



## Bitron C UVC

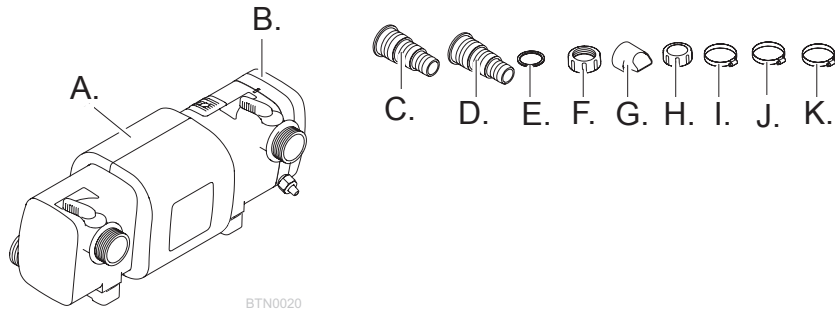
Operating instructions  
Notice d'emploi  
Instrucciones de uso



**REMINDER**

CALL 1-866-627-3435  
BEFORE RETURNING TO STORE.

Part	Description	QTY
A	Casing	1
B	Unit head	1
C	Stepped hose adapter, Ø 0.75 ... 1.5 in (19 ... 38 mm) (Ø ¾ ... 1½")	2
D	Stepped hose adapter for the inlet, Ø 0.75 ... 2 in (19 ... 50 mm) (Ø ¾ ... 2")	1
E	Flat seal for stepped hose adapters	3
F	Union nut for fastening the stepped hose adapters	3
G	Inlet nozzle for driving the cleaning rotor - Has to be inserted into the inlet for flow rates < 2.642 gal/h (10.000 l/h)	1
H	Cover cap 1.5 in (38 mm) (1½") for closing the outlet	1
I	Hose clip 0.79 ... 1.26 in (20 ... 32 mm)	2
J	Hose clip 1.38 ... 1.97 in (35 ... 50 mm)	2
K	Hose clip 1.57 ... 2.36 in (40 ... 60 mm)	1



**Information about these operating instructions**

Welcome to OASE Living Water. You made a great choice with the purchase of this product **Bitron c.** Prior to operating the unit, please read the instructions of use carefully and fully familiarise yourself with the unit. Ensure that all work on and with this unit is only carried out in accordance with these instructions. Please strictly follow the enclosed instructions to ensure safe and correct handling of the product. Keep these instructions in a safe place. Please also hand over the instructions when passing the unit on to a new owner.

## **WARNINGS AND CAUTIONS SYMBOLS**

### **Symbols used in these instructions**

The symbols used in this operating manual have the following meanings:



#### **Risk of injury to persons due to dangerous electrical voltage.**

This symbol indicates an imminent danger, which can lead to death or severe injuries if the appropriate measures are not taken.



#### **Risk of personal injury caused by a general source of danger.**

This symbol indicates an imminent danger, which can lead to death or severe injuries if the appropriate measures are not taken.



Important information for trouble-free operation.



#### **Risk of cuts from broken glass**

This symbol indicates a risk of cutting yourself on broken glass.



Handle glass carefully. Avoid applying excessive force

## **Product Description**

**Bitron C** is a powerful UVC clarifier for controlling algae and harmful bacteria.

- The bypass technology ensures optimum irradiation of the dirty water even at high flow through rates.
- The cleaning rotor continuously removes soiling from the quartz glass.
- Individual regulation of the water flow rate allows optimum adjustment to the connected filter pump.
- Suitable for fitting to OASE filter systems ProfiClear, BioSmart, BioTec and BioTec Screenmatic.
- Integrated magnets protect the filter technology from calcium deposits.
- Visual function check of the UVC lamp.
- Quick release system for easy lamp replacement.

### **Intended use**

Bitron C, referred to in the following as "unit", may only be used as specified in the following:

- For cleaning garden ponds, swimming ponds, pools and aquariums.
- Operation under observance of the technical data.

The following restrictions apply to the unit:

- Never operate the UVC lamp outside the casing or use it for any other purposes. The UVC radiation is harmful to the eyes and skin even in small doses.
- Never use the unit to convey fluids other than water.
- Never run the unit without water.
- Do not use for commercial or industrial purposes.
- Not to be used for sterilising drinking water or other fluids.
- Do not use in conjunction with chemicals, foodstuff, easily flammable or explosive substances.



