



# Elvion Neo

MANUAL

elvion

Please read this manual in detail before using the product and keep it properly in order to consult in the future

**Note: the design and specifications are subject to the changes without prior notice. We reserve the rights of interpretation to the user manual**

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# MUST READ FOR USERS

**Do not operate this product without carefully reading and fully understanding the contents of the manual.**

1. This product must be installed by professionals dispatched by an authorized dealer of the company. The company will not assume responsibility for any consequences, including but not limited to pipeline leaks, poor installation affecting the normal operation and performance of the product, and any adverse effects or damage to the machine itself, resulting from installation by unauthorized personnel or the use of self-provided installation materials.
2. If additional parts are required for installation, please select regular and high-quality products.
3. This “Manual” is a guiding document for the correct use of this product. Users should strictly follow the requirements for operation, daily inspection, and maintenance; this manual is not suitable for individuals with physical, sensory, or mental disabilities or those lacking experience and knowledge in using the product (including children). Please take care of children to ensure they do not play with the machine.
4. This product is not designed for outdoor installation. If outdoor installation is necessary, corresponding measures must be taken to protect the product’s installation pipelines and electrical circuits from direct sunlight, rain, heat, cold, pollution, or animal damage.
5. Power off is prohibited during the use of the machine. If there is a power outage, please promptly close the inlet valve or ensure that the machine is in the service status; When the machine is in the regeneration status (except for the service status), power outage will continue to drain or refill water to the brine tank, which may cause water leakage hazards. The company will not be liable for property damage caused by power outage and poor drainage.
6. Do not hold or rotate the control valve against regulations, as the company will not be responsible for any resulting connection loosening, water leakage, or machine damage.
7. The product should be installed upright, with the drain pipe and overflow pipe connected to the floor drain, ensuring smooth flow in the discharge and overflow pipes. The installation area should be able to ensure that accidental water leakage from the product or connecting pipes will not cause damage or flooding to items or buildings in adjacent areas. The

company will not be responsible for repairs or compensation for losses caused by poor drainage.

8. Please use this product within a water temperature range of 5-38°C and a water pressure range of 0.15-0.6MPa. Any malfunctions occurring outside of this range are not the responsibility of the company or covered by the warranty.
9. Soft water is not recommended for direct drinking but can be used as domestic water.
10. Maintenance, repair, and filter media replacement for this machine are chargeable services.
11. Due to continuous product updates, there may be discrepancies between the product and the manual; the actual product shall prevail.
12. If there are any changes in design and specifications, no separate notice will be given, and the company reserves the right to interpret this manual.

## Notice

- The machine must not be tilted during transportation, installation, or use. Do not attempt to install the machine in reverse or connect the inlet pipe to the outlet. Upside-down installation is strictly prohibited.
- Use reagent to test raw water hardness, as the raw water hardness is closely related to the effect of softener and water treatment capacity. Use this softener under the condition that raw water hardness <450mg/L.
- If the raw water fails to meet the standards of local tap water, such as the sediment concentration or residual chlorine content exceed the stand, etc., the pretreatment device should be installed in front of the device. (Such as Y type filter, ultra filter, activated carbon filter and so on.)
- Forbid installing the device near heat source or take anti-heat protective measures when install near the heat source. It is also forbidden to connect the device with the hot-water pipeline or the pipeline with the possibility of hot-water returning. Forbid the product under the temperature lower than 1°C. Protect resin from freezing which may result in resin broken and disabled.
- Do not install the machine where it is used to filter water containing microorganisms, water of unknown quality, or water that has not been adequately disinfected.
- Please do not install this product near substances or gases with acidic or alkaline properties to avoid corrosion.

- Connect to a household power socket with a rated voltage of 220V AC, 50Hz. When replacing the power adapter, only use the one provided by our company.
- The power source is recommended to be higher than the machine's inlet and outlet positions. It must be connected to a socket with a reliable grounding wire that meets national standards. Do not place the power strip on the machine.
- Users who connect the product behind heating water boilers or water heaters must install a check valve between the product and the water heater to prevent damage to the internal system from hot water backflow.
- When using the water softener for the first time or after a long period of non-use, yellow water may flow out after startup. This is a normal phenomenon. Please run water for 2-3 minutes before continuing to use.
- Municipal water pressure can fluctuate (generally higher at night than during the day). Therefore, in the first two days after installation and operation, closely monitor whether there is any leakage at each connection of the product.
- Keep the machine supplied with stable power. In case of power failure or manual power off, please immediately close the machine's water inlet valve. If the power is off for more than 3 days, the time of day needs to be reset to avoid affecting normal use.
- When the display interface shows 12:12 flashing, it indicates that there has been a long power outage (more than 3 days). Please reset the current time. For short power outages, there is a memory function, and no reset is needed.
- If there is a power outage during the regeneration process, it will continue to drain water. Please check if the machine is regenerating when the power is off.
- The brine valve only assists in controlling the amount of water refill and the function of closing the brine draw when powered. Long power outages in a continuous water refill status may cause the water refill closing function to fail due to impurities and water pressure fluctuations. The company is not responsible for compensation for continuous water waste or property damage caused by flooding.
- Do not continue to use this residential softener when the sewage pipeline or floor drain is blocked.
- The product should prevent water hammer phenomena during

