



MODEL PA2500 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 **green lights** in front of the machine come on. If so, immediately press the manual button back to “AUTO”. **Your timer should indicate "AUTO" at all times if you are running a program.**

If the machine does not have either one of the two **green lights** on, refer to the troubleshooting section of this manual. (Note: The green lights are indication lights. “Green” means that the machine is functioning properly, “Unlit” means the machine is not functioning properly. There are 2 lights, and each one is an indicator. One for the left side and the other is an indicator for the right side of the machine.

NOTE: If a machine does not have the green light on, than that means that a fuse has blown on the machine which is a good indication the ceramic plates need to be changed or the machine needs to be cleaned. If it is close to the 6-12 month period for maintenance, than you need to order your maintenance kits. *Note: The machine will not blow out ozone when the plates are worn out. It will only blow out air.*

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 #CLN2500 contains all the necessary components to keep your Zontec™ PA2500 operating at peak efficiency until the next time service is needed. The kit contains the following items: (2) **AF4-** Air Filters, (4) **GPC 46-** Ceramic Generator Plates, (2) **FUS200-** High Voltages Fuses & (1) Alcohol Wipe Pak.

Mounting Bracket - Part # MB2AB is an optional heavy steel ceiling or wall mounted bracket kit. This heavy duty kit assures perfect installation of the PA2500. Please inform us as to what kind of material (marble, drywall, wood, etc...) these brackets will attach to so that we can assure proper installation.



MODEL PA2500 MACHINE MAINTENANCE (EVERY 6-12 MONTHS)

STEP 1: OPEN THE TOP OF THE MACHINE TO CLEAN MACHINE Remove the 6 screws (2 screws from each side and 2 screws on top) and lift the cover off the machine.

STEP 2: LIFT THE DUST PROTECTOR STRAIGHT UP AND REMOVE AND TAKE THE CERAMIC PLATES OUT

Before you take the ceramic plates out, lift up and remove the 4 plastic dust protectors that are located at the back end of the plates (closer to the fans) and remove the 4 ceramic plates from the machine.

Note: Set dust protectors aside and after you clean 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 MACHINES AND CHANGING THE PLATES (EVERY 6-12 MONTHS)

The ceramic plates should be replaced every 6-12 months or as necessary. 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. For your convenience, the parts department will periodically remind you when it is time to reorder parts.

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:

- **CHANGE OUT THE WHITE CERAMIC PLATES AND THROW AWAY OLD PLATES:**

The ceramic plates must be replaced. **Throw the plates that are in the machine away.** Do not keep them. They will get mixed up with the new plates. Similar to batteries, you do not want to replace only a few plates and keep a few of the old plates inside the machine.

CLEAN THE TITANIUM PLATES: The titanium plates must be cleaned every 6-12 months (the 8 titanium plates that are on each side of the brackets that hold in the ceramic plates). They look like stainless steel pieces of metal on each side of the bracket.

- **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 not too far because they will snap due to the fact that they have glass/plastic alloy).

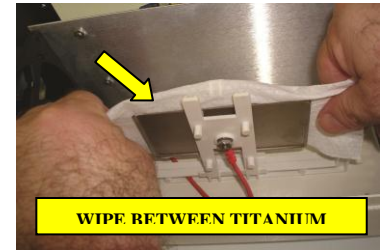
IMPORTANT!

Before installing ceramic plates, clean between the titanium plates using a Zontec™ 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). Do not reuse plates in the future because you will compromise the system.

STEP 4: CHANGE AIR FILTERS: The air filters are used to filter debris away from the ceramic plates and keep the machine clean. The filters should be changed once every 6-12 months. Simply lift out the filter holders and replace the filters. The PA2500 model has 2 filters. They are located on the rear panel, one on each side of the machine.

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

After cleaning machine thoroughly, reinstall the plates and put back the dust protectors. Replace the screws in the machine and test 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.

