

**INSTRUCTION MANUAL**  
**CAT. 64490-98, 64491-98 Lab-Air Model PA 1200**



Electron Microscopy Sciences  
1560 Industry Road Hatfield, PA 19440  
TEL: 215-412-8400 FAX: 215-412-8450 TOLL FREE: 1-800-523-5874  
EMAIL: [sgkcck@aol.com](mailto:sgkcck@aol.com) WEB: [www.emsdiasum.com](http://www.emsdiasum.com)

## INSTRUCTIONS

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. Press the timer button 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.

$$\text{AREA x ODOR FACTOR} = \text{MG/HR required}$$

### Cubic feet

1. Measure the cubic footage (LxWxH) of the AREA being treated
2. Estimate the odor factor as follows:
  - 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

### Cubic meters

1. Measure the cubic meters (LxWxH) of the AREA being treated
2. Estimate the odor factor as following:
  - 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

**PA2500**

MG/HR (Milligrams per hour in dry air)

340	431	522	613	704	795	886	977	1068	1159	1250
LO	1	2	3	4	5	6	7	8	9	HI

**Ozone setting**

Example 1: 20,000 cubic foot room x 0.036 Strong odor factor = 720 MG/HR. Set OZONE at 4 (704 MG/HR) and adjust as required.

Example 2: 550 cubic meter room x 1.29 Strong odor factor = 709 MG/HR. Set OZONE at 4 (704 MG/HR) and adjust as required.

**MAINTENANCE**

Electron Microscopy Sciences recommends changing the air filter monthly. We suggest that you review the following inspection procedure to determine how often your PA1200 should be cleaned:

1. Inspect the unit after 1 month of operation. If the Generator Plate and Frame require cleaning at this time, then continue the monthly inspection and cleaning procedure.
2. If the unit is clean after 1 month, then wait 2 to 3 months until the next inspection and cleaning. If the unit is still clean, we recommend that the unit be inspected and cleaned every 6 months.

**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:**

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



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

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

**Finish programming by pressing CLOCK to get out of timer mode.**

**MANUAL until the indicator line shows AUTO.**

**TO INSPECT AND CLEAN THE ZONTEC PA 1200 MONTHLY**

1. TURN THE UNIT OFF AND UNPLUG IT FROM THE POWER SOURCE.
2. Remove the dirty air filter from the back of the unit.
3. Using a standard Phillips #2 screwdriver, remove the four (4) screws securing the cabinet cover and lift the cover off.
4. Gently slide the white ceramic generator plate straight up and out of the machine.
5. Wipe any visible dust from the inside of the unit with a clean dry cloth.
6. Using the alcohol wipe, carefully clean the generator frame from which you pulled the ceramic generator plate. Be sure to thoroughly clean & wipe the inside area of the generator frame at the bottom, between the 2 upright posts, where the ceramic generator plate rests. The alcohol wipe can also be used to clean the generator plate and assist in the removal of any difficult residues, from other areas, that are not easily removed with a dry cloth. The alcohol will evaporate quickly.
7. Gently replace the white ceramic generator plate by sliding it straight down to the base of the generator frame. Be Sure that the ceramic generator plate slides down the 'slots' at each end and is resting on the base of the generator frame. For optimum performance we recommend replacing the generator plate at each 6th month cleaning interval.
8. Replace the four (4) cover screws.
9. Install the new air filter onto the back of the machine.
10. There are two (2) fuse holders on the back of the machine. The smaller fuse holder contains the 200-milliamp high voltage fuse. If this 200-milliamp fuse is blown (NO OZONE) replace it with one of the spares supplied with this kit.

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11. This fuse will blow if the ceramic generator plate is broken or if the generator frame becomes contaminated. Keep your spares for future use.
12. The unit is ready to be put back into service.

## **TROUBLESHOOTING THE PA 1200 SERIES**

### **If the PA 1200 will not start (no lights are on):**

Check the power outlet to ensure that it is supplying power. Check the 2-Amp line fuse. Replace with spare if required.

### **If the PA 1200 starts but does not produce ozone (red switch light on and fan running):**

Check the 200-milliAmp fuse. Replace with spare if required.

**If the PA 1200 still does not operate properly, contact Electron Microscopy Sciences.**