

Fleck 2510 SXT

Installation Guide



Getting Started

Before you assemble your new system, be sure that the following conditions have been met for placement of your softener:

- Level, firm surface, such as concrete, on which to place the softener tank and salt tank AKA Brine Tank.
- Nearby floor drain or standpipe to connect to the softener for use during each regeneration.
- Standard US plug, 120v 60hz (the softener system includes a 5ft. power cord and plug). Be sure the outlet you use is not connected to a light switch.

✓ Make a list

Make a list of all of the plumbing fittings needed to install; a typical list looks like this:

- Two $\frac{3}{4}$ " or 1" male adapters
- Eight 90° elbows
- Proper amount of pipe you need
- $\frac{1}{2}$ " drain line

Adding Resin



Position your new softener unit where you want it placed for use.

- Inside the Softener tank you'll find a 3/4" or 1" gray or white Pvc tube (called a distributor tube.) If the tube does not already have a cap on the top use a pvc slip cap or some duct tape to temporarily plug this tube (this is to keep the resin from going down the tube.) If your system came with gravel, add the gravel first, then the resin. Use the included special funnel when adding the resin. This will take about 10 minutes.
- After adding the resin, remove the temporary cap, clean the valve threads with water, and screw the valve on. When screwing the valve on the tank the tube will slip into the bottom of the valve hole. Note: No silicone or tape is needed; the valve is o-ring fit and only needs to be tightened by hand. Do not over tighten.

✓ Assemble all tools needed for installation.

- If you are using copper you will need a copper cutter, propane tank, soldering torch, flux, wire paper, and lead free solder.
- Now that you have collected the materials and added the resin you are ready to install.



Begin Installation

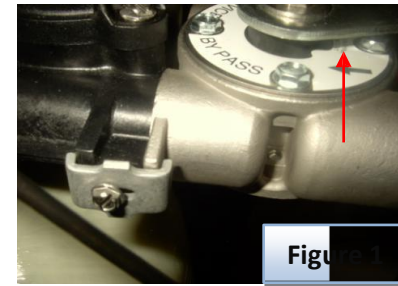
Please follow the instructions below step by step in order to correctly complete the installation of your new water softener from Quality Water Treatment.

✓ Attaching the Bypass valve

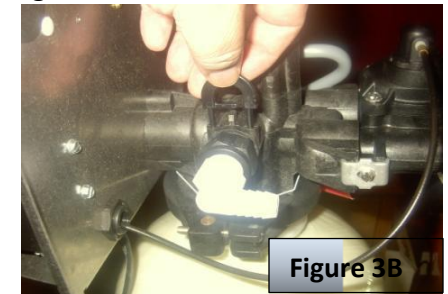
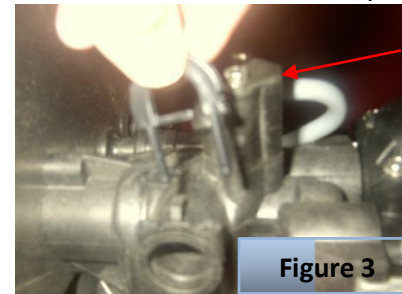
1. Turn off the main water shut off valve.
2. Open all plumbing fixtures in the house including the outside faucets in order to drain the lines. Unscrewing the aerator screen from your bathroom and kitchen faucets will help drain the lines faster.
3. Cut and remove a 4" section of the water line where the unit is to be installed.
4. Remove the two stainless steel clamps that are connected between the steel bypass valve and the plastic meter assembly, there is one clamp on each side. Remove the bypass valve from the meter assembly by pulling it away from the meter assembly. Notes: Be sure to leave the meter assembly in place. If soldering we do not recommend applying heat from a soldering torch to solder copper pipe to new valve/meter assembly.
5. Solder a 3" to 5" piece of $\frac{3}{4}$ " or 1" copper pipe into each male adapter.
6. Once the pieces of $\frac{3}{4}$ " or 1" copper pipe are soldered into the adapters wait until they are cool enough to touch. Apply Teflon tape or pipe join compound to both the male threads and tighten them into the bypass valve before you attach it back onto the back of the valve/meter assembly.
7. Re-attach the stainless steel bypass valve back onto the valve/meter assembly and secure it with two small stainless steel clamps.

✓ Final water line Installation

1. First, Measure and cut the lengths of pipe you need to plumb the hard water line into your softener unit. Then do the same for the soft water line that will exit from the softening unit back into the home.
2. The unit will be marked either on the back of the valve body itself with the word "In" and "out" or the top of the body of the bypass valve assembly will have arrows showing the direction of water flow. "OUT" is the water entering your house after it passes through the water softener. Shown in Figures 1 and 2 below. **PLEASE be careful to follow these correctly, making sure you plumb the system in the right direction otherwise you will lose the resin out of your tank into your house lines!**



