

MOUNTING AND OPERATING INSTRUCTIONS



EB 6616-1/-2 EN

Translation of original instructions



**Web Terminals TROVIS 6616-1
TROVIS 6616-2**

Firmware version 1.50



Edition May 2022

Note on these mounting and operating instructions

These mounting and operating instructions assist you in mounting and operating the device safely. The instructions are binding for handling SAMSON devices. The images shown in these instructions are for illustration purposes only. The actual product may vary.

- For the safe and proper use of these instructions, read them carefully and keep them for later reference.
- If you have any questions about these instructions, contact SAMSON's After-sales Service (aftersaleservice@samsongroup.com).



Documents relating to the device, such as the mounting and operating instructions, are available on our website at www.samsongroup.com > **Service & Support > Downloads > Documentation.**

Definition of signal words

DANGER

Hazardous situations which, if not avoided, will result in death or serious injury

WARNING

Hazardous situations which, if not avoided, could result in death or serious injury

NOTICE

Property damage message or malfunction

Note

Additional information

Tip

Recommended action

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1 Safety instructions and measures

Intended use

The TROVIS 6616-1 and TROVIS 6616-2 Web Terminals are optional components of the TROVIS 6600 Automation System and are used in conjunction with a TROVIS 6610 CPU Module or a TROVIS 6611-2 Control and Automation Unit for panel mounting. The user can view operating data on site on the touch screen, change set points and parameters as well as access time schedules of a building automation system.

The web terminals are designed to operate under exactly defined conditions (e.g. supply voltage, ambient conditions). Therefore, operators must ensure that the web terminals are only used in applications where the operating conditions correspond to the technical data. In case operators intend to use a web terminal in applications or conditions other than those specified, contact SAMSON.

SAMSON does not assume any liability for damage resulting from the failure to use the device for its intended purpose or for damage caused by external forces or any other external factors.

→ Refer to the technical data for limits and fields of application as well as possible uses. See the 'Design and principle of operation' section.

Reasonably foreseeable misuse

The web terminals are not suitable for the following applications:

- Use outside the limits defined during sizing and by the technical data
- Use in dusty environments
- Use in areas exposed to intense heat sources

Furthermore, the following activities do not comply with the intended use:

- Use of non-original spare parts
- Performing service and repair work not described

Qualifications of operating personnel

The web terminals must be mounted, started up, serviced and repaired by fully trained and qualified personnel only; the accepted industry codes and practices are to be observed.

According to these mounting and operating instructions, trained personnel refers to individuals who are able to judge the work they are assigned to and recognize possible hazards due to their specialized training, their knowledge and experience as well as their knowledge of the applicable standards.

Safety instructions and measures

Personal protective equipment

No personal protective equipment is required.

Revisions and other modifications

Revisions, conversions or other modifications of the products are not authorized by SAMSON. They are performed at the user's own risk and may lead to safety hazards, for example. Furthermore, the products may no longer meet the requirements for their intended use. Use of the devices is no longer permitted in this case.

Safety features

Registration to the web terminal is password-protected to protect it from unauthorized access. The password that is valid on first start-up can be found in the Annex of these mounting and operating instructions. To avoid its unauthorized use, remove the page or make the password unreadable.

Warning against residual hazards

The web terminals allow operating staff to directly influence the TROVIS 6610 CPU Module or TROVIS 6611-2 Control and Automation Unit and, as a result, the controlled system components (e.g. control valves and pumps). To avoid personal injury or property damage, plant operators and operating personnel must prevent hazards that could be caused in the plant components by the process medium, the operating pressure, the signal pressure or by moving parts by taking appropriate precautions. Plant operators and operating personnel must observe all hazard statements, warning and caution notes in the referenced documents.

Responsibilities of the operator

Operators are responsible for proper use and compliance with the safety regulations. Operators are obliged to provide these mounting and operating instructions to the operating personnel and to instruct them in proper operation. Furthermore, operators must ensure that operating personnel or third parties are not exposed to any danger.

Responsibilities of operating personnel

Operating personnel must read and understand these mounting and operating instructions as well as the specified hazard statements, warning and caution notes. Furthermore, operating personnel must be familiar with the applicable health, safety and accident prevention regulations and comply with them.

Referenced standards, directives and regulations

Devices with a CE marking fulfill the requirements of the Directives 2014/30/EU, 2011/65/EU and 2001/95/EC.

The web terminal is designed for use in low voltage installations.

→ For wiring, maintenance and repair, observe the relevant safety regulations.

Referenced documentation

The following documents apply in addition to these mounting and operating instructions:

- ▶ AB 6600: System integration guidelines for electrical technicians
- ▶ EB 6610: TROVIS 6610 CPU Module
- ▶ EB 6611-2: TROVIS 6611-2 Control and Automation Unit

1.1 Notes on possible severe personal injury

DANGER

Risk of fatal injury due to electric shock.

The TROVIS 6616-1 and TROVIS 6616-2 Web Terminals are designed for use in low voltage installations. Electrical connection of the device involves potential hazards.

- Observe the relevant electrotechnical regulations of the country of use as well as the regulations of the local power suppliers.
- Only allow trained and experienced personnel to perform the work.
- Before electrical connection, disconnect the supply voltage and protect it against unintentional reconnection.
- Only use power interruption devices that can be protected against unintentional reconnection of the power supply.
- Do not open the web terminal when the supply voltage is connected.
- Do not remove any housing parts.

1.2 Notes on possible property damage

! NOTICE

Damage due to water entering the device.

The front of the web terminal is protected against water jets (IP 54).

→ Avoid powerful jets of water.

Risk of damage to the web terminal due to moisture.

→ Allow the devices to slowly adapt to temperature differences such as when transporting the devices in cold weather conditions or when the devices are exposed to extreme temperature fluctuations.

Image persistence may damage the touch screen.

→ Do not allow static images to remain on the screen for long periods of time.

Manipulation of settings due to unauthorized access.

The web terminals support various communications protocol (e.g. a web server). This allows remote access. To protect them from unauthorized access, the onsite and remote operation of the web terminal is password-protected:

→ Do not pass login data on to unauthorized persons. Keep them in a safe place inaccessible to unauthorized persons.

Unauthorized repair work will damage the web terminal.

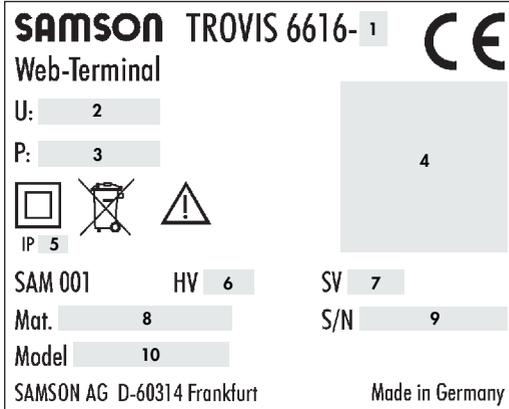
→ Do not attempt to repair the web terminal yourself.

→ Return defective devices to SAMSON for repair.

2 Markings on the device

2.1 Nameplate

The nameplate shown was up to date at the time of publication of this document. The nameplate on the device may differ from the one shown.



- 1 Device version
- 2 Supply voltage
- 3 Power consumption
- 4 Data Matrix code
- 5 Degree of protection
- 6 Hardware version
- 7 Firmware version
- 8 Material number
- 9 Serial number
- 10 Model number

3 Design and principle of operation

The TROVIS 6616-1 and TROVIS 6616-2 Web Terminals are optional components of the TROVIS 6600 Automation System and are used in conjunction with a TROVIS 6610 CPU Module or a TROVIS 6611-2 Control and Automation Unit for panel mounting. The user can view operating data on site on the touch screen, change set points and parameters as well as access time schedules of a building automation system.

The web terminals run as a web client under the Android operating system. The installed Automation Browser is used to access the graphic visualization saved in the web server of the TROVIS 6610 CPU Module and in the TROVIS 6611-2 Control and Automation Unit.

The TROVIS 6616-1 or TROVIS 6616-2 Web Terminal is used to access the visualization of several TROVIS 6610 or TROVIS 6611-2 CPU Modules. All plant schemes are saved in the TROVIS 6610 or TROVIS 6611-2 CPU Module. The web terminal can be used to view, for example colored plant schemes with dynamically refreshed values. Data, such as set points, time programs etc., can be conveniently changed on the touch screen.

The alarm list shows recorded events in chronological order with a comment.

Online or historical data can be viewed on the TROVIS 6616-1 or TROVIS 6616-2 Web Terminal and saved to CSV files for further processing on an external device, which can

be plugged into the USB port of the web terminal.

Alternatively, the text-based user interface of TROVIS MOBILE can be used to view the data.

3.1 Additional devices

The TROVIS 6616-1 and TROVIS 6616-2 Web Terminals can only be used together with a TROVIS 6610 CPU Module or TROVIS 6611-2 Control and Automation Unit.

A project must be saved in the TROVIS 6610 CPU Module configured using the TROVIS 6690 Graphical Project Management Tool.

This project requires a web application created using the TROVIS 6693 Web Terminal Editor or a TROVIS MOBILE web application created using the TROVIS 6690 Graphical Project Management Tool.

A project must be saved in the TROVIS 6611-2 Control and Automation Unit configured using the TROVIS 6690 Graphical Project Management Tool. A Process View application must be included in the project.

3.2 Technical data

TROVIS	6616-1	6616-2
Electrical connection		
Supply voltage	24 V DC	
Power consumption	Max. 8.9 W, 5.3 W (idle)	Max. 12.8 W, 6 W (idle)
Temperature range		
Operation	0 to 50 °C	
Transportation and storage	0 to 70 °C	
Relative humidity	10 to 90 %, non-condensing	
Electromagnetic compatibility		
Noise emission	According to EN 55032:2012 + AC: 2013 Class A	
Noise immunity	According to EN 55024:2010	
Device safety		
Class of protection	Class III	
Overvoltage category	OVC II	
Pollution degree	PD 2	
Degree of protection	IP 54 at the front, IP 20 at the back according to EN 60529	
Conformity	According to EN 62368-1:2014 + AC:2015 According to EN 50581:2012 	
Performance		
CPU	Rockchip RK3188 CPU, quad-core processor 1.6 GHz	Rockchip RK3288 CPU, quad-core processor 1.6 GHz
RAM	2 GB RAM	
Display	7" widescreen LED-TFT monitor, projected capacitive touch screen	10" widescreen LED-TFT monitor, projected capacitive touch screen
Resolution	1024 x 600 pixel	

TROVIS	6616-1	6616-2
Interfaces		
USB	1x USB 2.0 A	
Ethernet 10/100	1x RJ-45	
Others		
Network extension	Ethernet 100BaseT typ. LAN (without repeaters, hubs etc.)	
Associated software		
Operating system	Android 5.1.1 (7")	Android 6 (10")
Application	SpiderControl automation browser for Android version 1.0.11	

3.3 Dimensions



Fig. 3-1: Dimensions in mm · TROVIS 6616-1



Fig. 3-2: Dimensions in mm · TROVIS 6616-2

4 Shipment and on-site transport

The work described in this section is only to be performed by personnel appropriately qualified to carry out such tasks.

4.1 Accepting the delivered goods

After receiving the shipment, proceed as follows:

1. Compare the shipment received with the delivery note.
2. Check the shipment for transportation damage. Report any damage to SAMSON and the forwarding agent (refer to delivery note).

4.2 Removing the packaging from the web terminal

ⓘ NOTICE

Risk of device damage due to foreign particles entering it.

→ Do not remove the packaging and protective films until immediately before mounting.

1. Remove the packaging from the device.
2. Check scope of delivery (see Fig. 4-1).
3. Dispose of the packaging in accordance with the valid regulations.

1x TROVIS 6616-1 Web Terminal
 4x Fastening screw
 1x Document IP 6616-1/-2
 (Important Product Information)
 or

1x TROVIS 6616-2 Web Terminal
 6x Mounting clips for control panel mounting
 4x Fastening screw for VESA mounting
 1x Document IP 6616-1/-2
 (Important Product Information)

Fig. 4-1: Scope of delivery

4.3 Transporting the web terminal

- Protect the device against external influences (e.g. impact).
- Protect the device against moisture and dirt.
- Observe the permissible transportation temperature range of 0 to 70 °C.

4.4 Storing the web terminal

ⓘ NOTICE

Risk of damage to the web terminal due to incorrect storage.

- Observe the storage instructions.
- Avoid long storage times.
- Contact SAMSON in case of different storage conditions or longer storage times.

i Note

We recommend regularly checking the web terminal and the prevailing storage conditions during long storage periods.

