



PGAPACR

Germicidal Air Purifier

Sizes 1620, 1625, 2020, 2025, 2420

Installation Instructions

NOTE: Read the entire instruction manual before starting the install.

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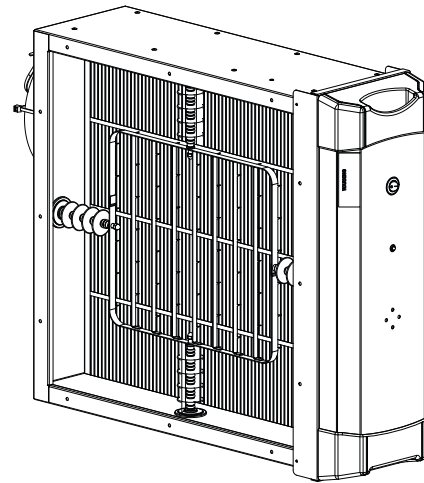


Fig. 1 - PGAPACR Unit

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INTRODUCTION

Congratulations for selecting the Air Purifier for your home comfort system! The Air Purifier is proven to remove and kill airborne germs and allergens, including viruses and bacteria. The Air Purifier is a cornerstone of Healthy Home Solutions for providing healthier, cleaner air in your home.

HOW IT WORKS

The Air Purifier provides extremely high filtration performance while killing captured contaminants, including viruses and bacteria. The Air Purifier treats the entire air-stream through a state of the art, three-stage process.

In stage one, the particles are electrically charged by a precision-point ionization array as they enter the Air Purifier.

In stage two, the charged particles are electrically attracted to the air purification cartridge.

In stage three, captured particles are killed by electrical current flow and ion bombardment.

The Air Purifier is Listed to applicable UL Standards and requirements by Underwriters Laboratories Inc.

Ce purificateur d'air est conforme aux normes applicables dites 'UL', de Underwriters Laboratories Inc.




SAFETY CONSIDERATIONS

Improper installation, adjustment, alteration, service, maintenance, or use can cause explosion, fire, electrical shock, or other conditions which may cause death, personal injury or property damage. Consult a qualified installer, service agency or your distributor or branch for information or assistance. The qualified installer or agency must use factory-authorized kits or accessories when modifying this product. Refer to the individual instructions packaged with the kits or accessories when installing.

Follow all safety codes. Wear safety glasses, protective clothing, and work gloves. Have a fire extinguisher available. Read these instructions thoroughly and follow all warnings and cautions included in literature and attached to the unit. Consult local building codes and the current edition of the National Electrical Code (NEC) NFPA 70.

In Canada, refer to the current editions of the Canadian Electrical Code CSA C22.1.

Recognize safety information. When you see this symbol  on the unit and in instructions or manuals, be alert to the potential for personal injury. Understand the signal words **DANGER**, **WARNING**, and **CAUTION**. These words are used with the safety-alert symbol. **DANGER** identifies the most serious hazards, which **will** result in severe personal injury or death. **WARNING** signifies hazards, which **could** result in personal injury or death. **CAUTION** is used to identify unsafe practices, which **may** result in minor personal injury or product and property damage. **NOTE** is used to highlight suggestions which **will** result in enhanced installation, reliability, or operation.

APPLICATION CONSIDERATIONS

WARNING

HIGH VOLTAGE HAZARD

Failure to follow this warning could result in personal injury or death.

This Air Purifier utilizes high voltage. If you notice water running into or around the Air Purifier, water stains on the purifier cartridge or on the Enhancement Module walls or cabinet, shut off the Air Purifier and call your service provider.

The Air Purifier is designed for use in the return air duct of a forced air heating, cooling, and ventilation system. Although designed to be a robust air purification system, the Air Purifier is not designed to operate when wet. Operation of the Air Purifier in a wet environment will result in less than optimal performance and a possible safety hazard. As such, particular attention must be paid to the following paragraphs regarding installation near air conditioning coils and humidifiers.

The Air Purifier should be installed in a system so that all the return air is circulated through the Air Purifier. It should be located upstream of both the furnace and the air conditioning evaporator coil. This will help keep the furnace and evaporator coil clean and prevent condensation from forming within the Air Purifier.

Humidifiers

An evaporative humidifier can be mounted upstream of the Air Purifier but the **recommended location of any humidifier is downstream of the Air Purifier**. It is necessary to install atomizing humidifiers downstream of the Air Purifier because hard water salt deposits and water droplets may damage Air Purifier.

Ensure that the humidifier installation will not allow water or water droplets to enter the Air Purifier because it may cause electrical arcing or damage the Air Purifier.

NOTE: For fan coil installations, do not install the humidifier in the fan coil access doors or cabinet.

Inspect for plugged drains and maintain humidifier drain lines on a regular basis to avoid overflow of water into the Air Purifier. The recommended inspection should be done at every change of the Air Purifier cartridge (generally 8-12 months).

WARNING

HIGH VOLTAGE HAZARD

Failure to follow this warning could result in personal injury or death.

This Air Purifier utilizes high voltage. If you notice water running into or around the Air Purifier, water stains on the purifier cartridge or on the Enhancement Module walls or cabinet, shut off the Air Purifier and call your service provider.

Transitions

If the return air duct or furnace openings do not fit the Air Purifier cabinet openings, gradual transitions are recommended to reduce air turbulence and maximize efficiency. No more than 45° (about 8.5 inches per running ft.) of expansion should be used on each side of the transition fitting.

Turning Vanes

If the Air Purifier is installed adjacent to a 90° duct elbow, turning vanes should be added inside duct to improve air distribution across the face of the Air Purifier.

Electrical Power and Flow Sensing

The Air Purifier should only be powered when airflow is present. The furnace control EAC terminals provide power only when the furnace blower is operating. Air Purifier models PGAPACR1625 and PGAPACR2025 are designed to be powered from the electronic air cleaner (EAC) terminals on a furnace electronic control. If EAC terminals are not available, the Accessory Flow Sensor Kit, model KIT-160-000, must be purchased for use with the Air Purifier. Air Purifier models PGAPACR1620, PGAPACR2020, and PGAPACR2420 include the flow sensor as standard equipment as they are designed primarily to be installed with fan coil air handlers. A Flow Sensor Jumper Accessory Kit, KIT-161-000 is available should there be a need to use Air Purifier model PGAPACR1620, PGAPACR2020, or PGAPACR2420 with a furnace that has EAC terminals.

Electrical Power Fusing

Air Purifier models PGAPACR1620, PGAPACR2020, and PGAPACR2420 include in-line fuses necessary for installation with fan coil air handlers. Air Purifier models PGAPACR1625 and PGAPACR2025 do not include in-line fuses as they are designed to be powered from the electronic air cleaner (EAC) terminals on a furnace electronic control, which are already properly current-limited for Air Purifier application. If there is a need to use Air Purifier model PGAPACR1625 or PGAPACR2025 with a 230VAC fan coil air handler or other high-current source, the Accessory Fuse Kit KFAPS0110KIT must be ordered and installed per the instructions included within the kit.

