RESIDENTIAL WATER SOFTENER

Installation and Operating Manual

FLEXFLOW

TO ACHIEVE OPTIMAL PERFORMANCE AND EFFECTIVE HARD WATER PROTECTION, PLEASE READ THIS INSTALLATION INSTRUCTION MANUAL CAREFULLY IN ITS ENTIRETY BEFORE STARTING THE INSTALLATION.

TABLE OF CONTENTS

For the programming part, please refer to the detailed instructions of the corresponding control valve.

WARNING AND SAFETY INSTRUCTIONS

WARNING! For your safety, the information in this manual must be followed to minimize the risk of electric shock, property damage or personal injury.

Before you begin the installation of the water softener, we recommend that you read and carefully follow the instructions contained in this installation instruction manual. It contains important information about the safety, installation, use and maintenance of the water softener.

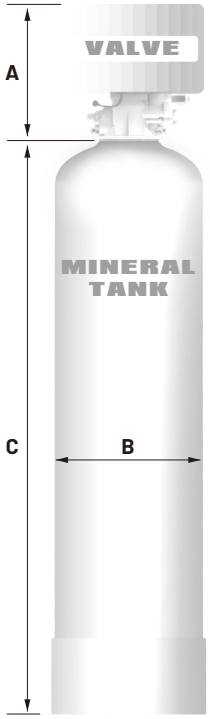
- This water softener is designed to 'soften' water by removing the minerals responsible for causing hardness; however, it may not eliminate other contaminants in the water. It should be noted that this system is not meant to purify contaminated water or render it safe for drinking.
- Only a skilled individual with knowledge of local regulations should install this water softener. All plumbing and electrical work must comply with these local codes.
- Prior to installing the water softener, it is essential that you inspect it for any apparent external damage. If any damage is found, do not proceed with installation or usage.
- Transport the water softener using a hand truck. For safety and to avoid accidents or injuries, avoid lifting the softener over your shoulder. Additionally, ensure that the softener is not laid on its side.
- Store this installation instruction manual in a safe place and make certain that new users are familiar with its contents.
- The water softener is constructed in compliance with prevailing safety norms and regulations. Repairs carried out incorrectly can pose unexpected risks to the user, liability for which falls outside the manufacturer's responsibility. As such, repairs should be carried out exclusively by a qualified technician who has knowledge of and is trained in this specific product.

In respect of the environment, the appliance should be disposed of in accordance with Waste Electrical and Electronic Equipment (WEEE) requirements.
Refer to national/local laws and codes for the correct recycling of this appliance.

SPECIFICATIONS AND MODELS

A

For dimensions, refer to the control valve manual

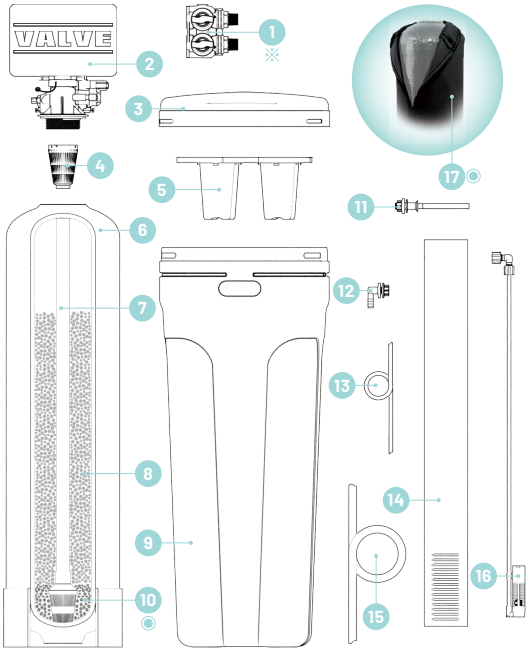


Mineral Tank	Volume (L)	B (mm)	C (mm)
0717	9.0	183	450
0735	19.6	183	910
0817	11.3	205	450
0835	24.4	205	910
0844	32.1	205	1130
0917	15.2	232	450
0935	31.4	232	910
0948	44.7	232	1220
1017	18.3	260	450
1035	38.6	260	910
1044	49.6	260	1140
1054	62.1	260	1390
1248	78	310	1230
1265	112	310	1660
1344	81	335	1145
1354	102	335	1400
1465	144	366	1670
1665	185	413	1700

Brine Tank	D (mm)	E (mm)
25 L	250	475
70 L	330	885
100 L	380	885
150 L	450	1000

PRE-INSTALLATION CHECKS

Please take the system and all the components out of the box. Inspect the system and all the connection fittings carefully and make sure nothing was damaged during shipping.