Storage instructions

- Protect the device against external influences (e.g. impact).
- Protect the device against moisture and dirt.
- Make sure that the ambient air is free of acids or other corrosive media.
- Observe the permissible storage temperature from 0 to 70 °C.
- Do not place any objects on the device.

5 Installation

The work described in this section is only to be performed by personnel appropriately qualified to carry out such tasks.

5.1 Installation conditions

Work position

The work position for the web terminal is the front view onto the display of the web terminal seen from the position of operating personnel.

Operators must ensure that, after installation of the web terminal, the operating personnel can perform all necessary work safely and easily access the web terminal from the work position.

5.2 Preparation for installation

Before mounting, make sure the following conditions are met:

- The web terminal is not damaged.

Proceed as follows:

- ➔ Lay out the necessary material and tools to have them ready during mounting.

5.3 Mounting the web terminal

ⓘ NOTICE

Risk of damaging the touch screen.

- ➔ Do not place the web terminal front side down on hard surfaces.

The installation requires a panel cut-out. The wall thickness of the panel must not exceed 3 mm.

5.3.1 TROVIS 6616-1

Panel mounting

1. Make the panel cut-out (see Fig. 5-1).
2. Drill four holes (see Fig. 5-1).
3. Push the web terminal into the panel cut-out from the front.
4. Fasten the web terminal to the panel from the back with the four supplied screws.

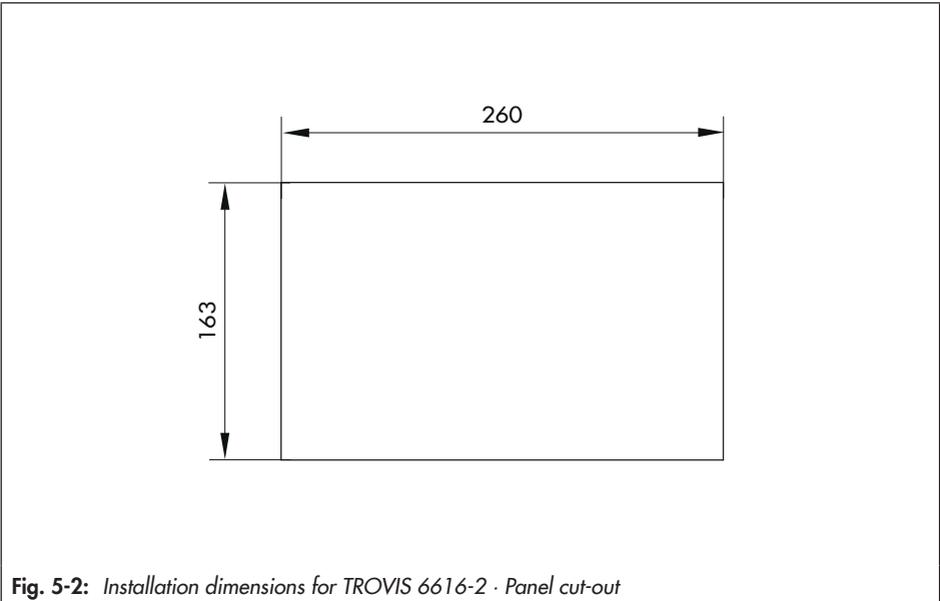
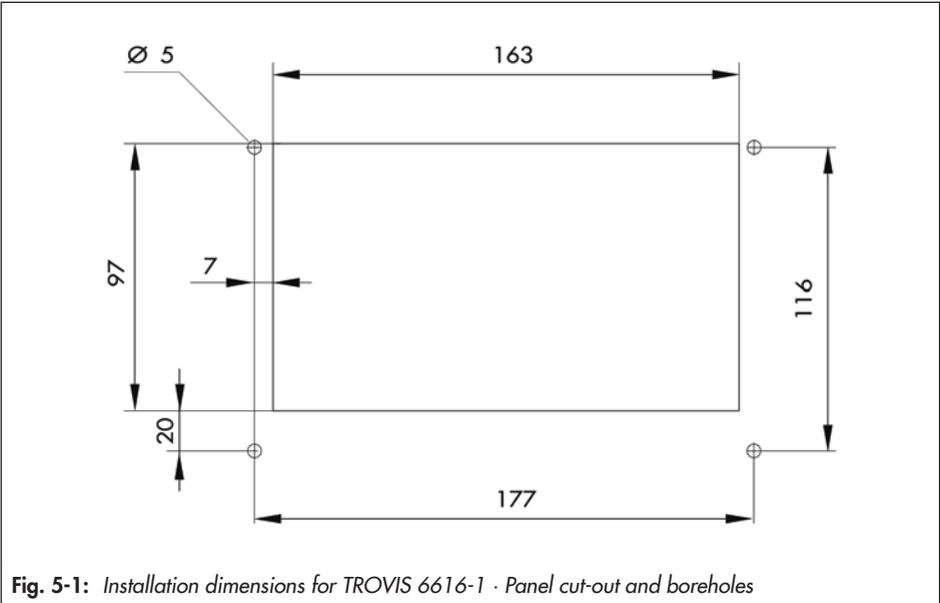
VESA mount

Optionally, the VESA mount at the back of the TROVIS 6616-1 Web Terminal can be used for mounting. The fastening screws must not be screwed into the thread further than 9 mm.

5.3.2 TROVIS 6616-2

Panel mounting

1. Make the panel cut-out (see Fig. 5-2).
2. Push the web terminal into the panel cut-out from the front.
3. Clamp the web terminal from the back against the control panel using the supplied clips.



5.4 Electrical connection

⚠ DANGER

Risk of fatal injury due to electric shock.

The web terminal is designed for use in low voltage installations. Electrical connection of the device involves potential hazards.

- *Observe the relevant electrotechnical regulations of the country of use as well as the regulations of the local power suppliers.*
 - *Only allow trained and experienced personnel to perform the work.*
 - *Before electrical connection, disconnect the supply voltage and protect it against unintentional reconnection.*
 - *Only use power interruption devices that can be protected against unintentional reconnection of the power supply.*
-

Notes on electric wiring

- Use a stranded wire with a 1.5 mm² wire cross-section for the supply line.
- Use at least a shielded Cat 5 cable (STP) for the Ethernet connection.
- Inductances in the control cabinet, e.g. contactor coils, must be equipped with suitable interference suppressors (RC elements).
- Control cabinet elements with high field strength, e.g. transformers or frequency converters, must be shielded with separators providing a good connection to the grounding conductor (PE).

Overcurrent protection device

- An overcurrent protection device <4 A must be installed on site for the web terminal. The apparent power of the power supply must not exceed 250 VA.

Installation

A crossover cable must be used to establish direct Ethernet connection. A 1:1 cable must be used to establish connection over active components (switch/hub).

We recommend using a stranded wire with a 1.5 mm² wire cross-section to connect the supply line.

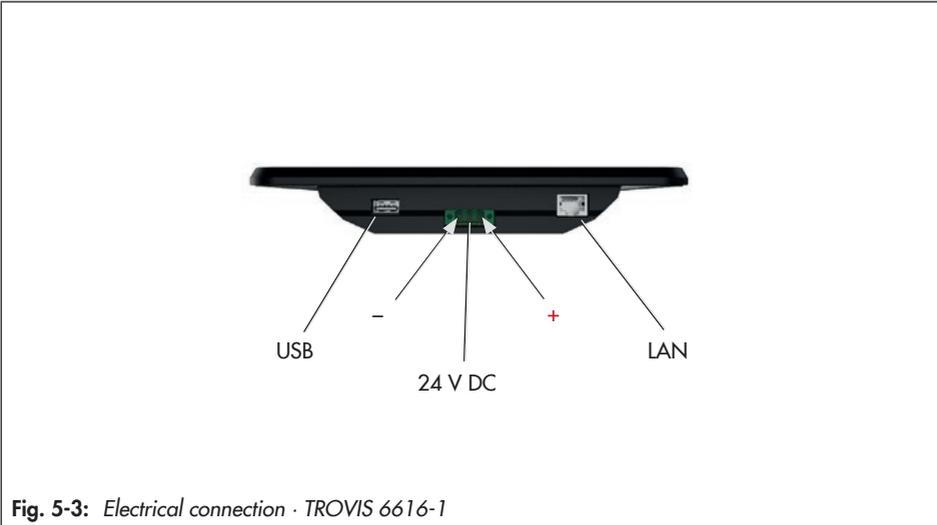


Fig. 5-3: *Electrical connection · TROVIS 6616-1*

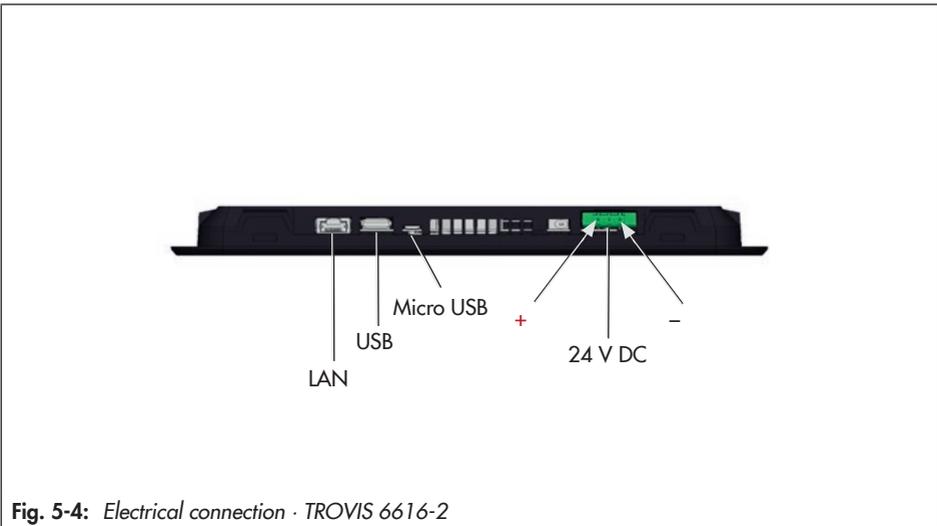


Fig. 5-4: *Electrical connection · TROVIS 6616-2*

6 Start-up and configuration

The following requirements must be met for start-up:

- An Ethernet connection to the TROVIS 6610 CPU Module or TROVIS 6611-2 Control and Automation Unit.
- The TROVIS 6616-1 or TROVIS 6616-2 Web Terminal and the TROVIS 6610 CPU module or TROVIS 6611-2 Control and Automation Unit must be configured using the same subnet mask.

6.1 Ethernet connection

Ethernet can either be connected directly to TROVIS 6610 or TROVIS 6611-2, or alternatively, using active components.

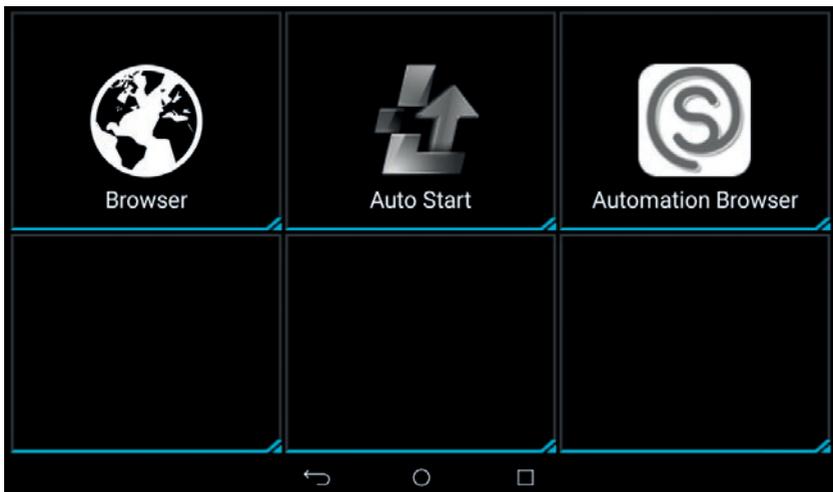
- Direct connection:
Using a crossover cable
- Connection over active components (switch or hub)
Using a 1:1 cable

Refer to the documentation of the relevant components used for more information.

6.2 Device launcher

→ Connect supply voltage.

The SAMSON start screen appears after approx. 10 seconds. The Launcher starts automatically.

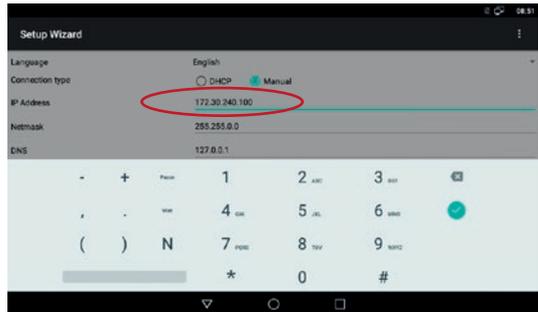


The Setup Wizard appears after approx. 30 seconds on starting for the first time.

