



## AT Excellence

Translation of the original operating instructions

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## 1 Introduction

### 1.1 About these operating instructions

These operating instructions contain information that ensures the safe operation of this device. They constitute a component of the device and must be stored in a place which is accessible for the user. In order to work safely with the device, the safety and operating instructions provided must be observed. Compliance with applicable national accident prevention regulations and general safety provisions must be ensured.

### 1.2 Copyright

These instructions are protected for the manufacturer by copyright.

The instructions contain guidelines and drawings or parts of drawings of a technical nature, which may not be reproduced, distributed, used for the purposes of competition without authorisation or shared with others, either in whole or in part.

The operator of the device is only permitted to make copies – including extracts – expressly for internal use in connection with the operation of the device. The manufacturer is entitled to claim damages for any infringements. Further rights reserved.

Subject to technical alterations

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### 1.3 Proper use

- The device prepares (demineralises) cold raw water (max. 35°C) for subsequent use in commercial warewashers. The device reduces the total salt content of the raw water.
- The device may only be used in conjunction with a commercial warewasher that meets the requirements of DIN EN 61770.
- All components of the warewasher that come into contact with water must be suitable for osmosis water. Use of non-ferrous metals is not permitted. Only plastic parts stainless-steel parts may be used.
- The device is a technical appliance for commercial use and is not intended for private use.

### 1.4 Improper use

- The prepared water must not be used as drinking water or food.
- Do not make any changes, additions or modifications without the approval of the manufacturer.
- Winterhalter Gastronom GmbH assumes no liability for any damage caused by improper use of the device.

### 1.5 Symbols used

- This symbol indicates an instruction.
  - ⇒ This symbol indicates the results of your actions.
- This symbol indicates a list.

**Note: Indicates an additional important piece of information.**

The following symbol refers to additional information: ➤ page 5

Warning notices have the following layout:



#### CAUTION

##### Type and source of danger

Consequences of danger

- Measures to avert the danger.

The danger level is indicated by the signal word.



#### DANGER

The signal word DANGER indicates an immediate danger; ignoring it will lead to serious injury or death.



#### WARNING

The signal word WARNING indicates a potential danger; ignoring it may lead to serious injury or death.



## CAUTION

The signal word CAUTION indicates a potential danger; ignoring it may lead to minor or moderate injury.



## NOTE

The signal word NOTE indicates potential damage to property.

## 2 Safety notes

Winterhalter Gastronom GmbH assumes no liability or warranty in the event of non-compliance with these safety and operating instructions.

### 2.1 Operator obligations

The device is used in the restaurant industry and similar businesses (bakeries, butcher's shops, etc.). The operator is therefore subject to the legal obligations for occupational safety. In addition to the warning and safety information in these operating instructions, the operator must comply with the current provisions regarding safety, accident prevention and environmental protection for the area of application of the device. To ensure safe use of the device, the operator must take the following measures:

- Arrange for the device to be connected by authorised personnel according to the locally applicable standards and regulations.
- Provide the user with information on the provisions regarding occupational safety.
- Ensure that only personnel who have read and understood the operating instructions and safety notes and are trained in handling the device work with it.
- Refer users to the safety notes and inform them of potential dangers. Repeat training sessions at regular intervals to prevent accidents.
- Arrange for the Winterhalter customer service team or a specialist dealer to provide instruction in operating the device.
- Provide the instructions to the user and keep them in a safe place.
- Operate the device only when it is in perfect technical and hygienic condition.

### 2.2 User obligations

In addition to the warning and safety information in these operating instructions, the user must comply with the current provisions regarding safety, accident prevention and environmental protection for the area of application of the device. In particular, the user must take the following measures:

- Adhere to the applicable occupational safety regulations.
- Follow the allocated responsibilities for installation, operation, maintenance and cleaning.
- Read the operating instructions and safety notes.
- Work with the device only after receiving training.
- Operate the device only when it is in perfect technical and hygienic condition.
- Ensure cleanliness and tidiness around the device.
- Never drink prepared water.

