The input signals are not switching simultaneously, or are incorrectly connected.

SUGGESTION
Try the following actions to see which resolves the issue: (A) Ensure both inputs are properly connected, (B) Contact your local Universal Robots service provider for assistance

C283A13 Safeguard Reset Input disagreement within the safety system

EXPLANATION
The input signals are not switching simultaneously, or are incorrectly connected.

SUGGESTION
Try the following actions to see which resolves the issue: (A) Ensure both inputs are properly connected, (B) Contact your local Universal Robots service provider for assistance

C283A14 Operation Mode input disagreement within the safety system.

EXPLANATION
The input signals are not switching simultaneously, or are incorrectly connected.

SUGGESTION
Try the following actions to see which resolves the issue: (A) Ensure both inputs are properly connected, (B) Contact your local Universal Robots service provider for assistance

C283A15 Three-Positional Enabling Device Input disagreement within the safety system

EXPLANATION
The input signals are not switching simultaneously, or are incorrectly connected.

SUGGESTION
Try the following actions to see which resolves the issue: (A) Ensure both inputs are properly connected, (B) Contact your local Universal Robots service provider for assistance

C283A16 Operation Mode Switch is defined and no Three-Positional Device is defined.

EXPLANATION
Operation mode switch can only be enabled if a Three-Positional Device is present

SUGGESTION
Try the following actions to see which resolves the issue: (A) Ensure that a Three-Positional Device is enabled in the Safety Configuration (B) Conduct a complete rebooting sequence, (C) Update software, (D) Contact your local Universal Robots service provider for assistance

C283A17 Lost {unsigned} Teach Pendant safety packages in a row

SUGGESTION
Try the following actions to see which resolves the issue: (A) Check that the teach pendant is properly connected, (B) Conduct a complete rebooting sequence, (C) Update software, (D) Contact your local Universal Robots service provider for assistance

C283A18 Lost too many Joint safety packages in a row. Diagnostic data: {unsigned}

SUGGESTION
Try the following actions to see which resolves the issue: (A) Check that the teach pendant is properly connected, (B) Conduct a complete rebooting sequence, (C) Update software, (D) Contact your local Universal Robots service provider for assistance

C283A19 Invalid gravity vector received

EXPLANATION
The gravity vector is outside the allowed range.

SUGGESTION
Make sure there are no script commands that set an invalid gravity vector.

C283A20 Invalid payload mass received

EXPLANATION
The payload mass is outside the allowed range

SUGGESTION
Make sure there are no script commands that set an illegal payload for the robot type

C283A21 invalid payload center of gravity received

EXPLANATION
The payload center of gravity is outside the allowed range

SUGGESTION
Make sure there are no script commands that set an invalid payload center of gravity.

C283A22 Teach Pendant is connected while it is disabled in robot configuration

EXPLANATION
If the Teach Pendant is enabled, it is connected. If it is disabled, it is not connected.

SUGGESTION
Disconnect the Teach Pendant or enable it in the configuration.

C283A26 Force limitation: A joint exceeded the torque window by {float}Nm

EXPLANATION
If the target trajectory is very jerky, e.g. in case of sensor based control with path_offset() or servoj(), the target joint torques can exceed safety system limits

SUGGESTION
Check that the target trajectory is smooth. Noisy sensors or communication jitter in external control can cause jerky trajectories

C283A27 Mismatch on Robot Configuration CRC between the safety system and PolyScope

SUGGESTION
Try the following actions to see which resolves the issue: (A) Conduct a complete rebooting sequence, (B) Update software, (C) Contact your local Universal Robots service provider for assistance

C283A28 Mismatch on User Configuration CRC between the safety system and PolyScope

SUGGESTION
Try the following actions to see which resolves the issue: (A) Conduct a complete rebooting sequence, (B) Make new installation, (C) Update software, (D) Contact your local Universal Robots service provider for assistance

C283A34 Error while trying to apply safety configuration

SUGGESTION
Try the following actions to see which resolves the issue: (A) Conduct a complete rebooting sequence, (B) Update software, (C) Contact your local Universal Robots service provider for assistance

C283A35 Reduced Mode Output disagreement within the safety system

SUGGESTION
Try the following actions to see which resolves the issue: (A) Conduct a complete rebooting sequence, (B) Update software, (C) Contact your local Universal Robots service provider for assistance

C283A36 Not Reduced Mode Output disagreement within the safety system

SUGGESTION
Try the following actions to see which resolves the issue: (A) Conduct a complete rebooting sequence, (B) Update software, (C) Contact your local Universal Robots service provider for assistance

C283A37 Robot Moving Output disagreement within the safety system

SUGGESTION
Try each of the following actions (in order) to see which resolves the issue: (A) Conduct a complete rebooting sequence, (B) Update software, (C) Contact your local Universal Robots service provider for assistance

C283A38 Robot Not Stopping Output disagreement within the safety system

SUGGESTION
Try each of the following actions (in order) to see which resolves the issue: (A) Conduct a complete rebooting sequence, (B) Update software, (C) Contact your local Universal Robots service provider for assistance

C283A40 Reduced Mode Input disagreement within the safety systems

EXPLANATION
The input signals are not switching simultaneously, or are incorrectly connected.

SUGGESTION
Try the following actions to see which resolves the issue: (A) Ensure both inputs are correctly connected, (B) Contact your local Universal Robots service provider for assistance.

C283A41 TCP Velocity violates limits of maximum stopping time

SUGGESTION
Try each of the following actions (in order) to see which resolves the issue: (A) Ensure the mounted payload and center of gravity matches your installation settings, (B) Slow down movements. You can exceed speed limits if you move the robot too fast in Freedrive, in that case, move the robot slower, (C) Check safety settings

C283A42 TCP Velocity violates limits of maximum stopping distance

SUGGESTION
Try each of the following actions (in order) to see which resolves the issue: (A) Ensure the mounted payload and center of gravity matches your installation settings, (B) Slow down movements. You can exceed speed limits if you move the robot too fast in Freedrive, in that case, move the robot slower, (C) Check safety settings

C283A43 {deviceName} joint moved too quickly toward a Joint position limit

SUGGESTION
Try each of the following actions (in order) to see which resolves the issue: (A) Ensure the mounted payload and center of gravity matches your installation settings, (B) Slow down movements. You can exceed speed limits if you move the robot too fast in Freedrive, in that case, move the robot slower, (C) Check safety settings

C283A44 The tool moved too fast towards an orientation limit

SUGGESTION
Try each of the following actions (in order) to see which resolves the issue: (A) Ensure the mounted payload and center of gravity matches your installation settings, (B) Slow down movements. You can exceed speed limits if you move the robot too fast in Freedrive, in that case, move the robot slower, (C) Check safety settings

C283A45 The Elbow moved too fast towards a safety plane

SUGGESTION
Try each of the following actions (in order) to see which resolves the issue: (A) Ensure the mounted payload and center of gravity matches your installation settings, (B) Slow down movements. You can exceed speed limits if you move the robot too fast in Freedrive, in that case, move the robot slower, (C) Check safety settings

C283A46 The tool moved too fast towards a safety plane

SUGGESTION
Try each of the following actions (in order) to see which resolves the issue: (A) Ensure the mounted payload and center of gravity matches your installation settings, (B) Slow down movements. You can exceed speed limits if you move the robot too fast in Freedrive, in that case, move the robot slower, (C) Check safety settings

C283A47 {deviceName} joint position limit exceeded

SUGGESTION
Try each of the following actions (in order) to see which resolves the issue: (A) Ensure the mounted payload and center of gravity matches your installation settings, (B) Slow down movements. You can exceed speed limits if you move the robot too fast in Freedrive, in that case, move the robot slower, (C) Check safety settings

C283A48 Tool position limit exceeded

SUGGESTION
Try each of the following actions (in order) to see which resolves the issue: (A) Ensure the mounted payload and center of gravity matches your installation settings, (B) Slow down movements. You can exceed speed limits if you move the robot too fast in Freedrive, in that case, move the robot slower, (C) Check safety settings

C283A49 Tool orientation limit exceeded

SUGGESTION
Try each of the following actions (in order) to see which resolves the issue: (A) Ensure the mounted payload and center of gravity matches your installation settings, (B) Slow down movements. You can exceed speed limits if you move the robot too fast in Freedrive, in that case, move the robot slower, (C) Check safety settings

C283A50 Elbow position limit exceeded

SUGGESTION
Try each of the following actions (in order) to see which resolves the issue: (A) Ensure the mounted payload and center of gravity matches your installation settings, (B) Slow down movements. You can exceed speed limits if you move the robot too fast in Freedrive, in that case, move the robot slower, (C) Check safety settings

C283A51 Robot moved with a speed of {float} mm/s at the tool. This exceeds the tool speed limit in the safety settings

SUGGESTION
Try each of the following actions (in order) to see which resolves the issue: (A) Ensure the mounted payload and center of gravity matches your installation settings, (B) Slow down movements. You can exceed speed limits if you move the robot too fast in Freedrive, in that case, move the robot slower, (C) Check safety settings

C283A52 Robot moved with a speed of {float} mm/s at the elbow. This exceeds the elbow speed limit in the safety settings

SUGGESTION
Try each of the following actions (in order) to see which resolves the issue: (A) Ensure the mounted payload and center of gravity matches your installation settings, (B) Slow down movements. You can exceed speed limits if you move the robot too fast in Freedrive, in that case, move the robot slower, (C) Check safety settings

C283A53 Maximum Tool Center Point Speed in Reduced Mode is invalid

SUGGESTION
Ensure the Reduced Mode Limit is less than or equal to the Normal Mode limit.

C283A54 Maximum Elbow Speed in Reduced Mode is invalid

SUGGESTION
Ensure the Reduced Mode limit is less than or equal to the Normal Mode Limit.

C283A55 Maximum Joint Speed of joint {unsigned} in Reduced Mode is invalid

SUGGESTION
Ensure the Reduced Mode Limit is less than or equal to the Normal Mode Limit.

C283A56 Maximum Momentum in Reduced Mode is invalid

SUGGESTION
Ensure the Reduced Mode Limit is less than or equal to the Normal Mode Limit.

C283A57 Maximum stopping time in Reduced Mode is invalid

SUGGESTION
Ensure the Reduced Mode Limit is less than or equal to the Normal Mode Limit.

C283A58 Maximum stopping distance in Reduced Mode is invalid

SUGGESTION
Ensure the Reduced Mode Limit is less than or equal to the Normal Mode Limit.

C283A59 Reduced Mode Output is not active

EXPLANATION
Failed to activate the Reduced Mode Output. The output is active when voltage is low

SUGGESTION
Make sure output is not short circuited to a power supply

C283A60 Reduced Mode Output is not inactive

EXPLANATION
Failed to deactivate the Reduced Mode Output. The output is inactive when voltage is high

SUGGESTION
Make sure output is not short circuited to ground

C283A61 Not Reduced Mode Output is not active

EXPLANATION
Failed to activate the Not Reduced Mode Output. The output is active when voltage is low

SUGGESTION
Make sure output is not short circuited to a power supply

C283A62 Not Reduced Mode Output is not inactive

EXPLANATION
Failed to deactivate the Not Reduced Mode Output. The output is inactive when voltage is high

SUGGESTION
Make sure output is not short circuited to ground

C283A63 Robot is moving while Robot Moving Output is not active

EXPLANATION
Failed to activate the Robot Moving Output. The output is active when voltage is low

SUGGESTION
Make sure output is not short circuited to a power supply

C283A64 Tool Direction Vector Length for Normal Mode is {float}, not 1.0

SUGGESTION
Reconfigure Tool orientation

C283A65 Tool Direction Vector Length for Reduced Mode is {float}, not 1.0

SUGGESTION
Reconfigure Tool orientation

C283A66 Robot Momentum reached {float} kg * m/s, which exceeds the Momentum limit

C283A67 Robot Power reached {float} W, which exceeds the Power limit

C283A68 Error caused by {deviceName}

EXPLANATION
A critical safety error

SUGGESTION
Try the following actions to see which resolves the issue: (A) Conduct a complete rebooting sequence, (B) Update software, (C) Contact your local Universal Robots service provider for assistance

C283A72 The motor configuration sent by the Control Box is invalid

EXPLANATION
The motor configuration sent is unusable with this firmware revision.

SUGGESTION
Try the following actions to see which resolves the issue: (A) Conduct a complete rebooting sequence, (B) Update software, (C) Contact your local Universal Robots service provider for assistance

C283A73 Safe Home Position Output disagreement within the safety system

C283A74 The Safe Home Position Output is active while not allowed

EXPLANATION
The Safe Home Position Output is active while the robot is not in Safe Home Position

SUGGESTION
Make sure output is not short circuited to power supply or ground

C283A81 The robot configuration specifies an unsupported joint size {signed}

EXPLANATION
The safety system is not certified to work with the specified joint size

SUGGESTION
Upgrade to a newer software version

C283A82 The connected Teach Pendant type does not match the configuration

EXPLANATION
The connected Teach Pendant is not the same type as the one selected in the safety configuration

SUGGESTION
Try the following actions to see which resolves the issue: (A) Check that the Teach Pendant is properly connected and matches the one in the safety configuration, (B) Conduct a complete rebooting sequence, (C) Update the software, (D) Contact your local Universal Robots technical support

C283A83 The configured Teach Pendant has no Three-Positional Enabling Device

EXPLANATION
The safety configuration enables the Teach Pendant's Three-Positional Enabling Device, but the configured Teach Pendant does not have a Three-Positional Enabling Device

SUGGESTION
Try the following actions to see which resolves the issue: (A) Check that the correct Teach Pendant is selected in the safety configuration, (B) Conduct a complete rebooting sequence, (C) Update the software, (D) Contact your local Universal Robots technical support

C283A85 Automatic Safeguard Stop Input disagreement within the safety system

EXPLANATION
The input signals are not switching simultaneously, or are incorrectly connected.

SUGGESTION
Try the following actions to see which resolves the issue: (A) Ensure both inputs are properly connected, (B) Contact your local Universal Robots service provider for assistance

C283A86 Automatic Safeguard Reset Input disagreement within the safety system

EXPLANATION
The input signals are not switching simultaneously, or are incorrectly connected.

SUGGESTION
Try the following actions to see which resolves the issue: (A) Ensure both inputs are properly connected, (B) Contact your local Universal Robots service provider for assistance

C283A87 Injection-Molding-Machine-Interface is connected while it is disabled in the robot configuration

EXPLANATION
If the Injection-Molding-Machine-Interface is enabled, it must be connected. If it is disabled, it must be disconnected.

SUGGESTION
Disconnect the Injection-Molding-Machine-Interface or enable it in the configuration.

C283A88 Lost {unsigned} Injection-Molding-Machine-Interface safety packages in a row

SUGGESTION
Try the following actions to see which resolves the issue: (A) Check that the Injection-Molding-Machine-Interface is properly connected, (B) Conduct a complete rebooting sequence, (C) Update software, (D) Contact your local Universal Robots service provider for assistance

C283A89 The connected Injection-Molding-Machine-Interface type does not match the configuration

EXPLANATION
The connected Injection-Molding-Machine-Interface is not the same type as the one selected in the safety configuration

SUGGESTION
Try the following actions to see which resolves the issue: (A) Check that the Injection-Molding-Machine-Interface is properly connected and matches the one in the safety configuration, (B) Conduct a complete rebooting sequence, (C) Update the software, (D) Contact your local Universal Robots technical support

C283A90 Invalid Injection-Molding-Machine-Interface type in the user configuration: {unsigned}

EXPLANATION
The configuration provided by the user safety configuration is invalid

SUGGESTION
Try the following actions to see which resolves the issue: (A) Ensure the correct IMMI type is selected in the Safety Configuration (B) Conduct a complete rebooting sequence, (C) Update software, (D) Contact your local Universal Robots service provider for assistance

C283A91 The Injection-Molding-Machine-Interface System Emergency Stop Output is not active

EXPLANATION
Failed to activate the System Emergency Stop Output on the Injection-Molding-Machine-Interface. The output is active when voltage is high

SUGGESTION
Make sure output is not short circuited to ground

C283A94 Automatic Safeguard Stop input is configured but no Three-Position Enabling device is configured

SUGGESTION
Try the following actions to see which resolves the issue: (A) Ensure that a Three-Positional Device is enabled in the Safety Configuration (B) Conduct a complete rebooting sequence, (C) Update software, (D) Contact your local Universal Robots service provider for assistance

C283A97 The payload inertia matrix diagonal sent from the controller must be non-negative

SUGGESTION
Make sure there are no script commands that set an invalid payload inertia matrix diagonal

C283A98 The payload inertia sent from the controller must be within valid range

EXPLANATION
The payload inertia must be within the valid range. Max inertia is defined as a 10 meter rod with a mass equal to the maximum rated robot payload

SUGGESTION
Make sure your inertia is within the valid range

C283A99 Received an invalid value {float} as part of the runtime safety configuration

SUGGESTION
Try the following actions to resolve the issue: (A) Conduct a complete rebooting sequence, (B) Update software, (C) Contact your local Universal Robots service provider for assistance

C283A100 Multiple sources defined for controlling operational mode

SUGGESTION
Try the following actions to resolve the issue: (A) Make sure there are not set multiple sources in the Safety Config controlling the operational mode, (B) Update Software, (C) Contact your local Universal Robots service provider for assistance

C283A102 The reduced mode state is inactive while not allowed

EXPLANATION
The reduced mode state sent to the safety system is inactive while the robot is in reduced mode

SUGGESTION
Try the following actions to resolve the issue: (A) Conduct a complete rebooting sequence, (B) Update software, (C) Contact your local Universal Robots service provider for assistance

C283A103 The reduced mode state is active while not allowed

EXPLANATION
The reduced mode state sent to the safety system is active while the robot is not in reduced mode

SUGGESTION
Try the following actions to resolve the issue: (A) Conduct a complete rebooting sequence, (B) Update software, (C) Contact your local Universal Robots service provider for assistance

C283A104 Robot is moving while the robot moving state is not active

EXPLANATION
The robot is moving while the robot moving state sent to the safety system is inactive.

SUGGESTION
Try the following actions to resolve the issue: (A) Conduct a complete rebooting sequence, (B) Update software, (C) Contact your local Universal Robots service provider for assistance

C283A105 The safe home position state is active while not allowed

EXPLANATION
The safe home position state sent to the safety system is active while the robot is not in safe home position

SUGGESTION
Try the following actions to resolve the issue: (A) Conduct a complete rebooting sequence, (B) Update software, (C) Contact your local Universal Robots service provider for assistance

C283A106 The safeguard stop state is active while not allowed

EXPLANATION
The safeguard stop state sent to the safety system is active while the robot is not in safeguard stop

SUGGESTION
Try the following actions to resolve the issue: (A) Conduct a complete rebooting sequence, (B) Update software, (C) Contact your local Universal Robots service provider for assistance

C283A107 The safeguard stop state is inactive while not allowed

EXPLANATION
The safeguard stop state sent to the safety system is inactive while the robot is in safeguard stop

SUGGESTION
Try the following actions to resolve the issue: (A) Conduct a complete rebooting sequence, (B) Update software, (C) Contact your local Universal Robots service provider for assistance

C283A112 The emergency stop by system state is active while not allowed

EXPLANATION
The emergency stop by system state sent to the safety system is active while the robot is not in system emergency stop

SUGGESTION
Try the following actions to resolve the issue: (A) Conduct a complete rebooting sequence, (B) Update software, (C) Contact your local Universal Robots service provider for assistance

C283A113 The emergency stop by system state is inactive while not allowed

EXPLANATION
The emergency stop by system state sent to the safety system is inactive while the robot is in system emergency stop

SUGGESTION
Try the following actions to resolve the issue: (A) Conduct a complete rebooting sequence, (B) Update software, (C) Contact your local Universal Robots service provider for assistance

C283A114 The emergency stop by robot state is active while not allowed

EXPLANATION
The emergency stop by robot state sent to the safety system is active while the robot is not in robot emergency stop

SUGGESTION
Try the following actions to resolve the issue: (A) Conduct a complete rebooting sequence, (B) Update software, (C) Contact your local Universal Robots service provider for assistance

C283A115 The emergency stop by robot state is inactive while not allowed

EXPLANATION
The emergency stop by robot state sent to the safety system is inactive while the robot is in robot emergency stop

SUGGESTION
Try the following actions to resolve the issue: (A) Conduct a complete rebooting sequence, (B) Update software, (C) Contact your local Universal Robots service provider for assistance

C283A116 The Fault state is inactive while not allowed

EXPLANATION
The fault state sent to the safety system is inactive while the robot is in fault

SUGGESTION
Try the following actions to resolve the issue: (A) Conduct a complete rebooting sequence, (B) Update software, (C) Contact your local Universal Robots service provider for assistance

C283A117 The fault state is active while not allowed

EXPLANATION
The fault state sent to the safety system is active while the robot is not in Fault

SUGGESTION
Try the following actions to resolve the issue: (A) Conduct a complete rebooting sequence, (B) Update software, (C) Contact your local Universal Robots service provider for assistance

C283A118 The violation state is inactive while not allowed

EXPLANATION
The violation state sent to the safety system is inactive while the robot is in violation

SUGGESTION
Try the following actions to resolve the issue: (A) Conduct a complete rebooting sequence, (B) Update software, (C) Contact your local Universal Robots service provider for assistance

C283A119 The violation state is active while not allowed

EXPLANATION
The Violation state sent to the safety system is active while the robot is not in violation

SUGGESTION
Try the following actions to resolve the issue: (A) Conduct a complete rebooting sequence, (B) Update software, (C) Contact your local Universal Robots service provider for assistance

C283A120 The category 1 stop state is inactive while not allowed

EXPLANATION
The category 1 stop state sent to the safety system is inactive while the robot is in a category 1 stop

SUGGESTION
Try the following actions to resolve the issue: (A) Conduct a complete rebooting sequence, (B) Update software, (C) Contact your local Universal Robots service provider for assistance

C283A121 The category 1 stop state is active while not allowed

EXPLANATION
The category 1 stop state sent to the safety system is active while the robot is not in a category 1 stop

SUGGESTION
Try the following actions to resolve the issue: (A) Conduct a complete rebooting sequence, (B) Update software, (C) Contact your local Universal Robots service provider for assistance

C283A122 The safeguard stop auto state is active while not allowed

EXPLANATION
The safeguard stop auto state sent to the safety system is active while the robot is not in safeguard stop auto

SUGGESTION
Try the following actions to resolve the issue: (A) Conduct a complete rebooting sequence, (B) Update software, (C) Contact your local Universal Robots service provider for assistance

C283A123 The safeguard stop auto state is inactive while not allowed

EXPLANATION
The safeguard stop auto state sent to the safety system is inactive while the robot is in safeguard stop auto

SUGGESTION
Try the following actions to resolve the issue: (A) Conduct a complete rebooting sequence, (B) Update software, (C) Contact your local Universal Robots service provider for assistance

C283A124 The 3PE stop state is inactive while not allowed

EXPLANATION
The 3PE stop state sent to the safety system is inactive while the robot is in 3PE stop

SUGGESTION
Try the following actions to resolve the issue: (A) Conduct a complete rebooting sequence, (B) Update software, (C) Contact your local Universal Robots service provider for assistance

C283A125 The 3PE stop state is active while not allowed

EXPLANATION
The 3PE stop state sent to the safety system is active while the robot is not in 3PE stop

SUGGESTION
Try the following actions to resolve the issue: (A) Conduct a complete rebooting sequence, (B) Update software, (C) Contact your local Universal Robots service provider for assistance

C283A126 The category 2 stop state is inactive while not allowed

EXPLANATION
The category 2 stop state sent to the safety system is inactive while the robot is in a category 2 stop

SUGGESTION
Try the following actions to resolve the issue: (A) Conduct a complete rebooting sequence, (B) Update software, (C) Contact your local Universal Robots service provider for assistance

C283A127 The category 2 stop state is active while not allowed

EXPLANATION
The category 2 stop state sent to the safety system is active while the robot is not in a category 2 stop

SUGGESTION
Try the following actions to resolve the issue: (A) Conduct a complete rebooting sequence, (B) Update software, (C) Contact your local Universal Robots service provider for assistance

C283A128 The category 0 stop state is inactive while not allowed

EXPLANATION
The category 0 stop state sent to the safety system is inactive while the robot is in a category 0 stop

SUGGESTION
Try the following actions to resolve the issue: (A) Conduct a complete rebooting sequence, (B) Update software, (C) Contact your local Universal Robots service provider for assistance

C283A129 The category 0 stop state is active while not allowed

EXPLANATION
The category 0 stop state sent to the safety system is active while the robot is not in a category 0 stop

SUGGESTION
Try the following actions to resolve the issue: (A) Conduct a complete rebooting sequence, (B) Update software, (C) Contact your local Universal Robots service provider for assistance

C283A130 The safety mode limit is incorrect

EXPLANATION
The safety mode limit sent to the safety system does not match the safety mode limit in the safety system

SUGGESTION
Try the following actions to resolve the issue: (A) Conduct a complete rebooting sequence, (B) Update software, (C) Contact your local Universal Robots service provider for assistance

C283A131 The operational mode is incorrect

EXPLANATION
The operational mode sent to the safety system does not match the operational mode in the safety system

SUGGESTION
Try the following actions to resolve the issue: (A) Conduct a complete rebooting sequence, (B) Update software, (C) Contact your local Universal Robots service provider for assistance

C283A134 Teach pendants without 3PE not supported

EXPLANATION
The robot only supports teach pendants with a build in 3-Position Enabling Device, but the configured teach pendant doesn't have one

C283A135 Freedrive safety-input disagreement within the safety system

EXPLANATION
The input signals are not switching simultaneously, or are incorrectly connected.

