

KENT WASHING MACHINE
WATER SOFTENER

Makes Hard Water Soft

Instructions Handbook



Ideal for
Washing Machines



Welcome to KENT

Dear Customer,

At the outset, allow us to thank you for your trust in KENT Washing Machine Water Softener. At KENT, we take pride in our reputation for quality products and industry proven performance. We are certain that you will be more than satisfied with KENT Washing Machine Water Softeners' performance and that it will serve you without any compromise.

This guide will help you in getting the best out of your appliance. Please go through the booklet to familiarize yourself with the appliance's operation and maintenance.

With its robust built quality, you can look forward to years of trouble-free service.

To ensure that the warranty of your appliance is effective, it is important that you fill up the enclosed warranty card and mail it to us within 15 days of purchase.

In case you require any further information, please contact your nearest KENT dealer/branch.

Happy Living,

KENT RO Systems Ltd.



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Introduction

We at KENT, have always believed that a clean and healthy life is the right of every individual. This ethos made us embark on a journey to develop innovative solutions for purifying water, vegetable and fruits, homes, and air.

With the use of an innovative technology that is supported by a competent service network, we have been able to create a brand which has become synonymous with well-being and health.

Continuing with the tradition, we now present the KENT Washing Machine Water Softener that converts hard water into soft water.

With every passing day, the quality of water is deteriorating. The greater amount of calcium and magnesium salts in water causes hardness. The hard-water causes scaling in washing machines.

It also causes yellowing of clothes, increased consumption of soaps and detergents, and reduces efficiency of soaps, detergents in washing machines.

It's time to say goodbye to hard water with KENT Washing Machine Water Softener. It converts hard water into soft water and continuously supplies soft water 24x7.

Features of KENT Washing Machine Water Softener

- Produces more lather.
- Consumes less detergent.
- Consumes less water.
- Enhances whiteness & lustre of clothes.
- Increases life of washing machine.
- High-quality resin for longer life and efficient ion-exchange process.
- Non-electric process with a simple two step regeneration process.
- No pressure operation and standby mode for longer life.
- Easy to install and use.

Items in the box

- | | |
|--|--------------|
| 1. KENT Washing Machine Water Softener | : 01 No. |
| 2. Plastic White Pipe (¼ inch for drain) | : 2.5 Meters |
| 3. 3 Way Valve (inlet and outlet) | : 02 Nos. |
| 4. Screw and Plastic Inserts | : 04 Nos. |
| 5. Inlet Pipe (½ inch) | : 01 No. |
| 6. Outlet Pipe (½ inch) | : 01 No. |
| 7. Center Drill Sticker | : 01 No. |
| 8. User Guide | : 01 No. |

What is Hardness?

The presence of low soluble salts of calcium and magnesium causes hardness in water. Due to their chemical properties, calcium and magnesium salts tend to deposit as off-white solids on the inside surfaces. This precipitation (formation of an insoluble solid) forms deposits and clogs plumbing. These deposits are called "scale" and the resulting build-up of scale restricts the flow of water.

In washing machines, hard-water causes scaling on the drum, reducing washing efficiency and increases consumption of water.

With hard water, soaps and detergents form a white precipitate (soap scum) instead of lather, resulting in excess consumption, increases washing cycle, and reduced washing efficiency.

How the System Works?

