Owners Manual

185HEDP DUAL PASS Hardness Reduction System



New Style Parallel Tank Connector

- 1. Read all instructions carefully before operation.
- 2. Avoid pinched o-rings during installation by applying (provided with install kit) NSF certified lubricant to all seals.
- 3. This system is not intended for treating water that is microbiologically unsafe or of unknown quality without adequate disinfection before or after the system.

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Unpacking / Inspection

Be sure to check the entire softener for any shipping damage or parts loss. Also note damage to the shipping cartons. Contact the transportation company for all damage and loss claims. The manufacturer is not responsible for damages in transit.

Small parts, needed to install the softener, are in a parts bag. To avoid loss of the small parts, keep them in the parts bag until you are ready to use them.

Safety Guide

For your safety, the information in this manual must be followed to minimize the risk of electric shock, property damage or personal injury.

- Check and comply with your provincial / state and local codes. You must follow these guidelines.
- Use care when handling the water softening system. Do not turn upside down, drop, drag or set on sharp protrusions.
- The water softening system works on 12 volt-60 Hz electrical power only. Be sure to use only the included transformer.
- Transformer must be plugged into an indoor 120 volt, grounded outlet only.
- Use clean water softening salts only, at least 99.5% pure. NUGGET, PELLET or

- coarse SOLAR salts are recommended. Do not use rock, block, granulated or ice cream making salts. They contain dirt and sediments, or mush and cake, and will create maintenance problems.
- Keep the salt lid in place on the softener unless servicing the unit or refilling with salt.
- WARNING: This system is not intended for treating water that is microbiologically unsafe or of unknown quality without adequate disinfection before or after the system.

Proper Installation

This water softening system must be properly installed and located in accordance with the Installation Instructions before it is used.

- Do not install or store where it will not be exposed to temperatures below freezing or exposed to any type of weather. Water freezing in the system will break it. Do not attempt to treat water over 100°F.
- Do not install in direct sunlight. Excessive sun or heat may cause distortion or other damage to non-metallic parts.
- Properly ground to conform with all governing codes and ordinances.
- Use only lead-free solder and flux for all sweat-solder connections, as required by state and federal codes.
- Maximum allowable inlet water pressure is 125 psi. If daytime pressure is over 80

- psi, night time pressure may exceed the maximum. Use a pressure reducing valve to reduce the flow if necessary.
- Softener resins may degrade in the presence of chlorine above 2 ppm. If you have chlorine in excess of this amount, you may experience reduced life of the resin. In these conditions, you may wish to consider purchasing a whole house carbon filter softener system with a chlorine reducing media.
- WARNING: Discard all unused parts and packaging material after installation. Small parts remaining after the installation could be a choke hazard.

			3-10	3	UZ.	4	
A B			1054	62"	68"	21"	
	A	<u>[</u>				21*	В
▼		,		C			

Specifications

Specifications	WG185HEDP-100	WG185HEDP-150	WG185HEDP-200	WG185HEDP-250
	2192-1	2193-1	2194-1	2195-1
Factory Settings				
Salt Used - Per Regeneration	12.0 lbs	18.0 lbs	24.0 lbs	30.0 lbs
Water Used - Regeneration	86.4 gal	148 gal	162.4 gal	224.8 gal
Hardness Removal - Grains	30,000	45,000	60,000	75,000
Tank #1 Resin Quantity - Cubic Feet	1.0 ft ³	1.50 ft ³	2.0 ft ³	2.5 ft ³
Tank #2 Resin Quantity - Cubic Feet	1.0 ft ³	1.50 ft ³	2.0 ft ³	2.5 ft ³
Tank Size	9x48	10x54	12x52	13x54
Tank Jacket / Media Loaded	Yes	Yes	No	No
Brine Tank / Cabinet Size (Inches)	20.3 x 37.4	23.0 x 40.5	23.0 x 40.5	23.0 x 40.5
Salt Storage Capacity	350 lbs	420 lbs	420 lbs	420 lbs
Flow Rate @ 15 psi Pressure Drop	7.2 gpm	7.4 gpm	9.0 gpm	9.2 gpm
Flow Rate @ 25 psi Pressure Drop	10.0 gpm	10.1 gpm	11.9 gpm	12.1 gpm
Back Wash Flow Rate	2.0 gpm	2.4 gpm	3.5 gpm	4.0 gpm
Shipping Weight	184 lbs	201 lbs	244 lbs	262 lbs
Regeneration Type		Counter Curr	ent / Up Flow	
Plumbing Connections	Includes 3/4" 90°Elbows & 1" Straight NPT			
Resin Type	Canature 8% High Capacity Ion Exchange Resin			
Electrical Requirements	Input 120V 60 Hz - Output 12V 650mA			
Water Temperature	Min 39 - Max. 100 degrees Fahrenheit			
Water Pressure		Min. 20 - N	lax. 125 psi	

- Continuous operation at flow rates greater than the service flow rate may affect capacity and efficiency performance.
- The manufacturer reserves the right to make product improvements which may deviate from the specifications and

Before Starting Installation

Tools, Pipe, and Fittings, Other Materials

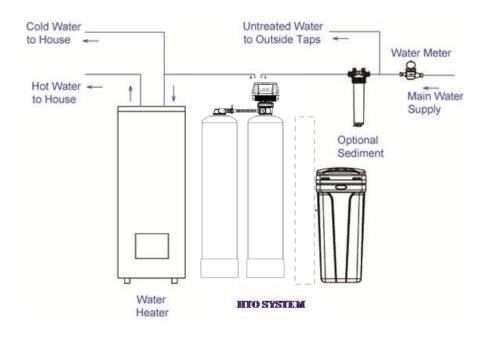
- Pliers
- Screwdriver
- Teflon tape
- Razor knife
- Two adjustable wrenches
- Additional tools may be required if modification to home plumbing is required.
- Plastic inlet and outlet fittings are included
 with the softener. To maintain full valve
 flow, 3/4" or 1" pipes to and from the softener fittings are recommended. You
 should maintain the same, or larger, pipe
 size as the water supply pipe, up to the
 softener inlet and outlet.
- Use copper, brass, or PEX pipe and fittings.

- Some codes may also allow PVC plastic pipe.
- ALWAYS install the included bypass valve, or 3 shut-off valves. Bypass valves let you turn off water to the softener for repairs if needed, but still have water in the house pipes.
- 5/8" OD drain line is needed for the valve drain. A 10' length of hose is included. with some models.
- A length of 5/8" OD drain line tubing is needed for the brine tank over flow fitting (optional).
- Nugget or pellet water softener salt is needed to fill the cabinet or brine tank.

Where To Install The Softener

- Place the softener as close as possible to the pressure tank (well system) or water meter (city water).
- Place the softener as close as possible to a floor drain, or other acceptable drain point (laundry tub, sump, standpipe, etc.).
- Connect the softener to the main water supply pipe BEFORE the water heater. DO NOT RUN HOT WATER THROUGH THE SOFTENER. Temperature of water passing through the softener must be less than • 100 deg. F.
- Keep outside faucets on hard water to save soft water and salt.
- Do not install the softener in a place where it could freeze. Damage caused by freezing is not covered by the war- • ranty.
- Put the softener in a place water damage

- is least likely to occur if a leak develops. The manufacturer will not repair or pay for water damage.
- A 120 volt electric outlet, to plug the included transformer into, is needed within 6 feet of the softener. The transformer has an attached 6 foot power cable. Be sure the electric outlet and transformer are in an inside location, to protect from wet weather.
- If installing in an outside location, you must take the steps necessary to assure the softener, installation plumbing, wiring, etc., are as well protected from the elements, contamination, vandalism, etc., as when installed indoors.
- Keep the softener out of direct sunlight. The sun's heat may soften and distort plastic parts.



Installation Instructions

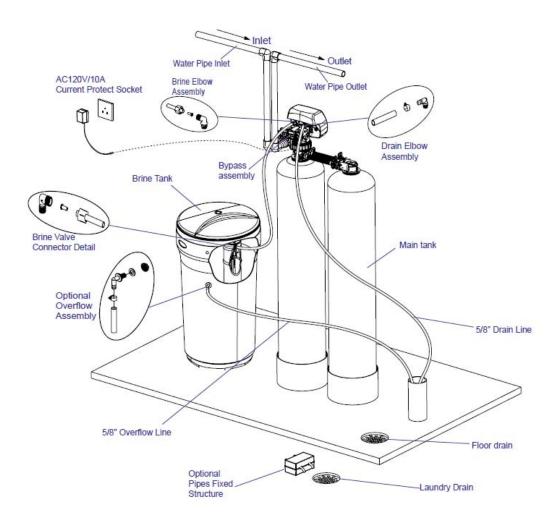
- 1. If your hot water tank is electric, turn off the power to it to avoid damage to the element in the tank.
- 2. If you have a private well, turn the power off to the pump and then shut off the main water shut off valve. If you have municipal water, simply shut off the main valve. Go to the faucet, (preferably on the lowest floor of the house) turn on the cold water until all pressure is relieved and the flow of water stops.
- 3. Locate the softener tank and brine tank close to a drain where the system will be installed. The surface should be clean and level.
- 4. Connect the inlet and outlet of the softener using appropriate fittings. Perform all plumbing according to local plumbing codes.
 - Use a ½" minimum pipe or tubing size for the drain line
 - ON COPPER PLUMBING SYSTEMS BE SURE TO INSTALL A GROUNDING WIRE BETWEEN THE INLET AND OUTLET PIPING TO MAINTAIN GROUND-ING.

Any solder joints near the valve must be done before connecting any piping to the valve. Always leave at least 6" (152 mm) between the valve and joints when soldering pipes that are connected to the valve. Failure to do this could cause damage to the valve.

- 5. Connect the drain hose (10 ft included) to the valve and secure it with a hose clamp (also included). Run the drain hose to the nearest laundry tub or drain pipe. This can be ran up overhead or down along the floor. If running the drain line more than 20 ft overhead, it is recommended to increase the hose size to 3/4". NEVER MAKE A DIRECT CONNECTION INTO A WASTE DRAIN. A PHYSICAL AIR GAP OF AT LEAST 1.5" SHOULD BE USED TO AVOID BACTERIA AND WASTEWATER TRAVELLING BACK THROUGH THE DRAIN LINE INTO THE SOFTENER.
- 6. Using the Allen Key (included), place the unit in the bypass position. Slowly turn on the main water supply. At the nearest cold treated water tap nearby remove the faucet screen, open the faucet and let water run a few minutes or until the system is free of any air or foreign material resulting from the plumbing work.
- 7. Make sure there are no leaks in the plumbing system before proceeding. Close the water tap when water runs clean.
- 8. Open the brine tank / cabinet salt lid and add water until there is approximately 3" (75 mm) of water in the tank. Do not add salt to the brine tank at this time.
- 9. Proceed to start up instructions.

Note: The unit is not ready for service until you complete the start-up instructions.

Installation



System Start-Up

Key Pad Configuration

SETTINGS This function is to enter the basic set up infor-

mation required at the time of installation.

MANUAL This function is to initiate an immediate or

REGEN delayed manual regeneration.

DOWN / Increase or decrease the value of the settings

UP while in the programming mode.



Manual Regeneration (Step / Cycle Valve)

DELAYED REGENERATION

Press and release the MANUAL REGEN. Button to set a delayed regeneration that will occur at the regeneration time. The main display page will show DELAYED REGEN ON. To cancel press and release the MANUAL RE-GEN. Button. The main display page will show DELAYED REGEN OFF.

IMMEDIATE REGENERATION

To start an immediate regeneration (or step valve through each position), press and hold the MANUAL REGEN. Button for 3 seconds (until beeps). The valve will start an immediate regeneration. Press any key to skip to the next cycle.