SUGGESTION
Try the following actions to see which resolves the issue: (A) Ensure both inputs are properly connected, (B) Contact your local Universal Robots service provider for assistance

C283A136 Brake monitoring not initialized correctly.

EXPLANATION
Internal setup of brake monitor not setup correctly.

SUGGESTION
Update to the latest software version.

C283A137 Invalid number of dynamic safety clients.

EXPLANATION
The amount of dynamic safety clients requested is higher than the amount of dynamic safety clients allowed.

SUGGESTION
Try the following actions to resolve the issue: (A) Remove unnecessary dynamic safety clients, (B) Conduct a complete rebooting sequence, (C) Contact your local Universal Robots service provider for assistance

C283A143 Tool safety input is configured but the safety configuration version does not support it

EXPLANATION
The safety configuration version does not support tool safety inputs

SUGGESTION
Try the following actions to see which resolves the issue: (A) Update software, (B) Contact your local Universal Robots service provider for assistance

C283A144 Tool safety inputs are configured but the robot type does not support it

EXPLANATION
The robot type does not support tool safety inputs

SUGGESTION
Try the following actions to see which resolves the issue: (A) Disable tool safety input, (B) Update software, (C) Contact your local Universal Robots service provider for assistance

C283A145 Tool safety inputs are configured but the joint hardware does not support it

EXPLANATION
The joint hardware does not support tool safety inputs

SUGGESTION
Try the following actions to see which resolves the issue: (A) Disable tool safety input, (B) Update software, (C) Contact your local Universal Robots service provider for assistance

C283A146 Tool safety inputs are configured but the safety input type is not supported

EXPLANATION
The safety input type is not supported when using the tool safety input

SUGGESTION
Try the following actions to see which resolves the issue: (A) Disable tool safety input, (B) Update software, (C) Contact your local Universal Robots service provider for assistance

C283A147 Tried to get the state of A IO {unsigned} which is not a valid IO

EXPLANATION
The requested IO is not valid

SUGGESTION
Try the following actions to see which resolves the issue: (A) Update software, (B) Contact your local Universal Robots service provider for assistance

C283A148 Tried to get the state of B IO {unsigned} which is not a valid IO

EXPLANATION
The requested IO is not valid

SUGGESTION
Try the following actions to see which resolves the issue: (A) Update software, (B) Contact your local Universal Robots service provider for assistance

C283A149 Tool safety inputs are configured, but the robot configuration does not contain a wrist3 joint

EXPLANATION
The robot configuration does not contain a wrist3 joint, but tool safety inputs are configured

SUGGESTION
Try the following actions to see which resolves the issue: (A) Disable tool safety input, (B) Make sure the robot configuration is correct, (C) Update software, (D) Contact your local Universal Robots service provider for assistance

C283A150 Tool safety inputs are configured, but was outside the limits for too long

EXPLANATION
When the tool safety input are outisde the limits, it is neither ON or OFF making it unusable.

SUGGESTION
Try the following actions to see which resolves the issue: (A) Disable tool safety input, (B) Make sure the robot configuration is correct, (C) Update software, (D) Contact your local Universal Robots service provider for assistance

C283A152 Safety plane is configured with IO, but no IO is configured

EXPLANATION
When safety plane is configured with IO, at least one input or output must be configured

SUGGESTION
Try the following actions to see which resolves the issue: (A) Configure the input or output, (B) Conduct a complete rebooting sequence, (C) Update Software, (D) Contact your local Universal Robots service provider for assistance

C283A153 Safety Plane with IO safety-input disagreement within the safety system

EXPLANATION
The input signals are not switching simultaneously, or are incorrectly connected.

SUGGESTION
Try the following actions to see which resolves the issue: (A) Ensure both inputs are properly connected, (B) Contact your local Universal Robots service provider for assistance

C283A154 Safety Plane with IO safety-output disagreement within the safety system

EXPLANATION
The output signals are not switching simultaneously, or are incorrectly connected.

SUGGESTION
Try the following actions to see which resolves the issue: (A) Ensure both outputs are properly connected, (B) Contact your local Universal Robots service provider for assistance

C283A155 The Safety Plane Output is not active

EXPLANATION
The output signal of a safety plane is not active, when it is expected to be active

SUGGESTION
Try the following actions to resolve the issue: (A) Conduct a complete rebooting sequence, (B) Update software, (C) Contact your local Universal Robots service provider for assistance

C283A157 The Safety Plane Output is not inactive

EXPLANATION
The output signal of a safety plane is not inactive, when it is expected to be inactive

SUGGESTION
Try the following actions to resolve the issue: (A) Conduct a complete rebooting sequence, (B) Update software, (C) Contact your local Universal Robots service provider for assistance

2.28. C284 Brake Release

You may find the following links helpful in addressing this issue:

- How to perform a complete reboot
- Find a distributor page

If you unable to resolve the issue, log in to http://myUR.universal-robots.com and create a new case.

C284A0 Critical error

EXPLANATION
A critical error occurred during Brake Release

SUGGESTION
Try the following actions to see which resolves the issue: (A) Conduct a complete rebooting sequence, (B) Ensure the mounted payload, TCP, and CoG matches your configuration, (C) Contact your local Universal Robots service provider for assistance

C284A21 Brake release count reached limit

EXPLANATION
The max number of allowed brake releases is reached. The joint can no longer release the brakes.

SUGGESTION
Try the following actions to see which resolves the issue: (A) Update software, (B) Contact your local Universal Robots service provider for assistance

C284A22 Brake release count is close to the limit, remaining brake releases: {unsigned}

EXPLANATION
The joint is close to reaching the brake release limit, once reached the joint can no longer release the brakes.

SUGGESTION
Try the following actions to see which resolves the issue: (A) Update software, (B) Contact your local Universal Robots service provider for assistance

2.29. C285 Joint Keep-Alive System

You may find the following links helpful in addressing this issue:

- How to perform a complete reboot
- Find a distributor page

If you unable to resolve the issue, log in to http://myUR.universal-robots.com and create a new case.

C285A0 Critical error

EXPLANATION
A critical error occurred in the Joint Keep-Alive System

SUGGESTION
Try the following actions to see which resolves the issue: (A) Conduct a complete rebooting sequence, (B) Update software, (C) Contact your local Universal Robots service provider for assistance

C285A10 Lost {unsigned} Keep-Alive System message(s) in a row from Safety Control Board-uPA

EXPLANATION
An invalid amount of Keep-Alive System messages have been lost from the Safety Control Board Processor A

SUGGESTION
Try the following actions to see which resolves the issue: (A) Conduct a complete rebooting sequence, (B) Update software, (C) Contact your local Universal Robots service provider for assistance

C285A11 Lost {unsigned} Keep-Alive System message(s) in a row from Safety Control Board-uPB

EXPLANATION
A invalid amount of Keep-Alive messages have been lost from the Safety Control Board Processor B

SUGGESTION
Try the following actions to see which resolves the issue: (A) Conduct a complete rebooting sequence, (B) Update software, (C) Contact your local Universal Robots service provider for assistance

2.30. C286 Motor Controller

You may find the following links helpful in addressing this issue:

- How to perform a complete reboot
- Find a distributor page

If you unable to resolve the issue, log in to http://myUR.universal-robots.com and create a new case.

C286A2 PWM margin too small, ticks left: {signed}

EXPLANATION
Motor control failed to meet timing requirements

SUGGESTION
Try the following actions to see which resolves the issue: (A) Conduct a complete rebooting sequence, (B) Update software, (C) Contact your local Universal Robots service provider for assistance

C286A4 PWM is not zero when in power off

EXPLANATION
The motor PWM output is not set to zero when in power off.

SUGGESTION
Try the following actions to see which resolves the issue: (A) Conduct a complete rebooting sequence, (B) Update software, (C) Contact your local Universal Robots service provider for assistance

2.31. C287 Saved files

You may find the following links helpful in addressing this issue:

- How to perform a complete reboot
- Find a distributor page

If you unable to resolve the issue, log in to http://myUR.universal-robots.com and create a new case.

C287A0 Critical error

EXPLANATION
A critical error occurred during file loading/saving

SUGGESTION
Try the following actions to see which resolves the issue: (A) Conduct a complete rebooting sequence, (B) Update software, (C) Contact your local Universal Robots service provider for assistance

C287A1 The file requested (id {unsigned}) is not saved or its loading failed

EXPLANATION
A problem was encountered while trying to load a file in the file system of the joint

SUGGESTION
Try the following actions to see which resolves the issue: (A) Conduct a complete rebooting sequence, (B) Update software, (C) Contact your local Universal Robots service provider for assistance

2.32. C288 IO control

C288A1 Wrong control mode

C288A2 Wrong channel chosen

C288A3 The pin is not configured as analog

If you unable to resolve the issue, log in to http://myUR.universal-robots.com and create a new case.

2.33. C289 Tool Connector

If you unable to resolve the issue, log in to http://myUR.universal-robots.com and create a new case.

C289A1 Short circuit detected on Digital Output: {unsigned} high side

EXPLANATION
Tool Digital Output pin has been turned off due to either a short-circuit or an overload was detected.

SUGGESTION
Check connections to make sure Tool Digital Output currents are within specified limits.

C289A2 Short circuit detected on Digital Output: {unsigned} low side

EXPLANATION
Tool Digital Output pin has been turned off due to either a short-circuit or an overload was detected.

SUGGESTION
Check connections to make sure Tool Digital Output currents are within specified limits.

C289A4 10 second Average tool IO Current of {float} A is outside of the allowed range.

EXPLANATION
The average current sum of the Tool Connector Power and Digital Output pins is outside of the allowed range.

SUGGESTION
Check connections to make sure tool Digital Output currents are within specified limits.

C289A5 Unable to remove tool Digital Output fault.

EXPLANATION
Unable to remove the overload on tool Digital Output, therefore the robot powered down.

SUGGESTION
Check connections to make sure the Tool Digital Output currents are within specified limits.

C289A6 Current of {float} A on the tool connector supply pins is outside of the allowed range.

EXPLANATION
Too high current on tool connector supply pins

SUGGESTION
Check connections to make sure the Tool Digital Output currents are within specified limits.

C289A7 Current of {float} A on the Digital Output pins is outside of the allowed range.

EXPLANATION
Too high current on tool connector Digital Output pins.

SUGGESTION
Check connectionsto make sure the Tool Digital Output currents are within specified limits.

C289A8 Current of {float} A on the ground pin is outside of the allowed range.

EXPLANATION
Too high current on tool ground pin

SUGGESTION
Check connections to make sure the Tool Digital Output currents are within specified limits.

C289A9 Current of {float} A on the POWER pin is outside of the allowed range.

EXPLANATION
Too high current on tool power pin

SUGGESTION
Check connections to make sure the Tool Digital Output currents are within specified limits.

2.34. C290 I2C

C290A1 The I2C bus was busy too long

C290A2 Function called too early after last call or the slave chip did not answer

C290A3 A peripheral unit has set the alert pin

C290A4 Communication timeout detected

C290A6 An error was detected in the i2c acknowledge handshake

C290A7 I2C detected arbitration loss

C290A8 I2C detected error on the I2C-bus

C290A9 I2C error interrupt called with unhandled error-flag

C290A10 I2C peripheral issue, unhandled events: {hex}

EXPLANATION
the hexidecimal number is an event code generated by integration of the two status registers

If you unable to resolve the issue, log in to http://myUR.universal-robots.com and create a new case.

2.35. C291 EEPROM

C291A1 Addressed data is out of memory bounds

C291A2 I2C communication error

C291A3 Write to EEPROM failed

C291A4 Read from EEPROM failed

C291A5 Verification of written data failed

C291A6 Difference in data when comparing the source and the data written

C291A7 Writing of a page in EEPROM failed

If you unable to resolve the issue, log in to http://myUR.universal-robots.com and create a new case.

2.36. C292 Online RAM test

You may find the following links helpful in addressing this issue:

- How to perform a complete reboot
- Find a distributor page

If you unable to resolve the issue, log in to http://myUR.universal-robots.com and create a new case.

C292A0 Critical error

EXPLANATION
A critical error occurred during RAM test

SUGGESTION
Try the following actions to see which resolves the issue: (A) Conduct a complete rebooting sequence, (B) Update software, (C) Contact your local Universal Robots service provider for assistance

2.37. C293 Exception

C293A1 Unexpected exception/interrupt: {unsigned}

C293A2 HardFault exception status: {hex}

C293A3 HardFault Stack Pointer (SP): {hex}

C293A4 HardFault Link Register (LR): {hex}

C293A5 HardFault Program Counter (PC): {hex}

C293A6 HardFault Program Status Register (PSR): {hex}

C293A7 HardFault R0 register: {hex}

C293A8 HardFault R1 register: {hex}

C293A9 HardFault R2 register: {hex}

C293A10 HardFault R3 register: {hex}

C293A11 HardFault R12 register: {hex}

C293A12 MemManage exception status: {hex}

C293A13 MemManage exception address: {hex}

C293A14 BusFault exception status: {hex}

C293A15 BusFault exception address: {hex}

C293A16 UsageFault exception status: {hex}

C293A17 Tool exception status: {hex}

C293A18 Tool exception address 1: {hex}

C293A19 Tool exception address 2: {hex}

C293A20 HardFault CFSR register: {hex}

C293A21 HardFault BFAR register: {hex}

C293A22 HardFault MMFAR register: {hex}

C293A23 HardFault HFSR register: {hex}

C293A24 HardFault SHCSR register: {hex}

C293A25 HardFault ICSR register: {hex}

C293A26 HardFault exception caught

C293A27 MemManage exception caught

C293A28 BusFault exception caught

C293A29 UsageFault exception caught

C293A30 Additional data: {hex}

EXPLANATION
Additional data from Main app, version and application specific.

SUGGESTION
If problem persists, contact your local Universal Robots service provider for assistance.

C293A31 Exception data is incomplete!

If you unable to resolve the issue, log in to http://myUR.universal-robots.com and create a new case.

2.38. C294 ADC

You may find the following links helpful in addressing this issue:

- How to perform a complete reboot
- Find a distributor page

If you unable to resolve the issue, log in to http://myUR.universal-robots.com and create a new case.

C294A0 Critical error

EXPLANATION
A critical error occurred in the ADC driver

SUGGESTION
Try the following actions to see which resolves the issue: (A) Conduct a complete rebooting sequence, (B) Update software, (C) Contact your local Universal Robots service provider for assistance

C294A12 The single ended ADC calibration timed out

EXPLANATION
The single ended ADC calibration timed out, thus the found calibration factor is not valid

SUGGESTION
Try the following actions to see which resolves the issue: (A) Conduct a complete rebooting sequence, (B) Update software, (C) Contact your local Universal Robots service provider for assistance

C294A16 The joint failed during recalibration of the ADC offset

EXPLANATION
The joint failed during recalibration of the ADC offset, because there was to much noise on the measurements

SUGGESTION
Make sure that the robot stands completely still and there is no external electrical noise sources. If the problem persists contact technical support

C294A19 The motor moves too much during ADC offset sampling, the motor position has a standard deviation of {float} [rad] during the sampling

EXPLANATION
The motor moves too much during ADC offset sampling, and the ADC measurements are therefore not sane

SUGGESTION
Make sure the robot is at complete standstill and it is not in a vibrating environment during startup

2.39. C295 PCB

You may find the following links helpful in addressing this issue:

- How to perform a complete reboot
- Find a distributor page

If you unable to resolve the issue, log in to http://myUR.universal-robots.com and create a new case.

C295A0 Wrong PCB type ({hex})

EXPLANATION
The printed circuit board is defective

SUGGESTION
Try the following actions to see which resolves the issue: (A) Conduct a complete rebooting sequence, (B) Update software, (C) Contact your local Universal Robots service provider for assistance

2.40. C296 Start up check

You may find the following links helpful in addressing this issue:

- How to perform a complete reboot
- Find a distributor page

If you unable to resolve the issue, log in to http://myUR.universal-robots.com and create a new case.

C296A0 Critical error

EXPLANATION
A critical error occurred during startup

SUGGESTION
Try the following actions to see which resolves the issue: (A) Conduct a complete rebooting sequence, (B) Update software, (C) Contact your local Universal Robots service provider for assistance

C296A1 SCB IO failed to power on

SUGGESTION
Ensure the IO Power Connector on the Safety Control Board is connected to the 24VDC

C296A2 One or more Motor phases is short circuited to ground. Diagnostic data: {hex}

EXPLANATION
Bit 0 high indicates short circuit

SUGGESTION
Contact your local Universal Robots service provider for assistance.

C296A3 Motor Indication Signal does not work. Diagnostic data: {hex}

EXPLANATION
Bit 1 low indicates that the diagnostics feature is broken

SUGGESTION
Contact your local Universal Robots service provider for assistance.

C296A4 Phase 1 is not connected. Diagnostic data: {hex}

EXPLANATION
Bit pattern 0b0110 indicates that phase 1 is not connected

SUGGESTION
Make sure all Motor phases are connected correctly. Contact your local Universal Robots service provider for assistance.

C296A5 Phase 2 is not connected. Diagnostic data: {hex}

EXPLANATION
Bit pattern 0b1010 indicates that phase 2 is not connected

SUGGESTION
Make sure all Motor phases are connected correctly.Contact your local Universal Robots service provider for assistance.

C296A6 Phase 3 is not connected. Diagnostic data: {hex}

EXPLANATION
Bit pattern 0b0010 indicates that phase 3 is not connected

SUGGESTION
Make sure all Motor phases are connected correctly. Contact your local Universal Robots service provider for assistance.

C296A7 Motor test results were invalid. Diagnostic data: {hex}

EXPLANATION
Bit0 high indicates short circuit. Bit1 is phase 3 test. Bit2 is phase 2 test. Bit3 is phase 1 test

SUGGESTION
Make sure all Motor phases are connected correctly. Contact your local Universal Robots service provider for assistance.

C296A9 Robot Voltage was present during self-diagnostics

EXPLANATION
Robot Voltage rose above acceptable levels before both processors powered it on

SUGGESTION
Contact your local Universal Robots service provider for assistance.

C296A10 Time out during self-diagnostics

EXPLANATION
A processor timed out while waiting for the other processor to finish self-diagnotics

SUGGESTION
Contact your local Universal Robots service provider for assistance.

C296A11 Data was received while trying to disable communication

EXPLANATION
A validation that theof communication could be suppressioned failed to preventin preventing a message from passing through.

SUGGESTION
Contact your local Universal Robots service provider for assistance.

C296A12 Sequence number did not match expected sequence

EXPLANATION
After communication was disabled and reenabled the sequence number did not match what was expected

SUGGESTION
Contact your local Universal Robots service provider for assistance.

C296A15 Interval between messages did not match expectations

EXPLANATION
After communication was disabled and reenabled the message interval did not match what expectations

SUGGESTION
Contact your local Universal Robots service provider for assistance.

C296A23 Cross-monitoring data was invalid for too long while booting

EXPLANATION
uB timed out while waiting for cross-monitoring data to agree before changing from Booting to Idle state

SUGGESTION
Contact your local Universal Robots service provider for assistance.

C296A25 Diagnostics module was initialized with a NULL pointer, for a required callback function

EXPLANATION
Diagnostics module was initialized with a null pointer, for rotate com buffer callback

SUGGESTION
Contact your local Universal Robots service provider for assistance.