Accessory Safety Screen

WARNING

ELECTRICAL OPERATION HAZARD

Failure to follow this warning could result in personal injury or death.

The Air Purifier contains high voltage electrodes and as supplied is designed to be installed in a completely enclosed duct system in order to prevent access to high voltage during operation of the purifier. If there is a need to operate the purifier as the first element in a duct system (thereby locating the inlet of the purifier in a position that could be touched during operation), the Accessory Safety Screen Kit, listed in the table below, must be purchased for use with the purifier.

Table 1 – Accessory Safety Screen Kit

KIT MODEL NUMBER	AIR PURIFIER MODEL NUMBER
KIT- 170- 000	PGAPACR1625
KIT- 171- 000	PGAPACR2025
KIT- 172- 000	PGAPACR1620
KIT- 173- 000	PGAPACR2020
KIT- 174- 000	PGAPACR2420

Duct Hardware Upstream of Purifier

Any equipment mounted in the duct or duct parts such as turning vanes installed in the duct upstream of the purifier must be kept at least 1.25 inches from the front face of the Air Purifier.

INSTALLATION

Check Air Purifier Components

⚠ CAUTION

CUT HAZARD

Failure to follow this caution may result in personal injury.

Sheet metal parts may have sharp edges or burrs. Use care and wear appropriate protective clothing and gloves when handling parts.

Carefully remove all items from the box. See Fig. 2.

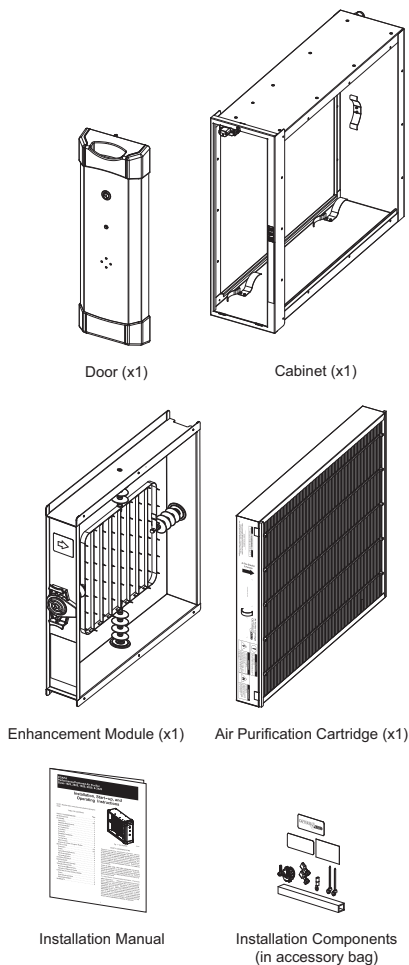


Fig. 2 - Air Purifier Components

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Identify Mounting Location

1. Identify a mounting orientation for the Air Purifier in the return air duct (see Figures 3 and 4).

IMPORTANT:

2. Ensure airflow direction through the Air Purifier matches the arrows on the face of the Air Purifier cart-

ridge and those on the label on the front of the cabinet. The Air Purifier can be rotated 180° to accommodate the cabinet orientation.

3. The location of the Air Purifier should be readily accessible. Enough room should be provided for periodic replacement of the Air Purifier cartridges.

⚠ WARNING

ELECTRIC SHOCK AND UNIT DAMAGE HAZARD

Failure to follow this warning could result in personal injury or death.

Only a trained, experienced service person should install the Air Purifier. A thorough check of the unit installation should be completed before unit operation. Before performing installation, service or maintenance operations on unit, turn off all power to unit. Tag disconnect switch with lockout tag.

Mount Cabinet

⚠ WARNING

ELECTRICAL SHOCK HAZARD

Failure to follow this warning could result in personal injury or death.

Before installing or servicing system, always turn off main power to system. There may be more than one disconnect switch. Lock out and tag switch with a suitable warning label.

⚠ CAUTION

UNIT DAMAGE HAZARD

Failure to follow this caution may result in equipment damage.

Cabinets will support a maximum weight of 400 lbs/181 kg when installed beneath a vertical furnace or air-handling unit. When setting furnace on cabinet, do not drop it into place. Position the furnace correctly on the cabinet to prevent a corner from slipping down and damaging the cabinet or its components.

1. Turn off power to the heating and cooling system.
2. Remove the existing furnace filter and discard. Excessive system static may result if the Air Purifier is used with other filtration devices.
3. Remove the Air Purifier cartridge and Filter Enhancement Module (FEM) from the Air Purifier cabinet. See Fig. 6 and 7.
4. If the air purifier is to be mounted in a side-flow application, affix the adhesive-backed support foot to the side of the purifier that will be on the floor, near the rear of the purifier, as shown in Fig. 8.

