

# **PRO 3420**

## **ozone generator instruction manual**

### **\*\*\*\*IMPORTANT\*\*\*\***

\*Please Read owners manual and check generator plate alignment prior to operation.

\*Failure to do so could cause severe damage to the High Voltage transformer.

\*Refer to owners manual for instructions on plate alignment.

**PLEASE RETAIN THE SHIPPING BOX AND PACKING FOR FUTURE USE!**

**If the product needs to be returned for any reason there may be a packing charge if the original packing is not used!**

# 3420 operation and maintenance instructions

## **IMPORTANT!!!!**

1. Read instructions thoroughly before operating!!

2. After shipping the unit via courier or after rough handling such as falling off a shelf open cabinet by following step 1 of the cleaning instructions. Check to make sure the center screen of the generator plate has not moved out of place. Once this has been checked the chassis can be slid back into the PVC cabinet and the unit is ready for use.

**CAUTION, THIS OZONE GENERATOR OPERATES AT 4000-5000 VOLTS AC  
DISCONNECT POWER BEFORE OPENING TO SERVICE**

## **SPECIFICATIONS FOR 3400 SERIES ozone generator**

<b>Maximum output</b>	1000mg/hr up gradable to 3600mg/hr
<b>Fan size (rated cfm)</b>	34 cfm
<b>Filter</b>	2 Cleanable foam filters
<b>Cabinet material</b>	PVC outer cabinet with stainless steel inner chassis
<b>Generation method</b>	Corona discharge
<b>Weight and size</b>	9.5lb / 15.5" long x 5 3/4 wide x 6 5/8 height (including handle and filters)

## **INTRODUCTION**

This line of ozone generators are designed for various uses at varying output levels. This ozone generator can be used for many uses such as deodorizing cars homes as well as oxidizing many organic contaminants.

## **WARRANTY**

The 3400, is warranted against defects in materials and workmanship for a period of 6 years from date of purchase. Liability is limited to parts and labor only. Shipping is the sole responsibility of the customer. CAMI is not liable for damage caused by shipping, misuse, neglect or lack of regular maintenance.

## **LIABILITY**

CAMI assumes no responsibility for any damage done to items from the use or miss use of any product sold or manufactured by CAPS. It is the customers 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 plants or pets/animals may be in the room when the unit 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 or severely polluted areas, The ozone generator should be inspected and cleaned if necessary every 2 to 3 weeks for fine dust or oily residue collecting on generator surfaces or plates. Light duty use requires cleaning every 2 to 6 months depending on the severity of pollution and the humidity level of the feed air. In dirty and humid conditions cleaning can be as often as 2-4 weeks.

## **DESCRIPTION OF OZONE GENERATOR**

These ozone generators produce ozone by corona discharge, converting normal oxygen to ozone gas which is a very strong oxidizing agent used to destroy odors and other organic contaminants. This model comes from the factory with 1 plate, producing up to 1000mg/hr, and can be up graded by adding as many as 4 additional plates to a max of 3600mg/hr.

## **PLACEMENT OF UNIT**

This ozone generator is designed as a portable commercial deodorizing device. It uses 120VAC for North America, and 220-240VAC for European countries etc. European models come with an IEC connector and it is up to the customer to supply the proper cord (this can be acquired at any computer shop).

**Please note the following points when placing the unit.**

- Place on a flat solid surface such as a table or shelf. Do not place on rug flooring to reduce dust entering the unit
- Do not place in an area where the unit could be splashed with water, moisture or in an area that it could get flooded with water.
- Ensure that the unit gets proper fresh air flow. Do not obstruct the incoming or outgoing air from the unit.
- DO NOT USE IN VICINITY OF COMBUSTIBLE GASSES!!
- Humidity levels higher than 75% should be avoided as it will cause the unit to wear excessively fast and will require cleaning much more often.
- If used in temperatures below freezing, ensure that condensation inside the unit does not occur.
- Set the unit in an area where it will provide the best ozone distribution.
- The use of circulation fan will greatly increase the efficiency of the treatment.
- If the ozone generator being used is large enough to treat the whole house, the air handling system can be used to distribute the ozone, just point the ozone generator into the return air duct.

# 3420 operation and maintenance instructions

## SETTING OF MACHINE

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

**1.** The 3420 series controls features a On/Off switch to power the unit and fan, and a continuously adjustable output level control to adjust the amount of ozone being produced. Ozone production begins when the power switch 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 to a lower level.



## UPGRADING OUT PUT

**1.** This model 3420 is designed to be easily up graded to a higher output by simply adding 1-4 more plates. This is very easily done by following the plate removal instructions to add the plates.

