R Series Water Softeners

Installation & Operation Manual

(Please save for future reference)

Thank you for purchasing one of our ENVIROGARD / Rainfresh Water Softeners. We are committed to ensuring that you are **totally satisfied**.

If you have any problems, don't go back to the store – **please contact us !**
Most issues can be resolved over the phone.
Help Line : 1-800-667-8072 (Monday to Friday 8:30 AM to 5:00 PM EST)
www.rainfresh.ca

TABLE OF CONTENTS

Certified by IAPMO R&T against CSA B483.1 and NSF/ ANSI 44.

A. SYSTEM SPECIFICATIONS & DIMENSIONS

MODEL NUMBER	33R	44R
Qty High Capacity resin	0.88 ft^3	1.06 ft^3
Resin Type	High capacity cation softening resin	
Rated Service Flow (GPM)	10.5	11.9
Pressure Drop at Rated Service Flow (psi)	12.0	15.0
Rated Softening Capacity (Grains)	10,263 @ 2.64 lbs	14,456 @ 3.18 lbs
Efficiency (grains/lb salt)	3,887	4,543
Max Flow Rate to Drain (GPM)	2.4	2.4
Working Pressure	Min 20 psi – Max 125 psi*	
Operating Temperature	Min 39 – Max 100°F	
Voltage	110V AC	

* **Note:** Install pressure regulator and water hammer arrestor if pressure exceeds rated pressure at any time.

The manufacturer reserves the right to make product improvements which may deviate from the specifications and descriptions stated herein, without obligation to change previously manufactured products or to note the change.

These softeners conform to NSF/ANSI 44 for the specific performance claims as verified and substantiated by test data. These models are efficiency rated. The efficiency rating is valid only at the stated salt dose and maximum service flow rate. They have a demand initiated regeneration (D.I.R.) feature that complies with specific performance specifications in-tended to minimize the amount of regenerant brine and water used in their operation. These softeners have a rated softener efficiency of not less than 3350 grains of total hardness exchange per pound of salt (based on sodium chloride) and shall not deliver more salt than their listed ratings. The rated salt efficiency is measured by laboratory tests described in NSF/ANSI Standard 44. These tests represent the maximum possible efficiency that the systems can achieve. Operational efficiency is the actual efficiency after the system has been installed. It is typically less than the efficiency due to individual application factors including water hardness, water usage, and other contaminants that reduce the softener's capacity.

Feed Water Quality:
Iron < 0.5 PPM; Manganese < 0.05 PPM ; Turbidity < 1 NTU ; Free Chlorine < 0.5 PPM ; Hydrogen Sulphide – Nil ; Organics – Nil.
If feed water quality exceeds above limits, please call Rainfresh for advice on additional treatment that may be necessary.

B. HOW YOUR WATER CONDITIONER WORKS

Your Rainfresh Softener removes hardness using a process called Ion Exchange. In this process, when hard water flows through the unit, hardness-causing minerals such as Calcium & Magnesium, are trapped by the media (called *Resin*) and an equivalent amount of sodium ions are released into the water. When the capacity of the resin to trap hardness minerals is exhausted, the unit is re-charged by softener salt in an **automatic process** called *Regeneration*. During regeneration, the unit first backwashes to remove any sediment, rust or other particulates, that may have accumulated in the unit. This is followed by introduction of a saturated salt solution (*brine*) that bumps off the trapped hardness to drain and recharges the resin with sodium. It then goes through a final rinse & refills the salt tank with water for the next regeneration.

Once you program the unit at the time of installation, the regeneration process happens automatically. All you need to do is to ensure that there is always enough salt in the salt tank. The unit automatically calculates when to regenerate based on your water hardness and use.

C. SAFETY PRECAUTIONS AND CAUTIONS BEFORE INSTALLATION

- Follow all applicable province/state and local regulations.
- Handle your water softener carefully. Do not lie on side, turn upside down, drop or drag.
- This unit requires softener salt (sodium chloride) to regenerate. Softener salt is available at most retailers. Persons on sodium restricted diets should consider the added sodium as part of their overall intake. Potassium chloride can be used as an alternate in such situations. Please consult Rainfresh technical support.
- Install a pressure regulator and water hammer arrestor if pressure exceeds maximum rating at any time. **Note:** If daytime pressure is over 80 psi, night time pressure may exceed maximum pressure rating.
- Do not install on water that is microbiologically unsafe without adequate disinfection before or after the unit. For effective disinfection install a Rainfresh Drinking Water System or Rainfresh UV disinfection system.
- For use on cold water only.

- **Only use thread seal tape** (Teflon® tape) for fitting connections into unit. **DO NOT USE pipe dope or chemical sealants.**
- If water pipes are used to ground electrical system, install jumper wire (#4 gauge solid copper wire) across the unit to maintain proper grounding of your electrical system
- **Protect your unit from freezing** - drain the unit if freezing temperatures exist.
- **NOTE: IF SOLDER TYPE FITTINGS ARE USED DO NOT USE torch near inlet/outlet connections.** All solder joints should be made before joining pipe to filter head. Use only lead-free solder and flux.
- **DO NOT over-tighten** metal fittings on to unit connections.
- Place the unit on a flat level surface. Do not place shims under the unit to level it. The weight of the unit full of water and salt can cause the cabinet to crack at the shim.
- The unit should only be moved by 2 or more people due to heavy weight. Failure to do so can result in injury.
- The unit must be installed in an area where there is reasonable access to the salt tank for regular salt filling.

D. INSTALLATION

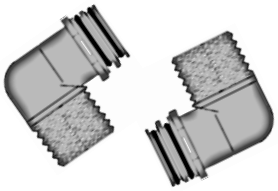
Electrical Requirements:

- The automatic control valve requires a constant power supply - 110V AC. We recommend a GFI (ground fault interrupter) outlet within 5 feet of the softener. Extension cords are not recommended.
- If water pipes are used to ground electrical system, you will need to install a jumper wire across the filter unit.

Unpacking the unit

The unit includes:

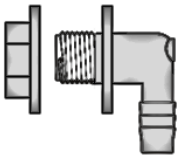
1) Softener with built-in salt tank and bypass valve



2) Inlet/outlet elbow fittings (2) – ¾" Male NPT

3) Allen key (for ease of opening & closing bypass valve)

5) Drain hose (15 ft) with hose clamp



4) Brine overflow fitting

6) AC power adapter

Unpack the unit and ***discard the plastic air pack*** inside the unit. Place the unit at the location where you intend to install it.

- Stand back and look at the softener to make sure it is standing straight up and not tilted to one side. Make sure your chosen location will be fairly level, dry, and protected from possible freezing conditions. The softener can sit directly on the floor and will not corrode. DO NOT set the softener onto make shift platforms as this can damage the salt tank, or may cause it to topple.
- The system has 3 connections - an inlet, an outlet, and a drain line connection. If you are looking at the back of the unit (**fig 1**), the inlet is on the left side. **Warning:** Make sure that you have correctly identified the inlet of the system. REVERSING THE CONNECTIONS WILL RESULT IN RESIN BEADS BEING THROWN INTO YOUR HOME'S PLUMBING SYSTEM CAUSING DAMAGE TO IT AS WELL AS THE SOFTENER.