operation. Try to avoid rapid full opening or closing of valves and similar operations such as starting and stopping water pumps.

- When there is a sudden increase in water usage (relative to normal usage) or an increase in source water hardness, please adjust and shorten the regeneration cycle, and increase the number of regenerations to ensure the demand for softened water.
- When you are away for a long time and do not use the product, it is recommended to close the water inlet valve and power to avoid accidental losses. If there are special circumstances that prevent water disconnection, the machine must be in the service status before power off. Otherwise, please keep the power supply to ensure the water softener works and regenerates as usual. Before using water again, perform a manual regeneration operation and open the faucet to run water for 2 minutes before use to ensure the quality of the softened water output.
- This product should use regeneration-specific salt with a purity of more than 99%. The use of salt containing additives and large granular crystal salt is prohibited.
- Sodium used in the water treatment softening process is considered part of the sodium in edible salt. If you are a person who limits sodium intake, please add a purification product at the drinking water end.
- If any of the following situations occur, please immediately disconnect the product's water source (close the water ball valve) and power, and contact the service provider for processing:
  - When there is a leak in the product's pipeline or related components;
  - When the related components of the product fail to function;
  - When there are any other abnormal phenomena or failures.

At the end of the product's life cycle, the product's parts and waste classification should be handled correctly according to local laws and regulations.

## 1. Product profile

The product is working automatically and intelligently. It adopts food-grade cation resin to soften water, efficiently reducing calcium and magnesium ion content of tap water. After the resin is invalid, the regeneration function will automatically control the device to regenerate resin by brine, recovering the softening function of the resin. It can automatically realize the function of brine refill, brine dissolve, backwash, brine & slow rinse, and fast rinse without manual operations.

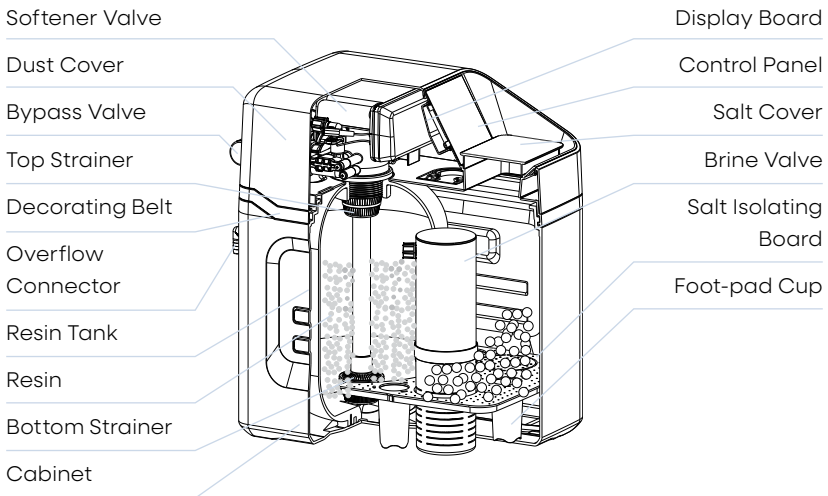
## 2. Working principle

Ion exchange technique is applied to the softener. It can realize the purpose of wiping off the lime scale (Calcium carbonate and magnesium carbonate) through replacing the calcium ion and magnesium ion by the sodium ion of the resin. According to the pre-set program, it can automatically control the open and close of valve, so as to conduct brine refill, brine dissolve, backwash, brine & slow rinse and fast rinse.

## 3. Application

The product can be used for treating the tap water or other qualified raw water.

