

EASYRO®

Technician Manual

Version 2025-V1 of 5 August 2025

EASYRO®



EASYRO® 150



EASYRO® 300



EASYRO® 600

EASYRO®
drink + house



EASYRO® 120



EASYRO® 240



EASYRO® 480

EASYRO Technician Manual

Contents

1. Explanation of installation with wall panel.....	4
2. Considerations during commissioning.....	5
3. Controls and functions – EASYRO 150-300-600.....	6
4. Controls and functions EASYRO 120-240-480.....	8
5. Maintenance instructions for EASYRO.....	9
6. Service menu	17
6.1 Resetting the filter before software version 8.3	18
6.2 Reject stream	18
6.3 Time menu	19
6.4 Adjusting the outlet pressure	19
6.5 Configuration	20
6.6 Tank setup.....	21
6.7 Master.....	21
6.8 Signal check.....	21
7. Setting the tank height.....	22
7.1 Level sensor setting models 4/2024 - 6/2024.....	22
7.2 Level sensor setting with software version 8.3 and above	23
7.3 Conversion to new tank sensor.....	25
8. Change of outlet pressure EASYRO 60/120/240/480	26
9. Change from tank to pressure control EASYRO 120/240/480	27
10. Changeover from tank to pressure or pressure to tank control EASYRO 150/300/600.....	27
11. Setting the operating timer.....	32
12. Changing the IP address.....	33
12.1 Installing software on Siemens Logo!	37
13. Web server.....	39
13.1 Enabling the Web server.....	40
13.2 Logging on to the Web server.....	40
13.3 Viewing LOGO! System information	42
13.4 Operating the virtual module on the Web server.....	42
13.5 Viewing and editing variable memory tables	45
13.6 Logging off from the Web server	45

14. Conductance compensation	46
15. Replacing membranes in EASYRO systems	46
16. Inserting the membrane with adapter sleeve	47
17. Changing the operating hours	48
18. Drain valve	48
19. Fault messages EASYRO 120/240/480	49
20. Fault messages EASYRO 150/300/600	50
21. Troubleshooting	52
21.1 Low pressure/inlet pressure fault message	52
21.2 System switches on and off and flushes	53
21.3 System is in Production and motor is not running.....	54
21.4 System is producing too little water	54
21.5 System is not sucking in the cleaning agent	55
21.6 System will not flush out the cleaning agent	55
21.7 Overpressure alarm	56
21.8 System not running - "Tank empty" message.....	56
21.9 Leakage alarm	56
22. Dry-running protection plug in EASYRO.....	57
22.1 Dry-running protection in Grundfos Scala 1 pump.....	58
22.2 Siemens LOGO! Control for dry-running protection	59
23. Preservation.....	59
24. Disinfecting with henndrixx	60
25. Document appendix.....	61

1. Explanation of installation with wall panel

The wall panel is only included in the complete package!

- Lay the connection pipe from the ¾" tap to the pre-filters (up to 1.5m away).
- Lay the connection pipe from the pre-filter, which is already mounted on the wall panel and has some of the hoses connected to it, up to the osmosis system.
- Lay the drain hose from the osmosis system (up to 1.5 metres away).
- Lay the filling hose from the osmosis system to the tank.
- Lay the stainless steel corrugated pipe from the tank to the Grundfos high-pressure pump.
- Lay the stainless steel corrugated pipe from the pump to the feed into the mains network.
- Mounting clamps (which are screwed to the wall) for the hoses and screws and plugs (for masonry) are included.
- Screws and plugs (for masonry) are also included for the wall mounting panel
- The tank is preconfigured with all the necessary connections.
- The tank has a mechanical stainless steel float in the filling line, which provides an emergency stop so that the tank can never be overfilled.

No additional materials are required for installation of the system if the water and drain connections are available directly at the installation site.

Installation/Commissioning:

- Fit the wall panel with 4 screws.
- Connect the water connection to the pre-filters (which are already mounted on the wall panel).
- Connect the pre-filters to the water inlet of the osmosis system, which is located on the wall panel.
- Connect to the drain.
- Connect to the tank.
- Plug the tank sensor into the osmosis system and insert it into the opening provided on the tank.
- Screw on the tank air filter.
- Connect armoured hose connections with sealing ring from the tank to the pump and from the pump to the feed into the supply network.
- Insert the pre-filter and flush into the drain for at least 3 minutes.

The wall panel, the tank and the pump have been prepared so that they are ready for connection.

The EASYRO is preconfigured so that all values are set in the factory to suit the respective tank.

Depending on the location, approx. 3-4 hours are required for clean installation and commissioning!

The hose lines – water connection-filter-tank-drain – have 10 mm Speedfit quick connectors. Simply cut the line with a hose cutter and insert it into the connector. This is easy and absolutely leak-proof!

The stainless steel corrugated pipe on the pump has a union nut with a sealing ring for quick and easy installation.

The UV system offered is an option and is not essential! UV lamps must be replaced every 1.5 years!

The maintenance interval for the osmosis system is 6 months.

Correct maintenance takes approx. 45 minutes.

2. Considerations during commissioning

There are a few things to bear in mind when commissioning the EASYRO:

- ✓ **Check the goods for any transport damage.**
- ✓ Check goods for completeness.
- ✓ Position the wall mounting panel close to the tank and secure it.
- ✓ Make the water connection to the pre-filter housing on the wall panel.
- ✓ Insert the filter and flush into the drain for approx. 3 minutes.
- ✓ Position the EASYRO on the wall panel.
- ✓ Connect the pre-filter housing to the EASYRO.
- ✓ Connect the EASYRO to the drain.
- ✓ Connect the EASYRO to the tank.
- ✓ Install the level sensor in the tank and connect to the EASYRO
Important!
Old level sensor: The sensor must be lying on the bottom of the tank!
New level sensor: Lower the sensor only until it makes contact with the bottom!
- ✓ Important! The sensor cable must not be kinked or crushed!
- ✓ Connect the Grundfos pump to the tank and the tapping point.
The pump must be vented or filled before commissioning.
The screw connection for the top of the pump - for commissioning see Grundfos guide - is supplied!
- ✓ Once all the connections have been made and the water has been turned on, plug in the mains plug.
- ✓ The system starts to run.
→ The display shows Reject, which means the preserving agent in the system is being flushed out.
Important! Water must only run into the drain and not the tank during this rejection!
- ✓ When the value on the display falls below 80 μS , the system switches to production. The display then shows "Production" → Water runs into the tank and the wastewater runs into the drain – check this!
- ✓ It may take a few minutes for the EASYRO to reach the lowest μS value!
- ✓ The EASYRO is now fully installed and ready for operation!
- ✓ Important check: When the tank is full, it is important to check that the level sensor switch-off is also working!

3. Controls and functions – EASYRO 150-300-600

Control elements and functions

EASYRO® 150 / 300 / 600

Control Elements and Keys



- ◀ Left arrow
- ▶ Right arrow
- ▼ Down arrow
- ▲ Up arrow
- ESC
- OK
- F1, F2, F3, F4
- Display color**
- White: System active
- Yellow: Warning/Information
- Red: Alarm

	<p>Display shows "STAND BY" mode - Only with models equipped with pressure-free tank (The system is not in production mode – possibly the tank is full)</p> <p>The fill level is displayed as a bar on the left side of the display Scrolling "Ready" Time and date</p>
	<p>Display shows "STAND BY" mode - Only with models equipped with pressurized tank (The system is not in production mode – possibly the tank is full)</p> <p>Indicator bar for pressure exit 1 and exit 2 Scrolling "Ready" Time and date</p>
	<p>System during production - Only with models equipped with pressure-free tank</p> <p>Displays Con = electrical conductance value in $\mu\text{S}/\text{cm}$ Con1: shows the output conductance value, output 1 with intersection Con2: shows the output conductance value, output 2 without intersection</p>
<p>Models equipped with pressurized tank All display messages are the same for models equipped with pressurized or pressure-free tank. Only the indicator bars are different.</p>	

<p>Firmware V 8.0.5 Total 51h48m Maintenance 3164 Litre 1923</p>	<p>Displays software version, motor hours and operating hours Open info page with F4 (Do not press longer than max. 5 seconds. Pressing this longer starts the "Suction Membrane Cleaning" programme)</p> <p>Total = shows already passed motor hours Maintenance = shows the remaining operating hours until the next maintenance (from 4500 downwards) Liter = shows the already produced clean water quantity in litres</p>
<p>EASYRO REJECTION Con1: 400 Con2: 54</p>	<p>Rejection display</p> <p>The conductance value of the clean water is still above the conductance value set at the factory, which means the system is drained. The system goes back in production after reaching the conductance value.</p>
<p>EASYRO Flush STAND BY</p>	<p>Flushing display</p> <p>The system goes through a brief flushing cycle before and after each production cycle.</p>
<p>EASYRO Flush</p>	<p>Flushing display</p> <p>A daily flush cycle preset at the factory, which may be extended in the service menu if desired, is carried out by the system in addition to the brief flushing cycle before and after each production cycle. The system should be flushed at least once a day for 1 minute.</p>
<p>Set time Tue 13:10 YYYY-MM-DD 2016-08-05</p>	<p>Changing date and time ▼ ESC = SETTINGS - DATE</p> <p>Select menu option SETTINGS, select date and use the arrow keys to set the time. Save with OK.</p>
<p>ADDITIONAL DISPLAY MESSAGES FOR PENDULUM SYSTEMS - P MODE</p>	
<p>EASYRO P-Mode STAND BY 13:55:05 2016 - 09 - 16</p>	<p>Display only in pendulum mode (P mode) if „READY FOR OPERATION“ (The system is not in production mode - possibly the tank is full)</p> <p>Both units depict the same display in „STAND BY“ mode.</p>
<p>EASYRO P-Mode PRODUCTION 13:55:05 2016 - 09 - 16</p>	<p>One of the two units during production.</p> <p>If the master unit is working, the slave shows „STAND BY“. If the slave unit is working, the master unit shows „SLAVE ACTIVE“.</p>

<p style="text-align: center;">SLAVE ACTIVE</p>	<p>Display on the master unit while slave unit is working.</p>
<p style="text-align: center;">DUAL MODE</p>	<p>Display on master and slave if both units work in parallel.</p>

4. Controls and functions EASYRO 120-240-480

Control elements and functions

EASYRO® 60 / 120 / 240 / 480

Control elements and keys





- ◀ Left arrow
- ▶ Right arrow
- ▼ Down arrow
- ▲ Up arrow

ESC
OK

Display color:
White: System active
Yellow: Warning/Information
Red: Alarm

<p>EASYRO We 11:12 Stand by bar 5 (Pressure vessel) 2016 - 09 - 16</p>	<p>Display shows "STAND BY" mode (The system is not in production mode – possibly the tank is full)</p> <p>The fill level is displayed as a bar on the left side of the display or pressure indication in bar for pressurized tank Day of the week and time Scrolling "Ready" Date</p>
<p>EASYRO Production Con: 60 bar 5 (Pressure vessel) Maintenance:489</p>	<p>System during production</p> <p>Displays Con = electrical conductance value in $\mu\text{S}/\text{cm}^1$ Scrolling display for operating hours left until maintenance is due (Maintenance is due after 4500 operating hours)</p> <p>Indicator bar: tank filling level for unpressurized tank pressure indication in bar for pressurized tank</p>

	<p>ESC + ► right arrow = INFO</p> <p>Displays software version, motor hours and operating hours (Do not press longer than max. 5 seconds. Pressing this longer starts the “Suction Membrane Cleaning” programme S = shows the remaining operating hours until the next maintenance (from 4500 downwards)</p> <p>M = shows already passed motor hours</p> <p>Firmware = shows software version</p>
	<p>Changing date and time</p> <p>▼ ESC = SETTINGS - DATE</p> <p>Select menu option SETTINGS, select date and use the arrow keys to set the time. Save with OK.</p>

5. Maintenance instructions for EASYRO

EASYRO® 150/300/600

The display of your EASYRO® shows „CHANGE FILTER“.

