KENT
Bathroom
Water Softener
HOUSE of PURITY

KENT BATHROOM
WATER SOFTENER

Makes Hard Water Soft-Online

Instructions Handbook

Welcome to KENT

Dear Customer,

At the outset, allow us to thank you for your trust in KENT Bathroom 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 Bathroom 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 familiarise 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, vegetables and fruits, homes, and the 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 Bathroom 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 shower. If your soap doesn't lather while bathing, it's not a problem of the soap, rather it is due to the hard water, which reacts with soap and reduces lather formation. It also leaves with an oily layer on the skin and makes hair brittle.

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

Features of KENT Bathroom Water Softener

- Produces more lather
- Consumes less detergent
- Consumes less water
- Prevent scaling in shower
- Increases life of internal parts of geyser
- 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 Bathroom Water Softener : 01 No.
2. ½ inch BSP flexible pipe for input and output : 02 Nos.
3. Accessory Box : 01 No.

Content of Accessories Box

1.	Plastic white pipe (1/4 inch) for drain	:	2.5 Meters
2.	3 way valve (inlet and outlet)	:	02 Nos.
3.	Screw and plastic inserts	:	04 Nos.
4.	Center drill sticker	:	01 No.
5.	Cooler fitting	:	02 Nos.
6.	Threaded elbows	:	02 Nos.
7.	Stem elbow ¼" x ¼"	:	01 No .
8.	Fitting for Geyser	:	01 No.
9.	User guide	:	01 No.

Fitted with 3-way valve

What is Hardness of Water?

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 shower.

In geyser it reduces life-span of internal parts and causes scaling.

With hard water, soaps form a white precipitate (soap scum) instead of lather, resulting in excess consumption.

How the System Works?

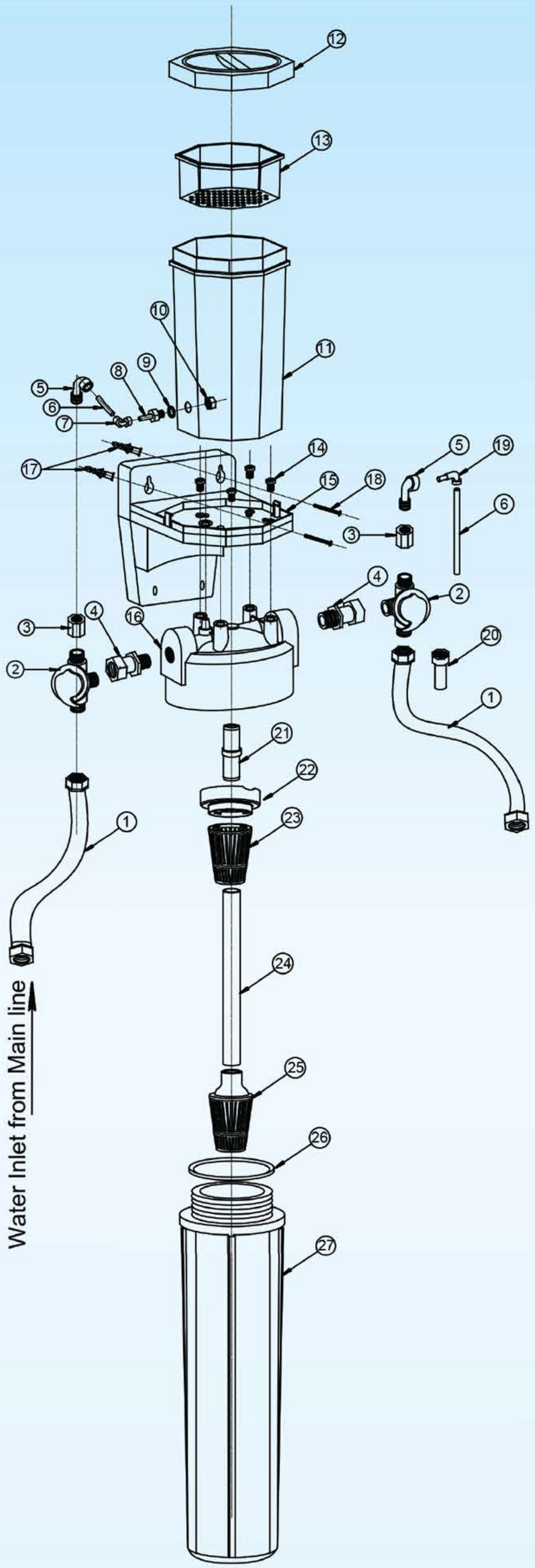
Water-softening appliances intended for household employ ion-exchange process. The process reduces hardness in water by exchanging magnesium and calcium (Mg^{2+} and Ca^{2+}) with sodium or potassium ions (Na^{+} or K^{+}). Due to this exchange, water turns soft and the lathering comes out better while bathing and washing hair.