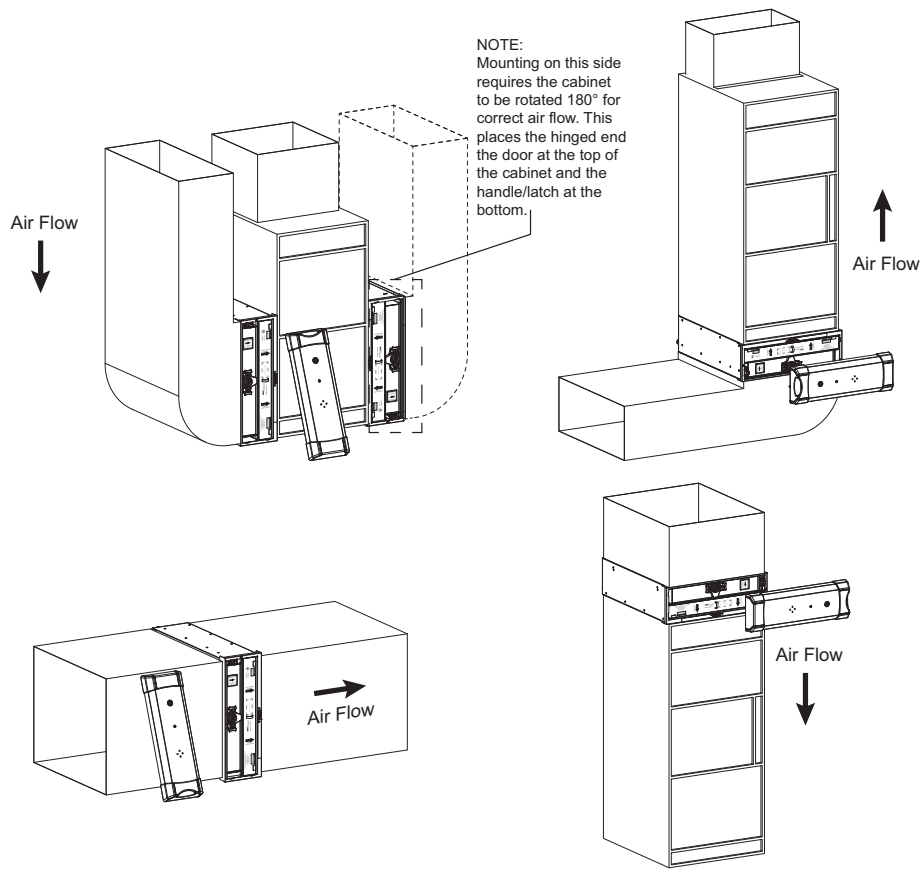


Fig. 3 - Air Purifier Cabinet Orientation

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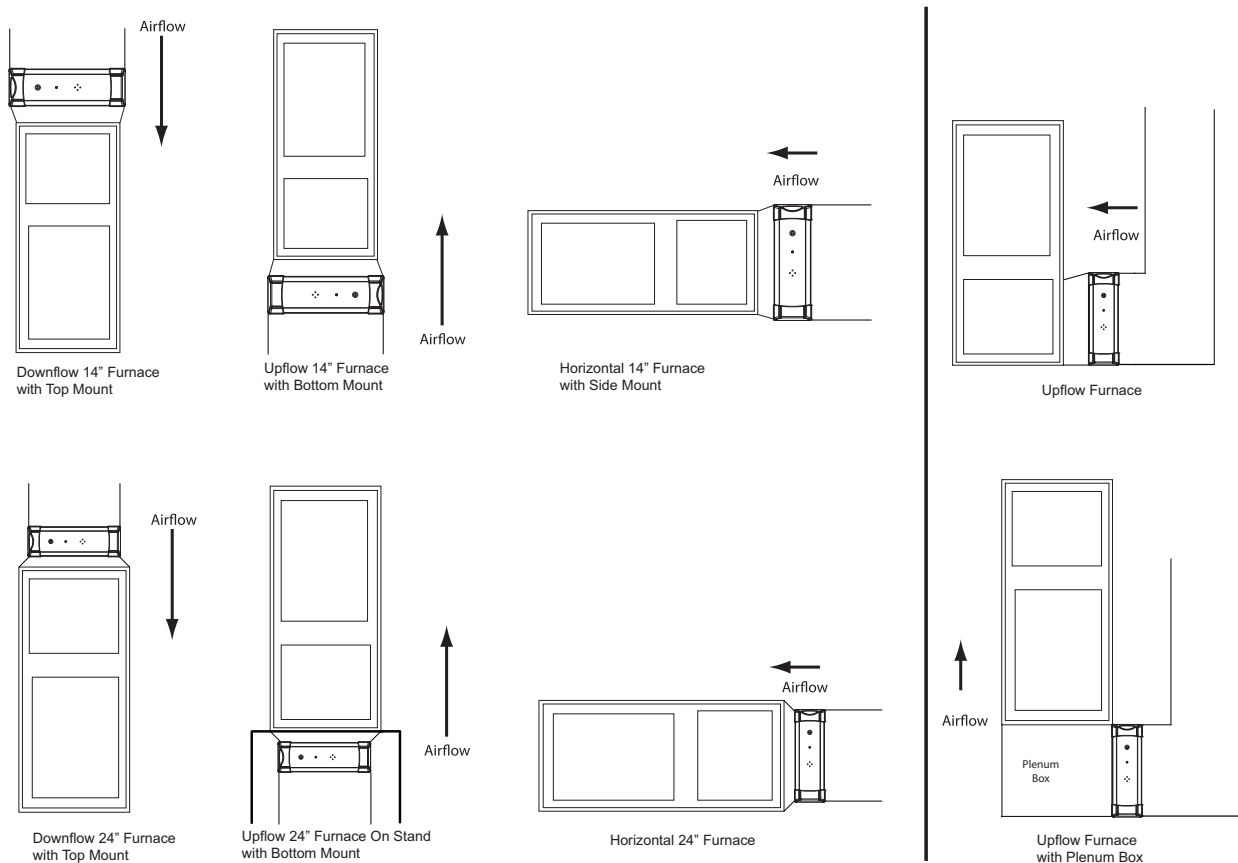


Fig. 4 - Air Purifier Cabinet Orientation with Transition

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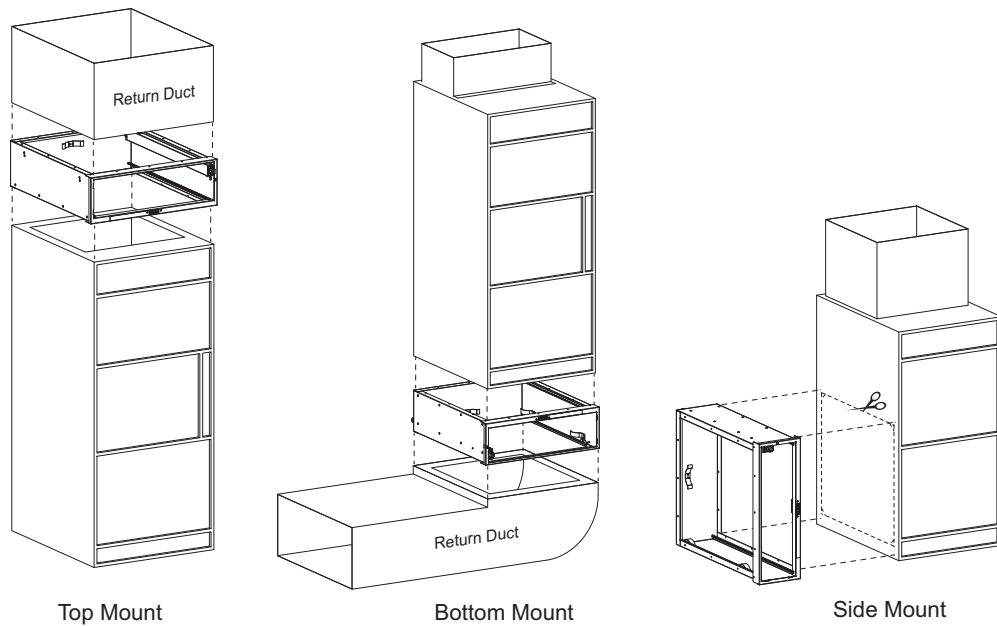


Fig. 5 - Mounting Air Purifier Cabinet

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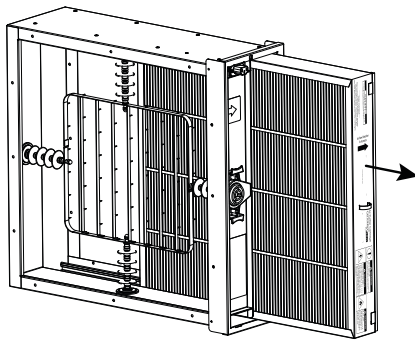


