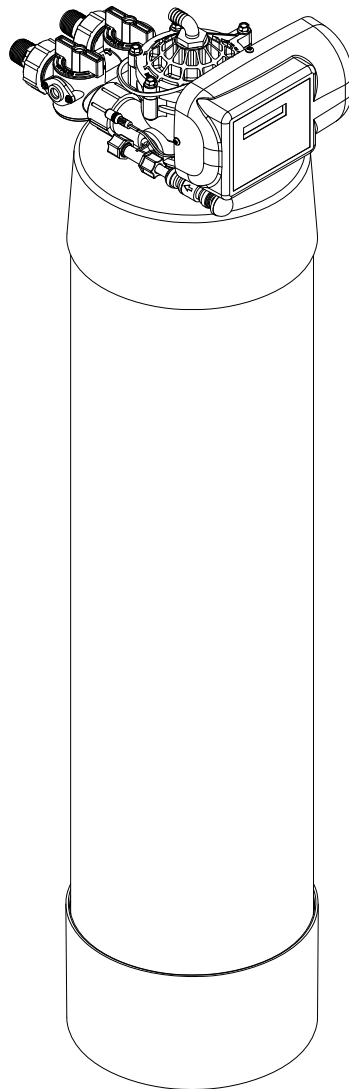




WHOLE HOUSE IRON REDUCTION SYSTEMS
1.0, 1.5
INSTALLATION INSTRUCTIONS



PRE-INSTALLATION INSTRUCTIONS

- Do not install this system where water is microbiologically unsafe or of unknown quality without adequate disinfection before or after the system.
- This system must be installed in an area that is not affected by extreme heat, cold or the elements. The selected installation area must be adequate for easy service of all parts.
- This system must be installed in accordance with all applicable state and local laws and regulations.
- This system is designed to treat cold water only and can be installed on any cold water supply.

INSTALLATION INSTRUCTIONS

1. SAFETY PRECAUTIONS

- To prevent accident or injury, do not hoist the unit over your shoulder. Use a hand truck to transport the unit. ***Note: Do not lay the unit on its side during transportation and/or installation.***
- Wear safety glasses and work gloves during installation and service.

2. TEST THE RAW WATER

- Test the raw water supply to ensure it meets the “Application Limitation” on page 3.

3. CHECK WATER PRESSURE

- Use a pressure gauge to confirm that the water pressure does not exceed 120 psi. If the water pressure does exceed this limit, install a pressure regulator on the inlet pipe of the unit. The minimum pressure for a filter is 20 psi. 60 psi is the optimum operating pressure.

4. CHECK THE WELL PUMP FLOW RATE

- Proper backwash is required to maintain the life of the filter media. If installed on a well, check to make sure the well pump can provide a drain flow rate of 5 gallons per minute.

5. LOCATE A SITE FOR THE UNIT

- There are three primary requirements needed for a site: the main water source, a drain (the drain may be a floor drain, a sewer trap, utility sink, vent stack, dry well, etc., depending on local plumbing codes) and an electrical connection. Locate the system as close to these items as practical. Avoid drain lines over 25 feet long. In most applications, bypass any outside faucets.
- Place the unit in the desired location. The location must have a level, smooth surface.
- If the system is located outdoors, protect the unit from direct sunlight. (Direct sunlight can damage the fiberglass and other system components.) If necessary, build a box or shed. **Note: The system can only be installed outdoors in climates that do not reach freezing levels.**

