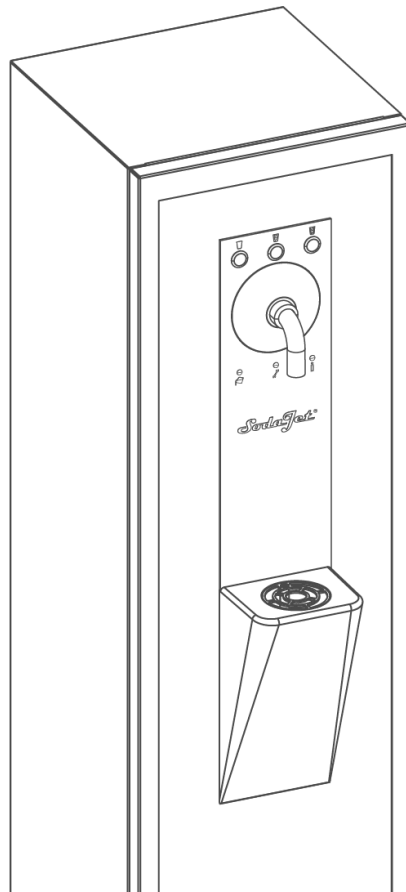


We understand water.



Drinking water dispenser | SODA JET III Premium/Public

Operation manual

grünbeck

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1 Introduction

This manual is intended for owners/operating companies, operators, users as well as qualified specialists and ensures the safe and efficient handling of the product. The manual is an integral part of the product.

- ▶ Carefully read this manual and the included manuals on the components before you operate your product.
- ▶ Obey all safety and handling instructions.
- ▶ Keep this manual and all other applicable documents, so that they are available when needed.

Illustrations in this manual are for basic understanding and may differ from the actual design.

1.1 Validity of the manual

This manual applies to the following products:

- Drinking water dispenser SODA JET III Premium
- Drinking water dispenser SODA JET III Public

1.2 Other applicable documents

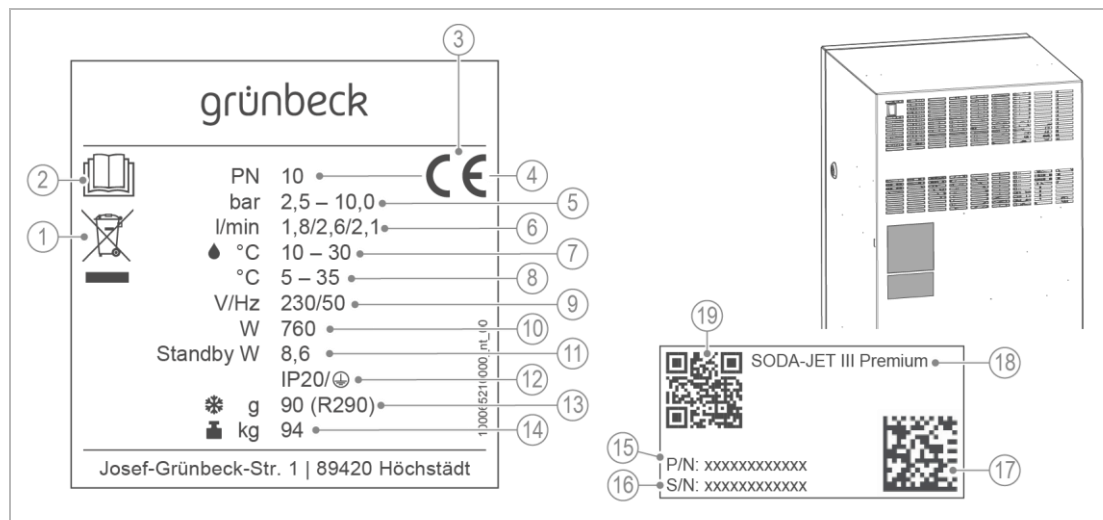
- Operation log, order no.: 156 930
- Quick reference manual, order no.: 156 915
- Operating instructions for handling gas pressure vessels, order no.: 156 959
- Individual manuals for optional accessories

1.3 Product identification

You can identify your product based on the product designation and the order no. indicated on the type plate.

- ▶ Check whether the products indicated in chapter 1.1 correspond to your product.

The type plate is located on the back of the device.



Designation	
1	Disposal information
2	Obey the operation manual
3	Product designation
4	Nominal pressure
5	Operating pressure
6	Nominal flow STILL/MEDIUM/CLASSIC
7	Water temperature
8	Ambient temperature
9	Rated voltage/frequency
10	Power input

Designation	
11	Power input in standby
12	Protection/protection class
13	Coolant
14	Empty weight
15	Order no.
16	Serial no.
17	Data matrix code
18	Product designation
19	QR code

1.4 Symbols used

Symbol	Meaning
	Danger and risk
	Important information or requirement
	Useful information or tip
	Written documentation required
	Reference to further documents
	Work that must be carried out by qualified specialists only
	Work that must be carried out by qualified electricians only

Symbol	Meaning
	Work that must be carried out by technical service personnel only

1.5 Depiction of warnings




This manual contains information and instructions that you must comply with for your personal safety. The information and instructions are highlighted by a warning symbol and are structured as shown below:



SIGNAL WORD Type and source of hazard

- Possible consequences
- ▶ Preventive measures

The signal words below are defined subject to the degree of hazard and could be used in the present document:

Warning symbol and signal word		Consequences if the information/instructions are disregarded
 DANGER		Death or serious injuries
 WARNING	Personal injuries	Possible death or serious injuries
 CAUTION		Possible moderate or minor injuries
NOTE:	Damage to property	Possible damage to components, the product and/or its function or damage to an object in its vicinity

1.6 Demands on personnel

During the individual life cycle phases of the product, different people carry out activities on the product. The respective tasks require different skills.

1.6.1 Qualification of personnel

Personnel	Requirements
Operator/user	<ul style="list-style-type: none"> No special expertise required Knowledge of the tasks assigned Knowledge of possible dangers in case of incorrect behaviour. Knowledge of necessary protective equipment and protective measures Knowledge of residual risks
Owner/operating company	<ul style="list-style-type: none"> Product-specific expertise Knowledge of statutory regulations on work safety and accident prevention
Qualified specialist Electrical engineering Plumbing and HVAC technology Transport	<ul style="list-style-type: none"> Professional training Knowledge of relevant standards and regulations Knowledge of detection and prevention of possible risks Knowledge of statutory regulations on accident prevention
Technical service (Grünbeck's technical service/ authorised service company)	<ul style="list-style-type: none"> Extended product-specific expertise Trained by Grünbeck

1.6.2 Authorisations of personnel

The table below describes which activities must be carried out by whom.

	Operator/ user	Owner/ operating company	Qualified specialist	Technical service
Transport and storage			X	
Installation and mounting			X	X
Start-up/Commissioning			X	X
Operation and handling	X	X		
Cleaning		X		
Inspection		X	X	
Maintenance			X	X
Troubleshooting		X	X	X
Repair			X	X
Decommissioning and restart/recommissioning		X	X	X
Dismantling and disposal			X	X

1.6.3 Personal protective equipment

- ▶ As an owner/operating company, make sure that the required personal protective equipment is available.

The components below fall under the heading of personal protective equipment (PPE):



Protective gloves



Protective footwear



Protective goggles

2 For your safety



Read and obey the instructions below to prevent possible damage.

2.1 Safety measures

- Only operate your product if all components are installed properly.
- Obey the local regulations on drinking water protection, accident prevention and occupational safety.
- Do not make any changes, alterations, extensions or program changes on your product.
- Only use genuine spare parts for maintenance or repair. If unsuitable spare parts are used, the warranty for the device will be void.
- Comply with the maintenance intervals (refer to chapter 8.2). Failure to comply can result in microbiological contamination of your drinking water system.

2.1.1 Danger due to carbon dioxide (CO₂ gas)

- CO₂ gas is a non-combustible, non-corrosive, colourless and odourless gas that is non-hazardous to water.
- It is one and a half times heavier than air and might accumulate close to the floor or in low-lying parts of a building when released. CO₂ gas is classified as inert (under normal conditions, no chemical reaction with other substances).
- Elevated CO₂ concentrations can occur in case of larger accumulations in enclosed spaces.
- Higher CO₂ concentrations lead to health problems, even despite sufficient oxygen levels, and there is a risk of asphyxiation.

2.1.2 Mechanical hazards

- You must never remove, bridge, or otherwise tamper with safety equipment.
- For all work on the device that cannot be carried out from the ground, use stable, safe and self-standing climbing aids.
- Make sure that the device is set up in a way that it cannot tip over and that the stability of the device is guaranteed at all times.

2.1.3 Pressure-related hazards

- Components may be under pressure. Risk of injuries and damage to property due to escaping water and unexpected movement of components. Check the pressure lines for leaks at regular intervals.
- Components of the SODA JET III are under pressure. Do not loosen or remove components which are under operating pressure.
- Make sure that all system components concerned are depressurised before starting any repair and maintenance work.

2.1.4 Electrical hazards

In case of contact with live components, there is an immediate risk of death due to electric shock. Damage to insulation or individual components can be life-threatening.

- Only have qualified electricians carry out electrical work on the device.
- If live components are damaged, immediately switch off the power supply and arrange for repair.
- Switch off the supply voltage before working on electrical system parts. Discharge residual voltage.
- Never bridge electrical fuses. Do not disable fuses. Observe the correct current ratings when replacing fuses.
- Keep moisture away from live parts. Moisture can cause short-circuits.
- Sorgen Sie dafür, dass die Steckdose über einen Schutzleiteranschluss verfügt. Rüsten Sie die Steckdose bei Bedarf mit einem Adapter nach.

2.1.5 Groups of persons in need of protection

- Children must not play with the product.
- This product can be used by children over 8 years of age and persons with limited abilities or lack of experience if they are supervised or instructed in the safe use of the product and understand the resulting hazards.
- Cleaning and maintenance must not be carried out by children.

2.2 Product-specific safety instructions

2.2.1 Handling CO₂ cylinders (compressed gas cylinders)



The installation of compressed gas cylinders must be carried out by qualified specialists only.



The safety instructions and requirements for the operation of compressed gas cylinders must be strictly adhered to (refer to operating instructions order no. 156 959).



DANGER

Risk of explosion

- In case of overpressure, the compressed gas cylinder can explode.
- ▶ Place the compressed gas cylinder in an upright position and secure it against tipping over.
- ▶ Always connect the compressed gas cylinder to the pressure reducer with safety valve.
- ▶ Regularly check the connections for leaks and damage.



DANGER

Risk of asphyxiation from carbon dioxide (CO₂)

- In case of damage, gas can escape.
- ▶ Check that the prerequisites below are fulfilled:
 - The installation site must have a minimum room size in m³ = 17 x filling volume of a CO₂ cylinder in kg
Example **187 m³** for a 10 kg CO₂ cylinder (e.g. 75 m² x 2,5 m) and **112 m³** for a 6 kg CO₂ cylinder (e.g. 45 m² x 2,5 m).
 - Alternatively, a monitored technical ventilation system with an adequate delivery rate of at least 2x/h must be available.
 - If this is not possible, a gas warning system for CO₂/lack of oxygen must be installed to protect the installation room.

Prerequisites when handling compressed gas cylinders

- When connected, store compressed gas cylinders in an upright position only and secure them with the mounting bracket. Do not throw compressed gas cylinders or tilt them.
- Store compressed gas cylinders in a cool, well-ventilated place.
- Protect compressed gas cylinders from heat and direct sunlight.
- Keep them at a minimum distance of 500 mm to radiators or other heat sources.

2.2.2 Safety devices

- Safety chain (retainer) to secure the CO₂ cylinder against tipping over.
- Flow sensor for leak signal

- CO₂ pressure reducer with safety valve against overpressure
- Water stop solenoid valve to close the water supply
- Safety valve on the carbonator (11 bar)

2.2.3 Signals and warning signs



The affixed information and pictograms must be clearly legible.
They must not be removed, soiled or painted over.

Labels on the product



Risk of electric shock



Secure the CO₂ cylinder



Hot surface



Read the operation manual



Combustible substances



Pull the mains plug

- ▶ Obey all warnings and safety instructions.
- ▶ Immediately replace illegible or damaged signs and pictograms.

2.3 Conduct in emergencies

2.3.1 In case of escaping water

1. De-energise the device – pull the mains plug.
2. Locate the leak.
3. Eliminate the cause of the water leak.

2.3.2 In case of escaping CO₂

1. De-energise the device – pull the mains plug.
2. Close the cylinder valve of the CO₂ cylinder and the shut-off valve of the CO₂ pressure reducer.
3. Make sure to quickly ventilate room.
4. Keep people away and evacuate the area, if necessary.
5. Eliminate the cause of the CO₂ leak.

3 Product description

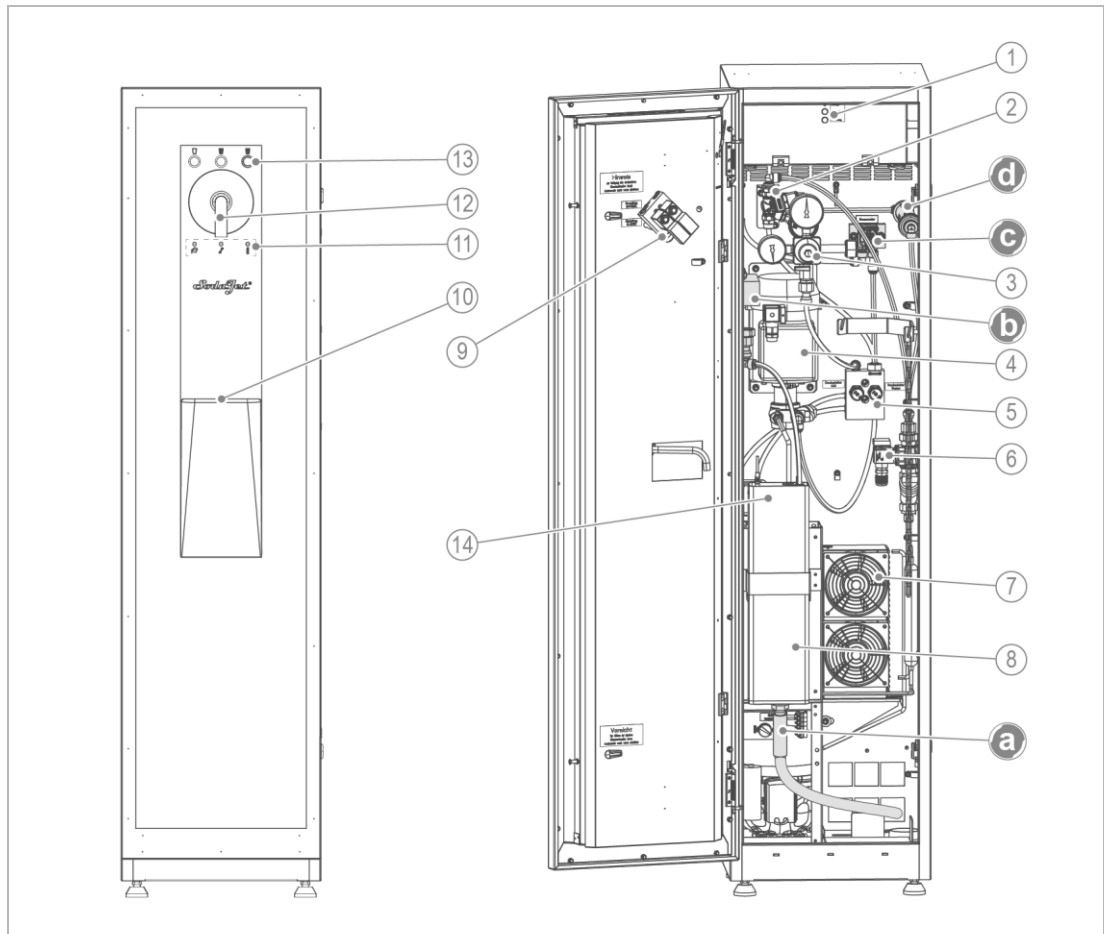
3.1 Intended use

- The drinking water dispensers SODA JET III Premium and SODA JET III Public are used to produce refrigerated and/or carbonated water.
- The drinking water dispensers SODA JET III Premium and SODA JET III Public are designed exclusively for use in the industrial and commercial sector as well as in public facilities.
- The drinking water dispensers are used, for instance, in canteens, offices, administration buildings and reception areas, workshops and production facilities, schools as well as at airports.

3.1.1 Foreseeable misuse

- Use of the drinking water dispenser at non-appropriate installation sites, e.g. outdoors (refer to chapters 2.2.1 and 5.2).

3.2 Product components



Designation	Function	Coding	
1 Electric box	with buttons: acknowledgement and program as well as LEDs: leak and lack of water	—	
2 Pressure reducer	for water	DM1	
3 Pressure reducer	for CO ₂	DM2	
4 High-pressure pump	with pump motor	P1	
5 Distributor block	with non-return valve and pressure switch for water and CO ₂	DS1/DS2	
6 Water stop	with disinfection tank and solenoid valve	B1/V1	
7 Cooling unit	with carbonator to cool the water	B2	
8 Dripping water container	with drain connection (option a)		
9 Dispenser unit	with flow controller and solenoid valve	R1/R2 V2/V3	
10 Drip tray	for dripping water		
11 LEDs	for status signals: dripping water container full (left), service (middle), CO ₂ cylinder empty (right)		
12 Dispenser pipe	with optional touch protection		
13 Operating keys	for the different tastes		
14 Dripping water container	with float switch		
Item	Optional accessories	Item	Optional accessories
a	Drain connection with hose of approx. 1.50 m in length	b	Flushing unit
c	Water meter with digital display for total consumption and current flow volume	d	Sterile filter

3.3 Functional description

The drinking water dispenser is connected to the cold water network of the domestic drinking water system.

In a cooling unit, the incoming drinking water is cooled to the desired temperature.

By means of the carbonator, the water of the CLASSIC path is enriched with CO₂. At an average carbon dioxide input (CLASSIC and MEDIUM), At an average carbon dioxide input (CLASSIC and MEDIUM), the connected CO₂ cylinder (containing approx. 10 kg of food carbon dioxide) can charge approximately 1500 l of water with CO₂.

The solubility of the CO₂ is determined by the set operating parameters. The CO₂ concentration mainly depends on the water pressure, the CO₂ pressure and the temperature.

The device can dispense three different types of water:

- STILL (refrigerated water)
- MEDIUM (cool and slightly sparkling)
- CLASSIC (cool and highly sparkling)

Depending on which button is being pressed, the corresponding solenoid valves of the dispenser unit open during tapping.

The occurring dripping water is either collected in an integrated dripping water container with float switch or is discharged via an optional drain connection.

When the dripping water container is full, no more water can be dispensed. Only after the water has been disposed of, the drinking water dispenser SODA JET III will be resuming operation.

3.4 Accessories

Your product can be retrofitted with accessories. Please contact your local Grünbeck representative or Grünbeck's headquarters in Hoechstaedt/Germany for details.



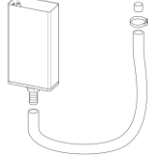
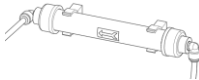
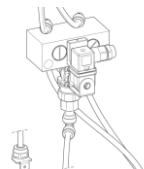
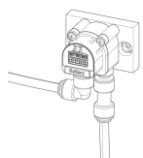
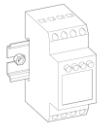

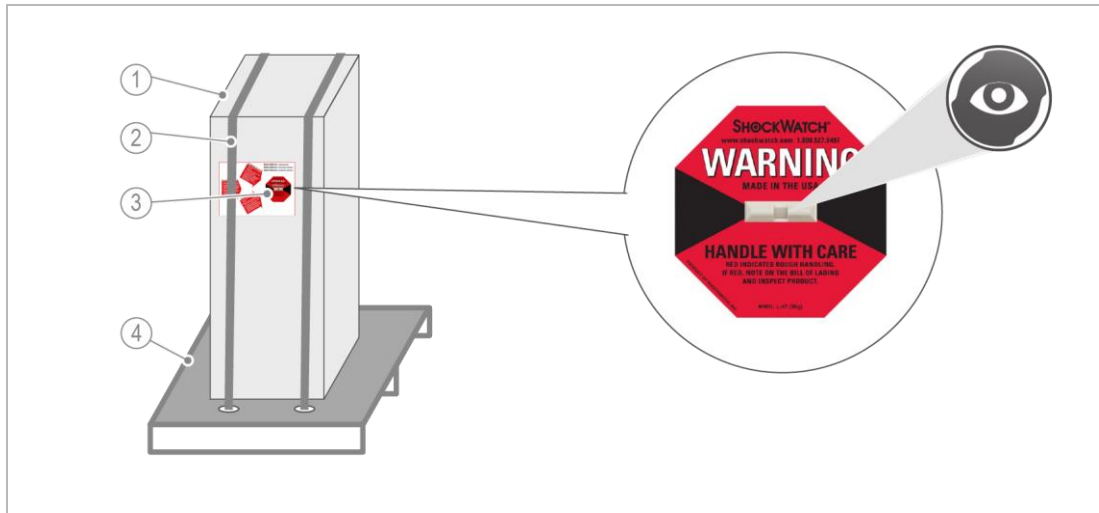
Illustration	Product	Order no.
	<p>Front foil</p> <hr/> <p>The front of the drinking water dispenser can be equipped with a customised front foil tailored to the customer's requirements.</p>	<p>Please inquire</p>

Illustration	Product	Order no.
	Hygienefilter clearliQ safe+ zur Erzeugung von hygienischem Frischwasser durch Adsorption von Bakterien	156000060000
	Filtermodul clearliQ safe als Mehrschichtfilter, zur Erzeugung von Reinwasser	156000070000
	Drain connection SODA JET III Premium / Public Shortened dripping water container with hose connection. The collected dripping water is discharged to the drain. The hose is approx. 1.5 m in length (DN 20).	156 822
	Sterile filter SODA JET III The membrane filter cartridge filters off fine particles and bacteria in the microfiltration range. Regular replacement is absolutely necessary (at least every six months, or earlier depending on the degree of impurities). Hoses and fastening material are included.	156 833e
	Flushing unit SODA JET III Flushes the content of the device and of a section of the feed line to the drain at regular intervals. Stagnation times are reduced, and hygiene is improved. The drain connection is essential for this purpose. Hoses and fastening material are included.	156 831e
	Water meter SODA JET III The independent unit measures the amount of water (in litres) flowing through the device. The display shows the current flow rate and total consumption. The unit is powered by a CR 2032 battery and is specially adapted to the flow rates of the SODA JET III. Hoses and fastening material are included.	156 837e
	Time control Thanks to the time control, the illumination of the SODA JET III Premium can conveniently be switched on and off via automatic program.	156 391
	Dispenser pipe with touch protection To protect the dispenser pipe from impurities; with insulation and sieve	156 828
	Cup dispenser For pointed cups, mounted on the side of the device (made of stainless steel)	156 880
	Pointed cups Without imprint, 0.1 l, in cardboard box containing 5000 cups	156 802
	Stand-alone cups Transparent/blue, 0.2 l, in cardboard box containing 3000 cups	156 812
	Cup holder for used cups Made of stainless steel	156 890
	Bolt latch Lockable (1 pair)	156 825
	Maintenance kit for SODA JET Disinfection tablets not included	156 858

4 Transport, placing and storage

4.1 Dispatch/Delivery/Packaging

The device is fixed on a pallet at the factory and secured against tipping.



Designation

- 1 Packaging
- 2 Packaging straps

Designation

- 3 Label with transport monitoring
- 4 Pallet

- ▶ Obey the instructions on the packaging.
- ▶ Load and unload the device with a forklift or lift truck with appropriate forks.

4.2 Transport/Placing



WARNING Risk of tipping over in case of improper transport

- The device can tip over and crush people/limbs.
- ▶ Transport the device by means of a forklift or lift truck with appropriate forks only.

NOTE: Risk of damage in case of transport in horizontal position

- The cooling unit can be damaged.
- ▶ Seal the pressure gauges with glycerine filling at the pressure equalising port before transport in horizontal position.
- ▶ After transport in horizontal position, store the device in an upright position for at least 24 h before starting it up.
- ▶ Transport the device to the installation site in its original packaging only.



During transport, the oil contained in the compressor may shift in the cooling system

- ▶ After setting up the device, wait at least 1 hour before starting it up.
- ▶ Release the packaging straps and, with the help of another person, carefully take the device down from the pallet.
- ▶ Unpack the device and check the scope of supply (refer to chapter 5.3).
- ▶ Dispose of the packaging material in an environmentally sound and appropriate manner only after installation of the device (refer to chapter 11.2).

4.3 Storage

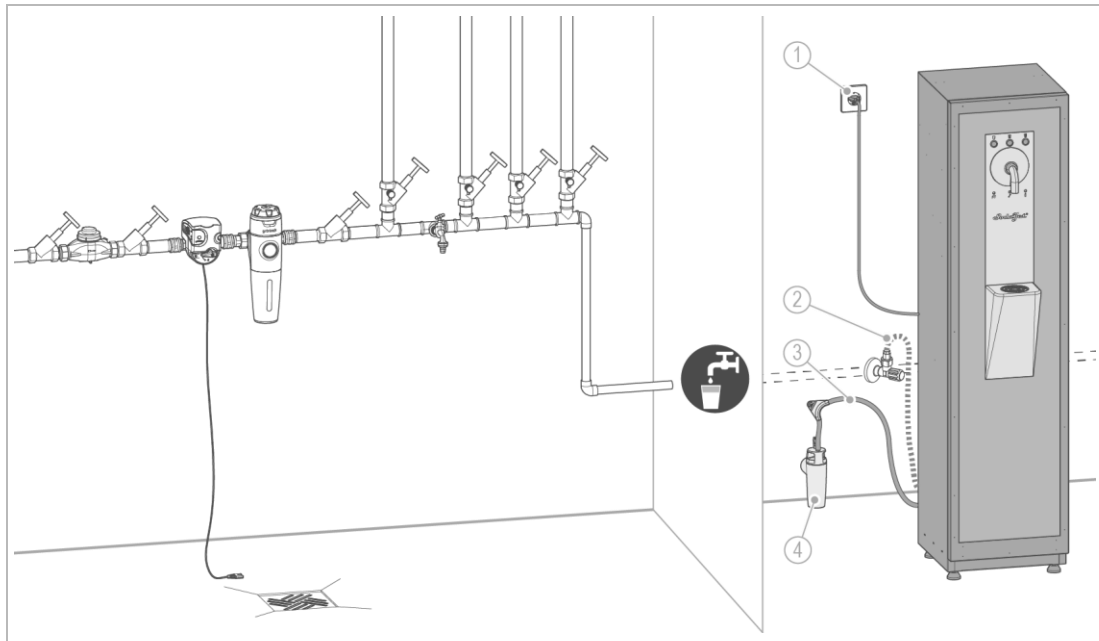
- ▶ Protect the product from the impacts below when storing it:
 - Damp, moisture
 - Environmental impacts such as wind, rain, snow, etc.
 - Frost, direct sunlight, severe heat exposure
 - Chemicals, dyes, solvents and their vapours

5 Installation



The installation of the drinking water dispenser represents a major intervention into the drinking water system and must be carried out by qualified specialists only.