System Components

1	Bypass valve
2	Control valve
3	Brine tank lid
4	Top distributor
5	Grid plate
6	Mineral tank
7	Tube & Bottom distributor
8	Exchange resin
9	Brine tank
10	Quartz sand
11	Salt well clamp assembly
12	Overflow elbow assembly
13	Brine line poly tube
14	Brine well assembly
15	Drain line tube
16	Brine valve assembly
17	Mineral tank jacket

※ 1. The actual product may not have this part or may have other shapes of bypass valves.

◉ 10. Some models of resin tanks do not require filling with quartz sand.

◉ 17. Individual customization.

PRE-INSTALLATION CHECKS

IMPORTANT! The following conditions for feed water supply must be met or warranty will be void and the manufacturer assumes no responsibility for damage to system or property.

Please double-check that the valve is securely attached to the resin bottle

Operating pressure min-max: 1.4-8.3 bar / 20-120 psi

- This appliance is configured to perform optimally at an operating pressure of 3 bar (45 psi) ±½ bar (7 psi); in case of a lower or higher operating pressure the performance may be affected negatively!
- Check water pressure regularly; it may fluctuate severely depending on the time of day, the day of the week or even the season of the year.
- Take into account that night-time water pressure may be considerably higher than day-time water pressure.
- Install a pressure reducer ahead of the appliance if necessary.
- Install a pressure booster if it is likely that water pressure may drop below the minimum.

Operating Temperature min-max: 1-43 °C / 34-110 °F

- Do not install the appliance in an environment where high ambient temperatures (e.g. unvented boiler housing) or freezing temperatures can occur.
- The appliance cannot be exposed to outdoor elements, such as direct sunlight or atmospheric precipitation.
- Do not install the appliance too close to a water heater; keep at least 3 m (10 ft) of piping between the outlet of the appliance and the inlet of the water heater; water heaters can sometimes transmit heat back down the cold pipe into the appliance; always install a check valve at the outlet of the appliance.

Electrical Connection

- The appliance only works on 24 VAC; always use it in combination with the supplied transformer.
- Be sure to plug the transformer into a power outlet, which is installed in a dry location, with the proper rating and over-current protection.

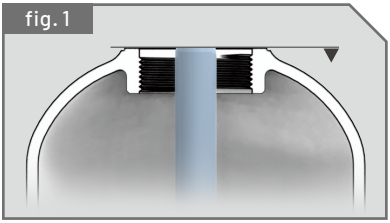
SYSTEM INSTALLATION

IMPORTANT! Locate and test the main water supply valve to the home before installing the system. If the main water supply valve fails to shut off the water completely during the test, we recommend contacting your local plumber to fix the valve before installing the system.

• Mineral Tank Installation

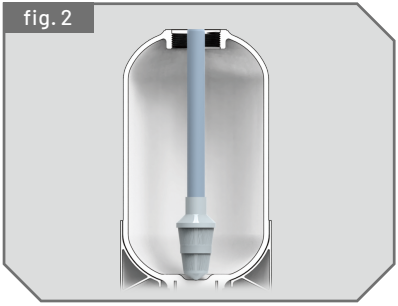
1. Cut the center tube (1.05" O.D.) flush with the top of the tank and chamfer the top. Take care to keep foreign material out of mineral tank. If purchased as a complete system, the tube has already been cut and installed (fig.1).

fig. 1



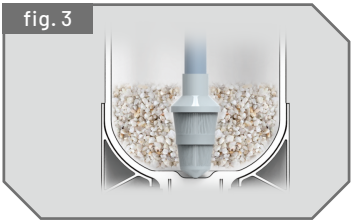
2. Insert tube with bottom distributor into the center of the mineral tank (fig.2).

fig. 2



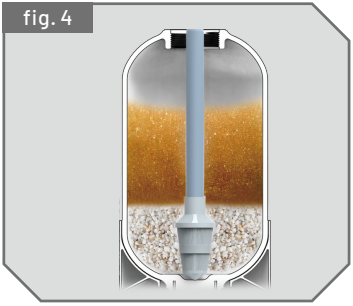
3. Quartz sand fills the bottom of the mineral tank and covers the bottom distributor. (Whether to fill quartz sand depends on the size of the mineral tank) (fig.3).

fig. 3



4. Fill the mineral tank with resin. Filling volume depends on the size of the mineral tank (fig.4).

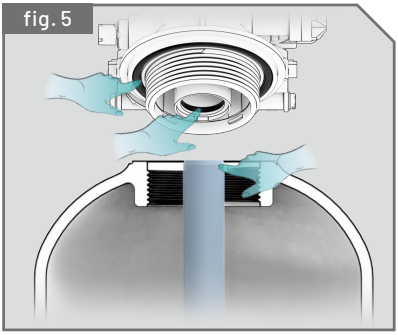
fig. 4



5. Lubricate the center tube O-ring seal and tank O-ring seal and center tube mouth (fig.5).

   Note: use silicone lubricant.

