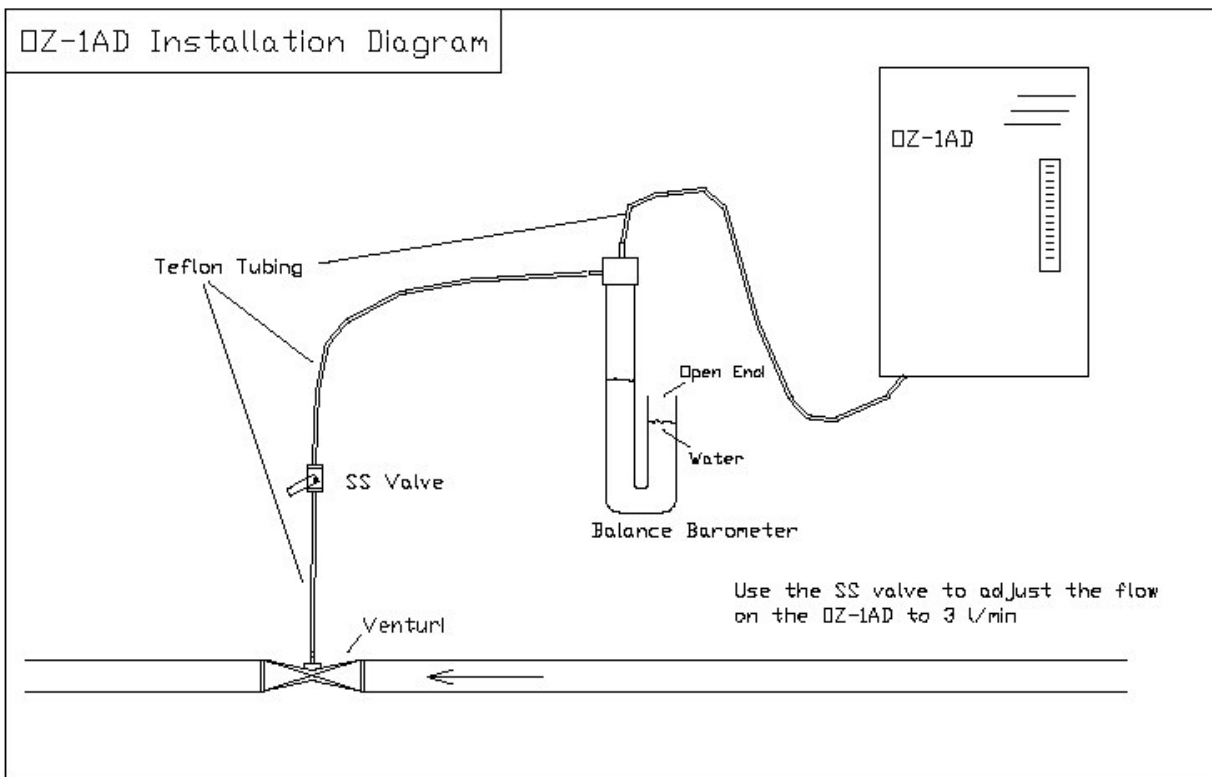


## Ozone Generator with Integrated Air Drier (OZ-2AD)

### *Installation, Operation and Maintenance Manual*

#### 1. Installation.

Mount in a dry and clean room with the ambient dewpoint not higher than 55°F dewpoint (see chart on page 3), and the ambient temperature not higher than 35 °C (90 °F). With ¼" ID Teflon tube connect the ozone outlet to the top fitting at the Balance Barometer. Connect the lower fitting at the Balance Barometer to the SS valve and then to the ozone injector. The unit does not have an ON/OFF switch and will start once plugged in. A motive force is still needed to move air through the unit. See installation diagram below for water installations. Call Ozone Solutions if you need a compressor, or have an air application.



#### 2. First Start Up.

- If the unit was powered off, plug the power cord into the power outlet for at least 5 hours so that the air drier recharges. Do not interrupt power to the air drier, it has to run continuously in order to maintain the air drying cycle.
- Fill water into the Balance Barometer almost to the top of the open side and mark the water level at higher side of the tube.

- Start the booster pump to initiate water flow through the injector. The injector will create a vacuum. The water level in the Balance Barometer will rise. Choke the airflow to the injector in case the water level rises too high, too close to the top.
- Adjust the flow to about 3 LPM (6 SCFH) with the SS valve to achieve 1.3 gm/hr of ozone.
- If the unit has an optional 10 position switch, this will adjust the ozone concentration without affecting the air flow through the unit.

