



WATER SOFTENER



SE-H

INSTALLATION AND OPERATION INSTRUCTIONS

(original instructions)

Starting from Serial No.:
67678

REV. 19.12.2016



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:

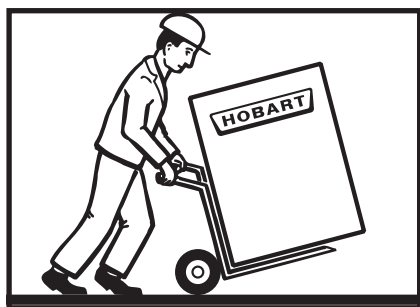
Installations and repairs which are carried out by non-authorized technicians or the use of other than genuine spare parts, and any technical alterations to the machine, will invalidate the HOBART warranty set out in the standard conditions of sale.

TECHNICAL DATA:

Dimensions:	H 572 × W 230 × D 400
Gross weight (filled):	~ 40 kg
Capacity at 1°Clark (total hardness):	10,000 l.
Salt consumption/regeneration:	0.5 kg
Salt capacity:	20 kg
Power consumption:	30 watts
Operating voltage:	230 V/50 Hz
Protection class:	IP 54
Salt supply in the brine tank:	10 kg
Regeneration duration:	30 min.
Flow pressure:	min. 2 bar (recommend 3 bar) /max. 6 bar
Inflow temperature:	max. 65°C

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1. INSTALLATION

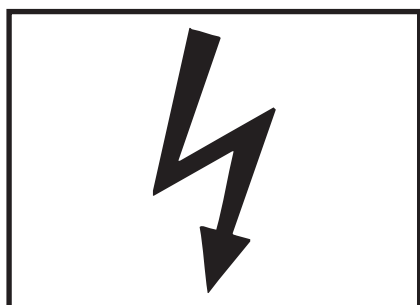


1.1. LOCATION



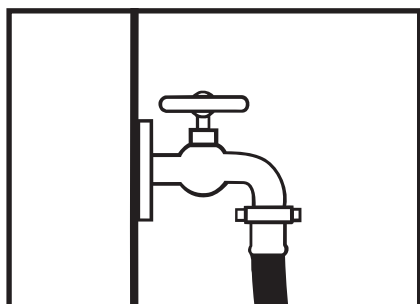
The installation location (wet area) must be designed in such a way (e.g. using open floor drainage) that water damage cannot be caused! HOBART accepts no liability for water damage!

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



1.2. ELECTRICAL CONNECTION

- Connect to 230 V/50 Hz/1Ph alternating current.

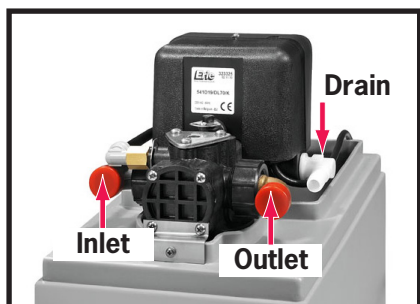


1.3. WATER CONNECTION



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.



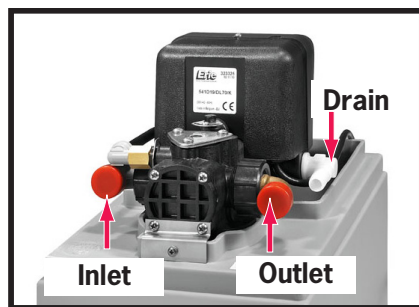
- The connection with the on-site water supply should use a **DN 20** high-pressure hose with a **3/4"** pipe nut (not supplied). When viewed from rear, the untreated water inlet is on the left.
- Provide stop cock (2), fine filter (1), non-return valve (3) with back-flow preventer and, if necessary, bypass (see section 1.5.).
- 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.