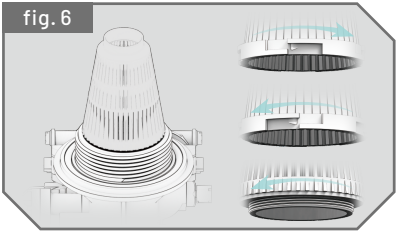
fig. 5



6. Install the top distributor on the bottom of the valve by lining up the tabs, pressing in, Then rotate the top distributor to lock it into place (fig.6).

   HQV1 control valve uses a threaded top distributor.

fig. 6

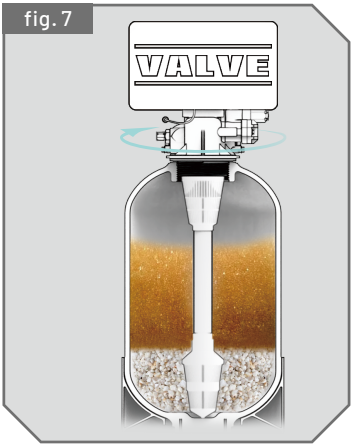


7. Place the top distributor over the center tube and push the valve on the tank. Thread the valve on the tank by turning it clockwise (fig.7).

   Be sure not to cross-thread the valve on the tank. The valve should thread easily in the tank. If not, it may be cross-threaded.

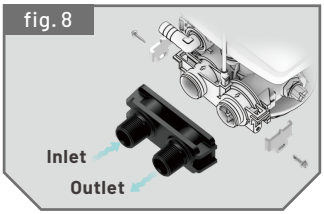
Do not lubricate as you may over-tighten the valve.

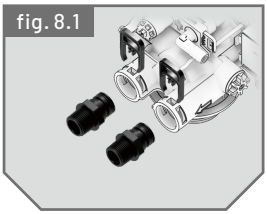
fig. 7



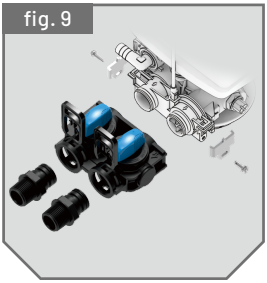
• Control Valve Installation

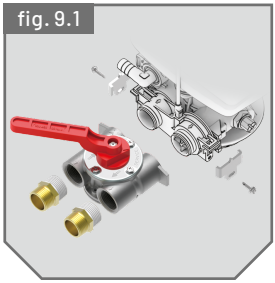
8. If there is no bypass valve configured, Installation reference (fig. 8).
   - HQV1 control valve installation reference (fig. 8.1).

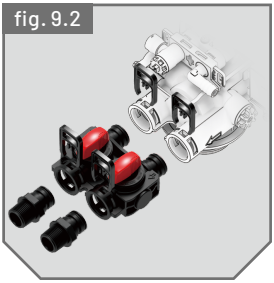




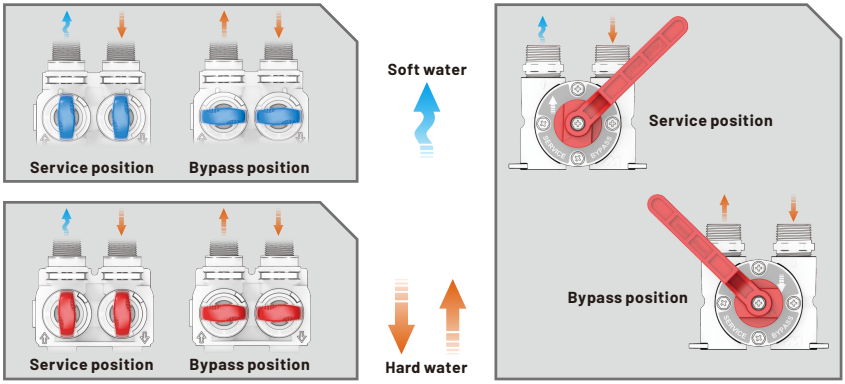
9. The installation diagrams of different types of bypass valves are as follows:
   - Installing the plastic bypass valve (fig. 9)
   - Installing the stainless steel bypass valve (fig. 9.1)
   - HQV1 control valve installation plastic bypass valve (fig. 9.2)







SYSTEM INSTALLATION



Before running the valve for the first time, flush out the water line and bypass.