### 2.3 Qualification requirements for personnel

Activity	User group	Qualification / training
Connection to the mains supply	Specialist personnel	Authorised electrician or personnel with equivalent qualification
Installation, initial commissioning, maintenance, repair, recommissioning	Specialist personnel	Electrician with Winterhalter training or Winterhalter service technician with training as an electrician or personnel with equivalent qualification
Operation, cleaning and maintenance in daily use	Adults	Instruction and briefing regarding dangers provided by the operator, based on the operating instructions (quick guide and safety notes)
	Young people over the age of 14	Instruction and briefing regarding dangers provided by the operator, based on the operating instructions (quick guide and safety notes) Under supervision
	Children under the age of 14	Not permitted

### 2.4 Electrical dangers

- The connection to the electrical mains supply may be made only by a specialist company registered within the electrical trade and approved by the energy supplier.
- Work on the electrical system, installation and maintenance work and repairs may be carried out only by qualified specialists. The electrical engineering safety rules must be observed to avoid electrical accidents:

- Disconnect all poles from the power supply.
- Secure the machine to prevent it from being switched on again.
- Ensure that there is no voltage.
- Earth and short circuit.
- Cover or cordon off any neighbouring parts that are under voltage.
- Do not open any machine covers if doing so requires the use of tools. There is a danger of electric shock.
- The electrical safety of this machine is guaranteed only if it is connected to a correctly installed protective circuit. Winterhalter cannot be held responsible for damage caused by a missing or broken protective conductor (e.g. electric shock).
- If the mains cable is damaged, it must be replaced by Winterhalter, its customer service team or another qualified person to prevent danger. The mains cable must be a H075RN-F type or equivalent.
- Touching live components can lead to death by electric shock. In the event of a defect or damage to an electrical component / cable or its insulation, switch off the power supply immediately and arrange for repair by a specialist.
- Never insert or pull out the mains plug with wet hands.
- Never remove the plug from the socket by pulling on the cord.

## 2.5 Maintenance, repair and spare parts

- Only service technicians who have been trained and authorised by Winterhalter are permitted to carry out maintenance work and repairs. Improper maintenance or repairs may cause significant danger to the user, for which Winterhalter cannot assume liability.
- Only original Winterhalter spare parts may be used for maintenance and repairs. If original spare parts are not used, the warranty is invalidated. The information in the spare parts catalogue is definitive in this respect.
- Arrange for an installer or an electrician to remedy on-site water and electricity supply malfunctions. Arrange for other malfunctions to be remedied by an authorised service technician or dealer.

### 3 Machine description

#### 3.1 Description of function

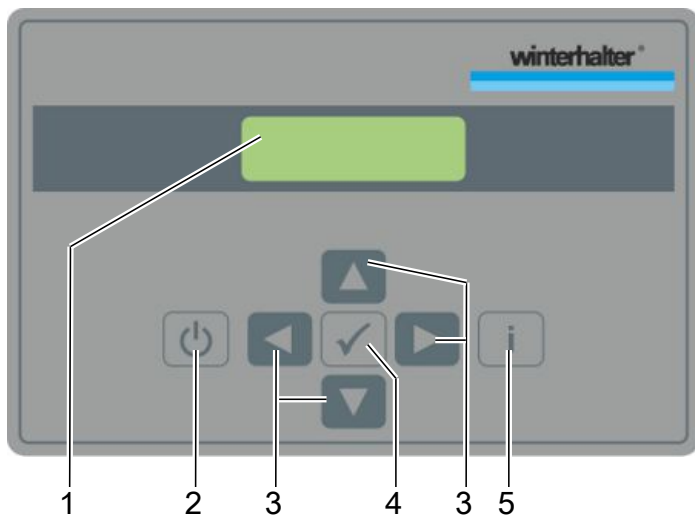
This water treatment device is based on the principle of reverse osmosis (mechanical filtration). The water passes through an activated carbon filter, which filters out chlorine and sediments, and is then pressed through several membranes at high pressure so that almost all unwanted elements are removed.