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

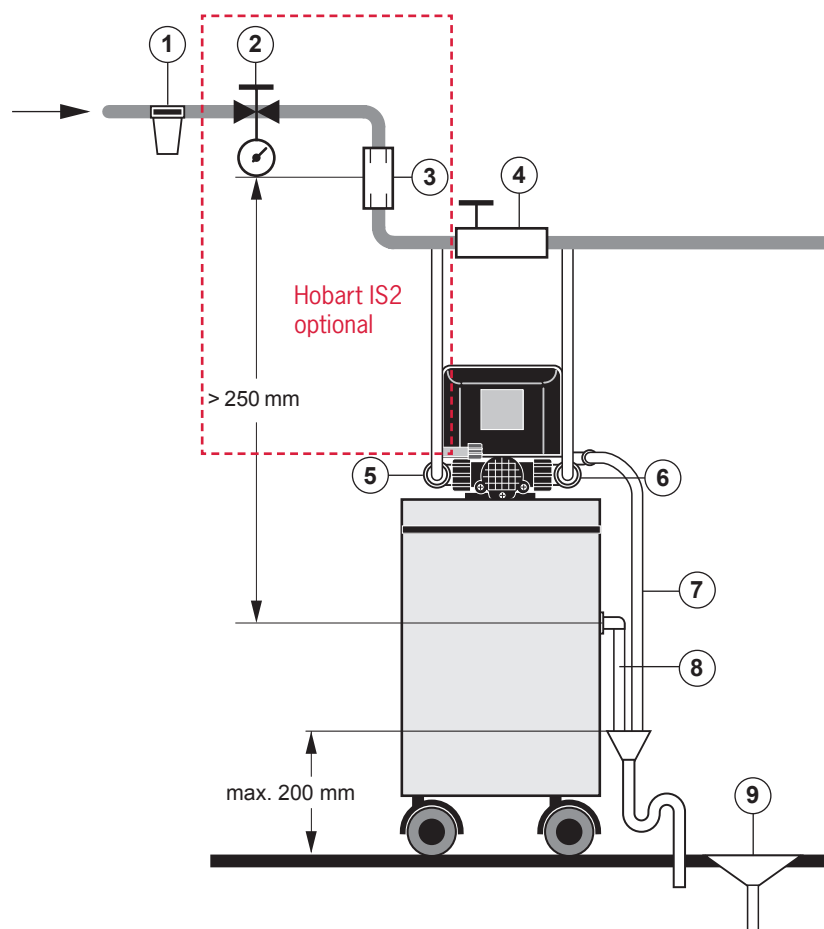


1.4. DRAIN CONNECTION

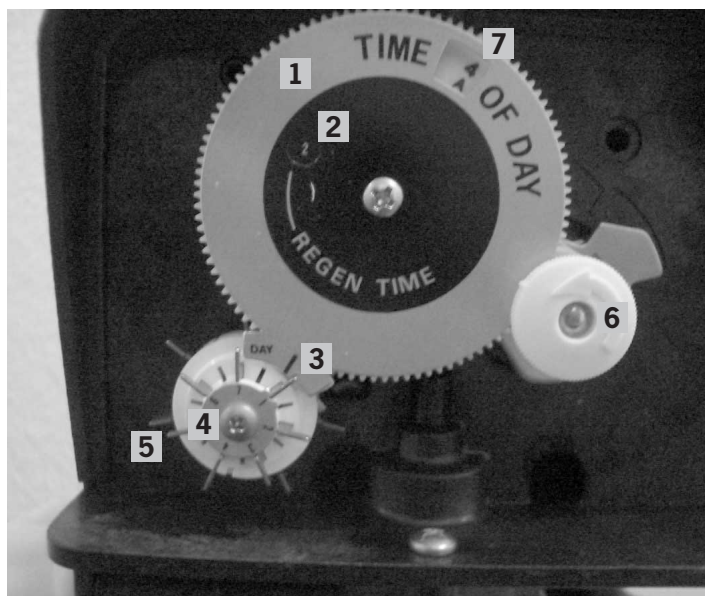
- The drain connection at the top on the control head and the safety overflow on the side of the unit must be connected by means of a plastic hose to an on-site drain (siphon).
- The drain hose must be kept as short as possible. The drain hose must not be buckled.

