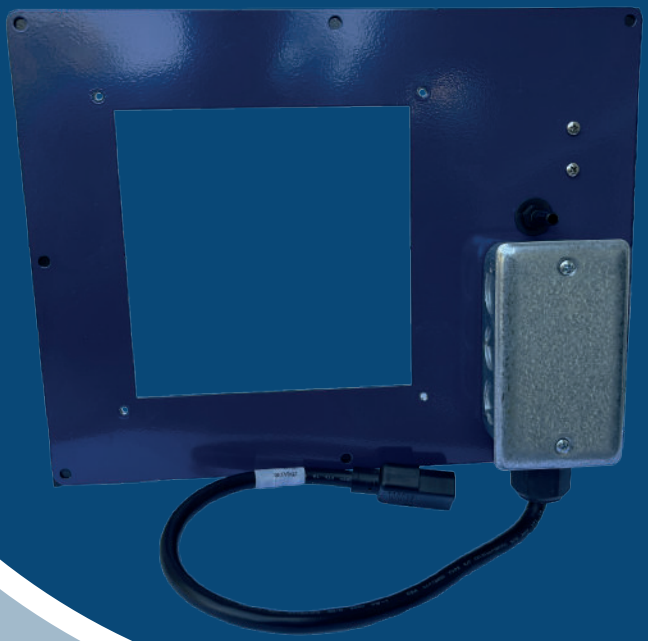
INSTALLATION, OPERATION, AND MAINTENANCE MANUAL

AirPlate



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GENERAL DESCRIPTION

When used in combination with a Model 100 or 200 ionizer, the AirPlate interlocks the ionizer's power with the airflow in the duct system. The AirPlate features a pressure differential switch that activates at a positive or negative pressure of 0.05 inches WG and a junction box for the termination of line voltage power.

MECHANICAL INSTALLATION

Important Mounting Criteria:

- The pressure switch default setting is for installation on the positive pressure or supply side of the duct system.
- If the unit is to be mounted on the negative pressure or return side of the duct system, the plastic air sampling tube must be moved from the P2 (white) to the P1 (black) position on the pressure switch (See Figure 1).
- The AirPlate must be mounted horizontally, even in vertical ducts. (See Figure 2) If mounted vertically, the pressure switch may remain actuated after the fan stops.
- The AirPlate will not operate properly if installed inside an air handling unit.
- Be sure there is sufficient duct depth to accommodate the ionization tubes.

Step 1. Cut a 10" X 7" rectangular hole in the duct (See Figure 2).

Step 2. Center the AirPlate over the duct cut-out and secure to the duct using 8 sheet metal screws (not provided).

Step 3. Install the model 100 or 200 ionization unit to the AirPlate using the four (4) machine screws (provided).

Step 4. In duct systems where 0.05 inches of WG is not consistently present like in a VAV system, it may be necessary to:

a. run a length of ¼" ID plastic air sampling tube from the Reference Pressure Port located on the front of the AirPlate to the opposite side of the fan; or

b. mount the supplied Airflow Pick-Up Fitting onto the Duct Pressure Port on the pressure switch located on the back of the plate. Rotate the Airflow Pick-Up Fitting so that the air in the duct flows into the fitting opening. This converts velocity pressure to static pressure (See Figure 3).

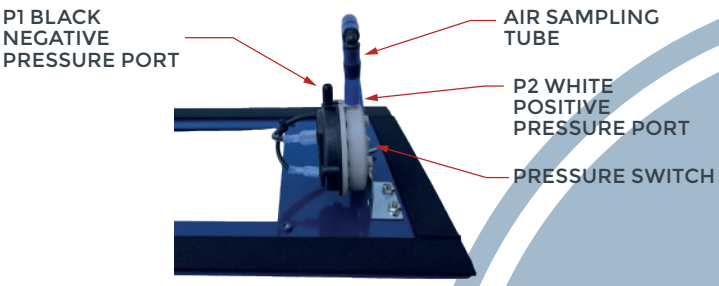

FIGURE 1

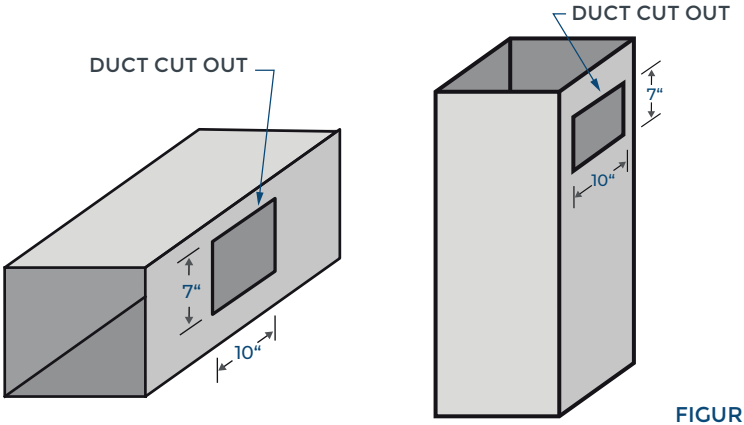

FIGURE 2

ELECTRICAL INSTALLATION

Important Wiring Criteria:

