

## Firmware change log of the device: 1334990000 UC20-WL2000-IOT

### Firmware updating information:

An update of the firmware can be done via the graphical web front end. A description of the firmware update procedure can be found in the device manual on the Weidmüller website: [www.weidmueller.com](http://www.weidmueller.com).

**ATTENTION:** Upgrade to firmware 1.10 requires two steps. 1. Flash firmware image UC20-WL2000-RS-1.10.0.swu and restart system. 2. Flash target firmware version 1.10. Otherwise update fails with error message: "File is too big".

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### **Version 1.10.0                      Hardware Version 01.xx.xx                      Release date: November, 2020**

#### **New features:**

- User management: additional user 'service'
- File copy service based on scp.
- Web access is switched to HTTPS protocol.
- Node-RED: upgrade to version 1.1.2

#### **Information:**

- Note: After firmware update the "admin" password is reset to the default value.
- The new introduced HTTPS protocol requires a user confirmation for an unsecure browser connection. Please confirm the connection type with the first web access.
- Firefox: 'Private Mode' is not supported.

#### **Bug fixes:**

- Node-RED: 'iodata-out' supports to set values with variable of type 'TIME'.
- Visu: Title not shown while editing for diagram or chart widgets.
- swupdate mode for Ethernet port X2 is possible

#### **Known issues:**

- Remove a module after Autoscan operation and the follow up deploy operation fails. A power cycle is necessary to solve this error.

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### **Version 1.9.0                      Hardware Version 01.xx.xx                      Release date: August, 2020**

#### **New features:**

- Modbus RTU: support of multi register access and triggers.
- Smart Visu: support of multiple pages.
- Node-RED: support nodes with native dependencies.
- Node-RED: added S7 protocol (RFC1006) and Telegram Nodes.
- OPC-UA: improvement of Web-UI.
- OPC-UA: added operating state indicator.

#### **Information:**

- Modbus RTU master: Due to known limitations of the UR20-1COM-232-485-422 module with firmware version 01.00.16 the current maximal quantity for writing multiple registers (FC16) is 121 bytes and for writing multiple coils (FC15) is 1944 bytes.

#### **Bug fixes:**

- Manually stopping and starting of the PLC application starts the Modbus master (RTU) successfully.
- OPC UA: write access to variables of type 'TIME' are now possible.

#### **Known issues:**

- Node-RED: 'iodata-out' does not accept set values when variable is of type 'TIME'.
- Firefox: 'Private Mode' is currently not supported.
- Remove a module after Autoscan operation and the follow up deploy operation fails. A power cycle is necessary to solve this error.

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### **Version 1.8.0                      Hardware Version 01.xx.xx                      Release date: June, 2020**

#### **New supported modules:**

- 2456530000 UR20-8DIO-P-3W-DIAG

#### **New features:**

- New Microsoft Edge browser is now supported.
- Node-RED: Twitter and Email nodes added.

**Bug fixes:**

- Diagnostic data mapping is corrected for module UR20-PF-O-2DI-DELAY-SIL.
- Modbus TCP slave (server): solved "failed to allocate mapping" error.

**Known issues:**

- Manually stopping and starting of the PLC application won't start Modbus master (RTU). A redeploy solves the issue.
- Node-RED: 'iodata-out' does not accept set values when variable is of type 'TIME'.
- OPC UA: write access to variables of type 'TIME' is currently not possible.
- Firefox: 'Private Mode' is currently not supported.
- Remove a module after Autoscan operation and the follow up deploy operation fails. A power cycle is necessary to solve this error.

**Version 1.7.0**

**Hardware Version 01.xx.xx**

**Release date: April, 2020**

**New features:**

- Modbus TCP Slave
- Global system status information
- Node-RED: upgrade to version 1.0.3
- Usage of the second Ethernet port (X2) is now supported.
- User defined NTP server parameters
- Visu: configured widget visibility

**Information:**

- Online help supports search operation.

**Bug fixes:**

- Node-RED: installation of additional nodes might fail with error "EACCES: permission denied".

**Known issues:**

- Node-RED: 'iodata-out' does not accept set values when variable is of type 'TIME'.
- OPC UA: write access to variables of type 'TIME' is currently not possible.
- Firefox: 'Private Mode' is currently not supported.
- Remove a module after Autoscan operation and the follow up deploy operation fails. A power cycle is necessary to solve this error.
- Configuration of UR20-PF-O-2DI-DELAY-SIL module maps diagnostic data in a wrong way.

**Version 1.6.0**

**Hardware Version 01.xx.xx**

**Release date: February, 2020**

**New features:**

- Weidmüller products 'Managed Switch' are supported regarding DHCP handling.

**Information:**

- Usage of the second Ethernet port (X2) is not possible yet and will be added in a future firmware update.
- Node-RED: flow size is limited to 3 MB per export/import operation.

