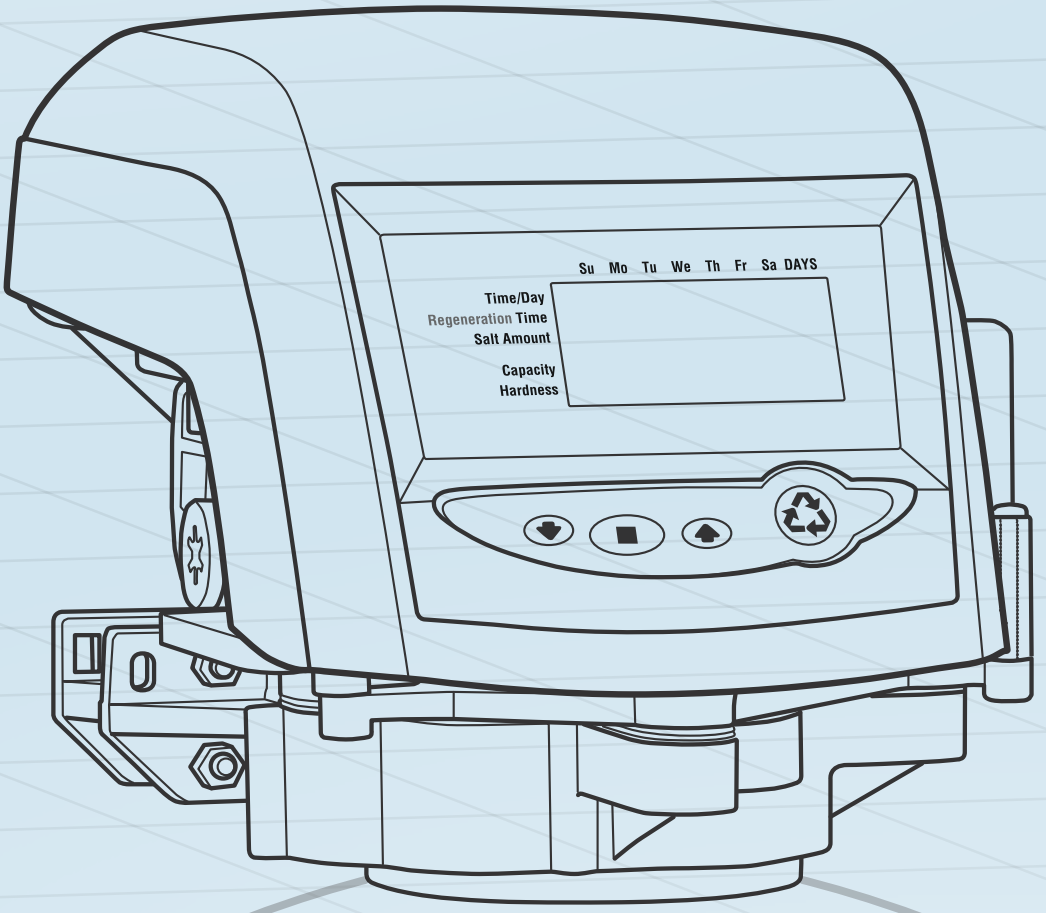
Quality Water For Less

AUTOTROL 255/760 METERED WATER SOFTENER

›INSTALLATION GUIDE

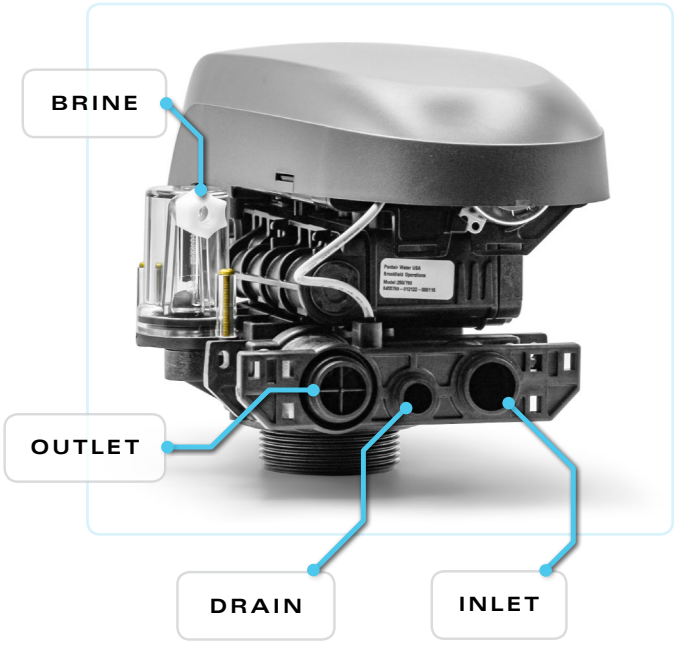


V1.0

›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 and to make special note of the bolded instructions and warning symbols. **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."



›QUICK START

Here are the program settings for your softener. If not all of the values are filled in, you can **calculate the missing values from the exercise on pages 4 and 5 of this guide.** There we will cover the three essential values of **HARDNESS**, **TANK SIZE**, and **SALT SETTING**. The remaining filled in values are the general standards for all softeners.

Initial Programming: When you **first plug in** your unit, the control will require you to enter the adjacent values. Use the UP / DOWN buttons to cycle through the settings, use the SQUARE / SET button to enter edit mode, use the UP / DOWN buttons to adjust the selected setting, and use the SQUARE / SET button to set it and continue on to the next setting. A more in-depth guide to programming the Autotrol 255/760 begins on **page 11** of this guide.

Editing Program Values: If you wish to edit any of these individual settings **after completing initial programming**, use the UP / DOWN buttons to highlight the desired setting, click the SQUARE / SET button to enter edit mode, use the UP / DOWN buttons to adjust, and set it with the SQUARE / SET button.

Reprogram: If you wish **reprogram entirely**, hold both the SQUARE / SET button and DOWN button at the same time for 5 seconds until the tank size shown in cubic feet appears, and then hold just the SQUARE / SET button to reprogram.

SETTING	INPUT VALUE
Tank Size	**___ K / 32 K = ___ Cubic Ft** Ex: 64 K / 32 K = 2.0 Cu Ft
Time of Day	*Current Time of Day
