

# HVAC-2200

## Operation, Installation, and Maintenance Instructions

### **IMPORTANT!!!!**

1. Read instructions thoroughly before operating!!

**CAUTION, THIS OZONE GENERATOR PRODUCES DANGEROUS ULTRAVIOLET LIGHT,  
DISCONNECT POWER BEFORE OPENING TO SERVICE**

### **SPECIFICATIONS FOR HVAC-2200 SERIES ozone generator**

<b>Maximum output</b>	HVAC-2200 = 2200 mg/hr
<b>Cabinet material</b>	Stainless steel
<b>Generation method</b>	Ultra Violet Light
<b>Weight</b>	4lb
<b>Size</b>	Control Box: 6.75" W x 5.5" H x 4.25 D tube mount (w/ 4 tubes 5.5"x5.5"x15.75" long)

### **INTRODUCTION**

This line is designed to be installed into an HVAC duct system. The ideal mounting location is into a main supply plenum, meaning that the produced ozone is being moved away from the HVAC system and going into the space(s) that this network of ducting is feeding.

### **WARRANTY**

This ozone generator is warranted against defects in materials and workmanship for a period of four years from date of purchase. Liability is limited to parts and labor only. Shipping is the sole responsibility the customer. OZSL is not liable for damage caused by shipping, misuse, neglect or lack of regular maintenance.

### **LIABILITY**

OZSL assumes no responsibility for any damage done to items from the use or miss use of any product sold or manufactured by Ozone Solutions. It is the customer's responsibility to test materials prior to use and to ensure that the procedure and installation technique they are using is correct for the application.

### **HEALTH AND SAFETY**

Ozone can be an irritant and a powerful oxidizing agent. As with most all products, ozone is dangerous only when used improperly, as such it is important to follow safe usage guide lines.

\*When doing a shock treatment, no people, pets or plants should be in the room while the machine is running. The room should not be re-entered until all ozone has been depleted unless proper breathing respirators are used.

### **MAINTENANCE FREQUENCY**

Under heavy duty use if your HVAC filters are kept clean (replaced when needed) the maintenance to clean the UV bulbs will be minimal. To know when to clean the bulb(s), refer to the instructions below.

### **DESCRIPTION OF OZONE GENERATOR**

These ozone generators produce ozone by UV light, converting normal oxygen to ozone gas which is a very strong oxidizing agent used to destroy odors and other organic contaminants.

### **PLACEMENT OF UNIT**

This ozone generator is designed to be installed in the return or output side of an air handling system. It is however recommended to install it in the return side before the filter if possible, placement before the filter will increase the efficiency of the filter. It uses 100VAC - 240VAC desktop power adapter for North America and for European countries. European customers will have to supply the proper IEC power cord (this can be acquired at any computer shop).

Please note the following points when placing the unit.

- Place in a spot in the duct that allows the removal of the UV tube without removing the entire tube mount.
- If you wish to treat the entire area heated or cooled it is important to place the tube in the return duct, if treatment of only one duct is required/preferred then install the tube mount in that duct.
- Ensure that the unit gets proper fresh air flow and is not blocked by anything inside the duct.

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## **SETTING OF MACHINE**

*(Refer to ozone application/usage instructions for more detailed instructions.)*

**1.** This series has controls that feature an On/off switch and a timer to power the unit, and a continuously adjustable output level control to adjust the amount of ozone being produced. Ozone production begins when the power switch or timer is turned on, please ensure the level control is set to low ( #1 on the dial).

**2a.** (Setting Ozone Level (occupied areas)) The right level is when all the generated ozone is being used up to accomplish its job. However, this is difficult to obtain because it becomes a balancing act. Initially the unit should be used for a shock treatment to get rid of the problem odor as quickly as possible. After a shock treatment, set the unit at a very low setting, after several hours if there is a heavy smell of ozone, then there is more ozone present than is required to do the job. A good indication that the generator is set right is when you come home after being away for 6-8 hours and smell just a hint of the fresh sweet smell of ozone. Simply turn the output level control down. This is a case where more is not considered better. The levels of ozone required to deodorize most environments are from .03 ppm to .1 ppm.

**2b.** (Setting Ozone Level (shock treatments)) For most shock treatment applications, the setting should be set to the highest setting. If the area being treated is small, the setting can be reduced.



## **ONE-SHOT TIMER INSTRUCTIONS (for applicable models)**

The one shot timer is designed to allow the user to turn on the ozone generator and have it turn off after a given amount of time. Depending on the ozone generator model purchased your timer may or may not have the same settings as the one shown in the pictures however the operation will be the same.

