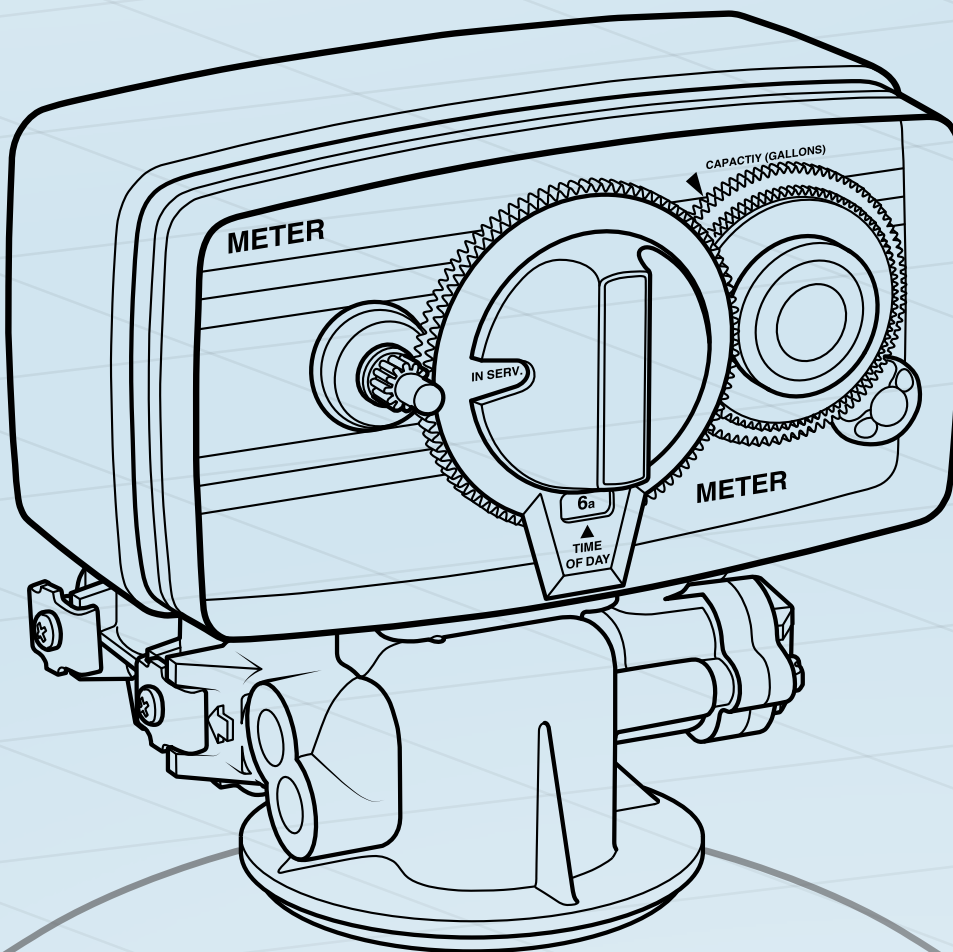


FLECK 5600 METERED WATER SOFTENER

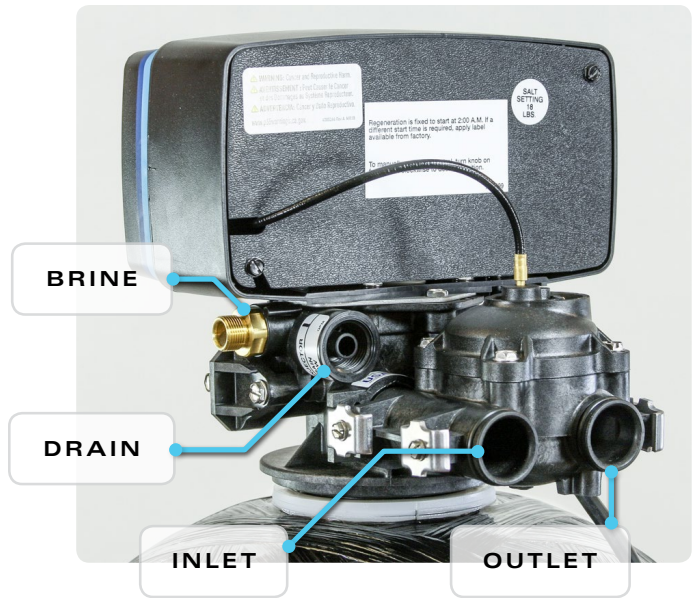
› INSTALLATION GUIDE



› GENERAL REFERENCE

Please take a moment to review this page in order to familiarize yourself with these four ports on the valve and the programming values below. It is crucial not to mistake the inlet port with the outlet port. Mistaking and reversing the inlet and outlet ports will lead to failure of your softener system.

As you work through this guide, please make sure to follow all instructions exactly. **PDF viewers may click underlined text to jump to that page or the page number in the bottom corner of every page to jump to the table of contents.** All our installation guides may be found on our site under "Information."



› PROGRAMMING

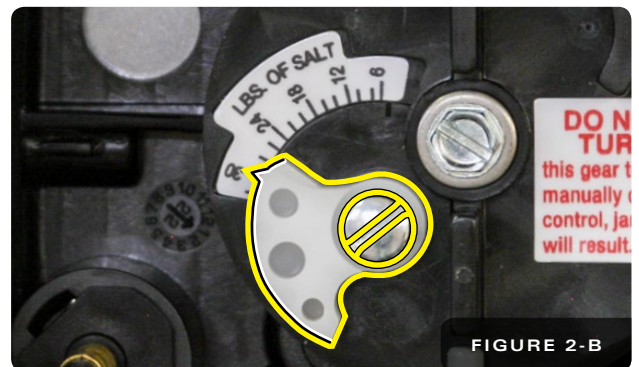
To the right are the setting values for your softener. **You can calculate the missing values on pages 4 and 5 of this guide.** There we will cover identifying the essential values of, **HARDNESS**, **UNIT CAPACITY**, and **LBS OF SALT**. Tank size and Hardness level determines the Unit Capacity and lbs of Salt per Regeneration.

SETTING	VALUE
HARDNESS	___ Grains per Gallon
UNIT CAPACITY	___ ,000 Grains
GAL CAPACITY	___ 00 Gallons
LBS OF SALT	___ lbs