Start-up Instructions

- 1. Plug the power transformer into an approved power source. Connect the power 5. Press any button to advance to the RINSE cord to the valve.
- 2. When power is supplied to the control, the screen will display "INITIALIZING WAIT PLEASE" while it finds the service position.
- 3. Manually step the valve past the BRINE position to the BACKWASH position. screen is locked, press SETTINGS for 3 seconds to unlock. Press and hold the MANUL REGEN. Key for 3 seconds. Press any key to skip the BRINE cycle.
- 4. Once in the BACKWASH cycle, open the inlet on the bypass valve slowly and allow water to enter the unit. Allow all air to escape from the unit before turning the water on fully then allow water to run to drain for 3-4 minutes or until all media 8. Add salt into the cabinet / brine tank. fines are washed out of the softener indi- 9. Program unit.

- cated by clear water in the drain hose.
- position. Check the drain line flow. Allow the water to run for 3-4 minutes or until the water is clear.
- 6. Press any button to advance to the REFILL position. Check that the valve is filling water into the brine tank. Allow the valve to refill for the full amount of time as displayed on the screen to insure a proper brine solution for the next regeneration.
- 7. The valve will automatically advance to the SERVICE position. Open the outlet valve on the bypass, then open the nearest treated water faucet and allow the water to run until clear, close the tap and replace the faucet screen.

Programming Instructions

Settings

Press SETINGS key (3 SECONDS / BEEP)

VALVE MODE SOFTENER UF

TIME OF DAY 12:01 PM

> **YEAR** 2012

MONTH AUGUST

> DAY 21

SET HARDNESS 20 GRAINS

SET PEOPLE

SALT SETTING HIGH EFFICIENCY STANDARD IRON & MN

WATER TYPE MUNICIPAL WELL / OTHER

REGEN TIME 2:00 AM

PROGRAMMING COMPLETE

TIME OF DAY, YEAR, For SIM units choose IRON & MONTH, DAY,

Time of day is for normal operation of system and the WATER TYPE scheduling of the regenera- Select WELL / OTHER if any tem regenerated.

SET HARDNESS

This value is the maximum **REGENTIME** compensated water hardness This setting determines the raw water supply. It is used scheduled regeneration. to calculate the system capacity. If Ferrous Iron is pre- REGEN DAYS ppm of Ferrous Iron.

SET PEOPLE

This value is the number of people living in the home. It GALLONS daily use and the reserve ca- pacity. pacity of the system.

SALT SETTING

There are choose in the MENU SET- Which ever occurs first. These settings will determine the salt dosage and capacity for the system.

MN.

tion time. The date is used Iron or Manganese is present in a diagnostic function to or if the water source is not track the last time the sys- clean (< 1NUT turbidity). The system will back wash every time.

in grains per gallon of the time of day to perform a

sent add 4 gpg for every 1 This value is the number of days between regenerations or back washes to clean the filters.

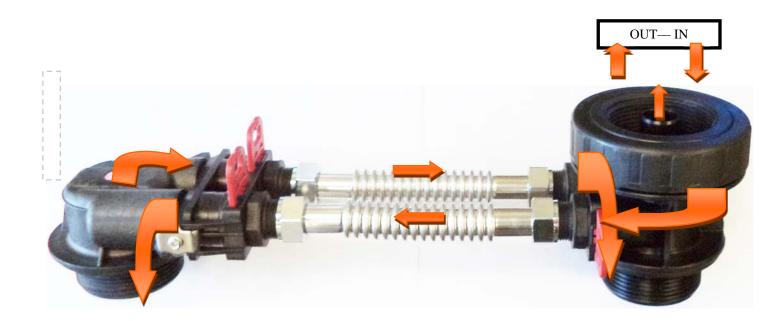
is used to calculate the Default value is OFF. Adjust amount of water needed for the GALLONS to set the ca-This will cause the unit to regenerate either when the gallons remaining goes to zero or the days be-3 settings to tween regeneration is zero.

The design of the parallel tank adaptor used in our dual-tank products (i.e. BIF/BAF, HTO, HEDP etc.) has been redeveloped. This new shorter version will also change the





New flow directions.



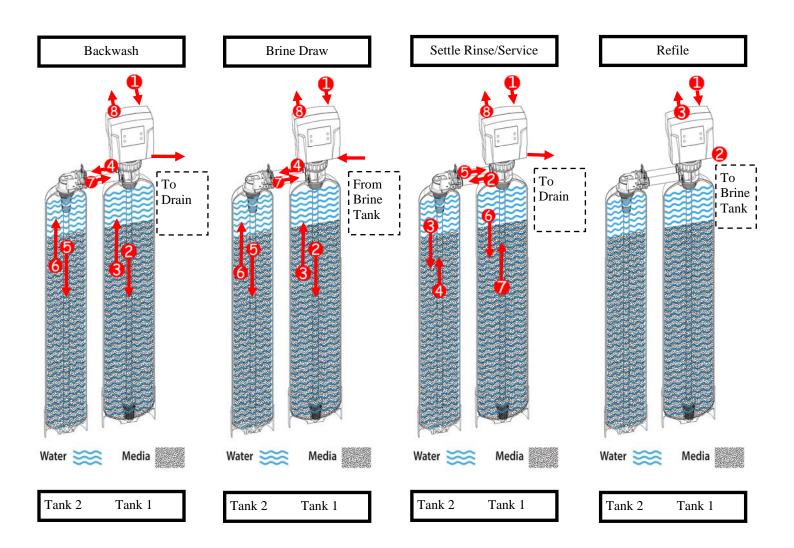
Regeneration Process Explained

<u>Backwash</u>: Backwash: During the backwash cycle, water enters tank #2 through the center of the distribution tube and flows up- wards in the tank#2 expanding the media bed and carrying any precipitated contaminants trapped within the bed. It then travels to tank #1 through the center of the distribution tube and flow upwards in tank #1 and then out to the drain.

<u>Brine Draw</u>: During the brine draw cycle, brine water enters tank #2 through the center of the distribution tube and flows upwards in the tank #2 regenerating the media bed. It then travels to tank #1 through the center of the distribution tube and flows upwards in tank #1 and then out to the drain.

<u>Settle Rinse</u>: During the settle rinse cycle, water enters tank #1 down through the bed and up the through the center of the distribution tube. It then travels to tank #2 down through the bed and up the through the center of the distribution tube and out to the drain.

Refill: During refill the control valve will put water into the brine tank for the next regeneration cycle.



About The System

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 from the point it is at once power is restored. If the valve misses a scheduled regeneration due to a power failure, it will queue a 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.

Main Display

The main display page will pause on the Date and Time page for 5 seconds. Then it will continually scroll through all of the system diagnostic display pages. Depending on the Valve Type some pages will not be displayed. To manually scroll through the diagnostics, press the down or up key. To reset the TOTAL REGENS, TOTAL GALLONS OVER RUN TOTAL, or PEAK flow rates, press and hold the MENU until the value changes to zero.

PARAMETER	DESCRIPTION
JULY/17/2012	Month, Day, Year, Time
8:30 PM	
TOTAL 1,500 GAL	The total amount is the system capacity when fully regenerated. The remaining is the
REMAIN 1,200 GAL	capacity left in the system.
PEOPLE 2	Number of people in the household and the calculated reserve capacity. When remaining
RESERVE 150 GAL	reaches reserve capacity a regeneration will be scheduled.
EST. DAYS TO NEXT	The estimated number of days until the next regeneration will occur.
REGEN 06 DAYS	
LAST REGEN	The date of the last regeneration.
9/24/12	
TOTAL REGENS	The total number of regenerations.
10	
TOTAL GALLONS	The total amount of gallons treated by the system.
001590 GAL	
OVER RUN TOTAL	The total amount of water that has exceeded the system capacity over the last 4
0500 GAL	regenerations. When remaining goes to zero, the gallons used will be added to over run total.
CURRENT 1.5 GPM	The current flow rate and the peak flow rate since the last regeneration.
PEAK 6.5 GPM	
DELAYED REGEN	Advises whether a delayed regeneration has been scheduled manually or automatically.
OFF	
REGEN TIME	The current setting for regeneration time.
2:00 AM	
REFILL TIME	The current calculated refill time.
3:00 MIN	
VALVE MODE	The current setting of the valve mode.
SOFTENER UF	

New Sounds

You may notice new sounds as your water softener operates. The regeneration cycle lasts up to 180 minutes. During this time, you may hear water running intermittently to the drain.

Precision Brining Regeneration Process

When the system capacity is near exhausted, a regeneration is necessary to restore the system to full capacity. The table below explains the regeneration steps.

Step	Name	Description
#1	Brine Making	A precise calculated amount of fresh water is added to the brine tank to make enough brine to regenerate only the exhausted portion of the ion exchange resin. Note: 70% of the required fresh water is added in Step #5 in the previous regeneration. The default brine making time is 30 minutes.
#2	Brine	The brine solution is introduced slowly to the bottom of the tank flowing up through the ion exchange resin pushing the hardness out to drain and restoring system capacity.
#3	Back Wash	Fresh water is introduced to the bottom of the tank flowing upwards expanding the ion exchange resin to rinse out any dirt or small particles to the drain and to un-compact the bed to restore full service flow rates.
#4	Rinse	Fresh water is introduced from the top of the tank down flowing down through the ion exchange resin rinsing any excess brine solution out to the drain.
#5	Refill	A fixed amount of soft water is added to the salt tank to prepare and insure fully saturated brine for the next regeneration. Note: Step #1 will "top off" the amount of water needed based on the percentage of exhausted resin to be regenerated.

Automatic Hard Water Bypass During Regeneration

The regeneration cycle can last 30 to 180 minutes, after which soft water service will be restored. During regeneration, hard water is automatically bypassed for use in the household. Hot water should be used as little as possible during this time to prevent hard water from filling the water heater. This is why automatic regeneration is set for sometime during the night and manual regenerations should be performed when little or no water will be used in the household.

Normal regeneration time is 2:00 AM.

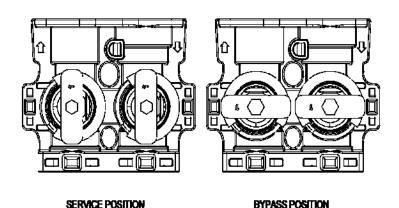
System Configuration

185	185HE UPFLOW System Configuration					
Tank Size (Diameter)	Injector Cot	Brine Line Flow	Drain Line Flow			
Talik Size (Diameter)	Injector Set	Control (BLFC)	Control (DLFC)			
8"			#1 (1.5 GPM)			
9"	#0000 Black		#2 (2.0 GPM)			
10"		0.20 GPM	#3 (2.4 GPM)			
12"	#00 Purple	0.20 GPIVI	#5 (3.5 GPM)			
13"	#0 Red		#6 (4.0 GPM)			
14"	#1 WHITE		#A (5.0 GPM)			

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. In normal operation the bypass is open with the on/off knobs in line with the inlet and outlet pipes.

To isolate the softener, simply rotate the knobs clockwise (as indicated by the word BYPASS and arrow) until they lock. You can use your water related fixtures and appliances as the water supply is bypassing the softener. However, the water you use will be hard. To resume soft water service, open bypass valve by rotating the knobs counterclockwise.



Maintenance

Adding Salt

Use only crystal water softener salt. Check the salt level monthly. It is important to maintain the salt level above the water level. To add salt, simply lift the salt 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.

