

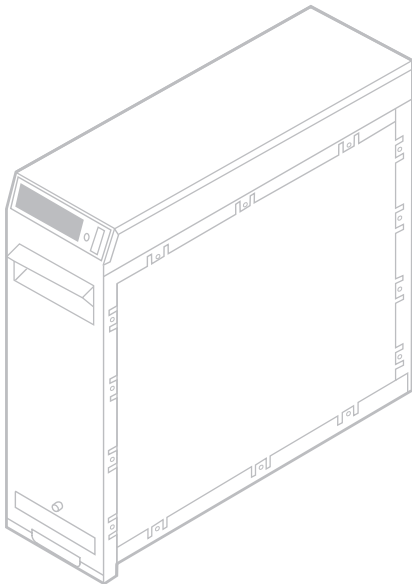


F300 Electronic Air Cleaner

PROFESSIONAL INSTALLATION GUIDE.



INCLUDED IN THIS BOX



- F300A1620
- F300A1625
- F300A2012
- F300A2020
- F300A2025
- F300B2012
- F300E1001
- F300E1019
- F300E1027
- F300E1035

Tools needed to install Electronic Air Cleaner

- ◆ Standard screwdriver
- ◆ Phillips screwdriver
- ◆ Metal cutter
- ◆ Drill
- ◆ Duct Sealant
- ◆ Locking Pliers

Replacement Media Postfilters

Filter Size (in.)	Part Number
12.5 x 20	50000293-004
16 x 25	50000293-002
16 x 20	50000293-001
20 x 25	50000293-004
20 x 20	50000293-003

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NEED HELP? For assistance with this product please visit honeywellhome.com or call Resideo Customer Care toll-free at 1-800-468-1502.

Read and save these instructions.

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What to Expect From Your Resideo Electronic Air Cleaner

Congratulations for selecting the Resideo Electronic Air Cleaner for your home comfort system! The F300 Electronic Air Cleaner captures and removes a significant amount of the air-borne particles from the air circulated through the high-efficiency electronic cells. The Electronic Air Cleaner easily mounts in any position within the return air duct of any gas, oil, and electric forced warm air furnaces and to compressor cooling up to 5 tons.

When Installing this Product...

1. Read these instructions carefully. Failure to follow them could damage the product or cause a hazardous condition.
2. Check the rating given in the instructions and on the product to make sure the product is suitable for your application.
3. Installer must be a trained, experienced service technician.
4. After installation is complete, check out product operation as provided in these instructions.

How it Works

Large particles (lint, hair) are caught by the prefilter. As the dirty air passes through the intense high voltage electric field surrounding the ionizer wires, all particles are given an electrical charge.

The air then moves through the collector part of the cell where alternate parallel plates are charged positively and negatively, creating a uniform electrostatic field. The charged particles are attracted to and collect on the plates that have the opposite electrical charge.

F300E models only: The air then passes through media postfilters, removing additional particles from the air stream. The air leaving the air cleaner has fewer particles. Each time the air circulates through the electronic air cleaner, more particles are removed.

Application Considerations

The Resideo F300 Electronic Air Cleaner is designed to work with gas, oil, and electric forced warm air furnaces and with compressor cooling. It can also be used with heat pumps if the filter is changed regularly to prevent excessive pressure drop. The F300 Electronic Air Cleaner is not recommended for applications where pressure drop may be critical.

Models

F300E: Includes cabinet, access door, solid state power supply, two electronic cells, two metal mesh prefilters, and two media postfilters.

F300A, B: Includes cabinet, access door, solid state power supply, two electronic cells and two metal mesh prefilters.



Air Conditioning

Mount the Electronic Air Cleaner upstream of the evaporator coil in a cooling system. The filter will help to keep the coil clean and reduce maintenance.

Humidifiers

An evaporative humidifier can be mounted upstream from the air cleaner. An atomizing humidifier should be mounted downstream from the air cleaner, even though hard water salts will be blown into the living space and deposited as dust. If an atomizing humidifier must be mounted upstream from the air cleaner:

1. Mount it as far as possible upstream from the air cleaner.
2. Install a standard disposable furnace filter between the humidifier and the air cleaner to trap water droplets and hard water salts.
3. Frequently clean the air cleaner to prevent a hard water salt buildup.

NOTE: The volume of water that is discharged from an atomizing humidifier can overload the air cleaner, resulting in hard water salts being deposited as dust in the living space.

Outdoor Air Intake

Return air temperature must be at least 40°F (4°C). Lower temperatures can cause ionizer wire failure. If outdoor air is used, warm it upstream from the air cleaner by:

- Making sure the outdoor intake is far enough upstream from the air cleaner so the return and outdoor air is thoroughly mixed. Stratified air can dump a stream of very cold air into one section of the air cleaner.
- Adding baffles upstream from the air cleaner to force thorough air mixing.
- Installing a Resideo Heat Recovery Ventilator or Energy Recovery Ventilator that transfers up to 80 percent of the heat from the exhaust air to the incoming outside air. This keeps the incoming air above 40°F (4°C) and reduces energy usage.
- Installing a preheater if large amounts of outdoor air are used. The preheater, which could be an electric strip heater or hot water coil, should be controlled by a thermostat. Hot water or steam coils should be protected by a freeze-up control.

UV Lights

Germicidal UV lights can cause degradation of the media postfilter. The UV light should be located out of line of sight or a minimum of 3 feet from the filter. Otherwise the filter may need to be replaced more frequently.

Ducting

The Electronic Air Cleaner is adaptable to all new or existing forced air heating and cooling systems used in residential applications. Transitions or turning vanes may be required in some applications for effective air cleaner operation.

Transitions

For most efficient air cleaning, spread airflow evenly across the face of the air cleaner. If the duct is a different size than the electronic air filter cabinet, gradual transitions are required. Follow these guidelines when fabricating:

- Use gradual transitions to reduce air turbulence and increase efficiency.
- Use no more than 20 degrees (about 4 in. per running ft. (100 mm per 300 linear mm)) of expansion on each side of a transition fitting.

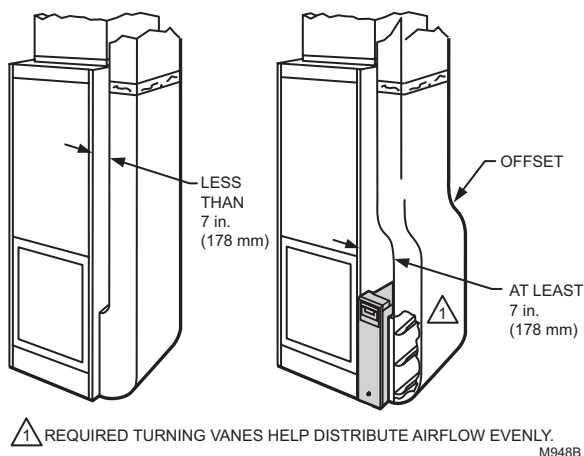
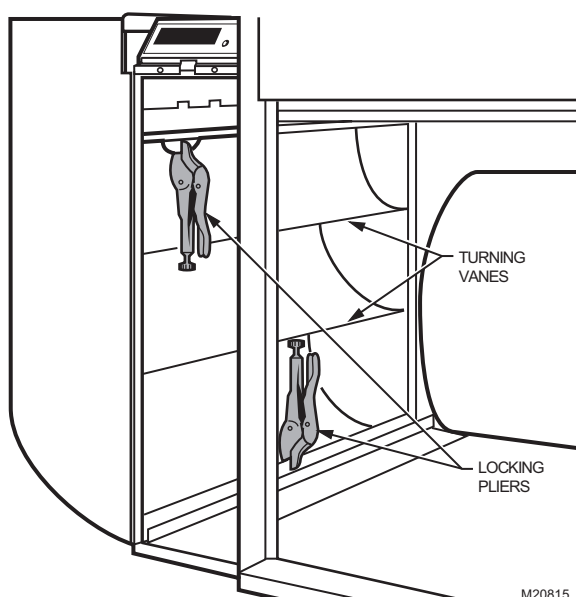
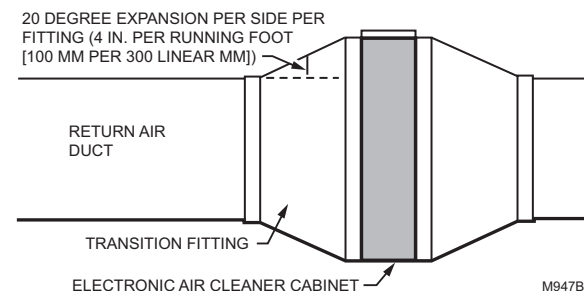
Turning Vanes

If the Electronic Air Cleaner is installed next to an elbow or angle fitting, add turning vanes inside the angle to distribute airflow more evenly across the face of the cell.

