



VIRGO Water Softener Installation Guide

Thank you for purchasing the VIRGO Water Softener. As part of your purchase, we have included instructions as a reference and as a guide for installation. We recommend a licensed plumber perform all installation work according to all local codes. We cannot assume any responsibility for improper installation, application, injury or damage that occurs as a result of improper installation.

Pre-Installation Guidelines:

Be sure that the following conditions have been met before installation:

- ✓ Level, firm surface, such as concrete, on which to place the softener tank and salt tank (also known as a 'brine' tank)
- ✓ Nearby floor drain or standpipe to connect to the softener for use during each regeneration
- ✓ Un-switched power source, standard US plug, 120v 60hz (the softener system includes a 5ft. 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.

Installation Guidelines:

Step 1: Location of your softener is important. It should be in a protected dry, level and non-freezing area (34-120 degrees F). The 2 tanks should be set close to each other. The black tank is your salt (brine) tank (for softener salt or potassium chloride) and it is the tank that you will have to refill sometimes, so make it the more accessible of the 2 tanks. Do not put salt in this tank until you have put the softener into service and have tested the cycles.

Step 2: You will need a standard outlet that is not controlled by a switch.

Step 3: Make sure the control valve is securely connected to the tall mineral tank.

Step 4: You are now ready to install the bypass valve or yoke to the control valve.

Step 5: Turn off main water valve. Water connections to and from softener should now be connected.

Step 6: You will need a drain for the backwashing cycles. This should be no longer than 20 feet from the softener. You will need to purchase this flexible 1/2 i.d. plastic pipe (can be vinyl, polyethylene polybutylene, etc. and same size will be used in step 8) and a small clamp to hold the tubing over the fitting. This backwashing drain line will be under pressure when the backwash cycle is working. Make sure the drain line is secured. The drain line will need to drain into a drain, which should be a minimum of 1 1/2" size, and ideally be below the top of the head of your softener. Local codes should be adhered to. Also, do not put the drain line directly into any drain; you should have an air gap (be sure to use Teflon tape on this step).

Note: Never connect the drain line directly into a drain. Allow an air-gap between the drain line and waste line to prevent possibility of back-siphon.

Step 7:

- A. Between the valve and the salt tank you will need to connect the furnished 3/8" O.D. tubing to the controller and safety float with the appropriate compression nuts provided.
- B. Take the cap off the white tube inside the salt tank pictured below.



- C. Pull the safety float out and follow the attached directions.



D. Connect the 3/8 inch tubing by removing the compression fitting from the elbow.



E. E. Connect the nut on the safety float to the hole on the back of the white tube, pictured below.



You will be attaching the other end of the tubing and nut to the smaller of the two threaded drains on the controller. This is where you will connect the brine line.



Step 8: Salt Tank Overflow (this is the elbow on the side of your salt tank). Attach 1/2" i.d. plastic tubing to the fitting from the salt tank and run to a drain. This drain line will not be under pressure. DO NOT tie into the backwash drain line! This line should be higher than your drain line. Overflow drain line must be a separate line from fitting to the floor-drain, sewer, tub, etc.



INITIAL POWER UP

1. Add water to the salt tank. With a bucket or hose, add approximately 4 to 6 gallons of water to the salt tank.
2. Set your bypass in bypass mode and slowly turn on the main water valve to your home until all pipes are pressurized. Now open the bypass valve SLOWLY. You do not want to be surprised by leaks. Let the resin tank fill completely, and then open the bypass valves the rest of the way.

WARNING: If opened too rapidly or too far, media may be lost out of the tank into the valve or the plumbing. In the 1/4 open position you should hear air slowly escaping from the valve drain line.

3. Plug the power supply transformer into a socket that is not controlled by a switch or timer.
4. Program your water softener. Set the time of day, gallons between regeneration or days between regeneration. Reference your owner's manual for your particular water softener settings and programming.

MOST SETTINGS SHOULD STAY IN THE DEFAULT SETTINGS!

5. Once your softener is programmed advance your controller to manual regeneration. The regeneration process is a 1 to 2 hour process.
6. Check for any leaks during this initial regeneration. Also make sure that there is water in the salt tank after the regeneration is complete.
7. Your softener is now in operation and you can add salt.

Note: Be sure to always have at least one bag of salt in the brine tank at all times. You may fill the salt tank all the way up if you like. Standard water softener salt works well.