C296A33 Timeout while waiting for system to be ready to go to idle

EXPLANATION
Requirements for going to idle state were not met within the expected time frame

SUGGESTION
Contact your local Universal Robots service provider for assistance.

2.41. C297 Joint validation

You may find the following links helpful in addressing this issue:

- How to perform a complete reboot
- Find a distributor page

If you unable to resolve the issue, log in to http://myUR.universal-robots.com and create a new case.

C297A0 Critical error

EXPLANATION
A critical error occurred during Joint validation

SUGGESTION
Try the following actions to see which resolves the issue: (A) Conduct a complete rebooting sequence, (B) Check that SD card and robot type match, (C) Update software, (D) Contact your local Universal Robots service provider for assistance

C297A11 The Robot arm does not match the Control Box

EXPLANATION
One or more joints do not match stored Robot Configuration

SUGGESTION
Try the following actions to see which resolves the issue: (A) Conduct a complete rebooting sequence, (B) Check that SD card and robot type match, (C) Update software, (D) Contact your local Universal Robots service provider for assistance

C297A13 Joint type recevied from joint {unsigned} is invalid

EXPLANATION
A joint in the arm has reported unsupported joint type.

SUGGESTION
Try the following actions to see which resolves the issue: (A) Conduct a complete rebooting sequence, (B) Update software, (C) Contact your local Universal Robots service provider for assistance

C297A14 Joint type received from joint {unsigned} is invalid.

EXPLANATION
The safety system has detected a mismatch between the detected and the configured joint type.

SUGGESTION
Try the following actions to see which resolves the issue: (A) Conduct a complete rebooting sequence, (B) Update software, (C) Contact your local Universal Robots service provider for assistance, (D) Change the joint to the correct joint type.

C297A15 The type detected by the joint was {unsigned}.

EXPLANATION
Joint type received from the joint.

SUGGESTION
Try the following actions to see which resolves the issue: (A) Conduct a complete rebooting sequence, (B) Update software, (C) Contact your local Universal Robots service provider for assistance.

C297A16 The expected joint type specified in the robot configuration was {unsigned}.

EXPLANATION
Joint type configured, and thereby expected from the joint.

SUGGESTION
Try the following actions to see which resolves the issue: (A) Conduct a complete rebooting sequence, (B) Update software, (C) Contact your local Universal Robots service provider for assistance.

C297A17 The safety processors on joint {unsigned} disagree on the joint type.

EXPLANATION
There is a mismatch between the joint size type detected by processor A and processor B.

SUGGESTION
Try the following actions to see which resolves the issue: (A) Conduct a complete rebooting sequence, (B) Update software, (C) Contact your local Universal Robots service provider for assistance.

C297A18 Joint type detected by processor A: {unsigned}.

EXPLANATION
Processor A has detected the joint type during a type mismatch

SUGGESTION
Try the following actions to see which resolves the issue: (A) Conduct a complete rebooting sequence, (B) Update software, (C) Contact your local Universal Robots service provider for assistance.

C297A19 Joint type detected by processor B: {unsigned}.

EXPLANATION
Processor B has detected the joint type during a type mismatch.

SUGGESTION
Try the following actions to see which resolves the issue: (A) Conduct a complete rebooting sequence, (B) Update software, (C) Contact your local Universal Robots service provider for assistance.

2.42. C298 Hand protection

You may find the following links helpful in addressing this issue:

- How to perform a complete reboot
- Find a distributor page

If you unable to resolve the issue, log in to http://myUR.universal-robots.com and create a new case.

C298A0 Tool is too close to the lower arm: {float_2_4} meter.

EXPLANATION
The tool is too close to the lower Robot arm

SUGGESTION
Try the following actions to see which resolves the issue: (A) Check wrist position, (B) Verify mounting, (C) Conduct a complete rebooting sequence, (D) Update software, (E) Contact your local Universal Robots service provider for assistance

2.43. C299 Tool communication

You may find the following links helpful in addressing this issue:

- How to perform a complete reboot
- Find a distributor page

If you unable to resolve the issue, log in to http://myUR.universal-robots.com and create a new case.

C299A0 Communication error detected

EXPLANATION
A problem with the Tool communication was detected.

SUGGESTION
Try the following actions to see which resolves the issue: (A) Conduct a complete rebooting sequence, (B) Update software, (C) Contact your local Universal Robots service provider for assistance

C299A3 RX framing error

EXPLANATION
Framing error detected on received data

SUGGESTION
Try the following actions to see which resolves the issue: (A) Check external equipment connection, (B) Verify the communication configuration matches the hardware, (C) Conduct a complete rebooting sequence, (D) Update software, (E) Contact your local Universal Robots service provider for assistance

C299A4 RX Parity error

EXPLANATION
Parity error detected on received data

SUGGESTION
Try the following actions to see which resolves the issue: (A) Check external equipment connection, (B) Verify the communication configuration matches the hardware, (C) Conduct a complete rebooting sequence, (D) Update software, (E) Contact your local Universal Robots service provider for assistance

2.44. C300 Safety message

C300A1 Safety message received from an unexpected node. Diagnostic data: {unsigned}

C300A2 Safety message response received with an unexpected sequence number. Diagnostic data: {unsigned}

C300A3 Duplicate safety message response received with sequence number. Diagnostic data: {unsigned}

C300A4 Request safety message not received in the last {unsigned} milliseconds

If you unable to resolve the issue, log in to http://myUR.universal-robots.com and create a new case.

2.45. C301 Safety message monitor

You may find the following links helpful in addressing this issue:

- How to perform a complete reboot
- Find a distributor page

If you unable to resolve the issue, log in to http://myUR.universal-robots.com and create a new case.

C301A0 Critical error

EXPLANATION
A critical error occurred in safety message monitoring

SUGGESTION
Try the following actions to see which resolves the issue: (A) Conduct a complete rebooting sequence, (B) Update software, (C) Contact your local Universal Robots service provider for assistance

2.46. C302 Tool Configuration

You may find the following links helpful in addressing this issue:

- How to perform a complete reboot
- Find a distributor page

If you unable to resolve the issue, log in to http://myUR.universal-robots.com and create a new case.

C302A1 Invalid Robot Type {unsigned}

EXPLANATION
The tool received an invalid robot type

SUGGESTION
Try the following actions to see which resolves the issue: (A) Conduct a complete rebooting sequence, (C) Update software, (D) Contact your local Universal Robots service provider for assistance

2.47. C303 System status

You may find the following links helpful in addressing this issue:

- How to perform a complete reboot
- Find a distributor page

If you unable to resolve the issue, log in to http://myUR.universal-robots.com and create a new case.

C303A0 Critical error

EXPLANATION
A critical system error occurred

SUGGESTION
Try the following actions to see which resolves the issue: (A) Conduct a complete rebooting sequence, (B) Update software, (C) Contact your local Universal Robots service provider for assistance

C303A6 Reset caused by independent watchdog

EXPLANATION
The FW has hit a deadlock and therefore reset by watchdog

SUGGESTION
Try the following actions to see which resolves the issue: (A) Conduct a complete rebooting sequence, (B) Update software, (C) Contact your local Universal Robots service provider for assistance

2.48. C304 Self monitoring

You may find the following links helpful in addressing this issue:

- How to perform a complete reboot
- Find a distributor page

If you unable to resolve the issue, log in to http://myUR.universal-robots.com and create a new case.

C304A0 Critical error

EXPLANATION
A critical error occurred in physical, logical, and temporal monitoring (PLATM)

SUGGESTION
Try the following actions to see which resolves the issue: (A) Conduct a complete rebooting sequence, (B) Update software, (C) Contact your local Universal Robots service provider for assistance

C304A3 Close to the gearbox shear limit. Encoders disagree {float} [rad] on the Joint position

EXPLANATION
The Joint acceleration or deceleration is too high, or there is a mechanical problem in the gear related to encoder mounting.

SUGGESTION
Try the following actions to see which resolves the issue: (A) Reduce acceleration in the user program, (B) Conduct a complete rebooting sequence, (C) Update software, (D) Replace Joint if necessary, (E) Contact your local Universal Robots service provider for assistance

C304A4 Either the encoder was inappropriately mounted, or the gearbox is loose or broken. Difference between the encoders is {float} [rad].

EXPLANATION
Mechanical problem in gear related to encoder mounting.

SUGGESTION
Try the following actions to see which resolves the issue: (A) Reduce acceleration in the user program, (B) Check TCP,Payload, and Cog, (C) Conduct a complete rebooting sequence, (D) Update software, (E) Replace Joint if necessary, (F) Contact your local Universal Robots service provider for assistance

C304A6 Motor phase {unsigned}'s resistance is too high.

EXPLANATION
The lead/connector is broken, or the Motor phase lead has become disconnected or loose.

SUGGESTION
Try the following actions to see which resolves the issue: (A) Conduct a complete rebooting sequence, (B) Update software, (C) Contact your local Universal Robots service provider for assistance

2.49. C305 Robot Power Control

You may find the following links helpful in addressing this issue:

- How to perform a complete reboot
- Find a distributor page

If you unable to resolve the issue, log in to http://myUR.universal-robots.com and create a new case.

C305A0 Critical error

EXPLANATION
A critical error in power control module

SUGGESTION
Try the following actions to see which resolves the issue: (A) Conduct a complete rebooting sequence, (B) Update software, (C) Contact your local Universal Robots service provider for assistance

C305A1 Power supply voltage too low

SUGGESTION
Try the following actions to see which resolves the issue: (A) Check for loose connections, (B) Conduct a complete rebooting sequence, (C) Update software, (D) Contact your local Universal Robots service provider for assistance

C305A2 Robot cable not connected

SUGGESTION
Try the following actions to see which resolves the issue: (A) Make sure the cable between Control Box and Robot Arm is correctly connected and it has no damage, (B) Check for loose connections, (C) Conduct a complete rebooting sequence, (D) Update software, (E) Contact your local Universal Robots service provider for assistance

C305A3 Short circuit in Robot detected or the wrong Robot is connected to the Control Box.

SUGGESTION
Try the following actions to see which resolves the issue: (A) Check for loose connections, (B) Make sure the cable between Control Box and Robot Arm is correctly connected and it has no damage, (C) Conduct a complete rebooting sequence, (D) Update software, (E) Contact your local Universal Robots service provider for assistance

C305A4 Robot voltage rising slower than expected

SUGGESTION
Try the following actions to see which resolves the issue: (A) Verify the power supply, (B) Verify Control Box and Robot Arm are correctly paired, (C) Contact your local Universal Robots service provider for assistance

C305A6 Power supply voltage too high: {float} V

SUGGESTION
Try the following actions to see which resolves the issue: (A) Check for loose connections, (B) Make sure the cable between Control Box and Robot Arm is correctly connected and it has no damage, (C) Conduct a complete rebooting sequence, (D) Update software, (E) Contact your local Universal Robots service provider for assistance

C305A8 The Robot Voltage is too high ({float})V when powering on the Robot

SUGGESTION
Try the following actions to see which resolves the issue: (A) Conduct a complete rebooting sequence, (B) Update software, (C) Contact your local Universal Robots service provider for assistance

C305A9 The Power State was not OFF ({unsigned}) when trying to power on the Robot

SUGGESTION
Try the following actions to see which resolves the issue: (A) Conduct a complete rebooting sequence, (B) Update software, (C) Contact your local Universal Robots service provider for assistance

C305A11 The power to the robot arm was not removed fast enough after violation

C305A12 Unexpected energy eater type

EXPLANATION
The detected energy eater type was different from the expected type. This may be due to a wrong energy eater type being installed in the control box, or that the connections to the energy eater are damaged.

SUGGESTION
Try the following actions to see which resolves the issue: (A) Conduct a complete rebooting sequence, (B) Check the connection between the control board and the energy eater, (C) Check if the correct energy eater is installed (D) Update software, (E) Contact your local Universal Robots service provider for assistance

2.50. C306 Joint

You may find the following links helpful in addressing this issue:

- How to perform a complete reboot
- Find a distributor page

If you unable to resolve the issue, log in to http://myUR.universal-robots.com and create a new case.

C306A0 Critical error

EXPLANATION
A critical error occurred in a Joint

SUGGESTION
Try the following actions to see which resolves the issue: (A) Conduct a complete rebooting sequence, (B) Update software, (C) Contact your local Universal Robots service provider for assistance

C306A1 Not stopping fast enough

EXPLANATION
Joint was unable to come to a full stop fast enough.

SUGGESTION
Try the following actions to see which resolves the issue: (A) Either an incorrect payload is mounted, or an external force is pushing the robot, (B) Conduct a complete rebooting sequence, (C) Update software, (D) Contact your local Universal Robots service provider for assistance

C306A2 Velocity failed to pass sanity check

EXPLANATION
The received Joint velocity target is invalid.

SUGGESTION
Try the following actions to see which resolves the issue: (A) Adjust the robot program to reduce peak acceleration and torques, (B) Conduct a complete rebooting sequence, (C) Update software, (D) Contact your local Universal Robots service provider for assistance

C306A3 Acceleration failed to pass sanity check

EXPLANATION
The received Joint acceleration target is invalid.

SUGGESTION
Try the following actions to see which resolves the issue: (A) Adjust the robot program to reduce peak acceleration and torques, (B) Conduct a complete rebooting sequence, (C) Update software, (D) Contact your local Universal Robots service provider for assistance

C306A9 Joint moved more than allowable limit

EXPLANATION
Potential mechanical failure of the joint's brakes

SUGGESTION
Try the following actions to see which resolves the issue: (A) Conduct a complete rebooting sequence, (B) Update software, (C) Contact your local Universal Robots service provider for assistance

C306A15 Joint moved too far while it should be stationary

EXPLANATION
The robot moved more than allowed during parking.

SUGGESTION
Try the following actions to see which resolves the issue: (A) Update software, (B) Contact your local Universal Robots service provider for assistance

C306A16 A timeout occured while in violation parking

EXPLANATION
The joint reached the timeout limit while in violation parking.

SUGGESTION
Try the following actions to see which resolves the issue: (A) Conduct a complete rebooting sequence, (B) Update software, (C) Contact your local Universal Robots service provider for assistance

C306A17 The joint parking procedure violated max allowed execution time of {float} [ms].

EXPLANATION
The joint reached the timeout limit while in parking.

SUGGESTION
Try the following actions to see which resolves the issue: (A) Conduct a complete rebooting sequence, (B) Update software, (C) Contact your local Universal Robots service provider for assistance

C306A19 Illegal state transition, the joint entered parking while motorcontrol was disabled.

EXPLANATION
The parking procedure cannot execute without motorcontrol enabled.

SUGGESTION
Try the following actions to see which resolves the issue: (A) Conduct a complete rebooting sequence, (B) Update software, (C) Contact your local Universal Robots service provider for assistance

C306A20 Trying to power off from violation while motor control is enabled.

EXPLANATION
Tried to skip parking procedure while motor control was enabled.

SUGGESTION
Try the following actions to see which resolves the issue: (A) Conduct a complete rebooting sequence, (B) Update software, (C) Contact your local Universal Robots service provider for assistance

C306A21 Unexpected joint type ({hex})

EXPLANATION
The joint has identified its type incorrectly

SUGGESTION
Try the following actions to see which resolves the issue: (A) Conduct a complete rebooting sequence, (B) Update software, (C) Contact your local Universal Robots service provider for assistance

C306A22 Trying to enter idle brake failure while motor control is enabled.

EXPLANATION
The joint should not enter idle brake failure with motor control enabled.

SUGGESTION
Try the following actions to see which resolves the issue: (A) Update software, (B) Contact your local Universal Robots service provider for assistance

C306A24 Motor unsupported by the Critical Fault brake handler

EXPLANATION
The joint cannot be allowed to brake release, as it has no defined Critical Fault braking profile for its motor type

SUGGESTION
Try the following actions to see which resolves the issue: (A) Update software, (B) Contact your local Universal Robots service provider for assistance

2.51. C307 Data B: {data}

EXPLANATION
Data dump from MCU B, argument indicates index of data.

If you unable to resolve the issue, log in to http://myUR.universal-robots.com and create a new case.

2.52. C308 Data A: {data}

EXPLANATION
Data dump from MCU A, argument indicates index of data.

If you unable to resolve the issue, log in to http://myUR.universal-robots.com and create a new case.

2.53. C309 Keep-Alive

You may find the following links helpful in addressing this issue:

- How to perform a complete reboot
- Find a distributor page

If you unable to resolve the issue, log in to http://myUR.universal-robots.com and create a new case.

C309A0 Critical error

EXPLANATION
A critical error occurred in the Keep-Alive

SUGGESTION
Try the following actions to see which resolves the issue: (A) Conduct a complete rebooting sequence, (B) Update software, (C) Contact your local Universal Robots service provider for assistance

C309A1 Message with wrong sequence received from SCB-uPA.

EXPLANATION
The Keep-Alive message received from the Safety Control Board Processor A has an invalid sequence number

SUGGESTION
Try the following actions to see which resolves the issue: (A) Conduct a complete rebooting sequence, (B) Update software, (C) Contact your local Universal Robots service provider for assistance

C309A4 Message with wrong sequence received from SCB-uPB.

EXPLANATION
The Keep-Alive message received from the Safety Control Board Processor B has an invalid sequence number

SUGGESTION
Try the following actions to see which resolves the issue: (A) Conduct a complete rebooting sequence, (B) Update software, (C) Contact your local Universal Robots service provider for assistance

C309A10 Lost {unsigned} Keep-Alive message(s) in a row from Safety Control Board-uPA

EXPLANATION
An invalid amount of Keep-Alive messages have been lost from the Safety Control Board Processor A

SUGGESTION
Try the following actions to see which resolves the issue: (A) Conduct a complete rebooting sequence, (B) Update software, (C) Contact your local Universal Robots service provider for assistance

C309A11 Lost {unsigned} Keep-Alive message(s) in a row from Safety Control Board-uPB

EXPLANATION
A invalid amount of Keep-Alive messages have been lost from the Safety Control Board Processor B

SUGGESTION
Try the following actions to see which resolves the issue: (A) Conduct a complete rebooting sequence, (B) Update software, (C) Contact your local Universal Robots service provider for assistance

C309A14 Invalid command received in Keep-Alive message from SCB-uPA.

EXPLANATION
The Keep-Alive message received from the Safety Control Board Processor A has an invalid alive command

SUGGESTION
Try the following actions to see which resolves the issue: (A) Conduct a complete rebooting sequence, (B) Update software, (C) Contact your local Universal Robots service provider for assistance

C309A15 Invalid command received in Keep-Alive message from SCB-uPB.

EXPLANATION
The Keep-Alive message received from the Safety Control Board Processor B has an invalid alive command

SUGGESTION
Try the following actions to see which resolves the issue: (A) Conduct a complete rebooting sequence, (B) Update software, (C) Contact your local Universal Robots service provider for assistance

2.54. C310 Joint Temperature Manager

You may find the following links helpful in addressing this issue:

- How to perform a complete reboot
- Find a distributor page

If you unable to resolve the issue, log in to http://myUR.universal-robots.com and create a new case.

C310A0 Critical error

EXPLANATION
A critical error occurred in the joint temperature manager

SUGGESTION
Try the following actions to see which resolves the issue: (A) Conduct a complete rebooting sequence, (B) Update software, (C) Contact your local Universal Robots service provider for assistance

2.55. C311 Delay Callback

C311A0 The timer is not available

If you unable to resolve the issue, log in to http://myUR.universal-robots.com and create a new case.

2.56. C312 Data validation

You may find the following links helpful in addressing this issue:

- How to perform a complete reboot
- Find a distributor page

If you unable to resolve the issue, log in to http://myUR.universal-robots.com and create a new case.

C312A0 Critical error

EXPLANATION
A critical error occurred during data validation

SUGGESTION
Try the following actions to see which resolves the issue: (A) Conduct a complete rebooting sequence, (B) Check for ESD noise, (C) Update software, (D) Contact your local Universal Robots service provider for assistance

2.57. C313 App version

C313A0 Build version is: {signed}

C313A1 Git sha is: {hex}

C313A2 CRC code is: {hex}

C313A3 Build major version is: {unsigned}

C313A4 Build minor version is: {unsigned}

C313A5 Build patch version is: {unsigned}

C313A6 MCU type is {unsigned}

C313A7 Application type is {unsigned}

If you unable to resolve the issue, log in to http://myUR.universal-robots.com and create a new case.

2.58. C314 SPI IO

You may find the following links helpful in addressing this issue:

- How to perform a complete reboot
- Find a distributor page

If you unable to resolve the issue, log in to http://myUR.universal-robots.com and create a new case.

C314A0 Critical error

EXPLANATION
A critical error occurred related to IO

SUGGESTION
Try the following actions to see which resolves the issue: (A) Conduct a complete rebooting sequence, (B) Check for IO connections, (C) Update software, (D) Contact your local Universal Robots service provider for assistance

C314A5 Expected OSSD pulse were not detected on CO{unsigned}

EXPLANATION
The generated OSSD pulses on the safety output were not seen during readback

SUGGESTION
Try any of the following actions to resolve the issue: (A) Verify safety output is not connected to any power supply or another safety output, (B) Update software, (C) Contact your local Universal Robots service provider for assistance

C314A6 An unexpected OSSD pulse was detected on CO{unsigned}

EXPLANATION
An OSSD pulse was detected on the safety output readback, but was not generated by the hardware

SUGGESTION
Try any of the following actions to resolve the issue: (A) Verify safety output is not connected to ground or another safety output, (B) Update software, (C) Contact your local Universal Robots service provider for assistance

C314A7 The IO voltage is missing or below threshold

EXPLANATION
The IO voltage is missing or below the threshold, a fuse may be blown or removed

SUGGESTION
Ensure the IO Power Connector on the Safety Control Board is connected to the 24VDC and the fuse is in working condition

C314A8 The configurable safety outputs were not low when expected

EXPLANATION
The configurable safety outputs were not low when expected

SUGGESTION
Try any of the following actions to resolve the issue: (A) Verify safety output is not connected to any power supply or another safety output, (B) Update software, (C) Contact your local Universal Robots service provider for assistance

2.59. C315 Watchdog

You may find the following links helpful in addressing this issue:

- How to perform a complete reboot
- Find a distributor page

If you unable to resolve the issue, log in to http://myUR.universal-robots.com and create a new case.

C315A0 Self-test failed

EXPLANATION
The system watchdog is not working as expected

SUGGESTION
Try the following actions to see which resolves the issue: (A) Conduct a complete rebooting sequence, (B) Update software, (C) Contact your local Universal Robots service provider for assistance

C315A1 Verification found an error at index {unsigned}

EXPLANATION
The watchdog timing and check-in counts are monitored, if these are outside the limits the system faults.

