



Operating instructions

OmniaTap 6 | UV | UV/UF

OmniaTap 12 | UV | UV/UF



Contents

1	Safety precautions and user information.....	1
2	Intended purpose.....	4
3	Technical data.....	4
4	Flow charts.....	6
4.1	Flow chart for OmniaTap.....	6
4.2	Flow chart for OmniaTap UV.....	6
4.3	Flow chart for OmniaTap UV/UF.....	7
5	Description of the system.....	8
5.1	System construction.....	8
5.2	System equipping.....	10
5.3	How the system functions.....	11
6	Assembly.....	12
6.1	Extent of delivery.....	12
6.2	Operating environment.....	12
6.3	Assembly.....	13
6.4	Wall mounting.....	15
6.5	How to connect an optional pump station.....	17
7	Operating concept.....	18
8	Putting into operation.....	20
9	Operation.....	21
9.1	Menu structure.....	21
9.2	Main display.....	22
9.3	Withdrawal of water / Withdrawal display.....	22
9.4	Menu / Settings.....	23
9.4.1	System.....	23
9.4.2	Setup.....	24
10	Maintenance and care.....	27
10.1	Maintenance / Care intervals.....	27
10.2	Cartridge replacement.....	28
10.3	Disinfection.....	29
11	Faults, causes and solutions.....	30
11.1	Automatic system monitoring.....	30
11.2	Table of faults.....	32
12	Consumables and accessories.....	34
13	Waste disposal.....	34

1 Safety precautions and user information

The information given here is an important part of the product and provides basic information that is to be observed when setting-up, operating and servicing the system. Please therefore read these instructions completely and thoroughly before you start to install the OmniaTap System and put it into operation for the first time.

These operating instructions must always be kept at the operating location. Should your OmniaTap system be passed on to a different person, these instructions must be passed on with it.

The personnel must have the necessary qualifications for system operation, maintenance, inspections and assembly work. The operator must clearly set the spheres of responsibility, competencies and supervision of the personnel.

In addition to the observance of safety precautions that are given in this section, you must also pay attention to the safety regulations that are valid at the system location, in particular to the accident prevention regulations.

Area of validity

These operating instructions are equally valid for the OmniaTap 6 and OmniaTap 12 series in both their basic form and the differently equipped UV and UV/UF variants. In the following, “OmniaTap systems” will be given to describe all of these. Should there be differences in the operation of the individual system variants, this will be brought to your attention by appropriate notes.

Symbols used



This warning symbol is given for a danger that, when not avoided, could result in death or serious injury.



This warning symbol is given for a danger that, when not avoided, could result in slight or moderate injury.







This warning symbol warns that there is a risk of moderate property damage.



This symbol refers to particularly useful notes.

Safety precautions

The information given here is for your own safety and assists in avoiding possible damage to the OmniaTap system. Please thoroughly read through these entries and follow them exactly.

 <p>WARNING</p>	<p>Danger of an electric shock! An improper supply of electric current to OmniaTap systems can lead to an electric shock!</p> <ul style="list-style-type: none"> - Exclusively use the wide-range power pack that is supplied for the supply of the electric current to OmniaTap systems. - Exclusively use a properly earthed socket that makes an alternating current of 100-240V and 50-60Hz available as electricity supply to the wide-range power pack of the OmniaTap systems. - Prior to maintenance work, only open the rear housing cover when the electrical connection has been unplugged.
 <p>WARNING</p>	<p>Danger of explosion and burns! Improper operation or disinfection of OmniaTap systems can lead to an explosion or burns!</p> <ul style="list-style-type: none"> - OmniaTap systems are only to be used for water. - Disinfection of OmniaTap systems is to be only carried out by appropriately qualified staff. - For cleaning and disinfection, exclusively use the cleaning agent and disinfectant that have been approved for use with OmniaTap systems. - Exactly follow the directions given in these operating instructions for carrying out disinfection of OmniaTap systems and additionally consult the safety data sheet of the disinfectant.
 <p>WARNING</p>	<p>Danger from falling! Improper handling or installation of the OmniaTap systems can result in falling of it and so lead to injury!</p> <ul style="list-style-type: none"> - Ensure that the system always has a firm stand. - When wall-mounted, ensure the stability of the system mounting. - Use the holding points of the system that are shown in these operating instructions when the system is to be handled or transported.
 <p>WARNING</p>	<p>Danger of slipping! Wrong or faulty installation of the system or a system leak can result in an uncontrolled emergence of liquid and so to a danger of slipping!</p> <ul style="list-style-type: none"> - Always pay attention to correct operating of the system and use sufficiently large vessels when withdrawing water. - Check that the supply and the lead-off lines have leakproof sealing. - Ensure that the rinsing water is led freely to drain.



Danger of injury to eyes and skin!

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

- When you carry out disinfection of an OmniaTap system, always wear suitable safety clothing (gloves and protective glasses at the least) to avoid contact with the disinfectant.
- Check the correct and leakproof attachment of connecting hoses to be sure that no disinfectant can leak out uncontrolled from the system.
- Exactly follow the directions that are supplied with the disinfectant in the disinfection kit.

Emergent UV-radiation can lead to eye and skin irritation or injury!

- Only start replacement of the UV-lamp of an OmniaTap UV or UV/UF system when it has been turned off and the line plug has been unplugged.
- When you have inserted the new UV-lamp, check that it is correctly seated in the UV-reactor.



Danger of squashing and jamming!

Incorrect handling of an OmniaTap system can lead to squashing or jamming injury!

- The holding points that are shown in these operating instructions are to be used whenever the system is handled or transported.
- When handling the movable dispenser arm, pay attention to possible nips in the area of the joint at the main housing. Always hold the dispenser grip when you are to move the dispenser arm.

Further notes

The following notes are to assist you in avoiding damage to your OmniaTap system and the surroundings.



Danger of property damage!

- Exclusively use original accessories and replacement parts for the OmniaTap system as non-original parts could lead to system damage.
- When constructional changes are made, or non-original parts are installed, the conformity declaration (CE) for your OmniaTap system is made obsolete.
- Protect the system from frost.
- Operate the OmniaTap system exclusively within the given feedwater pressure range.
- Only connect components to system interfaces that have been approved for usage with the OmniaTap system.
- Do not draw of any cables or hoses when the OmniaTap system is running.
- Check that the concentrate/rinsing hoses and the overflow always allow free run off.

2 Intended purpose

Systems of the OmniaTap series serve to directly purify drinking water to the pure and ultra pure water quality that is needed in many laboratory uses. To ensure maximum quality of the pure and ultra pure water and as long a service life as possible of the disposables, the OmniaTap system must be fed with drinking water that is in conformity with DIN 2000. Usage of OmniaTap systems for any other purpose is not permissible and is defined as improper usage.

The pure and ultra pure water that is produced find use as a solvent or rinsing fluid in greatly different analytical procedures such as high performance chromatography (HPLC), ion chromatography (IC), atom absorption spectrometry (AAS) and ultra trace analysis. They are also used in many chemical and biochemical applications for reagent preparation and cell culturing etc. The water that is produced is not fit for human consumption.

3 Technical data

Demands on the feedwater	
Source	Drinking water that complies with DIN 2000
Pressure [bar]	0.5 – 6
Temperature [°C]	2 – 35
SDI	< 3
Turbidity [NTU]	< 1.0
Free chlorine [ppm]	< 4
Iron [ppm]	< 0.05
Manganese [ppm]	< 0.05
Aluminium [ppm]	< 0.05
pH-range	4 – 11

ASTM I product water			
	OmniaTap	OmniaTap UV	OmniaTap UV/UF
Conductivity [μ S/cm] at 25°C	0.055	0.055	0.055
Resistance [M Ω cm] at 25°C	18.2	18.2	18.2
TOC [ppb]	5 - 10	1 - 5	1 - 5
Bacteria [CFU/ml]	< 1	< 1	< 1
Bakterial endotoxines [EU/ml]	-	-	0.001
Particles > 0.2 μ m [1/ml]	< 1	< 1	< 1
Max. flow rate [l/min]	up to 2	up to 2	up to 2

ASTM II product water

	OmniaTap 6 12	OmniaTap 6 12 UV	OmniaTap 6 12 UV/UF
Conductivity [$\mu\text{S}/\text{cm}$] at 25°C	0.067 – 0,1	0.067 – 0,1	0.067 – 0,1
Resistance [$\text{M}\Omega \text{ cm}$] at 25°C	15 - 10	15 – 10	15 – 10
Retention quota for germs and particles	99 %	99 %	99 %
Permeate performance / l/h at 15°C	6 12	6 12	6 12

Dimensions and weight	
Height [mm]	725
Depth [mm]	615
Width [mm]	390
Tank volume [l]	10
Weight OmniaTap [kg]	20
Weight OmniaTap UV [kg]	21
Weight OmniaTap UV/UF [kg]	21

Water connections	
Feedwater inlet	Hose OD 8mm
Waste water outlet	Hose OD 8mm
Sterile filter threaded connector	G1/4"
Sterile filter outlet	Hose nipple 6mm
Tank overflow	Hose OD 8mm