The maintenance interval of 4500 operating hours has therefore expired. The system must be serviced at this time.



Display of
EASYRO® 60/120/240/480



Display of
EASYRO® 150/300/600

Please read this maintenance instruction carefully and follow the steps outlined here.

Regularly servicing your EASYRO® system ensures a long working life of the membranes.

Please prepare all parts and components before starting the maintenance process. This includes the required clean water for the cleaning solution. The amount is listed in the mixing table and on the back of the canister of your basic maintenance kit.

You need following for the maintenance:

- 1 wound thread filter, 1 µ, 10'' or 20'' depending on your system type (included in your maintenance kit)
- Cleaning concentrate for flushing the membranes (included in the maintenance kit)
- 1 canister (included in your basic maintenance kit)
- 2 tubes Ø 10 mm (included in your basic maintenance kit)
- 1 straight connector tube (included in your basic maintenance kit)
- 1 plug (included in your basic maintenance kit)

- Clean water depending on system type (water amount according to table)
- 1 Y-connector (included in the EASYRO® 600 basic equipment)
- 10 l bucket or similar container
- Disposable gloves (included in maintenance kit)
- Breathing mask (included in maintenance kit)

Only if required (not included in maintenance kits)

- 1 activated carbon filter 10" or 20" depending on requirement
- 1 softener cartridge 10" or 20" depending on requirement



Model	Amonut of Concentrate	Amount of Water
EASYRO® 60/120/150	250 ml cleaning concentrate	4.750 ml water
EASYRO® 240/300	500 ml cleaning concentrate	9.500 ml water
EASYRO® 480/600	2 x 500 cleaning concentrate	2 x 9.500 ml water

No maintenance available:

If you do not have a maintenance kit available, it is possible to delay the maintenance interval for further 50 hours of production.

Note

This bridging should only be used in case of emergency! After these 50 hours of production have elapsed, the EASYRO® system stops and cannot be restarted until serviced.

Please obtain your maintenance kit in time.

Bridging the maintenance for 50 hours of production:

Press the OK button to acknowledge the displayed "CHANGE FILTER."

The EASYRO® system now continues in production mode for another 50 hours.

Note

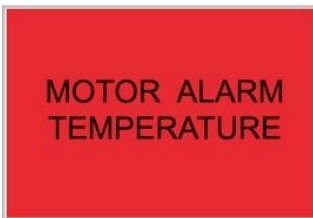
After expiration of these 50 hours, the display shows "ALARM STOP FILTER" (EMERGENCY STOP FILTER) and only starts after carrying out the following steps:



Please press ESC + ▼ (down arrow) to reset the filter.
Prepare the maintenance kit and start the maintenance as described.

Note

If the following is displayed, maintenance cannot be carried until the error is fixed:
"Alarm Stop Filter"
"Motor-Temp Alarm"



General filter reset for all systems

When „ALARM STOP FILTER“ is displayed, press ESC and hold until the cursor flashes. Now press OK.

The following is displayed: 000000

Now use the arrow keys to set the number code.

Please set 000505 and press OK again.

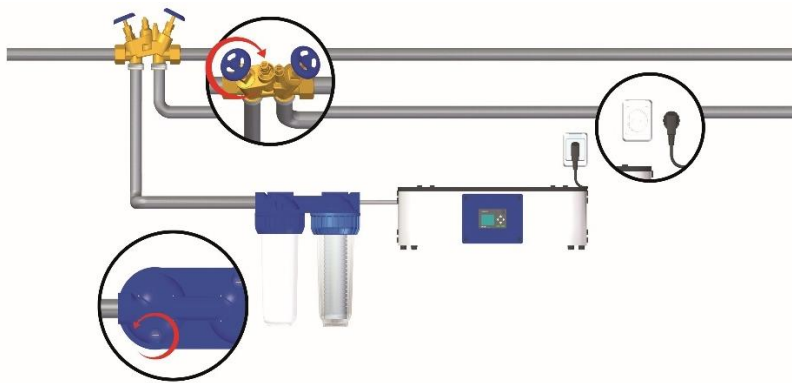
The display now depicts „FILTER RESET“.



When „FILTER CHANGE“ is displayed, press ESC + ▼ (down arrow) to reset the filter.

Preparing the system for maintenance

EASYRO® 60/120/240/480



Turn the main water supply valve off and remove the EASYRO® system from the power supply by pulling the mains plug.

To relieve the system pressure, open the screw on the filter housing with a screwdriver until the pressure can escape.



Disconnect the clean water outlet hose from the system. This is done by pressing on the holding element to unlatch it and then pulling the tube from the connector.

Then insert the tube (included in the basic maintenance kit) into this outlet and place the end of the tube in a bucket.

Please use a suitable collecting container (bucket) according to the following amounts.

System type	Max. output volume
EASYRO® 150	approx. 5 litres
EASYRO® 300	approx. 10 litres
EASYRO® 600	approx. 20 litres

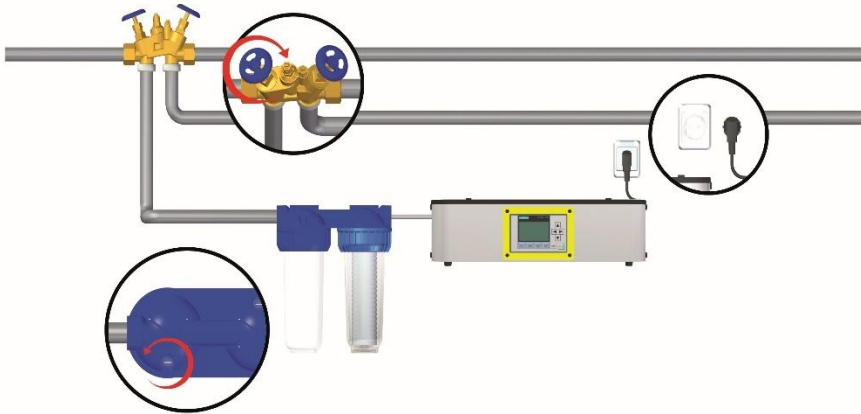
The clean water outlet remains disconnected from the tank during the entire maintenance process to avoid any residues in the drinking water tank.

Make sure the mixture adjustment screw of the system is closed (turn clockwise to the stop).

Should your system feature a setting here, remember the number of turns or mark the position so that you can reset the screw at the end of the maintenance process.

Preparing the system for maintenance

EASYRO® 150/300/600



Close the main water shut-off valve and disconnect the power plug of the EASYRO® from the mains power supply. To release pressure, you must turn the screw of the filter housing with a screwdriver until the pressure can escape.



The EASYRO® has one pure water outlet with a reject stream and one pure water outlet without a reject stream (top).

Disconnect both pure water outlet hoses from the tank. To do this, push back the retaining element and pull the hose out of the connector.

If you are using a membrane boiler, your water treatment system is pressurised.

During the entire flushing process, direct both pure water outlets into the drain to avoid any flushing residues entering the pure water tank.

System type	Max. output volume
EASYRO® 150	approx. 5 litres
EASYRO® 300	approx. 10 litres
EASYRO® 600	approx. 20 litres

Note

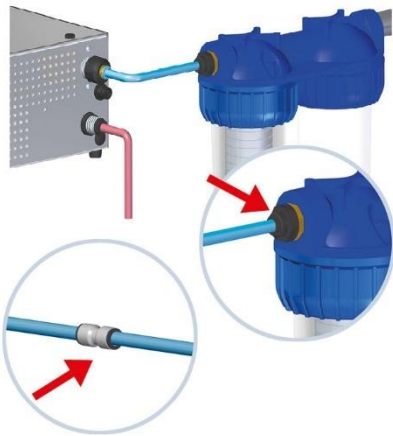
An EASYRO® 150/300/600 has an integrated reject stream. The system only produces ultrapure water for the tank at the lower pure water outlet once again when the flushing cycle is completely finished and all residues of the cleaning solution have been flushed out.

Preparing the cleaning solution for all EASYRO Systems

To prepare the cleaning solution, please open the canister from the basic maintenance kit.

Please use the included disposable gloves and breathing mask for your safety when opening the concentrate. Dilute the cleaning concentrate with fresh water according to the mixing table.

Then screw the cap back on the canister with the cleaning solution and shake it until water and concentrate are mixed thoroughly. Insert the suction tube (included in basic maintenance set) into the connector on the cap of the canister.



Now disconnect the tube (6) from the outlet of the pre-filter housing. Take the straight connector (basic maintenance kit) and connect this tube with the suction tube on the canister by pushing the two tube ends into the connector.

Please make sure that all connections are fastened firmly and do not leak.

Note

Both systems, the EASYRO® 480 and the 600, are equipped with 2 water inlets that are connected with one another. Please remove these two tubes directly from the system and use the Y-connector included in your basic maintenance kit to connect both tubes.

View of tubing connections for maintenance



EASYRO® 60/120/240/480



EASYRO® 150/300/600

Suctioning the cleaning solution

Now reinsert the power plug into the power socket. Depending on system type, the display now depicts "FILTER CHANGE",

"FILTER RESET" or no message.

EASYRO® 60/120/240/480

Press ESC + ◀ arrow left and hold down both buttons until „SUCTION MEMBRANE CLEANING“ appears.

EASYRO® 150/300/600

Press F4 and hold down button until "SUCTION MEMBRANE CLEANING" appears.



Note

A „60 seconds“ timer is displayed with older models. Now press OK.

The EASYRO® system now suctioned in the cleaning solution for 60 seconds. As soon as the entire solution is suctioned into the system and before the system can draw in air (= canister almost empty), unplug the mains plug from the socket.

With the EASYRO® 240/300 and 480/600, the suction process should be repeated 2 to 3 times until the entire cleaning solution has been suctioned into the system.

!!! The cleaning solution should now remain in the system for about 30 minutes. !!!

Changing the filter in the pre-filter housing

While the cleaning solution is working in the membranes, please change the pre-filters in the double filter housing. Do so by unscrewing the union nut of the pre-filter housing with the included filter key and take out the gasket rings.



!!!ATTENTION!!!

Both pre-filter housings are filled with water. Please use a bucket or a similar container to remove the water.

If you have a sediment filter in chamber 1 and an activated carbon filter in chamber 2, please replace both.

If you have a softener cartridge (transparent granulate) in chamber 2, please replace only the filter insert in chamber 1. The granulate of the softener cartridge dissolves over time. It does not need replacing until the granulate material is almost completely dissolved.

Please clean the union nut, sight glasses and gaskets of the pre-filter housings with lukewarm water before reinserting the filter inserts.

Replace the gasket rings and screw down the union nut with the filter key. Make sure the filter housings are tight and do not leak.

!!!ATTENTION!!!

New wound thread filters must be flushed out! Flush the pre-filter housing with the new wound thread filters into the drain for 3 minutes. The flushing water from the filters must not enter the EASYRO® system, as it will damage the membrane!!!

Dispose of the used filter insert (wound thread filter) from chamber 1 (or 1 and 2) in the household waste.

Flushing out the cleaning solution

After the residence time of the cleaning solution, please disconnect tubes from the plug connection. This is done by pressing on the holding element and then pulling out one tube after the other.

Now reinsert the water supply tube of the system into the connector of the pre-filter housing. If you use the EASYRO® 480 or 600 system, please reinsert both fresh water supply tubes into the corresponding connections of the system.

Open the main water supply line again. Make sure all lines and connections are correctly positioned and do not leak.

The pressure tank must be closed and an unpressurised tank must not be full during the flushing process, as the level sensor would prevent production.

Then plug the mains plug of the system back into the socket and confirm with OK. The system now starts the flushing process and flushes the cleaning solution off the membranes into the drain.