Day of the Week	*Current Day of the Week
Regeneration Time	2:00 AM
Day Override	14 Days
Salt Setting	**□ < 10 gpg: L - Low** **□ 10 - 20 gpg: S - Standard** **□ > 20 gpg: H - High**
Capacity	AUTO - DO NOT CHANGE
Hardness	**____ Grains per Gallon**

Job Number: _____

Model Number: _____

Mineral Tank Size: _____

›PREFACE

Thank you for your purchase of a new water softener with Autotrol 255/760 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.

›TABLE OF CONTENTS

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)**

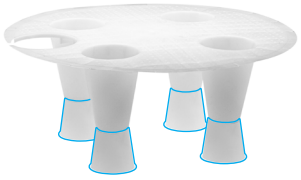
2) **Initial Hardness:** Your Hardness test results may be recorded in Grains per Gallon (gpg), Parts per Million (PPM), or Milligrams per Liter (mg/L). Note that **PPM and mg/L are the same measure** and both figures can be used interchangeably. **If you get a hardness level in PPM or mg/L, please divide 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

_____ PPM Hardness ÷ 17.1 = ____ **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 x 5 = 10 Grains of hardness to existing hardness total. 18 + 10 = 28 Grains Total

____ gpg Hardness + (____ PPM Iron x 5) = ____ **gpg** **COMPENSATED HARDNESS**

4) **The compensated hardness level you just calculated will be the "Hardness" value you use to program your softener. 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) **TANK SIZE:** In the first column, identify the **section** containing your softener **Tank Size** by either its grain capacity, amount of cubic feet, or dimensions. To calculate the amount of cubic feet, take the grain capacity of your tank and divide it by 32K. For example, a 64K grain capacity tank divided by 32K equals a 2 cubic foot tank. Once you have found the grain capacity and amount of cubic feet for your tank, record these two values **in the table on page 2.**