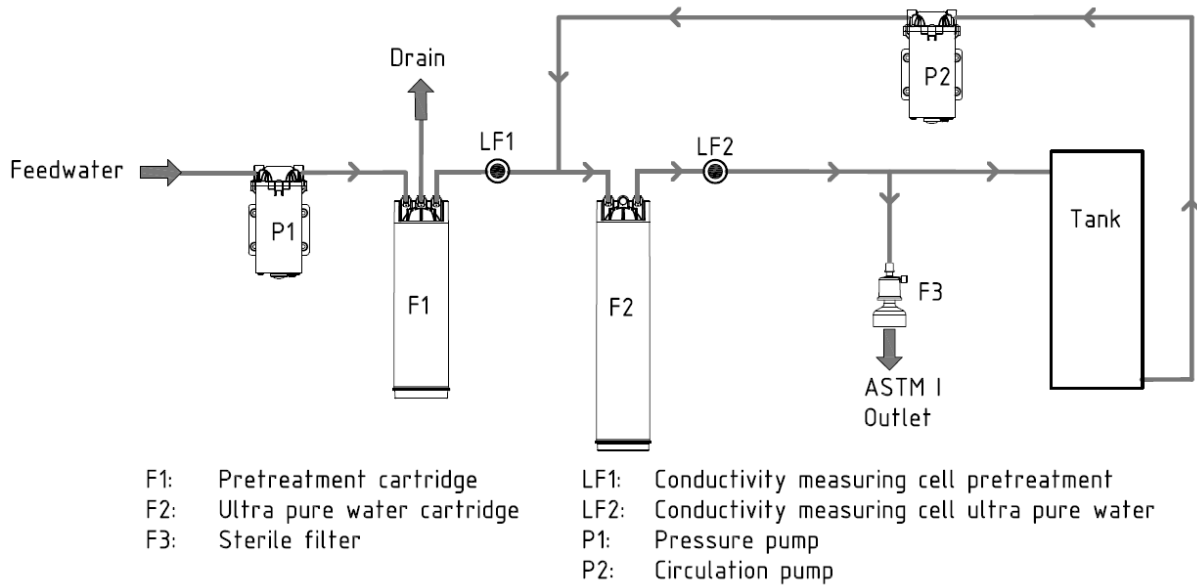
Electrical connections	
Voltage	100 – 240 VAC
Frequency	50/60Hz
Power consumption (max.)	120W
Serial interface	RS 232

Cell constants	
Conductivity pretreatment	0.1
Conductivity ultra pure water	0.01

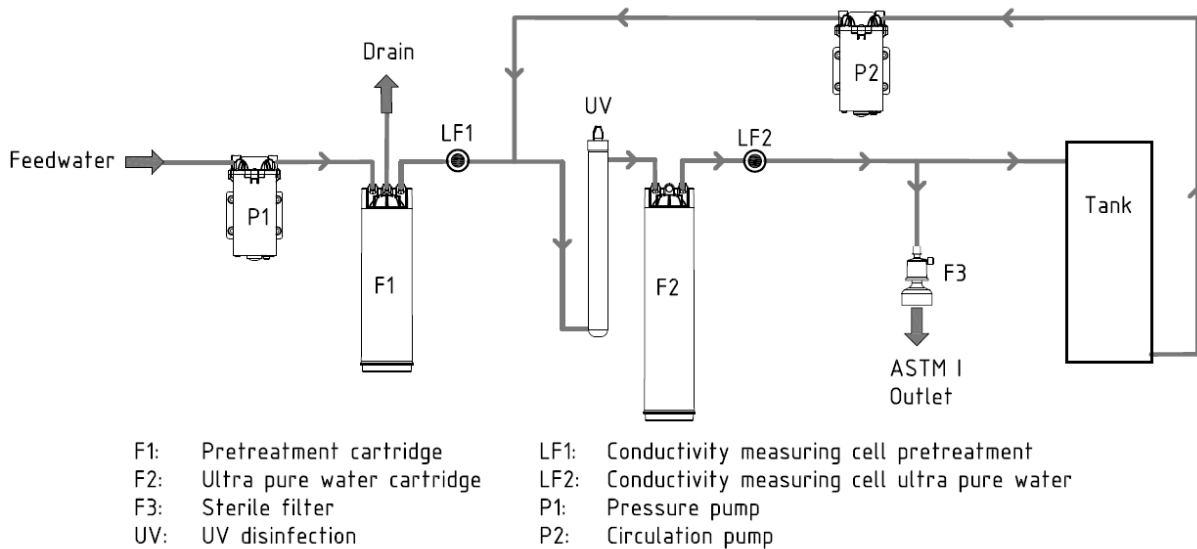
Materials of component surfaces that contact water	
Inlet solenoid valve	POM, EPDM
Rinsing solenoid valve	POM, EPDM
Withdrawal solenoid valve	POM, EPDM
Pump head	Nylon, glass fibre reinforced
Conductivity measuring cell	POM, stainless steel
Hoses	PE
Hose connector	POM
Gaskets	EPDM
UV-Reactor	Stainless steel
UV Immersion tube	Quartz glass
Ultrafilter housing	PC
Tank	PE

4 Flow charts

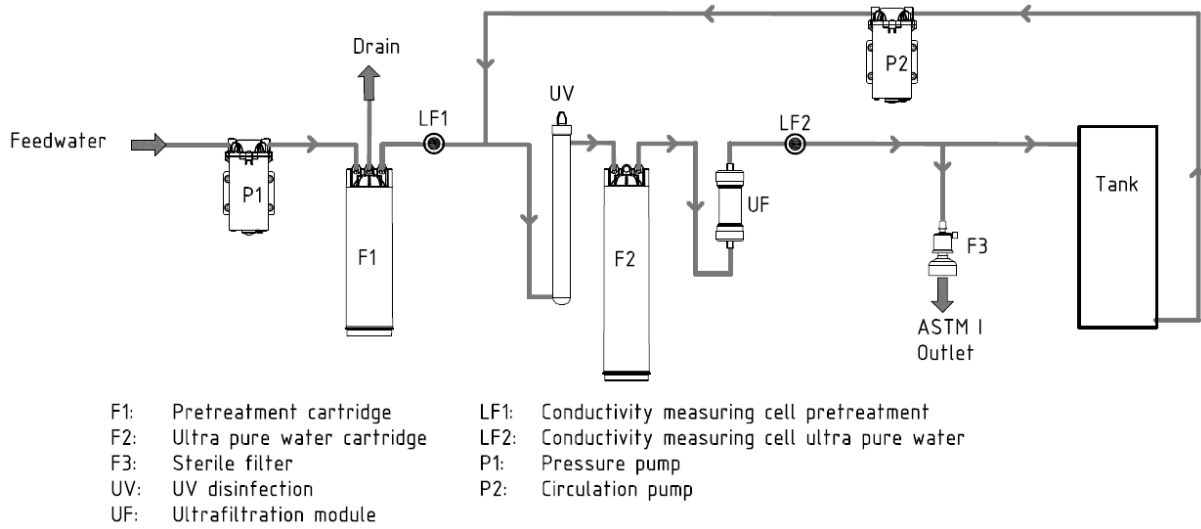
4.1 Flow chart for OmniaTap



4.2 Flow chart for OmniaTap UV



4.3 Flow chart for OmniaTap UV/UF



5 Description of the system

5.1 System construction



Figure 1: Front view of an OmniaTap system



Figure 2: View without the covering hood

- 1: Removable **OptiFill dispenser** with integrated operating and withdrawal unit
- 2: Removable **covering hood**
- 3: Spring lock
- 4: Turn and height adjustable **dispenser arm**
- 5: Pure water tank

- 6: Pretreatment cartridge
- 7: Ultra pure water cartridge
- 8: UV-Reactor
- 9: Ultrafiltration module

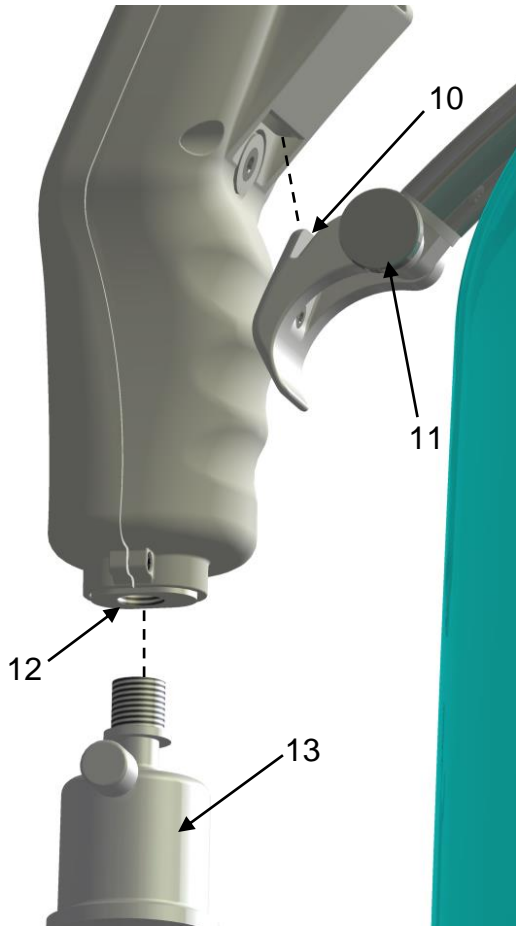


Figure 3: Details of the dispenser intake

- 10: Tiltable dispenser intake
- 11: Dispenser intake adjusting screw
- 12: Outlet with G¼" female thread
- 13: Sterile filter with R¼" connector