System type	Flushing time
EASYRO® 60/120	mind. of 3 minutes
EASYRO® 240/300	mind. of 5 minutes
EASYRO® 480/600	mind. of 10 minutes

Returning to normal operation

EASYRO® 60/120/240/480

Disconnect the pure water outlet again and reconnect the hose leading to the tank. If necessary, set the adjustment wheel on the blending valve back to its starting point.

EASYRO® 150/300/600

Reconnect both pure water outlet hoses to the tank.

!!! Unscrew the union nuts with the filter spanner supplied with the system and remove the sealing rings to clean them!!!

Completing maintenance

Reinsert the power plug into the power socket.

Now the maintenance of the EASYRO® system is complete and standard operation continuous.

Operating hours counter after maintenance

After maintenance, the system automatically resets the operating hours counter to 4500 hours and goes into production (unless the tank is full).

Dispose of all residues of the cleaning solution in the drain and flush out the canister and the two maintenance hoses so that they can be used again for the next round of maintenance work.

You now have another 4,500 operating hours (= 6 months of continuous use) until the next maintenance work is required.

6. Service menu

Accessing the service menu

Press F1+F2+F3 on the TD (ESC and right arrow for LOGO!) simultaneously, then hold down ESC until the cursor on the "Code" line flashes. Press the ENTER key (000000 appears). Use the arrow key to navigate to the right and use the up and down arrows to set the code 111. 000111 then appears on the display. Then press the ENTER key, the display now shows 111 without the zeros. Press the ESC key once to exit input mode. Now you can scroll up and down with F1 and F2. To exit, press and hold the F4 key until the INFOSCREEN appears.



Accessing the service menu using software version 8.3 and above

Press F1+F2+F3 simultaneously on the text display.

The following screen appears on the display.



Service opens the service menu.

Filter is for resetting the filter counter.

Press and hold ESC until the cursor flashes on the “Service” line.

Use the arrow keys to select whether you want to go to the service menu or reset the filter.

Then press the ESC key (000000 appears). Use the arrow key to navigate to the right and use the up and down arrows to set the code 000111 for the service menu or code 000555. The display will then show 000111 or 000555. Then press the ENTER key. The display now shows 111 or 555 without the zeros. Press the ESC key once to exit input mode. You can then scroll up and down in the service menu using F1 and F2. To exit, press and hold the F4 key until the INFOSCREEN appears.

After entering the code, “Filter Reset” appears for the filter.

6.1 Resetting the filter before software version 8.3

- Press and hold ESC until the cursor starts to flash.
- Then press the ENTER key until 000000 appears.
- Use the arrow keys for navigation.
- Filter Reset: Password 505 to reset the filter counter!

Maintenance Interval: Factory setting of 4500 hours, cannot be changed (general warranty conditions).



6.2 Reject stream

Reject ON = conductance value at which the reject stream is switched on.

Reject OFF = conductance value at which the reject stream is switched off.

There must be a difference in value of 10 between on and off!!!

ATTENTION!!! REJECT STREAM ONLY AVAILABLE AT OUTLET 1 (pure water).

For setting:

- Press and hold ESC until the cursor starts to flash.
- Then press the ENTER key.
- Use the arrow keys for navigation.



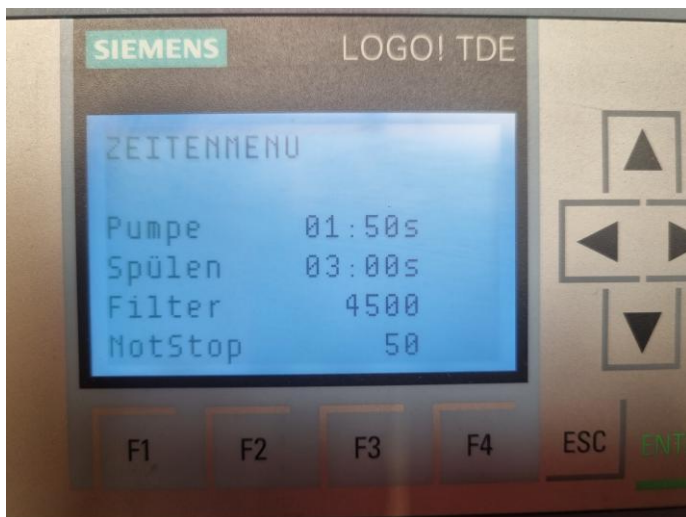
6.3 Time menu

Pump: Switch-on delay of the pump BEFORE production (to flood the system).

Flush: Flushing time AFTER production to displace the concentrate.

Filter: Service interval preset in the factory to 4500 hours. (Corresponds to a running time of approx. 6 months).

Emergency Stop: Production time in hours after reaching the service interval before emergency shutdown.



6.4 Adjusting the outlet pressure

(only for pressure-controlled systems)

Press and hold ESC until the cursor starts to flash.
Then navigate to the line you want using the arrow keys.

Min. = switch-on pressure.

Max. = switch-off pressure - **this must be entered twice, one below the other!**

Difference between switch-on and switch-off pressure **must be 1 bar!!!**

Press the ENTER key on the relevant line and enter the value using the arrow keys. Press ESC to return to the next line. Press ESC again to exit resetting and press F4 to exit the service menu. (Also works if you pull out the mains plug and plug the system back in after a few seconds)

Example:

+00250 appears on the min. line – this means that the system switches on at 2.5 bar.

+00350 appears on the max. line – this means that the system switches off at 3.5 bar.

Emergency shutdown is at 6 bar!

The maximum possible outlet pressure would be 6 bar!

The system has 2 outlets for pure water. The value must be set separately for each outlet!

They are labelled Outlet 1 and Outlet 2 on the menu.



6.5 Configuration

- Press and hold ESC until the cursor starts to flash.
- Then press the ENTER key.
- Use the arrow keys for navigation.

S1 On is Easyro 150

S2 On is Easyro 300

S1 + S2 On is Easyro 600



6.6 Tank setup

Adjustment of tank filling and switch-on point.

- Press and hold ESC until the cursor starts to flash.
- Then press the ENTER key.
- Use the arrow keys for navigation.



6.7 Master

This menu item is only for redundant systems.

In single operating mode, Master On should be set.



6.8 Signal check

P2 shows the tank fill level.

LF1 + LF2 displays the conductance.

Sec/L this value must be entered.

- Use a stopwatch to measure how long it takes the system to produce 1 litre of water.
- Then enter the seconds.



7. Setting the tank height

- Press the down arrow until the date and time appear.
- Press ESC – STOP the system! **Do not then forget to restart the system!!!**
- Press ESC – select Logo Settings.
- Select Program or Programming.
- Select Set Parameter.
- Use the arrow keys to navigate to the correct block.
- Press the ENTER key to enter the block.
- Press the ENTER key again and use the arrow keys to set the value to the tank height – see guide values.

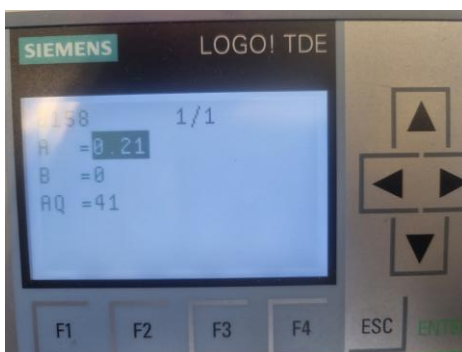
120/240/480 Parameter block 56

150/300/600 Parameter block 158

Examples:

195 cm is 0.15; **175 cm is 0.16**; 150 cm is 0.19; **135 cm is 0.21**; 112 cm is 0.27;

100 cm is 0.30; 90 cm is 0.32



7.1 Level sensor setting models 4/2024 - 6/2024

120/240/480 Parameter block 56

150/300/600 Parameter block 158

Guide values:

S. No. 150-2401 ... indicates year of manufacture 2024, month 01-January

Default setting for systems and sensors before April 2024 is 0.21 = 135 cm

Basic setting from April 2024 to June 2024 with new tank sensor 0.13/0.26 = 135 cm!!!!

180 cm is 0.10; 164 cm is 0.11; 148 cm is 0.12; 133 cm is 0.13; 119 cm is 0.14; 100 cm is 0.16; 91 cm is 0.17 for some models double the value!!!

7.2 Level sensor setting with software version 8.3 and above

!!! The tank sensor should be upright on the bottom of the tank and not lying flat!!!

For EASYRO 150/300/600

“Ready” is displayed on the start screen

- Press the down arrow and the date/time appears.
- Press the ESC key.
- Select Logo Settings and press OK.



- Select Program and press OK.



- Select Set Parameter and press OK.



- Select Level and press OK.



- Select Parameter V2 and enter the fill level in cm.



- Confirm with OK.
- Press ESC to return to the start screen.

Fine adjustments can be made in the tank setup.

To do this, go to the service menu.

Scroll forwards with F2 to “Tank Setup”.



Full = the value entered in V2 for 100% = switch-off of the EASYRO. If you want the EASYRO to switch off earlier, a lower value must be entered here.

On = the value in % of the fill level at which the EASYRO should start refilling again.

Empty = the value in % from which the dry-running protection mechanism on the external high-pressure pump is activated.

There should always be approx. 10% difference between full and on!

Once the values have been successfully changed, exit the service menu again.

For EASYRO 120/240/480

Press and hold ESC and the up arrow until the menu appears.

Tank Setup.

For V2, enter the filling height required in cm and confirm with OK.

7.3 Conversion to new tank sensor



Remove the protective plate.



The connector strip on the motor side has several plugs.



3. Disconnect the plug from above and remove the 1st white cable from the plug (in the image, this is the cable with the orange end sleeve).



Remove the blue cable connected to I1 and insulate it.



Connect the white cable of the plug to I1 and connect the resistor supplied to I1 and M. Install software version 8.3!!!

8. Change of outlet pressure

EASYRO 60/120/240/480

Start from the start screen.

Press the down arrow.

The date and time appear

- Press ESC.
- Select Program and press OK.
- Select Set Parameter and press OK.
- Select B59 and press OK.
- ON and OFF are the 2 values for switching off the system. Press OK for the first value and you can adjust it (+00400 is 4 bar). Then confirm with OK. Do exactly the same on the 2nd line for OFF. The same value should then be set for ON and OFF.
- Scroll back with ESC until you are back in the blocks.
- Now select Block 69 and confirm with OK.
- Set the OFF value to the switch-on value – this must have a difference of 1 bar from the switch-off value.
- Then press ESC again until the display shows the date and time.

- Then press the up arrow and you are back on the start screen

9. Change from tank to pressure control EASYRO 120/240/480

--- You can navigate using the arrow keys ---

- Install the Aquasherriff 8.12 software

Once the software has been installed, one more parameter needs to be set!

Instructions as follows:

- Press the down arrow until the time appears
- Press ESC
- Select "Program" and press OK
- Select "Set Parameter" and press OK
- Go to Block 50 and press OK
- Press OK again, "OFF" appears and flashes
- Press the down arrow key and "ON" appears and flashes
- Confirm with OK
- Press OK several times until the date and time appear on the display again
- Press the up arrow and the start screen appears

The system is now pressure-controlled.

Adjust the switch-on pressure in Set Parameter Block B 69.

Adjust the switch-off pressure in Set Parameter Block B 59 - enter value twice.

The default setting for the system is as follows:

Switch-off pressure 400 = 4 bar Switch-on pressure 280 = 2.8 bar

If these values are adjusted, make sure that there is always a pressure difference of at least 1 bar!

10. Changeover from tank to pressure or pressure to tank control EASYRO 150/300/600

Changeover from level-controlled system to pressure-controlled system or pressure-controlled system to level-controlled system for EASYRO® 150 /300/600

Preparation

- Transfer the program you want to the memory card.
 - Then remove the tank sensor at the back of the EASYRO.
- System – **with level-controlled system**
- Pure water outlet of the EASYRO®: Please insert a stopcock and leave it open.
 - Open the water infeed.

