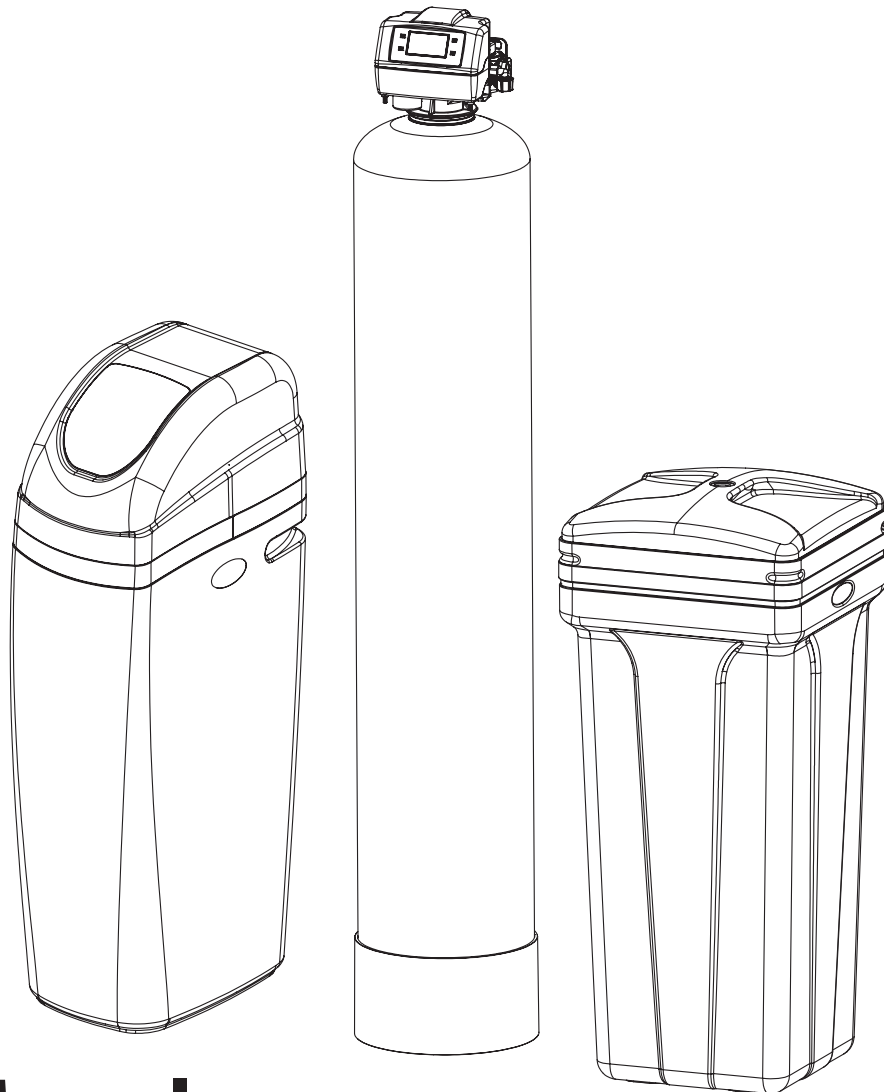


# Owners Manual

## 75V Softener Manual



- 1. Page 22 of this manual contains important maintenance procedures for the continued proper operation of your unit. These MUST be performed regularly for your warranty to remain valid.**
2. Read all instructions carefully before operation.
3. Avoid pinched o-rings during installation by applying NSF certified lubricant to all seals (provided with install kit).
4. This system is not intended for treating water that is microbiologically unsafe or of unknown quality without adequate disinfection before or after the system.

**Canada West**  
855 Park St., Unit 1  
Regina, SK S4N 6M1

**Canada East**  
490 Pinebush Rd., Unit 1  
Cambridge, ON N1T 0A5

**U.S.A.**  
56 Lightcap Rd.  
Pottstown, PA 19464

9760 Mayflower Park Drive,  
Suite 110  
Carmel, IN 46032

4655 McDowell Rd. W  
Phoenix, AZ 85035

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# READ THIS PAGE FIRST

## BEFORE STARTING INSTALLATION

- ▶ Read this manual thoroughly to become familiar with the device and its capabilities before installing or operating your Water Filter. Failure to follow instructions in this manual could result in personal injury or property damage. This manual will also help you to get the most out of your filter.
- ▶ This system is intended for use on municipal water only and its installation must comply with all State, provincial or local regulations. Check with your local public works department for plumbing and sanitation codes. In the event the codes conflict with any content in this manual the local codes should be followed. Consult your licensed plumber for installation of this system.
- ▶ This water filter is designed to operate on pressures of 30 psi to 125 psi. If the water pressure is higher than the maximum use a pressure reducing valve in the water supply line to the filter.
- ▶ This unit is capable of operating at temperatures between 40°F and 110°F (4°C - 43°C). Do not use this water filter on hot water supplies.
- ▶ Do not install this unit where it may be exposed to wet weather, direct sunlight, or temperatures outside of the range specified above.
- ▶ Avoid pinched o-rings during installation by applying (provided with install kit) NSF certified lubricant to all seals.
- ▶ Filters are commonly exposed to high levels of iron, manganese, sulfur, and sediments. Damage to pistons, seals, and or spacers within the control valve are not covered in this warranty due to the harsh environment.
- ▶ It is recommended to regularly inspect and service the control valve on an annual basis. Cleaning and or replacement of piston, seals, and or spacers may be necessary depending on how harsh the conditions are.
- ▶ Do not use water that is microbiologically unsafe without adequate disinfection before or after this system.
- ▶ This publication is based on information available when approved for printing. Continuing design refinement could cause changes that may not be included in this publication. The manufacturer reserves the right to change the specifications referred to in this literature at any time, without prior notice.

## INSTALL NOTES & SAFETY MESSAGES

Watch for the following messages in this manual:

**NOTE**

Do not remove or destroy the serial number. It must be referenced on request for warranty repair or replacement

**NOTE:** used to emphasize installation, operation or maintenance information which is important but does not present a hazard.

**CAUTION!**

Disassembly while under pressure can result in flooding.

**CAUTION:** used when failure to follow directions could result in damage to equipment or property.

**WARNING!**

**ELECTRICAL SHOCK HAZARD! UNPLUG THE UNIT BEFORE REMOVING THE COVER OR ACCESSING ANY INTERNAL CONTROL PARTS**

**WARNING:** used to indicate a hazard which could cause injury or death if ignored.

# HOW YOUR WATER CONDITIONER WORKS

Water softeners remove hardness in the water by exchanging particles in the water, or ions. They remove hard ions such as calcium and magnesium in the water by trading it for sodium ions producing soft water. Unlike the calcium and magnesium, sodium stays dissolved in water and does not form a scale. Sodium also does not interfere with the cleaning action of soaps. The sodium is released by a charged resin contained in the softener, this resin also traps the calcium and magnesium ions. Eventually this resin releases all of its sodium and has filled up with other ions, so it then must be regenerated. Regeneration is accomplished by washing the resin with a salt saturated brine solution that removes the calcium and magnesium while replenishing the sodium. This is why the softener requires a brine tank and salt. The water softener can run for days before running out of sodium, and when it does, the sodium is replenished in only a matter of a few hours

When using a softener to remove both hardness and dissolved iron it is important that it regenerates more frequently than ordinarily would be calculated for hardness removal alone. Although many factors and formulas have been used to determine this frequency, it is recommended that the softener be regenerated when it has reached 50–75% of the calculated hardness alone capacity. This will minimize the potential for bed fouling.

If you are operating a water softener on clear water iron, regular resin bed cleaning is needed to keep the bed from coating with iron. Even when operating a softener on water with less than the maximum of dissolved iron, regular cleanings should be performed. Clean every six months or more often if iron appears in your conditioned water supply. Use resin bed cleaning compounds carefully following the directions on the container.

**Precision Brining:** Precision brining means that your conditioner calculates the exact amount of brine required to regenerate saving up to 30% more salt

When your conditioner regenerates it will display 2 numbers for capacity 1 will be total capacity the other will be 70 % of capacity. The unit counts down to the end of the 70% then calculates how much of the 30% you used (your reserve) it then adjusts the brine amount accordingly and regenerates that evening. This feature means that your capacity will always be different after every regeneration therefore maximizing your salt use.

**Soft Water Recharge for High Usage:** Should you reach the 70% capacity and then go beyond the 30% before it is time to regenerate the conditioner will do a quick regeneration to restore limited capacity to get it through the remainder of the day.

**System Refresh:** If you are away for an extended period of time the Conditioner does a refresh cycle to prevent any chance of bacterial growth or stagnation inside the conditioner.

**Scrolling Diagnostics:** By pressing any button to light the LCD display the unit will automatically begin scrolling important information for diagnostic purposes

## Date and Time

### Total Gallons and Remaining Gallons

**Number of People:** in the household as programmed at install

**Reserve Capacity:** calculated as 75 gallons per person

**Estimated Days to Next:** estimation of days to the next regeneration based on current consumption, hardness and capacity

**Last Regeneration:** the date of the last regeneration cycle by the conditioner

**Total Regenerations:** this is the total number of times the conditioner has regenerated

**Total Gallons:** total gallons treated by the conditioner

**Over Run Total:** – how many times Soft water recharge was required due to high usage

**Current Flow Rate:** will only display if treated water is running otherwise it would read 0

**Peak Flow:** maximum flow that has gone through the conditioner.

**Delayed Regen OFF:** – generally only used after servicing.

**Regen Time:** This is the time of day that the conditioner is scheduled to regenerate

**Refill Time:** The current calculated refill time for makeup brine (displays up to 70% of total brine required)

**Valve Mode:** current valve setting EG. Softener UF (up flow)

To stop the scrolling you can unlock the board as directed and press the down arrow to stop the scrolling. You can then use the down arrow to go to each of the diagnostics as required.



# SPECIFICATIONS

Model	System Capacity Grains			Flow Rate		Regeneration Water Usage Factory Setting (Gallons)	Mineral Tank Size	Resin Cu. Ft.	Brine Tank / Cabinet Size Inches	Salt Capacity (Lbs)	Ship Weight (Lbs)
	@ 10 Lbs/Cu ft	@ 6 Lbs/Cu Ft (Factory Setting)	@ 3 Lbs/Cu Ft	Service USGPM	Backwash USGPM						
PW75V-75	21,000	18,750	11,550	8.0	1.5	56.7	8 x 44	0.75	BTS 15.0x34.7/BTR 18.1x34.7	BTS 230/BTR 270	93
PW75V-100	28,000	25,000	15,400	10.0	2.0	67.2	9 x 48	1.00	BTS 15.0x34.7/BTR 18.1x34.7	BTS 230/BTR 270	110
PW75V-150	42,000	37,500	23,100	12.0	2.4	76.2	10 x 54	1.50	BTS 15.0x34.7/BTR 18.1x34.7	BTS 230/BTR 270	141
PW75V-200	56,000	50,000	30,800	15.0	3.5	124.4	12 x 52	2.00	20.3 x 37.4	385	158
PW75V-250	70,000	62,500	38,500	15.0	4.0	135.4	13 X 54	2.50	20.3 x 37.4	385	198
PW75V-300	84,000	75,000	46,200	15.0	5.0	173.2	14 x 65	3.00	23.0 x 40.5	550	244
PW75V-75C	21,000	18,750	11,550	8.0	2.0	66.7	9 x 35	0.75	13.8 x 23.6 x 43.3	225	93
PW75V-100C	28,000	25,000	15,400	10.0	2.4	75.2	10 x 35	1.00	13.8 x 23.6 x 43.3	225	110

**Working Temperature:** This unit must be operated at temperatures between 40°F and 110°F (4°C - 43°C).

**Working Pressure:** This water softener must be operated on pressures between 30 psi to 125 psi. If the water pressure is higher than 125 PSI, use a pressure reducing valve in the water supply line to the softener.

Voltage = 120V / 60 Hz  
Pipe Size = 3/4" and 1"

- At the stated service flow rates, the pressure drop through these devices will not exceed 15 psig.
- 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.

\* Do not use water that is microbiologically unsafe without adequate disinfection before or after the system.

Peak flow rates intended for intermittent use only (10 minutes or less) and are for residential applications only. Do not use peak flow rate for commercial applications or for a continuous rate when treated water supplies are geothermal heat pump, swimming pool, etc.

For satisfactory operation, the pumping rate of the well system must equal or exceed indicated backwash flow rate.

All units come with plastic bypass

**Maximum Iron** = 1.5 ppm

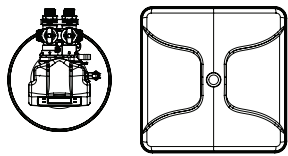
**Maximum Hydrogen Sulfide** = 0.0 ppm

**Maximum Manganese** = .75 ppm

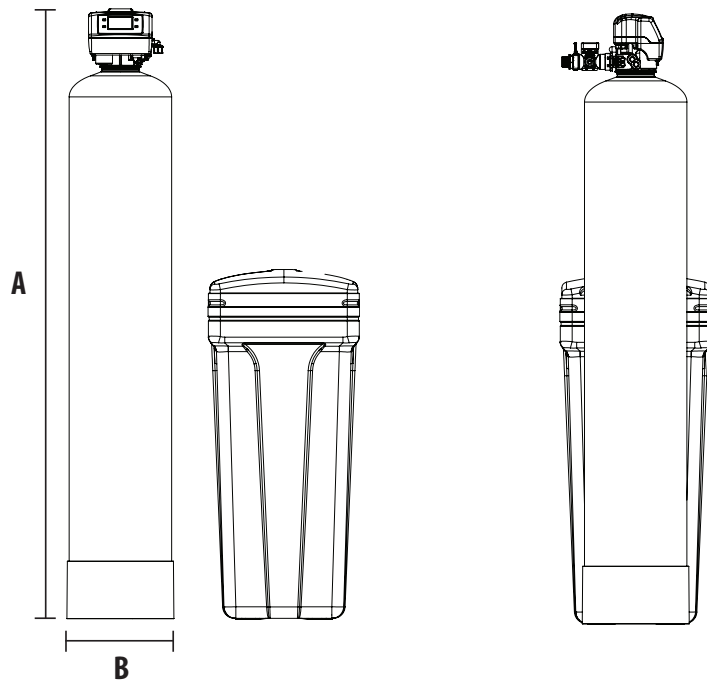
**pH** = 6.5 to 8.5

# SYSTEM DIMENSIONS

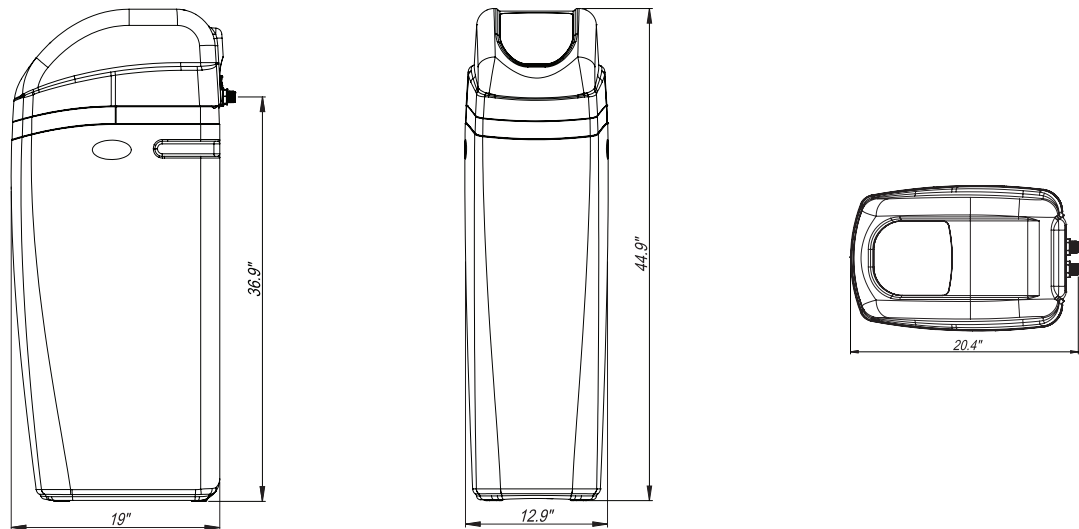
	A	B
PW75V-75	44"	8"
PW75V-100	48"	9"
PW75V-150	54"	10"
PW75V-200	52"	12"
PW75V-250	54"	13"
PW75V-300	65"	14"
PW75V-75C	35"	9"
PW75V-100C	35"	10"



## Twin Tank Model



## Cabinet Model

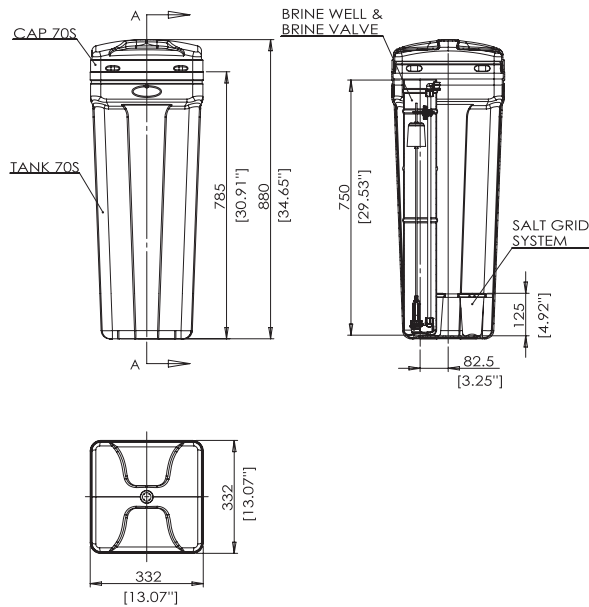


# BRINE TANK DIMENSIONS

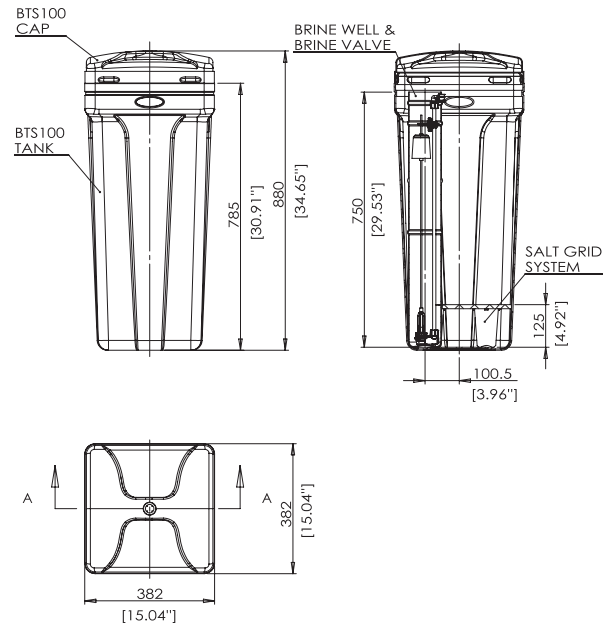
Model	Color	Liquid Volume		Tank Dimensions (inches)	5 Pack Carton Dimensions (inches)	Salt Capacity		5 Pack Carton Shipping Weight	
		US Gal	Liters	L x W x H	L x W x H	Lbs	Kg	Lbs	Kg
Brine Tanks									
BTR-70	Black	20.3	76.5	15.8 x 32.1	16.7 x 16.7 x 61.0	185.0	92.8	41.6	18.9
BTR-70	Blue	20.3	76.7	15.8 x 32.1	16.7 x 16.7 x 61.0	185.0	92.8	41.6	18.9
BTR-100	Vanilla	29.5	111.5	18.1 x 34.7	18.9 x 18.9 x 65.6	270.0	122.2	52.8	23.9
BTR-100	Black	29.5	111.5	18.1 x 34.7	18.9 x 18.9 x 65.6	270.0	122.2	52.8	23.9
BTR-100	Blue	29.5	111.5	18.1 x 34.7	18.9 x 18.9 x 65.6	270.0	122.2	52.8	23.9
BTR-145	Black	42.3	159.7	20.3 x 37.4	21.9 x 21.9 x 72.2	385.0	174.2	65.6	29.8
BTR-200	Grey	53.0	200.3	23.0 x 40.5	24.6 x 24.6 x 84	700.0	316.7	125.0	56.6
BTS-70	Black	19.0	71.8	13.1 x 13.1 x 34.7	14.4 x 14.4 x 62	175.0	92.8	48.8	22.1
BTS-70	Blue	19.0	71.8	13.1 x 13.1 x 34.7	14.4 x 14.4 x 62	175.0	92.8	48.8	22.1
BTS-100	Vanilla	25.0	94.5	15.0 x 15.0 x 34.7	16.6 x 16.7 x 61	230.0	104.1	54.4	24.7
BTS-100	Black	25.0	94.5	15.0 x 15.0 x 34.7	16.6 x 16.7 x 61	230.0	104.1	54.4	24.7
BTS-100	Blue	25.0	94.5	15.0 x 15.0 x 34.7	16.6 x 16.7 x 61	230.0	104.1	54.4	24.7

