



# US Water Upflow Calcite pH Neutralizer Filter

111-UFF-CAL-X



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## Unpacking and Inspection

Be sure to check the entire unit for any shipping damage or lost parts. Also note damage to the shipping cartons. Contact US Water Systems at 1-800-608-8792 to report any shipping damage within **24 hours of delivery**. Claims made after 24 hours may not be honored. Small parts, needed to install the unit, will be in a parts bag. To avoid loss of the small parts, keep them in the parts bag until you are ready to use them.

## Safety Guide

- Check and comply with your provincial / state and local codes. You must follow these guidelines
- Use care when handling the system. Do not turn upside down, drop, drag, or set on sharp protrusions
- **WARNING:** This system does not remove biological contaminants. US Water Systems recommends that bacteria levels be checked periodically to ensure there is no bacteria present. Coliform and E.coli most importantly.

## Equipment Introduction

The pH Neutralizer filter with calcite is designed to raise the pH of the water in cases of low pH (acid water conditions) and also adds some calcium hardness back to the water. Many areas of the country have water with low pH. A low pH means that the water is acidic and can corrode copper pipes and cause blue-green stains on plumbing fixtures in your home. The pH Neutralizer system is designed to neutralize the acid balance of your water supply. It does this by using calcite which is crushed and screened white marble limestone. If your pH is below 5.8, then we recommend a blend of calcite and magnesium oxide. Calcite and magnesium oxide will increase hardness in the water and a water softener may become necessary after the neutralizing filter.

Calcite is a naturally occurring calcium carbonate media. One of the advantages of calcite is its self-limiting property. When properly applied, it corrects pH only enough to reach a non-corrosive equilibrium. It does not over correct under normal conditions. Upon contact with calcite, acidic waters slowly dissolve the calcium carbonate to raise the pH which reduces potential leaching of copper, lead and other metals found in typical plumbing systems. Depending on the pH, water chemistry and service flow, the calcite / magnesium oxide bed will have to be periodically replenished as the calcite is depleted.

### Benefits

- Adds minerals back to the water supply to combat aggressive water properties
- Extremely user friendly
- Easy to install
- Uses no electricity
- Wastes no water

## Before Starting Installation

### Proper Installation

*This water system must be properly installed and located in accordance with the Installation Instructions before it is used or the warranty will be void.*

- **Do not** install or store where it will be exposed to temperatures below freezing or exposed to any type of weather. Water freezing in the system will break it. Do not attempt to treat water over 100°F
- **Do not** install in direct sunlight. Excessive sun or heat may cause distortion or other damage to non-metallic parts.
- Maximum allowable inlet water pressure is 100 psi. If daytime pressure is over 80 psi, night time pressure may exceed the maximum. Use a pressure reducing valve to reduce the pressure.
- System must be operated in a vertical position. Do not lay it down during operation.
- A bypass valve should be installed on every system to facilitate installation and service.
- Observe all local plumbing and building codes when installing the system.

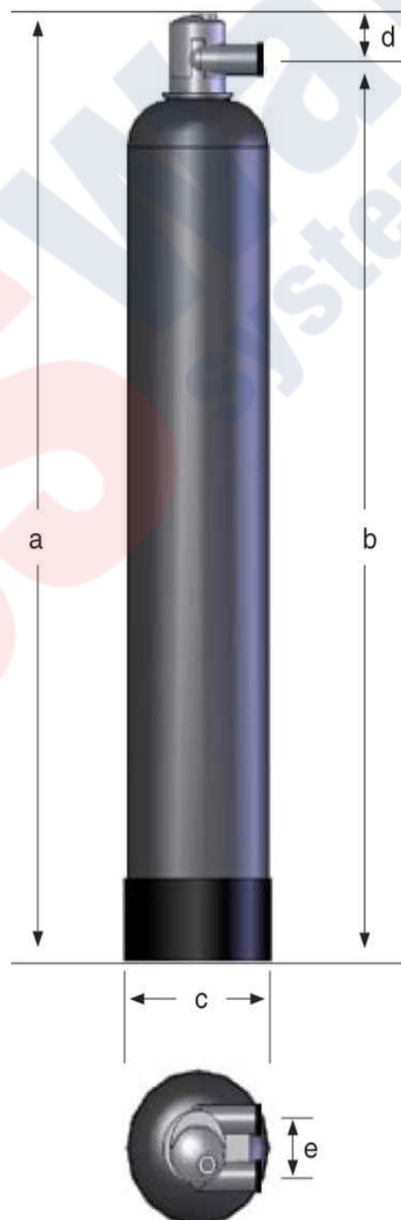
## Specifications

Please review operating pressures, temperatures and water chemistry limitations to ensure compatibility.