**Important!** Ensure that the filter will not overflow. Danger of emptying the pond.



**Important!** The unit is equipped with a permanent magnet. The magnetic field may affect the function of pacemakers.

### **Use other than that intended**

This unit can be dangerous and cause harm if not used in accordance with these instructions. Any use not in accordance with these instructions or modification(s) to the unit will void the limited warranty.

#### **Questions, problems, missing parts?**

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## Installation and connection

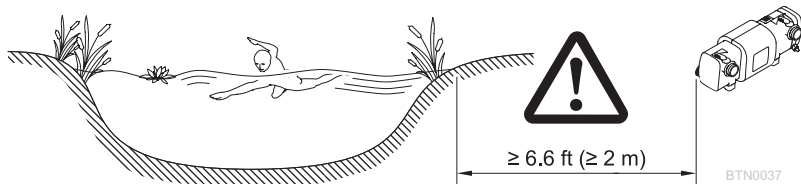
### Operation with pool water or salt water

- For operation with pool water or salt water, the following limits must be adhered to:

Type	Pool water	Salt water
pH value	7.2 ... 7.6	7.5 ... 8.5
Free chlorine	0.04 ... 0.08 moz/gal (0.3 ... 0.6 mg/l)	< 0.04 moz/gal (< 0.3 mg/l)
Bound chlorine	< 0.0267 moz/gal (< 0.2 mg/l)	-
Chloride content	< 26.7 moz/gal (< 200 mg/l)	-
Salt content	-	< 3.5 %
Water temperature	39° F - 86° F (+4° C - +30° C)	39° F - 77° F (+4° C - +25° C)

- Pool water or salt water can impair the appearance of the unit. Such impairments are excluded from the guarantee

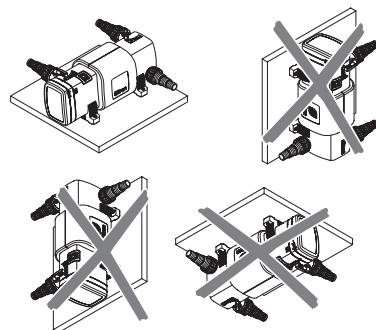
### Distances to be adhered to



- Swimming pond or pool that may be accessed by people
  - Install the unit at least 6.6 ft (2 m) away from the water.
- Garden pond or aquarium:
  - Install the unit at least 6.6 ft (2 m) away from the water.
- Allow sufficient space for carrying out maintenance work:
  - Ensure that there is space of at least double the width of the casing for removing the unit head.

### Solo operation

- Only install the unit in the permitted positions to ensure fault-free operation.
- Take the required distances into consideration. (See Distances to be adhered to)
- Use suitable fastening material for the type of ground. Ensure that the fastening means securely hold the unit. Take the weight of the unit into consideration. (See Technical data)
- Fit a slide valve in the water supply upstream of the inlet of the unit if the unit is to be installed below the water level. This allows the water supply to be shut off for maintenance work.

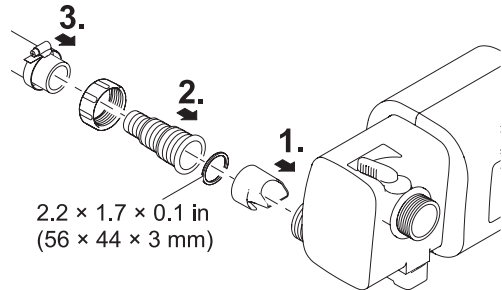


## Installation and connection

### Connecting the inlet

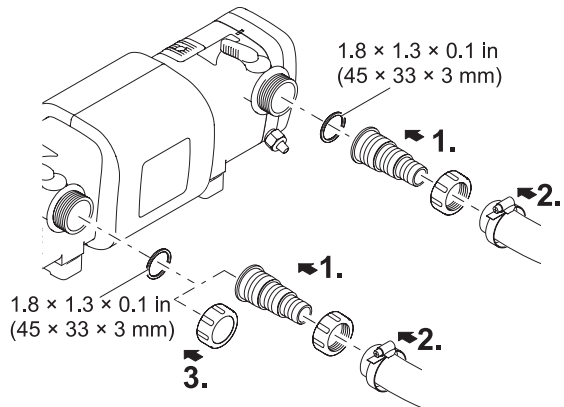
#### Important:

- Use hoses that are suitable for a pressure of at least 14.5 psi (1 bar).
1. Push the inlet nozzle into the inlet.
    - The inlet nozzle is only necessary for a flow rate < 2.642 gal/h (10.000 l/h to ensure unimpaired rotation of the cleaning rotor.
  2. Screw the hose connector with union nut and seal onto the inlet.
  3. Connect the hose with the stepped hose adapter and secure with a hose clip



### Connecting the outlet

1. Screw the stepped hose adapter with union nut and seal onto the adapter
2. Connect the hose with the stepped hose adapter and secure with a hose clip
3. Screw the cover cap with flat seal onto the outlet.
  - The cover cap has to close the outlet opposite the inlet so that the main flow of water is guided along the UVC lamps and is exposed to the UV radiation for as long as possible



### Connect the unit to the flow-through filter

- Take the required distances into consideration. (See Distances to be adhered to)
- Fit a slide valve in the water supply upstream of the inlet of the unit if the unit is to be installed below the water level. This allows the water supply to be shut off for maintenance work.

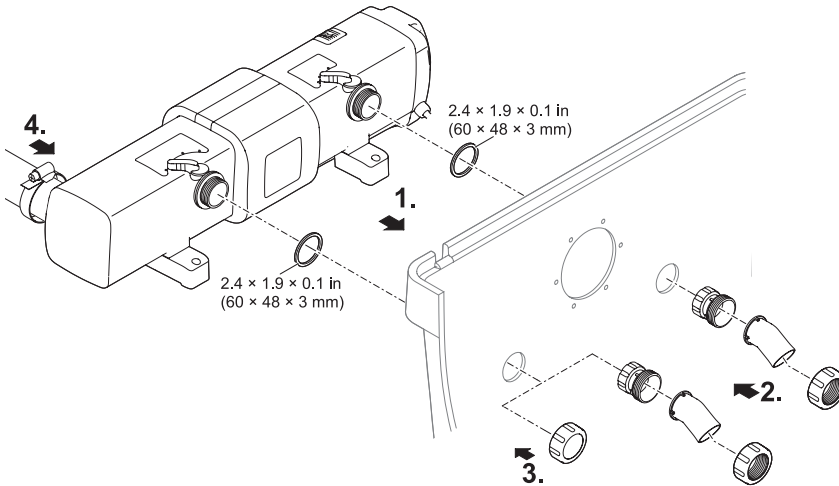
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## BioSmart

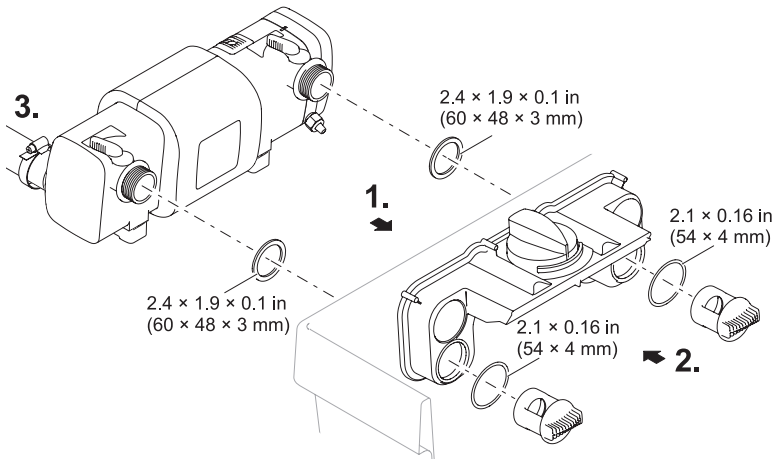
This section describes the connection of the UVC clarifying unit Bitron with a pump fed system.

- Please adhere to the instructions for use of the flow-through filter.
1. Insert the outlets with flat seals through the holes in the container wall.
  2. Fitting the inlet: Screw the inlet nozzles with the O rings onto the outlets and hand tighten.
  3. Closing the bypass (optional): Screw the cover cap onto the outlet instead of the inlet nozzle.
  4. Connect the Bitron to the filter pump. (See Connecting the inlet)



## BioTec ScreenMatic

- Please adhere to the instructions for use of the flow-through filter.
1. Insert the outlets with flat seals through the holes in the container wall into the distributor.
  2. Screw the distributor nuts with the O rings onto the outlets and hand tighten.
  3. Connect the Bitron to the filter pump. (See Connecting the inlet).