6) **SALT SETTING:** 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 **Salt Setting** column to find the most efficient program option to select for your **Salt Setting** and record it **in the table on page 2.**

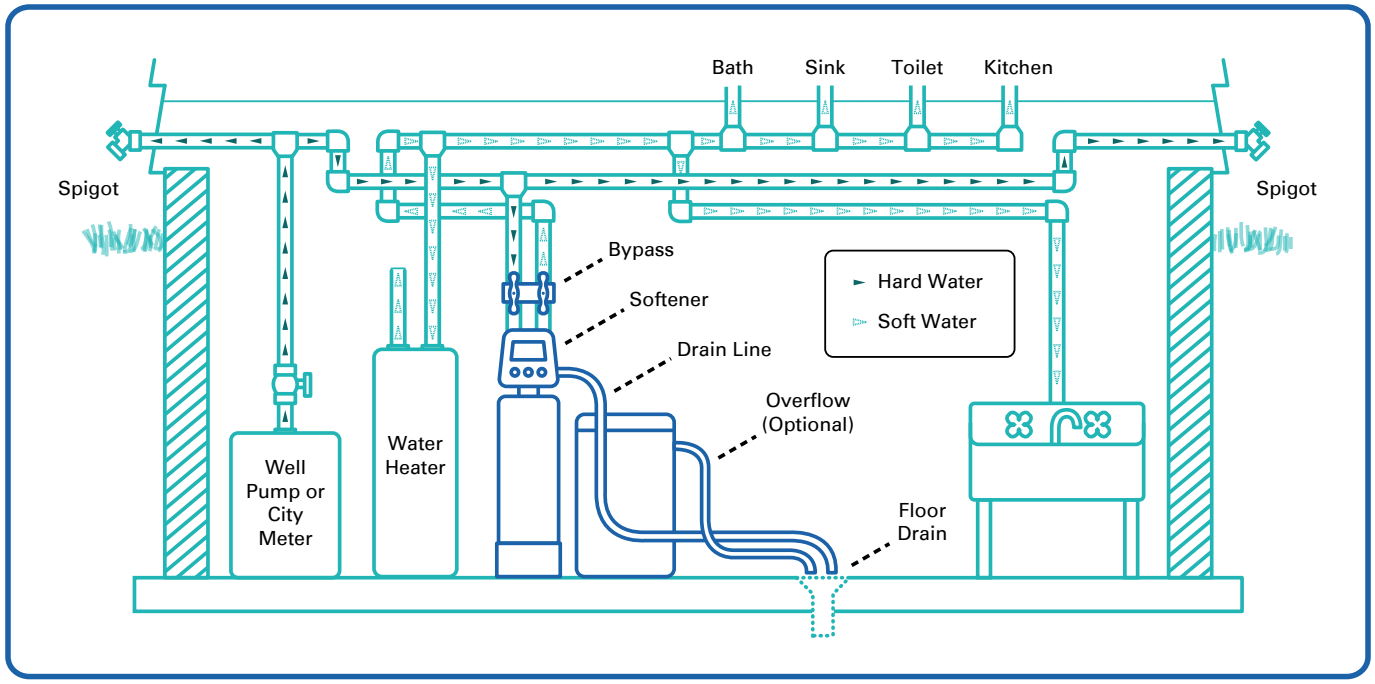
7) **Example:** If you ordered a 64K grain capacity system and have 28 gpg compensated hardness, you would look under the 64K, 2.0 cu ft section and then look under the 20+ gpg row for your particular programming values. Note that the 11x11" and the 15x17" brine tanks are too small for the amount of brine needed to regenerate a 64K grain capacity system with 20+ gpg hardness. According to the table you would opt for an 18" diameter brine tank with a grid plus 6" legs

