



# PCO2450/UVC Photo-Catalytic Air Purifier

## Installation & Maintenance Instructions

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### Unpacking the Unit:

PCO 2450 UVC Air Purifier is shipped pre assembled with UV lamp installed. Carefully remove unit and inspect for damage. In case of product damage, please save the shipping box and notify GeneralAire at (866) 476-5101

### Be sure the following parts are included:

- PCO 2450 Air Purifier with UV Lamp and Mounting Plate
- Eight #12 Sheet Metal Screws plus one extra
- One 120 volt Quick Connect Power Cord

## IMPORTANT SAFETY INSTRUCTIONS

1. ALWAYS be sure the unit is unplugged during installation or service procedures.
2. DO NOT leave fingerprints on UV lamp. Clean lamp with a dry cotton cloth and isopropyl alcohol.
3. EYE DAMAGE. Never look at the UV lamp when illuminated without UV protected safety glasses.
4. The PCO 2450 model Air Purifier has a built in Site Port that is UV protected and safe to monitor UV lamp performance.

## INSTALLATION

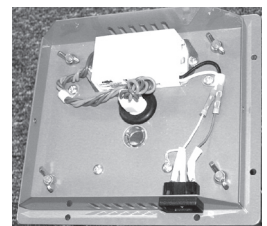
**Note:** For best results, the HVAC air filter should be upgraded to a GeneralAire high performance pleated filter, if this has not already been done. The preferred installation is on the return air side of the HVAC system. If this is not practical. Install the unit on the supply air side as far from the heating/cooling source as possible, but in the primary air stream.

**Do not locate the PCO2450 within 24 inches (direct exposure) of plastic materials or air filters. UVC radiation will degrade many plastic materials over time with direct exposure.**

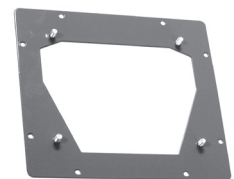
1. The ballast is factory set to 120 VAC. The voltage can be changed in the field to 230 VAC by sliding the switch in **(photo - A)** to the 220/230 volt position. The plug must be replaced and wiring must be done to applicable electrical codes.
2. Remove the front electrical cover from the PCO 2450 and remove the (4) wing nuts in **(photo - B)** that attach the unit to the Air Purifier's duct mounting plate.
3. Slide off the mounting plate and use it as a template by outlining inside cutout and (8) mounting holes with a pencil. Make sure the *wide portion of the mounting ring hole is facing the air stream*. Cut out the mounting hole from the duct and drill the (8) mounting holes with a 9/64 drill bit. **(photo - C)**
4. Fasten the mounting plate to the duct by installing and tightening all (8) #12 sheet metal screws supplied and slide in the body of the PCO 2450. Reattach the (4) wing nuts hand tight and replace the front cover.
5. Attach the quick connect power cord and plug in to any standard 120 volt electrical outlet. Verify lamp operation by looking through the site port on front cover. **(photo - D)** Continuous UV lamp operation is recommended. At .09 cents per kilowatt hour, continuous lamp operation cost 10.5 cents per day. Cycling the UV lamp on and off degrades lamp performance much faster and shortens the filament life.



**(photo - A)**



**(photo - B)**



**(photo - C)**



**(photo - D)**

### MAINTENANCE

*This maintenance schedule is only a guideline based on average indoor air quality conditions. Actual conditions will dictate the frequency of cleaning the UV lamp and replacing filters.* It is recommended on average that Standard Throw-Away 1" and 2" filter be replaced every 3 months, High Efficiency 5" pleated every 6 months and High Efficiency 6" Micro Fiber Expandable Filters every 12 months.

### CLEANING THE LAMP

1. Unplug the quick disconnect power cord from the PCO2450.
2. Remove the (2) Phillips head screws on the left and right hand side of the front electrical cover and remove the cover. **(photo - D)**
3. Remove the (4) wing nuts inside on the duct mounting plate shown in **(photo - B)**.
4. Remove the PCO 2450 body by sliding out of the duct mounting plate.
5. Use a cotton cloth with isopropyl alcohol and gently clean the surface of the lamp.

**Note:** If the honeycomb photo-catalyst on the left and right side of the UV lamp appears to be a light gray color and the individual cells are open and clear, there is no need to clean the catalyst as it is self cleaning.

If for any reason the catalytic cells require cleaning, sit the unit on end, on a flat surface, with the electrical enclosure facing up. Spray the catalytic cells with Windex and flush the catalyst with warm water until clean.

**CAUTION:** Allow the unit to thoroughly dry before replacing into service.

6. Replace the PCO 2450 back into the duct mounting plate and tighten the (4) wing nuts hand tight. Replace the front electrical cover and plug the quick connect power cord back into the unit.

### REPLACING THE LAMP

**Recommended every (24) months of continuous service.**

**Replace only with a GeneralAire LT-50 replacement lamp. This is a custom manufacture lamp designed only for high output thermal compensating electronic ballast.**

Follow the above steps and after **(step - 4)** loosen the brass knurl nut on the clamp at the rear of the lamp. Unplug the lamp electrical connector from the end of the lamp shown in **(photo - A)** and gently slide the lamp out the front of the PCO 2450 housing. Reinstall by reversing the above steps.

### TROUBLESHOOTING

1. Check to be sure there is correct voltage to the unit and the ballast is set for the correct voltage. **(photo - A)**
2. Be sure the lamp connector is fastened securely. **(photo - A)**
3. Check for loose electrical connections. **(photo - B)**
4. Test with new lamp and if lamp still does not light, replace ballast.

### WARRANTY

GeneralAire warrants the PCO2450 UV-C Photo-Catalytic Air Purifier against defects in materials and workmanship for a period of five (5) years from date of installation. Lamps carry a warranty for the useful life of the lamp, two (2) years. This warranty does not cover broken lamps due to mishandling in shipping, installation or misuse. Shipping cost for warranty return parts is the sole responsibility of the owner of the air purifier. This warranty is provided to the original purchaser of the air purifier and may not be transferred, sold or bartered. This warranty gives you specific legal rights which vary from state to state.

### SPECIFICATIONS PCO2450/UV-C Photo-Catalytic Air Purifier

<b>LT-50 UV Lamp</b> .....	50 watts UVC
<b>Length in Duct</b> .....	18 inches
<b>VectorFlo® PCO TiO<sub>2</sub> Semiconductor</b> .....	3500 sq. inches
<b>Weight</b> .....	3.6 lbs
<b>Adjustable Voltage</b> .....	120 or 230 volts
<b>Lamp Life Extended by QuartzCoat®</b> .....	2 years
<b>Static Pressure Increase Less Than</b> .02	