The **GALLON CAPACITY** equates to the Unit Capacity **divided** by the Hardness **minus** 15% of the result (Example: 64K tank / 28 gpg hardness = 2,286 gal; 2,286 gal - 343 = 1,943 gal capacity. **Unit Capacity and Hardness can be determined from pages 4 and 5**). If the result exceeds the highest number on the dial, use the next smallest **Unit Capacity value** listed on **the table on page 5** in the equation above. To set Gallon Capacity, pull out and rotate the right dial and line up your Gallon Capacity value with the white dot (Figure 2-A).



To set **LBS OF SALT** per regeneration, take the **lbs of Salt value** from the **table above/the table on page 5**, move to the rear of the valve, loosen the flat head screw holding the lbs of salt selector, line up the point of the selector with the lbs of salt value, and tighten the selector (Figure 2-B).



Job Number: _____

Model Number: _____

Mineral Tank Size: _____

› PREFACE

Thank you for your purchase of a new water softener with Fleck 5600 Meter Control Valve from QualityWaterForLess.com! We have put together these instructions as reference and to be used as general installation guidelines. **It is always recommended that a licensed plumber perform all installation work according to all local codes.** We at QualityWaterForLess.com cannot assume responsibility for improper installation, application, or injury or damage as a result of improper installation.