## Start-up

**⚠ Attention! Dangerous electrical voltage.**  
**Possible consequences:** Death or serious injuries.

**Protective measures:**

- Prior to reaching into the water, switch off the mains voltage to all units used in the water.
- Switch off the mains voltage prior to carrying out work on the unit.

**i Note!** If the water flow is suddenly interrupted downstream of the outlet (e.g. with a slide valve), this can lead to a brief increase of pressure of more than 1 bar (water hammer).

**Possible consequences:** The unit may be damaged.

**Protective measures:**

- Switching off: First switch off the pump, then close the slide valve. If the unit is operated in a filter system, first take the filter system out of operation.
- Switching on: First open the slide valve, then switch on the pump. If the unit is operated in a filter system, start up the filter system last.
- Install the slide valve upstream of the inlet.

**i** When using filter starter, medicines or pond water treatments, leave the UVC clarifying unit switched off for at least 36 hours so as not to impair their efficacy.

### Prerequisite

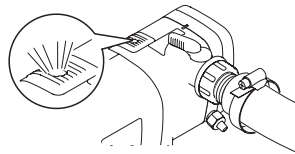
- Switch the pump on first, then switch on the UVC clarifying unit.
- Check all connections for leaks.

### Switching ON/switching OFF

1. **Switching on:** Insert the power plug into the socket. The unit switches on immediately
2. **Switching off:** Disconnect the power plug.

### Check the function

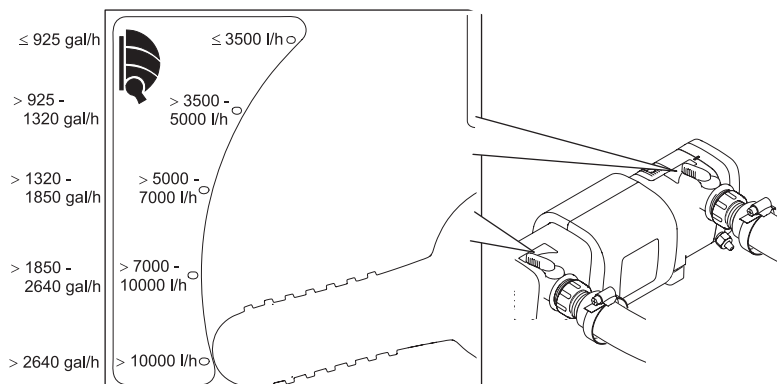
- The function display is lit when the UVC lamp is switched on.
- An alternating light/dark blue glow in the inspection window indicates that the cleaning rotor is rotating.



### Setting the bypass

The flow rate is controlled by the bypass. Depending on the setting, part of the water flows from the inlet directly out via the opposite outlet. The remaining part of the water is irradiated by the UVC light and flows out via the second outlet. Maximum cleaning capacity is only achieved with an optimum setting.

- Set both rotary handles to the delivery rate of the filter pump.



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## Maintenance and cleaning



### Attention! Dangerous electrical voltage.

**Possible consequences:** Death or serious injuries.

**Protective measures:**

- Electrical units and installations with a rated voltage of  $U > 12 \text{ V AC}$  or  $U > 30 \text{ V DC}$  located in the water: Isolate the units and installations (switch off and disconnect from the power supply) before reaching into the water.
- Isolate the unit before starting any work.
- Secure the unit to prevent unintentional switching on.



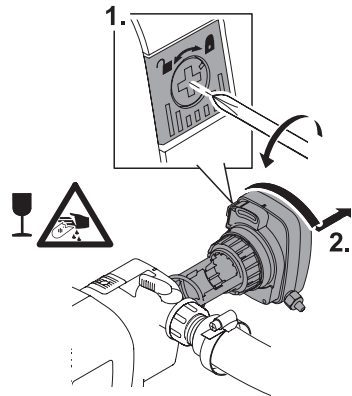
### Attention! Breakable glass.

**Possible consequences:** Injury to your hands caused by cuts.

**Protective measures:** Handle the quartz glass and UVC lamp with care.

## Dismantling the unit head

1. Undo the locking screw in the safety engagement catch.
    - Rotational direction "Lock open" symbol.
  2. Press the safety engagement catch, turn the unit head counterclockwise as far as the stop and carefully pull it out of the casing.
- Thoroughly clean the inner and outer surfaces of the casing.

