

What to do once you receive the Ozone Pure Water system

Unpack and inspect for any damage. It happens only on a rare occasion.

Read the instructions:

- Inside on top of the unit the ozone unit.
- Individual stickers on each item.
- Backwash valve booklet packed in with the valve carton.

It may require several repetitions in order to get a grasp of the principle of operation and the line flow.

Layout the equipment on a table or the floor as if being installed in place from Left - Right.

Put all parts in the appropriate group as you perceive according to the instructions.

Do not through away any packing materials or cartons. Put the packing materials back in the carton from which they came. Keep the cartons adjacent to the item that was packed inside.

Call us with any questions you might have, but try to complete steps 3 & 4 before calling. You'll be surprised how things will fit together in your mind once you've finished step 4.

Pay careful attention to the Filter Tank Set-Up instructions. The only place you might have difficulty that will cause frustration is if the SP10 media is not added or flushed properly.

1) Unpack and inspect for damages.

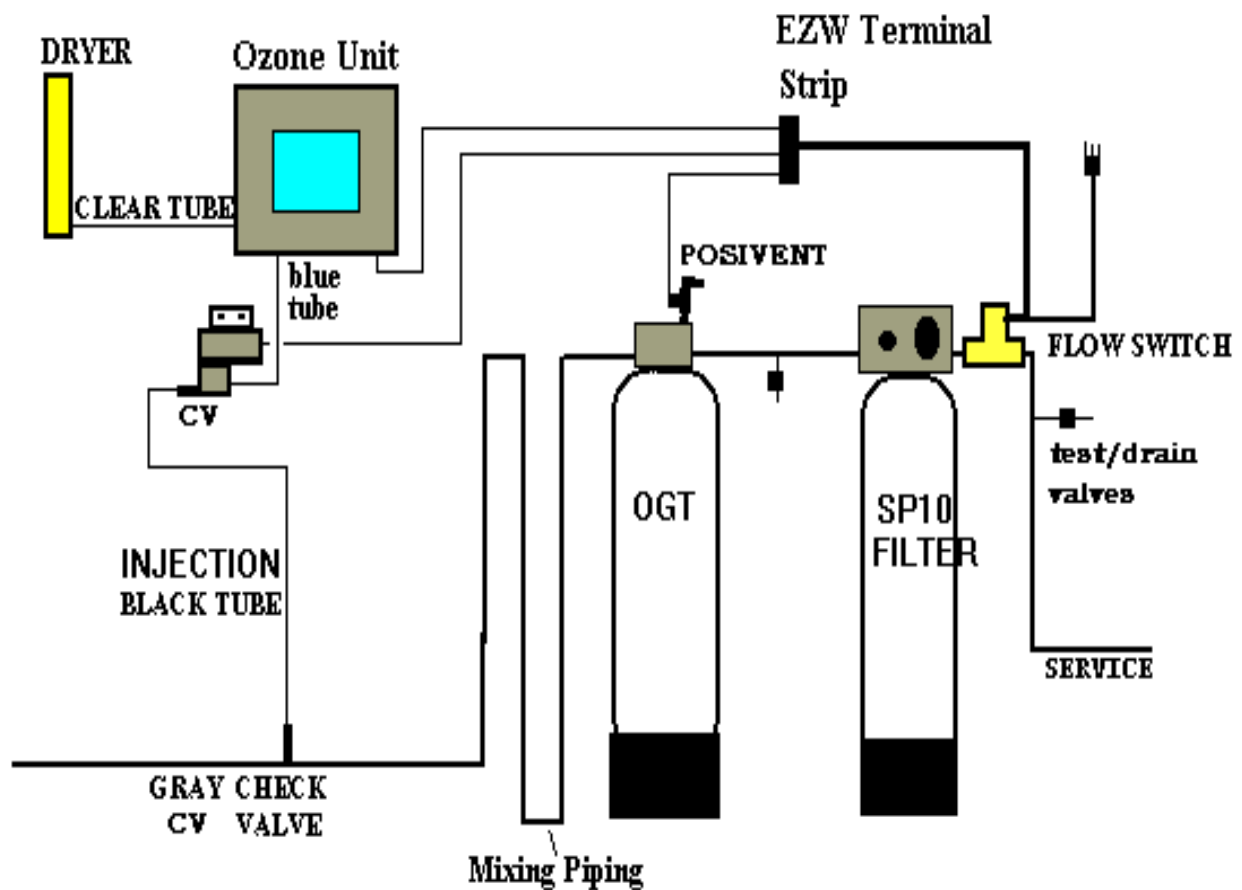
2) Look over the instructions and all the individual stickers.