6.3 Setup Wizard

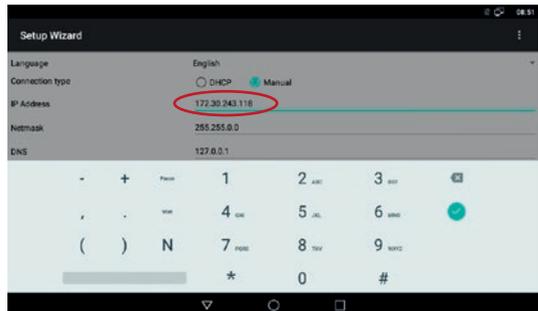
The web terminal has the default IP address 172.30.240.100/16.

- Select the IP address if you want to change it:



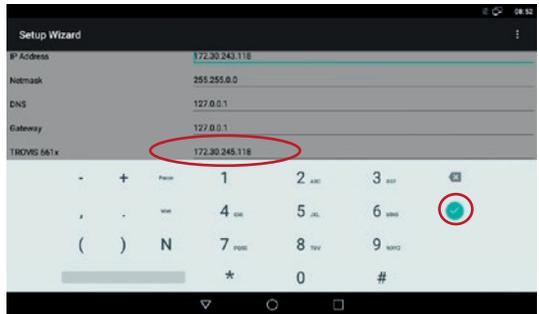
The netmask, DNS and gateway configurations can be changed, if necessary. If no DNS or gateway is required, the IP address of the local host needs to be entered.

- Change IP address.
- Confirm change with .



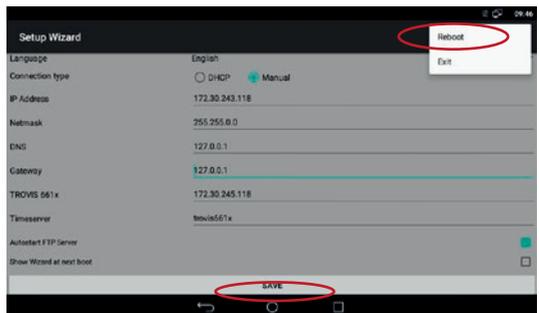
The IP address is automatically entered in the host file of the web terminal so that TROVIS 6610 or TROVIS 6611-2 can be addressed by its host name "trovis661x".

- Enter the IP address of the CPU module in 'TROVIS 661x'.
- Confirm change with .



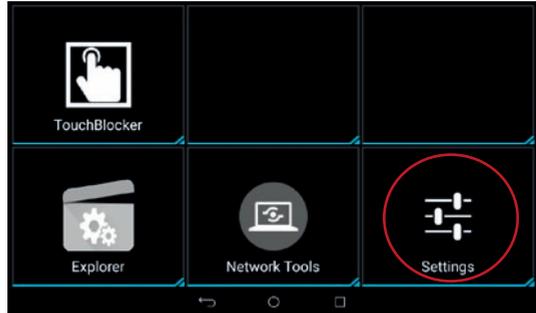
'TROVIS661x' is configured as a time server by default. As a result, TROVIS 6610 can be used as a time server. In projects using TROVIS 6611-2, another available NTP server (e.g. ptbtime1.ptb.de) can be entered here.

- Make sure that 'Start FTP server' is selected.
- Tap SAVE to save the configuration.
- Exit configuration with .
- Reboot the web terminal.

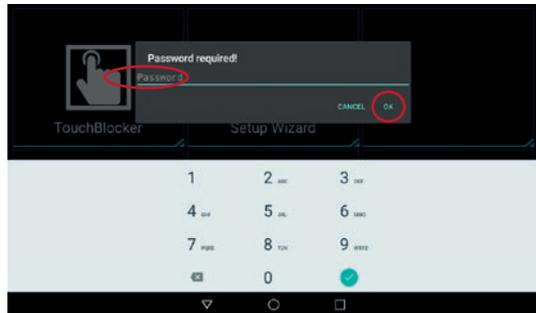


6.4 Restarting the Setup Wizard

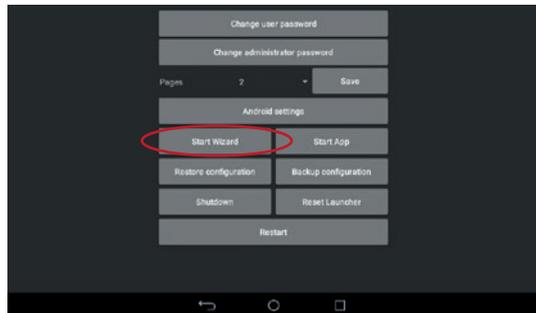
- Swipe the screen to the second page of the Launcher.
- Select 'Settings'.



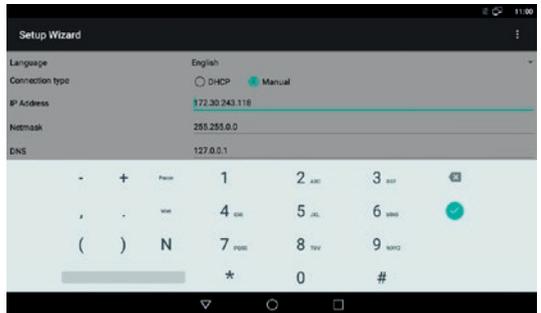
- Enter 1732 as the password.
- Confirm with 'OK'.



- Start the wizard.

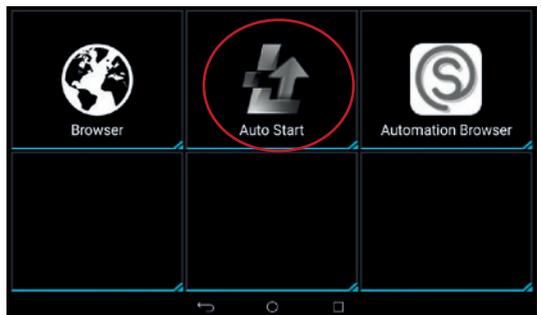


- Change configuration.
- Save configuration.
- Reboot the web terminal.



6.5 Configuring Auto Start

- Select the Auto Start application.

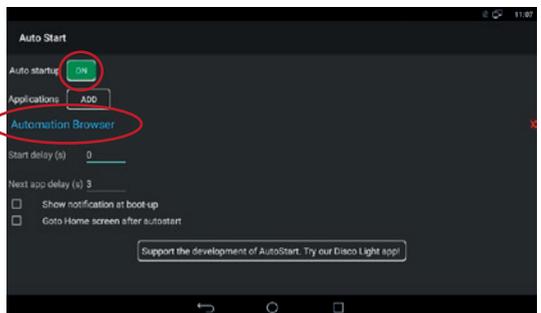


- Make sure that the application you require (e.g. Automation Browser).

- Switch Auto Start to ON.

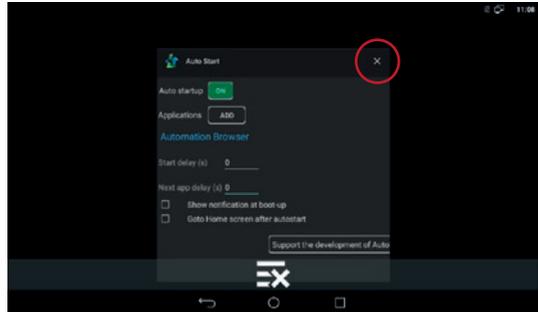
Alternatively, you can select any other app installed on TROVIS 6616.

- Tap  button (recent apps).

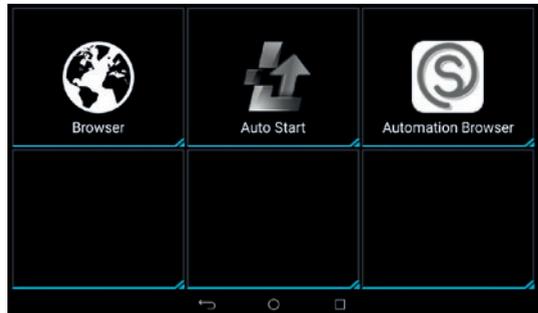


Start-up and configuration

→ Close the Auto Start application.

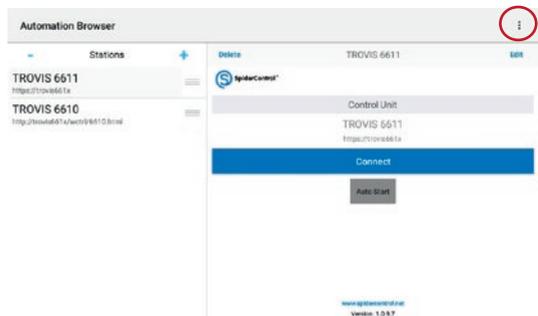


→ Start the selected application manually.

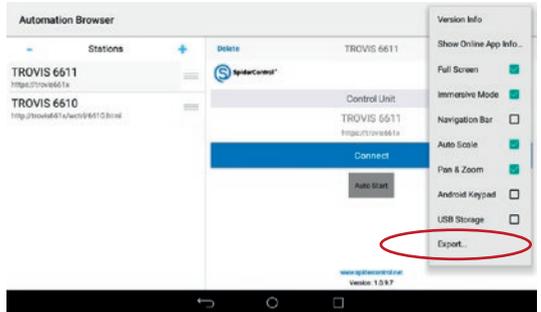


6.6 Configuring Automation Browser

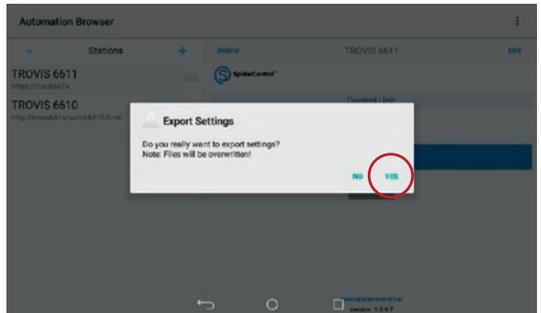
Automation Browser is ready configured for use with TROVIS 6611-2 and TROVIS 6610. The default configuration can be saved by selecting the corresponding function in the  menu.



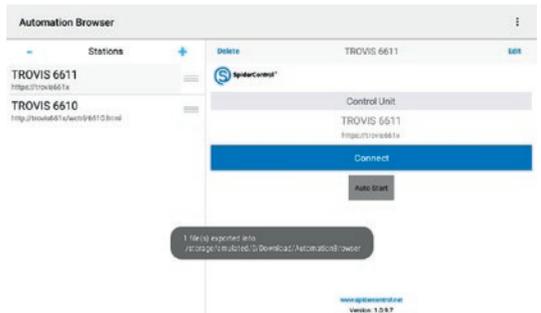
- Open ☰ menu.
- Select 'Export...'



- Confirm export with YES.

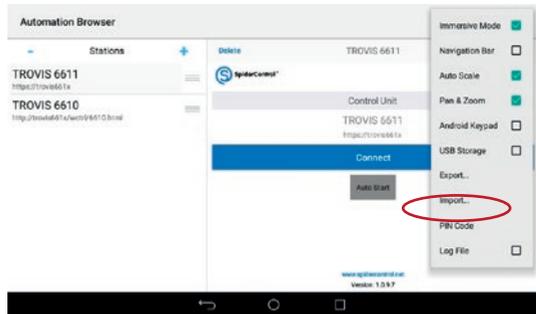


The settings are saved to the 'MB_STATION.xml' file in the Download/AutomationBrowser directory.



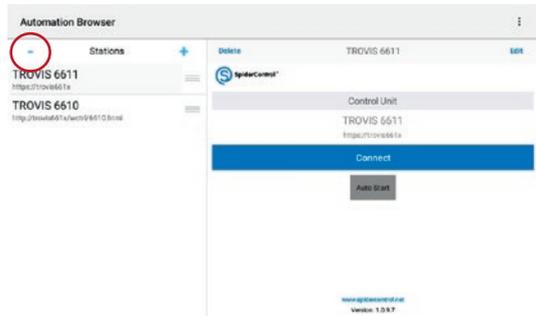
Start-up and configuration

The default configuration can be restored by selecting 'Import...'.
The 'Import...' option in the right-hand menu is circled in red.



