

Aprilair[®]

ELECTRONIC AIR CLEANER

SAFETY AND INSTALLATION MANUAL

MODEL 5000

TABLE OF CONTENTS

Safety Instructions.....	2
Specifications.....	2
Components.....	3
Installation.....	4
Operating Instructions.....	6
Trouble Shooting Guide.....	6

SAFETY INSTRUCTIONS

Read the safety and installation instructions carefully. They will help ensure a correct and SAFE installation of the Aprilaire® Electronic Air Cleaner.

WARNING:

- 120 Volts may cause serious injury from electrical shock. Disconnect power to the furnace/air handler before starting installation. Leave power disconnected until installation is completed.
- Arcing in electrical components may cause an explosion. Do not install unit where explosive gasses will be present.
- To reduce the risk of electrical shock, this equipment has a grounding-type (three prong) plug. This plug will fit only into a grounding-type power outlet. If the plug does not fit into the outlet, contact qualified personnel to install the proper outlet. Do not alter this plug in any way.
- To reduce the risk of electrical shock, locate product so that the power cord can be plugged into an electrical outlet without the use of an extension cord.
- Sharp edges may cause injury from cuts. Use care when cutting and handling sheet metal.

CAUTION:

- To prevent component failure, **do not** install the air cleaner on the warm air supply or in an area where the temperature may exceed 125° F. This may include areas above heat exchangers in downflow furnaces or above exhaust flues in lowboy furnace cold air returns.
- The air cleaner must be installed where the ambient air temperature remains between 40° F and 125° F [4° C and 52° C].
- Installation must conform to all applicable codes.
- Do not install an atomizing humidifier upstream of the air cleaner. Water or mist will cause power supply to shut down.

SPECIFICATIONS

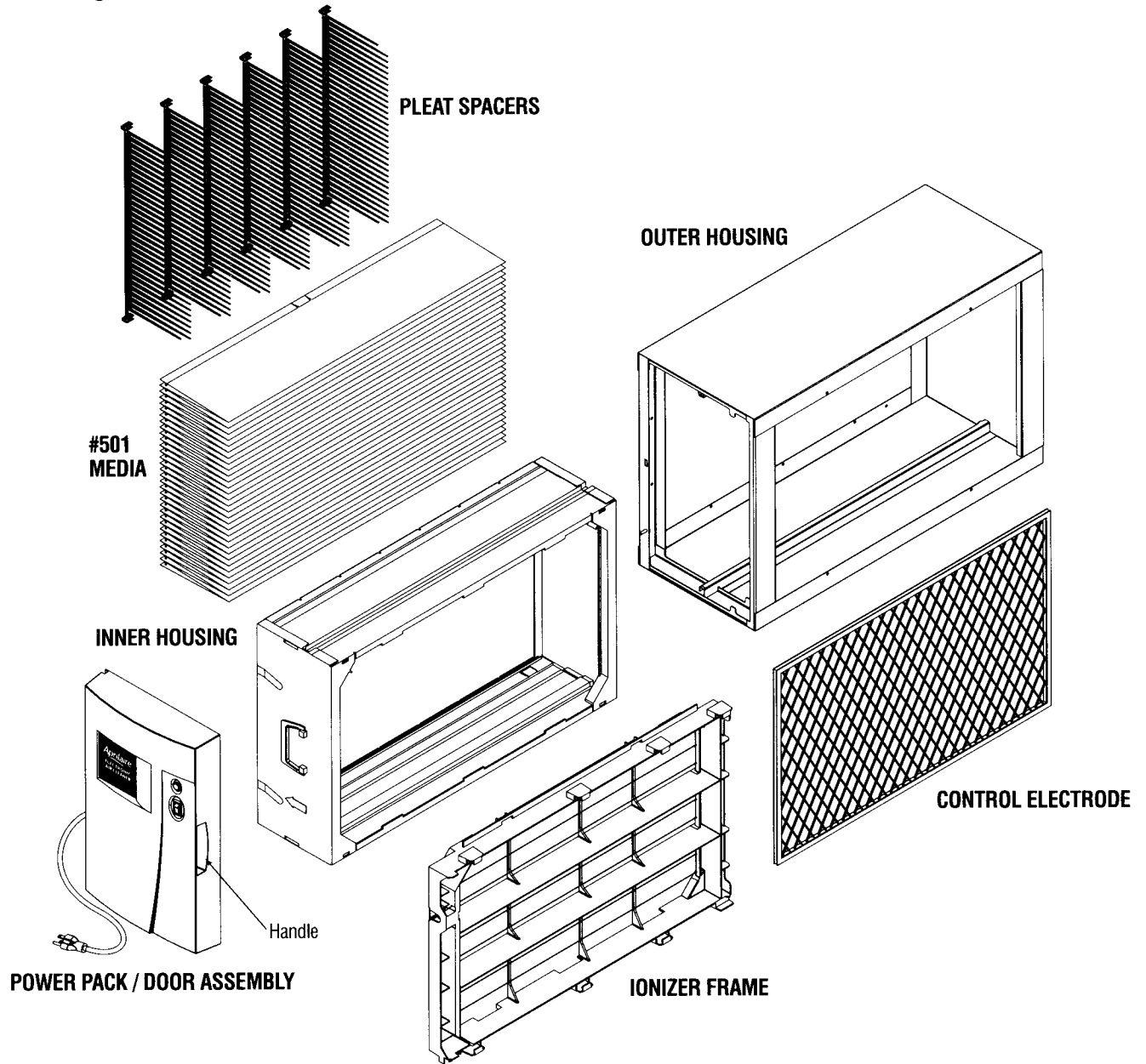
Description	The Aprilaire Electronic Air Cleaner Model 5000 is an electronically enhanced "ElectraMedia" air cleaner.
Unit Dimensions	Overall Unit – 17 3/4" x 31 1/8" x 11 1/2"
Airflow Capacity	2000 cfm maximum
Power Requirements	120 VAC 60 Hz., Unit equipped with 5 ft. grounded cord with Plug.
Current	0.3 Amps maximum
Shipping Weight	35 lbs.