3) Arrange the parts in the correct order per the instructions.

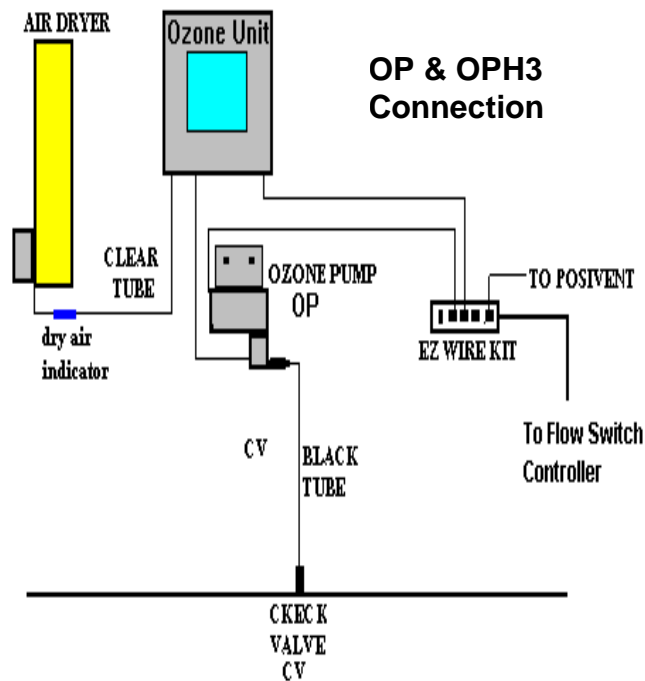
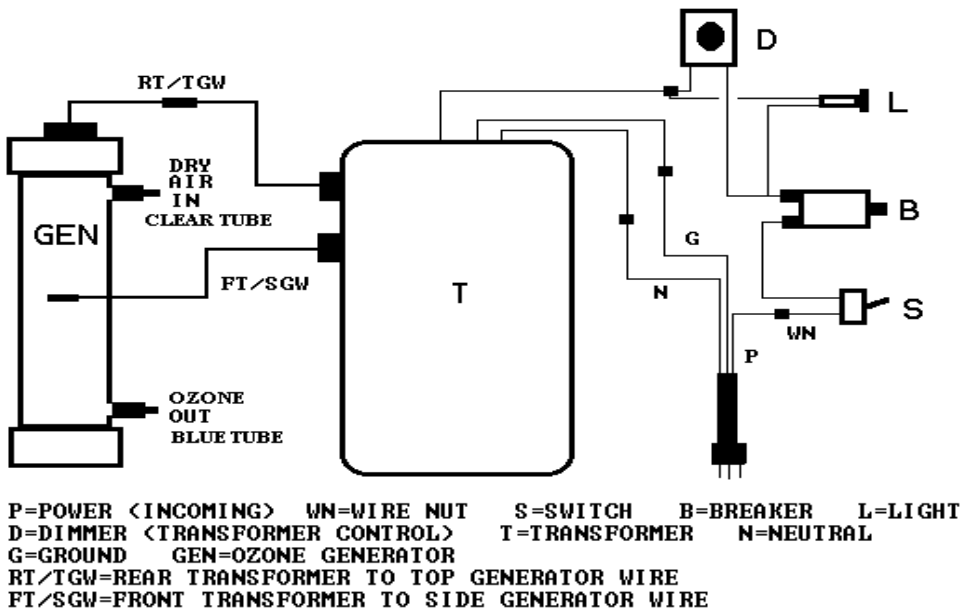
4) Call us with any questions & indicate the invoice number.

Ozone Pure Water System FLO Installation Instructions

- Follow local and national Electrical and Plumbing codes.
- Install system after the CO Certificate of Occupancy (CO) has been issued only.
- Follow specific/detailed instructions for the specific item.
- Be sure there are **no copper materials 24"** prior to the ozone injection location, up to the outlet of the SP10 filter.
- Teflon tape & tighten all male threads.
- Unpack, layout, check over & do not throw away any cartons or packing material.
- Connect the Black Tubing Check Valve assembly with the arrows pointing toward the water line.
- The MIXING PIPING is merely a 5' UP / DOWN assembly of the same size piping you're using.