## 4. Assembly & parts



## 5. Specification & Technical Parameters

Model	Rated Flow Rate ( L/h)	Suggested Flow Rat ( L/h)	Water Capacity Per Cy-cle ( L)	Rated Treated Water Quantity ( m <sup>3</sup> )
Neo	1600	800-1600	2700	9500

\* Water treatment capacity per cycle is various according to the difference water quality of different region.

The standard testing conditions is:

Water temperature: 25 °C

Raw water hardness: 150mg/L (CaCO<sub>3</sub>)

\* The outlet water conforms to the regulations (2001) of Safety and Function Assessment for

Drinking Water Treatment Device- General Treatment Device.

\*Transformer-Input: AC100-240V~50/60Hz; Output: DC12V / 1.5A Water Pressure: 0.15-0.6MPa

Electrical Facility: AC100-240V-50/60Hz Water Temperature: 5-38 °C


Environment Temperature: 4-40 °C Relative Humidity: (90% (25 °C)

## 6. Function and Characteristics

### 1. Regeneration starts automatically

According to the set hardness of raw water and regeneration time by user, the system will start the regeneration program automatically.

### 2. Regeneration starts manually

In unlock status, press “” button to start regeneration immediately.

### 3. Water usage query function

Can query the maximum flow in the previous week, as well as the water consumption and total water consumption in the previous month and year

### 4. Water capacity can be calculated automatically

After inputting the hardness value, the control valve will automatically calculate the system water treatment capacity and display on the LCD screen.

### 5. Brine dry mode & regeneration with softener water

Under brine dry mode, brine refill starts 4 hours before the service finishes. It is softened water that refills the tank, which is conducive to enhances the effect of regeneration; While brine refilling and dissolving, the valve is softening water (softened water flows out from outlet). It saves time for regeneration and improves working efficiency.

There is water in brine tank when in brine refill, salt dissolve and backwash status; after brine draw, there almost is no water in brine tank when in fast rinse and service status, and the salt is dry in brine tank, which is brine dry mode.

### 6. Brine draw proportionally

When actual water used does not reach the water treatment capacity, but the time reaches the maxima! regeneration days, so the softener will have proportional brine refill and brine draw according to the ratio of actual water used and water treatment capacity. It is more reasonable, to achieve the purpose of saving salt and water.



### 7. Water hardness can be adjusted

It can adjust the hardness of outlet water by adjusting bolt to mix up apart of raw water with softened water.

## 8. Automatic memory function

The parameters set by users, such as regeneration time, brine refill time, backwash time, brine & slow rinse time, fast rinse time, and so on, can be saved permanently no matter how long the power is off. If there is a continuous power outage for more than 3 days, the clock calibration prompt interface will be displayed continuously.

## 9. Buttons lock function

No operations to buttons for a period of time, buttons are locked. Press and hold the “” and “” buttons for 3 seconds to unlock. This function can avoid incorrect operation.

## 10. Regeneration mode: Meter delayed

When the available volume of treated water drops to zero, if the current time does not same as the regeneration time, the system will not start regeneration until the time reaches the regeneration time, avoiding regeneration when water is used, and no water is available at that time.

## 11. Vacation mode

Before travelling, please set the softener to vacation mode. In this mode, the softener will be in brine refill status firstly, and then in salt dissolve and brine draw status (this brine draw time is only 25% of normal brine draw time, that's to say, the resin is totally soaked in brine to avoid losing resin's efficacy). After brine draw finished, the valve will go to the close position or close the inlet valve. After vacation, release from this mode, and softener will start fast rinse - service. It effectively avoids unqualified water caused by not used for a long time, and avoids loss when softener leaks in a system exception situation.

## 12. Salt shortage alarm

Input the total salt quantity one time added, the program would automatically calculate the regenerated salt consumption according to the resin volume. When the amount of salt remaining in the brine tank is less than the consumption for single regeneration, the softener will display “Please check if the brine tank with enough salt” in service status. When the salt added quantity is set to zero (0), this function can be turned off.

## 13. Resin maintenance or replacement reminder function

The system will automatically calculate the regeneration times. When the resin is almost invalid, the display in service status will show “Please maintain or replace the resin”.

## 14. Working automatically

**Softening:** Under a certain pressure and flow rate, the raw water flows through this device, at the same time, the calcium ion and magnesium ion of raw water are replaced by the sodium ion of resin, reducing the content of calcium ion and magnesium ion and realizing the purpose of softening water. **Brine refill:** The brine tank is refilled with water to dissolve the salt so as to provide the saturated brine for regeneration. Meanwhile, there is softened water can be provided from outlet.