Aprilaire®

ELECTRONIC AIR CLEANER

MODEL 5000

Figure 1



INSTALLATION

Important

The Model 5000 Air Cleaner is designed for systems with airflow up to 2000 cfm. If the furnace has more than one return air inlet connection, install one air cleaner in each.

The air cleaner can be installed horizontally, vertically, or at an angle depending on furnace type. Figures 2, 3, 4, and 5 show unit orientation in various types

of applications. Note airflow direction arrows on inner assembly and outer housing.

Allow 29" clearance in front of the unit for media replacement.

If a transition duct is required, see Figure 5 for recommended duct angles. Figure 6 shows the air cleaner dimensions.

Figure 2

Upflow Closet Installation

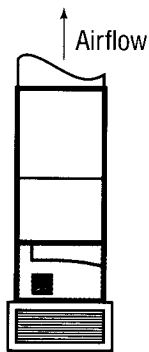


Figure 3

Horizontal Installation



Figure 4

Highboy Installation

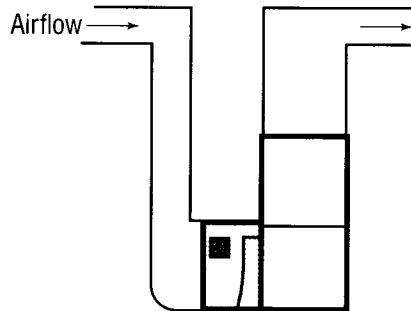


Figure 5

Highboy with Transition

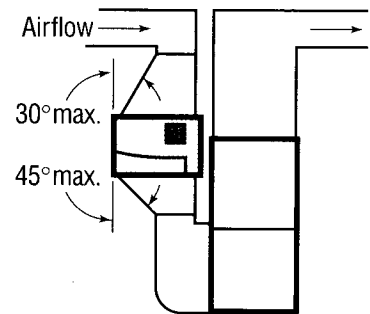
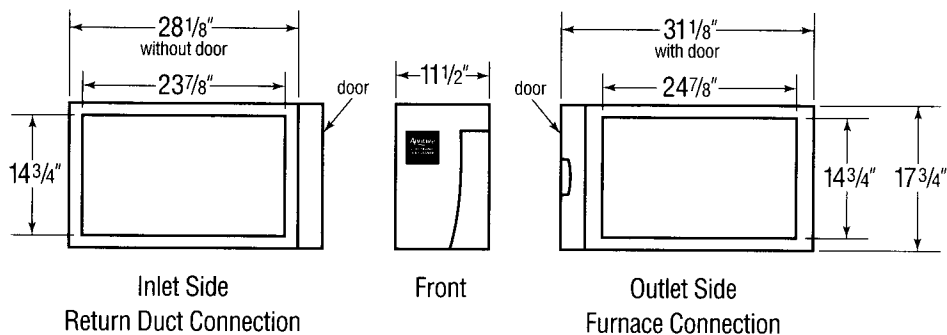


Figure 6



APPLICATIONS WITH A HUMIDIFIER

An Aprilaire® Automatic Humidifier can be mounted upstream from the air cleaner.