TANK SIZE	HARDNESS	SALT SETTING	lbs of Salt	11x11" Grid	15x17" Grid	18x33" Grid	18x40" Grid	24x41" Grid	24x50" Grid
24K 0.75 cu ft 8x44"	0 - 10 gpg	Low	2.25 lbs	NO GRID	NO GRID	NO GRID	NO GRID	TOO LARGE	TOO LARGE
	10 - 20 gpg	Standard	6.75 lbs	Grid	Grid	NO GRID	NO GRID		
	20+ gpg	High	11.25 lbs	Grid + 3" Legs	Grid	Grid	Grid		
32K 1.0 cu ft 9x48"	0 - 10 gpg	Low	3 lbs	NO GRID	NO GRID	NO GRID	NO GRID	TOO LARGE	TOO LARGE
	10 - 20 gpg	Standard	9 lbs	Grid + 3" Legs	Grid	Grid	Grid		
	20+ gpg	High	15 lbs	Grid + 6" Legs	Grid + 3" Legs	Grid	Grid		
40K 1.25 cu ft 10x44"	0 - 10 gpg	Low	3.75 lbs	NO GRID	NO GRID	NO GRID	NO GRID	TOO LARGE	TOO LARGE
	10 - 20 gpg	Standard	11.25 lbs	Grid + 3" Legs	Grid	Grid	Grid		
	20+ gpg	High	18.75 lbs	TOO SMALL	Grid + 3" Legs	Grid + 3" Legs	Grid + 3" Legs		
48K 1.5 cu ft 10x48"	0 - 10 gpg	Low	4.5 lbs	Grid	NO GRID	NO GRID	NO GRID	TOO LARGE	TOO LARGE
	10 - 20 gpg	Standard	13.5 lbs	Grid + 6" Legs	Grid + 3" Legs	Grid	Grid		
	20+ gpg	High	22.5 lbs	TOO SMALL	Grid + 6" Legs	Grid + 3" Legs	Grid + 3" Legs		
64K 2.0 cu ft 12x52"	0 - 10 gpg	Low	6 lbs	Grid	NO GRID	NO GRID	NO GRID	Grid + 5" Legs	Grid + 5" Legs
	10 - 20 gpg	Standard	18 lbs	TOO SMALL	Grid + 3" Legs	Grid + 3" Legs	Grid + 3" Legs		
	20+ gpg	High	30 lbs	TOO SMALL	TOO SMALL	Grid + 6" Legs	Grid + 6" Legs		
80K 2.5 cu ft 13x54"	0 - 10 gpg	Low	7.5 lbs	Grid	Grid	NO GRID	Grid	Grid + 5" Legs	Grid + 5" Legs
	10 - 20 gpg	Standard	22.5 lbs	TOO SMALL	Grid + 6" Legs	Grid + 3" Legs	Grid + 3" Legs		
	20+ gpg	High	37.5 lbs	TOO SMALL	TOO SMALL	TOO SMALL	Grid + 6" Legs		
96K 3.0 cu ft 14x65"	0 - 10 gpg	Low	9 lbs	Grid + 3" Legs	Grid	Grid	Grid	Grid + 6" Legs	Grid + 6" Legs
	10 - 20 gpg	Standard	27 lbs	TOO SMALL	Grid + 6" Legs	Grid + 6" Legs	Grid + 6" Legs		
	20+ gpg	High	45 lbs	TOO SMALL	TOO SMALL	TOO SMALL	TOO SMALL		

⚠ ›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 about 1" above 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 to prevent resin from dropping down inside the riser tube 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 AUTOTROL 255/760 VALVE

1) Remove the filling funnel and tape and while using the included silicone lubricant packet, lubricate the inner and outer o-rings on the bottom of the Autotrol 255/760 Valve as shown in Figures 7-C and 7-D

FIGURE 7-C

FIGURE 7-D

2) Next, install the **top screen (standard OR fine mesh)** to the bottom of the Autotrol 255/760 Valve as seen in Figure 7-E (you may need to strip the groove tabs with a razor before attaching). 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**