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Page 11	Initial System Start-Up

1 › CALCULATING HARDNESS, CAPACITY, AND BRINE FILL






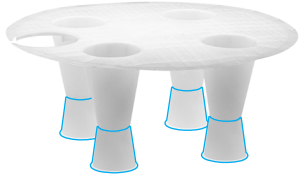



- 1) **Water Test:** Before start-up, it is crucial that you know your water's **HARDNESS** and **IRON** levels in order to set up your unit properly. If your unit is not programmed with your particular hardness level, it will either regenerate too early or too late. If you do not know your water hardness or iron levels, you can take a sample of your untreated water to a local pool shop, hardware store, or well driller (**city water has no iron**)
- 2) **Initial Hardness:** Your Hardness test results may be recorded in Grains per Gallon (gpg), Parts per Million (PPM), or Milligrams per Liter (mg/L). Note that **PPM and mg/L are the same measure** and both figures can be used interchangeably. **If you get a hardness level in PPM or mg/L, please divide this number by 17.1 to get Grains (gpg).** Ex: If your hardness is measured at 300 PPM, take $300 / 17.1 = 18$ gpg before iron

$$\underline{\hspace{2cm}} \text{ PPM Hardness} \div 17.1 = \underline{\hspace{2cm}} \text{ gpg Hardness before Iron}$$

- 3) **COMPENSATED HARDNESS:** Your Iron results should also be measured in either PPM or mg/L. **Take your level of iron multiplied by 5 and add it to the hardness level from the previous step.** This final figure will be your **Compensated Hardness Level** that we will program into your softener system. Ex: If your iron level is measured at 2 PPM, add $2 \times 5 = 10$ Grains of hardness to existing hardness total. $18 + 10 = 28$ Grains Total

$$\underline{\hspace{2cm}} \text{ gpg Hardness} + (\underline{\hspace{2cm}} \text{ PPM Iron} \times 5) = \underline{\hspace{2cm}} \text{ gpg } \text{COMPENSATED HARDNESS}$$

- 4) **The compensated hardness level you just calculated will be the "Hardness" value you use to identify "Unity Capacity" and "lbs of Salt" per regeneration. You may record this in the table on page 2.** Depending on your compensated hardness level, you will be able to use a different salt setting for programming and running your softener unit. The lower the hardness level, the more efficient you will be able to be with salt consumption for regeneration