Installation example



Designation

- 1 Electric cable with Schuko plug (1.2 m)
- 2 Connection hose DN 8 (flexible stainless steel braided hose 1.2 m) with 3/8" screw connection

Designation

- 3 Waste water hose (max. height 440 mm)
- 4 Drain connection DN 50 acc. to DIN EN 1717 (optional)

5.2 Requirements for the installation site

- The sufficiently dimensioned installation surface of the device must be level and have enough strength and load-bearing capacity to support the operating weight of the device.



The feet of the device can leave visible footprints on floor finishes.

- A floor drain of at least DN 50 in size should be available at the installation site (recommended).
- The installation site must be frost-proof and protect the product from chemicals, dyes, solvents and their vapours.
- Keep the minimum distance of 500 mm to radiators or other heat sources. The ambient temperature and the impact of heat radiators in the immediate vicinity must not exceed 30 °C.

- Keep a minimum distance of 100 mm between the wall and the back of the device.
- The installation site must be adequately illuminated and ventilated.
- Schuko socket (type F, CEE 7/3) with permanent power supply (max. 1.2 m from the control unit).
 - The socket must not be fitted beneath the cold water connection.
 - The plug must be fitted in such a way that the device can be unplugged immediately and at all times in the event of malfunctions or maintenance work.
- The installation site must ensure a continuous air circulation and must be protected from direct sunlight.

5.2.1 Requirements for the water supply

- The quality of the incoming drinking water must comply with the valid German Drinking Water Ordinance.
- The drinking water must not contain any impurities and suspended solids.
- A filter with a pore size of at least 100 µm must be installed in the supply network.
- The water feed line must thoroughly be flushed and, if necessary, cleaned before connecting the device.
- A 3/8" angle valve is required for the water connection within a range of up to 1.2 m from the installation site.
- The drinking water dispenser should only be connected to well-flown-through pipes without any longer periods of stagnation.
- The connection between the domestic water system and the drinking water dispenser should be as short as possible.

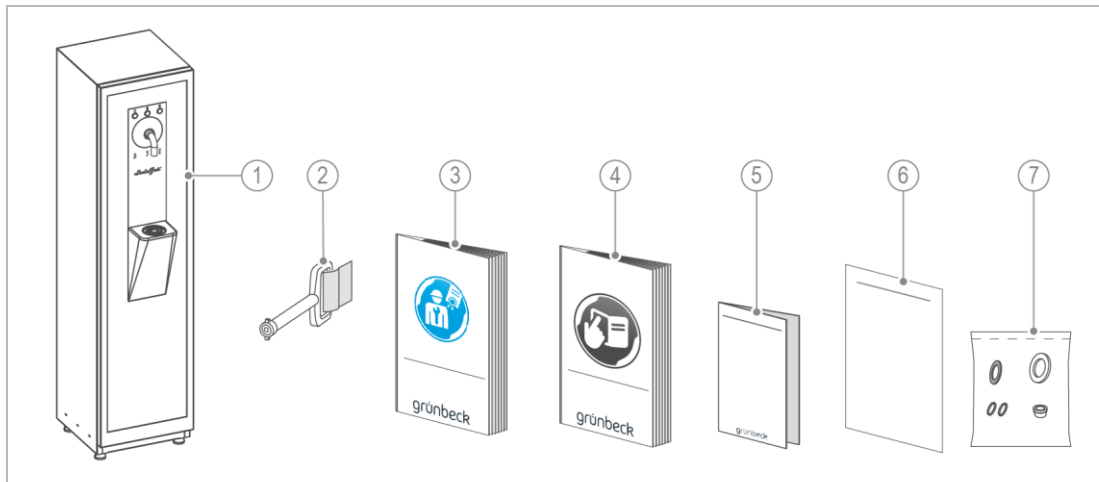
5.2.2 Requirements for the installation room



Adhere to important prerequisites when handling compressed gas cylinders (refer to chapter 2.2.1 and operating instructions order no. 165 959).

- The installation site must have a minimum room size in $m^3 = 17 \times$ filling volume of a CO_2 cylinder in kg
Example **187 m^3** for a 10 kg CO_2 cylinder (e.g. 75 $m^2 \times 2,5$ m) and **112 m^3** for a 6 kg CO_2 cylinder (e.g. 45 $m^2 \times 2,5$ m).
- Alternatively, a monitored technical ventilation system with an adequate delivery rate of at least 2x/h must be available.
- If this is not possible, a gas warning system for CO_2 /lack of oxygen must be installed to protect the installation room.

5.3 Checking the scope of supply



Designation	Designation
1 SODA JET III Premium or SODA JET III Public, ready for connection	5 Quick manual
2 Socket wrench with adhesive holder	6 Operating instructions
3 Operation log	7 Seals for dispenser pipe, angle valve, CO ₂ pressure reducer
4 Operation manual	

► Check the scope of supply for completeness and damage.

5.4 Water installation

5.4.1 Preliminary work



- After unpacking, allow the unit to acclimatise at the installation site for at least 1 hour.
 - » Possible moisture precipitation on electronic components can dry off.
 - » The coolant in the cooling unit can settle.
- Set up the device with 2 or several persons.
- Make sure not to damage the floor (e.g. parquet), when moving the device (refer to chapter 4.2).



WARNING

Contaminated drinking water due to stagnation

- Infectious diseases.
- Before connecting the feed line to the device, flush it at maximum flow for several minutes.

NOTE Dirty drinking water in the feed line

- Impurities, corrosion particles and organic substances in the feed line can damage the device.
- ▶ Before connecting the feed line to the device, flush it at maximum flow for several minutes.

5.4.2 Setting up and connecting the device

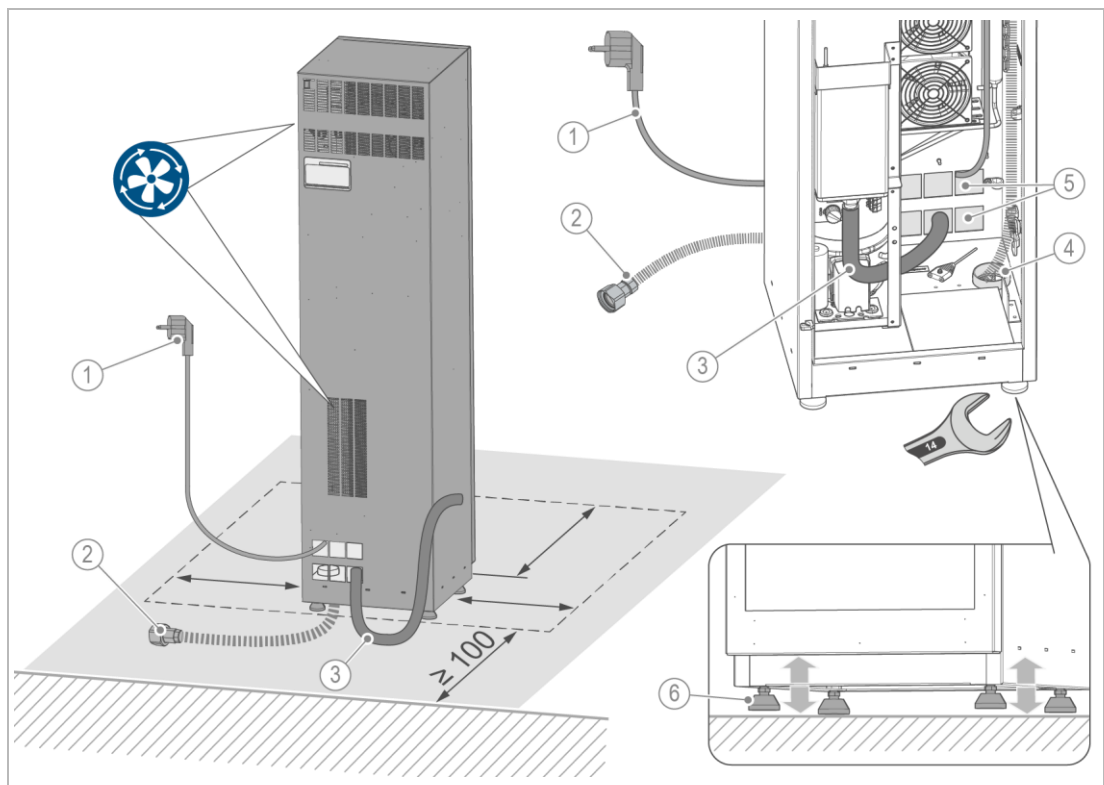


The heating-up of the device, e.g. by means of direct sunlight or reduced air circulation will cause functional impairment



Place the device in a way that the ambient temperature of max. 30°C will not be exceeded and ensure that sufficient air circulation is guaranteed.

Do not place the device in niches or corners with reduced air circulation.



Designation

- | | |
|---|---|
| 1 | Connection cable with Schuko mains plug (1.2 m from the back of the device) |
| 2 | Connection hose DN 8 (flexible stainless steel braided hose 1.2 m) with 3/8" screw connection |
| 3 | Waste water hose (optional) (max. height 440 mm) |

Designation

- | | |
|---|-----------------------|
| 4 | Opening at the bottom |
| 5 | Openings at the back |
| 6 | Adjustable feet |

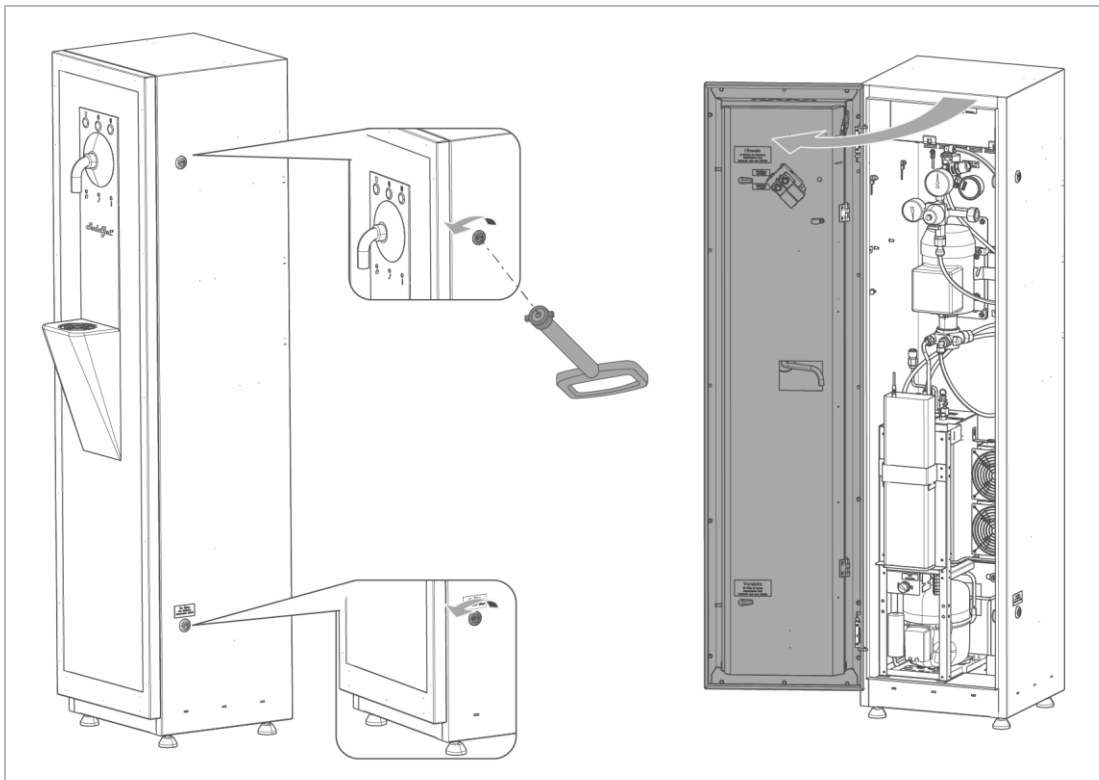
6. Place the device as near to the water connection as possible.
7. Compensate for uneven floors by levelling the adjustable feet.
 - » The device must be levelled horizontally and vertically, so that it cannot tip over.

8. Keep the minimum distance of 100 mm to the wall.

NOTE High temperature in the device due to an inadequate air exchange rate

- Functional failure of the cooling unit
- If the operating temperatures reached are too high, the thermal circuit breaker automatically switches off the cooling unit.
- ▶ Keep the ventilation openings on the back of the device clear.
- » Warm exhaust air from the cooling unit is discharged. The maximum ambient temperature of 30 °C must not be exceeded.

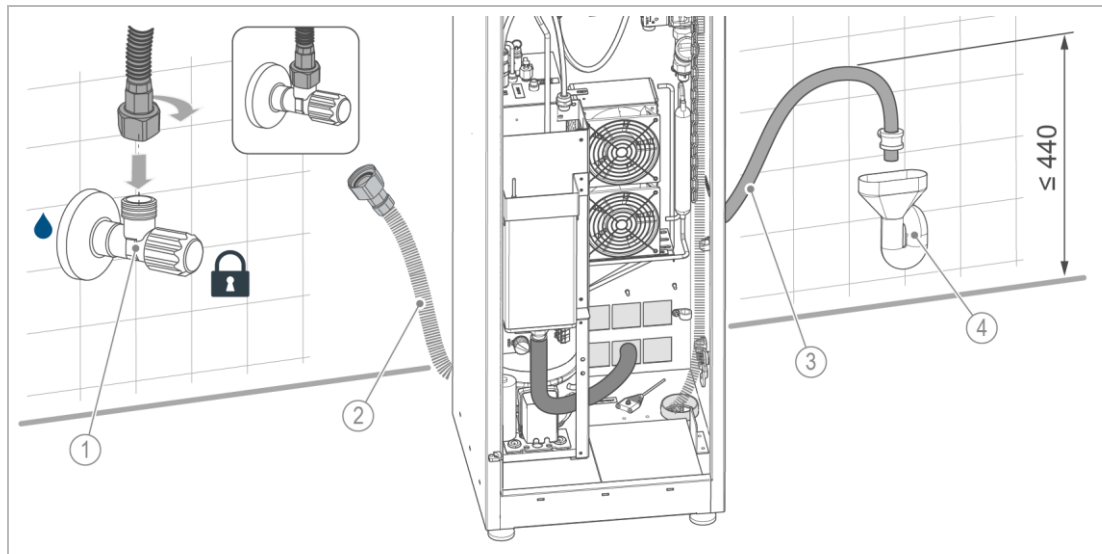
9. Check whether the socket is still readily accessible after placing the device.



10. Use the socket wrench to unlock the door at the top and at the bottom.

11. Open the door.

5.4.3 Connecting the device to the water supply



Designation	Designation
1 Angle valve with 3/8" screw connection (to be provided by client)	3 Optional waste water hose
2 Connection hose	4 Drain connection DN 50 acc. to DIN EN 1717

1. Feed the connection hose through the opening at the bottom.

NOTE Incorrect routing of connection hose

- The connection hose can be damaged when kinked or being under tension and this can lead to consequential damage.
- ▶ Route the connection hose in a way that it can move freely and is not kinked.

2. Connect the connection hose to the angle valve provided by the client.
 3. Keep the angle valve closed.
 4. Fit the optional waste water hose to the drain connection with free outlet, if applicable.
 - a Route the waste water hose out of the device via the cooling unit.
 - b Loosen the hose clamp and remove the blind plug.
 - c Shorten the length of the connection hose, if necessary.
 - d Fasten the waste water hose with a wall clamp.
- » The device is connected to the water supply and, optionally, to the waste water connection.

5.5 Electrical installation



The device features a permanently connected connection cable with Schuko mains plug (1.2 m from the back of the device).



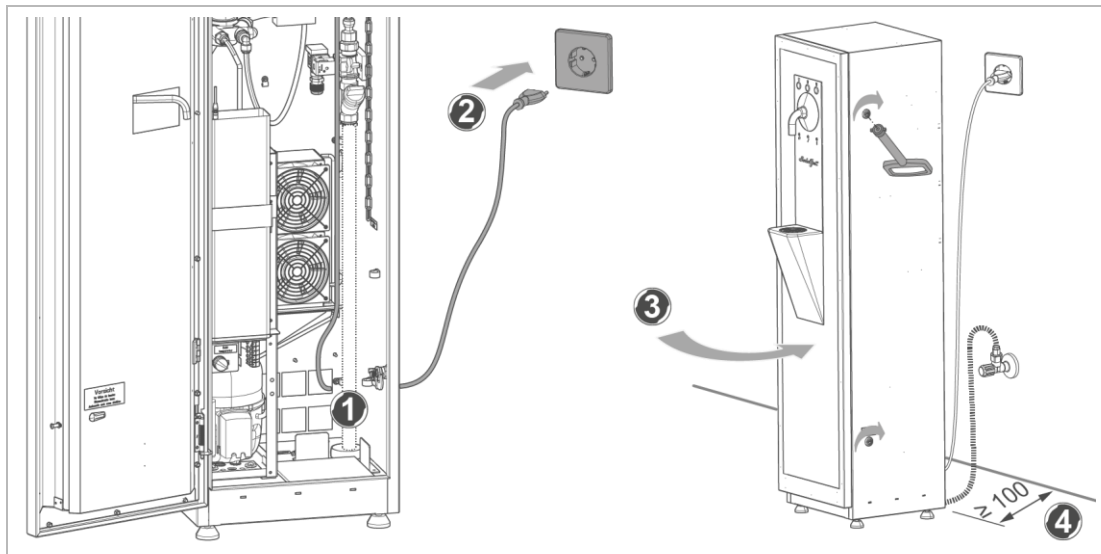
- The socket must not be located below the cold water connection.
- The plug must be fitted in such a way that the device can be unplugged immediately and at all times in the event of malfunctions or maintenance work.
- The connection between the power supply and the device should be as short as possible.

NOTE

Incorrect routing of the connection cable

- The connection cable can be damaged, and this can result in a short-circuit.
- ▶ Route the connection cable in a way that it is not crushed, kinked or entangled forming knots.
- ▶ Make sure that the connection cable does not touch the water pipe or the connection hose.
- ▶ Do not wind up the connection cable.

5.5.1 Connecting the device to the power supply



1. Feed the connection cable with the mains plug through an opening on the back of the device.
2. Plug the mains plug into the 230 V socket.
 - » The cooling unit starts working.
3. Close and lock the door.
4. When positioning the device on the wall, keep a minimum distance of at least 100 mm.

6 Start-up/Commissioning



The work below must be carried out by qualified specialists only.

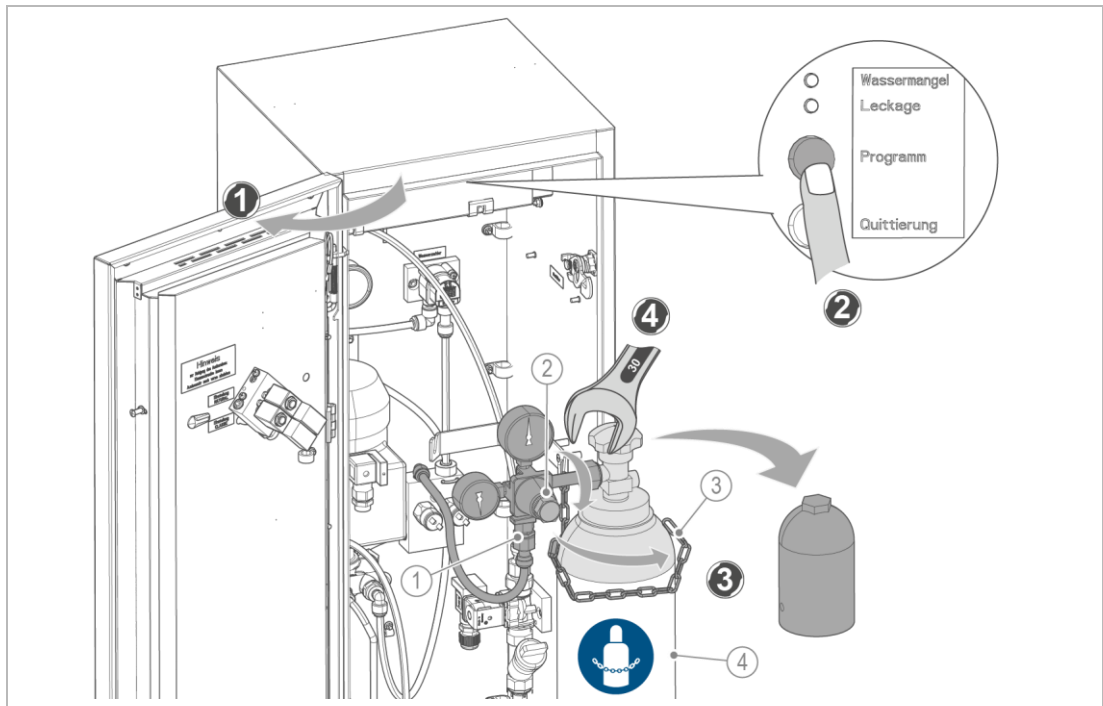


Recommendation: The initial start-up/commissioning of the product should be carried out by Grünbeck's technical service personnel.

6.1 Connecting the compressed gas cylinder (CO₂ cylinder)

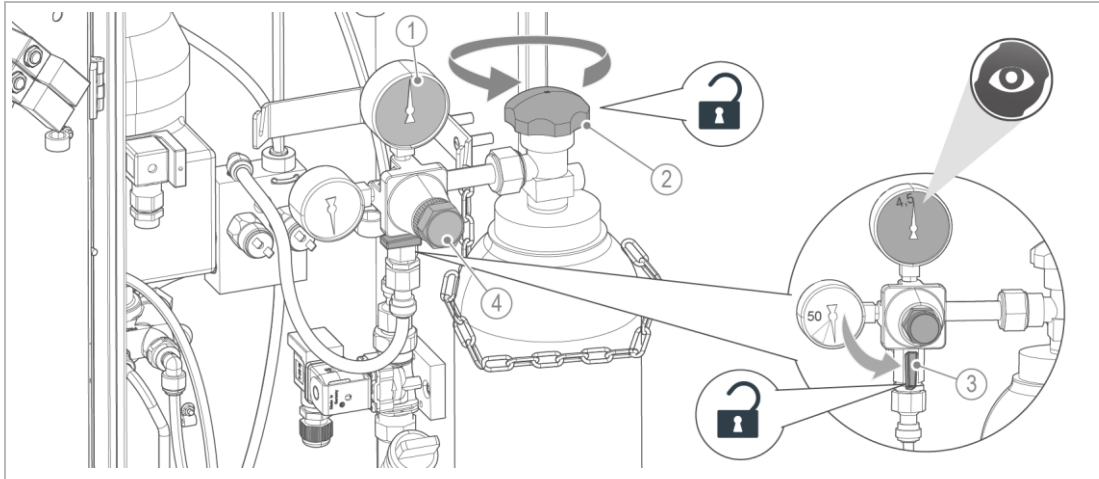


Obey the operating instructions for handling compressed gas cylinders.



Designation	Designation
1 CO ₂ outlet (secondary pressure gas line)	3 Safety chain
2 CO ₂ pressure reducer	4 CO ₂ cylinder

1. Unlock and open the door.
2. Press and hold the program button and at the same time select the *Setting* program (refer to chapter 7.2.1).
3. Place the CO₂ cylinder on the right next to the housing and secure it at the cylinder holder using the safety chain.
4. Screw the union nut (with inserted sealing ring) of the CO₂ pressure reducer to the connection of the CO₂ cylinder.
 - » The CO₂ outlet points downwards.



Designation	Designation
1 Pressure gauge for outlet pressure	3 Shut-off valve
2 Cylinder valve	4 Pressure adjusting screw

5. Open the shut-off valve (turn it to vertical position).
6. Open the cylinder valve of the CO₂ cylinder.
 - » The carbonator fills with CO₂.
7. Check the outlet pressure on the pressure gauge (factory-set to 4.5 bar).
8. Set the CO₂ pressure, if necessary (refer to chapter 6.5.1).
 - » The LED for lack of CO₂ turns off.
9. Adjust the CO₂ pressure switch if the LED for lack of CO₂ does not turn off.

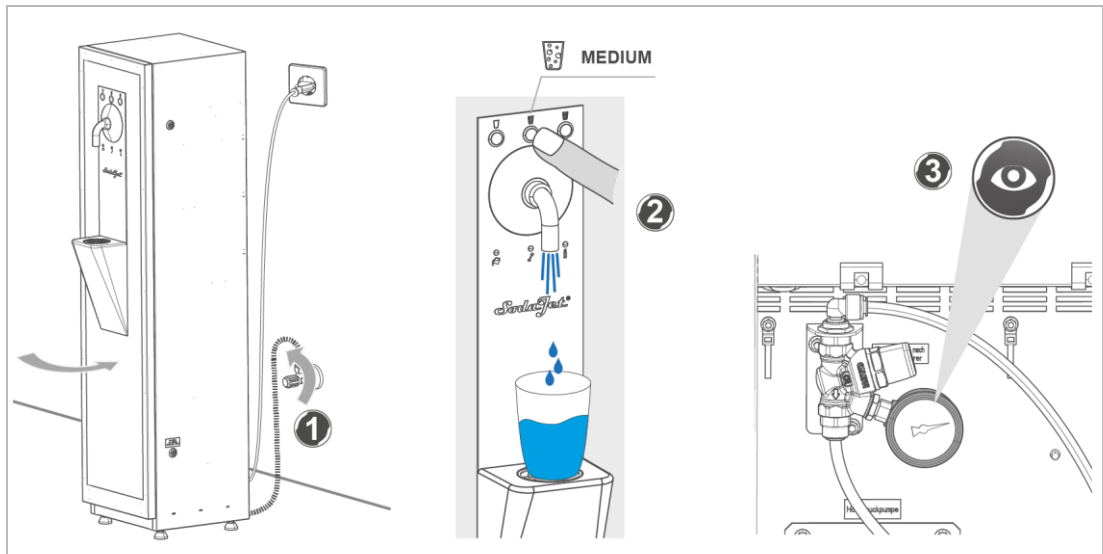
6.2 Releasing the water supply



If the inlet water pressure of at least 2.5 bar is not adequately available or not constant, a fault message can occur.

If this fault occurs, the **Service** LED lights up for 30 seconds.

- Make sure that water can flow into a container or to the drain.