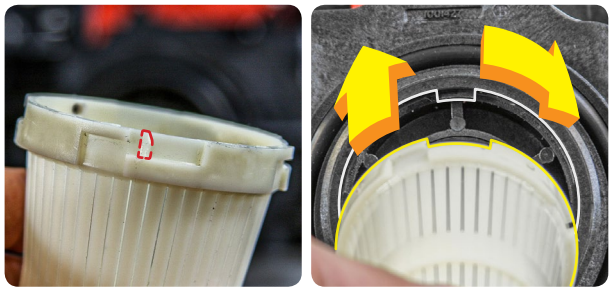


FIGURE 7-E

FIGURE 7-F

3) Locate the plumbing adaptors and bypass valve assembly that was shipped with your system, attach the three o-rings to the rear of the valve and lubricate them using the included silicone lubricant packet as shown in Figure 8-A

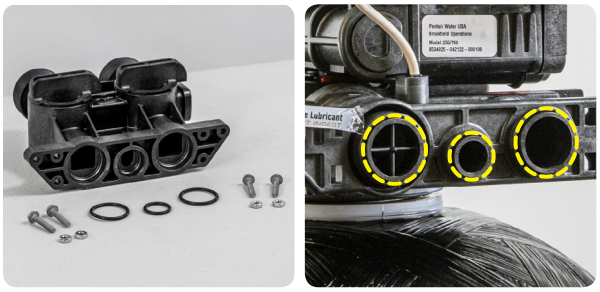


FIGURE 8-A

4) Push the bypass valve snugly to the back of the Autotrol 255/760 valve and use the screws and nuts to secure the bypass valve as shown in figure Figure 8-B

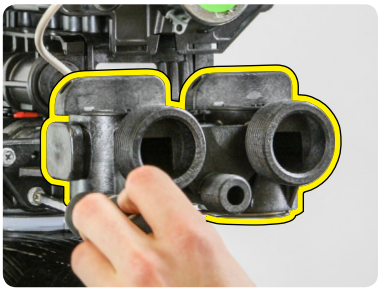


FIGURE 8-B

5) Locate the drain port on the bypass, apply Teflon tape in a clockwise fashion, locate the included drain barb elbow, and assemble the fitting as shown in Figure 8-C

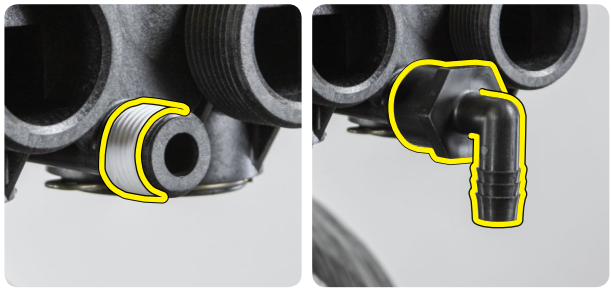


FIGURE 8-C

6) Assemble your ½" I.D. drain line to the drain barb. **Be sure to use rigid wall ½" 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 8-D. ⚠ **Connect the other end of this drain line tubing securely to a standpipe or drain in accordance with all local plumbing codes**

FIGURE 8-D

7) Locate the two plumbing adaptors supplied with your system. Insert the plumbing adapter through the universal nut and then push down the gasket over the adaptor flange as shown in Figure 8-E below

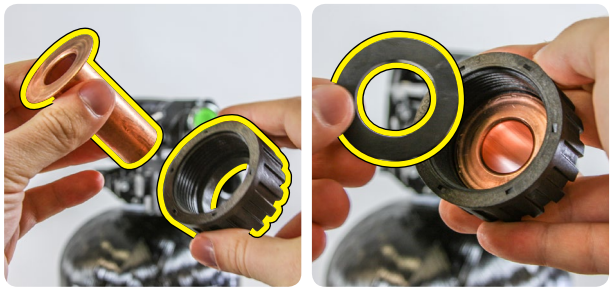


FIGURE 8-E

8) Secure each plumbing adaptor onto the bypass as shown in Figure 8-F. ⚠ **If you are using copper connections, first prefabricate and sweat a 12" tube section onto each adaptor and cool BEFORE assembly to the bypass.** This prevents overheating the nut and bypass during plumbing