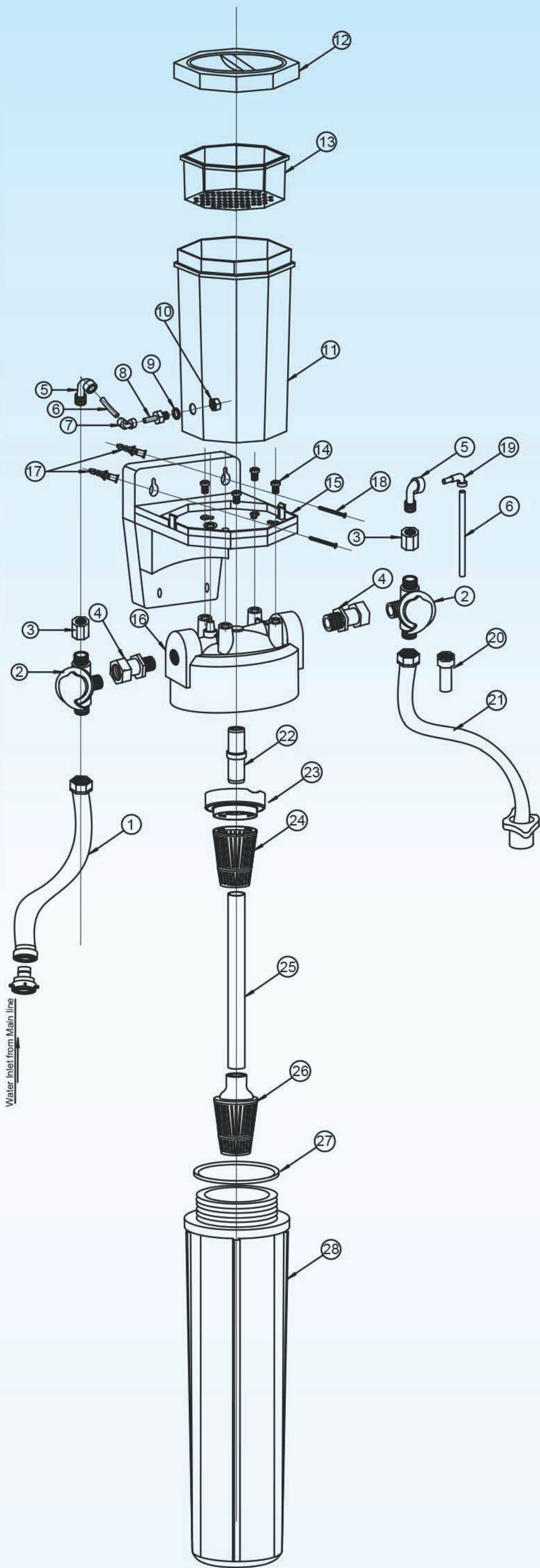
Water-softening appliances intended for household use ion-exchange process. The process reduces hardness in water by exchanging magnesium and calcium (Mg_2^+ and Ca_2^+) with sodium or potassium ions (Na^+ or K^+). Due to this exchange, water turns soft and the clothes come out better cleaned after washing.

Regeneration Method

When all the available Na^+ ions have been replaced with calcium or magnesium ions, the resin must be re-charged for further use.