Bridging

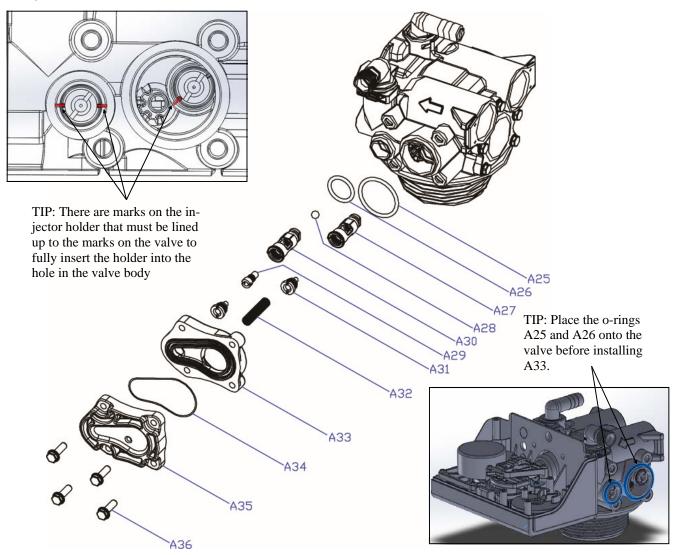
Humidity or wrong type of salt may create a cavity between the water and the salt. This action, known as "bridging", prevents the brine solution from being made, leading to your water supply being hard.

If you suspect salt bridging, carefully pound on the outside of the brine tank or pour some warm water over the salt to break up the bridge. This should always be followed up by allowing the unit to use up any remaining salt and then thoroughly cleaning out the brine tank. Allow two hours to produce a brine solution, then manually regenerate the softener.

Cleaning or Replacing Injectors

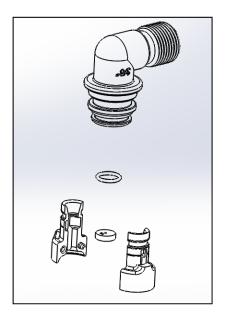
Sediment, salt and silt will restrict or clog the injector. A clean water supply and pure salt will prevent this from happening.

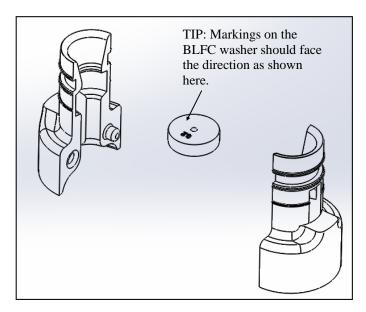
The injector assembly is located on the right side of the control valve. This assembly is easy to clean.



- 1. Shut off the water supply to your softener and reduce the pressure by opening a cold soft water faucet.
- 2. Using a screwdriver, remove the four screws holding the injector cover to the control valve body.
- 3. Carefully remove the assembly and disassemble as shown in above figure.
- 4. 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.
- 5. Carefully flush all parts including the screen. Use a mild acid such as vinegar or Pro-Rust Out to clean the small holes in the orifice and throat.
- 6. Reassemble using the reverse procedure.

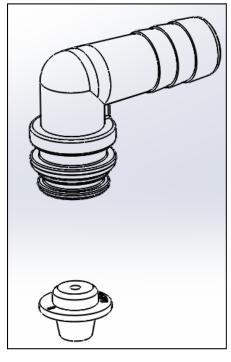
Replacing Brine Line Flow Control (BLFC)

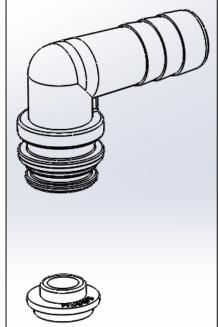




- 1. Remove the red clip that secures the brine elbow.
- 2. Remove the BLFC holder from the elbow fitting.
- 3. Split the BLFC holder apart and remove the flow washer.
- 4. Reassemble using the reverse procedure.

Replacing Drain Line Flow Control (DLFC)





- 1. Remove the red clip that secures the drain line elbow.
- 2. Remove the BLFC washer from the elbow fitting.
- 3. Reassemble using the reverse procedure.

Care of Your System

To retain the attractive appearance of your new water softener, clean occasionally with mild soap solution. Do not use abrasive cleaners, ammonia or solvents. Never subject your softener to freezing or to temperatures above 100°F.

Resin Cleaner

An approved resin cleaner must be used on a regular basis if your water supply contains iron. The amount of resin cleaner and frequency of use is determined by the quantity of iron in your water (consult your local representative or follow the directions on the resin cleaner package).







Item #	Description	
80030006	Res Care - 1 gal. Bottle	
80030005	Res Care - 1 gt. Bottle	

Item #	Description
80030002	Rust Out - 1.5 lb. Bottle
80030003	Rust Out - 5 lb. Bottle
80030004	Rust Out - 50 lb. Pail

ltem #	Description
55030001	Res Up Feeder - 0.5 oz/day Feeder
55030002	Res Up Feeder - 1.0 oz/day Feeder

Sanitizing Procedure

Care is taken at the factory to keep your water softener clean and sanitary. Materials used to make the softener will not infect or contaminate your water supply, and will not cause bacteria to form or grow. However, during shipping, storage, installing and operating, bacteria could get into the softener. For this reason, sanitizing as follows is suggested when installing.

Sani-System Liquid Sanitizer Concentrate



Item# 80030021—Softener Sanitizer 0.25 fl.oz (24 Pack)

- 1. Be sure to complete all installation steps, including programming.
- 2. For effective and complete sanitization, Sani-System Liquid Sanitizer Concentrate is recommended. Pour one 0.25 fl. Oz. package into the brine well located in the cabinet or brine tank. (Alternative use 3/4 oz of common 5.25% household bleach)
- 3. Start an immediate regeneration. (See page 11)
- 4. The Softener Sanitizer Solution is drawn into and through the water softener to sanitize it. This sanitizing regeneration is over in about two hours. Then, **soft water** is available for your use.

NOTE: Sanitizing is recommended by the Water Quality Association for disinfecting. On some water supplies, they suggest periodic sanitizing.

Brine Tank & Res-Up Feeder Assembly (Optional)

Step 1 Install salt plate and align brine well opening with the tank handle.



Step 2
Install feeder bracket into the 2 pre-drilled holes.



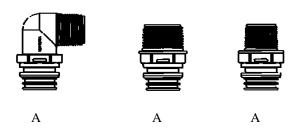
Step 3Install brine well. Feed wick from feeder into the opening in the brine well cap.

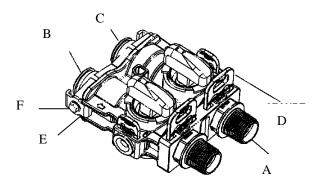


Step 4
Push feeder into brine well cap as shown to complete the assembly.



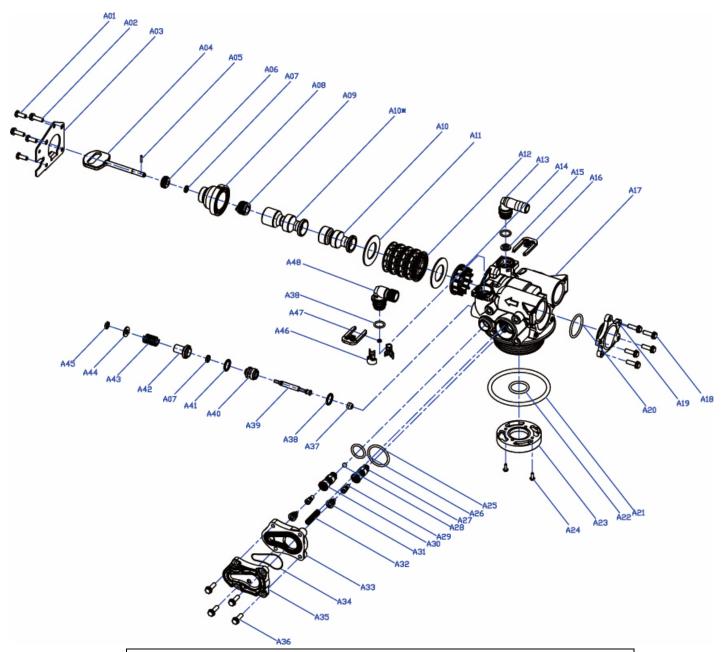
Main Repair Parts - Connectors





REPLACEMENT PARTS - CONNECTORS			
Replacement Part Number	Part Description	DWG #	Quantity
60010020	3/4" NPT ELBOW	A	2
60010019	1" NPT STRAIGHT	Α	2
60010023	3/4" NPT STRAIGHT	Α	2
60010079	VALVE COUPLING INLET	В	1
60010101	VALVE COUPLING OUTLET (METER SIDE)	С	1
60010025	PLASTIC SECURE CLIP	D	2
60010046	BYPASS SS CLIP	E	2
60010047	BYPASS SS SCREW	F	2

Control Valve Exploded View

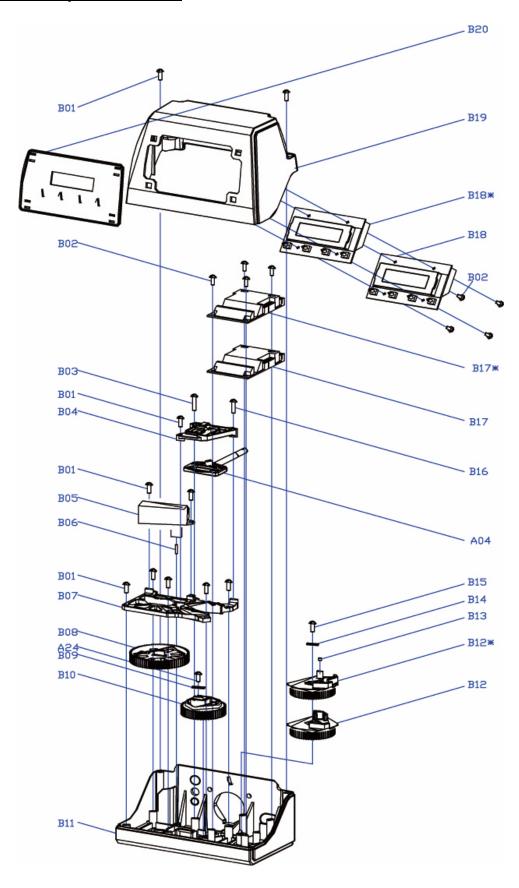


	VALVE RE	EPAIR PART	S LIST				
Replacement Part Number	Part Description	Replacement Part Number	Part Description				
60010127	INJECTOR SET #0000 BLACK	60010129	85HE UPFLOW PISTON ASSEMBLY				
60010126	INJECTTOR SET #000 GREY	60010171	85HE DOWNFLOW PISTON ASSEMBLY				
60010035	INJECTOR SET #00 VIOLET	60010130	85HE SEAL & SPACER KIT				
60010034	INJECTOR SET #0 RED	60010131	85HE DLFC #1 1.5 GPM				
60010033	INJECTOR SET #1 WHITE	60010132	85HE DLFC #2 2.0 GPM				
60010032	INJECTOR SET #2 BLUE	60010133	85HE DLFC #3 2.4 GPM				
60010031	60010031 INJECTOR SET #3 YELLOW 60010135 85HE DLFC #5 3.5 GPM						
60010128	BLFC 0.2 GPM	60010136	85HE DLFC #A 5.0 GPM				
60010110	BLFC 0.3 GPM	60010137	85HE DLFC #B 7.0 GPM				
60010082	BLFC 0.7 GPM	60010138	85HE DLFC #C 10.0 GPM				