Offsets

If the duct connection to the furnace in a side installation allows less than 7 in. (178 mm) for mounting Electronic Air Cleaner cabinet, attach an offset to the elbow.

DUCT SIZE CHANGED GRADUALLY TO PREVENT TURBULENCE.



Important Installation Requirements

Failure to comply with these requirements will result in voided warranty, improper installation, and service callbacks.

Personal Safety

- Wear safety glasses while installing the unit.
- Do not cut into any air conditioning or electrical line.
- Follow professional safety standards and all local codes for plumbing, electrical, and mechanical considerations.

Before Mounting

- Using the figure on the cover and the lists on the inside cover, make sure that you have all the components for your Resideo Electronic Air Cleaner and the tools to install it.
- Ensure airflow direction through the Resideo Electronic Air Cleaner matches the arrows on the electronic cell. The arrows should point in the direction of the airflow.
- Choose a location that is readily accessible for checking and cleaning the cells. Allow at least 13 in. (330 mm) in front of the access door for removing the metal mesh prefilter, media postfilter and electronic cell. Allow enough room above the power supply so it can be serviced without removing pipes, ducts, or other heating system components.
- Install the electronic air filter where the temperature will not exceed the ratings in the Specifications.
- Do not mount in the supply air duct.

NOTE: Generally, the best location is in the return air duct next to the blower compartment so the Electronic Air Cleaner can help to keep the blower motor and evaporator coils clean.

If Replacing an Old Air Cleaner

If the Resideo Electronic Air Cleaner is not identical in size and shape to the existing air cleaner, before performing a retrofit installation, you might need to add duct transitions to ensure a smooth air flow. For optimum system performance, clean the cells every six to twelve months (before heating season and before cooling season). Adjust the schedule to you needs, but clean the cells at least once per year.

NOTE: Before carrying out any cleaning or maintenance activity, the product must be disconnected from the electricity.

Choosing a Mounting Position

The Electronic Air Cleaner mounts in any position within the return air duct, usually next to the furnace blower compartment, but the arrow on the cartridge must point in the same direction as the airflow. See Figs. 1-8 for proper location of the Electronic Air Cleaner for a variety of furnace installations.

NOTE: The Electronic Air Cleaner cabinet is sturdy enough to easily support the weight of the furnace and evaporator coil.

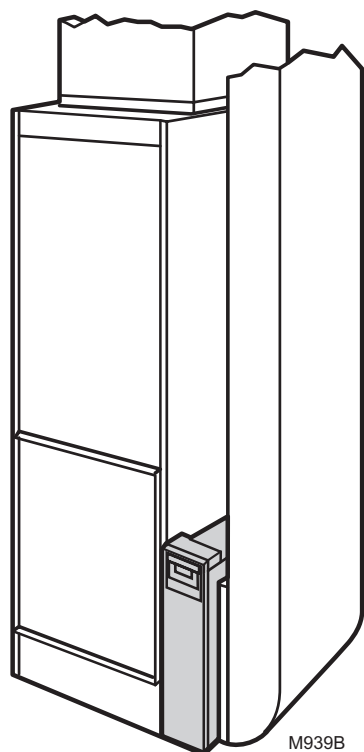


Fig. 1. Highboy furnace with side installation. Electronic air filter is mounted vertically where return enters side inlet of furnace.

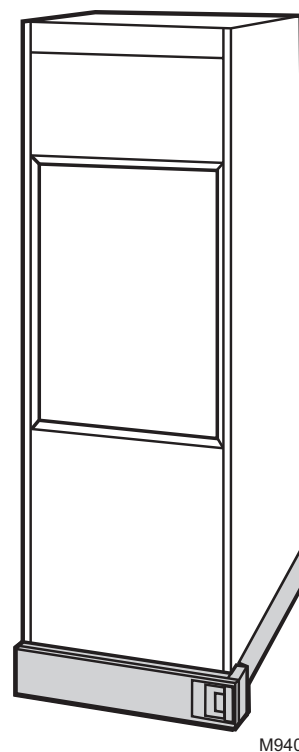


Fig. 2. Highboy furnace, with installation beneath furnace. Electronic Air Cleaner is mounted horizontally where return enters from below.

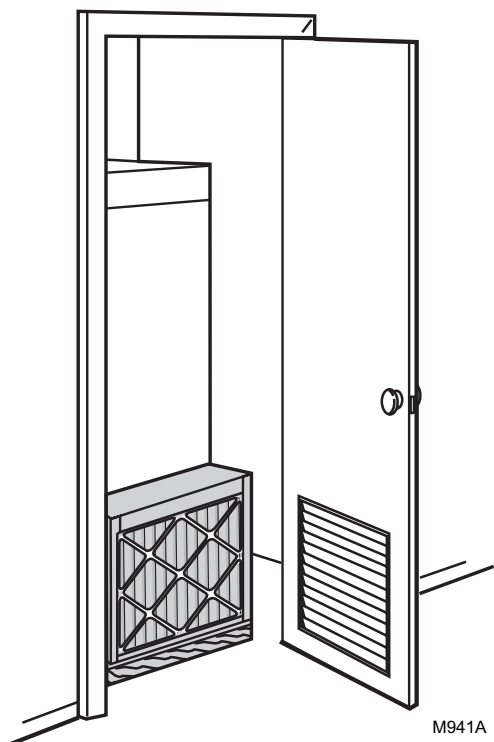


Fig. 3. Highboy furnace, with closet installation. Electronic Air Cleaner is mounted vertically on furnace between furnace and louvered return air opening in closet door.

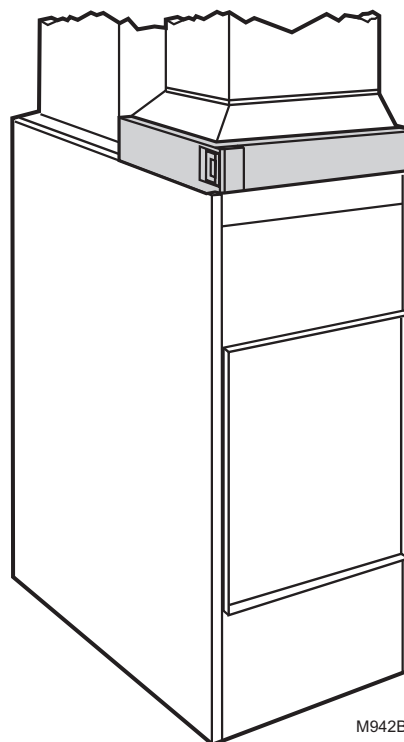
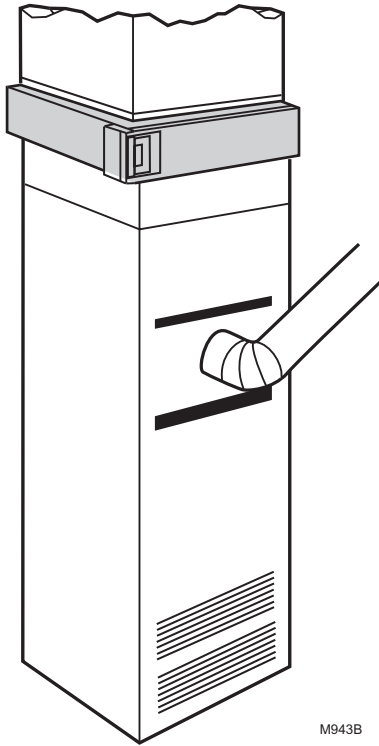
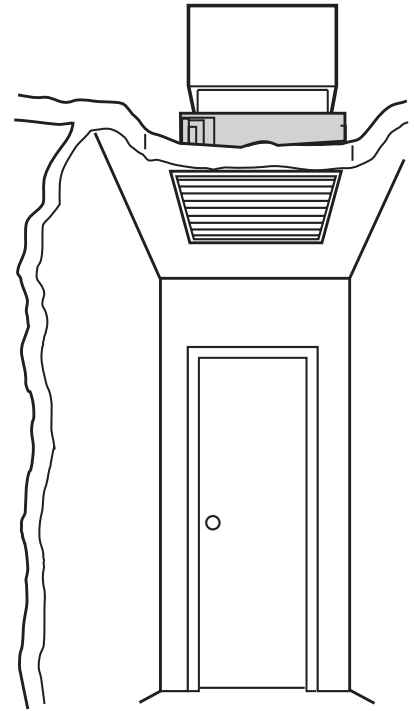


Fig. 4. Lowboy furnace, with Electronic Air Cleaner mounted horizontally in return plenum just above furnace and opposite heating plenum.