1. Open the angle valve of the water supply.
2. Briefly press the **MEDIUM** button.
 - » Continuous operation starts. Let the water run for approx. 3 minutes.
3. Check the water pressure on the pressure gauge (factory-set to 3.5 bar static).
4. Briefly press the **MEDIUM** button again.
 - » Continuous operation stops.
5. Check the settings below (refer to chapter 6.5.2).
 - Dispense volumes
 - Temperature setting of cooling
 - Switching point of the pressure switches for CO₂ and water

6.3 Disinfecting the device

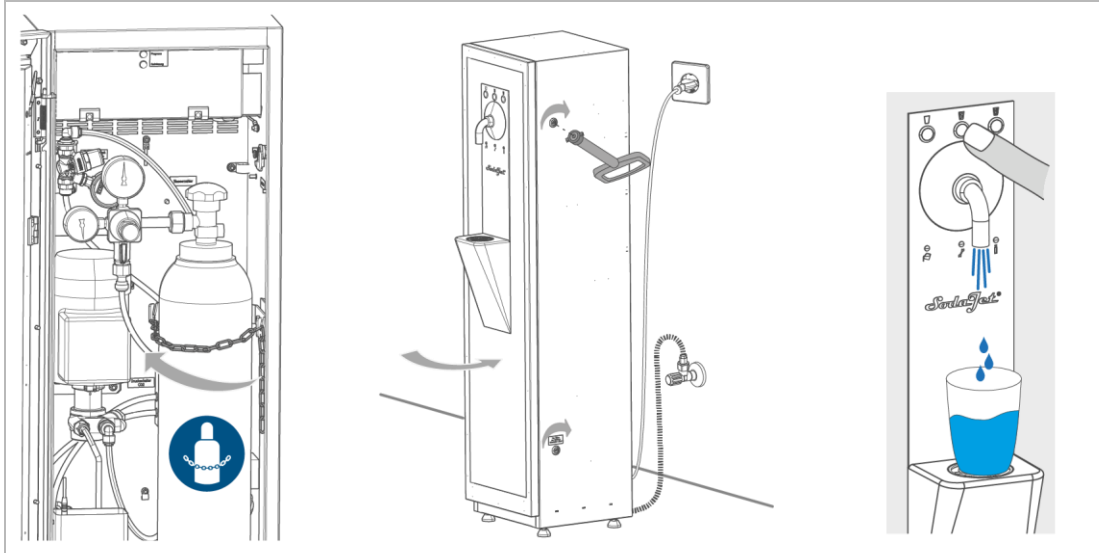


If the device has been idle for a longer period of time, (> 2 weeks), it must be disinfected.

- ▶ Carry out disinfection (refer to chapter 8.4.8).

6.4 Checking the device

1. Set the `Standard` operation program (refer to chapter 7.2.1).
2. Check the water and CO₂ carrying lines for leaks (e.g. using leak detection spray).



3. Put the CO₂ cylinder into the housing and secure it at the cylinder holder using the safety chain.
4. Close and lock the door.
5. Check the taste of the water for the criteria below:
 - Temperature
 - CO₂ concentration
 - Taste
6. Fill out the start-up/commissioning log in the operation log (order no. 156 930).

6.5 Making settings



The CO₂ concentration depends on several parameter. In order to release plenty of CO₂ into the water, the requirements below should be met:

- Pressure: as high as possible
- Temperature: as low as possible
- Flow rate: not too high



The carbonation of the SODA JET III can only work if the water pressure on the pressure reducer is set lower than the CO₂ pressure reducer.

- ▶ Use the factory settings, if possible.



The dispense volume can be corrected subject to the respective primary pressure. The factory setting is made with 3.5 bar primary pressure.

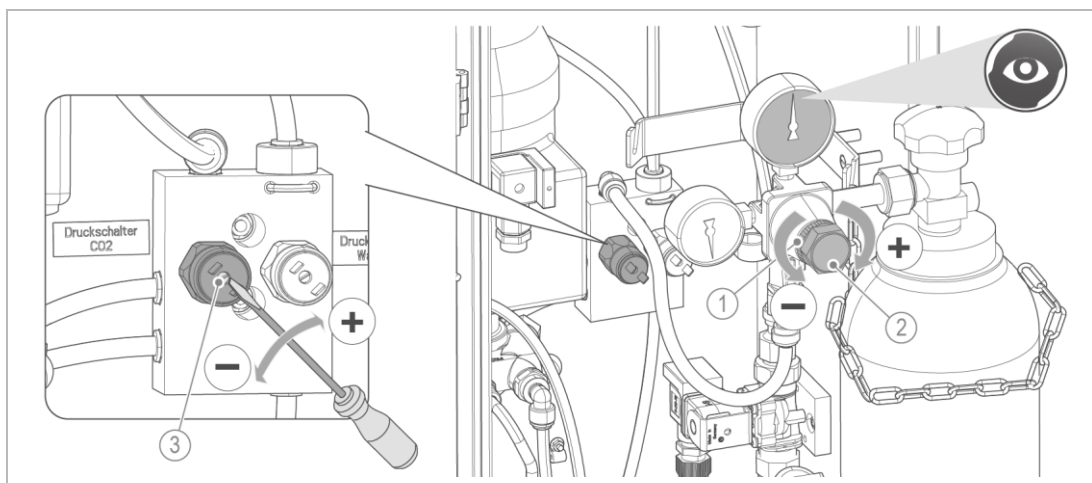
If the primary pressure is lower, adjust the dispense volume.

Factory settings

Component	Values
CO ₂ pressure switch	3.8 bar
CO ₂ pressure reducer	4.5 bar
Water pressure switch	0.4 bar
Water pressure reducer (static)*	3.5 bar
Dispense volume CLASSIC	2.1 l/min
Dispense volume STILL	1.8 l/min


* Might display less if primary pressure is too low


6.5.1 Setting the CO₂ pressure



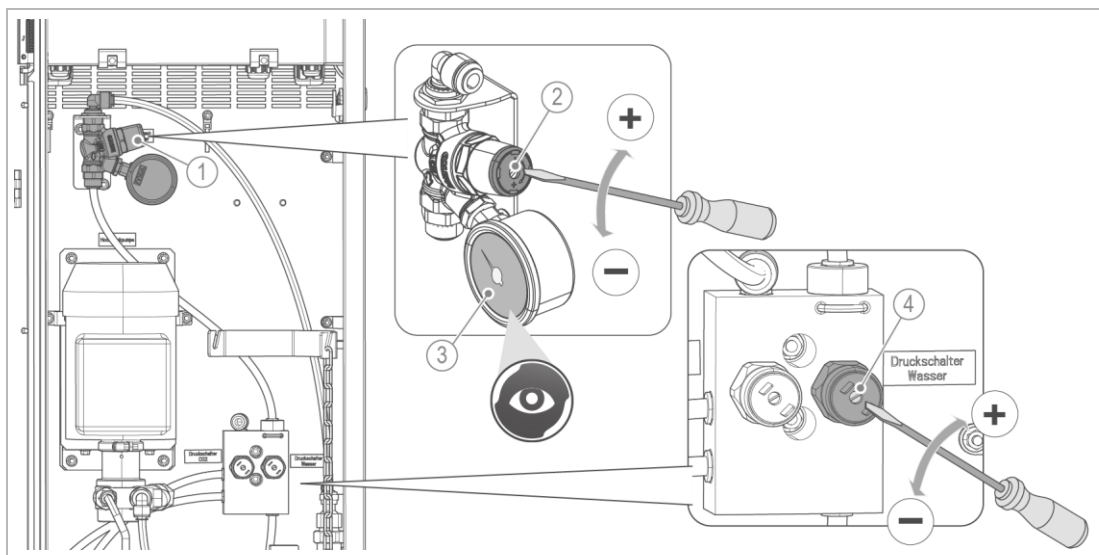
Designation
1 Lock nut
2 Pressure adjusting screw on CO ₂ pressure reducer

Designation
3 Adjusting screw on CO ₂ pressure switch

1. Select the *Settings* program.
 2. Proceed as follows to reduce the CO₂ pressure on the CO₂ pressure reducer to a switching pressure of 3.8 bar:
 - a Loosen the lock nut.
 - b Turn the adjusting screw counter-clockwise until 3.8 bar are displayed.
 - c Close the lock nut.
- » The LED for lack of CO₂  starts flashing.

3. Proceed as follows to adjust the switching point of the LED for lack of CO₂ :
 - a Turn the adjusting screw on the CO₂ pressure switch clockwise – the LED lights up.
 - b Turn the adjusting screw counter-clockwise – the LED turns off.
4. Proceed as follows to reset the CO₂ pressure reducer to the factory setting of 4.5 bar:
 - a Loosen the lock nut.
 - b Turn the pressure adjusting screw clockwise until 4.5 bar is displayed.
 - c Close the lock nut.
5. Select the `Standard` operation program.

6.5.2 Setting the water pressure




Designation	Designation
1 Water pressure reducer	3 Pressure gauge
2 Adjusting screw on water pressure reducer	4 Adjusting screw on water pressure switch



The water pressure switch protects the high-pressure pump from running dry and from malfunctions of the device. The water pressure reducer ensures good carbonation – even at a very high primary pressure.

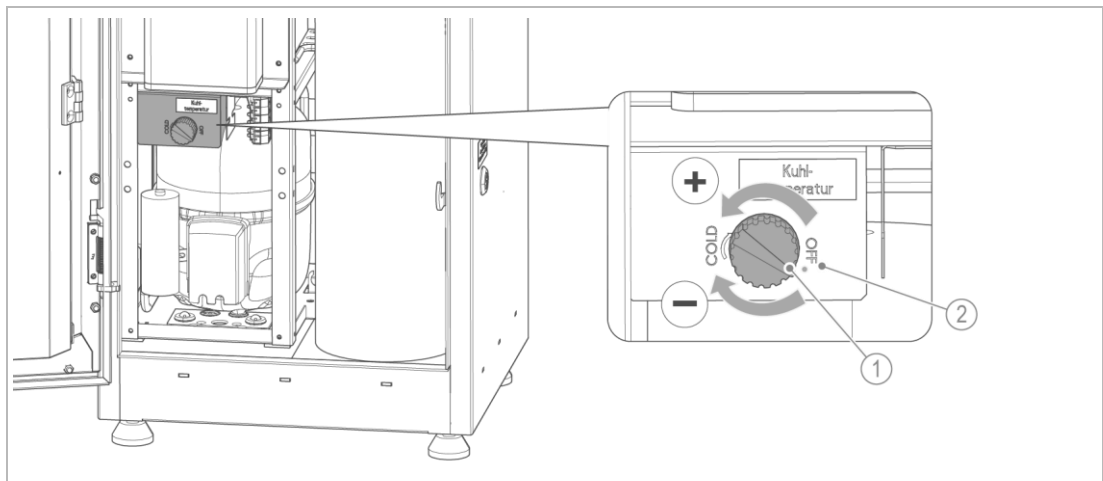
1. Make sure that the water can flow into a container or to the drain.
2. Select the `Setting` program.
3. Briefly press the `STILL` button.
 - » Continuous operation starts.
4. Proceed as follows to reduce the flow pressure on the water pressure reducer to 0.4 bar:

- a Turn the adjusting screw counter-clockwise until 0.4 bar is displayed.
- » The LED for Service  starts flashing.
- 5. Adjust the switching point of the LED for Service as follows:
 - a Turn the adjusting screw on the water pressure switch clockwise – the LED lights up.
 - b Turn the adjusting screw counter-clockwise – the LED turns off.
- 6. Proceed as follows to increase the flow pressure on the water pressure reducer to 3.0 bar:
 - a Turn the pressure adjusting screw clockwise until 3.0 bar is displayed.
- 7. Select the `Standard operation` program.
- 8. Check the static water pressure on the pressure gauge.
 - » The pressure gauge should display 3.5 bar.

6.5.3 Setting the cooling temperature



The lower the set water temperature, the higher the carbon dioxide concentration.



Designation	Designation
1 Rotary knob on the thermostat	2 OFF position

- ▶ Proceed as follows to set the desired cooling temperature of the water:
 - b Turn the rotary knob clockwise – the water temperature is reduced.
 - c Turn the rotary knob counter-clockwise – the water temperature is increased.
- ▶ After approx. 10 minutes, check a water sample for temperature.

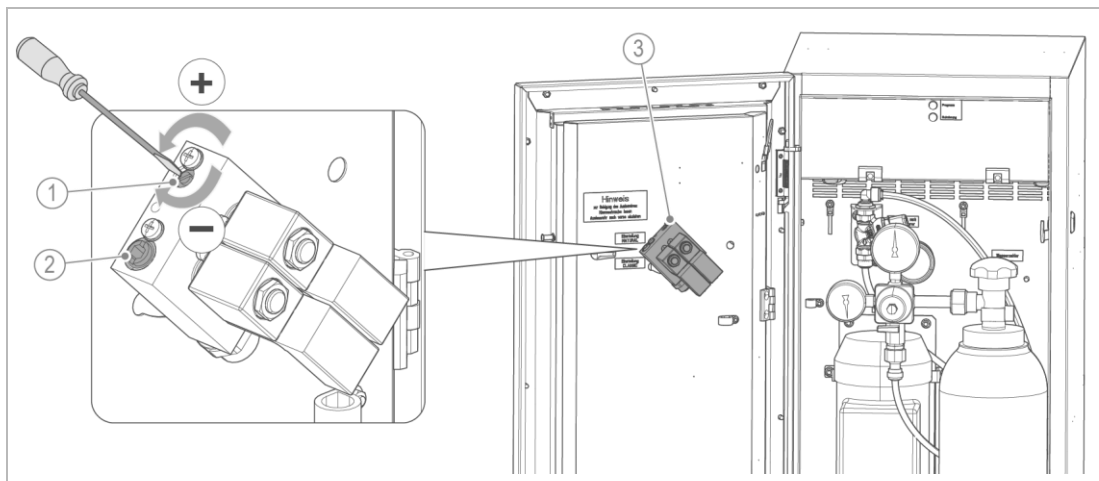
If no water cooling is desired, you can switch off the cooling unit as follows:

- ▶ Turn the rotary knob beyond the stop.
- » You can hear a distinct click.

6.5.4 Setting the dispense volumes



The dispense volumes of the tastes CLASSIC and STILL can be set separately on the dispenser unit.



Designation

- 1 Adjusting screw for STILL
- 2 Adjusting screw for CLASSIC

Designation

- 3 Dispenser unit

▶ Proceed as follows to set the desired dispense volumes for STILL and CLASSIC:

- d Turn the adjusting screw clockwise – the dispense volume is decreased.
- e Turn the adjusting screw counter-clockwise – the dispense volume is increased.

6.5.5 Setting the high-pressure pump



The pressure on the outlet side of the high-pressure pump can be set with an adjusting screw (bypass setting). On delivery, the high-pressure pump is set correctly. Changing the set bypass setting is not required.

NOTE Incorrect bypass setting of the high-pressure pump

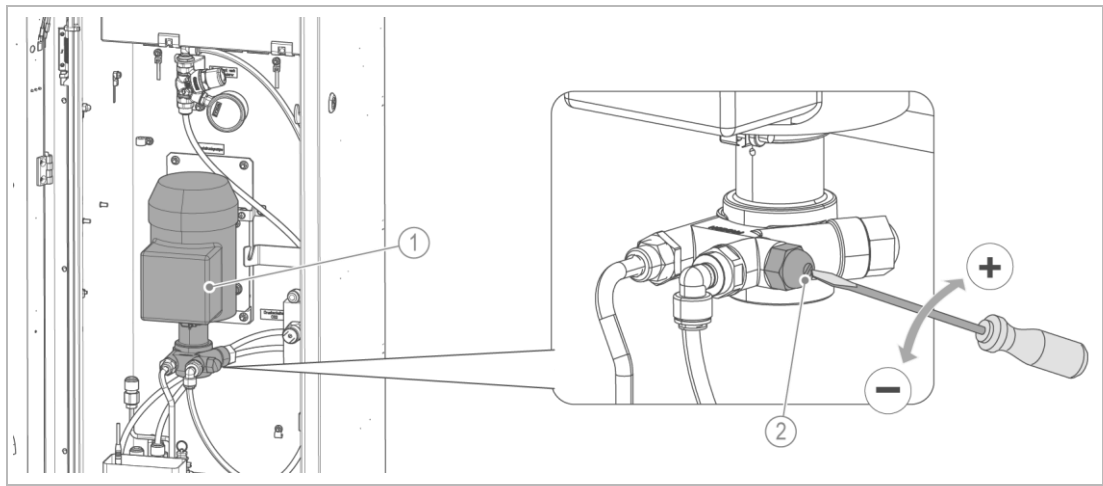
- An incorrect bypass setting can lead to damage on connecting pipes and components.
- ▶ Adhere to the specified values for the bypass setting.

The work below must be carried out by Grünbeck's technical service only.

In the event that the high-pressure pump was replaced, the bypass setting must be reset.



- ▶ Make the rough setting before restart.
- ▶ Make the fine adjustment during operation.



Designation

1 High-pressure pump with pump motor

Designation

2 Adjusting screw of bypass

- ▶ Proceed as follows to set the bypass using a flat-head screwdriver:
 - a Turn the adjusting screw clockwise – the pressure is increased.
 - b Turn the adjusting screw counter-clockwise – the pressure is decreased.
- 1. Completely close the bypass – turn in clockwise direction up to the stop.
- 2. Open the bypass – turn counter-clockwise, approx. 6.5 rotations.
- 3. Proceed as follows to set the values for the switch-on and switch-off times of the high-pressure pump when dispensing CLASSIC:
 - High-pressure pump ON: 3 seconds
 - High-pressure pump OFF: 0.5 seconds
- » A pressure increase of 13 bar is set (+ inlet pressure).

6.6 Handing over the product to the owner/operating company

- ▶ Explain to the owner/operating company how the product works.
- ▶ Use the manual to brief the owner/operating company and answer any questions.
- ▶ Inform the owner/operating company about the need for inspections and maintenance.
- ▶ Hand over all documents to the owner/operating company for keeping.

6.6.1 Disposal of packaging

- ▶ Dispose of the packaging as soon as it is no longer needed.

NOTE

Danger to the environment due to incorrect disposal

- Packaging materials are valuable raw materials that can be reused in many cases.
- Incorrect disposal can cause hazards to the environment.
- ▶ Dispose of packaging materials in an environmentally sound manner.
- ▶ Obey the local disposal regulations.
- ▶ If necessary, commission a specialist company with the disposal.

6.6.2 Storage of accessories

- ▶ Store supplied accessories such as spare seals in the device.
- ▶ Keep the socket wrench in a safe place. You can fix it at the back of the housing with an adhesive holder.

7 Operation/Handling



The device does not have a main switch. The device can only be switched off by disconnecting the power plug from mains.

Drinking water is dispensed with three dispense buttons:

Symbol	Explanation
	STILL (still water, without carbon dioxide)
	MEDIUM (slightly sparkling, with low carbon dioxide concentration)
	CLASSIC (strongly sparkling water, with maximum carbon dioxide concentration)

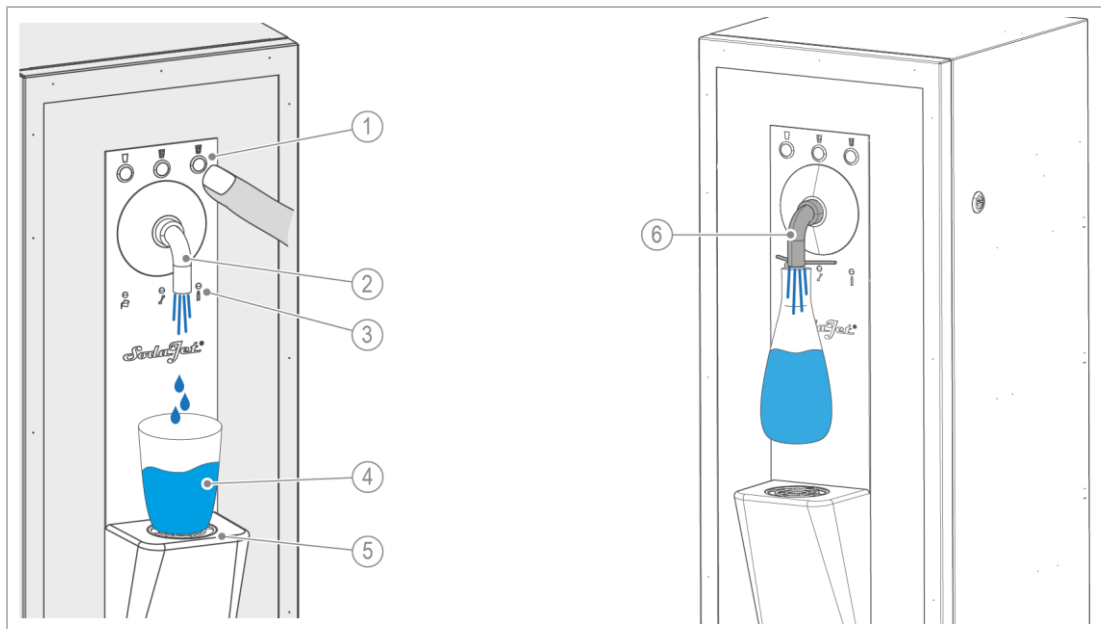
7.1 Operating concept



WARNING

Risk of contaminated drinking water

- Risk of infectious diseases due to bacterial growth at the dispenser pipe.
- ▶ Do not touch the dispenser pipe with your hands or mouth when tapping water.
- ▶ Always use a receptacle when tapping water.



Designation	
1	Dispense buttons
2	Dispenser pipe
3	LEDs (status signals)

Designation	
4	Receptacle such as a glass or a pitcher
5	Placement area with drip tray
6	Touch protection (optional)

- ▶ Put the receptacle on the placement area.
- ▶ As an alternative, hold the receptacle up to avoid splashing.



The drinking water can be tapped using two programs: Standard operation or Continuous operation. Mostly, the program “Standard operation” is used.

Standard operation

1. Press and hold a dispense button until the desired water volume has been reached.
 - » Water dispensing stops when you release the dispense button.

Continuous operation

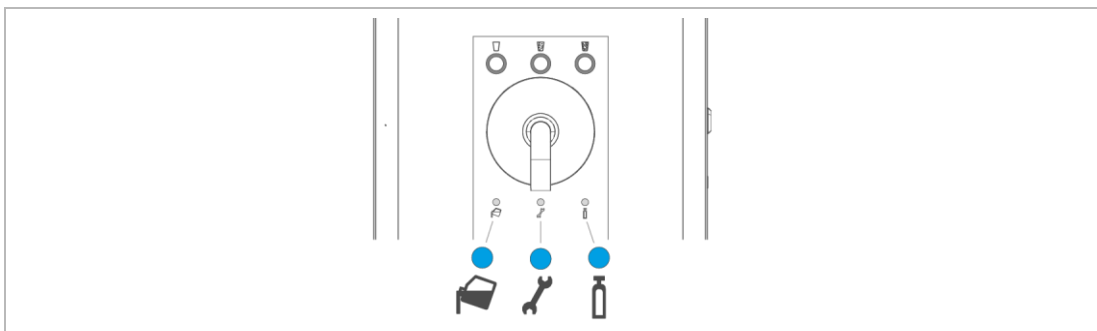
1. Briefly press a dispense button.
 - » Continuous water dispensing starts.
2. Briefly press the same dispense button.
 - » Water dispensing stops.



If the dispense button is held down for longer while the operating mode *Continuous operation* is set, water dispensing stops after a second. This allows the user to determine that the function “Continuous operation” is set.

7.1.2 LED status signals

In standard operation, the LEDs do not light up or flash. The LEDs serve as confirmation when changing the programs. The LEDs are illuminated permanently when there is a malfunction.



Symbol	Explanation
	Dripping water container full
	Service or leak
	Lack of CO ₂

- ▶ To eliminate a malfunction that is present, refer to chapter 9.1.

7.2 Programs

The programs below can be set for different operating modes:

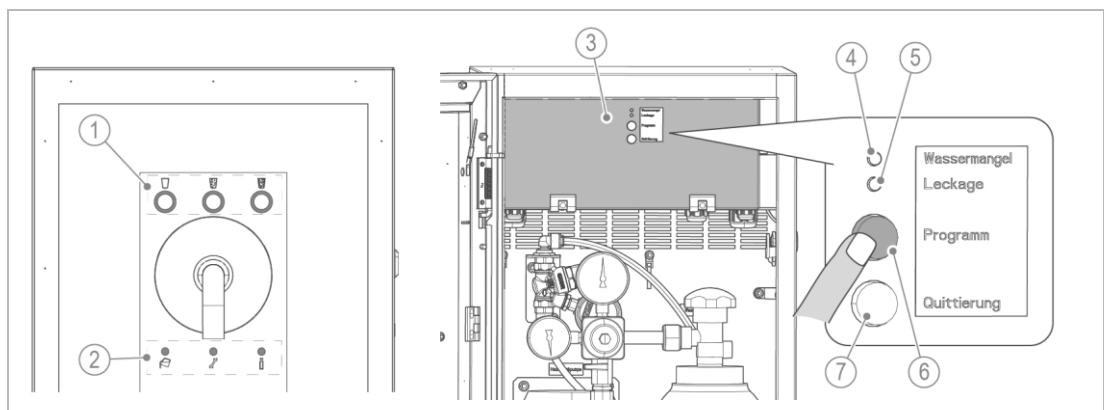
- Standard operation (to tap water in standard operation)
- Continuous operation (to tap water continuously)
- Disinfection (refer to chapter 8.4.8).
- Setting (for start-up and settings)

7.2.1 Changing programs

The program button on the control unit is designed for changing the operating mode.



After a power failure, the previously set operating mode will be continued.

















Designation	
1	Buttons
2	LEDs (status indicators)
3	Control unit (electric box)
4	LED indicating lack of water

Designation	
5	LED indicating a leak
6	Program button
7	Acknowledgement button

1. Press and hold the **program button**.
2. Press and hold one button combination for as long as it takes until the corresponding LED combination lights up.
 - » The selected operating mode is shown.

Button combinations and function

Operating mode	Buttons/LEDs			Explanation
Standard operation				Water dispensing by pressing and holding a button. <ul style="list-style-type: none"> One-minute flushing every 8 hours (only if flushing unit is installed)
				<ul style="list-style-type: none"> All errors are analysed and displayed. The CO₂ pressure is displayed only (acknowledges itself automatically) Lack of water is acknowledged automatically after a period of 30 seconds. Dripping water container full and Leak must be acknowledged.
				Water dispensing by pressing and holding a button. <ul style="list-style-type: none"> One-minute flushing every 2 hours (only if flushing unit is installed)
Continuous operation				
				Water dispensing by pressing a button once (briefly). To stop, press the same button once again. <ul style="list-style-type: none"> One-minute flushing every 8 hours (only if flushing unit is installed)
Setting				<ul style="list-style-type: none"> All errors are analysed and displayed. The CO₂ pressure is displayed only (acknowledges itself automatically) Lack of water is acknowledged automatically after a period of 30 seconds.
				Continuous operation program for start-up and setting process. <ul style="list-style-type: none"> Lack of water and lack of CO₂ are displayed only. Dripping water container full and Leak are analysed and acknowledged automatically after they have been eliminated.

7.2.2 Fault monitoring

The different fault signals are displayed and analysed depending on the set program and program step.