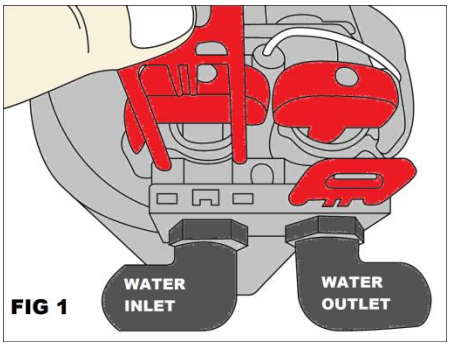
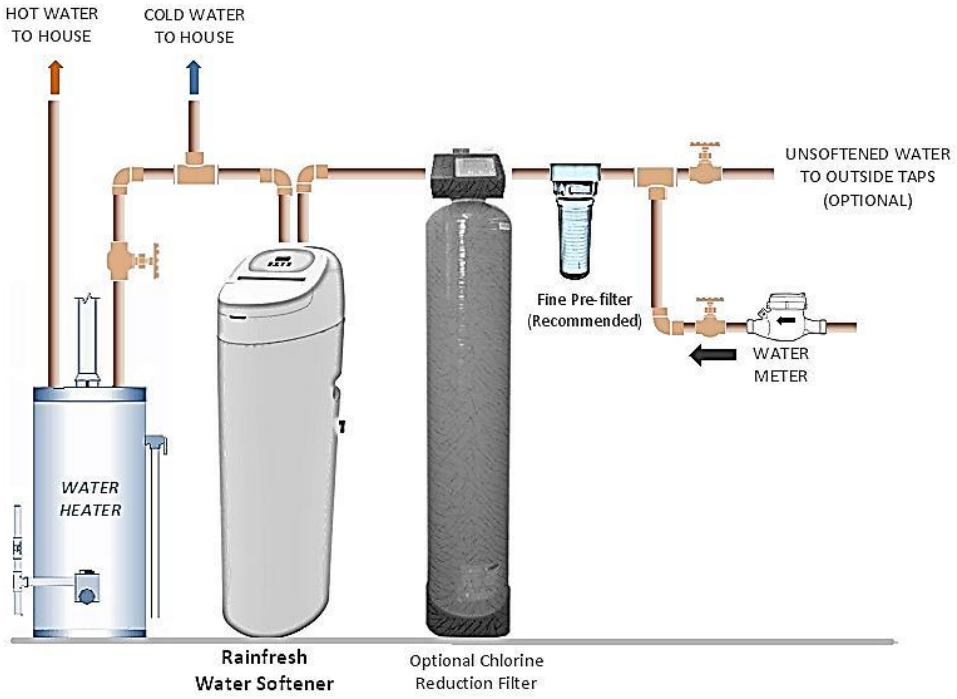


FIG 1

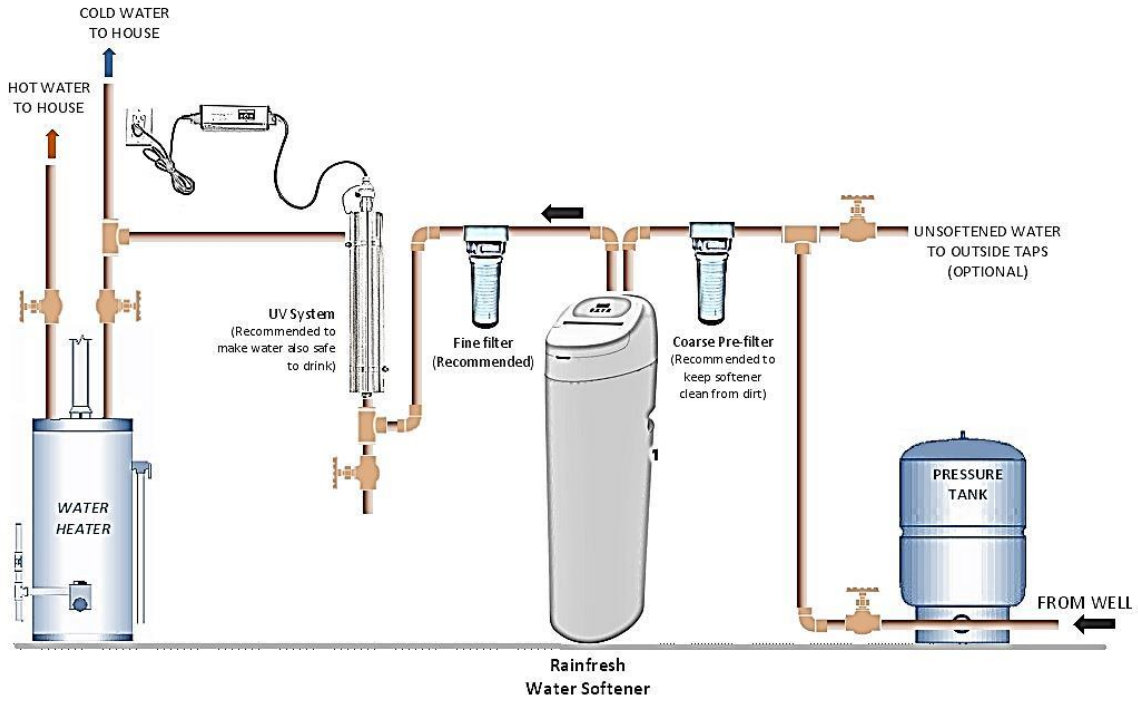
- The following pipe can be used for installing your new system - Copper, CPVC, and PEX are the most popular.

Installation Location

Installation location for city (municipally treated) water



Installation location for well water



Plumbing in your softener

- If your hot water tank is electric, turn off the power to it to avoid damage to the element in the tank.
- If you have a private well, turn the power off to the pump then shut off the main water shut off valve. If you have municipal water, simply shut off the main valve. Go to a faucet, (preferably on the lowest floor of the house) turn on the cold water until all pressure is relieved and the flow of water stops.

- Position the softener in the desired location. The unit comes with two 90° ¾" male NPT elbow fittings (**see fig 1**). You can rotate them at any angle to suit your installation. **Make sure that the bypass valve is in bypass mode as shown in fig 2.**
- **Note:** To change the connection fitting, simply remove the locking clips by hand and pull the fitting out. Insert new fitting and reinstall locking clip (**fig 3**).
- Plumb in the softener using appropriate fittings.
- Unscrew the cabinet top using a screwdriver and move the top aside, making sure that the electronic cable underneath does not detach from the circuit board.
- Attach the drain hose (15 ft included) to the drain fitting and secure it with a hose clamp (**fig 4**) (included).
- Run the drain line to a nearby laundry tub, standing pipe or floor drain (**fig 5**) and cut off excess tubing.

