



## INSTALLATION, OPERATION & MAINTENANCE MANUAL

**AERISA**

**AerBrush (01, 02, 03 & 04)**

04/20



### INTRODUCTION

The Aerisa model AerBrush utilizes needle point brush type ionization in order to produce positive and negative oxygen ions. This equipment is highly effective at reducing odors, airborne pathogens and particulates by introducing the +/- O<sub>2</sub> ions into occupied spaces through existing air handling equipment and ductwork. The unit is designed to be installed within an AHU, a fan coil unit, PTAC, heat pump or even in a ductless split system. The AerBrush is fully self-contained, housed within an ABS plastic enclosure and comes complete with mounting “wings”. The unit can come with 12V DC, 24V AC, 120V AC or 230V AC all without having to utilize an external power supply device.

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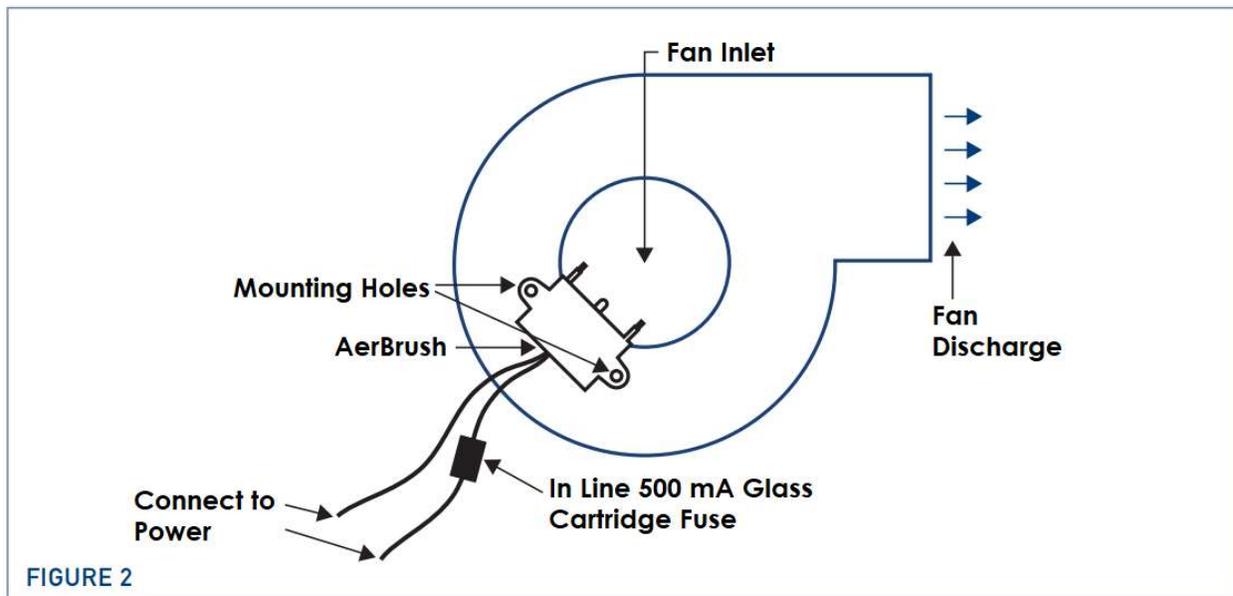
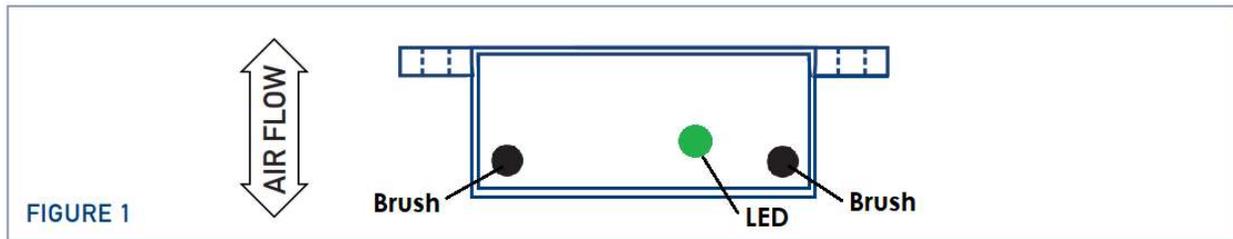
*Tel: 480-302-6300*