Operating mode	Fault signal				Explanation
	Dripping water container	Lack of water	Leak	Lack of CO ₂	
Standard operation	●	●	●	○	<ul style="list-style-type: none"> ● is displayed and analysed ○ is displayed only
Continuous operation	●	●	●	○	
Setting	●	○	●	○	
Disinfection	●	○/●	●	○	<ul style="list-style-type: none"> Water pressure in phase 1 and phase 2

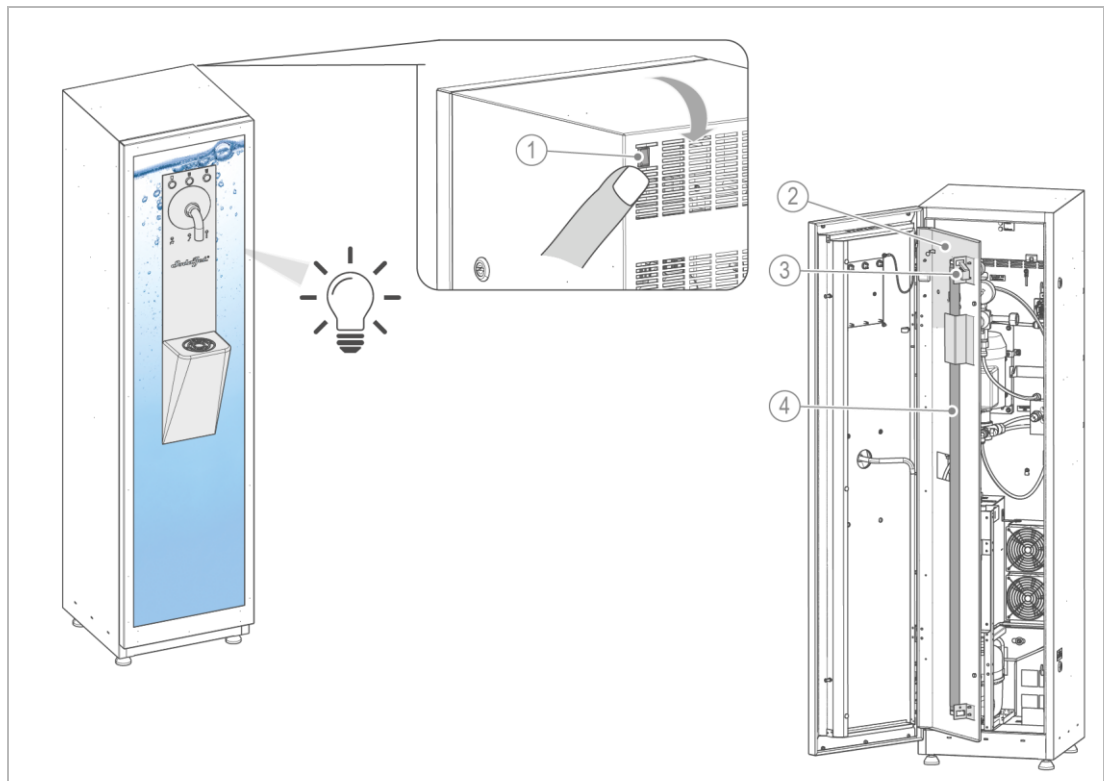
Some fault signals must be acknowledged manually after they have been remedied.

- ▶ Acknowledge the correction of a fault with the **Acknowledgement button**.

7.3 Illumination (SODA JET III Premium only)

A fluorescent tube is installed in the inner door. The illumination can be turned on and off by a switch (on the back of the housing).


If a time control (optional) is used, the switch is without function.

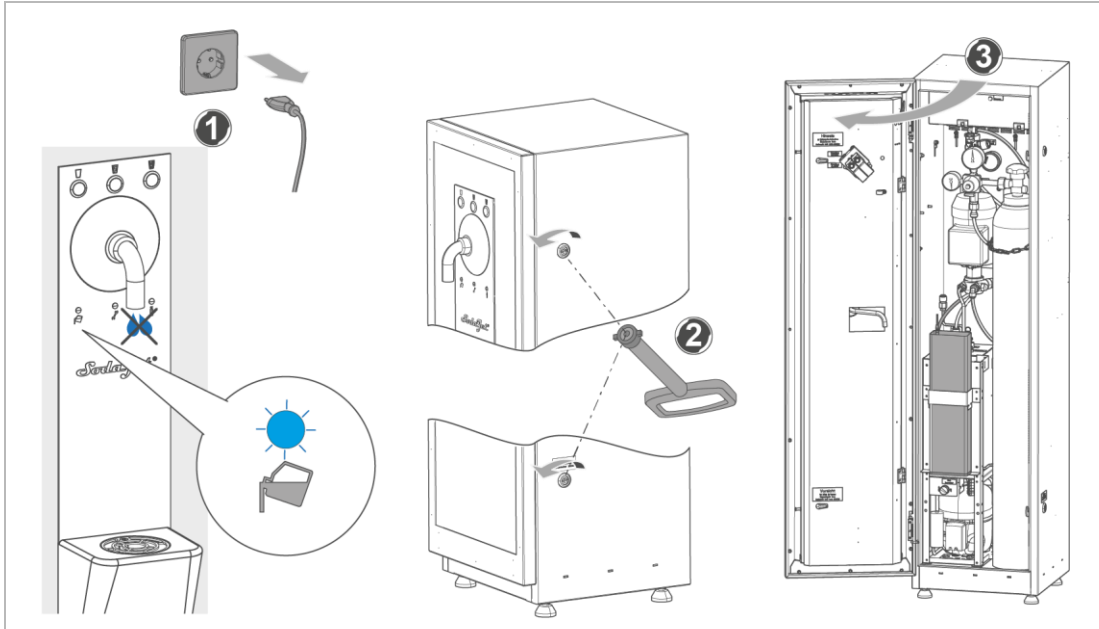


Designation		Designation	
1	Switch	3	Starter
2	Inner door	4	Fluorescent tube (LED)

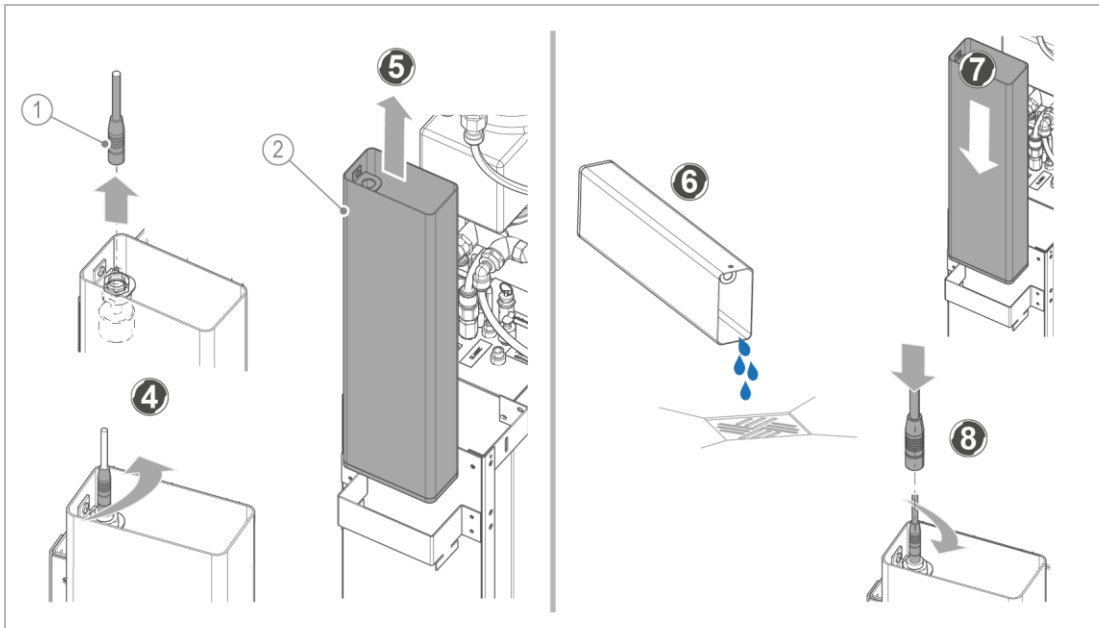
- ▶ Switch on the fluorescent tube manually.
- » The plexiglass front is backlit.
- ▶ Switch off the illumination when the device is no longer used (e.g. after business hours or during closing time)

7.4 Emptying the dripping water container

- Proceed as follows to empty the dripping water container in the event of fault signal  :



1. Pull the mains plug.
2. Unlock the door using the socket wrench.
3. Open the door.



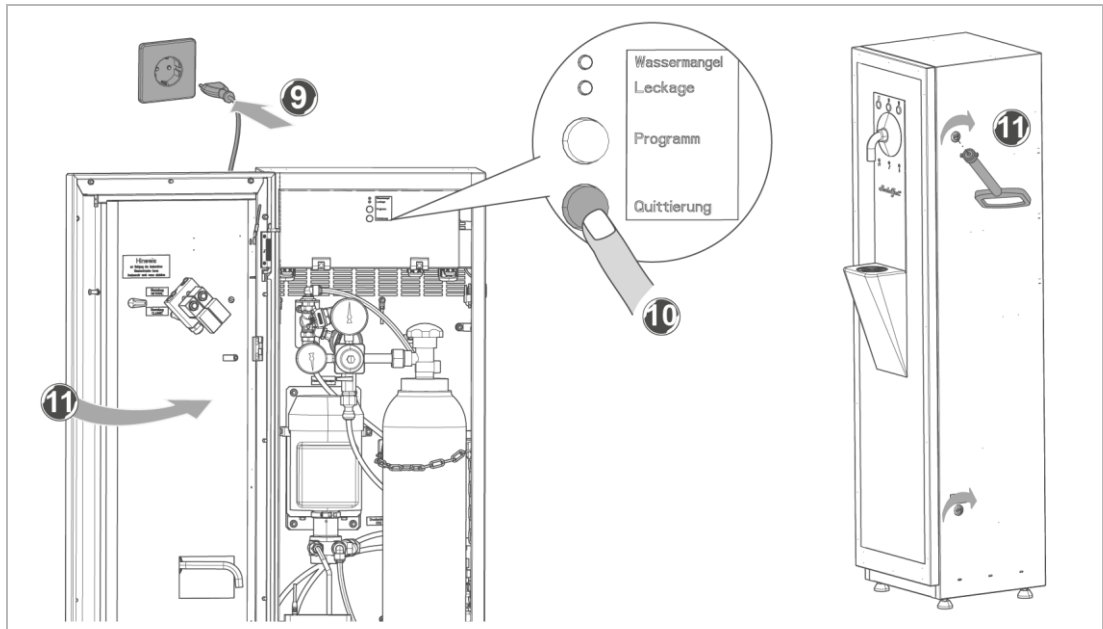
Designation

- 1 Plug of float switch

Designation

- 2 Dripping water container


4. Turn and pull the plug of the float switch upwards.
5. Carefully pull the dripping water container from the holder.
6. Drain the dripping water container.
7. Position the dripping water container in the holder.
8. Plug in and screw in the plug of the float switch.



9. Plug in the mains plug.
10. Acknowledge the fault.
11. Close and lock the door.
12. Check for function.

7.4.1 Changing the compressed gas cylinder (CO₂ cylinder)



In case of fault signal , you can still dispense water. When dispensing **MEDIUM** and **CLASSIC**, however, the water does not contain any CO₂.



Obey the operating instructions for handling compressed gas cylinders.

Carry out the work below without any interruption.


► Do not leave the device before having completed these tasks:

- a Proper connection of the compressed gas cylinder
- b Restart of the device
- c Proper shutdown of the device in the event of a fault

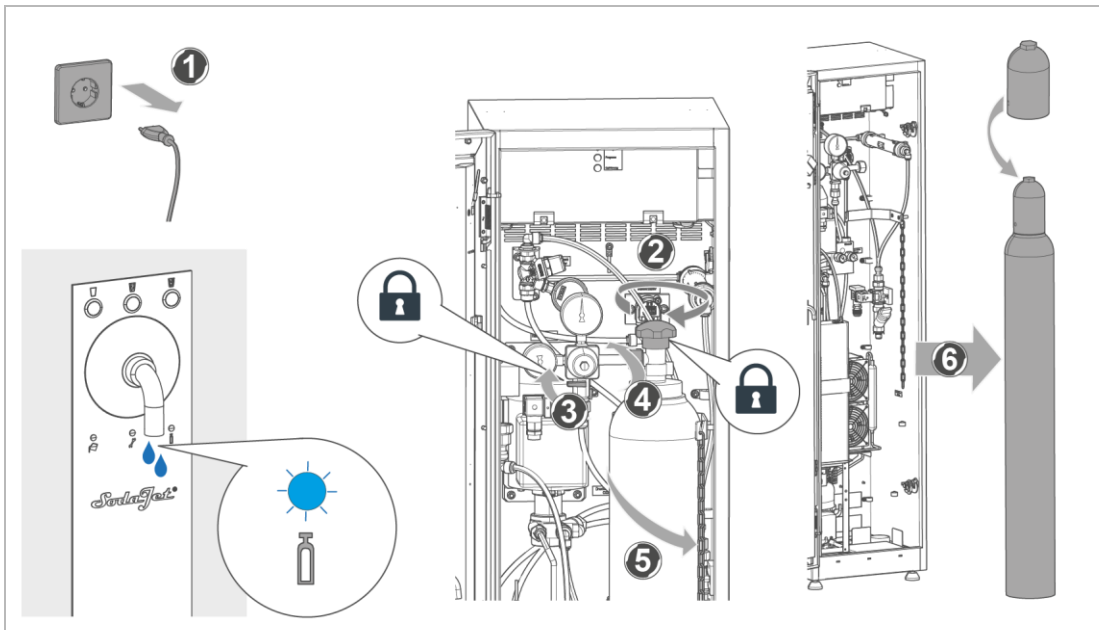


NOTE Removing the CO₂ cylinder

- The CO₂ pressure reducer can get entangled in the hoses on the inside of the device.
- Hoses and fittings can be damaged.
- ▶ Firmly hold on to the CO₂ pressure reducer during the replacement process.
- ▶ Make sure that the compressed gas hoses do not get entangled in other components.

- ▶ In case of fault signal , proceed as follows to replace the CO₂ cylinder:

Removing the empty CO₂ cylinder



1. Pull the mains plug and open the door.
2. Close the cylinder valve of the CO₂ cylinder.
3. Close the shut-off valve of the CO₂ pressure reducer.
4. Loosen the sealing ring union nut of the pressure reducer – the pressure reducer should not turn with it.
5. Loosen the safety chain of the cylinder holder.
6. Mount the protective cap and carefully remove the empty CO₂ cylinder.

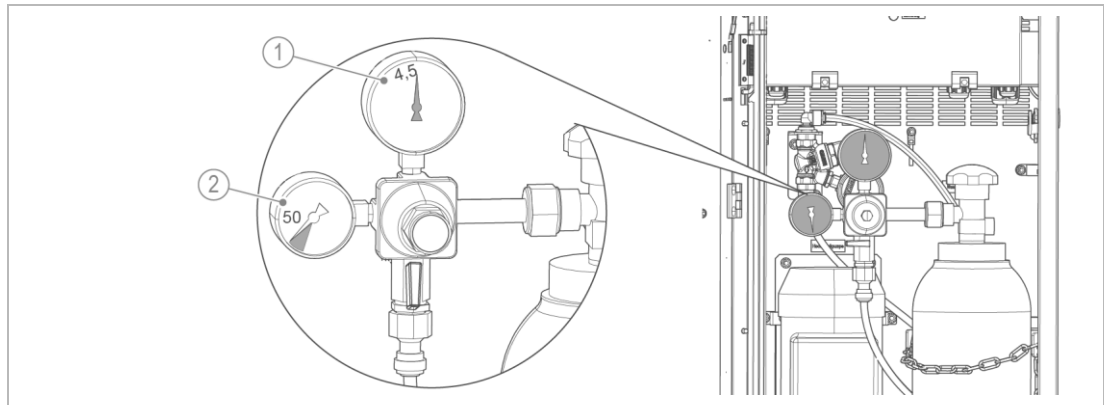
Checking the content of the cylinder

During use, the cylinder pressure is approx. 50 bar.

The cylinder pressure only decreases before the CO₂ cylinder is completely empty. The cylinder pressure does not say anything about the remaining residual amount of CO₂ in the cylinder.



An empty CO₂ can be refilled and reinserted.



Designation

1 Pressure gauge for outlet pressure

Designation

2 Pressure gauge for cylinder pressure

► Proceed as follows to check the bottle content, if required:

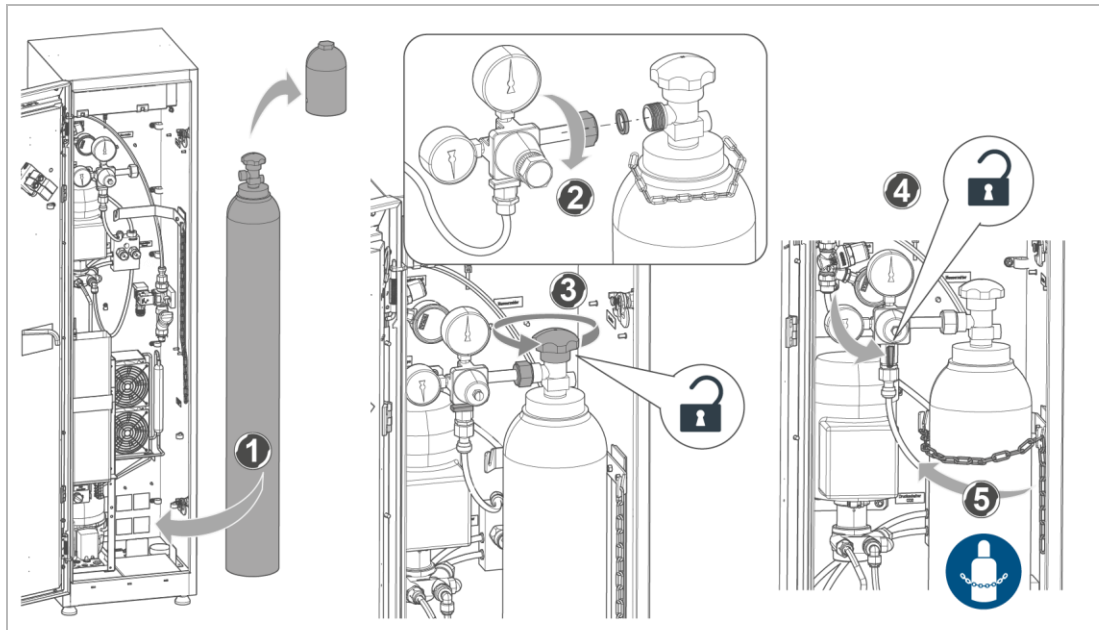
- a Weigh the total weight of the CO₂ cylinder.
- b Read the empty weight (refer to the stamp or the sign on the cylinder neck).
- c Calculate the content of the cylinder: Total weight – Empty weight = Content

Information on storing CO₂ cylinders:



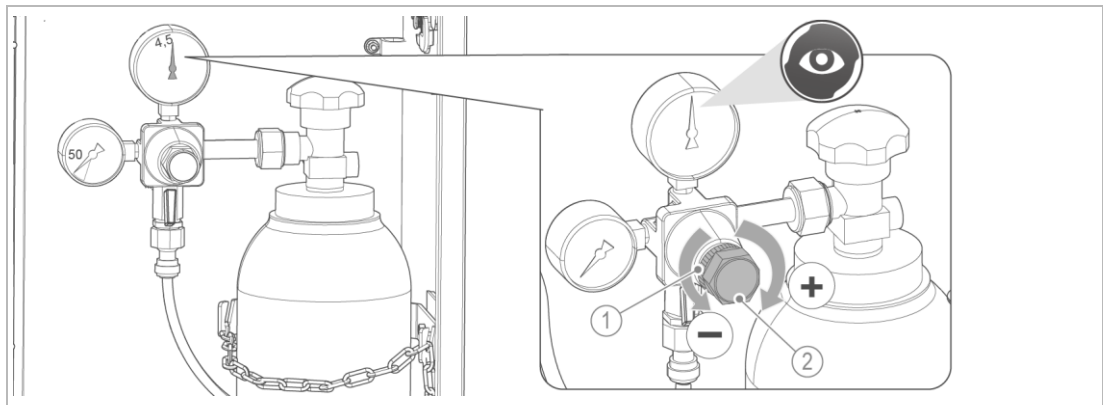
- Secure CO₂ cylinders against tipping over.
- The ambient temperature should not exceed 50 °C and the storage site should be well ventilated.
- Do not store any flammable gases or substances nearby.
- When handling CO₂ cylinders, ensure effective ventilation, especially in the floor area.

Inserting the full CO₂ cylinder



1. Place the new CO₂ cylinder at the side of the device and secure it with the safety chain of the cylinder holder.
2. Tighten the sealing ring union nut of the pressure reducer again – insert a new seal, if necessary.
3. Completely open the cylinder valve of the CO₂ cylinder and check for leaks.
4. Open the shut-off valve of the CO₂ pressure reducer.
5. Put the CO₂ cylinder into the housing and secure it at the cylinder holder using the safety chain.
6. Check the lines downstream for leaks.
7. Check the settings (CO₂ pressure, temperature).
 - » The CO₂ pressure shown should be 4.5 bar max.
 - » The pressure of the cylinder shown should be 50 bar.

Regulating the CO₂ pressure



Designation

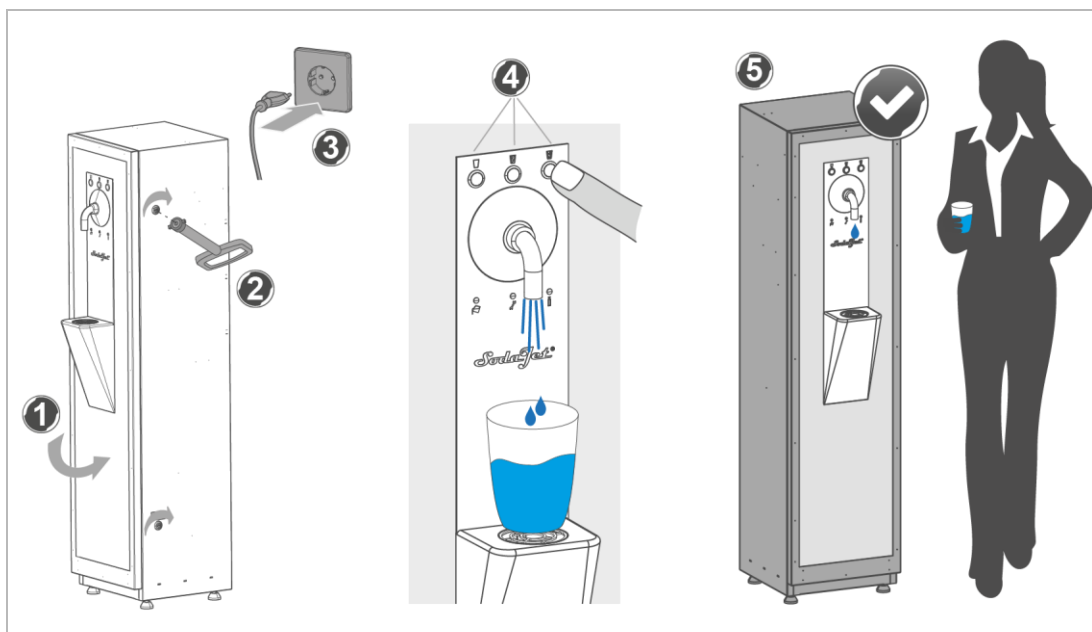
1 Lock nut

Designation

2 Pressure adjusting screw

- ▶ Proceed as follows to regulate the CO₂ pressure, if required:
 - a Loosen the lock nut.
 - b Reduce the CO₂ pressure – turn the pressure adjusting screw counter-clockwise
 - c Increase the CO₂ pressure – turn the pressure adjusting screw clockwise.
 - d Fix the setting – tighten the lock nut
- ▶ Dispense approx. 1 l of CLASSIC water (with CO₂) and check whether the CO₂ pressure has adjusted as desired.

Restart after changing the cylinder



1. Close the door.
2. Lock the door.
3. Plug in the mains plug.
4. Dispense approx. 1 l of CLASSIC water (with CO₂) and discard it.
5. Dispense MEDIUM and CLASSIC water and check a water sample for the criteria below:
 - Temperature
 - CO₂ concentration
 - Taste
 » The new CO₂ cylinder is in operation.



Recommendation:

- Keep a separate documentation for the replacement of the compressed gas cylinders.

8 Maintenance and repair

Maintenance and repair includes cleaning, inspection and servicing of the product.



The responsibility for inspection and maintenance is subject to local and national requirements. The owner/operating company is responsible for compliance with the prescribed maintenance and repair work.



By concluding a maintenance contract, you make sure that all maintenance work is carried out on time.



Document the initial start-up and all maintenance activities in the operation log (order no. 156 930).

- ▶ Only use genuine spare and wearing parts from Grünbeck.

8.1 Cleaning

Beverage systems must be thoroughly cleaned and disinfected at regular intervals (recommendation: daily) to prevent the formation of germs and scale deposits.

We recommend using the hydrogen peroxide spray (order no. 156 868) for disinfection as well as a scale remover.

For your own safety and the safety of your customers, we recommend documenting the care and hygiene work performed in a cleaning log.



Have the cleaning work only carried out by persons who have been instructed on the risks and hazards that can arise from the device.



WARNING Cleaning of live components with a damp cloth.

- Risk of electric shock.
- Sparking possible due to short circuit
- ▶ Switch off the voltage supply before starting the cleaning work.
- ▶ Do not use any high-pressure equipment for cleaning and do not blast the device with water.

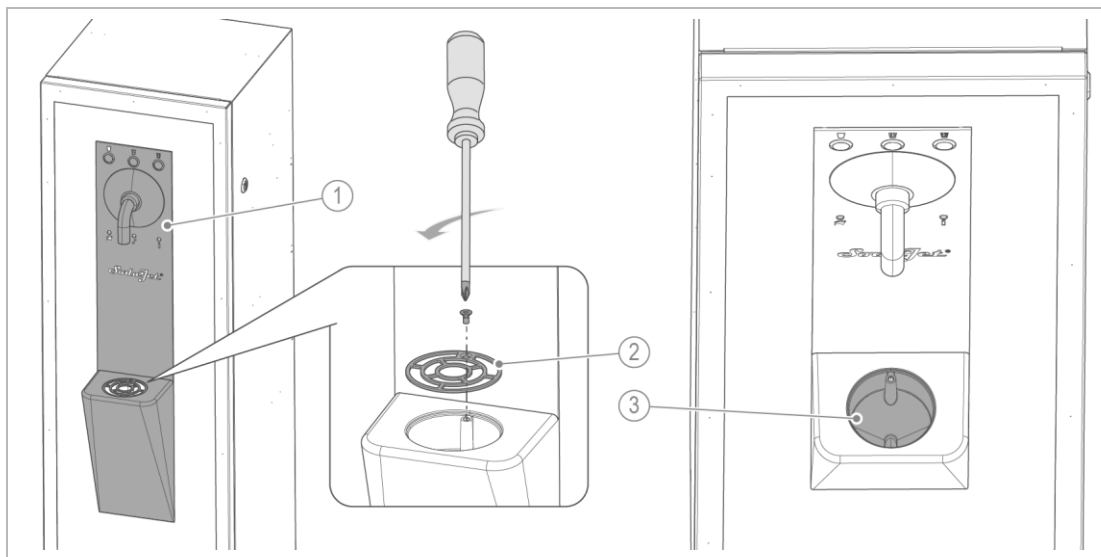
NOTE: Do not clean the device with cleaning agents containing alcohol/solvents.

- These substances damage the plastic components.
- Varnished surfaces are affected.
- ▶ Use a mild/pH-neutral soap solution.