NOTE ABOUT DRAIN LINE : You can run the drain hose from the unit to the ceiling joists (max 8 ft ceiling) and run it to the nearest laundry tub or drain pipe. This can be run up overhead or down along the floor. Use band clamps to hold the drain tubing in place. If running drain line more than 15 feet from the softener (max 25 ft), increasing the line size to 3/4" will be required. Please follow your local plumbing & other applicable codes for where to run softener discharge water. NEVER MAKE A DIRECT CONNECTION INTO A WASTE WATER DRAIN. A PHYSICAL AIR GAP OF AT LEAST 1.5" SHOULD BE USED TO AVOID BACTERIA AND WASTEWATER TRAVELING BACK THROUGH THE DRAIN LINE INTO THE SOFTENER (see **fig 5**)

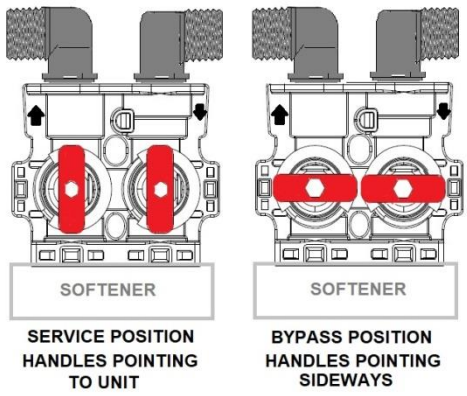


Fig 2

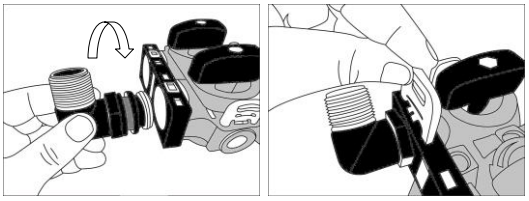


Fig 3

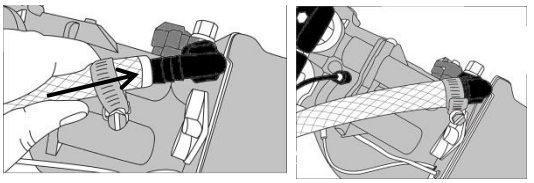


Fig 4

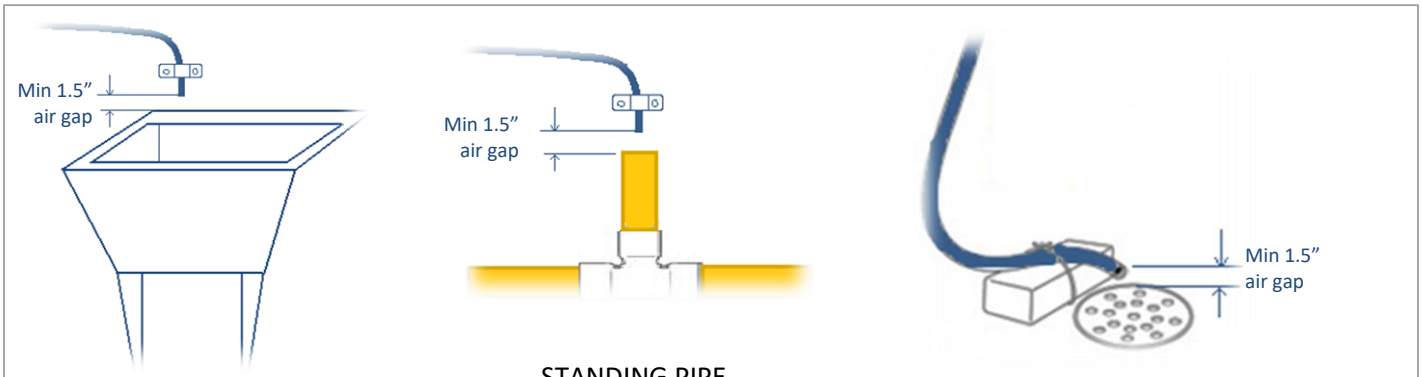


Fig 5

You can also use code-approved air-gap attachments available at most plumbing stores.

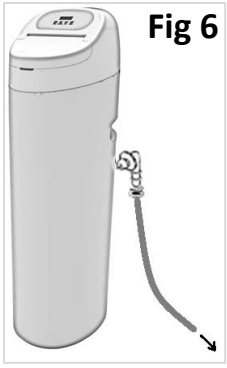


Fig 6

- **Attaching the overflow tubing:** If the overflow fitting is not pre-attached to the cabinet, then drill a ¾" hole on the side of the softener about ¾ of the way from the bottom (**fig 6**). Insert the over flow fitting from the outside and tighten the nut from the inside to lock it.
- Attach the rest of the drain tubing to the overflow fitting and run to the floor drain with an appropriate air gap, as shown in **fig 5**. If you do not have any more drain tubing left, you will need to purchase extra tubing at your local plumbing retailer. A hose clamp is also recommended to hold the tubing on the fitting.
- Re-attach the cabinet top and secure it with the screws.

- The salt tank is pre-connected to the control head. Lift the cabinet lid and add about 5 gallons of water in the salt tank. This is not a critical level but just helps with the process for the first regeneration. Then add 2 bags (20 Kg bags) of salt to start with. **DO NOT ADD MORE THAN 2 BAGS OF SALT** to prevent salt bridging.
- Turn main house shut-off valve on slightly and watch for leaks. Ensure a faucet is on somewhere and that its aerator is removed to avoid clogging from loosened scale in the pipes. If you have no leaks, proceed to the next steps.

Turn on the water supply

- Using the Allen key (included), **turn the bypass <u>inlet</u> slightly** (refer to **fig 2**) to allow water to run into the unit. The water should initially fill the tank slowly. Once the tank is full of water, you can open valve fully. This prevents resin from being pushed up into the control head by the initial surge of water going in.
- Make sure there are no leaks in your plumbing before proceeding.
- At the nearest cold treated water tap remove the faucet screen and open the faucet. Using the Allen key (included), open the <u>outlet side</u> of the bypass valve and let water run a few minutes or until the system is free of any air or foreign material resulting from the plumbing work. Close the water tap when water runs clean, and then proceed to start up instructions.
- Connect the control valve to the power adapter (**fig 7**) & connect the adapter to the power supply.

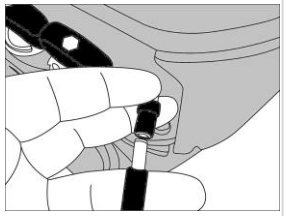


Fig 7

NOTE: Your unit is not yet ready for service until you complete manual regeneration (see pages 7-11)

FOR VIDEO INSTRUCTIONS ON PROGRAMMING
Scan QR code

or visit
http://rainfresh.ca/how_to_videos.php#program

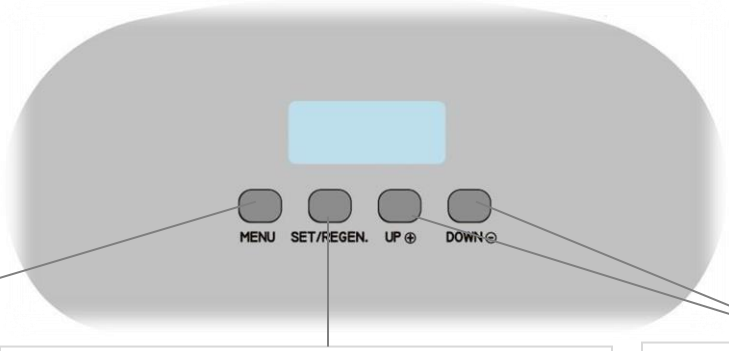
E. START UP & PROGRAMMING

The control valve is controlled with simple, user-friendly electronics displayed on an LCD screen.