*www.aerisa.com*

## MECHANICAL INSTALLATION INSTRUCTIONS

### GENERAL MOUNTING CRITERIA:

1. Do not connect to power before mechanical installation is complete.
2. Mount ionization unit to allow access for general maintenance.
3. Mount the unit at or near the fan inlet using the holes in the mounting wings, ensuring that the airstream flows over the 2 brushes simultaneously. See figures 1& 2.
4. The unit should be mounted downstream of the filter.
5. For best results avoid locations directly after a cooling coil or humidifier.

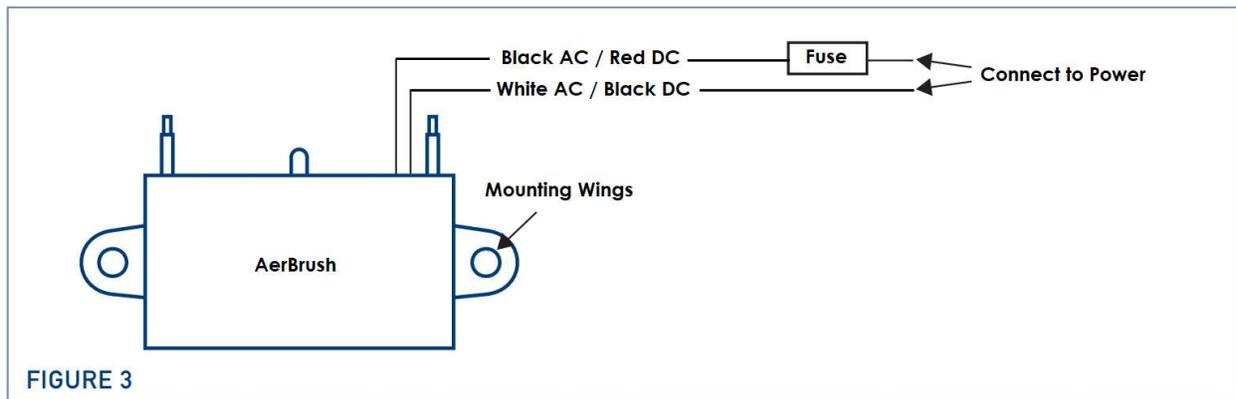




## ELECTRICAL INSTALLATION INSTRUCTIONS

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

1. All field wiring to be in accordance with NEC and Authorities Having Jurisdiction (AHJ).
2. Connect power to ionizer using appropriate voltage per the following.  
AerBrush-01=12V DC   AerBrush-02=24V AC   AerBrush-03=120V AC   AerBrush-04=230V AC
3. For 120V AC and 230V AC models the installer shall provide a grounding method per the local AHJ.
4. For best results interlock ionizer with fan relay.
5. Apply power to unit. Confirm that green indicator light illuminates indicating that the ionizer is functioning properly.



## OPERATION

1. When power is supplied to the ionizer, the ionizer will be activated and will illuminate the green ion indicator light.
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 light 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.

## FIELD INSTALLATION INSTRUCTIONS OF DRY CONTACTS

The AerBrush unit has an option to include dry contacts which will indicate ionizer functionality to a BMS (Building Management System).

1. All field wiring to be in accordance with NEC and Authorities Having Jurisdiction (AHJ).
2. Connect power to ionizer using appropriate voltage per the following. See figure 4.

AerBrush-01=12V DC   AerBrush-02=24V AC   AerBrush-03=120V AC   AerBrush-04=230V AC

3. For 120V AC and 230V AC models the installer shall provide a grounding method per the local AHJ.
4. For best results interlock ionizer with fan relay.
5. Apply power to unit. Confirm that green indicator light illuminates and that the dry contacts indicate that the ionizer is functioning properly.

