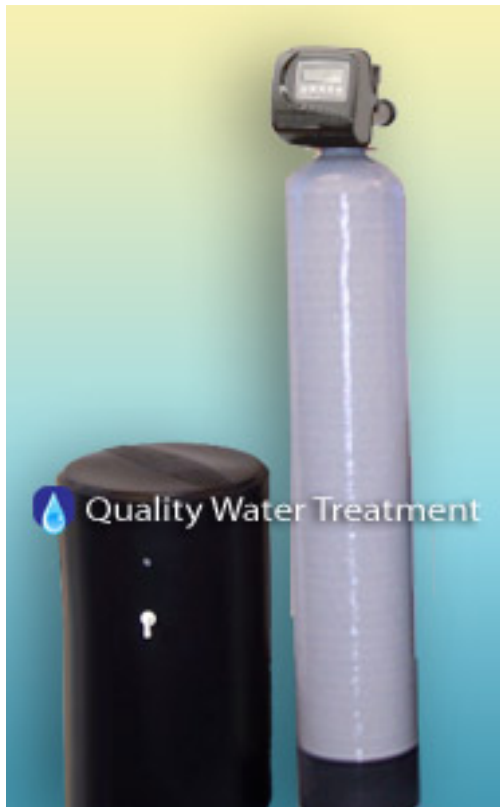


Installing Your Clack WS1 or WS1.25 Water Softener



The systems require that a 120 volt standard outlet be available for powering the system. The Clack WS1 and WS1.25 valve has a 5' cord with a special low voltage transformer that will plug into a standard 120 volt outlet.

Pre-Installation :

Adding the Resin to the Water Softener Tank

1. Position your new softener unit in place, where you want it to set.

2. Inside your Softener tank is a Pvc tube " called a pilot tube" Use a pvc slip cap or some duck tape to temporarily plug this tube if a blue cap is not already in it (this is to keep the resin from going down the tube) Use the special funnel we supplied you, to add the resin to the tank, this will take about 10 minutes to do. After adding the resin, remove the cap, clean the

threads on the tank with water were the valve screws onto, and screw the valve on, the tube will slip into the bottom of the valve hole as you are screwing the valve onto the tank, Valve only need to be hand tightened onto tank.



Adding resin to the tank.



Screwing valve onto tank.

Make a list of all the plumbing fittings you will need to completely install the unit to make it ready for operation.

Typical is:

- Eight - 90° elbows
- The amount of pipe you need
- 1/2" ID drain line, hose clamp and 90° elbows

Assemble all tools needed to install the unit. Start your Installation. If copper, you need a copper cutter, propane tank, soldering torch, flux, wire paper and lead free solder. An average cost of \$40.00

NOW THAT YOU HAVE ADDED THE RESIN AND ARE READY TO INSTALL, FOLLOW THESE INSTRUCTIONS:

1. Turn off the main water shutoff valve.
2. Open all plumbing fixtures in the house including all outside faucets in order to drain the lines of all the water you can. We have found by unscrewing the aerator screen from your kitchen and bathroom faucets help create more of a vacuum to drain the water out of the lines faster
3. Cut and remove a 4" section of water line where the unit is to be installed if you have a typical straight in and out connection.



1)Now position your water softener unit in place for final water line installation, making sure the bypass valve is set in the "BYPASS" Position.

2) If using copper then use flux and put whatever fittings you will be using on brass tales that we supplied you with.

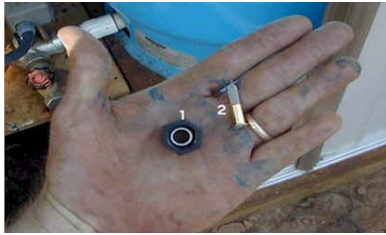
3)Measure and cut the lengths of pipe you need to plumb the main hard water line into your softener unit inlet side. Then do the same for the soft water line that will exit from the softening unit, back out into the house, make sure to use Flux on every fitting.

3)Wrap brass tales with a wet cloth up against plastic nuts to keep heat from transferring back to plastic nuts and bypass valve when soldering, be careful not to over heat if pvc tales are used you will not have to wrap them.

4) Start soldering where the main water supply is and work your way up to the softener then start soldering from house side up to softener.

5) NOTE: The unit will be marked either on the back of the valve body itself with the word "IN" and "OUT" and/or on the top of the body of the bypass valve assembly with arrows showing the direction of water flow into and out of the valve. "Out: is the water that is now entering your house after it has passed through the water softener. BE VERY CAREFUL TO MAKE SURE YOU PLUMB THE SYSTEM IN THE RIGHT DIRECTION OTHERWISE YOU WILL LOOSE THE RESIN OUT OF THE TANK INTO YOUR HOUSE LINES! NOTE: IF YOU HAVE THE AUTOTROL WATER SOFTENER THE INLET IS ON THE LEFT AS YOU ARE FACING THE TIMER.

Brine Tank Float assembly:



The float assembly is a safety float, it only comes into play if there are failures in the control valve to keep the brine tank from overflowing with water it does not dictate the water level in your brine tank.