When power is first supplied, the valve electronics may take up to two minutes to initialize. During this time the screen will show "INTIALIZING WAIT PLEASE". Do not touch any buttons at this time. When the valve reaches the service position, it will display the following information in sequence:

1. Date & Time
2. Capacity (*gal of water that can be used between regenerations*)
3. Volume Remaining (*gal of water left before regeneration begins*)
4. Regeneration Time (*Time of day when regeneration starts*)
5. Last Regeneration Date (*Last date when system regenerated)*
6. Current Flow Rate (GPM) (*flow rate of water being currently used)*
7. Peak Flow Rate (GPM) (*Max recorded flow rate of the water)*

The control valve has a display screen and 4 buttons



MENU BUTTON
The function of this key is to enter the level one programming mode where the valve settings can be adjusted.

SET / REGEN BUTTON
This button has two functions. The first is to initiate a manual regeneration by holding the button for 3 or more seconds. The second function is while in programming mode, pressing this key allows the user to change the value of each setting.

UP / DOWN
These buttons are used to increase or decrease the value of the settings while in the programming mode.

PROGRAMMING YOUR WATER SOFTENER

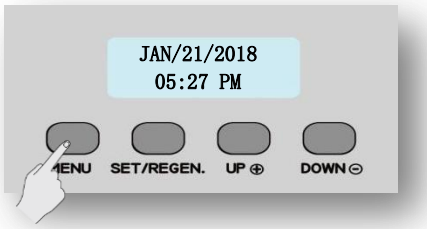
The valve has 2 levels of programming – Level 1 and Level 2

You will need to only go through Level 1 programming to start up your unit. Level 2 programming is factory set and can be changed only if desired.

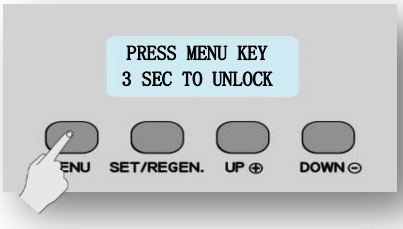
In level 1 programming you can set current time, date, number of people in your home and the feed water hardness. Level 1 programming is completed in 5 easy steps.

Level 1 PROGRAMMING

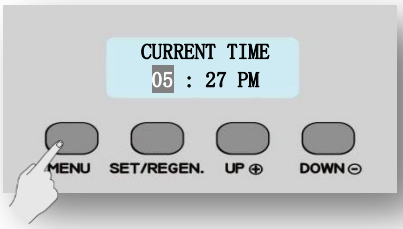
STEP 1 : Set Current Time



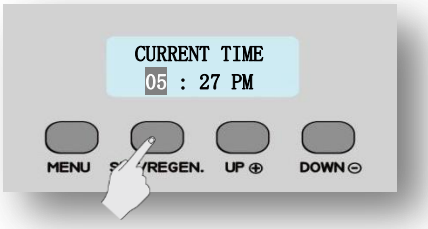
1. Press **MENU** for 3 seconds



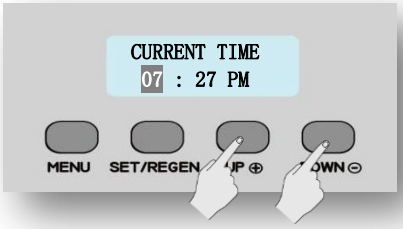
2. The display will read "**Press MENU Key for 3 sec to unlock"**.
3. After 3 seconds, the display will beep confirming unlock



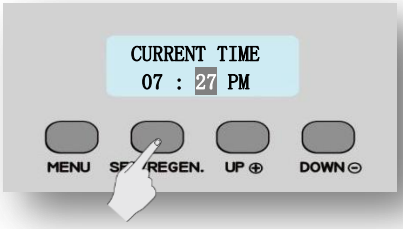
4. Press **MENU** again and the hour value becomes highlighted



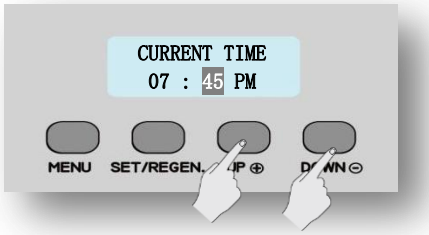
5. Press **SET/REGEN** once and the highlighted value flashes



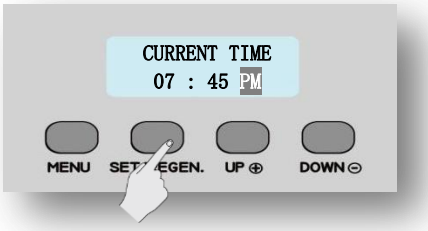
6. Now press **UP** or **DOWN** key to change the hour values to current time



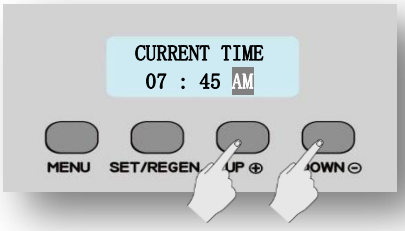
7. Press SET/REGEN again. Hour value will be accepted and minute value will start flashing



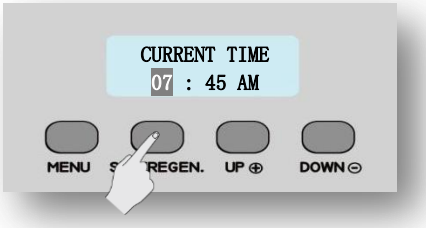
8. Now press **UP** or **DOWN** key to change the minute value to current time



9. Press **SET/REGEN** again. Minute value will be accepted and AM/PM value will start flashing

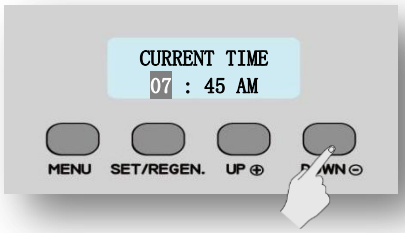


10. Now press **UP** or **DOWN** key to change the value to AM or PM

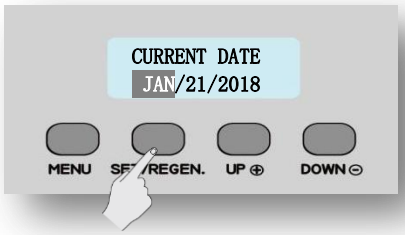


11. Press **SET/REGEN** again to accept. Flashing stops & hour value is highlighted again. ***PROCEED TO STEP 2***

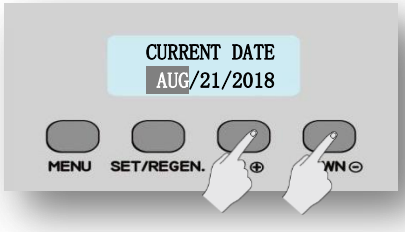
STEP 2 : Set Current Date



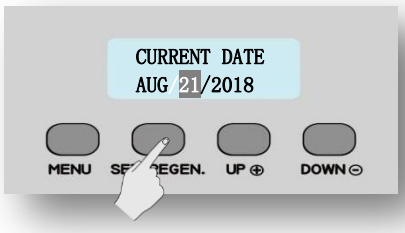
12. Press **DOWN** to advance to CURRENT DATE. The month value is highlighted