**2. \*IMPORTANT\*** This unit is equipped with a Low and Hi setting, the Low setting is to be used when using 1-3 plates, The Hi setting can be used ONLY when 4-5 plates are installed. Using the Hi setting with 1-3 plates will cause damage to the plates as well as the ozone generators inner component

## TROUBLE SHOOTING ( NOTE: Do not use a home multi meter to test voltage, multimeters only read up to 1000 VAC)

**1.** Fan works but no ozone.

1a. Try various output setting.

1b. If the unit was recently serviced check plate alignment. One misaligned plate will stop the whole unit from working. If you have more than one plate try removing all but one plate, if it works then add one more plate and test, and so on. If you add a plate and it stops working, check alignment of the screens on that plate and re install, if the plate still does not work then remove it and inspect for damage.

1c. Check plate for damage and clean if necessary.

1d. If after cleaning the plate there is still no ozone contact your dealer or CAMI.

**2.** No fan and no ozone

2a. Check fuse.

2b. Ensure that the ozone generator is plugged into a working power receptacle.

**3.** Generator sounds erratic, crackling, or like it is arcing, popping, etc..

3a. Check plate for damage and clean if necessary.

3b. Check center HV screen alignment. Refer to cleaning instructions for proper alignment.

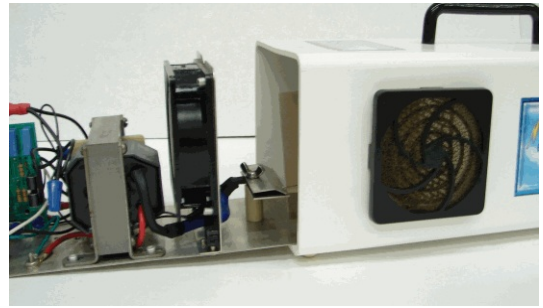
3c. High altitudes can also cause excess voltage output. Contact CAMI if screens are aligned and there is still a problem contact, your dealer or CAMI.

## PRO 3400 plate removal instructions

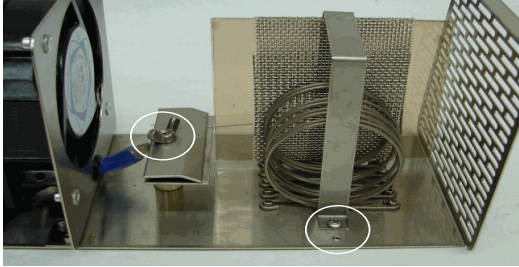
1. Remove the two Philips (star) screws from the top and the two from the bottom of the PRO 3400 as shown.



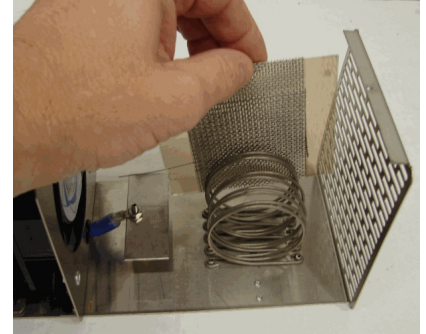
2. Slide the chassis out of the PVC cabinet.



3. Remove the two Philips screws from the plate hold down bracket and the wing nut from the HV clamp as indicated.



4. Once the plate hold down bracket and HV contact bar are removed, remove the plates by lifting them straight up as shown.



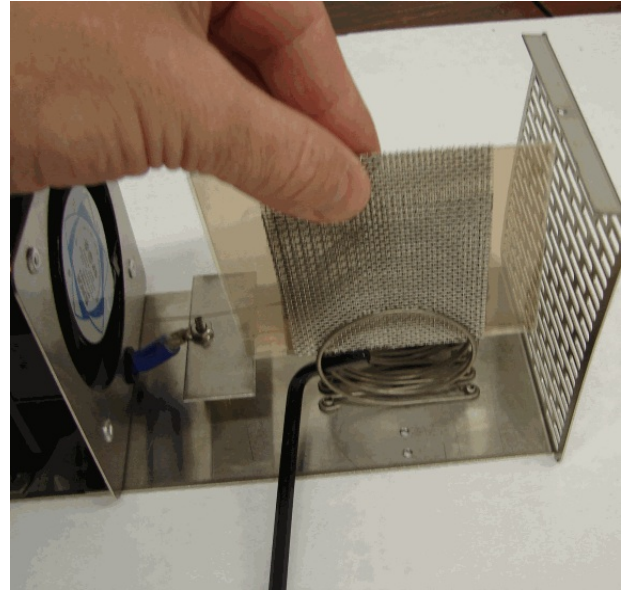
5. Next refer to the plate cleaning instructions.

