



Clean Water Made Easy

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Upflow Neutralizer Installation & Start-Up Guide

Thank you for purchasing a Clean Water System! With proper installation and a little routine maintenance your system will be providing treated water for many years.

CALCITE MEDIA CONTAINS DUST. USE PAPER MASK AND VENTILATE TO AVOID BREATHING DUST

Questions?

Call us toll-free: 1-888-600-5426 or 1-831-462-8500

Email us: support@cleanwaterstore.com

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Contents

Packing List	3
What to Do if Your Tank is Not Level	3
Pre-Installation	4
Best Practices for Piping & Drain Installation.....	4
How Your Neutralizer Works.....	5
Assembly and Installation Instructions	6
Maintaining Your Neutralizer Filter System	7
How to Add Calcite Media to the Neutralizer Filter.....	7
When to Use Calcite Blends	7
How to Mix and Use Calcite Blends.....	8
Water Filters Limited Warranty.....	9

Up flow Neutralizer Installation & Startup

Packing List

All systems include Clack in-out control valve with fill port for adding more calcite later, bypass assembly with 1" connector yokes, media funnel for adding the Neutralizer media to the tank and the list from one of the following configurations:

Neutralizer Filter 1.0 cubic foot size

10" x 44" filter tank with distributor tube / bottom screen
12 lbs. 1/8" x 1/4" Filter gravel (1 box 12lbs.)
1 cubic foot of Calcite media (2 boxes @ 50 lbs.)

Neutralizer Filter 1.0 cubic foot size (Short Tank)

13" x 30" filter tank with distributor tube / bottom screen
12 lbs. Filter gravel 1/8" x 1/4" Filter gravel (1 box 12lbs.)
1 cubic foot of Calcite media (2 boxes @ 50 lbs.)

Neutralizer Filter 1.5 cubic foot size

10" x 54" filter tank with distributor tube / bottom screen
16 lbs. Filter gravel 1/8" x 1/4" Filter gravel (1 box 16lbs.)
1.5 cubic foot of Calcite media (3 boxes @ 50 lbs.)

Neutralizer Filter 2.0 cubic foot size

12" x 48" filter tank with distributor tube / bottom screen
20 lbs. Filter gravel 1/8" x 1/4" Filter gravel (1 box 20 lbs.)
2.0 cubic foot of Calcite media (4 boxes @ 50 lbs.)

Neutralizer Filter 2.5 cubic foot size

13" x 54" filter tank with distributor tube / bottom screen
35 lbs. Filter gravel 1/8" x 1/4" Filter gravel (1 box 35lbs.)
2.5 cubic foot of Calcite media (5 boxes @ 50 lbs.)

What to Do if Your Tank is Not Level

Your black filter tank base is not glued to the bottom of your tank. Occasionally tank bases will become crooked during shipment. If you find that that your tank does not sit level on the floor, you can easily adjust it by holding the empty tank and gently knocking the base on a concrete or solid floor once or twice to level it.

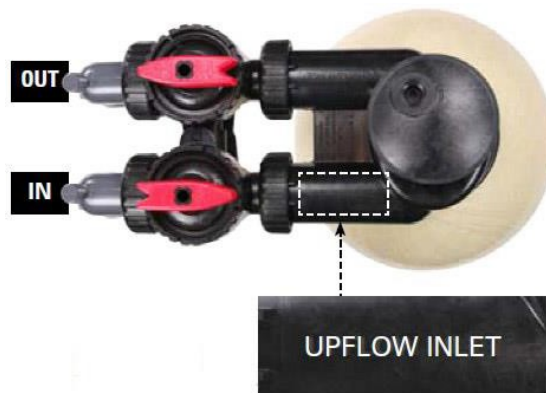
Up flow Neutralizer Installation & Startup

Pre-Installation

1. Review your packing list and make sure you have received all the parts before beginning installation.
2. If you are going to be turning off the water to the house and you have an electric water heater, shut off the power to the water heater before beginning installation in case the water heater is accidentally drained.
3. Pick a suitable location for your filter system on a dry level spot where it won't be exposed to freezing temperatures. A minimum of 20 PSI is required. Maximum pressure is 90 PSI.
4. Get your plumbing parts together before beginning installation. Installation typically takes 3 to 5 hours. However, after installation the Calcite Neutralizer Filter must be allowed to run through a complete backwash and rinse cycle.
5. After the system is installed and running, your water may be discolored or full of sediment or rust, particularly if this is older or corroded piping. This typically clears up over a day or two.