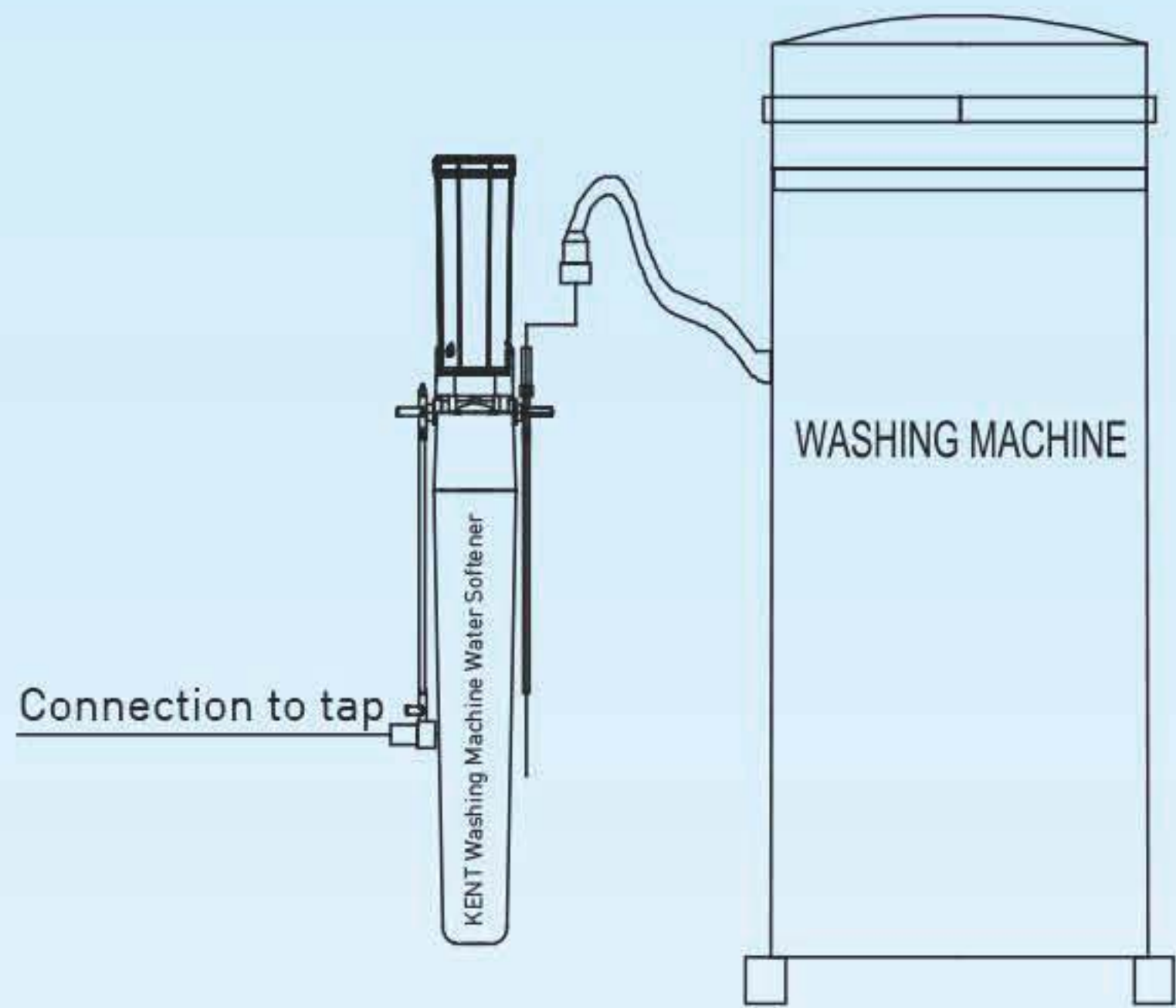
Exploded View

KENT Washing Machine Water Softener	
S.No.	Description
1	1/2" BSP Flexible Pipe for Input
2	1/2" Three Way Valve
3	Cooler Fitting
4	Nipple 1/2"x1/2"
5	Threaded Elbow
6	Plastic Pipe 1/4"
7	Union Elbow
8	Plastic Hex Fitting
9	Silicon Washer
10	Plastic Hex Nut
11	Brine Chamber
12	Brine Chamber Lid
13	Brine Mesh
14	M6 Hex Bolt
15	Mounting Bracket
16	Housing Cap
17	Plastic Wall Insert
18	Screw For Wall-mounting
19	Stem Elbow 1/4" x 1/4"
20	Fitting for Washing M/C, Geyser etc.
21	1/2" BSP Flexible Pipe for Input
22	Adaptor for Housing Cap
23	Strainer Holder
24	Strainer
25	Strainer Pipe
26	Lower Strainer
27	O-Ring for Housing
28	Resin Housing



How to Install?

- The water softener is intended to be used with washing machines.
- Connect it with washing machine. Once the softener is installed properly, connect the softener’s output pipe to the inlet of the washing machine.



