stakpure

TREION™
עמודות מים נטולי מלחים

Operating Manual

TREION™ OmniaPure xs*basic*


stakpure

Foreword

Dear Ladies and Gentlemen,

The stakpure GmbH team thanks you for the trust you have placed in us.

By choosing this ultrapure water system from our company, you have opted for an innovative, high-quality and durable product.

Before installing and starting up your ultrapure water system, please read the installation and operating instructions in this operating manual carefully.

Note that only trained personnel are allowed to operate this system.

To ensure water quality, only use original accessories, spare parts and consumables from stakpure.

Please note that we as the manufacturer cannot assume any liability for any damage to the system connected peripherals or buildings and persons in the event of improper use or improper assembly or operation, or the use of third-party parts of any kind.

We wish you success with your new water treatment system.

stakpure GmbH, September 2022.

Table of Contents

Symbols used

Warning notices with this symbol indicate a hazard which, if not avoided, could result in death or serious injury.

Warning notices with this symbol indicate a hazard which, if not avoided, could result in minor or moderate injury.

This symbol indicates a risk with possible property damage.

This symbol indicates useful information.

1 User Notes

Read this manual completely and carefully before installing and operating the OmniaPure xs system for the first time. It is an important part of the product and contains basic information that must be observed during installation, operation and maintenance.

The operating instructions must be available at the place of operation at all times. If you let other people use the OmniaPure xs system, pass on also these Operating Manual.

The personnel for operation, maintenance, inspection and assembly must have the appropriate qualifications for this type of work. The area of responsibility, competence and supervision of the staff must be precisely regulated by the operator.

Not only the safety instructions listed in this section must be observed, but also the safety regulations applicable to the installation site. In particular, the accident prevention regulations.

2 Safety instructions

The safety instructions described below are for your own safety and help to prevent possible damage to the OmniaPure xs system. Read the instructions before installation, commissioning and maintenance and follow them carefully.

Danger of electric shock!

Improper electrical supply of the OmniaPure xs system can lead to an electric shock!

- For the electrical supply of the OmniaPure xs system, only use the wide-range power pack included in the scope of delivery.
- For the electrical supply of the wide-range power pack of the OmniaPure xs system, only use a properly grounded socket that provides an AC voltage of 100-240V with 50-60Hz. The power supply must be attached to the device or the wall.
- For maintenance work, the rear housing cover may only be opened when the mains plug is unplugged.

Danger from falling!

Improper handling or attachment can cause the OmniaPure xs system to fall and cause injury!

- Always ensure that the system is in a secure position.
- When mounting on a wall, ensure that the system is mounted in a correspondingly stable manner.
- When handling / transporting the system, observe the system's attachment points, which you can find in this operating manual.

Danger from slipping!

Incorrect or faulty installation or operation as well as a leak in the system can lead to the uncontrolled escape of liquid and thus to a risk of slipping!

- Always ensure that the system is operated correctly and always use a sufficiently large container when withdrawing water.
- Make sure the inlet and outlet lines are tight.
- Make sure that the rinsing water is drained into a drain without pressure.

Danger of skin and eye injuries!

Contact with the disinfectant can lead to skin and eye irritation and/or injuries!

- Always wear appropriate protective clothing (at least gloves & goggles) when disinfecting the OmniaPure xs system to avoid contact with the disinfectant.
- Make sure that no disinfectant can escape uncontrolled from the OmniaPure system, check the connection hoses for correct and tight fit.
- Follow the instructions that come with the disinfectant agent or disinfection kit.

Escaping UV radiation can cause skin and eye irritation or injuries!

- Only change the UV lamp of an OmniaPure xs UV system when it is switched off and the mains plug is unplugged.
- When changing the UV lamp, make sure that the lamp is correctly seated in the UV reactor.

Danger of crushing and pinching injuries!

Incorrect handling of the OmniaPure xs system can lead to crushing and pinching injuries!

- When handling / transporting the system, observe the system's attachment points, which you can find in this operating manual.
- When handling the movable dispenser arm, pay attention to possible pinch points in the area of the joint on the main housing. Move the arm only by holding the dispenser handle.

The safety instructions contained in these operating instructions, the existing national accident prevention regulations and any internal work, operating and safety regulations of the operator must be observed.

These operating instructions must be available at the place of operation at all times.

Installation, operation and maintenance of the system may only be carried out by trained specialist personnel.

The CE mark loses its validity in the event of structural changes or the installation of accessories not authorised by the manufacturer. Conversion and modification of the system are only permitted after consultation with the manufacturer. Original spare parts and accessories authorised by the manufacturer ensure safety.

Please note that the manufacturer is exempt from any liability for damage caused by improper use or use that is not in accordance with the intended purpose.

Protect the system from frost. The ambient temperature at the installation site should be at least +2°C.

Only operate the system within the range of the specified feed water pressure.

Access to the mains cable and the mains plug must always be freely accessible.

A safety device to protect against contamination of the drinking water according to DIN EN 1717 must be used for the connection of water treatment systems.

Depending on the country, a safety combination consisting of a backflow preventer and a system separator may have to be available on the building side.

A DN 50 floor drain with free drainage is to be provided in the operating room. If there is no floor drain, we recommend using a water monitor to prevent damage to the system and equipment as well as the building. Otherwise, the manufacturer assumes no liability for any water damage that may occur.

The base of the system must have sufficient load-bearing capacity (for weight, see technical data).

When assembling, make sure that there is enough free space for problem-free operation, maintenance and repairs.

Maintenance work may only be carried out by trained specialists.

3 Intended Use

The systems of the OmniaPure xs series are used to treat water into ultrapure water. In order to ensure maximum quality of the ultrapure water with the longest possible service life of the consumables, the OmniaPure xs system must be fed with water from a pre-treatment stage. A reverse osmosis system, a still or an ion exchanger can be used in a pre-treatment phase.

The ultrapure water produced is used as a solvent or rinsing agent in a wide variety of analytical methods such as high-performance liquid chromatography (HPLC), ion chromatography (IC), atomic absorption spectrometry (AAS), ultratrace analysis, etc. It is also used in a variety of chemical and biochemical applications such as preparing reagents, cultivating cells, etc.

The treated ultrapure water is not suitable for consumption.

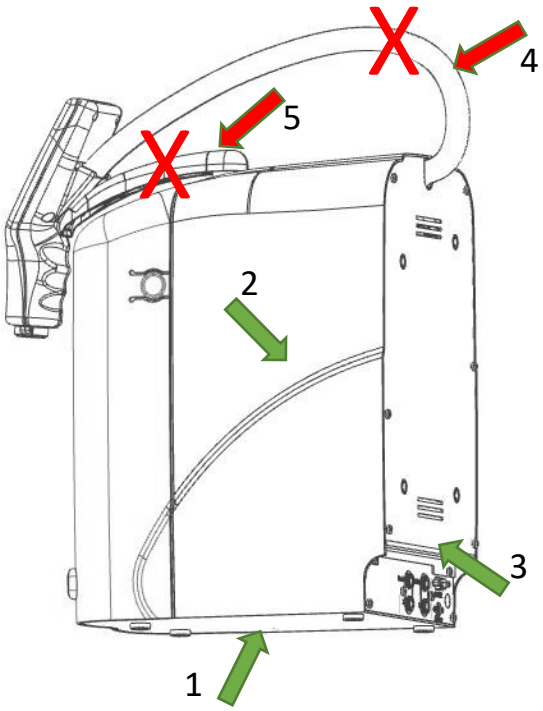
The system must not be used for the production of pharmaceuticals and is not a medical device.

4 Transport and packaging

The OmniaPure xs systems are carefully inspected and packaged prior to shipment, however damage may occur in transit.

Check the packaging and the system for possible transport damage. If you find any damage, please contact the shipping or transport company responsible for the delivery directly.

For transport, only lift the device at holding points 1, 2 and 3.
Never lift the device by the dispenser hose point 4 or the dispenser arm point 5,
as this may damage the device.