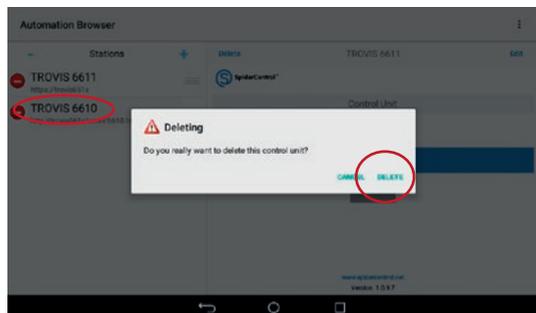
6.6.1 Configuring Automation Browser for TROVIS 6611-2

→ Tap -.

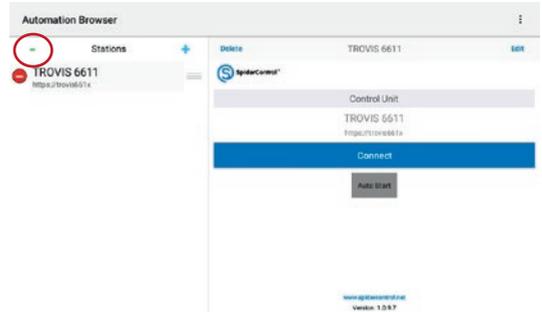


→ Select TROVIS 6610.

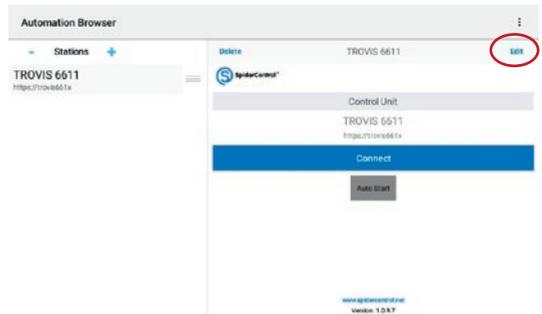
→ Confirm deletion with DELETE.



→ Tap -.

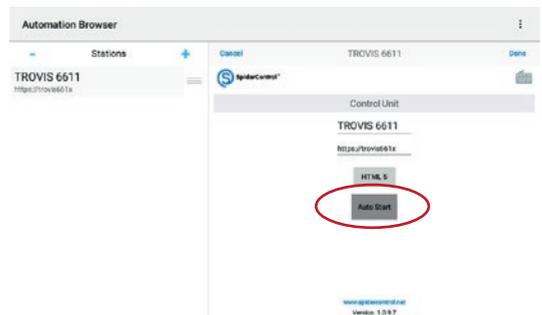


→ Select 'Edit'.



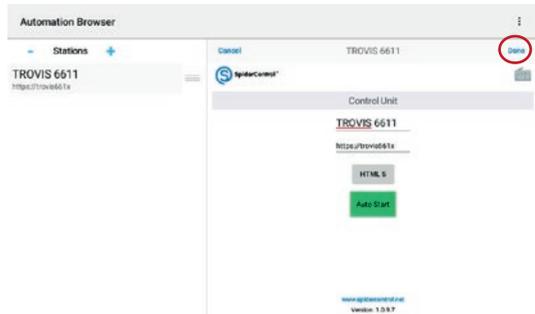
→ Tap 'Auto Start' button.

Tap 'Auto Start' button repeatedly to configure a delayed start.

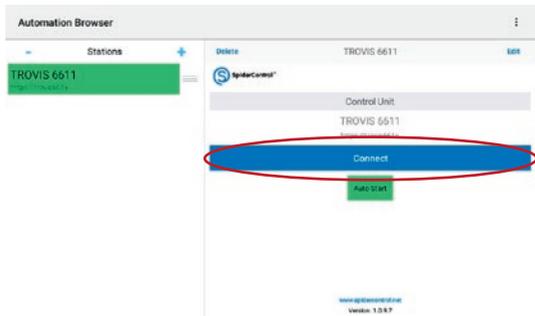


Start-up and configuration

→ Confirm confirmation with 'Done'.



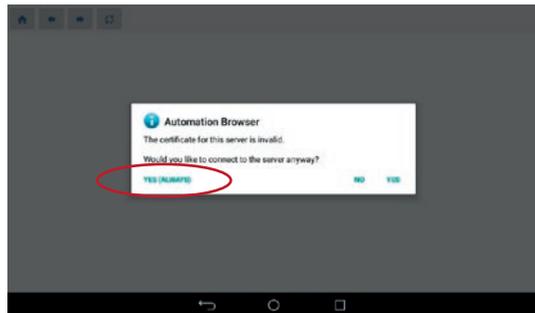
→ Tap 'Connect' button to open the application on TROVIS 6611-2.



A message concerning an invalid certificate appears after connection is established to TROVIS 6611-2 Control and Automation unit for the first time since TROVIS 6611-2 uses a self-signed certificate for encryption.

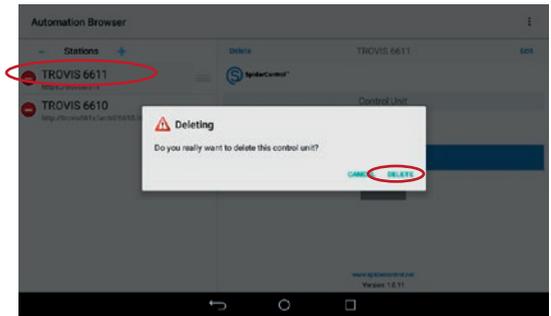
→ Establish connection to TROVIS 6611-2 with 'YES (ALWAYS)'.

The message is not shown again.

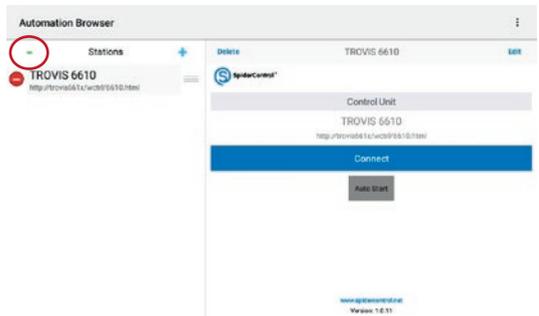


6.6.2 Configuring Automation Browser for TROVIS 6610

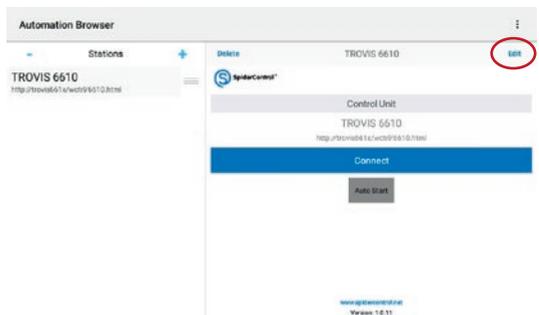
- Select TROVIS 6611.
- Confirm deletion with DELETE.



- Tap -.

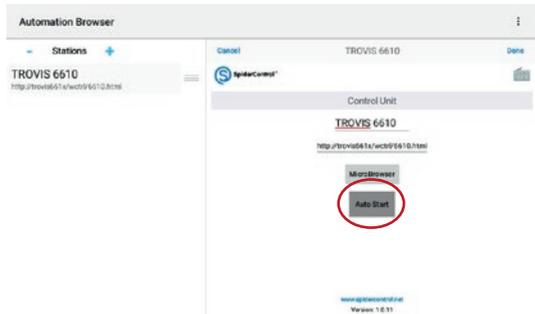


- Select 'Edit'.

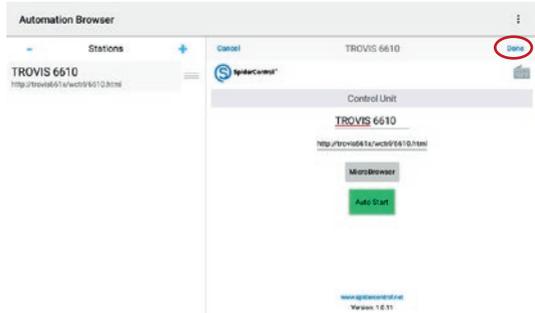


Start-up and configuration

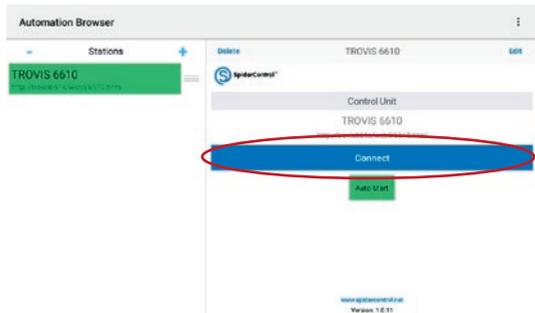
→ Tap 'Auto Start' button.



→ Confirm confirmation with 'Done'.



→ Tap 'Connect' button to open the application on TROVIS 6610.



7 Operation

7.1 Operating the TROVIS 6610 Automation Browser application

7.1.1 Login

→ To login, enter password in 'Please enter your password' field.

→ Confirm with OK.

The password determines which user level applies.



After login, the key indicates the user privilege level. The user level is also indicated in the status bar. The status bar remains visible in most cases. A check icon in the  button on the toolbar indicates that the user is logged in. The  button allows the user to log off before the automatic logoff time elapses. The toolbar remains visible.



- 1 ↑
- 2 ↑
- 3 ↑
- 4 ↑
- 5 ↑
- 6 ↑
- 7 ↑

1	Back
2	Open main menu
3	Open login page
4	Show historical data
5	Show online data
6	Show alarms
7	Open service page

Operation

Start screen for a user assigned user level 3 privileges

A button to configure the time and date of the TROVIS 6610 CPU Module appears on the right of the toolbar for users assigned user level 3 and 4 privileges. The outdoor temperature (OT) reading is optional depending on the plant configuration.



Configuration of the time and date of the TROVIS 6610 CPU Module
(the reading in the status bar is not the same as the time saved in the actual web terminal)

7.1.2 Main menu

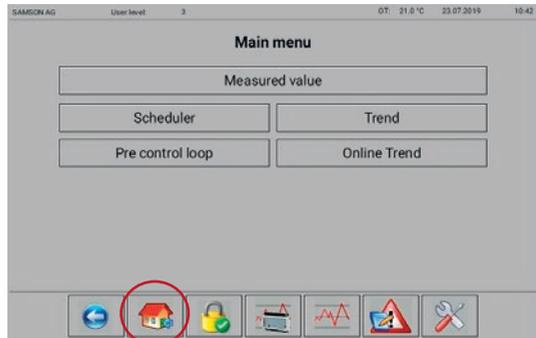
Tap  button to go to the plant overview.

Example: main menu of the master for the SAMSON TROVIS 6693 Web Terminal Editor.

The main menu can be shown in a plant as a menu (see screenshot).

or:

Go directly to the plant (provided it consists of one graph).



7.1.3 Historical data

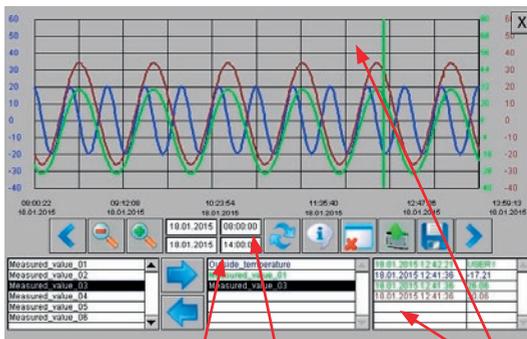
Tap  button to go to the historical data page.

- ➔ Select the required data point.
- ➔ Tap  button to move the data point into the middle list.

Tap  button to load the start and end data of the saved data points into the corresponding data entry fields. Tap  button to load the data into the graph.

- ➔ Tap  button to delete the displayed data and restrict the time period.

This does not cause any data in the CPU module to be deleted.



End of logged data Start of logged data Measured data for the time selected

- ➔ Define the start and end times for each selected measured value.
- ➔ Tap  button to confirm the selected values.
- ➔ Tap  button to load the selected data into the graph.

The graph must always be deleted if the selected time period is shortened. However, for example, if the range from 22.10 to 28.10 has been selected, the data between 21.10 and 28.10 can be displayed without deleting the graph. To display only the data between 26.10. and 28.10., you must delete the graph beforehand.

Tap  and  buttons to shift the displayed section of the diagram.

Operation

Tap  and  buttons to reduce or expand the displayed section of the graph. Tap  button to save data in CSV format to the internal memory or to an external memory (USB flash drive).

Tap  to close the window (return to the previous window).

7.1.4 Online data

Tap  button to display an online graph of the measured values defined in the SAMSON TROVIS 6693 Web Terminal Editor. It is not possible to select other data.