Best Practices for Piping & Drain Installation

1. If you are setting up your filter to be an Upflow filter, connect the **IN pipe to the Upflow Inlet** (on the right side when facing the pipe connectors), and then connect the **Out pipe to the Downflow Inlet (diagram below)**. The water should flow down the distributor tube and up through the filter media. The arrows may be facing either direction, so do not rely on the arrows.



2. Make sure there is a working gate or ball valve before the Neutralizer filter and one after. Pressure gauges are optional and perhaps not necessary but a hose bib (which is a faucet that you can attach a garden hose to) is required after the neutralizer filter and before the second ball valve.
3. This hose bib allows you to flush and rinse your new neutralizer filter on start-up and gives you a place to test the water before it enters your household plumbing. It also makes it much easier to perform maintenance, including adding more calcite media in the future, which must be done once a year for a residential calcite neutralizer.
4. If you will be using copper piping, do not sweat the copper pipe directly on to the neutralizer. Avoid heating the plastic.

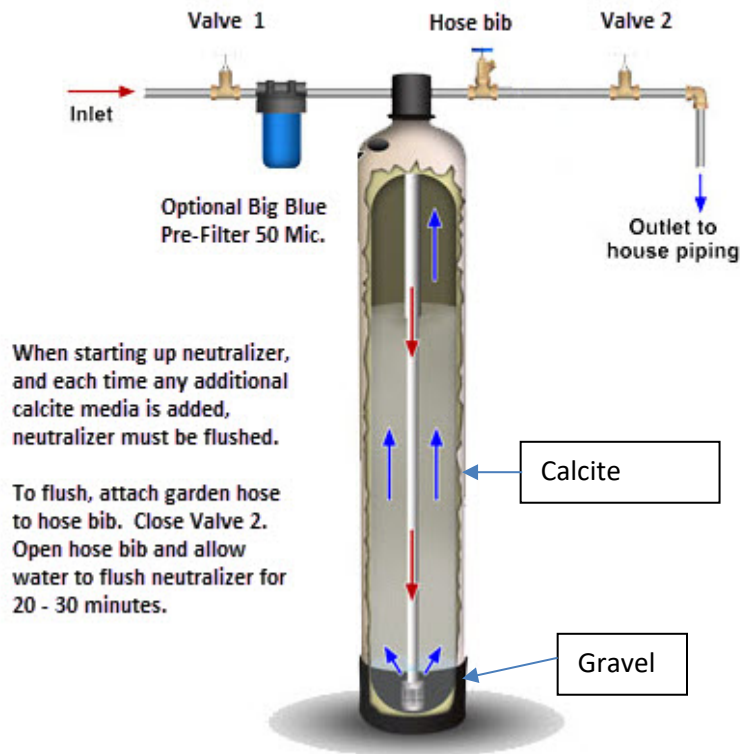
Up flow Neutralizer Installation & Startup

5. If you have copper pipe before the calcite neutralizer and it is too difficult to change it, you may still experience some copper staining of fixtures and have a copper residual in the water. We recommend PEX or PVC pipe up to the neutralizer and then copper after it, if you have copper plumbing.

How Your Neutralizer Works

The water enters the top of the up-flow neutralizer tank and flows down through the distributor tube and up through the calcite media and to the home.