As soon as the connected warewasher requests water, the device goes into AquaOpt mode and produces osmosis water.

**Note: Operate the device with a non-pressurised boiler for optimum yield with commercial warewashers. When operating with warewashers with a pressurised boiler in conjunction with a pressure expansion vessel, the yield is reduced and the filling time of the warewasher is extended.**

#### 3.2 Overview

#### 3.3 Operating panel



Item	Description
1	Display
2	On/Off button
3	Buttons for navigation within the menu
4	Confirmation button
5	Info button (displays additional information)

#### Display

Colour	Meaning
Green	Device is ready for operation (stand-by mode).
Blue	The device is in AquaOpt mode or producing osmosis water.
Yellow	Warning active; continued operation possible
Red	Error; the device is no longer producing osmosis water
Not lit	Device is switched off.

#### 3.4 Technical data

Description	Unit	Value	
		AT Excellence-S	AT Excellence-M
Height	mm	420	
Width	mm	205	365
Depth	mm	490	
IP protection class		IPX5	
Weight	kg	19	33
Noise emission	dB	<55	<62
Activated carbon filter capacity (1 mg/l Cl <sub>2</sub> )	m <sup>3</sup>	5.0	
Volume flow of osmosis water at 15°C inlet water temperature	l/h	min. 90	min. 180

The yield depends upon the total hardness (°dH) and conductivity (µS/cm) of the raw water. During commissioning, the authorised service technician will install the correct capillary in the interior of the device.

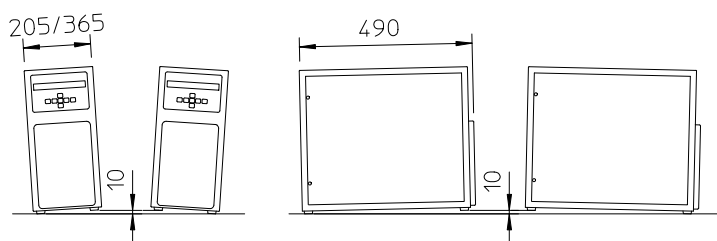
#### Operating conditions

Description	Unit	Value
Temperature at the installation site	°C	0 - 40
Relative air humidity at the installation site	%	< 95
Storage temperature in preserved condition	°C	>-10
Max. height of the installation location above sea level	m	3000

## 4 Commissioning

Have the device commissioned by an authorised service technician.