	11X11" GRID	15X17" GRID	18" DIAMETER GRID
PLAIN GRID			
GRID + 3" LEGS			
GRID + 6" LEGS			

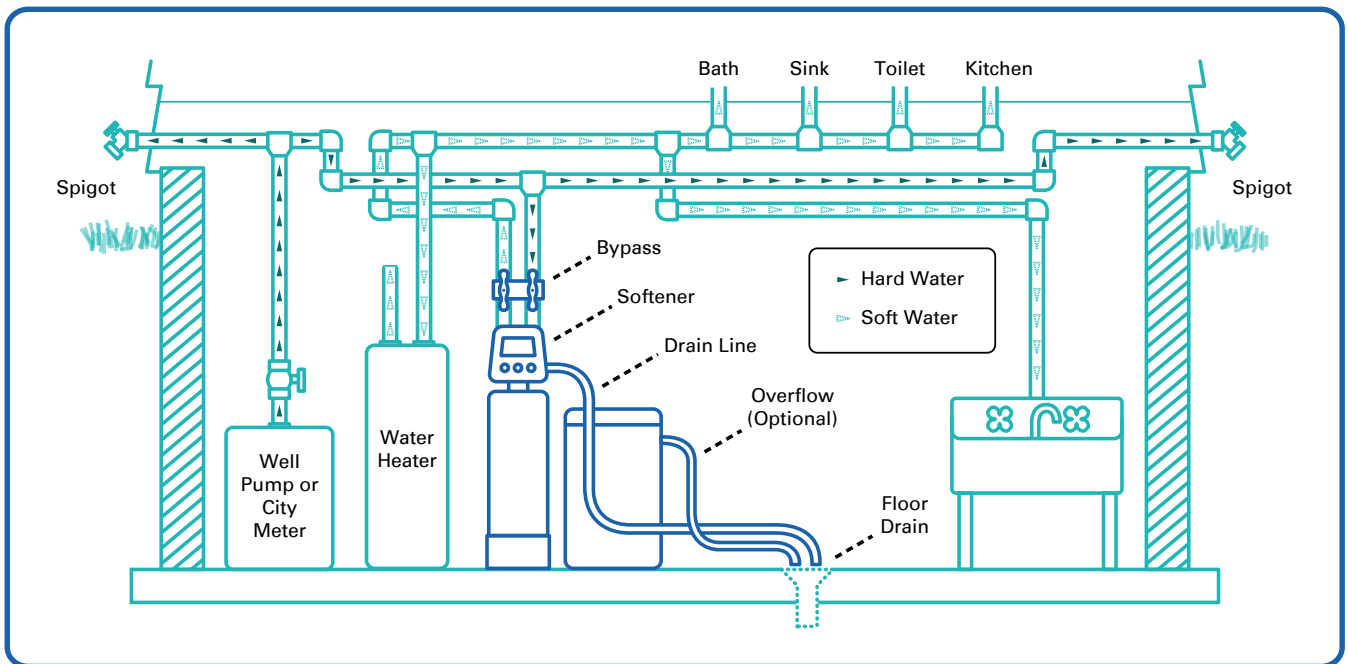
- 5) **UNIT CAPACITY:** The Unit Capacity equates to your system's rated capacity based on your tank size and hardness level. In the first column, identify the **section** containing your softener tank size and then within this section, find the **row** pertaining to your **Hardness** level. Then look under the **Unit Capacity** column to find the most efficient program value to use for your **Unit Capacity** and record it **in the table on page 2**. **Note that your Unit Capacity program value may actually be lower than the tank's maximum capacity.** This is to accommodate a lower salt dose for regeneration.
- 6) **LBS OF SALT:** In the first column, identify the **section** containing your softener tank size and then within this section, find the **row** pertaining to your **Hardness** level. Then look under the **lbs of Salt** column to find the most efficient program value to enter for your **lbs of Salt** per regeneration and record it **in the table on page 2**.
- 7) **Example:** If you ordered a 64K grain capacity system and have 28 gpg hardness, you would look under the 64K, 2.0 cu ft section and then look under the 25+ gpg row for your particular programming values. Note that the 11x11" and the 15x17" brine tanks are too small for the amount of brine needed to regenerate a 64K grain capacity system with 25+ gpg hardness. According to the table you would opt for an 18" diameter brine tank with a grid plus 6" legs

Tank Size	HARDNESS	UNIT CAPACITY	LBS OF SALT	11x11" Grid	15x17" Grid	18x33" Grid	18x40" Grid	24x41" Grid	24x50" Grid
24K 0.75 cu ft 8x44"	0 - 12 gpg	15K	4.5 lbs	Grid	NO GRID	NO GRID	NO GRID	TOO LARGE	TOO LARGE
	12 - 25 gpg	20K	7.5 lbs	Grid	Grid	NO GRID	NO GRID		
	25+ gpg	24K	11.25 lbs	Grid + 3" Legs	Grid	Grid	Grid		
32K 1.0 cu ft 9x48"	0 - 12 gpg	20K	6 lbs	Grid	NO GRID	NO GRID	NO GRID	TOO LARGE	TOO LARGE
	12 - 25 gpg	27K	10 lbs	Grid + 3" Legs	Grid	Grid	Grid		
	25+ gpg	32K	15 lbs	Grid + 6" Legs	Grid + 3" Legs	Grid	Grid		
40K 1.25 cu ft 10x44"	0 - 12 gpg	25K	7.5 lbs	Grid	Grid	NO GRID	NO GRID	TOO LARGE	TOO LARGE
	12 - 25 gpg	34K	12.5 lbs	Grid + 3" Legs	Grid	Grid	Grid		
	25+ gpg	40K	18.75 lbs	TOO SMALL	Grid + 3" Legs	Grid + 3" Legs	Grid + 3" Legs		
48K 1.5 cu ft 10x48"	0 - 12 gpg	30K	9 lbs	Grid + 3" Legs	Grid	Grid	Grid	TOO LARGE	TOO LARGE
	12 - 25 gpg	41K	15 lbs	Grid + 6" Legs	Grid + 3" Legs	Grid	Grid		
	25+ gpg	48K	22.5 lbs	TOO SMALL	Grid + 6" Legs	Grid + 3" Legs	Grid + 3" Legs		
64K 2.0 cu ft 12x52"	0 - 12 gpg	40K	12 lbs	Grid + 3" Legs	Grid	Grid	Grid	Grid + 5" Legs	Grid + 5" Legs
	12 - 25 gpg	54K	20 lbs	TOO SMALL	Grid + 6" Legs	Grid + 3" Legs	Grid + 3" Legs		
	25+ gpg	64K	30 lbs	TOO SMALL	TOO SMALL	Grid + 6" Legs	Grid + 6" Legs		