FIGURE 8-F

4 ›PLUMBING YOUR AUTOTROL 255/760 VALVE

1) Before beginning your installation, please first familiarize yourself with the IN and OUT ports on the Autotrol 255/760 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) Locate the air check consisting of a clear plastic vial with two screws, a rubber ball, and an o-ring. First, lay the rubber ball onto the brine port of your valve, then lubricate and place the o-ring over the port flange as shown in Figure 9-A

2) Use the two included screws to assemble the air check to the valve as shown in Figure 9-B

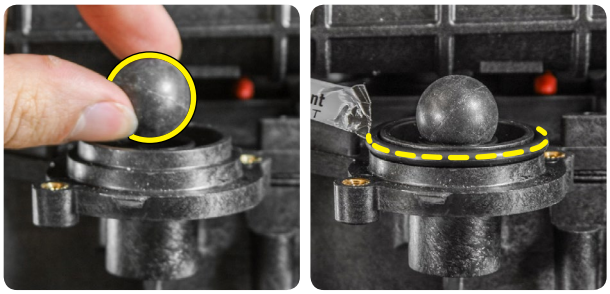


FIGURE 9-A

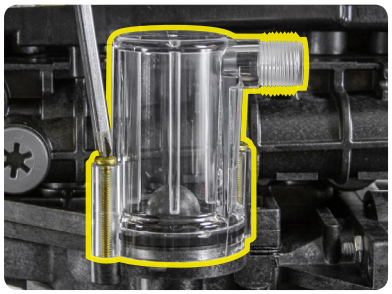


FIGURE 9-B

3) Locate the included section of Brine Tubing and assemble the brine fitting to the brine tubing. Finger-tighten the nut and then use a wrench to turn the fitting ½ turn more until snug as shown in Figure 10-A. ⚠ **Please use care not to over-tighten**

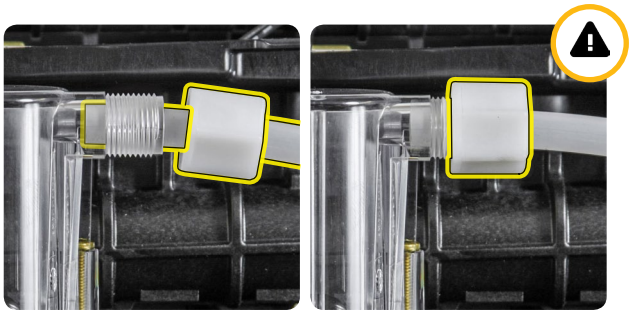


FIGURE 10-A

4) 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 **2310 Brine Float Assembly** out of the brine well and fix the assembly to the brine well as shown in Figure 10-B

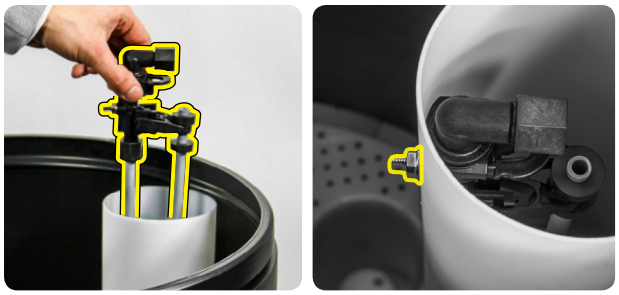


FIGURE 10-B

5) Take the other end of your brine line tube and insert the tube through the small hole drilled through the brine tank and brine well. Loosely unscrew the hex nut on the 2310 Brine Float Assembly. Insert the tubing end firmly into the hex nut on the 2310 Brine Float Assembly (Figure 10-C)