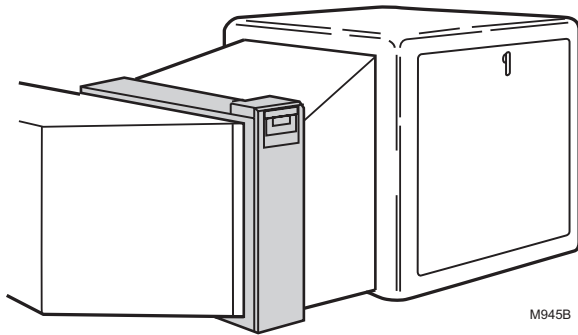
M943B

Fig. 5. Counterflow furnace, with Electronic Air Cleaner mounted horizontally in return duct or plenum just above furnace.



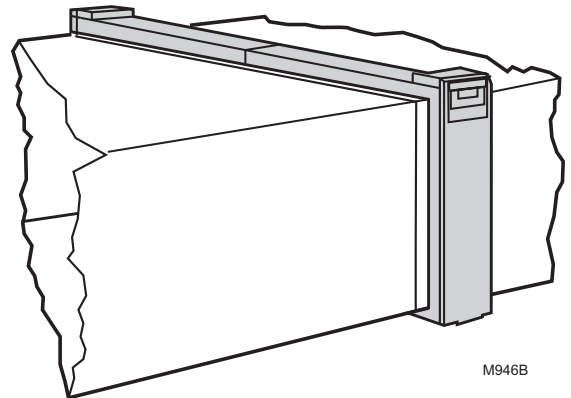
M944B

Fig. 6. Central fan installation, with Electronic Air Cleaner mounted horizontally in central return duct.



M945B

Fig. 7. Horizontal furnace, with electronic air filter mounted vertically in return duct near furnace.



M946B

Fig. 8. Two or more Electronic Air Cleaners used in a high capacity system.

Mounting the F300 Electronic Air Cleaner

The following procedure describes a typical side installation on an existing highboy furnace (Fig. 1). Alternate procedures are noted as appropriate. Other changes in installation procedures may be necessary to complete your installation.

STEP ONE: Unpack Electronic Air Cleaner

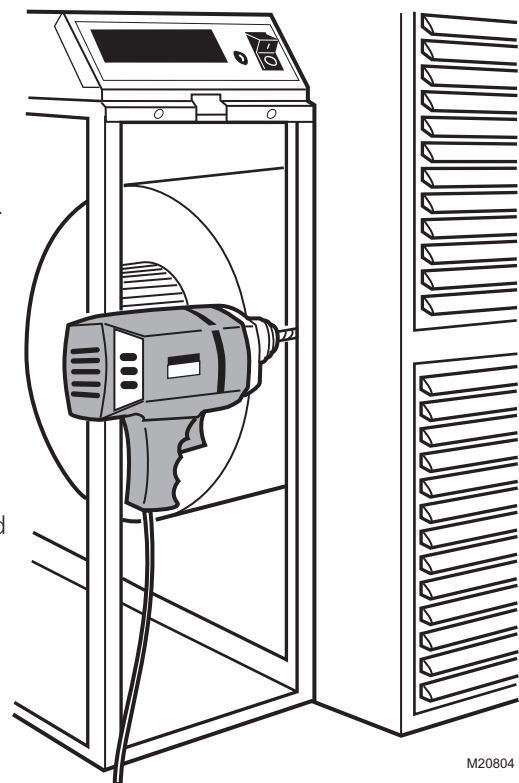
- Check that all components are included. The electronic air cleaner is shipped assembled. The unit consists of a galvanized steel cabinet, power supply with On-Off switch and neon light, two electronic cells, two metal mesh prefilters, two media postfilters (on select models), access door and product data literature.

STEP TWO: Clean Blower Compartment

- Remove and discard the existing furnace filter.
- Thoroughly clean the blower compartment.
- If possible, power vacuum the ductwork to remove accumulated dust in an existing home, or construction dirt in a new home. The electronic air cleaner cannot remove dust that has settled in the blower compartment and distribution ducts.
- Check the edges of the furnace fan blades for dirt buildup and clean as necessary. The fan will not deliver the rated cfm if the blades are dirty.

STEP THREE: Fasten the Cabinet to the Furnace

- Remove and set aside the access door, electronic cells metal mesh prefilters and media postfilters.
- Align the cabinet with the return air opening.
- Create an opening in the furnace to match the cabinet opening.
- Install a transition when the furnace and air cleaner openings are different sizes. See Transitions on page 5.
- Place blocks under the cabinet so the unit is firmly supported and level. The 5/8 in. (16 mm) mounting foot on the cabinet hinge plate provides the minimum clearance required for the access door hinge.
- Attach the cabinet securely to the furnace. The unit can be attached directly, as shown, or a starting collar can first be fitted in the furnace opening. Either drill holes and fasten with sheet metal screws or rivets, or use slip joints.



STEP FOUR: Install Turning Vanes

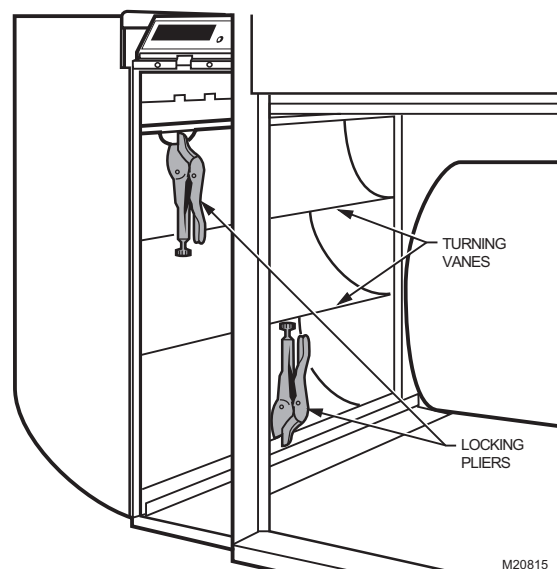
Install turning vanes to help distribute air equally over the full surface of the upstream side of the air cleaner. Install them whenever an abrupt 90 degree elbow is installed directly against the Electronic Air Cleaner cabinet.

STEP FIVE: Fasten Cabinet to Ductwork

Fasten side of cabinet to the ductwork using sheet-metal screws, rivets, or slip joints, as appropriate.

STEP SIX: Connect Ductwork

- Connect the vertical duct section to the elbow. If the vertical drop of the duct is less than 7 in. (178 mm) from the side of the furnace, shorten the horizontal trunk or attach an offset fitting to the elbow. See figure to the right.
- When ductwork is properly aligned, connect the vertical duct to the horizontal trunk.



STEP SEVEN: Seal Joints

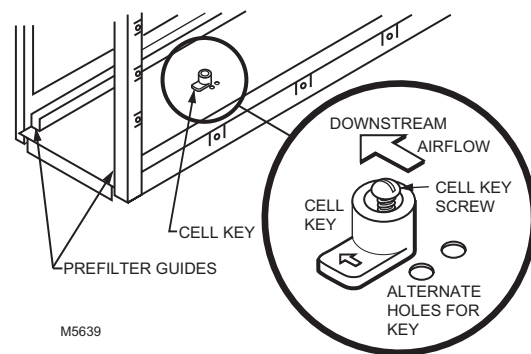
Seal all joints in the return air system between the air cleaner and the furnace to prevent dust from entering the clean airstream.

STEP EIGHT: Position Cell Key

The electronic cell must always be installed so the ionizer section is on the upstream side. A factory-installed cell key on the bottom of the cabinet allows the cell to be inserted in only one direction. If the arrow molded into the plastic key points in the same direction as the airflow, the ionizer is always on the upstream side.

If position of the key must be reversed, proceed as follows:

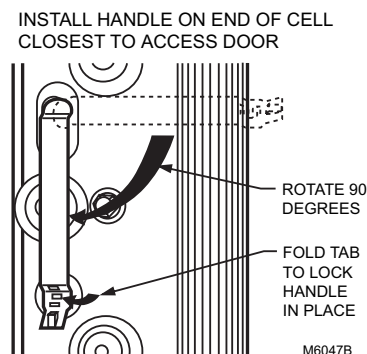
- Remove the electronic cell.
- Remove the screw holding the cell key in place.
- Turn the key around and place it over the opposite holes. The tab on the bottom fits into the larger hole, and the screw fits into the smaller hole. Make sure the arrow on the key points in the direction of the air flow (downstream).
- Tighten the screw into the new hole.
- Insert the electronic cell. The ionizer section will now be on the air-entering (upstream) side of the cabinet.