\* All brine tanks come with salt grid, safety float and brine well

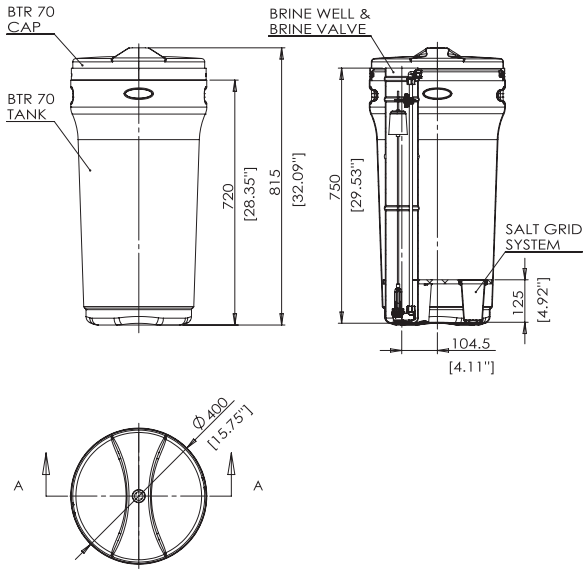
## Dimensions BTS70



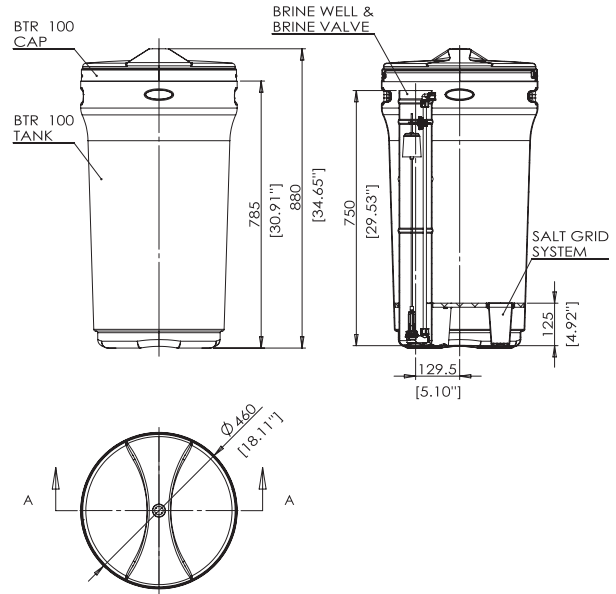
## BTS100



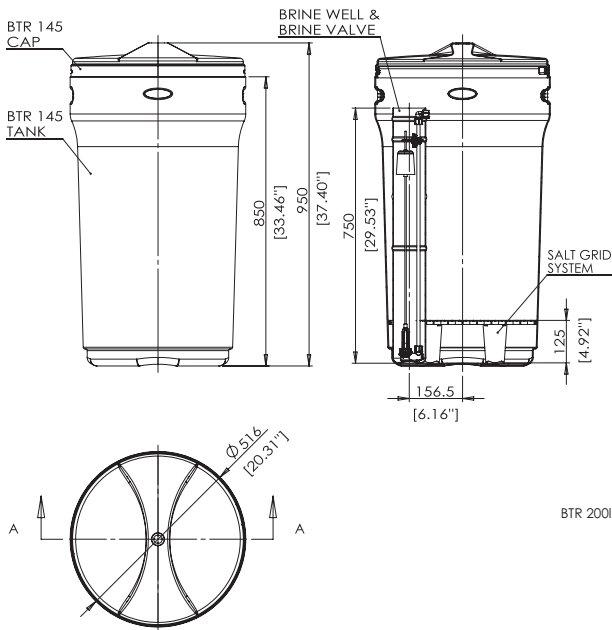
### BTR70



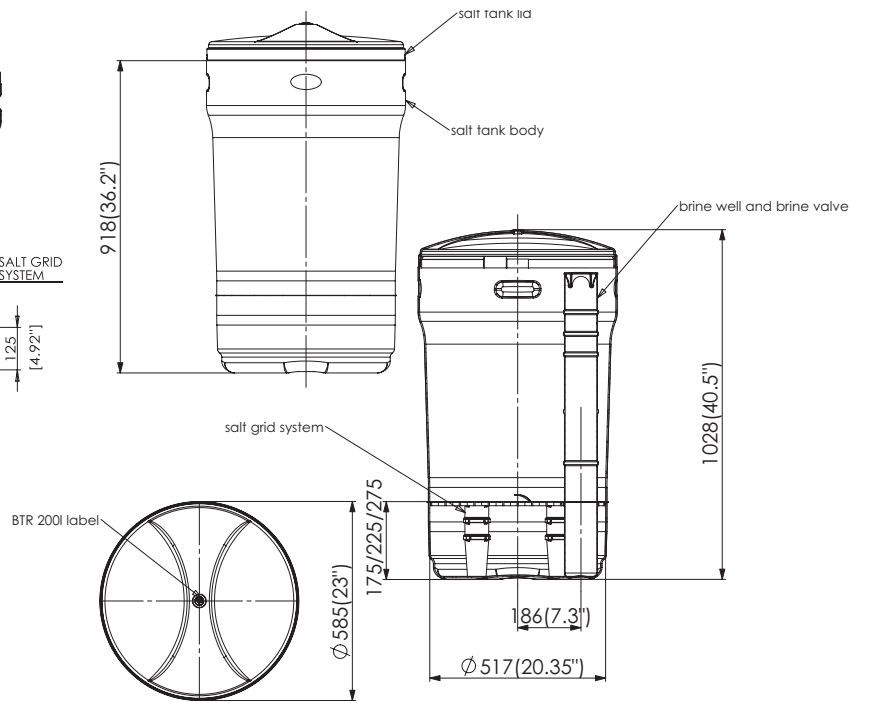
### BTR100



### BTR145



### BTR200



# UNPACKING / INSPECTION OF TWIN TANK MODEL

Be sure to check the entire unit 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 box. To avoid loss of the small parts, keep them in the parts bag until you are ready to use them.

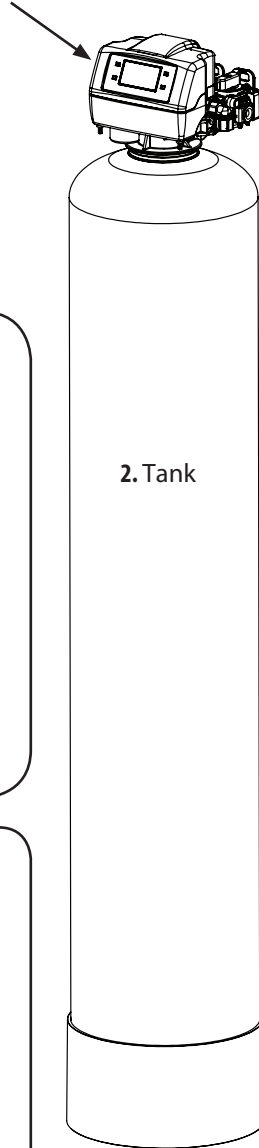
## What is included in the box?

For Models 75,100,150, 200, you will expect the following:

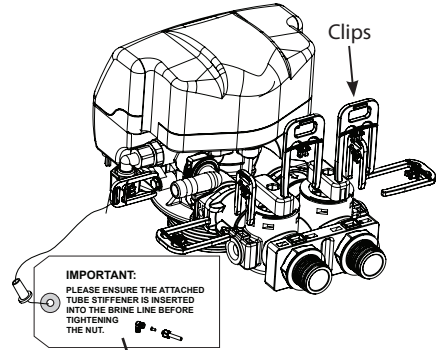
1. Control Valve\*
2. Tank
3. Parts Box
4. Owners Manual
5. Drain Hose & Clamp (Not included in some brands)
6. Brine Tank Assembly

**\*All units (75, 100, 150, 200) are pre assembled with control valve installed on the tank, no assembly required.**

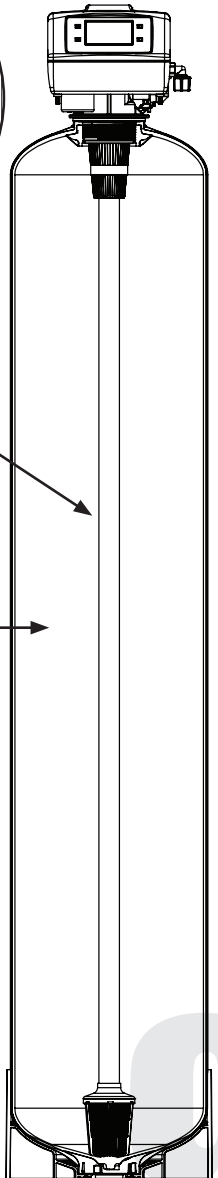
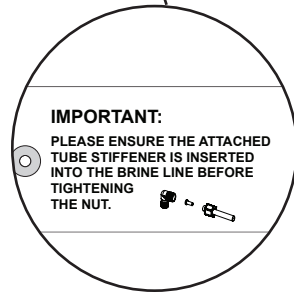
### 1. Control Valve



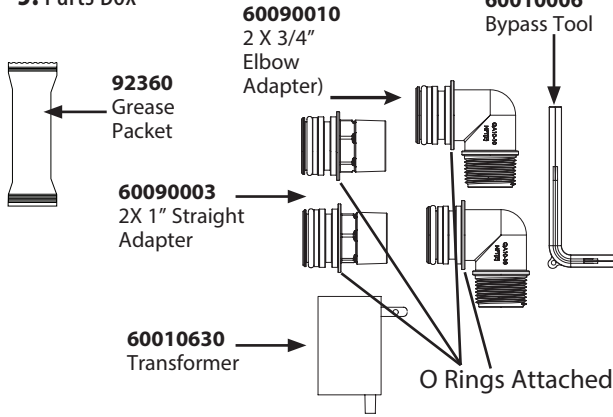
There are 6 Red clips. Please check to make sure you have all of them.



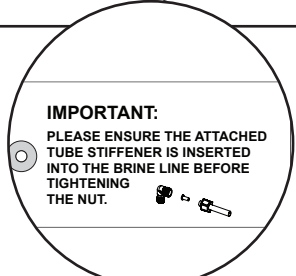
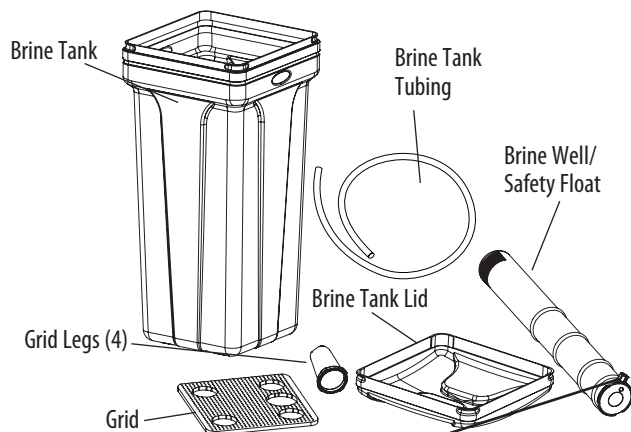
### 2. Tank



### 3. Parts Box



### 6. Brine Tank Assembly (Square Brine Tank Shown)



**NOTE**

Due to transportation and climatic conditions all connections including the valve to the tank need to be checked at time of installation and tightened if necessary.

**For Model 250 and 300 the media and Control Valve is packaged separately in carton and bags**

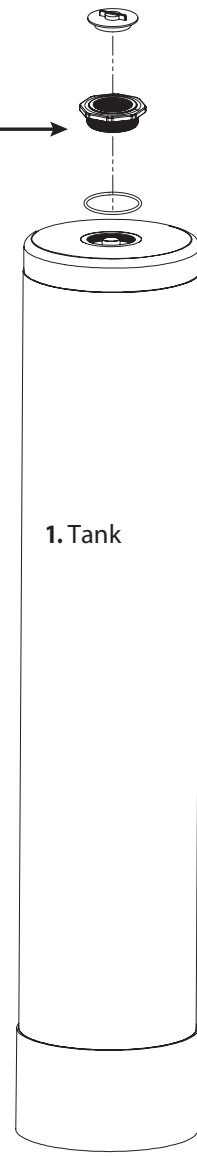
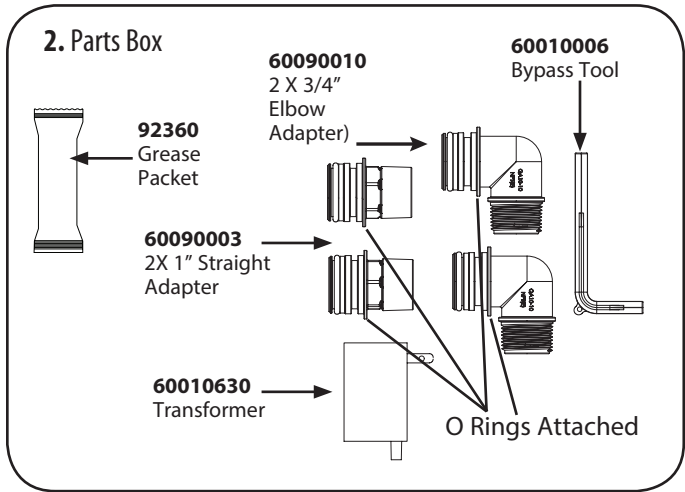
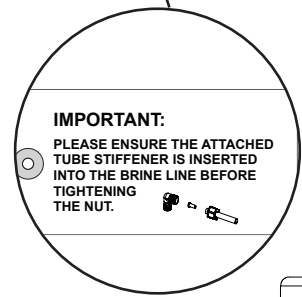
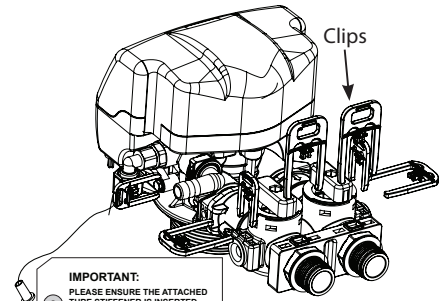
**What is included with 300 model?**

1. Tank (Model 250 and 300 will get an Adapter and Oring attached to the tank)
2. Control Valve with Parts Box
3. Media Boxes (Qty 3 for 250 and 300)
4. Drain Line and Hose Clamp (Not Included with some models)
5. Brine Tank Assembly

2. Control Valve

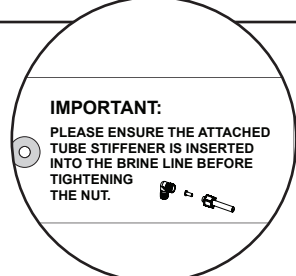
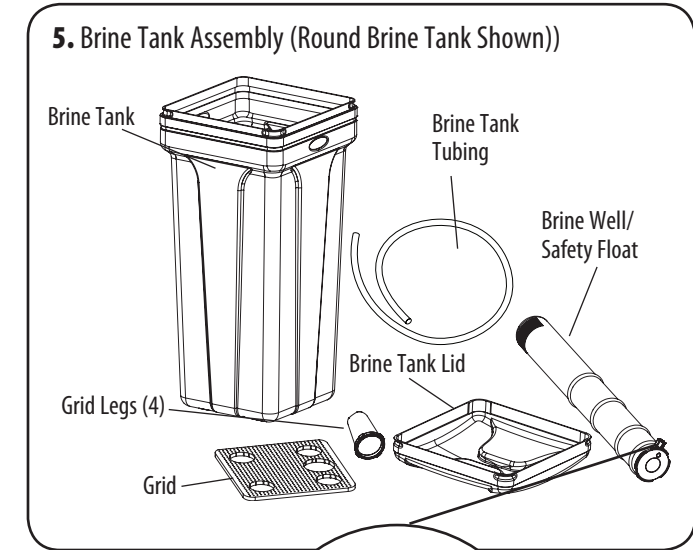
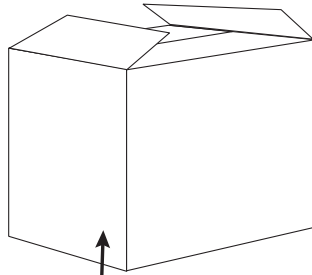
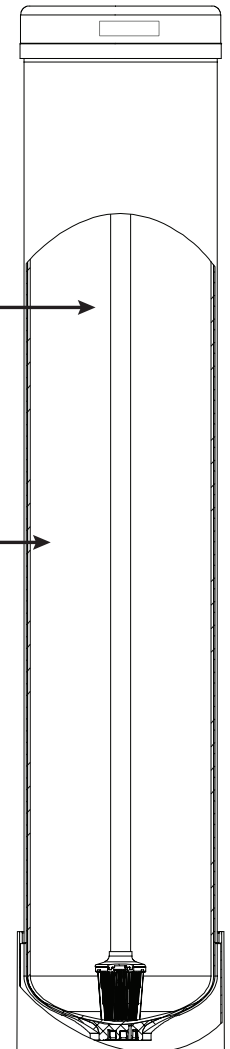
There are 6 Red clips. Please check to make sure you have all of them.

Models 250, 300 will get Adaptor and Oring Shown



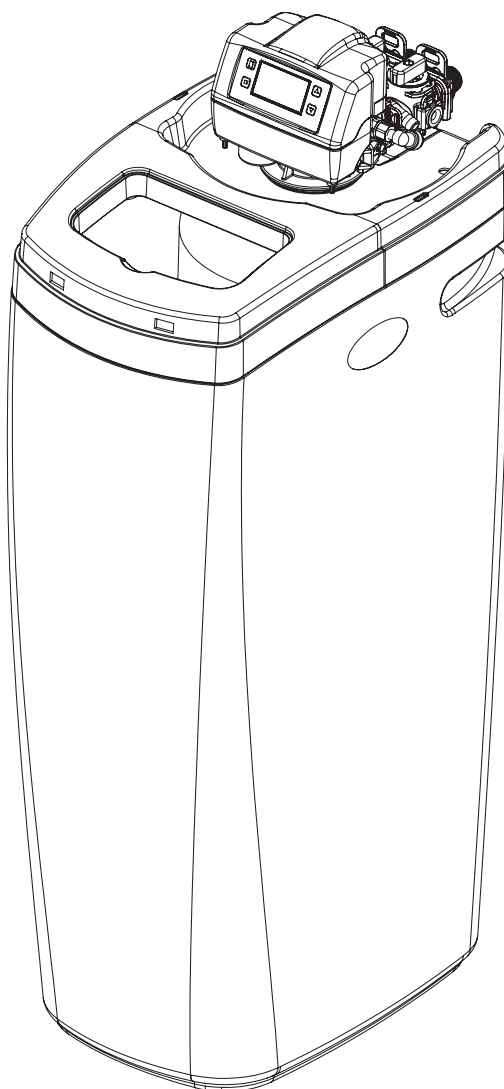
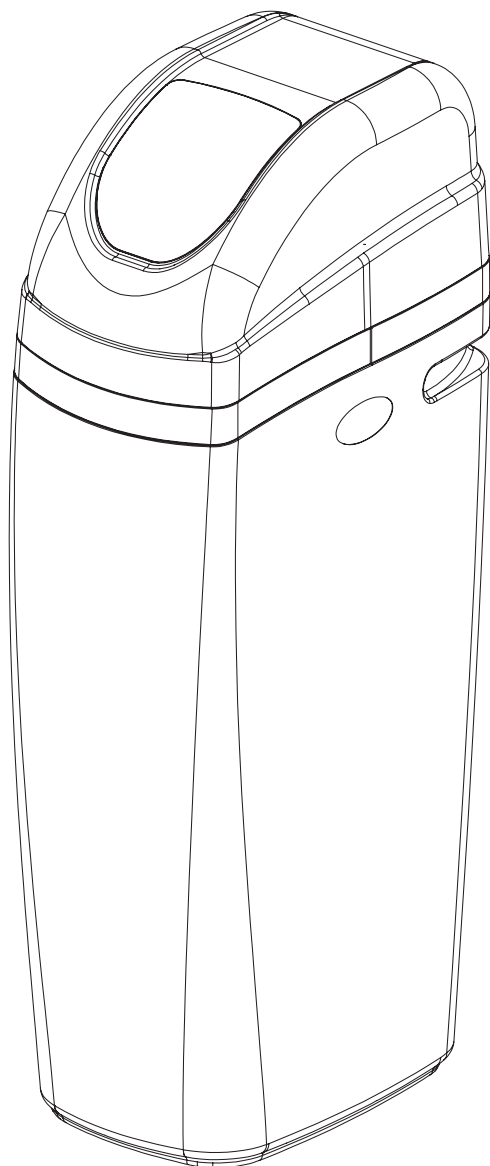
Distributor Tube Inside the Tank

