SHOWER SOFTENER

RL-R50/M6A1

RL-R50/M6A3

RL-R50/M7A5

(One time salt adding providing multi-regeneration times)

Let your beloved wife shower in softened water,
Let your dear child shower in softened water.

(One Time Salt Adding for 5.5m^3 Treated Water)

Service and Maintenance Manual

The appearance is just for reference. It is subject to the real product.
Version 1

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

0WRX.466.651

Application: The product is mainly used for making soft water for shower, can also be used in applications, such as floor heating, beauty salon, hairdressing salon, washing machines etc..

The treated water by the softener is not fit to drink directly.

Warm Note

1. With upgrading of the product, there may be some of words or figure in the manual is different with the real product, please be subject to the real product.
2. All the contents are carefully checked. If there is any printing errors or mistakes in the manual, we reserve the rights of interpretation.

Catalogue

Notice

1. As the specific place of shower softener used, all its components are of restricted service life, essential parts of which are listed in detail in the manual. Please replace the spare parts strictly in accordance with the manual.

2. This manual is a guiding document for the correct use of the product, please do the usual operation, check and maintenance strictly in accordance with the manual.

3. It is recommended to select professional personnel appointed by authorized dealer to install the product. When installation, ender user should inform the detail information of installation wall, such as the material of wall, distribution of water pipeline and wire, etc.. If the product is installed by ender user himself, if there is any problem happened during the installation, we will not take any responsibility.

4. The product is suit for municipal tap water, water pressure is 0.1~0.6 MPa, water temperature is 5℃-70℃. It is forbidden to use it out of the range.

5. The product is only suitable for indoor installation and use. It should be put in a cool and dry place, avoid direct sunlight. The pipeline connected to the product should be kept away from light source, heat source, corrosive environment and crash with sharp objects.

6. There is a sewer within 1 meter around the product which is used for drainage.

7. In any case, do not spray water to the product.

8. When the product is in failure, please cut off the water and contact the local dealer in time.

9. In order to prevent the regeneration can't achieve the desired effect, please use the grain salt provided by our company as possible.

10. When the transformer or cable damaged, the replaced one must be from our company.

11. Due to the product need electricity in use, please put the transformer in a place where no water can spray.

12. If the consequences happened due to not operating according to the above notes, our company will not take any responsibility.

1. Product Overview

1.1. Characteristics

●Separate structure of salt tank and resin makes it possible for each salt adding to provide 6 times of regeneration and a total treatment of 5.5 tons of hard water.

●Dynamic regeneration mode, bigger water treatment capacity, save salt and water.

● New way of brine entering, sufficiently use salt tank volume.

●Intelligent automatic regeneration and salt shortage alarm.

●Reminders of a new regeneration cycle, by time or by meter optional.

●It has an automatic backwash function to reduce the phenomenon of resin harden and strainer blockage, and extend the service life of resin.

●Resin can be replaced in a fast and convenient way.

●Data saved after power off.

1.2. Technical Parameters

| Item	Requirement
Working Pressure	0.1～0.6MPa
Inlet Water Temperature	5℃～70℃
Environment Temperature	5℃～50℃
Electrical Facility	AC100～240V/50～60Hz
Resin Volume	3.5L
Water Treatment Capacity for Each Regeneration Cycle	900L
Maximum Salt Adding Amount	4000g
Maximum Water Treatment Capacity for Each Full Salt Adding	5.5t
Inlet/Outlet	G1/2
Applicable Water	Municipal Tap Water
Outlet water quality: Meet the requirement of Sanitary Safety and Function Evaluation Regulation of Water Treatment Device for Drink Water-General Water Treatment Device (2001).	