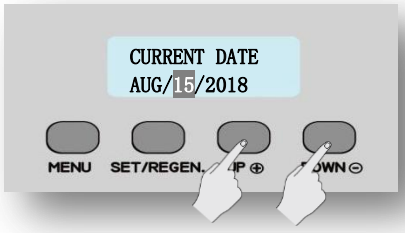
13. Press **SET/REGEN** again and the MONTH value flashes



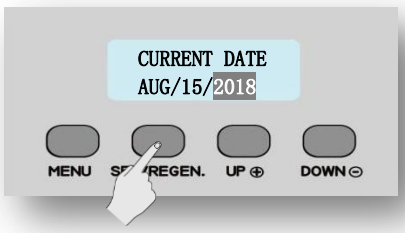
14. Now press **UP** or **DOWN** key to change the value to current month



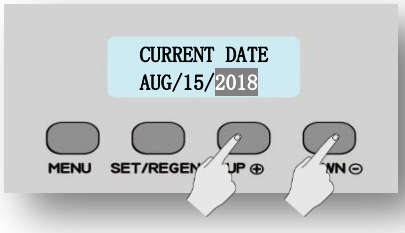
15. Press **SET/REGEN** again. Month value is accepted and the DAY starts flashing



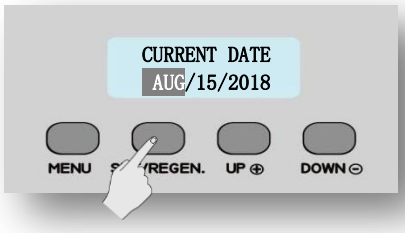
16. Now press **UP** or **DOWN** key to change the value to current day of the month



17. Press **SET/REGEN** again. Date value is accepted and the YEAR starts flashing

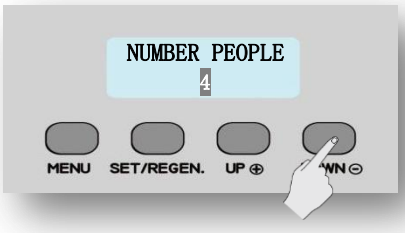


18. Now press **UP** or **DOWN** key to change the value to current day of the month

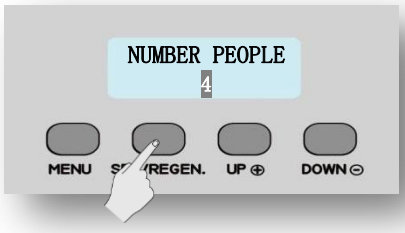


19. Press **SET/REGEN** again to accept. Flashing stops & MONTH value is highlighted again. ***PROCEED TO STEP 3***

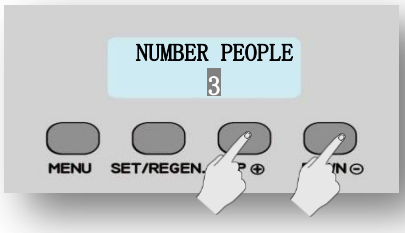
STEP 3: Set Number of people in the house



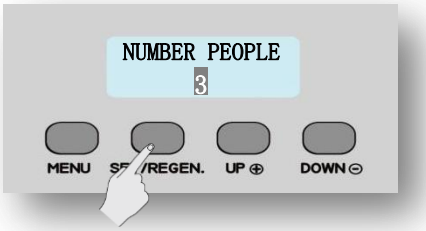
20. Press **DOWN** to advance to NUMBER OF PEOPLE



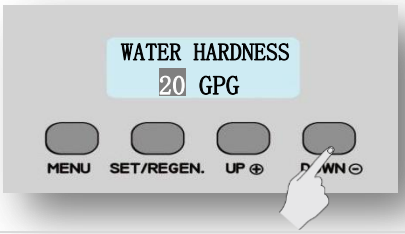
21. Press **SET/REGEN** once and the value flashes



22. Press **UP** or **DOWN** to change the NUMBER OF PEOPLE in your home



23. Press **SET/REGEN** again to accept the value. Highlight stops flashing



24. Press **DOWN** to advance to WATER HARDNESS. The value is highlighted. **PROCEED TO STEP 4**

STEP 4: Setting Water Hardness

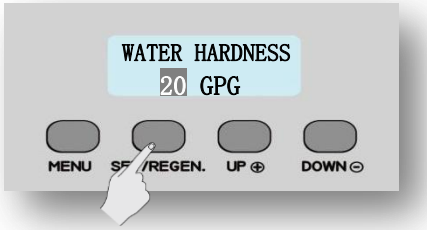
This value is the hardness value of your water in grains per gallon (GPG). If you have the reading in PPM or mg/L, simply divide that by 17.1 to get the reading in GPG. You must also add (5 x iron level in PPM) to the hardness value.

HARDNESS VALUE = YOUR WATER HARDNESS + (5 x Iron concentration in PPM)

For example, if your water hardness is 20 GPG and the iron level is 0.3 PPM, the hardness value you enter must be

20 + 5 x (0.3) = 20 + 1.5 = 21.5 GPG

Note: If you do not know your water hardness, please call customer service for details on how to send us a water sample and **receive a free water analysis**. In the meantime, you can leave the hardness value at default setting. You can also visit www.rainfresh.ca for details.



25. Press **SET/REGEN** again. HARDNESS value starts flashing

26. Now press **UP** or **DOWN** keys to set feed water hardness & press **SET/REGEN** again to accept

27. Now press **DOWN** key to advance to VACATION MODE. Press **DOWN** again to exit or press **SET/REGEN** to set vacation mode

STEP 5: Setting Vacation Mode

This function may be activated during a prolonged absence, such as a vacation for more than 2 weeks. The system will perform a brief backwash and rinse based on advanced setting. The purpose is to keep the water fresh in the softener tank and plumbing system.

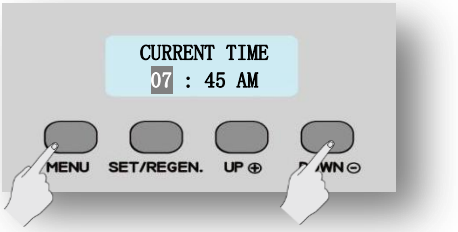
28. To set vacation mode, press **SET/REGEN** and "NO" flashes

29. Press **DOWN** key to change setting to YES.
30. Press **SET/REGEN** to accept value

By selecting the vacation mode, the normal display will show the following in sequence

- Current date and time
- Regeneration days : 07 days
- Remaining days : __ Days
- Regeneration time : 2:00 AM
- Last Regeneration date :
- Current Flow Rate : __ GPM
- Peak Flow Rate : __ GPM

After returning from vacation, reset the VACATION MODE to "NO".