Figure 4: Cartridge guide pin

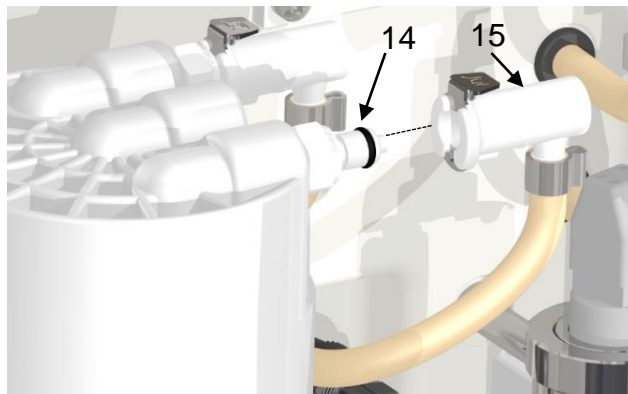


Figure 5: Cartridge connections

- 14: Quick connect plug
- 15: Quick connect coupling



Figure 6: System connectors

- Power: Connector for the voltage supply
- RS232: Connector for an optional printer
- Inlet: Feedwater connector

- Drain: Rinsing water connector
- Tank: Tank connectors

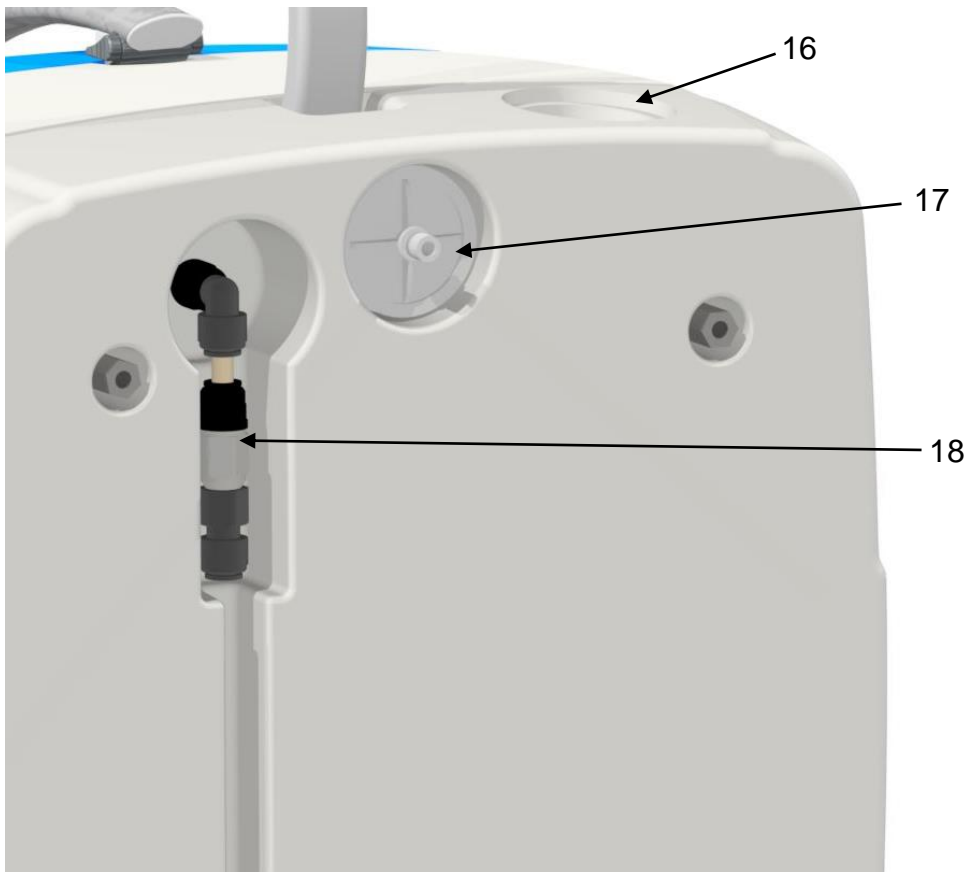


Figure 7: Tank connectors

- 16: Tank opening with lid
- 17: Sterile tank venting with vent filter
- 18: Sterile overflow

5.2 System equipping

The individual system variants of the OmniaTap series differ in their equipping. The following table shows how they are equipped.

System	Article no.	Preatreatment cartridge	Ultra pure water cartridge	UV-disinfection	Ultra-filtration
OmniaTap 6	18200051	•	•	-	-
OmniaTap 12	18200101				
OmniaTap 6 UV	18200052	•	•	•	-
OmniaTap 12 UV	18200102				
OmniaTap 6 UV/UF	18200053	•	•	•	•
OmniaTap 12 UV/UF	18200103				

5.3 How the system functions

The systems in the OmniaTap series utilize several purification technologies to directly convert drinking water to pure and ultra pure water. The ultra pure water that is produced fulfils the current requirements of ASTM, ISO, USP and CLSI standards.

To start the process, drinking water (feedwater) that is DIN 2000 conform is fed into the OmniaTap system. As can be seen in “4 Flow charts”, a pressure booster pump pumps the feedwater through the pretreatment cartridge with integrated reverse osmosis module. This pretreatment removes most of the salts, bacteria and other substances from the feedwater. The quality of the water that has been so pre-treated and also the condition of the prefilter cartridge, are continuously monitored by the first conductivity measurement (LF1). The actual conductivity values can be shown in the display of the operating-/withdrawal unit (OptiFill dispenser) as a check. In the next step, the water flows through a UV reactor (this is only for OmniaTap UV and UV/UF) where it is disinfected by means of UV-radiation. With all three types, the water now flows through the ultra pure water cartridge that removes remaining ions. To remove a maximum of non-ionized compounds, the water passes through an ultrafiltration module (only for OmniaTap UV/UF). Monitoring of the quality of the ultra pure water and the conditions of the consumables is made via a temperature compensated conductivity meter (LF2). The measured conductivity values, as well as those of the temperature, are displayed in the OptiFill dispenser display.

The water that has been so processed first fills the integrated tank up to its maximum filling level. No further processing of the feedwater occurs when the tank is full. To maintain the constant high quality of the processed water, it is periodically pumped by the circulation pump from the tank, through the ion exchanger cartridge, the UV reactor and the ultrafiltration module and back into the tank.

The OptiFill dispenser makes withdrawal of ultra pure water directly possible. To maintain a maximum quality, and with the help of the circulation pump, the water is forced through the ultra pure cartridge, the UV-reactor and the ultrafiltration module and to the withdrawal position immediately prior to withdrawal. As final purification step the ultra pure water passes through a sterile filter, which is connected directly at the OptiFill Dispenser.

To supply an external user, such as an analyzer, with pure water an optional pump station is available.

6 Assembly

When you receive your OmniaTap, first check the packaging for possible transport damage. Now remove the system from the packaging and check the outside of the system for transport damage. The OmniaTap system has been carefully tested and packed, despite this, damage during transport cannot unfortunately be completely ruled out. If your OmniaTap system has been damaged, immediately contact the appropriate destination carrier or shipping agent. In this case, keep the complete packaging as possibly needed proof of the complaint or return shipment.

6.1 Extent of delivery

The extent of delivery of your OmniaTap system is as follows:

Position	Number	Designation
01	1	OmniaTap system
02	1	Table-top power pack 48V 120W
03	1	Power cord
04	3	PE hose d8 2.5m
05	1	Water connection adapter R ¾" – d8
06	3	Angle attachment d8
07	1	Preatment cartridge
08	1	Ultra pure water cartridge
09	1	Sterile filter
10	1	Vent filter
11	1	Operating instructions

6.2 Operating environment

When selecting the installation, consider the following requirements:

- The ambient temperature must be at least +2°C.
- The feedwater pressure must be between 0.5 und 6 bar.
- The standing surface must be level.
- A suitable earthing-contact socket outlet must be available for the supply of electricity to the OmniaTap system (refer to 3 Technical data).
- The OmniaTap system must be easily accessible for maintenance work.
- There must be sufficient room around the system for easy operation of it.
- An in-house feedwater connector with R¾" male thread that can be closed off is necessary.
- A free-flowing drain is required for concentrate/rinsing water.



The system is exclusively intended for use in industrial environments. Electromagnetic immunity is not guaranteed in other environments.

- Temperatures below +2°C could lead to frost damage to the system!
- The feedwater pressure must be less than 6bar, otherwise the system could suffer damage! When necessary, install a pressure reducer.
- Ensure that a free-flowing drain is available to avoid water damage!

6.3 Assembly



Danger of electric shock!

An improper supply of electricity to OmniaTap systems can lead to an electric shock!



- Exclusively use the wide-range power pack that is supplied with the OmniaTap systems for the electrical supply.
- Exclusively use a properly earthed socket that makes an alternating voltage of 100-240V with 50-60Hz available for the electricity supply of the wide-range power pack.
- Always lift the system by gripping the bottom, the back or the sides of the main housing.

Position the OmniaTap system at the position of use and check that it has a secure stand. Lift the system by gripping the bottom, the back or the sides of the main housing (refer to page 14, Figure 8: Holding points). When the OmniaTap system is to be wall-mounted, please use the wall bracket that is available as option and follow the assembly instructions that are included with it, as well as the description under 6.4 Wall mounting



Make sure that the system has acclimatized to room temperature before starting to put it into operation.

