HOBART

WATER SOFTENER

SD-H

INSTALLATION AND OPERATION INSTRUCTIONS

(original instructions)

Starting from Serial No.:

67678

REV. 19.12.2016

IMPORTANT NOTES

Before connecting and operating the unit, please read the relevant installation and operating instruction contained in this manual!
Please bear in mind that improper use and operation of this unit will absolve HOBART of all liability!

USE IN ACCORDANCE WITH REGULATIONS:

The unit is intended solely for softening (i.e. removing undesired mineral substances deposited as lime scale) potable water. It is designed to protect the machine connected downstream from calcification.

For regeneration, only use salt in tablet form.

SAFETY:

Observe the general ordinances and regulations that apply to the installation site of the unit.
The relevant accident prevention regulations must also be observed.

Never hose down the unit.

The “Attention” symbol is shown beside instructions that are essential for the safe operation of the machine.
Please read these passages thoroughly.

LIABILITY:

Installations and repairs which are carried out by non-authorized technicians or the use of other than genuine spare parts, and any technical alterations to the machine, will invalidate the HOBART warranty set out in the standard conditions of sale.

TECHNICAL DATA:

Dimensions:	H 585 × W 360 × D 360
Gross weight (filled):	~ 60 kg
Output (continuous):	2 - 20 liters/minute*
Salt consumption/regeneration:	0.5 kg
Salt capacity:	20 kg
Regeneration duration:	11 minutes
Flow pressure:	min. 2 bar (recommend 3 bar) /max. 7 bar
Inflow temperature:	max. 65°C
Flow capacity:	min. 120 l/h/max. 1200 l/h

* Reduction to 0.75 - 11 liters/minute possible.

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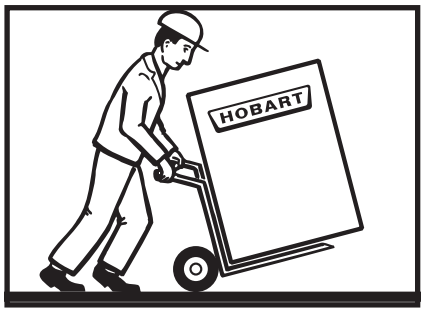
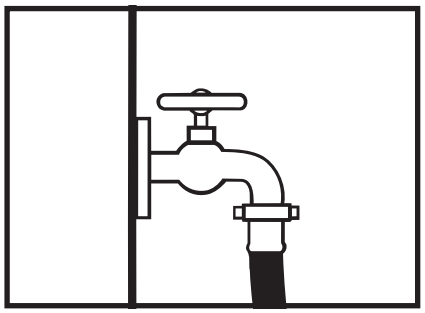
1. INSTALLATION



1.1. LOCATION

The installation location (wet area) must be designed in such a way (e.g. using open floor drainage) that water damage cannot be caused! HOBART accepts no liability for water damage!

- Secure the softener unit to prevent it from rolling away (rollers can be removed).
- The temperature in the operating room for the system must be at least +5°C.



1.2. WATER CONNECTION

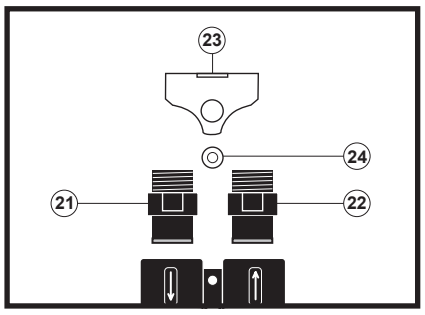
For an installation according to EN 1717 a back flow protection type HD must be used.

The water softener must be operated with potable water.

- The connection with the on-site water supply should use a **DN 20** high-pressure hose with a **3/4“** pipe nut (not supplied).
- Provide stop cock (**2**), backflow preventer (**3**) and fine filter (**1**) on site (see section 1.4.).
- Line flow pressure min. 2 (recommend 3) bar.

NOTE: The unit reduces the line flow pressure by 0.5 bar.

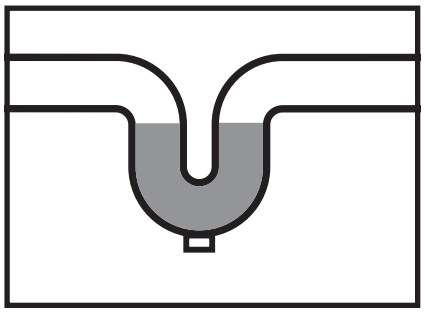
- If the line flow pressure is below 2 bar, install a pressure pump with a container on site.