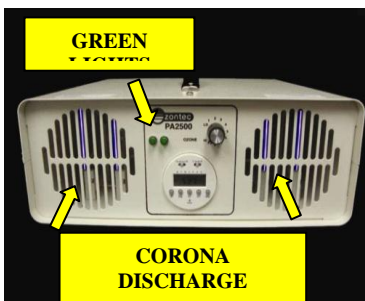


Testing The Machine: Plug the machine in and press the timer manual button to "ON" and make sure that the **green lights** in front of the machine come on. If so, immediately press the manual button back to "AUTO". **Your timer should indicate "AUTO" at all times.**

If the machine does not have either one of the two **green lights** on, refer to the troubleshooting section of this manual. (**Note: The green lights are indication lights. "Green" means that the machine is functioning properly. "Unlit" means the machine is not functioning properly. There are 2 lights, and each one is an indicator. One for the left side and the other is an indicator for the right side of the machine.**

NOTE: Periodically inspect the machine to make sure that the green lights are working on the machine. The green light only comes on when the machine is running. If a machine does not have the green light on, than that means that a fuse has blown on the machine which is a good indication the ceramic plates need to be changed or the machine needs to be cleaned. If it is close to the 6-12 month period for maintenance, than you need to schedule your maintenance of all machines and order your maintenance kits. Note: The machine will not blow out ozone when the plates are worn out. It will only blow out air.

STEP 6: CHECK THE CORONA DISCHARGE



Check for the "corona discharge" in the front of the machine. When the 2 green lights on the front (face) of the PA2500 are lit, this indicates that the electrical output is constant. To verify that you are getting the maximum output of ozone, periodically examine the front of the machine. You should see a vertical "black light" line that is straight with no spotting, sparking, waviness or arcing. If this is not the case, then this indicates that 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 or a separate office area) If you see the straight line, then your machine is running at optimum performance.

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.

TROUBLESHOOTING

GREEN LIGHTS ARE NOT LIT

If either of the 2 green lights is not lit, this indicates that the ceramic plate on that side of the machine has a microscopic hole in it and will continue to blow the fuse. We recommend replacing the .200 fuse on the unlit side of the unit, and all 4 plates. This will restore the maximum ozone output and protect the machine. Replace only the fuse that is currently blown out at this time.

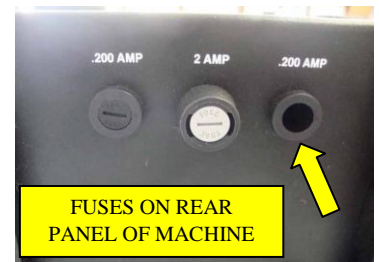
GREEN LIGHTS LIT BUT OUTPUT DOESN'T SEEM AS STRONG

When the 2 green lights on the front (face) of the PA2500 are lit, this indicates that the electrical output is constant but to verify that you are getting the maximum output of ozone, periodically examine inside the machines. You should see a vertical “black light” line that is straight with no waves or arching, if this is not the case then this is an indication that the titanium plates need to be cleaned again. Refer back to Step 4 “Cleaning Instructions”.

MAIN FAN DOES NOT WORK AND NO GREEN LIGHTS

When the machine does not come on at all and there are no lights on machine, this could be an indication that the timer may be bad. 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 (larger fuse; Part # FUS2). Replace with spare if required.

**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. www.zontecozone.com**



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 24-HOUR FORMAT, and shall appear on LCD screen. In 24-Hour-Format LCD screen shall indicate 0:00 (23:59)

Setting the time for timers to turn on:

- Press TIMER key. LCD screen shall show (1 on --: --)
- Press DAY key 1X till you see all 7 days appear on screen.
- Press HOUR key and type in time example 9 p.m. = 21:00 in military time.
- Press MINUTE key if you want to put in minutes.

Setting the time for timers to turn off:

- Press TIMER key again to set the off time.
- Press DAY key 1X till you see all 7 days appear on screen.
- Press HOUR key and type in time example 6 a.m. = 06:00 in military time.
- Press MINUTE key if you want to put in minutes.