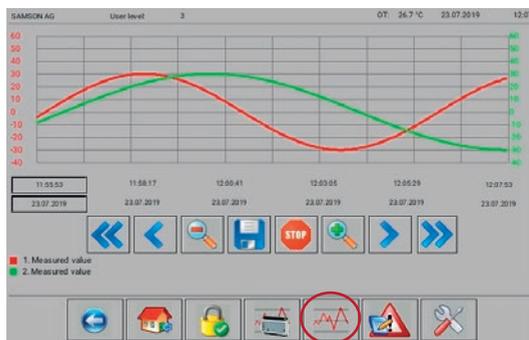
Use the , ,  and  buttons to shift the displayed section of the graph.

The  and  buttons reduce or expand the displayed section of the graph.

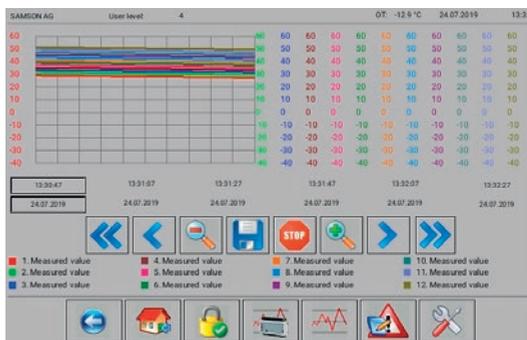
Tap  button to save data in CSV format to the internal memory or to an external memory (USB flash drive).

Tap  button to stop the data logging.

Tap  button to restart the data logging.

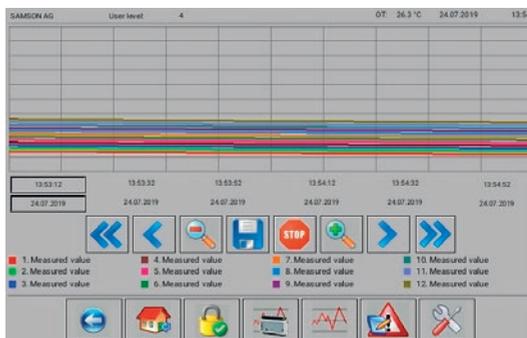


The width of the graph is reduced by the automatic scaling of the Y axis when a large amount of measured data exists.



Alternatively, the automatic scaling of the Y axis can be deselected to make the graph larger.

The display range and logging time are determined on creating the web page using the SAMSON TROVIS 6693 Web Terminal Editor. The maximum data logging time is 25 hours.



7.1.5 Configuring the target directory for online and offline trends

The default directory for saving offline and online trend data is **/Internal Memory/Download/AutomationBrowser/TROVIS 6610/Trends** on the web terminal.

The saved data can then be copied to a computer over a FTP client (e.g. FileZilla).

Login data are as follows:

- Server: IP address of the web terminal
- User name: www
- Password: 0725
- Port: 2121

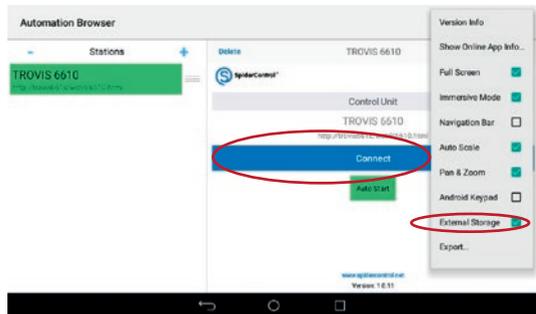
The data can also be saved on an external USB flash drive.

Operation

- Insert the USB flash drive into the bottom USB port.
- Swipe upwards from the bottom of the screen.
- Tap  button to open the configuration window of the Automation Browser.



- Open the configuration window with  button.
- Select 'External storage' and reconnect to the TROVIS 6610 CPU Module.



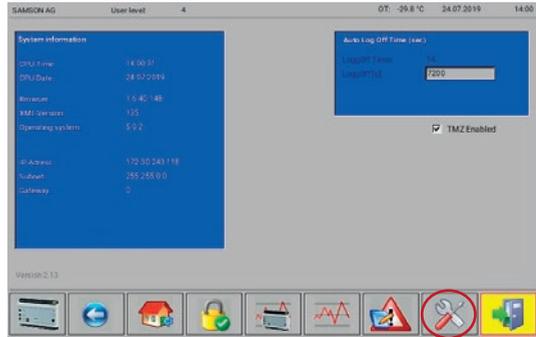
You can save historical and online trend data as CSV files to a USB flash drive.



7.1.7 Service page

The service page can only be opened by users with user level 4 privileges. You can set the automatic logoff time on this page.

The time and date of TROVIS 6610 CPU Module can also be read. The browser version, XML version, operating system and network configuration are also displayed in the web terminal.



Tap  button to start the I/O View web application. The I/O View web application enables users to access the input and outputs of the TROVIS 6610 CPU Module and the connected TROVIS 6620, TROVIS 6625 and TROVIS 6625 and TROVIS 6640 Modules without the Graphical Project Management Tool. The signal states of the inputs are visible in this application. The signal states of the outputs can also be changed over forced manual operation. This allows pumps and control valves to be tested without wiring the system.

Tap  button to exit the web terminal application.

7.1.8 Schedule

The schedule can be opened using the small or large button (depending on the plant overview).

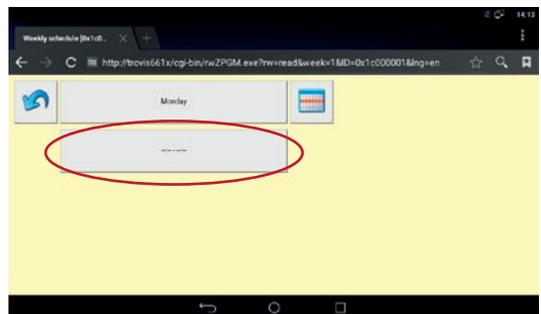


7.1.8.1 Adding switching times

- Select the day of the week that you want to configure.



- Tap the highlighted button to configure the first switching time.



Use the up and down arrows to set the start and end times (in 15-minute steps).

- Tap button to exit the window without saving the changed setting.
- Tap to exit configuration (back to the previous window). The configuration is confirmed.



Operation

Further switching times can be added with  button. A maximum of 56 switching times per week can be configured.

→ Tap  button to return to the weekly schedule.



→ Tap  button to start the exit schedule procedure.

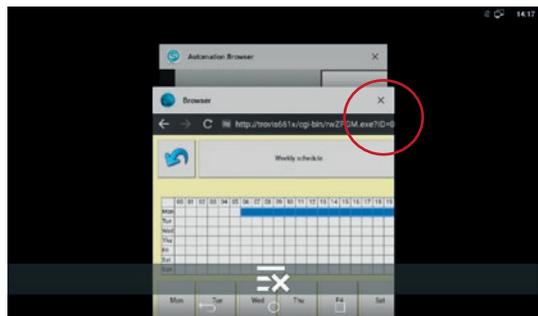
→ Exit the schedule with  button.

For Automation Browser running under WINDOWS®:

→ Close the windows with the 'X' button.



→ Tap  button to close the schedule window.



7.1.8.2 Changing switching times

- Select the day of the week that you want to configure.



- Tap the highlighted button to change the switching time.



Use the up and down arrows to change the start and end times.

- Delete switching times with the white button.
- Tap button to exit the window without saving the changed setting.
- Tap to save and exit configuration (back to the previous window).



The configuration is confirmed.

Operation

- Tap  button to return to the weekly schedule.



7.1.8.3 Deleting switching times

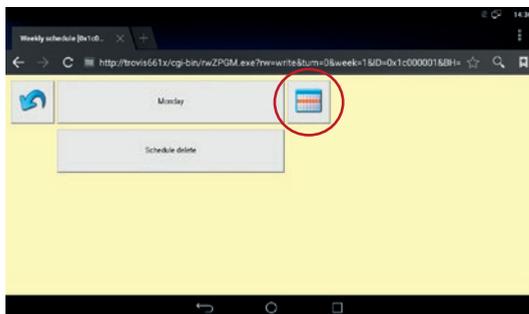
- Select the day of the week that you want to configure.



- Tap  button to delete the switching time period.



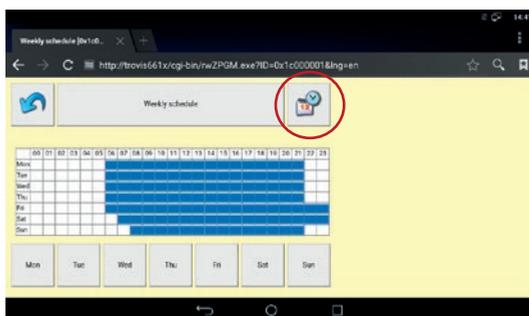
→ Tap  button to go to the weekly schedule.



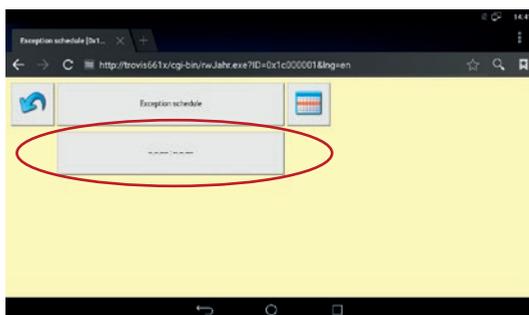
7.1.8.4 Special schedules

The special schedules allow the configuration of separate activation times (Special use (ON time), ) and separate deactivation times (vacations or public holidays (OFF time), 

→ Tap  button to open special schedule.



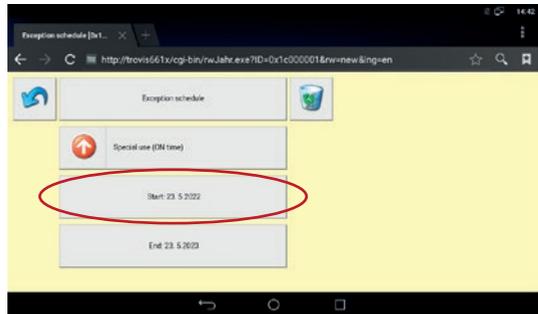
→ Tap the highlighted button to configure a special time-of-use.



Operation

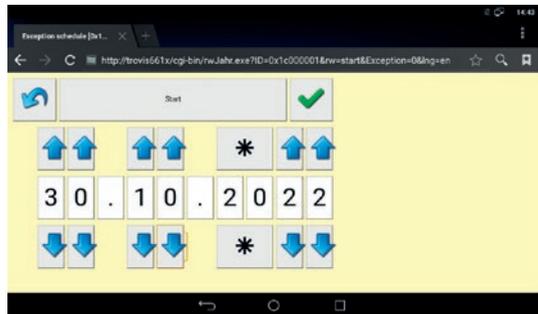
The yearly schedule starts with the configuration of a special use (ON time).

- Tap the highlighted button to define the start.
- Tap  button to exit the window without saving the changed setting.



Use the up and down arrows to set the start of the special use (ON time).

- Tap  button to exit the window without saving the changed setting.
- Tap  button to configure an annual repetition.
- Tap  to save and exit configuration (back to the previous window).



The configuration is confirmed.

- Tap the highlighted button to define the end of the special use (ON time).



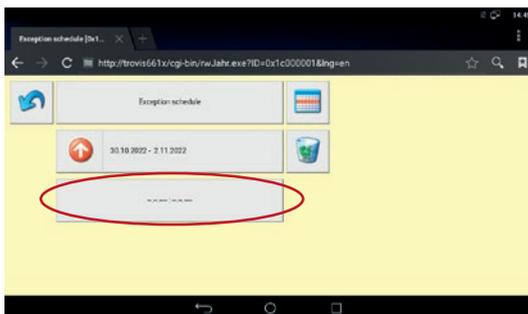
- Tap  to save the configuration and exit the special use window.



- Tap  button to return to the overview of configured special times-of-use (exception schedule).



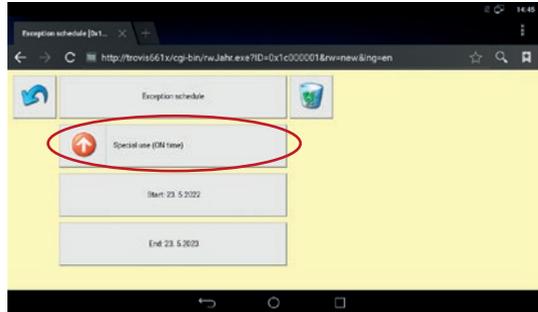
- Tap the highlighted button to configure a further special time-of-use (exception schedule).