5 Delivery package

The scope of delivery of the OmniaPure xs system consists of the following parts:

Position	Number	Designation
01	1	OmniaPure xs^{basic} System
02	1	Table power supply 48V 120W
03	1	Power cord
04	1	PE hose d8 2,5m
05	1	PE hose d8 incl. input protection filter and Water connection adapter R ¾“ – d8
06	2	Insertion angle d8
07	1	Pretreatment cartridge
08	1	Ultrapure water cartridge
09	1	Sterile filter
10	1	Operating manual

6 Technical data

Feedwater requirements	
Source	Drinking water pretreated by deionization
Pressure [bar]	0,5 – 6[1]
Temperature [°C]	2 – 35
Conductivity [µS/cm]	< 100
TOC [ppb]	< 50

1. At pressures below 0.5 bar the system will work, but the product water flow rate may be lower.

Product water ASTM I[1]		
	OmniaPure xs^{basic}	OmniaPure xs^{basic} UV
Conductivity [µS/cm] at 25°C	0.055	0.055
Resistance [MΩ cm] at 25°C	18.2	18.2
TOC [ppb]	< 5	< 2
Particle > 0,2 µm [1/ml][2]	< 1	< 1
Bacteria [KBE/ml][2]	< 0.01	< 0.01
Flow [l/min]	Up to 2	Up to 2

1. The values given are typical and may vary depending on the quality of the feed water.
2. With sterile filter capsule 19100300.

Water connections	
Feed water inlet	Hose AD 8mm
Rinse water outlet	Hose AD 8mm
Threaded connection for sterile filter	G1/4“
Sterile filter outlet	Hose tail 6mm

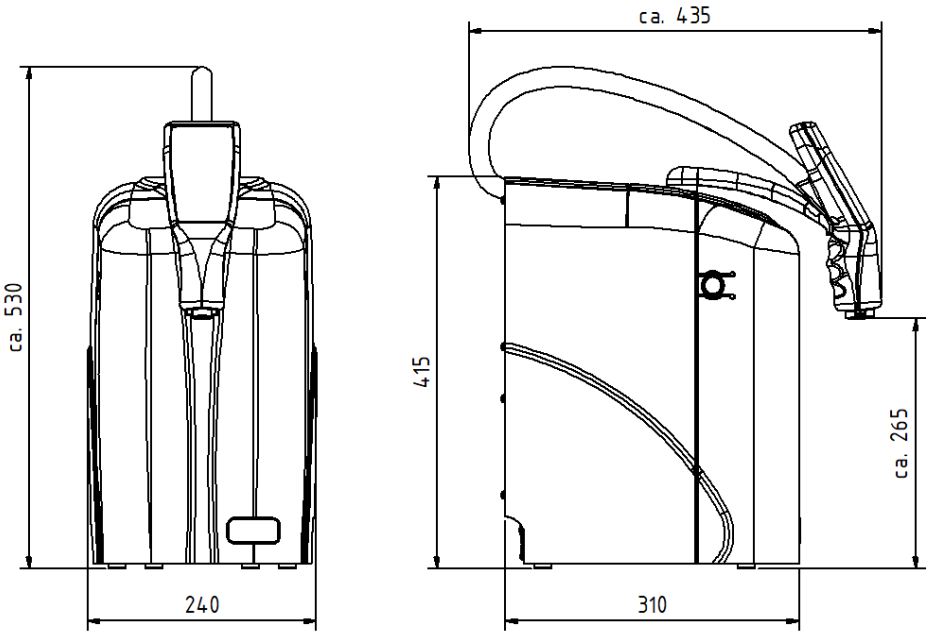
Electrical connection	
Voltage	100 – 240 VAC
Frequency	50/60Hz
Power consumption (max.)	120W

Cell Constants	
Conductivity measuring cell LF 1	0.01 cm^{-1}
Conductivity measuring cell LF 2	0.01 cm^{-1}

Airborne noise emission	
Sound pressure level	50 dB(A)

Environmental conditions	
Operating area	Inside
Max. height above sea level	Up to 2000 m
Ambient temperature	min. +2°C to max. 40°C, 80% rel. LF, non-condensing
Mains voltage fluctuation	Max ±10% of nominal voltage
Degree of pollution	2

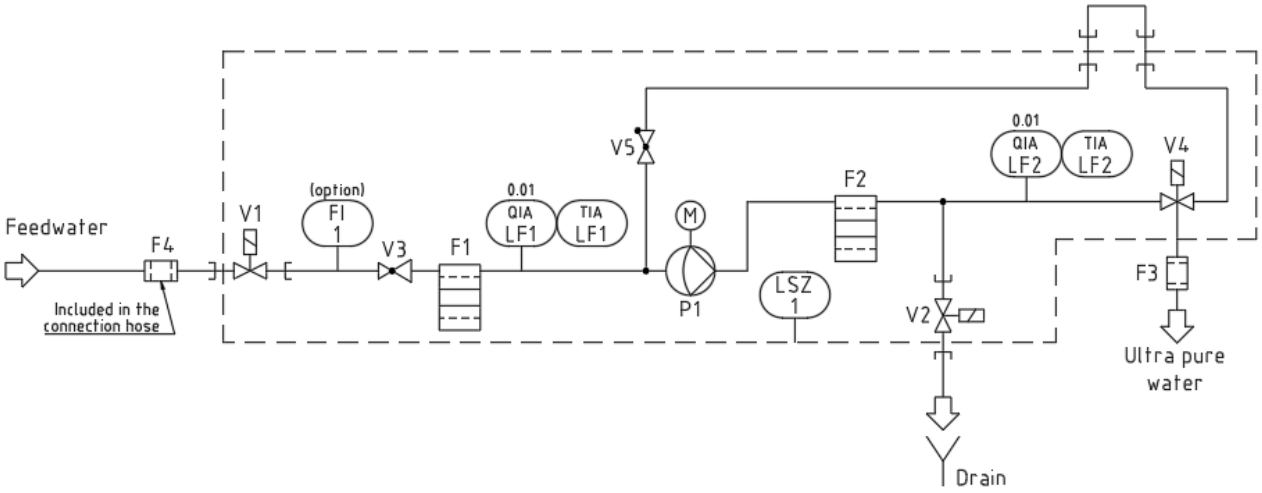
Dimensions and Weights		
	OmniaPure xs^{basic}	OmniaPure xs^{basic} UV
Height in mm, aprox.	530	
Wide in mm, aprox.	240	
Depth in mm, aprox.	435	
Empty weight in kg approx.	14	
Operating weight kg approx.	15	



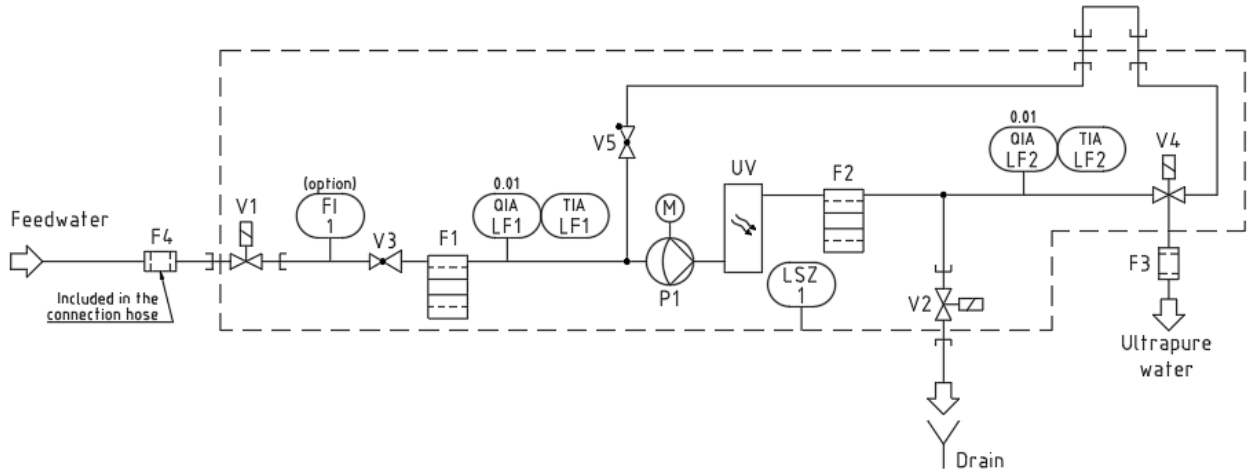
Materials of the components in contact with water	
Solenoid valve input	POM, EPDM
Flush solenoid valve	POM, EPDM
Withdrawal solenoid valve	POM, EPDM
Pump head	Nylon, glass fiber reinforced
Conductivity cell	POM, stainless steel
Hoses	PE
Hose connection	POM
Seals	EPDM
UV reactor	Stainless steel
UV immersion tube	Quartz glass