- ▶ Use hygienic gloves while cleaning.
- ▶ Only clean the outside of device's housing.
- ▶ Do not use any strong or abrasive cleaning agents.
- ▶ Wipe the surfaces with a clean and damp cloth.
- ▶ Dry the surfaces with a soft cloth.

8.1.1 Cleaning the operating panel and the drip tray cover plate

We recommend cleaning the water dispense area (buttons, dispenser pipe) daily and descaling the drip tray cover plate once a week.



Designation

- 1 Water dispense area
- 2 Drip tray cover plate

Designation

- 3 Drip tray

1. Clean the water dispense area with a scale remover, for instance.
2. Spray the entire water dispense area with disinfectant and allow it to take effect for 30 seconds.
3. Dry the surfaces with a clean cloth.

Descaling the drip tray cover plate

1. Loosen the screw and remove the drip tray cover plate.
2. Clean the drip tray cover plate and the drip tray with scale remover.
3. Remount the drip tray cover plate.
4. Disinfect the components.

8.1.2 Disinfecting the dispenser pipe

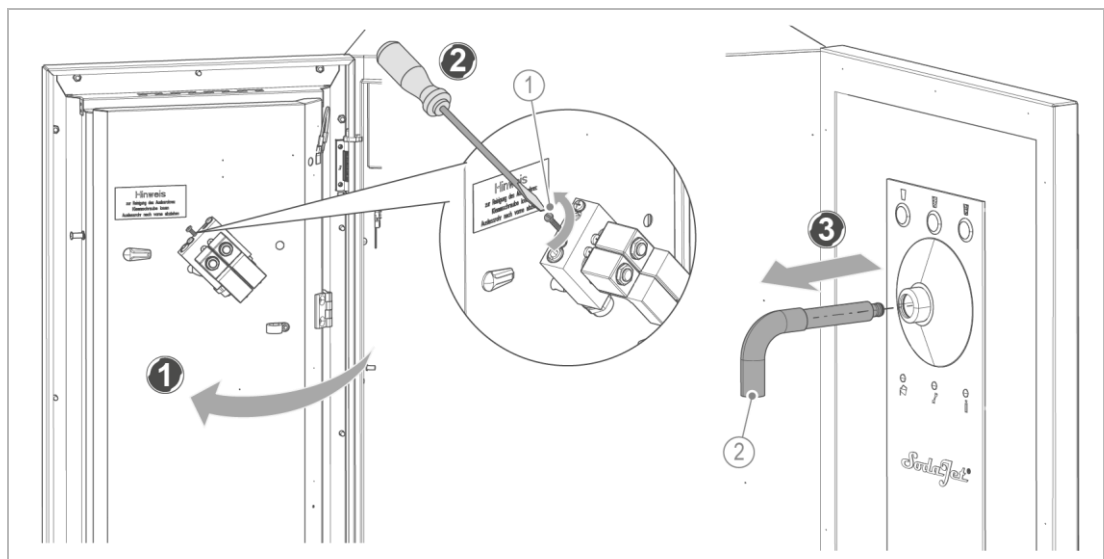
We recommend thoroughly disinfecting the dispenser pipe once a week. The intervals are subject to local conditions such as degree of use and user group.



WARNING

Risk of contaminated drinking water

- Risk of infectious diseases due to bacterial growth at the dispenser pipe.
- Contact of dispenser pipe with non-sterile material can result in renewed bacterial growth at the dispenser pipe.
- ▶ Clean and disinfect the dispenser pipe at regular intervals.
- ▶ Use hygienic gloves – do not touch the dispenser pipe with your bare hands.



Designation

1 Clamping screw

Designation

2 Dispenser pipe with insulation

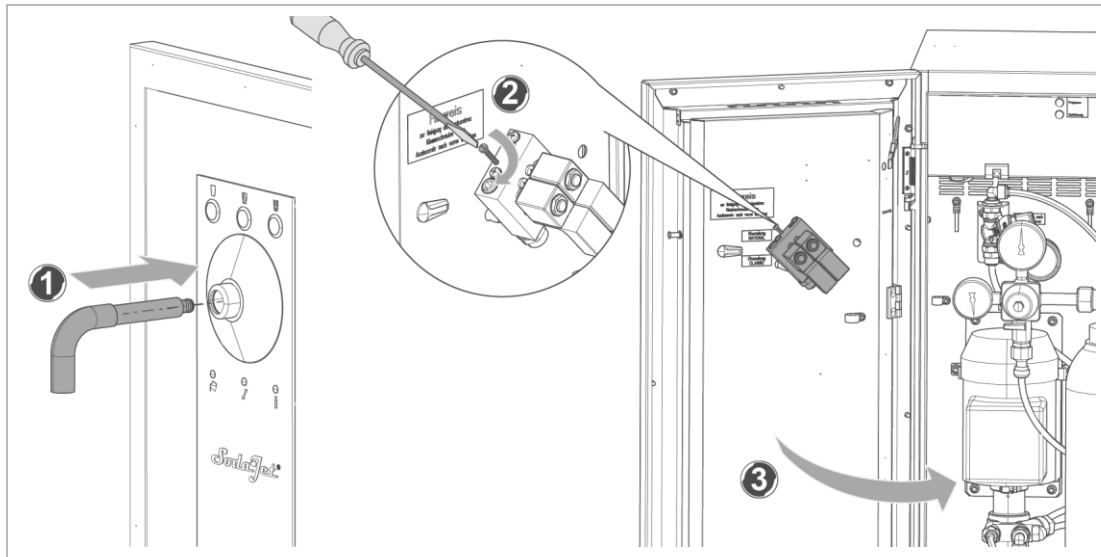
Removing the dispenser pipe

1. Open the door.
2. Loosen the clamping screw – turn it counter-clockwise.
3. Pull out the dispenser pipe towards the front.

Disinfecting the dispenser pipe

1. Completely spray the dispenser pipe with disinfectant.
2. Allow the disinfectant to react for about 10 minutes.
3. Rinse the dispenser pipe with clear water and dry it with a cloth.

Installing and checking the dispenser pipe



1. Insert the dispenser pipe straight into the opening as far as it will go.
2. Tighten the clamping screw only slightly – turn it clockwise.
3. Close the door and put the device into operation.
4. Dispense about 1 – 2 litres of water and check the dispenser pipe for leaks.

8.2 Intervals



By way of regular inspections and maintenance, malfunctions can be detected in time and device failure might be avoided.

- ▶ (As owner/operating company) Determine which components have to be inspected and maintained at which intervals (load-dependent). These intervals are subject to the actual conditions such as: water condition, degree of impurities, environmental influences, consumption, etc.

The interval table below shows the minimum intervals for the tasks to be carried out.

Activities	Interval	Task
Cleaning	daily	<ul style="list-style-type: none"> • Clean and disinfect the water dispense area
	weekly	<ul style="list-style-type: none"> • Completely clean the outside of the device • Descale the drip tray cover plate • Disinfect the dispenser pipe
Inspection	monthly	<ul style="list-style-type: none"> • Visually check for leaks and fault signals • Check and clean the dispenser pipe • Check the taste and dispense volumes of the water • Visually check the connection cable and plug, the connection hose and the housing for damage • Check the (optional) drain connection for free outlet • Check the illumination (SODA JET III Premium) for function • Visually check optional equipment such as cup dispenser and touch protection for damage
Maintenance	semi-annually	<ul style="list-style-type: none"> • Check the device for proper condition <ul style="list-style-type: none"> · Check the CO₂ path and the water path for leaks · Check the connection cable and plug for damage · Visually check the connection hose and replace it, if necessary · Check the (optional) drain connection for damage · Check that all labels are present · Clean the housing on the inside and outside • Check the cooling unit for function and clean it • Check sensors and switches for function and condition <ul style="list-style-type: none"> · Floor sensor and water stop solenoid valve · Float switch of dripping water container · Water pressure switch and pressure reducer · CO₂ pressure switch and pressure reducer • Disinfect device and dispenser pipe • Check and clean optional equipment (optional accessories: Sterile filter, water meter, flushing unit) and replace the sterile filter insert • Check dispense buttons for function and condition • Check dispense volumes (settings and program selection) • Check the CO₂ concentration • Analyse fault signals
	load-dependent	<ul style="list-style-type: none"> • Disinfect the device and the dispenser pipe
Maintenance and repair	5 years	Recommendation: Replace wearing parts

8.3 Inspection

You as owner/operating company can perform the regular inspections yourself. Initially, we recommend inspecting the device at shorter intervals and later on as required.

- ▶ Carry out an inspection at least once a month and proceed as follows when doing so:
 1. Check the dispenser pipe for impurities.
 - a Clean and disinfect the dispenser pipe as required.
 2. Check the taste of the water types STILL, MEDIUM and CLASSIC.
 3. Check the dispense volumes of STILL, MEDIUM and CLASSIC.
 - a Readjust the dispense volumes, if required.
 4. Visually check the device for leaks and fault signals.
 5. Check the connection cable, the connection hose and the housing for damage.
 6. Check the (optional) drain connection for damage and free outlet.
 7. Check the illumination (SODA JET III Premium) for function.
 8. Check the optional features such as cup dispenser and touch protection for firm seat and damage.

8.4 Maintenance

Some regular work is necessary to ensure the proper functioning of the product in the long term. DIN EN 806-5 recommends regular maintenance to ensure trouble-free and hygienic operation of the product.



Carrying out maintenance work requires specialist knowledge. This kind of maintenance work must be carried out by Grünbeck's technical service or by qualified specialists trained by Grünbeck only.

- ▶ Carry out maintenance at least every six months and proceed as follows when doing so:

8.4.1 Checking the condition of the device

1. Check the condition of the device for the points below:
 - a Visually check for leaks (water connection at the angle valve).
 - b Check that all labels are present.
 - c Check the CO₂ path and the water path for leaks (e.g. using leak detection spray).
 - d Check the connection cable and plug for damage.

- e Visually check the connection hose and replace it in case of damage.
- f Check the (optional) drain connection for damage and free outlet.
- g Clean the housing on the inside and the outside (refer to chapter 8.1).
- h Check the (optional) touch protection at the dispenser pipe for a firm seat.

8.4.2 Checking the cooling unit

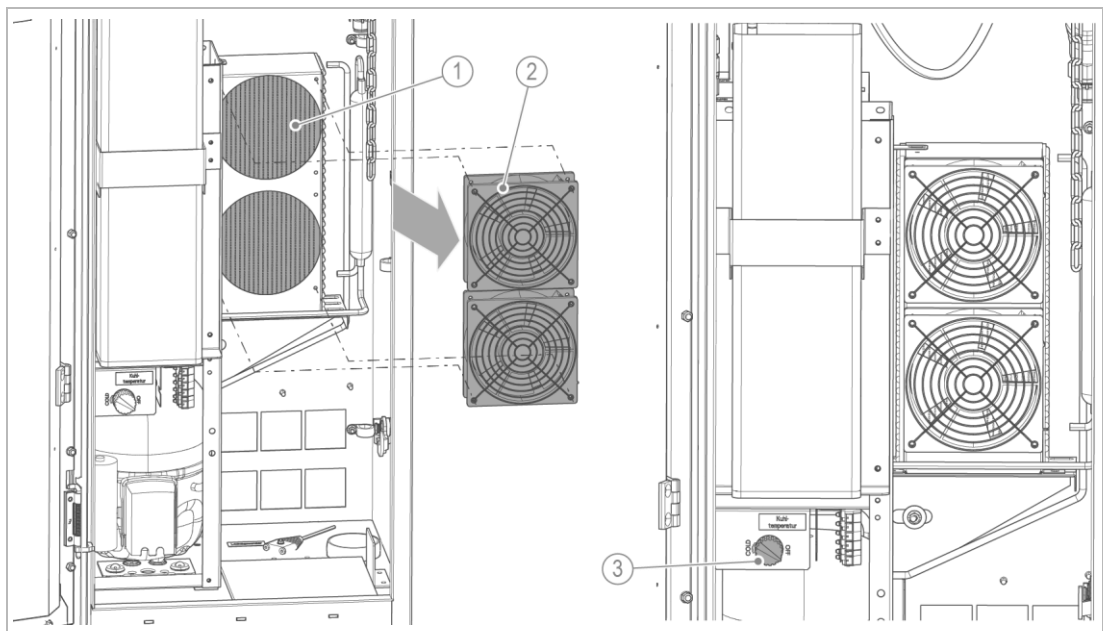


A dirty cooling unit results in higher power consumption (switch-off point is not reached any longer), poor efficiency and frequent system failures (overheating) The registers become clogged with fine dust, grease and organic material.

NOTE: Use of pointed and sharp-edged objects

- Risk of damage to the registers and fans.
- ▶ During the cleaning process, the slats must not be crushed or damaged.
- ▶ The cooling unit must only be cleaned dry – do not blast with water or steam.

- ▶ Disconnect the device from the power supply.
- ▶ Make sure that no residual voltage is present at the components.
- ▶ Wait for approx. 15 minutes until the components have cooled down.



Designation

- 1 Register of condenser
- 2 Fan

Designation

- 3 Rotary knob of thermostat

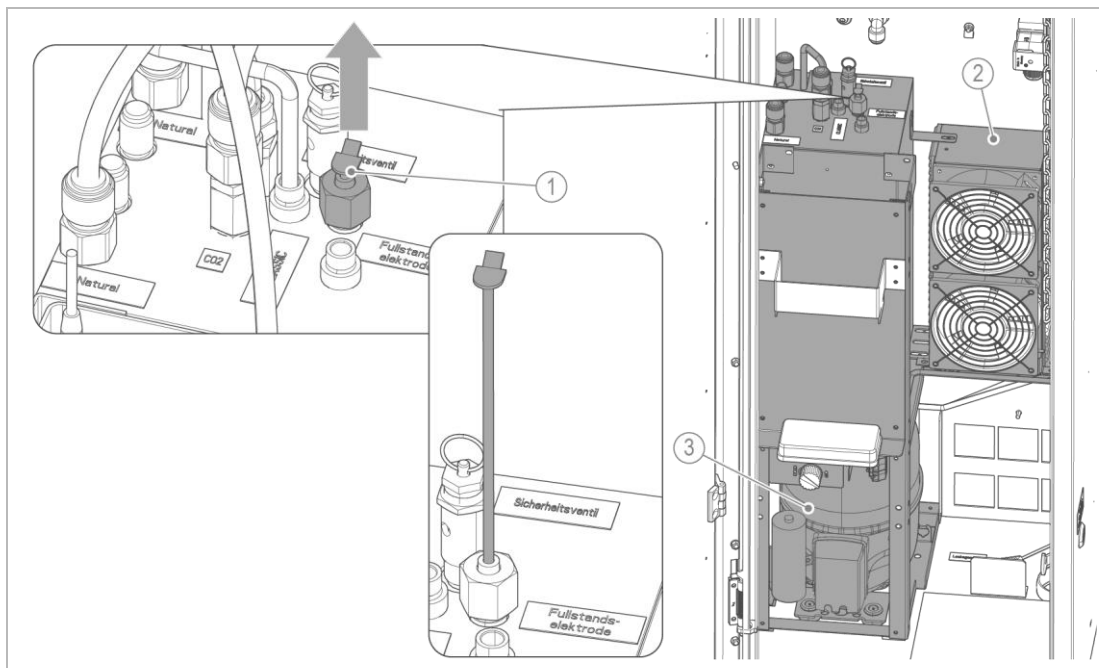
1. Loosen and remove the CO₂ cylinder.
2. Remove both of the fans.

3. Proceed as follows to clean the register of the condenser and the fans:
 - a Use a vacuum cleaner to vacuum off organic material and dust particles or blow them off with compressed air.
 - b Clean the fans with a cleaning brush, if necessary.
4. Remount the fans.
5. Establish the power supply.
6. Check the operating noises of the cooling unit.
7. Check the settings and the cooling function (refer to chapter 6.5.3).

Checking carbonator and connections



The level control system automatically controls the CO₂ water treatment in the carbonator.



Designation

- 1 Filling level electrode (carbonator)
- 2 Condenser

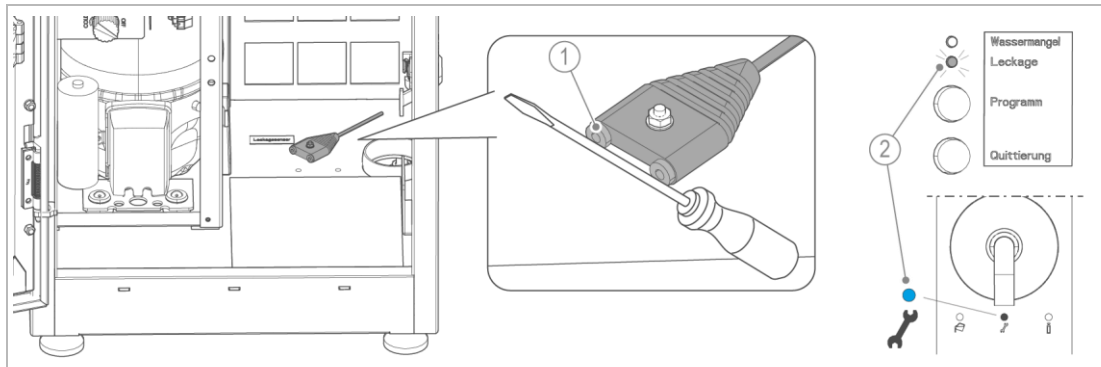
Designation

- 3 Compressor

1. Check the condition of the carbonator and of the filling level electrode of the level control system.
2. Check all connections and non-return valves for leaks (e.g. using leak detection spray).
3. Replace the cooling unit if leaks cannot be eliminated.

8.4.3 Checking sensors and switches

Checking the floor sensor



Designation

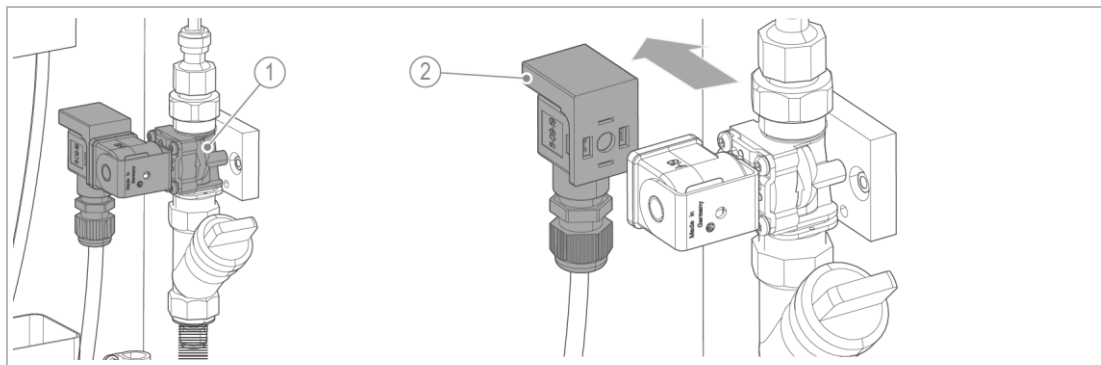
1 Contacts of floor sensor

Designation

2 Fault signal: Leak LED and Service LED

1. Check the contacts of the flow sensor for rust formation or other residue.
2. Clean the contacts, if necessary, or replace the floor sensor.
3. Short-circuit the contacts with a metal object (in standard operation).
 - » The LEDs for leaks and service are illuminated permanently.
4. Acknowledge the fault signal.
 - » The flow sensor has worked.

Checking the water stop solenoid valve



Designation

1 Water stop solenoid valve

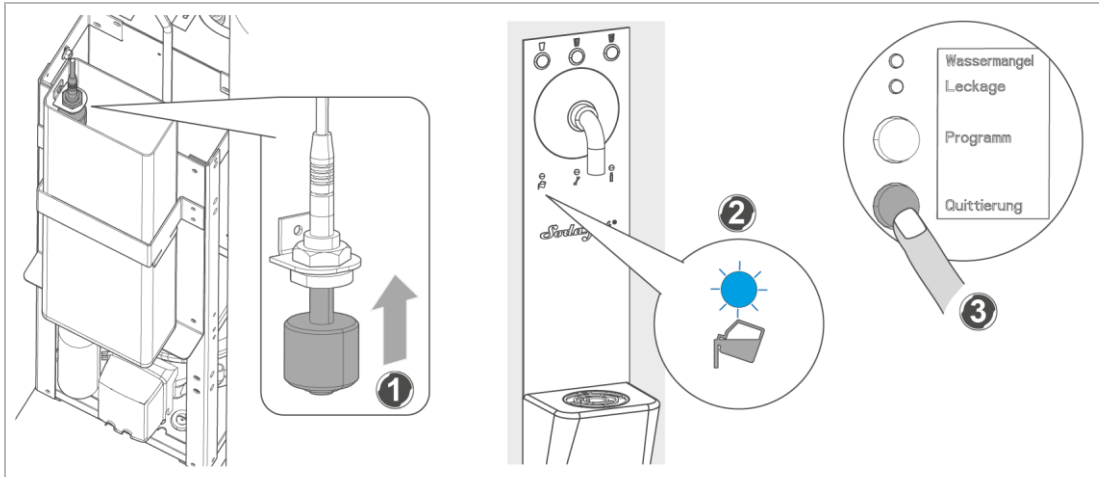
Designation

2 Plug on solenoid valve

1. Disconnect the device from the power supply – pull the mains plug.
2. Loosen and pull off the plug of the solenoid valve.
3. Plug in the mains plug again.
4. Set the **Setting** program and dispense water using the **STILL** button.
 - » Once the pressure has been released, no more water must flow.
5. Replace the water stop solenoid valve unit if water still does flow after the pressure has been released.

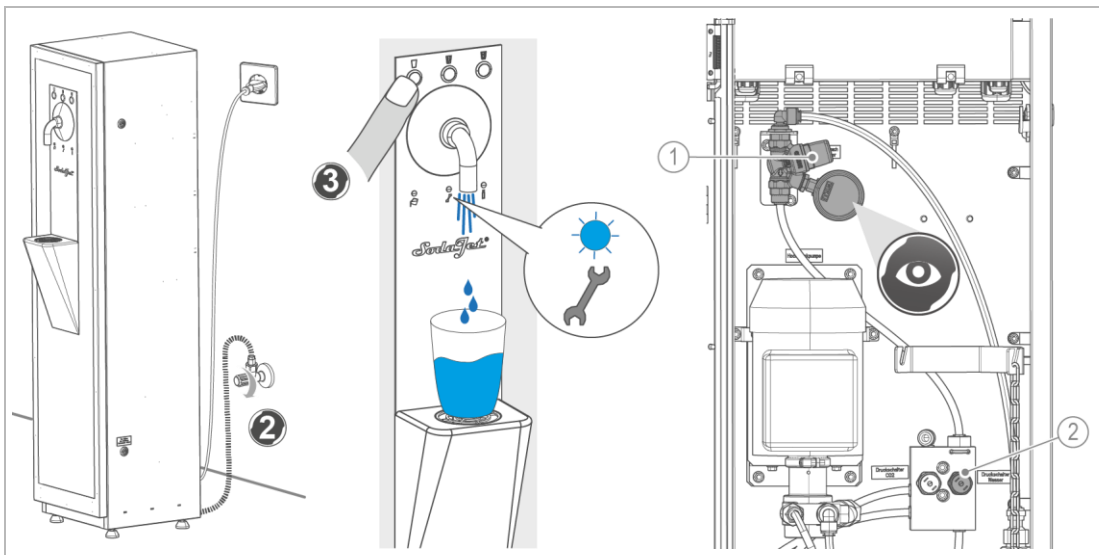
6. Disconnect the device from the power supply – pull the mains plug.
7. Remount the plug of the solenoid valve.
8. Plug in the mains plug and set the **Standard** operation program.
 - » The solenoid valve of the water stop has worked.

Checking the float switch



1. Move the float at the float switch upwards.
2. Check whether the LED **Dripping water container full** lights up.
3. Acknowledge the fault signal.

Checking the water pressure switch and the water pressure reducer



Designation

1 Water pressure reducer

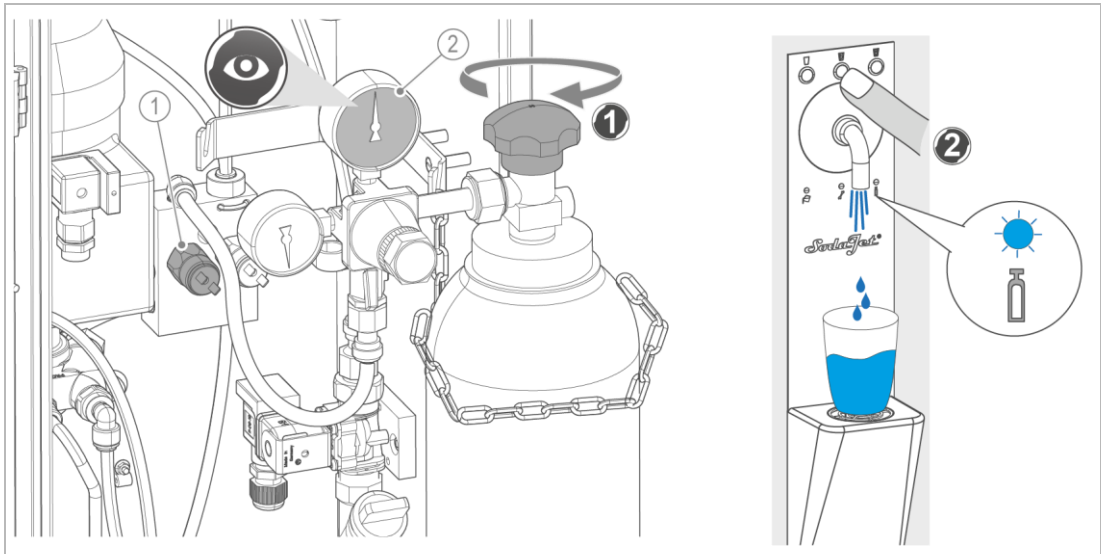
Designation

2 Water pressure switch

1. Check whether the **Standard** operation program is set.
2. Close the angle valve.
3. Tap **STILL** water until the **Service** LED lights up.