Note: The water infeed should always pass through a pre-filter!

- Now open the cover of the EASYRO system.
- Connect the system to the power supply.
- System displays “Check sensor” – **with level-controlled system**

Transferring software to the control unit

First of all, the memory card must be inserted into the control unit, please proceed as follows:

- Open the card slot on the Siemens LOGO! and insert the memory card into the card slot.
See photo



- Close the card slot.

Now the program must be transferred to the Siemens LOGO!; please proceed as follows:

- Press the ▼ arrow key until the date/time appears.



- Press **ESC**.
- Use the arrow keys to select “Stop” and confirm with **OK**, then select “YES” and confirm with **OK**.
- Then select the “Card” menu item and confirm with **OK**.



- Select the “Load Prog←Card” menu item and confirm with OK.



- Confirm “YES” with OK.



- Program is now saved from the memory card to the Siemens LOGO!
- When the process is complete, the main menu reappears on the display.
- Now switch off the power to the system and pull out the mains plug.

!!! Attention!!! Follow point 7.1 for new level sensors from 04-2024!!!

Changing the system from level-controlled to pressure-controlled

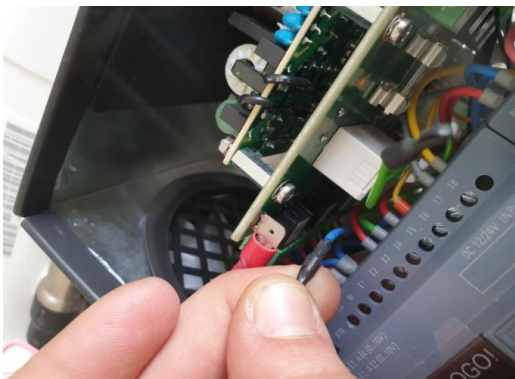
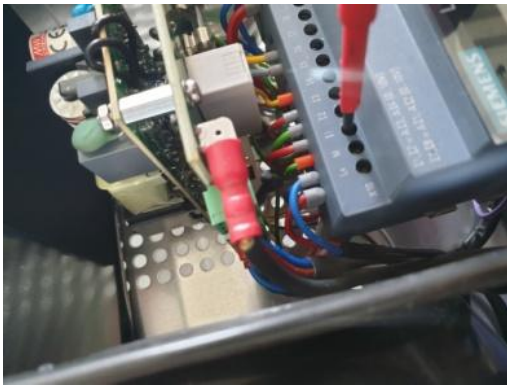
You will need a small screwdriver for the next operation.

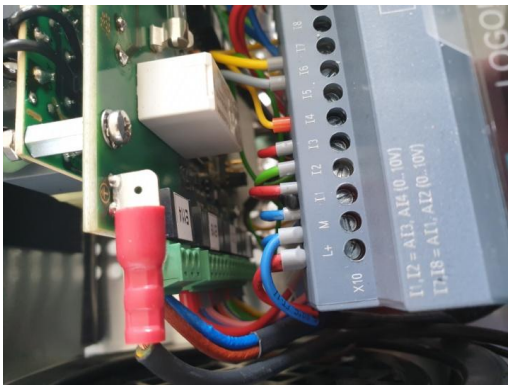
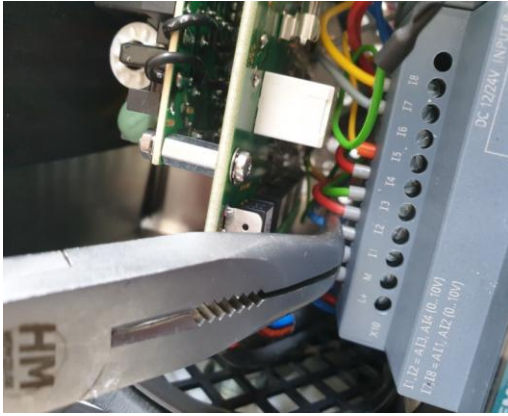
- Open connection I1 and remove and insulate the green wire.
- Strip the insulation from the blue insulated wire that is clamped next to it (between the green and red wire) and connect it to connection I1. The wire can also be exposed next to it.

Changing the system from pressure-controlled to level-controlled

You will need a small screwdriver for the next operation.

- Open connection I1 and remove and insulate the blue wire.
- Strip the green insulated wire that is fitted next to it (between the blue and red wire) and connect it to connection I1. The wire can also be exposed next to it.





- Plug the mains plug back in.
- The main menu appears on the LOGO!



- Use the arrow keys to select "Start", confirm with **OK** and then select "YES" and confirm with **OK**.
- System runs with pressure-controlled software.
- Close the cover.
- Changeover complete.
- Now set the correct tank height.

11. Setting the operating timer

Important! The date and time must be set correctly!

System is in Production or Ready.

- Press the down arrow -- the date and time will appear.
- Press the ESC key.
- Select Logo Settings and press the ENTER key.
- Select Program and press the ENTER key.
- Select Set Parameter and press the ENTER key.
- Then press the down arrow key until parameter B103 appears.
- Select B103 with the ENTER key.

MTWTFSS (Monday, Tuesday, ...) has a black background.

- Press the ENTER key to select -- use the arrow keys to adjust.
Arrow up/down: If the letter appears, the day is active, if there is a minus then it is inactive.
Arrow left/right: select next/previous day.
- Press Enter to exit the line.
- Press the down arrow key and ENTER key to set the switch-on time using the arrow keys.
- Press the ENTER key to exit the line.
- Press the down arrow key and ENTER key to set the switch-off time using the arrow keys.
- Press the ENTER key to exit the line.

etc.

- Then press ESC repeatedly until you have completely exited - date/time - then press the up arrow key to display the operating status again.

To activate the timer, enter the service menu.

- To do this, press the F1, F2 and F3 keys simultaneously - the service menu appears on the display
- Press and hold the ESC key until a black bar appears
- Then press the ENTER key – 00000000 appears on the black bar
- Enter 000111 using the arrow keys
- Then press the ENTER key and then press ESC
- You can scroll forwards with the F2 key and backwards with the F1 key!
- Scroll forward 4 pages until a page appears with Timer OFF at the top
- Use the arrow keys to go to the Timer OFF line and hold down ESC until OFF is highlighted in black
- Then press the ENTER key
- Now press the down arrow key until ON is displayed instead of OFF
- Then confirm with the ENTER key
- Press ESC
- Exit with F4 (or pull out the mains plug)

Finished

The system runs only for the set time!

12. Changing the IP address

The Siemens LOGO! control unit and the text display must be changed separately.

Factory default setting:

Siemens LOGO!

LOGO IP 192.168.000.231

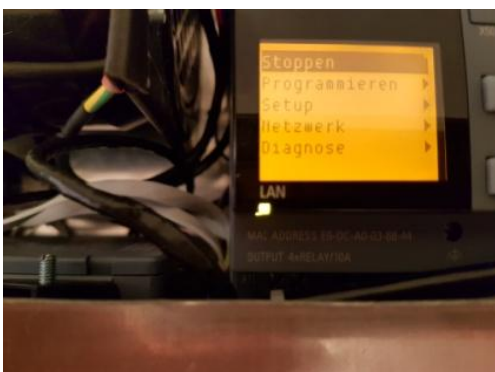
Subnet mask 255.255.255.000

No message for the character set

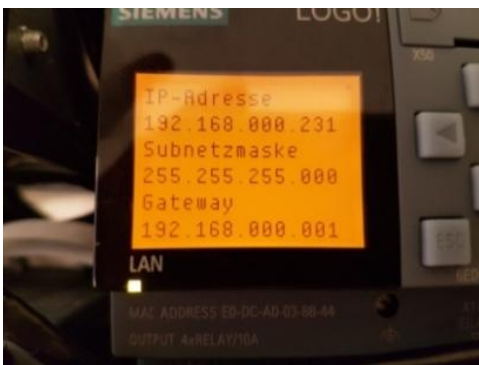
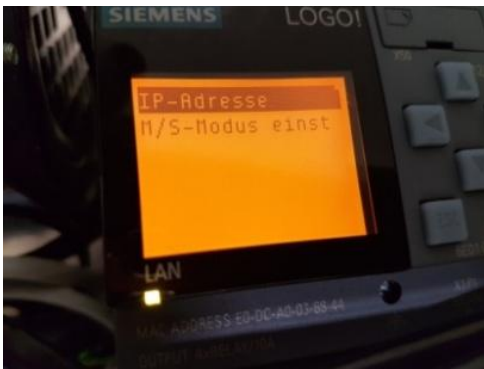
- Press the down arrow key ▼.
- Press ESC as soon as the time and date appear on the display.



- Before the IP address can be changed, the Siemens LOGO! program must be stopped. Select "Stop" with the arrow keys ▼▲ and confirm with "OK".



The program must now be stopped using the arrow keys ►◀ Select Yes and confirm with "OK"



Once the Siemens LOGO! IP address has been changed, the IP address for the text display must be changed. The IP addresses must not be identical but consecutive.



- Use the arrow keys ▲ ▼ to select TDE Settings and confirm with **OK**.



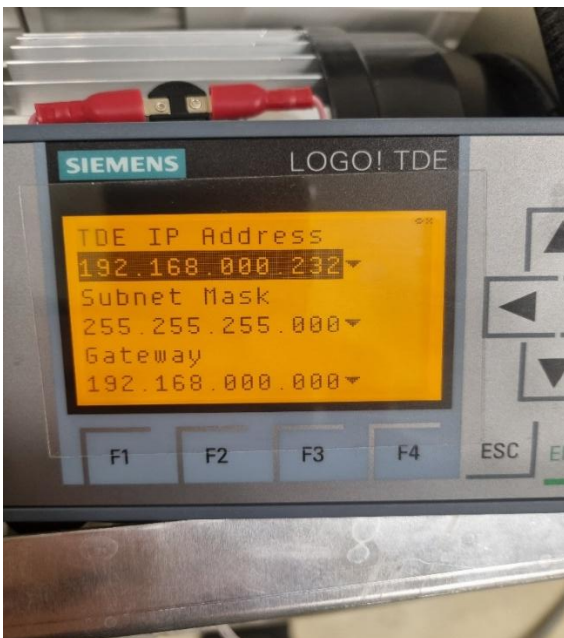
- Use the arrow keys ▼ ▲ to select Network and confirm with **OK**.
- Then select the IP address and confirm with **OK**.

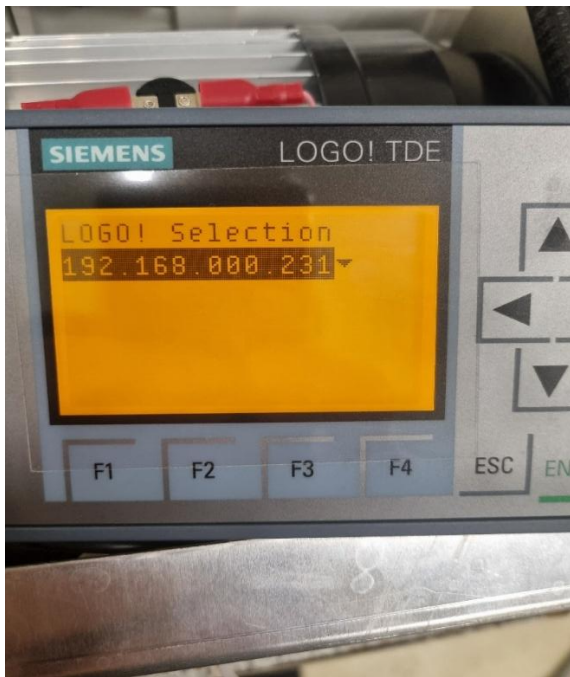


- Logo! Selection Enter/OK
- Change IP address to that of Logo! display – confirm with Enter
- ESC

- Start program sequence again on Logo! display
- ▼
- Network
- IP address LOGO 231
- IP address Text Display 232

Default settings:





12.1 Installing software on Siemens Logo!

Preparation

- Transfer the program you want to the memory card.
- Then remove the tank sensor at the back of the EASYRO.
System – **with level-controlled system**
- Pure water outlet of the EASYRO: Please insert a stopcock and leave it open.
- Open the water infeed.
Note: The water infeed should always pass through a pre-filter!
- Now open the cover of the EASYRO system.
- Connect the system to the power supply.
- System displays “Check sensor” – **with level-controlled system**

Transferring software to the control unit

First of all, the memory card must be inserted into the control unit, please proceed as follows:

- Open the card slot on the Siemens LOGO! and insert the memory card into the card slot.
See photo



- Please close the card slot.
- Now the program must be transferred to the Siemens LOGO!; please proceed as follows:
- Press the ▼ arrow key until the date/time appears.