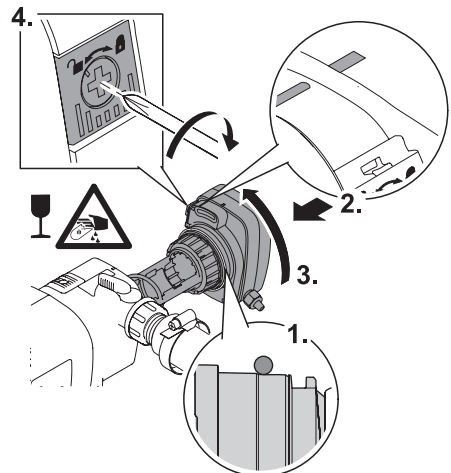


### Note!

For safety reasons the UVC lamp can only be switched on when the unit head has been correctly fitted into the casing.

## Fitting the unit head

1. Position the O ring in front of the recess at the unit head.
  - Ensure that the O ring is clean; replace if damaged.
2. Carefully push the unit head with cleaning rotor into the casing up to the stop while applying light pressure
  - Ensure that the unit head is turned such that the markings on the unit head and casing are aligned
3. Turn the unit head up to the stop.
  - Ensure that the safety engagement catch engages.
4. Close the locking screw in the safety engagement catch.
  - Rotational direction "Lock closed" symbol.





## Maintenance and cleaning

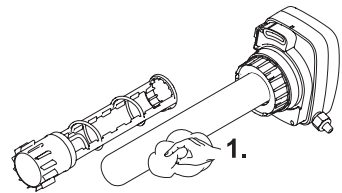
### Cleaning the quartz glass

- !** **Attention! Breakable glass.**  
**Possible consequences:** Injury to your hands caused by cuts.  
**Protective measures:** Handle the quartz glass and UVC lamp with care.

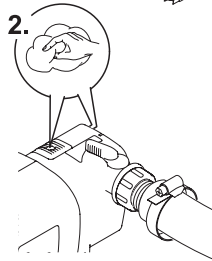
- i** **Note!** If the water flow is suddenly interrupted downstream of the outlet (e.g. with a slide valve), this can lead to a brief increase of pressure of more than 14.5 psi (1 bar) (water hammer).  
**Possible consequences:** The unit may be damaged.  
**Protective measures:**
- Switching off: First switch off the pump, then close the slide valve. If the unit is operated in a filter system, first take the filter system out of operation.
  - Switching on: First open the slide valve, then switch on the pump. If the unit is operated in a filter system, start up the filter system last.
  - Install the slide valve upstream of the inlet.

**Prerequisite:** The device head is removed. (See Removing the unit head)

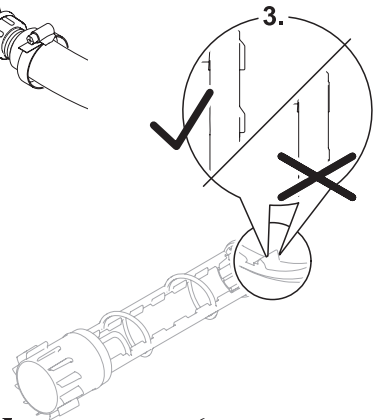
1. Remove the cleaning rotor.
  - Clean the cleaning rotor with a brush under running water.
  - Wipe the quartz glass with a damp cloth.
  - Replace the quartz glass if it is damaged or very scratched. (See Replacing the UVC lamp)



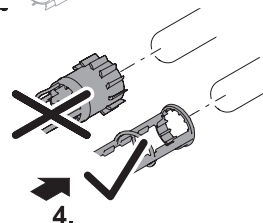
2. Clean the inner and outer surfaces of the casing and inspection window.



3. Check the profile wear at both ends and the inner surfaces of the cleaning rotor.
  - If the profile is worn, the cleaning rotor will rotate sluggishly and has to be replaced.



4. Push the cleaning rotor onto the quartz glass.
  - Ensure that it is correctly positioned.



5. Fit the unit head. (See Fitting the unit head)

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## Maintenance and cleaning

### Replacing the UVC lamp

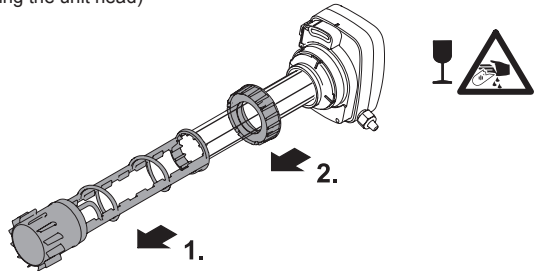
Replace the UVC lamp after max. 8,000 operating hours (this corresponds to approx. one pond season with continuous operation). This ensures optimum filtering performance.