Control Valve Parts List

	185H	IE CONTROL VALVE (UPFLOW)		
Replacement Part Number	MFG Part Number	Part Description	DWG #	Quantity
	5056087	Screw-M5x12(Hexagon)	A01	3
	5056088	Screw-M5x16(Hexagon With Washer)	A02	2
	5056047	End Plug Retainer	A03	1
	5031016	BNT85HE Piston Rod	A04	1
	5056097	Piston Pin	A05	1
	5031015	BNT85HE Quad Ring Plug Cover	A06	1
	5056070	Quad Ring	A07	2
	5031011	BNT85HE End Plug	A08	1
	5031014	BNT85HE Piston Retainer	A00	1
	5057002		A10*	1
	5057002	BNT85HE Piston(Electrical Upflow) Seal	A10	5
	5056021	Spacer Spacer	A11	4
0010074	5010082	Drain Fitting-B	A12	1
10010074	5031005	BNT85HE Spacer	A13	1
	5056186	DLFC-2#	A14	1
0010069	5056172	Secure Clip-s	A16	2
10010009	5031002	BNT85HE Valve Body	A10	1
	5056508	Screw-M5x12(Hexagon With Washer)	A17	5
	5030004	BNT85 End Cover	A10	1
	5030004	O-Ring-¢30×2.65	A20	1
	5056063	O-Ring-¢30×2.03 O-Ring-¢78.74×5.33	A20	1
	26010103	O-Ring-¢76.74×3.55	A22	1
	7060007	Valve Bottom Connector	A23	1
	13000426	Screw-ST2.9X13(Large Washer)	A24	2
	5031022	O-Ring-¢32×3	A25	1
	5031022	O-Ring-¢32×3	A25	1
0010174	5031021	Injector Plug Body	A20	1
10010174	30040089	Injector Throat	A29	2
0010175	5031012	BNT85HE Injector Fixed Sleeve	A30	1
10010173	30040090	Injector Nozzle	A31	2
	5056103	Injector Nozzie Injector Screen	A32	1
	5031003	BNT85HE Injector Cover Body	A33	1
	5031018	O-Ring-¢40×2.65	A34	1
	5031004	BNT85HE Injector Cover Cap	A35	1
	5031027	Screw-M5x25(Hexagon With Washer)	A36	4
	5056075	Seal Mat	A37	1
	5056134	O-Ring-¢12×2	A38	3
	5056054	Injector Stem	A39	1
	5056031	Injector Spacer	A40	1
	5056081	O-Ring-¢12.5×1.8	A41	1
	5056030	Injector Cap	A42	1
	5056093	Injector Screen	A43	1
	5010049	Special Washer	A44	1
	5056105	Retaining Ring	A45	1
50010173	5031010	BNT85HE BLFC Fixed Sleeve	A46	2
	5056076	BLFC-2#	A47	1
0010172	5005629	Injector Fitting(3/8".Elbow)	A48	1

Power Head Exploded View



Power Head Parts List

	185	HE POWER HEAD (UPFLOW)		
Replacement Part Number	MFG Part Number	Part Description	DWG #	Quantity
	5056084	Screw-ST3.5X13	B01	10
	5010037	Screw-ST2.9X10	B02	9
	13000416	Screw-ST3.5X25	B03	1
	5031007	BNT85HE Piston Rod Guide Plate	B04	1
	5056510	Motor-12v/2rpm	B05	1
	5030014	Motor Power Cable		1
	11700005	Wire Connector		2
	5056098	Motor Pin	B06	1
	5031006	BNT85HE Mounting Plate	B07	1
	5030009	BNT85 Drive Gear	B08	1
	13000426	Screw-ST2.9X13(Large Washer)	A24	2
	5056139	Washer-3x13	B09	1
	5030007	BNT85 Main Gear	B10	1
	5030005	BNT85 Mounting	B11	1
	5031009	BNT85HE Brine Gear(Upflow)	B12*	1
	5010023	Magnet(3×2.7)	B13	1
	5056141	Washer-4x12	B14	1
	5056166	Screw-ST4.2X12(Large Washer)	B15	1
	5031016	BNT85HE Piston Rod	A04	1
	5010036	Screw-ST3.5X16	B16	1
	5031025	BNT85HE Main Pcb(Upflow)	B17*	1
	5010031	Meter Assembly		1
	5010046	Meter Strain Rlief		1
	5010029	Power Cable		1
	5010035	Power Strain Rlief		1
	19010105	Wire Rope-3×100		2
	5031023	BNT85HE PCB (Upflow)	B18*	1
	5030021	BNT85 Wiring Harness		1
	5030032	BNT185 Cover(Novo)	B19	1
	5030033	BNT185 Display Plate(Novo)	B20	1