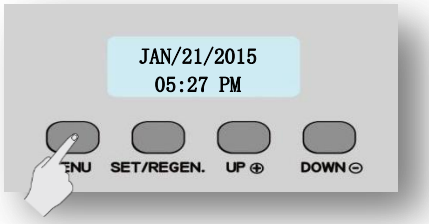
31. Press **DOWN** key and display shows current time with hour highlighted.
32. Press **MENU** to exit programming

YOUR UNIT IS NOW READY FOR SERVICE

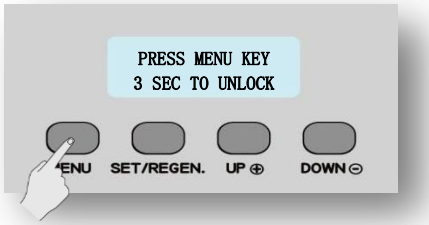
Level 2 PROGRAMMING (OPTIONAL SETTINGS)

NOTE : Under normal use there is no need to change the settings under level 2 programming. You can, however, change the default settings if required. **CAUTION: DO NOT CHANGE LEVEL 2 SETTINGS WITHOUT CONSULTING RAINFRESH TECHNICIAN (1-800-667 8072). Wrongly changing the settings can result in malfunction of the unit.**

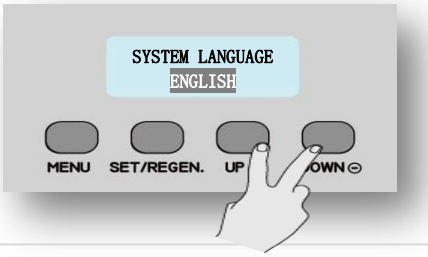
When the Level 2 Master Programming Mode is entered, all available option setting displays may be viewed and set as needed. Depending on current option settings, some parameters cannot be viewed or set.



1. Press **MENU** for 3 seconds to unlock screen.



2. The display will read "**Press MENU Key for 3 sec to unlock"**.
3. After 3 seconds, the display will beep confirming unlock



4. Press and hold **UP** & **DOWN** keys ***together*** for three seconds to enter Level Two Master Programming.

To change any setting under level 2 programming

- **press the SET/REGEN key and the value flashes**
- **press the UP** or **DOWN keys to change the value**
- **press the SET/REGEN key again to accept value**
- **press the DOWN key to advance to the next value**

The following chart indicates choices and default settings. **Note:** Default settings are indicated in **bold letters**
Use same programming method as you used in level 1 to advance and/or change values.

Bold letters indicate default settings

	Parameter	Option 1	Option 2	Option 3	Option 4	Comments
1	System Language	**English**	Spanish	French		Set to French if desired. Spanish not enabled
2	Valve Operation	**Softener**	Filter	Iron Filter		Leave at default setting
3	Regeneration Mode	**Meter Delayed**	Meter Override	Calendar Clock	Meter Immediate	Leave at default setting
4	Regeneration Time	**2:00 AM**				The unit is factory set to regenerate at 2:00 AM on the day of regeneration. You can change to another time if desired.
5	Capacity Calculation	**Automatic**	Manual			Automatic (recommended). Change to manual settings if desired.
6	Resin Volume	For 30R & 33R units, set resin volume at 0.88 cu ft For 40R & 44R units, set resin volume at 1.06 cu ft				
7	Salt Setting	Leave at default setting for maximum efficiency. (Defaults – 30R & 33R =**6**, 40R & 44R=**6**) Set at 15 lb/ft³ for maximum capacity ***Note:*** *Capacity = Amount of water that can be softened between regenerations. Capacity reduces when salt setting is reduced, but salt consumption efficiency increases.*				
8	Refill Flow Rate	**0.7 GPM**				Leave at default setting
9	Unit Capacity	For 33R unit, set at 33,000 grains if you chose 15 lbs salt/ft³ For 44R C unit, set at 40,000 grains if you chose 15 lbs salt/ft³				
10	Reserve Capacity	**75 gal/person**				Increase or decrease value as desired
11	Capacity	This will be the calculated unit capacity in US Gal. The unit will regenerate only when this much water has been used.				
12	Backwash	**05**				Increase to 10 if water has lot of dirt or rust
13	Brine / Rinse	**50**				Increase to 60 if water is more than 15 grains hard
14	Rapid Rinse	**5**				Increase to 10 if you want a longer rinse time after regeneration
15	Refill	For REFILL settings based on your chosen salt settings, please refer to **Table 1** below				
16	Restore Default	**NO**				Leave at default. Change only if you would like to re-start programming from the beginning

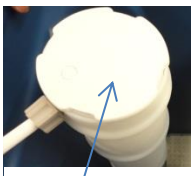
	Salt Setting (lbs/cu ft)*								
Model	**2.0**	**2.5**	**3.0**	**4.5**	**6.0**	**8.0**	**10.0**	**12.0**	**15.0**
30R	0.9	1.0	1.3	1.9	2.5	3.4	4.2	5.0	6.3
33R	0.9	1.0	1.3	1.9	2.5	3.4	4.2	5.0	6.3
40R	1.0	1.3	1.5	2.3	3.0	4.0	5.0	6.0	7.5
44R	1.0	1.3	1.5	2.3	3.0	4.0	5.0	6.0	7.5

Table 1 : Refill time (in minutes) for various salt settings using Sodium Chloride

***** Salt settings not validated by WQA

Disinfecting the Softener

It is possible that during shipping, storage & installing, bacteria can go into the unit. Therefore, as a good installation practice, it is recommended that the softener be disinfected prior to use. To disinfect, open the lid of the brine well in the salt tank and add approx. 3 tablespoons of fresh common household bleach. Replace lid & proceed to next step.



Open this lid & pour bleach inside

Manual Regeneration

If screen is locked, press **MENU** key for 3 seconds to unlock. To initiate an immediate regeneration, press the **SET/REGEN** button for 3 seconds, an option for "*Delayed*" or "*Immediate*" regeneration will appear. Press the **SET/REGEN** button again and "*Delayed*" will begin flashing. Now press the down arrow button and "*Immediate*" will flash. Press the **SET/REGEN** button once and then press the menu button once. Valve will immediately start manual regeneration.

YOUR UNIT IS NOW READY FOR SERVICE

F. OTHER FEATURES

Control Operation During a Power Failure

In the event of a power failure, the valve will keep track of the time and day for 48 hours. The programmed settings are stored in a non-volatile memory and will not be lost during a power failure. If power fails while the unit is in regeneration, the valve will finish regeneration after power is restored. If the valve misses a scheduled regeneration due to a power failure, it will queue regeneration at the next regeneration time once power is restored.

Safety Float

The brine tank is equipped with a safety float which prevents your brine tank from overfilling as a result of a malfunction such as a power failure.

New Sounds

You may notice new sounds as your water softener operates. The regeneration cycle lasts approximately 2 hours. During this time, you may hear water running intermittently to the drain.