### 4.1 Setting up the device

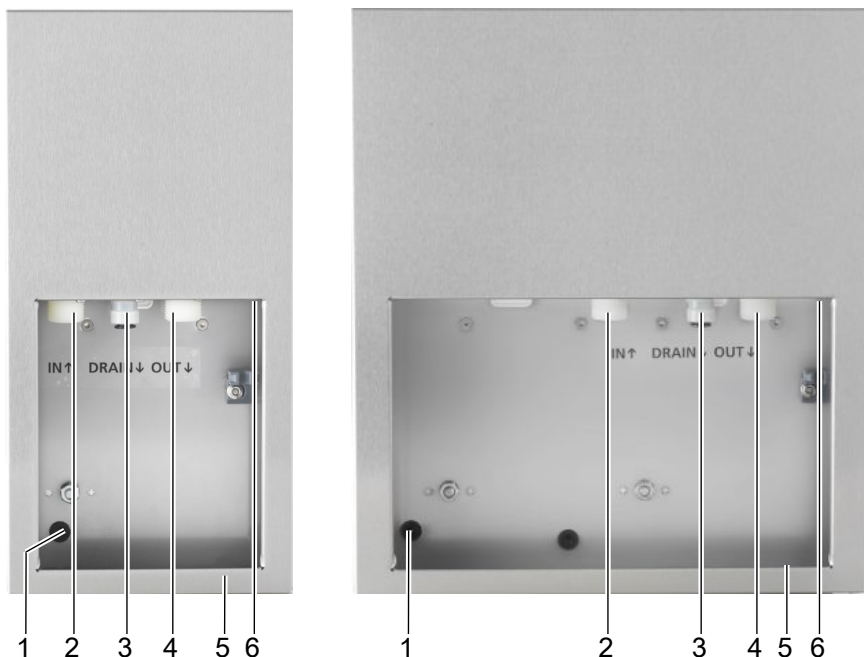


- Install the device in an upright position.
- Make sure the device is level using a spirit level (maximum permissible inclination: 10 mm).

The installation site must be frost-resistant to prevent the water supply systems from freezing.

### 4.2 Connecting the device

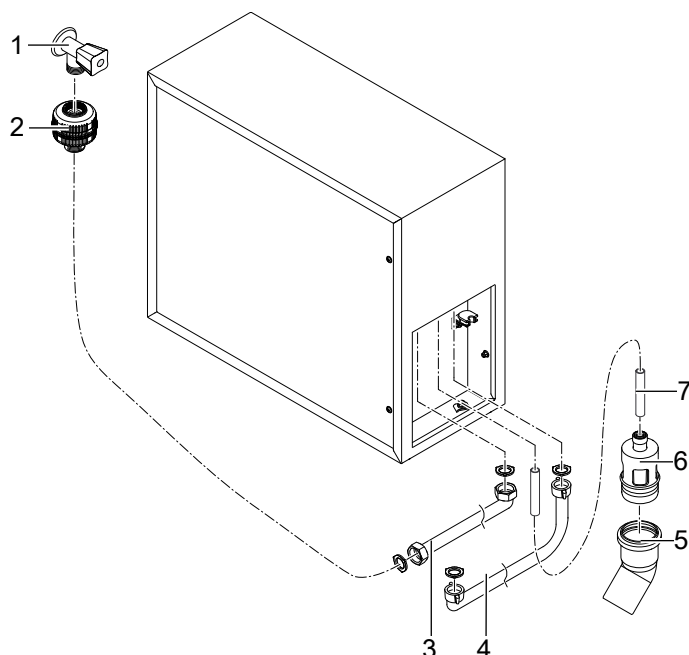
The device must be connected by an authorised specialist company in accordance with local or national regulations.



Item	Description
1	Entry for data cable to warewasher (optional)
2	Supply hose connection, G 3/4" external thread
3	Waste water hose connection, DN 10
4	Permeate hose connection (osmosis water to warewasher), G 3/4" external thread
5	On-site equipotential bonding system connection
6	Mains connection



### 4.2.1 Water connection



#### Connecting the supply hose

Important notes:

- The supply hose must not be shortened or damaged.
- Only use the supply hose provided. Old, pre-existing supply hoses must not be re-used.
- Do not kink the supply hose when installing it.
- Install a dirt trap and backflow preventer for category 2 liquids.

**Note:** With Winterhalter warewashers, a dirt trap with an integrated EB-type backflow preventer for category 2 liquids is included in the scope of delivery.

- Observe the raw water threshold values.
- Connect the supply hose (3) to the device.
- Connect the dirt trap (2) and backflow preventer to the on-site water supply (1).
- Connect the supply hose (3) to the dirt trap (2).
- Connect the hose from the warewasher (4) to the osmosis water connection.
- Open the water supply (1) and check that the connections are sealed.

#### Connecting the device to the waste water

- Connect the waste water hose (7) to the device.
- Connect the waste water hose (7) to the waste water ventilation (6).
- Connect the waste water ventilation (6) to the on-site waste water connection (5).