6. TURN OFF THE WATER AND DRAIN THE PLUMBING

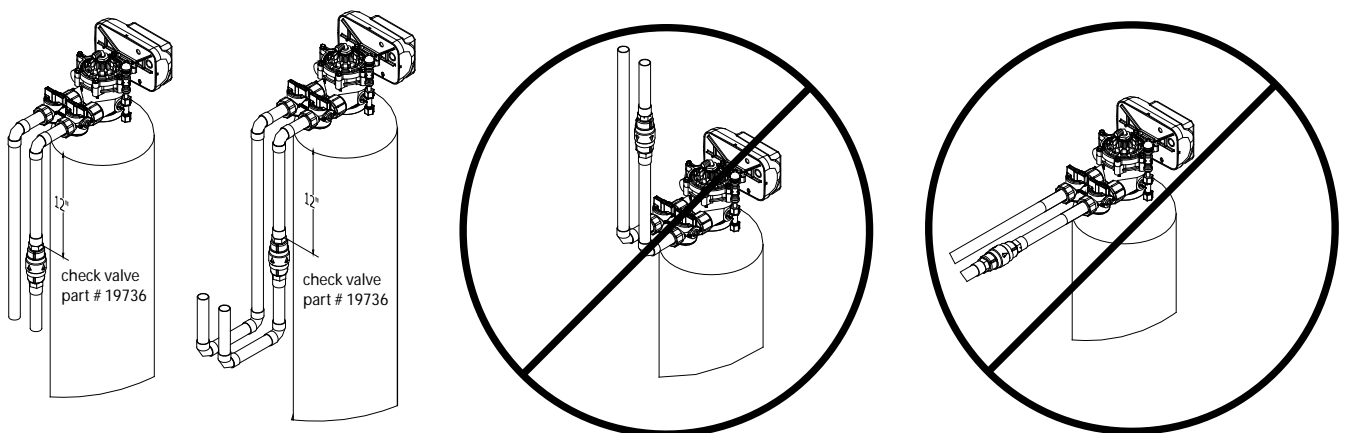
- Turn off the water at the meter or the pressure tank.
- Drain all the pipes. Do not sweat the pipes with water in them; steam will damage plastic parts in the valve.
- To drain the plumbing system, open all the faucets in the house and flush the toilets. This procedure will allow air to enter the plumbing system. The water will drain out of the lowest faucet or outlet.

7. BYPASS THE OUTSIDE FAUCETS

- When possible, it is best to bypass the outside faucets. However, in some cases the outside faucets can not be accessed. In this situation the bypass valve should be used whenever watering outside for extended periods of time. If the installation is outside or in a garage a faucet can be installed on the inlet water side to provide an option for untreated water.

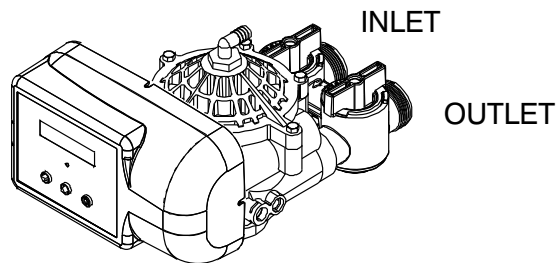
8. INSTALL THE CHECK VALVE

- Install the check valve (supplied) on the raw water supply feeding the tank. The check valve must be installed in vertical, upflow position with a minimum 12" water column above the check valve (Part No.19736). Please see figures below.



9. CONNECT THE PLUMBING TO THE BYPASS VALVE

- Do not point the soldering torch directly at the system. The thermoplastic material will last a lifetime, within normal operating temperatures, but will melt in a torch flame.
- To prevent hot water from backing up into the conditioner, avoid short connections of pipe between the conditioner and the hot water heater. If you can't avoid a short connection, move the equipment to another location. As a last resort, install a check valve. If the check valve causes "water hammer", install a water hammer suppressor.
- Connect the raw water pipe to the INLET pipe connection of the bypass valve. When looking at the front of the unit, the inlet is the pipe connection on the LEFT side of the valve.
- Connect the treated water pipe to the OUTLET pipe connection of the bypass valve. When looking at the front of the unit, the outlet is the pipe connection on the RIGHT side of the valve.



10. TURN ON THE WATER AND TEST FOR LEAKS AND FLUSH THE PLUMBING

- Before turning the water back on, place the system in the bypass position, then close all of the faucets except one cold water tap from a bath tub.
- Turn the water on slowly and allow the water to flow out the bath tub for several minutes to remove any dirt, solder, glue, etc. from the plumbing system.
- Once the water runs clear, turn the bypass valve handles to the service position and allow the water to fill the system. It is common for the first few gallons of water to show some color (orange to brown) for a few minutes. Once the water runs clear shut off the bath tub.
- The system will now pressurize, allowing you, to check for any leaks.