All the parameters of the product is tested under the standard test condition (Tested water hardness is $CaCO_3$, 200 mg/ L) . The parameters will be different if the actual usage condition changed.
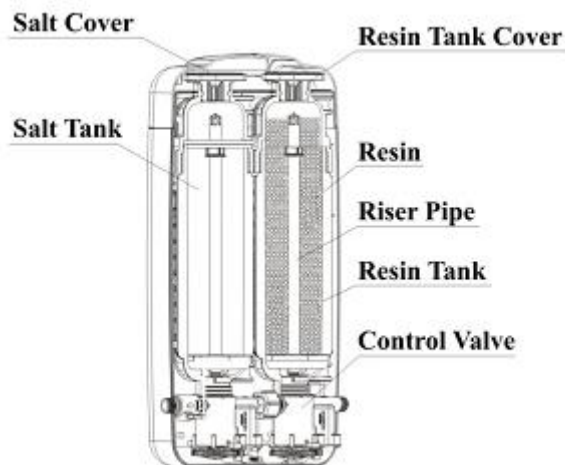
1.3. Water Technological Process

Municipal tap water ⟶ Sodium cation resin ⟶ Soft water

1.4. Appearance Dimensions
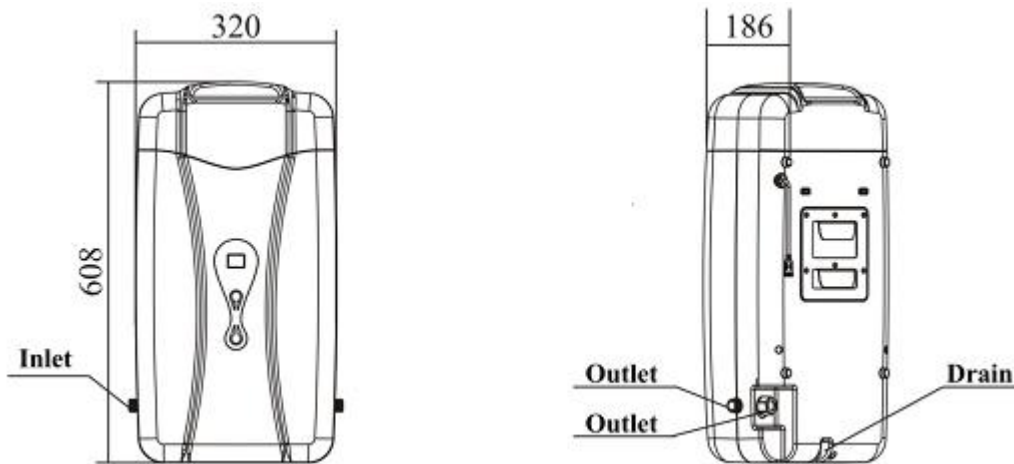
1.5. Structure

2.Regeneration Operation

2.1. Water Treatment Capacity

Water treatment capacity relates to water hardness. For a family with 3 persons, if everyone uses 40L water for shower, calculate the service time.

Water Hardness	Water Capacity	Service Time
200mg/L	5500L	About 45 days
400 mg/L	2750L	About 22 days

The automatic regeneration of softener can be clock type or meter type. Clock type requires users to set a regeneration interval according to their own water consumption rate, while meter type only needs a setting of local water hardness to realize automatically, when the resin loses effect, the restart of regeneration process. Either type will begin regenerating at 2: 00 am of that certain day.

Regeneration way of time clock type:

When the product is in service, the screen will display its working days, such as 01 (which means that

it has been in service for one day since regeneration), 02 (two days since regeneration) … When the calculated date has come, the regeneration process will begin automatically at 2: 00 am.

Users can set regeneration reminder according to the practical using situation to have a better control of the regeneration time. For more details of setting steps, please refer to parameter setting. Regeneration way of meter type:

While in service, meter type will present the current water consumption volume for one regeneration cycle, in the form of "1111" on the display screen, where each "1" stands for 25% of water treatment capacity. When the water treatment volume reaches a certain point, the system will start automatically the regeneration process at 2: 00 am of that certain day.

Users need to set the local water hardness when using the meter type. The local water hardness equals to the value you set×10, with its unit being mg/L. For example, value "10" means 100mg/L, value "15" means 150mg/L, and so on.