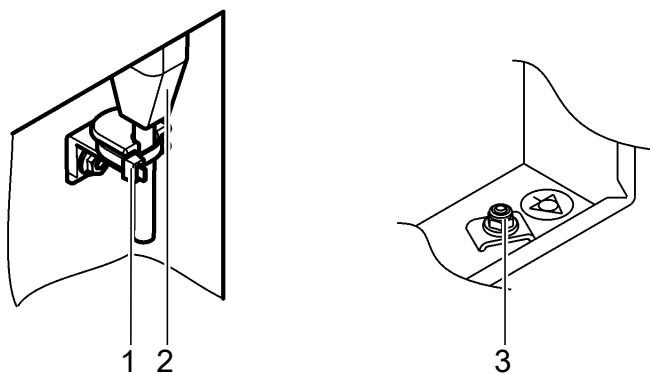
#### Requirements for raw water

- The quality of the raw water must conform to the requirements stipulated by your water authority.
- The following limit values must be complied with:

Name	Unit	AT Excellence-S	AT Excellence-M
Inlet water temperature	°C	max. 35	
Flow rate	l/h	min. 360	min. 720
Minimum flow pressure	kPa (bar)	120 (1.2)	150 (1.5)
Inlet pressure	kPa (bar)	max. 1000 (10.0)	
Total hardness (GH)	°dH	max. 35	
Electrical conductivity (at 25° C)	µS/cm	<1200	
Chlorine	mg/l	<0.2	
Silicate (as SiO <sub>2</sub> )	mg/l	<30	

### 4.2.2 Electrical connection

- Only connect to alternating current via a properly installed grounded power outlet.
- Install a residual current circuit breaker with a release current of 30 mA in the electrical feed line.
- Install according to the specifications on the rating plate.
- Only for Japan and Mexico:  
Securely connect the mains cable or mount an appropriate plug.



### Connecting the mains cable

- Plug in the mains cable (2) to the device and the on-site power outlet.
- Fasten the mains cable to the device using cable ties (1) for strain relief.
- Connect the device to the on-site equipotential bonding system via the connection screw (3) on the rear of the device.

Name	Unit	AT Excellence-S	AT Excellence-M
Voltage	V	200-240	
Current consumption at 50 Hz	A	1.4-2.0	2.9-4.0
Current consumption at 60 Hz	A	1.4-1.5	2.7-3.0
Power at 50 Hz	W	230-310	450-670
Power at 60 Hz	W	250-320	500-650
Fuse, electronic operating panel	A	6.3	


### 4.3 Recommissioning after preservation



Before recommissioning after preservation, the preserving agent must be flushed out.

- Contact an authorised service technician to recommission the device.

### 4.4 Checking preservation

If a device is in a preserved state, the display is not lit. The remaining preservation period can be displayed as follows:

- To check the preservation, press the  button.
  - ⇒ The preservation status is displayed.
  - ⇒ The device will automatically switch off after 5 seconds.

Display	Meaning
<div>  Preserved! 200 days           </div> <div>           Commissioning: Call service!         </div>	Within the preservation period
<div>  Preservation -3 days         </div>	Preservation period exceeded <ul style="list-style-type: none"> <li>➤ Contact an authorised service technician to renew the preservation.</li> </ul>


## 5 Operation

To maintain the membranes, the device rinses automatically every 2 hours in stand-by mode (even when switched off); the device must therefore be permanently connected to the power and water supply.




### 5.1 Switching on the device

AT-Serie  
Excellence-S

AT-Serie  
Excellence-M

- Press the  button.
  - ⇒ The display lights up green.
  - ⇒ The device is in stand-by mode.

### Programmes

Pictogram / Programme	Meaning	
	AquaOpt	Water of too low a quality is discharged into the drain.
	Osmosis water	Device is producing osmosis water.
	Water quality	After the production of osmosis water, the water quality is shown on the display for a few seconds (the more stars, the better the water quality). The water quality depends on the condition of the membranes.

### 5.2 Switching off the device.

- Press the  button.
  - ⇒ The display is not lit.

## 6 Notifications

In the event of unrecoverable errors:







- Switch off the device.
- Switch off the on-site water supply.
- Pull out the plug.
- Contact an authorised service technician.