SUGGESTION
Try the following actions to see which resolves the issue: (A) Conduct a complete rebooting sequence, (B) Update software, (C) Contact your local Universal Robots service provider for assistance

C315A2 Checked in at {float_1_3} ms which is outside the permitted window.

EXPLANATION
The watchdog check-in was outside the permitted window.

SUGGESTION
Try the following actions to see which resolves the issue: (A) Conduct a complete rebooting sequence, (B) Update software, (C) Contact your local Universal Robots service provider for assistance

C315A5 Keeper module ran out of space.

EXPLANATION
The number of allowed checkpoints has exceeded the allowed limit.

SUGGESTION
Try the following actions to see which resolves the issue: (A) Conduct a complete rebooting sequence, (B) Update software, (C) Contact your local Universal Robots service provider for assistance

C315A6 Trying to register checkpoint with uninitialized keeper.

EXPLANATION
Trying to register a checkpoint, before the watchdog keeper is initialized is not allowed.

SUGGESTION
Try the following actions to see which resolves the issue: (A) Conduct a complete rebooting sequence, (B) Update software, (C) Contact your local Universal Robots service provider for assistance

C315A7 Keeper failed to initialize, as it was already initialized.

EXPLANATION
The watchdog keeper cannot be initialized multiple times.

SUGGESTION
Try the following actions to see which resolves the issue: (A) Conduct a complete rebooting sequence, (B) Update software, (C) Contact your local Universal Robots service provider for assistance

2.60. C316 MCU

You may find the following links helpful in addressing this issue:

- How to perform a complete reboot
- Find a distributor page

If you unable to resolve the issue, log in to http://myUR.universal-robots.com and create a new case.

C316A0 Unknown ID

EXPLANATION
The Microcontroller Identifier does not match an expected value

SUGGESTION
Try the following actions to see which resolves the issue: (A) Conduct a complete rebooting sequence, (B) Update software, (C) Contact your local Universal Robots service provider for assistance

C316A1 This version of the firmware is obsolete and needs to be updated

EXPLANATION
The firmware in the robot is too old and needs to be updated

SUGGESTION
Try the following actions to see which resolves the issue: (A) Conduct a complete rebooting sequence, (B) Update software, (C) Contact your local Universal Robots service provider for assistance

C316A9 The device is not whitelisted

EXPLANATION
The software is not allowed to run on this microcontroller

SUGGESTION
Try the following actions to see which resolves the issue: (A) Conduct a complete rebooting sequence, (B) Update software, (C) Contact your local Universal Robots service provider for assistance

2.61. C317 Failure injection

C317A0 Injecting type {unsigned}

EXPLANATION
Failure of the specified type has been injected to the system.

SUGGESTION
Contact your local Universal Robots service provider for assistance.

C317A1 Missing handler for type {unsigned}

EXPLANATION
There is no failure handler for the specified type.

SUGGESTION
Contact your local Universal Robots service provider for assistance.

C317A2 Invalid data provided to type {unsigned}

EXPLANATION
The data for the failure type is incorrect. The failure has not been injected.

SUGGESTION
Contact your local Universal Robots service provider for assistance.

C317A3 Throw report

EXPLANATION
The failure has been injected.

SUGGESTION
Contact your local Universal Robots service provider for assistance.

C317A4 Injected pulse was {float}us long

C317A5 Failure injection {unsigned} could not be performed

If you unable to resolve the issue, log in to http://myUR.universal-robots.com and create a new case.

2.62. C318 Stack monitor

C318A0 The stack level watermark at {unsigned}% is breached

If you unable to resolve the issue, log in to http://myUR.universal-robots.com and create a new case.

2.63. C319 Filesys Diagnostic Tool

C319A0 Read operation started, at start address {hex}

C319A1 Read operation was succesfully completed

C319A2 Read operation failed, due to illegal address {hex}

EXPLANATION
This tool does not support reading out the requested address

C319A3 Received data for unexpected address {hex}

C319A4 Expected address to be {hex}

C319A5 Erased sector at address {hex}

C319A6 Write operation was succesfully completed

If you unable to resolve the issue, log in to http://myUR.universal-robots.com and create a new case.

2.64. C320 REDnet BLVDS

C320A0 Hub : Framing error on port: {signed}

EXPLANATION
A message with a malformed frame was passed to the HUB on specified port(0: Int 1: Ext0, 2: Ext1, 4: None)

SUGGESTION
Contact your local Universal Robots service provider for assistance.

C320A1 Hub : Alignment error on port: {signed}

EXPLANATION
A message with a malformed frame was passed to the HUB on specified port(0: Int 1: Ext0, 2: Ext1, 4: None)

SUGGESTION
Contact your local Universal Robots service provider for assistance.

C320A2 Data transmission unit : FiFo overflow on port {unsigned}

EXPLANATION
Transmission unit had a FiFo overflow on specified port (0: port a, 1: port b)

SUGGESTION
Contact your local Universal Robots service provider for assistance.

C320A3 Data transmission unit : code error on port {unsigned}

EXPLANATION
Transmission unit received a code error on specified port (0: port a, 1: port b), this should never happen

SUGGESTION
Contact your local Universal Robots service provider for assistance.

C320A4 Data reception unit : Alignment error on port {unsigned}

EXPLANATION
Reception unit was unaligned with message on specified port (0: port a, 1: port b)

SUGGESTION
Contact your local Universal Robots service provider for assistance.

C320A5 Data reception unit : Alignment fault on port {unsigned}

EXPLANATION
Reception unit was unable to align to incomming message on specified port (0: port a, 1: port b)

SUGGESTION
Contact your local Universal Robots service provider for assistance.

C320A6 Data reception unit : Code error on port {unsigned}

EXPLANATION
Reception unit saw an invalid control code on specified port (0: port a, 1: port b)

SUGGESTION
Contact your local Universal Robots service provider for assistance.

C320A7 Data reception unit : Disparity error on port {unsigned}

EXPLANATION
Reception unit got a disparity error on specified port (0: port a, 1: port b)

SUGGESTION
Contact your local Universal Robots service provider for assistance.

C320A8 Data reception unit : FiFo overflow on port {unsigned}

EXPLANATION
Reception unit had a FiFo overflow on specified port (0: port a, 1: port b)

SUGGESTION
Contact your local Universal Robots service provider for assistance.

C320A9 Upstream transport layer : Package CRC error

EXPLANATION
Upstream transport layer cought CRC error in package header

SUGGESTION
This might happen on occation. Can be ignored if only happens rarely

C320A10 Upstream transport layer : Bad package framing

EXPLANATION
Upstream transport layer had found a framing error.

SUGGESTION
Contact your local Universal Robots service provider for assistance.

C320A11 Upstream transport layer : Rx FiFo overflow

EXPLANATION
Upstream transport layer had a FiFo overflow

SUGGESTION
Contact your local Universal Robots service provider for assistance.

C320A12 Upstream transport layer : Tx FiFo overflow

EXPLANATION
Slave transport layer had a Tx FiFo overflow

SUGGESTION
Contact your local Universal Robots service provider for assistance.

C320A13 Upstream transport layer : Invalid hub count

EXPLANATION
Slave transport layer recieved a message with invalid hub-cnt

SUGGESTION
Contact your local Universal Robots service provider for assistance.

C320A14 Upstream transport layer : Request source not master.

EXPLANATION
Slave transport layer recieved a message request from a device different from the master

SUGGESTION
Contact your local Universal Robots service provider for assistance.

C320A15 Upstream transport layer : Response source not slave.

EXPLANATION
Slave transport layer recieved a message response from a device different from a slave

SUGGESTION
Contact your local Universal Robots service provider for assistance.

C320A16 Upstream transport layer : Sync package type received

EXPLANATION
Master transport layer recieved a message where the type was Sync

SUGGESTION
Contact your local Universal Robots service provider for assistance.

C320A17 Upstream transport layer : Trigger package type received

EXPLANATION
Master transport layer recieved a message where the type was a tigger

SUGGESTION
Contact your local Universal Robots service provider for assistance.

C320A18 Upstream transport layer : Request package type received

EXPLANATION
Master transport layer recieved a message where the type was a request

SUGGESTION
Contact your local Universal Robots service provider for assistance.

C320A19 Upstream transport layer : Invalid reponse type received

EXPLANATION
Master transport layer recieved a message where the type was an invalid response

SUGGESTION
Contact your local Universal Robots service provider for assistance.

C320A20 Upstream transport layer : Package from invalid source received

EXPLANATION
Master transport layer recieved a package with an invalid source

SUGGESTION
Contact your local Universal Robots service provider for assistance.

C320A21 Upstream transport layer : Missmatch between HUB count and package source

EXPLANATION
Master transport layer recieved a package where the src and HUB count did not match

SUGGESTION
Contact your local Universal Robots service provider for assistance.

C320A22 Upstream transport layer : Package longer than expected

EXPLANATION
Master transport layer recieved a package where the length was greate than expected, or lost a framing end

SUGGESTION
Contact your local Universal Robots service provider for assistance.

C320A23 Upstream transport layer : Package shorter than expected

EXPLANATION
Master transport layer recieved a package where the length was less than expected

SUGGESTION
Contact your local Universal Robots service provider for assistance.

C320A24 Upstream transport layer : Package was misaligned

EXPLANATION
Master transport layer recieved a package that did not align to 32bit

SUGGESTION
Contact your local Universal Robots service provider for assistance.

C320A25 Downstream transport layer : Package was shorter than expected

EXPLANATION
Downstream transport layer tried to transmit a package that was longer than the data available

SUGGESTION
Contact your local Universal Robots service provider for assistance.

C320A26 Downstream transport layer : Package was longer than expected

EXPLANATION
Downstream transport layer tried to transmit a package with more data than expected

SUGGESTION
Contact your local Universal Robots service provider for assistance.

C320A27 Downstream transport layer : Invalid package type

EXPLANATION
Master transport layer tried to transmit a package with an invalid package type

SUGGESTION
Contact your local Universal Robots service provider for assistance.

C320A28 Downstream transport layer : Package type missing

EXPLANATION
Master transport layer tried to transmit a package without a package type

SUGGESTION
Contact your local Universal Robots service provider for assistance.

C320A29 Downstream transport layer : Message length missing

EXPLANATION
Master transport layer tried to transmit a package without a message length

SUGGESTION
Contact your local Universal Robots service provider for assistance.

C320A30 Downstream transport layer : Package destination missing

EXPLANATION
Master transport layer tried to transmit a package without a destination

SUGGESTION
Contact your local Universal Robots service provider for assistance.

C320A31 Downstream transport layer : Package source missing

EXPLANATION
Master transport layer tried to transmit a package without a source

SUGGESTION
Contact your local Universal Robots service provider for assistance.

C320A32 Downstream transport layer : Package NML missing

EXPLANATION
Master transport layer tried to transmit a package without a next message length

SUGGESTION
Contact your local Universal Robots service provider for assistance.

C320A33 Downstream transport layer : Package TTTL missing

EXPLANATION
Master transport layer tried to transmit a package without a time to live

SUGGESTION
Contact your local Universal Robots service provider for assistance.

C320A34 Downstream transport layer : Package timeout(high byte) missing

EXPLANATION
Master transport layer tried to transmit a package without a timeout the high byte

SUGGESTION
Contact your local Universal Robots service provider for assistance.

C320A35 Downstream transport layer : Package timeout(low byte) missing

EXPLANATION
Master transport layer tried to transmit a package without a timeout the low byte

SUGGESTION
Contact your local Universal Robots service provider for assistance.

C320A36 Downstream transport layer : Invalid message length

EXPLANATION
Master transport layer tried to transmit a package with missmatch between stated and actual length

SUGGESTION
Contact your local Universal Robots service provider for assistance.

C320A37 REDnet controller : Received control pkg in data phase

EXPLANATION
REDnet controller received a control package when not in the control phase

SUGGESTION
Contact your local Universal Robots service provider for assistance.

C320A38 REDnet controller : Received data package in control phase

EXPLANATION
REDnet controller received a data package when not in the data phase

SUGGESTION
Contact your local Universal Robots service provider for assistance.

C320A39 REDnet controller : Got SOC before being ready

EXPLANATION
REDnet controller got a SOC interrupt while not ready

SUGGESTION
Contact your local Universal Robots service provider for assistance.

C320A40 REDnet scheduler : Got SOC before being ready

EXPLANATION
REDnet scheduler got a SOC interrupt while not ready

SUGGESTION
Contact your local Universal Robots service provider for assistance.

C320A41 REDnet scheduler : Node ID invalid

EXPLANATION
REDnet scheduler tried to send to Node ID outside valid range

SUGGESTION
Contact your local Universal Robots service provider for assistance.

C320A42 Data reception unit : Alignment error on port A, {unsigned} seen since last

EXPLANATION
Reception unit was unaligned with message on port A

SUGGESTION
Contact your local Universal Robots service provider for assistance.

C320A43 Data reception unit : Alignment fault on port A, {unsigned} seen since last

EXPLANATION
Reception unit was unable to align to incomming message on port A

SUGGESTION
Contact your local Universal Robots service provider for assistance.

C320A44 Data reception unit : Code error on port A, {unsigned} seen since last

EXPLANATION
Reception unit saw an invalid control code on port A

SUGGESTION
Contact your local Universal Robots service provider for assistance.

C320A45 Data reception unit : Disparity error on port A, {unsigned} seen since last

EXPLANATION
Reception unit got a disparity error on port A

SUGGESTION
Contact your local Universal Robots service provider for assistance.

C320A46 Data reception unit : FiFo overflow on port A, {unsigned} seen since last

EXPLANATION
Reception unit had a FiFo overflow on port A

SUGGESTION
Contact your local Universal Robots service provider for assistance.

C320A47 Data reception unit : Alignment error on port B, {unsigned} seen since last report

EXPLANATION
Reception unit was unaligned with message on port B

SUGGESTION
Contact your local Universal Robots service provider for assistance.

C320A48 Data reception unit : Alignment fault on port B, {unsigned} seen since last report

EXPLANATION
Reception unit was unable to align to incomming message on port B

SUGGESTION
Contact your local Universal Robots service provider for assistance.

C320A49 Data reception unit : Code error on port B, {unsigned} seen since last report

EXPLANATION
Reception unit saw an invalid control code on port B

SUGGESTION
Contact your local Universal Robots service provider for assistance.

C320A50 Data reception unit : Disparity error on port B, {unsigned} seen since last report

EXPLANATION
Reception unit got a disparity error on port B

SUGGESTION
Contact your local Universal Robots service provider for assistance.

C320A51 Data reception unit : FiFo overflow on port B, {unsigned} seen since last report

EXPLANATION
Reception unit had a FiFo overflow on port B

SUGGESTION
Contact your local Universal Robots service provider for assistance.

C320A52 Data reception unit : Invalid data on RGMII RX port B

If you unable to resolve the issue, log in to http://myUR.universal-robots.com and create a new case.

2.65. C321 REDnet RS485

C321A0 Hub : Framing error on port: {signed}

EXPLANATION
A message with a malformed frame was passed to the HUB on specified port(0: Int 1: Ext0, 2: Ext1, 4: None)

SUGGESTION
Contact your local Universal Robots service provider for assistance.

C321A1 Hub : Alignment error on port: {signed}

EXPLANATION
A message with a malformed frame was passed to the HUB on specified port(0: Int 1: Ext0, 2: Ext1, 4: None)

SUGGESTION
Contact your local Universal Robots service provider for assistance.

C321A2 Data transmission unit : FiFo overflow on port {unsigned}

EXPLANATION
Transmission unit had a FiFo overflow on specified port (0: port a, 1: port b)

SUGGESTION
Contact your local Universal Robots service provider for assistance.

C321A3 Data transmission unit : code error on port {unsigned}

EXPLANATION
Transmission unit received a code error on specified port (0: port a, 1: port b), this should never happen

SUGGESTION
Contact your local Universal Robots service provider for assistance.

C321A4 Data reception unit : Alignment error on port {unsigned}

EXPLANATION
Reception unit was unaligned with message on specified port (0: port a, 1: port b)

SUGGESTION
Contact your local Universal Robots service provider for assistance.

C321A5 Data reception unit : Alignment fault on port {unsigned}

EXPLANATION
Reception unit was unable to align to incomming message on specified port (0: port a, 1: port b)

SUGGESTION
Contact your local Universal Robots service provider for assistance.

C321A6 Data reception unit : Code error on port {unsigned}

EXPLANATION
Reception unit saw an invalid control code on specified port (0: port a, 1: port b)

SUGGESTION
Contact your local Universal Robots service provider for assistance.

C321A7 Data reception unit : Disparity error on port {unsigned}

EXPLANATION
Reception unit got a disparity error on specified port (0: port a, 1: port b)

SUGGESTION
Contact your local Universal Robots service provider for assistance.

C321A8 Data reception unit : FiFo overflow on port {unsigned}

EXPLANATION
Reception unit had a FiFo overflow on specified port (0: port a, 1: port b)

SUGGESTION
Contact your local Universal Robots service provider for assistance.

C321A9 Upstream transport layer : Package CRC error

EXPLANATION
Upstream transport layer cought CRC error in package header

SUGGESTION
This might happen on occation. Can be ignored if only happens rarely

C321A10 Upstream transport layer : Bad package framing

EXPLANATION
Upstream transport layer had found a framing error.

SUGGESTION
Contact your local Universal Robots service provider for assistance.

C321A11 Upstream transport layer : Rx FiFo overflow

EXPLANATION
Upstream transport layer had a FiFo overflow

SUGGESTION
Contact your local Universal Robots service provider for assistance.

C321A12 Upstream transport layer : Tx FiFo overflow

EXPLANATION
Slave transport layer had a Tx FiFo overflow

SUGGESTION
Contact your local Universal Robots service provider for assistance.

C321A13 Upstream transport layer : Invalid hub count

EXPLANATION
Slave transport layer recieved a message with invalid hub-cnt

SUGGESTION
Contact your local Universal Robots service provider for assistance.

C321A14 Upstream transport layer : Request source not master.

EXPLANATION
Slave transport layer recieved a message request from a device different from the master

SUGGESTION
Contact your local Universal Robots service provider for assistance.

C321A15 Upstream transport layer : Response source not slave.

EXPLANATION
Slave transport layer recieved a message response from a device different from a slave

SUGGESTION
Contact your local Universal Robots service provider for assistance.

C321A16 Upstream transport layer : Sync package type received

EXPLANATION
Master transport layer recieved a message where the type was Sync

SUGGESTION
Contact your local Universal Robots service provider for assistance.

C321A17 Upstream transport layer : Trigger package type received

EXPLANATION
Master transport layer recieved a message where the type was a tigger

SUGGESTION
Contact your local Universal Robots service provider for assistance.

C321A18 Upstream transport layer : Request package type received

EXPLANATION
Master transport layer recieved a message where the type was a request

SUGGESTION
Contact your local Universal Robots service provider for assistance.

C321A19 Upstream transport layer : Invalid reponse type received

EXPLANATION
Master transport layer recieved a message where the type was an invalid response

SUGGESTION
Contact your local Universal Robots service provider for assistance.

C321A20 Upstream transport layer : Package from invalid source received

EXPLANATION
Master transport layer recieved a package with an invalid source

SUGGESTION
Contact your local Universal Robots service provider for assistance.

C321A21 Upstream transport layer : Missmatch between HUB count and package source

EXPLANATION
Master transport layer recieved a package where the src and HUB count did not match

SUGGESTION
Contact your local Universal Robots service provider for assistance.

C321A22 Upstream transport layer : Package longer than expected

EXPLANATION
Master transport layer recieved a package where the length was greate than expected, or lost a framing end

SUGGESTION
Contact your local Universal Robots service provider for assistance.

C321A23 Upstream transport layer : Package shorter than expected

EXPLANATION
Master transport layer recieved a package where the length was less than expected

SUGGESTION
Contact your local Universal Robots service provider for assistance.

C321A24 Upstream transport layer : Package was misaligned

EXPLANATION
Master transport layer recieved a package that did not align to 32bit

SUGGESTION
Contact your local Universal Robots service provider for assistance.

C321A25 Downstream transport layer : Package was shorter than expected

EXPLANATION
Downstream transport layer tried to transmit a package that was longer than the data available

SUGGESTION
Contact your local Universal Robots service provider for assistance.

C321A26 Downstream transport layer : Package was longer than expected

EXPLANATION
Downstream transport layer tried to transmit a package with more data than expected

SUGGESTION
Contact your local Universal Robots service provider for assistance.

C321A27 Downstream transport layer : Invalid package type

EXPLANATION
Master transport layer tried to transmit a package with an invalid package type

SUGGESTION
Contact your local Universal Robots service provider for assistance.

C321A28 Downstream transport layer : Package type missing

EXPLANATION
Master transport layer tried to transmit a package without a package type

SUGGESTION
Contact your local Universal Robots service provider for assistance.

C321A29 Downstream transport layer : Message length missing

EXPLANATION
Master transport layer tried to transmit a package without a message length

SUGGESTION
Contact your local Universal Robots service provider for assistance.

C321A30 Downstream transport layer : Package destination missing

EXPLANATION
Master transport layer tried to transmit a package without a destination

SUGGESTION
Contact your local Universal Robots service provider for assistance.

C321A31 Downstream transport layer : Package source missing

EXPLANATION
Master transport layer tried to transmit a package without a source

SUGGESTION
Contact your local Universal Robots service provider for assistance.

C321A32 Downstream transport layer : Package NML missing

EXPLANATION
Master transport layer tried to transmit a package without a next message length

SUGGESTION
Contact your local Universal Robots service provider for assistance.

C321A33 Downstream transport layer : Package TTTL missing

EXPLANATION
Master transport layer tried to transmit a package without a time to live

SUGGESTION
Contact your local Universal Robots service provider for assistance.

C321A34 Downstream transport layer : Package timeout(high byte) missing

EXPLANATION
Master transport layer tried to transmit a package without a timeout the high byte

SUGGESTION
Contact your local Universal Robots service provider for assistance.

C321A35 Downstream transport layer : Package timeout(low byte) missing

EXPLANATION
Master transport layer tried to transmit a package without a timeout the low byte

SUGGESTION
Contact your local Universal Robots service provider for assistance.

C321A36 Downstream transport layer : Invalid message length

EXPLANATION
Master transport layer tried to transmit a package with missmatch between stated and actual length

SUGGESTION
Contact your local Universal Robots service provider for assistance.

