



Ozone System Maintenance Instructions

Congratulations on your purchase. If you have any questions please call.
Regular cleaning of your system's filter and diffuser is important
to keep your system operating at optimum efficiency.

When To Clean Filter:

There is a natural tendency to clean the filter more often than required. A slightly dirty filter will filter the water better than a new filter. It will filter out finer particulates after it has been used for a while. This is referred to as seasoning the filter. The time between filter cleaning will vary according to the severity and type of water problems.

Determine Cleaning Interval:

After initial startup, perform the first filter cleaning in 10 to 14 days. A loaded filter is defined as having more than 1/2 of the filter pleat depth filled with particulates. If the filter is loaded continue cleaning at 2 week intervals until the filter is no longer loaded. At this time you can extend your cleaning interval to 30 days. If the filter is not loaded at the 30 day cleaning, you can then set your cleaning schedule to every 60 days. If not loaded in 60 days, you can extend the cleaning schedule to every 90 days. In no case should the filter cleaning interval exceed 90 days.

The water treatment system is not likely to remove growth/deposits from the tank walls. To remedy this, tank will need to be emptied and cleaned.

It is not necessary to scrub the pleat material or use any cleaning agents. The pleats will stain over time and will not become white when cleaned. This is normal and will not affect the function of the filter.

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Filter Cleaning:

Step 1

Leave the ozone generator ON. Although some customers prefer to turn generator off during this process due the obnoxious ozone smell, if this is the case make sure that after lifting filter out of tank that no water has gotten over the hump (past check valve) and down to low point in line.

Step 2

Proceed to the tank manhole. Slowly pull the filter module to the surface of the tank water, where the top of the lift pipe is just below the surface of the water. Do not pull up the filter so fast that turbulence will be created as this will knock excess debris off of the filter. As you pull up on the filter, the lower flapper valve will open and release the water trapped inside the filter. This creates a slight vacuum inside the filter, thus helping to hold the debris on the pleats in place. **NOTE:** Some debris will fall off the filter, but since this is coagulated debris, it will fall rapidly to the bottom of the tank. Pull the entire filter module vertically through the manhole in one smooth motion and place on most level area of tank, platform or lower to the ground. Turn ozone generator OFF.

Step 3

Hose down the filter with a stiff water spray, washing from top to bottom using the cleaning wand provided. Remove the handle and top plate to disassemble and gain access to inside of filter, hose from the inside out (reverse flow) for more thorough cleaning. Check to make sure that there is no debris in the flapper valve that would prevent sealing (replace if necessary).

Helpful Information:

You may wish to purchase an extra filter. You can then exchange the filters, clean the dirty filter and store for next change. Once used, keep filter wet.

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Diffuser Cleaning:

The life of a diffuser is about 3-5 years if it is cleaned regularly. The diffuser will become restricted over time due to the ozone precipitating out iron, manganese, calcium, etc., and coating the surface of the diffuser with these contaminants. A plugged diffuser will reduce both the ozone and water flow through the filter, thus impairing the ability of the system to maintain your water quality. A completely plugged diffuser can cause damage to the ozone generator (air pump). Never exceed 90 days without cleaning or inspecting diffuser.

Purchase one gallon of muriatic acid and store this one gallon container within a 5 gallon bucket with lid. This keeps it out of the sun and should last a lifetime. **CAUTION:** Follow muriatic acid label instructions. Handled carefully, do not breathe the muriatic acid fumes.

Step 1

Turn ozone generator OFF, dip diffuser in and out of muriatic acid for about 30 seconds, and then dip in water for about the same time. Repeat until diffuser is clean, it should be bright white.

Due to some water conditions, after cleaning the diffuser it may appear clean and bright white, it may still be clogged with mineral deposits (back pressure) (there goes the air pump). Just replace the diffuser as they are inexpensive. Never leave diffuser soaking in muriatic acid.

Step 2

Replace the diffuser/handle assembly and tighten the quick disconnect. Slowly lower the filter module into the tank, be sure the bottom of filter is no more than about 6 feet down from tank high water shut off point (adjust chain if necessary). Always confirm diffuser is actually clean by turning system on and checking bubble pattern, as air flow is the best friend of these ozonators! Replace the manhole cover.