*NOTE: to use the timer make sure the on/off power switch is turned off!*

1. To turn the timer on to constant run (hold) simply press the button once, the top green LED will light up and after about 2 seconds the machine will turn on.
2. To set the timer for a one shot timed operation press the button several times until the LED beside the desired amount of time is lit up, after about 2 seconds the machine will start.
3. To stop the operation of the timer press and hold the button for 3 seconds until the LED goes out and the machine stops.

## **4 YEAR INTERNATIONAL WARRANTY STATEMENT**

1. Ozone Solutions warrants that this ozone generator will be free from defects in material and workmanship for a 4 year period. The warranty period begins on the date of purchase. The original invoice is required as proof of purchase.
2. If an ozone generator is found to be faulty, Ozone Solutions will either repair or replace the faulty ozone generator at no charge provided that it is returned to our head office in Hull, IA, USA, transportation charges prepaid and properly packaged as to ensure that the equipment arrives safely.
3. To obtain warranty on your Ozone Solution's ozone generator contact Ozone Solutions prior to shipping the unit to obtain proper return procedures and an RMA (Return Merchandise Authorization) number, see bottom for contact info.

### Exclusions

- Damage caused by misuse, neglect or lack of regular maintenance.
- Cost of installation or removal of the equipment.
- Mica plates and UV tubes are limited to 6 months warranty.
- Wall transformers for DC powered units are warranted for 1 year.
- Damage caused by improper packaging or shipping procedures.
- Extra charges incurred as a result of improper packaging or shipping procedures.
- Shipping to and from Ozone Solutions.

**OZONE SOLUTIONS IS NOT RESPONSIBLE FOR ANY DAMAGES TO EQUIPMENT OR PROPERTY, LOST PROFITS, OR COSTS DUE TO USE OR MISS USE OF ANY OZONE SOLUTIONS PRODUCT.**

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**DISCONNECT POWER BEFORE SERVICING**  
**DO NOT LOOK AT UV LIGHT**  
**DO NOT OPERATE WITH THE TUBE REMOVED FROM THE DUCT!!**

1. Mark the position at which you have decided to mount the UV ozone tube. Place the tube holder as close to the center of the duct as possible. Make sure there is sufficient depth for the tube (15 inches).

2. Using a 1.5 - 2.5 inch hole saw drill a hole at the position marked in step 1. Note: if you do not have an appropriate sized hole saw, you can use tin sheers or any other method you wish but try not to leave any pieces of metal that will obstruct the UV light.



3. Place the UV tube bracket plate over the hole with the black plastic tube mount in the center of the hole with the stickers on the outside as shown. Mark the 4 holes in the corners, Remove the mounting plate and pre drill the 4 holes with a 3/32" or smaller drill bit.

Place the mounting plate back in position and using the stainless steel screws provided screw the plate in place. Do not tighten the screws completely, slightly less than 1/8" gap is desirable. There is a silicone foam seal that is 1/8 inch thick, this foam will NOT completely compress on a furnace/air conditioner duct.



4. Place the provided ozone resistant Norprene seal ring in the middle of the ceramic socket on the tube, slide the tube into the tube mount, being careful not to push it past the Norprene seal. Install the plastic retaining nut and tighten very tight.



5. Next place the control box in the desired place and mark the 4 mounting holes. Make sure the control box is being mounted in a location that will allow the 2 ft or 10 ft cable to reach the UV tube. Pre drill the 4 holes with a 3/32" or smaller drill bit. Place the box back in place and install the 4 provided stainless steel screws.



6. Plug the UV cable from the control box into the UV tube. Plug the DC plug from the desktop adapter into the control box. Make sure the power switch is turned off and then plug the desktop adapter into the wall receptacle.

Refer to the operation instructions for setting and operation.



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1. Turn the HVAC UV 2200 off. Disconnect the power cord. Remove the UV tube retaining nut marked in the picture.



2. Remove the tube by carefully sliding it out.



3. In a normal situation the tube will just need to have the dust removed. This can be done using a dusting cloth such as a Swiffer® duster or Swiffer® cloth.

If the tube has collected more than just dust you may clean it with mild soap and water. Be very careful not to damage the wires that run from one ceramic end cap to the other.

4. If the tube was cleaned with mild soap and water make sure to rinse the soap off and make sure the tube is 100% dry before operating. Drying can be done by allowing the tube to sit in a warm place overnight or by installing back into the tube mount and not turning it on for a few hours.

5. Re install the tube in reverse of the removal and plug the UV cable and power plug back in and turn the system on.