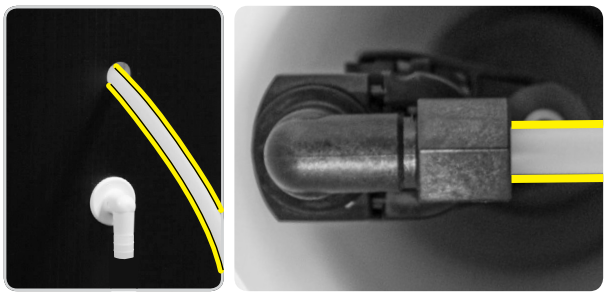


FIGURE 10-C

6) Next, back off the hex nut and ferrule assembly so they are secure on the tubing as shown in Figure 10-D. ⚠ **Please be sure to assemble the nut in the fashion described to prevent system malfunction and possible brine tank overflow**

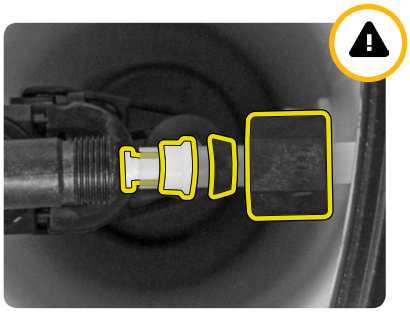


FIGURE 10-D

7) Hand-tighten the hex nut snugly onto the 2310 Brine Float Assembly as shown in Figure 10-E

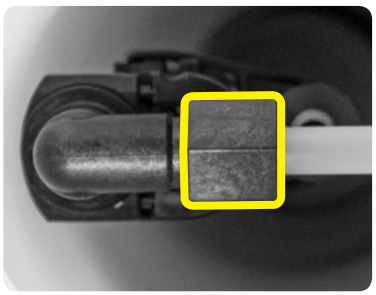


FIGURE 10-E

8) Finally, use ½" inner diameter (I.D.) tubing to connect the drain barb fitting on the brine tank to a floor drain as shown in Figure 10-F. Note that this is not necessary as the 2310 assembly is designed to prevent an overflow from occuring, but it is a good precaution

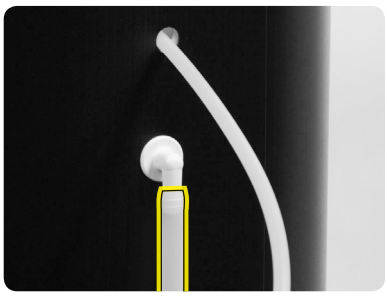


FIGURE 10-F

6 ›PROGRAMMING THE AUTOTROL 255/760 VALVE

1) Before programming may begin, the power cord must be connected to the 760 timer on your valve. Begin by locating the small locking tab to the left side and to the rear of the timer as shown in Figure 11-A. Release the tab by pushing down on it and allowing the timer assembly to swing outward

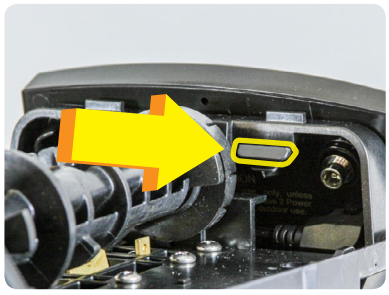


FIGURE 11-A

2) Locate the included transformer power pack, and string the male end of the cord under the timer bracket and into the timer. Attach the cord to the valve by tracing the other cables as shown in Figure 11-B

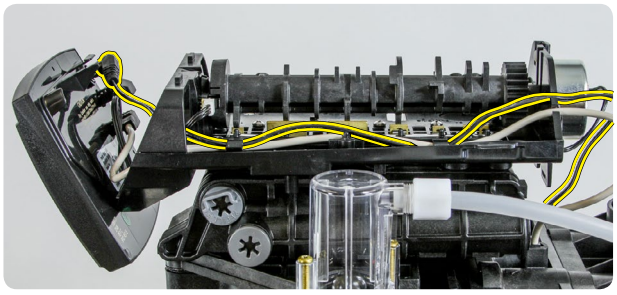


FIGURE 11-B

3) The timer will show " - . - - " as shown in Figure 11-C. If this does not show up initially, your system has been pre-set and you may skip ahead to the next section, initial start-up