Fig. 6 - Removing Filter

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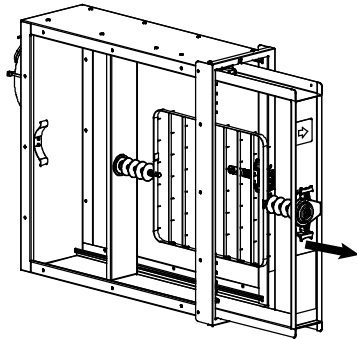


Fig. 7 - Removing FEM

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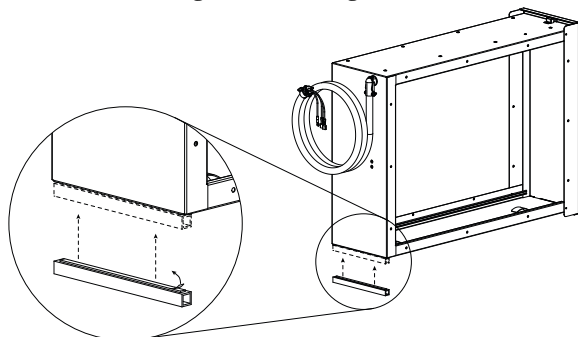


Fig. 8 - Installation of Support Foot

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5. Position the cabinet between the furnace and return air duct (see Figures 3, 4, and 5). A transition duct may be required. On some furnaces, one or more screws may interfere with the ease of removal of the purifier door. In this case, replace the interfering screw(s) with pop rivet(s). Removing the screws without replacing them with pop rivets may have an adverse effect on air sealing or structural integrity of the furnace.
6. Use foam tape or silicone sealant between the furnace and the Air Purifier cabinet.

⚠ CAUTION

UNIT DAMAGE HAZARD

Failure to follow this caution may result in unit damage.

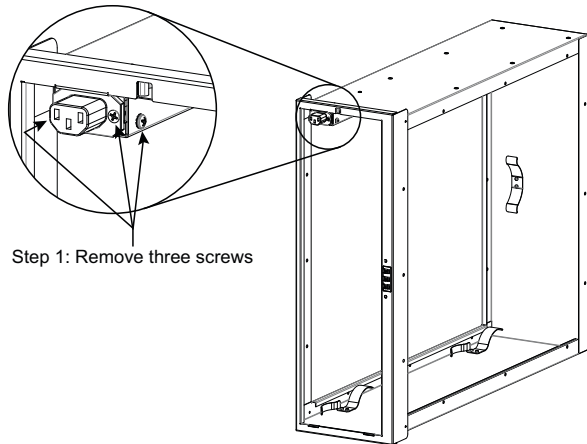
Mounting holes are provided for duct work and furnace attachment. The screws on the down-stream side of the cabinet should be installed so that the screw heads are inside Air Purifier cabinet to prevent damage to the Air Purifier cartridge.

7. Mounting holes are provided in the air purifier flanges for ductwork and furnace attachment. To access the mounting holes on the upstream flange of the purifier adjacent to the incoming power wiring, the wiring cover must be temporarily removed. To do so, remove the three screws illustrated in Fig. 9 - Step 1. Gently pull the power connector approximately one inch out of the way while sliding the wiring cover from the cabinet, as illustrated in Fig. 9 - Step 2. Take care not to disconnect the wires from the back of the power connector as you rotate it out of the way. After mounting the cabinet with the appropriate screws, reinstall the power wire cover in reverse order of disassembly, making sure that the wire connectors remain firmly attached to the back of the electrical connect as you do so.
8. Seal seams with tape or caulking after the Air Purifier cabinet has been secured.

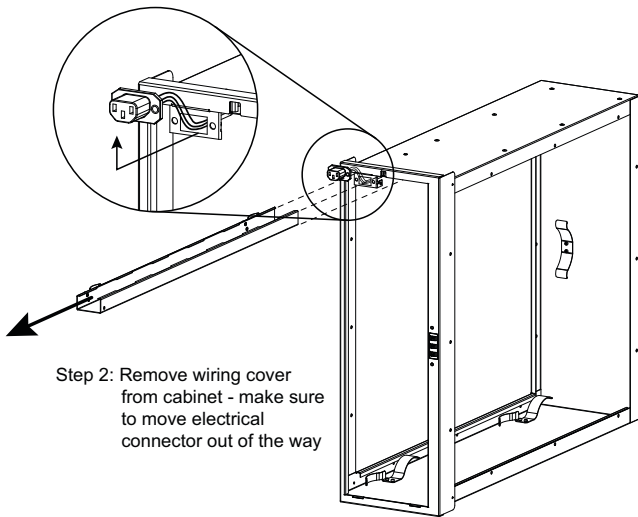
Special consideration must be given when applying the 2025 Air Purifier to a 24 1/2 inch (622 mm) wide furnace.

1. Prepare transition, following recommended transition drawing (see Fig. 10). Fabricate a 2 1/4 inch (57 mm) tall (minimum) transition.

- Place transition on top of Air Purifier. Secure with sheet metal screws. Place furnace on top of transition. Make sure furnace rests evenly on top of transition and Air Purifier.
- Secure furnace to transition using sheet metal screws.
- Continue with normal installation practices.



Step 1: Remove three screws



Step 2: Remove wiring cover from cabinet - make sure to move electrical connector out of the way

A12471

Fig. 9 - Removal of Electrical Tray Cover

Wiring

For the wiring in the furnace and fan coil wiring compartments

The incoming power supply wiring and connections for the air purifier should be routed away from the output duct of the furnace or fan coil unit, and the incoming power connections for the air purifier in the furnace or fan coil unit must be properly rated. The maximum rated current draw for the furnace 120VAC and fan coil 230VAC air purifiers is 0.3 Amps.

The installation involves direct connection to the duct and to a furnace controller EAC terminal output. The field wiring connection shall be suitable for a maximum possible rating of 90°C of the field wiring terminal box/terminals.

⚠ WARNING

ELECTRICAL SHOCK HAZARD

Failure to follow this warning could result in personal injury or death.

Before installing or servicing system, always turn off main power to system. There may be more than one disconnect switch. Lock out and tag switch with a suitable warning label.

⚠ CAUTION

EQUIPMENT DAMAGE HAZARD

Failure to follow this caution may result in equipment damage or improper operation.

This unit cannot be powered directly from blower motor leads. Voltages can exceed 190 VAC (120v motors). Do not wire directly to blower motor. Wiring to blower motor will damage power supply and void warranty.

- Ensure power has been removed from the heating and cooling system.
- Turn the Air Purifier power switch off.

