

## **Commercial Softening System Instructions**

First let me start by explaining the sequence of the components starting from the water source. Water source to John Guest Shut, to Sediment filter, to commercial softener, to carbon filter, to John Guest shut off, to your espresso machine.

That was the short simplified version now I will get into a little more detail. We are assuming you have a ¼ turn ball valve with 3/8" female pipe thread, plus a 3/8" MPT x 3/8" FJG fitting on the end of your water line coming from your espresso machine. This is what we always tell your plumber to install for you. If he does that you need nothing else. Screw one of the John Guest 3/8" MPT x 3/8" FJG into the ball valve the plumber installed. Next screw the brass bushings into the softener. Now screw the John Guest ¼" MPT x 3/8" FJG into the bushings. Next attach the brackets to the filter housings using the shorter 4 screws, the long ones are for attaching the bracket to the wall. Now position the housings and softener where you want them and mount the filter housings to whatever surface you choose. NOTE: Leave some space between them so you can easily insert the tubing, read the next paragraph before connecting the tubing.

Now let me tell you something about John Guest Tubing, it's the best. There are two things to be sure you do when using this tubing. Number one when cutting it to the length you want always use a very sharp knife or a razor blade, it is important so as to keep the tubing perfectly round. **Note: Never cut the tubing with a pair of side cutters.** Second when you want to make a connection male to female be sure you push the tubing in all the way till it bottoms. When you first push it in it will feel as if it is in all the way, you will meet some resistance, push a little harder and it will go in another 1/8 inch and you will feel it press against a solid surface.

It is important that you install the two shut off valves, one between your source water and the sediment filter housing and the second between the carbon filter housing and your machine. **Stop Very Important: Do not connect to your machine until you first purge four or five gallons of water through the system. You may need to purge it a little more or less but do it at least until the water runs clear!** This is extremely important; carbon filters have loose carbon dust in them that must be purged out before connecting to your machine. The carbon filter is there to protect your machine but with out purging you can cause damage to your machine not covered by warranty.

John Guest Fittings works like Chinese handcuffs, the more pressure the tighter they hold. It is for this reason you install the shut off valves where we do. To disconnect your machine or change your filters you must first release the pressure in the lines, here is how you do that. First turn the valve off before your sediment filter, now go to your machine and make it call for water, either pull water through the group or from the hot water spigot. Your pump should start running; let it run for no more than 10 seconds and then turn it off. Now shut the valve off between your machine and the Carbon filter.

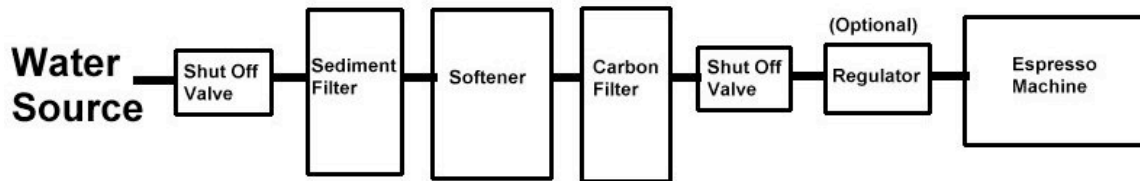
You can now use the wrench provided to loosen the filter housing. To disconnect the tubing from a fitting you pull the small collar on the John Guest fitting towards the fitting and pull the tubing out. **Note: If you do not pull the collar back you will never be able to disconnect the tubing from the fitting.**

I recommend you change your carbon and sediment filters once a year, and **remember to purge it till the water runs clear before reconnecting it to your machine. We have included another set of instructions on how to recharge your softener.**

If you have any further questions feel free to call our service department at 800-724-3459 Monday thru Friday 8:00 Am to 5:00 PM EST

**Note:** The optional regulators that we sell have been preset before shipping and do not need to be adjusted

### Commercial Softening System Diagram



**Warning** - It is important to purge 2-3 gallons of water through the filter system before connecting to your espresso machine.

Gallons of Water That Can be Softened Before Recharging											
Grains of Hardness	6	8	10	12	14	16	18	20	22	24	26
WS6000SYS	900	675	540	450	386	338	300	270	246	225	207
WS8000SYS	1200	900	720	600	514	450	400	360	327	300	276
WS15000SYS	2250	1687	1350	1125	964	844	750	675	615	563	518

## **COMMERCIAL WATER SOFTENER REGENERATION PROCEDURE**

- STEP 1: Shut off incoming water supply to softener. Relieve the water pressure to the softener.
- STEP 2: Disconnect all water lines from softener and unscrew the head from the softener cylinder. The riser tube, inside the softener cylinder may come out with head.
- NOTE:** Do not throw out the resin.
- STEP 3: Carefully pour water softener salt into the softener cylinder, for the WS6000 1½ pounds, for the WS8000 2 pounds, and for the WS15000 4 pounds. Use care not to pour salt down the riser tube.
- STEP 4: Be sure there is no salt on the threads of the softener cylinder that could cause a leak once the cylinder is pressurized. Clean and lube O rings with Vaseline on the under side of the head, including the riser tube O rings if any. Make sure the riser tube is seated in the riser tube port. Secure the head to the water softener cylinder.
- STEP 5: Reconnect incoming water supply to inlet side of softener. Connect a water drain line to outside of softener.
- STEP 6: Slowly turn on incoming water supply into softener until there is a small trickle of water flowing into the drain. Water flow rate to the drain should not be more than ¼ gallon per minute.
- STEP 7: Allow water to run into the drain for approximately 1 hour. After this time, open the incoming water supply completely and allow the water to run into the drain at full flow rate for 5 minutes. Shut off the incoming water supply.
- STEP 8: Disconnect water drain line from outlet side of softener. Connect your espresso machine back up to the out let side of softener cylinder.
- STEP 9: Turn on incoming water supply and check for leaks. Softener is now ready.

**NOTE:** Do not use table salt. Only use water softener salt. You can buy a 40 pound bag at Home Depot for approximately \$6.00.