



Thank you for your purchase!

To make it easier for you we have included the following installation instructions for the All Purpose (AP-1, 2 and 3) series of CBE Water Structuring Units.

Please read the instructions very carefully before attempting to install your unit.

For the sake of simplicity, the instructions will show you how to install the AP-1 (1 inch). The AP-2 and AP-3 installations will obviously require larger adapter fittings.

Installing Your Crystal Blue AP-1 Water Structuring Unit *Step-by-Step Installation Instructions*

IMPORTANT

THE UNITS CAN BE INSTALLED WITH WATER FLOW COMING FROM EITHER END - THEY ARE IDENTICAL AT EACH END AND WILL WORK EXACTLY THE SAME WAY

These instructions are provided to help experienced persons understand the preferred methods and components used for the proper installation of our in-line water structuring devices that are to be installed in accordance with generally accepted plumbing methods.

Actual installations must be adapted to individual requirements and regional codes, if necessary. All components are made in the USA and are ANSI and NSF code-compliant.

We have made every effort to ensure the accuracy and reliability of the information contained within these instructions. However, neither the Distributor or the Manufacturer will accept responsibility for improper installation due to misinterpretation of these directions, or to human error. In short, when in doubt, please contact a certified plumbing professional.

Instructions

1. Locate the water service line entering the home and turn it completely off.
2. Drain the entire water system by opening one or more cold water faucets (*cold water faucets are generally on the right side of the faucet unit*) such as in your sink or bath tub. Leave them open until the water stops flowing to ensure that the water is completely turned off and the entire system is properly drained.
***Leave the faucet(s) open until your installation is complete.**
3. Your AP-1 Water Structuring Unit may be installed on any $\frac{3}{4}$ to 1 inch diameter copper, PEX, CPVC, or PB tubing. All installation parts for your unit may be obtained from a local Plumbing Supply or Home Improvement Center. Typical home plumbing is done with PEX, Copper or PVC.

For any installation other than the above, please substitute the appropriate fittings in one or more of the various configurations mentioned below.



1. Nipple
Bushing



2. Reducer
Connector



3. Shark Bite



4. Unions



5. PVC Nipple



6. Assembled Unit

4. Use the appropriate threaded nipples (photo1); or the $\frac{3}{4}$ " reducer bushing adapters (photo 2); or the Shark Bite connector (photo 3), where needed. Connect the unions (photo 4) on each end of the Water Structuring Unit. Assemble all components (photo 5) using Teflon tape on all male threads. Wrap the pipe tape completely around all the male threads at least 3 layers deep as this will insure a water tight seal.
5. To measure the amount of water line you will need to cut before you install the unit, first measure the full length of the assembled water structuring unit with its connectors attached (photo 6). Then, depending on the couplings used, you will subtract approximately two (2) inches off of the measured length of the assembled water structuring unit when you cut the water line.
6. **Note:** Due to the heavy weight of the Crystal Blue unit, it must be properly supported so as to not bend or even break the waterline. Because of the variety of circumstances in installation, we are unable to provide you with the appropriate hardware for that purpose. We therefore suggest that you consult with your local plumbing supply store or an experienced plumbing professional for assistance.
7. Hold the assembled Water Structuring unit in place over the spot where the water line is to be cut to ensure that it will fit correctly.
8. Use an appropriate cutting tool to cut the pipe to the length previously determined in Step 5. Have a towel available to soak up any residual water that may drain when the water line is cut. Make sure to thoroughly clean and deburr the edges of the cut.

9. Keep the section of removed waterline for later use as a bypass in case your Water Structuring Unit is to be removed at a later date.
10. If the water line is made of PEX tubing, then the Shark Bite tube support liner must also be used. The tube support liner acts as an internal support for the end of the tubing.
11. Make sure that there are no scratches, gouges or any form of damage on the outside of the tubing at least 1 in. (25.4 mm) within or around the cut end. Damage in this area may cause leakage. Check the fittings for any signs of damage or foreign objects.
12. Make sure that the cut you just made at the end of the tube is square and clean 1" from the cut down the outside length of the tubing. Then clearly mark the insert depth on the outside of the tubing. This mark is used to ensure that the joint is inserted to the proper depth.
13. Push the Shark Bite fittings onto the ends of the cut tube or pipe, keeping in mind that the fitting will grip before it seals. Make sure that the tubing or pipe is inserted all the way into the fitting until the end is fully seated into the internal tube stop and all the way up to the mark you made in Step 8. To make sure that the seal is seated correctly, simply strike the connector with a firm strike of the palm of your hand or a semi-soft blunt tool such as the handle of a hammer or block of wood.
14. Make sure that you can visibly see the black rubber o-ring on the top of both of the $\frac{3}{4}$ inch union connections.
15. Place the structuring unit between the union connections and hand tighten the unions. *(If tools are needed to tighten the unions, please do so gently. No need to over tighten).*
16. Close all of the cold water faucets that you opened in Step 2.
17. Then turn on the water service supply line slowly and inspect the unit installation to ensure that there are no leaks.
18. Then slowly open the cold water faucets again to purge all of the air out of the water line until the water runs smoothly.
19. Then close the cold water faucets and carefully check for leaks again. If drips are found, simply snug up the fittings where needed.
20. The CBE Water Structuring Unit will clean all calcium and other minerals deposits in your water pipes and appliances that use water. Consequently, all existing deposits need to be flushed as much as possible from your water heater in the coming weeks.
21. Flush your water heater by attaching a garden hose to the drain valve on your water heater. Route the hose to the outside of your home or into a suitable floor drain. Then open the water heater drain until you can no longer see or feel materials discharging into the drain water.

22. When the water is running clear and free of loose debris, close the water heater drain valve. Loose deposits may also build up at faucet aerators and screened washers on washing machine hoses. These may need to be cleaned periodically until all foreign deposits are removed or dissolved.
23. Chunks of deposits in cold water pipes may get lodged in the valves of toilets and in the sprayer wand of your dishwasher. It will eventually dissolve and wash away although you may need to assist the process if clogging of spray nozzles occurs.
24. Steps 16 and 17 may be repeated as necessary until no more debris is passing in the discharged water.



IMPORTANT!

If you find that any part of these instructions are confusing to you, please contact us for further assistance. If you feel these instructions or installation procedures are beyond your scope of experience, please contact a qualified plumbing service company.

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