7 Flow charts

7.1 Flow chart OmniaPure xs^{basic}

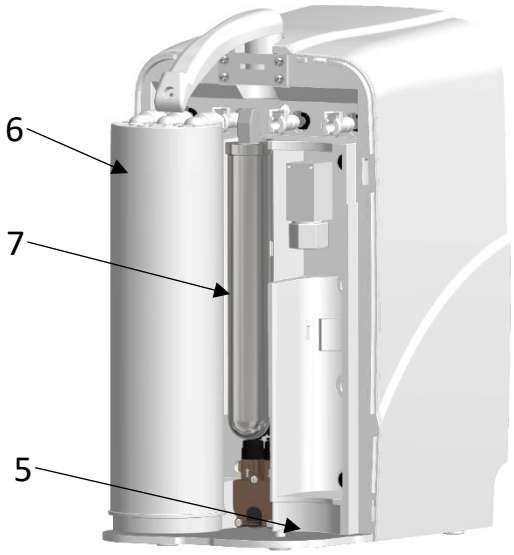


7.2 Flow chart OmniaPure xs^{basic} UV

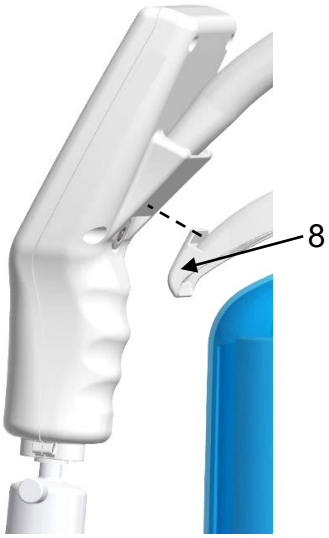


R+I no.	Designation	R+I no.	Designation
F1	Pretreatment cartridge	LSZ1	Leakage sensor
F2	Ultrapure water cartridge	P1	Circulation pump
F3	Sterile filter	UV	UV Photooxidation
F4	Hat filter (in the connection hose)	V1	Inlet solenoid valve (in block)
FI1	Flow meter (option)	V2	Rinsing solenoid valve (in block)
LF1	QIA conductivity cell pretreatment	V3	Pressure reducer
LF1	TIA temperature sensor pretreatment	V4	Withdrawal solenoid valve
LF2	QIA conductivity cell ultrapure water	V5	Check valve
LF2	TIA temperature sensor ultrapure water		

8 System description



1: Detachable OptiFill dispenser with integrated control unit 2: Rotating dispenser arm 3: Snap closure 4: Removable cover hood	5: Space for pretreatment cartridge (not in the picture) 6: Ultrapure water cartridge 7: UV reactor 8: Dispenser admission



8.1 System connections on the back

Inlet: Feed water connection Drain: Flushing water connection 1: Connection accessories flow	2: Connection accessories return Power: Power supply connection

9 Function description

The systems of the OmniaPure xs series prepare pre-treated water into ultrapure water by using several treatment technologies. This ultrapure water meets the respective requirements of the ASTM, ISO, USP and CLSI standards.

For treatment, the water (feed water) that has already been pretreated by reverse osmosis, distillation or deionization is fed into the OmniaPure xs system. The feed water first flows through the pre-treatment cartridge, which already removes a large part of the ions and organic compounds. The quality of the appropriately pre-treated water and thus also the condition of the pre-treatment cartridge are continuously monitored by the first conductivity measurement (LF1). The current values of the conductivity measurement can be shown on the display of the operating/withdrawal unit (OptiFill Dispenser) for checking purposes.
In the next step, the water is pumped into the UV reactor, where UV radiation is used to photooxidize organic substances. The water then flows through the ultrapure water cartridge, which removes the remaining ions.
Before the water is dispensed through the OptiFill dispenser, the quality of the ultrapure water and the condition of the consumables are monitored using a temperature-compensated conductivity measurement (LF2). The conductivity values measured and the temperature are shown on the display of the OptiFill dispenser.
As a final treatment stage, the ultrapure water runs through a sterile filter immediately before it is withdrawn. In order to permanently ensure high ultrapure water quality, the ultrapure water periodically circulates through the ion exchange cartridge (F2) and the UV reactor.

10 Assembly

10.1 Operating environment

When selecting the installation location, observe the following requirements:

- The pressure of the feed water must be between 0.5 and 6 bar.
- The standing surface must be level.
- A suitable protective contact socket must be available for the electrical supply of the OmniaPure xs system (see technical data).
- There must be sufficient free workspace for problem-free operation, maintenance and repairs.
- There must be sufficient space to operate the system.
- An on-site, lockable feed water connection with R¾" external thread is required.

The system is only intended for operation within an industrial environment. In other environments, electromagnetic immunity cannot be guaranteed.

Temperatures below +2°C can damage the device due to frost!
The feed water pressure must be less than 6 bar, otherwise the system can be damaged! If necessary, use a pressure reducer.
Make sure a free drain is available to avoid water damage!

A free outlet, primarily a funnel siphon DN 50, is to be provided for the rinsing water of the OmniaPure xs system in the immediate vicinity of the location. The upper edge of the outlet must not exceed a height of 300 mm above the level of the appliance in order to ensure free outlet and thus flawless functionality of the drain. It must be ensured that the flushing water line is neither closed nor throttled.

A DN 50 floor drain with free drainage is to be provided in the operating room. If there is no floor drain, we recommend using a water monitor to prevent damage to the system and equipment as well as the building.

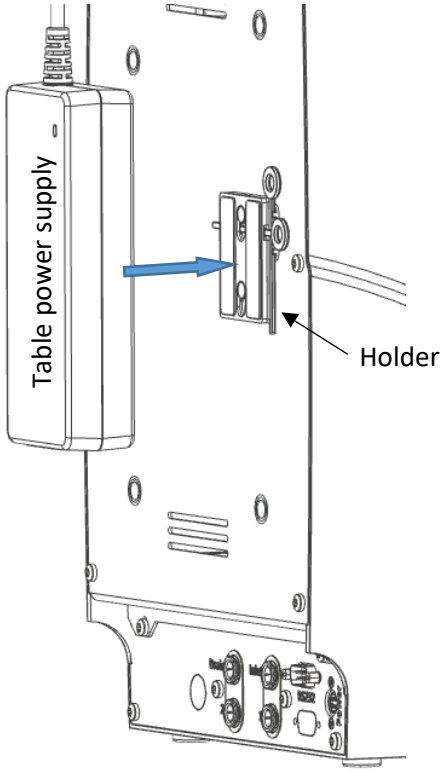
10.2 Assembly

Set up the OmniaPure xs system at the operating site and make sure that the system is standing securely. When transporting the system, never lift it by the dispenser arm, only by the rear wall, bottom or side walls of the main body.

Water can escape through leaks. Therefore, always make sure that the floor in the area of the work surface is dry to avoid accidents caused by slipping.

Use the connection accessories to connect the OmniaPure xs system to the feed water connection and to the free drain. Observe the requirements for the feed water (see technical data). Connect the connection hose with integrated hat filter with its R3/4" internal thread to the house feed water connection. Now plug the free end of the 8mm hose into the 8mm quick connector labelled "Inlet" on the back of the system (see System Connections). Then connect the second 8mm hose to the "Drain" device connection and guide the free end of the hose into a drain, through which the rinsing water can drain without pressure.

In order to protect the power pack from moisture, it must not be operated lying on the table next to the device. Attach the power pack to the device using the bracket included in the scope of delivery (e.g. to the rear wall, see figure) or to a suitable wall near the device.

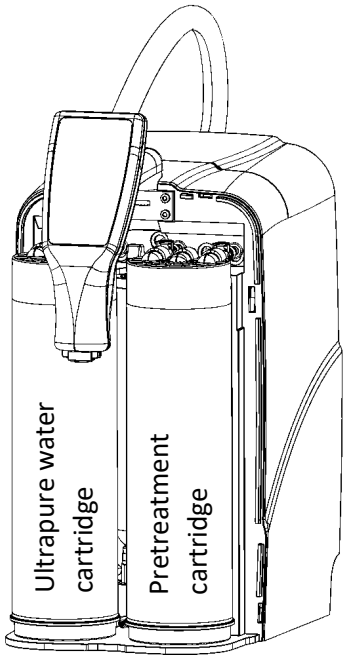


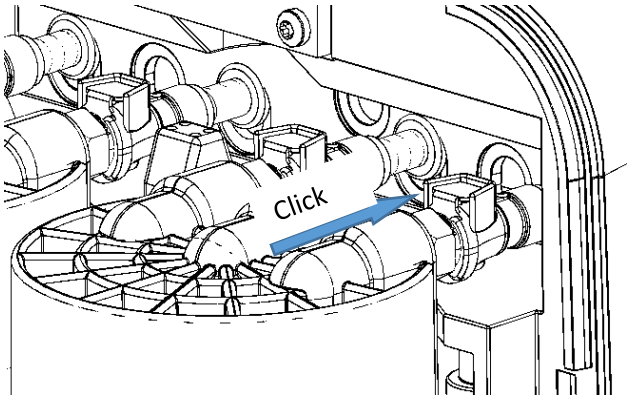
Plug the 4-pin connector of the power supply into the "Power" port of the OmniaPure xs system. Make sure that the mains connection cable is connected to the table power supply and then insert the safety plug into a suitable safety socket (see technical data).