FIGURE 11-C

4) Use the **UP** arrow button to input the number corresponding to your **tank size** as shown in Figure 11-D. Find your tank size by dividing your grain capacity by 32,000 (EX: 64,000 / 32,000 = 2.00). Press the **SQUARE / SET** button to make this setting active. If you need to reset this, **steps to reprogram are found on page 2**

FIGURE 11-D

5) Next is the **Time of Day**. Press the **SET** button to enter edit mode. Use the **UP** or **DOWN** buttons to change to the current time of day. ⚠ **Note that there is a difference between "AM" and "PM."** Then press the SET button to make this setting active (Figure 11-E)

FIGURE 11-E

6) Next is the **Day of the Week**. Press the SET button to enter edit mode. Use the UP or DOWN buttons to change to the current day of the week. Once the time has been changed, press the SET button to make this setting active as shown in Figure 11-F

FIGURE 11-F

7) Now you will see the **Regeneration Time**. Press the SET to enter edit mode and use the UP or DOWN buttons to change to 2:00 AM. ⚠ **Note that there is a difference between "AM" and "PM."** Then press the SET button to make this setting active as shown in Figure 12-A

FIGURE 12-A

8) Next is the **Calendar Override**. This overrides the meter triggered regeneration by initiating a regeneration after a set number of days if the water usage alone does not first initiate it. Press the SET button to enter edit mode, use the UP button to change to 14 days, and press the SET button to make this setting active as shown in Figure 12-B

FIGURE 12-B

9) You will next see the **Salt Setting**. Press the SET button to begin editing, choose L for 0 - 10 gpg, S for 10 - 20 gpg, and H for 20+ gpg. Use the UP or DOWN buttons to make the appropriate changes to the salt setting and press the SET button to make this setting active (Figure 12-C)

FIGURE 12-C

10) You will next see the **Capacity** on the screen. ⚠ **DO NOT CHANGE THIS VALUE.** This number is based on your salt setting chosen above and should not be changed. **Press the DOWN button** to advance to the next setting (Figure 12-D)

FIGURE 12-D

11) Next is the hardness level. ⚠ Press the SET button to enter edit mode, use the UP or DOWN buttons to adjust to the **hardness level listed on page 2/calculated on Page 4**, and press the SET button to make this setting active as shown in Figure 12-E

FIGURE 12-E

12) The display should now show the time of day and the amount of gallons remaining. This display will switch between these valves about every 10 seconds. Note that there is a "PM" light indicator to differentiate between "AM" and "PM" times.

7 ›INITIAL START-UP

1) 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**

2) 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

3) ⚠ **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 the regeneration sequence by HOLDING the REGEN button for 5 seconds. Once the hourglass symbol disappears, let C1 - Backwash run for about 1 minute to observe the water leave out the drain line and check for leaks. If you notice any leaks, **return to page 8** to review preparing the drain connection. Simultaneously click the SET and UP buttons ONCE to move on to C2 - Regeneration Draw/Slow Rinse

4) Once the hourglass symbol disappears, let C2 - Regeneration Draw run for about 1 minute to observe the water level in the brine tank being drawn lower. Also check the brine line and connections for leaks. If the water level doesn't lower or there is a leak, **return to pages 9 and 10** to review preparing the brine tank connection. Simultaneously click the SET and UP buttons until you reach C8 - Regenerant Refill

5) Once the hourglass symbol disappears, let C8 - Regenerant Refill run for about 1 minute to observe the water level in the brine tank rise. Also check the brine line and connections for leaks. If the water level doesn't rise or there is a leak, **return to pages 9 and 10** to review preparing the brine tank connection. Simultaneously click the SET and UP buttons ONCE to finish

6) 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 Autotrol 255/760 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!