Media Inside the Tank. Media Type will depend on what models were purchased

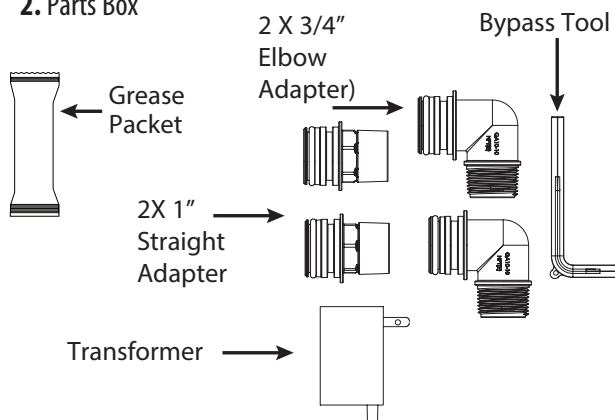


# UNPACKING / INSPECTION OF CABINET MODEL

1. Cabinet with Valve attached
2. Parts Box
3. Drain Line and Hose Clamp (Not Included with some models))



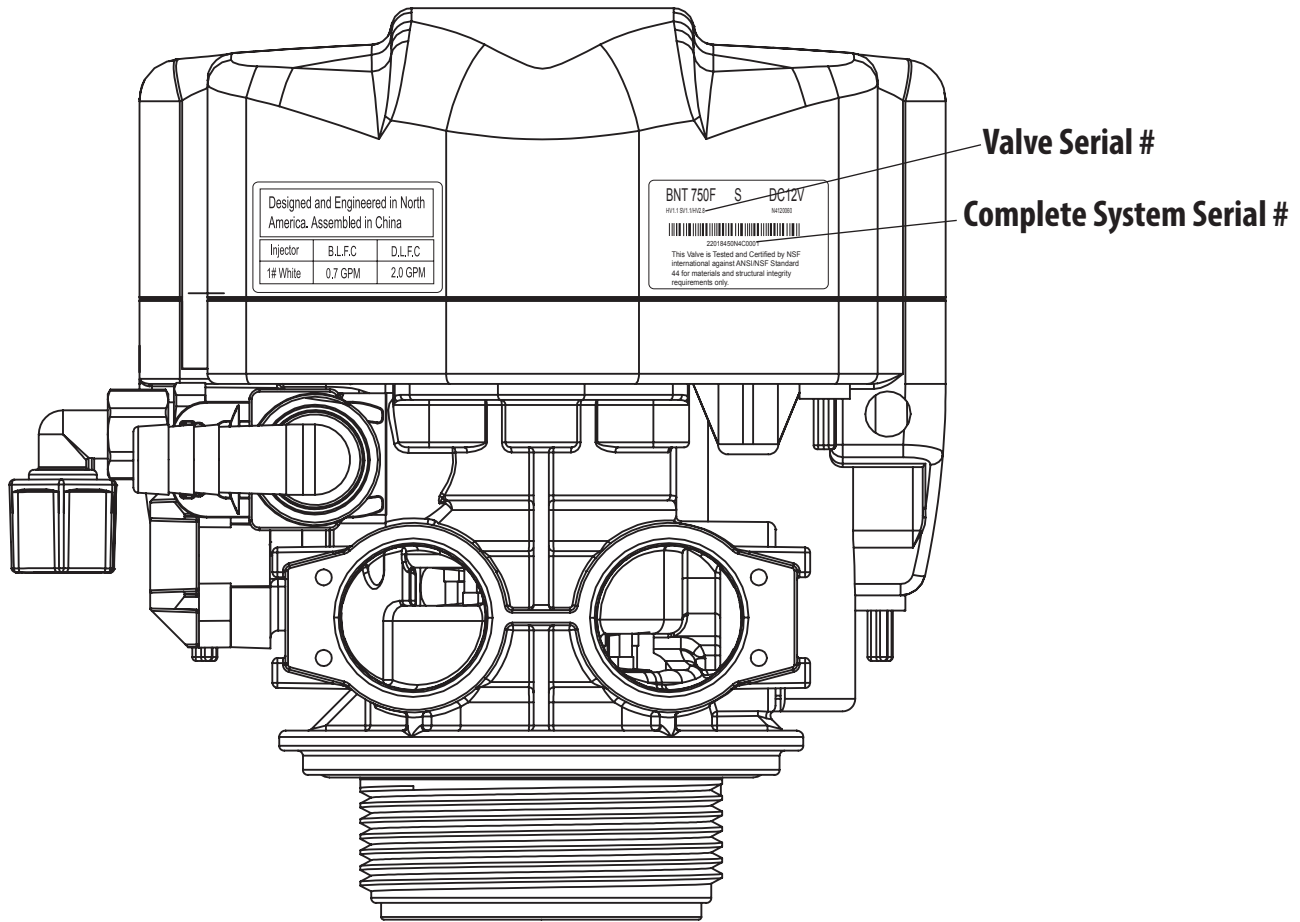
## 2. Parts Box



# CHECK VALVE TYPE AND VALVE SERIAL #

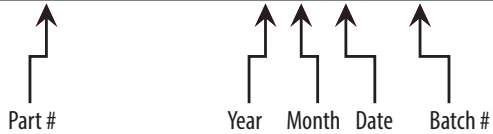
Check to make sure Valve Type is Upflow (UF) (left Sticker shown below). The right Sticker shows the serial # of the control valve. The middle Sticker is dataplate which provides information of Serial # and Date of Manufacture of complete system. Both Serial # labels are important for troubleshooting.

Please record these numbers for future use on page 23 in the maintenance section.



## Valve Serial #:

**22018448WL730001**



**(22018448W):** Part #

**(L)Year:** "M" stand for 2016 year, "L" stand for 2015, "K" stand for 2014, "J" stand for 2013

**(7)Month:** 1 (Jan) 2(Feb) 3(Mar) 4(April) 5(May) 6(June) 7(July) 8(Aug) 9(Sep) A(Oct) B(Nov) C(Dec)

**(3)Date:** 1 2 3 4 5 6 7 8 9 A(10) B(11) C(12) D(13) E(14) F(15) G(16) H(17) I(18) J(19) K(20) L(21) M(22) N(23) O(24) P(25) Q(26) R(27) S(28) T(29) U(30) V(31)

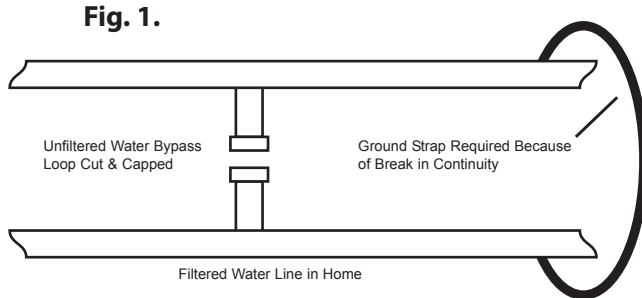
**(0001):** Batch code



# BEFORE INSTALLATION

Make sure you have a copy of your most recent water test results. If your water has not been tested previously you can contact your supplier of this product to obtain a water sample bottle to be sent to one of our facilities for a free analysis. **It is important that this product not be installed until you have this information.**

In all cases where metal pipe was originally used and is later interrupted by poly pipe or the Noryl bypass valve or by physical separation, an approved ground clamp with no less than #6 copper conductor must be used for continuity, to maintain proper metallic pipe bonding.



## Inspecting and Handling Your 75 Softener\*

Inspect the equipment for any shipping damage. If damaged, notify the transportation company and request a damage inspection. Damage to cartons should also be noted.

Handle the filter unit with care. Damage can result if it is dropped or set on sharp, uneven projections on the floor.

Do not turn the filter unit upside down.

## To Insure this Product Functions Properly:

**Your feed water line size to the unit must be a minimum of 3/4 inch with an operating pressure of no less than 30 psi and no more than 125 psi.**

## MECHANICAL:

Do not use petroleum based lubricants such as petroleum jelly, oils or hydrocarbon based lubricants. Use only 100% silicone lubricants (grease packet provided in parts kit). All plastic connections should be hand tightened only. Teflon tape may be used on connections that do not use an O-ring seal. Do not use pliers or pipe wrenches except where indicated by Nut shape (eg. pipe adapters) All plumbing must be completed according to local codes. Soldering connections should be done before connecting any pieces to the pipe as excessive heat can damage them.

## Tools Required for Installation:

**NOTE: We recommend installation only be completed by a competent installer or plumbing professional to insure this product is installed in accordance with local plumbing codes.**

- ▶ Two adjustable wrenches
- ▶ Additional tools may be required if modification to home plumbing is required.
- ▶ Plastic inlet and outlet fittings are included with the filter. To maintain full valve flow, 3/4" or 1" pipes to and from the filter fittings are recommended. You should maintain the same, or larger, pipe size as the water supply pipe, up to the filter 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 filter 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 not included with some brands.

## NOTE

All government codes and regulations governing the installation of these devices must be observed.



## CAUTION!

If the ground from the electrical panel or breaker box to the water meter or underground copper pipe is tied to the copper water lines and these lines are cut during installation of the Noryl bypass valve and/or poly pipe, an approved grounding strap must be used between the two lines that have been cut in order to maintain continuity. The length of the grounding strap will depend upon the number of units being installed and/or the amount of copper pipe being replaced with plastic pipe.

See Fig. 1.

## NOTE

Check your local electrical code for the correct clamp and cable size.

## NOTE

If a severe loss in water pressure is observed when the filter unit is initially placed in service, the filter tank may have been laid on its side during transit. If this occurs, backwash the filter to "reclassify" the media.

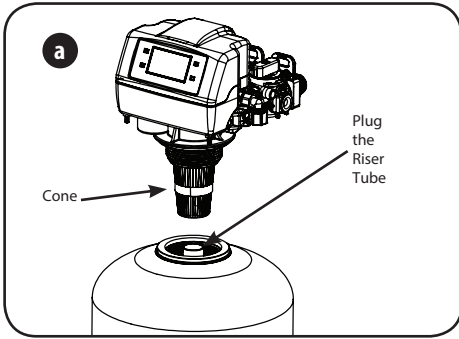
## \*NOTE

Due to transportation and climatic conditions all connections including the valve to the tank need to be checked at time of installation and tightened if necessary.

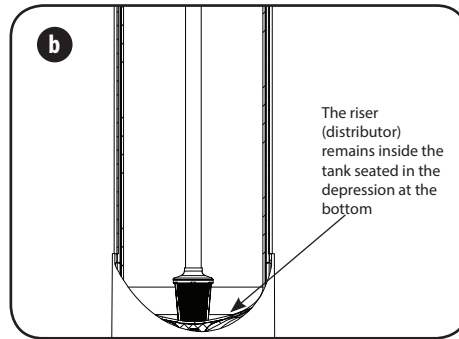
# PREPARATIONS

**1. Media Installation (When Necessary).** Models including and higher than 2 CF (Models 250,300) of media are shipped with separate media in pails or boxes. Models lower than 2 CF of media come loaded with media and this step can be skipped for new installation.

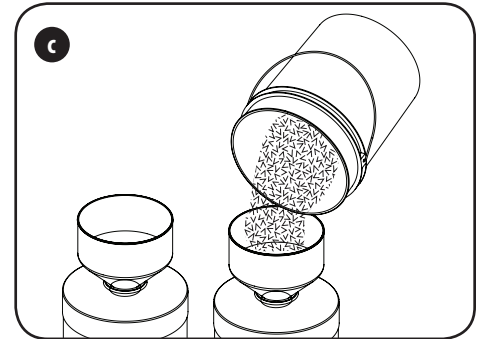
**! CAUTION!**  
The unit should be depressurized before installing or replacing media



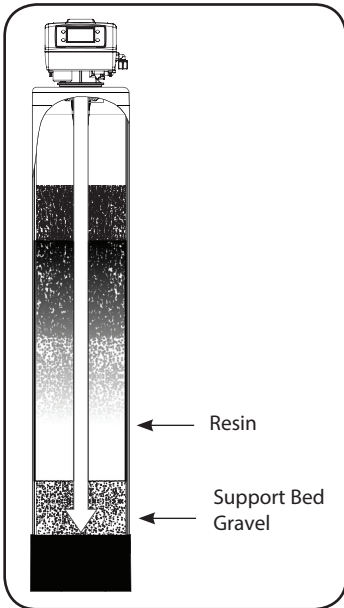
**a)** Lube the bottom oring (picture **d**) and attach the cone to the valve.



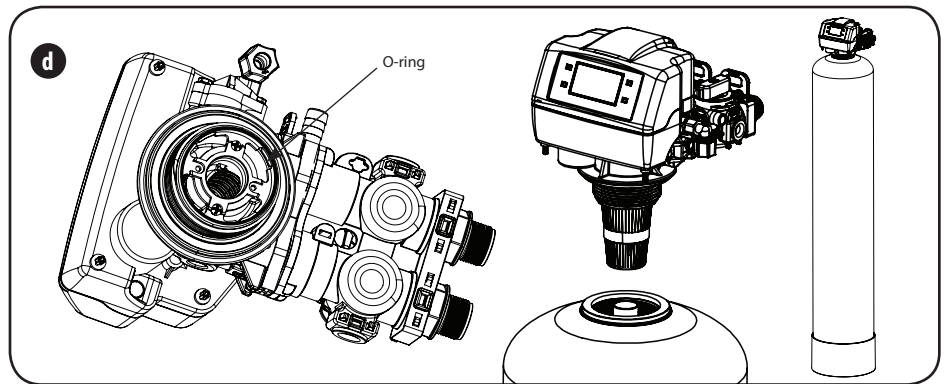
**b)** Temporarily plug the open end of the riser tube to ensure that no resin or gravel falls down into the distribution. The riser (distributor) remains inside the tank seated in the depression at the bottom. Plug tube with a tape. Remove after media is loaded.



**c)** Fill support bed first. The media will not always spill down inside the tank and may need to be swept inside. The large funnel (sold separately makes filling the tank easier and neater. (Or an empty 1 gallon or 4 liter container with the bottom cut out makes a good funnel.)



Fill tank one quarter full of water to protect distribution during gravel installation. Place the media into the tank in the order indicated above. Slowly and carefully add the gravel support bed and the filtration media leveling each layer as it is placed into the tank.

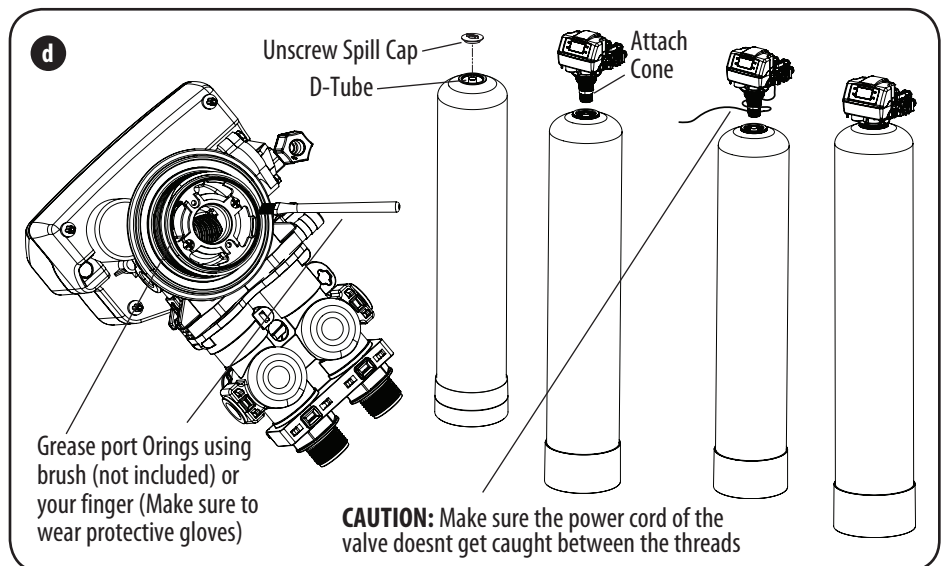


**d)** Unplug the riser tube, carefully position the valve over it and turn the valve into the threads in the fiberglass tank, tightening securely into tank. Note: Ensure that the internal O-ring in the valve fits securely over the riser tube. Silicone grease (part # 92360) or other food grade lubricant may be applied to the O-ring to ease installation of the riser tube.

**! CAUTION!**  
Make sure that the unit is de-pressurized before conducting this task.

**! CAUTION**  
 WEAR DUST MASK

**! CAUTION!**  
DO NOT use petroleum based lubricants as they will cause swelling of O-ring seals.



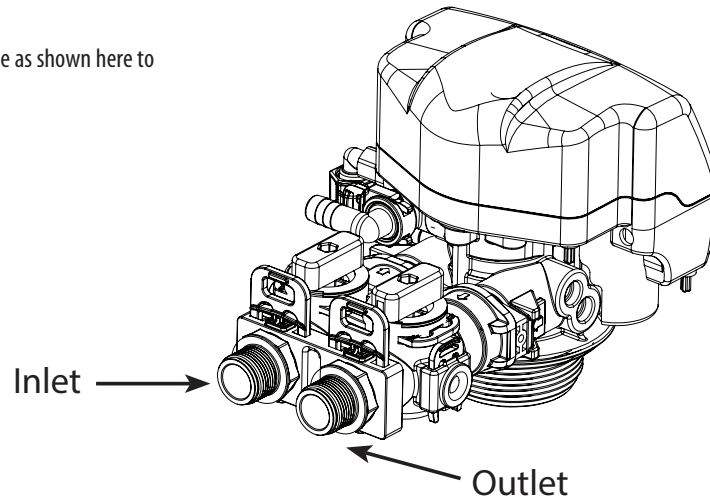
**d)** Lube the bottom Valve Orings with the grease supplied, attach the cone. Unscrew the spill cap. Carefully Slide the D-Tube inside the Valve and Screw the Valve inside the Tank such that the power cord doesnt get caught between the valve and the tank.

**CAUTION:** Make sure the power cord of the valve doesnt get caught between the threads

# PREPARATIONS

Determine the best location for your water softener, bearing in mind the location of your water supply lines, drain line and 120 volt AC electrical outlet. Subjecting the softener to freezing or temperatures above 43°C (110°F) will void the warranty.

Please notice the inlet and outlet labels on the valve as shown here to determine the position of the equipment:



## Facts to Remember When Planning Your Installation

1. All installation procedures must conform to local and state or provincial plumbing codes.
2. Outside faucets used to water lawns and gardens should not supply untreated water, replace untreated water with feed water to the unit. If necessary to do this please install check valve, see page 14. A new water line is often required to be connected to supply untreated water to the inlet of the water softener and to the outside faucets.
3. Make sure the bypass is attached well to the control valve. Connect the straight or elbow connectors to the bypass with red clips. Connect the inlet and outlet of the water softener to the plumbing of the house. The control valve must not be submitted to temperatures above 43°C (110°F). When sweat fittings are used, to avoid damaging the control valve, solder the threaded copper adapters to the copper pipe and then, using Teflon tape, screw the assembly into the bypass valve.  
Do not use pipe thread compound as it may attack the material in the valve body.
4. Apply Teflon Tape and Orings to the fittings
5. Connect Softener to the house plumbing. 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.
6. **Drain Line connection:** Using Teflon tape, screw the 1/2" hose barb and attach oring into the drain port in the valve. Attach 1/2" drain hose (Supplied with some models and brands) to the hose barb and tighten securely with a hose clamp (Supplied with some models and brands). Run the drain line to a floor drain or a laundry drain. Complete any necessary plumbing.
7. 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.
8. Make sure there are no leaks in the plumbing system before proceeding. Close the water tap when water runs clean.
9. 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.

### NOTE

If the plumbing system is used as the ground leg of the electric supply, continuity should be maintained by installing ground straps around any nonconductive plastic piping used in installation.

### NOTE

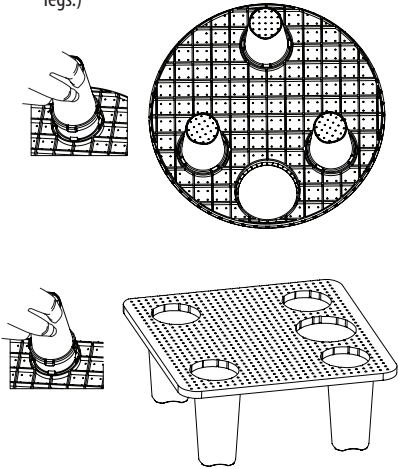
Before starting installation, read page 16, Plumbing System Clean-Up, for instructions that may need to be performed first.