Finally, open the shut-off valve on the building's feed water connection. Check the hose connections for leaks.

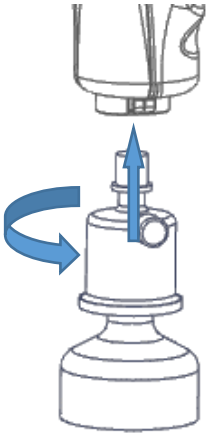
Remove the cover of the OmniaPure xs system and place the pretreatment cartridge in the right slot and the ultrapure water cartridge in the left slot. Connect the cartridges with the quick-release couplings by pushing them on. The quick-release fasteners must audibly click into place.

See the illustration:





Screw the sterile filter with its R1/4" thread
into the outlet of the OptiFill dispenser (see figure).



10.3 Wall mounting

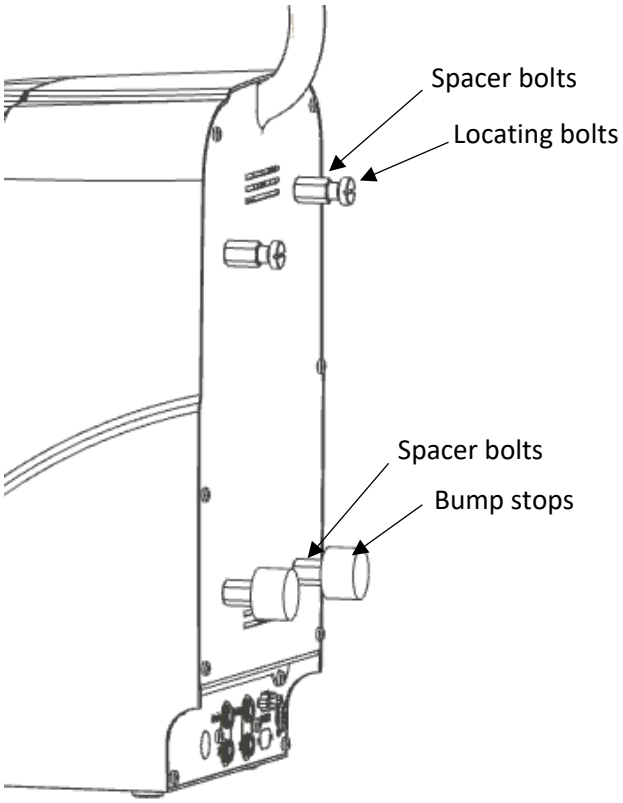
WARNING

Risk of injury from falling and crushing!

The OmniaPure xs system may only be attached to a suitable wall using the optionally available wall holder. Use the wall mount exclusively for the OmniaPure xs system. Make sure that the wall and the fastening material have a sufficient load-bearing capacity of at least 100kg. The mounting hardware supplied with the wall mount is designed for use in conjunction with concrete or solid brick. Check the suitability of the fastening material in relation to the material of the wall and replace it with a suitable one if necessary.

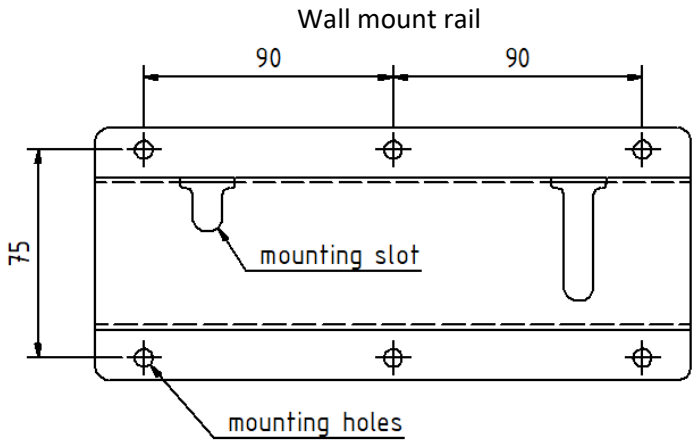
With the optionally available wall holder, you can attach your OmniaPure xs system to a suitable wall to save space. The free wall area should be approx. (W x H) 300mm x 600mm. For professional and safe wall mounting, we recommend installation by our customer service.

First, your OmniaPure xs system must be prepared for wall mounting. The parts required for this are included in the scope of delivery of the wall bracket. Screw the four M8 standoffs into the M8 threaded bushings located on the back of the system. Then screw the two locating bolts into the spacer bolts at the top. The two stop buffers are screwed into the two lower spacer bolts on the back of the system (see illustration).



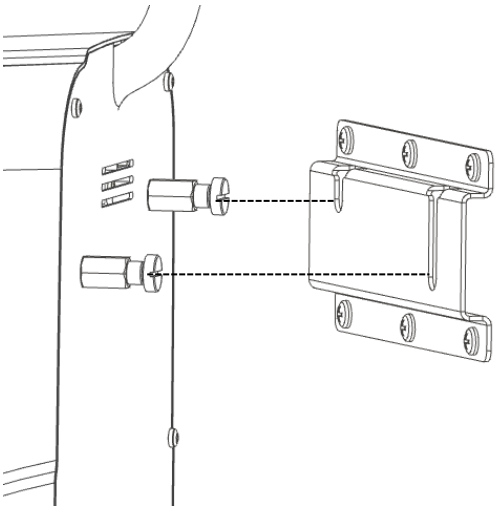
The next step is to attach the wall holder rail to the wall.

This requires 6 holes with a diameter of 8mm and a depth of at least 60mm. Drill the holes according to the pattern shown in the "Wall Mount Rail" figure below. Pay attention to a horizontal alignment.



Then insert the dowels into the drilled holes and fasten the wall mounting rail to the wall with the screws so that the two mounting holes are facing upwards. Please note that the fastening material supplied with the wall holder is intended for installation in concrete and solid stone walls. If the wall holder is to be attached to a wall made of a different material, the fastening material must be replaced with a suitable one.

Now you can hang the OmniaPure xs system in the wall mounting rail. To do this, lift the system by grasping the specified holding points (see "Transport and packaging"). When lifting the system, secure yourself against falling with the help of a second person. Now hang the two locating bolts of the system in the locating openings of the wall mounting rail. Make sure that the system is additionally supported on the wall by the two stop buffers.



11 Operating concept

The OmniaPure xs system is operated using the five buttons and the display of the OptiFill dispenser. The figure below shows the names of the individual keys.