⚠️ PRE-INSTALLATION

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

- Level, firm surface, such as concrete, on which to place the softener tank and salt tank (also known as a **brine** tank)
- Un-switched power source, standard US plug, 120v 60hz (the softener system includes a 5 ft power cord and plug)
- Access to the water main coming into your home. You will need to install the softener at this point to assure that water for the home is going through the system
- Nearby floor drain or standpipe to connect to the softener for use during each regeneration



2 PLACING AND FILLING THE TANK

- 1) Choose the final location for your water softener tank and place the tank upright and level on the surface. Filling the tank may be necessary on some systems. Your tank may have also come pre-filled, and in this case you only need to unscrew the protective cap as shown in **Figure 6-A**
- 2) **If your tank is not filled**, place the riser tube into the tank as shown in **Figure 6-B**. Please make sure that the riser tube seats into the bottom of the tank and that the top of the tube is flush with the top of the tank opening



FIGURE 6-A



FIGURE 6-B

- 3) Before filling the tank, place a piece of painter's tape over the top of the riser tube to prevent resin from dropping down inside as shown in **Figure 7-A**. **⚠ Avoid using duct tape which leaves behind unwanted residue**



FIGURE 7-A

- 4) Place the included filling funnel over the top of the tank as shown in **Figure 7-B** and prepare to fill the tank. If your softener system came with **gravel**, please pour this into the tank **first**, then pour in the included resin media afterwards



FIGURE 7-B

3 › INSTALLING THE FLECK 5600 VALVE

- 1) **Using caution not to lift the riser tube, remove the filling funnel and tape.** While using the included silicone lubricant packet, lubricate the inner and outer o-rings on the bottom of the Fleck 5600 Meter Valve as shown in Figures 7-C and 7-D



FIGURE 7-C

- 2) Next, install the **top screen (standard OR fine mesh)** to the bottom of the Fleck 5600 Meter Valve as seen in Figure 7-E and then place the valve onto the top of the tank, being sure that the riser tube fits into the central o-ring on the valve, as shown in Figure 7-F. **Hand-tighten** the valve to the tank. **Do not use Teflon tape or pipe dope on the valve or tank threading**

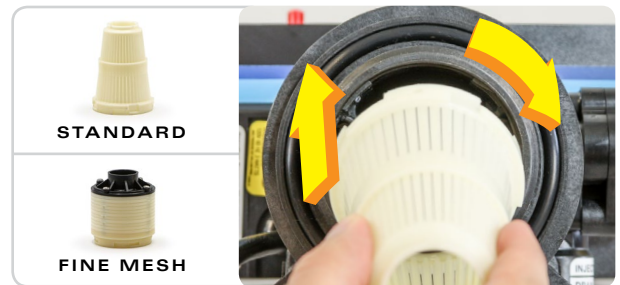


FIGURE 7-E



FIGURE 7-D



FIGURE 7-F

- 3) Locate the plumbing adapter that was shipped with your system and disassemble the plumbing adaptor clips as shown in Figure 8-A

