



## PA600 MODEL OPERATING DIRECTIONS

### PLUG THE MACHINE IN / TESTING THE MACHINE



Plug the machine in and press the timer manual button to “**ON**” and make sure that the machine comes on. You should hear a buzzing noise and see a purple glow looking into the front grill of the machine. Press the manual button again and the unit will go into “**AUTO**”. Press the manual button once more and the unit will turn off.

If the machine does not have buzzing noise and purple glow, refer to the troubleshooting section of this manual. **(Note: The buzzing noise means that the machine is functioning properly. The fan will run even if the generator isn't producing ozone.)**

**WARNING: MAKE SURE MACHINES ARE UNPLUGGED WHEN PUTTING PARTS IN, (FUSES, PLATES, FILTERS, ETC...) ALWAYS RUN MACHINES IN UNOCCUPIED SPACE ONLY. Prolonged exposure to ozone could be harmful to your health.**

**Maintenance Kit – Part CLN600, CLN1200, or CLN2500** contains all the necessary components to keep your Zontec™ Ozone Generator operating at peak efficiency until the next time service is needed. The kit contains the following items: Air Filter(s), Ceramic Generator Plate(s), .200A Slo-Blo Fuse(s) & Alcohol Wipes.

**Mounting Bracket Kit - Part MB2AB** This kit allows you to permanently mount your unit in a location where you have repeated odors and the space is unoccupied for the same time each day. This kit comes with a bracket to mount to the top of your unit and replaces the carry handle and a bracket to mount to a wall or ceiling.



## PA600 MACHINE MAINTENANCE (EVERY 6-12 MONTHS)

### STEP 1: OPEN THE TOP OF THE MACHINE TO CLEAN MACHINE

Remove the 4 from each side of the cover and lift off the machine.

### STEP 2: REMOVE THE DUST PROTECTOR AND CERAMIC PLATES

Before you take the ceramic plates out, lift and remove the plastic dust protector(s) that are located at the back end of the plates (closer to the fans) and remove the ceramic plates from the machine.

Note: Set dust protectors aside. After cleaning the plates and inside the machine, reinstall them by sliding them back onto the slot that they were removed from on the back of the plate holder.



### STEP 3: CLEANING THE MACHINE AND CHANGING THE PLATES

The ceramic plates should be replaced as required, but cleaning should occur on a regular basis. Cleaning the machine is very important! After continuous use and as a course of normal wear, the ceramic plates will develop microscopic holes, compromising the integrity of the machine due to the buildup of contaminants inside the machine, especially on the brackets and plates.

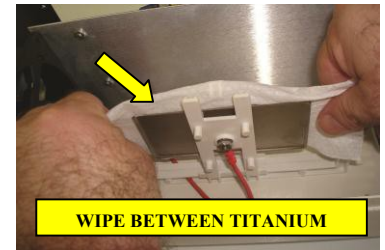
In order for the machines to create a true “corona discharge”, which creates the output of ozone, the following parts must be free from debris and corrosion and should be cleaned or changed out each time during your scheduled maintenance of the machines which is usually every 6-12 months depending on use and climate.

- **If the .200A fuse(s) have blown and the buzzy noise has stopped, change out the ceramic plates with new ones.**

**Throw the plates that are in the machine away.** Do not keep them. They will get mixed up with the new plates. An old plate will work for awhile (minutes to an hour) but will just blow the fuse again and cause you to repeat the process.

- **CLEAN INSIDE THE TITANIUM PLATES THAT HOLD THE CERAMIC PLATES:**

**Important! Cleaning in between the plastic titanium plate brackets that hold the ceramic requires complete attention.** Be careful not to spread the titanium bracket holders too far because they will snap as they are made of a glass/plastic alloy. Before installing ceramic plates, clean between the titanium plates using an alcohol wipe. Pull the alcohol wipe tight and start off by placing it between the titanium brackets in one corner, making it easier to slide the wipe between the titanium brackets. Clean gently but thoroughly between the brackets using a side to side motion (similar to shining your shoes).



### STEP 4: CHANGE AIR FILTERS:

The air filter(s) are used to keep dust and other particles from getting between the titanium and ceramic plates. A clean unit will produce more ozone than a dusty one. The filter retainers go on easier if the top cover is removed and the bottom rear screws are loosened. Pre-compressing the filter will also make it easier to install.