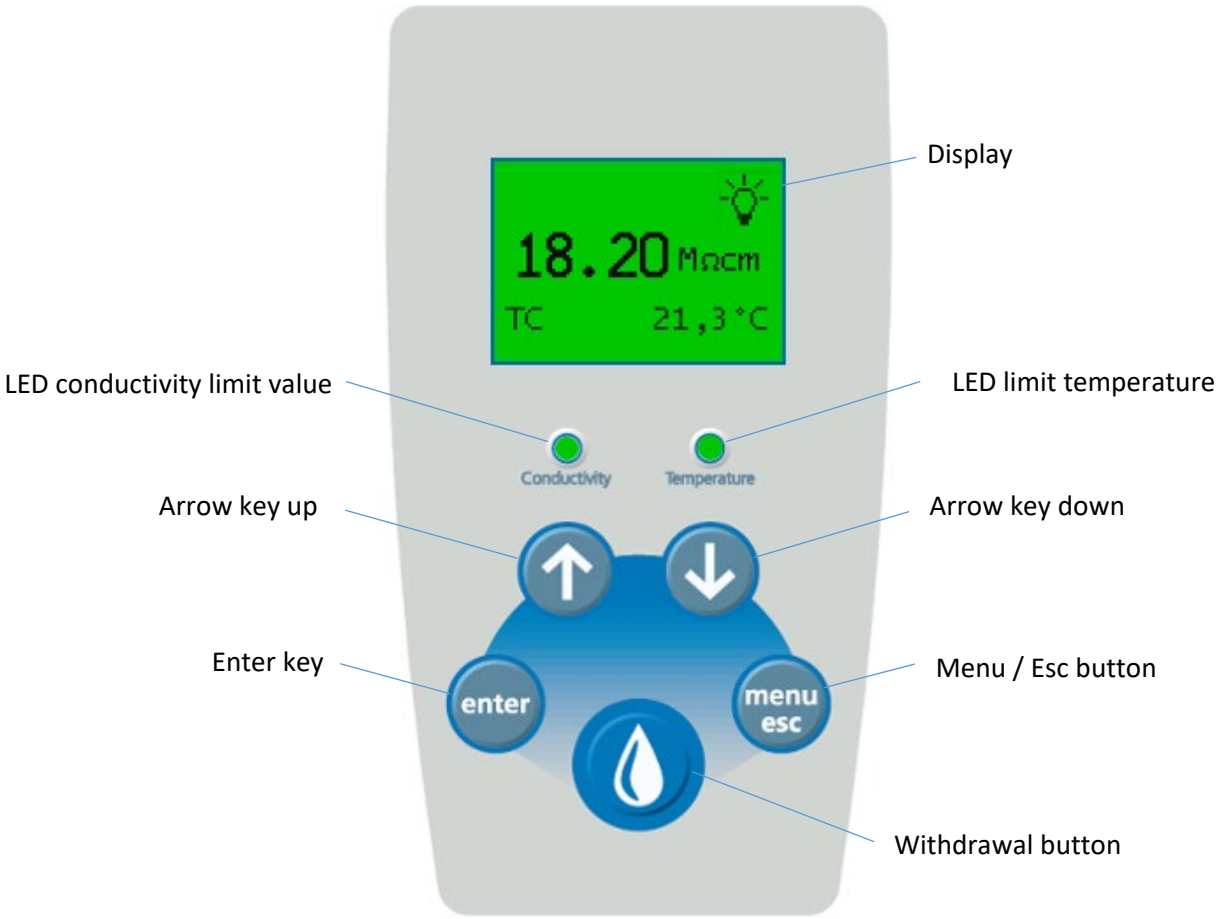


Image 1: Control unit

Display

All settings, system statuses and measured values can be shown on the display. "Image 1: Control unit" shows the main display, which appears automatically after starting the system. In normal operation, the display is illuminated in green. If a system error occurs or a limit value is exceeded, the lighting changes from green to red.

LED conductivity limit value

If the conductivity limit value is set to "Off" (see 13.4.2 Setup) or if the current measured conductivity value is below the set limit value, the LED lights up green. If the limit value is exceeded, the LED lights up red.

LED limit temperature

If the temperature limit value is set to "Off" (see 13.4.2 Setup) or if the current measured temperature value is below the set limit value, the LED lights up green. If the limit value is exceeded, the LED lights up red.

Withdrawal button

If the system is in the main display, you can press the withdrawal button to open the withdrawal display (see 13.3.1 Volume metered water withdrawal). In all other displays, the withdrawal button only has a function if the withdrawal button symbol is next to the respective command:  .

Menu / Esc button

If you press the Menu / Esc button in the main display, you get to the menu selection (see Menu/Settings). For all other displays, it takes on an ESC function, which means you can cancel an entry at any time or return to the previous menu level.

Enter key

If you have opened a display in which you can make an entry, you can activate the entry function by pressing the Enter key. The activation of the input function is marked by the appearance of a cursor. If the input function is active, you can confirm the input/selection and switch to the next input field or exit the input function by pressing the Enter key again.

Arrow key up

You can use the up-arrow key to page up through the respective menu. When the input function is active, you can use this key to increase the value or change the selection at the current cursor position.

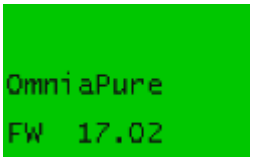
Arrow key down

You can scroll through the respective menu in descending order by pressing the down arrow key. If the input function is activated, you can use this button to reduce the respective value or change the selection at the current cursor position.

12 Commissioning

As soon as the OmniaPure xs system is supplied with power, the system starts.

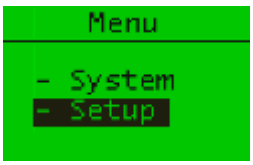
When the system is started, the start screen shown here is displayed first. The firmware version of your system is displayed below the system designation.



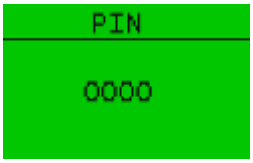
The system is preset at the factory, so you only have to flush the newly inserted filter cartridges as described below.

As soon as the start screen disappears, you will see the main display. Now open the menu selection by pressing the Menu / Esc key.

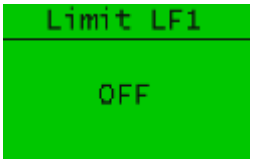
You can use the arrow keys to choose between "Setup" and "System". Select "Setup" and open the setup menu by pressing the enter key.



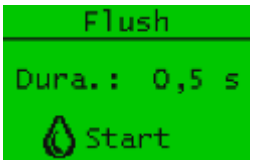
Activate the entry for the PIN with the Enter key. You can now use the arrow keys to enter the first digit of the PIN. Press Enter again to move to the second digit. Continue in this way until you have entered the four-digit PIN completely. The PIN is preset to 0000.



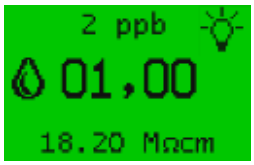
In the setup menu you first see the limit value setting for the conductivity of the measuring cell LF1. Now use the down arrow key to scroll to the "Flush" entry.



You start the rinsing process by pressing the withdrawal button. Now let the system flush for about 3 minutes. End the rinsing process by pressing the withdrawal button again. Use the Menu / Esc button to return to the main display.



Now remove 1 litre of water and discard the withdrawn water. To do this, press the withdrawal button, which opens the withdrawal display. You can use the arrow keys to change the withdrawal quantity. Start the withdrawal by pressing the withdrawal button again. The withdrawal is automatically terminated when the preset withdrawal value (1 litre) is reached. Use the menu / esc button to return to the main display.



The system is now flushed and ready for use. It is automatically in recirculation mode. At the beginning, the conductivity can still be a little higher, but this improves in the course of the recirculation operation.

13 Operating

The menu structure, the displays and the setting options of the OmniaPure xs system are described below. Use the system input options described under "11 Operating concept" to navigate in the menu and to change settings.

13.1 Menu structure

The diagram below depicts the menu structure of the OmniaPure xs system. The scope of the menu depends on the system equipment and can therefore vary. Pressing the Menu / Esc button takes you from the main display to the menu selection. The menu selection takes you to the setup and system menu. Use the arrow keys to scroll through the menus. Pressing the withdrawal button takes you from the main display to the withdrawal display.