**PLEASE ENSURE THAT ALL PARTS ARE COMPLETELY DRY PRIOR TO RE ASSEMBLY!**

6. Replace generator plates by first inserting a tool such as a small screw driver, allen wrench or any other small tool that is thick enough to hold the springs open.



7. Slip the plate in between the springs, make sure that the spring does not go up in the middle of the plate as shown.



8. Re install the HV clamp and plate hold down bracket that was removed in step 2.

9. Use an alcohol soaked paper towel or something similar to wipe down any other areas of the machine that are dirty.

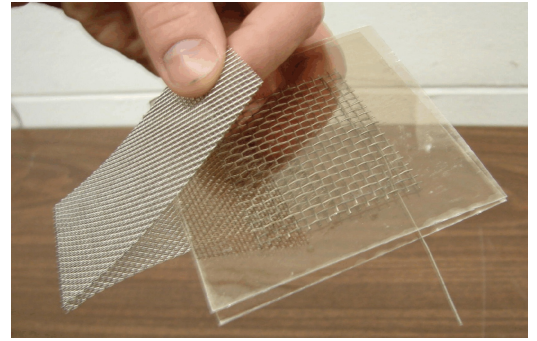
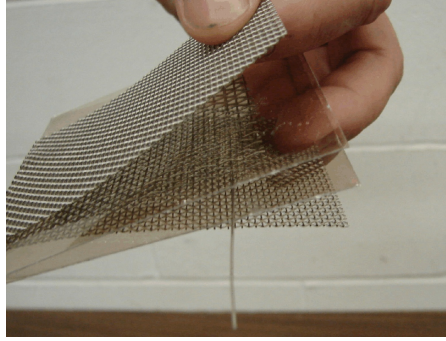
10. Before re inserting the chassis into the PVC cabinet, clean the filters with dish soap and rinse thoroughly with water and allow to dry. Clean the inside of the cabinet if needed and allow to dry.

11. Insert the chassis into the PVC cabinet and replace the screws that were removed in step 1. The ozone generator should be ready to be put back in service.

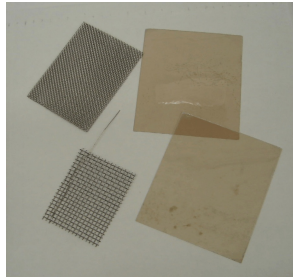


## PRO 3400, 3600, 5000, 9000, & 10000 plates cleaning instructions

1. Please familiarize yourself with how the plate is assembled prior to disassembling.  
Remove outer screen, as shown.



2. Disassemble all part as shown

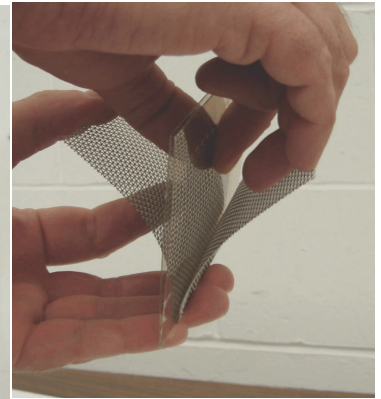
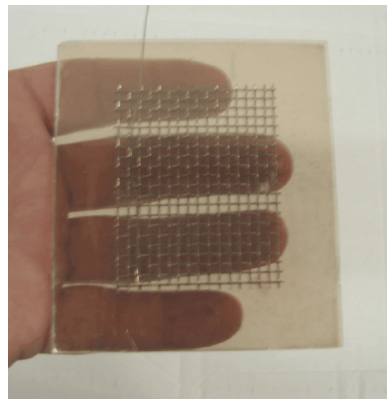


3. Take mica and stainless screens and clean in the sink using dish soap and an old toothbrush. If the plates have not been cleaned for a long time, it is important to use the tooth brush to help remove the flaking mica. Rinse with clean clear water.



4. If the generator needs to be put back in service immediately you will need an oven or other source of heat to dry the mica and screens. If using an oven set the temperature at about 200° F and place the mica and screens on the middle rack for approximately 1-2 hours.  
If there is no rush or you do not have access to an oven, place the mica and screens in a very warm dry place such as on an operating base board heater to dry overnight, or if it must air dry leave it dry for several days with good air flow .

5. Once all the Mica and screens are dry re assemble by placing one mica in your hand, then place the inner screen square in the center of the mica. Place the second mica on top of the inner screen and then re install the folded outer screen , as shown.



6. When all plates are clean, dry, and re assembled refer back to the plate removal instructions for instructions on re installing the plates.