**Brine dissolve:** When control valve turns to service status, brine dissolve will be lasting 4 hours. **Backwash:** After the resin is saturated and lose softening efficacy, the program start backwash before regeneration. On the one hand, it can wipe off the broken resin and the impurity on surface layer of resin. On the other hand, the reversed flow direction can loosen the tight resin and make it benefit for the touch between resin particle and regeneration liquid.

**Brine & slow rinse:** A certain concentration of brine flows through the resin. Meanwhile, the calcium ion and magnesium ion on the resin surface layer are replaced by the sodium ion, making the invalid resin regeneration and recovering its softening capacity.

**Fast rinse:** Discharge the residual brine and compact the resin particle so as to reach the best softening effect. By this step, the product automatically finished one service cycle.

## 15. Leakage shut-off function

The program sets the continuous water supplying time and maximum peak flow rate to close the inlet of the control valve, reducing the losses caused by water leakage in the machine's back-end pipeline system under abnormal conditions.

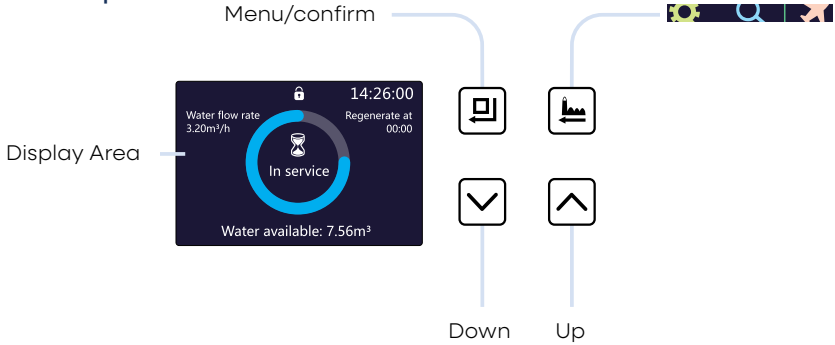
## 16. Salt efficiency mode (for professional operation only)

According to the different needs of water treatment capacity and salt consumption, the built-in program can choose between salt saving mode and standard mode. The factory default setting is salt saving mode. If you need to change it, please contact the local after-sales personnel for on-site service.

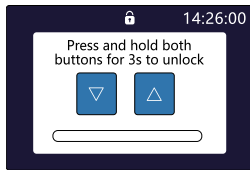
## 7. Setting & Usage

### 7.1 Control Valve Setting and usage

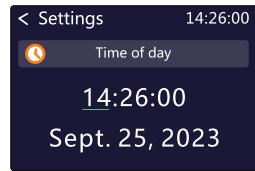
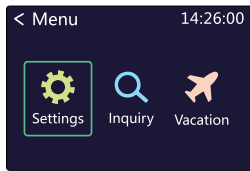
#### Control panel



#### Child lock



If not operated for a long time, it will enter the child lock state and “🔒” will light up; Press the “⏴” and “⏵” buttons simultaneously for about 3 seconds to unlock.



1. In the work interface, press the “☐” to enter the menu, and then press the “☐” to enter the settings interface.
2. Press the “⏴” or “⏵” button to select the setting item, and press the “☐” button to confirm
3. Press the “⏴” or “⏵” button to adjust the flashing value.
4. Press the “☐” button to save and return to the upper menu, and press “🏭” button to return without saving.

## User parameter settings

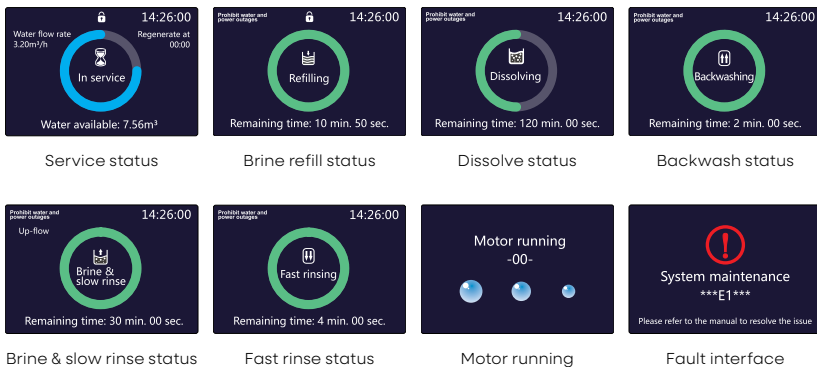
Item	Parameter Set Range	Factory Default	Actual setting
Time of Day	00:00-23:59	Current time	
Regeneration Time	00:00-23:59	00:00	
Water Hardness	50-999mg/L	150mg/L	
Salt Adding Volume	0-100kg	0kg	
Continuous Water Supplying Time	00-120min (This function will be invalid when set as 0)	00	If the actual continuous water time is longer than the set value, the control valve will turn to close status automatically.
Peak F.R. for Close	0.00~ 10.00m <sup>3</sup> /h (This function will be invalid when set as 0)	0.00	If the actual flow rate exceeds the set value, the control valve will turn to close status automatically.