CAUTION: Do not install an atomizing humidifier upstream from the air cleaner.

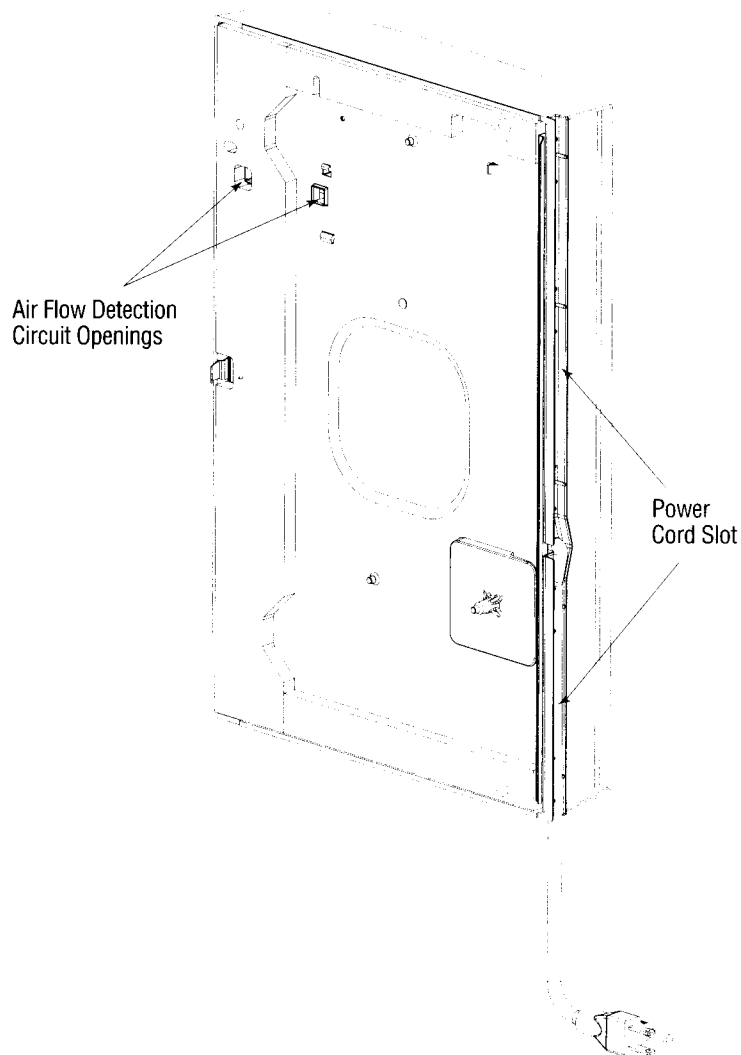
INSTALLATION PROCEDURE

Warning: 120 Volts may cause serious injury from electrical shock.

Leave power disconnected until installation is completed.

1. Remove pleat spacer and media cartons from the inner housing.
2. Remove air cleaner power pack /door assembly and pull inner assembly out of the outer housing.
3. Turn off furnace/air handler.
4. On retrofit applications, remove existing filter, discard it, and thoroughly clean the blower and blower compartment.
5. With airflow label in proper orientation, attach outer housing to furnace/air handler system. Seal inlet and discharge connections. See Figures 2 through 5 for typical system types.
6. Install the media using the instructions on the media carton.
7. Check to make sure that the ionizer frame is properly inserted into the inner housing and that the control electrode is inserted fully into the ionizer frame.
8. Insert the inner assembly into the outer housing and replace the door.
9. Press the power cord into the slot in the side of the power pack /door assembly so that it is directed towards the outlet. See Figure 7.
10. Return power to the furnace/air handler.
11. Plug the Aprilaire Air Cleaner power cord into a 120 VAC (constantly live) grounded outlet.
12. Wait three minutes after the blower starts and check unit for proper operation. (The airflow sensing circuitry takes a few minutes to warm up the first time the unit is plugged in and turned on.)
13. Provide owner's manual and warranty card to homeowner after explaining operation of unit.