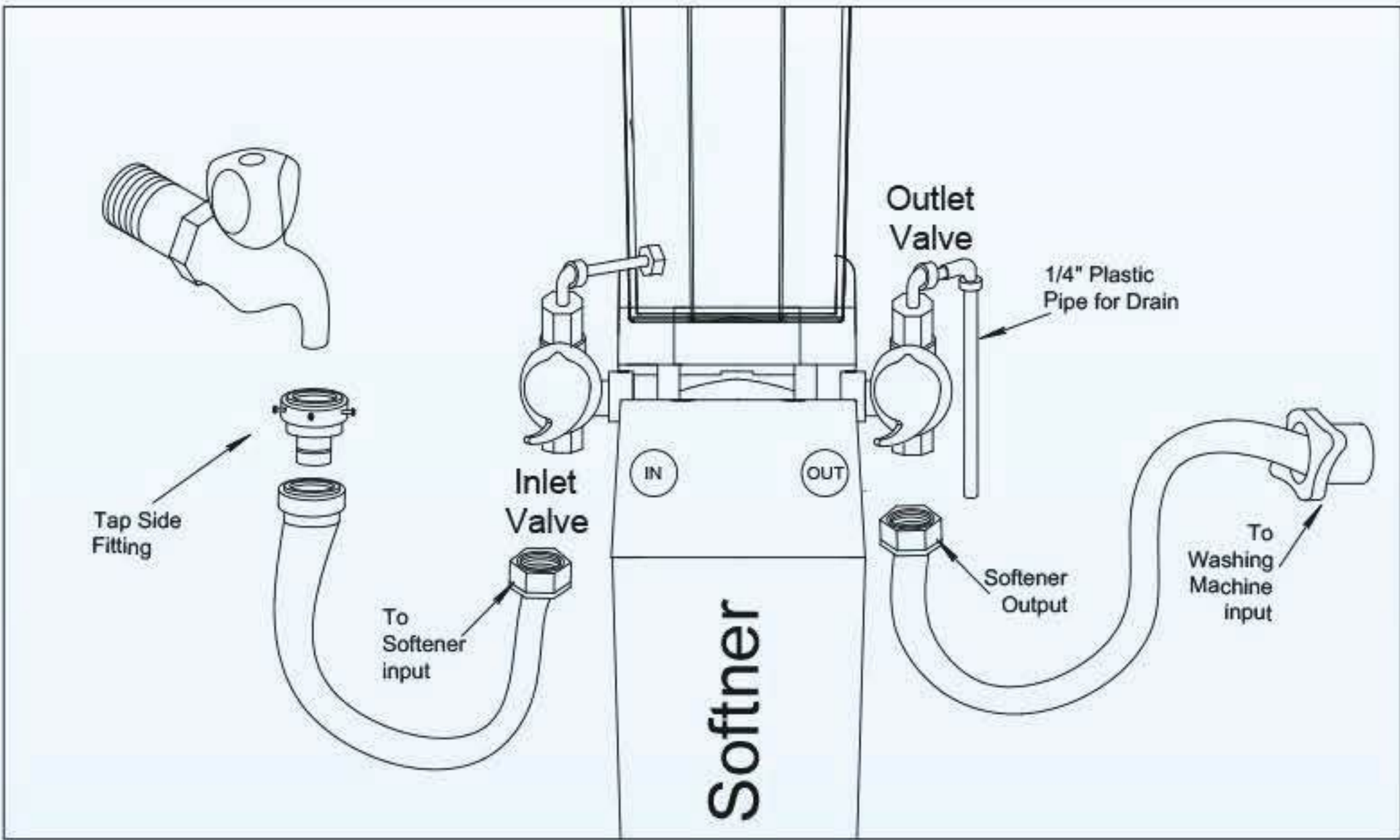
Recommended Site Preparation:

- The softener should be installed near the raw water supply with ½ inch nipple and at not more than 2.5 meters away from the source.
- The drain of the rejected water should not be more than 2.5 meters away.
- Installation space should be with an easy access.
- Avoid installation on wooden or metallic stands.
- Kindly install softener near a place which has easy availability of the inlet and reject water lines.

Procedure

After finalisation of the location for mounting of softener:

- Paste the center sticker drill on the wall surface to drill holes for the self-tapping screws provided with the softener.
- Insert the plastic inserts in the drilled holes and screw the self-tapping screws.
- Mount the softener on the wall using key hole slots given at the back of the machine.
- Attach 3 way valve to softener on both ends.
- Fasten the tap side fitting of the flexible pipe to the tap.
- Fasten the softener side fitting on the softener input.