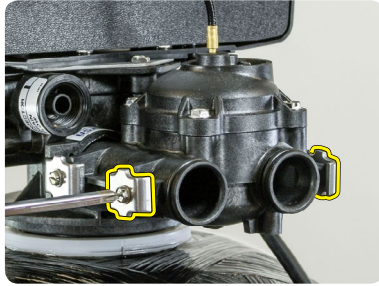


FIGURE 8-A

- 4) Using the included silicone lubricant packet, lubricate the o-rings on the Fleck 5600 Meter Valve as shown in Figure 8-B

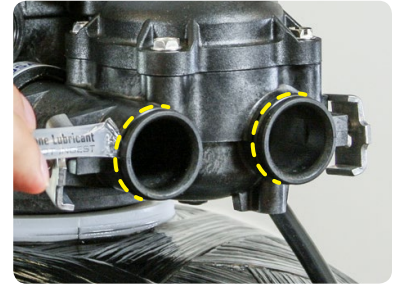


FIGURE 8-B

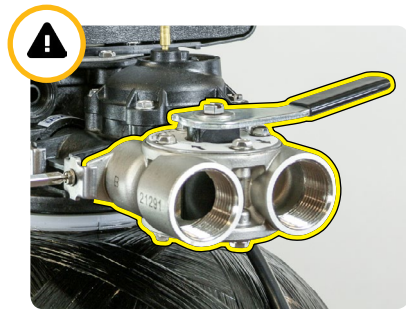


FIGURE 8-C

- 5) Finally, assemble the plumbing adaptor to the valve as shown in Figure 8-C (your bypass/ plumbing adapter model may vary). When assembling the clips back onto the valve, leave the first clip loose, tighten the second clip, and complete the assembly by tightening the first clip. **⚠ Please lightly tighten the screws into the meter as overtightening will easily cause cracking**

4 › PLUMBING YOUR FLECK 5600 VALVE

- 1) Before beginning your installation, please first familiarize yourself with the IN and OUT ports on the Fleck 5600 Meter Valve. **⚠ In order to prevent damage to your home and to the softener system, install the softener according to the IN and OUT arrows on the softener valve**
- 2) Locate the main shut-off valve for your house and turn it to the OFF position. If you have a private well, this valve should be near your well pressure tank. If you have a city water supply, your valve should be near your water meter
- 3) Depressurize and drain your home of water by turning on all faucets and fixtures in your home, including those outside
- 4) Pick your installation point and cut a section of pipe out to run to and from your softener. **In most cases it is preferred to keep outside lines UNSOFTENED. If you wish to keep your outside lines unsoftened, you must plumb BYPASS lines to run hard water to these fixtures**
- 5) Using soldered copper, PVC plastic pipe, or flexible connections, plumb the system according to all local plumbing codes. **If using copper pipe, please pre-fabricate at least a 12" section of pipe for the IN and OUT bound lines and use a wet rag on the lines being soldered to prevent heat damage during soldering**
- 6) Once all connections have been made, place the system into bypass by either using your existing 3-valve bypass (if ordered with a YOKE adaptor), or by switching your included bypass ON (if ordered with a bypass)
- 7) Next, gradually open your main valve and allow all air in your plumbing lines to escape slowly. Also, you may turn off all outside and inside faucets and fixtures
- 8) Check for leaks at your plumbing site for signs of slow drips and rectify if necessary. **Please do NOT take the softener out of BYPASS as the installation is not completed yet. Please take this opportunity to check and re-check the IN and OUT ports to make sure they are correct**

5 › MAKING THE BRINE TANK CONNECTION

- 1) Attach the brine nut, tapered ferrule, metal tube insert, and brine line screen to one end of the included brine tubing as shown in Figure 9-A. **⚠ Be sure to face the tapered side of the ferrule towards the end of the brine line**
- 2) Next, connect this prepared end of the tubing to the Fleck 5600 Meter Valve as shown in Figure 9-B. Tighten the nut to the valve using a wrench until snugly in place. Be careful not to over tighten, as you may sever the brine line