- Press **ESC**.
- Use the arrow keys to select "Stop" and confirm with **OK**, then select "YES" and confirm with **OK**.
- Then select the "Card" menu item and confirm with **OK**.



- Select the "Load Prog ← Card" menu item and confirm with OK.



- Confirm "YES" with .



- Program is now saved from the memory card to the Siemens LOGO!
- When the process is complete, the main menu reappears on the display.
- Now switch off the power to the system and pull out the mains plug.
- Plug the mains plug back in.
- The main menu appears on the LOGO!
- Use the arrow keys to select "Start" and press , then select "YES" and confirm with .
- Close the cover.
- Changeover complete.
- Now set the correct tank height.

13. Web server

LOGO! OBA8 has a built-in Web server which enables you to operate the LOGO! Base Module or the LOGO! TDE from a traditional PC or a mobile device.

In this approach, you can access the LOGO! Base Module or the LOGO! TDE using a connected device (conventional PC, tablet or smart phone with Web browsing capabilities) through its IP address.

The Web server allows you to use the mouse pointer or the touch screen, depending on the device you are using, to perform fast and easy operations on the virtualized LOGO! Base Module and LOGO! TDE.

LOGO! OBA8 also provides access security control over the Web server. For more information, see section Network access security.

13.1 Enabling the Web server

Make sure you have connected your PC or mobile device to the desired LOGO! Base Module or LOGO! TDE, and guarantee you have enabled the Web user access in LOGO!Soft Comfort according to instructions in the user profile settings of the Online Help for LOGO!Soft Comfort.

Supported network explorers:

The LOGO! Web server supports the following Web browsers:

- Microsoft Internet Explorer with minimum version 8.0
- Mozilla Firefox with minimum version 11.0
- Google Chrome with minimum version 16.0
- Apple Safari with minimum version 5.0
- Opera with minimum version 12.0

Make sure you do not disable cookies on your browser.

Supported devices:

The LOGO! Web server supports the following communications devices when you use one of the above explorers:

- Conventional PC
- Apple iPhone series
- Apple iPad series
- Smart phones and tablets with Android system with minimum version Android 2.0

Supported Web page language versions:

The LOGO! Web server supports the following Web page languages:

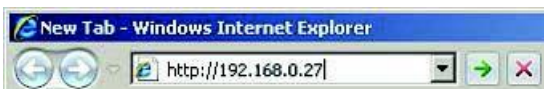
- German
- English
- Italian
- French
- Spanish
- Chinese Simplified
- Japanese

13.2 Logging on to the Web server

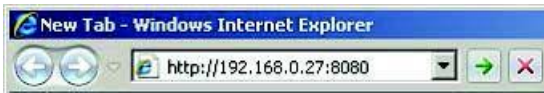
Follow the steps below to log on to the desired LOGO! Base Module.

1. Open your Web browser
2. Enter the IP address of your LOGO! Base Module in the IP address bar

– LAN (Local Area Network) access:



– Remote access:



Make sure you have enabled TCP port 8080 for remote access.

Default IP address es works easymetal

IP: 192.168.0.231

(EASYRO since year of construction June 2016)

3. Click or tap the ► button. . The LOGO! Web server redirects you to the welcome page.



If you have enabled Web user access without changing the password, you can log on with the default password "LOGO".

4. Select an appropriate language from the drop-down menu if needed.



5. Enter the password.

Note

- You can only enable the Web server access or change the logon password using LOGO!Soft Comfort. For more information about setting the user password, refer to the Online Help for LOGO!Soft Comfort.
- If you do not desire to enter the user name and password again at the next logon, you can select the "①" check box. Make sure you do not set your browser to private mode, since your browser does not record any browsing history or passwords in this mode.
- You can access one LOGO! Base Module from multiple LOGO! Web server clients, but due to memory usage, this might also impact the performance of the connected Base Module.

6. Click or tap "②" to log on to the Web server.

- For remote access, the logon may take several seconds.

- If your logon fails, press or tap the refresh button on your browser (or press the keyboard shortcut "F5" on the conventional PC) to try it again.

13.3 Viewing LOGO! System information

Once logged in, the LOGO! Web server displays all the system information of the LOGO! Base Module including module generation, module type, firmware (FW) version, IP address, and module status.



The firmware version in the screen above is listed for example, your LOGO! device may be of a later version.

13.4 Operating the virtual module on the Web server

The LOGO! Web server enables you to do the following operations on the virtual LOGO! Base Module through LOGO! BM menu and the virtual LOGO! TDE through LOGO! TD menu.

Operating the keys on the virtual module

If you have previously programmed the cursor keys and function keys in your circuit program, you can perform the following basic operations with these keys on the virtual LOGO! Base Module or LOGO! TDE:

To enable the functionality of the programmed cursor, click or tap the ESC key. Function keys are always enabled.

You can then proceed as follows:

- To enable pulse inputs, click or tap the cursor key or function key concerned.
- To enable continuous high-level signal inputs, double-click or double-tap the cursor key or function key concerned.
- To disable the programmed cursor key or function key, click or tap the ESC key again.
- To disable the display of an active message as long as this message has been previously configured in LOGO!Soft Comfort as acknowledged, click or tap the OK key.

Viewing message text

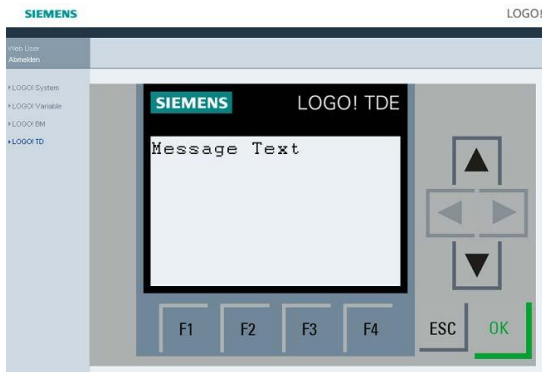
If you have configured your message text on LOGO!Soft Comfort according to the instructions in the Online Help for LOGO!Soft Comfort, you are then able to see them on the virtual screen of the module.

Click or tap LOGO! BM or LOGO! TD on the left navigation bar and you can view active messages on the virtual device

On the LOGO! Base Module:



- On the LOGO! TDE:



You can click or tap ▲ or ▼ to tick manually for available messages.

Note

The ◀ and ▶ are gray, indicating they are not applicable in viewing message texts

Viewing message text ticking

If you have configured message ticking settings on LOGO!Soft Comfort according to the instructions in the Online Help for LOGO!Soft Comfort, you can see the message text ticking by lines or characters on the virtual LOGO! Base Module or LOGO! TDE.

Checking backlight color status

If you have configured backlight color settings on LOGO!Soft Comfort according to the instructions in the Online Help for LOGO!Soft Comfort, you can see the same backlight effect displayed on the virtual LOGO! Base Module or LOGO! TDE.

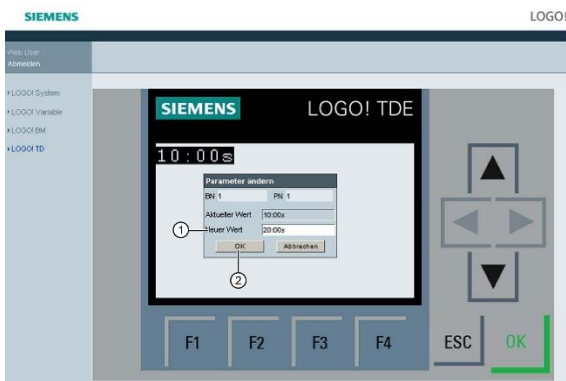
Setting the configurable parameters

If you have configured to show certain parameters on LOGO! Base Module or LOGO! TDE according to the instructions in the Online Help for LOGO!Soft Comfort, you can see them displayed on the screen. Double-click or double-tap on the displayed parameter to activate the parameter modification dialog. A parameter is grayed out when it is not editable.

- On the LOGO! Base Module:



- On the LOGO! TDE:

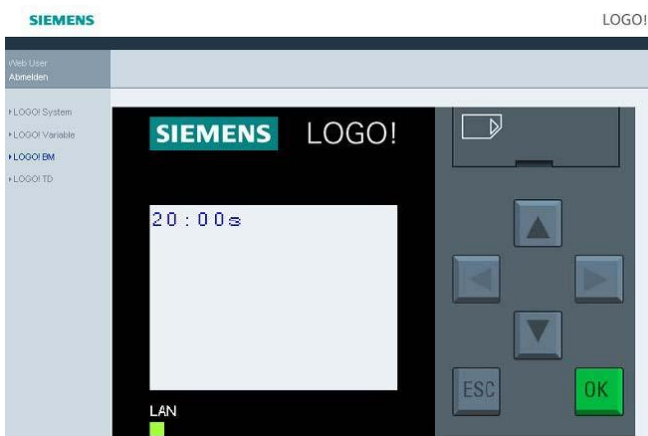


Enter the desired parameter value in line "①" on the above screens. In this example, enter "20:00s".

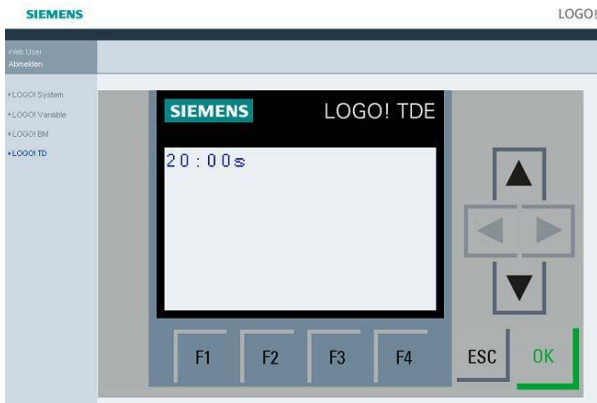
Make sure you have strictly followed the example of your current value. Any inconsistency may cause errors on the module.

Click or tap "②". The updated parameter is displayed.