STEP NINE: Attach Cell Handles

Cell handles included with the air cleaner must be installed on the end of the cell closest to the access door. To install:

- Orient the cell as it will be when installed. The gray contact board must be up and the airflow arrow stamped into the cell must point downstream.
- Hold the handle sideways and insert the solid tab on the back of the handle into the slot in the cell. Turn the handle 90 degrees clockwise to align the divided tab with the square hole.
- Insert the divided tab into the square hole.
- Fold up the wedge and insert it into the divided tab to lock the handle in place. If necessary, press with a blunt instrument like the end of a pliers.



STEP TEN: Reassemble Air Cleaner

- Insert the electronic cells with the gray contact board toward the power supply and the airflow arrow pointing downstream. If the cell does not slide easily into the cabinet, check the orientation of the cell key.
- Insert the metal mesh prefilters on the upstream side of the cabinet in the guide provided.
- Insert the media postfilters (on select models) on the downstream side of the cabinet in the guide provided.
- Replace the access door. Insert the tab on the bottom of the door into the slot in the cabinet, then swing it closed and press into place. The door must be firmly in place or the air cleaner will not operate.

STEP ELEVEN: Complete Wiring

WARNING

Electric Shock Hazard.

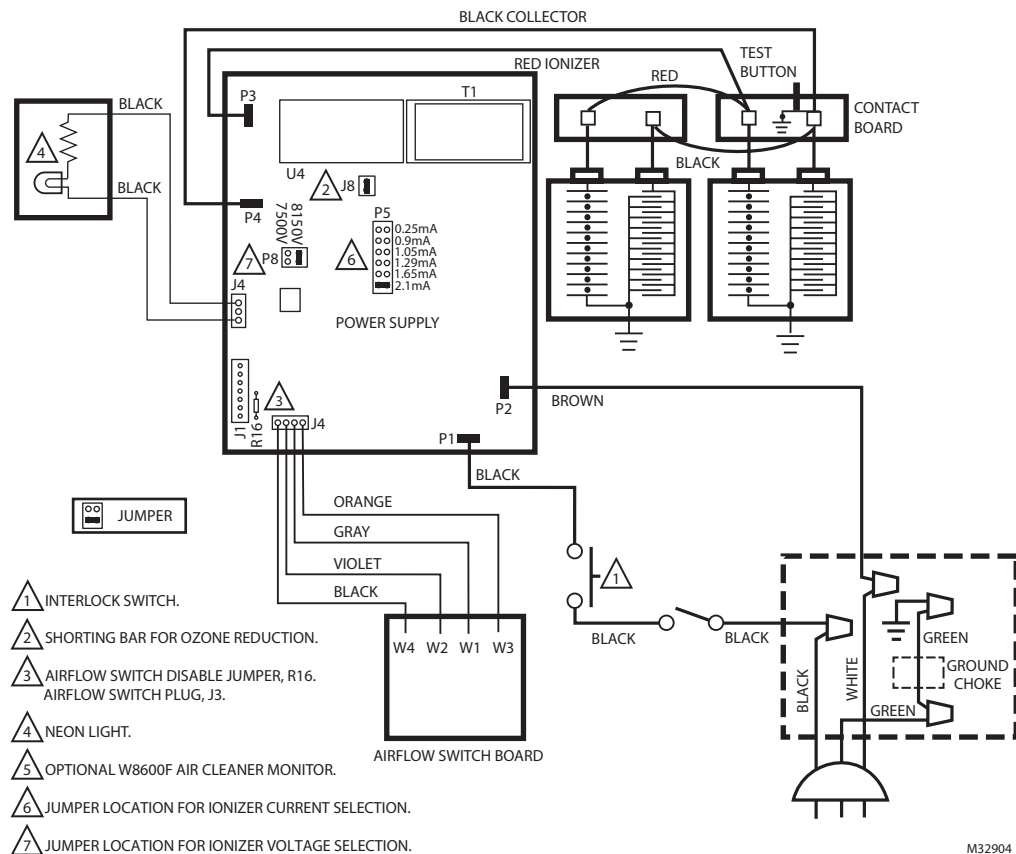
Can cause personal injury.

Do not use an extension cord.

- Assure all wiring complies with local codes and ordinances.
- The line voltage power source must match the voltage and frequency printed on the label inside the access door.
- When the System fan comes on, the Air Flow Switch (AFS) senses the negative pressure in the duct and turns on the power supply. If power to the air cleaner is controlled by another switch, the AFS can be disabled by disconnecting the AFS plug J3 and cutting the R16 jumper on the power supply.
- Plug the electronic air cleaner directly into the correct voltage and frequency outlet. See figure on page 12 for internal schematic. The air cleaner operates correctly with any fan when wired with conduit or plugged in.

NOTE: To reduce the risk of electric shock, this product has a grounding type plug that has a third (grounding) pin. This plug only fits into a grounding type power outlet. If the plug does not fit into the outlet, contact a qualified electrician to install the proper outlet. Do not change the plug in any way.

- Alternatively, the electronic air cleaner can be wired with conduit.



M32904

1. Open access door.
2. Remove and retain the two screws from the front of the power box and the two screws from the sides of the power box. See figure on page 13.
3. In the power box, remove and retain two wire nuts that connect the line cord leads to the power box wiring.
4. Remove the wire nut to disconnect the ground choke assembly from the power cord green lead.
5. Remove the power cord and the strain relief.
6. Install the plug (provided with the literature pack) in the hole left by the power cord.
7. Attach conduit through a power box side knockout.

Check Air Cleaner Operation

With all components in place, turn on air cleaner switch and **energize system blower. Check following points of operation:**

1. The neon light next to the On-Off switch is on. The neon light shows that the air cleaner is energized and the high **voltage power supply is working correctly.**
2. Turn off the system blower. The neon light should go off after a few seconds.
3. Turn on the system blower. With the air cleaner energized, push the test button. A snapping sound indicates that the collector voltage is present on the cell.
4. With a multispeed blower, repeat steps 1 through 3 for each fan speed.

Maintenance

The air cleaner must be cleaned when pressure drop across the air cleaner reaches 0.5 in. w.c. (0.1 kPa), or at least annually. If the air cleaner is installed downstream from an atomizing humidifier or if the installation includes both heating and cooling, more frequent replacement may be necessary. Clogged prefilters must be cleaned promptly to avoid restricting airflow and reducing efficiency of the heating/cooling system. Record the maintenance date in the space provided on the Electronic Air Cleaner Wash Reminder and Postfilter Replacement Schedule.

Specifications

The specifications in this publication do not include normal manufacturing tolerances; therefore, an individual unit may not exactly match the listed specifications. This product is tested and calibrated under closely controlled conditions, and some minor differences in performance can be expected if those conditions are changed.

Fractional Efficiency

Efficiency Ratings: Efficiency ratings are based on American Society of Heating, Refrigerating and Air Conditioning Engineers Standard 52.2-1999. Efficiency ranges are defined for small particles, E1 = .3 to 1.0 micron; medium particles, E2 = 1.0 to 3.0 microns; and large particles, E3 = 3.0 to 10.0 microns.

Table 5. Fractional Efficiency With and Without Postfilter.

With Postfilter	Without Postfilter
E1 = Up to 81% at 492 fpm.	E1 = Up to 73% at 492 fpm.
E2 = Up to 93% at 492 fpm.	E2 = Up to 88% at 492 fpm.
E3 = Up to 99% at 492 fpm.	E3 = Up to 95% at 492 fpm.

Temperature Rating

Operating Ambient:
40° to 125°F (4° to 52°C).
Temperature of Airflow Through Cells:
40° to 125°F (4° to 52°C).
Maximum Cell Washing Temperature:
220°F (140°C).
Storage and Shipping Ambient:
-40°F to +140°F (-40°C to +60°C).

Electrical Ratings

Voltage and Frequency:
Models available for 120V, 60 Hz., 240V, 60 Hz.
120V models can be converted in the field
to 240V, 60 Hz or 220/240V, 50 Hz with the
203365A Conversion Kit.
Power Consumption:
One cell models: 22 W maximum
Two cell models: 36 W maximum.
Current Draw: See Table 2.
Ionizer Voltage: 8150 Vdc.
Collector Voltage: 4075 Vdc.

Mounting

Mounts in any position in the return air duct, usually
next to the furnace blower compartment. Cabinet
is sturdy enough to support weight of a residential
furnace and evaporator coil.

Approvals

Underwriters Laboratories, Inc.: File E30954.

Accessories

- 203365A Conversion Kit for changing 120V,
60 Hz power supply to 240V, 60 Hz or 220/240V,
50 Hz.

Repair Parts

See Replacement Parts/Exploded View section.