2.2. Regeneration Salt Adding Instructions

Each full salt tank can provide six regeneration times for this shower softener. There will be a salt adding alarming when it has regenerated enough times. And the system won't turn into regeneration process and will keep running in service position if the alarming is not cleared. The maximum salt adding volume for each full salt tank will be 4000g.
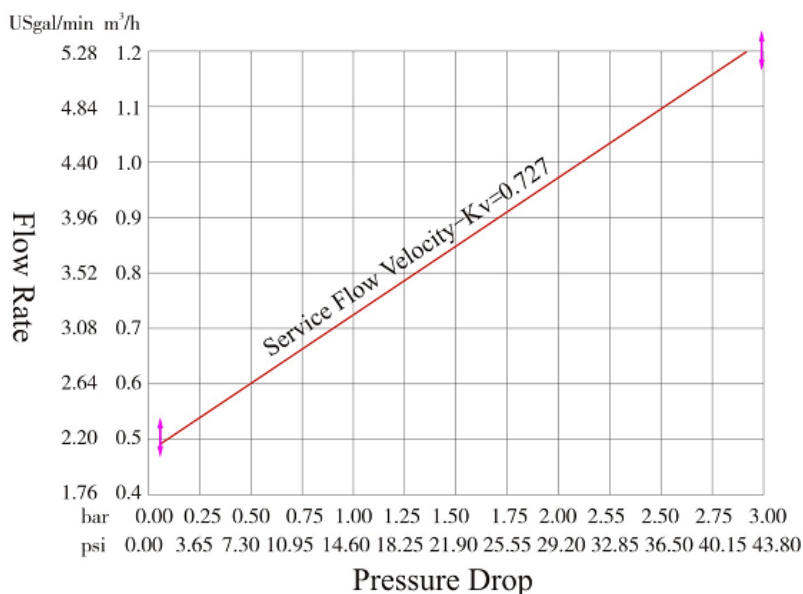
When the screen displays ⛭, it means lack of salt and the tank needs to be added regeneration salt.

First, press and hold the button ⊚ to get the system into salt adding position ⛭. Then open the tank

cover to add salt until it is full, and retighten the cover. Press and hold one more time the button ⊚ to

turn the system back to the service process. And it's able again to start automatically the regeneration process at 2: 00 am of the right day.
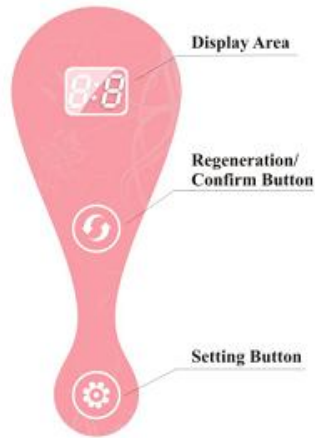
Attention: As the salt consumption of regeneration process depends much on the quality of salt, users are recommended to choose regeneration salt made by our company or high-quality salt produced by other manufacturers.

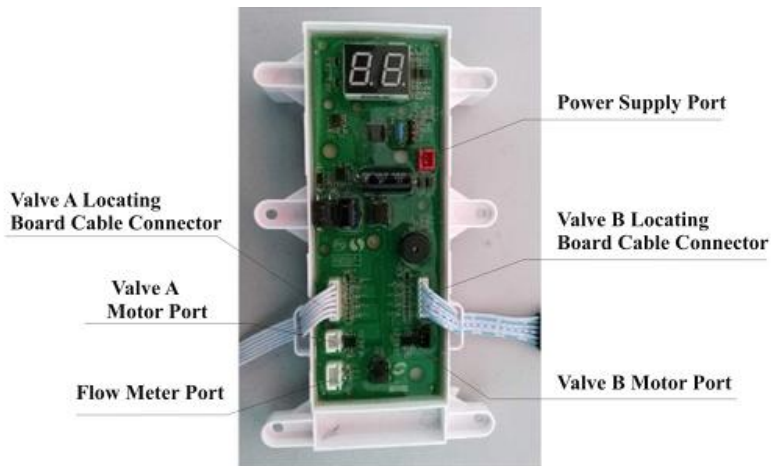## 2.3. Pressure / Flow Rate Chart

3.Parameter Setting

3.1. Product Control Panel Instruction

Display Area

Regeneration/
Confirm Button

Setting Button

3.2. Display Board Ports Instruction

Power Supply Port

Valve A Locating
Board Cable Connector

Valve B Locating
Board Cable Connector

Valve A
Motor Port

Flow Meter Port

Valve B Motor Port

The ports on the display board have a one-to-one correspondence with connectors.
Connect them according to the colors and the numbers of pin cores.