- On the LOGO! Base Module:



- On the LOGO! TDE:

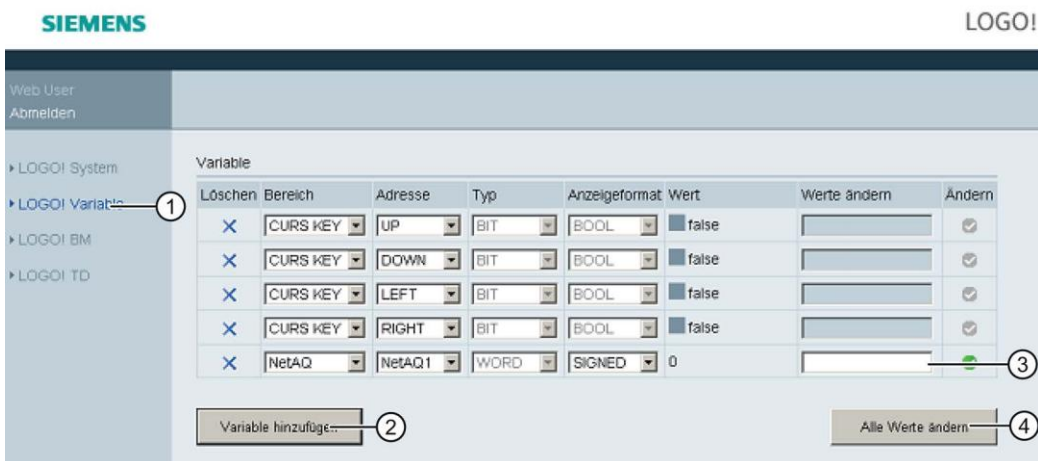


13.5 Viewing and editing variable memory tables

The LOGO! Web server allows you to check and modify variable memory tables on the Web browser.

For complete description on the LOGO! variables, refer to the "Parameter VM mapping" section of the Online Help for LOGO!Soft Comfort.

Click or tap "①" on the left navigation bar to show the variable table.



Click or tap "②" to add a new variable. Follow the steps below to set the variable.

1. Choose a desired range. Web server displays the mapping address, variable type, display format of the range.
2. Enter the new mapping address in the added empty column "③".

The indicates the variable is to be modified.

The indicates it is not editable.

Click or tap "④" to apply the new mapping addresses.

13.6 Logging off from the Web server

To log off from the Web server, click or tap the button on top of the left navigation bar .



14. Conductance compensation

The parameters for conductance measurement can be set on the menu.

Please proceed as follows:

- Press the down arrow key until the date is displayed, then press ESC.
- Select LOGO! Settings, then select Program and finally Set Parameter:

EASYRO Industry (Series 150, 300, 600)

Parameter B182+185

EASYRO House (Series 120, 240, 480)

Parameter 48

V1 is the amplified analogue value from the measuring probe (do not change)

V2 is the multiplier for the recalculation (do not change)

V3 is the correction value for the conductance display, which is calculated as follows:

$$V3 = 100 + \left(1 - \frac{\text{Outlet conductance on hand-held meter}}{\text{Displayed conductance}} \times 100\right)$$

Example 1:

Outlet conductance measured : 35 μS

Displayed conductance : 48 μS

Calculation: $100 + (1 - 35:48 = 0.7291666666666667, \text{ then } \times 100) = 127$

The result of 127 means that the displayed conductance is 27% too high, so V3 must now be set to the value 127 so that the display is correct again.

Example 2:

Outlet conductance measured : 48 μS

Displayed conductance : 35 μS

Calculation: $100 + (1 - 48:35 = 1.371428571428571, \text{ then } \times 100) = 63$

The result of 63 means that the displayed conductance is 37% too low, so V3 must now be set to the value 63 so that the display is correct again.

15. Replacing membranes in EASYRO systems

Since the new membranes have a much better performance, the system must be adjusted!

- Open the cover
- Open the membrane housing and remove the old membrane
- Clean the membrane housing
- Insert the new membrane with adapter sleeve – see instructions
- Close the membrane housing
- Fully open the drain throttle valve at the rear – in the centre – on the inside.

- Connect the 0-10 bar pressure gauge – there is a blind plug at the back on the right – remove this and connect the pressure gauge. Use a second pressure gauge for 480/600 on the 3rd floor!
- Switch on the system and let it run.
- When the Microsiemens value has dropped (this may take a few minutes), slowly throttle the system back down again with the drain throttle.
- It is important that the working pressure on the pressure gauge does not exceed 8 bar!!! If this happens, unscrew the adjusting screw on the pump to reduce the pressure.
- Check the ratio of wastewater to pure water, which should be approx. 70:30 or 65:35 at a water temperature of 18-20° (depending on the incoming water).
- Always keep an eye on the conductance value on the display when adjusting the settings.
- If the conductance value is OK and the ratio of wastewater/pure water is also OK, retighten the lock nut on the drain throttle valve, remove the pressure gauge and close the connection again.

16. Inserting the membrane with adapter sleeve

- Open the membrane housing.
- Remove the membrane from the packaging.
- Lightly grease the two rubber rings on the centre rod of the membrane.
- Place the adapter sleeve on the centre rod and press it evenly over it.



- Then insert the membrane into the housing and press it down.
- You will feel that the adapter ring slips easily into the guide



- Lightly tap the centre rod of the membrane 2-3 times with a hammer
- If the membrane is flush with the housing, the adapter ring is correctly fitted.
- To check, pull out the membrane and look into the membrane housing to see if the adapter ring is flush with the holder in the housing. Check that there are no cracks in the housing.



- Then reinsert the membrane into the housing and screw on the cover.
- The EASYRO has now been converted to the next generation.

17. Changing the operating hours

This setting is adjusted in the inner base module.

- Press the ESC key - then use the arrow keys to select the "Program" menu item
- Confirm with OK
- Then select "Set Parameter"
- OK - Now select the "BetrStdz" (Operating Hours) option (B007)
- Confirm with OK
- At the top of the first display (MI), enter the new hours using the arrow keys. (factory setting is 4500 hours)
- Confirm with OK

Press the F4 key to see an overview of whether the change was successful.

18. Drain valve

The drain valve is tightened with a lock nut. Loosen this and open the valve completely. This increases the drain flow.

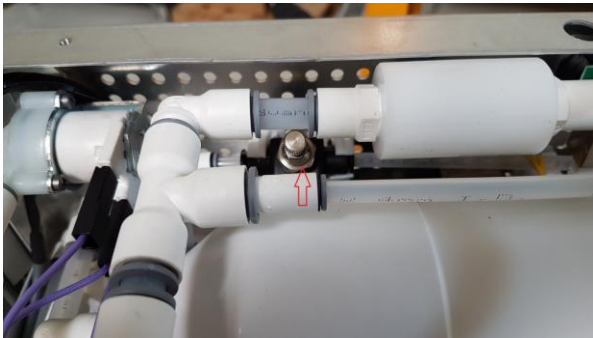
This valve creates back pressure in the membrane and thus also minimises the drain flow. Deposits can form there as the water flow is minimised.

This valve is very important when adjusting the system! There are 3 important points for a system to run well!

- Check the working pressure with the pressure gauge and adjust with the adjusting screw on the pump
- Check the drain flow with a measuring cup - if the drain flow is throttled back, the working pressure increases and the output at the pure water outlet increases!
- Check the pure water flow with a measuring cup

The ratio of pure water to wastewater should be 70:30 at best

The worse the quality of the incoming water, the higher the drain flow that you have to allow. This means that the drain flow should be increased to 40% or 50% for customers who have a problem with the membranes.



19. Fault messages EASYRO 120/240/480



Faults and troubleshooting


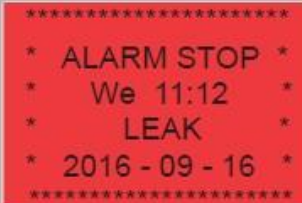

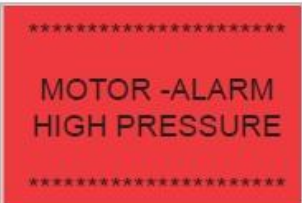



- ◀ Left arrow
- ▶ Right arrow
- ▼ Down arrow
- ▲ Up arrow

ESC
OK

Display color:
White: System active
Yellow: Warning/Information
Red: Alarm

	<p>This message appears when the water level of the tank has dropped to 10 cm. The system stops the production mode.</p> <p>Please call our service team.</p>
	<p>A lack of pressure occurred in the system. The inlet pressure has dropped and the system stops the production mode.</p> <p>Possible measures:</p> <ol style="list-style-type: none"> 1) Make sure the water supply is turned on 2) Check if maybe pre-filters are clogged (requires filter replacement) 3) Please disconnect and reconnect the power plug <p>If the inlet pressure continues to be low even after unplugging and reconnecting the system, press ESC + ▶ right arrow for 2 seconds.</p>

 <p>EASYRO VENTING</p>	<p>The display depicts “VENTING” and the system flushes for approx. 5 seconds. Afterwards the system should then resume production mode.</p> <p>IF NOT, please call our service hotline</p>
 <p>***** * ALARM STOP * * We 11:12 * * LEAK * * 2016 - 09 - 16 * *****</p>	<p>Your system reports a leak (system leaks water). The system stops automatically.</p> <p>Please turn off the water supply and disconnect the power plug. Call our service hotline.</p>
 <p>TANK EMPTY</p>	<p>This message appears only with systems equipped with an external pressure-less tank. The message resets automatically once there is enough water in the tank.</p>
 <p>***** MOTOR -ALARM HIGH PRESSURE *****</p>	<p>This message appears only with systems equipped with an pressurized tank. The internal pressure is too high. This message is not used during standard operation. Please disconnect the water outlet of the EasyRO and connect it again after a short waiting period. Confirm by pressing “OK”. EasyRO switches back to normal operating mode.</p> <p>IF NOT, please call our service hotline.</p>
 <p>***** MOTOR -ALARM TEMPERATURE *****</p>	<p>The motor temperature is too high. The system stops automatically at a temperature of 75 °C and starts again if the temperature falls to 65 °C.</p> <p>This message is not used during standard operation. Please make sure the ventilation slots are not covered.</p> <p>IF NOT, please call our service hotline.</p>

20. Fault messages EASYRO 150/300/600

Faults and troubleshooting






- ◀ Left arrow
- ▶ Right arrow
- ▼ Down arrow
- ▲ Up arrow
- ESC
- OK
- F1, F2, F3, F4

Display color

- White: System active
- Yellow: Warning/Information
- Red: Alarm

<p style="text-align: center;">TANK EMPTY</p>	<p>This message appears only with systems equipped with an external pressure-less tank. The message resets automatically once there is enough water in the tank.</p>
<p style="text-align: center;">OVERFLOW ALARM STOP</p>	<p>Only with models equipped with pressure-free tank. The system actuates the emergency-stop due to an overflow.</p>
<p style="text-align: center;">CHECK LEVEL SENSOR</p>	<p>This message appears when the water level of the tank has dropped to less than 10 cm. The system stops the production mode. Please check whether the level sensor is properly connected.</p> <p>Please call our service team.</p>
<p style="text-align: center;">CHECK MEMBRANE</p>	<p>This message appears when the set water quality has not been reached after 10 minutes. The system stops after 10 minutes of draining. This message is depicted only with deactivated drainage.</p> <p>Please call our service team</p>
<p style="text-align: center;">MOTOR ALARM TEMPERATURE</p>	<p>The motor temperature is too high. The system stops automatically at a temperature of 75 °C and starts again if the temperature falls to 65 °C. This message is not used during standard operation. Please make sure the ventilation slots are not covered.</p> <p>IF NOT, please call our service team.</p>
<p style="text-align: center;">ALARM STOP LEAK</p>	<p>Your system reports a leak (system leaks water). The system stops automatically.</p> <p>Please turn off the water supply and disconnect the power plug. Call our service team.</p>
<p style="text-align: center;">EASYRO INPUT PRESSURE</p>	<p>A lack of pressure occurred in the system. The inlet pressure has dropped and the system stops the production mode. Possible measures: Check whether the water supply is cut off. Check whether the pre-filter is clogged (requires filter replacement) 3) Please disconnect and reconnect the system with the power plug.</p>