- Only use UVC lamps whose identification and capacity data correspond to the information on the type plate. (See Technical Data)

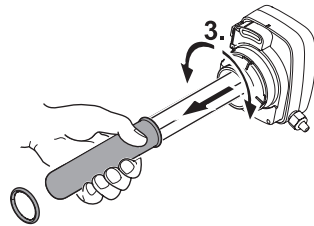
**Prerequisite:** The device head is removed. (See Removing the unit head)

1. Remove the cleaning rotor.

2. Unscrew the clamping screw counter-clockwise

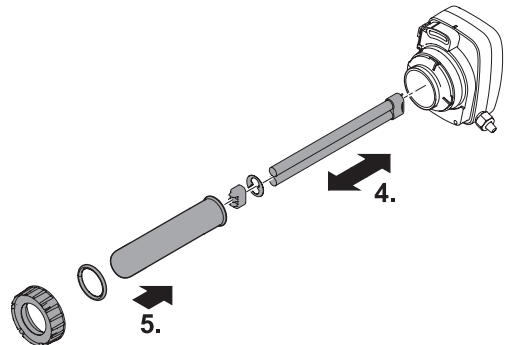


3. Remove the quartz glass including the O ring towards the front with a slight turning movement.

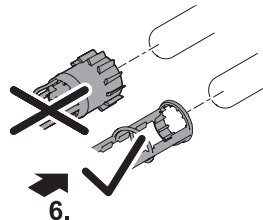


4. Pull out the UVC lamp and replace.

5. Carefully push the quartz glass including the O ring into the unit head up to the stop, fit the clamping screw and tighten up to the stop by turning clockwise.
  - Clean the O ring, replace if damaged.
  - Ensure that the O ring is located in the gap between the unit head and the quartz glass.



6. Push the cleaning rotor onto the quartz glass.
  - Ensure that it is correctly positioned.



7. Fit the unit head. (See Fitting the unit head)

## Storage/Winterization

### The unit is protected from frost:

The unit can be operated as long as the water temperature does not go below 39 °F (+4 °C).

### The unit is not protected from frost:

Take the unit out of operation at water temperatures below 46 °F (+8 °C) or, at the latest, when freezing temperatures are to be expected.

- Drain the unit as far as possible, clean thoroughly and check for damage.
- Empty all hoses, pipes and connections as far as possible.

## Wear parts

The following components are wear parts and are excluded from the warranty: UVC lamp, quartz glass and O ring for quartz glass, and the Cleaning rotor

## Disposal



Do not dispose of this unit with domestic waste! Disable the unit beforehand by cutting off the cables. Further information about the recycling of this product can be obtained from your local municipal authority. Dispose of the UVC lamp by using the return system provided for this purpose.

## Troubleshooting

Issue	Cause	Solution
Water remains cloudy (green water).	The water is extremely soiled.	- Remove algae and leaves from the pond. - Change the water.
	Insufficient delivery rate of the pump	Check the installation.
	The quartz glass is soiled	Clean the quartz glass.
	The quartz glass is scratched.	- Replace the quartz glass (See Cleaning the quartz glass) - If the profile is worn, replace the cleaning rotor (See Cleaning the quartz glass)
	The cleaning rotor is not turning. - Check the inspection window: An alternating light/dark blue glow indicates that the cleaning rotor is rotating.	- Clean the cleaning rotor and quartz glass (See Cleaning the quartz glass) - If the delivery rate of the pump is < 2.642 gal/h (10.000 l/h), use an inlet nozzle for driving the cleaning rotor. - If the profile is worn, replace the cleaning rotor (See Cleaning the quartz glass)
	The UVC lamp capacity is exhausted.	Replace the UVC lamp after 8000 operating hours.
	Incorrect bypass setting	Correct the setting, observe the pump capacity.
No or insufficient water flow at the outlets	Inlet nozzle clogged	Clean the inlet nozzle.
	Outlets clogged	Clean the casing (See Cleaning and maintenance)
UVC lamp is not lit.	Power plug not connected	Connect the power plug
	UVC lamp defective	Replace the UVC lamp
	Connection defective	Check the electrical connection.
	The unit has switched off due to overheating (safety switch-off).	Allow it to cool down; the unit will switch back on automatically.

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