## Water Lines

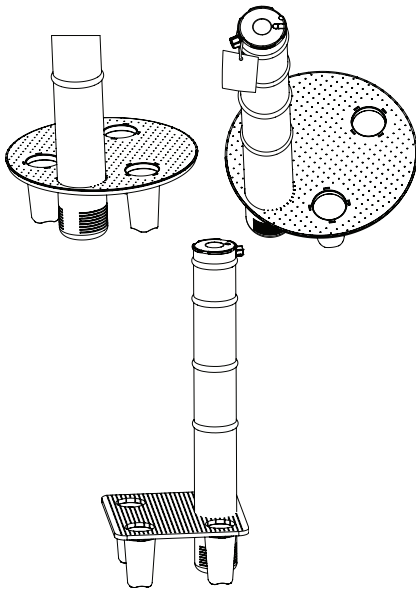
Outside faucets used to water lawns and gardens should not supply softened water. A new water line is often required to be connected to supply hard water to the inlet of the water softener and to the outside faucets. Cut the water line between where it enters the house and before any lines that branch off to feed the hot water heater or other fixtures in the house and as near the desired location of the water softener as possible. Install a tee fitting on the feed end of the cut pipe, and an elbow fitting on the other end. Install piping from the tee to the inlet of the water softener and from the elbow to the outlet of the softener. To sever the water lines which branch off to feed any outside faucets, cut the branch lines approximately two inches from the fitting on the main water line. Install an elbow on the end of the pipe nearest the outside faucet and a cap on the end connected to the existing water line. Install piping from the tee installed on the inlet line to the water softener to the elbow installed on the pipe to the outside faucet. Following this procedure will result in all lines in the house, with the exception of the outside faucets, but including the water heater and therefore the hot water lines, being supplied with soft water.

# INSTALLING BRINE TANK

a) Attach the three brine grid legs to grid plate. The legs will snap on to the tabs of the salt plate making a "click" sound. For square brine tank there are four legs.)



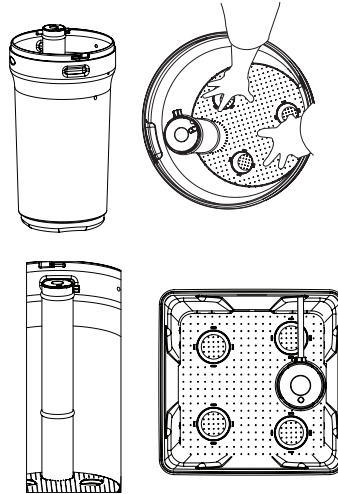
b) Insert the brine well assembly inside the grid plate as well below.



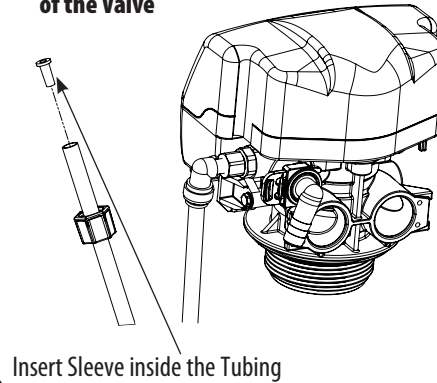
c) Drop the brine grid with brine well inside the brine tank such that the nut fitting faces the hole on the brine tank. Then press the grid evenly inside the brine tank until the brine grid legs touches the bottom of the brine tank.

**IMPORTANT:**  
IN ROUND BRINE TANK, IT IS IMPORTANT TO ALIGN THE HANDLE TO THE BRINE WELL AS SHOWN

The hole in the brine tank should line up with the brine line as shown for round and square brine tank.

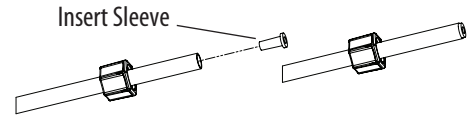


## Attaching Brine Tubing to the Brine Line of the Valve

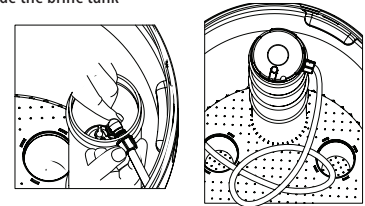


Insert Sleeve inside the Tubing

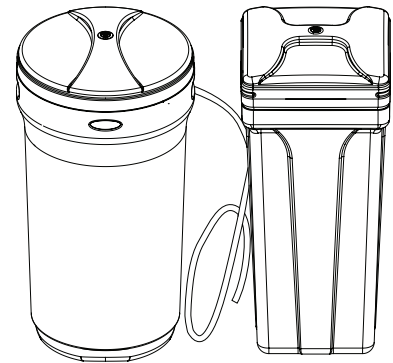
d) Take the brine tube and insert the nut and plastic sleeve as shown below.



e) Insert the tube in the float assembly elbow and hand tighten the nut. In many cases the brine line already come installed from the factory. Leave the other end of the brine line tube inside the brine tank



f) For installation of brine tank at the installation site, pull the other end of the brine tube from the hole on the brine tank. The completed assembly is shown below.



## \*NOTE

### Resin Cleaner

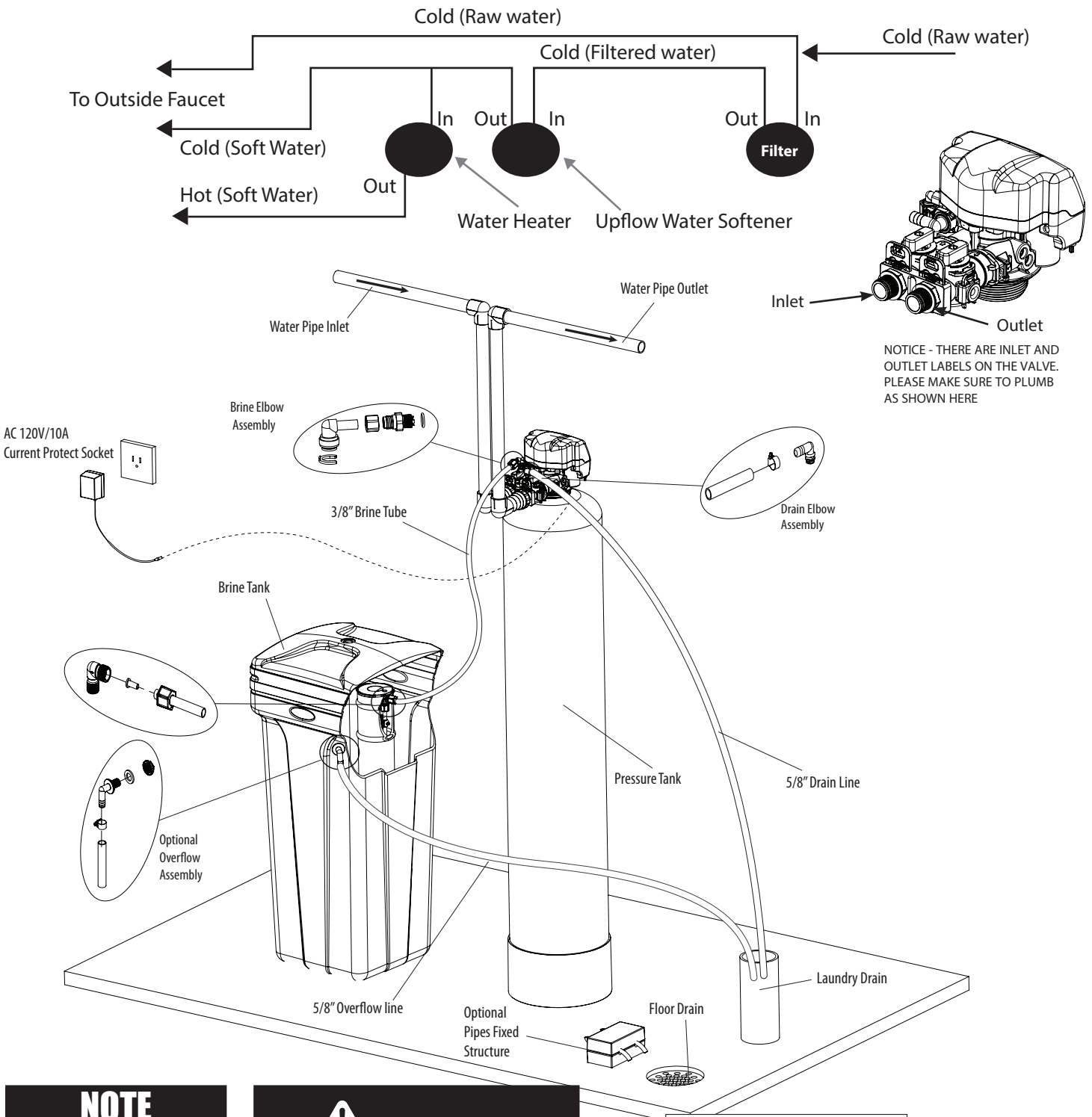
An approved resin cleaner **MUST** be used on a regular basis if your water supply contains iron.

See page 24 - Res-Up® Feeder Installation Instructions

# WATER SOFTENER INSTALLATION

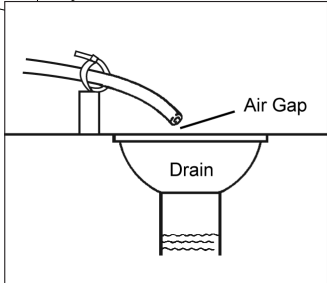
**Connect Softener to the House Plumbing** Any solder joints near the valve must be done before connecting any piping to the valve. Always leave at least 6" (152 mm) between the valve and joints when soldering pipes that are connected to the valve. Failure to do this could cause damage to the valve.

## Water Softener Installation



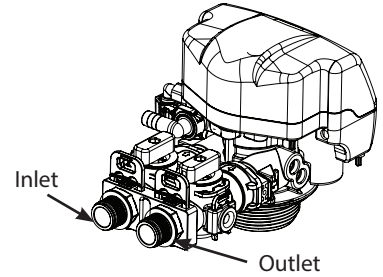
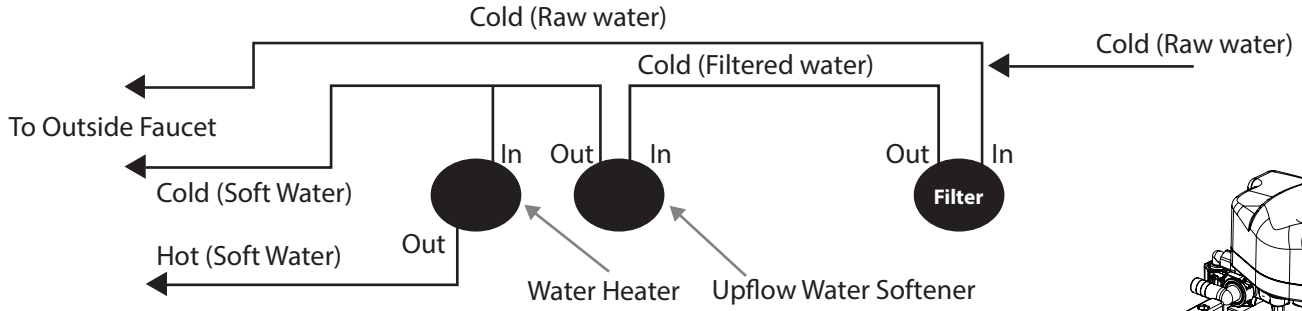
**NOTE**  
Waste connections or drain outlet shall be designed and constructed to provide for connection to the sanitary waste system through an air-gap of 2 pipe diameters or 1 inch (22 mm) whichever is larger.

**CAUTION!**  
Never insert drain line directly into a drain, sewer line, or trap. Always allow an air gap between the drain line and the wastewater to prevent the possibility of sewage being back-siphoned into the conditioner.

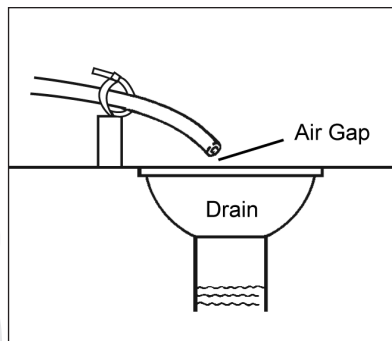
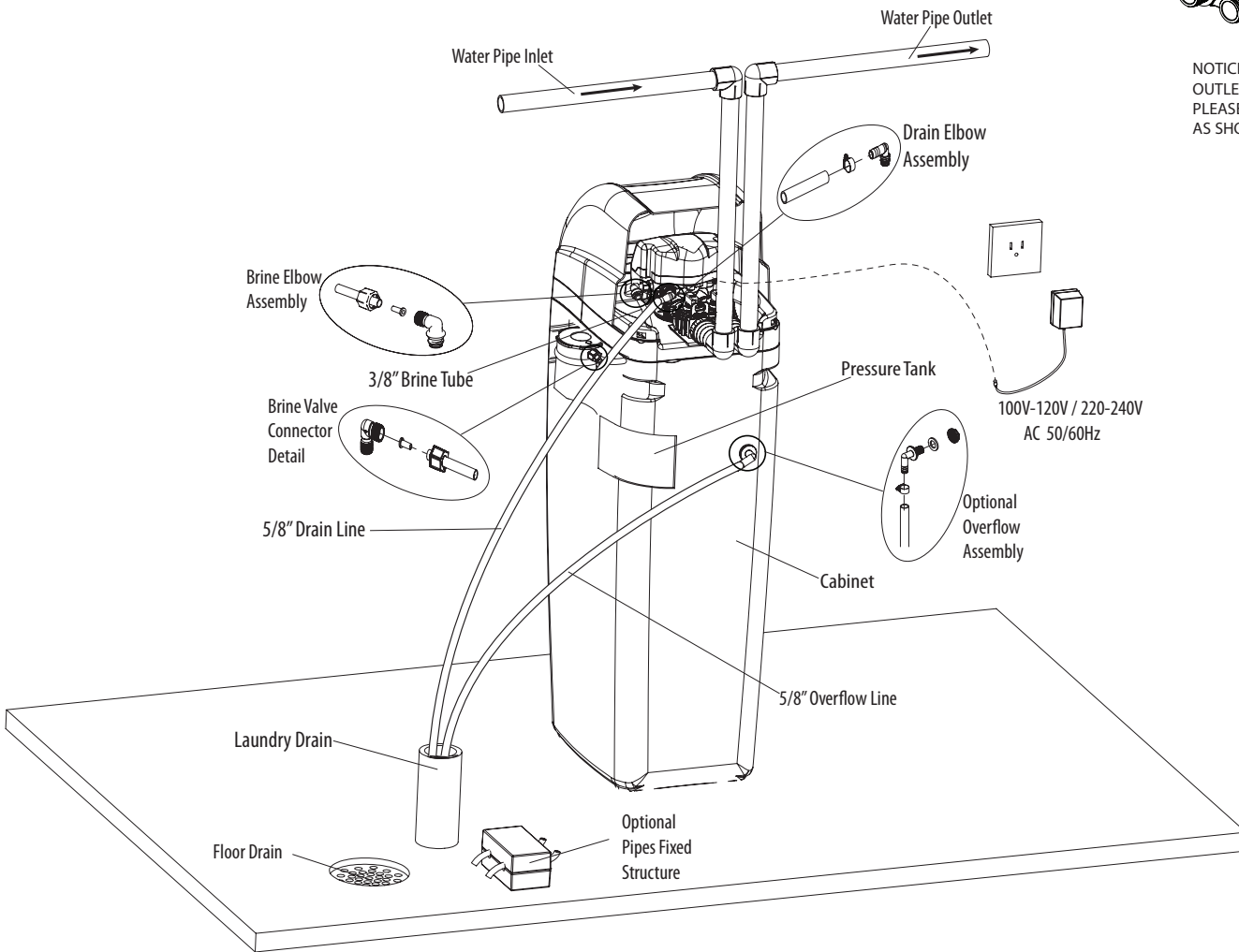




# CABINET WATER SOFTENER INSTALLATION



NOTICE - THERE ARE INLET AND OUTLET LABELS ON THE VALVE. PLEASE MAKE SURE TO PLUMB AS SHOWN HERE



## NOTE

Waste connections or drain outlet shall be designed and constructed to provide for connection to the sanitary waste system through an air-gap of 2 pipe diameters or 1 inch (22 mm) whichever is larger.



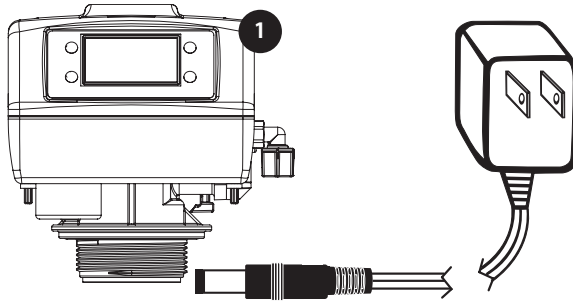
## CAUTION!

Never insert drain line directly into a drain, sewer line, or trap. Always allow an air gap between the drain line and the wastewater to prevent the possibility of sewage being back-siphoned into the conditioner.

# STARTUP INSTRUCTIONS

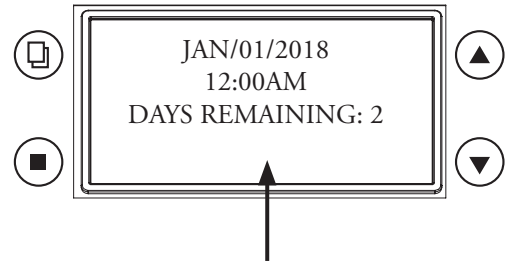
## 1. Connect the Transformer to the Valve

Plug the 12-volt transformer into a 120 VAC 60 Hz outlet.



## 3. Screen Display

Familiarize with Button Configuration:



The controller will show the following on the screen - Time, Date and number of Days Remaining for Regeneration.

## 2. Add Water to Brine Tank

Open the brine tank /cabinet salt lid and add water as per the chart below. Do not add salt to the brine tank at this time.

**BT-100 - 2.5 US Gallons**

**BT-145 - 3.25 US Gallons**

**BT-200 - 5.5 US Gallons**

## Key Pad Configuration



**MENU** This function is to enter the basic set up information required at the time of installation.



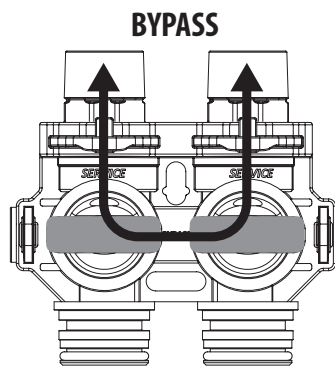
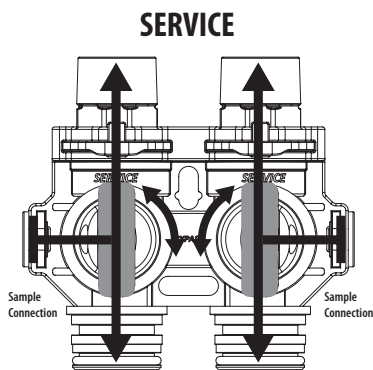
**SET** This function is to initiate an immediate or delayed manual regeneration.



**DOWN / UP** Increase or decrease the value of the settings while in the programming mode.

## 4. Manually Regenerate the Valve

Manually step the valve to the BACKWASH position. If screen is locked, press **MENU** Key for 5 seconds to unlock. Manually Regenerate the Valve and move it to backwash position.