### STEP 5: RE-INSTALL THE CERAMIC PLATES / TESTING THE MACHINE

Carefully pry open the titanium bracket and slide the ceramic plates back in between the titanium plate brackets (they will fit snugly) and make sure that they “bottom out”. Once you have all plates installed, replace the dust protectors to their positions in the brackets.



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## STEP 6: CHECK THE CORONA DISCHARGE



Check for the “corona discharge” in the front of the machine through the slots. You should see a vertical “black light” line (purple) that is straight with no spotting. If this is not the case, the titanium plates need to be cleaned again. (If you cannot see the black light, plug the machine in a darker area of the room.) Sighting the straight line is an indication that your machine is running at optimum performance.

The generator portion of the unit runs through the .200 milli Amp fuse and the green indicator light on the front of the unit. The .200 milli Amp is a slow blow fuse type and will blow when the ceramic plate has reached the end of its useful life. When the fuse blows, the green light will go out to give you a visual indication to replace the plate and fuse. Both of these items, along with a replacement filter and cleaning wipe comes in a maintenance kit.

**WARNING: MAKE SURE MACHINES ARE UNPLUGGED WHEN CLEANING THEM! RUN MACHINES IN UNOCCUPIED SPACE ONLY. Prolonged exposure to ozone could be harmful to your health.**

## TIMER INSTRUCTIONS

### Setting the current time and the current day (Do this first!):

- Press and hold CLOCK and then press DAY key, HOUR key, MIN key, respectively, to adjust clock of timer to accurate DATE, HOUR, MINUTE.
- In 12-Hour-Format, PM&AM shall appear on LCD screen.

### Setting the time for timers to turn on:

- Press TIMER key. LCD screen shall show (1 ON-----)
- Press DAY key until you see all 7 days appear on screen.
- Press HOUR key and type in time.
- Press MINUTE key to input a minute entry.

### Setting the time for timers to turn off:

- Press TIMER key again to set the off time.
- Press DAY key until all 7 days appear on screen.
- Press HOUR key and type in time.
- Press MINUTE key to input a minute entry.

**Finish Programming by pressing CLOCK to get out of timer mode. To finalize, press MANUAL until the indicator line shows AUTO.**



## OZONE LEVEL CONTROL

Review the FORMULA below and then:

1. Set OZONE to desired setting.
2. Set TIMER to the desired setting.
3. Plug the unit into any convenient wall socket.
4. Switch the power to ON.
5. Monitor odor level and adjust output as required to control odors.

The following formula and chart is suggested as a general guideline only. Use of the formula and chart will enable the user to determine the approximate milligrams per hour (MG/HR) of ozone required to odor situations. Ozone output will vary substantially with changes in temperature and humidity. **AREA x ODOR FACTOR = MG/HR required.**

### PA600 MG/HR (Milligrams per hour in dry air)

OZONE SETTING	190 LO	234 1	277 2	321 3	364 4	408 5	451 6	495 7	538 8	582 9	625 HI
<p style="text-align: center;"><b>CUBIC METERS</b></p> <p>1. Measure the Cubic Meters (L x W x H) of the AREA being treated</p> <p>2. Estimate the ODOR FACTOR as follows:                      ••• Light Odor Factor = 0.18                      Medium Odor Factor = 0.65                      Strong Odor Factor = 1.29</p> <p>3. Multiply the AREA by the ODOR FACTOR to determine the MG/HR on the chart below</p> <p>4. Set OZONE on the machine to the setting nearest the required MG/HR and adjust as required.</p>						<p style="text-align: center;"><b>CUBIC FEET</b></p> <p>1. Measure the Cubic Footage (L x W x H) of the AREA being treated</p> <p>2. Estimate the ODOR FACTOR as follows:                      ••• Light Odor Factor = 0.005                      Medium Odor Factor = 0.018                      Strong Odor Factor = 0.036</p> <p>3. Multiply the AREA by the ODOR FACTOR to determine the MG/HR on the chart below</p> <p>4. Set OZONE on the machine to the setting nearest the required MG/HR and adjust as required.</p>					