Illustrate: After successfully setting the hardness of the raw water, the service interface displays the total softened water volume or remaining water available volume. **When users feel that the water treatment capacity is too low during use, they can use the raw water hardness setting function to adjust the softened water volume. By appropriately reducing the input value of raw water hardness without affecting the quality of softened water, the water treatment capacity can be increased.**

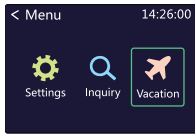
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## Basic work interface

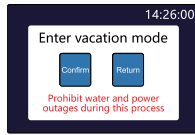
After power on, the startup interface will be displayed for 6 seconds before entering the usage mode. Display legend for each station of flow type softener valve (taking up-flow regeneration as an example)





## Vacation mode

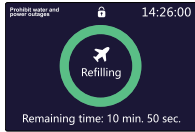


Menu interface

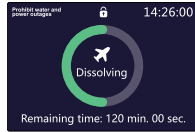


Anti misoperation interface

In the work interface, press the “” to enter the menu, and then press the “” to enter the vacation mode.



Brine refill status



Dissolve status

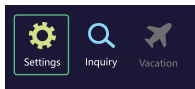


Brine & slow rinse status



Waiting for exit vacation mode

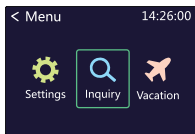
The process is shown in the above figures: Initially, enter the brine refill status. Once the brine refill is completed, proceed to the salt dissolve status for 240 minutes. After the salt has dissolved, move on to the brine & slow rinse status (the brine draw time is 25% of the standard duration). Upon completion of the brine & slow rinse, the system will then wait for the exit from vacation mode.



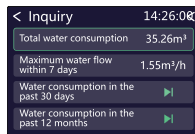
Note:

The vacation mode can only be selected in the status of “In service”. The icon for vacation mode in other status is displayed in gray and cannot be selected at this time.

## Query



Menu interface







Query interface



Query sub interface



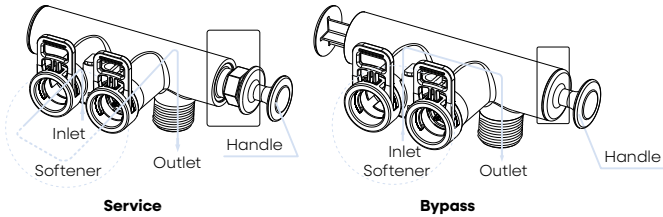
1. In the work interface, press the “” to enter the menu, and then press the “” to enter the query interface.
2. Press the “” or “” button to select the item you want to query.

## 7.2 Usage of Brine Valve

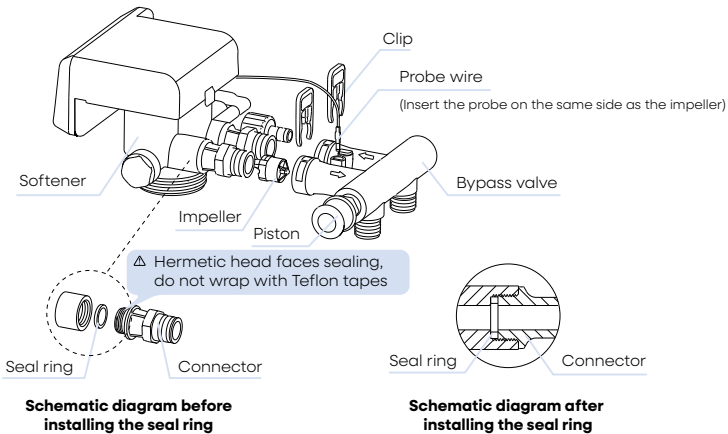
1. Under the brine and slow rinse status, with the floating ball, the brine valve can prevent the air from being inhaled which may affected the regeneration and usability. That is, the brine valve has the function of air check.
2. Under the brine refill status, the brine valve can control the volume of refilling water by cont-rolling the position offloater and control salt consumption.