- Insert the connection fitting with the seal supplied into the water inlet (**21**) and outlet (**22**).
- Then place the holding device provided (**23**) over it and secure it with bolts (**24**).

If you are connecting to the hot water supply, make sure that the supply temperature does not exceed 65°C.

- Connect to the warewasher via the outlet (**22**).

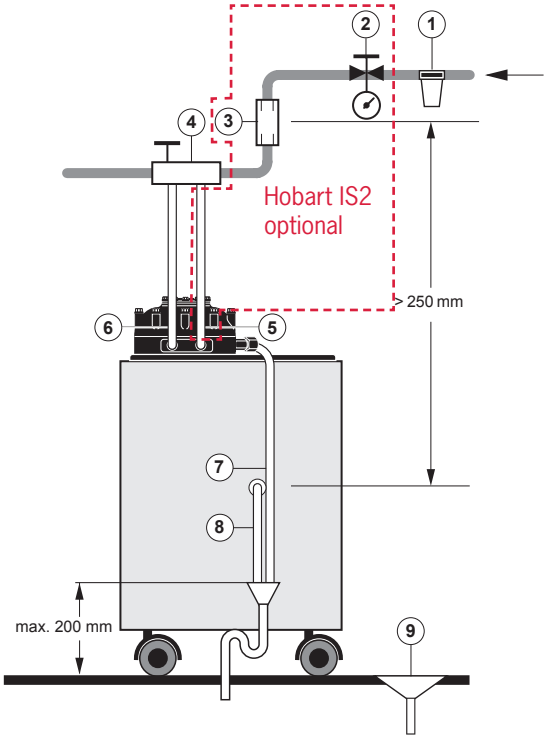


1.3. DRAIN CONNECTION

- The drain (**7**) from the unit must be connected by means of the longer, thinner plastic hose to a drain (siphon) provided on-site (see section 1.4.).
- The overflow (**8**) from the unit must be connected by means of the included thicker, transparent hose to an on-site drain (siphon), or floor drain.

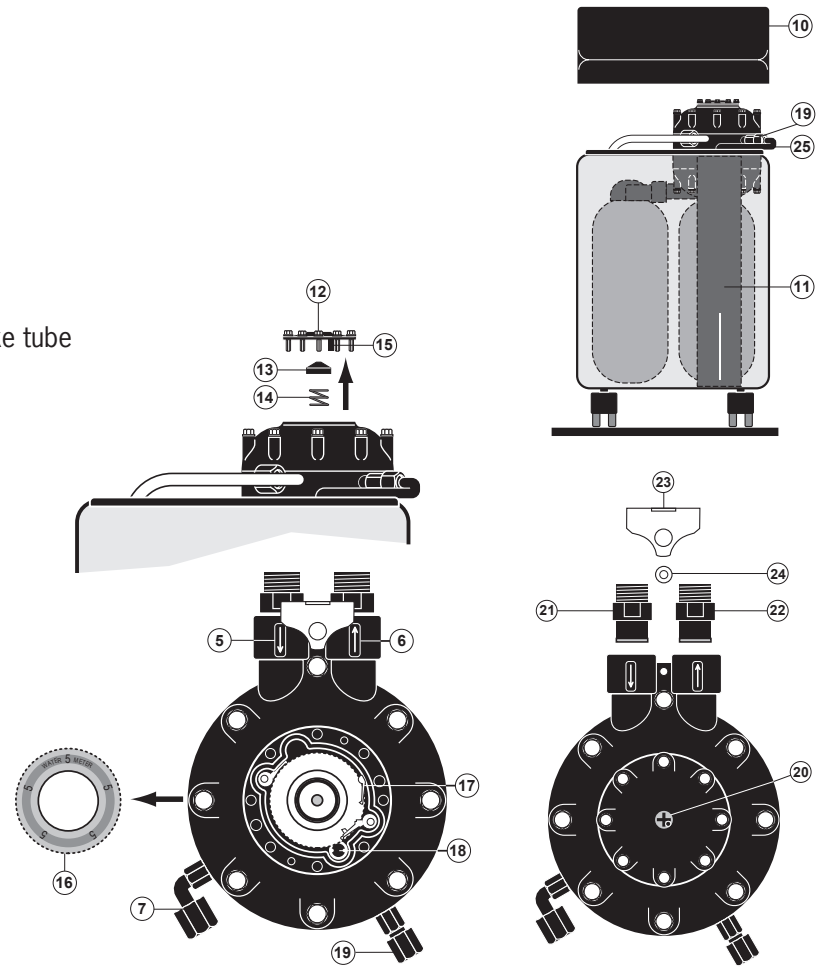
1.4. INSTALLATION DIAGRAM

1 Fine filter (on-site)
2 Shut-off valve (on-site)
3 Back flow protection type HD (Hobart installation kit IS4 optional)
4 Bypass/blending valve (Hobart IS3 optional)
5 Hard water inlet
6 Soft water outlet
7 Drain
8 Safety overflow
9 Floor drain