<p><b>Example:</b>                      285 cubic meter room x 1.29 Strong Odor Factor = 368 MG/HR. Set OZONE at 4 (364 MG/HR) and adjust as required.</p>	<p><b>Example:</b>                      10,000 cubic foot room x 0.036 Strong Odor Factor = 360 MG/HR. Set OZONE at 4 (364 MG/HR) and adjust as required.</p>
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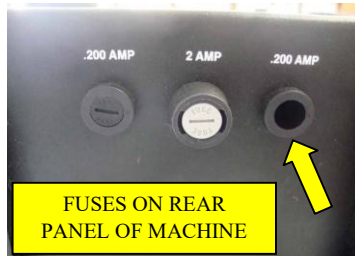
WARNING: RUN MACHINES IN UNOCCUPIED SPACE ONLY. Prolonged exposure to ozone could be harmful to your health

Common APPLICATIONS	TIME	OZONE
Now Car Freshening	1 HR.	HI
Used Car Deodorizing	2 HR.	HI
(In extreme cases, 2 to 4 consecutive daily automobile treatments may be required).		
Taxi/Limousine Deodorizing	2 HR.	HI
Bus Deodorizing	4 HR.	HI
Paint Odor Removal	4 – 6 HR	LO - HI
New Carpet Odor Removal	2 - 4 HR	6 – HI
Room freshening (up to 400 sq.ft.)	15 min.	6 - HI
Hotel Suite (up to 800 sq.ft.)	30 min.	6 - HI
Mold, Mildew, Heavy Room Odors	1 HR.	HI
Conference Room (up to 2000 sq.ft.)	2 HR.	4 - HI
Restaurant/Bar/Lounge after hours	4 HR.	HI

# Troubleshooting

## No Ozone Output

This indicates that the ceramic plate has many microscopic holes in it and caused the current to increase to the point it blows the .200A fuse. We recommend replacing the .200A fuse, and the ceramic plate(s). This should restore the maximum ozone output and protect the machine. If the fuse(s) blows again, there is an electrical issue or fault with another component. Please contact technical support at 800-474-0105 and a technician will walk you through checking for other problems. This work should only be done by a certified electrician or electronic technician.



## MAIN FAN DOES NOT WORK

When the machine does not come on at all and there is no buzzing noise, this could be an indication that the timer may be bad, or an electrical failure has occurred. Call and ask for technical support at 800-474-0105. Check the power outlet to ensure that it is supplying power. Check the 2-Amp line fuse.

**If you have any questions, please contact technical support at 800-474-0105  
Our office hours are Monday through Friday, 9 a.m. – 5 p.m EST**

## The Natural Solution

Ozone is nature's own natural air purifier. Ozone is the fresh clean smell after a thunderstorm, in a pine forest, on a mountain top, near a waterfall, or along a seashore, not to mention it is what makes the sky blue! Ozone has been used around the world for over 100 years to clean the air we breathe, and purify the municipal water we drink and in which we bathe in over 3,000 cities including Moscow, Paris, and Dallas, not to mention 95% of the bottled water we consume daily.

Ozone is FDA approved to detoxify the very food we eat here in America.

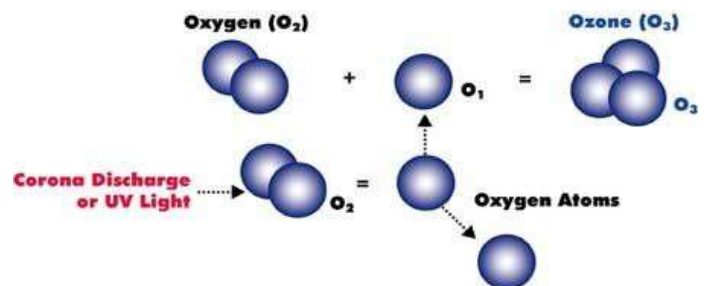
However, we are probably most familiar with ozone from reading about the "ozone layer" that circles the planet above the earth's atmosphere. Here ozone is created by the sun's ultra-violet rays. This serves to protect us from the ultra-violet radiation.

While ozone is very powerful, it has a very short life-cycle. When contaminants such as odors, bacteria or viruses make contact with ozone, they are destroyed completely by oxidation. In so doing, that extra atom of oxygen is consumed and there is nothing left...no odor...no bacteria...no extra atom, only oxygen. Ozone reverts back to oxygen after it is used.

