



## Clean Water Made Easy

### CWS 5g/hr. Ozone Generator with Diffuser System

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

**Please review this start-up guide entirely before beginning to install your system and follow the steps outlined for best results.**

**For indoor installation. Protect from sunlight, rain, and freezing.**

For assistance call: 1-831-462-8500 M-F 8AM to 4PM PST

Email us: [support@cleanwaterstore.com](mailto:support@cleanwaterstore.com)

More information online: [www.cleanwaterstore.com](http://www.cleanwaterstore.com)



**Table of Contents**

Packing Lists ..... 2  
How your Ozone Recirculating System works ..... 3  
Best Practices for System Location and Plumbing Installation ..... 3  
System Installation Steps.....4-9  
Limited Warranty ..... 10

**Packing Lists**

- Ozone Generator Unit 5 gr/hr
- Check Valve
- Qty. 1 Kynar 1/4" MPT x 3/8" compression fitting
- Optional:
  - 20' PTFE tubing (3/8 "diameter)
  - Qty. 1 Kynar 1/2" FPT x 3/8" compression fitting with Diffuser stone
  - Ozone Air Dryer Cartridge (White) and (Blue) with fitting connections and tubing
  - Oxygen Separator

### **How your Ozone Generator Works**

#### **System with External Drying Cartridges:**

The CWS 5gr./ hr. Ozone generator has an internal pump. The pump pushes ambient air through the external dryer cartridges and then into the Ozone corona discharge tube. The Ozone is then sent out of the unit through PTFE tubing and into a diffuser stone located inside the storage tank.

#### **System with Optional Oxygen Separator:**

This configuration does not use the internal CWS 5gr./ hr. Ozone pump but uses the Oxygen Separator pump. The Oxygen separator connects directly to the air input of the Ozone Generator. The Separator pump pushes clean Oxygen into the Generator Ozone corona discharge tube. The Ozone is then sent out of the unit through PTFE tubing and into a diffuser stone located inside the storage tank.

### **Best Practices for System Location and Plumbing Installation**

1. Pick a suitable spot for your system installation.
2. Install on a level floor or surface.
3. System must be installed at least 10 feet ahead of inlet to water heater to prevent damage due to back-up hot water or use a check valve to prevent hot water back-up.
4. DO NOT install the unit in an area of direct sunlight, rain, or exposure to freezing temperatures.
5. Locate the unit near 110v electrical service
6. Use hot water or a heat gun to soften tubing to soften tubing during installation over barb fittings.

---

## CWS 5g/hr. Ozone Generator with Diffuser set-up guide

---

7. Use 1 ½ to 2 wraps of Teflon tape on all pipe fittings unless specified.
8. Do not use ant thread tape or sealant on compression fittings.

### System Installation Steps for use with External Dryer Cartridges:

1. Mount Ozone Generator to the wall or on a shelf. Mount the two external air dryer cartridges near the generator (using the provided clips). Air will be drawn through the white filter first then the blue filter into the Ozone generator.
2. Install provided ¼" NPT x barb fittings into the outlet of the white and inlet/outlet of the blue filter. (Note flow direction on the filter housings).
3. Install the PVC ¼ NPT x ¼ compression fitting into the inlet of the white filter. Install the air flow meter to this line using a short section of tubing. Connect the two dryers and run a line to the outlet port on the side of the generator using the ½" tubing onto the barb fittings using hose clamps.



---

## *CWS 5g/hr. Ozone Generator with Diffuser set-up guide*

---

4. Install the Quick Disconnect fittings into the unit using several wraps of Teflon tape.
5. Connect Ozone outlet supply from the O3 outlet on the side of the Ozone generator to the Check Valve assembly as shown below. Install the ¼" MPT Kynar fitting to the outlet of the check valve. Connect one end of the PTFE 3/8" tubing to the 3/8" Kynar fitting coming out of the check valve.
6. Connect the inlet and outlet tubing from the dryer assembly using the 3/8" tubing into the QC fittings and secure. The outlet of the blue filter goes into the (AIR INPUT PORT) and the inlet of the white filter goes into the (AIR OUTPUT PORT) This completes the air-drying system into the AIR INLET and OUTLET on the side of the Ozone Generator.



---

## CWS 5g/hr. Ozone Generator with Diffuser set-up guide

---

7. Install the Diffusor stone to the other end using 3/8" PTFE tubing and Kynar fitting.



8. Turn off both the air pump and the Ozone switch on the front of the Ozone Generator.
9. Plug in the Ozone Generator and turn on power to the entire system (Note, the system will not be creating Ozone with the switches turned off).



---

## *CWS 5g/hr. Ozone Generator with Diffuser set-up guide*

---

10. Turn on the Ozone and pump switches and you should start injecting through your diffuser stone. You can adjust amount of Ozone by adjusting the concentration control knob on the side of the unit.



---

## CWS 5g/hr. Ozone Generator with Diffuser set-up guide

---

### System Installation Steps for use with Oxygen Separator:

Note: External drying cartridges are not required if you are using the Oxygen Separator. When using the Oxygen Separator.

1. Install 3/8" ID tubing to the outlet of the Oxygen Separator and secure with a hose clamp as shown.



2. Install the other end of the tubing to the air inlet port of the O3 Generator as shown





---

## *CWS 5g/hr. Ozone Generator with Diffuser set-up guide*

---

3. With the Ozone Generator internal pump off and the ozone on, turn on the Oxygen Separator and adjust flow using the flow meter mounted on the front of the unit.



---

# CWS 5g/hr. Ozone Generator with Diffuser set-up guide

---

## Limited Warranty

-----Ozone Generator-----

The CWS Ozone Generator is warranted to be free of defects in materials and workmanship for a period of one (1) year, subject to the manufacturer's conditions and/or the conditions shown below.

-----Conditions-----

1. Installation must be made in accordance with legal or local codes and manufacturer's recommendations.
2. Failure must not result from exposure to weather, rodents, misuse, alteration, fire, lightning, power surges or neglect.
3. 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.
4. 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.
5. This warranty is to the original purchaser and is not transferable after the third year to any subsequent owner(s).
6. 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.