1.5. DEVICE COMPONENTS

10 Cover
11 Float switch
12 Control head cover
13 Plastic dome
14 Pressure spring
15 Fixing pin
16 Hardness range disc
17 Safety catch
18 Guide bush
19 Connecting piece for brine intake tube
20 Bleed screw
21 Connecting piece (supply)
22 Connecting piece (exit)
23 Holding device
24 Bolt
25 Brine intake tubing



2. SETTING THE WATER HARDNESS

2.1. DEFAULT SETTING

– The unit is pre-set at the factory to a water hardness of: **20–23.75° Clark**.

– If the water hardness is higher or lower, the correct alternative hardness range disc (option) should be selected from the table below and fitted instead of the standard disc no. 5.

Water Hardness of Untreated Water in °Clark (Total Hardness)	Hardness Range Disc No.	Softener Performance in Liters between 2 Regenerations
6.25–10	2	1140
11.25–13.75	3	760
15–18.75	4	570
20–23.75	5	456
25–28.75	6	380
30–32.5	7	325
33,75–37,5	8	285

2.2. CHANGING THE HARDNESS RANGE DISC

– Remove the cover (**10**).

– Loosen the hexagon head screws (**SW 1/4“**) on the control head cover (**12**) and remove the cover.

– Remove the plastic dome (**13**) and spring (**14**).

– Carefully remove the hardness range disc (**16**) and make sure that the other parts of the control unit do not spring out or become damaged.

– When inserting the new disc, you must carefully press the upper safety catch (**17**) slightly to the side using a small screwdriver.

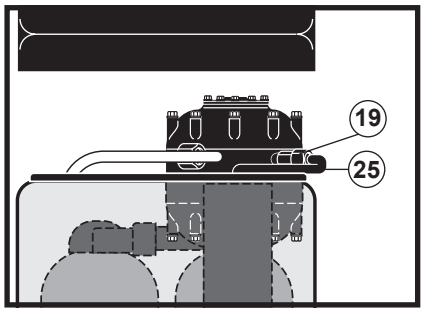
– Gently twist the new hardness range disc (**16**) until it locks in place and sits level.

– Replace the spring (**14**) and plastic dome (**13**).

– Position the control head cover (**12**) so that the fixing pin (**15**) protruding from the underside is inserted into the positioning bush (**18**). The cover must sit level on the control head, slightly raised by the force of the spring.

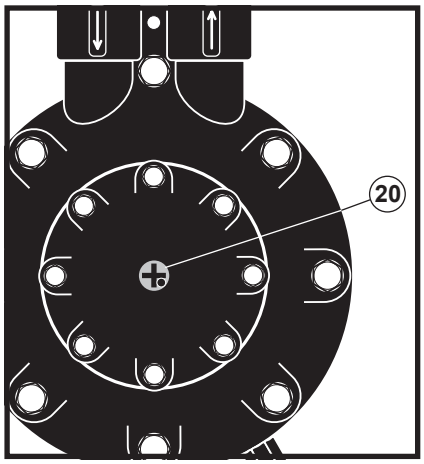
– Tighten the hexagon head screws diagonally.

3. START-UP



3.1. CONNECTING THE BRINE INTAKE TUBING

– Join the brine intake tubing (**25**) to the connecting piece (**19**).



3.2. BLEEDING THE SOFTENER

– Ensure that the connected warewasher remains turned off.

– Slowly open the shut-off valve (**2**) of the fresh water supply.

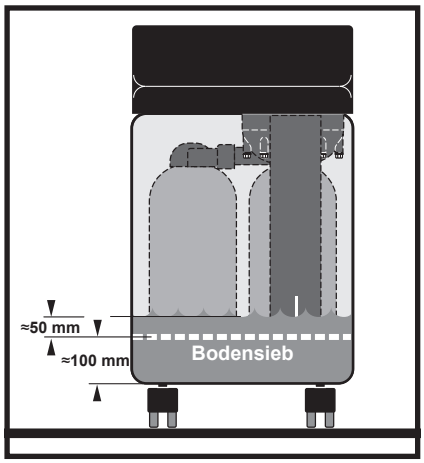
– Using a Phillips screwdriver, press down the bleed screw (**20**) on the cover of the control head (so that the control disc turns as well) and tur clockwise until the small nose on the screw points to **5.00** o'clock and the sound of **draining water** can be clearly heard from the flushing line.