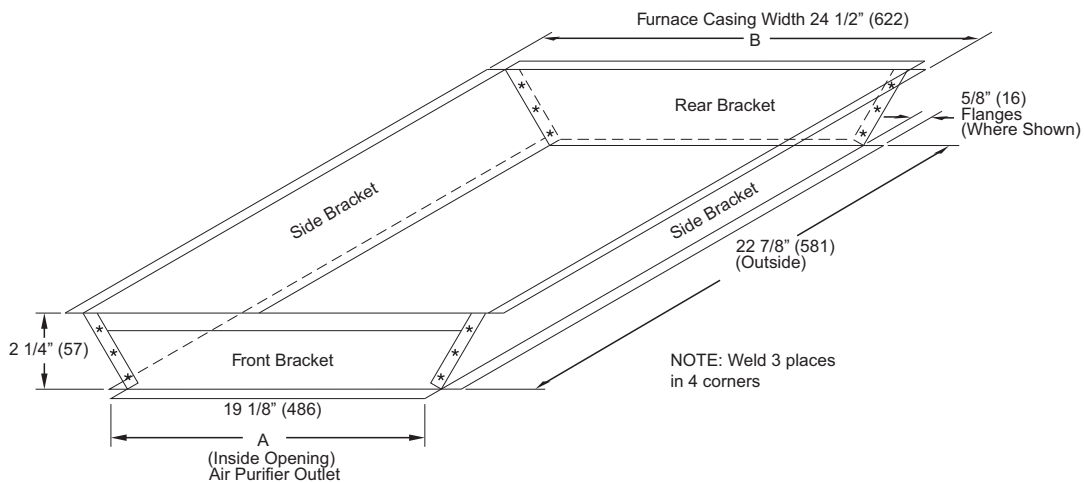


Fig. 10 - Transition

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For mounting on furnaces:

1. Route the power conduit from the purifier to a knockout on the furnace that provides access to the EAC terminals on the furnace control board. Affix the end of the conduit to the furnace using the included conduit fitting.
2. Attach the quick connect terminals on the wires exiting the power conduit assembly to the furnace EAC-1 and EAC-2 spade connections. Attach the ground ring terminal on the third wire to furnace chassis ground. See Fig. 11 and 12.

NOTE: The Air Purifier should only be powered when airflow is present. The furnace control EAC spade connections, shown in Fig. 12, provide power only when the furnace blower is operating. Air Purifier models PGAPACR1625 and PGAPACR2025 are designed to be powered from the electronic air cleaner (EAC) terminals on a furnace electronic control. If EAC terminals are not available, the Accessory Flow Sensor Kit, model KIT-160-000, must be purchased for use with the Air Purifier.

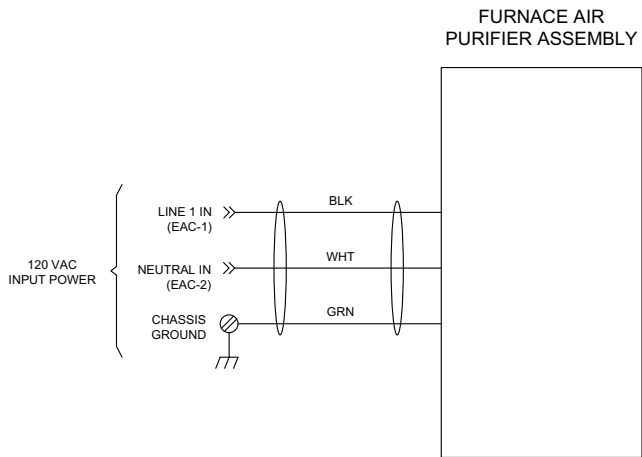


Fig. 11 - Furnace Installation

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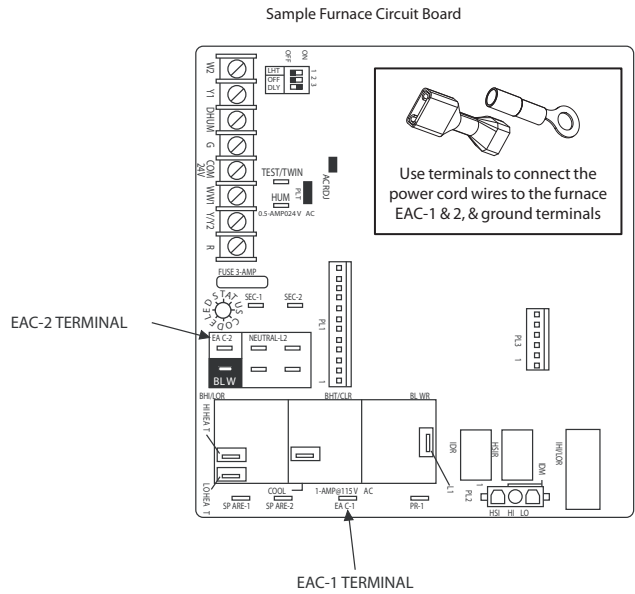


Fig. 12 - Air Purifier Connection to Furnace

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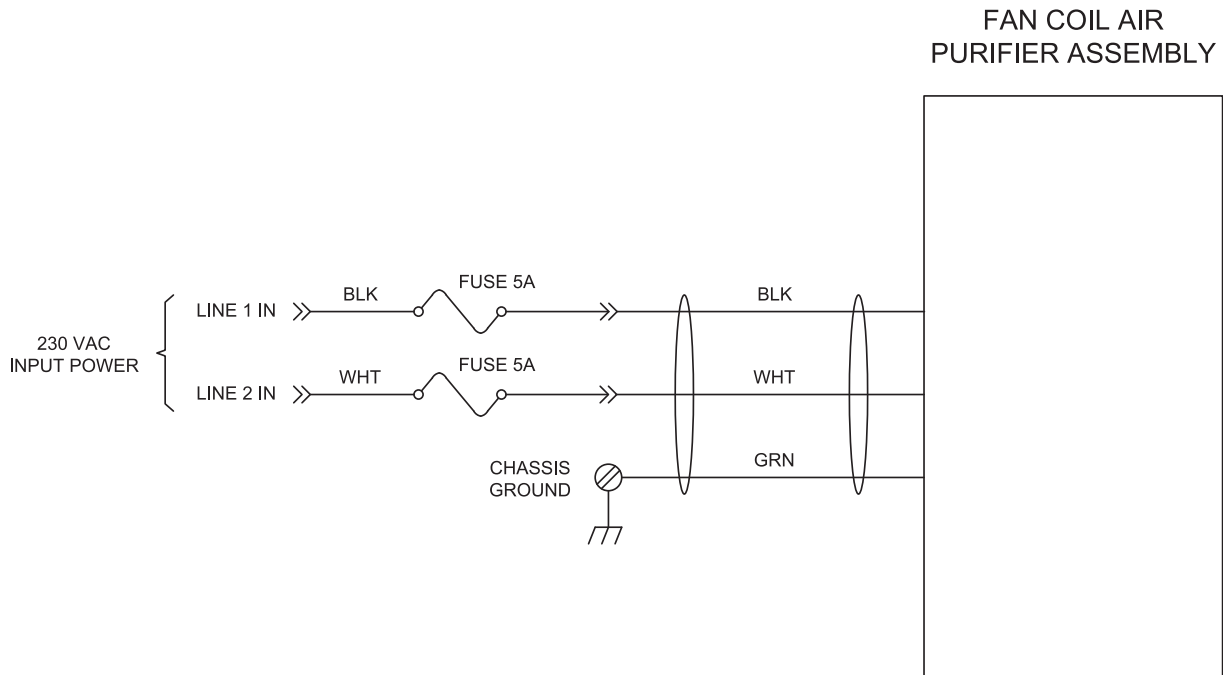


