



SB-150 USER MANUAL



Premium Residential Model



The Water Softener Alternative

A.) Identifying the SB-150 ScaleBlaster Components

The SB-150 ScaleBlaster™ unit should contain all the components listed below.

Control Unit (1)



Users Manual (1)



Warranty Card (1)



Mounting Brackets (4)
Mounting Bracket Screws (4)



Signal Cable (50')



Nylon Zip Ties (3)

B.) Tools and Materials Required



Drill
Screwdriver
Wire Stripper

Drill Bit(s)
Screws and Anchors

Additional tools may be required for special installations that require electrical or plumbing changes.

C.) Site Survey

Basic overview

One of the great features about ScaleBlaster is that the installation is very simple (in most cases) and usually the homeowner can do it themselves! **The installation involves a power box that is mounted on a wall near an electrical outlet and a signal cable that is wrapped around the incoming water supply to your home or building.**



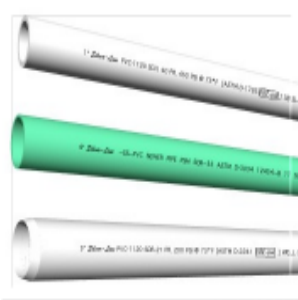
Type of Pipe

Most houses or buildings built in the past 50 years or so have copper, plastic or PVC pipe. Older houses most likely have galvanized (steel) pipe while many of those homes may have had some copper or PVC replaced in some areas of where there used to be galvanized pipe. The SB-150 model is designed for houses with copper, plastic or PVC pipe. We are only concerned with where you wrap the signal cable. In other words, if the house has both copper and galvanized pipe, you should install the unit on the Copper pipe as it enters the house.

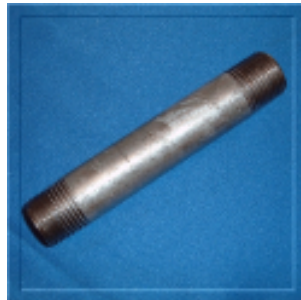
If the pipe is galvanized, you will need to replace a small section of the pipe with PVC or copper pipe. This is not difficult and is a simple job for a handyman or plumber. Locate a straight section of pipe at least twelve (12) inches as the pipe enters the house and near an electrical source. Wrap the coil in the middle of this section and as far away from the galvanized pipe as possible. *Clearwater Enviro Tech* manufactures a model specifically for steel pipe, the **SBR-800**. Contact your dealer for more information.



Copper Pipe



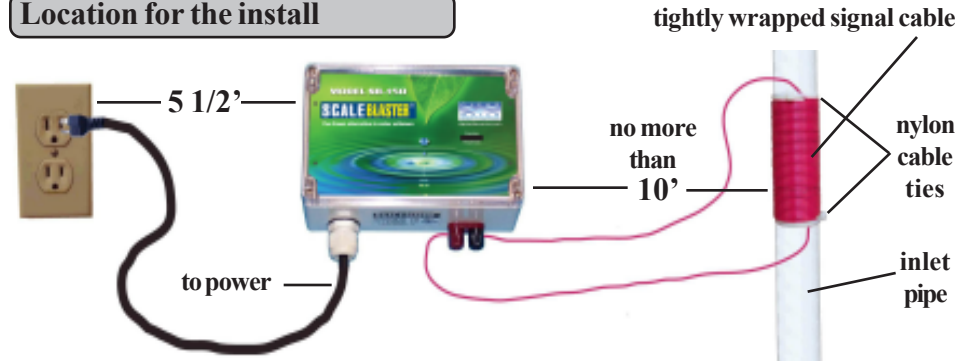
PVC Pipe



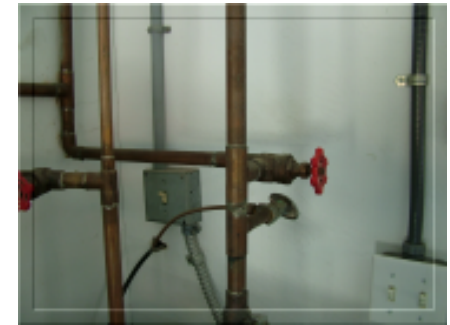
Galvanized Steel Pipe

Site Survey (Continued)