High Hydrogen Sulfide Water (Rotten egg odor):

In water systems with very high hydrogen sulfide, the diffuser may become plugged with sulfur which is not soluble in muriatic acid. If this is the case, first clean the diffuser with muriatic acid as described above. Then rinse the diffuser thoroughly and soak for at least 15 minutes in concentrated chlorine solution and rinse.

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Monthly Maintenance:

- Check for condensation in the line. Release moisture with the installed condensation drain kit. If you do not have this kit installed, you must disconnect lines and manually drain moisture. Check bubble pattern in tank for good bubble pattern.
- Check filter to see if loaded, if so clean filter. A loaded filter is defined as having more than 1/2 of the filter pleat depth filled with particulates. If the filter is not loaded at the 30 day cleaning, you can then set your cleaning schedule to every 60 days. If not loaded in 60 days, you can extend the cleaning schedule to every 90 days. In no case should the filter cleaning interval exceed 90 days.

Quarterly Maintenance:

- Diffuser should be cleaned or inspected every 3 months.
- Filter cleaning if not cleaned within 90 days.

Bi-Annual Maintenance:

The ozone generator UV light assembly should be replaced every 18 to 24 months to maintain optimal ozone output. The UV lamp ozone producing rays will decrease over time. This is due to the lamp glass solarizing and becoming more opaque to the ozone producing wavelength. Please note that the light you see at the UV viewport on the lamp assembly is visible UV light. The wavelength of light that produces ozone is not visible to the human eye.

The ozone output of your system will reduce to about:

- 80% of new after 12 months
- 50-65% of new at 18 months
- 25-40% of new at 24 months

High output UV lamp replacement is especially critical when bacteria control is needed. In this case, I recommend annual replacement of UV lamp

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Troubleshooting:

A reduced bubble pattern in the tank means less ozone flow, which means less water flow through the filter, which reduced your water quality.

Reduced or No Ozone Bubble Pattern In Tank:

1. Diffuser needs cleaning.
2. Check for ozone hose leaks with soapy water.
3. Bad air pump – check with air pump test gauge - replace air pump – save and return old air pump for rebuilding.
4. Leaking plastic UV light assembly – replace. Triple O Systems plastic lamps are made in China using substandard materials and are known to fail due to cracking. Revolution Ozone lamps are made in America using traceable FDA and NSF approved materials.
5. Crimped – cracked - leaking ozone hose.
6. Leaking 6 psi check valve on mixer assembly. The 6 psi red check valve is the one between the 3/16 inch barb tee and the eductor body. If this valve leaks, some of the ozone gas will continuously bubble into the water feed pipe to the tank. To determine if the valve is leaking, place your ear against the eductor body and listen for a gurgling sound. If the check valve is leaking, replace with new valve. Replace the 6 psi red check valve every 36 to 54 months and the two white check valves with UV lamp change or 18 months.
7. I recommend not using the mixer unless absolutely necessary, it is a maintenance problem.

Water Conditions Were Good, But Then Became Worse:

1. Filter needs cleaning.
2. Diffuser needs cleaning.
3. Reduced or no ozone bubbles pattern in tank - see above.
4. UV light assembly is more than 24 months old.
5. Large water usage such as filling swimming pool or irrigation.
6. Check filter flapper valve, located on the bottom of filter module, it may be beyond its life and not sealing properly.

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Helpful Information:

Once your holding tank has stabilized, you will start enjoying good water. If you have been living with poor water in your home for some time, it is likely that your plumbing has accumulated mineral deposits, the contaminants are now being removed from your water supply. Some of these deposits will be removed from your plumbing over time.

Iron: As your pipes are cleaned out, you may notice spurts of iron colored water when your taps are first opened. This is especially true for taps that are not used regularly. Cleaning out your toilet tanks will remove any accumulated iron and help eliminate continued toilet staining.

Odor/Taste: These problems are similar to iron; you may notice spurts of bad taste or odor when a water tap is first opened.

Calcium/Hardness: Your new Revolution Ozone treatment system, through the use of ozone/polarization technology, will make your water appear softer. Your water will suds better and may feel softer. You may still notice some hard water deposits on your fixtures, these deposits can be more readily removed because they will not bond strongly. For hard water, usually above 5 gpg you may wish to treat your water with an available water softener.

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