Trouble Shooting

A. Unit fails to initiate a regeneration cycle. 3. Power failure. 4. Defective meter. 5. Water is hard. 1. By-pass valve open. 2. Out of salt or salt level below water level. 3. Piluged injector / sreem. 4. Flow of water in hot water tank. 5. Hard water in hot water tank. 6. Leak between valve and central tube. 6. Leak between valve and central tube. 7. Internal valve leak. 8. Reserve capacity. 8. Reserve capacity. 9. Not enough capacity. 1. Into nor scale build up in line feeding unit. 2. Into build up in line feeding unit. 3. Interl of control plugged due to foreign material. 4. Deteriorated resin. (Maybe caused from high choiner or chloramines.) 5. Incorrect drain line. 1. Alr In water system. 1. Alr In water system. 2. Incorrect drain line flow control (DLFC) button. 2. Incorrect drain line flow control (DLFC) button. 3. Inel to draw brine. 2. Valve not regenerating. 3. Inel to draw brine. 2. Valve not regenerating. 3. Inel pressure to olow. 4. Unit fails to draw brine. 5. Hor in line flow control is plugged. 6. Leak great material. 6. Leak fails to draw brine. 7. Incorrect drain line flow control (DLFC) button. 8. Froeign material in brine. 9. Line to regenerating. 9. Line to regenerating. 1. Line to regenerating. 1. Line to regenerating. 1. Line to regenerating. 3. Inelet pressure too low. 4. Unit not drawing brine. 6. Unit fails to draw brine. 9. Line to regenerating. 1. Line to regenerating. 1. Line to regenerating. 2. Inelector or screen. 3. Inelet pressure too low. 4. Unit not drawing brine. 6. Unit fails to draw brine. 9. Line or screen is plugged. 1. Inelector or screen. 2. Inelector or screen. 3. Inelet pressure too low. 4. Unit not drawing brine. 6. Unit fails to draw brine. 1. Plugged injector or screen. 2. Line or regenerating. 3. Inelet pressure too low. 4. Unit not drawing brine. 6. Unit fails to draw brine. 1. Plugged injector or screen. 2. Porain line has kink in it or is blocked. 4. Piscor or screen is plugged. 6. Line or nor t			
regeneration cycle. 2. Defective dircuit board. 3. Power failure. 4. Defective meter. 4. Defective meter. 6. Replace turbine meter. 2. Out of sait or sait level below water level. 3. Plugged injector / sureen. 4. Flow of water blocked to brine tank. 5. Hard water in hot water blocked to brine tank. 6. Leak between valve and central tube. 6. Leak between valve and central tube. 6. Leak between valve and central tube. 7. Internal valve leak. 8. Repeat flushing of hot water tank required. 8. Repeat flushing of hot water tank required. 9. Not enough capacity. 7. Internal valve leak. 8. Reserve capacity setting too low. 9. Not enough capacity. 9. Not enough capacity. 1. Increase reserve capacity. 9. Not enough capacity. 1. Cost use is high. 1. Refill time is too high. 1. Check refill time setting. 1. Cost use is high. 1. Control plugged due to foreign material. 1. Inno or scale build up in line feeding unit. 2. Iron build up inside valve or tank. 3. Inlet of control plugged due to foreign material. 4. Deteriorated resin. (Maybe caused from high chlorine or chloramines.) 1. Air in water system. 1. Air in water system. 1. Air in water system. 2. Incorrect drain line flow control (DLPC) builton. 3. From much water in brine 1. Air in water system. 2. Incorrect drain line flow control (DLPC) builton. 3. Foreign material in brine valve. 4. Unit not drawing brine. 4. Unit not drawing brine. 5. From high chlorine or chloramines.) 6. Unit fails to draw brine. 7. Innet pressure too low. 8. Innet pressure too low. 9. Increase pressure to 25 PSI. 9. Innet pressure too low. 9. Increase pressure to 25 PSI. 9. Innet pressure too low. 9. Increase pressure to 25 PSI. 9. Innet pressure too low. 9. Increase pressure to 25 PSI. 9. Innet pressure too low. 9. Increase pressure to 25 PSI. 9. Innet pressure too low. 9. Increase pressure to 25 PSI. 9. Innet pressure too low. 9. Increase pressure to 25 PSI. 9. Innet pressure too low. 9. Increase pressure to 25 PSI. 9. Innet pressure too low. 9. Increase pressure too 25 PSI. 9. Innet pressur	issue	Possible Cause	Possible Solution
3. Power failure. 4. Defective meter. 5. Defective meter. 6. Defective meter. 6. Defective meter. 7. Defective meter. 7. Defective meter. 8. Water is hard. 8. Water is hard. 9. Dut of sait or sait level below water level. 9. Pugged injector / screen. 1. Elan water in hot water tank. 1. Flow of water blocked to brine tank. 1. How of water blocked to brine tank. 1. Hard water in hot water tank. 1. Hard water in hot water tank. 1. Hard water in hot water tank. 1. Healt water in hot water tank. 1. Repeat flushing of hot water tank required. 1. Check if central tube is cracked or o-ring is damaged. Replace faulty parts. 1. Tinternal valve leak. 1. Replace valve seaks, spacer, and piston assembly. 1. Refill time is too high. 1. Refill time is too high. 1. Refill time is too high. 1. Defective flow control. 1. Diow water pressure. 2. In no build up inside valve or tank. 2. In hot of control plugged due to foreign material. 3. Inlet of control plugged due to foreign material. 4. Deteriorated resin. (Maybe caused from high chlorine or chloramines.) 4. Deteriorated resin. (Maybe caused from high chlorine or chloramines.) 5. In larm water yestem. 5. La lar in water system. 6. Lake the sing in in flow control (DLPC) button. 6. Lincorrect drain line flow control (DLPC) button. 7. Too much water in brine 1. Plugged injector or screen. 1. Valve not regenerating. 2. Valve not regenerating. 3. Foreign material in brine valve. 4. Unit not drawing brine. 5. Froeign material in brine valve. 6. Unit fails to draw brine. 7. Drain line flow control is plugged. 7. Clean parts. 7. Drain line has kink in it or is blocked. 8. Replace sais, spacers, and piston assembly. 8. Safety valve closed. 9. Check for power to motor. Check for loose with check for power to motor. Check for power			
8. Water is hard. 1. By-pass valve open. 2. Out of salt or salt tievel below water level. 3. Plugged injector / screen. 4. Flow of water blocked to brine tank. 5. Hard water in hot water tank. 6. Leak between valve and central tube. 6. Leak between valve and central tube. 7. Internal valve leak. 8. Reserve capacity, setting too fow. 9. Not enough capacity. 9. Not enough capacity. 1. Ino or scale build up in line feeding unit. 1. Clean prips. 1. Inversal valve fees. 1. Inversal valve reserve of the salt in brine tilne. 1. Inversal valve fees. 1. Inversal valve fees. 1. Inversal valve fees. 1. Refill time is too high. 1. Refill time is too high. 1. Refill time is too high. 1. Inversal valve fees. 1. Inversal valve fees. 1. Inversal valve fees. 1. Inversal valve or tank. 1. Lean prips. 1. Inversal valve fees. 1. Inversal valve or tank. 1. Lean prips. 1. Inversal valve fees. 1. Inversal valve or tank. 1. Lean prips. 1. Lat in water system. 1. All in water system. 1. Incorrect drain line flow control (DLFC) button. 1. Drain line effow control is plugged. 1. Gean parts. 2. Line pressure too low. 3. Injector or screen is plugged. 3. Injector or screen is plugged. 4. Lean parts. 4. Lineral valve leak. 5. Safety valve closed. 6. Vacuum leak in brine line. 7. Drain line has kink in it or is blocked. 6. Vacuum leak in brine line. 7. Drain line has kink in it or is blocked. 7. Drain line has kink in	regeneration cycle.		
B. Water is hard. 1. By-pass valve open. 2. Out of sait or sait level below water level. 3. Plugged injector of screen. 4. Flow of water blocked to brine tank. 5. Hard water in hot water tank. 6. Leak between valve and central tube. 6. Leak between valve and central tube. 7. Internal valve leak. 8. Repart flushing of hot water tank required. 8. Repart flushing of hot water tank required. 9. Not enough capacity. 9. Not enough capacity. 1. Refill time is too high. 2. Defective flow control. 8. Perface valve seaks, spacer, and piston assembly. 9. Not enough capacity. 1. Iron or scale build up in line feeding unit. 2. Iron or scale build up in line feeding unit. 2. Iron or scale build up in line feeding unit. 2. Iron build up inside valve or tank. 4. Deteriorated resin. (Maybe caused from high chlorine or chloramines.) 4. Deteriorated resin. (Maybe caused from high chlorine or chloramines.) 5. Incorrect drain line flow control (DLPC) button. 6. Line or rect drain line flow control (DLPC) button. 7. Alvi in water system. 7. Alvi in water system. 8. Plugged injector or screen. 9. Valve not regenerating. 9. Foreign material in brine valve. 9. Clean parts. 9. Clean parts. 9. Clean parts. 9. Clean parts. 9. Check for proper flow rate. 9. Valve not regenerating. 9. Foreign material in brine valve. 9. Clean parts.		3. Power failure.	,
2. Out of salt or salt level below water level. 3. Plugged injector / screen. 4. Flow of water blooked to brine tank. 5. Hard water in hot water tank. 6. Leak between valve and central tube. 6. Leak place valve seals, spacer, and piston assembly. 7. Internal valve leak. 7. Internal valve leak. 8. Reserve capacity, setting too low. 9. Not enough capacity. 1. Refill time is too high. 1. Refill time is too high. 2. Defective flow control. 1. Replace. 1. Ino nor scale build up in line feeding unit. 2. Iron build up inside valve or tank. 3. Inlet of control pitugged due to foreign material. 4. Deteriorated resin. (Maybe caused from high chlorine or chloramines.) 4. Deteriorated resin. (Maybe caused from high chlorine or chloramines.) 6. Lincorrect drain line flow control (DLFC) button. 7. Incorrect drain line flow control (DLFC) button. 7. Incorrect drain line flow control (DLFC) button. 7. Invalve water in brine control walve. 7. Sereign material in brine valve. 7. Clean parts. 7. Internal valve leak. 7. Drain line has kink in it or is blocked. 7. Drain line has kink in it or is blocked. 7. Drain line has kink in it or is blocked. 8. Periore leak in brine line connections. 9. Toreign material in control valve. 9. Clean parts. 9. Check for power to motor. Check for loose wife cautifup parts. 9. Check for power to motor. Check for loose wife continuously. 9. Creen parts and piston assembly. 9. Check for power to motor. Check for loose wife. Check for power to motor. Check for loose wife. Check for power to motor. Check for loose wife. Check for power to motor. C			
3. Plugged injector / streen. 4. Flow of water blocked to brine tank. 5. Hand water in hot water tank. 6. Leak between valve and central tube. 6. Leak between valve and central tube. 6. Leak between valve leak. 7. Internal valve leak. 8. Reserve capacity setting too low. 9. Not enough capacity. 1. Internal valve leak. 8. Reserve capacity setting too low. 9. Not enough capacity. 1. Leffill time is too high. 1. Refill time is too high. 1. Dub water pressure. 1. Iron or scale build up in line feeding unit. 2. Defective flow control. 3. Inlet of control plugged due to foreign material. 4. Deteriorated resin. (Maybe caused from high chlorine or chloramines.) 5. Incorrect drain line flow control (DLFC) button. 7. Incorrect drain line flow control (DLFC) button. 8. Foreign material in brine valve. 9. Valve not regenerating. 9. Foreign material in brine valve. 1. Line flow control (DLFC) clear parts. 1. Line flow control (DLFC) clear parts. 1. Inlet pressure too low. 1. Internal valve leak. 1. Safety valve closed. 1. Inlet pressure too low. 1. Internal valve leak. 2. Injector or screen is plugged. 3. Internal leak. 4. Piston is stuck in position sensor PCB. 5. Replace faulty parts. 6. Check for leak in brine line connections. 7. Drain line has kink in it or is blocked. 1. The piston has not advanced to the next felled or gears of gears diseaged. 1. The piston has not advanced to the next felled for power to	B. Water is hard.		
# Flow of water blocked to brine tank. Check brine tank rath rath. S. Hard water in hot water tank. Repeat flushing of hot water tank required. G. Leak between valve and central tube. Check if or central tube is cracked or o-ring is damaged. Replace faulty parts. Replace valve seals, spacer, and piston assembly. Replace valve valve. Replace valve seals valve. Clear pipes. Clear porton and add resin clearer to clear bed. increase regeneration frequency. Remove piston and clear control valve material. A. Deteriorated resin. (Maybe caused from inigh chlorine or chloramines.) Replace valve valve. Check well system for proper air eliminator control. 2. Incorrect drain line flow control (DLFC) button. Check for proper flow rate. Check for valve valve valve valve valve valve. Clean parts. Clean parts. Check for valve valve valve valve valve valve. Clean parts. Check for valve valve valve valve valve valve. Clean parts. Check for valve valve valve valve valve valve valve. Check for leak in brine line connections. Replace seals, spacers, and piston assembly. Check for leak in brine line connections. Replace seals, spacers, and piston assembly. Check for leak in brine line connections. Replace seals, spacers, and piston assembly.			Add sait to tank.
S. Hard water in hot water tank. 6. Leak between valve and central tube. 6. Leak between valve and central tube. 7. Internal valve leak. 8. Reserve capacity setting too low. 8. Reserve capacity setting too low. 9. Not enough capacity. 1. Leffill time is too high. 2. Defective flow control. 2. Defective flow control. 3. Internal valve is too high. 4. Detertionable quality. 5. Intendity of control plugged due to foreign material. 4. Deterdorated resin. (Waybe caused from high chlorine or chloramines.) 5. Inder or soreen. 6. Larlin water system. 7. Lorn build nipe flow control (DLFC) button. 7. Lorn under water in brine in 1. Plugged injector or screen. 7. Lorn under water in brine in 1. Plugged injector or screen. 8. Sore graph material in brine valve. 9. A unit fails to draw brine. 1. Drain line flow control is plugged. 1. Drain line flow control is plugged. 1. Line or screen is plugged. 2. Line parts. 3. Inter pressure too low. 4. Unit not drawing brine. 6. Unit fails to draw brine. 1. Drain line flow control is plugged. 1. Drain line flow control is plugged. 2. Linector or screen is plugged. 3. Internal valve feak. 4. Unit not drawing brine. 4. Unit not drawing brine. 5. Safety valve closed. 6. Vacuum leak in brine line. 6. Vacuum leak in brine line. 7. Drain line has kink in it or is blocked. 6. Vacuum leak in brine line connections. 7. Drain line has kink in it or is blocked. 7. Drain line has kink in it or is blocked. 8. Foreign material in control valve. 9. Check for leak in brine line connections. 1. They betton has not advanced to the next graph and parts or gears diseaged. 1. The piston has not advanced to the next graph and parts or gears diseaged. 1. They for has not advanced to the next graph and parts or gears gears graph sound.		3. Plugged injector / screen.	Clean parts.