**MANUAL REGEN**  
Delay Immediate

**BACKWASH**  
BRINE DRAW  
RINSE (SKIP)  
REFILL (SKIP)

**BACKWASH**  
||||| 15 Minutes

**BRINE DRAW**  
||||| 50 Minutes

# STARTUP INSTRUCTIONS (CONTINUED)




## 4. Manually Regenerate the Valve (Continued)


- 4a. Open the inlet on the bypass valve slowly and allow water to enter the unit. (The outlet of the bypass should remain closed to prevent any fines or debris from entering the plumbing system. Allow all air to escape from the unit before turning the water on fully then allow water to run until the drain water appears to be clear of any fines.
- 4b. Plug in the valve. Allow the valve to continue its cycles until complete and back in service. Do not manually shorten this cycle as it is critical to have the valve go through all cycles normally to purge all air from the control valve for the upflow injection system to work correctly.
- 4c. The Valve is already programmed from factory. Please set up date and time of day and feedwater hardness as shown below:

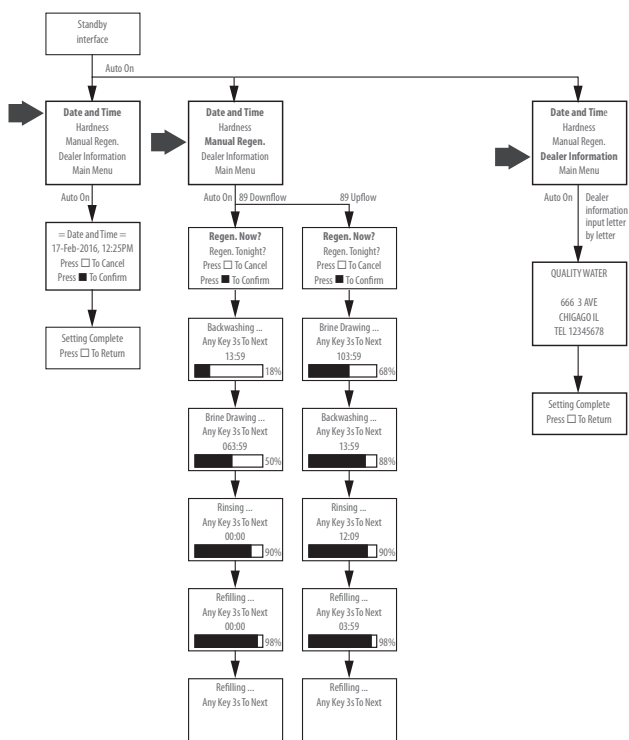
**NOTE\*\* All units are factory programmed for the correct size and regeneration cycle, alteration should only be done by a factory trained technician or after consultation with one of our technical representatives if you have any questions please call: 1-877-288-9888**

## 5. Power and Program Valve

### Key Pad Configuration

-  **MENU** This function is to enter the basic set up information required at the time of installation.
-  **SET** This function is to initiate an immediate or delayed manual regeneration.
-  **DOWN / UP** Increase or decrease the value of the settings while in the programming mode.





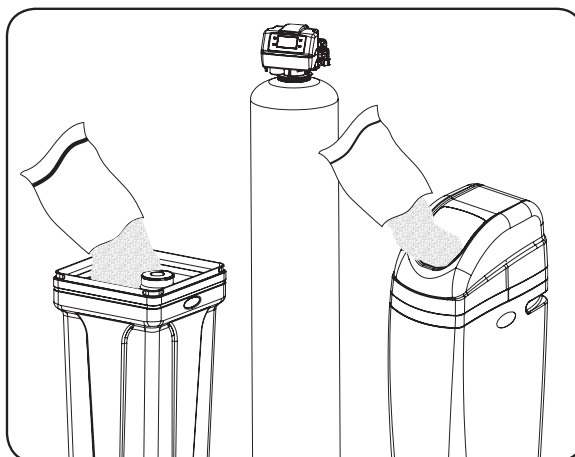
Initial Manual Regen by pressing **SET** button. When in backwash cycle, do not skip the cycle and let all air from the tank escape.

After backwash cycle, the valve will advance to brine draw which needs to be skipped by pressing **SET** button.

The valve will now advance to **RINSE CYCLE** which can be skipped. Then valve will advance to refill cycle which should not be skipped. This cycle will let the air out of ejector system of the valve.

## 6. Add Salt to the Brine Tank/ Cabinet

Put 40 kgs of crystal water softener salt in the brine tank. The unit will automatically fill the water to the correct level when it regenerates.



**Start up and programming complete. Unit is now operational.**



# MAINTENANCE INSTRUCTIONS AND SCHEDULE

## System Check List

**NOTE\*\* All units are factory programmed for the correct size and regeneration cycle alteration should only be done by a factory trained technician or after consultation with one of our technical representatives if you have any questions please call: 877-288-9888**

4a. Open the inlet on the bypass valve slightly and very slowly allow water to enter the unit. (If the water enters too quickly it will push the media up into the control valve and get plugged).

Once the unit has filled sufficiently that water is at least equal to the height of the top of the media shut down the water for 15 – 20 minutes for the media bed to soak. Unplug the power cable. After the media bed has soaked for the recommended time continue.

4b. Open the inlet on the bypass valve slowly and allow water to enter the unit. (The outlet of the bypass should remain closed to prevent any fines or debris from entering the plumbing system. 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 the water at the drain appears to be clear of any fines.

4c. Plug in the valve. Allow the valve to continue its cycles until complete and back in service

4d. The Valve is already programmed from factory. Please set up date and time of day and feedwater iron as shown below:

## Service Schedule

- The seals and spacers along with the piston assembly should be inspected/cleaned or replaced every year depending on the inlet water quality and water usage on clean municipal supplies every 2 - 3 years should be sufficient but the first check should be done after 1 year. See inspection and replacement of Piston assembly and seal and spacer kit, page 26.
- The injectors should be cleaned/inspected or replaced every year depending on the water quality and use. See Clean Injector Assembly, page 27.
- Maintenance Kit (60010564) should be used for servicing control on an annual basis. The maintenance kit consists of piston assembly, seals and spacers, injectors.

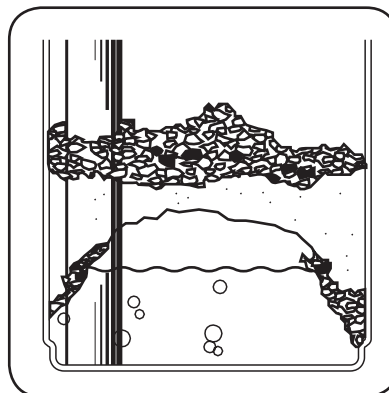
Maintenance of your new water conditioner requires very little time or effort but it is essential. Regular maintenance will ensure many years of efficient and trouble free operation.

**FAILURE TO FOLLOW BASIC MAINTENANCE SCHEDULE WILL RESULT IN THE UNIT FAILING TO OPERATE PROPERLY AND VOID YOUR WARRANTY.**

## Bridging

Humidity or the 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 plastic 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 four hours to produce a brine solution, then manually regenerate the softener.



**CAUTION!**  
Liquid brine will irritate eyes, skin and open wounds - gently wash exposed area with fresh water. Keep children away from your water conditioner.

## Cleaning of your Brine / Salt tank

Salt tanks will build up sludge (undissolved salt) in the bottom of them that will continue to increase as time goes by. Every 2 - 3 years the salt tank should be cleaned out completely and re started using the original start up instructions.



**CAUTION!**

Never subject your conditioner to freezing, vacuum or direct sun light.

# MAINTENANCE INSTRUCTIONS AND SCHEDULE

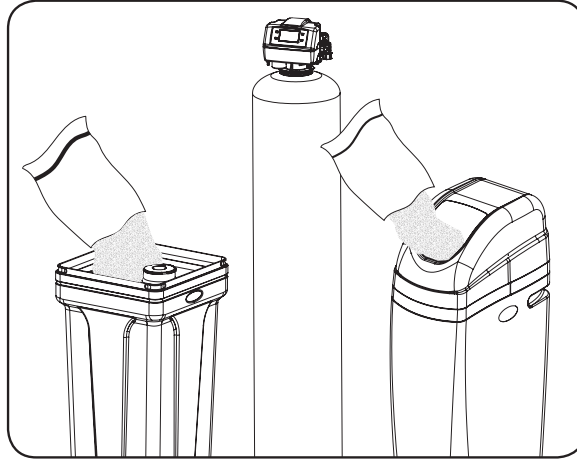
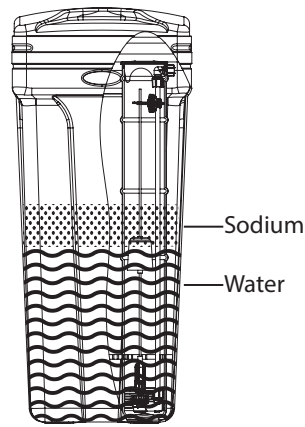
## Checking the Salt Level

Check the salt level monthly. Remove the lid from the cabinet or brine tank, make sure salt level is always above the brine level.

## Add Salt to the Brine Tank

Put 40 kgs of crystal water softener salt in the brine tank. The unit will automatically fill the water to the correct level when it regenerates. Use only clean salt labeled for water conditioner use, such as crystal, pellet, nugget, button or solar. The use of rock salt is discouraged because it contains insoluble silt and sand which build up in the brine tank and can cause problems with the system's operation. Add the salt directly to the tank, filling no higher than the top of the brine well.

**NOTE :THE WATER LEVEL SHOULD BE BELOW THE SALT LEVEL ALL THE TIME**



## CAUTION!

**Incorrect start up, water above the salt level, (not enough salt in tank) will both effect the units capacity and result in hardness slippage. Should either of these situations happen or the unit fails to regenerate for any other reason please first correct the problem. Then regenerate the unit manually 2 times in a row to restore the reserve capacity and bring the media bed back up to specification.**

# IMPORTANT WARRANTY AND MAINTENANCE INFORMATION

**Please have the information below filled out and available when calling in for parts or warranty:**

Model number:
Serial number:
Valve Serial number:
Date installed:

## Additional notes:

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## Care of Your Softener

To retain the attractive appearance of your new water softener, clean occasionally with a mild soap solution. Do not use abrasive cleaners, ammonia or solvents. Never subject your softener to freezing or to temperatures above 43°C (110°F).

## Servicing Components

- The injector assembly should be cleaned or replaced every year depending on the inlet water quality and water usage.
- The seals and spacer cartridge should be inspected/cleaned or replaced every year depending on the inlet water quality and water usage.

Please refer to the servicing section of this manual for step by step procedure.

Not following the above will void all warranty on the control valve.

## Resin Cleaner

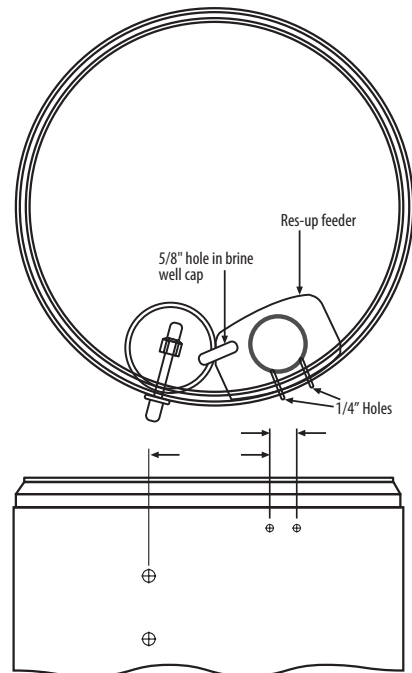
An approved resin cleaner **MUST** be used on a regular basis if your water supply contains iron. The amount of resin cleaner and frequency of use is determined by the quantity of iron in your water (consult your local representative or follow the directions on the resin cleaner package).

## Res-Up® Feeder Installation Instructions

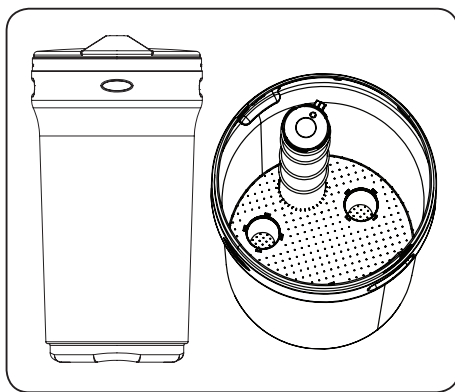
Res-Up Feeders attach to your brine tank and automatically dispense the Res-Up cleaner into the brine solution where it cleans the resin during the regeneration cycle.

The feeder hooks onto the tube inside your brine tank and you just pour some chemical in it and your water conditioner should last significantly longer. A res-up feeder is essential if your raw water contains measurable amounts of iron.

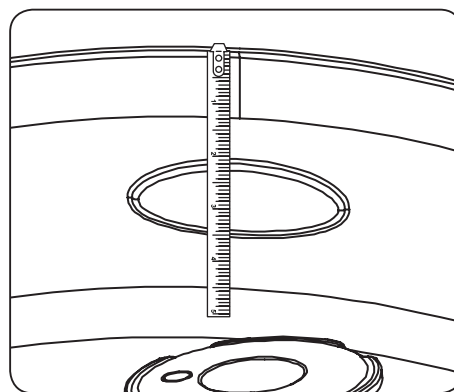
Res-up Feeder Bottle (Chemical sold Separately)
The 12 cc feeder (Part # 33010) is for conditioners up to 64,000 grains (2 ft3 of resin).
The 30 cc feeder (Part # 33018) is for larger conditioners over 64,000 grains.
Pro-Res Care Chemicals
Item #45147 Pro-ResCare - Gallon
Item #45148 Pro-ResCare - Quart



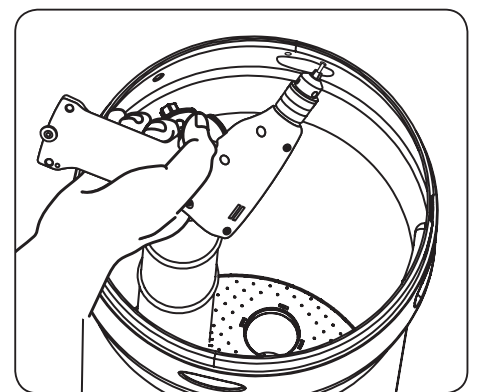
## Install Resup Feeder - Round Brine Tank



1. Install the grid and brine well inside the tank.

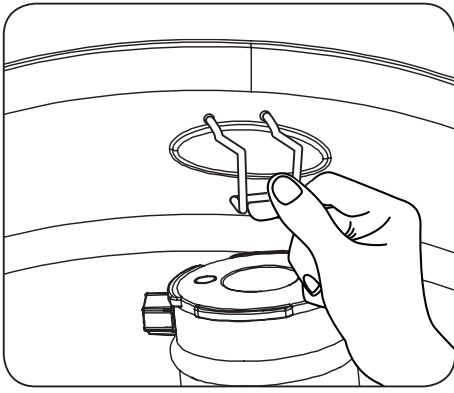


2. Measure 2 inches from the top of the tank beside the oblong molding.

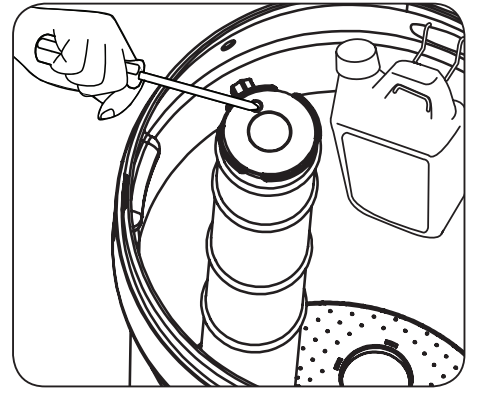
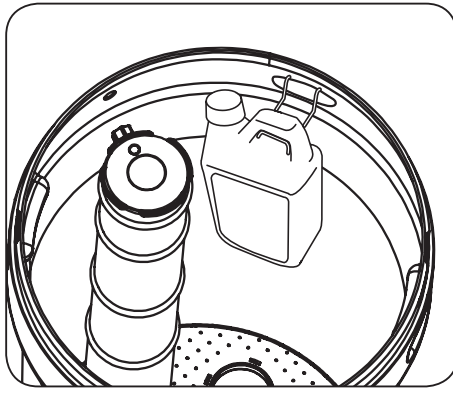


3. Mark the location of the holder and drill.

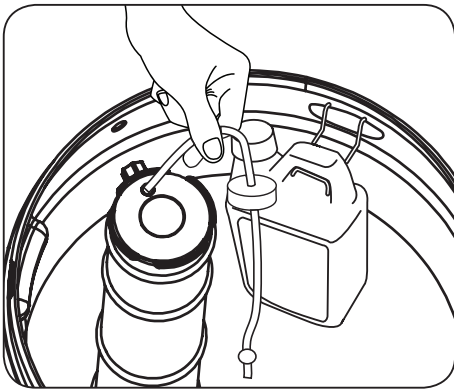
## Res-Up® Feeder Installation Instructions Round Brine Tank - continued



4. Install the holder and the Res Care Solution

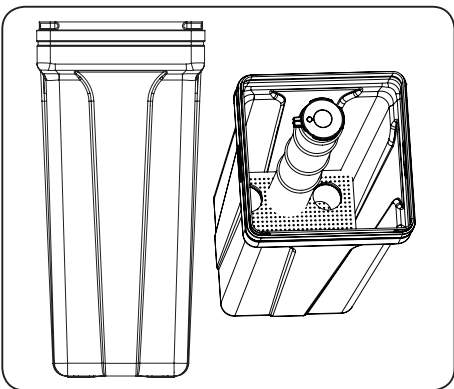


5. Take off the small hole cover on the Brine Well lid.

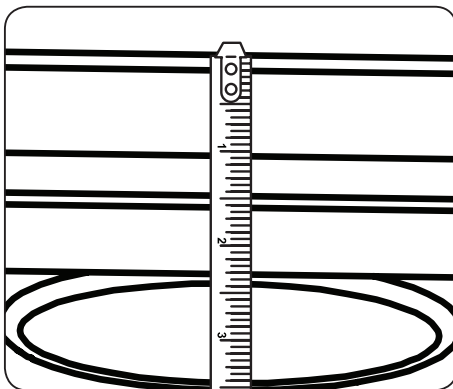


6. Take off the cover of the Res care bottle . Insert the wick, making sure it touches the bottom of the bottle. Insert the other end of the tube completely into the hole in the brine well cap. Automatic feeding will start in a few hours.