## 7.3 Installation and Usage of Bypass Valve

The bypass valve has the function of bypassing. When the piston is pushed to the position of inlet and outlet, the bypass valve is in service status; when it is at bypass position, the bypass valve is in bypass status. It adopts quickjoint structure to connect the softener valve with bypass valve, with the characteristics of reliable sealing, quick and convenient installation.



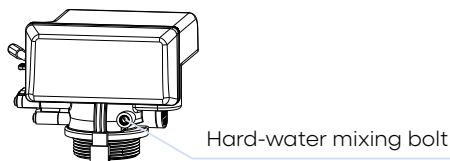
Installation diagram of bypass valve



## Mixing function

If the users think the hardness of outlet water is too low, they can adjust the hardness by using the function of mixing water according to the actual demand.

Operation: Anticlockwise rotate the adjusting bolt. The wider angle is, the higher outlet water hardness will be.



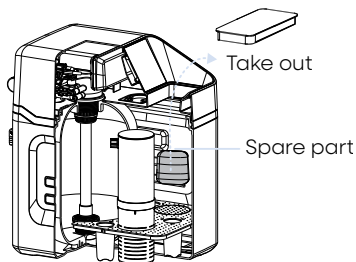
**Note: This function needs to be operated under the guidance of professionals, and users should not operate it arbitrarily**

## 8. Usage illustration

### Main installation steps

The product needs to be installed and debugged by professionals. The following steps are for reference only.

1. Confirm the installation conditions, and ensure that the inlet and outlet pipelines, power supply, sewer pipes, and floor drains on the installation site meet the installation requirements.
2. Before installing and debugging the product, please take out the spare parts kit and fillers from the product cabinet (as shown in the figure below), check if the accessories are complete, and prepare installation tools.



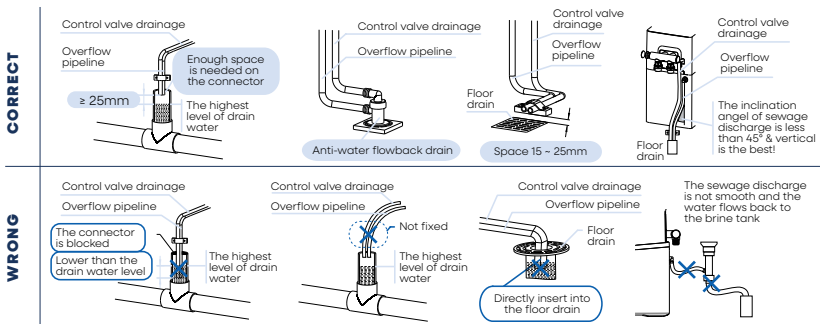
3. Fully close the inlet valve, then turn on any faucet to release the pressure in the water pipe.
4. Install inlet and outlet pipes on the wall according to the actual height of the product above ground, paying attention to the direction of the inlet and outlet to prevent the connecting pipes from hearing stress.
5. Install and connect the bypass valve to the inlet and outlet pipelines, and it is recommended to use PPR pipes.
6. Cut appropriate lengths of sewage pipes and overflow pipes, install them separately (tighten the hoses with clamps), tidy up the pipelines, and connect them to the floor drain.
7. Move the machine to the corresponding position of the joint, connect the inlet and outlet of the bypass valve to the joint in the inlet and outlet direction of the corresponding control valve, and fix the connection with clips.
8. After installation, adjust the bypass to the bypass state, open the inlet valve, flush the pipeline clean, and then close the inlet valve.
9. Push the bypass valve to the operating position, open the inlet valve, connect the power, and perform product debugging. (See Chapter 9 for details)

### Notes for installation

- When installing the machine, appropriate operating and maintenance space should be left nearby.
- To ensure normal operation of the product after installed, please consult with professional installation or repairing personnel before use it.
- The installation of the machine must have a drainage floor drain and ensure smooth drainage. Product installation cannot be carried out without a floor drain or drainage position.
- When installing threaded connections at the interface, sealing rings are usually provided and can be tightened by hand. It is not recommended to use tools as excessive force may be applied (threaded joints are made of plastic material and have lower strength than metal materials) to avoid the risk of water leakage caused by cracking or breaking at the root of the threaded connection.
- Please apply lubricating grease to the O-ring position of the connector before assembly.
- All inlet and outlet water pipes shall be made of water supply pipes and fittings that have been inspected and approved by health departments

at or above the local level. The installation and connection of all water pipes shall comply with local installation standards.