### 6.1 Warnings

In case of warnings, the display lights up yellow and operation remains possible. When in AquaOpt mode and during the production of osmosis water, the display lights up blue despite the warning.

If several warnings occur simultaneously, the pictograms will be displayed in alternation.

- For additional information on the displayed warning, press the  button.






Pictogram / Cause	Remedy
 <b>Replace filter!</b> Activated carbon filter exhausted (AT-Excellence S)	<ul style="list-style-type: none"> <li>➤ Change the activated carbon filter.</li> </ul>
 <b>Replace left filter!</b>  <b>Replace right filter!</b> Activated carbon filter exhausted (AT-Excellence M)	<ul style="list-style-type: none"> <li>➤ Change the displayed activated carbon filter.</li> </ul>
 <b>Preservation -3 days</b> Preservation period exceeded	<ul style="list-style-type: none"> <li>➤ Contact an authorised service technician to renew the preservation.</li> </ul>
 <b>Preservation required</b> Device without preservation: minimum of 28 days without raw water connection and electricity	<ul style="list-style-type: none"> <li>➤ Contact an authorised service technician to renew the preservation.</li> </ul>
 <b>Call the service team!</b>	<ul style="list-style-type: none"> <li>➤ Display the error code and contact an authorised service technician to carry out the repair.</li> <li>➤ Contact an authorised service technician at EVT24 to change the membranes.</li> <li>➤ Contact an authorised service technician at EVT26 to clean the membranes.</li> </ul>

### 6.2 Errors

In case of errors, the display lights up red and the production of osmosis water is stopped.

If several errors occur simultaneously, the pictograms will be displayed in alternation.

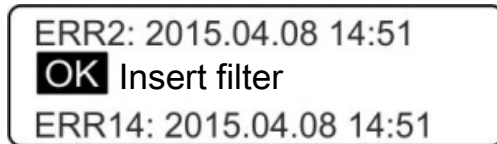
- For additional information on the displayed warning, press the  button.

Pictogram / Cause	Remedy
 <b>Insert filter!</b> Activated carbon filter not inserted (AT-Excellence S)	<ul style="list-style-type: none"> <li>➤ Insert activated carbon filter.</li> </ul>
 <b>Insert left filter!</b>  <b>Insert right filter!</b> Activated carbon filter not inserted (AT-Excellence M)	<ul style="list-style-type: none"> <li>➤ Insert displayed activated carbon filter.</li> </ul>
 <b>Water pressure too low!</b> On-site inlet pressure at the start of water production is too low	<ul style="list-style-type: none"> <li>➤ Check whether the water stop cock is open.</li> <li>➤ If the fault persists after opening the water stop cock, contact an authorised service technician to rectify the fault.</li> </ul>
 <b>Call the service team!</b>	<ul style="list-style-type: none"> <li>➤ Close the on-site water stop cock.</li> <li>➤ Switch off the device.</li> <li>➤ Contact an authorised service technician to rectify the fault.</li> </ul>






### 6.3 Error memory

In the error memory, all warnings and errors (max. 80 entries) are stored in two lines with the following information:

- Error code
- Date
- Time
- Error text





Display	Meaning
EVT	Warning
ERR	Error
OK	Error rectified

- To access the error memory, press the  button.
- If a warning or an error is displayed, press the  button twice to display the error memory.
- Scroll through the entries with buttons  and .
- To exit the error memory, press the  button twice.

### 6.4 Error messages on the warewasher

If the device is connected to a Winterhalter warewasher, messages are also shown on the display of the warewasher.

Pictogram	Warewasher
	<ul style="list-style-type: none"> <li>– UC Series (03/2016 - 09/2018)</li> <li>– PT Series (11/2017 - 06/2021)</li> </ul>
	<ul style="list-style-type: none"> <li>– UC Series V02 (10/2018 - ...)</li> <li>– PT Series V02 (07/2021 - ...)</li> </ul>

- Have the data cable from the device to the warewasher connected by an authorised service technician.