Ozone Unit Electrical Schematic



Mount on/in a clean dry location.

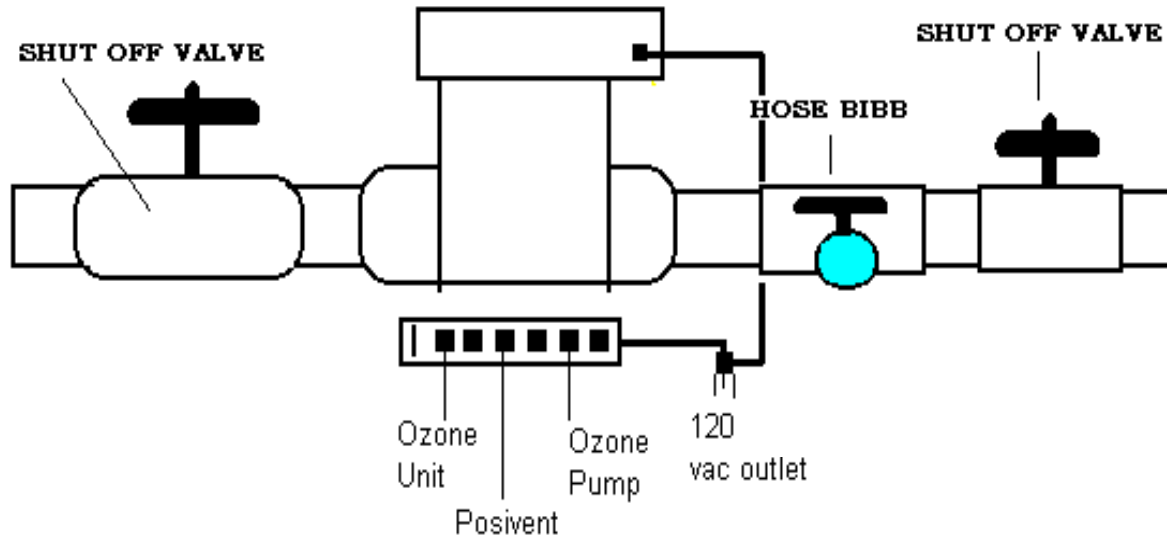
Separating Ozone Units internal wiring voids warranty. Do not cut off plugs.

Connect the Black Tubing Check Valve assembly with the arrows pointing toward the water line.

Be sure all tubing and fitting connections are secure and do not leak.

Do not cut any tubing – use as supplied. Do not coil.

Flow Switch Plumbing Layout for any system



- **Follow all plumbing and electrical codes**

Plumbing:

Flow switch must be kept in the **horizontal position, electric box up**.

Maximum pressure applied should be 60 psi.

Be sure no debris enters the switch. Glue, cleaner, Teflon tape, sediment, etc will foul the switch and Void the warranty.

Follow the **direction of flow** printed on the inlet & outlet of the switch.

Be sure to glue **UNIONS** on the INLET & OUTLET.

If the FLOW SWITCH has a **RED WIRE** it is a FLO, which means the FLOW SWITCH must be installed after the BACKWASH FILTER TANK.

Electrical:

Connect the Ozone Unit, Ozone Pump & Posivent to the Power Terminal Strip. This strip will be powered only when the flow switch activates during water usage.

Connect **the RED** wire from the Flow Switch to the **RED** wire at the rear of the backwash valve if using a FLO assembly, & if we supplied the BACKWASH VALVE.

If you are supplying the F2510 backwash valve – You must connect the FLO **RED WIRE** to either the BROWN or YELLOW wire at the DRIVE MOTOR MICRO SWITCH. The wire that is live 110vac during backwash is the wire that connects the Flow Switch **RED** wire.

You can plug the switch into a 120vac outlet.

- **Do not connect to 220 vac**

Cleaning Instructions:

Unplug from power source.

Close valves and drain pressure.

Remove the lower main body 6-screws.

Remove the cover, which exposes the magnet shuttle.

Remove internal parts & clean any debris with water. Use only a soft rag or soft bristle brush.