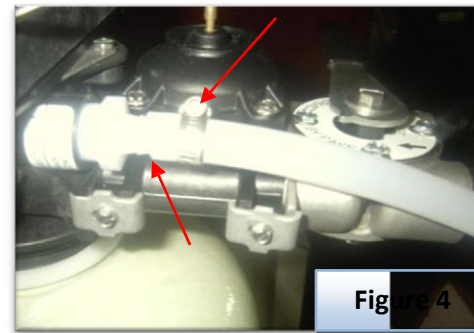
3. Use tephlon tape ONLY and wrap around the threaded end of the drain line adaptor then screw adaptor into the control valve as shown in figure 2 below. Now, snug up with a small wrench. Note: You don't have to tighten it extremely tight, it will crack the backwash assembly housing



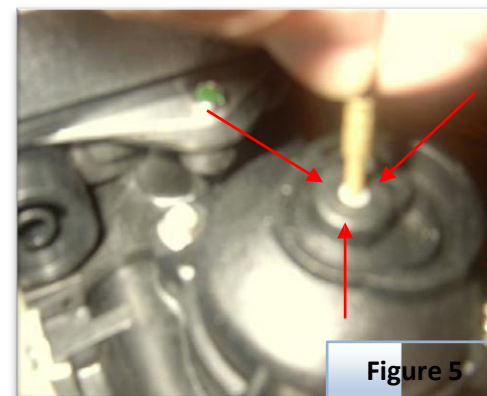
4. Remove clip from drainline assembly as shown in figure 3 above.
5. Push drain flow control adapter into side of control valve and reinsert clip as show in figure 3B
6. Now that you have the adapter in place you can attach your drain line. **(Do NOT attach your drain line to the elbow on the brine tank; it will overflow the brine tank)**. Running the drain line to a house drain such as where your washing machine drain line goes is an excellent choice, if this is not possible then

you can drain into another area of your choice; Note: Do not run drain line to plants, shrubs, trees or a lawn unless using potassium chloride instead of rock salt, make sure you have an air gap if going into a pipe. (Air Gap: Open area where there is no standing water). Your drain line can be elevated up to 5 feet over/above where it comes out of the valve and up to 100 feet away. Remember to always follow your local codes.

7. Slide a 1/2" hose clamp over the drain line then slide the drain line over drain hose barb. Slide hose clamp over the drain and barb, tighten the clamp. See figure 4 below.



8. Plug your power cord into a nearby outlet then plug your meter cable into the top side of the black meter dome in the back of the system like figure 5 below shows.

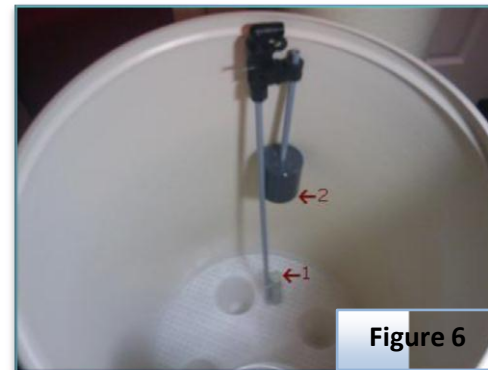


Brine tank assembly

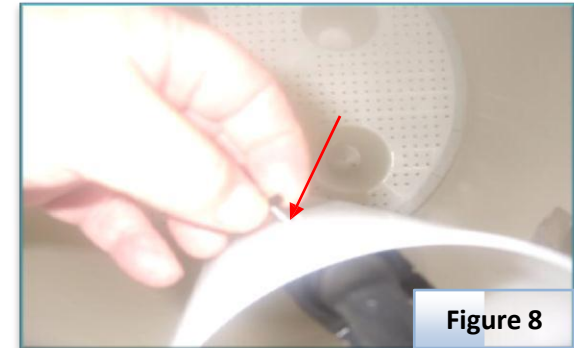
Make sure you have all of the pieces to the brine assembly. The nuts and ferrules are now combined into one and are usually already attached to the brine assembly; please check this to make sure.

✓ Brine tank installation instructions

1. The float assembly is a safety float; it only functions if there is a failure in the control valve. This will insure that the brine tank won't over flow with water. The safety float DOES NOT dictate the water level in your brine tank.
2. Measure 10" from the top of the air check valve (shown as #1 in figure 6 below) to the bottom of the float (shown as #2 in figure 6 below). You may have to gently push the float rod through the rubber gaskets to achieve this, cut any existing rod off.



3. Slide the float assembly into the brine well (shown in figure 7 below) and stick the stud into the side hole on the brine well (shown in figure 8). Be sure to secure it with the nut we supplied you.



4. Take the clear brine tubing that we supplied and slide it through the hole in the brine tank and into the brine well.
5. Slip the plastic nut (the ferrules are attached) over brine tubing then push brass insert into brine tubing.
6. Insert tube into top fitting on float shown in figure 9 below, hand tighten it then snug up with a small wrench. Note: Tape is not required, this is a compression fitting.



7. Take the other end of the tube, slide the nut/ferrule combination over it and insert sleeve into tube. Push the tube into the side of the control valve shown in figure 10 above. Tighten by hand then snug up with a small wrench.

Programming

Congratulations! You have completed the installation of your Fleck 2510 SXT. It is now time to begin programming. Please follow the step by step instructions listed below to correctly program your water softener.