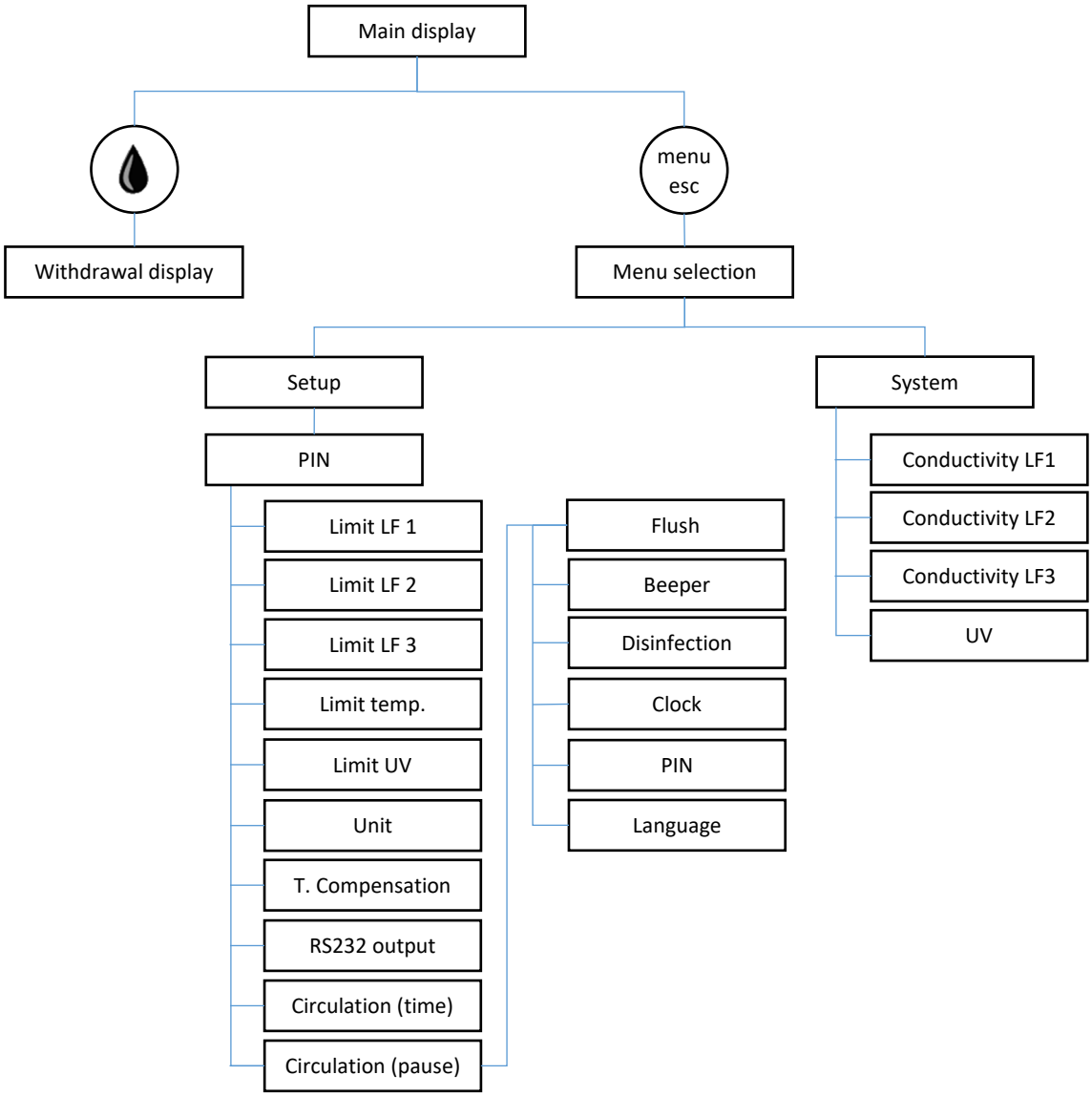


Image 2: Menu structure

13.2 Main display

The main display (see page 27 Image 3: Main display) appears automatically after switching on the device. It gives you information about the current system status and shows you the value of the conductivity (LF2) measured at the withdrawal point in the set unit (µS/cm or MΩcm) as well as the temperature of the ultrapure water. It also shows whether the conductivity is measured with temperature compensation (TC) or without (NTC). The lamp symbol provides information about the operating status of the UV lamp (only with OmniaPure xs UV), switched on: Lamp icon is displayed.

Image 3: Main display

13.3 Withdraw water / Withdrawal display

Pressing the withdrawal button takes you from the main display to the withdrawal display. Here you have the option of starting the dispensing of ultrapure water via the OptiFill dispenser. Start the withdrawal by pressing the withdrawal button again. As soon as you have removed the desired amount, you can stop the withdrawal by pressing the withdrawal button again. To check the water quality, the conductivity of the ultrapure water is displayed at the withdrawal point.

Image 4: Withdrawal display

13.3.1 Volume metered water withdrawal (optional)

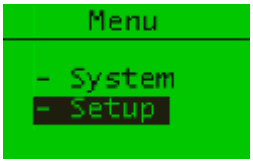
Pressing the withdrawal button takes you from the main display to the withdrawal display. In the withdrawal display you have the option to select one of the preset withdrawal values. You can select one of the preset values (see table below) using the arrow keys and start the withdrawal by pressing the withdrawal button. This is automatically stopped when the set withdrawal value is reached. However, you can stop the water dispensing at any time by pressing the withdrawal button again. You can see the amount of water currently being removed on the display while the water is being withdrawn. The conductivity of the ultrapure water is displayed to check the water quality. When withdrawal is complete, the system resumes regular operating mode. If there is no input for more than one minute, the system automatically returns to the main display.

Preselectable withdrawal quantity in l								
0.05	0.10	0.15	0.20	0.25	0.30	0.40	0.50	0.60
0.80	1.00	2.00	3.00	5.00	10.00	20.00	25.00	

Image 5: Withdrawal display

13.4 Menu / Settings

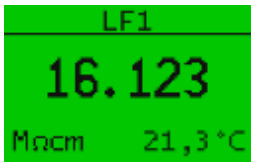
If you press the menu / esc button when the main display is open, you get to the menu selection. Here you can use the arrow keys to choose between "System" and "Setup".



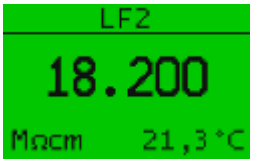
13.4.1 System

If you have selected the "System" item in the menu selection, use the arrow keys to access the following menu items:

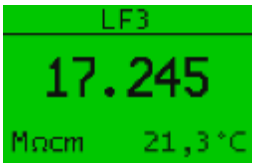
"LF1" shows you the current measured values of the measuring cell LF1. The conductivity, in the selected unit, and the temperature of the water after the pre-treatment cartridge are displayed.



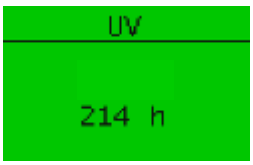
"LF2" shows you the current measured values of the measuring cell LF2. The conductivity is displayed in the selected unit, as well as the temperature of the water after the ultrapure water cartridge, directly before the tapping point.



No function on OmniaPure xs^{basic} devices.



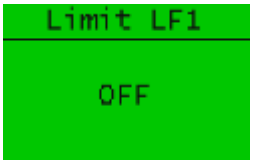
In systems with UV flow-through disinfection, you can view the operating time of the UV lamp under the "UV" menu item.



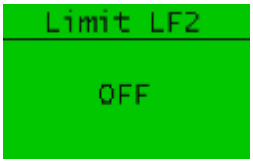
13.4.2 Setup

By selecting "Setup" you first get to the PIN entry. After you have entered the correct PIN using the Enter and arrow keys (see 11 Operating concept), the following menu items are available:

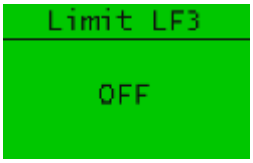
You can set the limit value for the conductivity LF1, measured after the pretreatment cartridge, via the menu item "Limit value LF1". If the limit value is exceeded (µS/cm) or fallen below (MΩcm) a corresponding warning message is shown on the display. The following setting ranges are available:
0.100 - 50.0 µS/cm or 10.0 - 0.02 MΩcm and OFF
If you set a value of 00.000, the limit value is automatically deactivated (OFF).



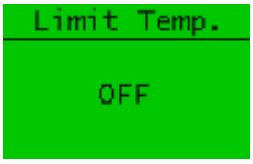
You can set the limit value for the conductivity LF2, measured after the ultrapure water cartridge, via the menu item "Limit value LF2". If the limit value is exceeded (µS/cm) or fallen below (MΩcm) a corresponding warning message is shown on the display. The following setting ranges are available:
0.056 - 50.0 µS/cm or 18.1 - 0.02 MΩcm and OFF
If you set a value of 00.000, the limit value is automatically deactivated (OFF).



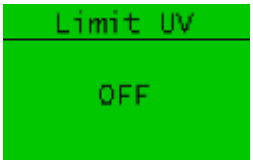
No function on OmniaPure xs[basic] devices.



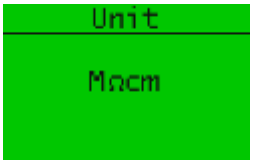
Under the menu item "Temp limit value" you have the option of setting a limit value for the temperature measurement of the ultrapure water. A setting range of 1.0 – 50.0°C is available. To deactivate the limit value, the value 00.0°C must be set.



No function on OmniaPure xs[basic] devices.

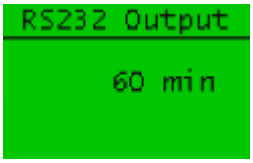


The "Unit" menu item allows you to display the conductivity value in µS/cm or in MΩcm.

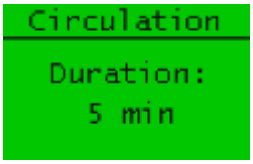


"Temp. Comp." gives you the option of measuring the conductivity with (ON) or without (OFF) temperature compensation. If the temperature compensation is switched on, this is indicated by "TC" in the main display, if it is switched off, "NTC" is displayed.