Be sure no glue or cleaner gets inside flow switch upon installation.

- **DO NOT SCRATCH THE SHAFT**
- **DO NOT SOLDER FITTINGS DIRECTLY ONTO FLOW SWITCH**
- **Use unions on inlet & outlet for easy removal from piping**

OFF GAS/CONTACT TANK SET UP

PRINCIPLE OF OPERATION:

OZONATED WATER ENTERS THE TOP OF THE TANK AND THE BUBBLES ARE DISPERSED THROUGHOUT THE ENTIRE DIAMETER OF THE TANK DOWN TO APPROXIMATELY THE 50% MARK AT WHICH POINT THE BUBBLES RISE AND ARE EXTRACTED THROUGH THE AIR RELEASE DEVICE.

POSIVENT: ELECTRIC

Assembly:

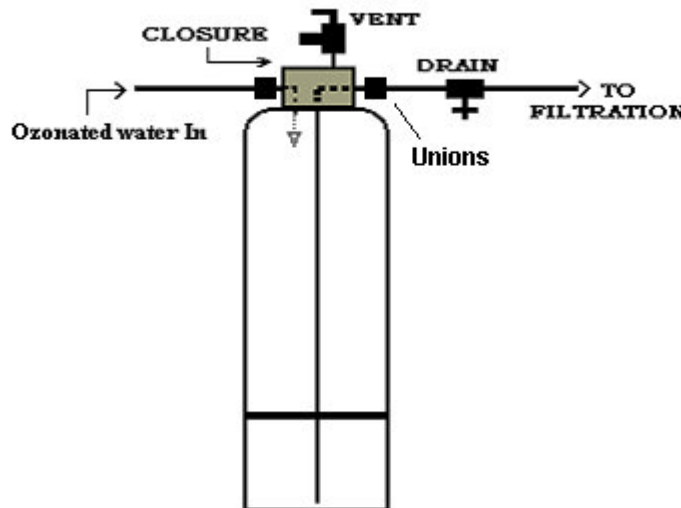
Cut the Riser (PVC pipe) the full length of the tank so it is flush with the top of the tank. Cut the bottom of the riser at a 45° angle. This will be done already for you.

Place Unions on the inlet & outlet of the CLOSURE (very important).

Lubricate and insert the top of the riser into the Center hole of the Closure until it stops.

Do not insert beyond the shoulder inside the Closure. The riser should not protrude into the Outlet hole.

Lubricate the threads and screw the Closure into the tank.
Insert the vent device into the Closure. Follow separate instructions.



TROUBLE SHOOTING THE OFF-GAS TANK (OGT)

THIS PROCEDURE MUST BE FOLLOWED BEFORE CALLING FACTORY. FACTORY WILL NEED ANSWERS TO THE QUESTIONS BELOW.

1. IS THE TANK COMPLETELY FULL OF WATER? Or AIR?
2. IS AIR SURGING OUT OF THE COLD FAUCETS WHILE RUNNING WATER DOWN LINE OF THE OGT?
3. IF TANK IS FULL OF AIR THEN THE VENT NEEDS CLEANING. FOLLOW THE APPROPRIATE VENT CLEANING/INSPECTION INSTRUCTIONS SUPPLIED WITH THE VENT.
4. IF THE TANK IS FULL OF WATER AND AIR IS SURGING, THE RISER HAS POPPED OUT OF THE CLOSER, OR THERE IS A CUT IN THE CLOSURES O-RING, OR THERE IS A CRACK IN THE CLOSURE. REMOVE THE CLOSER AND INSPECT.

SP10 Filter Tank Set-Up

- 1) Tape or cover the riser/internal center pipe.
 - 2) Be sure **riser is “dead center” & on the bottom** of the tank. **Never** let the riser be off center. **Never** let the riser rise from the bottom of the tank.
 - 3) Add the proper amount (**_44 #_**) and type of gravel if not already in the tank. Use #20 Pee, 1/8" x 1/8" size.
 - 4) Add the appropriate amount of SP10 (**_2.5 CUBIC FT_**) for the size tank you are using. You can add water to create a slurry for faster pouring. **Media bed depth: 15” maximum from the top of the tank, 20” minimum.**
- * Do not transport to the job without doing the initial backwash, rinse then remove all the water.
- 5) Clean the threads and riser, and then remove the tape. Fill the tank with clean water up to **1” below** the riser opening.
 - 6) Lubricate the riser pilot hole oring and the threads of the backwash valve.
 - 7) Install the backwash valve. Plug the valve into any 120vac constantly powered outlet.
 - 8) Initiate the Backwash cycle: turn the center black knob with the white dot 2, clicks clockwise. The drive motor on the left should operate and move the piston (lower center) inward then stop. Unplug the valve.
 - 9) Open the **Inlet by-pass very slowly ½”**. Only a slight amount of water should be coming out the backwash line. The water will be black and foamy. Once the water clears **open only a ½” at a time**. Each time wait for the water to clear slightly before opening further. It will take 3, ½” turns to be full open. This will take some time.