1.5. INSTALLATION DIAGRAM

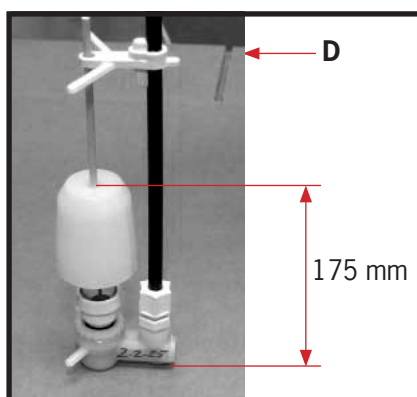
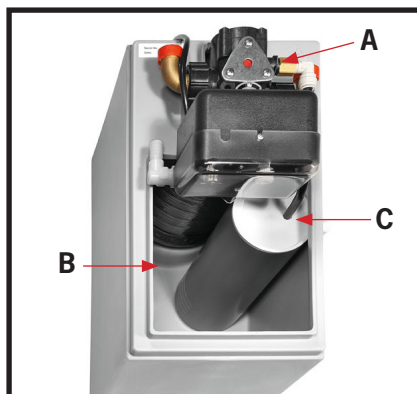
- 1 Fine filter (on-site)
- 2 Shut-off valve (on-site)
- 3 Back flow protection type HD (Hobart installation kit IS4 optional)
- 4 Bypass/blending valve (Hobart IS3 optional)
- 5 Hard water inlet
- 6 Soft water outlet
- 7 Drain
- 8 Safety overflow
- 9 Floor drain



- 1 Hour plate
- 2 Indicates the regeneration time
- 3 Day indicator regenerates when activated (pressed in).
- 4 7-day gear wheel
- 5 Pins
- 6 Time adjustment knob
- 7 Shows the time (clock)



3.1. BLEEDING AND CHECKING THE WATER LEVEL



- Open the on-site stop cock.
The black container integrated in the unit with the ion exchanger is slowly filled and bled.
- Check the water inlet and outlet at the control head for leaks.
The external tank (B) for the salt supply then fills with water. The brine valve integrated in the cylinder (C) stops the water supply once the required water level has been reached.
- The water level measured from the bottom of the tank should be approx. 130 mm. Only if the water level deviates significantly from this figure does the float switch for the brine valve need to be readjusted as follows:
 - Close the stop cock.
 - Pull the safety clamp on the control head connection (A) upwards.
 - Release the connecting tubing from the control head to the brine valve in the cylinder casing (C).
 - Remove the cover on the cylinder (C) and remove the entire brine valve unit (D).

The distance from the top end of the float bell to the base should be approx. 175 mm.

- If necessary, slide the bell.
- Re-fit the brine valve in the reverse sequence. Make sure that the cover is properly seated.
- Open the on-site stop cock.
- After removing the fixing screw, remove the transparent front cover on the clock.
- Turn the time adjustment knob (6) several times counter-clockwise until you feel very noticeable resistance.
- Continue turning until the resistance is completely overcome.
Water now flows from the drain on the control head and the connected waste water hose. The control head is bled in the process.
- The bleeding process should last for at least 2 minutes and ends with the subsequent adjustment of the time.

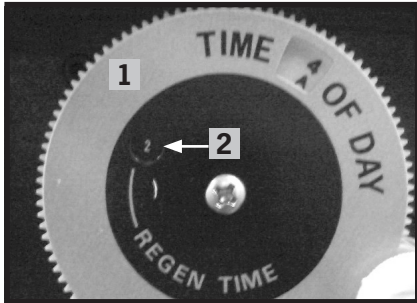
3. START-UP

3.2. ADJUSTING THE REGENERATION TIME

The unit must feed the salt required for softening regularly into the integrated ion exchanger. This regeneration process lasts for approx. 30 minutes and interrupts the supply of softened water.

Regeneration is set at the factory to commence at 02:00 (during the night) on the adjustment disc (2). If necessary, this time can be adjusted as follows:

- Slightly loosen the central screw on the hour plate (1).
- Turn the hour plate (1) until the required time is displayed in the regeneration time window (2).
- Tighten the screw again.

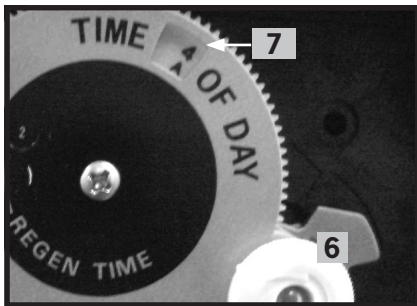


3.3. ADJUSTING THE TIME OF DAY

- Turn the time adjustment knob (6) counter-clockwise until the correct time appears in the window (7) e.g. "4A" means 04:00 am.

NOTE: Even if the time is correct, you must turn the knob at least one detent position further as otherwise the bleed operation will not stop.

In the event of a power outage, the clock must be reset.