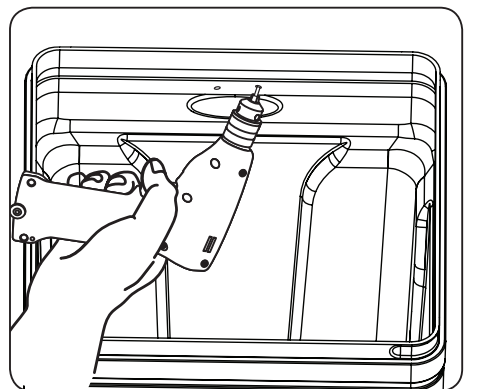
## Install Resup Feeder -Square Brine Tank



1. Install the grid and brine well inside the square tank.

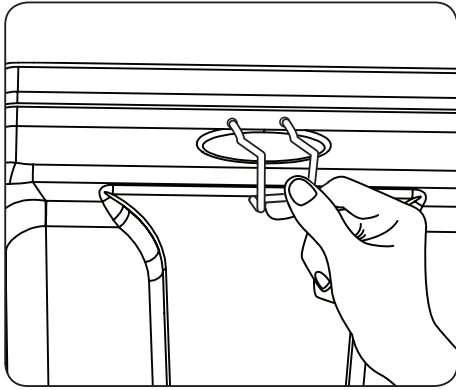


2. Measure 2 inches from the top of the tank beside the oblong molding.

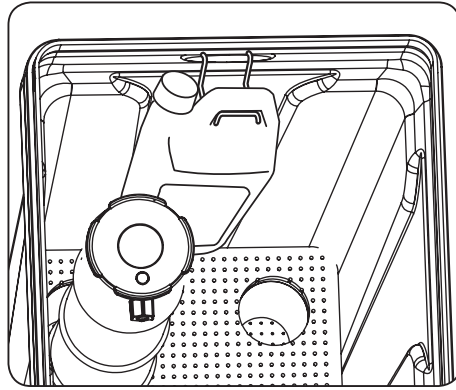


3. Mark the location of the holder and drill.

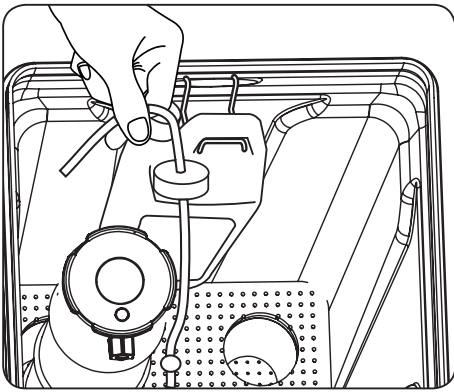
## Install Resup Feeder - Square Brine Tank - continued



4. Install the holder and the Res Care Solution



5. Take off the small hole cover on the Brine Well lid.



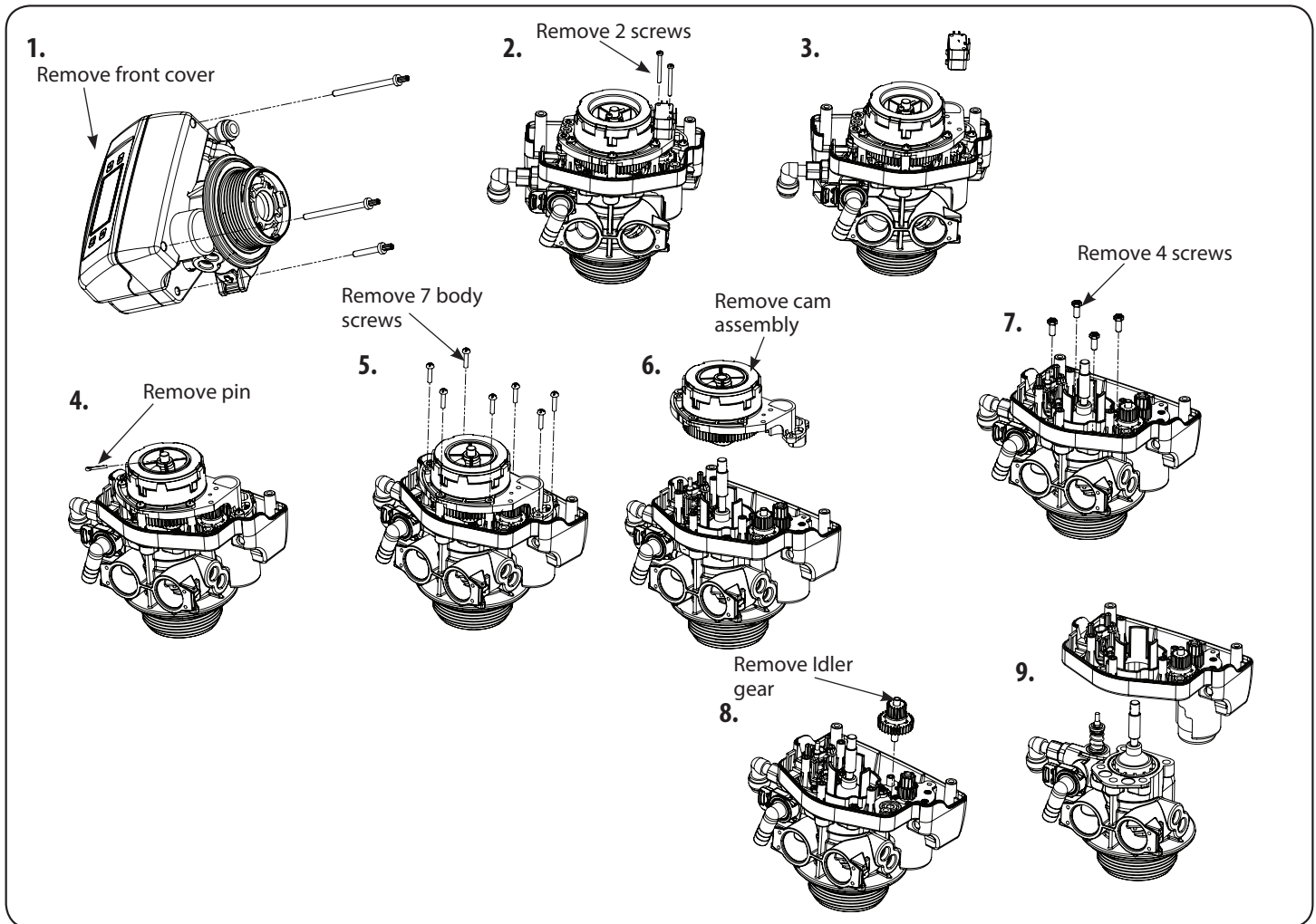
6. Take off the cover of the Res care bottle . Insert the wick, making sure it touches the bottom of the bottle. Insert the other end of the tube completely into the hole in the brine well cap. Automatic feeding will start in a few hours.

## SERVICING 75 VALVE

### Before Servicing

1. Turn off water supply to conditioner :
  - a. If the conditioner installation has a 3 valve bypass system first open the valve in the bypass line, then close the valves at the conditioner inlet & outlet.
  - b. If the conditioner has an integral bypass valve, put it in the bypass position.
  - c. If there is only a shut-off valve near the conditioner inlet, close it.
2. Relieve water pressure in the conditioner by stepping the control into the backwash position momentarily. Return the control to the In Service position.
3. Unplug Electrical Cord from outlet.
4. Disconnect drain line connection.

# POWERHEAD REPLACEMENT

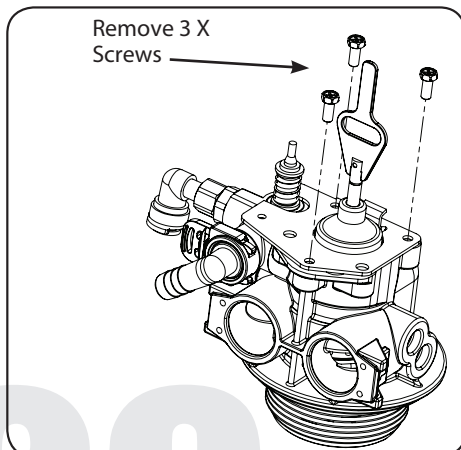


1. Remove front cover
2. Remove 2 screws shown
3. Remove microswitch

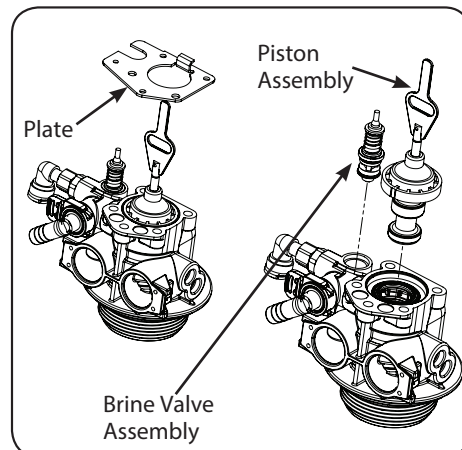
4. Remove pin
5. Remove 7 body screws
6. Remove cam assembly

7. Remove 4 screws
8. Remove Idler gear
9. Remove mounting plate

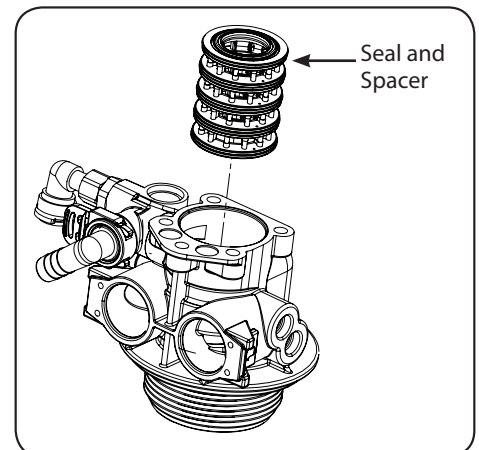
# PISTON AND/OR BRINE VALVE ASSEMBLY REPLACEMENT



1. Follow steps 1 to 6 of timer /Powerhead replacement.
2. Remove three screws from the plate on the valve body.



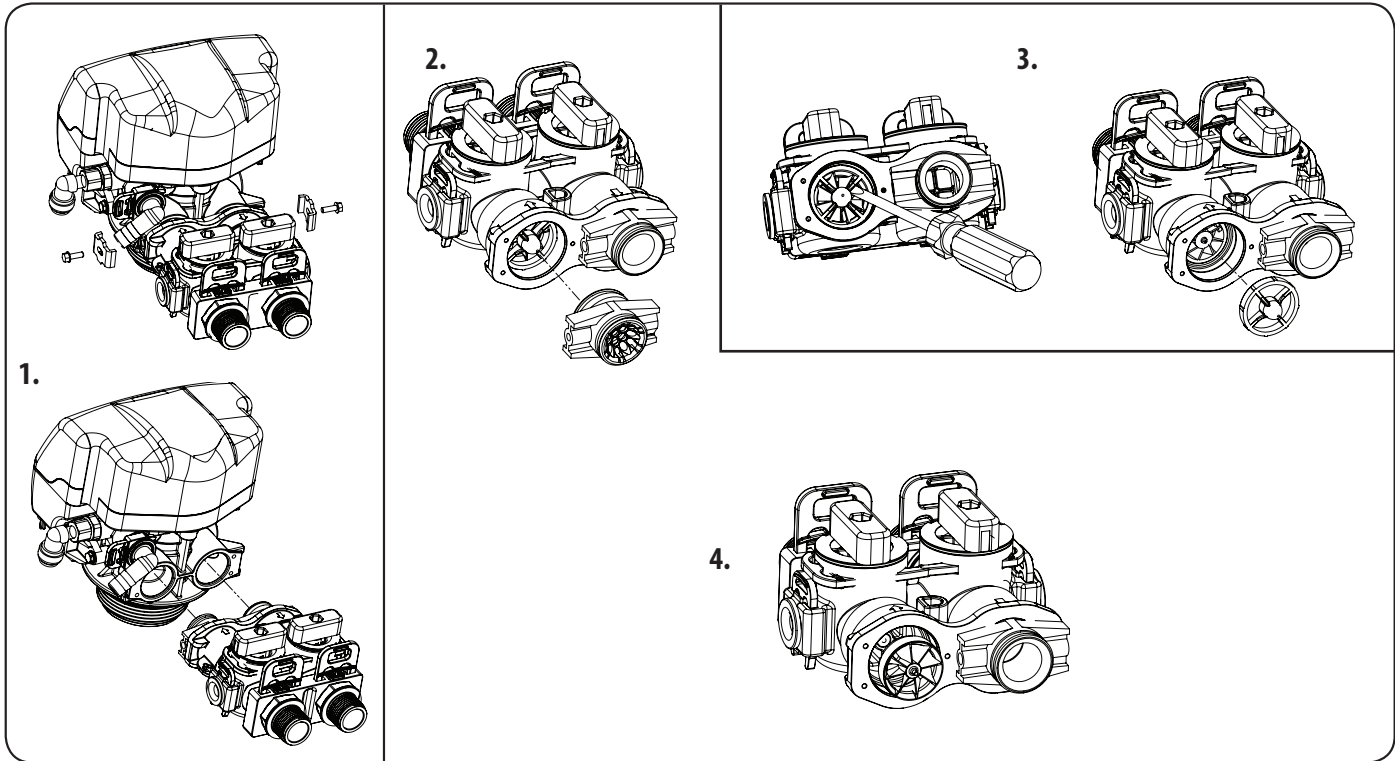
3. Remove the plate from the valve body and pull the Piston Assembly from the valve. The brine valve assembly can also be removed in this stage.
4. Remove the seal spacer assembly, grease it with silicone lubricant and put back in.



5. Replace piston assembly followed by timer assembly.
6. Replace the piston assembly and reverse following steps in this section



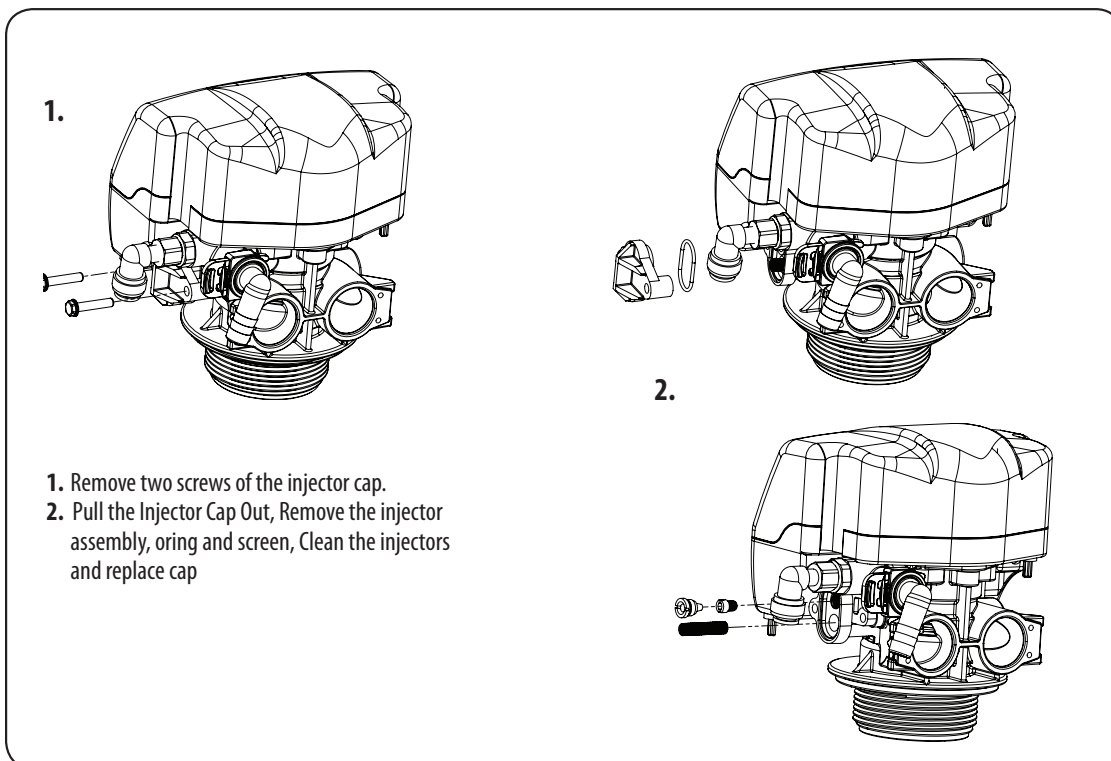
# METER ASSEMBLY REPLACEMENT



1. Disconnect the valve from bypass by removing clips  
2. Remove the coupling adapter from the valve

3. Remove the meter support and then the impeller out from the coupling and clean it  
4. Replace meter and re-assemble the removed components back in the section

# CLEAN INJECTOR ASSEMBLY

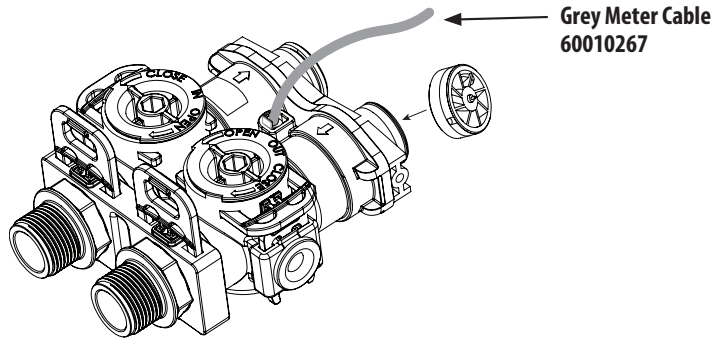


1. Remove two screws of the injector cap.  
2. Pull the Injector Cap Out, Remove the injector assembly, oring and screen, Clean the injectors and replace cap

# REPLACING THE BYPASS AND METER CABLE

If valve is manufactured before March 20th, 2018, and customer wishes to replace or service impeller on bypass. Customer can order 60010238. If customer wishes to replace to new design, then follow the steps below.

**60095101** Bypass comes with Meter and Grey Meter Cable



**Step 1**  
Unplug the power from the wall socket.

**Step 2\***  
Remove 2 screws and clips from bypass.

**\*NOTE**  
Water to the household needs to be turned off and pressure relieved before Step 2

Disconnect the meter cable from the bypass.

**Step 3** Remove Cover.

**Step 4**  
Disconnect the cables from the front PCB display.

**Step 5**  
Disconnect the cables from the rear PCB display.

Remove the meter cable attached on Main PCB.

Cut the tie that fastens the wires

**Step 6**  
Remove strain relief with pliers.

**Step 7**  
Replace the old cable with the new Cable.

**Step 8**  
Assemble the valve. Plug the power supply back into the wall socket and follow the programming shown on right:

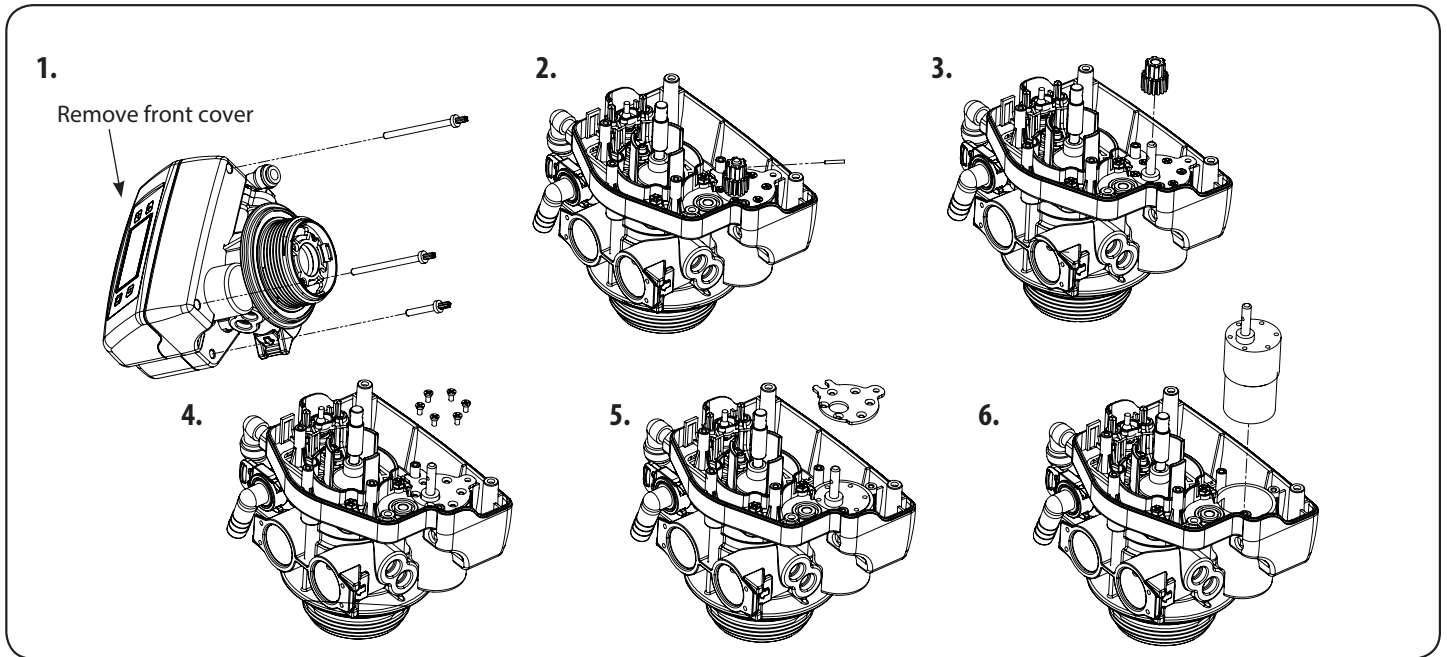
If replacing old impeller assembly to new version on Valves manufactured before March 20th 2018, programming should be adjusted on the control valve. Please see steps below:  
To enter the programming press and hold the MENU button for 5 seconds to unlock the screen.  
Press and hold the Up and Down Arrows.  
Press the down arrow to get to METER RATIO then press SET.  
Press UP or Down Arrow to choose Turbine-H and press SET.  
Set as per below:\*\*

**\*Meter and Cable Ratio**

Valve Model	Region	Meter Ratio	
		OLD	NEW
75V Series	U.S Gallon	0.576	0.443

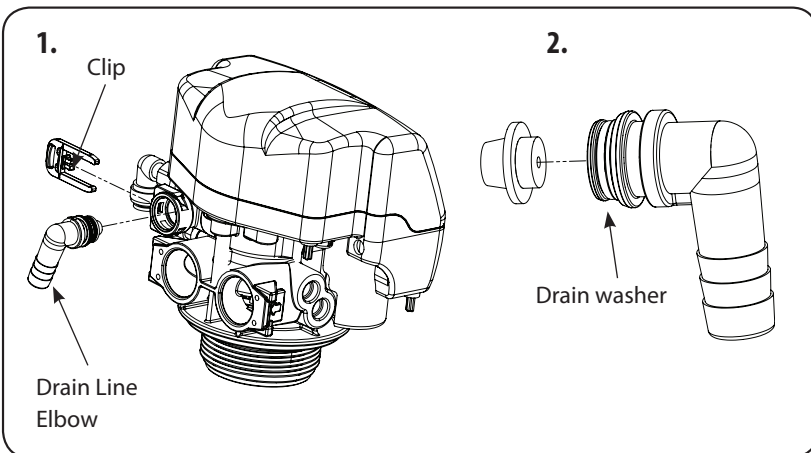


# REPLACE MOTOR



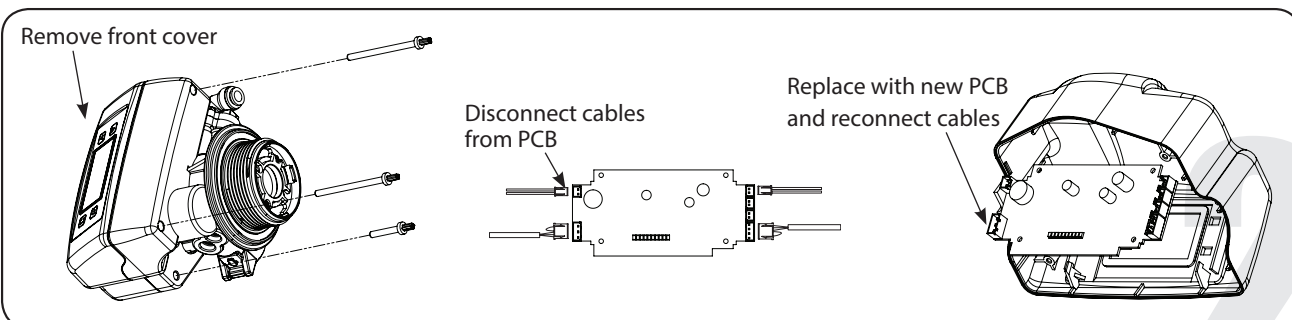
- 1. Remove front cover
- 2. Remove Pin
- 3. Remove Gear
- 4. Remove 6 screws
- 5. Remove plate
- 6. Replace motor