11. FLUSH THE REMAINING DEBRIS FROM THE SYSTEM

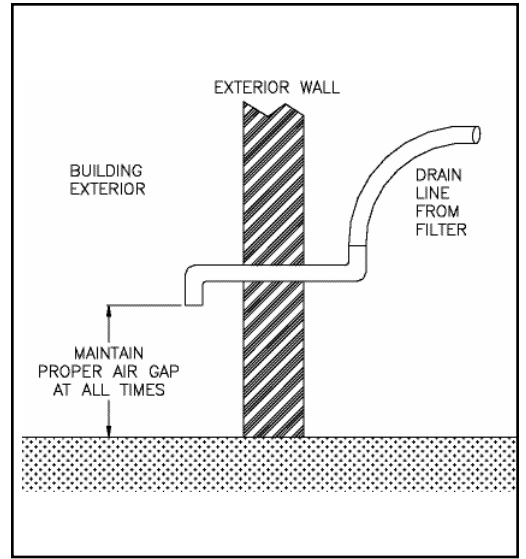
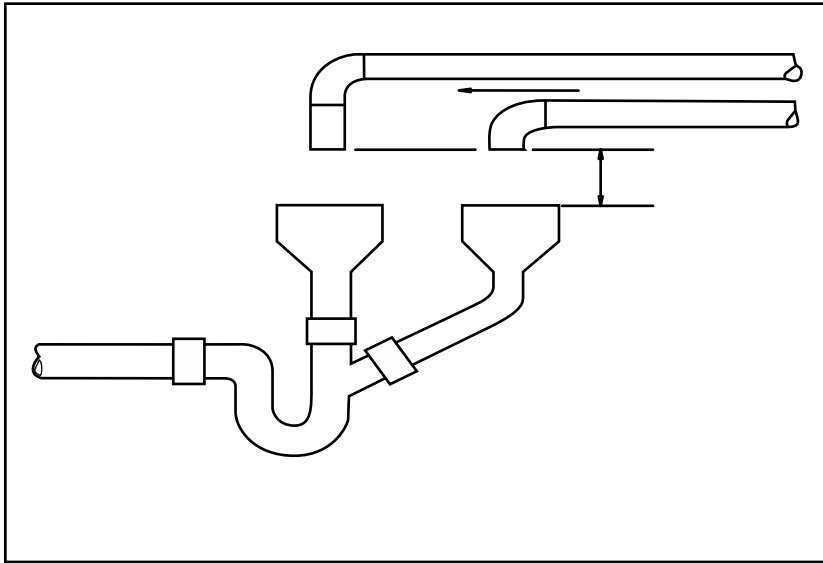
- To flush the remaining untreated water from the plumbing, turn on all the faucets in the house and flush the toilets (approximately two to three minutes per faucet.)
- Run hot water in the bathtub to remove any remaining untreated water.

11. INSTALL THE DRAIN LINE AND AIR GAP

- Using the supplied drain line fitting use Teflon tape on the threads and attach to the top of the valve. Run 1/2 inch ID flexible drain line tubing (not supplied) to an appropriate drain. Most local codes require an air gap. See pictures on the next page. The Air-Gap is not provided with the product.

Note: Drain line may be plumbed with rigid pipe or PEX, if required by local code. The drain connection on the valve will accommodate any standard 3/4 inch NPT fitting.

Note: The regeneration cycle is a simple backwash to refresh the filter bed, followed by an intake of air to establish an air head in the tank. Since no regeneration chemicals are added, the discharge water may be drained to the outside and used for irrigation in climates where freezing is not a concern. Please note that iron in the drain water may cause staining, so avoid situations where the water may splash onto walls, vehicles, patios, etc.