1. Be sure the bypass is closed.
2. Turn the water source on at the inlet to the house.
3. Disconnect the bypass from the valve.
4. Put a container under the bypass and open the bypass to remove any foreign material out of the water lines.
5. Close the bypass.
6. Re-connect the bypass to the valve.
7. Open the bypass slowly, to avoid water hammering.
8. Let water flow into the pressure tank. When water flow stops, slowly open a cold water tap nearby and let water run until it runs clear and air is purged from the unit. Then close tap.
9. Check for and repair any leaks.

10. Brine Line Installation
    - Connection of ferrule type brine fitting (fig. 10).
    - Connection of quick-plug brine fitting (fig. 10.1).
    - HQV1 control valve brine line connection (fig. 10.2).

fig. 10

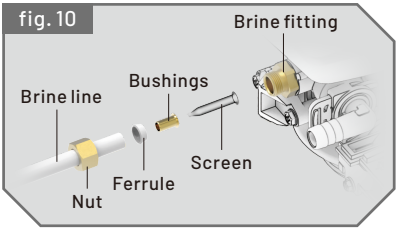


fig. 10.1

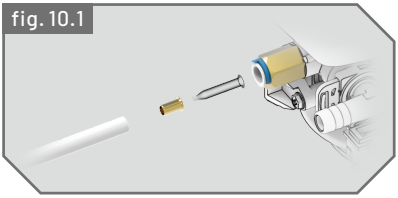
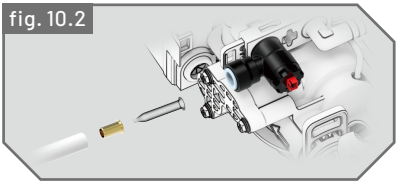


fig. 10.2



11. Drain Line Installation

Intercept sewage pipe of appropriate length and connect to sewage connection, and fastened with a securing clip (fig. 11). The other end of the hose is connected to a suitable drainage point, such as floor drain, sink, washing basin (fig. 11.1).

fig. 11

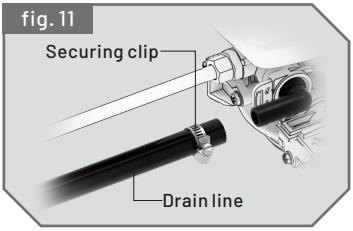
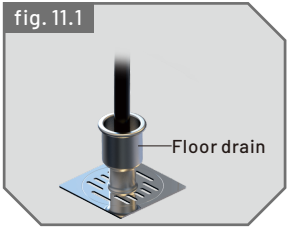


fig. 11.1



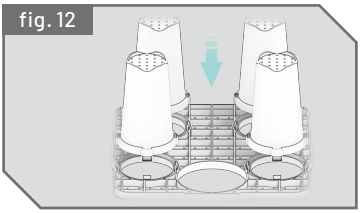
An air gap is required between the drain line and the floor drain.

This avoids a syphon effect and reverse contamination.

• Brine Tank Installation

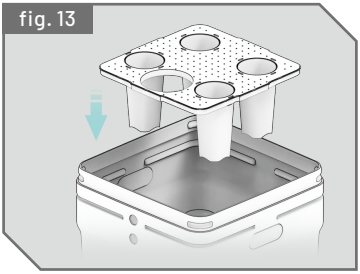
12. Insert the grid support column into the grid plate, aligning the notch with the buckle, a total of 4 (fig.12). (some models are integrated, so this step can be ignored).

fig. 12



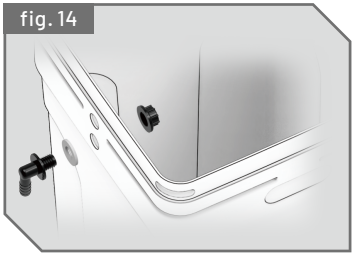
13. Install the grid plate into the brine tank and press it tightly by hand (fig.13). (the salt well fixing hole of the grid plate is on the same side as the hole above the brine tank).

fig. 13



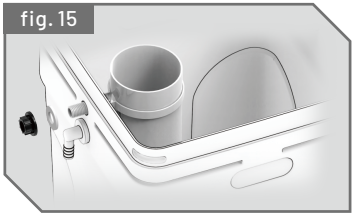
14. Install the overflow elbow assembly into the lower hole above the brine tank and tighten the nut (fig.14).

fig. 14



15. The salt well clamp is put on the salt well and the salt well is installed into the fixing hole of the grid plate. At the same time, the salt well clamp passes through the hole above the brine tank and locks the nut (fig.15).