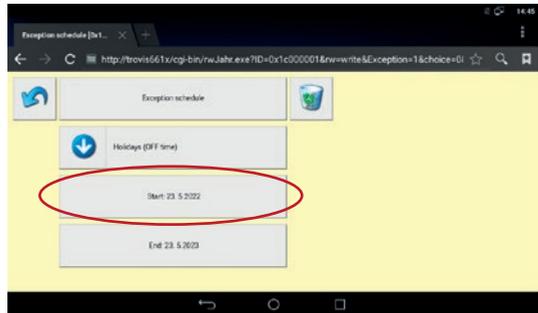
Operation

The exception schedule starts with the configuration of a special use (ON time).

- Tap 'Special use (ON time)' button to configure a public holiday (OFF time).



To set the start and end times, proceed as described for Special use (ON time).



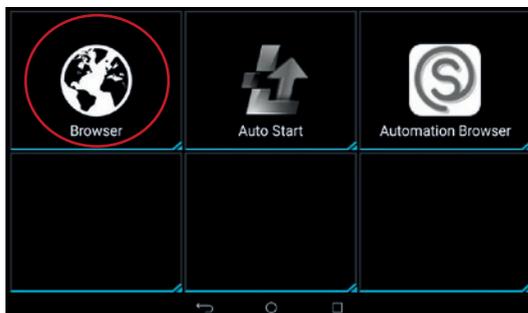
7.2 TROVIS MOBILE with TROVIS 6610

The TROVIS MOBILE web application can be operated over the browser of the TROVIS 6616 Web Terminal or using a browser in the same network (PC, smartphone). The Process View application must be created beforehand in the graphical project management tool. On transferring the application, the TROVIS MOBILE web application is automatically transferred as well.

The start screens of the TROVIS 6610 CPU Module and TROVIS 6611-2 Automation Unit are configured as the welcome page in the browser. The different menu structures of TROVIS 6610 and TROVIS 6611-2 mean that the browser is only linked to the start screen in the delivered state. TROVIS MOBILE can be opened over the start screen of the TROVIS 6610 CPU Module.

Tap  button and select the bookmark menu to directly open TROVIS MOBILE. You can define the page as the start screen in the 'Settings/General' menu.

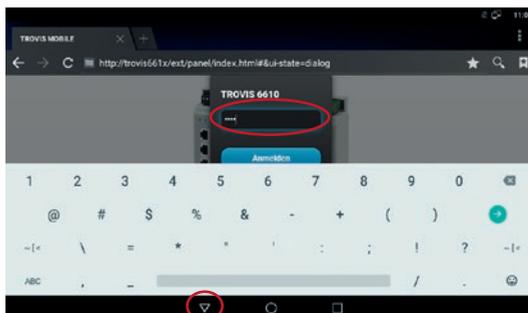
- Open the browser on the start screen.



- Start TROVIS MOBILE from the start screen.

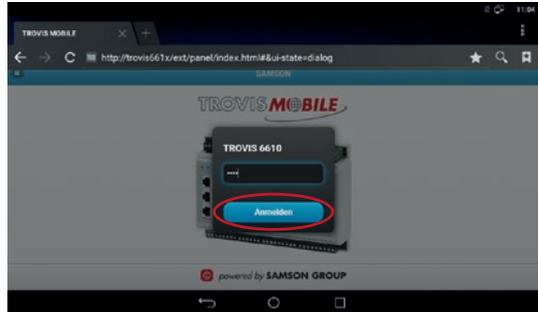


- Enter your password and confirm with .



Operation

- Tap 'Anmelden' button to log in.



- In the 'Process view' menu, go to the required data points.



7.3 Administration and operation of TROVIS 6611 web applications

A Process View application must be created beforehand to access a TROVIS 6611-2 Control and Automation Unit over the web. It can be text oriented or graphic or a combination of both.

The user settings of TROVIS 6611-2 determine which point of entry, access privileges and language apply to the user interface of the web application.

i Note

Make sure that the Automation Browser is configured for connection to a TROVIS 6611-2 Control and Automation Unit (see the 'Start-up and configuration' section).

7.3.1 Login

- Enter your user name and password to log in.

In the delivered state of TROVIS 6611-2, the user name and password are "admin". For security reasons, the password must be changed (see section 7.3.1.1).

- Enter user name in 'User' field.



- Enter the password applicable for the user name.
- Tap 'Login' button.



7.3.2 Configuration

The following settings are possible in the configuration menu.

- User settings
- Project settings
- System settings



7.3.2.1 User settings

→ Select User settings.



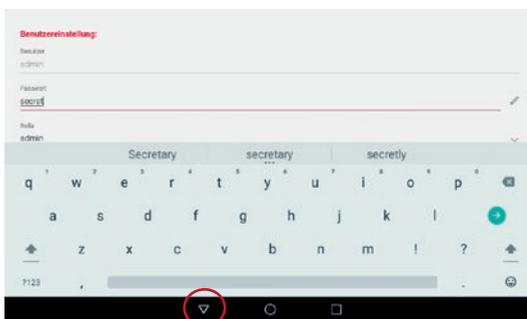
→ Select highlighted "admin" field.



→ Open password configuration setting.



→ Change the password and hide the input field with the  button.



→ Save configuration (scroll to the end of the screen).



Operation

→ Select 'New user'.



→ Enter a user name in the 'New user' field.

→ Go to 'Password' and enter a password.

→ Assign user privileges in the 'Role' field.

A detailed description of user privileges can be found in

▶ EB 6611-2.

If the TROVIS 6611 application is multilingual, the user-specific language can be selected in 'Sprachauswahl'.

User-specific icons can be set in the 'Icons' field. The point of entry for users in the application is determined in the 'Path' field.



→ Save configuration.



7.3.3 System settings

The system time can be changed in 'System setting's. The SMTP server can be configured to send alarm notifications by e-mail.



Configuring the system time

→ Select 'System time' to set the time and date of TROVIS 661 1-2.



Operation

- Set the system time with the time picker.
- Save system time.



LAN settings

LAN and WLAN must be configured at the user interface of the TROVIS 6611-2 Control and Automation Unit (▶ EB 6611-2) before start-up of the TROVIS 6616-x Web Terminal.



E-mail

- Select e-mail configuration menu.



→ Enter the following data:

- SMTP server
- Port used
- Authentication data
- Sender address

→ Select 'plain' in 'SMTP authentication required'.

→ Activate 'TLS encryption'.

(The configuration of a T-Online e-mail address is shown in the example).

→ Go to the bottom of the screen and save the configuration.

EMAIL

SMTP server: securesmtp.t-online.de

Port: 455

User: john.doe@t-online.de

Password: secret

Sender: john.doe@t-online.de

SMTP authentication required: **PLAIN**

TLS encryption:

TLS STARTTLS:

SMS

SMSC:

GPRS

APN:

DIAL:

User:

Password:

PPPD: 0 0 0 0 0 0 0 0 modem lock noauth noapdefault nodetach noacomp noarp nobadcomp novj noajcomp kcp echo failure 0 kcp echo

SAVE **CANCEL**

7.3.3.1 Project settings

The following can be configured in 'Project settings'.

- Notification of collective error messages
- Modbus TCP setting
- MQTT
- OPC UA

The I/O view and audit trail are also available in Project settings.



Collective error message

→ Select collective error message configuration menu.

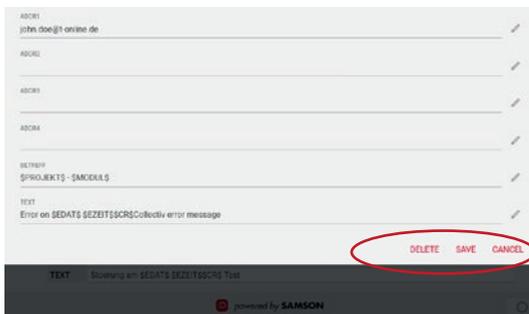


→ Enter the recipient addresses based on the configuration of the SSM function block to configure the corresponding profiles.

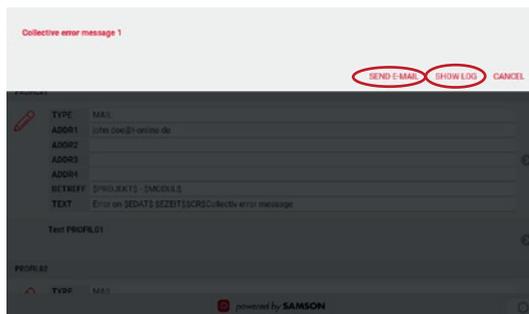
→ Hide the input field with the button.



➔ Go to the bottom of the screen and save the configuration.



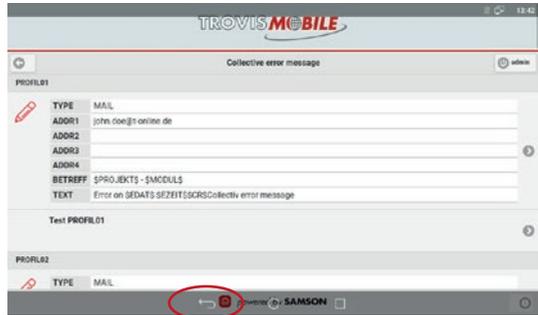
You can test the sending of error messages and read the log file with the 'Test PROFILE1'.



Operation

→ Swipe upwards from the bottom of the screen.

Tap  button to exit the collective error message configuration.



Modbus TCP configuration

→ Select Modbus TCP configuration menu.

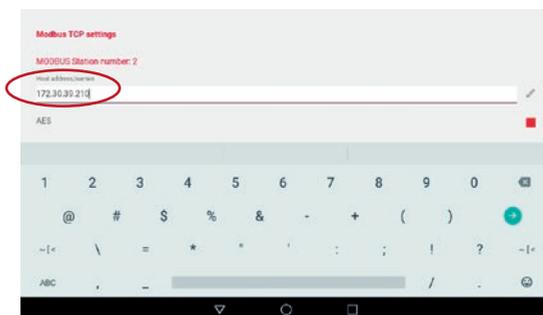


You can protect the connection through AES encryption by assigning a password.

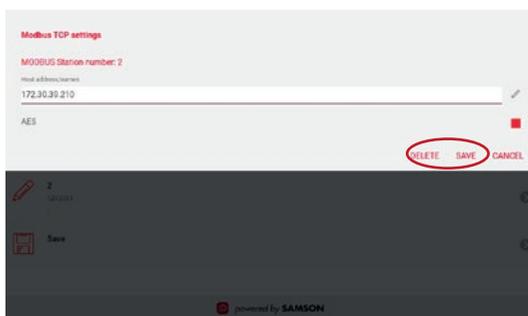
→ Select the Modbus station number you want to configure.



- Enter the IP address of the Modbus TCP gateway or SAM HOME gateway.
- Hide the input field with the  button.



- Save configuration.



- Save configuration.



Operation

7.3.4 Operation

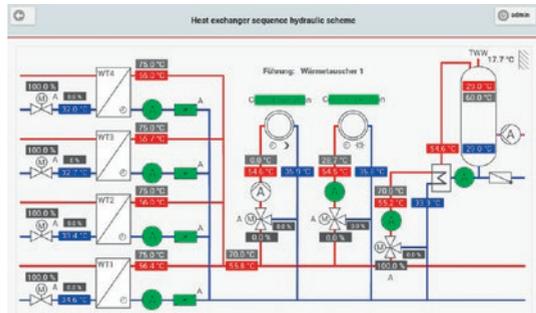
The point of entry for the identical user application may differ depending on the user settings.

Example (right):

"admin" as the user role, which usually has its point of entry in the top "root" level.

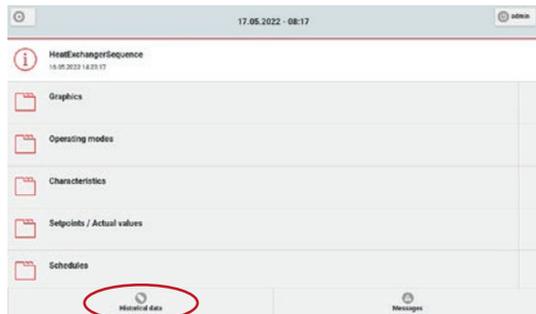
Example:

The point of graphics entry depends on the privileges of the logged-in user



7.3.4.1 Historical data

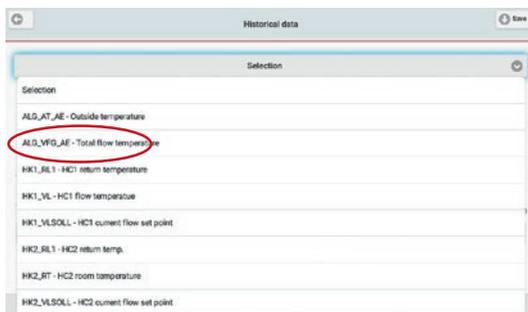
→ Tap 'Historical data' button.