F. Leak between valve and central tube. Check if central tube is cracked or o-ring is damaged. Replace faulty parts.			
7. Internal valve leak. Replace valve seaks, spacer, and piston assembly. 8. Reserve capacity setting too low. 9. Not enough capacity. 1. Refill time is too high. 2. Defective flow control. 3. Internal valve leak. 2. Defective flow control. 3. Internal valve or tank. 4. Deteriorated resin. (Maybe caused from high chlorine or chloramines.) E. Resin in drain line. 1. Air in water system. 2. Incorrect drain line flow control (DUPC) button. F. Too much water in brine tank. 4. Unit not drawing brine. 2. Valve not regenerating. 3. Foreign material in brine valve. 4. Unit not drawing brine. 6. Unit fails to draw brine. G. Unit fails to draw brine. 6. Unit fails to draw brine. 6. Unit fails to draw brine. 7. Drain line flow control is plugged. 4. Internal valve leak. 5. Safety valve closed. 6. Vacuum leak in brine line. 7. Drain line has kink in it or is blocked. 6. Vacuum leak in brine line. 7. Drain line flow. 8. Posteriors paged. 9. Check for leak in brine line connections. 1. Valve continuously 9. Check valve seatings. 9. Replace seals, spacers, and piston assembly. 1. Valve continuously 9. Check for leak in brine line connections. 1. Defective position sensor PCB. 9. Replace seals, spacers, and piston assembly. 1. Valve continuously 1. Defective position sensor PCB. 9. Replace seals, spacers, and piston assembly. 1. Valve seatings incorrect. 1. Check for leak in brine line connections. 1. Tighten all connections. 1. The piston has not advanced to the next 1. Check for power to motor. Check for loose were check or power to motor. Check for loose were check or power to motor. Check for loose were. Check for power to motor. Check for loose were. Check for for power to motor. Check for loose were. Check for for for check or instructions or gears and subston property.		5. Hard water in hot water tank.	
7. Internal valve leak. 8. Reserve capacity setting too low. 9. Not enough capacity. 1. Refill time is too high. 2. Defective flow control. 2. Defective flow control. 3. Inlet of control plugged due to foreign material. 4. Deteriorated resin. (Maybe caused from high chlorine or chloramines.) E. Resin in drain line. 1. Air in water system. 2. Incorrect drain line flow control (DLFC) button. 3. Inlet of control progrems. 4. Deteriorated resin. (Maybe caused from high chlorine or chloramines.) E. Resin in drain line. 1. Air in water system. 2. Incorrect drain line flow control (DLFC) button. 3. Froign material. 4. Deteriorated resin. (Maybe caused from high chlorine or chloramines.) 5. Too much water in brine tank. 4. Unit not drawing brine. 6. Unit fails to draw brine. 6. Unit fails to draw brine. 6. Unit fails to draw brine. 7. Drain line flow control is plugged. 8. Replace greate to Species. 9. Safety valve closed. 1. Incorrect. 1. Drain line has kink in it or is blocked. 1. Poleck valve seating. 1. Poleck valve seating. 1. Poleck for leak in brine line connections. 1. Poleck for leak in brine line connections. 1. Poleck for leak in brine line connections. 1. Replace seals, spacers, and piston assembly. 6. Vacuum leak in brine line. 1. Defective position sensor PCB. 7. Drain line has kink in it or is blocked. 1. Poleck valve seatings. 3. Inlet or gears have jammed or disengaged. 4. Piston is stuck in position. Motor may have failed or gears have jammed or disengaged. 5. Leck for jammed gears or gears disenged. 6. Valve makes beeping 1. The piston has not advanced to the next cycle position property.		6. Leak between valve and central tube.	_
8. Reserve capacity setting too low. Increase saft dosage. C. Saft use is Nigh. 1. Refill time is too high. 2. Defective flow control. D. Low water pressure. 1. Iron or scale build up in line feeding unit. 2. Iron build up inside valve or tank. 2. Iron build up inside valve or tank. 3. Inlet of control plugged due to foreign material. 4. Deteriorated resin. (Maybe caused from high chlorine or chloramines.) 4. Deteriorated resin. (Maybe caused from high chlorine or chloramines.) 5. Resin in drain line. 6. Resin in drain line. 7. Incorrect drain line flow control (DLFC) control. 7. Incorrect drain line flow control (DLFC) control. 7. Incorrect drain line flow control (DLFC) control. 7. Too much water in brine tank. 7. Foreign material in brine valve. 7. Include to drawing brine. 7. Include to drawing brine. 7. Include to rescent is plugged. 7. Injector or screen is plugged. 8. Safety valve closed. 8. Replace seals, spacers, and piston assembly. 8. Safety valve closed. 9. Check for leak in brine line connections. 9. Check for leak in brine line connections. 9. Torain line has kink in it or is blocked. 9. Check for leak in brine line connections. 9. Torain line has kink in it or is blocked. 9. Check for leak in brine line connections. 9. Torain line has kink in it or is blocked. 9. Check for leak in brine line connections. 9. Torain line has kink in it or is blocked. 9. Check for leak in brine line connections. 9. Replace seals, spacers, and piston assembly. 9. Check for leak in brine line connections. 9. Check for leak in brine line connections. 9. Replace seals, spacers, and piston assembly. 9. Check for leak in brine line connections. 9. Check for			
8. Reserve capacity setting too low. 9. Not enough capacity. 1. Reflil time is too high. 2. Defective flow control. 1. Reflil time is too high. 2. Defective flow control. 3. Indee of control plugged due to foreign material. 4. Deteriorated resin. (Maybe caused from high chlorine or chloramines.) 6. Resin in drain line. 6. Resin in drain line. 7. Too much water in brine tank. 7. Valve not regenerating. 8. Foreign material in brine valve. 9. Unit fails to draw brine. 9. Unit fails to draw brine. 9. Unit fails to draw brine. 9. Unit for screen is plugged. 9. Internal valve leak. 9. Safety valve closed. 9. Valve continuously cycles. 1. Foreign material in brine line. 1. Valve settings incorrect. 9. Incorrect. 9. Valve settings incorrect. 9. Foreign material in to rio blocked. 1. Defective position properly. 9. Valve makes beeping sould. 1. The piston has not advanced to the next cycle position properly. 9. Valve mot regears and plaston. Motor may have failed or gears have jammed or disengaged. 9. Valve makes beeping sould. 9. Valve makes sould. 9		7. Internal valve leak.	Replace valve seals, spacer, and piston
G. Salt use is high. 1. Refill time is too high. 2. Defective flow control. 3. Iron or scale build up in line feeding unit. 4. Iron or scale build up in line feeding unit. 5. Iron or build up inside valve or tank. 6. Iron or build up inside valve or tank. 6. Iron or build up inside valve or tank. 7. Iron or build up inside valve or tank. 8. Iron or scale build up in line feeding unit. 9. Iron or build up inside valve or tank. 9. Iron or build up inside valve or tank. 9. Inlet of control plugged due to foreign material. 9. Operation or chloramines. 9. Inlet of control plugged due to foreign material. 9. A Deteriorated resin. (Maybe caused from high chlorine or chloramines.) 9. Inlet or chloramines. 9. Valve not regenerating. 9. Replace dircuit board, motor, or control. 9. Iron material in brine valve. 9. Unit fails to draw brine. 9. Iron line flow control is plugged. 9. Injector or screen is plugged. 9. Injector			assembly.
C. Salt use is high. 2. Defective flow control. 2. Defective flow control. 3. Inter of control plugged due to foreign material. 4. Deteriorated resin. (Maybe caused from high chlorine or chloramines.) E. Resin in drain line. 5. Inter of control plugged due to foreign material. 4. Deteriorated resin. (Maybe caused from high chlorine or chloramines.) E. Resin in drain line. 6. Interest drain line flow control (DLPC) button. 7. Too much water in brine tank. 8. Poreign material in brine valve. 4. Unit fails to draw brine. 6. Unit fails to draw brine. 7. Unain line flow control is plugged. 8. Internal valve leak. 8. Internal valve leak. 8. Safety valve closed. 8. Safety valve cosed. 8. Check for leak in brine line connections. Tighten all connections. 7. Drain line has kink in it or is blocked. 8. Polace grans have jammed or disengaged. 9. Internal leak. 4. Piston is stuck in position. Motor may have failed or grans have jammed or disengaged. 1. The piston has not advanced to the next or gears in the grans of gears wire. Check for power to motor. Check for loose wire. Check for parmed gears or gears wire. Check for parmed gears or gears wire. Check for parmed gears or gears wire. Check for power to motor. Check for loose wire. Check for parmed gears or gears wire. Check for parmed gears or gears wire. Check for power to motor. Check for loose wire. Check for parmed gears or gears wire. Check for power to motor. Check for loose wire. Check for parmed gears or gears disengaged. Replace faulty parts.		8. Reserve capacity setting too low.	Increase reserve capacity.
2. Defective flow control. 1. Iron or scale build up in line feeding unit. 2. Iron build up in line feeding unit. 2. Iron build up in line feeding unit. 3. Inlet of control plugged due to foreign material. 4. Deteriorated resin. (Maybe caused from high chlorine or chloramines.) E. Resin in drain line. 1. Air in water system. 2. Incorrect drain line flow control (DLFC) control. 2. Incorrect drain line flow control (DLFC) control. 3. Foreign material in brine tank. 4. Unit not drawing brine. 4. Unit not drawing brine. 5. Unit fails to draw brine. 6. Unit fails to draw brine. 7. Incorrect drain line flow control is plugged. 6. Unit fails to draw brine. 6. Unit fails to draw brine. 7. Drain line flow control is plugged. 6. Vacuum leak in brine line. 6. Vacuum leak in brine line. 7. Drain line has kink in it or is blocked. 6. Vacuum leak in brine line. 7. Drain line has kink in it or is blocked. 7. Drain line. 8. Pedace circuit board, motor, or control. 9. Increase pressure to 25 PSI. 9. Infector or screen is plugged. 9. Clean parts. 9. Clean parts. 9. Increase pressure to 25 PSI. 9. Check for leak in brine line connections. 9. Replace safety float assembly. 9. Check for leak in brine line connections. 9. Replace safety float assembly. 9. Check for leak in brine line connections. 9. Torain line has kink in it or is blocked. 9. Check for leak in brine line connections. 9. Torain line has kink in it or is blocked. 9. Check for leak in brine line connections. 9. Torain line has kink in it or is blocked. 9. Check for leak in brine line connections. 9. Perion material in control valve. 9. Check for leak in brine line connections. 9. Check for leak in brine line c		9. Not enough capacity.	increase sait dosage.
D. Low water pressure. 1. Iron or scale build up in line feeding unit. Clean pipes.	C. Salt use is high.	1. Refill time is too high.	Check refill time setting.
2. Iron build up inside valve or tank. 3. Inlet of control plugged due to foreign material. 4. Deteriorated resin. (Maybe caused from high chlorine or chloramines.) E. Resin in drain line. 1. Air in water system. 1. Plugged injector or screen. 2. Incorrect drain line flow control (DLFC) buitton. 1. Plugged injector or screen. 2. Valve not regenerating. 3. Foreign material in brine valve. 4. Unit not drawing brine. 2. Injector or screen is plugged. 2. Injector or screen is plugged. 3. Inlet pressure too low. 4. Internal valve leak. 5. Safety valve cosed. 6. Vacuum leak in brine line. 6. Vacuum leak in brine line. 6. Vacuum leak in brine line. 7. Drain line has kink in it or is blocked. 1. Valve continuously cycles. 1. Flow to drain 2. Foreign material in control valve. 4. Piston is stuck in position. Motor may have failed or gears have jammed or disengaged. 2. Foreign material in control valve. 4. Piston is stuck in position. Motor may have failed or gears have jammed or disengaged. 1. The piston has not advanced to the next of the for power to motor. Check for loose wire. Check for power to motor. Check for loose wire. Check for power to motor. Check for loose wire. Check for power to motor. Check for loose wire. Check for power to motor. Check for loose wire. Check for power to motor. Check for loose wire. Check for power to motor. Check for loose wire. Check for power to motor. Check for loose wire. Check for power to motor. Check for loose wire. Check for jammed gears or gears of check for power to motor. Check for loose wire. Check for jammed gears or gears of check for power to motor. Check for loose wire. Check for jammed gears or gears of check for power to motor. Check for loose wire. Check for jammed gears or gears of check for jam		2. Defective flow control.	Replace.
bed. Increase regeneration frequency. 3. Inlet of control plugged due to foreign material. 4. Deteriorated resin. (Maybe caused from high chlorine or chloramines.) E. Resin in drain line. 5. Air in water system. Check well system for proper air eliminator control. Check for proper flow rate. button. 1. Plugged injector or screen. 2. Valve not regenerating. 3. Foreign material in brine valve. 4. Unit not drawing brine. Check for vacuum leak in brine line connections. Clean parts. Check for vacuum leak in brine line connections. Clean parts. Clean parts. Check for vacuum leak in brine line connections. Clean parts. Clean pa	D. Low water pressure.	1. Iron or scale build up in line feeding unit.	Clean pipes.