4. If the **Service** LED does not light up, readjust the water pressure switch (refer to chapter 6.5.2).

Checking the CO₂ pressure switch and the CO₂ pressure reducer



Designation

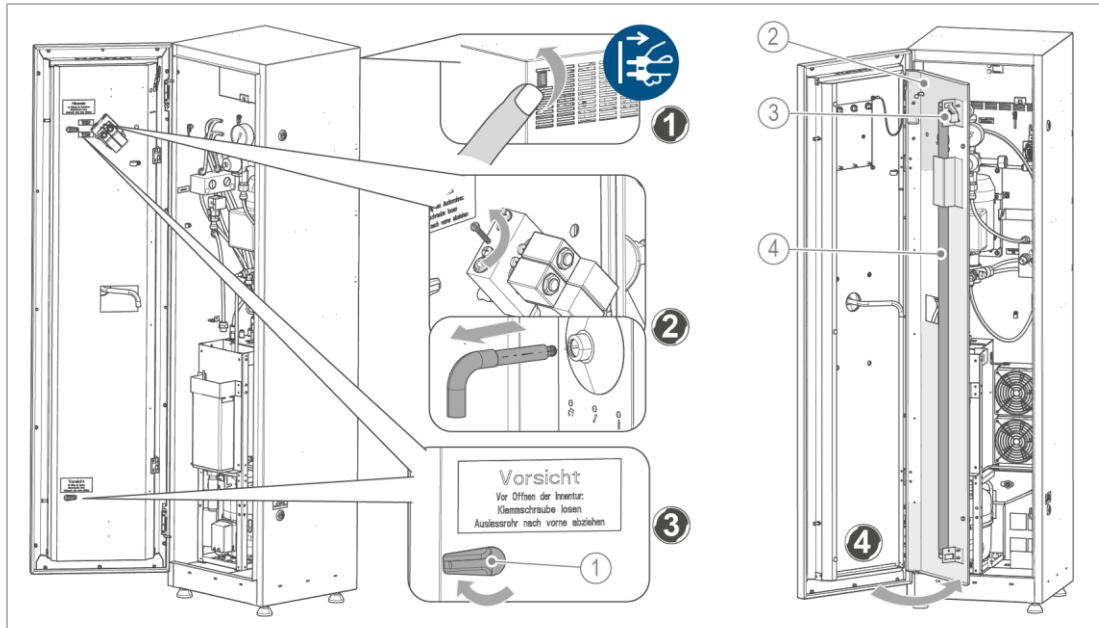
1 CO₂ pressure switch

Designation

2 CO₂ pressure reducer

1. Close the CO₂ cylinder valve.
2. Tap **MEDIUM** water until the **Lack of CO₂** LED lights up.
 - » The **Lack of CO₂** LED lights up at approx. 4 – 4.5 bar.
3. If the **Lack of CO₂** LED does not light up, readjust the CO₂ pressure switch (refer to chapter 6.5.1).

8.4.4 Replacing the illumination (SODA JET III Premium only)



Designation	Designation
1 Bolt latch	3 Starter
2 Inner door of door	4 Fluorescent tube

► Proceed as follows to replace the fluorescent tube:

1. Turn off the illumination and disconnect the device from the power supply.
2. Loosen the clamping screw on the dispenser unit and pull out the dispenser pipe.
3. Turn the bolt latch (top and bottom) by 180°.
4. Carefully open the inner door.
5. Remove the fluorescent tube and insert a new fluorescent tube of the same type.
6. Check whether the starter works.
7. Close and lock the inner door.
8. Remount the dispenser pipe.
9. Re-establish the power supply and switch on the illumination.

8.4.5 Changing the (optional) sterile filter

The filter insert must be replaced every 6 months.

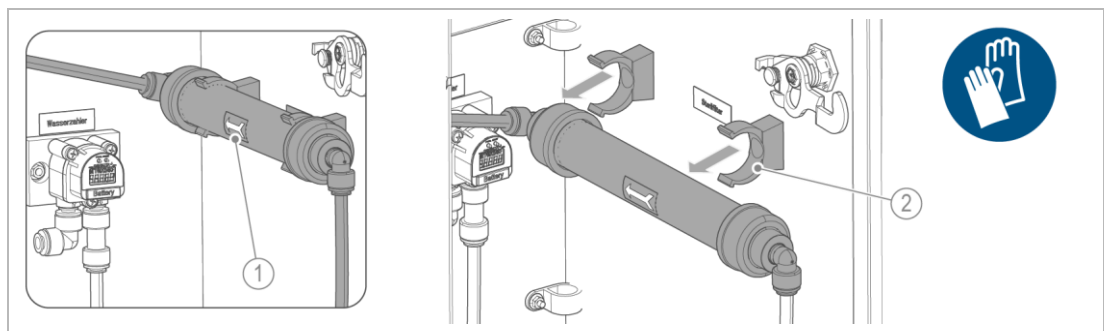
If the water flow is considerably reduced, however, earlier replacement might be required. An earlier replacement is not a defect of the filter used, but an indication of increased occurrence of fine particles and bacteria in the unfiltered water.



- ▶ Use clean, disposable gloves when replacing and installing the sterile filter.
- ▶ Most of all, do not touch the filter insert with your bare hands.
- ▶ Pay attention to cleanliness and hygiene when working with the sterile filter.

8.4.5.1 Replacing the filter insert

1. Close the angle valve of the water supply.
2. Select the *Settings* program.
3. Tap water for approx. 10 seconds using the **STILL** button.
 - » The pressure in the sterile filter is relieved.



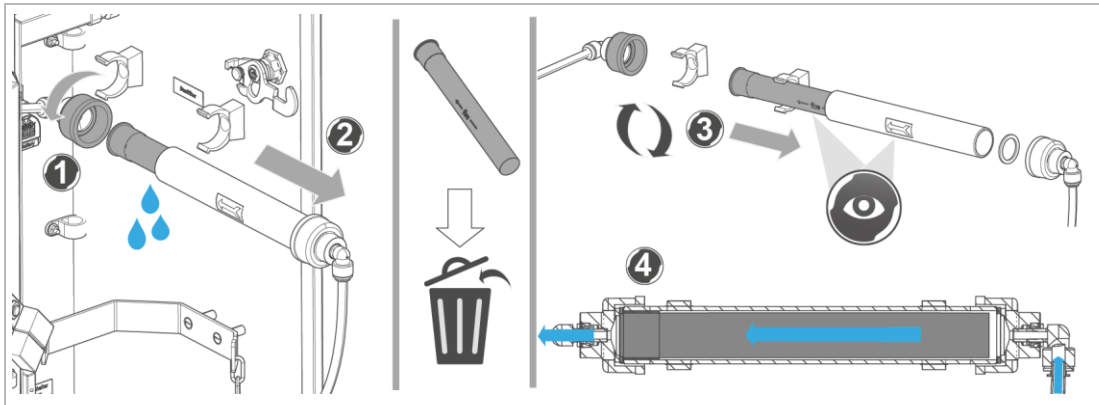
Designation

1 Sterile filter

Designation

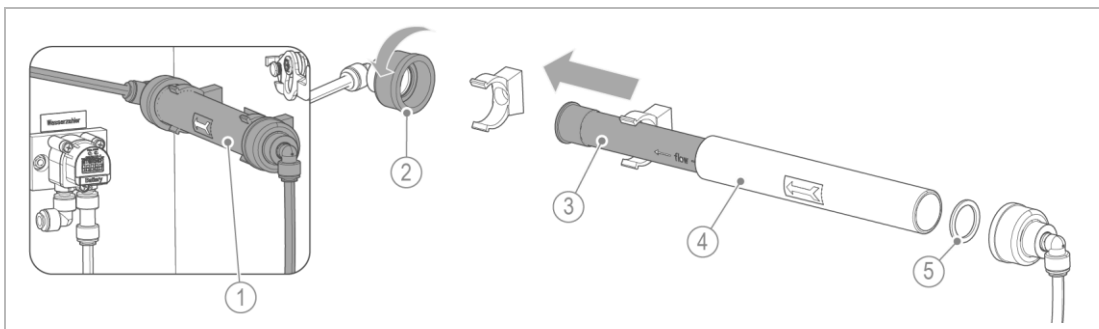
2 Clamp bracket

4. Remove the sterile filter from both of the clamp brackets.



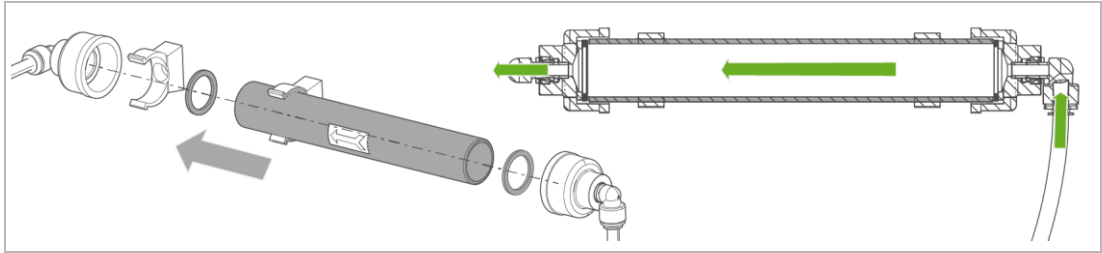
1. Loosen the union nut (on the outlet side).
2. Pull the filter insert including collar seal from the empty tube and discard them.
3. Put in a new filter insert with collar seal – mind the flow direction.
4. Tighten the union nut and insert the sterile filter into the clamp brackets.
5. Open the angle valve of the water supply.
6. Tap water for approx. 3 minutes using the **STILL** button.
 - » The sterile filter is flushed and vented.
 - » With the new filter insert, the pressure difference (statically flowing) must not exceed 0.8 bar.
7. Check the sterile filter for leaks.
8. Select the *Standard* operation program, if necessary.

8.4.5.2 Converting the sterile filter for disinfection



Designation	Designation
1 Sterile filter installed in the device	4 Empty tube
2 Union nut	5 Flat seal
3 Filter insert with collar seal	

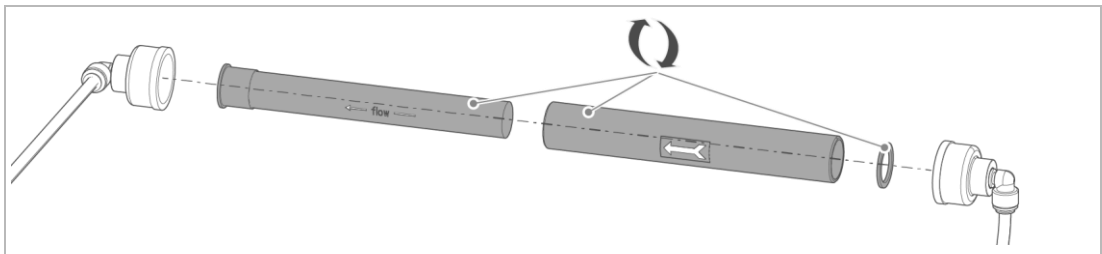
1. Loosen the union nut (on the outlet side) and remove the filter insert including collar seal.



2. On the outlet side, insert a flat seal supplied with the device.
3. Only mount the empty tube (included in maintenance kit with order no. 156 858)
 - » The sterile filter is prepared for disinfection.



We recommend replacing the filter insert, the empty tube and the flat seal after disinfection has been carried out.

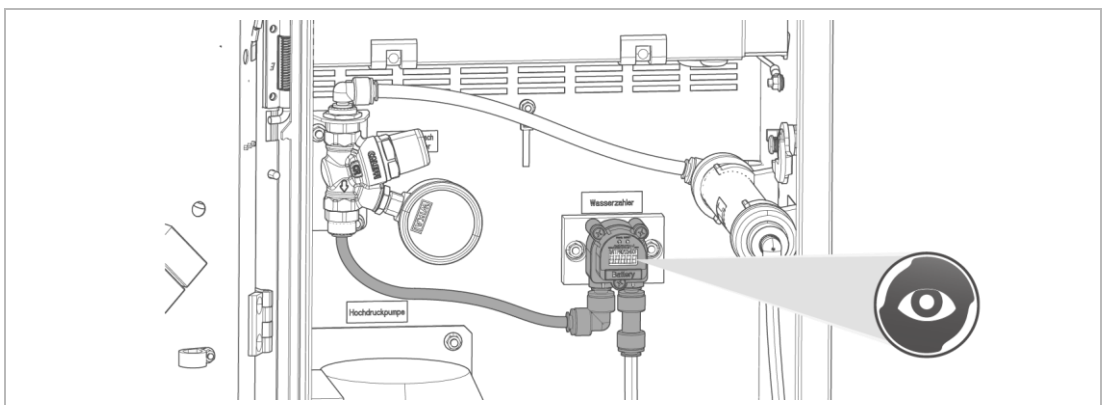


8.4.6 Checking the (optional) water meter



Obey the operation manual of the manufacturer of the FHK-LCD water meter.

The water meter saves the water meter reading even if the battery is not inserted (CR 2032) and continues measuring with the new button cell battery.

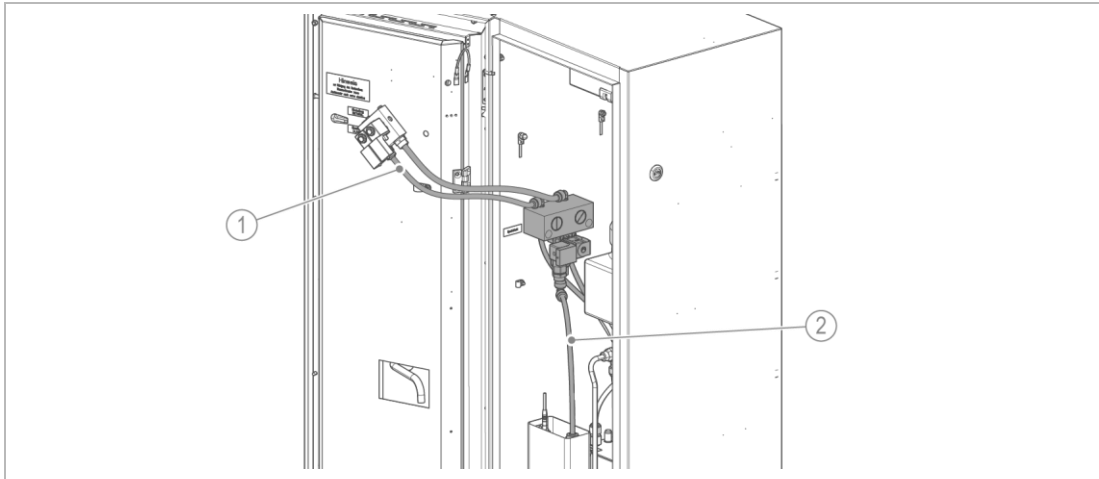


1. Read the meter reading and write it down.
2. Tap 1 litre of **MEDIUM** water into a measuring beaker.
3. Read the new meter reading and compare it with the tapped amount of water.

4. Reprogram the water meter in case of deviations.
5. Change the battery (CR 2032), if necessary.

8.4.7 Checking (optional) the flushing unit

During disinfection, the function of the flushing unit is checked: phases 2b and 4b.



Designation	Designation
1 Lines to the dispenser unit	2 Lines to the dripping water container

1. Visually check whether the solenoid valve closes properly, and no water flows to the drain.
2. Check the lines for damage.
3. After completing the work, set the `Standard operation` program, if necessary.

8.4.8 Carrying out disinfection

If necessary, disinfection must be carried out more often than every time the CO₂ cylinder is replaced. The disinfection frequency is subject to the criteria below:

- Local situation (ambient conditions)
- Stagnation times
- Water quality
- Impurities



If there are microbiological problems, the cleaning process can be carried out with 2 active agents (refer to operation manual, order no. 156 914).



Before disinfection is carried out, attention must be drawn to the maintenance work on the SODA JET.

- ▶ Place enclosed warning label (order no. 156 926) clearly visible on the device.

**WARNING** Health risk due to disinfectant

- Harmful to health when in contact with the skin
- Causes severe skin burns and severe eye damage
- ▶ Keep unauthorised persons away.
- ▶ Use personal protective equipment (protective gloves and protective goggles).
- ▶ Obey the safety instructions on the packaging of the disinfection tablets.



The result of the disinfection can be improved by flushing the device beforehand. The device is flushed during maintenance.

Recommendation:

- ▶ Carry out disinfection at the end of the maintenance work.

8.4.8.1 Prerequisite

To carry out disinfection, you need the material below:

- Maintenance kit for SODA JET (order no. 156 858)
- SODA JET disinfection tablets (order no. 156 872)



We recommend also replacing the connection hose. Thus, you improve hygiene and prevent damage.

Before the disinfection, an optional sterile filter must be removed, and an empty tube must be installed for the disinfection work (refer to chapter 8.4.5.2).

This improves the disinfection performance considerably.



























NOTE Removing the CO₂ cylinder

- The CO₂ pressure reducer can get entangled in the hoses on the inside of the device. Hoses and fittings can be damaged.
- ▶ Firmly hold on to the CO₂ pressure reducer during the replacement process.
- ▶ Make sure that the compressed gas hoses do not get entangled in other components.

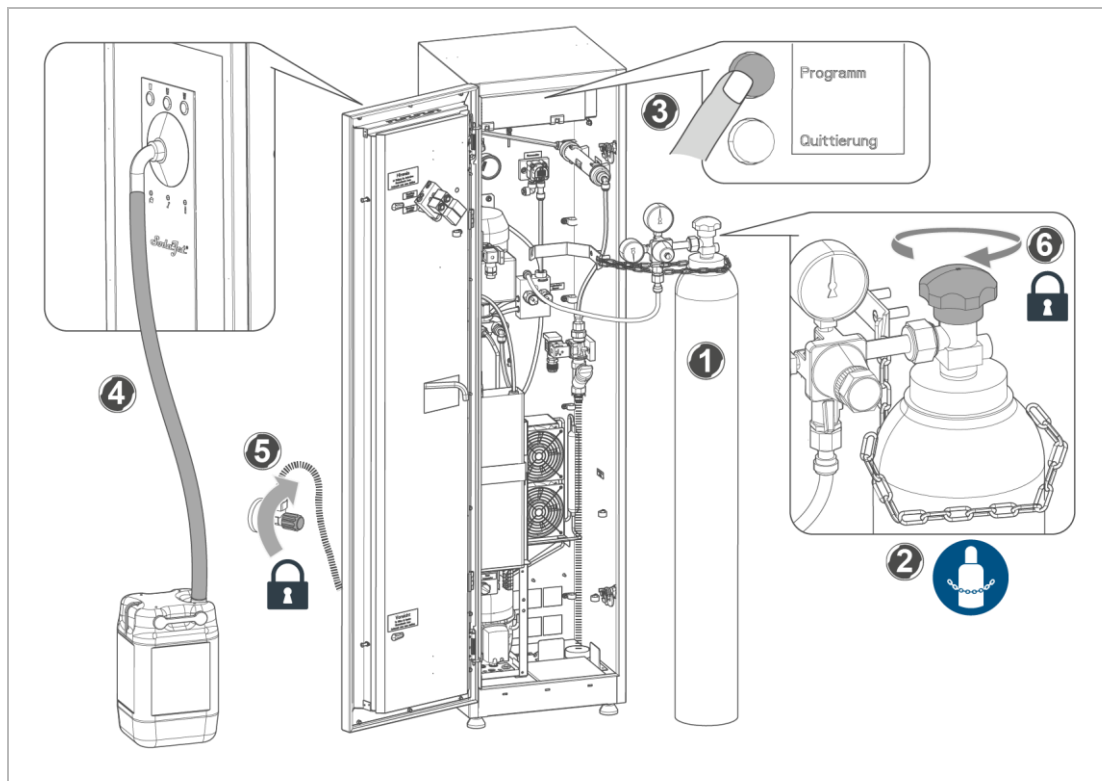
- ▶ Select the appropriate program for each respective phase during the disinfection.



To change the program, refer to chapter 7.2.

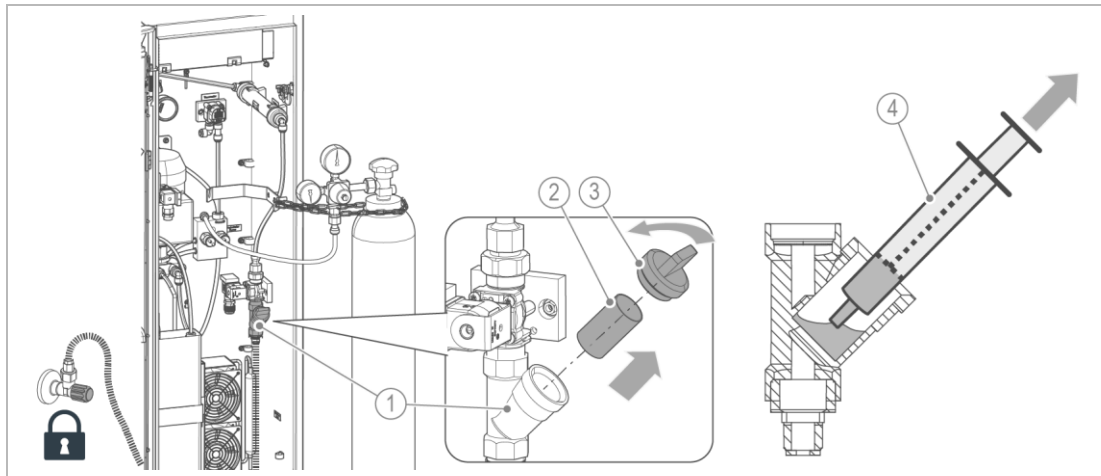
Operating mode	Buttons/LEDs			Explanation
Disinfection				The disinfection program is required for maintenance only.
				
Button combinations for the respective disinfection phases				
Phase 1				<ul style="list-style-type: none"> Releasing pressure All dispense valves open High-pressure pump is deactivated
				
Phase 2a				<ul style="list-style-type: none"> Flushing in the disinfectant All dispense valves open High-pressure pump is ON continuously Lack of water pressure is ignored
				
Phase 2b				<ul style="list-style-type: none"> Flushing in the disinfectant Flushing unit opens High-pressure pump is ON continuously Lack of water pressure is ignored
				
Phase 3				<ul style="list-style-type: none"> Allowing the disinfectant to take effect The LED stops flashing after a reaction time of 10 minutes
				
Phase 4a				<ul style="list-style-type: none"> Flushing out the disinfectant Both dispense valves open for 30 seconds High-pressure pump is ON continuously
				
Phase 4b				<ul style="list-style-type: none"> Flushing out the disinfectant Flushing unit opens for 30 seconds High-pressure pump is ON continuously
				
End				<ul style="list-style-type: none"> Every program step of the disinfection program is being terminated. Faults are acknowledged (if possible).
				

8.4.8.2 Preparations



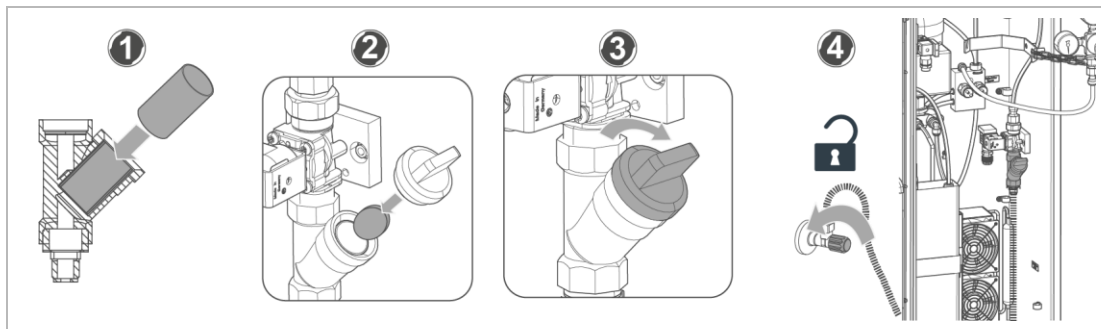
1. Remove the CO₂ cylinder from the cylinder holder in the housing.
2. Position the CO₂ cylinder on the right next to the device and secure it with the safety chain (refer to chapter 7.4.1).
 - ▶ Check whether the CO₂ cylinder contains enough CO₂ to perform the disinfection. Replace the CO₂ cylinder, if necessary.
 - ▶ In case of the (optional) sterile filter, remove the filter insert and only insert the empty tube (refer to chapter 8.4.5.2).
3. Select the *Disinfection* program.
4. Connect the dispenser pipe to a collecting container (e.g. a canister of approx. 30 l) to collect the disinfecting solution
5. Close the angle valve.
6. Close the cylinder valve of the CO₂ cylinder.

8.4.8.3 Phase 1: Adding the disinfectant



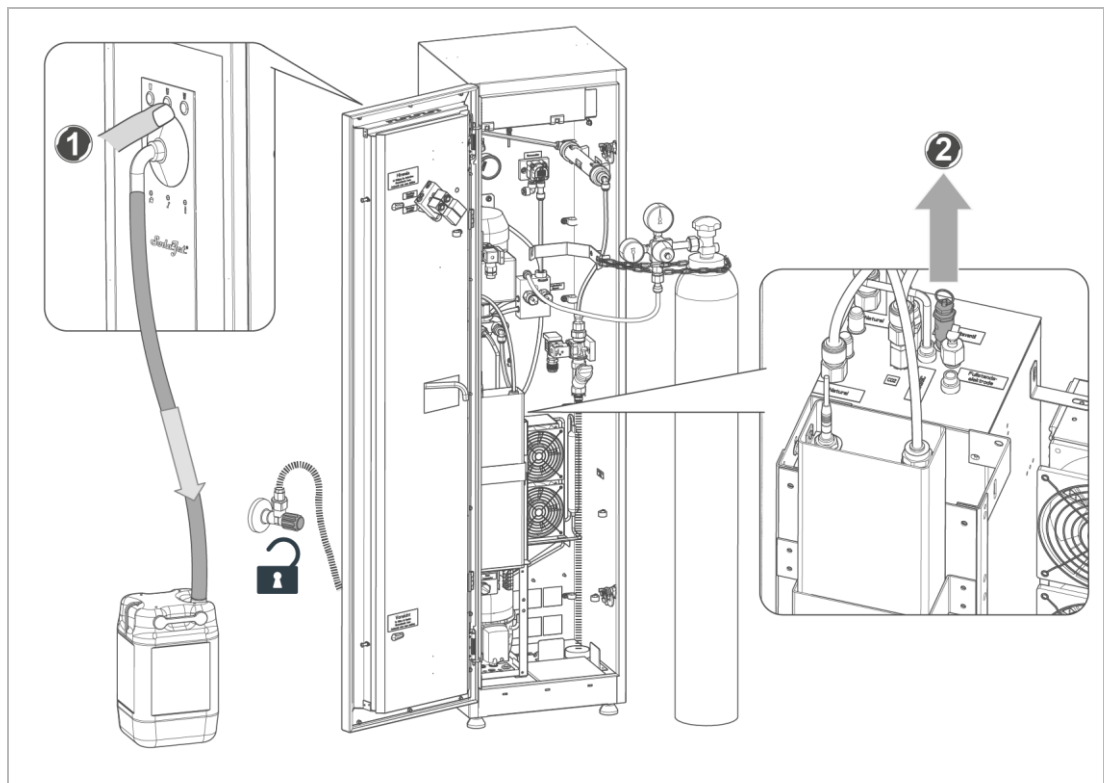
Designation	Designation
1 Disinfection tank	3 Lid
2 Sieve	4 Syringe

1. Tap **STILL** water for approx. 1 minute.
2. Remove the sterile filter – if installed – and only mount the empty tube with 2 flat seals of the new filter.
3. Open the lid of the disinfection tank – catch escaping residual water with a cloth.
4. Remove the sieve.
5. Suck the disinfection tank dry using the syringe.
6. Clean the lid and the sieve.