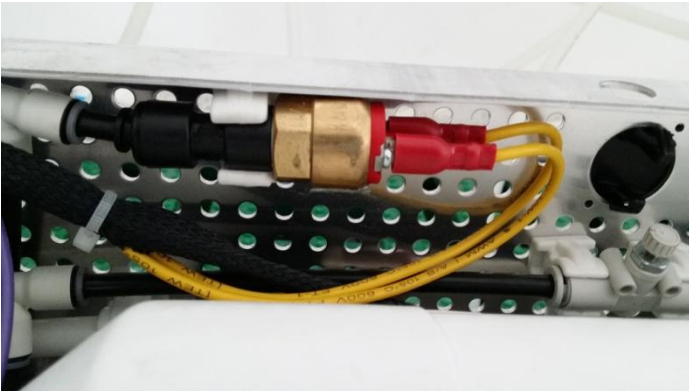
	<p>If the inlet pressure continues to be low even after unplugging and reconnecting the system, press ESC + ► right arrow for 2 seconds. The display depicts “VENTING” and the system flushes for approx. 5 seconds. Afterwards, the system should then resume production mode. IF NOT, please call our service team.</p>
	<p>An external alarm signal causes an emergency stop of the system. On request, this function is set at the factory, e.g. if the pre-filters are clogged. pre-filter system if pre-filters are clogged.</p>
	<p>This message appears only with systems equipped with an pressurized tank. The internal pressure is too high.</p> <p>This message is not used during standard operation. Please disconnect the water outlet of the EASYRO® and connect it again after a short waiting period. Confirm by pressing “OK”. EASYRO® switches back to normal operating mode.</p> <p>IF NOT, please call our service hotline.</p>

21. Troubleshooting

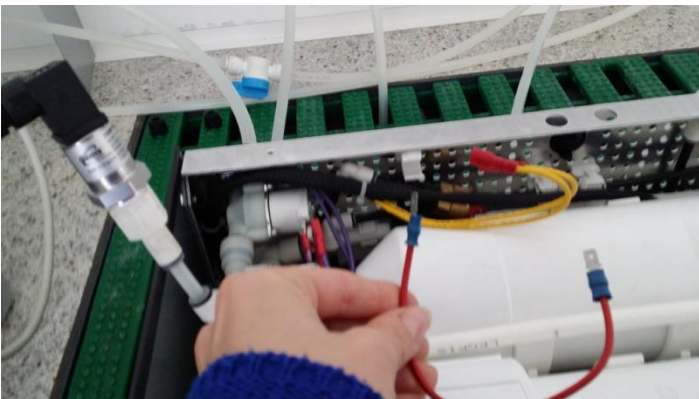
Faults are indicated by a red display

21.1 Low pressure/inlet pressure fault message

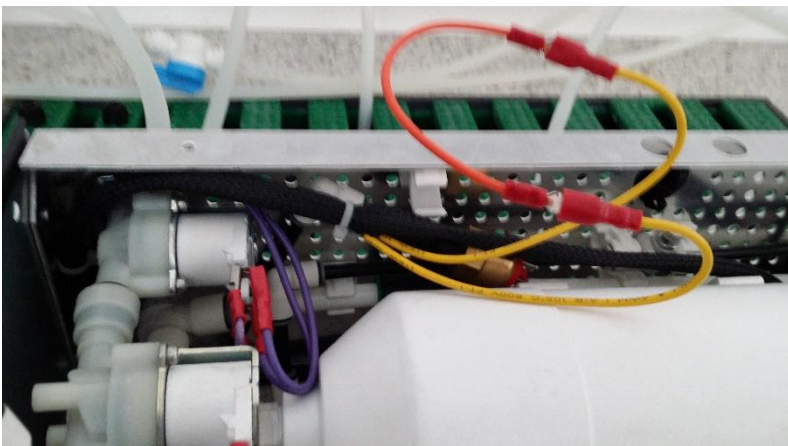
- Please unplug the mains plug from the socket and then plug the system in again. If the fault message is still displayed, there are the following options:
- Check that the water supply pipe is turned on!
- Open the cover on the system. At the back there is a small gold-coloured switch with 2 cables, in the middle of which there is an adjusting screw (between the two cables); turn this adjusting screw half a turn outwards, which should change the inlet pressure.
- If this is not the case, please bridge the two cables and the system should work again! Now check that water is flowing from the pure water pipe and also through the drain pipe.
- If water is flowing out of both pipes, the pressure switch is defective.
- If no water is flowing out of the pipes, the solenoid valve is defective.
- Is the motor coupling defective?
- You will find a clamp between the motor and the pump, unscrew this, then pull off the pump and you will be able to see if the motor coupling is broken.
- System must be vented → see Venting in the event of low pressure
- Water mains pressure is too low
- Replace the pre-filter (ATTENTION – flush out the pre-filter into the drain for 3-5 minutes after replacement!!!!!!!) → Pre-filters could be clogged
- Inlet strainer is clogged → Check the inlet strainer



The pressure switch is located on the back of the Easyro system
Please remove and unplug the pressure switch.



Then bridge the contact using the cable.



21.2 System switches on and off and flushes

The system has a leak

The leak may be inside the system or outside the system on the pressure side.

1 drop of water loss at a connection causes a pressure drop of 1 bar!

Connect a service tap to both pure water outlets on the system and close them.

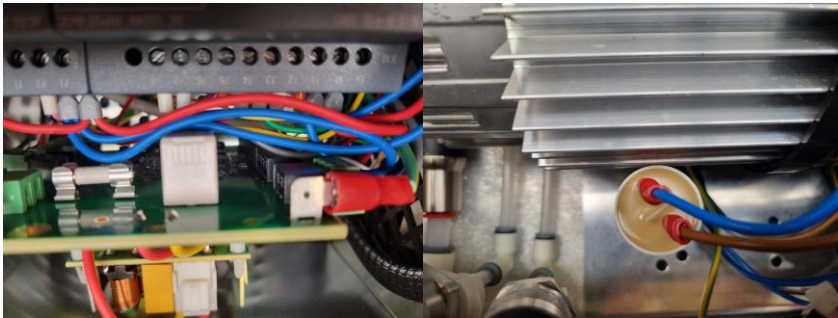
If the system still has the same fault, the leak must be inside the system. Check all connections for water leaks. Look for wet spots on the floor or under the system.

If the fault stops, the leak is outside the system. Check all connections on the pressure side from the system to the consumers and pressure vessels. Check the pre-pressure of any pressurised vessel.

21.3 System is in Production and motor is not running

Check/replace fuses on the circuit board

Check/replace capacitor



Check that the motor is receiving 230 volts at the plug – if not, the circuit board is defective!

21.4 System is producing too little water

Check that the motor is running.

Check the wastewater/pure water ratio – if there is too much wastewater flow, reduce the wastewater flow with the drain throttle. If it cannot be reduced – replace the drain throttle valve!



Connect the pressure gauge to the existing connection and check how much working pressure is reaching the membranes.

If the working pressure is not above 6.5 bar (ideally 7-8 bar), the motor coupling and pump should be checked.



Turn the adjusting screw on the pump. This should increase or decrease the working pressure. If not, the pump is defective.

Loosen the clamp on the pump, remove the pump and check the motor coupling.

The motor coupling may be worn or broken.

Turn the pump on the holder and check that it is running smoothly.

If all these points have been checked and are in order, a membrane flush should be carried out. If there is an improvement, repeat it.

If there is no improvement, the membranes must be replaced.

21.5 System is not sucking in the cleaning agent

Make sure that the suction route (hose that sucks in the cleaning agent) is not too long.

Is the motor running? Check the motor fuse and capacitor.

Hold the container with the cleaning solution at the same height as the system or place the container on the system.

The system may have sucked in too much air. Reconnect the system to the water supply and let it run briefly.

If the system is running well and the drain flow is OK, you should check the motor coupling/pump. First attach a pressure gauge so that you can see the pump pressure. - 7-8 bar...

If there is no pressure, unscrew the pump and check the motor coupling – the small plastic part between motor and pump may be worn.

Check whether the pump can be adjusted – turn the adjusting screw on the pump and check the pressure gauge to see if the pressure changes.

Even if everything is OK, the pump is probably still broken because it does not have any suction power.

Check the inlet solenoid valve to ensure that water is flowing through it and that the filter screen is not blocked.

If low pressure is shown on the display – bypass the inlet pressure switch.

21.6 System will not flush out the cleaning agent

The system can only flush:

For tank-controlled systems:

if the tank is not full. If the tank is full, pull out the level sensor until the system switches on and goes into Reject or Production mode. The system then starts and carries out the flushing process

For pressure-controlled systems:

if the pressure tank is not full. If the tank is full, disconnect the hose from the EASYRO to the pressure tank and the system will switch on and go into Reject or Production mode. The system then carries out the flushing process.

In both cases, the system goes into Reject first (depending on whether the reject flow is switched on and what value has been set for it). As soon as it has flushed out the cleaning agent, the system goes back into Production mode.

When the system is in Production, all previous states can be restored.

21.7 Overpressure alarm

When this message appears on the display:

- Check whether the level sensor is lying on the bottom of the tank.
- Check the setting of the level sensor. There could be too much water in the tank. If the mechanical float floats up, the system switches off as it produces back pressure.
- In the tank versions, only 1 outlet is usually used and the 2nd outlet is sealed with a blind plug. Overpressure can occur here. Remove the blind plug so that the pressure can escape. Then re-insert the blind plug.
- Use a different outlet if necessary.

21.8 System not running - “Tank empty” message

The message “Tank empty” appears on the display but the system does not go into Production.

- There may be another fault message, which you can read by scrolling with the arrow keys.
- Try adding approx. 5 cm of water to the tank
- The level sensor could be defective
- Check values for Aquasherriff with Siemens OBA6 control unit

Block 63

Actual values **On 15 – Off 7** change to **On 0 – Off -10**

21.9 Leakage alarm



The system is reporting a leak.

This can be caused by condensate (hot/cold) in the system or by a leak itself.

Troubleshooting/Repair:

- Open the system cover
- The leakage sensor is located near the pump (see image)



Leakage sensor
Block terminal, black with 2 green cables

- Blow the sensor dry with compressed air.
- Caution!!! Do not blow water into the electronic components! (Cover the electronics if necessary.)
- The system should now run again and the error message should disappear.
- Run the system and check for leaks.
- You may see drip marks on the bottom of the housing.
- If the leak is found, repair it.
- Then blow out the system with compressed air to ensure that the sensor does not trigger another error message due to leakage current.

22. Dry-running protection plug in EASYRO



Insert wiring harness into the EASYRO



Disconnect the positive terminal connected to control unit Q2

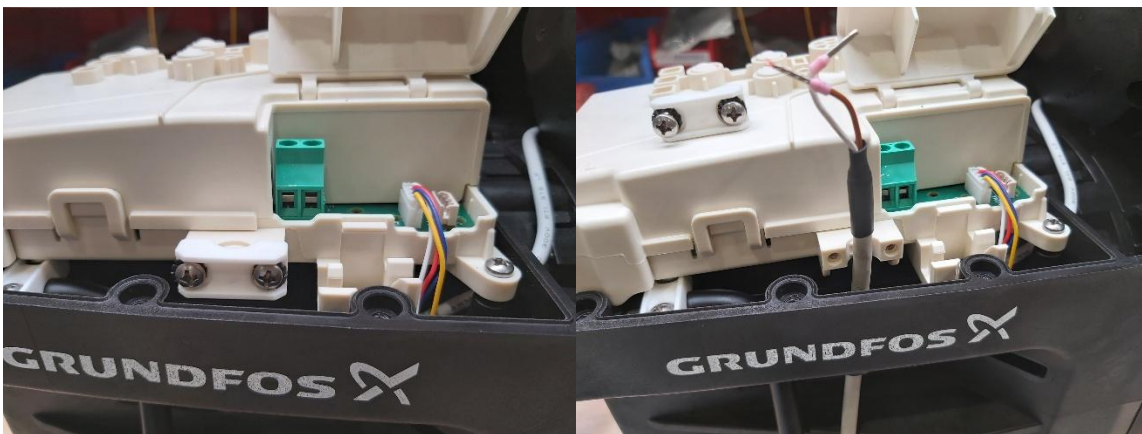


...and insulate



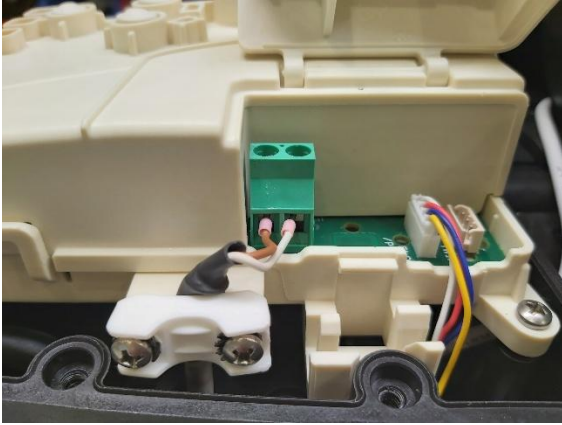
Connect the wiring harness to the control unit

22.1 Dry-running protection in Grundfos Scala 1 pump



Remove the cover of the Scala 1 pump and open the compartment to the circuit board.