Figure 7



OPERATING INSTRUCTIONS

The inner housing assembly must be installed and the power pack /door assembly to the air cleaner must be fully closed.

The unit should be plugged in and turned on. There are no other controls or settings required.

An airflow sensor in the air cleaner detects airflow after the furnace/air handler blower has started. When airflow is detected, the air cleaner will turn on and a green light located on the air cleaner door will turn on. After the furnace/air handler blower has stopped, the green light will remain lit for a few minutes until the airflow sensor detects that the airflow has stopped.

TROUBLE SHOOTING GUIDE

WARNING: 120 Volts may cause serious injury from electrical shock. Disconnect power to the furnace/air handler before starting installation. Leave power disconnected until installation is completed.

When the air cleaner is operating correctly and the following conditions are met, the green light on the door will be on:

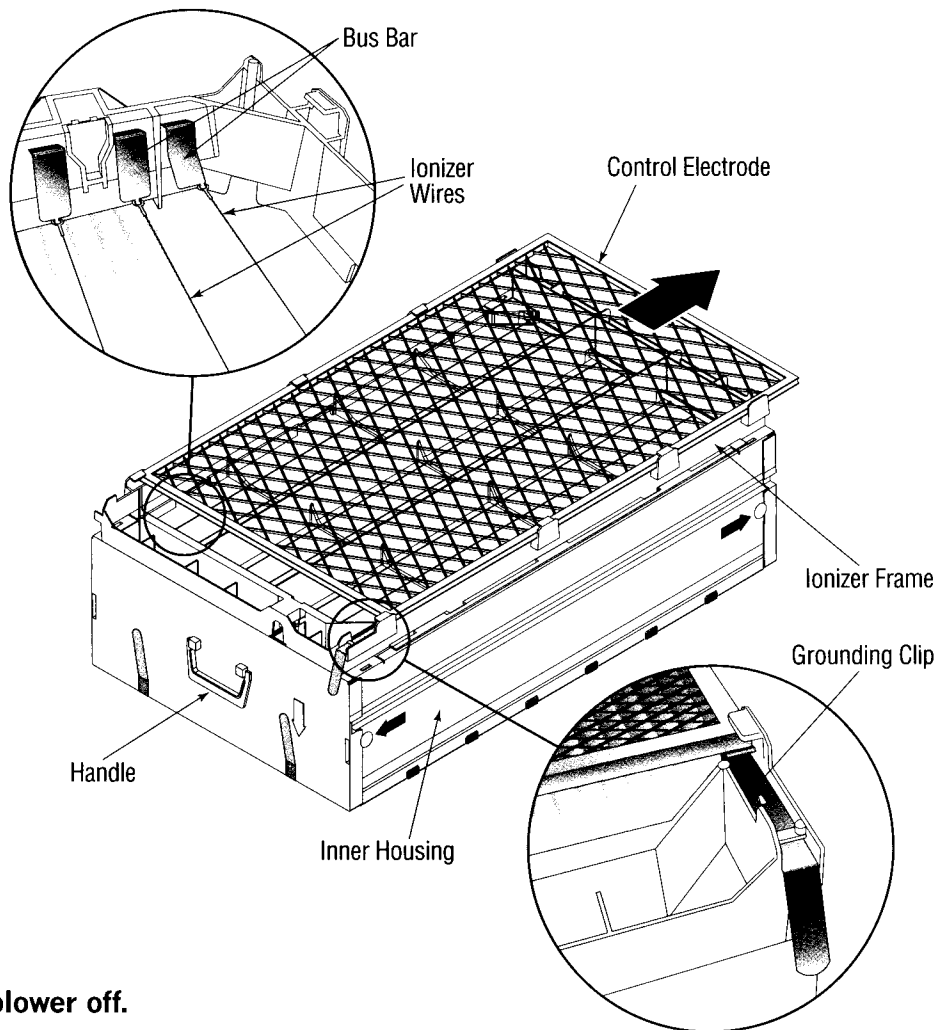
- The air cleaner is correctly assembled and installed.
- The power pack /door assembly is fully closed.
- The unit is plugged into a live 120 VAC outlet.
- The switch is in the ON position.
- The furnace/air handler blower is running.