Fig. 13 - Fan Coil Schematic

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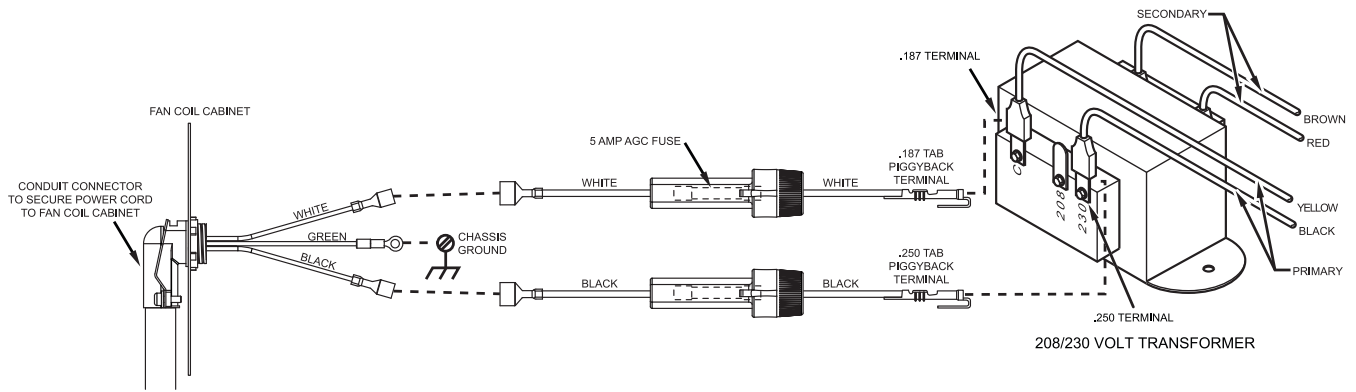


Fig. 14 - In-line Fuse Installation Illustration

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For mounting to fan coil air handlers:

1. Route the power conduit from the purifier to a knockout on the fan coil air handler that provides access to the incoming power wiring compartment. Affix the end of the conduit to the fan coil air handler using the included conduit fitting.
2. Remove the yellow and black primary wires from the fan coil air handler transformer terminals and connect the quick connect “piggyback” terminals of the in-line fused leads exiting the air purifier power conduit assembly to the transformer terminals. Reconnect the yellow and black primary wires to their respective transformer terminals on the “piggyback” terminals. Attach the ground ring terminal on the third wire to fan coil air handler chassis ground. See Figures 13 and 14.

NOTE: Power connections are to be made inside the fan coil wiring compartment per local electrical codes, and the two in-line fuses that are provided with the air purifier must be installed in the fan coil wiring compartment.

⚠ CAUTION

UNIT COMPONENT DAMAGE HAZARD

Failure to follow this caution may result in equipment damage or improper operation.

For Furnace Purifiers:
 Black Lead - Connect to Hot (L1) or EAC-1 when provided.
 White Lead - Connect to Neutral (L2) or EAC-2 when provided.
 Green/Ground Lead - Connect to Appliance Ground (Chassis).

For Fan Coil Purifiers:
 Black Lead - Connect to L1
 White Lead - Connect to L2
 Green Lead - Connect to Appliance Ground (Chassis)

START-UP AND OPERATION

Final Assembly

1. Install the Filter Enhancement Module (FEM) into the cabinet, insuring that FEM is held firmly in place by the retention springs and that the high voltage connector/handle is facing outward. See Fig. 15.

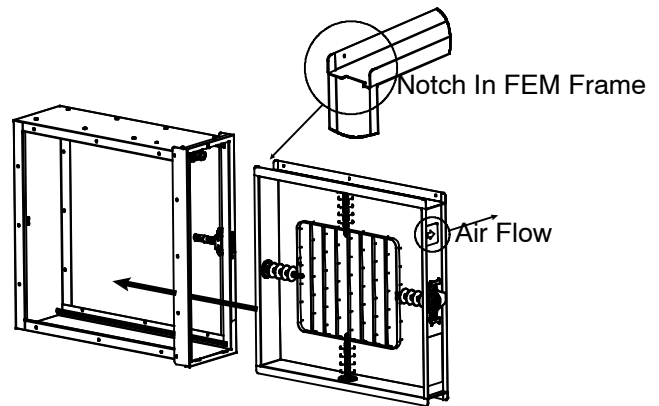


Fig. 15 - Installing FEM

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2. Slide the filter into the cabinet next to the FEM with the filter pull-tab facing outward and paying particular attention to the airflow direction arrows. See Fig. 16.

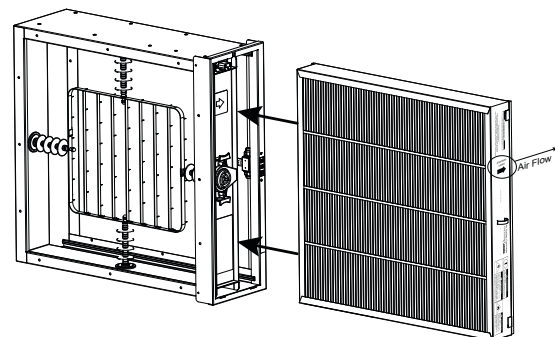


Fig. 16 - Replace Filter

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3. Insert the brand logo into the front of the door panel. To insure that the logo is installed in the proper orientation, first attach the door to the purifier and then snap the logo into place with the text in upright position. See Fig. 17.
4. Affix the “Captures & Kills” label to the front of the purifier door as desired.

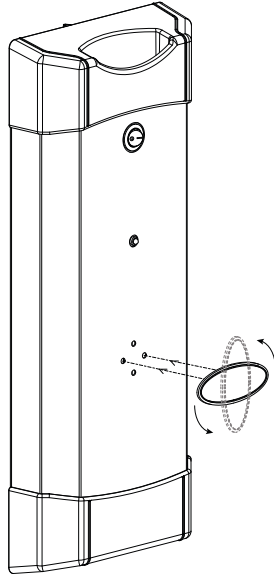


Fig. 17 - Attach Logo

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Checking Air Purifier Operation

⚠ WARNING

ELECTRICAL SHOCK HAZARD

Failure to follow this warning could result in personal injury or death.