C321A37 REDnet controller : Received control pkg in data phase

EXPLANATION
REDnet controller received a control package when not in the control phase

SUGGESTION
Contact your local Universal Robots service provider for assistance.

C321A38 REDnet controller : Received data package in control phase

EXPLANATION
REDnet controller received a data package when not in the data phase

SUGGESTION
Contact your local Universal Robots service provider for assistance.

C321A39 REDnet controller : Got SOC before being ready

EXPLANATION
REDnet controller got a SOC interrupt while not ready

SUGGESTION
Contact your local Universal Robots service provider for assistance.

C321A40 REDnet scheduler : Got SOC before being ready

EXPLANATION
REDnet scheduler got a SOC interrupt while not ready

SUGGESTION
Contact your local Universal Robots service provider for assistance.

C321A41 REDnet scheduler : Node ID invalid

EXPLANATION
REDnet scheduler tried to send to Node ID outside valid range

SUGGESTION
Contact your local Universal Robots service provider for assistance.

If you unable to resolve the issue, log in to http://myUR.universal-robots.com and create a new case.

2.66. C322 Switch

C322A0 Switch : Priority package timeout on ports: {hex}

EXPLANATION
Switch timed out trying to provide priority package to specified ports (bitmask)

SUGGESTION
Contact your local Universal Robots service provider for assistance.

C322A1 Switch : Data package timeout on ports: {hex}

EXPLANATION
Switch timed out trying to provide data package to specified ports (bitmask)

SUGGESTION
Contact your local Universal Robots service provider for assistance.

If you unable to resolve the issue, log in to http://myUR.universal-robots.com and create a new case.

2.67. C323 SCB Endpoint

C323A0 Endpoint : Priority data debug channel overflow

EXPLANATION
SCB Endpoint discarded priority data to debug channel as it was not consumed fast enough

SUGGESTION
Contact your local Universal Robots service provider for assistance.

C323A1 Endpoint : data debug channel overflow

EXPLANATION
SCB Endpoint discarded data to debug channel as it was not consumed fast enough

SUGGESTION
Contact your local Universal Robots service provider for assistance.

C323A2 Endpoint : Priority data inbound timeout from port {hex}

EXPLANATION
SCB Endpoint lost an inbound priority package on specified port as the data was not provided before timeout, data as bitmask

SUGGESTION
Contact your local Universal Robots service provider for assistance.

C323A3 Endpoint : Data inbound timeout from port {hex}

EXPLANATION
SCB Endpoint lost an inbound package on specified port as the data was not provided before timeout, data as bitmask

SUGGESTION
Contact your local Universal Robots service provider for assistance.

C323A4 Endpoint : Priority data outbound timeout to port {hex}

EXPLANATION
SCB Endpoint lost an outbound priority package to specified port as the data was not consumed before timeout, data as bitmask

SUGGESTION
Contact your local Universal Robots service provider for assistance.

C323A5 Endpoint : Data outbound timeout to port {hex}

EXPLANATION
SCB Endpoint lost an outbound package to specified port as the data was not consumed before timeout, data as bitmask

SUGGESTION
Contact your local Universal Robots service provider for assistance.

If you unable to resolve the issue, log in to http://myUR.universal-robots.com and create a new case.

2.68. C324 TP UART

C324A0 UART : FiFo overflow

EXPLANATION
UART lost incomming data as a result of a FiFo overflow

SUGGESTION
Contact your local Universal Robots service provider for assistance.

C324A1 UART : Length mismatch

EXPLANATION
UART discarded a package as length of data did not match announced data

SUGGESTION
Contact your local Universal Robots service provider for assistance.

C324A2 UART : Unexpected SOM

EXPLANATION
UART got a new start of message during transmission of a message, data will be lost

SUGGESTION
Contact your local Universal Robots service provider for assistance.

If you unable to resolve the issue, log in to http://myUR.universal-robots.com and create a new case.

2.69. C325 SPI uA

C325A53 uA SPI : FiFo underflow

EXPLANATION
uA SPI FiFo ran out of data before message was complete

SUGGESTION
Contact your local Universal Robots service provider for assistance.

C325A54 uA SPI : Unexpected read command

EXPLANATION
uA SPI received a read command without signaling data ready

SUGGESTION
Contact your local Universal Robots service provider for assistance.

C325A55 uA SPI : Unsupported command: {hex}

EXPLANATION
uA SPI received an unspported command

SUGGESTION
Contact your local Universal Robots service provider for assistance.

C325A56 uA SPI : FiFo overflow

EXPLANATION
uA SPI received more data from device than could be stored.

SUGGESTION
Contact your local Universal Robots service provider for assistance.

C325A63 uA SPI : FiFo overflow on interface: {signed}

EXPLANATION
uA SPI received more data than could be relayed to device.

SUGGESTION
Contact your local Universal Robots service provider for assistance.

C325A64 uA SPI : FiFo overflow cleared

EXPLANATION
uA SPI is ready to relay messages to device.

SUGGESTION
Contact your local Universal Robots service provider for assistance.

If you unable to resolve the issue, log in to http://myUR.universal-robots.com and create a new case.

2.70. C326 SPI uB

C326A57 uB SPI : FiFo underflow

EXPLANATION
uB SPI FiFo ran out of data before message was complete

SUGGESTION
Contact your local Universal Robots service provider for assistance.

C326A58 uB SPI : Unexpected read command

EXPLANATION
uB SPI received a read command without signaling data ready

SUGGESTION
Contact your local Universal Robots service provider for assistance.

C326A59 uB SPI : Unsupported command: {hex}

EXPLANATION
uB SPI received an unspported command

SUGGESTION
Contact your local Universal Robots service provider for assistance.

C326A60 uB SPI : FiFo overflow

EXPLANATION
uB SPI received more data from device than could be stored.

SUGGESTION
Contact your local Universal Robots service provider for assistance.

C326A65 uB SPI : FiFo overflow on interface: {signed}

EXPLANATION
uB SPI received more data than could be relayed to device.

SUGGESTION
Contact your local Universal Robots service provider for assistance.

C326A66 uB SPI : FiFo overflow cleared

EXPLANATION
uB SPI is ready to relay messages to device.

SUGGESTION
Contact your local Universal Robots service provider for assistance.

If you unable to resolve the issue, log in to http://myUR.universal-robots.com and create a new case.

2.71. C327 PCIe

C327A0 PCIe Control-Data : Blocked for {unsigned} us

EXPLANATION
PCIe control channel overflowed and was blocked, time to nearest us

SUGGESTION
Reduce CPU load or contact your local Universal Robots service provider for assistance.

C327A1 PCIe Priority-Data : Blocked for {unsigned} us

EXPLANATION
PCIe priority channel overflowed and was blocked, time to nearest us

SUGGESTION
Reduce CPU load or contact your local Universal Robots service provider for assistance.

C327A2 PCIe data-data : Blocked for {unsigned} us

EXPLANATION
PCIe data channel overflowed and was blocked, time to nearest us

SUGGESTION
Reduce CPU load or contact your local Universal Robots service provider for assistance.

If you unable to resolve the issue, log in to http://myUR.universal-robots.com and create a new case.

2.72. C328 Transceiver miscellaneous

You may find the following links helpful in addressing this issue:

- How to perform a complete reboot
- Find a distributor page

If you unable to resolve the issue, log in to http://myUR.universal-robots.com and create a new case.

C328A2 Flash device is not supported, JEDEC data for device is: {hex}

EXPLANATION
The flash device's JEDEC ID does not match a supported flash device

SUGGESTION
Try the following actions to see which resolves the issue: (A) Conduct a complete rebooting sequence, (B) Update software, (C) Contact your local Universal Robots service provider for assistance

2.73. C329 AXI STREAM

If you unable to resolve the issue, log in to http://myUR.universal-robots.com and create a new case.

C329A3 Channel {unsigned} not configured

EXPLANATION
Attempting to send data on an unconfigured interface.

SUGGESTION
Contact your local Universal Robots service provider for assistance.

C329A4 Write failed, {unsigned} messages dropped

EXPLANATION
Tried to transmit more data than the Axi-Stream could consume, and messages where lost.

SUGGESTION
Contact your local Universal Robots service provider for assistance.

2.74. C330 IMMI IO

If you unable to resolve the issue, log in to http://myUR.universal-robots.com and create a new case.

C330A1 Injection-Molding-Machine-Interface E-Stop output readback does not match produced value: {hex}

EXPLANATION
First byte: produced value, second byte: read value

C330A2 Injection-Molding-Machine-Interface Moulding Area Free output readback does not match produced value: {hex}

EXPLANATION
First byte: produced value, second byte: read value

C330A3 Injection-Molding-Machine-Interface 24V IO voltage outside acceptable range

EXPLANATION
The voltage measured on the 24V IO rail is lower than expected.

SUGGESTION
Try the following actions to see which resolves the issue: (A) Check the fuses on the Injection-Molding-Machine-Interface. (B) Verify there are no short circuits on the 24V IO connectors. (C) Contact your local Universal Robots service provider for assistance.

C330A4 Injection-Molding-Machine-Interface 48V voltages outside acceptable range

EXPLANATION
The voltages measured on the 48V rails are lower than expected.

SUGGESTION
Try the following actions to see which resolves the issue: (A) Check the fuses on the Injection-Molding-Machine-Interface. (B) Verify there are no short circuits on the IO connectors. (C) Contact your local Universal Robots service provider for assistance.

2.75. C331 Friction model

You may find the following links helpful in addressing this issue:

- How to perform a complete reboot
- Find a distributor page

If you unable to resolve the issue, log in to http://myUR.universal-robots.com and create a new case.

C331A0 Critical error

EXPLANATION
A critical error occurred in the friction model module

SUGGESTION
Try the following actions to see which resolves the issue: (A) Conduct a complete rebooting sequence, (B) Update software, (C) Contact your local Universal Robots service provider for assistance

C331A1 The velocity of the friction model is outside the limits,

EXPLANATION
The velocity used for the friction model is outside the limits.

SUGGESTION
Try the following actions to see which resolves the issue: (A) Conduct a complete rebooting sequence, (B) Update software, (C) Contact your local Universal Robots service provider for assistance

C331A2 The current of the friction model is outside the limits

EXPLANATION
The current used for the friction model is outside the limits.

SUGGESTION
Try the following actions to see which resolves the issue: (A) Conduct a complete rebooting sequence, (B) Update software, (C) Contact your local Universal Robots service provider for assistance

C331A3 The temperature of the friction model is outside the limits

EXPLANATION
The temperature used for the friction model is outside the limits.

SUGGESTION
Try the following actions to see which resolves the issue: (A) Conduct a complete rebooting sequence, (B) Update software, (C) Contact your local Universal Robots service provider for assistance

C331A4 The element count of the friction model is wrong

EXPLANATION
The element count used for the friction model is wrong.

SUGGESTION
Try the following actions to see which resolves the issue: (A) Conduct a complete rebooting sequence, (B) Update software, (C) Contact your local Universal Robots service provider for assistance

C331A5 The calibration file for the friction model validation was not found

EXPLANATION
The calibration file used to validate the friction model was not found.

SUGGESTION
Try the following actions to see which resolves the issue: (A) Conduct a complete rebooting sequence, (B) Update software, (C) Contact your local Universal Robots service provider for assistance

C331A6 The limit data for the friction model was not found

EXPLANATION
The limit data used for the friction model was not found.

SUGGESTION
Try the following actions to see which resolves the issue: (A) Conduct a complete rebooting sequence, (B) Update software, (C) Contact your local Universal Robots service provider for assistance

2.76. C332 Servo configuration

You may find the following links helpful in addressing this issue:

- How to perform a complete reboot
- Find a distributor page

If you unable to resolve the issue, log in to http://myUR.universal-robots.com and create a new case.

C332A0 Critical error

EXPLANATION
A critical error occurred in the servo configuration module

SUGGESTION
Try the following actions to see which resolves the issue: (A) Conduct a complete rebooting sequence, (B) Update software, (C) Contact your local Universal Robots service provider for assistance

2.77. C333 File message

You may find the following links helpful in addressing this issue:

- How to perform a complete reboot
- Find a distributor page

If you unable to resolve the issue, log in to http://myUR.universal-robots.com and create a new case.

C333A0 Critical error

EXPLANATION
A critical error occurred in the file message module

SUGGESTION
Try the following actions to see which resolves the issue: (A) Conduct a complete rebooting sequence, (B) Update software, (C) Contact your local Universal Robots service provider for assistance

2.78. C334 Robot deviated from constrained axes while in Constrained Freedrive.

If you unable to resolve the issue, log in to http://myUR.universal-robots.com and create a new case.

2.79. C335 ICHaus Encoder

C335A0 Critical error

EXPLANATION
A critical error occurred communicating with the motor encoder

SUGGESTION
Try the following actions to see which resolves the issue: (A) Conduct a complete rebooting sequence, (B) Update software, (C) Contact your local Universal Robots service provider for assistance

C335A1 Error while setting communication mode to {hex}

C335A2 Error while setting multiturn offset

C335A3 Error while setting parameters for output bits

C335A4 Error while setting parameters for sampling format

C335A5 Error while setting parameters for gain and bias current

C335A6 Error while setting resolution of quadrature output

C335A7 Error while setting parameters for quadrature output

C335A8 The header received when reading SDAD data was {hex} which is invalid

C335A9 The register status header was invalid. [0-7]: Header, [24-31]: Encoder. {hex}

C335A10 The sensor data was invalid on readout. [0]: error, [24-31]: Encoder. {hex}

C335A11 An error occurred while writing to register address {hex}

C335A12 The data written to a register was not as expected. Readback value: {hex}

C335A13 Not all encoders were written to during write operation. Encoders not written to: {hex}

C335A14 An error occurred while reading from register address {hex}

C335A15 Not all encoders were read from during read operation. Encoders not read from: {hex}

C335A16 An error occurred when reading register status while executing a command. [0-7]: Header, [24-31]: Encoder. {hex}

C335A17 The encoder reported that the opcode used was invalid. [0]: error, [1]: dismiss, [24-31]: Encoder. {hex}

C335A18 Encoder {hex} rejected the command.

C335A19 Encoder {hex} was busy when command was requested.

C335A20 Attempted to read status while no active command was being processed. [0-7]: Status, [24-31]: Encoder. {hex}

C335A21 An error occurred while writing analog calibration data to encoder {unsigned}

C335A22 An error occurred while writing nonius calibration data to encoder {unsigned}

C335A23 An error occurred while reading chip info

C335A24 An error occurred while sending store command to the encoders

C335A25 An error occurred while reading master and nonius track samples

C335A26 An error occurred during validation when reading status data

C335A27 Startup flag on encoder {unsigned} showed an error during validation

C335A28 Nonious track on encoder {unsigned} is clipping during validation

C335A29 Nonius track on encoder {unsigned} shows poor signal level during validation

C335A30 Master track on encoder {unsigned} is clipping during validation

C335A31 Master track on encoder {unsigned} shows poor signal level during validation

C335A32 Encoder {unsigned} reported a CRC error during validation

C335A33 Encoder {unsigned} reported a problem reading from its EEPROM during validation

C335A34 Encoder {unsigned} reported a multiturn communication error during validation

C335A35 Encoder {unsigned} reported a multiturn consistency error during validation

C335A36 Encoder {unsigned} reported a period counter consistency error during validation

C335A37 Encoder {unsigned} reported too high signal frequency for the ABZ converter during validation

C335A38 Encoder {unsigned} reported too high signal frequency for internal 128bit converter during validation

C335A39 Encoder {unsigned} reported a command execution occurred during validation

C335A40 An error occurred while setting the accumulation for the status register to {hex}

C335A41 Timed out while waiting for the encoders to complete storing settings to EEPROM

C335A42 An error occurred while reading status of the store operation

C335A43 An error occurred while sending soft reset command to the encoders

C335A44 Timed out while waiting for the encoders to complete soft resetting

C335A45 An error occurred while reading status of the soft reset operation

C335A46 An error occurred while setting filter values

C335A47 Entered illegal state {unsigned} while reading the absolute position

C335A48 Absolute position state not in normal after the joint exited booting

C335A49 An error occurred while writing filter data

C335A50 Error while setting parameters for NER pin

C335A51 Error while setting abz offset element {unsigned}

C335A52 An error occurred while sending apply-offset command to the encoders

C335A53 Timed out while waiting for the encoder to complete applying the offset

C335A54 An error occurred while reading status of the apply-offset operation

C335A55 An error occurred while sending store-offset command to the encoders

C335A56 Timed out while waiting for the encoders to complete storing offsets to EEPROM

C335A57 An error occurred while reading status of the store-offset operation

C335A58 Distance between encoders is {signed} ticks

C335A59 Distance between encoders is {float} deg

C335A60 Offset applied on encoder is {signed} ticks

C335A61 Offset applied on encoder is {float} deg

C335A62 Offset to be applied is larger than allowed, would move {signed} poles

C335A63 An error occurred while reading flexcount samples

You may find the following links helpful in addressing this issue:

- How to perform a complete reboot
- Find a distributor page

If you unable to resolve the issue, log in to http://myUR.universal-robots.com and create a new case.

2.80. C336 Hardware configuration manager

C336A1 An illegal write request to a memory area, at line {unsigned}

If you unable to resolve the issue, log in to http://myUR.universal-robots.com and create a new case.

2.81. C337 Control parameters

You may find the following links helpful in addressing this issue:

- How to perform a complete reboot
- Find a distributor page

If you unable to resolve the issue, log in to http://myUR.universal-robots.com and create a new case.

C337A0 Critical error

EXPLANATION
A critical error occurred during setup of the control parameters

SUGGESTION
Try the following actions to see which resolves the issue: (A) Conduct a complete rebooting sequence, (B) Update software, (C) Contact your local Universal Robots service provider for assistance

2.82. C338 PROFIsafe

You may find the following links helpful in addressing this issue:

- How to perform a complete reboot
- Find a distributor page

If you unable to resolve the issue, log in to http://myUR.universal-robots.com and create a new case.

C338A0 Critical error

EXPLANATION
A critical error occured in the PROFIsafe logic

SUGGESTION
Try the following actions to see which resolves the issue: (A) Conduct a complete rebooting sequence, (B) Update software, (C) Contact your local Universal Robots service provider for assistance

C338A6 A PROFIsafe message was received, but there is no valid configuration

EXPLANATION
A PROFIsafe message was received before a valid safety configuration

SUGGESTION
Try the following actions to see which resolves the issue: (A) Verify the PROFIsafe Host settings and review the robot safety configuration, see PROFIsafe (B) Do not start a PROFIsafe host before the robot is ready (C) Conduct a complete rebooting sequence (D) Contact your local Universal Robots service provider for assistance

C338A7 A PROFIsafe message was received and PROFIsafe was disabled.

EXPLANATION
A PROFIsafe message was received while PROFIsafe is disabled in the safety configuration

SUGGESTION
Try the following actions to see which resolves the issue: (A) Verify the PROFIsafe Host settings and review the robot safety configuration, see PROFIsafe (B) Do not start a PROFIsafe host before the robot is ready (C) Conduct a complete rebooting sequence (D) Contact your local Universal Robots service provider for assistance

C338A8 The robot rejected the PROFIsafe F-Parameter set

EXPLANATION
A PROFIsafe F-Parameterset was received from the PLC but was not accepted

SUGGESTION
Try the following actions to see which resolves the issue: (A) Check the diagnosis messages from the PLC and set a valid F-Parameter configuration, (B) Conduct a complete rebooting sequence (C) Contact your local Universal Robots service provider for assistance

C338A11 An iPar CRC mismatch has been detected

EXPLANATION
The iPar CRC received from the PLC does not match the Safety checksum

SUGGESTION
Try the following actions to see which resolves the issue: (A) Check if the iPar CRC set in the PLC matches the Safety checksum, (B) Update software, (C) Contact your local Universal Robots service provider for assistance

C338A12 An error occured during PROFIsafe communication

EXPLANATION
The CRC over the cyclic telegram does not match the expected value

SUGGESTION
Try the following actions to see which resolves the issue: (A) Check the connection and cable to the PLC, (B) Conduct a complete rebooting sequence, (C) Contact your local Universal Robots service provider for assistance

C338A13 The PROFIsafe watchdog timed out

EXPLANATION
The PROFIsafe communication timed out because no message has been received in the expected time

SUGGESTION
Try the following actions to see which resolves the issue: (A) Check the connection and cable to the PLC, (B) Check and adjust the watchdog timeout, (C) Conduct a complete rebooting sequence (D) Contact your local Universal Robots service provider for assistance

C338A14 The PROFInet provider status is bad

EXPLANATION
The PROFInet provider reports a failure or is not reachable

SUGGESTION
Try the following actions to see which resolves the issue: (A) Check the connection and cable to the PLC, (B) Conduct a complete rebooting sequence, (C) Contact your local Universal Robots service provider for assistance

C338A17 Destination address mismatch

EXPLANATION
The PROFIsafe destination address received from the PROFIsafe host does not match the destination address in the robot safety configuration

SUGGESTION
Try the following actions to see which resolves the issue: (A) Make sure that the destination address in the safety configuration matches the destination address configured on the PROFIsafe host, (B) Conduct a complete rebooting sequence, (C) Contact your local Universal Robots service provider for assistance

C338A18 Destination address invalid

EXPLANATION
The PROFIsafe destination address received from the PROFIsafe host is not valid

SUGGESTION
Try the following actions to see which resolves the issue: (A) Make sure that the destination address configured on the PROFIsafe host is not set to 0 or 0xFFFF, (B) Conduct a complete rebooting sequence, (C) Contact your local Universal Robots service provider for assistance

C338A19 Source address mismatch

EXPLANATION
The PROFIsafe source address received from the PROFIsafe host does not match the source address in the robot safety configuration

SUGGESTION
Try the following actions to see which resolves the issue: (A) Make sure that the source address in the safety configuration matches the source address configured on the PROFIsafe host, (B) Conduct a complete rebooting sequence, (C) Contact your local Universal Robots service provider for assistance

C338A20 Source address invalid

EXPLANATION
The PROFIsafe source address received from the PROFIsafe host is not valid

SUGGESTION
Try the following actions to see which resolves the issue: (A) Make sure that the source address configured on the PROFIsafe host is not set to 0 or 0xFFFF, (B) Conduct a complete rebooting sequence, (C) Contact your local Universal Robots service provider for assistance

C338A21 Wrong PROFIsafe submodule selected

EXPLANATION
The PROFIsafe submodule id received from the PROFIsafe host does not match the control operational mode setting in the Polyscope PROFIsafe configuration

SUGGESTION
Try the following actions to see which resolves the issue: (A) Check the selected submodule in the PROFIsafe host and the control operational mode setting in the Polyscope PROFIsafe configuration, (B) Conduct a complete rebooting sequence, (C) Contact your local Universal Robots service provider for assistance

2.83. C339 Cross communication

You may find the following links helpful in addressing this issue:

- How to perform a complete reboot
- Find a distributor page

If you unable to resolve the issue, log in to http://myUR.universal-robots.com and create a new case.