Manual Bypass

In the case of emergency, such as an overflowing brine tank, you can isolate your water softener from the water supply using the bypass valve located at the back of the control. To resume soft water service, open bypass valve by rotating the knobs counterclockwise.

G. MAINTENANCE

Adding Salt

Fill the salt tank only with nugget or pellet salt that is specifically for water softeners only. **DO NOT USE rock salt, road salt or other types of impure salts.** Use only high grade water softener salt (Sodium Chloride). You can use Potassium Chloride but you will need to increase salt settings (see page 11). Check the salt level monthly. It is important to **ALWAYS maintain the salt level above the water level**. To add salt, simply slide the cabinet lid and add the salt directly into the brine tank. Be sure the brine well cover is on and fill only to the height of the brine well. The salt tank should never be empty.

DO NOT OVERFILL THE SALT TANK TO THE TOP. Once you can see the water level in the tank, do not fill more than 2-3 bags of salt.

Preventing and breaking a Salt Bridge

Humidity or wrong type of salt may create a cavity between the water and the salt. This action, known as "bridging", prevents the brine solution from being made, leading to your water supply being hard. If you suspect salt bridging, pour some warm water over the salt to break up the bridge. Allow at least four hours to produce a brine solution, and then manually regenerate the softener. This should always be followed up by allowing the unit to use up any remaining salt and then thoroughly cleaning out the brine tank.

If you are unable to break the bridge this way, take a strong rod and carefully push down the salt, working it up and down (see fig on the right). **Do not** pound on the walls of the tank.

If the wrong kind of salt has been used, take it out and fill with nugget or pellet salt.

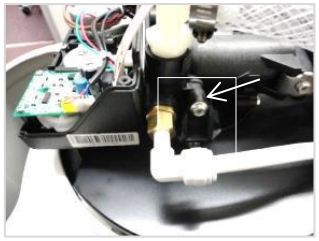
Care of Your Softener

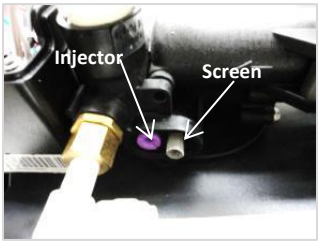
To retain the attractive appearance of your new water softener, clean occasionally with mild soap solution. Do not use abrasive cleaners, ammonia or solvents.

Cleaning the Injector Assembly

Sediment, salt and silt will restrict or clog the injector. A clean water supply and pure salt will prevent this from happening. The injector assembly is located on the right side of the control valve. This assembly is easy to clean.

Shut off the water supply to your softener and reduce the pressure by opening a cold soft water faucet. Using a screwdriver, remove the two screws holding the injector cover to the control valve body. Carefully remove the assembly and disassemble as shown in Figure 6. The injector orifice is removed from the valve body by carefully turning it out with a large screwdriver. Remove the injector throat the same way. Carefully flush all parts including the screen. Use a mild acid such as vinegar to clean the small holes in the orifice and throat.





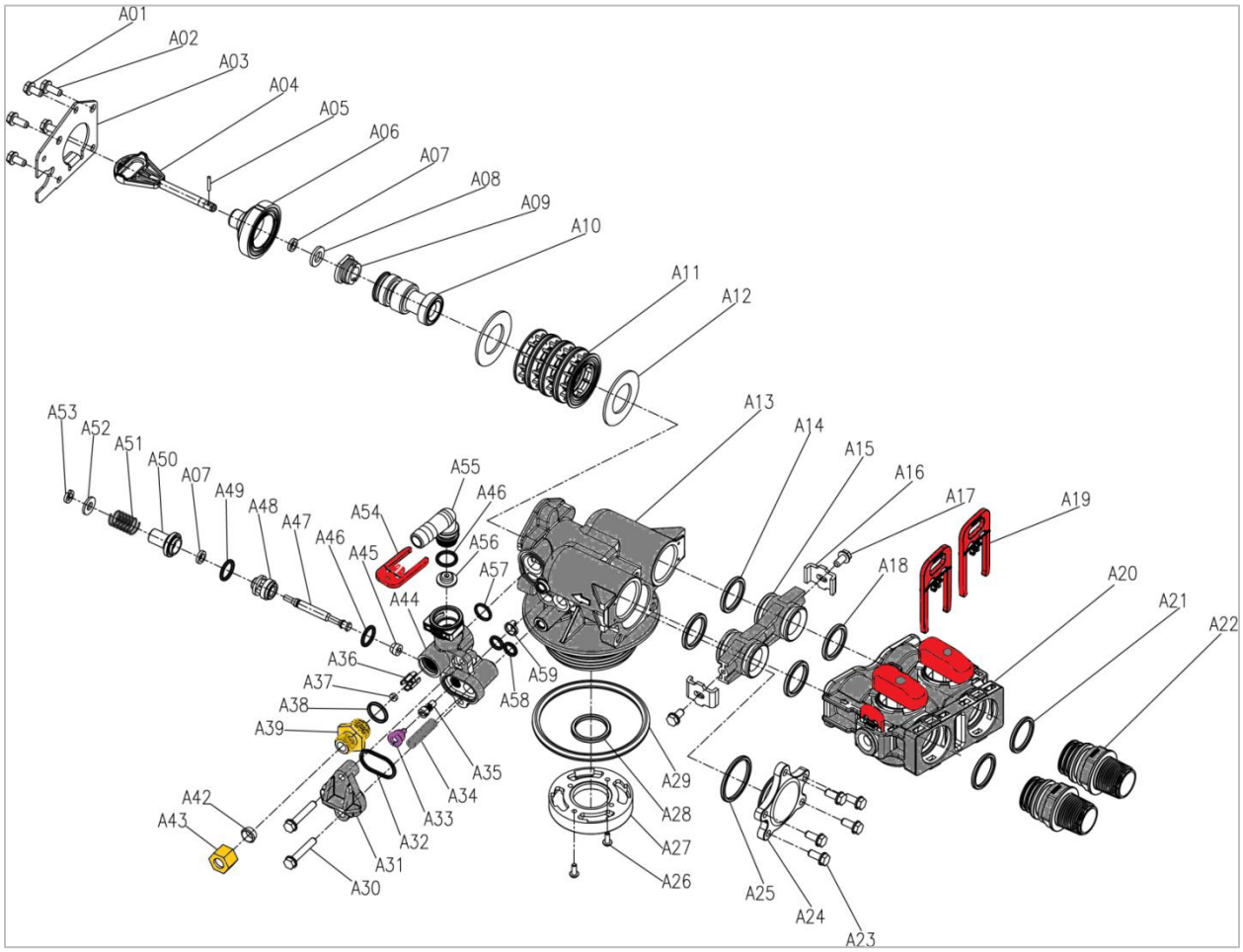
Reassemble using the reverse procedure.