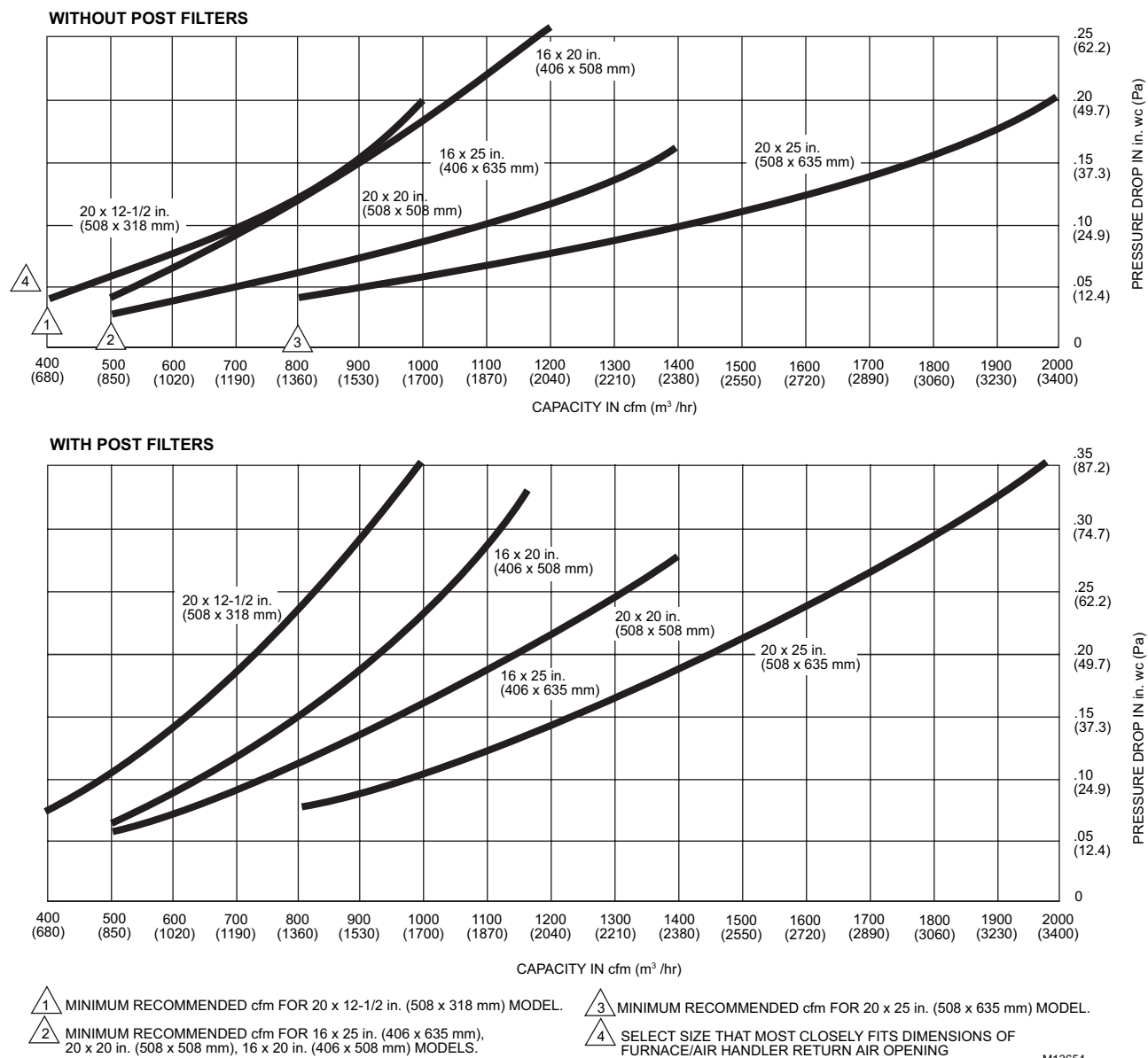
Table 6. Current Draw

Size		No. Cells	Max Current (A)	
in.	mm		120V	220/240V
16 x 25	406 x 635	2	0.4	0.2
20 x 25	508 x 635	2	0.4	0.2
16 x 20	406 x 508	2	0.4	0.2
20 x 20	508 x 508	2	0.4	0.2
20 x 12-1/2	508 x 318	1	0.4	0.2

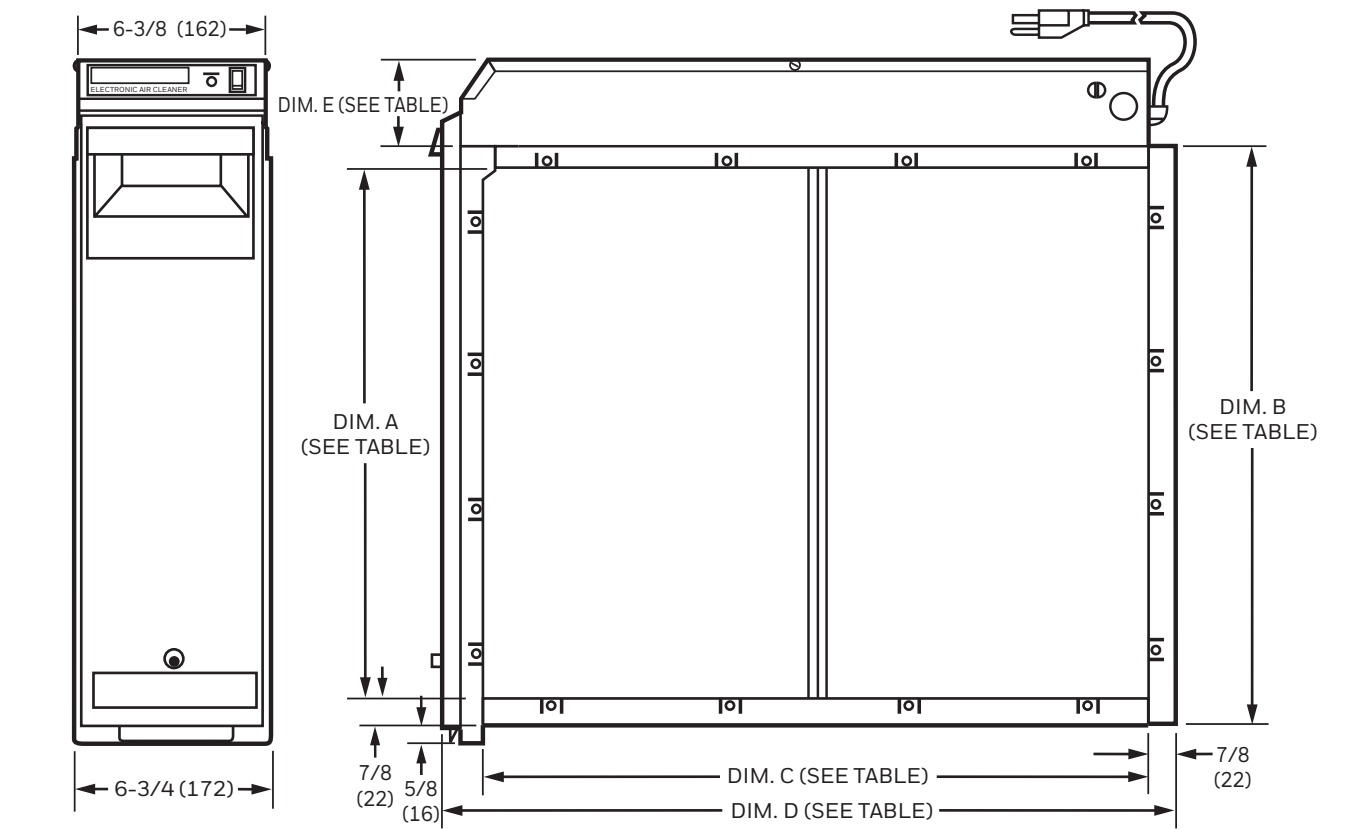
Capacity And Pressure Drop

Initial Pressure Drop: 0.15 in. wc at 492 fpm.

AIR CLEANER **EFFICIENCY** AND PRESSURE DROP AT VARIOUS AIRFLOW RATES.



Dimensions



F300 SIZE		DIM. A		DIM. B		DIM. C		DIM. D		DIM. E	
IN.	MM	IN.	MM	IN.	MM	IN.	MM	IN.	MM	IN.	MM
16 X 25	406 X 635	14-7/16	367	16-3/16	411	23-1/4	591	25-1/2	648	2-3/4	70
16 X 20	406 X 508	14-7/16	367	16-3/16	411	18-1/4	457	20-1/2	521	2-3/4	70
20 X 25	508 X 635	18-7/16	468	20-3/16	513	23-1/4	591	25-1/2	648	2-3/4	70
20 X 20	508 X 508	18-7/16	468	20-3/16	513	18-1/4	457	20-1/2	521	2-3/4	70
20 X 12-1/2	508 X 318	18-7/16	468	20-3/16	513	10-7/8	276	13-1/8	333	3-5/8	92

M2872C

Weight

Item	Weight									
	16 x 20 in. (406 x 508 mm)		16 x 25 in. (406 x 635 mm)		20 x 12-1/2 in. (508 x 318 mm)		20x 20 in. (508 x 508 mm)		20 x 25 in. (508 x 635 mm)	
	lb	kg	lb	kg	lb	kg	lb	kg	lb	kg
Electronic Cell (each)	5	2.25	6	2.7	7-1/2	3.4	6-3/16	2.8	7-1/2	3.4
Shipping Weight	30	13.6	33	15.0	25	11.3	33	15.0	38	17.2
Installed Weight (Cells included)	26	11.6	28	12.7	21	9.5	29	13.2	33	15.0

Service

Before cleaning the Electronic Air Cleaner, this must be disconnected from the electricity.