3.4. DETERMINING THE REGENERATION FREQUENCY

The softener must be regenerated depending on the local water hardness and the quantity of water required. This takes place automatically once the program clock has been set.

Refer to the following table for the correct setting.

Daily volume of softened water available in liters at the specified regeneration frequency:

Water Hardness of Untreated Water in °Clark (Total Hardness)	Softener Output in Liters with Regeneration			
	After 4 Days	After 3 Days	After 2 Days	Daily
5	500	666	1000	2000
7,5	333	444	766	1333
10	250	333	500	1000
12,5	200	266	400	800
15	166	222	333	666
17,5	142	190	285	571
20	125	166	250	500
22,5	111	148	222	444
25	100	133	200	400
27,5	90	121	181	363
30	83	111	166	333
32,5	76	102	153	307
35	71	95	142	285
37,5	66	88	133	266

Example:

Total capacity of the unit: 10,000 l.
(per regeneration at 1°Clark)

Water hardness: 25°Clark
(check with the local water works)

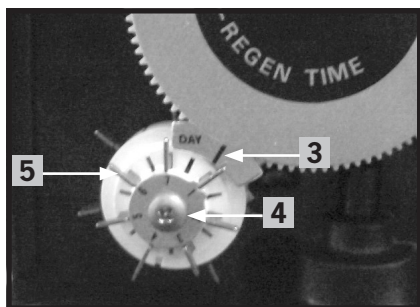
Softened water capacity: 400 l.
(10,000 : 25 = 400)

Calculated daily requirement: 200 l.
(requirement of downstream appliances)

Regeneration cycle: no later than every 2 days
(400 : 200 = 2)

3. START-UP

3.5. SETTING THE REGENERATION DAYS



Daily regeneration is set by default at the factory (all pins on the adjustment wheel (4) are pressed in). If necessary, the setting can be adjusted as follows:

- Pull all the pins (5) forwards.

The wheel (4) can now be turned without resistance.

Caution: This is not possible if the **current time** is **identical to the regeneration starting time**. In this case, the time must be adjusted by at least two hours. After setting the regeneration days, once again reset the time of day as explained in section 3.3.

- Turn the wheel (4) until the current weekday e.g. "1" for Monday is aligned on the day indicator (3).
- In order to set the days of the week for regeneration, press in the corresponding pins (5).
- Replace the transparent front cover on the clock and secure with the fixing screw.

3.6. FILLING WITH SALT

- Fill the container with regeneration salt up to approx. 50 mm below the upper edge.

NOTE: The first time you fill the unit with salt, excess water may flow out of the safety overflow.

4. OPERATION

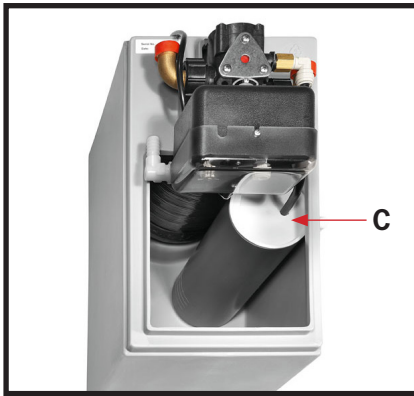
Once it has been put into operation for the first time, the softener continues to operate fully automatically. It is only necessary to fill up with regeneration salt on a regular basis.



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

- The regeneration salt must always cover the water level in the container.
- When filling up, make sure that no salt tablets fall into the cylinder (C) with the brine valve.

In the event of a power outage, the clock must be reset.



5. MAINTENANCE



The function of the unit should be checked at regular intervals, at least twice annually by the HOBART customer service and the trained specialist dealer.

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 not regenerating.	The power supply is interrupted.	Check the power supply. (fuse, plug, power supply, etc)
	The program switch is faulty.	Replace the program switch.
	Power failure.	Reset the time of day.
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.
	Insufficient water flow into the brine tank	Check the filling time of the brine tank and, if necessary, clean the blocked brine line.
Salt in the softened water.	Drain blocked.	Clean the drain.
	Water level in the brine tank too high	Set the float lower down.
The unit is consuming excessive salt.	Regeneration is set too frequently.	Check the setting.
	Too much water in the brine tank	Clean the discharge valve.
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.
Too much water in the brine tank	Discharge valve blocked	Clean the discharge valve.

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