3.3. Product Installation Type Setting

There are two types of instalation, which are installed before and after water heater. It has difference processes accordingly. Resin invalid warning has time clock type and meter type.

The meanings of each code are as following:

Code	Meaning	Setting
5H	Installed after water heater, time clock type	Power on, press and hold both ⊙ and ⚙ buttons for three seconds to enter into installation type selection, press ⚙ to select
59	Installed before water heater, time clock type	
LH	Installed after water heater, meter type	

$L\,9$	Installed before water heater, meter type	the type, then press 🔄 to save the setting and quit.

Enquiry mode:Power on, interface will display installation type.

Attention: The difference between before and after water heater installations is that after regeneration process, before type gets the system into service process, while after type keeps it at waiting position (i.e. closing position).

Since the after water heater type requires water supply in the regeneration process, users of after type needs to install a stop valve at the outlet to make convenient of regeneration.

Sprinkler is turned on and off by the Cut-off Filter Valve.

In regeneration process, turn on the Water Mixing Valve and turn off the Cut–off Filter Valve to ensure water supply to the softener.

3.4. Regeneration Days Reminding Settings(Time clock type)

The shower softener can be set up alarm of regeneration days according to the practical circumstance. After it is properly set, shower softener will turn to regenerate at 2:00 am of that certain day. Under the time clock mode, press and hold ⚙ button to enter into the interface of setting regeneration days reminding. Press ⚙ to set the days, then press 🔄 to save the setting and quit. For example, if it is set 22, it means the system will regenerate automatically at 2: 00 am after the softener has been in service for 22 days. The default setting is 07. The parameter setting range is 00-99

3.5. Setting the Local Water Hardness(Meter type)

When users choose meter type, they should set the local water hardness only, and then the system will calculate the water treatment capacity automatically. When the water treatment capacity reaches a certain point, the screen will be flashy and remind users to add salt to regenerate. Setting way is as following: press and hold ⚙ in meter mode to enter the menu of setting the local water hardness, and then press ⚙ to set the value of hardness. Press 🔄 to turn back and save when finish the setting. The unit is mg/L, and local water hardness =the value you set×10. Such as value "10" means 100mg/L, value "15" means 150mg/L, and so on.

3.6. Time Setting

After power cut over three days, the screen will display in turn flickering of $\boxed{1.2}$' and $\boxed{1.2}$ when power is back on. In that situation, a calibration and resetting of the current time is necessary to guarantee the system regenerates at 2:00 am accurate of the set day. Follow these steps to reset time:

Press and hold both buttons ⟳ and ⚙ to enter the setting of current hours of time, for example, ⌈1.2⌋ representing 12 o'clock. Choose the right number by pressing the button ⚙ and press the button ⟳ to save it and turn into the setting of minutes, for example, ⌈12⌋ standing for 12 minutes. Choose the right number by pressing the button ⚙ and press the button ⟳ to save. It's all set.

3.7. Meaning of Process Code

| Code	Meaning	Explaination	Code	Meaning	Explaination
⌈1111⌋	Service/Remaining Water Volume	In meter type mode, each bar stands for 25% of water treatment capacity.	⌈7 -⌋	Brine Entering	
⌈2 -⌋	Resin Backwash	Water flows out from drain	⌈8 -⌋	Cleaning	Clean the residual brine in the valve
⌈3 -⌋	Brine Entering		⌈9 -⌋	Soaking	
⌈4 -⌋	Cleaning	Clean the residual brine in the valve	⌈A -⌋	Fast Rinse	Water flows out from drain
⌈5 -⌋	Soaking		⌈d d⌋	Closing and Waiting	
⌈6 -⌋	Fast Rinse	Water flows out from drain	⌈U U⌋	Salt Shortage Alarm	

4. Resin Replacement

To replace the resin, you need to open the resin tank cover, and simply dump out the resin for replacement, as is shown in Figure a.