→ Open the selection menu to select the first data point.



→ Select data point.



It is possible to select further data points or the historical data trend within the selected time period. In this case, you must scroll to the end of the screen to view the data.

→ Select a predefined time range. Alternatively, define the time range.



Operation

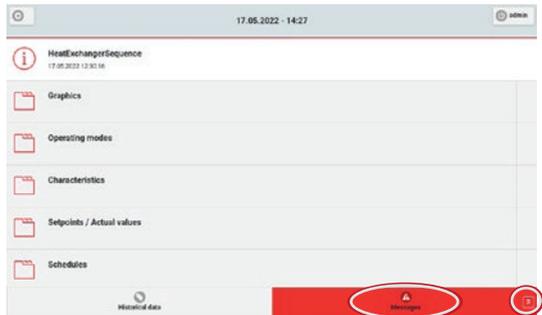
→ Tap Back button to return to the main screen.



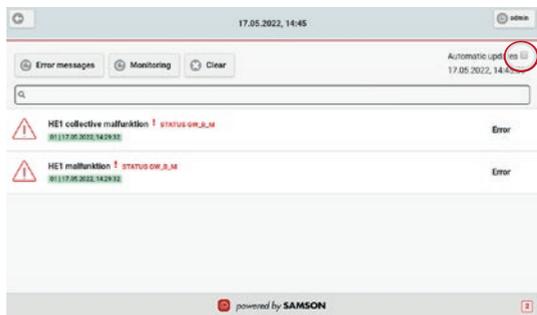
7.3.4.2 Incoming error messages

Incoming error messages are indicated by a red 'Messages' button. The number of incoming messages is also indicated on the button.

→ Tap 'Messages' button to read the list of error messages.



The error message list can be automatically updated, if required. The history of error messages can be read in 'Monitoring'. Tap 'Clear' button to delete the history. The monitoring list cannot be automatically updated.



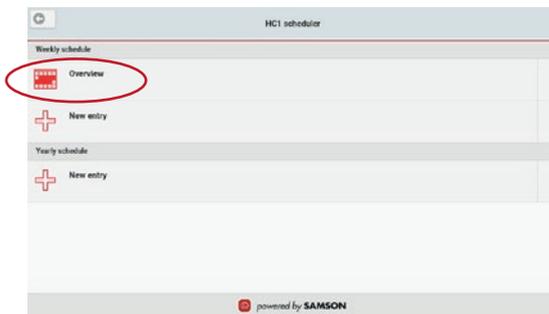
7.3.4.3 Schedule

Schedules can only be opened from the menu structure and not from the graphic.

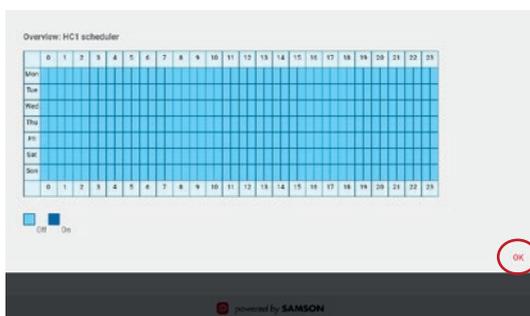
- ➔ Select the scheduler you want to configure.



The configured switching times are displayed in 'Overview'.



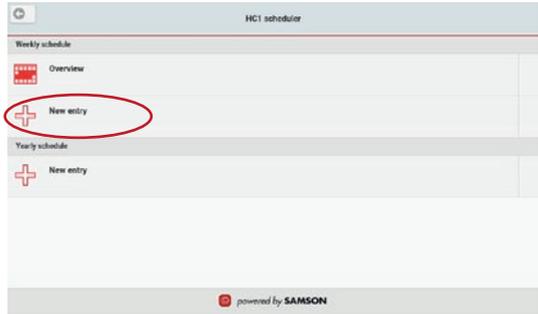
- ➔ Exit overview with OK.



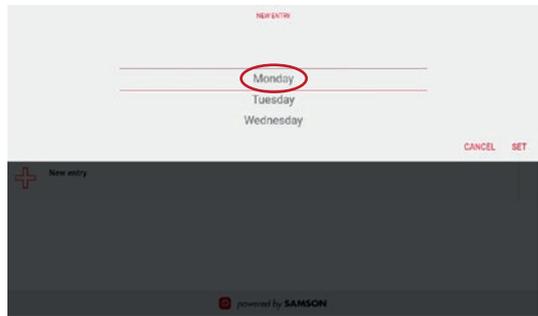
Operation

Adding switching times

- Select 'New entry' in the 'Weekly schedule'.



- Select the day of the week.



- Use the time picker to select the required time.



- Select "To" button.
- Set end time.
- Exit configuration with OK.

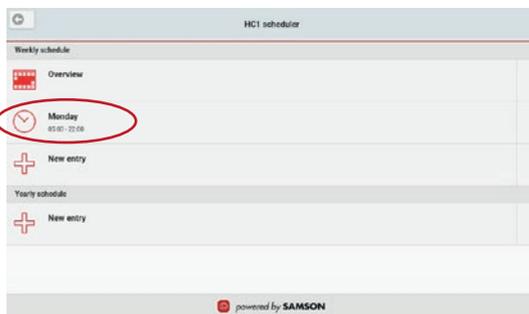


A maximum of 56 switching times per week can be configured.



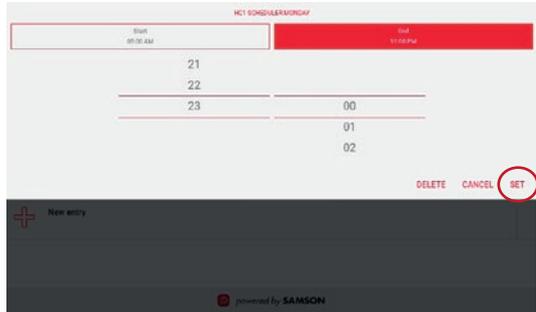
Changing switching times

- Select the switching time you want to change.



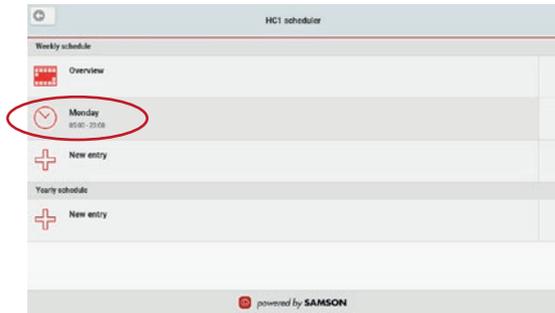
Operation

- Change the start and end times as required.
- Exit configuration with OK.

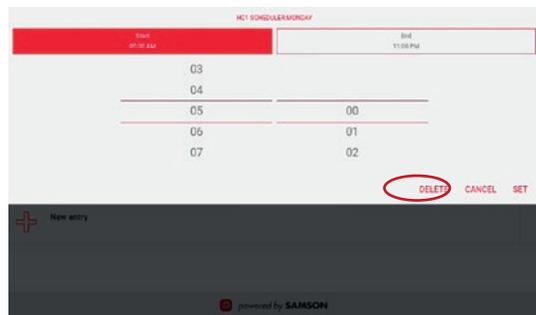


Deleting switching times

- Select the switching time you want to delete.



- Delete switching times.



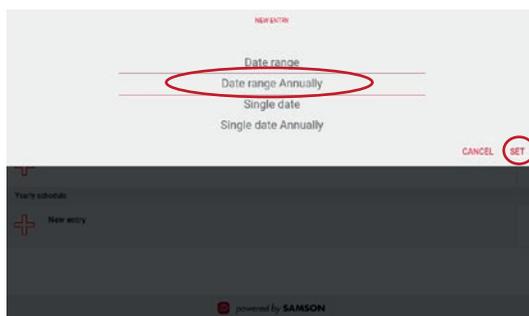
Yearly schedule

The yearly schedule allows the configuration of separate activation times (special use) and separate deactivation times (vacations or public holidays). The special schedule can be a one-off event or repeated on an annual basis. In the following example, the configuration for the Christmas holiday is shown.

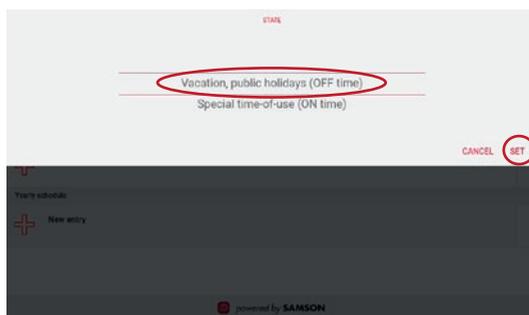
- Select 'New entry' in the 'Yearly schedule'.



- Select 'Date range Annually'.
- Confirm with OK.

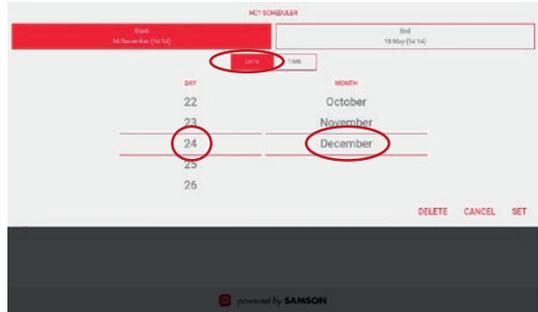


- Select 'Vacation, public holidays (OFF time)'.
- Confirm with OK.



Operation

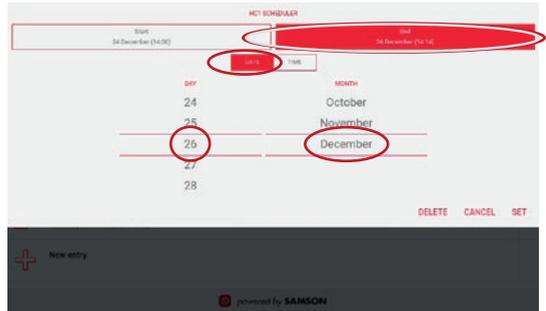
- Set the start date for the special time-of-use.



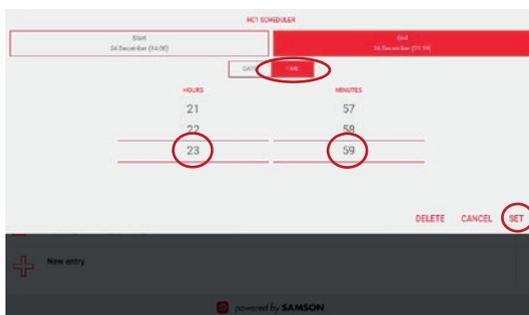
- Set the start time for the special time-of-use.



- Select "End" button.
- Set the end date for the special time-of-use.



- ➔ Set the end time for the special time-of-use.
- ➔ Confirm with OK.



8 Malfunctions

→ Troubleshooting

Note

Contact SAMSON's After-sales Service for malfunctions not listed in the table.

Troubleshooting

Error	Possible reasons	Recommended action
Screen remains black.	No or incorrect supply voltage connected.	<ul style="list-style-type: none"> ➔ Check the power supply and connections (see the 'Installation' section). ➔ Replace power supply unit or damaged cable, if necessary.
TROVIS MOBILE cannot find TROVIS 6611-2 or TROVIS 6610 and the automation browser cannot start an application.	No network connection	➔ Check the network connection.
	Network configuration error or error occurred while assigning the network to TROVIS 6611-2 or TROVIS 6610	➔ Check the network configuration error or assignment of the network to TROVIS 6611-2 or TROVIS 6610.
TROVIS MOBILE finds TROVIS 6611-2 or TROVIS 6610, but cannot start an application.	No control application installed in the TROVIS 6611-2 or TROVIS 6610	➔ Load an application.
The automation browser cannot start an application.	TROVIS 6610 or 6611-2 without control application	➔ Load an application.

8.1 Emergency action

Plant operators are responsible for emergency action to be taken in the plant.

Tip

Emergency action in the event of failure is described in the associated documentation.

9 Servicing

The work described in this section is only to be performed by personnel appropriately qualified to carry out such tasks.

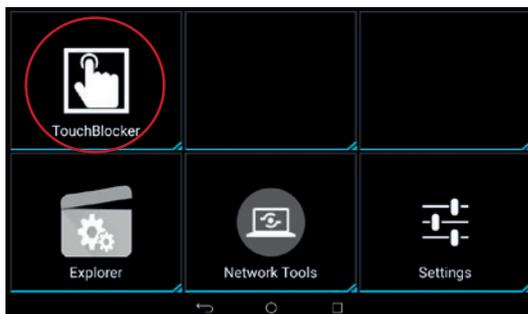
We recommend inspection and testing according to Table 9-1.