- **Opening too much too fast will force media into the valve and clog the backwash line.**

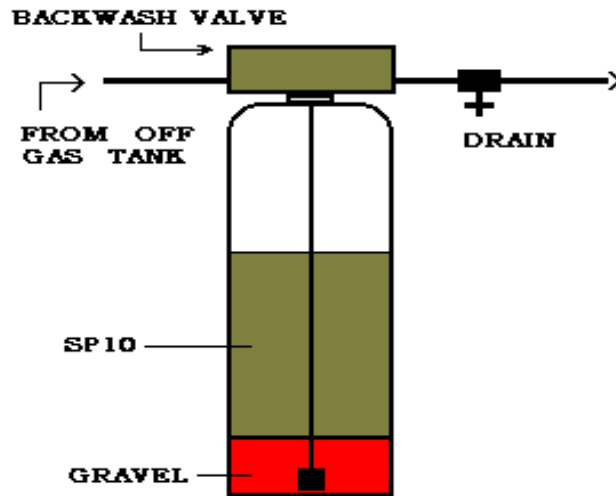
10) Once the Inlet is full open: time 10 minutes, plug in, then initiate a rinse cycle for 1 minute (Rinse is the second set op pins & the drive motor will move twice from the Backwash position. Repeat this step 2 more times (3, 10 minute BW followed by 2, 1 minute rinse)

* On the last rinse cycle allow 5 minutes for good settling.

Always advance the valve clockwise: from BW to rinse, back to service. Allow the drive motor to stop in position before advancing to the next cycle. * Refer to backwash valve manual for details. **DO NOT** change our factory settings.

Open the outlet bypass valve when finished step #10.

- On occasion there might be a slight dark discharge during the first mornings water use. This will dissipate within a few days. Please make the customer aware that this is normal.



KEY POINTS

The following KEY POINTS are things you will notice and items to be aware of.

1. **BUBBLES:** You will notice an increase of bubbles in your water. The amount will vary from faucet to faucet. **The bubbles are a good thing.** They let you know that the ozone is being injected, but you're not seeing ozone, just air. If you should notice no bubbles for 3 days straight, notify your dealer immediately.
2. **INITIAL FLUSHING:** The water quality will start to improve after installation, however, it could take up to 2 hrs days of constant flushing, & up to 2 days pipes to fully improve.
3. **PARTICLES & ODOR IN WATER:** You might notice particles in the water after installation. The particles & odor will most likely be from disturbing the plumbing. Even brand new homes can have dirty & smelly plumbing. You might notice after the system has been installed for a period of time that some particles might start flaking off old piping. This could occur after the water has not been used for a period of time. Running the water will immediately flush the particles. This can occur from the clean water starting to clean the pipes.
4. **DRYER INDICATOR:** You will have a color bead indicator at the bottom of your air dryer if you have purchased if it is from OPW. **BLUE** = dry air (good). **PINK/AMBER** = wet air (no good/problem), consult your dealer immediately.
5. **TIMERS:** The air dryer, SP10 filter, and water softener will have timers that **MUST** maintain the correct time of day. This will have to be check periodically. More often if you experience power outages.
6. **SOFTENERS:** The short wide tank with the removable top is the BRINE TANK or salt tank. You should have no less than 6" of salt in the tank. Try to maintain 1/3 to 1/2 full at all times. It should also have approximately 12" of water during the day. You will not see the water if your salt level is higher than 12".
7. **OPERATIONAL LIGHTS:** The light on the side of the ozone unit should illuminate when the ozone unit, ozone pump, and POSIVENT operates. This will coincide with either the well pump operation for system #2, or when the flow switch operates with in home water usage for FLO system. The light on the bottom left side of the RD2 & RD4 dryer illuminates only during the regeneration cycle, which is 2-5am or 3-6am (RD2). The light **must be off** during the day.