Unlock the covering hood of the OmniaTap system by operating the spring lock (refer to page 8, Figure 1: Front view of an OmniaTap system) and remove it from the OmniaTap system. Fit in the pretreatment and ultra pure water cartridges (refer to page 8 Figure 2: View without the covering hood). Position the pretreatment cartridge at the front right standing position in the system and the ultra pure water cartridge at the left standing position. Now close the cartridges and fit on quick connect couplings to close them in the system (refer to page 9 Figure 5 Cartridge connections). Replace the covering hood in the system.



Use the half-round bulge of the main housing for simpler positioning of the cartridges and also the guide pin in the bottom (refer to page 9 Figure 4: Cartridge guide pin).

Hang the OptiFill dispenser in the intake at the dispenser arm and position it vertically (refer to page 9 Figure 3: Details of the dispenser intake).



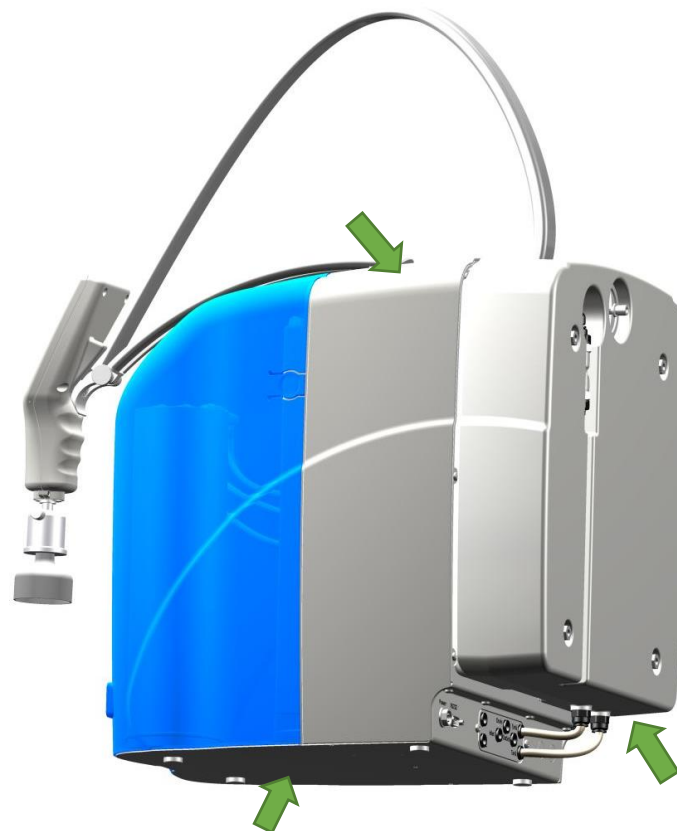
You can use the knurled screw at the intake to adjust the resistance of the inclination adjustment.

Use the connecting accessories to connect the OmniaTap system to the feedwater connection and to the free run off. Observe here the requirements made on the feedwater (refer to 3 Technical data). First bring the water connecting adapter, that has already been fitted to the set of hoses, to the in-house feedwater connector with its R $\frac{3}{4}$ " female thread. Now plug the free end of the 8mm hose in the 8mm quick connect that is marked "Inlet" to the back of the system (refer to page 9 Figure 6: System connectors). Following this, connect a further 8mm hose to the "Drain" system connection and lead the free end of the hose to a drain through which concentrate/rinsing water can freely flow off. Connect the sterile tank overflow (refer to page 10 Figure 7: Tank connectors) with another 8mm hose that can also flow freely off.

Screw the R $\frac{3}{4}$ " thread of the sterile filter in the intake of the OptiFill Dispensers (refer to page 9 Figure 3: Details of the dispenser intake).

Plug the 4-pole coupling of the power pack in the "Power" connector of the OmniaTap system. Secure the connection with the union screw of the coupling. Ensure that the power cord is connected to the table power pack, then plug the earthing contact plug in a suitable earthing contact socket (refer to 3 Technical data).

Finally open the water tap at the in-house drinking water connector.



8: Holding points

6.4 Wall mounting



Danger of injury from dropping and squashing!

The OmniaTap system is to exclusively fixed to a suitable wall with the optional wall mount. Only use this wall mount for the OmniaTap system. Pay attention that the wall and the mounting material have a sufficient weight-bearing capacity of at least 100kg. The mounting material that is supplied in the extent of delivery of the wall mount is designed for use in concrete or solid brick walls. Test the suitability of it for your wall material. If necessary, exchange it for a more suitable one.

The optional wall mount enables you to save work space by fixing your OmniaTap system to a suitable wall. The free wall area for this is approximately 60cm x 80cm (W x H). For professional and reliable mounting, we recommend that our customer service carries it out.

Your OmniaTap system must be prepared for wall mounting. The parts that are required for this are in the extent of delivery of the wall mount. Start by screwing the two M8 studs in the two upper M8 screw thread sockets that are at the back of the system (refer to Figure 10: Preparation for wall mounting). The two bump stops are screwed into the two lower M8 screw-thread sockets at the back of the system.

The next step is to fit the wall mount rail to the wall. For this, 6 bore holes of 8mm diameter and at least 60mm depth are required. Make the boreholes in the positions shown in "Figure 9, Wall mount rail". When doing this, make sure that the upper and lower lines of three boreholes are each exactly horizontal.

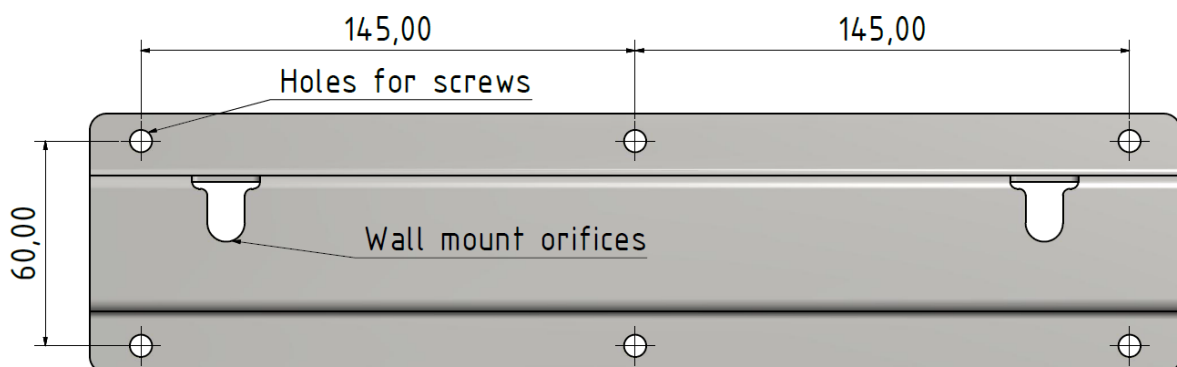


Figure 9: Wall mount rail

Now fit a wall plug in each of the boreholes and screw the wall mount rail so on the wall that the rounded sides of the two orifices are pointing downwards. Pay attention here to the fact that the fixing materials supplied with the wall mount are for mounting in concrete or solid brick. Should it be

necessary to fix the wall mount to a wall of a different material, then a different and suitable fixing material must be used.

The OmniaTap system can now be hung in the wall mount rail. To do this, lift the system by gripping it at the holding points (refer to page 14 8: Holding points). Protect yourself against dropping the system by being helped by a second person. Hang the two studs of the system in the wall mount orifices (refer to Figure 11: Wall mounting). Ensure that the system is additionally supported by the two bump stops

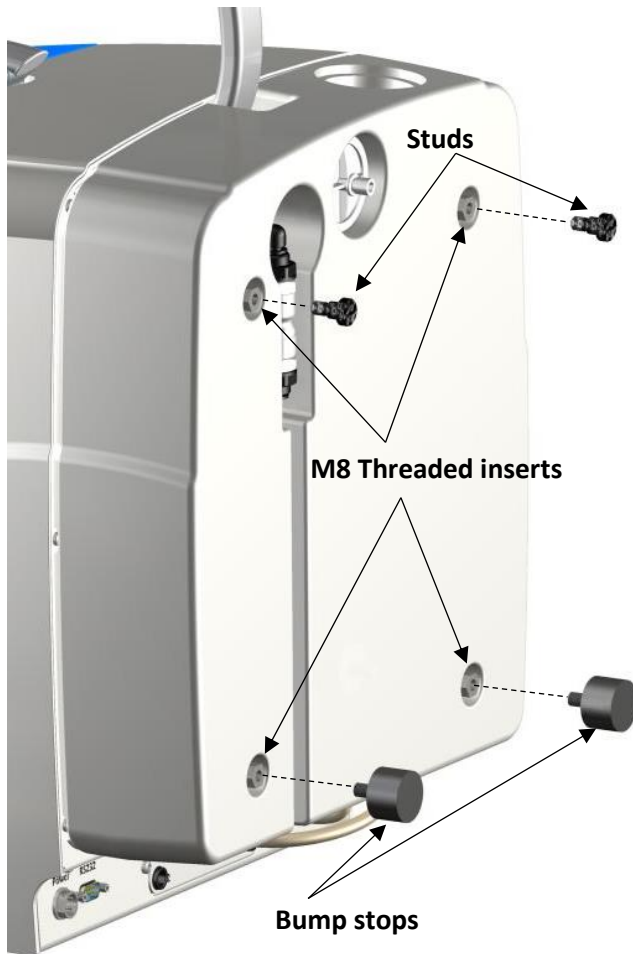


Figure 10: Preparation for wall mounting



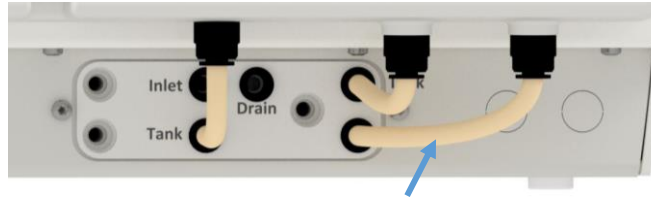
Figure 11: Wall mounting

6.5 How to connect an optional pump station

To supply an external user, such as an analyzer, with pure water from the tank an optional pump station is available. The pump station can be connected directly at the tank. The following steps explain, how to connect the pump station:

1. Make sure, that the power supply of the OmniaTap system is disconnected and the tank is completely emptied.

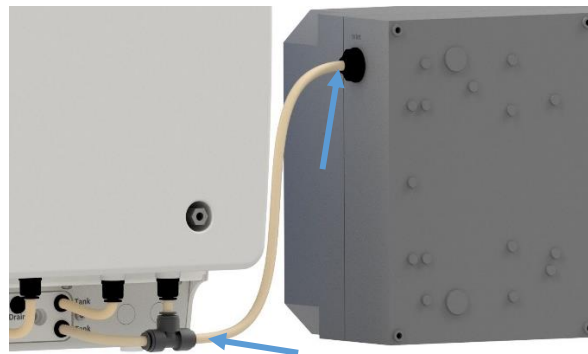
2. Remove the hose of the right tank connection at the backside of the system as shown at the picture.



3. The pump station delivery includes a T-connector prepared with hoses. Put both hose ends into the connections of the tank and the system, as shown at the picture.



4. Use the 8mm hose, which is in the delivery of the pump station included, to connect the Tank via the T-connector with the inlet connection of the pump station.



5. Now you can connect an external user with a 8mm hose at the outlet of the pump station. The flow rate is 72l/h at 2bar outlet pressure.



7 Operating concept

Operation of the OmniaTap system is carried out with five buttons and the OptiFill dispenser display. This display shows the designations of the individual buttons.

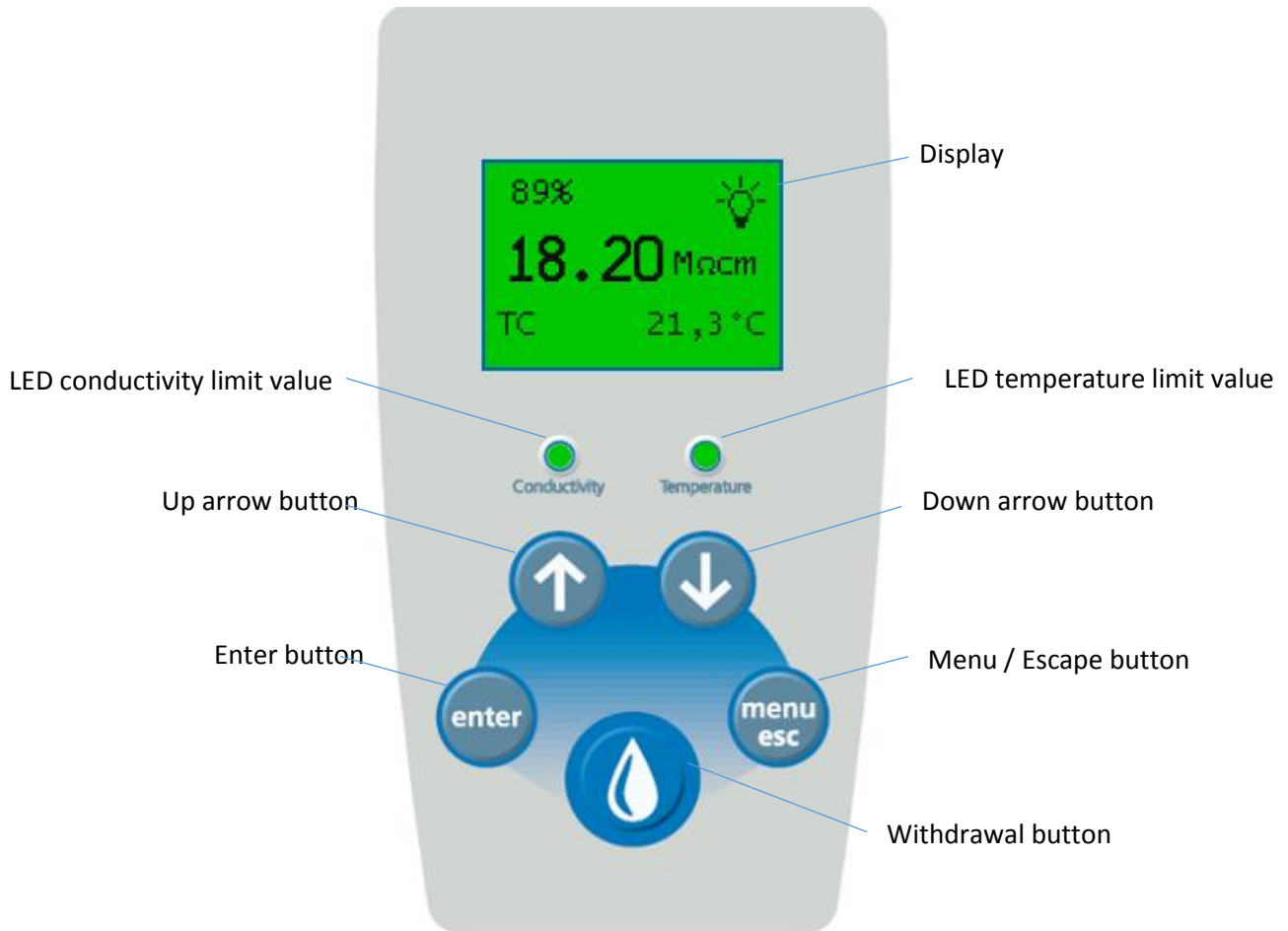


Figure1: Operating unit

Display

The display can show all settings, system conditions and measured values. The main display is shown above in the "Figure1: Operating unit" that automatically appears at the start of the system. In normal operation it is lit up green. When a system fault occurs or a limit value is exceeded, the green colour changes to red.


LED Conductivity limit value

This LED lights up green when the temperature limit value is set to "Off" (see 9.4.2 Setup) or when the actual measured value of the temperature is below the set limit value. It lights up red when the limit value is exceeded.

LED Temperature limit value

This LED lights up green when the temperature limit value is set to “Off” (see 9.4.2 Setup) or when the actual measured value of the temperature is below the set limit value. It lights up red when the limit value is exceeded.

Withdrawal button

When the system is in the main display, a press on the withdrawal button opens the withdrawal display (see 9.3: Withdrawal of water / Withdrawal display). The withdrawal button only has a function together with all other displays when the symbol for the withdrawal button symbol  is shown alongside a particular command.

Menu-/ Esc-button

A press on the Menu-/Esc-button in the main display brings you to the selection menu (see 9.4 Menu / Settings). In all other displays, this button takes on an ESC function with which you can abort an entry at any time or return to the previous menu level.

Enter button

When you have opened a display in which you wish to make an entry, a press on the Enter button activates the input function. The activation of this input function is acknowledged by the appearance of a cursor. When the function is active, a further press on the Enter button confirms the input/selection and switches to the next input field or ends the input function.

Up arrow button

This arrow button enables you to browse through a particular menu upwards. When an input function is active, you can increase a given value in this or change the selection at the actual cursor position.

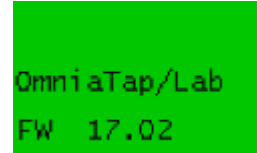
Down arrow button

This arrow button enables you to browse through a particular menu downwards. When an input function is active, you can decrease a given value in this or change the selection at the actual cursor position.

8 Putting into operation

The OmniaTap system starts as soon as it is supplied with voltage.

When the system starts, the start screen shown on the right is displayed. The system designation is shown above the serial number and the Firmware version of your system.

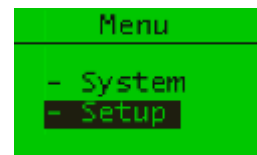


The system is already factory-set, so you only need to fit new pretreatment and ultra pure water cartridges, as described in the following.

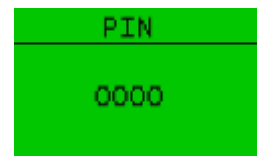
As soon as the start screen goes out, it is replaced by the main screen. Now you can open the menu selection by pressing the Menu/Esc button.



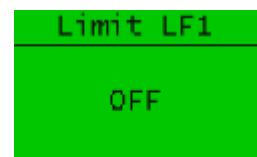
Now use the arrow button to choose between "Set-up" and "System". Select "Set-up" with the Enter button to open the set-up menu.



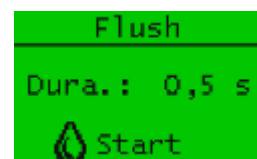
Use the Enter button to activate entry of the PIN. Now use the arrow buttons to enter the first position of the Pin. A renewed push on the Enter button changes to the second position. Carry on with this until you have completely entered four figures in the Pin. The Pin is preset with 0000.