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, recharging is done by washing the resin by salt solution (common salt).

Exploded View

KENT Bathroom Water Softener	
S.No.	Description
1	1/2" BSP Flexible Pipe for Input & Output
2	1/2" Three Way Valve
3	Cooler Fitting
4	Nipple 1"
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	Adaptor for Housing Cap
22	Strainer Holder
23	Strainer
24	Strainer Pipe
25	Lower Strainer
26	O-Ring for Housing
27	Resin Housing



Installation

For installation, please follow below mentioned instructions.

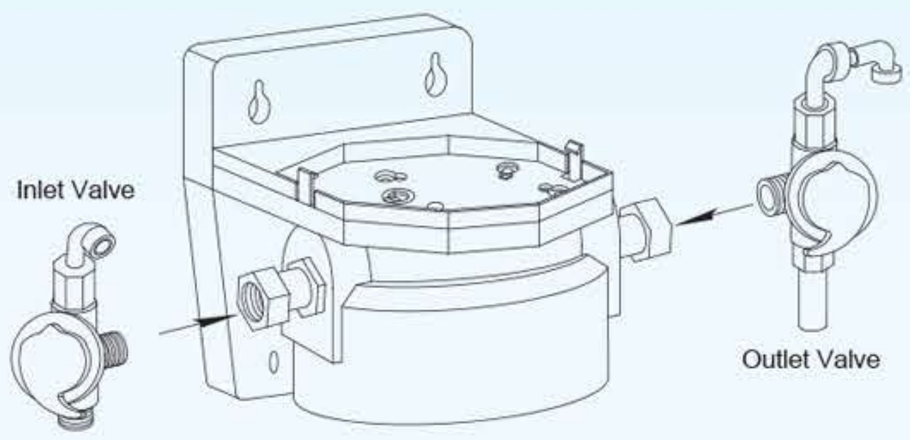
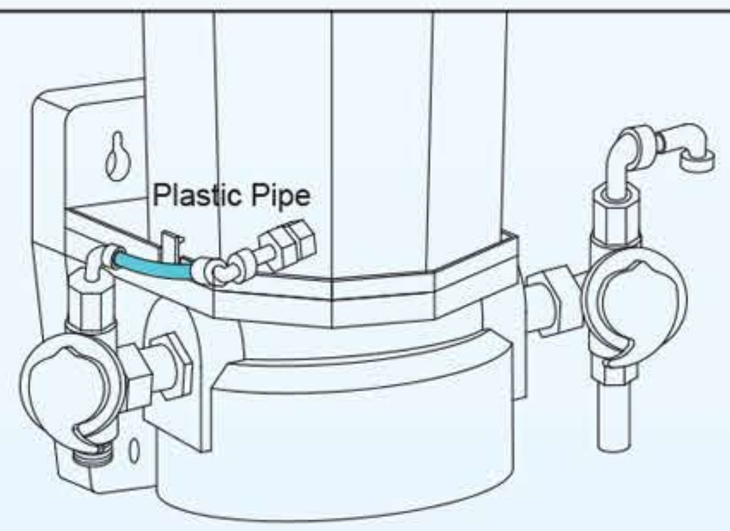
Recommended Site preparation:

- 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 reject water should not be more than 2.5 meters away
- Installation space should be according to the dimensions of the softener and allow 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

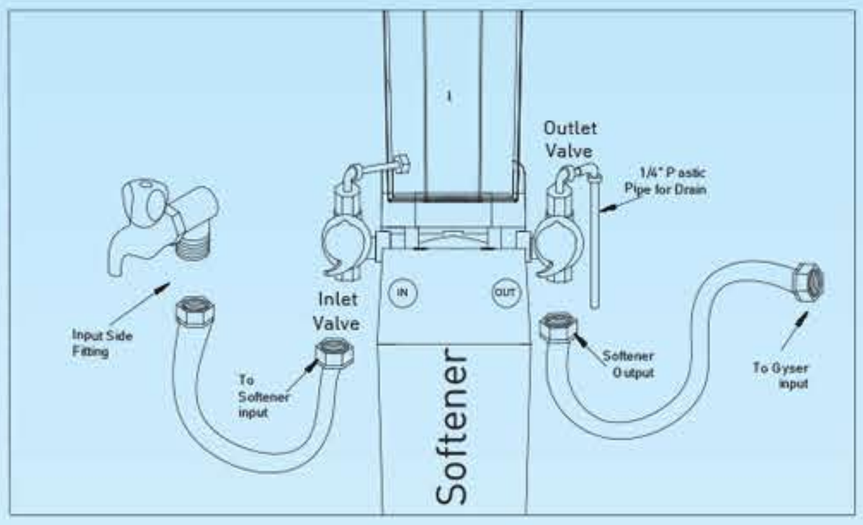
How to Install?

Post finalization of the location for the mounting of the softener

- Paste the center sticker drill on the wall surface to drill holes for the self-tapping screws provide with the softener
- Insert the plastic inserts in the drilled holes and screw using the self-tapping screws
- Take out accessories from the accessory box

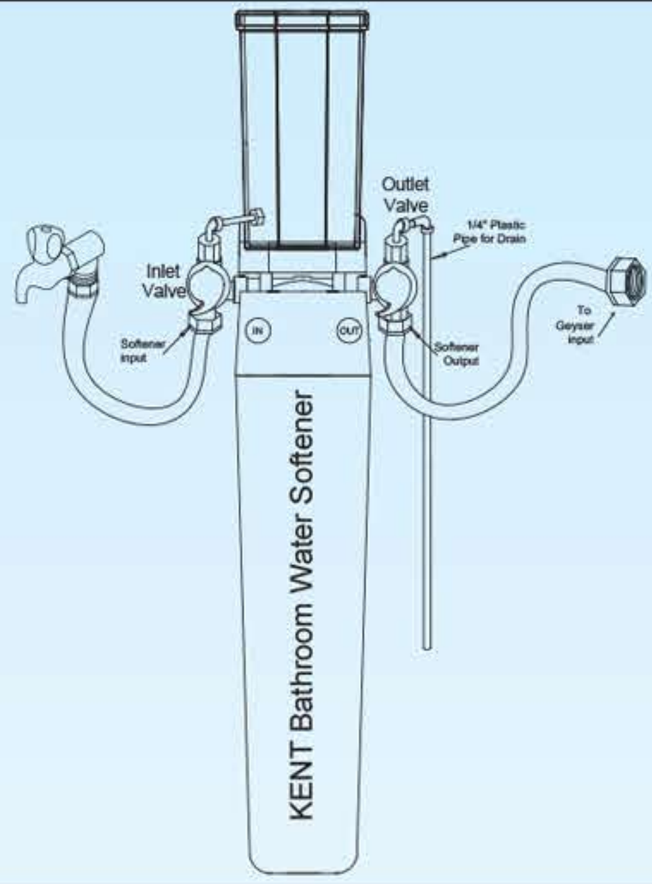
• Fix the 3 way valve on cap using spanner • Take precaution as not to over tighten it • Take proper precaution while fixing the 3 valve caps and ensure that they are placed in right order in inlet valve on inlet side and outlet valve on outside only	
• Now put the salt chamber on the bracket and fix the elbow filled in salt chamber to the elbow fitted on the inlet valve with the piece of plastic pipe (shown in the blue colour)	