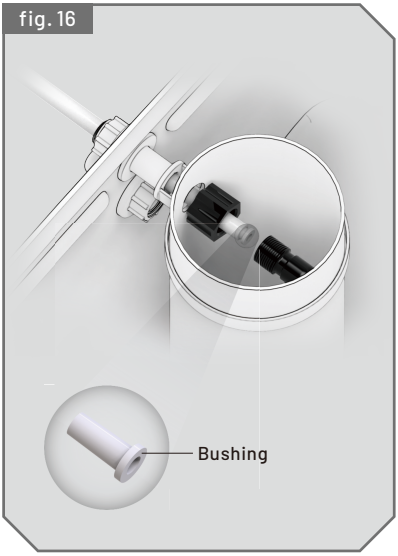
fig. 15



16. The brine line passes through the salt well clamp and the nut of the salt valve, and is locked with a wrench and the elbow of the salt valve (fig.16).

Note: Do not forget to insert the bushing into the brine line mouth.

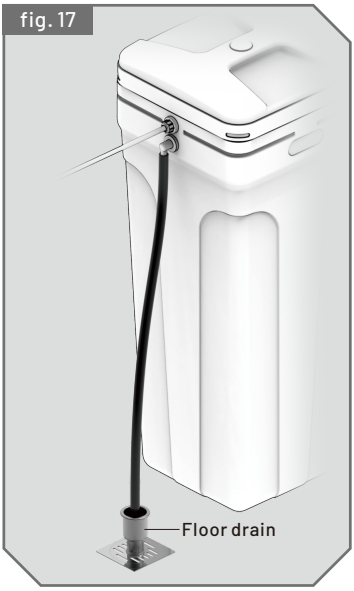
fig. 16



17. Intercept overflow pipe of appropriate length and connect to overflow elbow, no securing clip is necessary as it is not under pressure. Connect the other end of the hose to the floor drain (fig.17).

Note: The overflow pipe should be run downhill all the way.

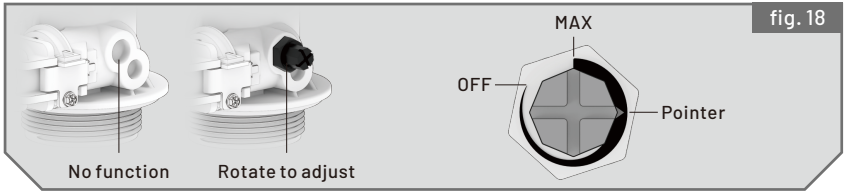
fig. 17

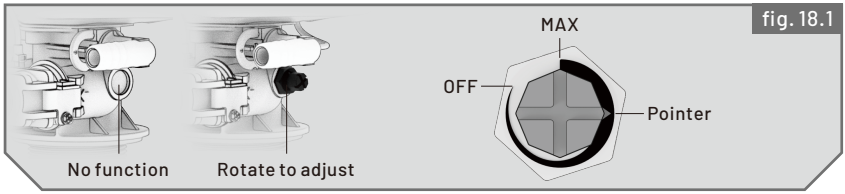


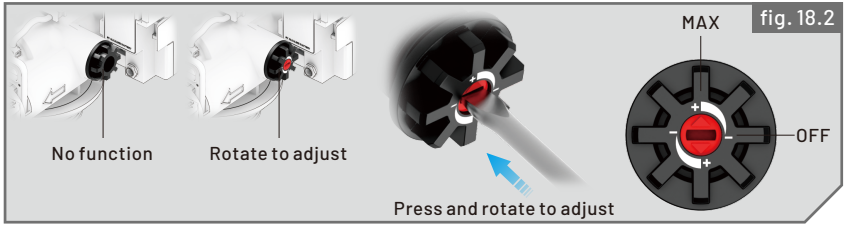
• Residual hardness regulation

It is recommended not to supply fully decalcified water to domestic installations. To modify the residual hardness, the regulating valve must be opened gently, as indicated in the following illustrations.

- HQV2&HQV4 - (fig. 18).
- HQV3 - (fig. 18.1).
- HQV1 - (fig. 18.2).





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