Zontec™ eliminates odors and controls insects by producing continuous, controllable levels of Ozone. The Ozone is created electronically by converting Oxygen (O<sub>2</sub>) into Ozone (O<sub>3</sub>). The Ozone will revert to Oxygen within a short period of time while creating the desired effect. The 3<sup>rd</sup> Oxygen atom in Ozone (O<sub>3</sub>) must attach itself to another gaseous element which is the source of everything we smell. In combining with the 3<sup>rd</sup> atom the odorous element is oxidized and the problems are controlled.

As soon as ozone is formed in the generator and dispersed in a room, some of it immediately reverts back into oxygen. This step occurs by several processes including the following: Oxidation reaction with an organic material such as odors or smoke and Reactions with bacteria etc., which again consume ozone by oxidation. Additionally, ozone itself has a half life which means that "residual" ozone created (extra ozone) will return to oxygen usually every 20 minutes, in amounts equal to half its prior level. This is similar to a geometric progression of 16;8;4;2;1. In practice the half life is usually less than 20 minutes due to temperature, dust, and other contaminants in the air. Therefore, ozone, while very powerful, doesn't last long. It does its job and then disappears.

The right level is when all the generated ozone is being consumed. Initially the machine's output is set high to get rid of the problems as quickly as possible. After this is accomplished less ozone is required. If a strong smell of ozone is noticed, then there is more ozone present than is required. Simply turn the rheostat (output level control) down. Ozone was discovered almost a century ago, so a great deal is known about it.







**2 YEAR LIMITED WARRANTY**  
**Zontec Ozone Generators**

Zontec Ozone Generators warrants this new Zontec ozone generator (the unit) against defects in materials and workmanship, provided the purchaser returns the defective unit to Zontec Ozone, Inc. within a period of two (2) years from the date of original purchase.

Zontec Ozone Generators' liability and the purchaser's sole remedy is limited to the replacement of the part or parts found to be defective. Components related to the cleaning and maintenance of the unit are not covered under the 2-year warranty. These components include, but are not limited to, generator plates, high voltage fuses and air filters. All shipping charges on units sent in for replacement of such parts shall be the responsibility of the purchaser.

This limited warranty applies only with respect to defects in material and workmanship under normal and proper use of the unit in its original and unmodified condition. Zontec Ozone Generators shall have no obligation hereunder to make any repairs or provide replacements necessitated in whole or part by the fault or negligence of the purchaser, including failure to follow instructions or causes external to the unit, components, or parts.

Only Zontec Ozone Generators and/or their designated repair center are authorized to provide warranty repairs. At the time of a warranty request, a copy of the original invoice indicating the date of purchase and unit model must be presented. All transportation charges will be at the expense of the purchaser.

The expressed warranty set forth herein is in lieu of all other warranties expressed or implied, including, without limitation, any warranties of merchantability or fitness for any purchase, and all such warranties are hereby disclaimed and excluded. In no event shall Zontec Ozone Generators be liable for any charges whatsoever arising out of the use or operation of the unit including, without limiting the generality of the foregoing, any personal injury or property damage.

The seller or distributor for Zontec Ozone Generators does not have any authority to make representations or promises on behalf of Zontec Ozone Generators, to assume any liability for Zontec Ozone Generators or to modify the text of the warranty.

Zontec Ozone Generators is not liable for indirect, incidental, or consequential damage in connection with the use of the unit including any cost nor provision of substitute equipment for service during the periods of malfunction or non-use. Some states and/or provinces do not allow for exclusion of incidental or consequential damage so the above exclusion may not apply. This warranty gives specific legal rights. The purchaser may also have other rights, which vary from state to state or province to province.

For warranty assistance, contact:

Zontec Ozone Generators at:

Toll Free: 1-800-474-0105

Website: [www.ZontecOzone.com](http://www.ZontecOzone.com)

Please forward the following Warranty Registration to: Zontec Ozone Generators, 1621 Industry Ct. Ste 101, Harrisonburg VA 22802

**ZONTEC WARRANTY REGISTRATION**

Customer Name \_\_\_\_\_ Model # \_\_\_\_\_

Address \_\_\_\_\_ Date Purchased \_\_\_\_\_

City \_\_\_\_\_ State \_\_\_\_\_ Serial # \_\_\_\_\_

Country \_\_\_\_\_ ZIP/ Postal Code \_\_\_\_\_

Phone \_\_\_\_\_ email \_\_\_\_\_