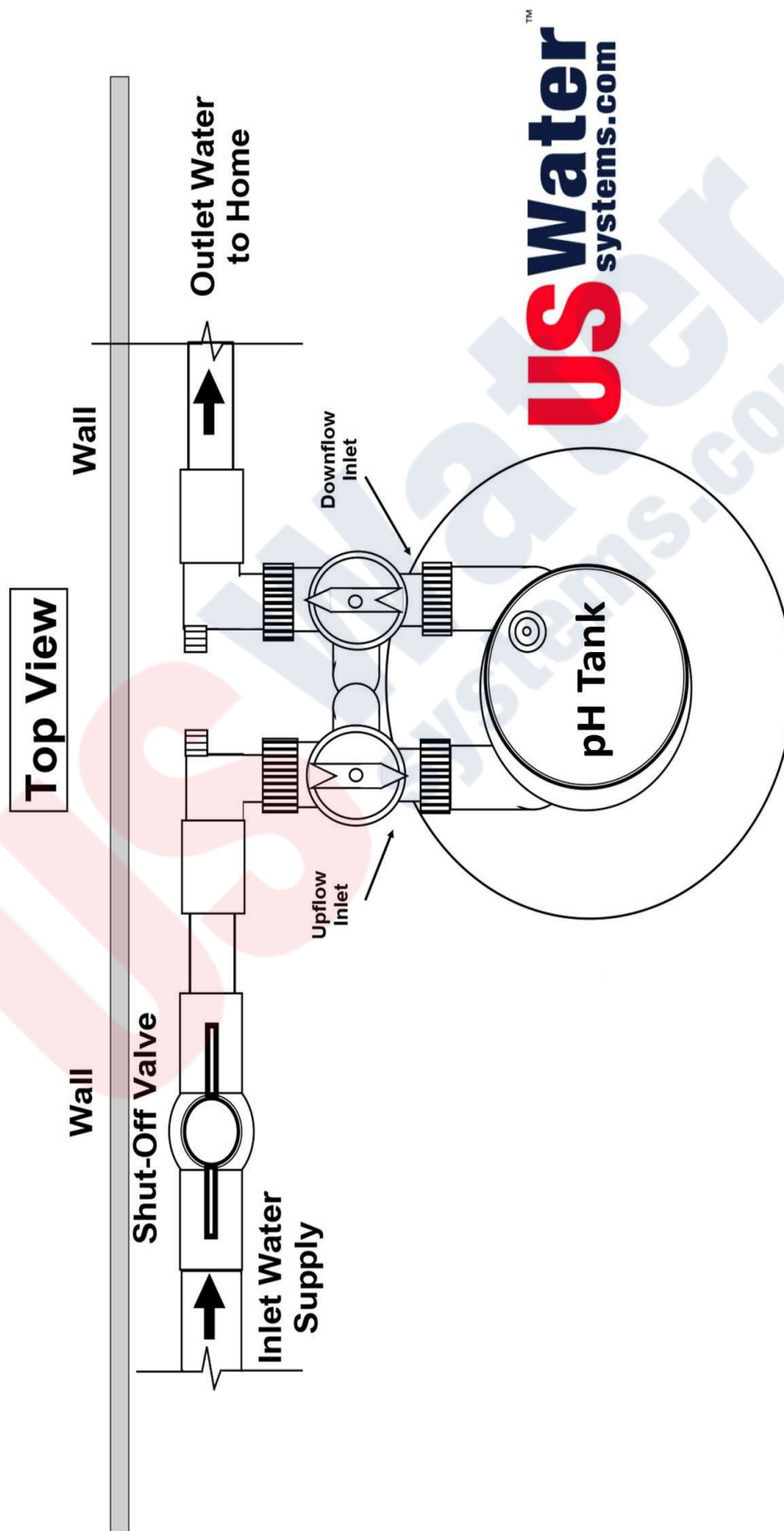
Specifications	111-UFF-CAL-2	111-UFF-CAL-4
Inlet / Outlet Connection	3/4" - 1" PVC	
Temperature	40° - 110°F	
Water Pressure	15 min, 100 max (PSI)	
Max Service Flow (GPM)	10	20
Dry Weight (lbs.)	180	285