H. TROUBLESHOOTING

ISSUE	POSSIBLE CAUSE	POSSIBLE SOLUTION
A. Unit fails to start a regeneration cycle	1. No power supply 2. Defective circuit board	1. Check electrical service & re-set time of day 2. Replace faulty parts
B. Water is hard	1. Bypass valve is closed 2. No salt in salt tank 3. Plugged injector/screen 4. Brine refill settings wrong 5. Leak between valve and riser tube 6. Internal valve leak	1. Open bypass valve 2. Add salt to salt tank 3. Clean parts (see page 9) 4. Correct brine refill settings (Table 1) 5. Check if riser is cracked or O-ring is damaged. Replace faulty parts 6. Replace valve seals, spacer and piston assly
C. Salt use is high	1. Refill time is too high	1. Correct brine refill settings (Table 1)
D. Low water pressure	1. Iron or scale buildup in line feeding softener 2. Iron buildup inside valve or tank 3. Inlet of control valve plugged due to dirt	1. Clean/replace supply line 2. Clean control valve & add resin cleaner to clean bed. Increase regeneration frequency 3. Clean control valve inlet
E. Resin in drain line	1. Air in water system 2. Incorrect or missing drain line flow control (DLFC)	1. Check well system for proper air elimination 2. Check and replace DLFC
F. Too much water in brine tank	1. Plugged injector or screen 2. Plugged brine valve 3. DLFC plugged	1. Clean parts (page 12-13) 2. Clean parts 3. Clean DLFC
G. Unit fails to draw brine	1. DLFC plugged 2. Injector or screen is plugged 3. Inlet pressure too low 4. Internal valve leak	1. Clean DLFC 2. Clean parts 3. Increase min pressure to at least 25 psi 4. Replace seals, spacer & piston assembly
H. Unit cycles continuously	1. Defective circuit board	1. Replace faulty parts
I. Water flows to drain continuously	1. Valve settings incorrect 2. Internal leak	1. Check valve settings 2. Replace seals, spacer & piston assembly

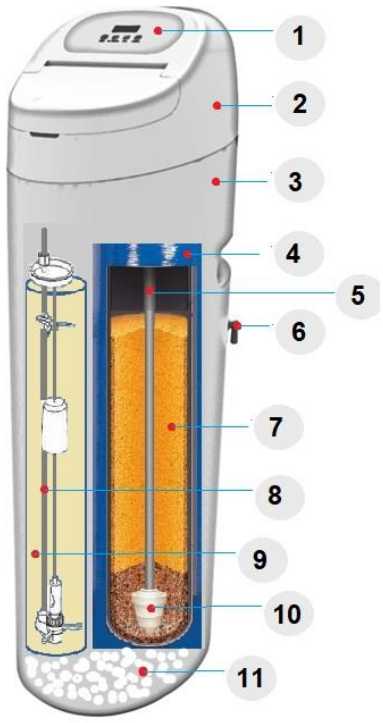
Need help troubleshooting? Call Toll Free 1-800-667-8072 Monday to Friday 8:30 AM to 5 PM EST.

I. PARTS LIST



Item No.	Part No.	Description	Quantity
A01	05056087	Screw - M5x12 (Hexagon)	3
A02	05056088	Screw - M5x16 (Hexagon with washer)	2
A03	05056047	End plug retainer	1
A04	05030002	Piston rod	1
A05	05056097	Piston pin	1
A06	05056023	End plug	1
A07	05056070	Quad ring	2
A08	05056024	End plug washer	1
A09	05056022	Piston retainer	1
A10	05056181	Piston (electrical)	1
A11	05056104	Muffler	1
A12	05056021	Spacer	4
A13	05056073	Seal	5
A14	05030001	Valve body	1
A15	05056129	O-ring ϕ 23x3	4
A16	05056025	Adaper coupling	2
A17	05056044	Adaptor clip	2
A18	05056090	Screw-ST4. 2x13 (Hexagon with washer)	2

A19	21709003	Secure clip	2
A20	05056140	Valve connector	1
A21	05056065	O-ring ϕ 23.6x2.65	2
A22	21319006	Screw adaptor	2
A23	05056508	Screw M5x12 (Hexagon with washer)	5
A24	05030004	End cover	1
A25	05030013	O-ring ϕ 30x2.65	1
A26	13000426	Screw-ST2. 9x13 (Large)	2
A27	07060007	Valve bottom connector	1
A28	26010103	O-ring ϕ 25x3.55	1
A29	05056063	O-ring ϕ 78.74x5.33	1
A30	05056086	Screw - M5x30 (Hexagon with washer)	2
A31	05056029	Injector cover	1
A32	05056072	O-ring ϕ 24x2	1
A33	05056027	Injector nozzle	1
A34	05056103	Injector screen	1
A35	05056028	Injector throat	1
A36	05056035	BLFC button retainer	1
A37	05056191	BLFC - 2#	1
A38	05056138	O-ring ϕ 14x1.8	1
A39	05056100B	BLFC fitting	1
A40	05056106	Brine line screen	1
A41	05056107	BLFC tube insert	1
A56		Drain line flow control (DLFC)	1



	DESCRIPTION
1	Control Valve Display Module
2	R Series Cabinet cover
3	R Series Cabinet bottom
4	Media Tank for model 30R – 9”x 35”
	Media Tank for model 33R – 9”x 35
	Media Tank for model 40R – 10”x 35
	Media Tank for model 44R – 10”x 35
5	Riser
6	Overflow fitting
7	Resin
8	Brine safety float
9	Brine Well
10	Bottom Distributor
11	Salt
12	Power adapter (110V)

To order replacement parts:
Call 1800 667 8072
Monday to Friday
8:00 AM to 5 PM EST.

J. Limited Warranty

This “R” Series Softener System is warranted to the original Consumer purchaser for a period of one (1) year, from the date of purchase, against defects in materials or workmanship. The electronic controls and mineral tank are warranted for 5 and 10 years respectively against defects in materials or workmanship. The company's obligation under this warranty shall consist of repair or replacement, at its option, of any part found by company inspection to be defective, provided that the product has not been misused, abuse, altered or damaged by Consumer with respect to the original installation, as determined by the company. This warranty will not apply if water passing through the System has a) Turbidity / Suspended Solids > 5 ppm (mg/l). b) Hydrogen Sulphide concentrations greater than 0.05 ppm (0.05 mg/l). c) Iron concentration greater than 0.5 ppm (0.5 mg/l) or Manganese greater than 0.05 ppm (0.05 mg/l), f) Tannins or colour. This limited Warranty applies only to a unit when returned to the Warrantor at the owner’s expense and in accordance with shipping instructions received from the Warrantor. This warranty does NOT cover, and is intended to exclude, any liability on the part of Envirogard for any incidental damages, consequential damages, labour charges or any other costs incurred in connection with the purchase, installation, use, maintenance or repair of the system whether under this warranty or any other warranty implied by law. Some provinces/states do not allow the exclusion of incidental or consequential damages, so the above limitation or exclusion may not apply to you. This warranty gives you specific legal rights and you may also have other rights, which vary from province/state to province/state. This warranty applies only to softeners purchased in Canada or the U.S.A.

Envirogard Products Limited
446 Major Mackenzie Drive East,
Richmond Hill, ON L4C 1J2, Canada
Tel : (905) 884 9388 **Helpline:** 1800 667 8072
Web: www.rainfresh.ca