**Bug fixes:**

- Node-RED: flow size is increased from 1 to 3 MB.
- OPC UA: the variable identifier now corresponds to the global variable, hence it will only change if the variable name changes

**Known issues:**

- Node-RED: installation of additional nodes might fail with error "EACCES: permission denied". A factory reset solves this issue.
- Node-RED: 'iodata-out' does not accept set values when variable is of type 'TIME'.
- OPC UA: write access to variables of type 'TIME' are currently not possible.
- Firefox: 'Private Mode' is currently not supported.
- Remove a module after Autoscan operation and the follow up deploy operation fails. A power cycle is necessary to solve this error.

**Version 1.5.0**

**Hardware Version 01.xx.xx**

**Release date: January, 2020**

**New features:**

- Device Live View – Monitoring the device configuration of the real-time application
- Network setting supports beside static also dynamic IP configuration (DHCP).

**Information:**

- Usage of the second Ethernet port (X2) is not possible yet and will be added in a future firmware update.
- Node-RED: flow size is currently limited to 1 MB.
- Weidmüller products 'Managed Switch' are still not supported regarding DHCP handling.

**Bug fixes:**

- Node-RED: error 502 Bad Gateway after power up is solved.

**Known issues:**

- Node-RED: installation of additional nodes might fail with error "EACCES: permission denied". A factory reset solves this issue.
- Node-RED: iodata-out doesn't accept set values when variable is of type TIME.
- Firefox: 'Private Mode' is currently not supported.
- Remove a module after Autoscan operation and the follow up deploy operation fails. A power cycle is necessary to solve this error.

**Version 1.4.1**                      **Hardware Version 01.xx.xx**                      **Release date: November, 2019**

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**Information:**

- Usage of the second Ethernet port (X2) is not possible yet and will be added in a future firmware update

**Bug fixes:**

- U-Link: registration lost with message 'The registration is pending' is solved

**Known issues:**

- Firefox: 'Private Mode' is currently not supported
- Node-RED: iodata-out doesn't accept set values when variable is of type TIME
- Remove a module after Autoscan operation and the follow up deploy operation fails. A power cycle is necessary to solve this error.

**Version 01.04.00**                      **Hardware Version 01.xx.xx**                      **Release date: October, 2019**

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**New supported modules:**

- Stepper Module UR20-1SM-50W-6DI2DO-P

**New features:**

- Function block SEL

**Information:**

- Usage of the second Ethernet port (X2) is not possible yet and will be added in a future firmware update
- During execution of a firmware update procedure a power loss must be prevented.

**Known issues:**

- U-Link: in rare cases the status 'The registration is pending' might appear. To solve this issue the registration key has to be renewed in the U-Link web portal. Afterwards a power cycle of the device is necessary to initiate a new registration.
- Firefox: 'Private Mode' is currently not supported
- Cloud-configuration: iodata-out doesn't accept set values when variable is of type TIME
- Remove a module after Autoscan operation and the follow up deploy operation fails. A power cycle is necessary to solve this error.

**Version 01.03.00**                      **Hardware Version 01.xx.xx**                      **Release date: September, 2019**

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**New features:**

- u-link
- OPC-UA server
- XY-Line Chart for Smart Visu
- Improved support of the visualisation for resistant touch panels
- Improved support of low performance touch panels can be activated by a selective checkbox in the Visu Editor

**Information:**

- Usage of the second Ethernet port (X2) is not possible yet and will be added in a future firmware update
- During execution of a firmware update procedure a power loss must be prevented.

**Bug fixes:**

- Fixed loss of RTC system time on reboot.

**Known issues:**

- Firefox: 'Private Mode' is currently not supported
- Cloud-configuration: iodata-out doesn't accept set values when variable is of type TIME
- Application: REAL\_TO\_TIME values are not displayed in full precision which may lead to problems in comparison operations
- To avoid problems at boot it is advisable to make sure the USB cable is disconnected when powering up the u-control device.
- Remove a module after Autoscan operation and the follow up deploy operation fails. A power cycle is necessary to solve this error.

**Version 01.02.00****Hardware Version 01.xx.xx****Release date: June, 2019****New supported modules:**

- UR20-16DI-N
- UR20-16DI-N-PLC-INT
- UR20-16DO-N
- UR20-16DO-N-PLC-INT
- UR20-1CNT-100-1DO
- UR20-1CNT-500
- UR20-1COM-232-485-422 - Modbus RTU Master support only
- UR20-1SSI
- UR20-2CNT-100
- UR20-2DI-P-TS
- UR20-2FCNT-100
- UR20-2PWM-PN-0.5A
- UR20-2PWM-PN-2A
- UR20-4AI-RTD-HP-DIAG
- UR20-4AI-UI-16-HD
- UR20-4AO-UI-16-HD
- UR20-4AO-UI-16-M
- UR20-4DI-N
- UR20-4DI-P-TS
- UR20-4DO-N
- UR20-4DO-N-2A
- UR20-8AI-RTD-DIAG-2W
- UR20-8DI-N-3W
- UR20-8DO-N