- The AirPlate can be used with any voltage – 120 Volt, 230 Volt or 24 Volt systems.
- The model 100 and 200 ionization units draw about 20 watts. The power source should not be protected by a breaker exceeding 20 amps.

Step 1. This unit comes with a junction box designed for hard wiring the incoming power. Insert the power leads through one of the knockouts on the right side of the junction box. This ensures that the ionizer installation is not interfered with.

Step 2. Connect the incoming power to the wire leads inside the junction box with wire nuts and secure the wires in the knockout with a clamp connector.

Step 3. Close the junction box cover and connect the jumper cord to the ionizer power input fitting. (See Figure 4).

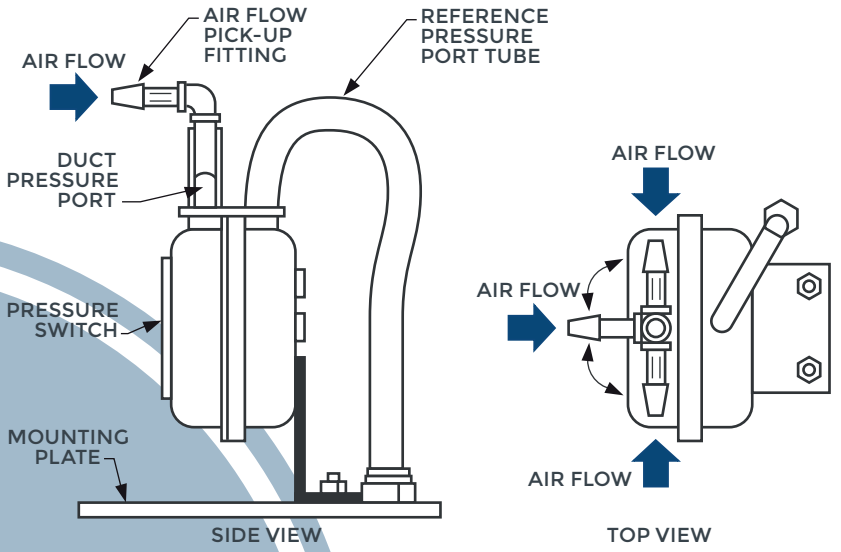

FIGURE 3

OPERATION

When the system fan is running, the pressure differential switch closes bringing power to the ionizer. The green LED will illuminate.

TROUBLESHOOTING

If the ionizer green LED does not illuminate when the supply fan is running, check the following:

a. Ensure that the electrical connections are secure.
b. Confirm that the ionizer fuse is not blown.
c. Make sure that the air sampling tube is on the correct port. In a positive pressure system, the air sampling tube should be on the P2 (White) port and on negative systems the tube should be on the P1 (black) port.
d. In duct systems where 0.05 inches of WG is not consistently present, ensure that the supplied Airflow Pick-Up Fitting is installed correctly and is rotated in the correct orientation so that the air in the duct flows into fitting's opening. (See Figure 3).

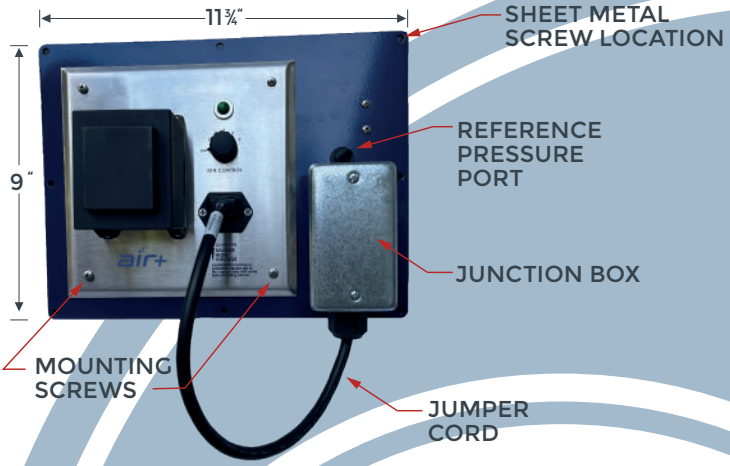

FIGURE 4