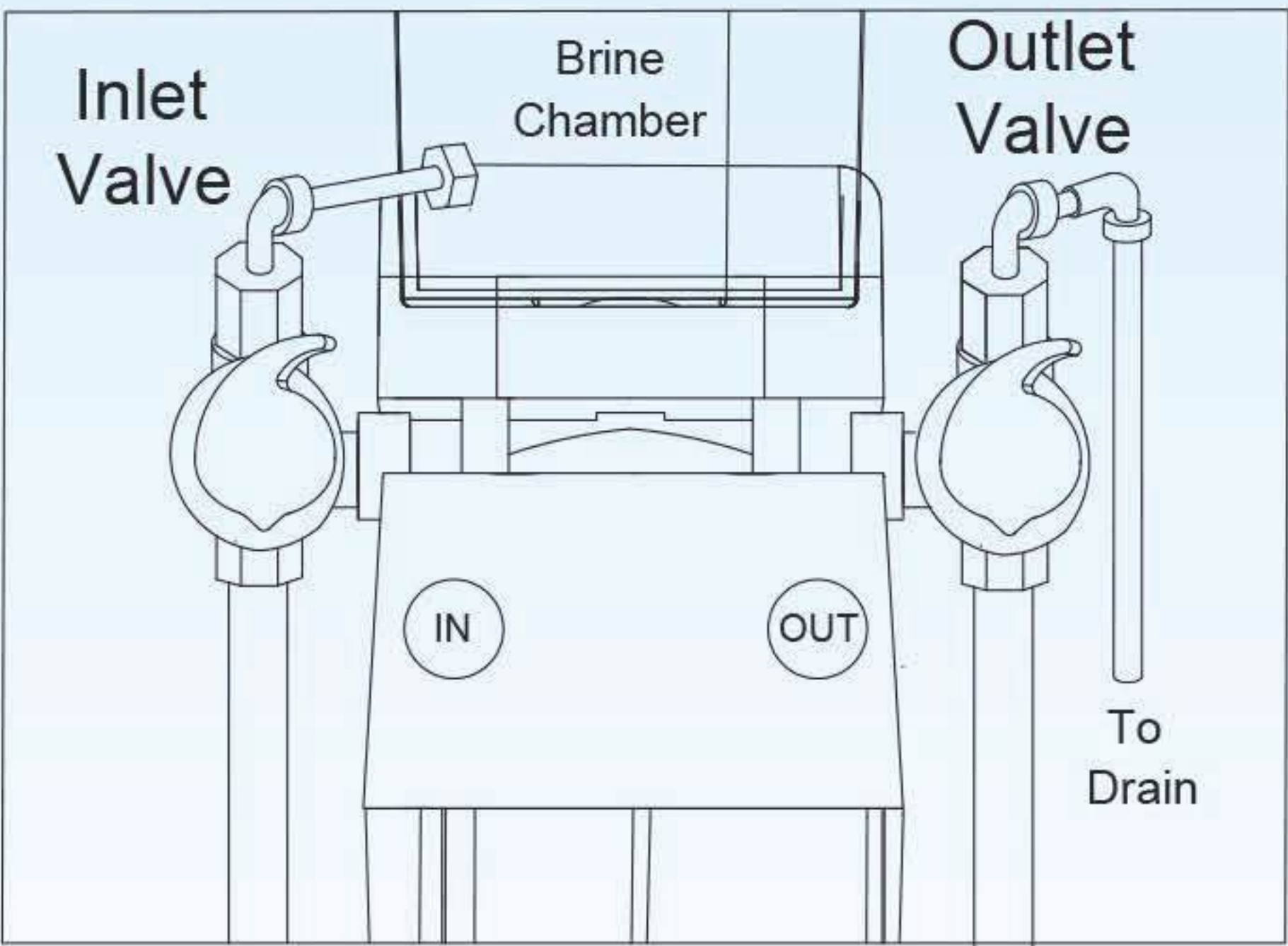


- Now connect the second flexible pipe to output side of softener and connect its another end to your washing machine, using appropriate fittings.
- Connect the white pipe for drain on the upper side of output and modify length according to the distance of the drain water outlet.
- The installation of water softener is complete.
- The water softener is ready for use.

Note: To regenerate softener, follow the procedure as explained under 'Regeneration & Maintenance'.

Operation

For day-to-day usage, keep both the inlet as well as the outlet water valves in the vertical position (facing upwards) as shown in the figure.



Regeneration & Maintenance

a. Regeneration

- If hardness of water increases, it is time for regeneration.
- Usually regeneration is to be done after 300-400 liters of water usage (based on the input hardness of water).