## 7 Cleaning and maintenance

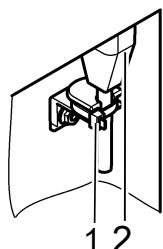
We recommend that you have an authorised service technician carry out maintenance of the device at least once a year so that components subject to ageing and wear can be checked and replaced accordingly. Original spare parts must be used for repairs or to replace consumable parts.

Consumable parts include, e.g.:

- Activated carbon filters
- Membranes

### 7.1 Replacing the mains cable

The mains cable must be a H05RN-F type or equivalent.



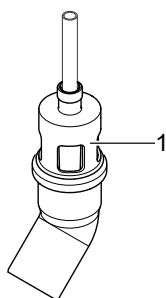
- Have damaged mains cables replaced by Winterhalter customer service or a similarly qualified person.
- Plug in the mains cable (2) to the device and the on-site power outlet.
- Fasten the mains cable to the device using cable ties (1) for strain relief.

### 7.2 Cleaning the device

The following materials must **not** be used for cleaning:

- High-pressure cleaner, steam jet
  - Detergents containing chlorine or acid
  - Cleaning sponges or wire brushes containing metal
  - Abrasives or abrasive cleaning agents
- Do not spray the device and the surrounding area (walls, floors) with a steam jet or high-pressure cleaner.
  - Ensure that the device plinth is not flooded when cleaning the floor.
  - Clean the operating panel and filter cover with a damp cloth.
  - Clean the stainless-steel coverings with a stainless-steel cleaner.

### 7.3 Cleaning and descaling the breather



- Check the breather (1) every six months for soiling and scaling.
- If necessary, clean and descale with a commercially available decalcification agent.

### 7.4 Changing the activated carbon filter



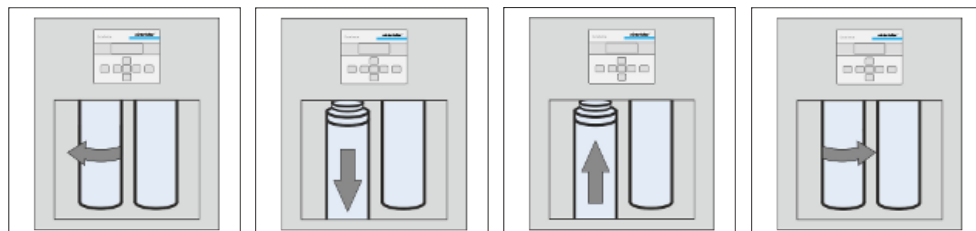
#### NOTE

##### Damaged membranes and insufficient water flow due to outdated activated carbon filter

If the activated carbon filter is not changed in time, the water quality and wash result will deteriorate.

- Change the activated carbon filter at least once a year and when a message appears on the display.

**Note:** Small amounts of water will leak out when changing the activated carbon filter.



- Remove the filter cover on the front of the device.
- Unscrew the filter cartridge and remove it from the holder.
- Press the new filter cartridge into the holder and screw it in until it is tight.
  - ⇒ Device rinses automatically (approx. 1 minute).
- Replace the filter cover.

## 8 Disassembly and disposal

### 8.1 Taking the device out of operation for production stops

#### Production stops of up to 4 weeks

The device must be permanently connected to the electricity and water supply.

To maintain the membranes, automatic rinsing takes place every two hours in stand-by mode.

#### Production stops longer than 4 weeks

- Contact an authorised service technician to preserve the membranes.

**Note: The maximum preservation period of the reverse osmosis module membranes is 9 months, after which the preservation must be renewed. In a preserved state, the device can be stored at temperatures reaching -10°C.**

### 8.2 Disposal

Incorrect or negligent disposal can cause considerable environmental pollution and/or damage.



- For hazardous substances, please observe the disposal regulations on the safety data sheets.
- Disposal according to national regulations.





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