- Fix the inlet pipe to the inlet side and connect with input water supply.
- Similarly fix the output pipe to output side of softener and connect its another end to your washing machine, geyser & shower using appropriate fittings

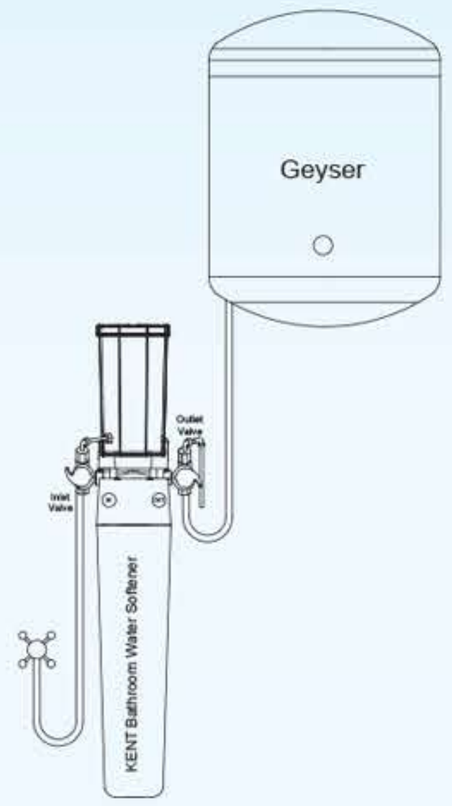


- Connect the white pipe for drain on the upper side of output and modify the length according to the distance of the drain water outlet

- Mount the water softener using screws on the chosen wall, where the screws have already been fitted



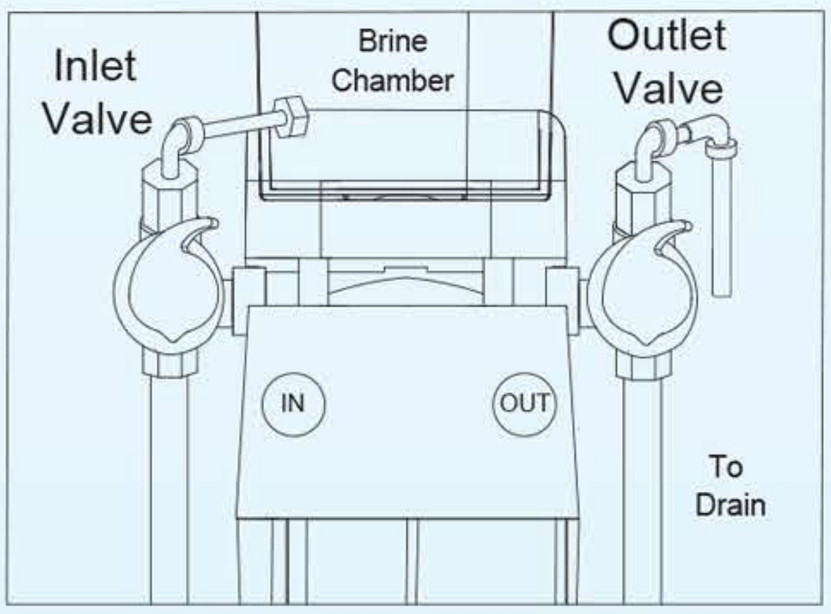
- Once the softener is installed properly, connect the softener's output pipe to the inlet of the washing machine, geyser & shower



- The installation of water softener is complete
- The water softener is ready for use

How to Operate?