## System Dimensions

Model	111-UFF-CAL-2	111-UFF-CAL-4
A	58.5	58.5
B	56	56
C	10	13
D	2.5	2.5
E	3.0	3.0



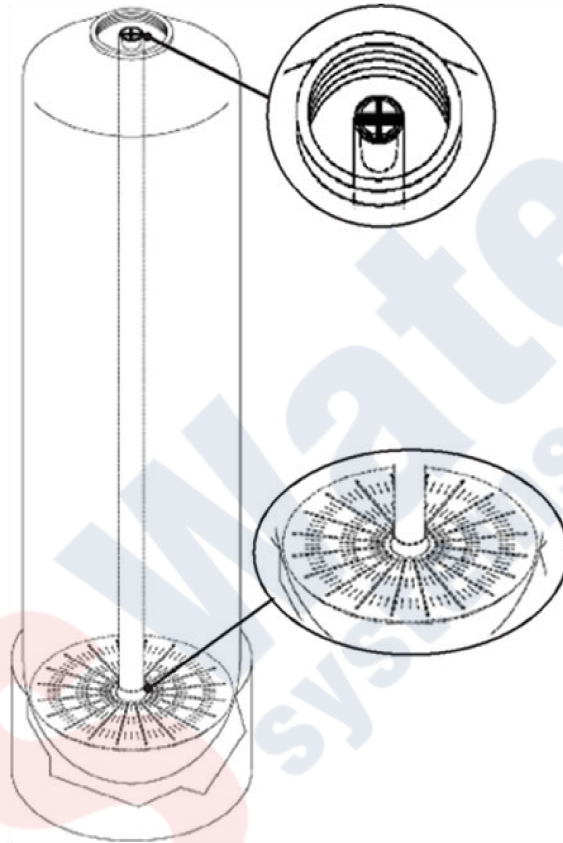
## Plumbing View





## Installation

1. Remove the tank from the shipping carton.
2. Verify the riser tube is secured in the bottom of the tank. The tube should not pull out of the tank.



3. Ensure that the supplied clear, plastic cap is installed on the distributor tube.

4. Use the Blue Funnel provided to pour the media into the tank. The order the media is poured in is important. Begin by pouring the media labeled as 1 (Quartz Gravel) into the bottom of the tank. Pour it evenly around the hole to ensure it is well distributed in the tank and pour slow enough to keep from plugging the hole. Then proceed to pour the media labeled as 2 (Calcite). A helper may be needed to hold the funnel during the filling process.

**NOTE:** It is recommended that a dust mask and safety goggles be worn to prevent possible injury.



5. When media is installed, move the tank side to side to settle the media. Remove the funnel and cap from the distributor tube.
6. Lubricate the inner and outer O-ring of the in/out head.

7. Install the upper basket on the bottom of the head by lining up the tabs then turning the basket clockwise to lock it in place. Place the upper basket over the distributor tube and push the head on the tank. Thread the head on the tank by turning it clockwise. Be sure not to cross-thread the head on the tank.



8. Place the Upflow Calcite pH Neutralizer Filter tank in the desired location. Typically this is at the water inlet of the home.

9. Prepare the tank connections by installing the nut on the elbow connector. Push the split white ring down over the elbow fitting to the second groove. Use the supplied silicone grease to lubricate the O-ring. Slide the O-ring over the elbow fitting and put it in the first groove. Make sure the O-ring is not twisted.

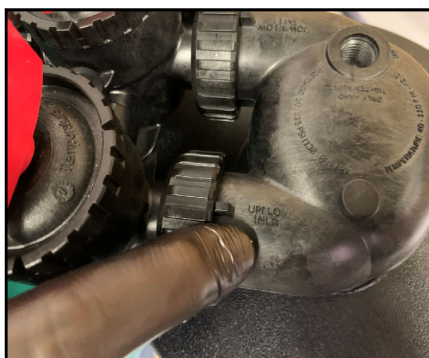




10. Lubricate the O-rings on the supplied bypass with the silicone grease. Install the bypass on the tank and fully tighten the retaining nuts. The bypass will move slightly once tight. It is made to flex and move and will not be rigid. Be sure the O-rings are lubricated on the elbow connectors previously assembled. Install the elbows in the bypass valve and tighten the retaining nuts. These will move when tight. They are made to flex just like the bypass valve connections.