In the setup menu you can first set the setting for the conductivity limit value of measuring cell LF1. Browse with the down arrow-key to the "Flush" entry.



Activation of the withdrawal button starts the rinsing process. Let the system be rinsed for about 3 minutes. End rinsing with a further press on the withdrawal button. Use the Menu/Esc button to return to the main display.



The system now automatically starts with the production of pure water and fills the tank. This process takes about 1.5 hours for an OmniaTap 6 system and about 1 hour with an OmniaTap 12 system. As soon as the maximum filling level of the tank has been reached, the system automatically changes to the circulation mode. The system is now ready for use.

9 Operation

The menu structure, the displays and the setting possibilities of OmniaTap systems are described in the following. Use them to navigate in the menu and change settings as described under “7 Operating concept“ for system input possibilities.

9.1 Menu structure

The following diagram pictures the menu structure of the OmniaTap system. Operating the Menu/Esc-button brings you from the main display to the menu selection. From here you can reach Set-up and the system menu. You can browse through menus with the arrow buttons. When you operate the withdrawal button you change from the main display to the withdrawal display.

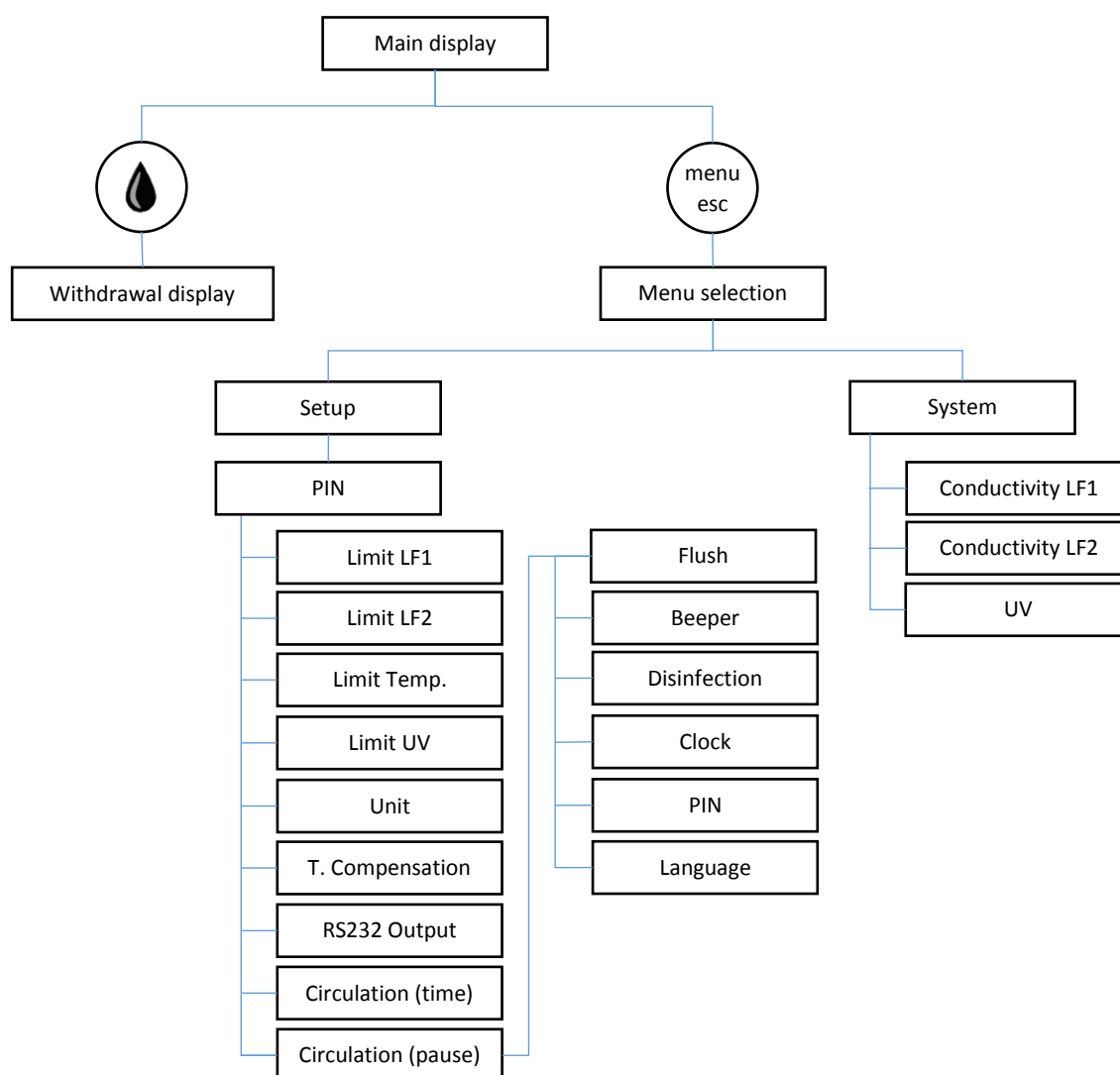


Figure 12: Menu structure

9.2 Main display

The main display (refer to Figure 13: Main display) is automatically shown when the system is switched on. It provides information on the actual system condition and shows you the measured value of the conductivity at the withdrawal point (LF2) in the unit that has been set ($\mu\text{S}/\text{cm}$ or $\text{M}\Omega\text{cm}$), as well as the temperature of the ultra pure water and the actual tank level. Further to this, it shows if the conductivity measurement is made with temperature compensation (TC) or without it (NTC). If your version is an OmniaTap UV or UV/UF, the lamp symbol provides information on the operating condition of the UV-lamp when it is switched on.

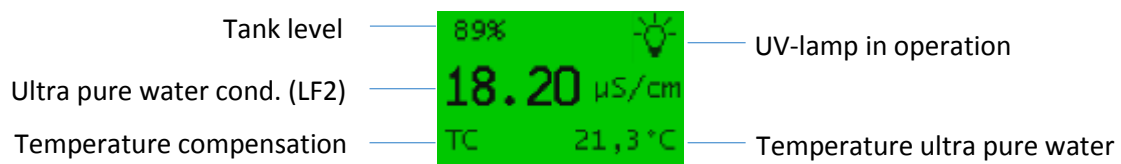


Figure 13: Main display

9.3 Withdrawal of water / Withdrawal display

Operation of the withdrawal button brings you from the main display to the withdrawal display. You have here the possibility to start withdrawal of ultra pure water via the OptiFill dispenser. Start withdrawal with a press on the withdrawal button. As soon as the wanted volume is withdrawn, you can stop withdrawal by a further press on the withdrawal button. When the tank filling level has reached a value of 10%, withdrawal is automatically stopped to prevent dry-running of the system. Further withdrawal is first again possible when the tank is filled to a value above 10%. The actual filling level is shown in percent. For control of the water quality, the conductivity of the ultra pure water is displayed at the withdrawal point.

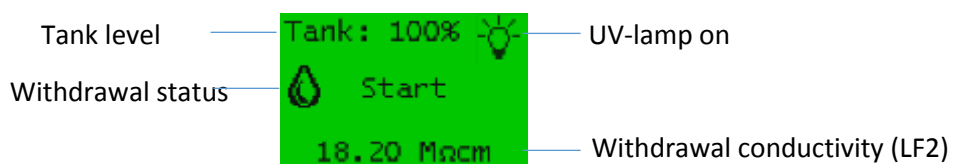
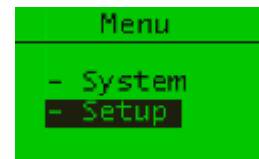


Figure 14: Withdrawal display

9.4 Menu / Settings

When the main display is open, press the Menu/Esc button to go to menu selection. Use the arrow buttons to choose here between “System” and “Setup”.



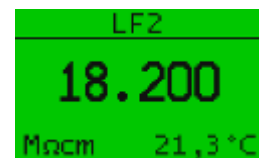
9.4.1 System

If you have selected “System”, you can use the arrow buttons to go to the following menu items:

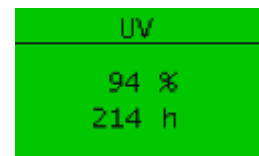
“LF1” shows the actual measured value of measuring cell LF1. It displays the conductivity in the selected unit as well as the temperature of the water subsequent to the pretreatment step.



“LF2” shows the actual measured value of measuring cell LF2. It displays the conductivity in the selected unit as well as the temperature of the water subsequent to the ultra pure water cartridge.



With systems that have flow-through disinfection, the “UV” menu entry shows the operating time of the UV-lamp. With systems that incorporate a UV intensity measurement, the service life of the UV-lamp is shown as a relative value in percent.



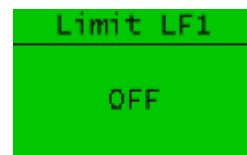
9.4.2 Setup

When “Setup” is required, you must first make a Pin entry. When you have entered the correct Pin with the help of Enter and the arrow keys (see 7 Operating concept), the following menu items are at your disposal:

Under the “Limit LF1” menu entry, you can set the limit value for the conductivity LF1 that is measured downstream of the pretreatment cartridge. When this limit value is gone above ($\mu\text{S}/\text{cm}$) or gone below ($\text{M}\Omega\text{cm}$), a corresponding warning message is given. The following setting ranges are at your availability:

0.100 – 50.0 $\mu\text{S}/\text{cm}$ or 10.0 – 0.02 $\text{M}\Omega\text{cm}$ and OFF

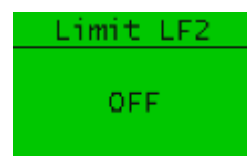
The limiting value is automatically deactivated when you enter a value of 00.000 (OFF).