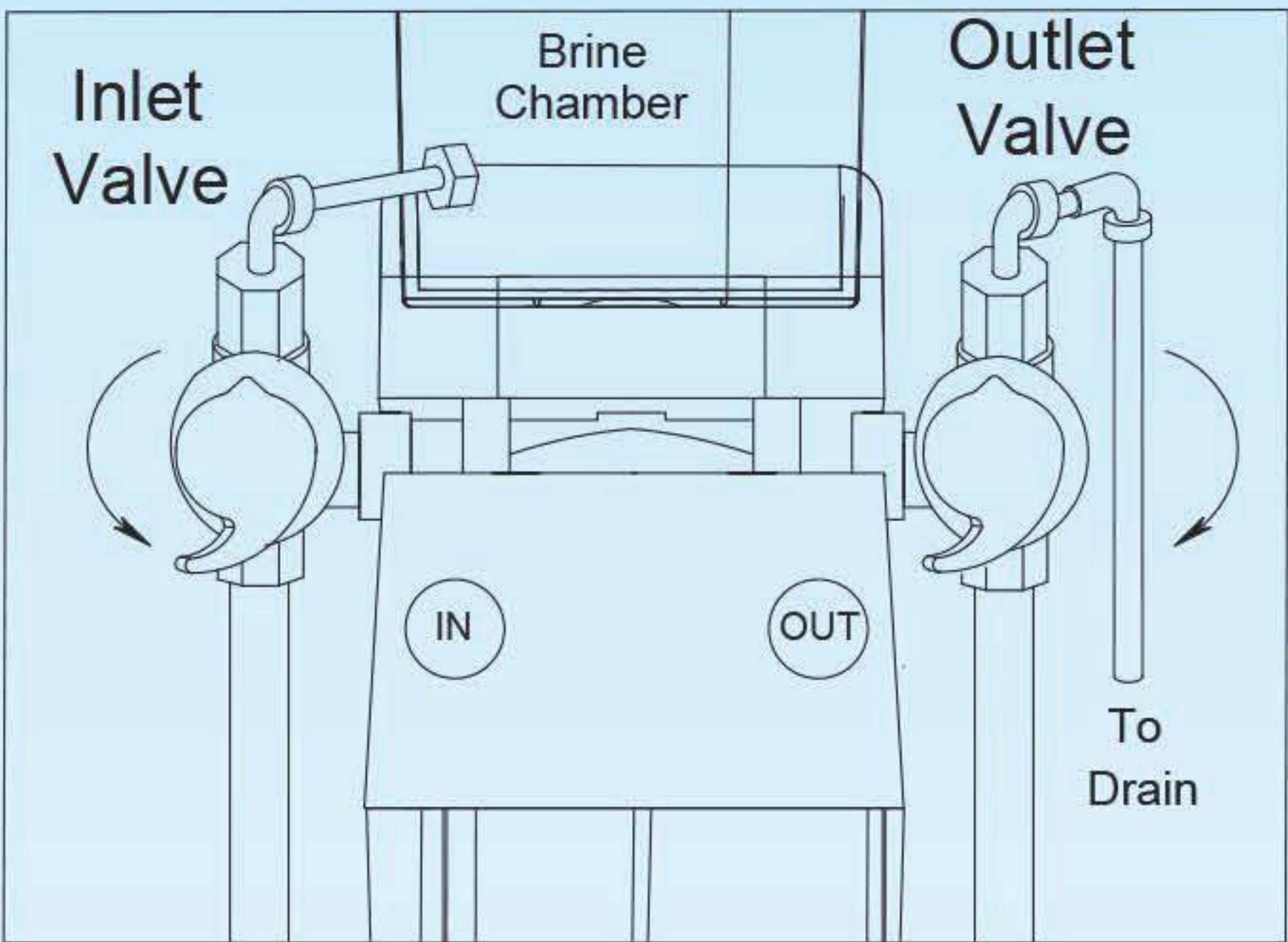
Regeneration Process

Based on the hardness of the water periodic regeneration is required for optimal usage.