3. Inlet of control plugged due to foreign material. 4. Deteriorated resin. (Maybe caused from high chlorine or chloramines.) E. Resin in drain line. 5. Air in water system. 6. Lincorrect drain line flow control (DLFC) button. 7. Valve not regenerating. 8. Foreign material in brine valve. 8. Lincorrect drain line flow control (DLFC) clean parts. 9. Valve not regenerating. 9. Lincorrect drain line flow control (DLFC) clean parts. 9. Lincorrect drain line flow control is plugged. 9. Lincorrect olow. 9. Lincorrect drain line flow control is plugged. 9. Lincorrect olow. 9. Lincorre		2. Iron build up inside valve or tank.	Clean control and add resin cleaner to clean
Material 4. Deteriorated resin. (Maybe caused from high chlorine or chloramines.) 1. Air in water system. Check well system for proper air eliminator control. 2. Incorrect drain line flow control (DLPC) button. 1. Plugged injector or screen. Clean parts. Check for proper flow rate. 2. Valve not regenerating. Replace circuit board, motor, or control. 3. Foreign material in brine valve. Clean parts. 4. Unit not drawing brine. Check for vacuum leak in brine fine connections. 2. Injector or screen is plugged. Clean parts. 3. Inject pressure too low. Increase pressure to 25 PSI. 4. Internal valve leak. Replace seals, spacers, and piston assembly. 6. Vacuum leak in brine line. Check for leak in brine line connections. Replace safety float assembly. 6. Vacuum leak in brine line. Check for leak in brine line connections. Tighten all conne			bed. Increase regeneration frequency.
4. Deteriorated resin. (Maybe caused from high chlorine or chloramines.) E. Resin in drain line. 1. Air in water system. 2. Incorrect drain line flow control (DLFC) button. F. Too much water in brine tank. 2. Valve not regenerating. 3. Foreign material in brine valve. 4. Unit not drawing brine. Clean parts. 4. Unit fails to draw brine. 2. Injector or screen is plugged. 2. Injector or screen is plugged. 3. Inject pressure too low. 4. Internal valve leak. 5. Safety valve closed. 6. Vacuum leak in brine line. 6. Vacuum leak in brine line. 7. Drain line has kink in it or is blocked. 6. Vacuum leak in brine line. 7. Drain line has kink in it or is blocked. 6. Vacuum leak in position sensor PCB. 6. Provign material in control valve. 7. Provign line has kink in it or is blocked. 7. Drain line has kink in it or is blocked. 7. Provign material in control valve. 8. Replace faulty parts. 8. Replace faulty parts. 8. Replace faulty parts. 9. Check drain line. 9. Check valve settings. 9. Check for proper flow rate. 9. Check valve settings. 9. Clean parts. 9. Cl		3. Inlet of control plugged due to foreign	Remove piston and clean control valve.
high chlorine or chloramines.) E. Resin in drain line. 1. Air in water system. Check well system for proper air eliminator control. 2. Incorrect drain line flow control (DLFC) button. F. Too much water in brine tank. 1. Plugged injector or screen. 2. Valve not regenerating. 3. Foreign material in brine valve. 4. Unit not drawing brine. Clean parts. 2. Unit fails to draw brine. 3. Injector or screen is plugged. 2. Injector or screen is plugged. 2. Injector or screen is plugged. 2. Injector or screen is plugged. 3. Internal valve leak. 4. Unit not deak in brine line. Check for leak in brine line connections. Replace safety float assembly. Check for leak in brine line connections. Tighten all connections. Tighten all connections. Tighten all connections. Tighten all connections. Torain line has kink in it or is blocked. Check drain line. 1. Valve continuously. 2. Foreign material in control valve. 3. Internal leak. 4. Piston is stuck in position. Motor may have failed or gears have jammed or disengaged. 1. The piston has not advanced to the next cycle position properly. Check for jammed gears or gears wire. Check for jammed gears or gears		material.	
E. Resin in drain line. 1. Air in water system. 2. Incorrect drain line flow control (DLFC) button. F. Too much water in brine tank. 1. Plugged injector or screen. 2. Valve not regenerating. 3. Foreign material in brine valve. 4. Unit not drawing brine. 2. Unit fails to draw brine. 2. Injector or screen is plugged. 2. Injector or screen is plugged. 2. Injector or screen is plugged. 3. Inlet pressure too low. 4. Internal valve leak. 5. Safety valve closed. 6. Vacuum leak in brine line. 7. Drain line has kink in it or is blocked. 6. Vacuum leak in brine line. 7. Drain line has kink in it or is blocked. 6. Vacuum leak in brine line. 7. Drain line has kink in it or is blocked. 6. Vacuum leak in brine line. 7. Drain line has kink in it or is blocked. 6. Vacuum leak in brine line. 7. Drain line has kink in it or is blocked. 6. Vacuum leak in brine line. 7. Drain line has kink in it or is blocked. 6. Vacuum leak in brine line. 7. Drain line has kink in it or is blocked. 6. Vacuum leak in brine line. 7. Drain line has kink in it or is blocked. 6. Vacuum leak in brine line. 7. Drain line has kink in it or is blocked. 6. Vacuum leak in brine line. 7. Drain line has kink in it or is blocked. 6. Vacuum leak in brine line. 6. Vacuum leak in brine line. 7. Drain line has kink in it or is blocked. 6. Vacuum leak in brine line. 7. Drain line has kink in it or is blocked. 6. Check drain line. 8. Replace faulty parts. 8. Clear control. 8. Replace seals, spacers, and piston assembly. 9. Clear control. 9. Replace seals, spacers, and piston assembly. 1. Valve settings incorrect. 9. Clear control. 1. Valve settings incorrect. 1. Poreign material in control valve. 1. Poreign		4. Deteriorated resin. (Maybe caused from	Re-bed unit. Consider adding carbon pre-
Control. 2. Incorrect drain line flow control (DLFC) Check for proper flow rate. button. F. Too much water in brine 1. Plugged injector or screen. 2. Valve not regenerating. Replace circuit board, motor, or control. 3. Foreign material in brine valve. Clean parts. 4. Unit not drawing brine. Check for vacuum leak in brine line connections. 6. Unit fails to draw brine. 1. Drain line flow control is plugged. Clean parts. 2. Injector or screen is plugged. Clean parts. 3. Inlet pressure too low. Increase pressure to 25 PSI. 4. Internal valve leak. Replace seals, spacers, and piston assembly. 5. Safety valve closed. Check for leak in brine line connections. Replace safety float assembly. 6. Vacuum leak in brine line. Check for leak in brine line connections. Tighten all connections. 7. Drain line has kink in it or is blocked. Check drain line. H. Valve continuously cycles. 1. Flow to drain 1. Valve settings incorrect. Check drain line. 2. Foreign material in control valve. Clean control. 3. Internal leak. Replace seals, spacers, and piston assembly. Check drain line. Check valve settings. Clean control. Replace seals, spacers, and piston assembly. Check for power to motor. Check for loose wire. Check for jammed gears or gears disengaged. Replace faulty parts. 1. Valve makes beeping 1. The piston has not advanced to the next cycle position properly.		high chlorine or chloramines.)	treatment.
2. Incorrect drain line flow control (DLFC) button. F. Too much water in brine tank. 2. Valve not regenerating. 3. Foreign material in brine valve. 4. Unit not drawing brine. Clean parts. 4. Unit not drawing brine. Clean parts. Clean control check drain line connections. Tighten all connections. Check drain line. Check drain line. Check drain line. Check valve settings. Clean control. Check for power to motor. Check for loose wire. Check for jammed gears or gears disengaged. Replace faulty parts. Check for jammed gears or gears disengaged. Replace faulty parts. Check for jammed gears or gears	E. Resin in drain line.	1. Air in water system.	Check well system for proper air eliminator
F. Too much water in brine tank. P. I Plugged injector or screen. 2. Valve not regenerating. 3. Foreign material in brine valve. 4. Unit not drawing brine. Clean parts. Clear parts. Clear parts. Clear parts. Cl			control.
F. Too much water in brine tank. 1. Plugged injector or screen. 2. Valve not regenerating. 3. Foreign material in brine valve. 4. Unit not drawing brine. Clean parts. 4. Unit fails to draw brine. 1. Drain line flow control is plugged. 2. Injector or screen is plugged. 3. Inlet pressure too low. 4. Internal valve leak. 5. Safety valve closed. 6. Vacuum leak in brine line. 7. Drain line has kink in it or is blocked. 7. Drain line has kink in it or is blocked. 8. Peplace safety float assembly. 7. Drain line has kink in it or is blocked. 8. Peplace faulty parts. 8. Peplace faulty parts. 9. Foreign material in control valve. 9. Internal valve settings incorrect. 9. Foreign material in control valve. 9. Internal leak. 9. Poreign material in control valve. 9. Internal connections. 1. Defective position sensor PCB. 9. Check for leak in brine line connections. 1. Tighten all connections. 1. Tighten all connections. 1. Defective position sensor PCB. 9. Check drain line. 1. Valve continuously cycles. 1. Flow to drain 9. Check valve settings. 9. Clean control. 9. Clean control. 9. Clean control. 9. Check for power to motor. Check for loose wire. Check for jammed gears or gears disengaged. 9. Check for power to motor. Check for loose wire. Check for jammed gears or gears disengaged. Replace faulty parts.		2. Incorrect drain line flow control (DLFC)	Check for proper flow rate.
tank. 2. Valve not regenerating. 3. Foreign material in brine valve. 4. Unit not drawing brine. Check for vacuum leak in brine line connections. Clean parts. Check for vacuum leak in brine line connections. Clean parts. 1. Drain line flow control is plugged. Clean parts. 2. Injector or screen is plugged. Clean parts. 3. Inlet pressure too low. Increase pressure to 25 PSI. 4. Internal valve leak. Replace seals, spacers, and piston assembly. 5. Safety valve closed. Check for leak in brine line connections. Replace safety float assembly. 6. Vacuum leak in brine line. Check for leak in brine line connections. Tighten all connections. Tighten all connections. Tighten all connections. The brine line baskink in it or is blocked. Check drain line. H. Valve continuously cycles. I. Flow to drain continuously. 1. Valve settings incorrect. Check valve settings. Clean control. 3. Internal leak. Replace seals, spacers, and piston assembly. Check for power to motor. Check for loose wire. Check for jammed gears or gears disengaged. Replace faulty parts. Check for power to motor. Check for loose wire. Check for jammed gears or gears o		button.	
3. Foreign material in brine valve. 4. Unit not drawing brine. Check for vacuum leak in brine line connections. Check for vacuum leak in brine line connections. Check for vacuum leak in brine line connections. Clean parts. 2. Injector or screen is plugged. Clean parts. 3. Inlet pressure too low. Increase pressure to 25 PSI. 4. Internal valve leak. Replace seals, spacers, and piston assembly. S. Safety valve closed. Check for leak in brine line connections. Replace safety float assembly. Check for leak in brine line connections. Tighten all connections. The brine line connections. Tighten all connections. Tighten all connections. Tighten all connections. Check drain line. The valve continuously cycles. Check valve settings. Check valve settings. Clean control. 3. Internal leak. Replace seals, spacers, and piston assembly. Check for power to motor. Check for loose wire. Check for jammed gears or gears disengaged. Replace faulty parts. Check for power to motor. Check for loose wire. Check for jammed gears or gears disengaged. Replace faulty parts.	F. Too much water in brine	1. Plugged injector or screen.	Clean parts.
4. Unit not drawing brine. Check for vacuum leak in brine line connections. Clean parts. 2. Injector or screen is plugged. 2. Injector or screen is plugged. Clean parts. 3. Inlet pressure too low. 4. Internal valve leak. 5. Safety valve closed. 6. Vacuum leak in brine line. Check for leak in brine line connections. Replace seals, spacers, and piston assembly. Check for leak in brine line connections. Replace safety float assembly. Check for leak in brine line connections. Tighten all connections. 7. Drain line has kink in it or is blocked. Check drain line. H. Valve continuously cycles. I. Polefective position sensor PCB. Check valve settings. Clean control. 2. Foreign material in control valve. 3. Internal leak. 4. Piston is stuck in position. Motor may have failed or gears have jammed or disengaged. J. Valve makes beeping sound. Check for power to motor. Check for loose wire. Check for jammed gears or gears disengaged. Replace faulty parts. Check for power to motor. Check for loose wire. Check for jammed gears or gears disengaged. Replace faulty parts.	tank.	2. Valve not regenerating.	Replace circuit board, motor, or control.
G. Unit fails to draw brine. 1. Drain line flow control is plugged. 2. Injector or screen is plugged. 3. Inlet pressure too low. 4. Internal valve leak. 5. Safety valve closed. 6. Vacuum leak in brine line. 7. Drain line has kink in it or is blocked. 6. Vacuum leak in brine line. 7. Drain line has kink in it or is blocked. 7. Drain line has kink in it or is blocked. 8. Replace safety float assembly. 6. Vacuum leak in brine line. 7. Drain line has kink in it or is blocked. 8. Replace faulty parts. 9. Foreign material in control valve. 9. Clean control. 9. Replace seals, spacers, and piston assembly. 9. Check for power to motor. Check for loose wire. Check for jammed gears or gears disengaged. Replace faulty parts. 9. Check for power to motor. Check for loose wire. Check for jammed gears or gears disengaged. Replace faulty parts. 9. Check for jammed gears or gears wire. Check for jammed gears or gears wire. Check for jammed gears or gears		3. Foreign material in brine valve.	Clean parts.