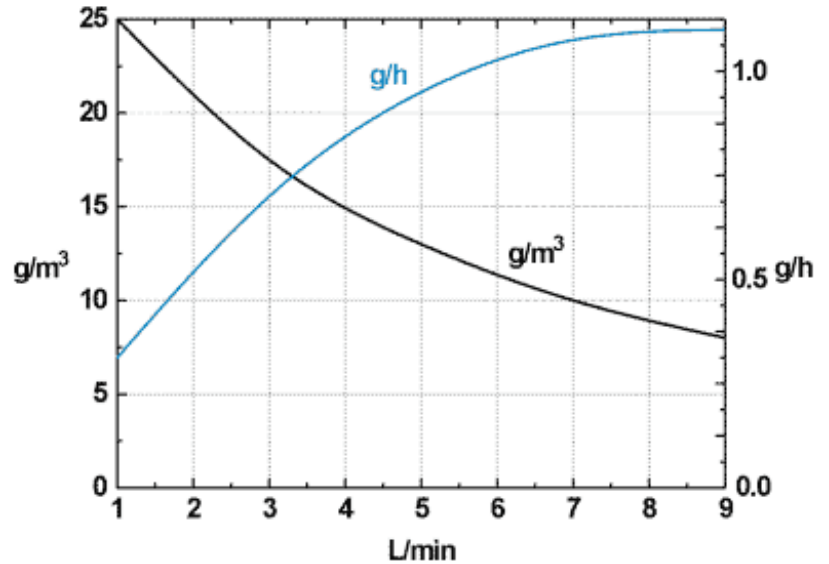
### 3. Operation.

The unit produces ozone when the booster pump through the injector establishes proper flow. If the flow is not established, the ozone generator idles without producing ozone.

### 4. Maintenance.

The Ozone Systems are designed for a minimum of maintenance. THERE IS A DANGEROUS HIGH VOLTAGE INSIDE! DO NOT OPEN THE UNITS, THERE ARE NO SERVICEABLE PARTS INSIDE. DO NOT REPLACE THE FUSES, they do not fail without a good reason. Only a qualified personnel (trained by Ozone Solutions) are allowed to repair the equipment.

**OZONE PRODUCTION ON DRY AIR**  
(all values must be doubled for the OZ-2AD)



### The following list of procedures should be performed daily:

- The unit should remain under power for 24 hours a day, in order to maintain proper air drying cycles. Check that the white light is ON all time.
- The fan must be running and the air flow unobstructed.
- The moisture indicator at the front panel should remain BLUE all time. If the color changes, the new color will indicate:
  - **PURPLE** - the dry air dew point is above allowable -40°C. If a power failure took place within last five hours, continue to operate as is, the air dryer cycle will be restored automatically, and the crystals will turn blue again. If not, the air dryer may need repair, please contact your nearest dealer.
  - **BLACK** - the blue crystals are permanently damaged by an exposure to ozone. This could happen due to a failure of the ozone room ventilation system. Check and restore proper ventilation, replace the indicator.

- **YELLOW** - the blue crystals are permanently damaged by an exposure to oil vapours. In this case also the air-drying desiccant in main cylinders is damaged and it must be replaced.
- **PINK/RED** - the blue crystals are permanently damaged from acid vapours in the air. The source of the problem must be identified and removed. Examples: A solid fuel burner near by, overcharged battery,....
- Notify Ozone Solutions if the red lamp FUSE is lit. Do not attempt to repair.
- Check the flowmeter for proper airflow.
- Check the water level inside the Balance Barometer and refill if needed.
- **Check for signs of excessive dust** around the cooling air intake. If so, improve the quality of ambient air, or schedule a regular dusting of the inside of the unit using a long hair soft brush and a vacuum cleaner. Disconnect the power before opening the lid.

**In two years:**

The air dryer may need a new desiccant. This depends on the quality of air, also whether the dryer operates under full flow capacity. Under reduced flow and dust free ambient air the desiccant may last 2 - 5 years. Oily vapours will decrease life span of the desiccant dramatically.

**Later:**

The cooling fan is rated for up to 100,000 hours of continues duty under ideal conditions. Excessive dust may decrease the life span considerably.

**Environment**

**IMPORTANT:** The OSW-3 must be installed in a clean dry area. The area must be free of dust, oil, acid or other volatile vapors or V.O.C.'s (volatile organic compounds).

For maximum ozone production and longevity of the Ozone Generator, we recommend that the operating environment for the OSW-3 be maintained at or below 55°F Dewpoint, as outlined in the following chart:

**55 °F (12.8 °C) Dewpoint  
Temperature vs. Relative Humidity**

Ambient Temp F	Ambient Temp C	Max. Allowable R.H.
55	12.8	99%
60	15.6	82%
65	18.3	70%
70	21.1	59%
75	23.9	49%
80	26.7	42%
85	29.4	35%
90	32.2	30%
95	35.0	26%

**Warranty:**

The OZ-2AD, not including the desiccant, is warranted for two (2) years for components and workmanship. The warranty date is based on the date of your invoice.

WARRANTY IS VOID IF WATER ENTERS THE EQUIPMENT or if the unit is operated without a balance barometer, or if visibly damaged by an accident. Warranty is also void if excessive dust, corrosive or oily vapors are present. The room in which ozone is generated must be well ventilated. The unit shall be installed and operated only by persons qualified in the applications for which ozone is required. Refer to the specification data sheet and installation and repair manuals.

The manufacturer is not responsible for any damage or injury caused by improper installation or operation of this product. Any attempt to open or repair the units by unqualified personnel will void the warranty. Repairs should only be done by personnel approved by Ozone Solutions.

Please call (712) 722-0337 if any question.