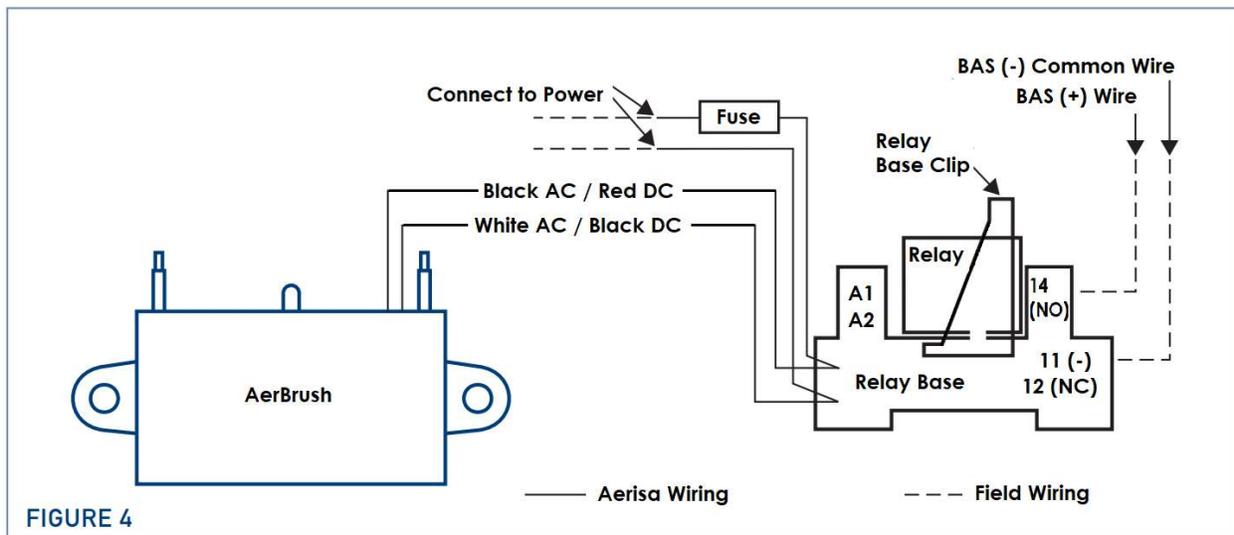


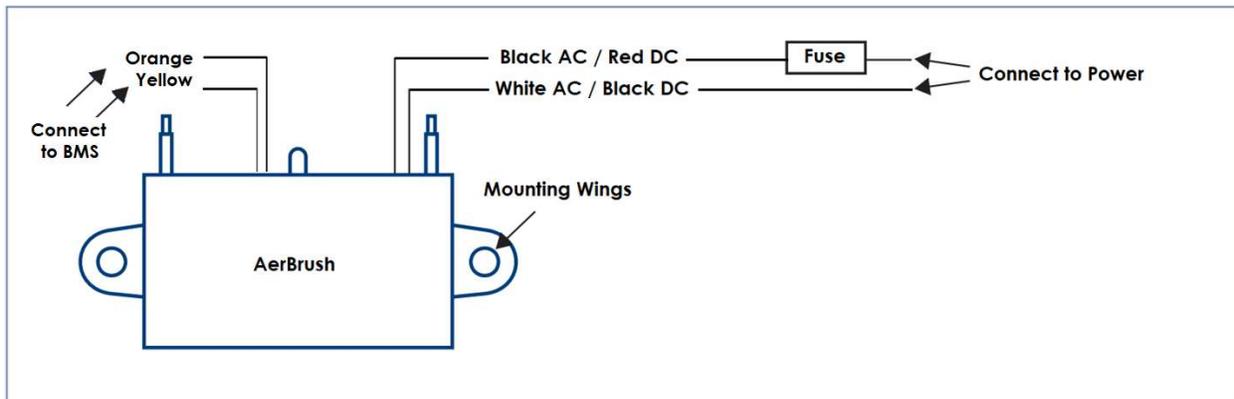
FIGURE 4



## INSTALLATION INSTRUCTIONS OF PRE-INSTALLED OPTIONAL DRY CONTACTS

The AerBrush also has an optional set of dry contacts that can be installed on the unit prior to shipment.

1. All field wiring to be in accordance with NEC and Authorities Having Jurisdiction (AHJ).
2. Connect power to ionizer as instructed above (1-4).
3. Apply power to unit. Confirm that green indicator light illuminates indicating that the ionizer is functioning properly. Confirm continuity across yellow and orange BMS monitoring wires.



## MAINTENANCE

Given good particulate filter maintenance, there is no maintenance required on the AerBrush unit.