- For day to day usage, keep both inlet as well as the outlet water valves in vertical up position (as shown in the figure below).
- **Precaution:** The inlet and outlet valves have to be moved to vertical down position only while regenerating. Never keep the two valves in any other angle (besides vertical up position) during normal usage. Doing so will cause water to flow in wrong compartments.



Regeneration Process

Regeneration time depends on input water TDS levels

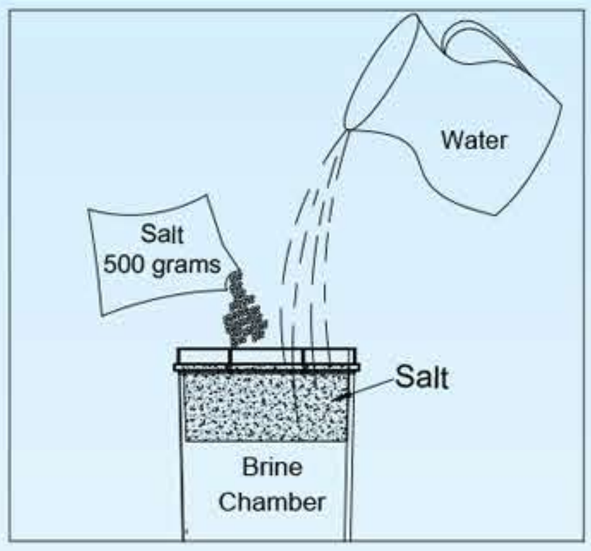
1. For TDS levels between 500 - 1000, output of the soft water is between 1200 - 1400 L (approx.).
2. For TDS levels between 1000 - 2000, output of the soft water is between 750 - 900 L (approx.).
3. If the hardness of water increases, it means it is time for regeneration. The increased hardness in water would produce less lather with soap.

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

How to Regenerate?

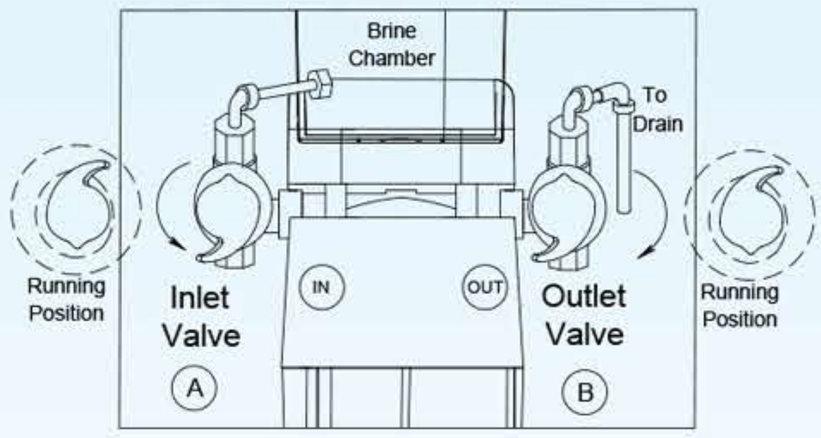
Step 1

- Open the lid and fill up the top chamber with common table salt and then pour water to fill up the brine chamber.



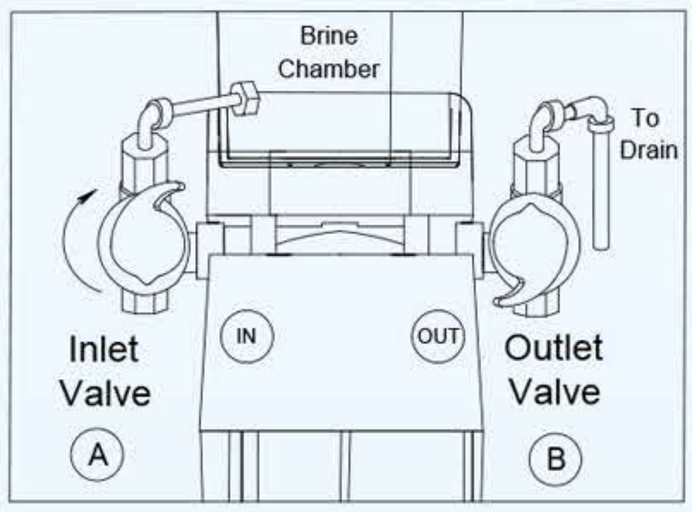
Step 2

- Rotate the inlet valve (A) in anti- clockwise, and outlet valve (B) in clockwise direction (as shown in the figure below) moving both to vertical down position. Let the brine chamber get empty (it may take about 15 minutes).