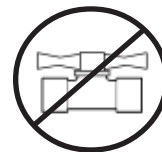
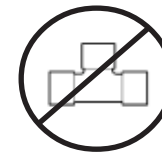
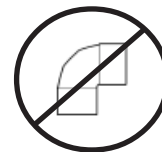
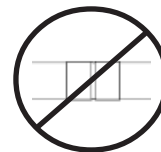
Location for the install



1.) The most desirable place to wrap the signal coil is on the main water line that enters the home or building before it branches off to the distribution system (just after the main water cut-off valve and before the water heater). In other words, an area of pipe closest to where it enters the house. This location will assure that the ScaleBlaster will serve 100% of your water. The power box is UL, CUL & CE approved, and may be installed outdoors if necessary. **This pipe size cannot be any larger than 1 1/4 inch inside diameter.**



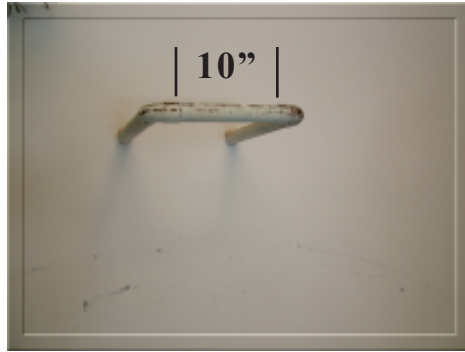
2.) The power unit should be mounted on a wall or solid surface within 5 1/2 feet from an electrical outlet or power source and within ten (10) feet from the pipe in which the signal cable will be wrapped. If the power unit has to be more than 10 feet of where the signal cable will be wrapped, you may need to call your dealer or *Clearwater Enviro Tech* for technical assistance.



Site Survey (Continued)

Location for the install (Continued)

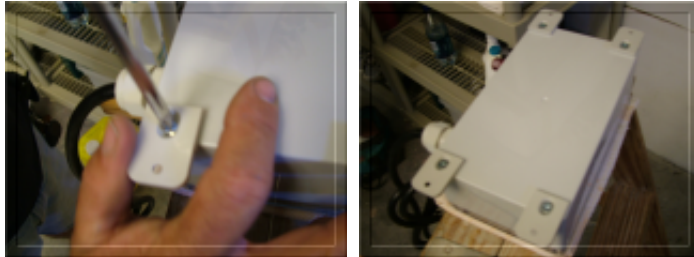
3.) Once the main water inlet pipe is located, identify a section of pipe that is at least ten (10) inches of STRAIGHT pipe and at least one (1) foot away from any major electrical interference (an electric motor, for example). You should also stay away from elbows, couplings, tees and valves as much as possible. If you are unable to find 10 inches of straight pipe or pipe that is away from major electrical interference, contact your dealer or *Clearwater Enviro Tech* for assistance.



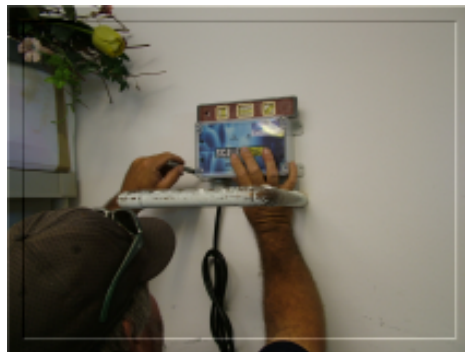
The installation can be done on less straight pipe, but you will need at least 5 inches to wrap the coils properly. If tees or elbows are also nearby, and there are no other options, go ahead and install the unit, as it should work fine. **These are only guidelines for the best results.**

D.) Mounting the Power Unit

1.) Mount each of the four mounting brackets to the back of the control box using the enclosed brackets and screws.



2.) Mount the power box to the wall after drilling four (4) holes in the determined location. Use the appropriate screws and anchors (if needed) depending on the surface (wood, stucco, etc.). This should be within 5 ½ feet of a power source and 15 feet of the location for the signal cable. The surface should be flat. The unit can be mounted in any direction and installed inside or outdoors.



E.) Installing the Signal Cable

1.) Insert the pre-stripped end of the signal cable into one of the two signal terminals located on the bottom right side of the power box. The receptacle post can be unscrewed by turning it counter-clockwise. This will expose a small hole in the post. Either terminal can be used. Tighten the receptacle post as much as possible with the signal cable completely threaded through the hole.