Upflow Neutralizer Piping

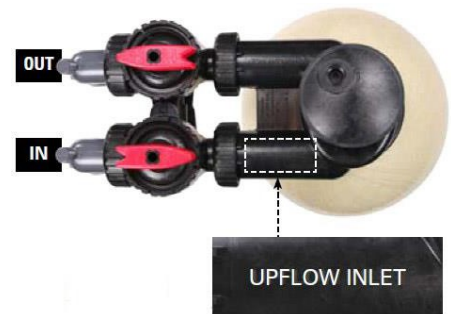


Up flow Neutralizer Installation & Startup

Assembly and Installation Instructions

1. Unscrew the top fitting on the tank by hand if it was shipped screwed on. Place the distributor tube in the tank and verify the top is flush with the tank. Cover the distributor tube with a plastic cap or tape so you do not get gravel or media inside the D tube. (Note: make sure to use a buddy tab on the tape so you can remove it without pulling up the D tube when removing).
2. If you received Flomag in your shipment (used with pH's below 6), you can now mix it together with the Calcite before adding the blend into the tank. It does not have to be exact, but we recommend mixing them together in a bucket, and adding into the tank until it is 2/3rds full, do not fill past 2/3rds.
3. Add your gravel to the tank. This should cover the bottom basket of the D tube.
4. Next add the Calcite media or Calcite/Corosex blend. The tank will be about 2/3rds full of media. Do not fill more than 2/3rds full, even if there is some left over. You can save that for when it is time to refill the tank with more Calcite.
5. Remove cap or tape from the top of the distributor tube. Be careful not to pull up the distributor tube when removing cap or tape.
6. Fill the tank completely with water. This will allow the neutralizer media to settle and eliminate the need of "purging" the air out of the tank later. Allow to soak one hour but OK to soak longer.

7. Connect the **IN pipe to the Upflow Inlet** (on the right side when facing the pipe connectors), and then connect the **Out pipe to the Downflow Inlet (diagram below)**.



8. With the system on bypass, and the valve after the neutralizer closed, open the hose bib tap after the neutralizer and allow water to run for a couple of minutes to flush out any materials used in the piping.
9. Now take the neutralizer off bypass. With the valve after the neutralizer closed, allow the up-flow neutralizer to flush for 10 to 20 minutes through the hose bib. This is necessary to flush out calcite fines and dust. The water will be milky white at first.

Up flow Neutralizer Installation & Startup

Maintaining Your Neutralizer Filter System

1. Check the pH before and after the neutralizer. You want to have a pH of at least 7.0 after the neutralizer filter.
2. If the pH drops below 7, check the depth of the calcite media by shining a bright light through the tank. Your tank should be about 2/3rds full of media. When the media level drops to ½ full, it is time to add more calcite or calcite blend media if you are using a blend.
3. For most residential applications add calcite media once or twice a year. Do not fill more than 3/4ths full, about 2/3 full is best.

How to Add Calcite Media to the Neutralizer Filter

CALCITE MEDIA CONTAINS DUST.

USE PAPER MASK OR VENTILATE TO AVOID BREATHING DUST.

1. Begin by putting the neutralizer filter on bypass or turning the water pressure off before the neutralizer.
2. Open a hose bib or faucet after the neutralizer to de-pressurize the neutralizer tank.
3. Unscrew the top fill cap of the neutralizer with filter valve wrench (included) with a channel siphon 2 to 3 gallons of water out of the filter tank if desired.
4. If you don't siphon water out, when you add filter media, water will flow out the fill plug hole and flow onto the floor. If water on the floor is OK, then you do not have to siphon water out first before pouring calcite media into top fill plug hole.
5. Add neutralizer filter media until the tank is 2/3rds full. Do not over-fill; be sure to leave at least 12" of free space above media to allow room for the media to expand during a backwash.
6. Put the top fill plug back in. You can lubricate the O-ring with silicone lube, Do not use Teflon tape or plumbing grease.
7. Turn the water back on and run the water out of a hose bib or faucet after the neutralizer until it is clear. This can take 10 – 20 minutes. The water will be milky white at first.