Table 9-1: *Recommended inspection and testing*

Inspection and testing	Action to be taken in the event of a negative result
Check the markings, labels and nameplates on the web terminal for their readability and completeness.	→ Immediately renew damaged, missing or incorrect nameplates or labels.
	→ Clean any inscriptions that are covered with dirt and are illegible.
Check the electric wiring.	→ If any wires are loose, tighten the terminal screws (see the 'Installation' section).
	→ Renew damaged wires.

9.1 Cleaning the screen

- Select the TouchBlocker on the second page of the Launcher.

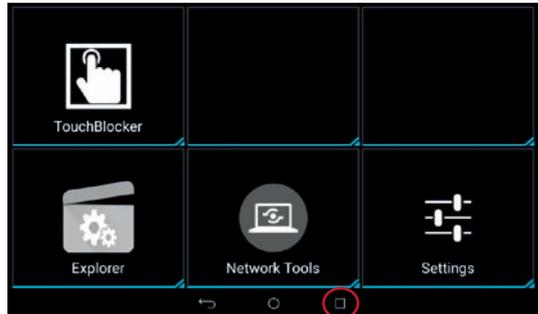


Servicing

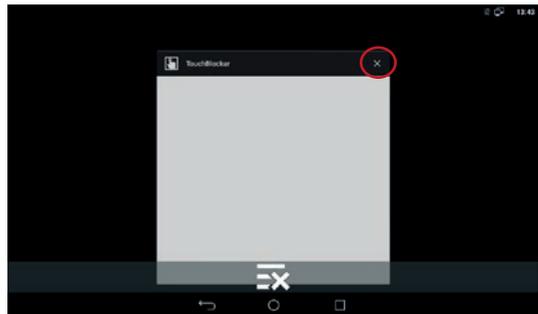
You have 60 seconds to clean the screen. The touch screen does not react during this time.



→ Tap  button (recent apps) to show the app in the background.



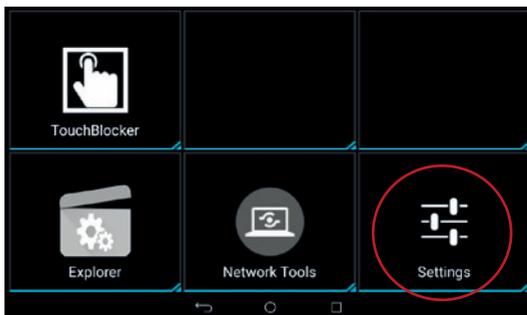
→ Exit TouchBlocker.



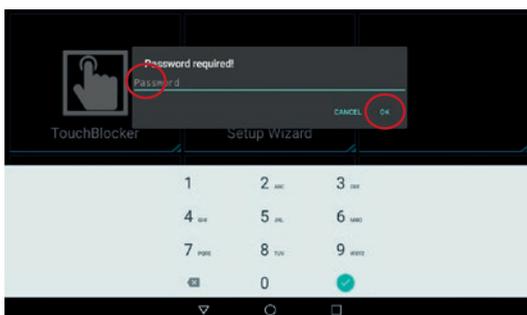
9.2 Setting the time and date manually

The time and date can be set manually if TROVIS 6610 and the NTP server are not connected.

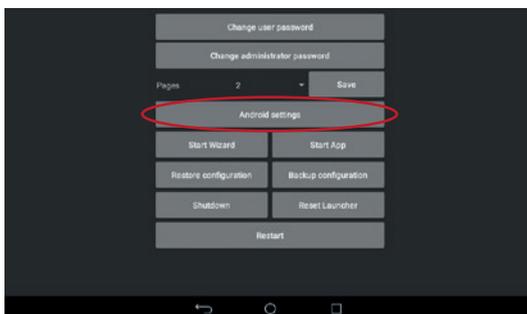
- Swipe the screen to the second page of the Launcher.
- Select 'Settings'.



- Enter 1732 as the password.
- Confirm with OK.

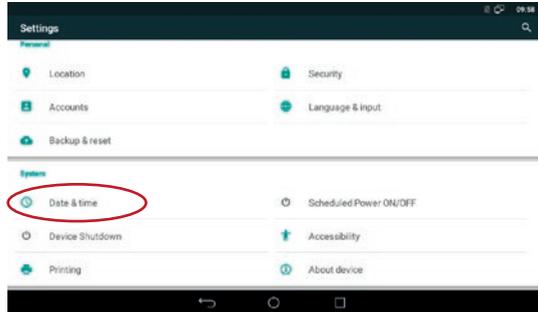


- Select 'Android settings'.

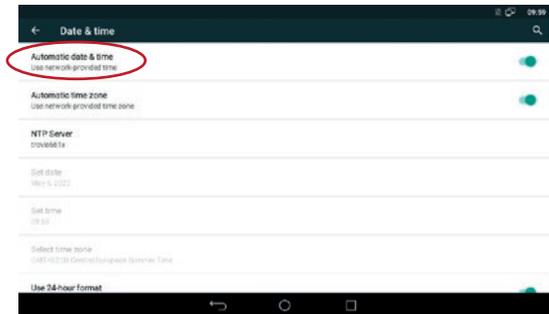


Servicing

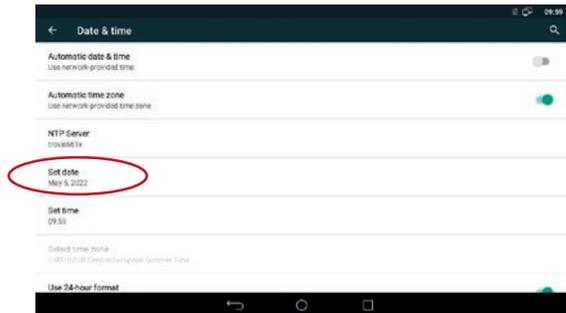
→ Select 'Date & time'.



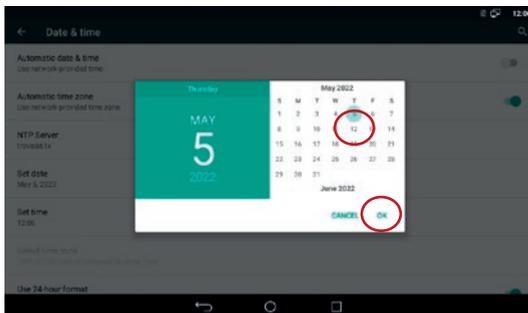
→ Deactivate 'Automatic date & time'.



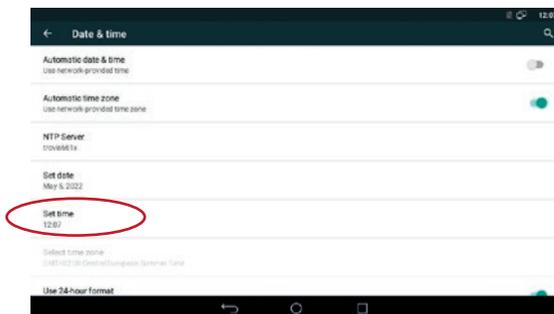
→ Select 'Set date'.



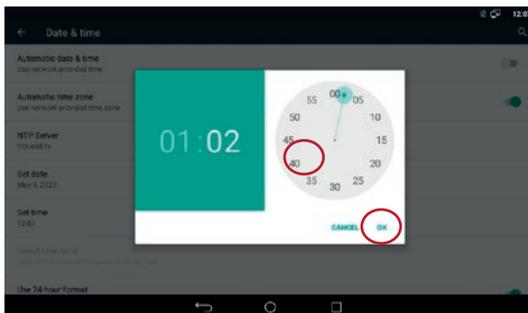
- Select the date.
- Exit configuration with OK.



- Select 'Set time'.



- Set the time.
- Exit configuration with OK.



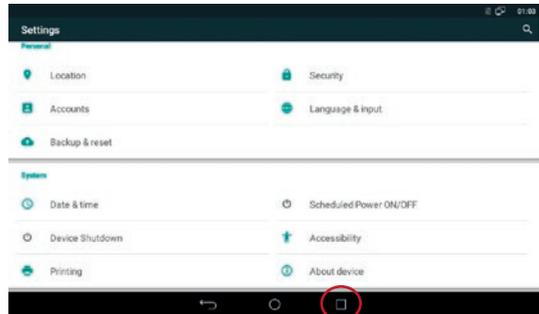
Servicing

→ If you only wanted to set the time and date manually once, activate 'Automatic date & time' again.

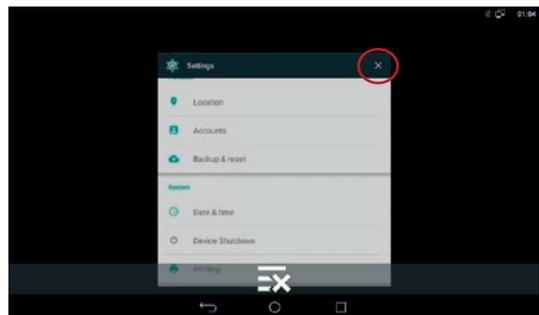
Tap  to go to the Android settings.



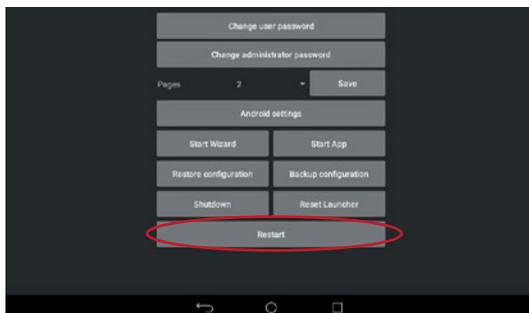
→ Tap  button (recent apps).



→ Exit 'Settings'.



→ Reboot the web terminal.



10 Decommissioning

The work described in this section is only to be performed by personnel appropriately qualified to carry out such tasks.

DANGER

Risk of fatal injury due to electric shock.

- *Only allow trained and experienced personnel to perform the work.*
 - *Before disconnecting live wires, switch off the supply voltage and protect it against unintentional reconnection.*
-
- Disconnect the supply voltage and protect it against unintentional reconnection.

11 Removal

The work described in this section is only to be performed by personnel appropriately qualified to carry out such tasks.

DANGER

Risk of fatal injury due to electric shock.

- *Only allow trained and experienced personnel to perform the work.*
 - *Before disconnecting live wires, switch off the supply voltage and protect it against unintentional reconnection.*
-

- Disconnect the connecting lines.
- Remove the connectors.
- Hold the web terminal and unscrew the screws (TROVIS 6616-1) or removed the mounting clips (TROVIS 6616-2).
- Take the web terminal out of the panel.

12 Repairs

A defective web terminal must be repaired or replaced.

! NOTICE

Risk of damage to the web terminal due to incorrect service or repair work.

- *Do not perform any repair work on your own.*
 - *Contact SAMSON's After-sales Service for service and repair work.*
-

12.1 Returning devices to SAMSON

Defective web terminals can be returned to SAMSON for repair.

Proceed as follows to return devices to SAMSON:

1. Put the web terminal out of operation (see the 'Decommissioning' section).
2. Remove the web terminal (see the 'Removal' section).
3. Proceed as described on the Returning goods page of our website
 - ▶ www.samsongroup.com > Service & Support > After-sales Service > Returning goods

13 Disposal



SAMSON is a producer registered at the following European institution
▶ <https://www.ewrn.org/national-registers/national-registers>.
WEEE reg. no.:
DE 62194439/FR 025665

- Observe local, national and international refuse regulations.
- Do not dispose of components and hazard substances together with your other household waste.

i Note

We can provide you with a recycling passport according to PAS 1049 on request. Simply e-mail us at aftersaleservice@samsongroup.com giving details of your company address.

Tip

On request, we can appoint a service provider to dismantle and recycle the product as part of a distributor take-back scheme.

14 Annex

14.1 Accessories

Designation	Order no.
Graphical project management tool	TROVIS 6690
Web terminal editor	TROVIS 6693

14.2 After-sales service

Contact our after-sales service for support concerning service or repair work or when malfunctions or defects arise.

E-mail contact

You can reach our after-sales service at
 ► aftersalesservice@samsongroup.com.

Addresses of SAMSON AG and its subsidiaries

The addresses of SAMSON, its subsidiaries, representatives and service facilities worldwide can be found on our website (► www.samsongroup.com) or in all SAMSON product catalogs.

Required specifications

Please submit the following details:

- Type/device version
- Material no.
- Serial number
- Firmware version

Default password

User

Administrator

Password

1732

EB 6616-1/-2 EN



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