C339A0 Critical error

EXPLANATION
A critical error occured in the cross communication module

SUGGESTION
Try the following actions to see which resolves the issue: (A) Conduct a complete rebooting sequence, (B) Update software, (C) Contact your local Universal Robots service provider for assistance

2.84. C340 Energy Monitoring

If you unable to resolve the issue, log in to http://myUR.universal-robots.com and create a new case.

C340A0 Idle power consumption too high

EXPLANATION
The system is drawing more power than expected while idle

SUGGESTION
Try the following actions to see which resolves the issue: (A) Ensure supply is not delivering more than 48V, (B) Check Energy Eaters cable and connections, (C) Check Energy Eater, (D) Update software, (E) Contact your local Universal Robots service provider for assistance

C340A1 Energy surplus shutdown

EXPLANATION
The power supply is sending energy to the energy eater

SUGGESTION
Try the following actions to see which resolves the issue: (A) Ensure supply is not delivering more than 48V, (B) Update software, (C) Contact your local Universal Robots service provider for assistance

C340A2 Energy burst period exceeded, average power: {float}W

EXPLANATION
Energy has been sent to the energy eater longer than allowed

SUGGESTION
Try the following actions to see which resolves the issue: (A) Ensure supply is not delivering more than 48V, (B) Update software, (C) Contact your local Universal Robots service provider for assistance

2.85. C341 RLS Motor encoder

You may find the following links helpful in addressing this issue:

- How to perform a complete reboot
- Find a distributor page

If you unable to resolve the issue, log in to http://myUR.universal-robots.com and create a new case.

C341A0 Critical error

EXPLANATION
A critical error occurred communicating with the RLS motor encoder

SUGGESTION
Try the following actions to see which resolves the issue: (A) Conduct a complete rebooting sequence, (B) Update software, (C) Contact your local Universal Robots service provider for assistance

C341A9 The scheduled RLS SPI package transfer did not complete before the deadline.

EXPLANATION
A timing error occured in the robot firwmare.

SUGGESTION
Try the following actions to see which resolves the issue: (A) Conduct a complete rebooting sequence, (B) Update software, (C) Contact your local Universal Robots service provider for assistance

C341A10 CRC error in CH0 transfer, frame: {hex}

EXPLANATION
A SPI package from the RLS motorencoder was corrupted during transfer.

SUGGESTION
Try the following actions to see which resolves the issue: (A) Make sure the application is not exceeding the capabilities of the robot (B) Conduct a complete rebooting sequence, (C) Update software, (D) Contact your local Universal Robots service provider for assistance

C341A22 Detailed status error: Signal clipping, strong external magnetic field is present.

EXPLANATION
The presence of a strong external magnetic field, caused signal clipping on the RLS motorencoders signal.

SUGGESTION
Try the following actions to see which resolves the issue: (A) Make sure the application is not exceeding the capabilities of the robot (B) Conduct a complete rebooting sequence, (C) Update software, (D) Contact your local Universal Robots service provider for assistance

C341A23 Detailed status warning: Signal amplitude too high. The read head is too close to the ring.

EXPLANATION
The motor encoder read head is too close to the ring or an external magnetic field is present

SUGGESTION
Try the following actions to see which resolves the issue: (A) Make sure the application is not exceeding the capabilities of the robot (B) Conduct a complete rebooting sequence, (C) Update software, (D) Contact your local Universal Robots service provider for assistance

C341A24 Detailed status error: ASIC was reset, external RFI glitch caused encoder to reset.

EXPLANATION
External RFI glitch caused encoder to reset.

SUGGESTION
Try the following actions to see which resolves the issue: (A) Try to remove any obvious sources of strong RFI (B) Conduct a complete rebooting sequence, (C) Update software, (D) Contact your local Universal Robots service provider for assistance

C341A25 Detailed status error: ASIC synchronization lost, external RFI glitch caused malfunction.

EXPLANATION
External RFI glitch caused encoder to loose synchronization.

SUGGESTION
Try the following actions to see which resolves the issue: (A) Try to remove any obvious sources of strong RFI (B) Conduct a complete rebooting sequence, (C) Update software, (D) Contact your local Universal Robots service provider for assistance

C341A26 Detailed status error: Encoder not configured properly.

EXPLANATION
Incorrect RLS motorencoder configuration

SUGGESTION
Try the following actions to see which resolves the issue: (A) Conduct a complete rebooting sequence, (B) Update software, (C) Contact your local Universal Robots service provider for assistance

C341A27 Detailed status warning: Signal amplitude low. The distance between the read head and the ring is too large.

EXPLANATION
The distance between the read head and the ring is too large

SUGGESTION
Try the following actions to see which resolves the issue: (A) Make sure the application is not exceeding the capabilities of the robot (B) Conduct a complete rebooting sequence, (C) Update software, (D) Contact your local Universal Robots service provider for assistance

C341A28 Detailed status error: Signal lost. The read head is out of alignment with the ring or the ring is damaged.

EXPLANATION
The read head is out of alignment with the ring or the ring is damaged

SUGGESTION
Try the following actions to see which resolves the issue: (A) Make sure the application is not exceeding the capabilities of the robot (B) Conduct a complete rebooting sequence, (C) Update software, (D) Contact your local Universal Robots service provider for assistance

C341A30 Detailed status error: Power supply error. The read head power supply voltage is out of specified range.

EXPLANATION
The voltage supplied for the RLS motorencoder is outside allowed specifications

SUGGESTION
Try the following actions to see which resolves the issue: (A) Make sure the application is not exceeding the capabilities of the robot (B) Conduct a complete rebooting sequence, (C) Update software, (D) Contact your local Universal Robots service provider for assistance

C341A31 Detailed status error: System error. Malfunction inside the circuitry or inconsistent calibration data is detected.

EXPLANATION
A system error occured inside the RLS motorencoder.

SUGGESTION
Try the following actions to see which resolves the issue: (A) Conduct a complete rebooting sequence, (B) Update software, (C) Contact your local Universal Robots service provider for assistance

C341A32 Detailed status error: Magnetic pattern error. A stray magnetic field is present or metal particles are present between the read head and the ring or radial positioning between the read head and the ring is out of tolerances.

EXPLANATION
RLS motorencoder was unable to correctly decode the position, possible causes could be (A) Stray magnetic fields (B) Metal particles between read head and ring (C) Installation tolerances is outside specification.

SUGGESTION
Try the following actions to see which resolves the issue: (A) Make sure the application is not exceeding the capabilities of the robot (B) Conduct a complete rebooting sequence, (C) Update software, (D) Contact your local Universal Robots service provider for assistance

C341A33 Detailed status error: Acceleration to high.

EXPLANATION
RLS motorencoder reported that the acceleration of the encoder disc was outside allowed specifications.

SUGGESTION
Try the following actions to see which resolves the issue: (A) Make sure the application is not exceeding the capabilities of the robot (B) Conduct a complete rebooting sequence, (C) Update software, (D) Contact your local Universal Robots service provider for assistance

C341A65 Latest parsed motorencoder position was too old.

EXPLANATION
The latest parsed SPI package had a timestamp that was too old, indicating either a timing glitch or corrupted data.

SUGGESTION
Try the following actions to see which resolves the issue: (A) Conduct a complete rebooting sequence, (B) Update software, (C) Contact your local Universal Robots service provider for assistance

C341A86 An error occured while reading the encoder firmware version.

EXPLANATION
An error occured while reading the encoder firmware version.

SUGGESTION
Try the following actions to see which resolves the issue: (A) Conduct a complete rebooting sequence, (B) Update software, (C) Contact your local Universal Robots service provider for assistance

C341A87 The encoder firmware version is not valid.

EXPLANATION
The encoder firmware version is not valid.

SUGGESTION
Try the following actions to see which resolves the issue: (A) Conduct a complete rebooting sequence, (B) Update software, (C) Contact your local Universal Robots service provider for assistance

C341A88 A reading of the register {hex} was attempted which is not valid for the present encoder

EXPLANATION
A read from a register that is invalid for the encoder was attempted

SUGGESTION
Try the following actions to see which resolves the issue: (A) Conduct a complete rebooting sequence, (B) Update software, (C) Contact your local Universal Robots service provider for assistance

C341A89 A write of the register {hex} was attempted which is not valid for the present encoder

EXPLANATION
A write to a register that is invalid for the encoder was attempted

SUGGESTION
Try the following actions to see which resolves the issue: (A) Conduct a complete rebooting sequence, (B) Update software, (C) Contact your local Universal Robots service provider for assistance

C341A90 Tried to access register {hex}, which is not valid for the present encoder

EXPLANATION
A register that is invalid for the encoder was accessed

SUGGESTION
Try the following actions to see which resolves the issue: (A) Conduct a complete rebooting sequence, (B) Update software, (C) Contact your local Universal Robots service provider for assistance

C341A92 The encoder reported that it has not performed a self-calibration

EXPLANATION
The encoder reported that it has not performed a self-calibration

SUGGESTION
Try the following actions to see which resolves the issue: (A) Conduct a complete rebooting sequence, (B) Update software, (C) Contact your local Universal Robots service provider for assistance

C341A95 Detailed status error: System error. Malfunction inside the circuitry.

EXPLANATION
A system error occured inside the RLS motorencoder. To reset the System error bit try to cycle the power supply.

SUGGESTION
Try the following actions to see which resolves the issue: (A) Conduct a complete rebooting sequence, (B) Update software, (C) Replace the motor-encoder PCBA - Contact your local Universal Robots service provider for assistance

C341A96 Detailed status error: System error. Inconsistent calibration data detected.

EXPLANATION
A system error occured inside the RLS motorencoder. To reset the System error bit try to cycle the power supply.

SUGGESTION
Try the following actions to see which resolves the issue: (A) Conduct a complete rebooting sequence, (B) Update software, (C) Replace the motor-encoder PCBA - Contact your local Universal Robots service provider for assistance

2.86. C342 Motor Parameters

You may find the following links helpful in addressing this issue:

- How to perform a complete reboot
- Find a distributor page

If you unable to resolve the issue, log in to http://myUR.universal-robots.com and create a new case.

C342A0 Module initialization error

EXPLANATION
An error occurred during initialiation of the Motor Parameters Module, a critical dependency could not be satisfied.

SUGGESTION
Try the following actions to see which resolves the issue: (A) Conduct a complete rebooting sequence, (B) Update software, (C) Contact your local Universal Robots service provider for assistance

C342A1 Motor datasheet unavailable

EXPLANATION
A missing or invalid motor datasheet, has caused the initialization of the motor parameters module to fail.

SUGGESTION
Try the following actions to see which resolves the issue: (A) Conduct a complete rebooting sequence, (B) Update software, (C) Contact your local Universal Robots service provider for assistance

C342A2 Loading of the motor parameters file failed.

EXPLANATION
A missing or invalid motor parameters file, has caused the initialization of the motor parameters module to fail.

SUGGESTION
Try the following actions to see which resolves the issue: (A) Conduct a complete rebooting sequence, (B) Update software, (C) Contact your local Universal Robots service provider for assistance

2.87. C343 Joint Configuration

You may find the following links helpful in addressing this issue:

- How to perform a complete reboot
- Find a distributor page

If you unable to resolve the issue, log in to http://myUR.universal-robots.com and create a new case.

C343A0 Critical error

EXPLANATION
A critical error occured in the joint configuration module

SUGGESTION
Try the following actions to see which resolves the issue: (A) Conduct a complete rebooting sequence, (B) Update software, (C) Contact your local Universal Robots service provider for assistance

C343A33 The joint have the gear type {unsigned} installed, which is not allowed

EXPLANATION
The gear installed in the joint is not an allowed type

SUGGESTION
Try the following actions to see which resolves the issue: (A) Update software, (B) Contact your local Universal Robots service provider for assistance

C343A34 The joint have the motor type {unsigned} installed, which is not allowed

EXPLANATION
The motor installed in the joint is not an allowed type

SUGGESTION
Try the following actions to see which resolves the issue: (A) Update software, (B) Contact your local Universal Robots service provider for assistance

2.88. C344 Anti-cogging

C344A1 Expand initalizaion failed to initialize

If you unable to resolve the issue, log in to http://myUR.universal-robots.com and create a new case.

2.89. C345 DMA

C345A1 An unhandled interrupt from channel {unsigned} occured on DMA controller 0

C345A2 An unhandled interrupt from channel {unsigned} occured on DMA controller 1

If you unable to resolve the issue, log in to http://myUR.universal-robots.com and create a new case.

2.90. C346 Selftest servo control monitoring

C346A1 The selftest control monitor triggered, indicating that the joint was stuck and unable to execute its target motion

SUGGESTION
Might be caused by a failed brakerelease

C346A2 The output of the speed pi controller when the servo control monitoring error occured was {float}A

C346A3 The actual current when the servo control monitoring error occured was {float}A

C346A4 The target position when the servo control monitoring error occured was {float}rad

C346A5 The actual position when the servo control monitoring error occured was {float}rad

C346A6 The target speed when the servo control monitoring error occured was {float}rad/s

C346A7 The actual speed when the servo control monitoring error occured was {float}rad/s

If you unable to resolve the issue, log in to http://myUR.universal-robots.com and create a new case.

2.91. C347 Network Map

If you unable to resolve the issue, log in to http://myUR.universal-robots.com and create a new case.

C347A4 More robot cable extenders detected than are supported.

EXPLANATION
It is not supported to have multiple robot cable extenders

SUGGESTION
Try the following actions to see which resolves the issue: (A) Remove the extra robot cable extenders so only one is connected, (B) Update Software, (C) Contact your local Universal Robots service provider for assistance

C347A5 The far end of the robot cable extender was not detected.

EXPLANATION
Only the near end of the robot cable extender was detected, while the far end is missing.

SUGGESTION
Try the following actions to see which resolves the issue: (A) Make sure that the robot cable extender is properly connected and that the cable is not damaged, (B) Update Software, (C) Contact your local Universal Robots service provider for assistance

2.92. C348 External Axes Bus

You may find the following links helpful in addressing this issue:

- How to perform a complete reboot
- Find a distributor page

If you unable to resolve the issue, log in to http://myUR.universal-robots.com and create a new case.

C348A1 Receive error

EXPLANATION
Failed to receive data on External Axes Bus

SUGGESTION
Axis Group feature will be disabled until you conduct a complete rebooting sequence. If problem persists, contact your local Universal Robots service provider for assistance.

C348A2 Send error

EXPLANATION
Failed to send data on External Axes Bus

SUGGESTION
Axis Group feature will be disabled until you conduct a complete rebooting sequence. If problem persists, contact your local Universal Robots service provider for assistance.

C348A3 Target joints calculation failed

EXPLANATION
Failed to calculate target joints for External Axes Bus

SUGGESTION
Try the following actions to see which resolves the issue: (A) Restart UR program, (B) Check each external axis in program for invalid parameters, (C) Conduct a complete rebooting sequence, (D) Update software, (E) Contact your local Universal Robots service provider for assistance

C348A4 An enabled external axis at index {unsigned} is no longer receiving drive status updates

EXPLANATION
The EtherCAT Master is no longer sending the Controller status updates for the servo drive of an enabled external axis

SUGGESTION
Try the following actions to see which resolves the issue: (A) Ensure the MotionPlus Service is running, (B) Ensure the EtherCAT Master has been configured for the axis's drive, (C) Ensure the EtherCAT Master is running, (D) Contact your local Universal Robots service provider for assistance

2.93. C349 Base light

If you unable to resolve the issue, log in to http://myUR.universal-robots.com and create a new case.

C349A0 Length check error, incorrect length detected for base light ring: {unsigned}

EXPLANATION
The detected lenght of the base light ring is not what is expected.

SUGGESTION
There is an issue validating the base light. If problem persists, contact your local Universal Robots service provider for assistance.

C349A2 Current for the red color was {float} A, which is outside the allowed range

EXPLANATION
The detected current of the red color in the base light is outside the allowed range.

SUGGESTION
Try the following actions to see which resolves the issue: (A) Perform a complete rebooting sequence, (B) Update software, (C) Check if the connection between the light ring and the PCB is correct, (D) Replace The light ring, (E) Contact your local Universal Robots service provider for assistance

C349A3 Current for the green color was {float} A, which is outside the allowed range

EXPLANATION
The detected current of the green color in the base light is outside the allowed range.

SUGGESTION
Try the following actions to see which resolves the issue: (A) Perform a complete rebooting sequence, (B) Update software, (C) Check if the connection between the light ring and the PCB is correct, (D) Replace The light ring, (E) Contact your local Universal Robots service provider for assistance

C349A4 Current for the blue color was {float} A, which is outside the allowed range

EXPLANATION
The detected current of the blue color in the base light is outside the allowed range.

SUGGESTION
Try the following actions to see which resolves the issue: (A) Perform a complete rebooting sequence, (B) Update software, (C) Check if the connection between the light ring and the PCB is correct, (D) Replace The light ring, (E) Contact your local Universal Robots service provider for assistance

C349A5 Current for the yellow color was {float} A, which is outside the allowed range

EXPLANATION
The detected current of the yellow color in the base light is outside the allowed range.

SUGGESTION
Try the following actions to see which resolves the issue: (A) Perform a complete rebooting sequence, (B) Update software, (C) Check if the connection between the light ring and the PCB is correct, (D) Replace The light ring, (E) Contact your local Universal Robots service provider for assistance

2.94. C350 Failed brake system

If you unable to resolve the issue, log in to http://myUR.universal-robots.com and create a new case.

C350A0 Joint position drifted more than allowed

EXPLANATION
The joint position has drifted more than allowed while in the failed brake state

SUGGESTION
Contact your local Universal Robots service provider for assistance

C350A1 State transition is not permitted with a failed brake system

EXPLANATION
The joint brake system has failed so the joint is not permitted to enter a state where it can be moved

SUGGESTION
Contact your local Universal Robots service provider for assistance

C350A3 Failure detected in brake system

EXPLANATION
The brake system failed to engage

2.95. C351 Robot configuration

If you unable to resolve the issue, log in to http://myUR.universal-robots.com and create a new case.

C351A0 Unexpected tool detected

EXPLANATION
Tool was detected in the arm, but not in the robot configuration.

SUGGESTION
Update robot configuration to match attached hardware.

C351A1 Unexpected {deviceName} joint detected

EXPLANATION
Joint was detected in the arm, but not in the robot configuration.

SUGGESTION
Update robot configuration to match attached hardware.

C351A2 Unexpected base light detected

EXPLANATION
Base light was detected in the arm, but not in the robot configuration.

SUGGESTION
Update robot configuration to match attached hardware.

C351A3 Robot cable extender detected, but not configured.

EXPLANATION
A robot cable extender was detected, but has not been configured.

SUGGESTION
Try the following actions to see which resolves the issue: (A) Configure the robot cable extender, (B) Remove robot cable extender if it was not connected intentionally, (C) Update Software, (D) Contact your local Universal Robots service provider for assistance

C351A4 Robot cable extender detected, but configuration is corrupted.

EXPLANATION
A robot cable extender was detected, but the configuration is corrupted.

SUGGESTION
Try the following actions to see which resolves the issue: (A) Make sure that the robot cable extender is configured properly, (B) Update Software, (C) Contact your local Universal Robots service provider for assistance

C351A5 Robot cable extender configured, but not detected.

EXPLANATION
A robot cable extender was configured, but was not detected.

SUGGESTION
Try the following actions to see which resolves the issue: (A) Unconfigure the robot cable extender, (B) Connect the robot cable extender if it was intended to be connected, (C) Update Software, (D) Contact your local Universal Robots service provider for assistance

C351A6 Unsupported cable type for robot cable extender configured.

EXPLANATION
An unsupported cable type for the robot cable extender was configured.

SUGGESTION
Try the following actions to see which resolves the issue: (A) Configure a supported robot cable extender type, (B) Remove robot cable extender if it was not connected intentionally, (C) Update Software, (D) Contact your local Universal Robots service provider for assistance

C351A7 Detected cable type for robot cable extender is not supported.

EXPLANATION
The detected cable type for the robot cable extender is not supported.

SUGGESTION
Try the following actions to see which resolves the issue: (A) Connect a supported cable type, (B) Update Software, (C) Contact your local Universal Robots service provider for assistance

C351A8 Detected cable type for robot cable extender is incompatible with configured type.

EXPLANATION
The detected cable type for the robot cable extender is incompatible with the configured cable type.

SUGGESTION
Try the following actions to see which resolves the issue: (A) Configure the robot cable extender with the correct cable type, (B) Connect the intended cable between the cable extenders (C) Update Software, (D) Contact your local Universal Robots service provider for assistance

C351A9 Detected cable type for robot cable extender does not match configured type.

EXPLANATION
The detected cable type for the robot cable extender does not match the configured cable type.

SUGGESTION
Try the following actions to see which resolves the issue: (A) Configure the robot cable extender with the correct cable type, (B) Connect the intended cable between the cable extenders (C) Update Software, (D) Contact your local Universal Robots service provider for assistance

C351A10 Detected cable type is {unsigned}

C351A11 Configured cable type is {unsigned}

C351A12 Unsupported robot for robot cable extender.

EXPLANATION
The cable extender does not support the configured robot.

SUGGESTION
Try the following actions to see which resolves the issue: (A) Connect a supported cable type, (B) Verify correct robot configuration, (C) Contact your local Universal Robots service provider for assistance

2.96. C352 Backdrive

If you unable to resolve the issue, log in to http://myUR.universal-robots.com and create a new case.

C352A0 Parking timed out

EXPLANATION
The backdrive parking procedure took to long.

SUGGESTION
Try the following actions to see which resolves the issue: (A) Make sure the robot is not vibrating due to external sources, (B) Make sure to let go of the robot when exiting back-drive, (C) Update software, (D) Contact your local Universal Robots service provider for assistance

C352A1 The joint moved more than allowed during the parking procedure

EXPLANATION
Either there is a problem with the brake system or the robot has been pushed hard enough that it moved through the friction brake.