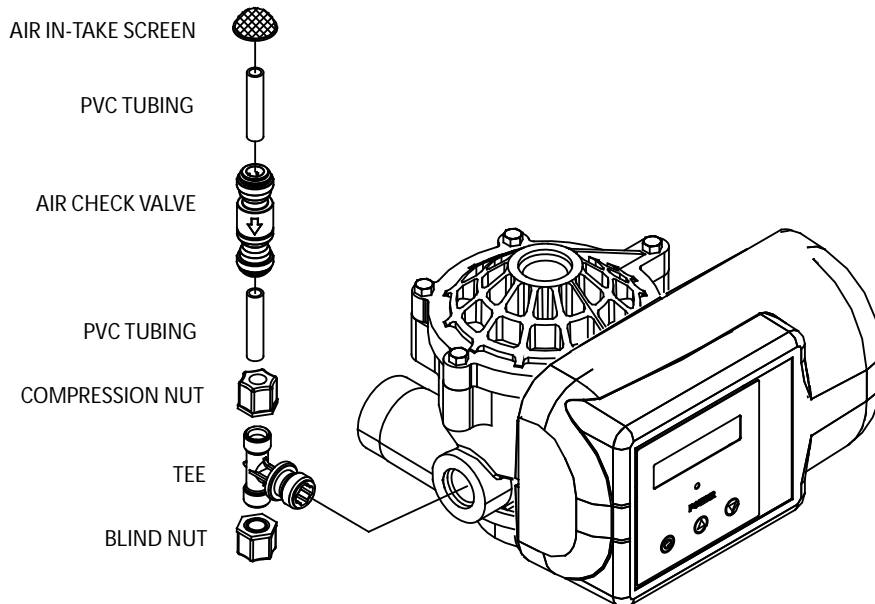


Option for non-freezing climate only

12. INSTALL THE AIR CHECK ASSEMBLY

Air check assembly should be assembled as shown below, with the screen pointing up. Be sure that the molded arrow on the air check valve points down.

* Complete system not shown

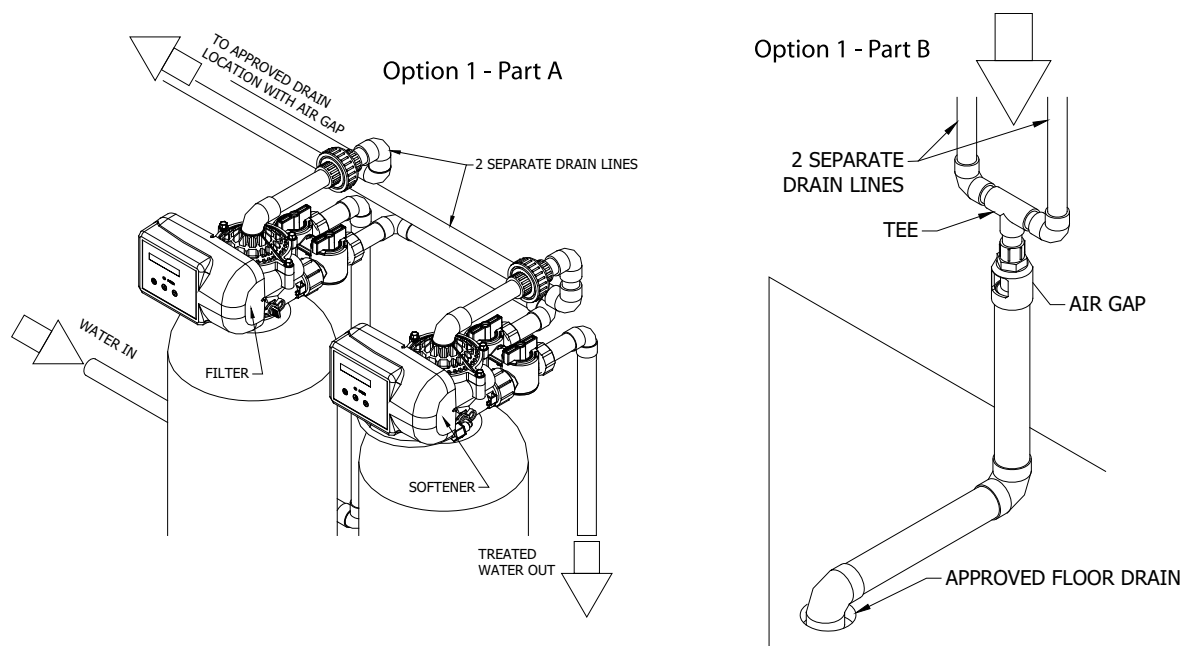


Special attention for situations where a Filter and a Softener are installed together:

When a whole house filter and a softener are installed side by side, the preferred approach is to run a separate drain line from each unit all the way to the point of termination. If this is not done, there is the potential for drain water from the filter to back feed through the softener and overflow the brine tank, especially when drain lines are run overhead. (Please note that back feed goes only into the brine tank, not the service line.)

If circumstances require you to tie the drain lines together, please use one of the following methods to avoid back feed issues:

Option 1: Run the drain lines from both systems to the point of termination, and tee them together before the air gap. (See figures below)



Option 2: Install a PVC check valve with a light spring on the Softener side to prevent back flow to the Softener. (See figure below)