Simply open the cover to dump out the resin.
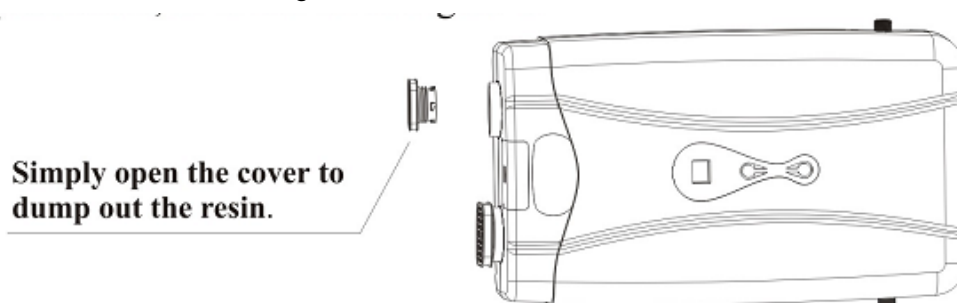
a.Replace resin.

5. Trouble Shooting

Problem	Cause	Correction
Leakage	No o-ring installed or assembly not tight.	Install o-ring and tighten the connection.
Water flow rate	Strainer blocked.	Clean strainer and install front filter

decreased			screen.	
Outlet water unqualified	1.Resin invalid. 2.Resin lifetime expired. 3.Regeneration effect not good.		1.Regenerate resin. 2.Replace resin. 3.Check if the drain pipeline blocked or use the special regeneration salt.	
Regeneration effect not good	1.Do not use the special regeneration salt. 2.The drain is blocked. 3.Source water is not opened during regeneration.		1.Use the special regeneration salt. 2.Clean the drain line flow control. 3.Open the source water and regenerate again.	
E1 flash	1.Salt tank motor failure. 2.Display board failure. 3.Salt tank locating board failure. 4.Salt tank moving disk stuck.		1.Replace salt tank motor. 2.Replace display board. 3.Replace salt tank locating board. 4.Clean the substance between salt tank moving disk and fixed disk.	
E2 flash	1.Salt tank wiring of locating board is bad. 2.Display board failure.		1.Replace salt tank locating board wiring. 2.Replace display board.	
F1 flash	1.Resin tank motor failure. 2.Display board failure. 3.Resin tank locating board failure. 4.Resin tank moving disk stuck.		1.Replace resin tank motor. 2.Replace display board. 3.Replace resin tank locating board. 4.Clean the substance between resin tank moving disk and fixed disk.	
F2 flash	1.Resin tank locating board wiring bad contact. 2.Display board failure.		1.Replace resin tank locating board wiring. 2.Replace display board.	
E3 flash	1. Display board failure.		1. Replace display board.	
E4 flash	1. Display board failure.		1. Replace display board.	

6. Warranty Card

Dear client:

This warranty card is the guarantee proof of our Shower Softener. It is kept by client self. You could get the after-sales services from the supplier which is appointed by manufacturer. Please keep it properly. It couldn't be retrieved if lost. It couldn't be repaired free of charge under the below conditions:

1.Guarantee period expired.(One year);

2.Damage resulting from using, maintenance, and keeping that are not in accordance with the instruction;

3.Damage resulting from repairing not by the appointed maintenance personnel;

4.Content in guarantee proof is unconfirmed with the label on the real good or be altered;

5.Damage resulting from force majeure.

Product Name	SHOWER SOFTENER

SHOWER SOFTENER

Model		Code of Valve Body	
Purchase Company Name		Tel/Cel.	
Problem			
Solution			
Date of Repairing		Date of Accomplishment		Maintenance Man Signature	