Before installing or servicing system, always turn off main power to system. There may be more than one disconnect switch. Lock out and tag switch with a suitable warning label.

1. Attach the Air Purifier door to the cabinet. The power supply will not energize the Air Purifier if the door is not properly in place.

⚠ WARNING

CARBON MONOXIDE HAZARD

Failure to follow this warning could result in personal injury or death.

Do not remove door during blower operation or operate blower with door removed or improperly latched.

2. Turn the HVAC system power on and adjust the thermostat or System Control to activate the system fan.
3. Turn the Air Purifier power switch to on position.
4. The green indicator light above the Air Purifier power switch should illuminate (see Fig. 18).

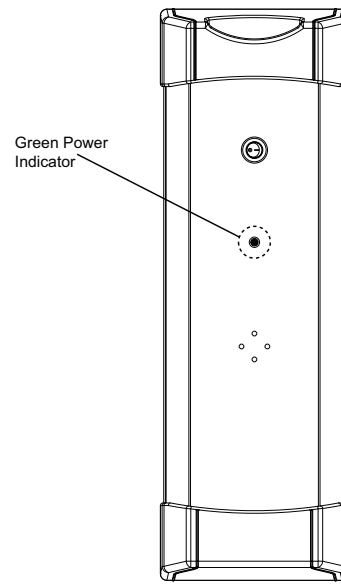


Fig. 18 - Power Indicator (Green LED)

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5. This green indicator light will illuminate when the Air Purifier door is installed, the power switch is in the ON position AND the furnace blower is running. If a flow sensor (model KIT-160-000) is installed in the Air Purifier and there is no airflow, the green indicator light will blink slowly (once every 3 seconds) indicating that the Air Purifier is in STANDBY mode. If a flow sensor is not installed, the green indication light should go off when the blower stops running.

NOTE: For information on the green indicator light status and error conditions, See Table 1 for status codes or Table 2 for error codes in section Error and Status Codes.

Control

When the Air Purifier is used with a Control, the Control can be configured to remind the homeowner when it is time to change the Air Purifier cartridge. This maintenance reminder can be based on either the TrueSense™ dirty filter algorithm or time. The installer should use their discretion to select the most appropriate option based on the initial system static pressure.

Maximizing Performance

Maximum air purification performance is obtained when the furnace blower is set for continuous operation on the thermostat or Control.

MAINTENANCE

The Air Purifier is designed to require minimal maintenance. Maintenance is limited to the periodic replacement of the air purification cartridge and inspection/brush cleaning of the ionization array. Frequency of Air Purifier cartridge replacement and cleaning of the ionization array may vary depending on ductwork design and local environmental conditions, generally 6-9 months.

⚠ WARNING

FIRE HAZARD

Failure to follow this warning could result in personal injury or equipment damage.

Use of non-factory approved filter cartridge will void the warranty and may cause damage due to fire.

This equipment should be inspected frequently and collected dirt removed regularly to prevent excessive accumulation that may result in flash-over or fire damage.

To replace the Air Purifier cartridge, complete the following steps:

Turn the heating and cooling system power off.

⚠ WARNING

ELECTRICAL SHOCK HAZARD

Failure to follow this warning could result in personal injury or death.

Before installing or servicing system, always turn off main power to system. There may be more than one disconnect switch. Lock out and tag switch with a suitable warning label.

NOTE: Use of any filter cartridge in the Air Purifier other than the genuine replacement purifier cartridges listed in the table below will likely result in poor performance and may constitute a safety hazard. Do not use any third-party air filters in the Air Purifier.

PURIFIER MODEL	REPLACEMENT MEDIA CARTRIDGE
PGAPACR1625	PGAPXCAR1625
PGAPACR2025	PGAPXCAR2025
PGAPACR1620	PGAPXCAR1620
PGAPACR2020	PGAPXCAR2020
PGAPACR2420	PGAPXCAR2420

1. Turn the Air Purifier switch to the off position.
2. Remove the Air Purifier door.
3. Slide out the old Air Purifier cartridge and discard.
4. Install the new Air Purifier cartridge.

NOTE: Verify that the Air Purifier cartridge is installed correctly. Make sure that the arrows on the Air Purifier cartridge point in the same direction as airflow and match the arrows on the label on the cabinet.

5. Replace the Air Purifier door.
6. Turn the Air Purifier switch to the on position.
7. Turn heating and cooling system power on.

⚠ WARNING

CARBON MONOXIDE HAZARD

Failure to follow this warning could result in personal injury or death.

Do not remove door during blower operation or operate blower with door removed or improperly latched.

At the time of Air Purifier cartridge replacement, if a powdery residue is noticed on the tips of the points in the ionization array, proceed to clean them by completing the following steps.

Turn heating and cooling system power off.

⚠ WARNING

ELECTRICAL SHOCK HAZARD

Failure to follow this warning could result in personal injury or death.

Before installing or servicing system, always turn off main power to system. There may be more than one disconnect switch. Lock out and tag switch with a suitable warning label.

1. Turn the Air Purifier switch to the off position.
2. Remove the Air Purifier door.
3. Slide out the Filter Enhancement Module (FEM).
4. Clean the FEM.

⚠ WARNING

CUT HAZARD

Failure to follow this warning could result in personal injury.

Sheet metal parts may have sharp edges or burrs. Use care and wear appropriate protective clothing and gloves when handling parts.

NOTE: Best cleaning tools: 5 inch (127 mm) handle paint brush with 2 inch (51 mm) width (or greater) brush point (synthetic or natural bristle) or vacuum cleaner with brush attachment. See Fig. 19.

Gently stroke the ionization pins with the brush. Use a gentle back and forth brushing motion to clean any small accumulations from the tips of the points. If desired, use a vacuum cleaner with brush attachment to gently vacuum the frame and components of enhancement module. Also, if an Accessory Safety Screen is installed, vacuum the Safety Screen to remove accumulated dust and debris.

If further cleaning of the FEM is needed, it may be washed with soap and water and/or rinsed off with water. It should not be placed in a dishwasher or in boiling water.

NOTE: If using water to clean the FEM, it must be completely dry before inserting back into the Air Purifier.

Additionally, care must be taken when handling the FEM due to the sharp points on the ionizer.

5. Slide in enhancement module.
6. Replace the Air Purifier door.
7. Turn the Air Purifier switch to the on position.
8. Turn heating and cooling system power on.

TROUBLESHOOTING

⚠ CAUTION

SAFETY HAZARD

Failure to follow this caution may result in personal injury or equipment damage.

The following instructions are for use by qualified personnel only.