SUGGESTION
Try the following actions to see which resolves the issue: (A) Make sure to let go of the robot when exiting backdrive, (B) Update software, (C) Contact your local Universal Robots service provider for assistance

C352A2 The joint moved more than allowed during the parking procedure

EXPLANATION
Either there is a problem with the brake system or the robot has been pushed hard enough that it moved through the friction brake.

SUGGESTION
The robot brake system is in need of repair, contact your local Universal Robots service provider for assistance

C352A3 The brake solenoid was not engaged for the parking procedure. Solenoid voltage: {float}

EXPLANATION
The brake solenoid must be engaged to perform the backdrive parking procedure.

SUGGESTION
Try the following actions to see which resolves the issue: (A) Update software, (B) Contact your local Universal Robots service provider for assistance

2.97. C353 IMU

You may find the following links helpful in addressing this issue:

- How to perform a complete reboot
- Find a distributor page

If you unable to resolve the issue, log in to http://myUR.universal-robots.com and create a new case.

C353A1 IMU B selected gyro resolution not supported: {unsigned}

EXPLANATION
Initialization of IMU B has failed during gyro configuration.

SUGGESTION
Try the following actions to see which resolves the issue: (A) Update software, (B) Contact your local Universal Robots service provider for assistance

C353A2 IMU B gyro verification failed: {unsigned}

EXPLANATION
Initialization of IMU B has failed during verification of gyro configuration.

SUGGESTION
Try the following actions to see which resolves the issue: (A) Update software, (B) Contact your local Universal Robots service provider for assistance

C353A3 IMU B selected acceleration resolution not supported: {unsigned}

EXPLANATION
Initialization of IMU B has failed during acceleration configuration.

SUGGESTION
Try the following actions to see which resolves the issue: (A) Update software, (B) Contact your local Universal Robots service provider for assistance

C353A4 IMU B accelerometer verification failed: {unsigned}

EXPLANATION
Initialization of IMU B has failed during verification of accelerometer configuration.

SUGGESTION
Try the following actions to see which resolves the issue: (A) Update software, (B) Contact your local Universal Robots service provider for assistance

C353A5 Timeout occurred while configuring IMU A

EXPLANATION
A timeout occured while configuring inertial measurement unit A

SUGGESTION
Try the following actions to see which resolves the issue: (A) Conduct a complete rebooting sequence, (B) Update software, (C) Contact your local Universal Robots service provider for assistance, (D) Replace the BFB PCB

C353A6 Timeout occurred while configuring IMU B

EXPLANATION
A timeout occurred while configuring inertial measurement unit B

SUGGESTION
Try the following actions to see which resolves the issue: (A) Conduct a complete rebooting sequence, (B) Update software, (C) Contact your local Universal Robots service provider for assistance, (D) Replace the BFB PCB

C353A7 Unable to detect IMU A type

EXPLANATION
The IMU A type could not be detected

SUGGESTION
Try the following actions to see which resolves the issue: (A) Update software, (B) Replace Base Filter Board (C) Contact your local Universal Robots service provider for assistance

C353A8 Unable to detect IMU B type

EXPLANATION
The IMU B type could not be detected

SUGGESTION
Try the following actions to see which resolves the issue: (A) Update software, (B) Replace Base Filter Board (C) Contact your local Universal Robots service provider for assistance

C353A9 The ISM330IS IMU data transfer failed

EXPLANATION
The ISM330IS IMU data transfer failed

SUGGESTION
Try the following actions to see which resolves the issue: (A) Update software, (B) Contact your local Universal Robots service provider for assistance

C353A10 The ICM42688 IMU data transfer failed

EXPLANATION
The ICM42688 IMU data transfer failed

SUGGESTION
Try the following actions to see which resolves the issue: (A) Update software, (B) Contact your local Universal Robots service provider for assistance

2.98. C354 Initialization Error

If you unable to resolve the issue, log in to http://myUR.universal-robots.com and create a new case.

C354A1 The SCB has entered the fault state

EXPLANATION
The SCB faulted during the robot initialization

SUGGESTION
Try the following actions to see which resolves the issue: (A) Update software, (B) Contact your local Universal Robots service provider for assistance

C354A2 The SCB has entered the violation state

EXPLANATION
The SCB entered the violation state during the robot initialization

SUGGESTION
Try the following actions to see which resolves the issue: (A) Update software, (B) Contact your local Universal Robots service provider for assistance

C354A3 The SCB did not reach the correct state

EXPLANATION
The SCB did not reach the correct state during the robot initialization

SUGGESTION
Try the following actions to see which resolves the issue: (A) Update software, (B) Contact your local Universal Robots service provider for assistance

C354A4 Failed to send the safety configuration

EXPLANATION
Unable to send the safety configuration during the robot initialization

SUGGESTION
Try the following actions to see which resolves the issue: (A) Update software, (B) Contact your local Universal Robots service provider for assistance

C354A5 Error during boot status validation

EXPLANATION
The device did not reach a responsive state after performing a reboot

SUGGESTION
Try the following actions to see which resolves the issue: (A) Update software, (B) Contact your local Universal Robots service provider for assistance

C354A6 Powering down the robot arm took too long

EXPLANATION
It took too long to power down the robot arm which is required before a reboot

SUGGESTION
Try the following actions to see which resolves the issue: (A) Update software, (B) Contact your local Universal Robots service provider for assistance

C354A7 Failed to close communication devices

EXPLANATION
Closing all communication devices is required before performing a reboot of the SCB FPGA

SUGGESTION
Try the following actions to see which resolves the issue: (A) Update software, (B) Contact your local Universal Robots service provider for assistance

C354A8 Failed to open communication devices

EXPLANATION
Unable to re-establish connection with communication devices

SUGGESTION
Try the following actions to see which resolves the issue: (A) Update software, (B) Contact your local Universal Robots service provider for assistance

C354A9 Failed to hotplug FPGA devices

EXPLANATION
The FPGA devices must be hotplug removed before loading drivers

SUGGESTION
Try the following actions to see which resolves the issue: (A) Update software, (B) Contact your local Universal Robots service provider for assistance

C354A10 Failed to unload FPGA drivers

EXPLANATION
The FPGA devices must unload the drivers before new ones can be loaded

SUGGESTION
Try the following actions to see which resolves the issue: (A) Update software, (B) Contact your local Universal Robots service provider for assistance

C354A11 Failed to load FPGA drivers

EXPLANATION
The FPGA devices must load the new drivers before continuing the reboot process

SUGGESTION
Try the following actions to see which resolves the issue: (A) Update software, (B) Contact your local Universal Robots service provider for assistance

C354A12 The Teach Pendant does not respond

EXPLANATION
The Teach Pendant was rebooted but did not reach a responsive state

SUGGESTION
Try the following actions to see which resolves the issue: (A) Update software, (B) Contact your local Universal Robots service provider for assistance

C354A13 The Injection-Molding-Machine-Interface does not respond

EXPLANATION
The Injection-Molding-Machine-Interface was rebooted but did not reach a responsive state

SUGGESTION
Try the following actions to see which resolves the issue: (A) Update software, (B) Contact your local Universal Robots service provider for assistance

C354A14 The Injection-Molding-Machine-Interface_FPGA does not respond

EXPLANATION
The Injection-Molding-Machine-Interface_FPGA was rebooted but did not reach a responsive state

SUGGESTION
Try the following actions to see which resolves the issue: (A) Update software, (B) Contact your local Universal Robots service provider for assistance

C354A15 The SCB does not respond

EXPLANATION
The SCB was rebooted but did not reach a responsive state

SUGGESTION
Try the following actions to see which resolves the issue: (A) Update software, (B) Contact your local Universal Robots service provider for assistance

C354A16 Failed to start Xillybus device scanning

EXPLANATION
Unable to scan for Xillybus devices which is required before loading the drivers

SUGGESTION
Try the following actions to see which resolves the issue: (A) Update software, (B) Contact your local Universal Robots service provider for assistance

C354A17 Failed to read the safety configuration

EXPLANATION
Unable to read the safety configuration during the robot initialization

SUGGESTION
Try the following actions to see which resolves the issue: (A) Reload the installation, (B) Make new installation, (C) Update software, (D) Contact your local Universal Robots service provider for assistance

2.99. C355 Safety API

You may find the following links helpful in addressing this issue:

- How to perform a complete reboot
- Find a distributor page

If you unable to resolve the issue, log in to http://myUR.universal-robots.com and create a new case.

C355A1 Unknown safety system message, id {unsigned}

EXPLANATION
The safety API client message is unknown to the UR safety system.

SUGGESTION
Try the following actions to see which resolves the issue: (A) Update software, (B) Contact your local Universal Robots service provider for assistance

C355A2 Unknown safety system version, id {unsigned}

EXPLANATION
The safety API client message version is unknown to the UR safety system.

SUGGESTION
Try the following actions to see which resolves the issue: (A) Update software, (B) Contact your local Universal Robots service provider for assistance

C355A4 Violation caused by safety API client

EXPLANATION
Safety API client violation request

SUGGESTION
Try the following actions to see which resolves the issue: (A) Conduct a complete rebooting sequence, (B) Contact the provider of the safety API client

C355A5 Safeguard reset time is out of range, received value {unsigned}ms

EXPLANATION
The supported range is 0ms to 10000ms (10s)

SUGGESTION
Try the following actions to see which resolves the issue: (A) Conduct a complete rebooting sequence, (B) Contact the provider of the safety API client

C355A6 Retransmission of configuration is not allowed

EXPLANATION
The safety system received more than one configuration message

SUGGESTION
Try the following actions to see which resolves the issue: (A) Conduct a complete rebooting sequence, (B) Contact the provider of the safety API client

C355A7 Provided an invalid configuration

SUGGESTION
Try the following actions to see which resolves the issue: (A) Conduct a complete rebooting sequence, (B) Contact the provider of the safety API client

C355A8 The execution time is greater than the period for supervisor with ID {unsigned}

C355A9 The superviser max execution time is {unsigned}ms

C355A10 The max superviser period is {unsigned}ms

C355A11 Restart period is outside allowed range for supervisor with ID {unsigned}

C355A12 The applied value is {unsigned}

C355A13 The upper limit is {unsigned}

C355A14 The lower limit is {unsigned}

C355A15 Supervisor period is outside allowed range for supervisor with ID {unsigned}

C355A16 Supervisor max execution time is outside allowed range for supervisor with ID {unsigned}

C355A17 Hashes are identical for supervisor with ID {unsigned}

C355A18 Seeds are identical for supervisor with ID {unsigned}

C355A19 Supervisor with ID {unsigned} is faster than the limitset supervisor

C355A20 The limitset supervisor period is {unsigned}ms

C355A21 The actual supervisor period is {unsigned}ms

C355A22 The limitset supervisor is not configured

C355A23 Timeout violation caused by supervisor with ID {unsigned}

C355A24 Time passed {unsigned}ms

C355A25 Validation of hash failed for supervisor with ID {unsigned}

C355A26 Actual seed {hex}

C355A27 Expected hash {hex}

C355A28 Actual hash {hex}

C355A29 Alternation of seed failed for supervisor with ID {unsigned}

C355A30 Incompatible Safety URCap

EXPLANATION
The Safety URCap is not compatible with this version of software

SUGGESTION
Try the following actions to see which resolves the issue: (A) Update software, (B) Contact the provider of the safety API client

C355A31 Failed UUID seed validation

EXPLANATION
The Safety URCap failed to send a valid seed for identification

SUGGESTION
Try the following actions to see which resolves the issue: (A) Uninstall software safety equipment, (B) Update software, (c) Contact the provider of the safety API client

C355A32 Invalid tool speed limit, value was {float}

EXPLANATION
The safety system only accepts rational numbers.

SUGGESTION
Try the following actions to see which resolves the issue: (A) Update software, (B) Contact the provider of the safety API client

C355A33 Invalid stopping distance limit, value was {float}

EXPLANATION
The safety system only accepts rational numbers.

SUGGESTION
Try the following actions to see which resolves the issue: (A) Update software, (B) Contact the provider of the safety API client

C355A34 The received hash does not match the hash from the installation

EXPLANATION
The hash from the installation must match the received hash

SUGGESTION
Try the following actions to see which resolves the issue: (A) Update software, (B) Check that safety plugin installation node is configured correctly, (C) Contact the provider of the safety API client

C355A35 The identifier is incorrect

EXPLANATION
The identifier used by the client does not match with the expected identifier

SUGGESTION
Try the following actions to see which resolves the issue: (A) Conduct a complete rebooting sequence, (B) Update software, (C) Contact the provider of the safety API client

C355A36 Validation of crc failed for message ID {unsigned}

EXPLANATION
The calculated checksum of the message does not match the received checksum

SUGGESTION
Try the following actions to see which resolves the issue: (A) Conduct a complete rebooting sequence, (B) Update software, (C) Contact the provider of the safety API client

2.100. C356 Joint Calibration

C356A0 Real-Time write of the joint calibration data failed.

If you unable to resolve the issue, log in to http://myUR.universal-robots.com and create a new case.

2.101. C357 Too high static load on {deviceName}

If you unable to resolve the issue, log in to http://myUR.universal-robots.com and create a new case.

C357A0 Payload CoG is outside reach of robot

EXPLANATION
The robot is not able to lift this much payload in its current position

SUGGESTION
The payload CoG is extended too far out horizontally from the base of the robot.

C357A1 Reorientation of tool causes load on joint to be too high

EXPLANATION
The robot is not able to lift this much payload in its current position

SUGGESTION
The payload CoG causes too high load on the joints. Please re-orient the wrist to move the payload CoG closer to the rotation axes of the joints, e.g. horizontally downwards.

2.102. C359 Report system

If you unable to resolve the issue, log in to http://myUR.universal-robots.com and create a new case.

C359A0 Missing violation handler

EXPLANATION
A violation was reported but no violation handler was registered

SUGGESTION
Try the following actions to see which resolves the issue: (A) Update software, (B) Contact your local Universal Robots service provider for assistance

C359A1 Missing critical fault handler

EXPLANATION
A critical fault was reported but no critical fault handler was registered

SUGGESTION
Try the following actions to see which resolves the issue: (A) Update software, (B) Contact your local Universal Robots service provider for assistance

2.103. C400 Elbow position close to safety plane limits

If you unable to resolve the issue, log in to http://myUR.universal-robots.com and create a new case.

2.104. C401 Exceeding user safety settings for stopping time

If you unable to resolve the issue, log in to http://myUR.universal-robots.com and create a new case.

2.105. C402 Exceeding user safety settings for stopping distance

If you unable to resolve the issue, log in to http://myUR.universal-robots.com and create a new case.

2.106. C403 Danger of clamping between the lower arm and tool flange of the robot

If you unable to resolve the issue, log in to http://myUR.universal-robots.com and create a new case.

2.107. C404 Unexpected behavior

If you unable to resolve the issue, log in to http://myUR.universal-robots.com and create a new case.

C404A0 Runtime sends data too often

C404A1 Runtime tries to receive data too often

2.108. C450 Force-Torque sensor

You may find the following links helpful in addressing this issue:

- How to perform a complete reboot
- Find a distributor page

If you unable to resolve the issue, log in to http://myUR.universal-robots.com and create a new case.

C450A0 Sensor data invalid

EXPLANATION
Force-Torque sensor is defective or not mounted correctly

SUGGESTION
Try the following actions to see which resolves the issue: (A) Conduct a complete rebooting sequence, (B) Check for loose connections, (C) Update software, (D) Contact your local Universal Robots service provider for assistance

C450A1 Sensor can not be used, therefore it is disabled

EXPLANATION
Force-Torque sensor version is newer than the Robot software

SUGGESTION
Try the following actions to see which resolves the issue: (A) Conduct a complete rebooting sequence, (B) Check for loose connections, (C) Update software, (D) Contact your local Universal Robots service provider for assistance

C450A4 Force-Torque sensor is expected, but it cannot be detected

EXPLANATION
Force-Torque sensor is expected, but no signals from the sensor can be detected.

SUGGESTION
Try the following actions to see which resolves the issue: (A) Conduct a complete rebooting sequence, (B) Check for loose connections, (C) Check for damages to the Tool/sensor, (D) Update software, (E) Contact your local Universal Robots service provider for assistance

C450A5 Force-Torque sensor is detected but not calibrated

EXPLANATION
Force-Torque sensor is installed, but no calibration was found.

SUGGESTION
Try the following actions to see which resolves the issue: (A) Conduct a complete rebooting sequence, (B) Contact your local Universal Robots service provider for assistance

2.109. C499 Motorencoder calibration

C499A0 Actual position isn't stable. Position error: {float} [ticks]

C499A1 Actual position has a large error. Position error: {float} [ticks]

C499A2 Actual position has a large error and isn't stable. Position error: {float} [ticks]

C499A3 Target position is: {unsigned} [ticks]

C499A4 Actual average position is: {float} [ticks]

C499A5 Actual position variance is: {float} [ticks^2]

C499A6 Actual position min to max delta is: {signed} [ticks]

C499A7 Actual sample position number is: {unsigned}

C499A8 Average position isn't stable. Position variance: {float} [ticks^2]

C499A9 Actual position standard deviation is: {float} [ticks]

C499A10 Average position isn't stable. Position standard deviation: {float} [ticks]

If you unable to resolve the issue, log in to http://myUR.universal-robots.com and create a new case.

2.110. C500 Self-test step

If you unable to resolve the issue, log in to http://myUR.universal-robots.com and create a new case.

C500A19 Awaiting acceptance started

EXPLANATION
The Self-test awaits acceptance using serial number.

2.111. C501 PC Selftest message

C501A0 Unhandled exception during subtest transition

C501A1 Exception occurred when accessing limits file

C501A2 Received Selftest step when state was not in running state

C501A3 Joint was disconnected prematurely

C501A4 Illegally transitioned into bootloader while the selftest was running

C501A5 Low-Level Spam Violation

C501A6 Startup Failed

C501A7 Selftest aborted

C501A8 Repeats of log entries (SPAM) caused the selftest setup to fail the selftest

C501A9 Repeats of log entries (SPAM) caused the selftest setup to attempt reboot of joint FPGA

C501A10 The scanned hardware type is not valid. The scanned string was: {string}

C501A11 {string} was not validated correctly. Ensure that the test has been run

C501A12 The FPGA bootloader version is invalid. The seen bootloader version was: {string}

If you unable to resolve the issue, log in to http://myUR.universal-robots.com and create a new case.

2.112. C502 Additional information

C502A0 Min limit was {float}

C502A1 Max limit was {float}

C502A2 Value on uA was {float}

C502A3 Value on uB was {float}

C502A4 Maximum deviation between uA and uB was larger then limit of {float}

C502A5 The deviation was {float}

C502A6 Deviation calculation was based on value {float} from uA

C502A7 Deviation calculation was based on value {float} from uB

C502A8 Expected negative value, but tested {float}

C502A9 Expected positive value, but tested {float}

C502A10 Joint ID was {unsigned}

C502A11 Device ID was {unsigned}

If you unable to resolve the issue, log in to http://myUR.universal-robots.com and create a new case.

2.113. C503 Limit Violation - ADC calibration

C503A0 Calibration data was not found for uA

C503A1 Calibration data was not found for uB

C503A2 phase_A gain exceeded limit

C503A3 phase_B gain exceeded limit

C503A4 phase_C gain exceeded limit

C503A5 phase_A offset exceeded limit

C503A6 phase_B offset exceeded limit

C503A7 phase_C offset exceeded limit

C503A8 Current samples not found for uA

C503A9 Current samples not found for uB

C503A10 Phase A coefficient of determination below minimum limit

C503A11 Phase B coefficient of determination below minimum limit

C503A12 Phase C coefficient of determination below minimum limit

C503A13 Phase {string} on uA, did not have a reference currrent measured at 0A

C503A14 Phase {string} on uB, did not have a reference currrent measured at 0A

C503A15 Phase {string} on uA, the applied offset did not match the 0A sample

C503A16 Phase {string} on uB, the applied offset did not match the 0A sample

C503A17 Phase {string} on uA, the applied offset deviated to much from the linear offset

C503A18 Phase {string} on uB, the applied offset deviated to much from the linear offset

C503A19 The ADC calibration on uA had illegal revision {unsigned}, make sure that ems calibration data is available

C503A20 The ADC calibration on uB had illegal revision {unsigned}, make sure that ems calibration data is available

If you unable to resolve the issue, log in to http://myUR.universal-robots.com and create a new case.

2.114. C504 Limit Violation - Commutation offset calibration

C504A0 Calibration data was not found for uA

C504A1 Calibration data was not found for uB

C504A2 Commutation offset exceeded limit

C504A3 Difference between uA and uB exceeded limit

C504A4 The standard deviation of pole {unsigned} from the positive direction exceeded maximum level

C504A5 The standard deviation of pole {unsigned} from the negative direction exceeded maximum level

C504A6 The difference in position of pole {unsigned} measured from the positive and negative direction exceeded limit

C504A7 The Uncertainty of the commutation offset exceeded limit

C504A8 The estimated torque error at pole {unsigned} exceeded limit

C504A9 Received data from fewer poles than expected

If you unable to resolve the issue, log in to http://myUR.universal-robots.com and create a new case.

2.115. C505 Limit Violation - Brake test

C505A0 Test data was not found

If you unable to resolve the issue, log in to http://myUR.universal-robots.com and create a new case.

2.116. C506 Limit Violation - Zero torque offset calibration

C506A0 Missing calibration data. No data received

C506A1 Missing validation data. No data received

C506A2 Variance of measured zero torque offset exceeds limit during forward movement

C506A3 Variance of measured zero torque offset exceeds limit during reverse movement

C506A4 Mean residual zero torque offset after calibration exceeds limit during forward movement

C506A5 Mean residual zero torque offset after calibration exceeds limit during reverse movement

If you unable to resolve the issue, log in to http://myUR.universal-robots.com and create a new case.

2.117. C507 Limit Violation - Joint Calibration

C507A0 Missing calibration data for uA

C507A1 Missing calibration measurements for uA

C507A2 Missing measurements count for uA

C507A3 Missing calibration data for uB

C507A4 Missing calibration measurements for uB

C507A5 Missing measurements count for uB

If you unable to resolve the issue, log in to http://myUR.universal-robots.com and create a new case.

2.118. C508 Deviation - Joint Calibration

C508A0 Maximum Q-axis currents deviation

C508A1 Maximum D-axis currents deviation

C508A2 Maximum velocity deviation

C508A3 Maximum deviation from target pct.