Finish Programming by pressing CLOCK to get out of timer mode.

To finalize, press MANUAL until the indicator line shows AUTO.



The Natural Solution

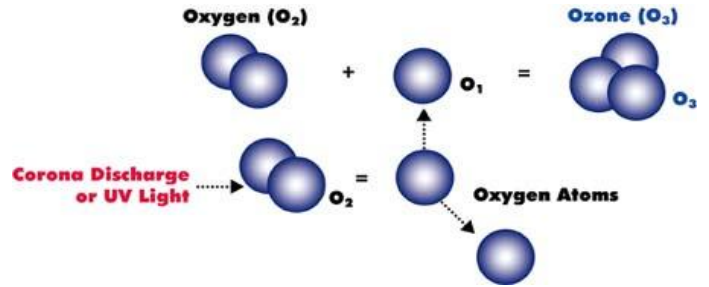
Ozone is nature's own natural air purifier. Ozone is the fresh clean smell after a thunderstorm, in a pine forest, on a mountain top, near a waterfall, or along a seashore, not to mention it is what makes the sky blue! Ozone has been used around the world for over 100 years to clean the air we breathe, 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 (O₂) into Ozone (O₃). The Ozone will revert to Oxygen within a short period of time while creating the desired effect. The 3rd Oxygen atom in Ozone (O₃) must attach itself to another gaseous element which is the source of everything we smell. In combining with the 3rd 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.

Millions of ozone air purifiers have been sold in the United States in the last 10 years, but there have been no specific cases where using ozone air cleaners have been linked to any kind of harm or injury.

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 PA2500 MG/HR (Milligrams per hour in dry air)**

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|----------------------|-----------|-----|-----|------|------|------|------|------|------|------|------------|
| OZONE SETTING | 500 LO | 625 | 833 | 1042 | 1250 | 1485 | 1667 | 1875 | 2083 | 2292 | 2500 HI |
|----------------------|-----------|-----|-----|------|------|------|------|------|------|------|------------|

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| <p style="text-align: center;">CUBIC METERS</p> <ol style="list-style-type: none"> 1. Measure the Cubic Meters (L x W x H) of the AREA being treated 2. Estimate the ODOR FACTOR as follows: <ul style="list-style-type: none"> ••• Light Odor Factor = 0.18 Medium Odor Factor = 0.65 Strong Odor Factor = 1.29 3. Multiply the AREA by the ODOR FACTOR to determine the MG/HR on the chart below 4. Set OZONE on the machine to the setting nearest the required MG/HR and adjust as required. | <p style="text-align: center;">CUBIC FEET</p> <ol style="list-style-type: none"> 1. Measure the Cubic Footage (L x W x H) of the AREA being treated 2. Estimate the ODOR FACTOR as follows: <ul style="list-style-type: none"> ••• Light Odor Factor = 0.005 Medium Odor Factor = 0.018 Strong Odor Factor = 0.036 3. Multiply the AREA by the ODOR FACTOR to determine the MG/HR on the chart below 4. Set OZONE on the machine to the setting nearest the required MG/HR and adjust as required. |
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| <p>Example: 1,000 cubic meter room x 1.29 Strong Odor Factor = 1290 MG/HR. Set OZONE at 4 (1250 MG/HR) and adjust as required.</p> | <p>Example: 35,000 cubic foot room x 0.036 Strong Odor Factor = 1260 MG/HR. Set OZONE at 4 (1250 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



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 cause 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, unit model must be presented. All units sent to Zontec Ozone Generators must a return authorization number, clearly marked on the container, or the unit will not be accepted. 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 merchandise ability or fitness for any purchase, and all such warranties are hereby disclaimed and excluded, in no event shall Zontec Ozone Generators 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 or 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 or providing substitute equipment for service during the periods of malfunction or non-use. Some states and/or provinces do not allow for the exclusion of incidental or consequential damage so the above exclusion may not apply. This warranty gives specific legal rights, and 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

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 _____ | |