CAUTION

Sharp Edges

Can cause personal injury.

Carefully handle the cell(s) or wear protective gloves to avoid cuts from the sharp metal edges.

Cleaning the Cells and Prefilters

To assure optimum performance from the air cleaner, the cells and prefilters must be cleaned regularly and the postfilters replaced regularly—twice a year with normal use or more frequently with heavy use.

Washing frequency varies, depending on the number of family members, pets, activities (such as cooking or woodworking) and smoking habits. Use the Service Reminder Schedule at the end of this document to help establish and maintain a regular cleaning schedule. Keep your Service Reminder Schedule in a convenient location.

NOTE: To let the heating or air conditioning system operate normally while the cells are being washed, simply turn off the air cleaner switch.

Cleaning your Prefilter

1. The quickest and easiest way to clean your prefilter is to use the brush attachment of your vacuum cleaner to vacuum the lint off the dirty side of the prefilter. Greasy dirt may require soaking the prefilter in a tub or rinsing with the garden hose. Do not wash the prefilter in the dishwasher or car wash.
2. The prefilter should be cleaned every 6 months or more frequently with heavy use. This will keep the prefilter clean of air choking lint that can make your system work harder.

Cleaning your Cells

- A quick cleaning of the cells can be done by simply wiping down the ionizer wires with a damp cloth. This will help boost the efficiency of the air cleaner between full cleaning cycles. This quick clean can be done every time the prefilters are cleaned.
- A full cleaning of the cells will return the air cleaner to its peak efficiency. An easy way to wash the cells is in a tub of hot, soapy water. Just soak the cells until the water cools, agitate and rinse. For details see below instructions on Cleaning in a Container, Automatic Dishwasher or Washing Cells at the Car Wash.
- A full cleaning of the cells can be put off for yearly maintenance because the efficiency of the air cleaner remains high even as it loads up with dirt. A quick cleaning can be done more often. Those wishing to renew to peak efficiency or with heavier use may want to wash more frequently.
- Resideo recommends using an automatic dishwasher detergent to protect the aluminum of the cells. It is not recommended to use all purpose cleaners or coil cleaners; these cleaners can degrade the aluminum in the cells over time.

Replacing your Postfilter

1. The postfilter is an optional filter that boosts the efficiency of the air cleaner. Do not wash the postfilter because that will neutralize the factory applied charge.
2. The postfilter should be replaced every six months to ensure peak performance.

Washing Cells in a Container

CAUTION

Hazardous Chemical.

Can cause personal injury.

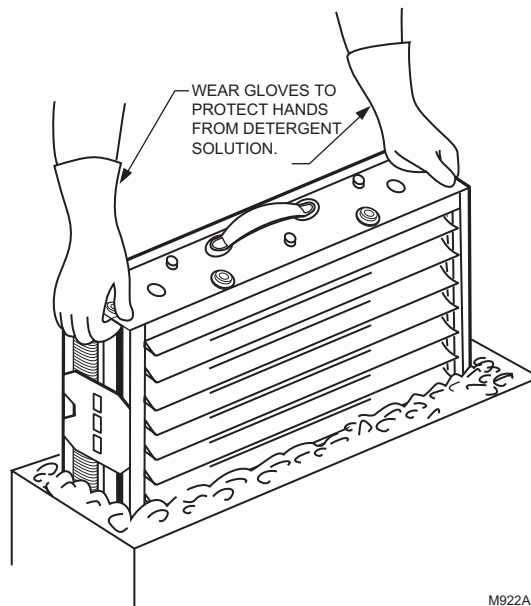
Do not splash detergent solution in eyes. Wear rubber gloves to avoid prolonged detergent contact with skin. Keep detergent and solution out of reach of children.

NOTE: Always wash the cells first, then the prefilters, to keep heavy prefilter lint from getting caught in the cells.

1. Use a large enough container, such as a laundry tub or trash container, to hold one or both cells.

NOTE: Sharp corners on cells can scratch surface of bathtub.

2. Dissolve about 3/4 cup of automatic dishwasher detergent per cell in enough hot water to cover the cells. If detergent does not dissolve readily, or forms a scum on the water, try another brand, or use softened water
3. After detergent has completely dissolved, place cells in the container and let soak for 15 to 20 minutes. Agitate up and down a few times and remove.
4. Next, wash the prefilters the same way. Empty and rinse the wash container.



M922A

5. Rinse the cells and prefilters with a hard spray of very hot water; rinse the tub clean, then fill the tub with clean hot water and soak for 5 to 15 minutes. Rinse until the water draining from the cells and prefilters no longer feels slippery.
6. Soak cells and prefilters in a final clear water rinse for ten minutes.
7. Wipe ionizer wires and contact board on end of cell using your thumb and forefinger with a small, damp cloth.

Washing in Automatic Dishwasher

NOTE: Move Washing Cells in a Container before washing in an automatic dishwasher.

CAUTION

Burn Hazard.

Can cause personal injury.

Allow cells to cool completely in dishwasher at end of wash cycle or wear protective gloves to avoid burns. Hot water can accumulate in the tubes supporting collector plates; tip cells so tubes drain.

- Check the dishwasher owner's manual. Some manufacturers do not recommend washing electronic cells in their dishwashers.
 - If the dishwasher has upper and lower arms, position the cells carefully to allow good water circulation.
 - Be careful to avoid damaging the cells when placing them in the dishwasher. Broken ionizer wires or bent collector plates are not included in the warranty.
 - Very dirty cells, especially from tobacco or cooking smoke, can discolor the plastic parts and the lining of some dishwashers. This discoloration is not harmful. To minimize it, wash the cells more frequently or try a different brand of detergent.
 - Do not allow the dishwasher to run through the dry cycle. This bakes on any contaminants not removed during the wash cycle and reduces air cleaner efficiency.
1. Put the cells on the lower rack of the dishwasher with the airflow arrow pointing up. It may be necessary to remove the upper rack. Do not block water flow to the upper arm.

NOTE: Lay a few large water glasses between the spikes on the lower rack and rest the cell(s) on them so the spikes do not damage the aluminum collector blades.

2. Using regular dishwasher detergent, allow the dishwasher to run through the complete wash and rinse cycle. Do not use the dry cycle. To avoid burns, let the cells cool completely before removing, or wear protective gloves when removing the cells. Remember that water may be trapped inside the cells. Tip the cells so the tubes can drain.
3. Wipe ionizer wires and contact board on the end of the cell using thumb and forefinger with a small, damp cloth.
4. Inspect the dishwasher. Rerun wash and/or rinse cycle with the dishwasher empty if there is dirt or residue from washing the cells. If dirt or residue seems excessive, wash cells more often or try a different detergent.

Washing Cells at the Car Wash

Use the hand sprayer at a coin-operated do-it-yourself car wash to clean the cells. Hold the nozzle at least two feet away from the unit to avoid damage (such as broken ionizer wires or bent collector plates) from the high pressure stream of water. Follow the same sequence of wash and rinse as recommended for cars. However, do not wax the cells. Be sure to rinse until the water draining from the cells no longer feels slippery.

Reinstalling the Cells and Prefilters

1. Inspect the cells for broken ionizer wires and bent collector plates. Repair as necessary or take to a Resideo Authorized Air Cleaner Repair Station.
2. Slide the prefilters into the upstream prefilter guides.
3. Slide in the air cleaner cells so the airflow arrow points downstream and the handles faces outward.
4. Firmly close the access door.
5. Wait two to three hours until the cells are dry and then turn on the air cleaner. If the cells and prefilters are wet, the neon light may not come on and you may hear arcing.