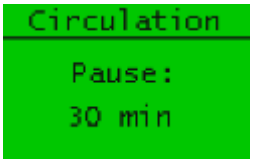
No function on OmniaPure xs[basic] devices.



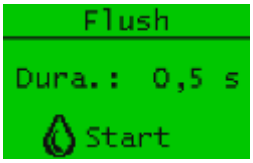
You can use the “Circulation” (duration) menu item to set the duration of the circulation phase in minutes. The following settings are available:
0 – 99 minutes, setting 0 min disables circulation



The menu item "Circulation" (pause) allows you to set the pause duration between the individual circulation phases. You can set the pause duration within the following range:
0 – 30 minutes, setting 0 min causes permanent circulation



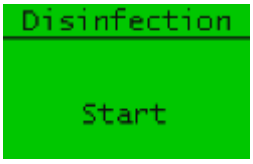
When switched on, at the beginning and at the end of a circulation phase and immediately before the withdrawal of ultrapure water, the system rinses automatically for the rinsing time set here. The setting range for the automatic flushing duration is 0.1 – 10s.
You can start a flush manually by pressing the withdrawal button. The system then rinses until you stop the rinsing process by pressing the withdrawal button again.



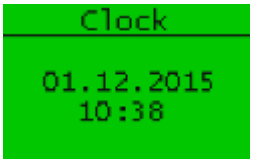
If a fault occurs (see 19.1 Automatic system monitoring), the system emits a warning tone. You can switch this function on or off via the "Beeper" menu item.

The "OFF" setting has no effect on the output of a warning tone when the "Leakage" fault occurs.

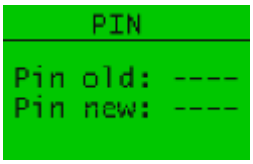
If necessary, the system can be disinfected via the "Disinfection" menu item. Please note that the disinfection may only be carried out by suitably qualified specialists.



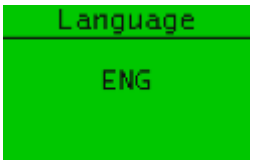
You have the option of setting the system time and the date via the “Clock” menu item. Proceed as described under "11 Operating concept" to change the setting.



The "PIN" menu item allows you to reset the PIN for access to the setup menu. 0000 is set as the default value. In order to be able to change the PIN, you must first enter the current PIN.



Here you can select the language of the ads. You can choose between German and English.



14 Maintenance

Regular maintenance and care of the OmniaPure xs system is required to ensure consistently good water quality. For professional and regular maintenance of the OmniaPure xs system, we recommend concluding a maintenance contract with an authorised customer service.

If improper maintenance, care and repair work is carried out on the system, the warranty for this system will expire. Likewise, the use of non-approved consumables and spare parts as well as any conversion measures will void the warranty and the CE declaration of conformity will no longer be valid.

Wear suitable protective clothing such as safety shoes, gloves or safety goggles to avoid injuries.

Water can escape through leaks. Therefore, always make sure that the floor in the area of the work surface is dry to avoid accidents caused by slipping.

During assembly or maintenance work, the system must be disconnected from the power supply by pulling the mains plug, otherwise there is a risk of electric shock.

14.1 Maintenance / Care intervals

The frequency of maintenance measures essentially depends on the quality of the feed water and the amount of water drawn off. The maintenance intervals listed in the table below are recommendations and may be necessary earlier depending on the requirements of the ultrapure water.

Care measure	Article no.	Interval
Changing the pretreatment cartridge	19200102	12 months
Changing the ultrapure water cartridge	19200103	12 months
Changing of the UV lamp	50003452	24 months
Disinfectant Disinfection kit Disinfection agent	 19200091 19200057	12 months

14.2 Changing the cartridges

The cartridges have to be changed at regular intervals (12 months) or if the limit value you have specified is exceeded for a long time. The start of the interval is the point in time at which the respective filter cartridge was first connected to the system. Proceed as follows to replace the pretreatment and ultrapure water cartridge:

1. Turn off the OmniaPure xs system by disconnecting it from the mains voltage.

2. Swivel the Optifill dispenser with dispenser arm to the left or right to the side.

3. Remove the cover from the system. To do this, press the two snap locks on the side (see system description) and pull the cover hood forwards off the main housing.

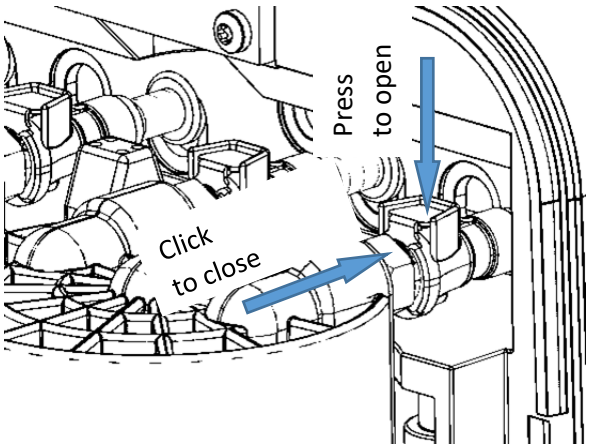
4. The ultrapure water cartridge is on the left parking space, the pre-treatment cartridge is on the right parking space (see chapter assembly). Open the quick-release fasteners by pressing the clip (see figure) on the system's quick-release fastener and remove the cartridge to be changed.

5. Place the new cartridge in the appropriate slot in the system. Use the positioning aid on the bottom of the housing for easier positioning.

6. Connect the cartridge to the system using the quick-release fasteners. Make sure that the quick-release fasteners engage audibly.

7. Replace the cover and turn the OptiFill dispenser back to the desired position.

8. Plug the power cord back in to start the system.



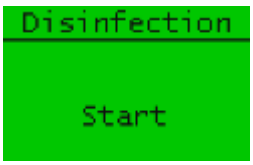
14.3 Disinfection

To protect the OmniaPure xs system from contamination from biological deposits, disinfection should be carried out at regular intervals (12 months). For the implementation you need the disinfection kit article no.: 19200091.

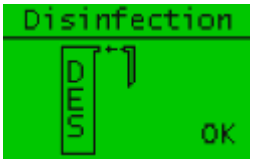
Risk of chemical burns!
The disinfection of the OmniaPure xs system may only be carried out by appropriately qualified specialist personnel.
Protect yourself from injury by using appropriate safety clothing (at least gloves and goggles).
It is essential that you observe the safety data sheet enclosed with the disinfectant and follow the instructions for handling the disinfectant exactly.
Only use the disinfectant approved for the OmniaPure xs system.

The procedure for disinfection is described below. The duration of the disinfection process is about 30 minutes.

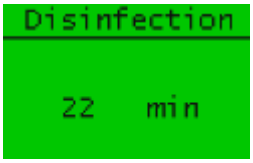
Open the "Disinfection" menu item in the "System" menu. Press the Enter button to start the disinfection process.



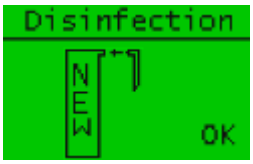
You will now be prompted to insert the disinfection cartridge into the device. If you want to cancel the process, you can do so by pressing the Menu/Esc key. To proceed, first prepare the disinfection cartridge with the disinfectant according to the instructions included with the disinfection kit. Then remove the ultrapure water cartridge from the system as described in the “14.2 Changing the cartridges" chapter. Insert the disinfection cartridge in the ultrapure water cartridge location and connect it with the quick-release fasteners. Confirm the insertion of the disinfection cartridge by pressing the Enter key.



In the next step, the system starts circulating the disinfectant solution. After the end of the circulation phase, the system is flushed automatically. The remaining time is shown on the display, and the entire process takes 30 minutes. This process cannot be cancelled and must be completed.



After the disinfection is complete, you will be prompted to insert a new ultrapure water cartridge. To replace the cartridges, proceed as described in the “14.2 Changing the cartridges" chapter and end the process by pressing the Enter key. The system now automatically switches to the "Rinse" menu item.



Remember to flush the system with the new cartridge (see 14.2 step 9).

15 Decommissioning & Dismantling

Decommissioning and dismantling may only be carried out by authorised specialist personnel.

If the OmniaPure xs system is to be decommissioned and dismantled, proceed as follows:

- Disconnect the system from the power supply by pulling out the mains plug
- Disconnect all hoses from the system connectors.