Measure from the top of the air check shown as # 6 in photo 10" to bottom of float shown at # 3 in photo, you may have to gently push the float rod thru the rubber gaskets to achieve this. Cut any existing rod off.

Installing Float assembly in Brine well



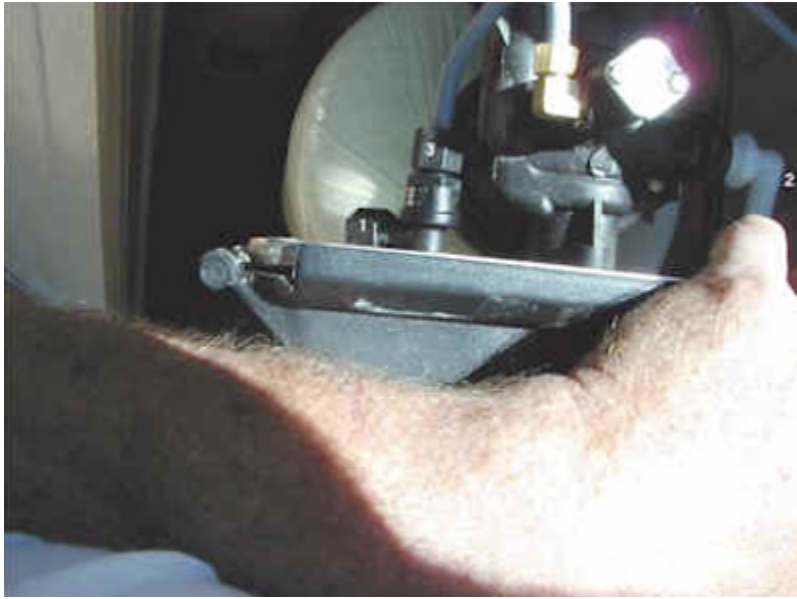
Slide the float assembly into the brine well shown as # 1 in photo and stick stud into side hole on brine well show as # 2 in photo and secure with the nut we have supplied you

Take the clear tubing that we have supplied and slide it thru the whole in the brine tank and brine well shown as # 3 in photo. Slip the plastic nut from the float assembly over the tube, slide the black Ferrell over the tub with beveled end facing towards the inside of the nut, slide the white Ferrell over the tube with the belled end butting up against the beveled end of the black Ferrell. and insert the sleeve into the tube. Now insert tube into top fitting on float shown as # 4 in photo and hand tighten then snug it up with a small wrench. Note: no tape is required this is a compression fitting.

Take other end of tube slide nut over tube then Farrell which looks like a small round doughnut over tube then insert sleeve into tube. Push tube into side of Clack WS1 or 1.25 valve and had tighten then snug up with a small wrench.

Attaching your drain line:

Note: Do not attach the drain line to the elbow on the brine tank it will overflow the brine tank. Run the drain line to a house drain, where your washing machine drain line goes is an excellent choice, if this is not possible then you can drain into multiple areas, make sure you always leave an air gap if going into a pipe. An air gap is an open area where there is no standing water. Your drain line can be elevated up to 5 feet over and above where it comes out of the valve and you can run it up to 100' away. Always follow local codes.



Slide a 1/2" hose clamp over drain line and then slide drain line over drain hose barb. Slide hose clamp over barb and tube and tighten the hose clamp.

Plug your power cord into a nearby outlet. Plug the metering cable coming out the back of the Clack WS-1 or WS 1.25 valve into the slot on the outlet side on top of the plastic turbine assembly. As shown in photo below.



Programming the Clack WS1 and WS1.25 Valve.

Hold Next and Up Arrow in at the same time until H comes up on the screen then let go. Push up OR down arrow in until the hardness of your water appears. Note: if you have iron in the water add 3 gpg for every 1 ppm iron that you have.

Going into the OEM programming mode to use delayed brine refill mode.

Hold Next and Down arrow in at same time until set softener comes up.

Push next = Refill. Select Pre

Next = P 14

Next = Capacity, make sure it is set to the capacity of the system you purchased example 48 = 48,000

Next = Salt pound. Note: 24K = 9 pds, 32K = 15 pds, 40K = 19 pds, 48K = 23 pds, 64 k = 30 pds, 80K = 34 pds, 96K = 46 pds, 110K = 68 pds



Filling your softener with water and purging air from softener:

Turn all faucets off outside and in home. Slowly open bypass valve on Clack WS valve and let the mineral tank fill with water. When water stops running go to the nearest treated faucet to the Water Softener, unscrew aerator screen if applicable and turn cold water on slowly, this will bleed the air from the tank, let the water run until it clears.

If you sized your water softener using our recommendation then you will go through salt or potassium chloride slowly. Add five gallons of water to brine tank if NOT using the Pre refill option. Add three 40 to 50 pound bags of extra course, pelt salt or potassium chloride to brine tank. The resin is already charged so initial regeneration is not required.

You are finished.

Congratulations!

Please feel free to email some pictures of your new installation and a letter, we will post it on our site for other customers to view.

As always we appreciate your business!