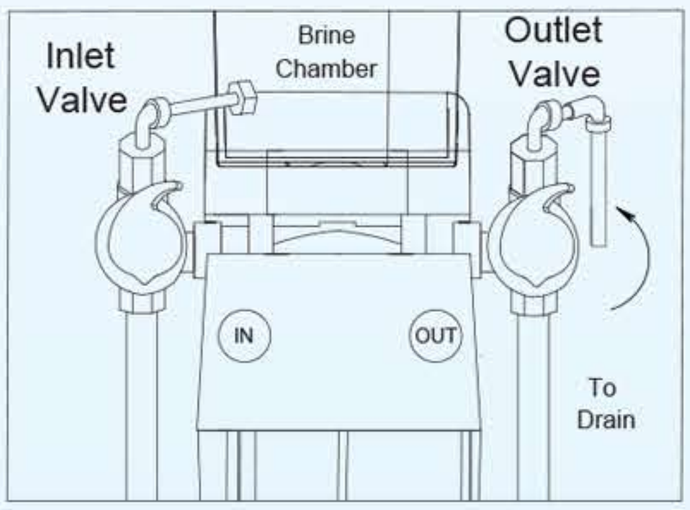
Step 3

- Rotate only inlet valve (A) in clockwise direction moving it to vertical up position (as shown in the figure below. Do not rotate valve (B)). Let the inlet water flow come out from the drain pipe for 3-5 minutes.



Step 4

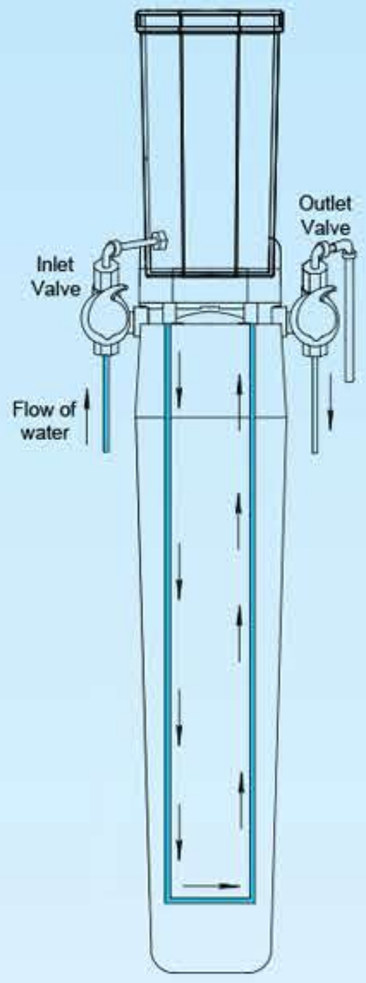
- Rotate the outlet valve (B) in anti-clockwise direction moving it to vertical up position (as shown in the figure below). Softener is now regenerated & ready for use.