– Air and water escape from the drain hose (**7**).

– Wait until only water flows out of the hose.
The first cartridge is now bled.

– Turn the nose on the bleed screw (**20**) further to **11.00** o'clock and bleed the second cartridge in the same way.

– After completing the bleeding operation, turn the nose on the bleed screw (**20**) to the **12.00** o'clock position. Water should no longer flow out of the drain hose (**7**).



3.3. FILLING THE CONTAINER

– Once the water supply is turned on, the container starts to fill with water. The required filling level of **150 mm** (approx. **50 mm above the floor strainer**) is regulated by the float valve.

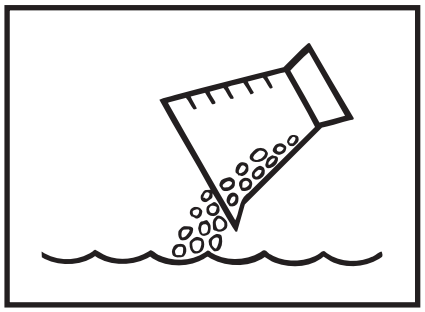
– If the filling level is not reached or is exceeded, the switch level of the float bell on the float switch must be readjusted.

– Water level too **low**:

  • Slide the bell **upwards** until the prescribed water level is reached.

– Water level too **high**:

  • Slide the bell **downwards** until the prescribed water level is reached.



3.4. FILLING WITH REGENERATION SALT

- Please use only un-denatured evaporated salt (in tablet form), which is identified as regeneration salt for use in water softeners.
- During the first filling, you should fill approx. 20 kg.
- Always make sure that there is sufficient regeneration salt in the container. The regeneration salt must always cover the water level in the container.
  Our recommendation: **at least half full**.
- When topping up, make sure that no salt falls into the pipe on the float switch.
- The first time you fill the unit with salt, excess water may flow out of the safety overflow.

4. OPERATION

Once it has been put into operation for the first time, the softener continues to operate fully automatic. It is only necessary to fill up with regeneration salt from time to time.

Make sure that the container is always at least half filled with regeneration salt.

5. MAINTENANCE

– The container should be completely rinsed out with warm water at regular intervals (approx. every 4 to 6 months) in order to prevent encrustation and silting.

In order to maintain the warranty and to ensure long-term safe, efficient and trouble-free operation of the unit, the prescribed maintenance tasks must be carried out by authorized service technicians.

For this reason, we recommend the conclusion of an inspection and maintenance contract which assures qualified support by specially trained service technicians according to a time schedule based on the operating conditions.

6. TROUBLESHOOTING

TYPE OF FAULT	POSSIBLE CAUSE	REMEDY
The softener is supplying hard water.	The on-site bypass valve is open.	Close the on-site bypass valve.
	Salt supply encrusted and washed out	Crush the encrustation to allow the salt to reach the brine on the base.
	No salt tablets in the brine tank	Add more salt tablets and keep the salt level above the water level.
	Injector or filter blocked	Replace the injector or filter.
	Insufficient water flow into the brine tank	Check the filling time of the brine tank and, if necessary, clean the blocked brine line.
	Leaky valve	Replace seals, spacers and/or piston.
	Hardness range disc does not match the water hardness present.	Fit the correct hardness range disc.
	Water flow rate is too low	Check the feed line for leaks or fit a special low-flow nozzle (spare part) to the unit.
Salt in the softened water	Drain blocked.	Clean the drain.
	Water pressure too low	Increase the on-site water pressure or fit a special low-flow nozzle (spare part) to the unit.
	Water level in the brine tank too high	Set the float lower down.
The unit is consuming excessive salt.	Incorrect hardness range disc	Fit the correct hardness range disc.
Loss of water pressure	Iron deposits in the tubing to the water softener	Clean the tubing to the water softener.
	Iron deposits in the softener	Clean the valve and carry out more frequent regeneration.
	Valve inlet blocked by foreign body	Remove the piston and clean the valve.
Loss of resin through drain tubing	Air in resin container	Check whether the float valve in the brine tank is working correctly.
Iron in softened water	Decayed resin bed	Check the backflushing, brine intake and brine tank filling and increase the frequency of the regeneration process. If necessary, connect an upstream iron-removal system.
Too much water in the brine tank	Discharge valve blocked	Clean the discharge valve.

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