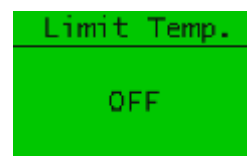
Under the “Limit LF2” menu entry, you can set the limit value for the conductivity LF2 that is measured downstream of the ultra pure water cartridge. When this limit value is gone above ($\mu\text{S}/\text{cm}$) or gone below ($\text{M}\Omega\text{cm}$), a corresponding warning message is given. The following setting ranges are at your availability:

0.056 – 50.0 $\mu\text{S}/\text{cm}$ or 18.1 – 0.02 $\text{M}\Omega\text{cm}$ and OFF

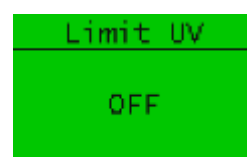
The limiting value is automatically deactivated when you enter a value of 00.000 (OFF).



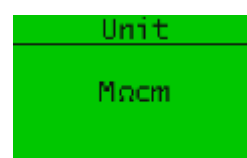
Under the menu item “Limit Temp.”, you have the possibility to set a limit value for the temperature measurement of the ultra pure water in a setting range of from 1.0 – 50.0°C. To deactivate the limit value, enter a value of 00.000.



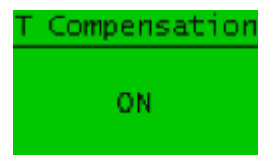
If your system is equipped with an optional UV intensity measurement, you can enter a percentage limit value for the intensity measurement of the UV-lamp under “Limit UV”. Should this limit value be gone below, the system emits a corresponding message via the display. The setting range is 1% – 98%. To deactivate the limit value, enter a value of 00.000.



The “Unit” menu entry enables you to choose between conductivity values in $\mu\text{S}/\text{cm}$ or in $\text{M}\Omega\text{cm}$.

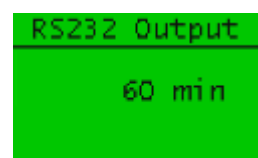


“T. Compensation” enables you to choose between measurement of the conductivity with (ON) or without (OFF) temperature compensation. When temperature compensation is switched on, “TC” is shown in the main display. When it is switched off, “NTC” is displayed.



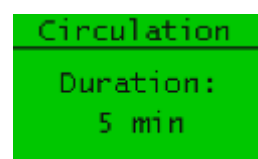
You can individually set the data output interval via the RS232 interface at the “RS232 Output” menu item.

The setting range is 1 – 1500 minutes.



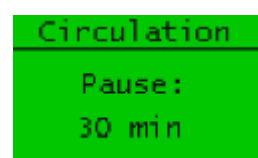
You can set the length of time of the circulation in minutes at the “Circulation” (Duration) menu item. The following settings are at your availability:

0 – 99 minutes, the setting 0 min deactivates circulation



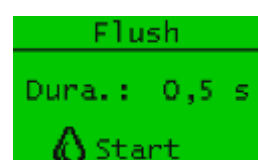
You can set the duration of the pause between the individual circulation phases at the menu item “Circulation” (Pause). You can set this interval time in the following ranges:

0 – 60 minutes, the setting 0 min causes permanent circulation



On switching on, and at both the start and end of a circulation phase, the system automatically carries out a rinse for the rinse time shown here. The setting range for the length of time of automatic rinse is 0.1 – 10s.

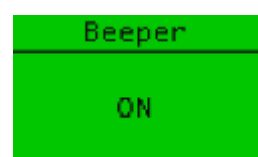
You can manually activate a rinse by a press on the withdrawal button. The system then keeps rinsing until it is stopped by a further press on the withdrawal button.



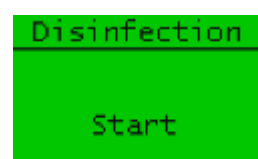
If a fault occurs (see 11.1 Automatic system monitoring), an acoustic signal is emitted. You can turn this function on or off via the menu item “Beeper”.



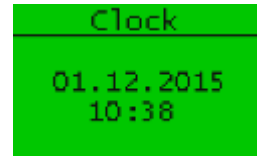
The “OFF” setting has no effect on the issue of a warning signal when a “Leak” message is given.



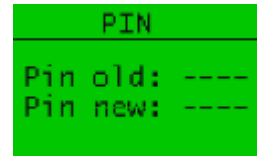
When required, a disinfection of the system can be carried out via the menu item “Disinfection”. Please note that only appropriate qualified personnel are to carry out disinfection.



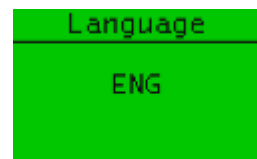
You can optionally set the system time and date under the menu item „Clock“. Proceed as given under „7 Operating concept“ to change the setting.



The “PIN” menu item gives you the possibility to change the setup access PIN. The default value is set to 0000. To change the pin, you must first enter the actual pin.



You can choose between English and German as display language.



10 Maintenance and care

Regular maintenance and care of your OmniaTap system are necessary for it to maintain a constant high water quality. We recommend that you close a contract with an authorized customer service company for professional and regular maintenance of your OmniaTap system.



The warranty for the system loses its validity when improper maintenance, service or repair work is carried out on the system, replacement parts and consumable materials that have not been approved are used and/or if conversion measures are carried out. The Declaration of Conformity also becomes invalid.

10.1 Maintenance / Care intervals

The frequency of replacement measures mostly depends on the quality of the feedwater and the water volumes that are withdrawn. The following table lists safekeeping intervals. These are recommendations and the measures could be more quickly needed according to the demands made on the ultra pure water.

Care measures	Article number	Interval
Replace the pretreatment cartridge Pretreatment cartridge OmniaTap 6 Pretreatment cartridge OmniaTap 12	19200005 19200010	12 months
Replace ultra pure water cartridge	19200003	12 months
Replace the UV lamp	19200055	24 months
Replace the ultrafiltration module	19000050	24 months
Disinfection Disinfection kit Disinfectant	19200056 19200057	12 months

10.2 Cartridge replacement

Cartridges are to be replaced at regular intervals (12 months) or earlier when the limit values that you have entered are permanently exceeded. The time that the particular filter cartridge was first connected is taken to be the start of the interval. Proceed as follows to replace pretreatment and ultra pure water cartridges:

1. Switch the OmniaTap system off by separating it from the line voltage.
2. Remove the OptiFill dispenser from its fixture and swivel the dispenser arm to the upper position.
3. Remove the covering hood from the system by opening the two side spring locks and drawing the covering hood forwards (refer to page 8, Figure 2: View without covering hood), then draw the covering hood off forwards from the main housing.
4. The ultra pure water cartridge is at the standing position on the left and the pretreatment cartridge at the one on the right (refer to page 8, Figure 2: View without covering hood). Open the quick connects of the cartridge that is to be replaced (refer to page 9, Figure 5: Cartridge connectors) and remove it from the system.
5. To fit a new cartridge in the system at the appropriate standing position, utilize the half-round bulge for easier positioning of the ultra pure water cartridge in the main housing. Use the guide pin to help position the pretreatment cartridge (refer to page 9, Figure 4: Cartridge guide pin).
6. Connect the cartridge to the system with the quick connects.
7. Replace the covering hood and plug the OptiFill dispenser back in its fixture.
8. Plug the mains plug back in to start the system.
9. Finally rinse the system as described in “8 Putting into operation“.

10.3 Disinfection

The OmniaTap should be disinfected at regular intervals (12 months) to protect it against biological deposits. A disinfection kit (article no. 19200056) and a disinfectant (article no. 19200057) are required for this.



Danger of explosion and burns!

Disinfection of OmniaTap systems is to be only carried out by appropriately qualified staff.

Protect yourself against harm by means of suitable safety clothing (protective gloves and eye protective glasses at the least).

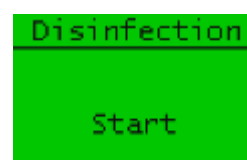
Observe the instructions given by the safety data sheet that is supplied with the disinfectant and exactly follow the instructions given for handling the disinfectant.

Exclusively use the disinfectant that has been approved for use with the OmniaTap system.

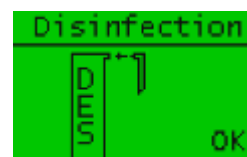
The disinfecting process is described in the following.

It takes about 30 minutes.

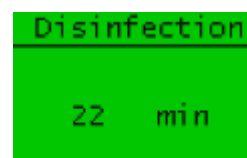
Open the Disinfection menu item “Disinfection” in the System menu. Press the Enter button to start the disinfection process.



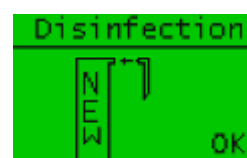
You will now be requested to fit the disinfection cartridge in the system. If you want to abort this process, press the Menu/Esc-button. If you want to continue, first prepare the disinfection cartridge with the disinfectant according to the instructions that is supplied with them. Remove the ultra pure water cartridge from the system as described under “10.2 Cartridge replacement”. Replace it with the disinfection cartridge and fit the quick connects on. Press the Enter button to confirm that the disinfection cartridge is in position.