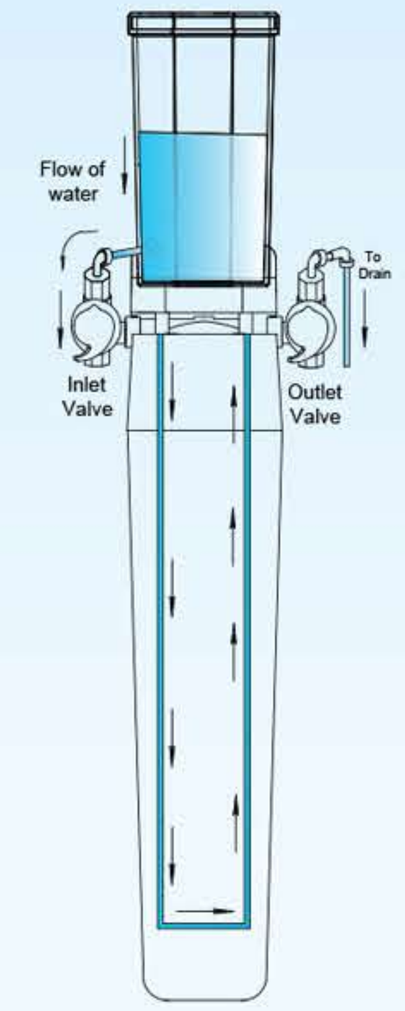
- Softener is ready to use post regeneration
- The salt chamber with 500 grams of salt will fill up the chamber with water. This will ensure that the chamber is ready with dissolved salts whenever one requires regeneration, after 750 to 900 liters of water supply

Flow of Water during different modes

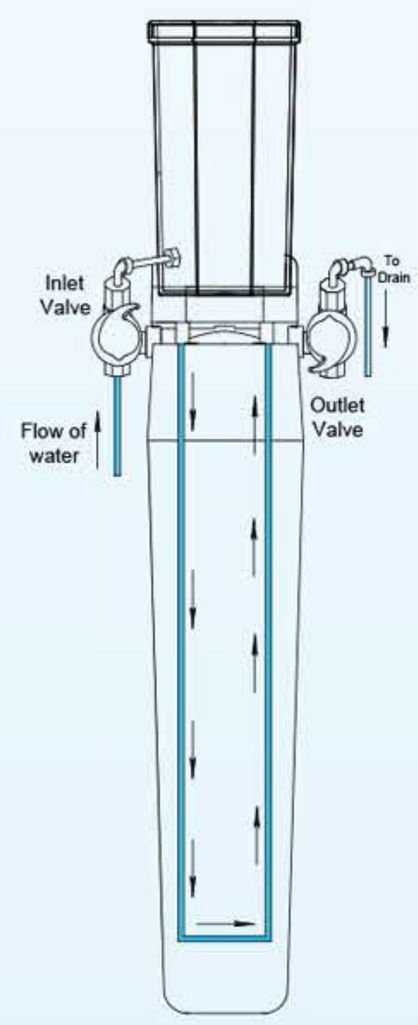
- When used in service mode the water flows through the inlet valve and travelling through the resin, the hard water turnss into soft water via ion-exchange.
- The soft water comes out through the outlet valve as indicated by the arrows in figure.



- During regeneration mode, the water flows from the brine chamber directly into the resin cabinet (bypassing the inlet valve) where the regeneration process occurs via ion-exchange.
- The water comes out through drain pipe, bypassing the outlet valve as indicated by the arrows in figure.



- In flushing mode the water flows through the inlet valve travelling through the resin and then comes out through drain pipe as indicated by the arrows in figure.



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 the appliance.

Note:

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

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 differently abled individuals.

Troubleshooting

Problem	Possible Causes	Possible Solution
• Water is not soft	• Regeneration not done • Regeneration not done properly for the prescribed length of time	• Carry out the regeneration • Carry out the regeneration for the stipulated time as mentioned in the manual

Technical Specifications

Model Name	:	**KENT Bathroom Water Softener**
Model No.	:	111064
Product	:	Water Softener
Dimensions (mm)	:	380 (L) x 220 (W) x 890 (H)
Maximum Flow Rate	:	1000 L/hr.
Net Weight	:	10.500 kg
Resin Volume	:	5.5 L

KENT

Bathroom

Water Softener

HOUSE of PURITY

July, 2018

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Manufactured by:

KENT RO SYSTEMS LTD.

Khasra No. 93, Village-Bantakhedi, Tehsil-Roorkee,
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Marketed by:

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