- All inlet and outlet pipes should use pipes and fittings that meet the standards for drinking water. The connection of pipes and circuits should comply with national or industry standards, and pipeline connections should comply with relevant national installation specifications. To ensure safe use, there must be a floor drain within a 1-meter radius of the product installation; The product should have a separate drainage pipe for discharge, and anti backflow measures should be taken at the product's drainage outlet to avoid the phenomenon of sewage flowing into the product through the drainage pipe or brine tank overflow pipe due to poor drainage or siphoning.
- When connecting pipelines, attention should be paid to the connection height and placement angle. There should be no obvious stress after pipeline connection to avoid damage to the water pipe due to pipeline stress after long-term use, which may cause leakage of the product or pipeline.
- Overflow pipes and sewage pipes need to be installed as separate pipelines and cannot be combined to enter the sewer for drainage.
- Overflow pipes must be installed, and the drainage and overflow pipelines must be smooth.
- It is prohibited to use sewage pipes that are bent, deformed, or have the risk of blockage.
- The outlet of the sewage pipe must be lower than the overflow port of the machine and have sufficient drop to prevent wastewater from flowing back into the machine's brine tank, as well as to prevent water overflow from the brine tank under continuous brine refilling due to poor drainage, which may cause nearby property to be submerged or flooded.

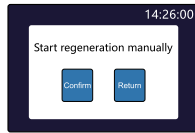


**Warning: Be sure to install the drainage pipeline correctly! Quality accidents, such as sewage overflow, blocked drainage or blocked floor drain caused by improper installation are not covered by our company's warranty and compensation.**

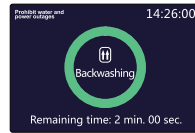
## 9. Trial Running

After installing the device and setting the relevant parameters, please conduct the trial running as follows:


1. Fill the brine tank with 3- 7L water and then start the device.  
(This step is necessary only for the situation that the device is put into use for the first time.  
The softener will refill the water automatically when works normally.)
2. Switch on power. Press “” and go in the backwash status. Slowly open the inlet valve to 1/4 position (Avoiding to open the valve too quickly to damage the device and make the resin run off). At this moment, you can hear the sound of air-out from the drain pipeline. After all air is out of pipeline, then open inlet valve completely and conducting 2-3 minutes backwash, cleaning the foreign materials in the resin tank until the outlet water is clean.



Anti misoperation prompt to prevent user misoperation



Backwash status


3. Press “” and turn the status from Backwash to Brine & Slow Rinse. Under this status, the brine will be absorbed from the brine tank into the resin tank and the resin is regenerated. After absorbing, the brine valve will close. The system will still conduct about 25 minute’s slow rinse, wiping off the residual brine. The whole process will take about 50 minutes to finish. (It can be without adding salt when trial running, use tap water to test the function and system seal.)

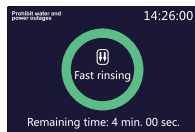


Brine & slow rinse status

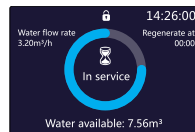


Backwash status


4. Press “” and turn into Past Rinse status. Remove the residual brine from the resin, and the forward water flow will compress the resin layer to achieve the best softening effect before it can be put into operation




Fast rinse status



Service status

5. When the sample outlet water is qualified, press “” and finish the Fast Rinse. Then the device turns into Service status and start running.

**Illustration:**

1. When the product enters the regeneration process, the softened water stops and the program automatically completes according to the set time value. To end a certain step of the regeneration process in advance, press the “” button.
2. The first installation requires a trial run of each status. During the trial run, check the water output of each state and ensure that there is no leakage of filter material; And check each pipeline joint one by one, no leakage is allowed.
3. The regeneration time for backwash, brine & slow rinse, brine refill and fast rinse can be set according to the recommendations of distributors or specialized personnel.

Notice: Under normal situation, user does not need to do any operation except adding a certain amount of salt into the brine tank.

**Friendly Reminder: To ensure that the storage of new resin is not damaged or bacterial growth occurs, the new resin contains a protective agent. To ensure the safety of water use for newly installed water softeners, the machine should be thoroughly rinsed before first use.**

Requirements for installation:

According to the installation requirements of the entire machine's pipeline, the inlet and outlet pipes must not be smaller than the size of the machine's inlet and outlet. If the inlet pipe is 3/4", it is necessary to ensure that the aperture of the inlet pipe is not less than 15mm; If a small-sized inlet pipe is used, it will affect the flushing speed and intensity, resulting in insufficient resin flushing discharge and the need to extend the flushing time.