# REPLACE DRAIN LINE FLOW CONTROL



- 1. Pull the drain line clip and remove the drain line elbow and washer
- 2. Clean/replace drain line washer

# REPLACING PCBs



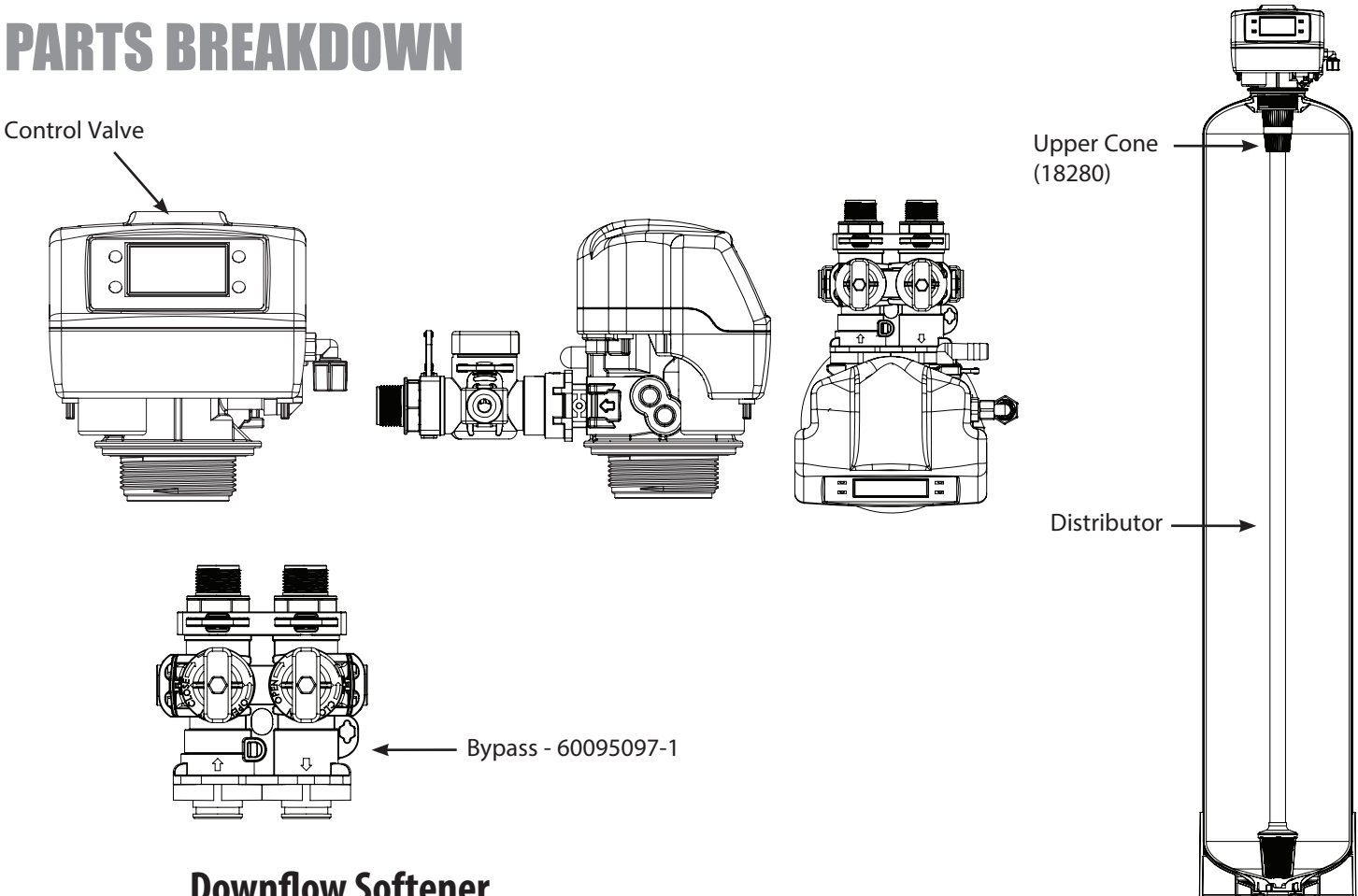
# AFTER SERVICING

1. Reconnect drain line
2. Return bypass or inlet valve to normal in service position. Water Pressure will automatically build in the Softener

**NOTE**  
Be sure to shut off any bypass line.

3. Check for leaks at all sealed areas. Check Drain seal with the control in the backwash position
4. Plug electrical cord into outlet
5. Set Time of Day and cycle the control valve manually to assure proper function. Make sure control valve is returned to the In Service position

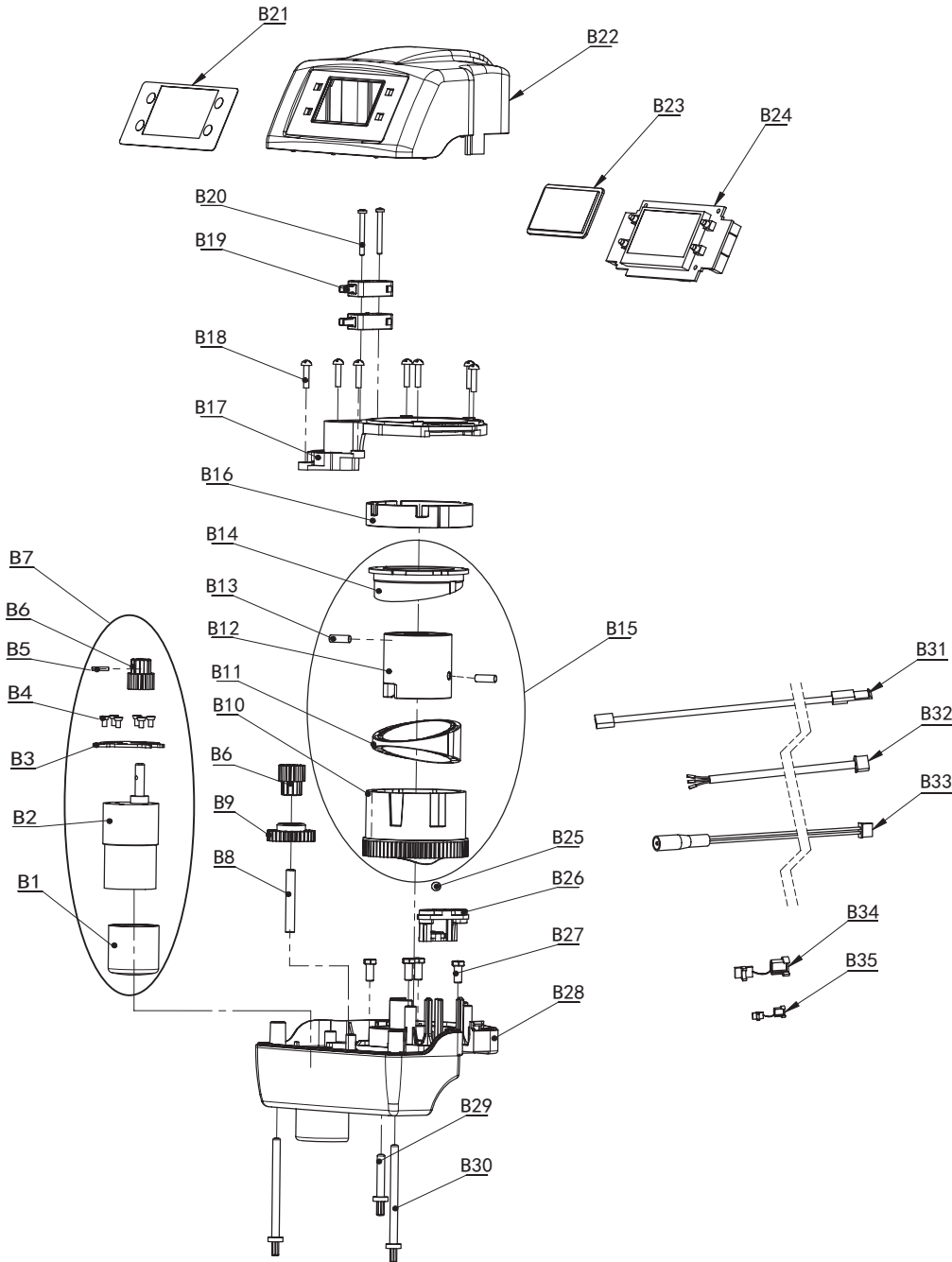
# PARTS BREAKDOWN



## Downflow Softener

Model	Mineral Tank Size	Tank # (Natural Color)	Tank # (Black Color)	Tank # (Blue Color)	Distributor#	Valve #	Media Bed #
<b>Softener Downflow (Single Tank)</b>							
75	8 x 44	25010025	25010027	25010026	50010005	10010038	95600
100	9 x 48	25010034	25010036	25010035	50010005		95601
150	10 x 54	25010049	25010051	25010050	50010005		95606
200	12 x 52	25010058	25010060	25010059	50010005		95609
250	13 x 54	25010064	25010066	25010065	50010010		95610
300	14 x 65	25030001 and 50040039	Not Available	Not Available	50010010		95604
75C	9 x 35	25010028	Not Available	Not Available	50010010		95600
100C	10 x 35	25010043					95601

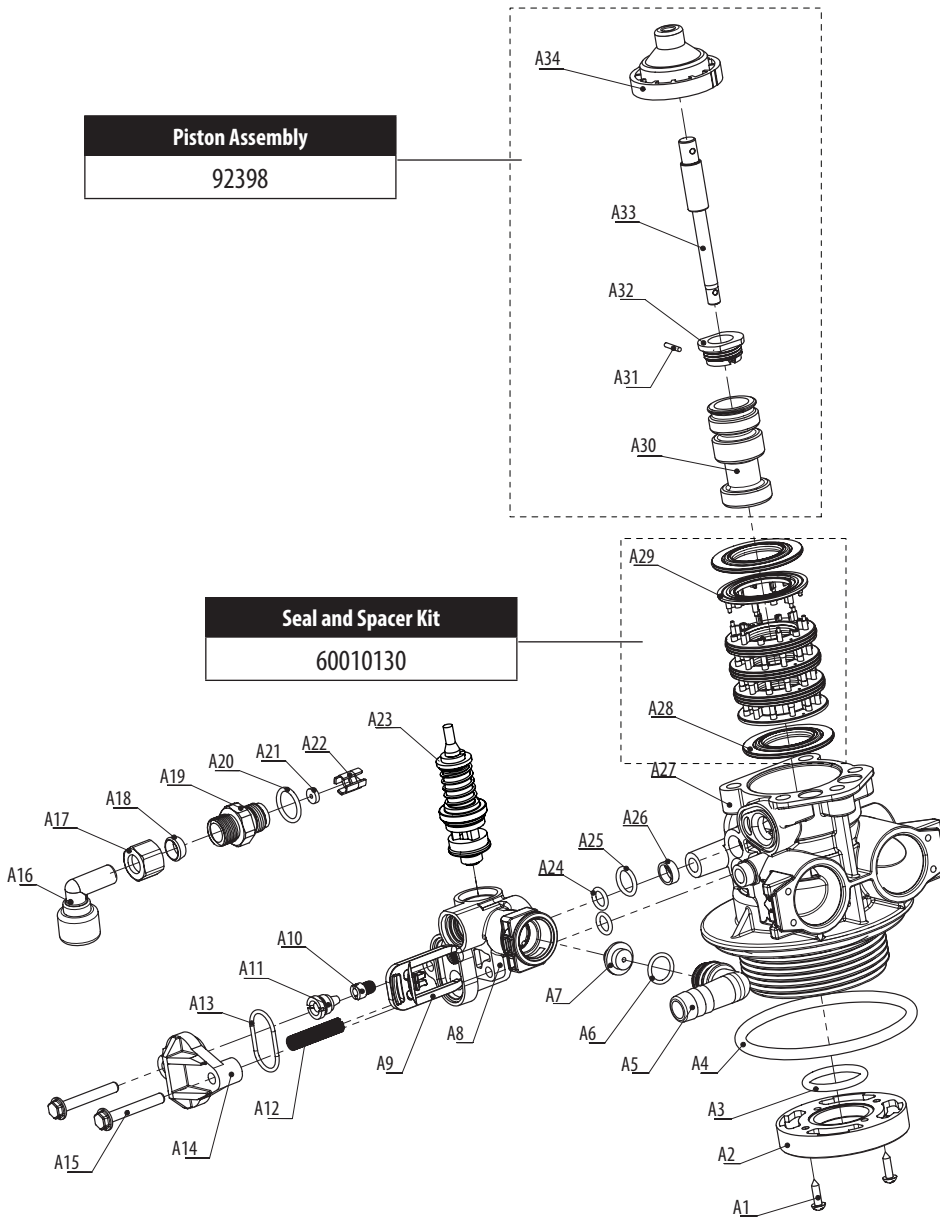
# PARTS BREAKDOWN



## Powerhead Parts List

No.	Part #	Description	Qty
B35	60010331	Power Cable Clip	1
B34	60010330	Meter Cable Clip	1
B33	60010124	Power Cable	1
B32		Micro Switch Cable	1
B31	60010266	Meter Cable	1
B30	60095635	Plastic Screw M5×70	2
B29	60095613	Plastic Screw M5×30	1
B28	60095615	75 Valve Base(Black)	1
B27	60010075	Screw M5×12	4
B26	60095636	Pressing Block	1
B25	60095634	Steel Ball	1
B24	60010622	Bnt75 Display Board	1
B23	60095618	PC Board	1
B22	60095619	75 Valve Cover(Black)	1
B21	60095620	Face Label	1
B20	60010579	Screw M3×30	2
B19	60095621	Micro Switch	2
B18	60095622	Screw ST3.5×16(BT)	7
B17	60095623	Bnt75 Fixing Plate	1
B16		Micro Switch Cam	1
B15	60095727	Cam Assy	1
B14		Cylindrical Cam I	1
B13		Pin 5×14	2
B12		Bnt75 Draging Block	1
B11		Cylindrical Cam II	1
B10		Cylindrical Cam III	1
B9	60095633	Idler Gear	1
B8	60095631	Gear Pin	1
B7	60010623	75 Valve Motor Assy	1
B6		Drive Wheel	2
B5		Pin Ø2.5×12	1
B4		Screw M3×5	6
B3		Motor Fixing Plate	1
B2		Motor	1
B1		Motor Protection	1

# PARTS BREAKDOWN



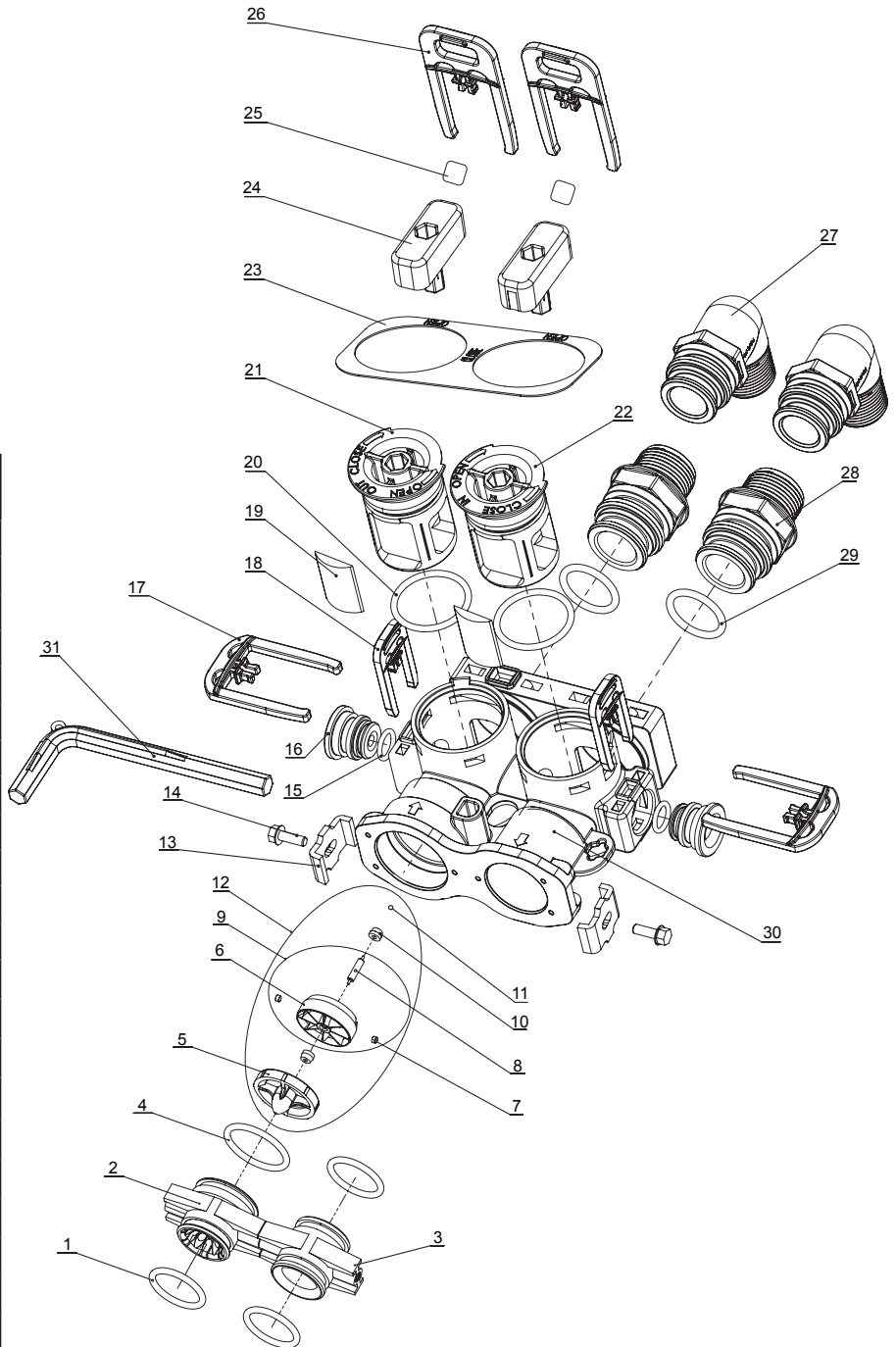
## Valve Body Parts List

No.	Part #	Description	Qty
A34	13446	End Plug Assy	1
A33	60095604	BNT 75 Piston Rod	1
A32	60010646	Piston Retainer	1
A31	60010647	Pin	1
A30	60010648	Piston	1
A29	60010130	Seal & Spacer Kit	8
A28			1
A27	60095609	BNT 75 Valve Body	1
A26	60010095	Air Dispenser	1
A25	60010096	O-ring(11×2)	1
A24	60010094	O-ring(7.8×1.9)	2
A23	92381	Brine Valve Injector Stem Assembly	1
A22	60010081	BLFC Button Retainer	1
A21	60010110	BLFC(0.3GPM)	1
A20	60010083	O-ring(14×1.8)	1
A19	13244	Copper Fitting	1
A18	60010087	BLFC Ferrule	1
A17	60010088	BLFC Fitting Nut	1
A16	60010656	QC Brine Elbow	1
A15	60010089	Screws M5×30	2
A14	60010090	Injector Plug	1
A13	60010091	O-ring(23.9×1.8)	1
A12	60010192	Injector Screen	1
A11	60010033	Injector Nozzle(White)	1
A10		Injector Throat(White)	1
A9	60010069	Clips	1
A8	60010093	Injector Body	1
A7		DLFC 3.0GPM	1
A6	60010044	O-ring(12×2)	1
A5	60010229	QC Drain Line Elbow	1
A4	60010077	O-ring(78.74×5.33)	1
A3	60010080	O-ring(25×3.55)	1
A2	60010599	Valve Bottom Connector	1
A1	60010574	Screws ST3.5×13	2