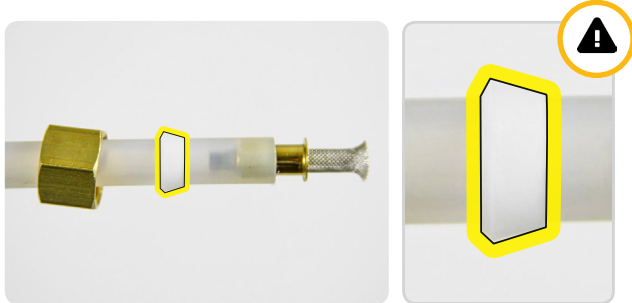


FIGURE 9-A

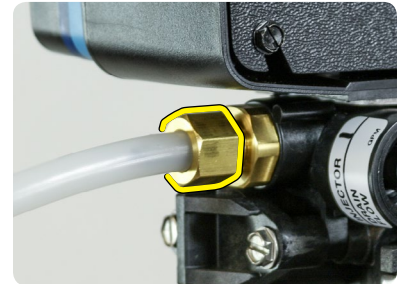


FIGURE 9-B

- 3) Locate the brine well and remove the cap. **You may also take this moment to prepare and insert the brine support grid determined from pages 4 and 5.** Then pull the **474 Brine Float Assembly** out of the brine well as shown in Figure 9-C
- 4) Next, fix the 474 Brine Float Assembly to the brine well through the pre-drilled hole and hand-tighten as shown in Figure 9-D



FIGURE 9-C

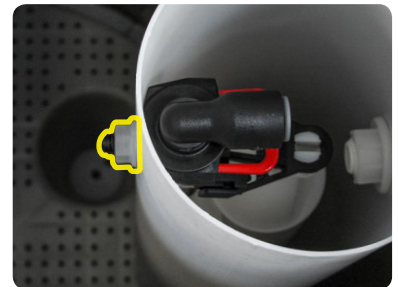


FIGURE 9-D

- 5) Take the other end of your brine line tube, make sure this end is clean cut, recut if it is not clean, mark 3/4" from the end of the tube, and insert the tube through the small hole drilled through the brine tank and brine well (Figure 9-E)
- 6) Firmly insert the tubing end 3/4" into the tube opening on the 474 Brine Float Assembly as shown in Figure 9-F. **⚠ Make sure the tube is fully inserted into the assembly**



FIGURE 9-E

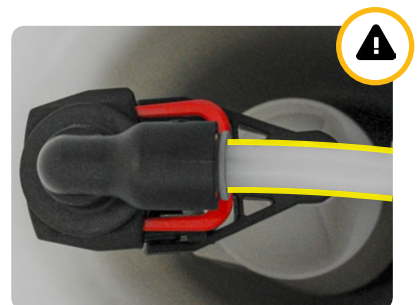


FIGURE 9-F

- 7) If you ever need to remove the tube, evenly press on both sides of the grey ring surrounding the tube and pull out as shown in Figure 10-A. **⚠ Be sure to recut the end of the tube each time you remove it to ensure a proper seal when the tube is inserted**

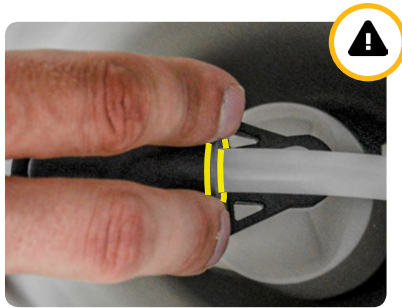


FIGURE 10-A

- 8) Finally, use 1/2" inner diameter (I.D.) tubing to connect the drain barb fitting on the brine tank to a floor drain as shown in Figure 10-B. Note that this is not necessary as the 474 assembly is designed to prevent an overflow from occurring, but it is a good precaution