When to Use Calcite Blends

If the water pH is less than 6.0, calcite alone may not be enough to bring the pH up to the desired pH range of 7.0 to 7.8. In this case a blend of Calcite and Flomag should be used. Calcite is a calcium media consisting of calcium carbonate that will raise the pH slowly. Calcite will not raise the pH much over 7.2. Flomag is a natural mineral media consisting of magnesium oxide. It reacts much faster and raises the pH much higher than Calcite alone.

Up flow Neutralizer Installation & Startup

Flomag is almost never used alone as it will raise the pH too high and, in some cases, will over-correct and create a highly basic (high pH) condition. It can also cement together like concrete in the neutralizer tank if you add too much and there is not sufficient backwash.

For most residential well applications, a 90% calcite and 10% Flomag blend is best. However, in some cases an 80%/20% mix or even a 70%/30% is used. It is always better to start with a 90%/10% mix at first as this solves most low pH problems in the range of 4.5 to 5.9.

- For a pH of 6.0 to 6.9, use calcite alone.
- For pH of 4.5 to 5.9, use a blend of Calcite and Flomag (usually 90% calcite and 10% Flomag).

How to Mix and Use Calcite Blends

The Calcite and Flomag media are sold and shipped in separate boxes. It does not have to be completely blended to use as it will mix during the backwash and rinse cycles. We recommend blending the media lightly in a 5-gallon bucket and then adding it. Or you can add some Calcite and then add some Corosex as you are filling the tank.

Calcite is shipped in 50 lb. boxes and one box of Calcite is equal to 0.55 c/f

Flomag is shipped in 10 lb. boxes and 1 box is equal to 0.13 c/f

50 lbs. of Calcite = 0.55 cubic feet of media

50 lbs. of Flomag = 0.66 cubic feet of media

Up flow Neutralizer Installation & Startup

Water Filters Limited Warranty

We warrant this water filter/ softener/ conditioner, when installed according to factory recommendations, to be free from defects in materials and workmanship as follows:

-----Limited Warranty-----

This water conditioner unit is comprised of the finest industry components available. Each individual component used in the assembly of our equipment is covered by the original equipment manufacturer's warranty. All components, except those specifically listed below, are warranted for a period of one (1) year from date of installation to the original purchaser to be free of defects in materials and workmanship subject to the manufacturer's conditions and/or the conditions shown below.

-----Mineral Tanks-----

The fiberglass, polyglass or composite mineral tanks used in the assembly of this unit are warranted to be free of defects in materials and workmanship for a period of ten (10) years on 6" – 13" size tanks, and five (5) years on 14" and larger size tanks used for softener/filtration applications, subject to the manufacturer's conditions and/or the conditions shown below. Warranty does not cover exposure to weather, freezing, fractures caused by external impact, or exposure to vacuum.

-----Control Valves-----

The CWS control valve is warranted to be free of defects in materials and workmanship for a period of seven (7) years, subject to the manufacturer's conditions and/or the conditions shown below. Fleck & other brand control valves have 5-year warranty.

-----Conditions-----

1. This warranty only covers water conditioners installed for residential use. Water conditioners installed for commercial or industrial applications are guaranteed for one (1) year from the date of installation.
2. Installation must be made in accordance with legal or local codes and manufacturer's recommendations.
3. Failure must not result from exposure to weather, rodents, misuse, alteration, fire, lightning, power surges or neglect.
4. Water pressure must not exceed 100 PSI and water temperature must not exceed 100 degrees.
5. Subject to the above terms and conditions we will replace and/or repair, at our option, any parts of the water conditioner found defective in materials and workmanship. Defective parts must be returned, freight pre-paid for repair or replacement.
6. This warranty does not cover labor, shipping charges, damages caused by delays of consequential damages or other causes beyond our control. Warranty does not cover pipes, fixtures or appliances. Warranty extends to the actual water conditioner components only.
7. This warranty is to the original purchaser and is not transferable after the third year to any subsequent owner(s).
8. No other guarantees or warranty, expressed or implied, is applicable to our product. No repair or replacement made under the terms of the warranty shall extend this warranty.