Rinse steps:

1. Turn off the water outlet faucet of the machine (if it is not turned off, hard water will bypass to the outlet, affecting the flushing effect), switch to the backwash status, disconnect the power supply (to avoid the program automatically going to the next status), rinse for more than 15 minutes, and fill the resin tank with water until the discharged water is clear;
2. After powering on again and waiting for 1 minute, manually switch to the fast rinse status and disconnect the power. After 20 minutes, switch to the service status to start treating water. After one minute of water discharge, take a water sample for testing. If it passes the



Note: Keep the drainage outlet flowing smoothly during flushing.

## 10. Maintenance

### Check the salt level and add salt again

Brine is required for each regeneration. The water required for dissolving salt is added to the brine tank through the valve of the residential softener and controlled by an electronic controller, but the brine tank must be filled with sufficient salt. Attention: In humid areas, it is best to add salt in small amounts multiple times.

### When to add salt

According to water usage habits, it is recommended to check the brine tank every 2-4 weeks. When passing through the salt surface, the salt isolating board or brine well base can be directly seen, and salt needs to be added (as shown in Figure 1). The method of adding salt is shown in Figure 2. It is recommended to add sufficient salt.

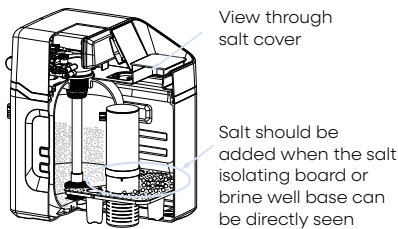


Figure 1

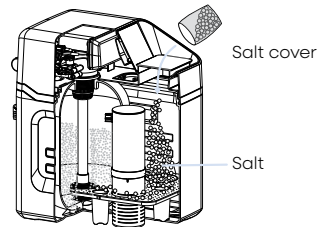
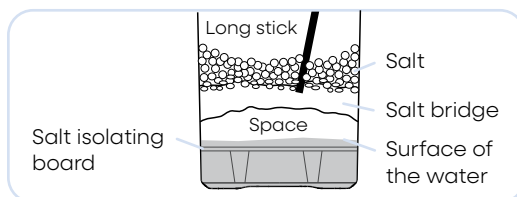


Figure 2: Schematic diagram of adding salt

**Caution: Do not let the residential softener run out of all salt. If there is no salt, the machine will not be able to provide you with soft water. Be sure to use specialized salt for residential softeners.**

### Salt Bridge

Sometimes, a hard shell or salt bridge forms in the brine tank, usually due to high humidity or the use of unsuitable salt. After the formation of a salt bridge, a gap is formed between water and salt. At this point, salt cannot dissolve in water to provide brine. If the brine tank is filled with salt, it is difficult to distinguish whether a salt bridge has formed. The salt on top is loose, but the salt bridge is below. Here is the best way to check the salt bridge:



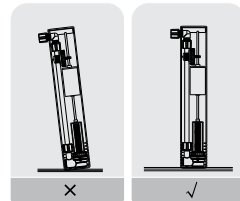
The salt in the entire brine tank should be loose from top to bottom. Carefully insert a long stick into the salt and stir it back and forth. If it contacts with a very hard object (make sure it's not a salt isolating board, the bottom or a side wall of the brine tank), it may be a salt bridge. Carefully break the salt bridge with tools. Do not hit the brine tank wall. If the salt bridge is formed due to the use of inappropriate salt, remove it and add residential softener specific salt into the brine tank.

### Suggested replacement cycle table for key components

Cation exchange resin	5 years
FRP tank	5 years
Control valve	5 years
Brine valve component	5 years

#### Note

- Before maintenance, the main water inlet switch of this residential softener should be turned off.
- To clean the dust or foreign objects on the surface of the product, use a soft fabric soaked in water to wipe it. Be careful not to let water enter the machine and corrode electronic components, causing damage. Do not use harmful cleaning agents or chemicals to clean this product.
- Please regularly check the residential softener to avoid financial losses caused by water leakage. The inspection includes:
  - Check if there is any water leakage or seepage in the machine and water pipe fittings. If so, please contact the service provider
  - Check whether the power supply and wires are loose or damaged
  - Check if the overflow pipe is blocked. If so, please promptly remove it yourself
  - Check if the brine well is vertical and provide proper alignment. (As shown in the figure on the right)



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