2.) Route the signal cable from the power unit to the inlet pipe. Hold the cable parallel and next to the pipe and install one nylon cable tie. Make sure the cable tie is pulled tightly so that the cable is secured to the pipe. Remove the excess cable tie with a cutter.



3.) Hold the signal cable and cable tie securely to the pipe by pinching them to the pipe with your fingers.

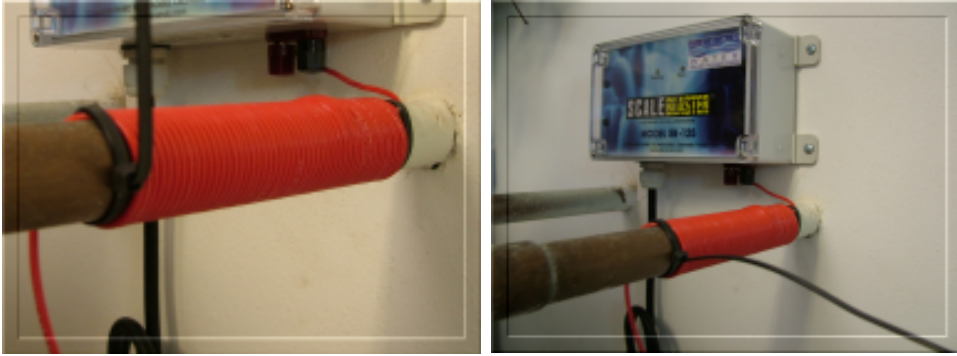
4.) Wrap the loose end of the signal cable securely around the pipe, in any one direction - **50 times on all sizes of copper, PVC, or plastic pipe up to 1 ½" pipe.**



Note: If you do not have enough straight pipe to do 50 wraps, the minimum required to properly install the ScaleBlaster is 30 wraps. In other words, anywhere from 30-50 wraps is fine.

E.) Installing the Signal Cable (Continued)

- 5.) Make sure the wraps are flush against one another and not overlapping.
- 6.) Once the wrapping is complete, secure the signal cable to the pipe using another nylon cable tie. Remove the excess cable tie.



- 7.) Route the loose end of the signal cable back to the power unit. Trim the cable to length.
- 8.) Carefully strip the outer plastic shield from the end of the signal cable, leaving about 1/4" to 3/8" of bare cable. Twist the bare cable and insert the end into the unused receptacle post on the power unit. Tighten the receptacle post.



F.) Electrical Hookup / Activating the System

The unit you received will work on 115VAC or 230VAC, however it does have a 110VAC plug on the end of it. If you need to convert it to 230VAC, you will need to exchange the plug on the end. Once everything has been installed, one green indicator light should come on for power, and when the coil is wrapped and connected properly, all the green LED lights should come on and oscillate back and forth continuously.



The unit is only properly installed and functioning when all the green lights are oscillating. When only one green light (the far left side) comes on, that means the electrical is hooked up, but the signal cable is not installed properly.

G.) Enjoying the ScaleBlaster™

The best feature of ScaleBlaster is that there is no maintenance required! No heavy bags of salt to haul around. No batteries to replace or moving parts to repair!



Allow at least 90 days to realize the full effects! The older your house, the longer it may take to fully descale the pipes. After a period of time, scale around sinks, taps and showerheads will soften. These deposits may collect inside the faucet and head screens, leading to temporary blockage. It is best to periodically clean these screens as needed during the period of scale softening. This means the system is working!

We also strongly recommend that you drain your water heater after 90 days of installing the ScaleBlaster. You will be surprised at what has accumulated over the years. This will make your water heater more efficient.

Please note that the ScaleBlaster is not a water softener, but a water conditioner.

After this "break-in" phase, all we ask you to do is to check to make sure the two indicator lights are on (in case of a power surge or failure). The unit should stay on 24 hours a day. It only uses a few dollars a year in electricity.

The unit comes with a full 10-year warranty and is designed to have a lifespan much longer than that.

SCALEBLASTER™



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1166 Kapp Drive, Clearwater, FL, 33765
Phone: 800-756-7946 or 727-562-5186 Fax: 727-562-5187
clearwater-enviro.com