G. Unit fails to draw brine. 2. Injector or screen is plugged. 2. Injector or screen is plugged. 3. Inlet pressure too low. 4. Internal valve leak. 5. Safety valve closed. 6. Vacuum leak in brine line. 7. Drain line has kink in it or is blocked. 1. Pefective position sensor PCB. 1. Flow to drain 2. Foreign material in control valve. 3. Internal leak. 4. Piston is stuck in position. Motor may have failed or gears have jammed or disengaged. 3. Uniter flow control control. 4. Internal place control. 5. Safety valve closed. 6. Vacuum leak in brine line. 6. Vacuum leak in brine line. 6. Vacuum leak in brine line. 7. Drain line has kink in it or is blocked. 6. Vacuum leak in brine line. 7. Drain line has kink in it or is blocked. 7. Drain line has kink in it or is blocked. 8. Replace faulty parts. 8. Clean control. 9. Check valve settings. 9. Clean control. 9. Check for power to motor. Check for loose wire. Check for jammed gears or gears disengaged. Replace faulty parts. 9. Valve makes beeping sound. 9. Check for power to motor. Check for loose wire. Check for jammed gears or gears disengaged. Replace faulty parts. 9. Valve makes beeping sound. 9. Check for jammed gears or gears wire. Check for jammed gears or g		4. Unit not drawing brine.	Check for vacuum leak in brine line
2. Injector or screen is plugged. 3. Inlet pressure too low. 4. Internal valve leak. 5. Safety valve closed. 6. Vacuum leak in brine line. 7. Drain line has kink in it or is blocked. 1. Valve continuously cycles. 1. Flow to drain control valve. 3. Internal leak. 4. Piston is stuck in position. Motor may have failed or gears have jammed or disengaged. 4. Valve makes beeping sound. 5. Internal leak to low. 6. Vacuum leak in brine line. 7. Drain line has kink in it or is blocked. 7. Drain line has kink in it or is blocked. 7. Drain line has kink in it or is blocked. 7. Drain line has kink in it or is blocked. 8. Replace faulty parts. 8. Replace faulty parts. 9. Clean control. 9. Clean control. 9. Check for power to motor. Check for loose wire. Check for jammed gears or gears disengaged. 9. Check for power to motor. Check for loose wire. Check for power to motor. Check for loose wire. Check for power to motor. Check for loose wire. Check for power to motor. Check for loose wire. Check for power to motor. Check for loose wire. Check for power to motor. Check for loose wire. Check for power to motor. Check for loose wire. Check for power to motor. Check for loose wire. Check for jammed gears or gears disengaged. Replace faulty parts.			connections.
3. Inlet pressure too low. 4. Internal valve leak. 5. Safety valve closed. 6. Vacuum leak in brine line. 7. Drain line has kink in it or is blocked. 6. Valve continuously cycles. 7. Flow to drain continuously. 7. Proving material in control valve. 7. Proving material in control valve. 7. Proving material in control valve. 9. Foreign material in control valve. 1. Piston is stuck in position. Motor may have failed or gears have jammed or disengaged. 7. Valve makes beeping sound. 8. Internal eak. 9. Internal eaks or gears disengaged. 9. Valve makes beeping sound. 9. Internal proving property. 9. Internal eaks or gears or gears disengaged. 9. Valve makes beeping sound. 9. Internal eaks or gears or ge	G. Unit fails to draw brine.	1. Drain line flow control is plugged.	Clean parts.
4. Internal valve leak. 5. Safety valve closed. 6. Vacuum leak in brine line. 7. Drain line has kink in it or is blocked. 1. Defective position sensor PCB. 1. Valve settings incorrect. 1. Valve settings incorrect. 1. Priston is stuck in position. Motor may have failed or gears have jammed or disengaged. 1. Valve makes beeping sound. 4. Internal valve leak. 5. Safety valve closed. 6. Vacuum leak in brine line. 6. Vacuum leak in brine line. 7. Drain line has kink in it or is blocked. 6. Vacuum leak in brine line. 7. Check for leak in brine line connections. 7. Drain line has kink in it or is blocked. 7. Drain line has kink in it or is blocked. 8. Replace faulty parts. 9. Check valve settings. 9. Clean control. 9. Check valve settings. 9. Clean control. 9. Check for power to motor. Check for loose wire. Check for jammed gears or gears disengaged. Replace faulty parts. 9. Valve makes beeping sound. 1. The piston has not advanced to the next cycle position properly. 1. Valve makes or gears or		2. Injector or screen is plugged.	Clean parts.
5. Safety valve closed. Check for leak in brine line connections. Replace safety float assembly. Check for leak in brine line connections. Tighten all connections. Tighten all connections. Tighten all connections. The place faulty parts. Check drain line. 1. Defective position sensor PCB. Replace faulty parts. Check valve settings. Check valve settings. Clean control. 3. Internal leak. Check for loose wire. Check for jammed gears or gears disengaged. Replace faulty parts. Check for power to motor. Check for loose wire. Check for power to motor. Check for loose wire. Check for power to motor. Check for loose wire. Check for power to motor. Check for loose wire. Check for power to motor. Check for loose wire. Check for power to motor. Check for loose wire. Check for power to motor. Check for loose wire. Check for power to motor. Check for loose wire. Check for power to motor. Check for loose wire. Check for power to motor. Check for loose wire. Check for power to motor. Check for loose wire. Check for jammed gears or gears wire. Check for jammed gears or gears wire. Check for jammed gears or gears		3. Inlet pressure too low.	Increase pressure to 25 PSI.
Replace safety float assembly. 6. Vacuum leak in brine line. Check for leak in brine line connections. Tighten all connections. Tighten all connections. 7. Drain line has kink in it or is blocked. Check drain line. 1. Defective position sensor PCB. Check valve faulty parts. 1. Valve settings incorrect. Check valve settings. Clean control. 3. Internal leak. Replace seals, spacers, and piston assembly. A. Piston is stuck in position. Motor may have falled or gears have jammed or disengaged. Check for power to motor. Check for loose wire. Check for jammed gears or gears disengaged. Replace faulty parts. 1. Valve makes beeping sound. Check for power to motor. Check for loose wire. Check for jammed gears or gears disengaged. Replace faulty parts. Check for power to motor. Check for loose wire. Check for jammed gears or gears disengaged. Replace faulty parts.		4. Internal valve leak.	Replace seals, spacers, and piston assembly.
6. Vacuum leak in brine line. Check for leak in brine line connections. Tighten all connections. 7. Drain line has kink in it or is blocked. Check drain line. 1. Defective position sensor PCB. Check drain line. Replace faulty parts. Check valve settings. Check valve settings. Check valve settings. Clean control. 3. Internal leak. Check for power to motor. Check for loose wire. Check for jammed gears or gears disengaged. J. Valve makes beeping Sound. Check for jammed gears or gears Check for power to motor. Check for loose wire. Check for power to motor. Check for loose wire. Check for jammed gears or gears Check for power to motor. Check for loose wire. Check for jammed gears or gears Check for power to motor. Check for loose wire. Check for jammed gears or gears Check for jammed gears or gears		5. Safety valve closed.	Check for leak in brine line connections.
Tighten all connections. 7. Drain line has kink in it or is blocked. Check drain line. 1. Defective position sensor PCB. Replace faulty parts. Check valve settings. Clean control. Clean control. Clean control. A. Piston is stuck in position. Motor may have failed or gears have jammed or disengaged. J. Valve makes beeping J. The piston has not advanced to the next sound. Tighten all connections. Check drain line. Replace faulty parts. Clean control. Check for power to motor. Check for loose wire. Check for jammed gears or gears disengaged. Replace faulty parts. Check for power to motor. Check for loose wire. Check for power to motor. Check for loose wire. Check for jammed gears or gears disengaged. Replace faulty parts.			Replace safety float assembly.
7. Drain line has kink in it or is blocked. Check drain line. H. Valve continuously cycles. I. Flow to drain Continuously. 1. Valve settings incorrect. 2. Foreign material in control valve. 3. Internal leak. 4. Piston is stuck in position. Motor may have failed or gears have jammed or disengaged. J. Valve makes beeping sound. 7. Drain line has kink in it or is blocked. Check drain line. Replace faulty parts. Clean control. Replace seals, spacers, and piston assembly. Check for power to motor. Check for loose wire. Check for jammed gears or gears disengaged. Replace faulty parts. Check for power to motor. Check for loose wire. Check for jammed gears or gears disengaged. Replace faulty parts.		6. Vacuum leak in brine line.	Check for leak in brine line connections.
H. Valve continuously cycles. I. Flow to drain continuously. 1. Valve settings incorrect. 2. Foreign material in control valve. 3. Internal leak. 4. Piston is stuck in position. Motor may have failed or gears have jammed or disengaged. J. Valve makes beeping J. The piston has not advanced to the next sound. 1. Defective position sensor PCB. Replace faulty parts. Clean control. Replace seals, spacers, and piston assembly. Check for power to motor. Check for loose wire. Check for jammed gears or gears disengaged. Replace faulty parts. Check for power to motor. Check for loose wire. Check for jammed gears or gears			Tighten all connections.
cycles. I. Flow to drain Continuously. I. Valve settings incorrect. I. Valve settings incorre		7. Drain line has kink in it or is blocked.	Check drain line.
cycles. I. Flow to drain Continuously. I. Valve settings incorrect. I. Valve settings incorre	H. Valve continuously	1. Defective position sensor PCB.	Replace faulty parts.
I. Flow to drain continuously. 2. Foreign material in control valve. 3. Internal leak. 4. Piston is stuck in position. Motor may have failed or gears have jammed or disengaged. J. Valve makes beeping sound. 1. Valve settings incorrect. Check valve settings. Clean control. Replace seals, spacers, and piston assembly. Check for power to motor. Check for loose wire. Check for jammed gears or gears disengaged. Replace faulty parts. Check for power to motor. Check for loose wire. Check for power to motor. Check for loose wire. Check for jammed gears or gears	cycles.		
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3. Internal leak. 4. Piston is stuck in position. Motor may have failed or gears have jammed or disengaged. J. Valve makes beeping sound. 3. Internal leak. 4. Piston is stuck in position. Motor may have failed or gears have jammed or disengaged. 4. Piston is stuck in position. Motor may have wire. Check for jammed gears or gears disengaged. Replace faulty parts. Check for power to motor. Check for loose wire. Check for jammed gears or gears	continuously.		
4. Piston is stuck in position. Motor may have failed or gears have jammed or disengaged. J. Valve makes beeping sound. 4. Piston is stuck in position. Motor may have check for power to motor. Check for loose wire. Check for jammed gears or gears disengaged. Replace faulty parts. Check for power to motor. Check for loose wire. Check for jammed gears or gears	•		Replace seals, spacers, and piston assembly.
failed or gears have jammed or disengaged. wire. Check for jammed gears or gears disengaged. Replace faulty parts. J. Valve makes beeping sound. Check for jammed gears or gears wire. Check for jammed gears or gears wire. Check for jammed gears or gears			
J. Valve makes beeping 1. The piston has not advanced to the next sound. disengaged. Replace faulty parts. Check for power to motor. Check for loose wire. Check for jammed gears or gears		<u> </u>	1
J. Valve makes beeping 1. The piston has not advanced to the next sound. Check for power to motor. Check for loose wire. Check for jammed gears or gears			
sound. cycle position properly. wire. Check for jammed gears or gears	J. Valve makes beening	1. The piston has not advanced to the next	
	l	<u> </u>	•
			disengaged.

Warranty

WaterGroup warrants that your new water conditioner is built of quality material and work-manship. When properly installed and maintained, it will give years of trouble free service.

Seven Year Complete Parts Guarantee

WaterGroup will replace any part which fails within 84 months from date of manufacture, as indicated by the serial number, provided the failure is due to a defect in material or workmanship. The only exception shall be when proof of purchase or installation is provided and then the warranty period shall be from the date thereof.

Life Time Warranty on Mineral Tanks and Brine Tanks

WaterGroup will provide a replacement mineral tank or brine tank to any original equipment purchaser in possession of a tank that fails provided that the water conditioner is at all times operated in accordance with specifications and not subject to freezing.

General Conditions

Damage to any part of this water conditioner or filter as a result of misuse, misapplication, neglect, alteration, accident, installation or operation contrary to our printed instructions, damage to ion exchange resin and seals caused by chlorine / chloramines in the water supply, or damage caused by any force of nature is not covered in this warranty. We will repair or replace defective parts if our warranty department determines it to be defective under the terms of this warranty. WaterGroup assumes no responsibility for consequential damage, la-bour or expense incurred as a result of a defect or failure.