The system now begins to circulate the disinfectant solution. When this circulation phase has finished, the system is automatically rinsed. The time remaining is displayed and the total process takes about 30 minutes. This process cannot be aborted. It must be allowed to go to completion.



When disinfection has finished, you will be demanded to fit in a new ultra pure water cartridge. Follow the instructions given for cartridge replacement in “10.2 Cartridge replacement” and end the process with a push on the Enter button. The system now automatically goes to the “Rinsing” menu.



Do not forget that the system now has a new cartridge that must be rinsed (refer to 10.2 Step 9).

11 Faults, causes and solutions

11.1 Automatic system monitoring

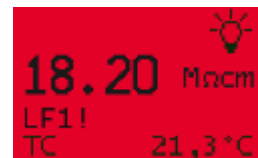
The OmniaTap system automatically carries out fault monitoring for several system parameters. When one of the monitored system parameters deviates from the entered stipulation, both an optical and an acoustic fault message are issued. In the case of a fault, the colour of the display changes to red and a warning signal is emitted (when it is active). The type of fault is shown by a corresponding output in the display. When the fault is for exceeding a limit value, the corresponding LED changes from green to red.



Confirm the fault message with the Enter key and so end the emittance of the audio warning signal.

The individual fault messages are described here:

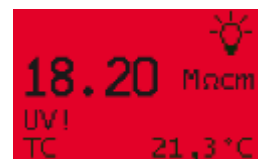
When a limit value for conductivity LF1 has been set under “Limit LF1” in Setup, exceeding of this value is shown as an “LF1!” fault. Should a defect in the conductivity measurement LF1 (e.g. cable break) be the cause, then “LF1” will also be displayed. The fault will be shown until conductivity LF1 goes below the limit value or the defect is remedied.



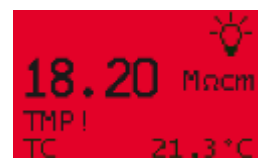
When a limit value for LF2 has been set, exceeding of this value is shown as an “LF2!” fault. When an LF2 defect occurs, fault “LF2!” will also be displayed. The fault will be shown until conductivity LF2 again goes below the limit value or the defect is remedied.



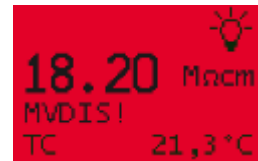
With OmniaTap systems that have optional UV flow-through disinfection, the fault “UV!” is emitted when there is a malfunction of the UV- lamp.



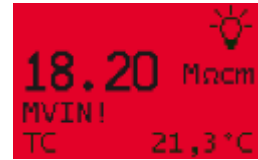
When a limit value has been set for the temperature, exceeding of this limit value is shown by the “TMP!” display. As soon as the temperature goes below the limit value, the fault is reset.



When the withdrawal solenoid valve of the OptiFill dispenser is subject to a defect (a cable break, for example) this is displayed as fault message “MVDIS!”. As soon as the fault has been remedied, the fault display is reset.



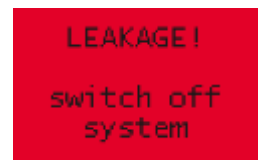
When the inlet solenoid valve has a defect, the fault message “MVIN!” is displayed. The fault display is reset as soon as the valve functions normally.



The fault message “MVFL!” indicates a rinsing solenoid valve defect. The fault display is reset as soon as the valve functions normally.



All OmniaTap systems are equipped with an internal leak sensor. Should water in the system leak out uncontrolled within the purification unit, the “LEAKAGE” message is shown. In addition, the system closes all valves and possibly also deactivates the pump to stop further flow of leak water. This fault can only be reset by a renewed start of the system when the leak has been stopped.



When the system receives faulty values, or no values, from the tank filling sensor, the fault “PSENS!” is emitted. To avoid tank overflow, the pumps are stopped and the system stops operation. When the fault has been remedied the system starts and returns to regular operation.



11.2 Table of faults

Fault	Possible cause	Remedy
System does not start / Nothing is shown in the display	No or faulty power supply	Make sure that the power supply fulfils "3 Technical data requirements.
Conductivity LF1 lastingly exceeds the set limit value / Fault LF1!	Pretreatment cartridge is exhausted	Replace with a new pretreatment cartridge
	Feed water does not fulfil requirements	Check the quality of the feed water
	Limit for LF1 is set too low	Check the setting of limit value LF1
Conductivity LF1 is wrongly displayed and fault LF1! is given out	Conductivity measurement LF1 has a defect	Please contact technical service
Conductivity LF2 lastingly exceeds the set limit value / Fault LF2!	Ultra pure water cartridge is exhausted	Replace the ultra pure water cartridge
	Pretreatment cartridge is exhausted	Replace with a new pretreatment cartridge
	Feedwater does not fulfil requirements	Check the quality of the feed water
	Limit LF2 is set too low	Check the setting of limit value LF2
Conductivity LF2 is wrongly displayed and fault LF2! is given out	Defect conductivity measurement LF2	Please contact technical service
Temperature lastingly exceeds the set limit value / Fault TMP!	Limit value for the temperature set too low	Check the temperature limit value of the feed water
	System is in permanent circulation or the choice of the interval between the recirculation phases is too low	Increase the value of the interval parameter in the circulation setting
UV-lamp does not function / UV fault!	UV-lamp is defect	Replace the UV-lamp
	Maximum operating period has been exceeded	

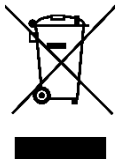
The system does not produce pure water, the tank cannot be filled	System receives no feed water	Check the feed water supply hose connections. Open the on-site feed water supply.
	Input pressure is too low	Check the input pressure (feed water pressure) and increase it if appropriate.
	Leak sensor does not react / The leak fault LEAKAGE! is displayed	If the leak sensor contacts water, the inlet valve of the system closes to prevent further emergence of water. Stop the leak and set the fault back by making a new system start.
	The membrane of the pretreatment cartridge is blocked	Replace with a new pretreatment cartridge
	The setting of the pressure hold valve or the operating pressure is incorrect	Please contact technical service
	The inlet solenoid valve is defect, the fault "MVIN!" is displayed	Please contact technical service
	Pressure pump is defect or has a malfunction	Please contact technical service
	The filling level sensor is defect or supplies incorrect data. The fault "PSENS!" is displayed	Check the 5-pin plug connection of the filling level sensor at the back of the purification unit
No water can be withdrawn	Tank filling stand is too low	No water can be withdrawn when the tank filling level is 10% or lower. Wait until the tank is sufficiently full (>15%)
	The withdrawal solenoid valve is defect. The "MVDIS!" fault is shown	Please contact technical service
Water emerges uncontrolled out / LEAKAGE fault!	Leaky hose connections or components	Stop/separate the feed water supply to the system, switch the system currentless by drawing the line plug out and contact your customer service
The system does not carry out rinsing	The rinsing solenoid valve is defect. Fault "MVFL!" is shown.	Please contact technical service
Withdrawal performance is too low	The circulation pump does not operate correctly	Please contact technical service

12 Consumables and accessories

Consumable / Accessory	Article number
Pretreatment cartridge OmniaTap 6	19200005
Pretreatment cartridge OmniaTap 12	19200010
Ultra pure water cartridge Omnia 055	19200003
Sterile filter capsule 0.2µm	19100300
Sterile venting filter	19500400
Bio-Endfilter	19102100
UV replacement lamp 185nm	19200055
Ultrafiltration module	19000050
Disinfection kit Omnia	19200056
Disinfectant Omnia – pack of three.	19200057
Wall mount Omnia	19200300
Pump station Omnia	16580000

13 Waste disposal

If the packaging of the system is no longer required, dispose of it in the household waste.



According to the WEEE-Richtlinie, waste disposal in the household waste of electrical and electronic waste is not permissible. In Germany and other members of the European Economic Area please contact the local customer service or our headquarters at the address given below for information on the waste disposal of this system and any accessories.

stakpure GmbH
Auf dem Kesseling 11
D – 56414 Niederahr

WEEE-Reg.-Nr. DE 16914291

In countries outside of the European Economic Area, please contact the local waste management officials or companies.

EN Declaration of conformity



in the sense of directives:

- 2006/42/EG Machines
- 2014/35/EU Low voltage
- 2014/30/EU Electromagnetic compatibility

stakpure GmbH

Auf dem Kesseling 11

D-56414 Niederahr

Telephone: 02602 10673-0 Telefax: 02602 10673-200

info@stakpure.de

www.stakpure.de

We hereby declare that the conception and design of the machine named below and the versions that we have brought to market are in accordance with the determinations of the named EN directives. This declaration is invalidated when changes are made to the product that have not been agreed upon by us.

Product:

Product designation: Ultra pure water system

Type: OmniaTap, OmniaTap UV, OmniaTap UV/UF

Article numbers: 18200051, 18200052, 18200053,
18200101, 18200102, 18200103

The following harmonized norms were applied:

DIN EN ISO 12100:2011-03
DIN EN 61326-1:2013
DIN EN 55011
DIN EN 61000

Complete technical documentation is available.

Niederahr, 18.05.2016

Place, Date

Leo Trumm, CE – Authorized representative

First name, name and function of the signatory


Signature

stakpure

stakpure GmbH

Auf dem Kesseling 11

D – 56414 Niederahr

Tel.: +49 2602 10673-0

Fax: +49 2602 10673-200

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