If those conditions are met and the green light does not come on, the air cleaner circuit is not being activated. If the green light blinks at approximately one-minute intervals, the air cleaner circuitry is attempting to turn on, but is quickly turning off due to either an over-current condition or because arcing is occurring between components. Check the inner assembly as follows:

1. Turn the furnace/air handler blower off.
2. Turn the air cleaner off.
3. Unplug the air cleaner.
4. Open the power pack /door assembly.
5. Remove the inner housing assembly.

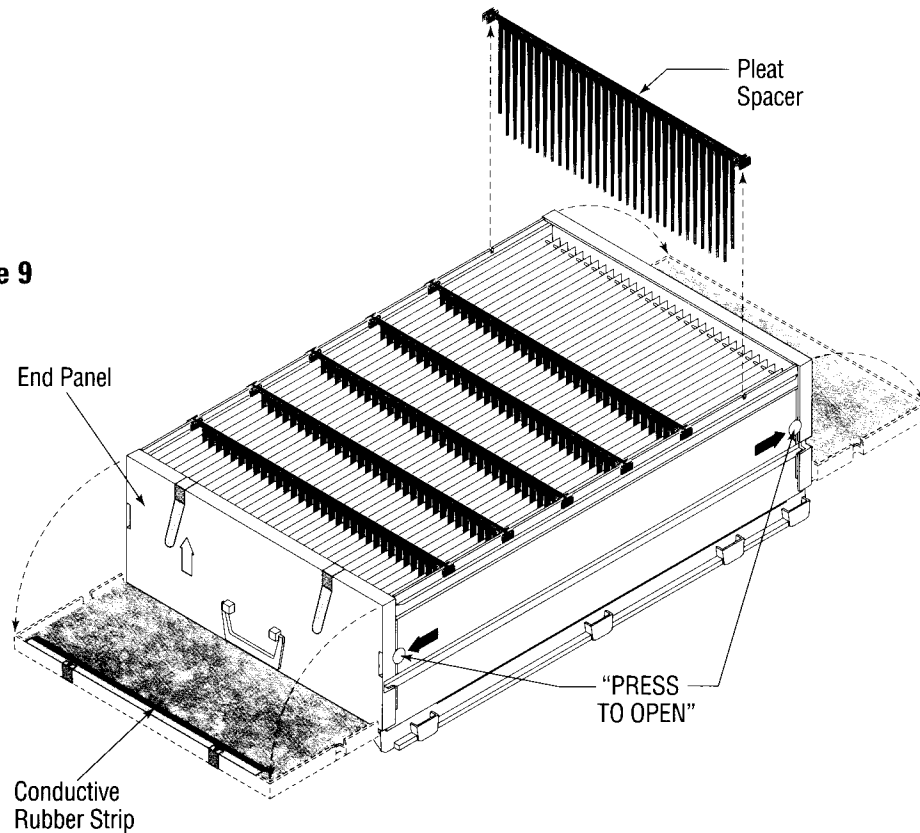
6

Figure 8



6. Inspect components to ensure the following:
 - a. All components must be dry.
 - b. The ionizer frame-grounding clip must be in contact with the control electrode. See Figure 8.

Figure 9



6. Inspect components to ensure the following (continued):
 - c. The conductive rubber strip must be in contact with the conductive-coated tips of the media. See Figure 9.
 - d. The nine ionizing wires must be clean, straight, and hooked onto the bus bar at one end and the ionizer frame at the other. See Figure 8.
 - e. The control electrode must be properly inserted in the ionizer frame.
 - f. The openings for the airflow detection circuit on the inside of the door must be unobstructed. See Figure 7.
 - g. There must be no debris bridging the gap between the ionizing wires and any other component.
7. Re-install the inner housing assembly and close the power pack /door assembly.
8. Plug in the unit and turn it on.
9. Turn on the furnace/air handler blower.
10. Wait three minutes after the blower starts and check unit for proper operation. (The airflow sensing circuitry takes a few minutes to warm up the first time the unit is plugged in and turned on.)



P.O. BOX 1467 • MADISON, WI 53701-1467 • Phone 608/257-8801 • FAX 608/257-4357 • *Products For Better Indoor Air Quality™*