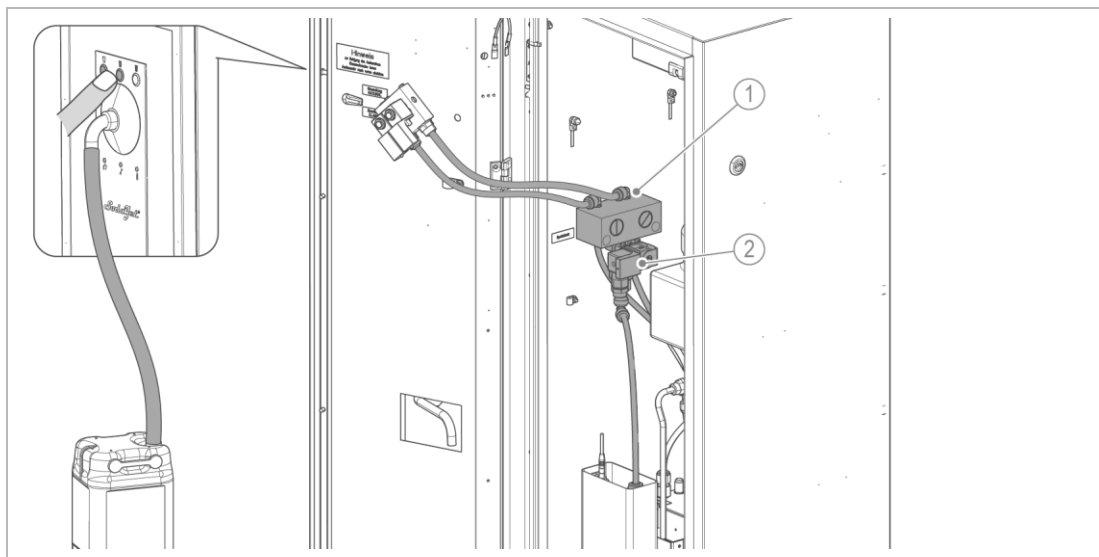
7. Reinsert the sieve.
8. Put the disinfection tablets into the sieve and close the lid – tighten hand-tight.
9. Open the angle valve of the water supply.
10. Check all components for leaks, especially the disinfection tank.

8.4.8.4 Phase 2a Flushing in the disinfectant



1. Tap **MEDIUM** water for approx. 5 seconds.
2. Pull the safety valve (located on the carbonator) upwards.
 - » The CO₂ pressure is relieved.
3. Allow the disinfection tablets to dissolve for at least 1 minute.
4. Repeat steps 1 to 3 twice until the CO₂ pressure is relieved completely.
5. Take up the escaping disinfectant while doing so.
6. Repeat this process until disinfectant flows from the dispenser pipe.
 - » Visually, a green-yellowish discolouration of the two hoses at the dispenser unit can be detected.

8.4.8.5 Phase 2b: Flushing in the disinfectant with the (optional) flushing unit



Designation

1 Flushing unit

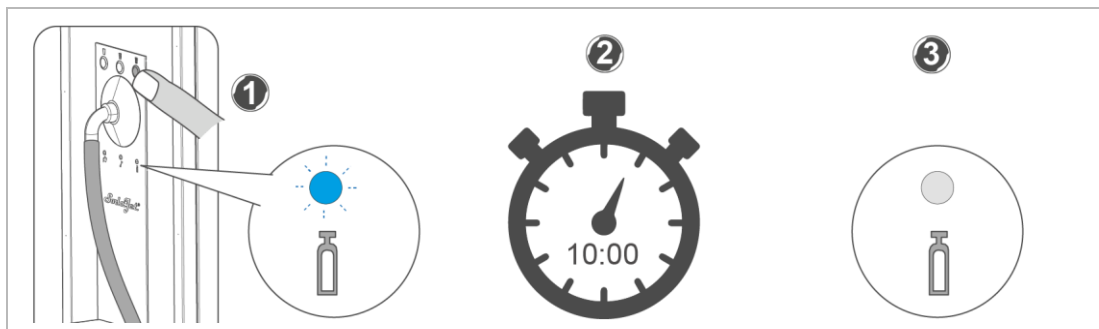
Designation

2 Solenoid valve

1. Press and hold the buttons **STILL** + **MEDIUM** for 1 second.

» The solenoid valve of the flushing unit opens briefly, and the disinfectant is flushed in.

8.4.8.6 Phase 3: Allowing the disinfectant to take effect



1. Press the **CLASSIC** button until the LED  „CO₂ cylinder empty“ starts flashing.

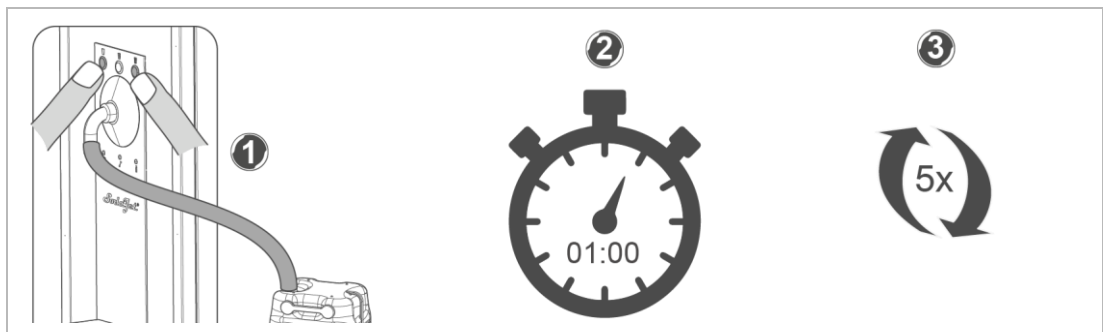
2. Wait for approx. 10 minutes – allow the disinfectant to take effect.

3. The LED turns off.



If necessary, the reaction time can be prolonged as required.

8.4.8.7 Phase 4a: Flushing out the disinfectant



1. Press and hold the buttons **STILL** + **CLASSIC** until the flushing starts.
 - » The disinfectant is flushed out automatically for 30 seconds.
2. Wait for 1 minute.
3. Repeat these processes 5x (flushing and waiting).

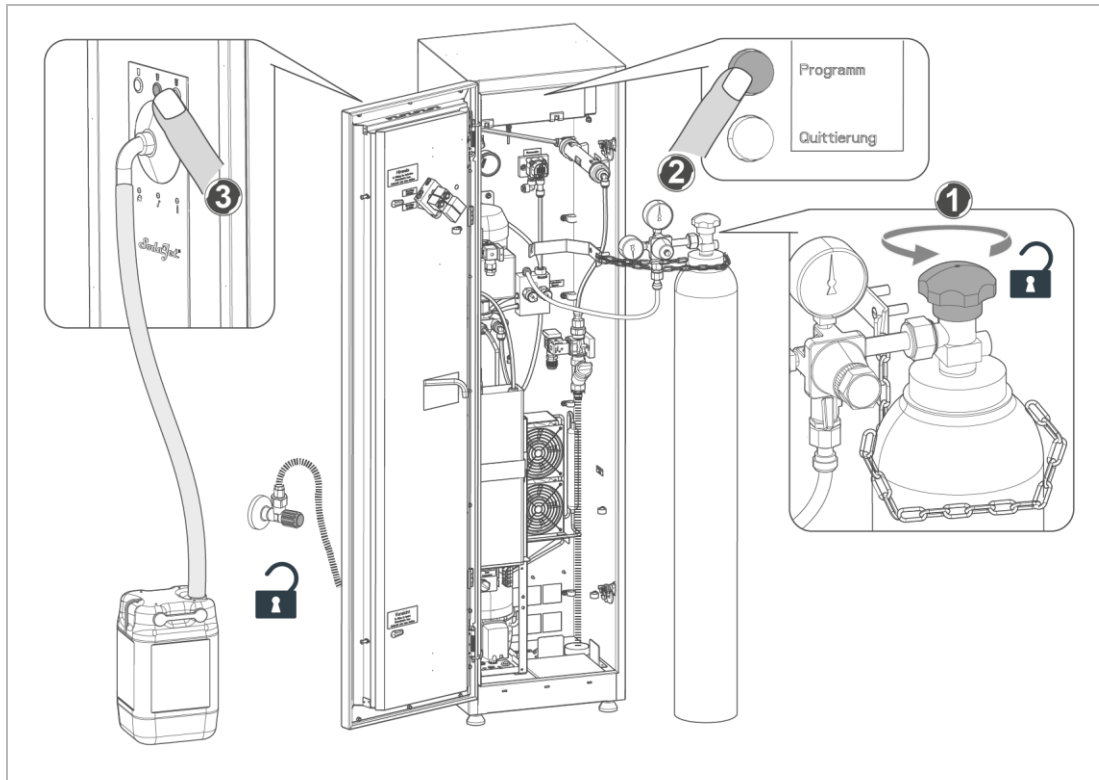
8.4.8.8 Phase 4b: Flushing out the disinfectant with the (optional) flushing unit

1. Press and hold the buttons **MEDIUM** + **CLASSIC** until the flushing starts.
 - » The flushing unit flushes out the disinfectant automatically for 30 seconds.

(Optional) Sterile filter installed:

- ▶ Additionally, carry out the tasks below:
 1. Close the angle valve of the water supply.
 2. Tap water for approx. 10 seconds using the **STILL** button.
 - » The pressure in the sterile filter is relieved.
 3. Insert a new filter insert (refer to chapter 8.4.5).
 4. Open the angle valve of the water supply.
 5. Tap water for approx. 3 minutes using the **STILL** button.
 - » The sterile filter is flushed and vented.
 6. Check the sterile filter for leaks.

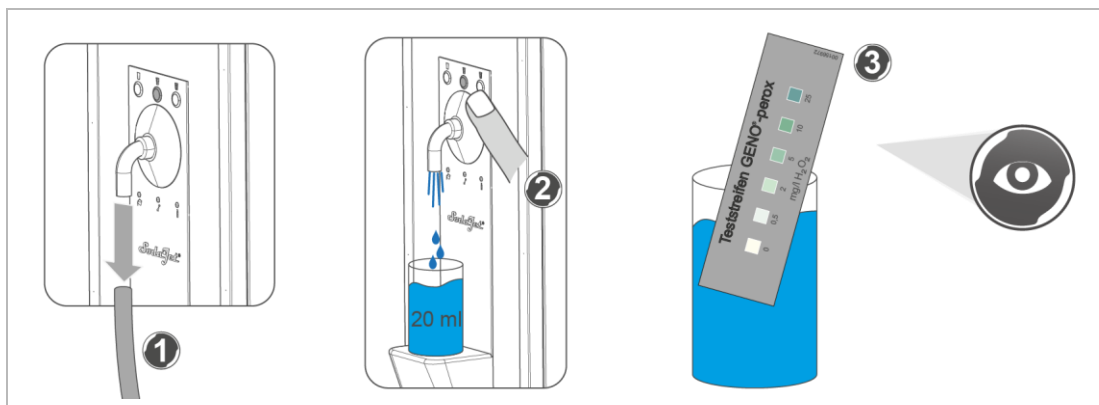
8.4.8.9 Completing the disinfection



1. Open the cylinder valve of the CO₂ cylinder.
2. Set the `Standard` operation program.
3. Tap `MEDIUM` water until the high-pressure pump briefly starts running.

Checking the flushing process

- Use the empty vial (20 ml) for the water analysis.



1. Remove the disinfection hose from the dispenser pipe.
2. Tap a water sample of about 20 ml using the `MEDIUM` button.
3. With gentle movements, immerse a test strip in the water sample for about 20 seconds.

4. Wipe the test strip and wait for about 30 seconds.
5. Check the test strip for blue colouration.
 - » If the test strip does not show any blue colouration, there is no disinfectant present any longer.
 - » Flushing out was successful and you can continue you with the final work.
6. If blue colouration is visible:
 - a Flush out several litres of water again using the **MEDIUM** button.
 - b Check with a new test strip whether the flushing out process was successful.
 - » The test strip must not show any blue colouration.

Carrying out the final work

1. Put the CO₂ cylinder into the device and secure it.
2. Check all connections (CO₂ path and water path) for leaks.
3. Check whether the correct program is set.
4. Clean and disinfect the dispenser pipe (refer to chapter 8.1.2).
5. Clean the drip tray cover plate, the drip tray as well as the housing including the operating panel (refer to chapter 8.1.1).
6. Remove the warning label and store it in the device together with the operation log.
7. Close and lock the door.
8. Professionally dispose of the canister with the collected disinfecting solution (chlorine dioxide can be neutralised with sodium sulphite).
9. Thoroughly flush the disinfection hose with water – use protective gloves protective goggles.

8.4.9 Checking the taste and the CO₂ concentration

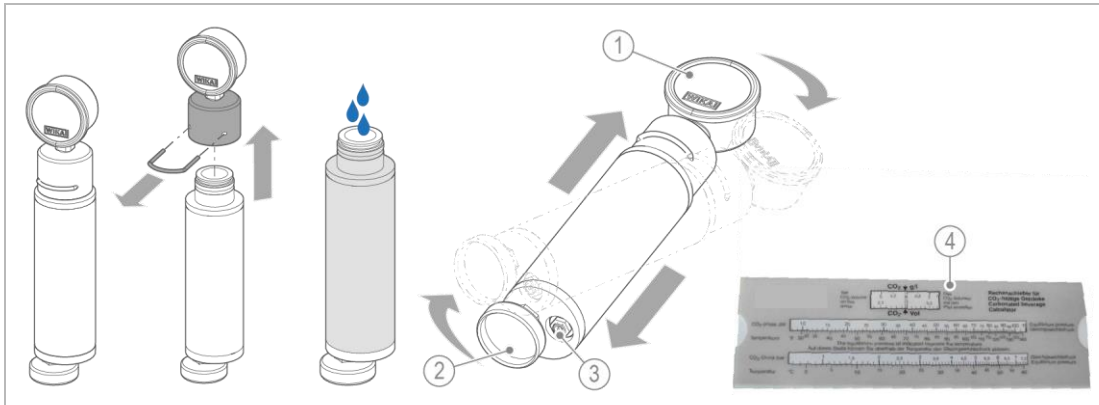
On completion of the maintenance work, a sample tasting must be carried out This is to check the parameters below:

- Temperature setting
- Dispense volumes
- CO₂ concentration

8.4.9.1 Checking the CO₂ concentration

- Use the CO₂ tester and the slide rule to determine the CO₂ concentration.

The slide rule is required to determine the equilibrium pressure as a function of the CO₂ volume and to calculate the necessary CO₂ delivery pressure.



Designation	Designation
1 Pressure gauge (pressure)	3 Relief valve
2 Thermometer (temperature)	4 Slide rule

1. Open the CO₂ tester.
2. Fill the CO₂ tester with CLASSIC water several times.
 - » The CO₂ tester is pre-cooled.
3. Fill the CO₂ tester to the brim with fresh CLASSIC water.
4. Close the CO₂ tester and slightly move it until the pressure gauge shows a pressure of 0.3 bar.
5. Briefly press the relief valve, so that a pressure of 0 bar results.
6. Vigorously shake the CO₂ tester for about 30 seconds.
 - » The released CO₂ gas emits a constant pressure.
7. Read the temperature on the pressure gauge and the temperature on the thermometer and write down the values.
8. Repeat this process (steps 1 – 7) three times and calculate the average values.
9. Take the rule slide and slide the determined CO₂ pressure (bar) over the determined temperature (°C) – align them.
10. Read the CO₂ concentration (in g/l) and evaluate it using your specifications.
 - If the CO₂ in the drinking water does not meet the requirements, adjust the CO₂ delivery pressure and the temperature setting, if necessary.

8.5 Consumables

Product	Quantity	Order no.
CO ₂ cylinder	kg 10	156 600
SODA JET disinfection tablets for 4 applications + 12 test strips		156 872
Hydrogen peroxide spray Herlisil S6, for spray disinfection of the dispenser pipe	pc 1	156 868
Sterile filter with seals (as spare part)	pc 1	156 851e
Special fluorescent tube, warm light (for SODA JET III Premium)	pc 1	156 691e

Specification of CO₂ cylinder



You can order the CO₂ cylinder from your local SODA JET III sales partner. By concluding a maintenance contract, you make sure that the cylinder is replaced at regular intervals.

10 kg long-necked steel cylinder (without riser pipe and cage, with round base)

Application	Food-safe
Gas	CO ₂
Connection	W 21.80 x 1/14 (DIN 477 no. 6)
Purity	99.7 percent by volume
Cubic content	13 litres
Ø _o	< 150 mm
Length with cap	1230 mm
Total weight	approx. 24 kg
Filling volume	10 kg

8.6 Spare parts

You can obtain the spare parts from your local Grünbeck representative.

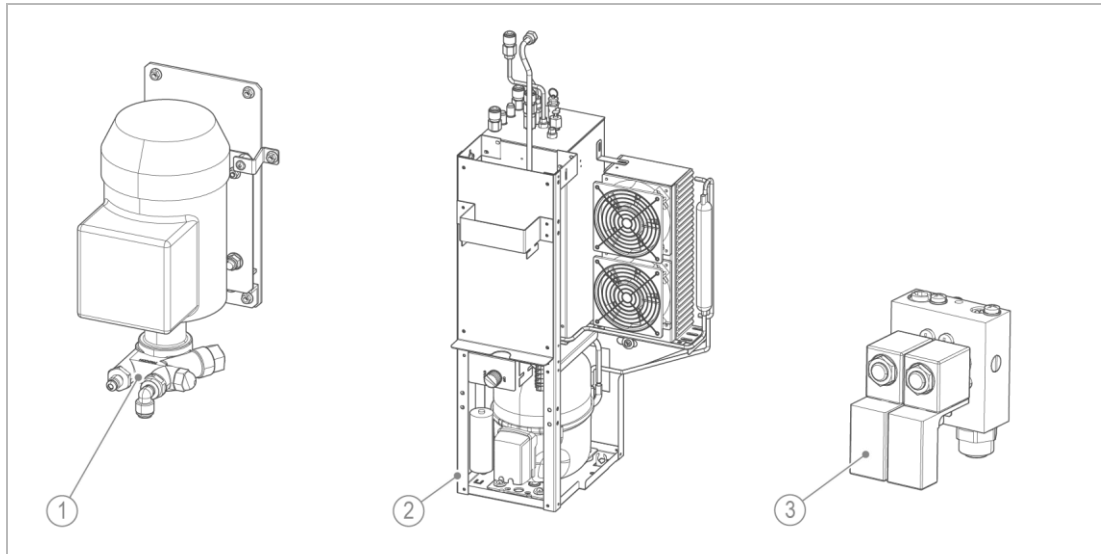
8.7 Wearing parts



Wearing parts must be replaced by qualified specialists only.

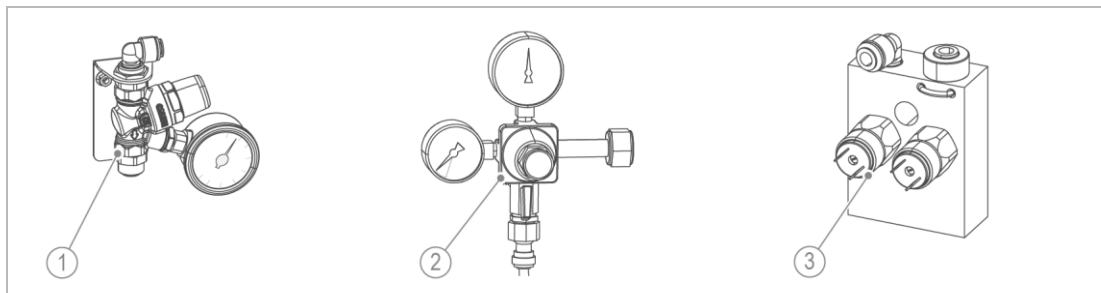
Wearing parts are listed below:

- Seals
- Non-return valves
- Solenoid valves



Designation

- 1 High-pressure pump with or without pump motor
- 2 Cooling unit: compressor, fan, non-return valves
- 3 Dispenser unit



Designation

- 1 Water pressure reducer, pressure gauge, non-return valves
- 2 CO₂ pressure reducer, pressure gauges, non-return valves
- 3 Distributor block for with pressure switch for CO₂ and water

8.7.1 Replacement interval of the high-pressure pump

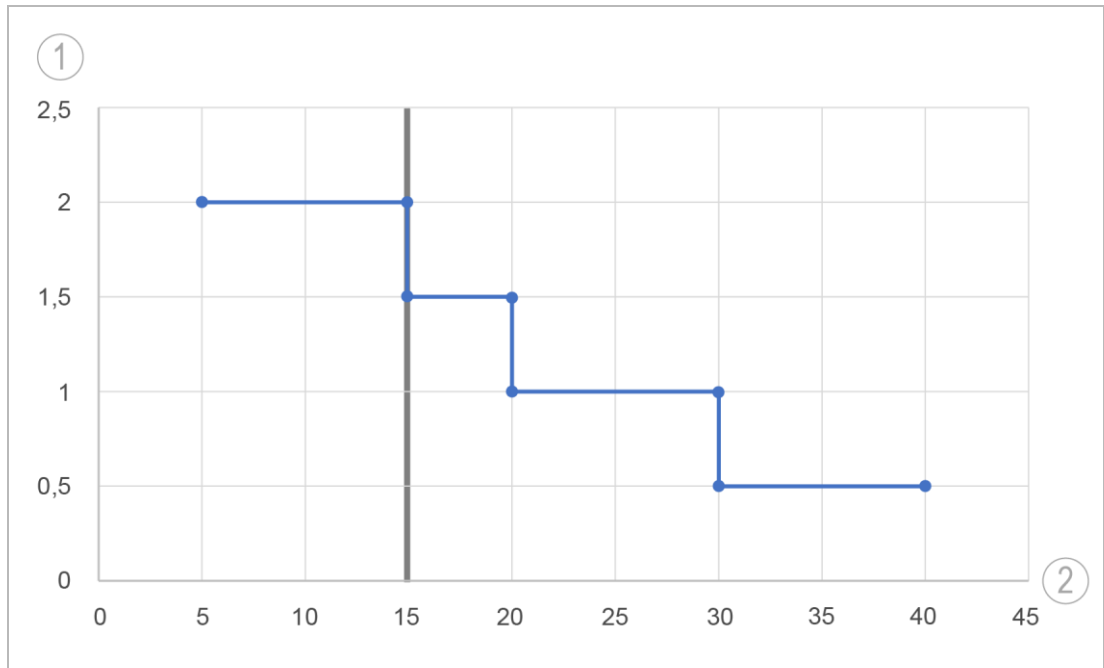
The regular replacement of the high-pressure pump ensures the reliable operation of the des drinking water dispenser.



The water quality has a major impact on the service live of the high-pressure pump. The service live of the high-pressure pump is restricted due to scale deposits, if the water hardness exceeds 15 °dH.

We recommend the softening of the water if the water hardness exceeds 15 °dH.

- The diagram informs you about the replacement interval of the high-pressure pump.

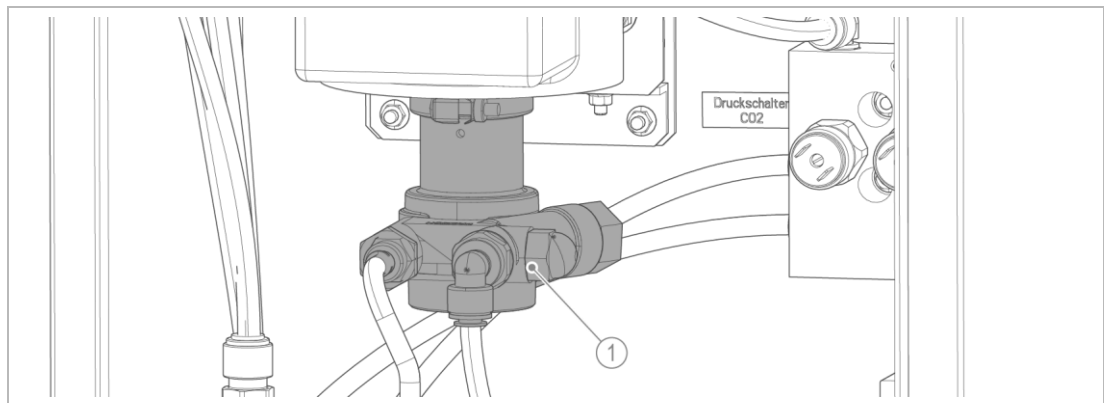


Designation

1 Replacement interval in years

Designation

2 Raw water hardness in °dH



Designation

1. High-pressure pump

- Have a worn high-pressure pump replaced by Grünbeck's technical service.
- If required, adjust the settings of the high-pressure pump (see chapter 6.5.5).

9 Malfunctions






WARNING

Risk of contaminated drinking water due to stagnation

- Risk of infectious diseases
- ▶ Have malfunctions remedied immediately.

9.1 Signals

1. Eliminate the fault.
2. Acknowledge the fault.
3. Monitor the signals.

Status signal	Explanation	Remedy
 lights up	Dripping water container is full. No water withdrawal possible any longer.	<ul style="list-style-type: none"> ▶ Remove and empty the dripping water container (refer to chapter 7.3). ▶ Acknowledge fault.
 lights up	CO ₂ cylinder is empty. The tastes CLASSIC and MEDIUM no longer contain any carbon dioxide. Incorrect setting of CO ₂ pressure switch.	<ul style="list-style-type: none"> ▶ Replace the CO₂ cylinder (refer to chapter 7.4.1). ▶ Check the setting of the CO₂ pressure switch and correct the switching point, if necessary (refer to chapter 6.5.1).
 lights up	<p>Leak If the fault signal is illuminated for more than 30 seconds.</p> <hr/> <p>Lack of water If, in standard operation, the fault signal is automatically acknowledged after 30 seconds.</p> <hr/> <p>Primary pressure of the water is too low, fluctuating or interrupted.</p> <hr/> <p>(Optional) Sterile filter produces too great a loss in pressure.</p> <hr/> <p>Sieve in the disinfection tank is dirty.</p> <hr/> <p>Connection hose is kinked or line is clogged.</p> <hr/> <p>Dispense volumes are set too high.</p>	<ul style="list-style-type: none"> ▶ Check and eliminate the cause of the leak (refer to chapter 9.2). ▶ Check the flow pressure and re-establish the required primary pressure of the water. ▶ Filter insert dirty: Replace the filter insert ▶ Air from the feed line "is clogging" the sterile filter: Eliminate the air intake. ▶ Vent the sterile filter. ▶ Clean the sieve or replace it. ▶ Check the lines. ▶ Eliminate clogging. ▶ Set the dispenser unit correctly (refer to chapter 6.5.4).


9.2 Troubleshooting

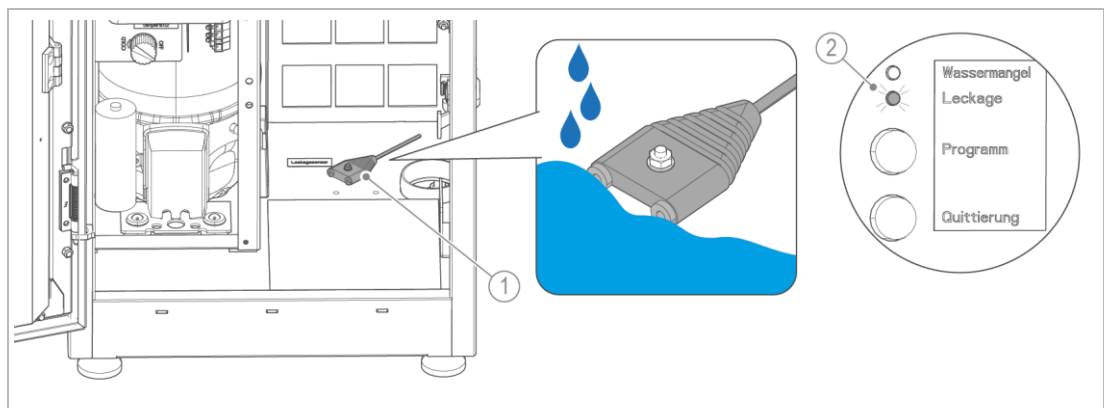
9.2.1 Leak detected.