8. **CONSULT FACTORY:** We must be consulted whenever iron or sulfur is over 5 ppm, methane, radon, natural gas, tannic acid (yellow water), low pH, or bacteria is present or detected in the water. There are special precautions and different system designs that are beyond the standard.

INSTALLATION INSTRUCTIONS - G E N E R A L

AIR DRYER

1. Connect CLEAR tube from ozone unit to colored beads (dry air indicator) black fitting.
2. Mount vertical in a clean/dry location. **INDOORS!**
3. If RD2 or RD4 type: Be sure dryer is off (light is off) during normal water usage hours. Dryer is on (light on) only in the regeneration mode.
4. Set TIMER for the proper time of day.

EZB MOUNTING BRACKET

5. Mount the OZONE UNIT & OZONE PUMP to this bracket, and the bracket to the OFF GAS TANK prior to plumbing.
6. Fill the OFF GAS TANK with water prior to mounting.

OZONE UNIT

7. Mount in a clean/dry location. **INDOORS!**
8. Connect power cord to the appropriate location according to the type of system.
 - * SYSTEM #2 = PRESSURE SWITCH TERMINAL STRIP.
 - * FLO = FLOW SWITCH TERMINAL STRIP.
9. The BLUE tube connects to the BLACK hose fitting on the OZONE PUMP.

OZONE PUMP

10. Mount on the angle bracket as shown with the 2 diagonal holes on the motor casing facing away from the mounting surface.
11. Connect the power cord to the same terminal strip as the OZONE UNIT.
12. Connect the check valve assy (thread ----> hose) to the female threaded outlet port. Lube all hose barbs.

WATER LINE CONNECTION

13. Connect the check valve (compression fitting > tube > CV > tube > CV > tube > comp fgt) to the water line. The check valve assembly must connect directly to the water line TEE with a minimum of fittings/reducers.
14. Check valve must have the ARROW of flow pointing toward the water line.
15. Connect the BLACK tubing to the check valves with hose clamps if necessary.
16. Do not shorten the BLACK tubing.

OFF GAS TANK

17. Connect the POSIVENT drain line to any drain.
18. Connect the POSIVENT's power cord to the same TERMINAL STRIP as the OZONE UNIT & OZONE PUMP.

FILTER TANK

19. Follow BACKWASHING instructions **EXACTLY!**
20. Be sure the RISER doesn't rise when doing the GARDEN HOSE BACKWASH.
21. Apply water pressure slowly when BACKWASHING.

TIMER SETTINGS

22. The Timers on the Backwash (SP10) valve and Softener must be set so the regeneration cycles don't coincide. Set to the **present/correct** time of day.

OZONE SYSTEM TESTING

You should test the on/off operation of the OZONE SYSTEM prior to backwashing the filter. Keep the FILTER in bypass & run the water from the clean water hose bib you just installed. The OZONE SYSTEM should turn on & off with the running of the water if using the FLO SYSTEM, or only during the well pump cycle if SYSTEM #2.

Once the FILTER has been thoroughly backwashed according to the FILTER SET UP instructions you can proceed to running water inside the home.

Maintenance Sheet

Ozone Unit:

There is no regular scheduled maintenance to be followed.

To determine proper operation:

Be sure the indicator light is on when the system is operating (either by the pressure switch for System #2, or via the Flow Switch for System FLO).

Be sure all tubing/fitting connections are secure and do not leak.

Check Valves: Check valves need to be changed every 2-3 yrs.

Ozone Pump OP (OPH):

There is no regular scheduled maintenance to be followed.

The OP will produce >85 OP, >180 OPH4, >110 OPH3 psi when new. 70 OP, 140 OPH4, 100 OPH3 psi is the minimum. The trouble shooting guide on the inside cover of every Ozone Unit will describe the diagnosis procedure.

The OP will need a Rebuild Kit if below 70 OP, 140 OPH4, 100 OPH3 psi.

Rebuild frequency can be once to twice per year when not using an Air Dryer, or, as little as once every year to 3 yrs with the use of an Air Dryer. We have seen pumps go 6 yrs without a rebuild or a dryer.