**New features:**

- Added module catalogue
- Modbus RTU Master with device configurator
- User Interface - new Starting page improves the navigation
- User Interface - improved save and deploy handling for projects
- Post package installation supports free installation of Node-RED packages
- Usage of SD card is now supported

**Information:**

- Usage of the second Ethernet port (X2) is not possible yet and will be added in a future firmware update

**Bug fixes:**

- Variables: Negative e-notation for REAL is not supported
- Variable input widget: Keypad does not allow input of value 0 right behind a decimal dot. Use keyboard input in that case.
- Time Settings: month is displayed wrongly (current month – 1)
- Live View: Message "Loading..." is displayed in case a project without variables is deployed. It can be ignored.
- Autoscan: Displays proper error message for unsupported I/O modules

**Known issues:**

- Firefox: 'Private Mode' is currently not supported
- Cloud-configuration: iodata-out doesn't accept set values when variable is of type TIME
- Application: REAL\_TO\_TIME values are not displayed in full precision which may lead to problems in comparison operations
- To avoid problems at boot it is advisable to make sure the USB cable is disconnected when powering up the u-control device.
- Remove a module after Autoscan operation and the follow up deploy operation fails. A power cycle is necessary to solve this error.

**Version 01.01.00****Hardware Version 01.xx.xx****Release date: February, 2019**

### New supported modules:

- UR20-3EM-230V-AC

### New features:

- Visualisation - editor to configure visualisations for human machine interfaces
- Global variables can now be used for write operation
- Configuration of up to three different DNS server addresses

### Information:

- Activation of SD card slot and the second Ethernet port (X2) is not available yet and will be added in a future firmware update

### Bug fixes:

- Global variables: Leading underscores are now allowed
- Import of large project files no longer causes 'Disconnected' message
- Fixed that in rare cases a restart of the device causes connection error messages
- Improved compatibility to USB cables of different standards
- No more limitation to IP address changes

### Known issues:

- Firefox: 'Private Mode' is currently not supported
- Variables: Negative e-notation for REAL is not supported
- Cloud-configuration: iodata-out doesn't accept set values when variable is of type TIME
- Variable input widget: keypad does not allow input of value 0 right behind a decimal dot. Use keyboard input in that case
- Time Settings: month is displayed wrongly (current month – 1)
- Live View: Message "Loading..." is displayed in case a project without variables is deployed. It can be ignored
- Autoscan: No proper error message for unsupported I/O modules
- To avoid problems at boot it is advisable to make sure the USB cable is disconnected when powering up the u-control device.

**Version 01.00.01**

**Hardware Version 01.xx.xx**

**Release date: October, 2018**

### New supported modules:

- UR20-4DI-P
- UR20-4DI-P-3W
- UR20-8DI-P-2W
- UR20-8DI-P-3W
- UR20-8DI-P-3W-HD
- UR20-8DI-ISO-2W
- UR20-16DI-P
- UR20-16DI-P-PLC-INT
- UR20-4DI-2W-230V-AC
- UR20-4DO-P
- UR20-4DO-P-2A
- UR20-4DO-PN-2A
- UR20-4DO-ISO-4A
- UR20-8DO-P
- UR20-8DO-P-2W-HD
- UR20-16DO-P
- UR20-16DO-P-PLC-INT
- UR20-4RO-SSR-255
- UR20-4RO-CO-255
- UR20-4AI-UI-16
- UR20-4AI-UI-12
- UR20-8AI-I-16-HD
- UR20-8AI-I-PLC-INT
- UR20-4AI-RTD-DIAG
- UR20-4AI-TC-DIAG
- UR20-4AI-R-HS-16-DIAG
- UR20-4AO-UI-16
- UR20-PF-O-1DI-SIL
- UR20-PF-O-2DI-SIL
- UR20-PF-O-2DI-DELAY-SIL
- UR20-PF-I
- UR20-PF-O

- UR20-16AUX-I
- UR20-16AUX-O
- UR20-16AUX-FE
- UR20-16AUX-GND-I
- UR20-16AUX-GND-O
- UR20-ES

**Information:**

- Turn on the power supply for the u-control device before you connect the USB cable to avoid problems when starting the u-control device.
- SD Card and Ethernet port labeled X2 will be supported with a future firmware version.

**Known issue:**

- Firefox 'Private Mode' is currently not supported.
- Using reserved keywords e.g. 'nan' or 'infinity' as names in the WebUI leads currently to a generic deploy error.
- During an import operation of a large project a 'disconnected screen' might appear and a browser refresh will clear it.
- In rare cases a restart of the system might bring up a connection error with different error messages. An additional browser refresh will solve it.
- Negative e-notation for REAL not supported.
- Some USB cables might have problems to work properly. Please try a different one.
- Ethernet IP address can only be changed when Ethernet cable is plugged in and has a lively connection.