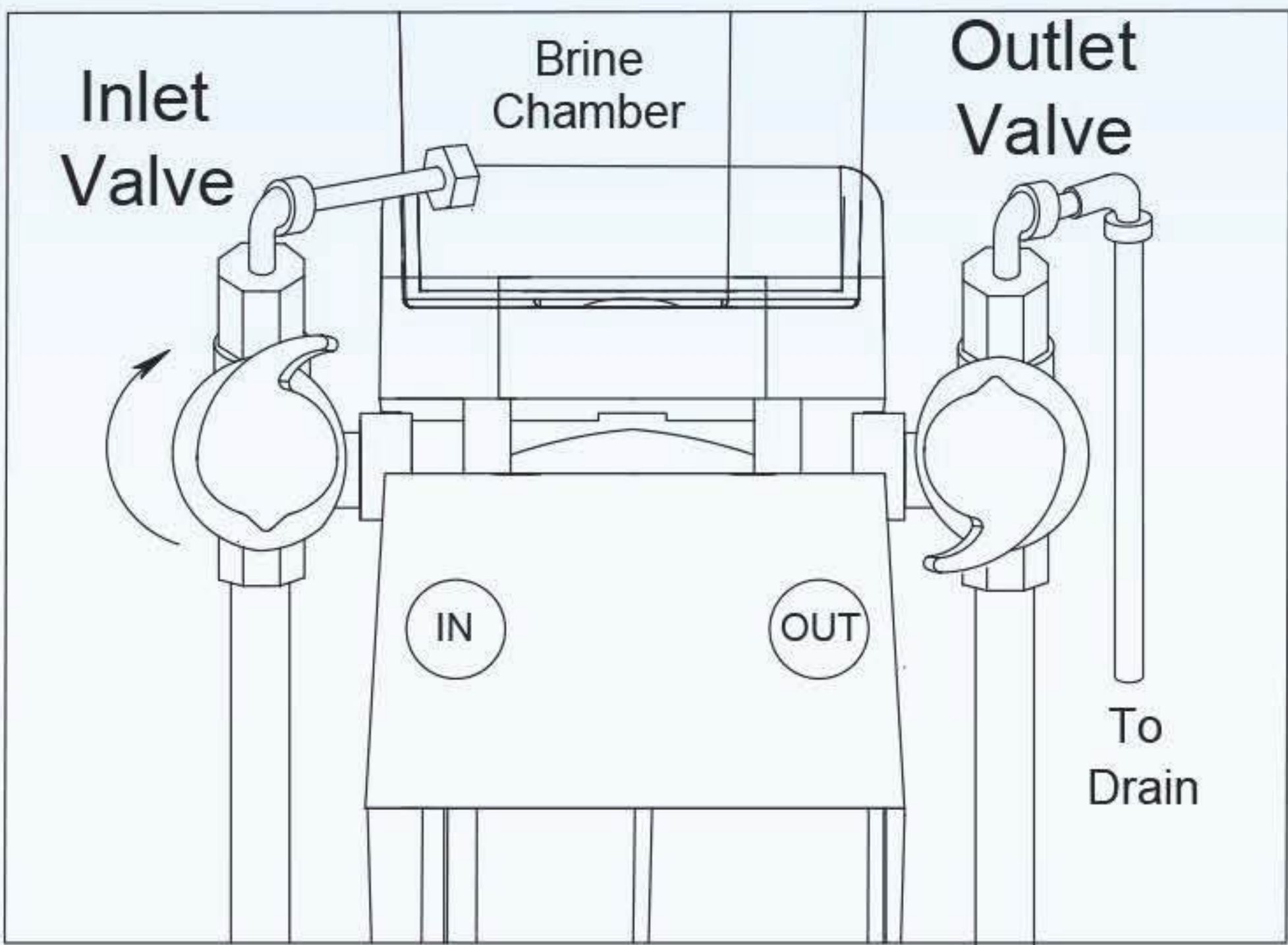
To Regenerate

- Before starting regeneration ensure that the salt chamber is filled with water and has atleast 250 grams of salt dissolved.
- Please repeat the process if the hardness of water is still high even after the first regeneration.

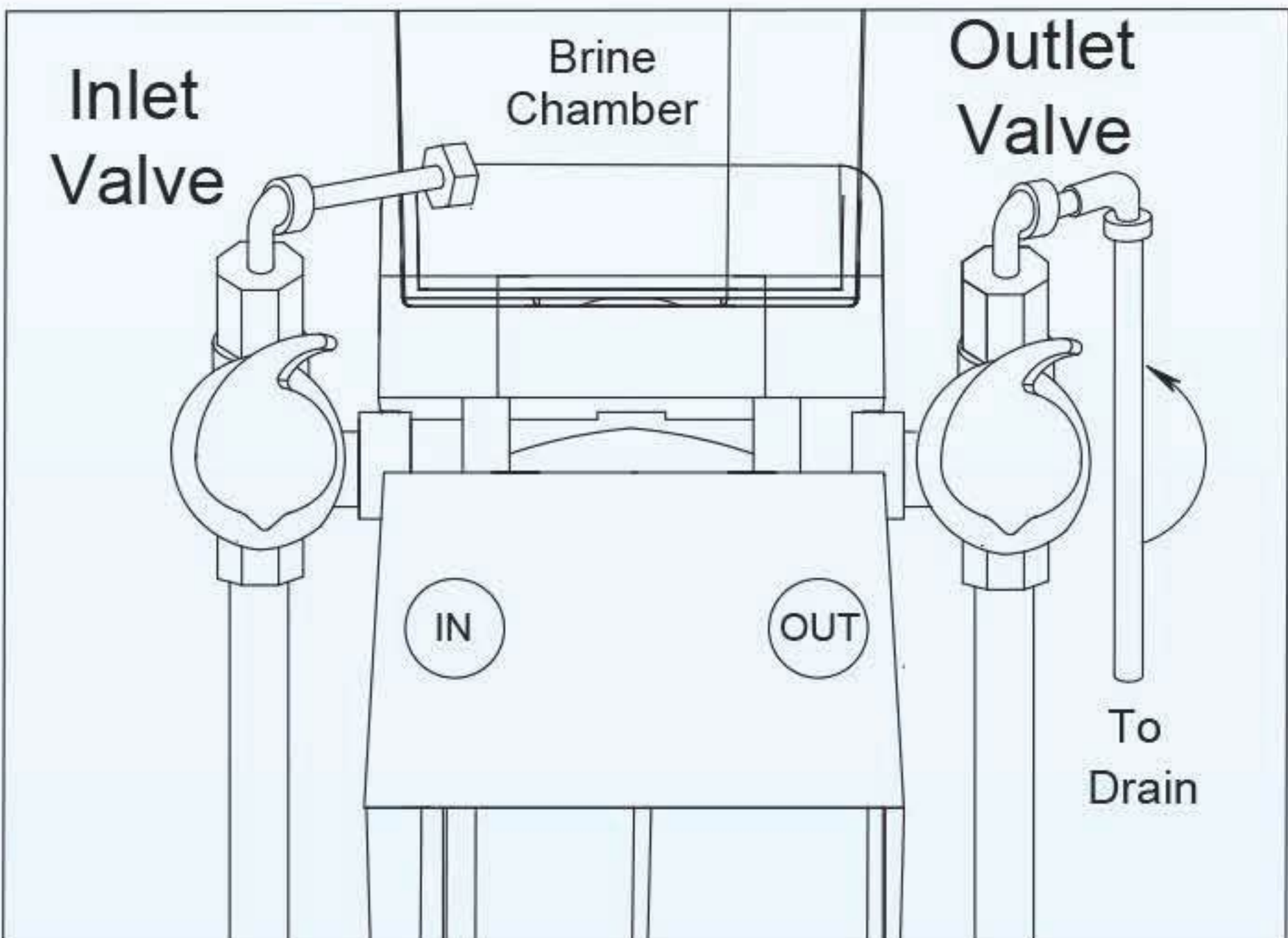
- To start regeneration, rotate the inlet water valve and outlet water valve in anti-clockwise and clockwise direction respectively. Both should be in vertical position (facing downwards).