✓ Figuring your water Hardness

It will be important to know what your water Hardness and Iron content is before doing this programming procedure. If you do not know your water hardness or iron content you should either look up your city water quality report by going to Google and typing in: water quality report (enter your water supply company or the city that you are in) , or take a 8 oz sample to a pool supply store to have it tested.

Your Hardness test results may indicate GPG, PPM, or Mg/L. It is important to note that PPM and Mg/L are the same measure and both figures can be treated interchangeably. If you get a hardness figure in PPM or Mg/L, please divide this number by 17.1 to get Grains Per Gallon “ GPG”.

Iron results should also be measured in either PPM or Mg/L. Add your level of iron multiplied by 3. Add this number to your hardness level. This figure will be your Total hardness content that you will program into your softener system.

Example:

if water hardness is 10 GPG and the iron is 1 PPM or Mg/L take the iron content of 1 and $1 \times 3 = 3$ GPG hardness plus 10 GPG = total compensated hardness 13 GPG

✓ Enter and begin programming

First plug in your 2510 SXT Valve to a nearby outlet. The system will illuminate 4 digits and show the time of day and the amount of gallons remaining. This display will switch between these values about every 5 seconds.

Set the time on the system to 12:01 PM by pressing either the UP or DOWN arrow as shown in picture below. You can hold the button to allow the time to scroll faster.



Once the time display is set to 12:01 PM, press the "extra cycle button once as shown in the photo below.



To enter master programming mode, press the UP and DOWN buttons together and hold for 5 seconds, and then release the buttons, as shown in picture below.



The display should now show DF GAL as shown in the picture below. This indicates United States gallons. Do not change this value, and press the Extra Cycle Button once to continue.



The display should now show DF1B. Note: The photo below doesn't indicate the proper setting. This means Down flow 1 backwash. Do not change this value, and press the Extra Cycle Button once to continue.



The display should now show CT / Fd as shown in the picture below. This indicates Control Type Meter Delayed. Do not change this value, and press the Extra Cycle Button once to continue.



The display should now show NT - - - 1 as shown in the picture below. This indicates number of tanks is single. Do not change this value, and press the Extra Cycle Button once to continue.



The display should now show C 24.0 as shown in photo below. This indicates the Capacity is 24,000 grains. Use the UP or DOWN button to change this value to the size of your system, and press the Extra Cycle Button once to continue when finished.



The display should now show H 20 as shown in picture below. This indicates the Hardness is 20 grains) Use the UP or DOWN button to change this value to the total hardness of your water. Then press the Extra Cycle Button once to continue when finished.



The display should now show RS SF as shown in the picture below. This indicates Reserve Selection is Safety Factor percentage; do not change this value, and press the Extra Cycle Button once to continue.



The display should now show SF 10 as shown in the picture below. This indicates the Safety Factor is 10 percent. Use the UP or DOWN button to change this value to 15. Press the Extra Cycle Button once.



The display should now show DO 14 as shown in the picture below. This indicates the Day Override is 14 days the system will regenerate on the 14TH day if the meter does not otherwise automatically initiate a regeneration based on gallons used. Do not change this value, and press the Extra Cycle Button once to continue.



The display should now show RT 2:00 as shown in picture below. This indicates the system will regenerate at 2:00AM, assuming the system clock is set accurately. Press the Extra Cycle Button once to continue.



The display should now show BW 10 as shown in the picture below. This indicates Backwash Time is 10 minutes. Do not change this value, and press the Extra Cycle Button once to continue.



The display should now show BD 60 as shown in picture below. This indicates Brine Draw Time is 60 minutes. Do not change this value, and press the Extra Cycle Button once to continue.



The display may now show RR 10 as shown in picture below. This indicates Rapid Rinse Time is 10 minutes) Do not change this value, and press the Extra Cycle Button once to continue if this value is different, use the UP or DOWN buttons to change it.



The display may now show BF 12 as shown in picture below. This indicates the length of the Brine Refill Cycle during regeneration. Change this value to the proper number for your system capacity below, and press the Extra Cycle Button once to continue. If this value is different, use the UP or DOWN buttons to change it.

24,000 Grain System = 8 minutes

32,000 Grain System = 10 minutes

40,000 Grain System = 11 minutes

48,000 Grain System = 14 minutes

64,000 Grain System = 16 minutes

80,000 Grain System = 18 minutes

96,000 Grain System = 20 minutes

110,000 Grain System = 22 minutes



The display may now show FM t0.7 as shown in picture below. This indicates Flow Meter type 3/4" Turbine. Do not change this value, and press the Extra Cycle Button once to continue if this value is different, use the UP or DOWN buttons to change it.



The system will now exit the Master Programming mode, and the display should now show the time of day, followed by the new number of gallons remaining, as shown in the picture below. Change the time of day by pressing and holding the UP or DOWN button until the proper time setting is shown. There is a PM light indicator to show the difference between AM and PM times.



✓ **Putting your system in service**

Your 2510SXT Water Softener System is now programmed and ready for operation.

Filling your water softener with water and purging air from it: Turn all faucets off outside and in home. Slowly open bypass 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. 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.

Installation and set-up is now complete. 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!