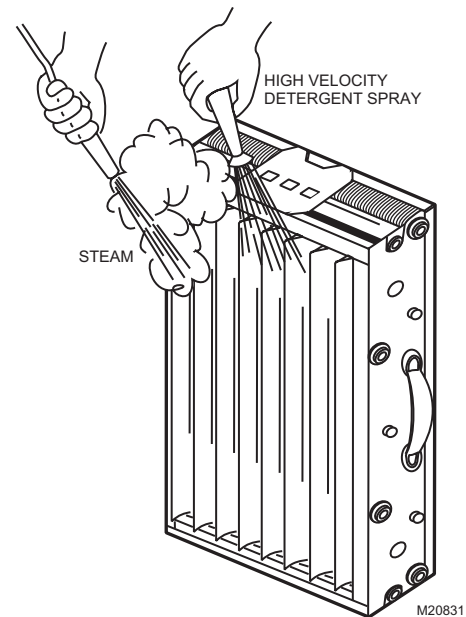
Replacing Media Postfilters

To maximize the filtration efficiency of the media postfilters, replace them every six months. Replacement filters are available in the same size and configuration as the original unit. Contact your local Resideo distributor to purchase replacement filters. Install the replacement filters exactly as the filters provided with the equipment. Use the Service Reminder Schedule at the end of this document to help you establish and maintain a regular replacement schedule. Keep your Service Reminder Schedule in a convenient location.

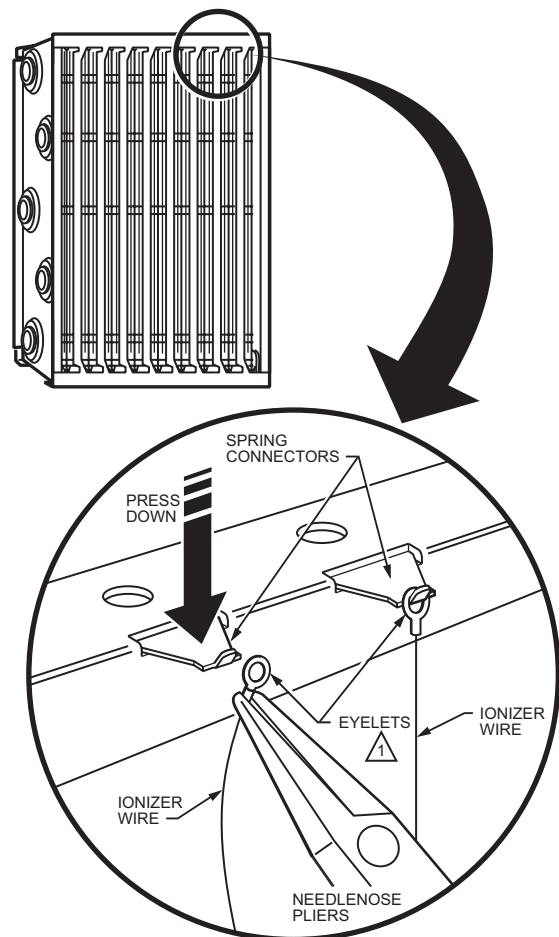
Replacing Ionizer Wires

Broken or bent ionizer wires can cause an electrical short to ground, often resulting in visible arcing or sparking. Do not use cells until broken wires are removed. Cells can be used temporarily with one wire missing, but replace the wire as soon as possible.

Replacement wires are supplied cut to length with eyelets on both ends for easy installation. See Parts and Accessories Not Illustrated section. To install:

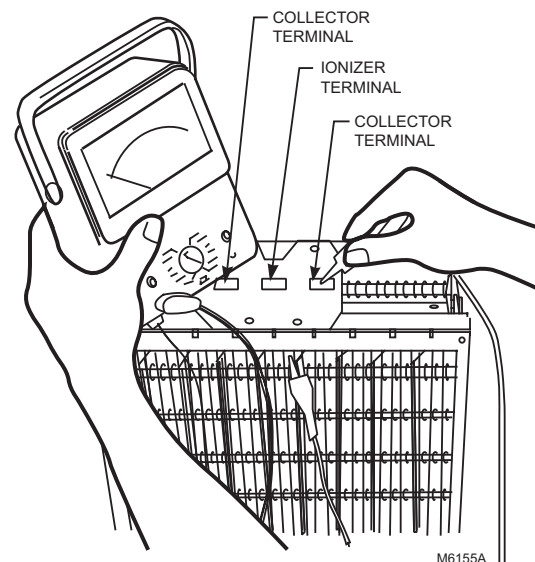


REPLACING AN IONIZER WIRE.



1 TWO EYELETS HOLD IONIZER WIRE TO CELL. M1540C

1. Hook the eyelet on one end of the wire over the spring connector on one end of the cell. Be careful to avoid damaging spring connectors or other parts of the cells.
2. Hold the opposite eyelet with a needle nose pliers and stretch the wire the length of the cell. Depress the opposite spring connector and hook the eyelet over it.
3. Check the cell for short circuits using an ohmmeter; see the figure to the right. Check the resistance between the frame of the cell and both the ionizer and the collector contacts. In each case, the resistance should be infinite.



Modification to Reduce Ozone Odor

CAUTION

Electric Shock Hazard.

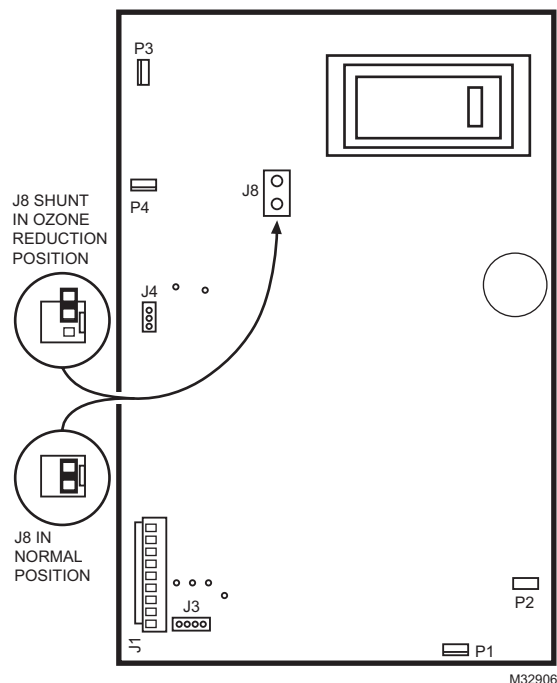
Can cause personal injury.

Always disconnect power and open access door before opening power supply cover.

The electronic air cleaner generates a small amount of ozone in normal operation. During the first week or two of operation, the amount may be higher because of sharp edges on some of the new high voltage metal parts. Normal use quickly dulls these edges.

If desired, the ozone generated by the air cleaner can be reduced in one of two ways:

1. Install an activated carbon filter downstream from the air cleaner. Make sure particles from the air filter cannot fall into the air cleaner.
2. Move J8 shorting bar. This will reduce ozone production about 20 to 25 percent and reduce efficiency about seven to ten percent, depending on actual airflow delivered by the furnace blower.
 - a. Unplug or disconnect power supply to the air cleaner.
 - b. Open the access door. See procedure and figure on page 13.
 - c. Remove the power box cover. See procedure and figure on page 13.
 - d. Move J8 shorting bar. See figure to right.



Replacement Parts

No.	Description	Nominal Return Air Opening			
		16 x 20 in. (406 x 508 mm)	16 x 25 in. (406 x 635 mm)	20 x 20 in. (508 x 508 mm)	20 x 25 in. (508 x 635 mm)
1	F300 Door includes No. 2	32007528-003		32007528-003	
2	Test Button Assembly	137980A (1)			
3	Electronic Cell	FC37A1114 (2)	FC37A1130 (2)	FC37A1049 (2)	FC37A1064 (2)
4	Cell Handle	137266 (2)	137266 (2)	137266 (2)	137266 (1)
5	Prefilter (without spring clips)	209989 (2)	203371 (2)	203373 (2)	203372 (2)
6	Cell Key	136518 (1)			
7	F300 Power Box Assembly Series Two ^b . Includes No. 8-20. 120V, 60 Hz. White Cover.	PS1201B20 (1)	PS1201B25 (1)	PS1201B20 (1)	PS1201B25 (1)
	240V, 60 Hz ^c				
8	Switch	203321 (1)			
10	F300 Power Supply, Series Two ^b . 120V, 60 Hz	PS1201A00 (1)			
	240V, 60 Hz	N/A ^c			
11	Interlock Bracket and Switch	PS1201B20 (1)			
13	Terminal Board Assembly Front	203329B (1)	203329B (1)	N/A	203329B (1)
14	Terminal Board Assembly Rear	203329A (1)		203329A (1)	
17	Line Cord	PS1201B20 or PS1201B25 (1)			
19	Neon Assembly	4074EYS (1)			
20	Airflow Switch, pin connection	4074ETH (1)			
	Airflow Switch, plug connection	4074EZB (1)		4074EZB (1)	
21	FC37A Bag Assembly for cell repair. Contains: 2 Connector Clips, 1 Terminal Board and instructions	4074EHG			
22	Post Filter (optional)	50000293-001	50000293-002	50000293-003	50000293-004

^b Series Two compatible with W8600F.