Rebuild frequency will be determined by:

- 1) Environmental conditions around the OP,
- 2) Length of operational time,
- 3) Number of on/off cycles per day,
- 4) Whether an Air Dryer is being used.

Air Dryer: The media inside the air dryer needs to be changed every 1-3 yrs, or whenever an OP, OPH REBUILD is done.

Off Gas Tank (OGT):

There is no regular scheduled maintenance to be followed.

If may be necessary to drain and clean the inside once per year, depending upon the amount of biofilm in the water. It is common to perform this cleaning whenever the filter tank needs to be re-bedded.

Filter Tank (FT):

There is no regular scheduled maintenance to be followed.

It may be necessary to replace (re-bed) the filter media (if using SP10) every 3-5 yrs (single family residence). This will be determined by:

- 1) Water quality,
- 2) Gallons per day used,
- 3) Backwash volume and psi,
- 4) Length and frequency of backwash cycle.

Ozone Pure Water **Warranty**

This Warranty Sheet **must be filled out and returned** to Ozone Pure Water, **along with photographs** detailed enough to depict your entire ozone system. **In order for the warranty to be in effect you will have to return** the warranty sheet and photographs to Ozone Pure Water, 410 Municipal Drive Bldg. B Suite 100 Leander Texas 78641. Copies should be kept for your records.

1) The manufacturer warrants to the purchaser that the following parts will be free of defects for a period time set forth below for each corresponding item. All ozone units' ozone production has been tested for and verified. All ozone units have been electrically tested under CSA guidelines. All other parts sold have been tested for proper operation.

A. THE FOLLOWING ITEM(S) HAVE A 2 YEAR WARRANTY: S1-SS10 GENERATORS.
HD Models: All internal parts.

B. THE FOLLOWING ITEM(S) HAS a 1 YEAR WARRANTY: S5 OZONATOR (all internal parts & check valves); TRANSFORMER; TRANSFORMER CONTROL; BREAKER; OFF/ON SWITCH; LIGHT; OZONE PUMP; AIR DRYER; POSIVENTS; USO3 ONLY (no warranty on filter); USO3 BUBBLER.

C. THE FOLLOWING ITEM(S) HAVE A 90 DAY WARRANTY: FLOW SWITCH & RELAY; REC TIMER ASSEMBLY.

THE FOLLOWING PARTS ARE NOT WARRANTEED: REPAIRS. CHECK VALVES. AUTOVENTS. FILTER MEDIA. VENTURI's. OZONE PUMP PARTS: (plate, piston, sleeve).

2) Any part which does or does not meet the standard warranty in Paragraph 1 above will, upon receipt at the manufacturer's place of business, freight prepaid, will be restored to original specifications, be either replacement or repair at the option of the manufacturer.

TERMS AND CONDITIONS

3) The warranty printed on this document does not apply:

(a) to any part subjected to accident, misuse, negligence, abuse, defacement; exposure to moisture, dust, dirt, creatures; removal of the Manufacturer's labels affixed to any part; or failure to follow sizing and or installation instructions.

(b) To the cost of labor involved in repair or replacement of parts or any other costs or losses or liabilities incurred by the purchaser due partly or wholly to the failure or defect of any part (s).

(c) To shipping charges.

4) Parts repaired or replaced under this warranty are warranted only through the remainder of the original warranty.

5) Any expressed or implied condition, statement, or warranty, statutory or otherwise, relating to the quality and fitness for any purpose of the goods supplied hereunder, which is not stated in this document is hereby expressly excluded.

6) Any items not manufactured by Ozone Pure Water, other than section one are warranted by that respective manufacturer.

7) Any item that is out of warranty damaged by water the result of a defective check valve(s).

IMPORTANT NOTICE TO PURCHASER (USER)

The following is made in lieu of all warranties, expressed or implied. The manufacturer's only obligation shall be to replace such part of a product proved to be defective. The manufacturer shall not be liable to the seller or user or any other person under legal theory, including but not limited to negligence or strict liability, for any direct or consequential damages sustained or incurred by reason of the use of the product or otherwise. Before using, seller and user shall determine the suitability of the product for the intended use, seller and user assumes all risk and liability whatsoever in connection therewith. The foregoing may not be altered except by an agreement signed by officers of the manufacturer.