# PARTS BREAKDOWN

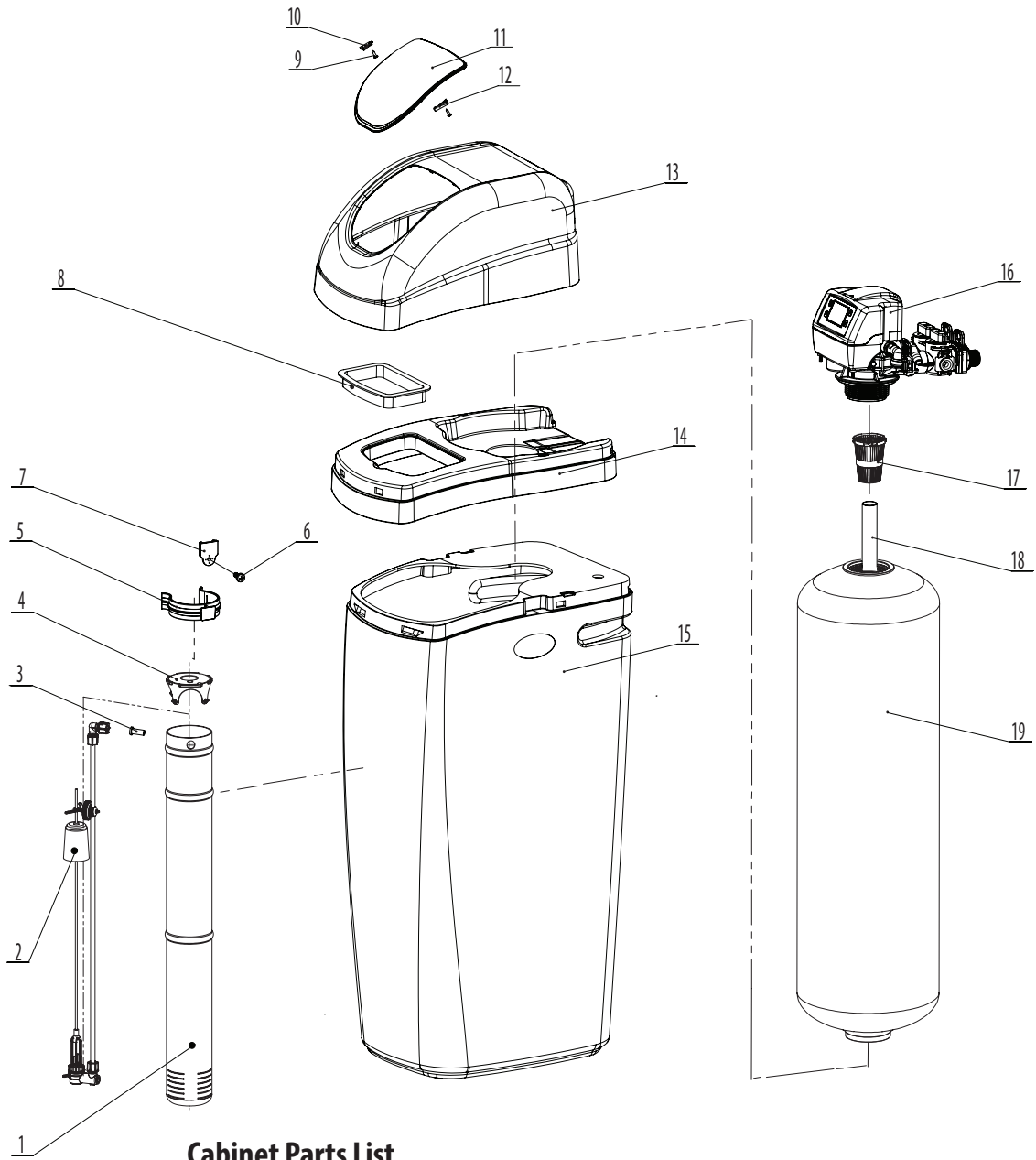
## Bypass Parts List

No.	Part # (Water Group)	Part # (Canature)	Description	Qty
32	60010267	05010108	Grey Meter Cable cc	1
31	60010006	70020007M	Bypass Tool	1
30		05056212	063 Bypass Body	1
29	60010026	26010143	O-ring on Inlet and Outlet	2
28	60010019	21319011N	Straight 1" NPT Inlet and Outlet	2
27	60010023	21319036N	Elbow 3/4" NPT Inlet and Outlet	2
26	60010025	21709003N	Secure Clip Inlet and Outlet	2
25	60010740	50040086	Direction Indication Label	2
24	60010740	05056220	Bypass Knob	2
23	60010740	61045012	Bypass Indication Plate	1
22	60010740	05056213	Bypass Shaft(Inlet)	1
21	60010740	05056214	Bypass Shaft(Outlet)	1
20	60095614	05030013	O-ring(30x2.65)	2
19	60010740	05056149B	Shaft Seal	2
18	60010069	05056172N	Plug Clip(Red)	2
17	60010740	21709004	Shaft Clip(Red)	2
16	60010209	05056146M	Bypass Plug	2
15	60010044	05056134	O-ring(12x2)	2
14	60010126	13000327	Screw M4x12	2
13	60010046	05056044B	SS Clip	2
12	60010238 *60010308	02170264	Meter Spare Parts	1
11		05040129	Bush Ball	1
10		05010019	Bush	2
9		02170263	Meter Assy	1
8		05010107	Impeller Pin	1
7		05010104	Magnet	2
6		05010105	Impeller	1
5		05010077	Impeller Support	1
4	60010102	26010046	O-ring(27x3)	1
3	60010079	05056025M	Valve-Bypass Connector(Inlet)	1
2	60010101	05010083N	Valve-Bypass Connector(Outlet)	1
1	60010562	05056129	O-ring(23x3)	3



\*After 03/18 refer to # 80150452 Manual Replacing Bypass & Grey Meter Cable'

# PARTS BREAKDOWN



## Cabinet Parts List

No.	Part #	Description	Qty
19	25010028	Pressure Tank-935	1
	25010043	Pressure Tank-1035	1
18	50010020	Distribution Assy-1035	1
17	50010001	Top Cone	1
16	10010038	Control Valve Assy	1
15		Softener Cabinet(Grey)	1
14		Softener Low Cover(Black)	1
13		Softener High Cover(Black)	1
12		Transparent Plate Holder-Left	1
11		Transparent Plate	1

No.	Part #	Description	Qty
10		Transparent Plate Holder-Right	1
9	60010673	Screw 2.9×10	2
8		Softener Salt Lid	1
7		Hoop Clinch	1
6		Plastic Screw	1
5		Brine Well Clamp	1
4		Brine Well Cap	1
3	60010181	Tube Insert	1
2	55010023	0435 Brine Valve Assy	1
1	60010574	0435 Brine Well	1

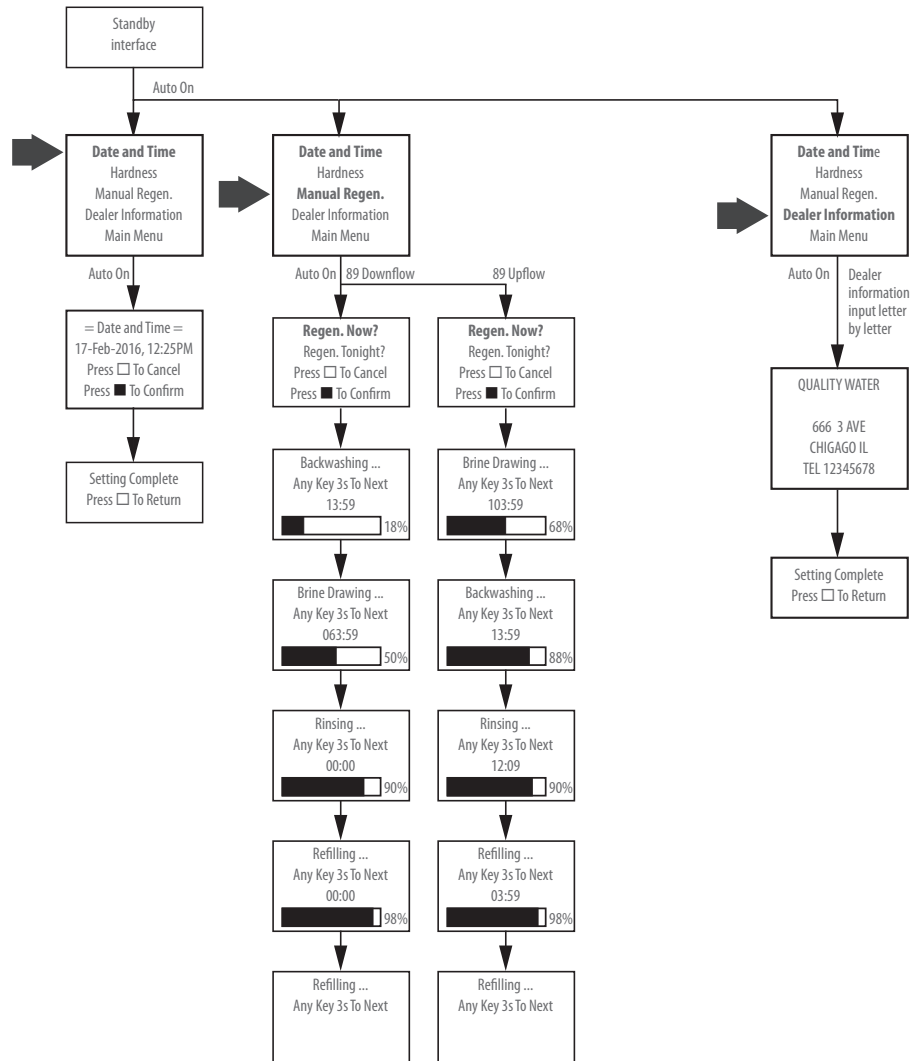
# HOW TO SET DATE AND TIME, MANUAL REGENERATION AND DEALER INFORMATION

PRESS "MENU" KEY  AND SCROLL TO "MAIN MENU". THEN PRESS "SET"  TILL IT BEEPS.

Press "MENU" key 

Press  or  to change menu option. Press "SET"  to enter.

Press  or  to change value. Press "SET"  to accept.



## DATE AND TIME

Time of day is for normal operation of system and the scheduling of the regeneration time. The date is used in a diagnostic function to track the last time the system regenerated.

## HARDNESS

This value is the maximum compensated water hardness in grains per gallon of the raw water supply. It is used to calculate the system capacity. If Ferrous Iron is present add 4 gpg for every 1 ppm of Ferrous Iron.

## MANUAL REGENERATION

To start an immediate regeneration select the Manual Regen option. This setting determines the time of day to perform a scheduled regeneration.









## DEALER INFORMATION

This is optional. Dealer information can be added.





# MAIN MENU

Press "MENU" key . Press - to advance to Menu. Press and hold "SET"  5 seconds or until you hear a beep. Press  or  to choose menu option. Press "SET"  to enter. Press  or  to change option. Press SET"  to accept.

## REGEN TIME

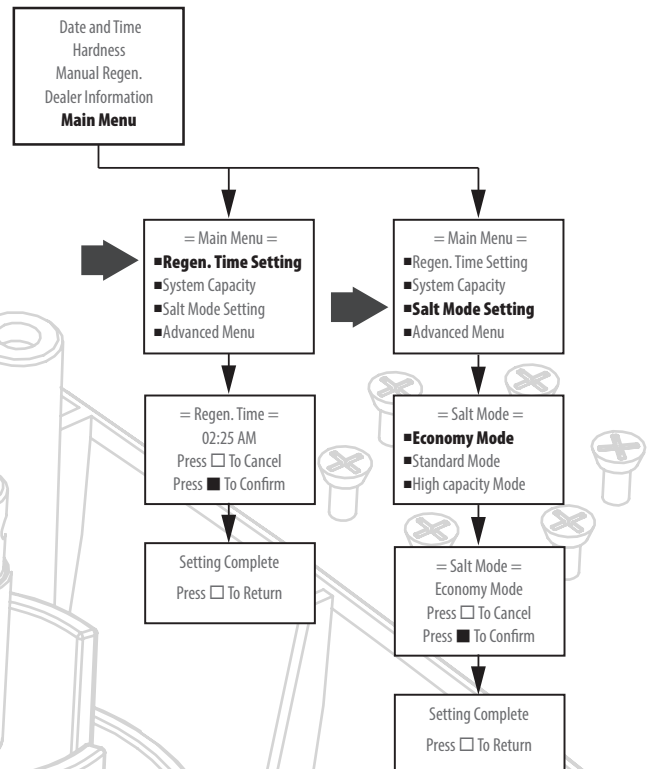
This setting determines the time of day to perform a scheduled regeneration.

## SYSTEM CAPACITY

In Auto Calculation mode the system capacity is calculated. It can be manually adjusted as well.

## SALT MODE SETTING

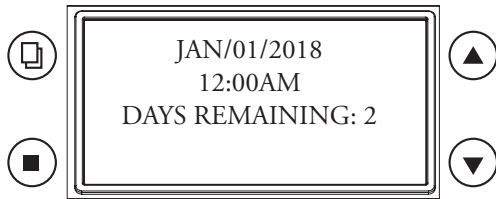
There are 3 settings to choose. Economy, Standard, and High Capacity.





# MASTER PROGRAMMING

The controller will show the following on the screen - Time, Date and number of Days Remaining for Regeneration:



## How to set Master Programming (Authorized Dealer Only)

Press and for 8 seconds. Press "SET" to select and "MENU" to go back

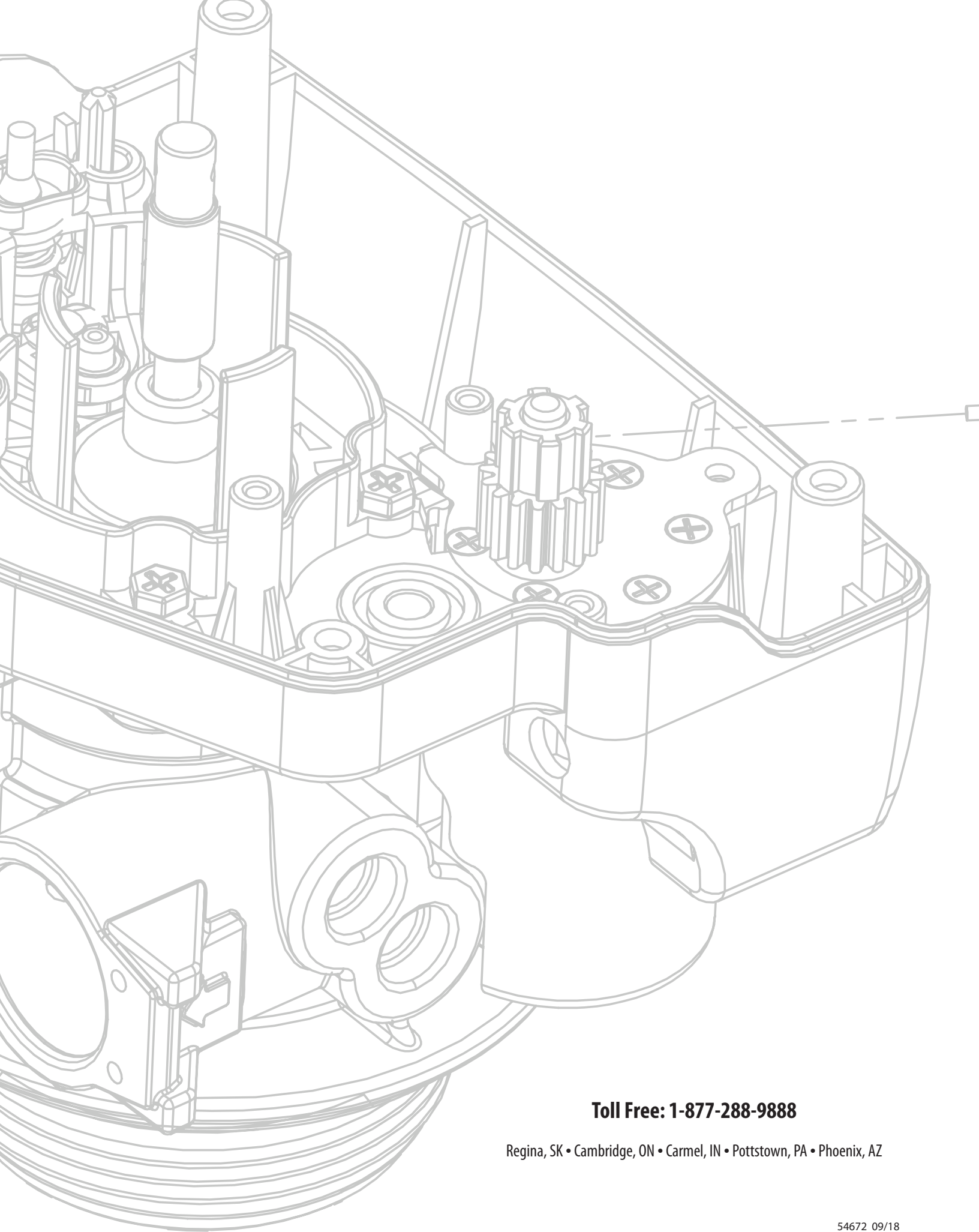


# 75V, 750 DOWNFLOW SOFTENER PROGRAMMING

	Steps		MODEL	Softener	Softener	Softener	Softener	Softener	Softener	Softener	Softener
			Size	75C	100C	75	100	150	200	250	300
PRESS '+' AND '-' FOR 5 SECONDS			RESIN VOLUME	0.75CF	1.0CF	0.75CF	1.0CF	1.5CF	2.0 CF	2.5 CF	3.0 CF
	1		LANGUAGE	ENGLISH							
	2		REGION	US GALLONS							
	3		VALVE SETUP	DownFlow							
	4		METER RATIO AFTER MAR 20,2018	4.428							
			METER RATIO BEFORE MAR 20,2018	0.571							
	5	SALT VS EFFICIENCY	E: 03.0LBS vs 5000GrS	DEFAULT							
S: 06.0LBS vs 4150GrS			DEFAULT								
H: 12.0LBS vs 2500GrS			DEFAULT								
6		CALCULATION	ON								
7	Cycle Delays	0.0s	DEFAULT								
PRESS MENU KEY AND SCROLL TO 'MAIN MENU'. THEN PRESS 'SET' UNTIL IT BEEPS. SCROLL TO ADVANCED MENU	8		RESIN VOLUME	0.75 Cu.Ft	1.00 Cu.ft	0.75 Cu.ft	1.00 Cu.ft	1.50 Cu.ft	2.00 Cu.ft	2.50 Cu.ft	3.00 Cu.ft
	9		REFILL RATE	0.7 GPM							
	10		REGEN. MODE	Meter Delay							
	11	BW/RINSE OVERRIDE	BACKWASH - OFF	OFF							
			RINSE	OFF							
	12		EMERGENCY REGEN.	OFF							
	13	Regen Cycles	BACK WASH	4							
BRINE DRAW			46								
RINSE			4								
REFILL			DEFAULT								
14	HISTORY VALUES	Usage History	History Since Reset (Press SET to reset)								
PRESS MENU & SCROLL TO MAIN MENU	15		REGEN TIME Setting	02:00AM							
	16		SYSTEM CAPACITY	DEFAULT							
	17		SALT MODE SETTING	STANDARD							
PRESS MENU	18		DATE AND TIME	DEFAULT							
	19		HARDNESS	25							
	20		MANUAL REGEN	DEFAULT							
	21		DEALER INFORMATION	DEFAULT							
Valve Build			Injector	#1	#1	#1	#1	#1	#2	#2	#3
			Injector Color	White	White	White	White	White	Blue	Blue	Yellow
			BLFC Washer	0.7 GPM	0.7 GPM	0.7 GPM	0.7 GPM	0.7 GPM	0.7 GPM	0.7 GPM	0.7 GPM
			DLFC Washer	2	2.4	1.5	2	2.4	3.5	4	5
			DLFC Washer Code	#2	#3	#1	#2	#3	#5	#6	#A
		Upper Cone	YES	YES	YES	YES	YES	YES	YES	YES	

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