To thread in the 2-pole cable supplied, unscrew the cable fixing and pierce the rubber cable guide. Thread the 2-pole cable through the cable guide and screw the cable fixing back on “upside down”. As the cable is too thin for the cable fixing and would otherwise slip through, the fixing holds better if it is turned round.



22.2 Siemens LOGO! Control for dry-running protection

Changing parameters

Block 68 – Pump switch-on delay

Factory setting 2 secs – change the value to 99 secs.

This means that the pump only switches on after 99 seconds when enabled.

Block 121 – Shutdown height

Factory setting is 15.

This value can be changed to 20 if necessary – depending on the tank variant.

23. Preservation

If the EASRO system is disconnected from the electricity and water supply for longer than 1 week, the system must be preserved.

Order preservatives from easymetal.

The preservative is sucked into the system in the same way as it is during maintenance.

The system can then be stored for 6 months.

Please seal all connections with plugs!

Remove the pre-filter and allow the filter housing to dry.

Before recommissioning, insert new pre-filters and flush into the drain for at least 3 minutes!

When the system is restarted, the preservative flushes itself out of the system. Note the Microsiemens value on the system. When this value returns to its original value, the system is ready for operation again.

24. Disinfecting with henndrixx

Instructions for disinfecting the EASYRO system with the henndrixx disinfectant.

Pre-filter:

- Remove the pre-filter
- Clean the housing with henndrixx
- Then fill with hendrixx and screw on again
- Start the system briefly so that henndrixx is sucked into the hoses up to the system
- Leave to work for at least 10 minutes
- Repeat the process in the case of heavy contamination

EASYRO:

- Suck henndrixx into the system --- quantities the same as for maintenance
- Open blending valve during suction
- Leave to work for at least 10 minutes
- Repeat the process in the case of heavy contamination

Tank:

Dosage:

Precautionary treatment	per 1000 litres of water	1 litre of henndrixx
Low bacterial contamination	per 1000 litres of water	1.5 litres of henndrixx
Slight contamination	per 1000 litres of water	2.5 litres of henndrixx
Heavy contamination	per 1000 litres of water	5 litres of henndrixx

- Add henndrixx to the tank
- Spray the upper area of the tank with henndrixx using a spray bottle
- Stir the tank so that henndrixx is well distributed in the water
- Leave to work for 10 minutes
- Pump the tank empty so that the high-pressure pump and the hose lines are also disinfected.
- Run the system briefly so that henndrixx is sucked out of the pre-filters.
- Insert new pre-filter and flush into the drain for at least 3 minutes!
- Start up the system and fill the tank.

The system should now be disinfected.

As a precaution, henndrixx can be added to the tank on a weekly basis.

25. Document appendix

SPARE PARTS LIST - ORDER

CUSTOMER INFORMATION

Company name: _____

Shipping address: _____

Contact person: _____

TO BE COMPLETED BY EASYMETAL

Date: _____

Person in charge: _____

Note: _____

Please tick the desired article and indicate the desired number of pieces behind it. (for example 2)

MAINTENANCE SETS:

401133 Maintenance refill 60/120/150 _____

401134 Maintenance refill 240/300 _____

401135 Maintenance refill 480/600 _____

401130 Basic maintenance for 60/120/150 _____

401131 Basic maintenance for 240/300 _____

401132 Basic maintenance for 480/600 _____

FILTER AND CLEANING SOLUTION FOR MEMBRANES:

401201 Mem Clean Up 250 ml 60/120/150 _____

401202 Mem Clean Up 500 ml 240/300 (2 x for 480/600) _____

401229 Concentrate for preservation 250 ml _____

400534 Concentrate for preservation 500 ml _____

400532 Concentrate for preservation 1000 ml _____

400342 Wound thread filter 10" 1 micron _____

400349 Wound thread filter 20" 1 micron _____

400355 Carbon block 10" 1 micron _____

400348 Carbon block 20" 5 micron _____

401317 Carbon cartridge 10" _____

401318 Carbon cartridge 20" _____

400333 Softener cartridge 10" _____

400369 Softener cartridge 20" _____

MEMBRANES:

401348 Membrane 3012-300 for 150/300/600 _____

401455 Membrane 3012-400 for 120/240/480 _____

400377 Membrane housing for TW3012 _____

HOSES:

401294 Hose nature 10 mm (per m) _____

400201 Hose nature 6 mm (per m) _____

GENERAL SPARE PARTS:

401148 Knurled cscrew 4 x 10 mm housing screw _____

400101 Ball valve 10 mm _____

400092 Screw-on connector 3/4" x 10 mm _____

401287 Seal ring for filter housing _____

400975 Solenoid valve mini 2 x 10 mm _____

400291 Pressure switch 1-10 bar _____

401105 Coupling for motor/pump _____

400929 Pump 500 L with bypass _____

401268 In-line butterfly valve _____

400833 Temperature probe Clickson 75° _____

400306 Solenoid valve input _____

FITTINGS:

400150 Angle connector 10 mm _____

400153 Plug-in angle 10 mm _____

400144 Elbow 6 mm _____

400152 Plug-in angle 6 mm _____

400097 Bulkhead connector 10 mm _____

400188 Check valve 6 mm _____

400087 Plug connector inner thread 6 x 1/8 _____

400093 Screw-on connector 6 x 1/4 _____

400125 Angle screw connector 10 x 1/4 _____

400112 T-screw connector 10 x 3/8 _____

400113 T-screw connector 10 x 10 x 1/4 _____

400126 Angle screw connector 10 x 3/8 _____

400078 Screw connector 10 x 1/4 _____

400114 Y-connector 10 mm _____

400111 T-connector 10 mm _____

400187 Check valve 10 mm _____

400080 Screw-in connector 10 x 3/8 _____

400072 Screw-in socket 10 x 3/8 _____

400183 Plugs 10 mm _____

400139 Plug-in reducing connector 10 x 6 _____

400123 Straight connector 10 mm _____

SPARE PARTS LIST - ORDER

Please tick the desired article and indicate the desired number of pieces behind it. (for example. 2)

TOOLS:

- Screwdriver allen key 2,5 + 4 mm for all screws _____
- Screwdriver electro _____
- Slot screwdriver No. 4 for adjusting the pump pressure _____
- Allen key 1,5 for adjusting the pressure switch _____
- 400909 Pipe cutter (important to cut tubes accurately and not squeeze) _____
- Water pump pliers _____
- 501367 Hose cutter
- 400199 Release aid fitting

These points provide a measuring instrument to control the pump pressure at the membrane.
This is absolutely necessary during a membrane change or to check the system.

- 400397 Manometer 0-10 bar ¼" _____
- 400093 Screw-on connector 6 x ¼" _____
- 400139 Plug-in reducing connector 10 x 6 mm _____

Please sign your order and send it via e-mail or fax to easymetal

E-Mail: office@easymetal.com

Fax: +43 2245 20123 45

Place and date: _____

Signature: _____

EASYRO[®]

Test protocol

TECHNICIAN

Technician's initials: _____

Date of recording: _____

CUSTOMER DETAILS

Customer: _____

System model: _____

Tank: _____ L Pressure membrane vessel _____ L

Serial number: _____

Software version: _____

CONDITION OF THE SYSTEM BEFORE SERVICE

System: clean slightly dirty very dirty

Pre-filter: clean slightly dirty very dirty

Pure water: _____ l/min Sewer: _____ l/min Conductance: _____ µs/cm Pressure: _____ bar

Mixture on the system: Yes _____ µs/cm No Status maintenance counter : _____ h

Other anomalies: _____

SERVICE

Pre-filter replaced: Yes No

Polyphosphat: replaced cleaned checked not present

Carbon filter/carbon block replaced: Yes No not present

Membrane flushing completed: Yes No

Maintenance counter reset: Yes No

Pump sucking: normally slowly poorly

Pump/motor coupling: OK replaced

Inlet valve replaced: Yes No According to the customer, no exchange Offer

Inlet pressure switch: OK replaced

UV lamp replaced: Yes No not present According to the customer, no exchange Offer

Tank opened and visual inspection carried out: Yes No

Shutdown of the system checked: Yes No

Leak tightness of the system checked: Yes No

Tank air filter checked for contamination: OK replaced

Pure water: _____ l/min Sewer _____ l/min Conductance: _____ µs/cm Pressure: _____ bar

Booster pump noise/switch-off: OK not ok

Visual inspection for any damaged parts carried out: Yes No

Mechanical tank valve requested by the customer: Yes No Offer present

Disinfection with HENNDRIX: Yes No Offer No, the customer UV lamp

System left in perfect condition: Yes No

Recommendation to replace membrane: Yes No Conductance too high Litre performance too low

Any suggestions for repairs or improvements: _____

Signature of technician

Signature of customer

easymetal
easymetal.com

TO BE COMPLETED BY EASYMETAL

Entry date: _____

Processed by: _____

REPAIR ORDER

CUSTOMER DETAILS

Name: _____

Address: _____

Post code/City: _____

Phone: _____

E-mail: _____

 EASYRO® EASYRO®
drink + house

Serial number EASYRO®: _____

Contact person at easymetal: _____

Discussion held on: _____

Description of fault: _____

_____EASYRO® loan system required: Yes No

If YES, please answer the following questions

Menu language: EN FR DE

Which tank system do you have?

 Tank-controlled with ...Level box with float switch Level detector Tank version by easymetal Tank height own tank _____ Pressure-controlled with ...

Output pressure 1 _____ bar

Output pressure 2 _____ bar

Once we have carried out a through check of your EASYRO® system in our factory, we will prepare a separate quote for the repair. We will start works as soon as you have approved the order for repair in writing.

IMPORTANT INFORMATION ABOUT OUR EASYRO® LOAN SYSTEMS:

Please answer all the above questions in order to hire an EASYRO® loan system. This will allow us to set all the necessary parameters for the loan system according to your needs.

An EASYRO® loan system can only be hired as part of a repair order. EASYRO® The maximum length of hire is four weeks. EASYRO® loan systems are the property of easymetal GmbH. They are supplied in perfect functional condition and must be returned to easymetal after the agreed period.

All EASYRO® loan systems are dispatched exclusively in a transport case on pallets by freight carrier. This process ensures that the loan systems are transported without being damaged. Please bear this in mind when planning the return shipment. Damage and/or defects that arise during the hire or as a result of transport will be invoiced to the customer.

The transport case is charged when the hire takes place. This amount will be credited back to the customer once the case has been returned to the factory in undamaged condition.

Hire charge per day for EASYRO® loan systems:

Beginning of invoicing is on the date of handover to the freight carrier.

All prices are net, excl. statutory VAT and any customs duties.

Terms of shipping from factory or by agreement.

Place / date: _____

Signature: _____