^c Use 203365A Conversion Kit for changing 120V, 60 Hz model to 240V, 60 Hz.

^d Change from white cover to black cover as a running change. Use original cover for color match.

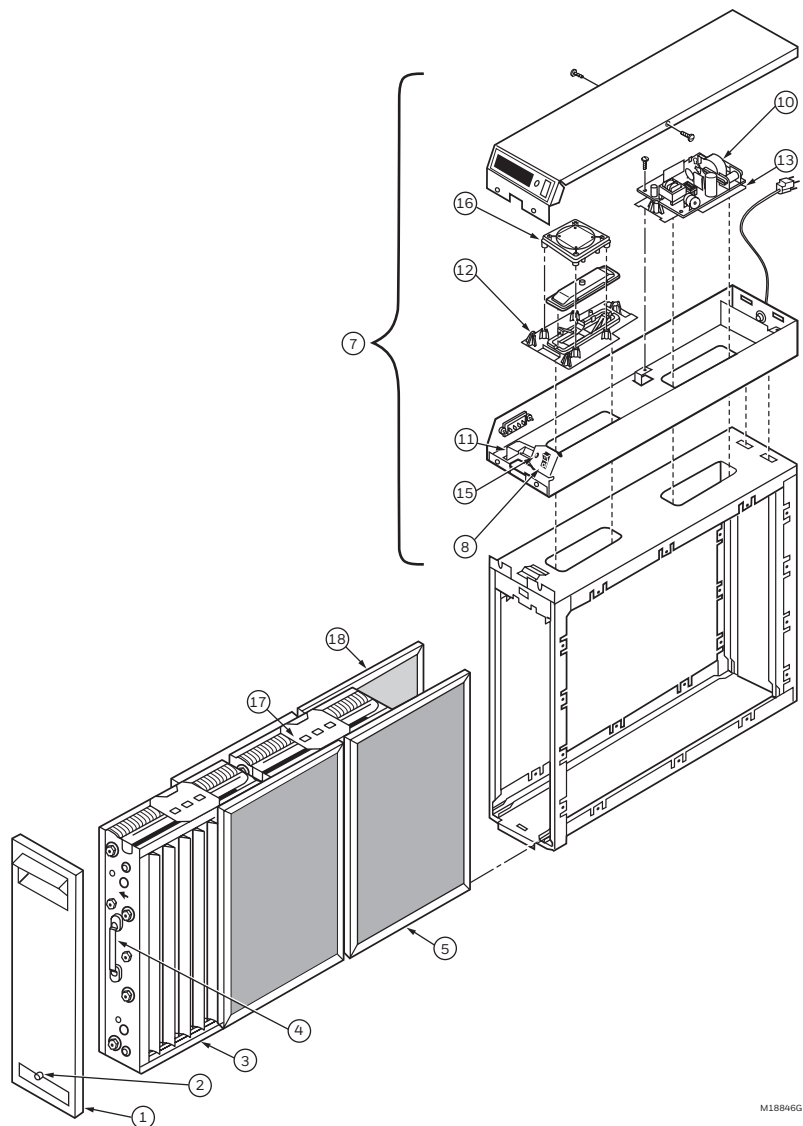
(#) = Quantity required per unit.

N/A = Not available as merchandised part.

Parts and Accessories Not Illustrated

Description	Nominal Return Air Opening				
	16 x 20 in. (406 x 508 mm)	16 x 25 in. (406 x 635 mm)	20 x 12-1/2 in. (508 x 318)	20 x 20 in. (508 x 508 mm)	20 x 25 in. (508 x 635 mm)
Air Cleaner Cabinet Gasket Kit	32002109-001 (Obsolete; only available while supplies last)				
Ionizer Wires (Multiples of 5)	136434BA	136434BA	136434AA	136434AA	136434AA
240V Conversion Kit	203365A	203365A	N/A	203365A	203365A

N/A = Not available as a merchandised part.



ELECTRONIC AIR CLEANER TROUBLESHOOTING GUIDE

START

MAKE SURE ELECTRONIC CELLS ARE CLEAN, DRY AND PROPERLY INSTALLED. MAKE SURE METAL PREFILTERS ARE POSITIONED ON THE SIDE WHERE AIR ENTERS THE AIR CLEANER, AND THAT POST-FILTERS (IF ANY) ARE POSITIONED ON THE SIDE WHERE AIR LEAVES THE AIR CLEANER.

TURN THE POWER SWITCH ON THE AIR CLEANER ON, AND TURN THE HVAC FAN ON.

CHECK THE SYSTEM LIGHT ON THE AIR CLEANER.

OFF

PUSH TEST BUTTON ON THE AIR CLEANER DOOR AND LISTEN FOR SNAPPING SOUND.

YES

REPLACE LIGHT/SWITCH ASSEMBLY.

ON

PUSH TEST BUTTON ON THE AIR CLEANER DOOR AND LISTEN FOR SNAPPING SOUND.

NO

TURN OFF AIR CLEANER POWER SWITCH. REMOVE THE DOOR AND CHECK THAT THE CONTACTS ON THE INSIDE OF THE TEST BUTTON ARE OK.

NO

REPAIR CONTACTS ON TEST BUTTON.

YES

AIR CLEANER IS FUNCTIONING PROPERLY.

YES

REMOVE THE CELLS (LEAVE THE PREFILTERS IN PLACE). CLOSE THE ACCESS DOOR AND TURN ON THE AIR CLEANER POWER SWITCH.

INSPECT THE CELLS FOR
— BENT COLLECTOR PLATES
— BROKEN IONIZER WIRES
— DIRT ACCUMULATION ON THE INSULATORS
— DAMAGED CONTACTS ON THE TERMINAL BOARD AT THE END OF THE CELL

ON

CHECK THE SYSTEM LIGHT ON THE AIR CLEANER.

OFF

WARNING

THIS STEP EXPOSES DANGEROUSLY HIGH VOLTAGE. ONLY A QUALIFIED SERVICE TECHNICIAN SHOULD ATTEMPT THIS STEP.

CHECK FOR CORRECT INPUT VOLTAGE ACROSS P1 AND P2 TERMINALS ON POWER SUPPLY BOARD.

NO

FIX WIRING.

YES

REPLACE AIR CLEANER POWER SUPPLY.

YES

REPLACE OR REPAIR CELLS.

NO

WITH AN OHMMETER, CHECK FOR SHORT BETWEEN:
— CELL FRAME AND IONIZER WIRES
— CELL FRAME AND COLLECTOR BLADES

SHORT DETECTED

REPLACE CELLS.

NO SHORT

CELLS OK. REPLACE AIR CLEANER POWER SUPPLY.

TO USE THIS CHART:

1. FOLLOW THE STEPS IN ORDER; DO NOT SKIP AROUND.
2. EACH TIME A PROBLEM IS FIXED, GO BACK TO START.
3. REPEAT ALL THE STEPS UNTIL THE AIR CLEANER CHECKS OUT OK.

NOTE: IF A W8600F AIR CLEANER MONITOR IS CONNECTED TO THE AIR CLEANER, DISCONNECT THE AIR CLEANER FROM THE W8600F BEFORE STARTING THIS PROCEDURE. THE W8600F CAN BE CHECKED SEPARATELY. SEE W8600F INSTRUCTION SHEET.

THIS AIR CLEANER PRODUCES A TRACE LEVEL OF OZONE AS A BY-PRODUCT OF NORMAL OPERATION, WHICH IS WELL UNDER THE LIMIT PRESCRIBED BY THE U.S. F.D.A. PLEASE REFER TO YOUR OWNERS MANUAL FOR FURTHER INFORMATION. FOR A REPLACEMENT OWNERS MANUAL, CALL 1-800-468-1502 OR VISIT honeywellhome.com

WARNING

INCORRECT CONVERSION TO MEDIA AIR CLEANER CAN CAUSE FIRE HAZARD. WHEN CONVERTING AN ELECTRONIC AIR CLEANER TO A MEDIA AIR CLEANER THE POWER SUPPLY MUST BE REMOVED OR PERMANENTLY DISABLED.

M13656B

Electronic Air Cleaner Wash Reminder and Postfilter Replacement Schedule

Resideo recommends that you wash the electronic air cleaner and replace the postfilter at least once per year from the installation date. Use the table below to track your Electronic Air Cleaner maintenance.

Installation Date:			
Date	Air Cleaner Wash	Postfilter Replacement	Initials
	<input type="checkbox"/>	<input type="checkbox"/>	
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www.resideo.com

Resideo Technologies, Inc.
1985 Douglas Drive North, Golden Valley, MN 55422
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