The system is now ready for dismantling.

Water can escape through leaks. Therefore, always make sure that the floor in the area of the work surface is dry to avoid accidents caused by slipping.

16 Spare parts

R+I Nr.	Designation	Art. no.
F4	Cap filter	31000041
FI1	Flow meter (option)	25000070
LF1	Conductivity cell pretreatment	14180004
LF2	Conductivity cell ultrapure water	14180004
LSZ1	Leakage sensor	50002819
P1	Circulation pump	29006000
UV	UV immersion tube UV ballast	50003454 26000060
V1	Inlet solenoid valve	50003160
V2	Circulation solenoid valve	50003160
V3	Pressure reducer	25200052
V4	Withdrawal solenoid valve	40000118
V5	Non-return valve	25200050
	Table power supply 48V 120W	26100016
	Circuit board interfaces	26000053
	Display board	26000052

17 Consumables

R+I Nr.	Designation	Art. no.
F1	Pretreatment cartridge	19200102
F2	Ultrapure water cartridge	19200103
F3	Sterile filter capsule 0.2 µm	19100300
UV	UV lamp 185/254nm, 11W	50003452

18 Accesories

Designation	Art. no.
Disinfection kit Omnia xs	19200091
Disinfection syringe including disinfectant (set of 3)	19200057
Wall holder Omnia xs	19200305

19 Faults / Messages

19.1 Automatic system monitoring

The OmniaPure xs system automatically monitors multiple system parameters for abnormalities. If one of the monitored system parameters deviates from the respective specification, both an optical and an acoustic error message are issued. In the event of a fault, the display lighting changes to red and, if activated, a warning tone is emitted. The type of fault is indicated by a corresponding output on the display. If a limit value is exceeded, the corresponding LED also changes from green to red.

By pressing the Enter key you can confirm the error message and thus end the warning tone that may sound.

The individual fault displays are shown below:

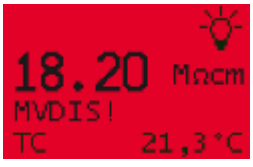
If a limit value for the conductivity LF1 was set in the setup under "Limit values", the error "LF1!" is displayed when the value is exceeded. If there is a defect in the conductivity measurement LF1 (e.g. cable break), "LF1!" is also output. The fault is displayed until the conductivity LF1 falls below the limit value again or the defect has been remedied.

If a limit value was set for LF2, the error "LF2!" is output when the value is exceeded. In the event of a defect in LF2, the error "LF2!" would also be displayed. The fault is issued until the conductivity LF2 falls below the limit value again or the defect has been remedied.

In systems with optional UV photo-oxidation, the error "UV!" is output if the UV lamp malfunctions.

If a limit value was set for the temperature, the error "TMP!" is displayed when the limit value is exceeded. If the temperature falls below the limit value again, the fault is reset.

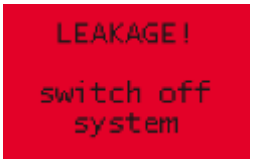
If the removal solenoid valve of the OptiFill Dispenser is defective (e.g. broken cable), this is indicated by the error message "MVDIS!". As soon as the defect has been rectified, the error display is reset.



In the event of a defect in the inlet solenoid valve, the error message "MVIN!" is output. The error display will be reset as soon as the valve is functioning properly again.

The error message "MVFL!" indicates a defect in the rinsing solenoid valve. As soon as the defect has been rectified, the error display is reset.

All OmniaPure systems are equipped with an internal leakage sensor. If water leaks inside the treatment unit in an uncontrolled manner, the system issues the error message "Leakage!". In addition, the system closes all valves and, if necessary, deactivates the pump so that further water supply is prevented. This error can only be reset by restarting the system once the leak has been eliminated.

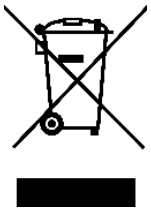


19.2 Faults table

Fault	Possible cause	Remedy
System does not start	No or faulty power supply	Ensure the power supply according to the specifications under "Tech. Data".
Display does not function		
Conductivity LF1 permanently exceeds the set limit value / error LF1!	Pre-treatment cartridge is exhausted	Install a new pre-treatment cartridge
	Feed water does not meet the requirements	Check the quality of the feed water
	Limit for LF1 set too low	Check the setting for limit for LF1
Conductivity LF1 is displayed incorrectly and the error LF1! Is issued	Defective conductivity measurement LF1	Please contact customer service
Conductivity LF2 permanently exceeds the set limit value / error LF2!	Ultrapure water cartridge is exhausted	Insert a new ultrapure water cartridge
	Feed water does not meet the requirements	Check the quality of the feed water
	Limit for LF2 set too low	Check the setting for limit for LF2
Conductivity LF2 is displayed incorrectly and the error LF2! Is issued	Defective conductivity measurement LF2	Please contact customer service
Temperature permanently exceeds the set limit value / error temp!	Temperature limit set too low	Check the temperature limit setting and the temperature of the feed water
	The system is set to permanent circulation or the pause between the circulation phases is too small	Increase the value of the Pause parameter in the circulation settings
UV lamp not working / error UV!	UV lamp is defective	UV lamp needs to be replaced
	Maximum operating time has been exceeded	
Water escapes uncontrollably / error LEAKAGE!	Leaking hose connection or component	De-energize the system by pulling out the mains plug and contact customer service
The system does not flush	The purge solenoid valve is defective. Error "MVFL!" is displayed.	Please contact customer service

No water can be withdrawn	System is not receiving feed water	Check the hose connection of the feed water supply. Open the domestic feed water supply.
	Inlet pressure is too low	Check the inlet pressure (feed water pressure) and increase it if necessary.
	Leakage sensor responds / error LEK! Is displayed.	If the leak sensor comes into contact with water, the system inlet valve is closed to prevent further water leakage. Eliminate the leak and reset the error by rebooting the system.
	Inlet solenoid valve is defective / error MVIN! is displayed	Please contact customer service
	Withdrawal solenoid valve is defective / error MVDIS! is displayed	Please contact customer service
Withdrawal rate is too low	Inlet pressure is too low	Check the inlet pressure and increase it if necessary.
	The set system pressure is too low	The system's internal pressure regulator needs to be readjusted.

20 Disposal



Stakpure ultrapure water systems are marked with a "crossed out trash can". This means that according to the European Regulation 2012/19/EU, your old electronic device may not be disposed of with normal household waste. You can hand in your old electrical equipment to one of the local recycling collection points for old electrical and electronic equipment, or Stakpure will dispose of your old equipment in a professional, environmentally friendly manner. To clarify the procedure for returning your old electronic device, please contact your retailer or contact us directly:

stakpure GmbH
Frau Yvonne Reuter
56414 Niederahr
Phone: +49 2602 10673-107
E-Mail: yvonne.reuther@stakpure.com

We expressly point out that according to § 19a ElektroG you have to delete any personal data on the devices to be disposed of.

In countries outside the European Economic Area, please contact the local authorities or disposal companies for disposal.

If the packaging of the device is no longer required, it can be disposed of with household waste.

21 EU declaration of conformity

EU-declaration of conformity

in terms of directive(s):

- 2014/35/EU low voltage directive
- 2014/30/EU electromagnetic compatibility
- 2011/65/EU RoHS2 directive
  - incl. Commission Delegated Directive 2015/863

stakpure GmbH
Auf dem Kesseling 11
D-56414 Niederahr
Phone: 02602 10673-0 Fax: 02602 10673-200
info@stakpure.com www.stakpure.de

We hereby declare that the conception and form of the machine named below that we have brought to market are in accordance the determinations of the named article of the EU directive. This declaration is no longer valid when changes are made to the product.

Product:

Product designation:	High purity water system
Type:	OmniaPure xs^{basic}
	OmniaPure xs^{basic} UV
Art.No.:	18000004, 18000005

Standards applied:

DIN EN 55011:2022-05, DIN EN 61000-1-2:2017-07, DIN EN 61010-1:2020-03, DIN EN 60204-1:2019-06, DIN EN IEC 63000:2019-05, DIN EN ISO 12100:2011-03

Niederahr, 01.09.2022	Jörg Groß, executive Director	
Location, Date	authorized representative of the manufacturer	Signature

stakpure GmbH
Auf dem Kesseling 11
D – 56414 Niederahr
Ph.: +49 2602 10673-0
Fax: +49 2602 10673-200
info@stakpure.com
www.stakpure.de

50003538