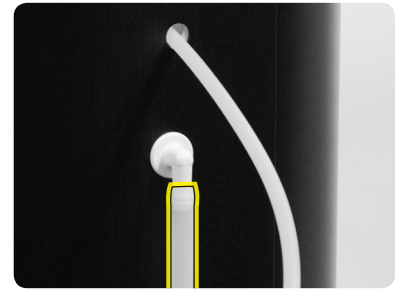


FIGURE 10-B

6 › DRAIN CONNECTION

- 1) Locate the included barbed fitting and use Teflon tape to wrap the threading. **Be careful to wrap the tape clockwise with the threading towards you.** Screw the fitting snugly into the drain port with a wrench as shown in Figure 10-C. **⚠ Please use caution not to overtighten this fitting**

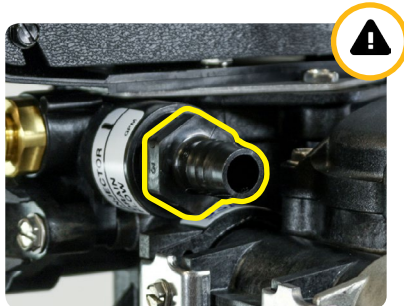


FIGURE 10-C

- 2) Next, assemble your 1/2" I.D. drain line to the drain barb as shown in Figure 10-D. **Be sure to use rigid wall 1/2" I.D. tubing that will not flatten.** Wrap electrical tape over the drain tubing to prevent a tube split and clamp the tubing securely into place with the included clamp as shown in Figure 10-E

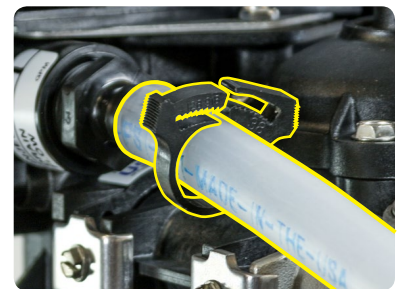


FIGURE 10-D



FIGURE 10-E

- 3) Connect the other end of this drain line tubing securely to a standpipe or drain in accordance with all local plumbing codes. **Be sure that the drain line is securely in place before putting your softener in service. During regeneration, there will be increased flow via this tubing which may cause the tubing to become loose**

7 › INITIAL START-UP

- 1) Locate the center knob on the face of the Fleck 5600 Meter Valve and be sure that the notch in the knob says "In Serv." If not, rotate the knob CLOCKWISE until "In Serv." is visible (at about 9 O'Clock)
 - 2) With one nearby softened faucet running in the COLD position, slowly open your bypass valve or 3-valve bypass to about ¼ open to allow the air trapped in the softener to escape via your running faucet. **NOTE: Opening the bypass too quickly or too open may damage your softener or plumbing**
 - 3) Allow the softener tank to slowly fill with water. After a few minutes, you will see a trickle of water coming from the cold water faucet. Allow the water to run slowly in this manner for an additional 5 minutes. Next, with the cold water faucet still running, gradually move your bypass valve to the fully open position. **NOTE: You may see some initial discoloration from the softened water – this is normal and should dissipate within the first 40-50 gallons of water used.** Turn off the running cold water faucet when the water runs clear
- 4) ⚠ **To test the integrity of your new system and all connections, it is strongly encouraged that you perform a short form regeneration to check for leaks before service.** Begin this process by adding approximately 5 gallons of water/the amount of water needed to cover the brine grid into the brine tank. Start a regeneration by turning the timer wheel clockwise, let the regeneration run its full course to completion, and check the entire system for leaks. If you notice a leak originating from the drain line/connection, **return to page 10** to review preparing the drain connection. If you notice a leak originating from the brine line/connections, **return to pages 9 and 10** to review preparing the brine tank connection
- 5) Now you may add 120-160 pounds of pellet, solar, or block salt to your brine tank. **Always keep your brine tank filled with salt to at least above the water level.** You do not need to perform a regeneration immediately after installation as the new resin arrives at full softening capacity. Simply let your softener meter automatically trigger regenerations by tracking the water consumption

› CONGRATULATIONS

Your new softener with Fleck 5600 Meter Valve is now properly installed and programmed! Please maintain your system by keeping the softener plugged-in and always keep your brine tank filled with salt to at least above the water level. We appreciate your business, and hope that you enjoy years of trouble-free softened water!