C508A4 Wrong sign on Q-axis current from uA, positive expected

C508A5 Wrong sign on Q-axis current from uA, negative expected

C508A6 Temperature limit violation

C508A7 Wrong sign on Q-axis current from uB, positive expected

C508A8 Wrong sign on Q-axis current from uB, negative expected

If you unable to resolve the issue, log in to http://myUR.universal-robots.com and create a new case.

2.119. C509 Limit Violation - Cogging calibration

C509A0 Calibration summary was not found for uA

C509A1 Calibration summary was not found for uB

C509A2 Received too many coefficient pairs uA

C509A3 Received too many coefficient pairs uB

C509A4 Received too few coefficient pairs uA

C509A5 Received too few coefficient pairs uB

C509A6 Cogging summary - std. residual error exceeded maximum limit

C509A7 Cogging summary - peak residual error exceeded maximum limit

C509A8 Cogging summary - mean speed error exceeded maximum limit

C509A9 Cogging summary - std. speed error exceeded maximum limit

C509A10 Cogging summary - peak speed error exceeded maximum limit

C509A11 Cogging coefficients - max signal amplitude exceeded max absolute limit

C509A12 Cogging coefficients - difference between the frequency component measured by uA and uB at index {float} exceeded the limit

C509A13 Joint type {string} is not supported by the test

If you unable to resolve the issue, log in to http://myUR.universal-robots.com and create a new case.

2.120. C510 Limit Violation - Temperature

C510A0 Joint temperature exceeded limits

C510A1 Processor temperature exceeded difference limits

C510A2 The Gear temperature exceeded limits

C510A3 The house temperature exceeded limits

C510A4 The difference between the gear temperatured measured by the two processors exceeded limits

C510A5 The difference between the house temperature measure by the two processors exceeded limits

C510A6 The house temperature was too high compared to the gear temperature, this may be due to missing thermal pads

If you unable to resolve the issue, log in to http://myUR.universal-robots.com and create a new case.

2.121. C511 Limit Violation - Joint encoder calibration

C511A0 Calibration summary was not found

C511A1 Incorrect amount of calibration LUT values

C511A2 Incorrect amount of validation LUT values

If you unable to resolve the issue, log in to http://myUR.universal-robots.com and create a new case.

2.122. C512 Limit Violation - Motor encoder calibration

C512A0 Calibration summary was not found

C512A1 Incorrect amount of calibration LUT pairs

C512A2 Incorrect amount of validation LUT pairs

C512A3 Motor Encoder Calibration residual error, std. dev. limit violation

C512A4 Motor Encoder Calibration residual error, peak limit violation

C512A5 Incorrect amount of raw calibration samples

C512A6 Incorrect amount of raw validation samples

C512A7 Motor Encoder Calibration error reduction factor violation

If you unable to resolve the issue, log in to http://myUR.universal-robots.com and create a new case.

2.123. C513 Motor encoder statistics

C513A0 Missing calibration data. Data not found

C513A1 Did not receive expected amount of drift data

C513A2 Did not receive expected amount of missing data

C513A3 Missed more indexes than max allowed

C513A4 Detected more drifted indexes than max allowed

If you unable to resolve the issue, log in to http://myUR.universal-robots.com and create a new case.

2.124. C514 Limit Violation - RLS Joint Encoder Signal Quality

C514A0 Data was not found, missing calibration data

C514A1 Height exceeded limits

C514A2 Distance exceeded limits

C514A3 Tilt exceeded limits

C514A4 Airgap exceeded limits

C514A5 Radial sensor offset exceeded limits

C514A6 Disc tilt exceeded limits

C514A7 The encoder variant {string} is not valid for this joint type

If you unable to resolve the issue, log in to http://myUR.universal-robots.com and create a new case.

2.125. C515 Limit Violation - Motor Parameters

C515A0 Calculated back-emf constant (Kb) exceeded limits

C515A1 Calculated torque constant (Kt) exceeded limits

C515A2 Measured phase resistance (phase-neutral) exceeded limits

C515A3 Measured phase inductance (phase-neutral) exceeded limits

C515A4 Deprecated - Measured phase time constant (Tau_pp) exceeded limits

C515A5 Coulomb friction in negative direction exceeded limits

C515A6 Coulomb friction in positive direction exceeded limits

C515A7 Friction Model. Viscous friction coefficient limit violation in the negative direction

C515A8 Friction Model. Viscous friction coefficient limit violation in the positive direction

C515A9 Quality of linear fit r^2 limit violation in the negative direction

C515A10 Quality of linear fit r^2 limit violation in the positive direction

If you unable to resolve the issue, log in to http://myUR.universal-robots.com and create a new case.

2.126. C516 Selftest disagreement

C516A0 Torque information disagreement between uA and uB

C516A1 Size disagreement between uA and uB

If you unable to resolve the issue, log in to http://myUR.universal-robots.com and create a new case.

2.127. C517 Limit Violation - Vibration Measurement

C517A0 Not all vibration samples received from joint

C517A1 Vibration amplitude (sqrt(PSD)) of the harmonic x202+/-6 exceed the allowed limit

C517A2 Vibration amplitude (sqrt(PSD)) of the harmonic x202+/-6 both exceed the limit and is an outlier

C517A3 Raw Transmission Error of the joint exceeded the allowed limit

EXPLANATION
The Raw Transmission Error is the peak-peak position-error measured over a full joint revolution, it contains the sum of all vibration sources.

If you unable to resolve the issue, log in to http://myUR.universal-robots.com and create a new case.

2.128. C518 Joint Selftest Data Message

C518A0 Received unhandled message:{unsigned}

If you unable to resolve the issue, log in to http://myUR.universal-robots.com and create a new case.

2.129. C519 Limit Violation - Hardware Information

C519A0 Mismatch between rotor and stator type {hex}

C519A1 Mismatch between gear box and shaft type {hex}

C519A2 Microprocessor A did not echo the correct hardware info back

C519A3 Microprocessor B did not echo the correct hardware info back

C519A4 Timed out after {unsigned} seconds while loading hardware serial numbers from QDA

C519A5 The received serial number {string} is not a recognized gear serial number

C519A6 The received serial number {string} is not a recognized motor serial number

C519A7 The received serial number {string} is not a recognized motor encoder platform serial number

C519A8 Hardware serial numbers was received while the joint was in {string} state, which is not allowed

C519A9 The joint types reported by uA and uB do not agree

If you unable to resolve the issue, log in to http://myUR.universal-robots.com and create a new case.

2.130. C520 Limit Violation - Commutation Offset Correction

C520A0 The commutation offset correction brings the offset outside of the uncertainty area measured in the commutation offset calibration

C520A1 No data was received for the commutation offset correction step

C520A2 The Q axis voltage of {float} V was higher than expected after the calibration

C520A3 The current of {float} A was higher than expected after the calibration

C520A4 The D voltage was less symmetric after the calibration than before

If you unable to resolve the issue, log in to http://myUR.universal-robots.com and create a new case.

2.131. C521 Limit Violation - ICHaus Calibration

C521A0 Too many ICHaus calibration samples was lost

C521A1 Analog calibration results did not converge after {unsigned} calibration iterations

C521A2 The ICHaus calibration library returned an unhandled error

C521A3 The measured nonius margin usage of {float} % exceeds the allowed limit

C521A4 No data for the ICHaus calibration was received

C521A5 The analog calibration did not complete

C521A6 The nonius calibration did not complete

If you unable to resolve the issue, log in to http://myUR.universal-robots.com and create a new case.

2.132. C522 Limit Violation - Kinematic Error Calibration

C522A0 Did not receive data from all the expected velocities

If you unable to resolve the issue, log in to http://myUR.universal-robots.com and create a new case.

2.133. C523 Limit Violation - RLS Motor encoder signal quality

C523A0 Did not receive data

C523A1 Ring eccentricity shift exceeded {unsigned} um

C523A2 Ring eccentricity phase exceeded {unsigned} degrees

C523A3 Read head radial shift from axis centre exceeded {signed} um

C523A4 One airgap sample around the disc is above {float}

C523A5 One airgap sample around the disc is below {float}

C523A6 Average airgap around the disc is above {float}

C523A7 Average airgap around the disc is below {float}

C523A8 The motorencoder airgap has changed significantly after one full joint revolution

If you unable to resolve the issue, log in to http://myUR.universal-robots.com and create a new case.

2.134. C524 Limit Violation - Friction brake burn-in

C524A0 Summary report was not received at the end of the friction brake burn-in.

C524A1 Profile data was either not receieved or had a length that did not match the expected length specified in the summary.

If you unable to resolve the issue, log in to http://myUR.universal-robots.com and create a new case.

2.135. C525 Limit Violation - Gear burn-in

C525A0 Profile data was either not receieved or had a length that did not match the expected length specified in the summary.

If you unable to resolve the issue, log in to http://myUR.universal-robots.com and create a new case.

2.136. C526 Node ID

You may find the following links helpful in addressing this issue:

- How to perform a complete reboot
- Find a distributor page

If you unable to resolve the issue, log in to http://myUR.universal-robots.com and create a new case.

C526A0 Index/node id {unsigned} is not within the range for a joint.

EXPLANATION
The index/node id provided is not in the range for a valid joint.

SUGGESTION
Try the following actions to see which resolves the issue: (A) Conduct a complete rebooting sequence, (B) Update software, (C) Contact your local Universal Robots service provider for assistance

C526A1 Node {unsigned} is not a joint.

EXPLANATION
The provided node is not a joint.

SUGGESTION
Try the following actions to see which resolves the issue: (A) Conduct a complete rebooting sequence, (B) Update software, (C) Contact your local Universal Robots service provider for assistance

2.137. C527 Limit Violation - Current loop step-test

C527A0 Summary report was not received at the end of the Current loop step-test.

C527A1 Profile data was not received during the Current loop step-test.

If you unable to resolve the issue, log in to http://myUR.universal-robots.com and create a new case.

2.138. C528 Limit Violation - Speed loop step-test

C528A0 Summary report was not received at the end of the Speed loop step-test.

C528A1 Profile data was not received during the Speed loop step-test.

If you unable to resolve the issue, log in to http://myUR.universal-robots.com and create a new case.

2.139. C529 Limit Violation - Position loop step-test

C529A0 Summary report was not received at the end of the Position loop step-test.

C529A1 Profile data was not received during the Position loop step-test.

If you unable to resolve the issue, log in to http://myUR.universal-robots.com and create a new case.

2.140. C710 ROM Test

You may find the following links helpful in addressing this issue:

- How to perform a complete reboot
- Find a distributor page

If you unable to resolve the issue, log in to http://myUR.universal-robots.com and create a new case.

C710A0 Critical error

EXPLANATION
A critical error occurred during ROM validation

SUGGESTION
Try the following actions to see which resolves the issue: (A) Conduct a complete rebooting sequence, (B) Update software, (C) Contact your local Universal Robots service provider for assistance

2.141. C720 LVD (low voltage detection)

C720A1 Reset due to LVD or power off

C720A2 Low Voltage warning level reached

C720A3 VBAT brownout detected

C720A4 Core brownout detected

C720A5 DCDC brownout detected

If you unable to resolve the issue, log in to http://myUR.universal-robots.com and create a new case.

2.142. C740 Hardware monitoring

You may find the following links helpful in addressing this issue:

- How to perform a complete reboot
- Find a distributor page

If you unable to resolve the issue, log in to http://myUR.universal-robots.com and create a new case.

C740A0 Critical error

EXPLANATION
A critical error occurred during hardware monitoring

SUGGESTION
Try the following actions to see which resolves the issue: (A) Conduct a complete rebooting sequence, (B) Update software, (C) Contact your local Universal Robots service provider for assistance

C740A10 24V IO voltage is outside of the allowed range: {float}V

EXPLANATION
An error occurred in the 24V supply

SUGGESTION
Try the following actions to see which resolves the issue: (A) Check for shorts on anything attached to the IOs, (B) Conduct a complete rebooting sequence, (C) Update software, (D) Contact your local Universal Robots service provider for assistance

C740A11 48V voltage is outside of the allowed range: {float}

EXPLANATION
The 48V supply voltage is outside the allowed range. This may be due to the robot drawing too much current.

SUGGESTION
Try the following actions to see which resolves the issue: (A) Adjust the robot program to reduce peak acceleration and torques, (B) Ensure that there is no electrical short in the Control Box or robot, (C) Conduct a complete rebooting sequence (D) Update software, (E) Contact your local Universal Robots service provider for assistance

C740A15 The {float}A current draw of the robot is outside the allowed range.

EXPLANATION
The current draw of the robot is higher than what is supported by the power supply.

SUGGESTION
Try the following actions to see which resolves the issue: (A) Adjust the robot program to reduce peak acceleration and torques, (B) Ensure that the robot power cable is not shorted during operation, (C) Conduct a complete rebooting sequence (D) Update software, (E) Contact your local Universal Robots service provider for assistance

C740A20 24V IO voltage is outside of the allowed range: {float}V

EXPLANATION
An error occurred in the 24V IO supply

SUGGESTION
Try the following actions to see which resolves the issue: (A) Check the fuse in the control box, (B) Check supply to the IOs is attached, (C) Check for shorts on anything attached to the IOs, (D) Conduct a complete rebooting sequence, (E) Update software, (F) Contact your local Universal Robots service provider for assistance

C740A21 24V IO current is outside of the allowed range: {float}A

EXPLANATION
Too high current draw on 24V IO supply

SUGGESTION
Check 24V IO connections to make sure the IO current are within specified limits

C740A24 The left Three-Position Enabling button is inconsistent

SUGGESTION
Try the following actions to see which resolves the issue: (A) Do not press the button repeatedly, (B) Remove any pressure off the button, (C) Press the button with more pressure. Light pressing may not work, (D) Update software, (E) contact your local Universal Robots service provider for assistance.

C740A25 The right Three-Position Enabling button is inconsistent

SUGGESTION
Try the following actions to see which resolves the issue: (A) Do not press the button repeatedly, (B) Remove any pressure off the button, (C) Press the button with more pressure. Light pressing may not work, (D) Update software, (E) contact your local Universal Robots service provider for assistance.

C740A29 The solenoid driver curcuit encountered an error condition

EXPLANATION
The fault signal from the solenoid driver curcuit was asserted, indicating an issue with the joint electronics.

SUGGESTION
Try the following actions to see which resolves the issue: (A) Update software, (B) Replace the joint PCB.

C740A30 The brake solenoid could not be detected

EXPLANATION
The joint was unable to detect a connected brake solenoid

SUGGESTION
Try the following actions to see which resolves the issue: (A) Update software, (B) Verify that the brake solenoid cable is connected to the joint PCB, (C) Verify that the brake solenoid is not damaged.

C740A31 The robot current offset limit check has failed

EXPLANATION
The robot current offset value is outside of the allowed range

SUGGESTION
Try the following actions to resolves the issue: (A) Update software, (B) Contact your local Universal Robots service provider for assistance.

C740A32 The robot current offset integrity check has failed

EXPLANATION
The robot current offset value can't be trusted as the integrity check has failed

SUGGESTION
Try the following actions to resolves the issue: (A) Update software, (B) Contact your local Universal Robots service provider for assistance.

C740A33 48V voltage is below the minimum allowed limit: {float}

EXPLANATION
The 48V supply voltage is below the minimum allowed limit.

SUGGESTION
Try the following actions to see which resolve the issue: (A) Make sure that the combination of robot arm and control box is supported, (B) Adjust the robot program to reduce peak acceleration and torques, (C) Ensure that there is no electrical short in the Control Box or robot, (D) Conduct a complete rebooting sequence (E) Update software, (F) Contact your local Universal Robots service provider for assistance

C740A34 48V voltage is above the maximum allowed limit: {float}

EXPLANATION
The 48V supply voltage is above the maximum allowed limit.

SUGGESTION
Try the following actions to see which resolve the issue: (A) Make sure that the combination of robot arm and control box is supported, (B) Adjust the robot program to reduce peak decelerations and torques, (C) Ensure that there is no electrical short or loose connections in the Control Box or robot, (D) Conduct a complete rebooting sequence (E) Update software, (F) Contact your local Universal Robots service provider for assistance

2.143. C741 Hardware general information

C741A0 The reset pin for the TP_USB_HUB is not supported for this board revision

C741A1 The TP_USB_HUB has been reset by the special command trigger

If you unable to resolve the issue, log in to http://myUR.universal-robots.com and create a new case.

2.144. C742 Control Box temperature

If you unable to resolve the issue, log in to http://myUR.universal-robots.com and create a new case.

C742A1 The temperature of {signed} °C is close to the limit

EXPLANATION
The temperature in the Control Box is close to the limit

SUGGESTION
Try the following actions to see which resolves the issue: (A) Reduce the ambient temperature, (B) Improve the ventilation around the Control Box, (C) Contact your local Universal Robots service provider for assistance

C742A2 The temperature of {signed} °C is above the limit

EXPLANATION
The temperature in the Control Box is too high

SUGGESTION
Try the following actions to see which resolves the issue: (A) Reduce the ambient temperature, (B) Improve the ventilation around the Control Box, (C) Contact your local Universal Robots service provider for assistance

2.145. C743 External Axes

If you unable to resolve the issue, log in to http://myUR.universal-robots.com and create a new case.

C743A0 Velocity limit for the external axis at index {unsigned} was exceeded

EXPLANATION
The velocity that the axis needs to complete its trajectory at the same time as the robot exceeds its maximum limit.

SUGGESTION
Lower the required axis velocity by reducing the Polyscope speed scale slider or adjust the program to reduce the robot velocity.

C743A1 The servo drive for the external axis at index {unsigned} has entered a fault state

EXPLANATION
An external axis has had a problem where the servo drive has entered a fault state

SUGGESTION
Check the external axis's servo drive fault indicators for vendor-specific diagnostics

C743A2 Freedrive is incompatible with external axis motion

EXPLANATION
External axes cannot be moving while the controller is in Freedrive.

SUGGESTION
Verify that external axes are completely stopped before entering Freedrive and ensure no axis motion is commanded when already in Freedrive mode.

C743A3 The servo drive for the external axis at index {unsigned} has become disabled

EXPLANATION
The servo drive of an enabled external axis is reporting itself as disabled

SUGGESTION
Try the following actions to see which resolves the issue: (A) Reset drive emergency stop, (B) Check whether drive has been configured properly

C743A4 External axis homing is incompatible with other motion

EXPLANATION
Other external axis or Robot motion was detected during an external axis servo drive homing operation

SUGGESTION
Adjust the robot program to not perform other external axis or robot motions until the external axis servo drive homing operation has finished

C743A5 Only one external axis servo drive homing operation at a time

EXPLANATION
Two or more external axis servo drive homing operations were detected at the same time

SUGGESTION
Adjust the robot program to only perform one external axis servo drive homing operation at a time

C743A6 Motion detected within multiple external axis groups

EXPLANATION
Only one external axis group may be moving at any given time.

SUGGESTION
Ensure all axes within an axis group are stopped before attempting to move axes within another group.

C743A7 The position of external axis at index {unsigned} is close to joint limit

EXPLANATION
The position that the axis needs to complete its trajectory at the same time is close to its joint limit.

C743A8 The position of external axis at index {unsigned} is close to upper joint limit

EXPLANATION
The position that the axis needs to complete its trajectory at the same time is close to its upper joint limit.

SUGGESTION
Change the direction of target velocity of the axis so that it is going to move back into the safe zone in next step.

C743A9 The position of external axis at index {unsigned} is close to lower joint limit

EXPLANATION
The position that the axis needs to complete its trajectory at the same time is close to its lower joint limit.

SUGGESTION
Change the direction of target velocity of the axis so that it is going to move back into the safe zone in next step.

C743A10 The position of external axis at index {unsigned} was commanded to move without the axis enabled.

EXPLANATION
An axis must be enabled before it can be moved.

SUGGESTION
Enable the axis and try again.

2.146. C744 Datascope

C744A0 The channel is already added. Channel id: {unsigned}

If you unable to resolve the issue, log in to http://myUR.universal-robots.com and create a new case.

2.147. C745 Timeout

C745A0 us: {float}

C745A1 ms: {float}

C745A2 sec: {float}

If you unable to resolve the issue, log in to http://myUR.universal-robots.com and create a new case.

2.148. C746 Cable Extender

You may find the following links helpful in addressing this issue:

- How to perform a complete reboot
- Find a distributor page

If you unable to resolve the issue, log in to http://myUR.universal-robots.com and create a new case.

C746A0 The house temperature is too low: {float} Celsius

EXPLANATION
The house temperature is below the allowed limit

SUGGESTION
Try the following actions to see which resolves the issue: (A) Increase the ambient temperature, (B) Update software, (C) Contact your local Universal Robots service provider for assistance

C746A1 The house temperature is too high: {float} Celsius

EXPLANATION
The house temperature is above the allowed limit

SUGGESTION
Try the following actions to see which resolves the issue: (A) Reduce the ambient temperature, (B) Update software, (C) Contact your local Universal Robots service provider for assistance

C746A2 The energy eater temperature is too low: {float} Celsius

EXPLANATION
The energy eater temperature is below the allowed limit

SUGGESTION
Try the following actions to see which resolves the issue: (A) Increase the ambient temperature, (B) Update software, (C) Contact your local Universal Robots service provider for assistance

C746A3 The energy eater temperature is too high: {float} Celsius

EXPLANATION
The energy eater temperature is above the allowed limit

SUGGESTION
Try the following actions to see which resolves the issue: (A) Decrease the robot accelerations and speeds, (B) Update software, (C) Reduce the ambient temperature, (D) Contact your local Universal Robots service provider for assistance

C746A4 Cable type mismatch between near and far cable extenders

EXPLANATION
The cable extenders does not have the same cable type

SUGGESTION
Try the following actions to see which resolves the issue: (A) Make sure that the robot cable extender is configured properly, (B) Update software, (C) Contact your local Universal Robots service provider for assistance

C746A5 The energy eater regulation is inactive

EXPLANATION
The energy eater regulation is not running at the expected frequency

SUGGESTION
Try the following actions to see which resolves the issue: (A) Conduct a complete rebooting sequence, (B) Update software, (C) Contact your local Universal Robots service provider for assistance

C746A7 The connected cable was not recognized

EXPLANATION
The connected cable did not have a recognized ID resistor

SUGGESTION
Try the following actions to see which resolves the issue: (A) Make sure the cable is connected properly, (B) Make sure that the cable ID resistor is connected properly to the extender board, (C) Update software, (D) Contact your local Universal Robots service provider for assistance

2.149. C900 Debug message data: {data}

Software Name: PolyScope 5
Software Version: 5.20
Document Version: 10.12.15