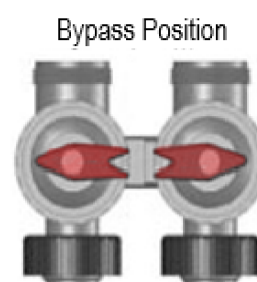
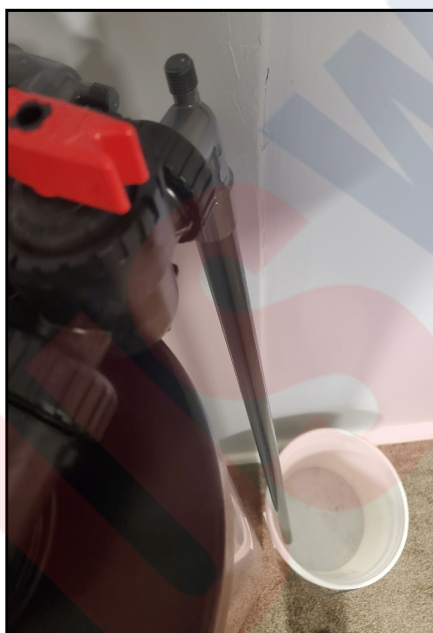


11. Connect the cold water supply to the "Up Flow" inlet of the Upflow Calcite pH Neutralizer Filter tank



**NOTE: The Upflow Calcite pH Neutralizer Filter system operates in the UP-FLOW mode which is the opposite of a conventional water softener.**

12. Place a bucket under the outlet port (downflow inlet) of the Upflow Calcite pH Neutralizer Filter tank or run a line from the outlet port of the tank to a drain. Place the bypass in the service position.



13. Slowly open the main supply valve (user supplied) to the Upflow Calcite pH Neutralizer Filter system. Allow the tank to fill with water. Close the supply valve when a steady stream of water comes out of the outlet port and the water is running clear.
14. Once the Upflow Calcite pH Neutralizer Filter system is flushed, connect the Outlet (marked DownflowInlet) of the Upflow Calcite pH Neutralizer Filter tank to the CTS or PEX cold water supply feeding the rest of the home.
15. Open faucets downstream from the Upflow Calcite pH Neutralizer Filter system to relieve any trapped air.
16. Check for leaks. Repair as needed.
17. The system is now ready for service.

## Warranty

For the lifetime of the original purchaser, at the original residential place of installation of this Upflow Calcite System, **US WATER SYSTEMS, INC.** warrants the following:

**10 YEARS: Media Tank** - Free of all costs to you except transportation and labor charges, we warrant that, for ten (10) years from the date of purchase, we will replace or repair the fiberglass media tank, if for any reason it is found to be defective, because of faulty materials or workmanship.

**5 YEARS: Head Assembly** - We warrant that, for five (5) years from the date of purchase, we will replace the head assembly at no charge to you except for transportation and standard labor charges.

**GENERAL PROVISIONS** - This warranty does not apply to any commercial or industrial installations or to any part of the water conditioner which has been subjected to misuse, neglect, alteration or accident; or to any damage caused by fire, flood, freezing, Acts of God, or any other casualty, or if the original serial numbers have been removed. Fouling or damage to the media caused by iron, sulfur, bacterial iron, silt, sand, tannins, organics, bacteria, hot water or chlorine voids the warranty on media.

These warranties are in lieu of all other warranties expressed. or implied, and we

do not authorize any person to assume for us any other obligation on the sale of this water conditioner. No responsibility is assumed for delays or failure to meet these warranties caused by strike, government regulations or other circumstances beyond the control of US WATER SYSTEMS, INC.

To obtain warranty service, call or write:  
US WATER SYSTEMS, INC. 1209 Country Club Road Indianapolis, IN 46234 (800) 608-USWA.

ANY IMPLIED WARRANTIES OF FITNESS OR MERCHANTABILITY ARE LIMITED TO THE TERMS OF THIS EXPRESSED WARRANTY AND THERE ARE NO WARRANTIES WHICH EXTEND BEYOND THOSE HEREIN. US WATER SHALL NOT BE LIABLE FOR ANY INCIDENTAL OR CONSEQUENTIAL DAMAGES.

Some states do not allow the exclusion or limitations of incidental or consequential damages so the above limitation may not apply to you. This warranty gives you specific legal rights, and you may also have other rights which vary from state to state.

THIS WARRANTY MAY BE TRANSFERRED TO A SUBSEQUENT OWNER WITH WRITTEN APPROVAL OF US WATER AND PAYMENT OF STANDARD TRANSFER FEE.