



# INSTALLATION, OPERATION & MAINTENANCE MANUAL

## Plasma Air 600 Series

REV 12/2021



[www.plasma-air.com](http://www.plasma-air.com)

200012-B

## INTRODUCTION

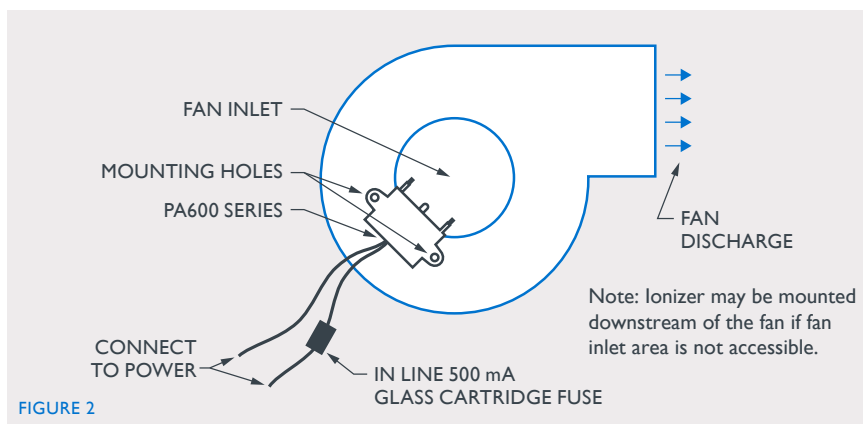
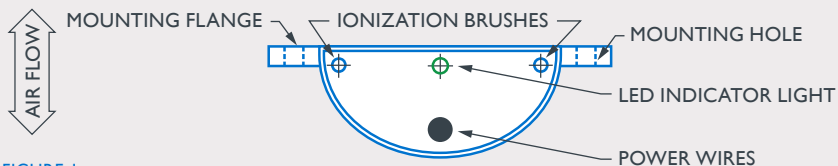
The Plasma Air 600 (PA600) Series is a needlepoint brush type ionizer producing an equal amount of positive and negative ions. This ionization equipment is effective in reducing harmful pathogens, pollutants and odors by introducing positive and negative ions into the system airflow. This unit is highly versatile as it may be installed in an air handling unit, fan coil unit, PTAC, heat pump and even a ductless split system. The PA600 Series is self contained in a potted enclosure which has molded flanges with mounting holes. Models are available to accept 12V DC, 24V AC / 24V DC, 120V AC or 208 - 240V AC without the use of an external power supply.

## MECHANICAL INSTALLATION INSTRUCTIONS

### GENERAL MOUNTING CRITERIA:

**WARNING: Do not connect to power before mechanical installation is complete.**

1. Mount ionization unit to allow access for general maintenance. Ensure the brush tips are not within  $\frac{3}{4}$ " of any metallic surface to prevent arcing.
2. Mount the unit at or near the fan inlet using the holes in the mounting flanges, ensuring that the air stream flows over the 2 brushes simultaneously. See figures 1 & 2.
3. For best results, the unit should be mounted downstream of the filter.
4. For best results avoid locations directly after a cooling coil or humidifier.



## ELECTRICAL INSTALLATION INSTRUCTIONS

**WARNING:** Do not connect to power before installation is complete. Always disconnect power to the ionizer before handling.

1. All field wiring to be in accordance with NEC and Authorities Having Jurisdiction (AHJ).
2. It is recommended that surge protection be installed with this ionizer at the equipment level, building level, or circuit breaker panel feeding the product.
3. If a step down transformer is used to feed the ionizer, the transformer must be grounded.
4. Do not install the ionizer on the same circuit as a UV Lamp or connect to the same transformer as a UV Lamp.
5. Connect power to the ionizer using appropriate voltage per the following: 601 (12V DC) 602 (24V AC / 24V DC) 603 (120V AC) 604 (208-240V AC) See figure 3.
6. The installer shall provide a power source that is properly grounded per the local AHJ.
7. For best results interlock ionizer with fan power.
8. Apply power to unit. Confirm that green indicator light illuminates indicating that the ionizer is functioning properly.

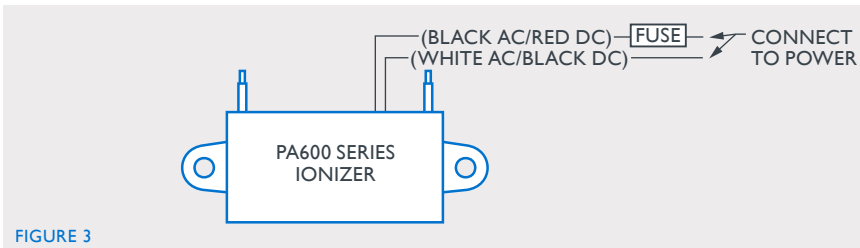


FIGURE 3

## OPERATION

1. When power is supplied to the ionizer, the ionizer will be activated and the green ion indicator LED will illuminate.
2. The ionization unit is self balancing and does not require any type of adjustment.

## TROUBLESHOOTING

If the unit is not working, check the following:

1. The supply fan is running and that the green LED illuminates.
2. Check the power input connections to the ionization unit. Verify all connections are correct and tightened. Reconnect any loose wires as necessary.

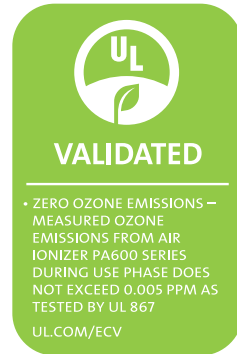
## SEQUENCE OF OPERATION

1. For units that are interlocked with the supply fan control, the BAS controls the start/stop of the air conditioning unit supply fan.

## MAINTENANCE

1. The PA600 Series was designed for low maintenance. At least every six (6) months, inspect the ionizer brushes for dirt. If the carbon fiber brushes do get dirty, the instructions below outline how to clean the device:
  - a. Disconnect power.
  - b. Remove any accumulated dust on the bristles of the brushes with either compressed air or a small brush. Avoid brushes with metal bristles as these could damage the bristles.
  - c. Reconnect power.
2. Inspect the LED light for dirt which can make the light hard to see. If dirt is present, wipe the LED with a small alcohol towelette.

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