- Wait for 15 minutes allowing the contents to pass through from brine chamber to the lower housing. In 4-5 minutes the brine chamber/salt tank will be empty. Thereafter for the next 10 minutes the salt will react with resin in the lower resin housing for regeneration.
- Now rotate the inlet water valve clockwise to bring it back to the original position (facing upwards) and allow water to pass for 5 minutes.



- After 5 minutes, rotate the outlet valve anti-clockwise and bring it back to its original position (facing upwards). During this time, the regenerated water would be drained out through outlet pipe (1/4").



- Softener is ready to use post regeneration.
- To ensure self-regeneration after 300-400 liters have been consumed, fill the salt chamber with 250 grams of salt and water.

Note:

- During day-to-day use, always keep inlet and outlet water valve in vertically upward position (facing upwards) and when regenerating move them in vertically downward position (facing downwards). Never ever keep the two valves in any other angle, doing so will cause water to flow in the wrong compartments.
- To clean plumbing and fittings after installation, it is recommended to turn the taps on and let water flow for 3-4 minutes.
- After installation, it is recommended to use the appliance after 30 minutes allowing the resin to settle.

b. Maintenance

- The system needs no special maintenance under normal use.
- If not used for more than a week, it is recommended to rinse the system for 1-2 minutes before use.
- After using for a period of 6 months or so, please call KENT Service technician for backwashing and removal of any blockages.
- When not in use, please turn inlet and outlet valve in horizontal position this would disconnect the system from both water supply and washing machine.

Important Instructions

It is important to follow the below mentioned safety instructions while installing and using the appliance:

- The appliance is not designed for outdoor use.
- Post installation, check all the connections for any leakage.
- In case of any leakage, repair it immediately.
- The appliance is designed to operate at temperatures up to or lower than 60° C.
- Do not use blunt or sharp objects to open or close the lid, doing so might damage the appliance.
- Do not sit on, stand on or shake the appliance.
- Do not use the appliance in recumbent or inclined position.
- The appliance is not designed to be operated by children or by a differently abled individuals.

Troubleshooting

Problem	Possible Causes	Possible Solution
<ul style="list-style-type: none">Water is not soft.	<ul style="list-style-type: none">Regeneration not done.Regeneration not done properly for the prescribed time.	<ul style="list-style-type: none">Carry out the regeneration.Carry out the regeneration for the stipulated time as mentioned in the manual.

Technical Specifications

Model Name	: KENT Washing Machine Water Softener
Model No.	: 111063
Product	: Water Softener
Dimensions (mm)	: 215 (L) x 140 (W) x 820 (H)
Maximum Flow Rate	: 800 L/hr.
Net Weight	: 5.7 kg
Resin Volume	: 1.8 L



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