To prevent possible water damage and resulting consequential damage, a floor sensor is integrated on the bottom of the device.

The following is triggered when moisture is detected on the bottom of the device:

- The water stop solenoid valve is activated.
- The  **Service** LED lights up
- The **Leak** LED lights up
- » No water withdrawal possible.



Designation

1 Floor sensor for leaks

Designation

2 LED indicating a leak

1. Locate the water leak.
2. Eliminate the cause.
3. Dry the bottom of the device as well as the floor sensor.
4. Acknowledge the fault signal.

In case the leak cannot be eliminated:

1. Close the angle valve of the water supply.
2. Disconnect the device from the power supply – pull the mains plug.
3. Mark the device with **Out of order**.
4. Contact the technical service.

9.3 Other observations

Observation	Explanation	Remedy
When dispensing water, distinct outgassing noises can be heard (spraying, spluttering)	High-pressure pump does not provide enough power.	<ul style="list-style-type: none"> ▶ Set the high-pressure pump with the bypass (refer to chapter 6.5.5). ▶ Have the high-pressure pump replaced by the technical service (recommended).
	Dispense volumes set too high.	<ul style="list-style-type: none"> ▶ Correct the dispense volumes (refer to chapter 6.5.4).
Very little CO ₂ in the water	CO ₂ cylinder empty (appropriate LED must be illuminated).	<ul style="list-style-type: none"> ▶ Replace the CO₂ cylinder. If the LED is not illuminated: <ul style="list-style-type: none"> ▶ Check the CO₂ pressure switch.
	Dispense volume of CLASSIC too high.	<ul style="list-style-type: none"> ▶ Check dispense volumes.
	Water temperature too high.	<ul style="list-style-type: none"> ▶ Switch on cooling. ▶ Check the setting of the cooling unit.
	Cooling unit does not reach the set temperature or takes too long to reach it.	<ul style="list-style-type: none"> ▶ Withdrawal volumes too high: Leave the device for a few minutes without dispensing water. ▶ Cooling unit defective: replace cooling unit. ▶ Ambient temperature too high: check the installation site. ▶ Clean the condenser. ▶ Check the fan.
Dispenser is leaking	Defective or dirty dispenser unit (solenoid valves).	<ul style="list-style-type: none"> ▶ Check, clean or replace the dispenser unit. ▶ Turn off the water supply, pull the mains plug. ▶ Notify the technical service.
	Damaged O-ring at the dispenser pipe.	<ul style="list-style-type: none"> ▶ Replace O-ring.
	Sealing surface for O-ring in plexiglass block damaged.	<ul style="list-style-type: none"> ▶ Replace dispenser unit. ▶ Visually check the dispenser pipe.
	Dispenser unit has cracks.	<ul style="list-style-type: none"> ▶ Replace dispenser unit. ▶ Slightly tighten the screw. ▶ Tighten the male connector using a torque wrench (refer to the information on the packaging).



If a malfunction cannot be rectified, Grünbeck's technical service can take further measures.

- ▶ Notify the technical service (refer to inner cover sheet for contact data).

10 Decommissioning

10.1 Temporary standstill

Carbonators must be used at regular intervals. Stagnating water can cause germs, especially in unrefrigerated areas, and retroactively worsen the hygiene standard of the device.

10.1.1 Short operational breaks (through the night)

1. Keep the device connected to the water and power supply.
2. Switch off the illumination on SODA JET III PREMIUM, if no time control is installed.

10.1.2 Operating breaks of up to two days

1. Close the angle valve of the water supply.
2. Disconnect the device from the power supply – pull the mains plug.

10.1.3 Operational breaks of more than two days (weekend, holiday season)

1. Flush the device with at least 3 litres of water after restart.
2. Clean and disinfect the dispenser pipe.
3. Tap **STILL**, **MEDUM** and **CLASSIC** water respectively and evaluate the water with regard to taste, temperature and CO₂ concentration.

10.1.4 Operational breaks of more than two weeks (holidays, company holidays)

1. Have the device sanitised by a qualified specialist – performing flushing and/or disinfection.
 - ▶ Have the device decommissioned in case a longer standstill is planned.

10.2 Restart

► Carry out the tasks below:

1. Open the angle valve of the water supply.
2. Establish the power supply – plug in the mains plug.
3. Open the cylinder valve of the CO₂ cylinder and the shut-off valve of the CO₂ pressure reducer.
4. Carry out start-up/commissioning (refer to chapter 6).
 - a Disinfect the device (refer to chapter 8.4.8).
 - b Check the settings (refer to chapter 6.5).
5. Document the restart/recommissioning in the operation log.

10.3 Final shutdown



The tasks below must be carried out by qualified specialists only.

► Carry out the tasks below:

1. Select the `Disinfection` program.
1. Close the angle valve of the water supply.
2. Make sure that the water can flow into a container or to the drain.
3. Press and hold the `STILL` button until CO₂ escapes.
 - » The CO₂ pressure empties the carbonator.
4. Close the shut-off valve and the cylinder valve of the CO₂ supply as soon as CO₂ is dispensed.
5. Tap again briefly.
 - » The pressure is relieved.



A residual amount of CO₂ remaining in the system is beneficial to the hygiene of the device.

6. Briefly pull the safety valve on the carbonator if the system is to be depressurised completely.
7. Briefly pull the safety valve on the CO₂ pressure reducer.
 - » The pressure reducer is relieved.
8. Disconnect the device from the power supply – pull the mains plug.
 - » The device is out of operation.

11 Dismantling and disposal

11.1 Dismantling



- ▶ Have this work done by qualified specialists only.
- 1. Carry out decommissioning (refer to chapter 10).
- 2. Disconnect the device from the water installation – remove the connection hose and the drain connection
- 3. Loosen and remove the CO₂ cylinder.
- 4. Check whether the coolant system must be drained before transport.
- 5. Transport the device secured on a pallet (refer to chapter 4).

11.2 Disposal

- ▶ Obey the applicable national regulations.

Packaging

- ▶ Dispose of the packaging in an environmentally sound manner.

HINWEIS

Gefahr für die Umwelt durch falsche Entsorgung

- Packaging materials are valuable raw materials and can be reused in many cases.
- Incorrect disposal can cause environmental pollution.
- ▶ Dispose of packaging material in an environmentally sound manner.
- ▶ Comply with locally applicable disposal regulations.
- ▶ If necessary, commission a specialist company with the disposal.

Coolant

- The coolant R290 has flammability class A3 and must be disposed of by qualified specialists for coolants only.
- ▶ Dispose of coolant R290 according to the national directives.

Fluorescent tube

- Fluorescent tubes are considered hazardous waste.
- ▶ Take fluorescent tubes to local collection points.

Disinfecting solution

- ▶ Neutralise the disinfecting solution (chlorine dioxide can be neutralised with sodium sulphite) and properly dispose of it.



Product

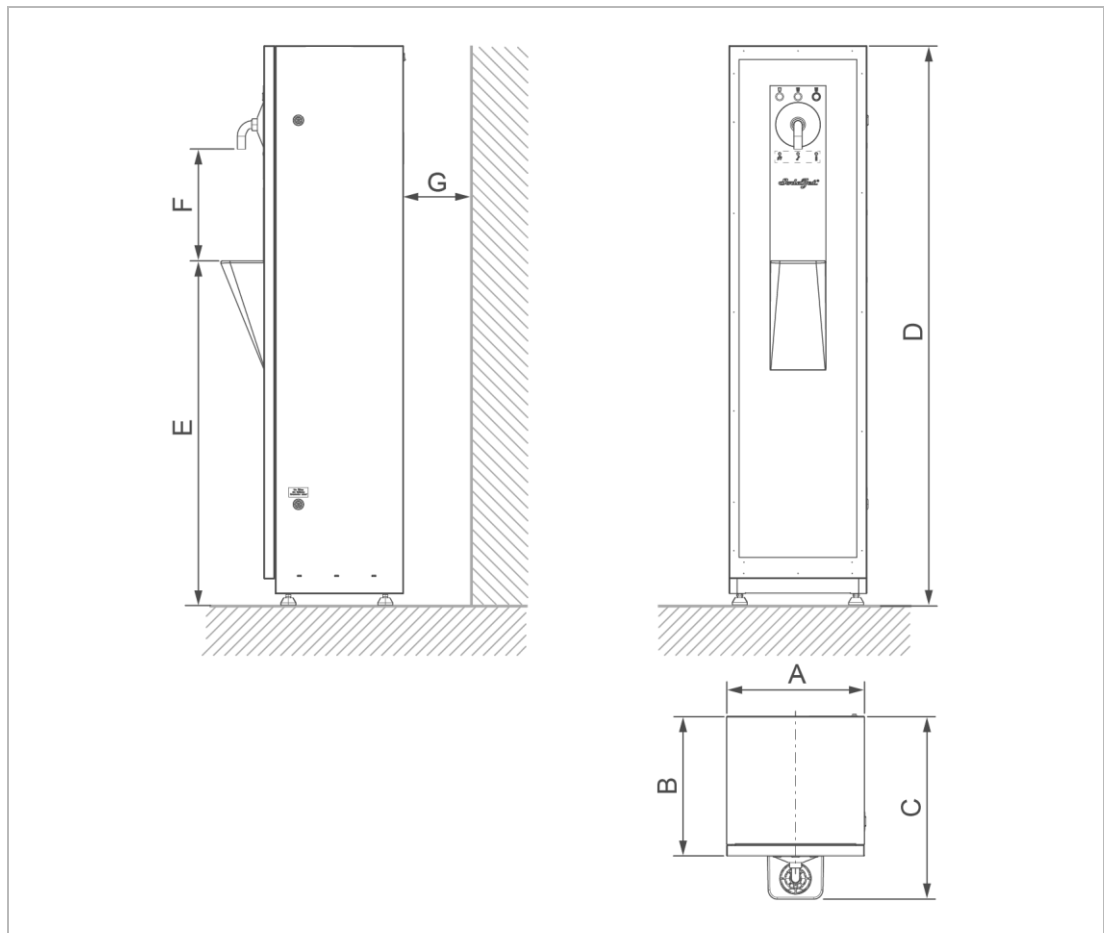
If this symbol (crossed-out wheellie bin) is on the product, it means that this product or its electrical and electronic components must not be disposed of as household waste.

- ▶ Find out about the local regulations on the separate collection of electrical and electronic products.
- ▶ Make use of the collection points available to you for the disposal of your product.
- ▶ If your product contains batteries or rechargeable batteries, dispose of them separately from your product.



For more information on take-back and disposal, go to www.gruenbeck.com.

12 Technical specifications

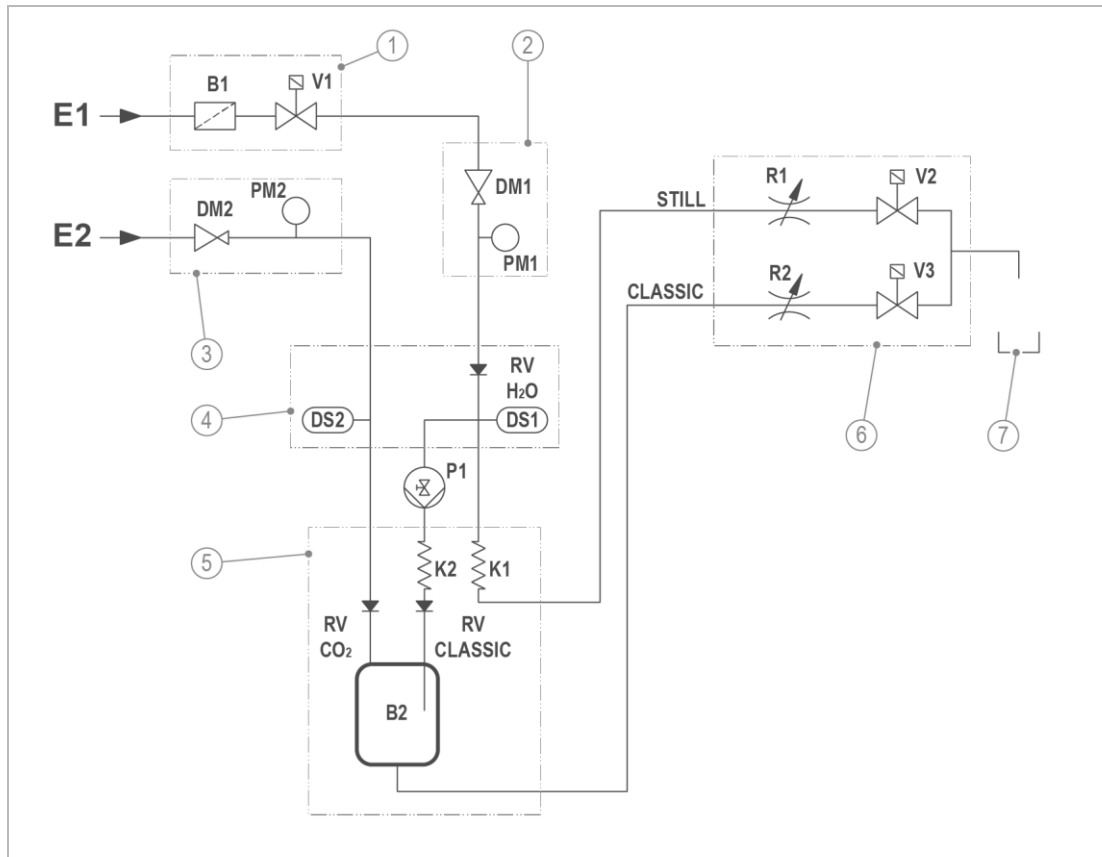


Dimensions and weights		Premium	Public
A	System width	mm	370
B	System depth	mm	375
C	Total system depth	mm	490
D	System height	mm	1500
E	Height of drip tray, approx.	mm	920
F	Outlet height (clearance), approx.	mm	270
G	Distance to wall	mm	≥ 100
	Empty weight, approx.	kg	94
			88
Connection data		Premium	Public
Nominal connection diameter	DN	8	
Connection hose (flexible stainless steel braided hose)	mm	1200	
Cold water connection (to be provided by client)		Angle valve 3/8" male thread, flat seal	
Drain connection	DN	≥ 50	
Height of (optional) waste water hose	mm	≤ 440	
Power supply	V/Hz	230/50	
Electric cable	mm	1200	
Protection/protection class		IP 20	

Performance data		Premium	Public
Nominal pressure	PN	10	
Operating pressure (recommended)	bar	2.5 – 10.0 (4.0)	
Power input in standby	W	8.6	
Power input during dispensing and cooling, illumination (if present)	W/VA	760/1050	720/980
Nominal flow			
Dispense volumes: STILL/MEDIUM/CLASSIC	l/min	1.8/2.6/2.1	
Carbon dioxide concentration CLASSIC, approx. *	g/l	6.5	
Cooling data		Premium	Public
Cooling capacity	W	698	
Dispensing capacity	l/h	≤ 108	
Coolant (R 290)	g	90	
Consumption data		Premium	Public
Water volume that can be generated per CO ₂ cylinder: at an average carbon dioxide input, approx.		1500	
Minimum (CLASSIC), approx.		1000	
CO₂ cylinder		Premium	Public
Long-necked steel cylinder without cage, Ø	mm	< 150	
Filling weight of carbon dioxide	kg	10	
Weight (incl. filling), approx.	kg	23.2	
Purity of food carbon dioxide	%	99.7	
Operating data		Premium	Public
CO ₂ pressure reducer/water	bar	4.5/3.5	
CO ₂ safety valve	bar	11	
CO ₂ pressure switch/water	bar	3.8/0.4	
Disinfection		Premium	Public
Frequency (recommended minimum)	months	6	
Disinfectant		SODA JET disinfection tablets	
Amount of disinfectant per disinfection	tablets	6	
General data		Premium	Public
Water temperature	°C	≤ 30	
Ambient temperature	°C	≤ 30	
Order no.		156150000000	156250000000

* Can vary due to the following parameters:
Water and ambient temperature, water pressure, setting of cooling unit and flow volumes.

12.1 PID (flow chart)



Designation	
1	Water stop
2	Pressure reducer for water
3	Pressure reducer for CO ₂
4	Distributor block for CO ₂ and water (H ₂ O)

Designation	
5	Cooling unit
6	Dispenser unit
7	Dripping water container

Coding	Designation
B1	Disinfection tank
B2	Carbonator
DM1	Pressure reducer for water
DM2	Pressure reducer for CO ₂
DS1	Pressure switch for water
DS2	Pressure switch for CO ₂
K1	Cooling coil for the STILL path
K2	Cooling coil for the CLASSIC path
P1	High-pressure pump
PM1	Pressure gauge for secondary pressure of the pressure reducer for water
PM2	Pressure gauge for secondary pressure of the pressure reducer for CO ₂
R1	Flow controller for STILL
R2	Flow controller for CLASSIC
RV CLASSIC	Non-return valve for CLASSIC (upstream of the carbonator)
RV CO ₂	Non-return valve for CO ₂

Coding	Designation
RV (H ₂ O)	Non-return valve for inlet water
V1	Water stop solenoid valve
V2	Solenoid valve of dispenser unit for STILL
V3	Solenoid valve of dispenser unit for CLASSIC

Downstream of the integrated protective function and control, the path of the water separates into two paths:

- STILL and CLASSIC

The water of the CLASSIC path is chilled and CO₂ is added in the carbonator. The STILL water, on the other hand, is chilled in an in-line process and dispensed directly when the respective button is pressed. The slightly sparkling MEDIUM is created when CLASSIC and STILL are mixed.

12.2 Electrical connections of the control unit (as of serial no. 570441)

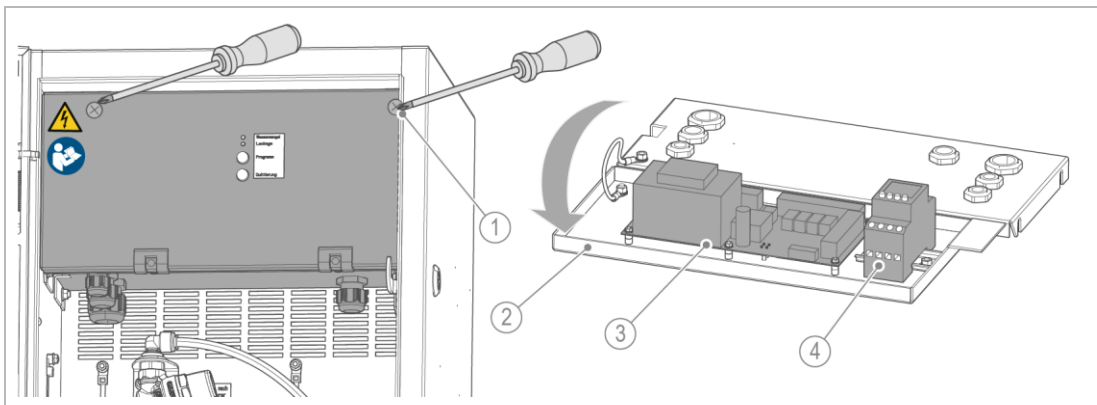


The work below must be carried out by a qualified electrician only.



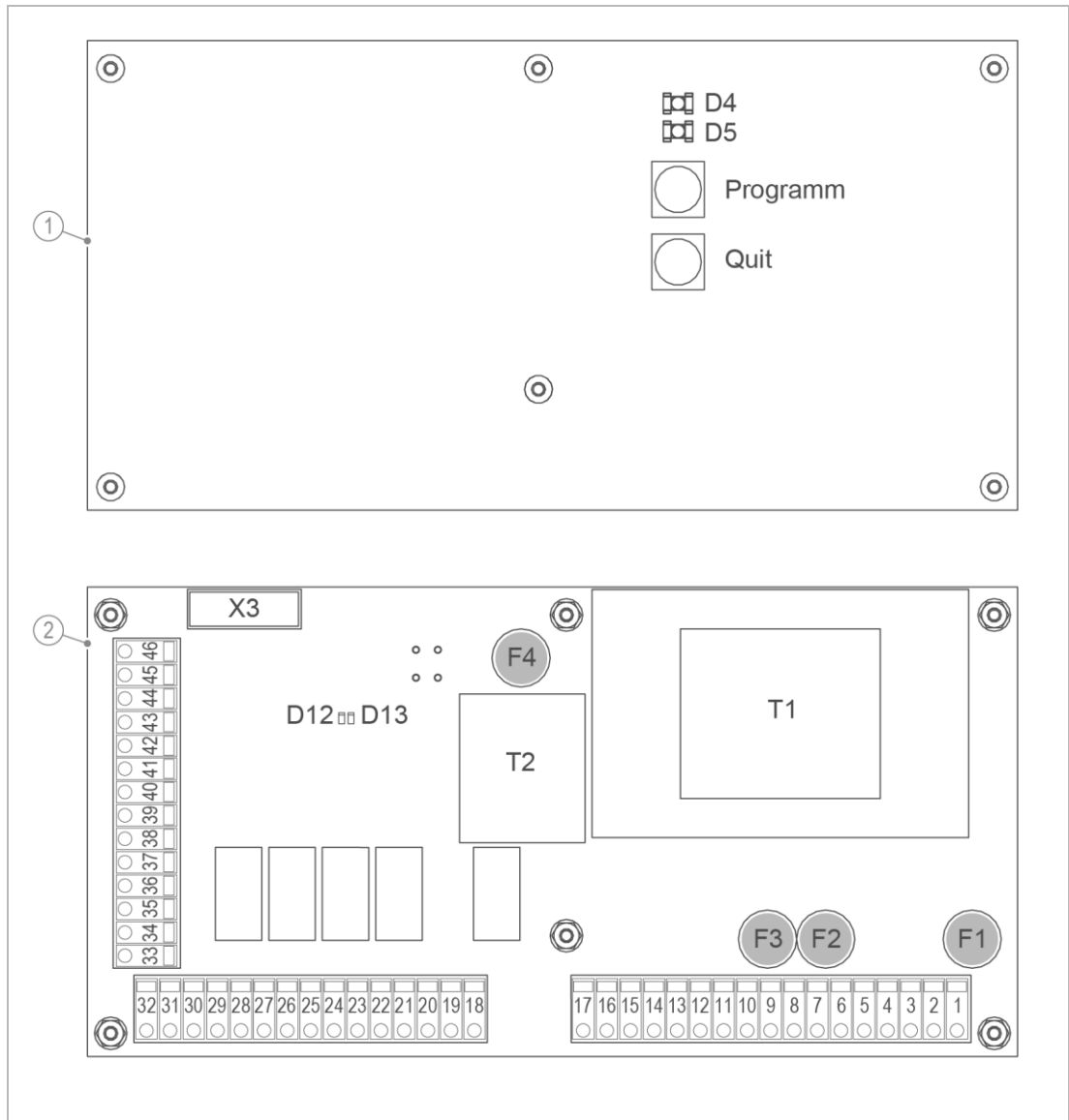
WARNING Life-threatening voltage of 230 V

- Risk of severe burns, cardiovascular failure, fatal electric shock
- ▶ Switch off the supply voltage before working on electrical components.
- ▶ Secure the device against restart.
- ▶ Discharge residual voltage.



Designation	Designation
1 Screw connection	3 Circuit board
2 Lid	4 Time control (available for PREMIUM as an option)

1. Loosen both of the two screw connections.
2. Carefully fold down the lid.



Designation	Designation
1 Front of the circuit board	2 Back of the circuit board

Coding	Function	Comment
F1	T0.63 A primary, delayed action	Fuse for transformers T1 and T2
F2	T4.0 A delayed action	Fuse for cooling unit
F3	T2.5 A, delayed action	Fuse for high-pressure pump
F4	T1.6 A secondary, delayed action	Fuse for transformer T1 (solenoid valves)
D4	LED	Fault Lack of water
D5	LED	Fault Leak
D12	LED	Water sensor detects water
D13	LED	Carbonator is filled/filling level is reached

Terminal	Signal	Colour	Comment
1	L	BN	Mains cable 230 V~
2	N	BU	
3	PE	YE-GN	
4	L	BN	Illumination of front foil 230 V~ (SODA JET III Premium), L is switched by the switch on the back of the housing.
5	N	BU	
6	PE	YE-GN	
7		BN	Cooling unit
8		BU	
9		YE-GN	
10	PE		Additional PE terminals
11	PE		
12	PE		
13	PE		
14	PE		
15	L	BN	High-pressure pump 230 V~
16	N	BU	
17	PE	YE-GN	
18	NC		Fault signal contact (relay) max. 230~/3 A
19	COM		
20	24 V~		Solenoid valve Dispenser unit STILL
21			
22	24 V~		Solenoid valve Dispenser unit CLASSIC
23			
24	24 V~		Solenoid valve Water stop
25			
26	24 V~		Solenoid valve Flushing unit
27			
28	IN	Terminal open	Enable button operation (without payment system)
29	GND		
30	IN	BN	Float switch Dripping water container
31	GND	BU	
32	IN	GN	CO ₂ pressure switch
33	GND	WH	
34	IN	BN	Water pressure switch
35	GND	WH	
36	IN	RD	Filling level Carbonator
37	IN	interchangeable	Water sensor
38	IN	interchangeable	
39	GND	RD	Buttons: common GND
40	IN	VT	CLASSIC button
41	IN	BK	STILL button
42	IN	GY	MEDIUM button
43	GND	RD-BU (+ PK-BU)	LEDs: common GND
44	IN	YE	LED Dripping water container
45	IN	PK	LED Service
46	IN	BU	LED Lack of CO ₂

EC Declaration of Conformity

In accordance with Machinery Directive 2006/42/EC



This is to certify that the system designated below meets the safety and health protection requirements of the applicable EC/EU guidelines in terms of its design, construction and execution.

This certificate becomes void if the system is modified in any way not approved by us.

Drinking water dispenser SODA JET III Premium/Public

Serial no.: Refer to type plate

Furthermore, we confirm compliance with the essential requirements of the EMC Directive 2014/30/EU.

The following harmonised standards have been applied:

- DIN EN 12100: 2011-03
- DIN EN 61000-6-2:2006-03
- DIN EN 61000-6-3:2011-09

The following national standards and technical specifications have been applied:

- DVGW W516:2007-11

Responsible for documentation:

Dipl.-Ing. (FH) Markus Pöpperl

Manufacturer

Grünbeck Wasseraufbereitung GmbH
Josef-Grünbeck-Str. 1
89420 Hoechstädt/Germany

Hoechstädt/Germany, 22.05.2018

A handwritten signature in blue ink, appearing to be 'M. Pöpperl', written over a horizontal line.

i. V. Dipl.-Ing. (FH) Markus Pöpperl
Head of Technical Product Design


Impressum


Technische Dokumentation

Bei Fragen und Anregungen zu dieser Betriebsanleitung wenden Sie sich bitte direkt an die Abteilung Technische Dokumentation bei Grünbeck Wasseraufbereitung GmbH

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