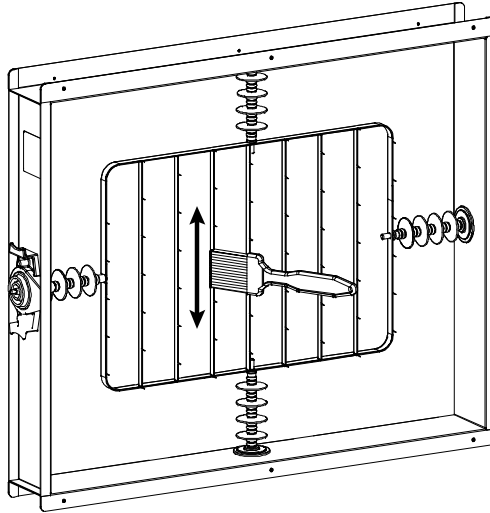
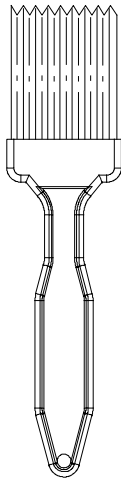
⚠ WARNING

ELECTRICAL SHOCK HAZARD

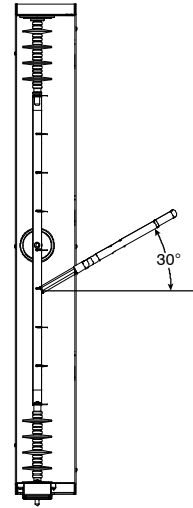
Failure to follow this warning could result in personal injury or death.

The following procedures will expose electrical components. Disconnect power between checks and proceed carefully. Only a trained, experienced service person should install and/or troubleshoot the Air Purifier.

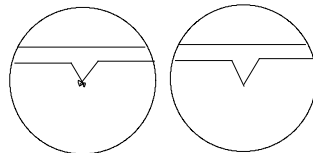
The Air Purifier is equipped with a power indicator light located on the door (see Fig. 18). This power indicator light will illuminate when the Air Purifier door is installed, the power switch is in the on position, AND the furnace blower is running. If a Flow Sensor Kit (model KIT-160-000) is installed in the Air Purifier and there is no airflow, the power indicator light will blink slowly (once every 3 seconds) indicating that the purifier is in "STANDBY" mode.



Top View



POINTS ARE SHARP! BE VERY CAREFUL DURING CLEANING.



Tip of point with residue Tip of point after cleaning

Fig. 19 - Removal of Deposits from Ionization Pins

A11370

ERROR AND STATUS CODES

The error codes and status codes are shown in the following tables.

NOTE: The green indicator light on door cover shown in Fig. 18, Power Indication (Green LED).

Table 2 – Operating Status Codes

INDICATOR LIGHT CODE	EXPLANATION	POSSIBLE CAUSE	RECOMMENDED ACTION
OFF	No incoming AC power to air purifier control electronics	Normal operation when airflow is not present for models without flow sensor due to AC power to purifier being off at furnace control board (EAC terminals).	
		ON/OFF power switch turned to OFF	Turn purifier power switch to ON position
		Power to entire system is off (furnace and air purifier).	Check that the HVAC system is switched on.
		Blown fuse or tripped circuit breaker for HVAC system	Replace fuse or reset circuit breaker. Call for service if problem reoccurs.
		Misaligned or damaged purifier door	Insure that door is undamaged and properly installed on purifier cabinet.
		Damaged or disconnected incoming power wiring	Call for service
ON (continuously)	Air purifier on	Normal operation when airflow is present.	
FLASHING (1 flash every 4 seconds)	Standby Mode	Normal operation when airflow is not present for models with flow sensor.	
		Ions detected in airflow due to missing replaceable filter element	Place filter in air purifier.
		Debris is covering airflow sensor (for models including an airflow sensor).	Make sure flow sensor is clean and unobstructed
		Flow sensor is damaged (for models including an airflow sensor).	Replace flow sensor, available as replacement kit (KIT- 160- 000).
		Flow sensor bypass assembly is damaged (for models without an airflow sensor).	Replace flow sensor bypass assembly, available as replacement kit (KIT- 161- 000).
		One or more of the three airflow sensor contact springs on purifier cabinet downstream rail are bent or damaged.	Replace flow sensor contact spring assembly, included as part of the flow sensor kits (KIT- 160- 000 and flow sensor bypass kit KIT- 161- 000).

Table 3 – Start-Up Error Codes

INDICATOR LIGHT CODE	EXPLANATION	POSSIBLE CAUSE	RECOMMENDED ACTION
2 FLASHES	Filter ground circuit fault	No filter installed	Place filter in air purifier.
		Filter installed incorrectly.	Install filter in correct orientation as indicated by airflow direction arrows on cabinet and filter.
		Wrong type of filter installed	Install a genuine air purifier replacement filter.
		Wet filter	Call service to locate and eliminate the source of water on the filter and replace the filter with a new filter.
		Damaged filter contact spring on door assembly	Verify that filter contact springs mounted on door are properly contacting the aluminum contact pads on the filter and not contacting the cabinet or door back. If springs are broken or damaged replace the door assembly.
RAPID FLASHING (5 flashes per second)	LED Flashes for 10 seconds when AC power is turned on indicating a previously stored error code will be displayed after 10 seconds. Purifier will not operate until cause of error condition is rectified and purifier is reset.	An error code was registered in the purifier controls prior to the purifier being turned off.	The purifier controls may be reset during the 10 seconds in which the LED is flashing rapidly. See the reset procedure section of this document for resetting the electrical controls. If the problem persists, follow the actions recommend in Table 3 for the stored error code or call service.

Table 4 – Operating Error Codes

INDICATOR LIGHT CODE	EXPLANATION	POSSIBLE CAUSE	RECOMMENDED ACTION
4 FLASHES	Ionizer / filter current imbalance	Dirty Filter Enhancement Module (FEM).	Clean/service air purifier unit.
		Damaged Filter Enhancement Module (FEM).	Replace the filter enhancement module.
5 FLASHES	Over- current fault	Excessively dirty Damaged Filter Enhancement Module (FEM) and/or filter.	Clean/service air purifier unit.
		Wet Damaged Filter Enhancement Module (FEM) and/or filter.	Call service to locate and eliminate the source of water in the air purifier. Verify that the purifier FEM and cabinet are clean and replace filter with a new filter.
		Damaged filter.	Replace the filter element.
		Damaged Filter Enhancement Module (FEM).	Replace the filter enhancement module.
		Foreign object inside air purifier.	Remove foreign object from air purifier and insure purifier is clean and undamaged.
6 FLASHES	Arc detected	Damaged filter.	Replace the filter element.
		Damaged Filter Enhancement Module (FEM)	Replace the filter enhancement module.
		Foreign object inside air purifier.	Remove foreign object from air purifier and insure purifier is clean and undamaged.

RESET PROCEDURE

When the rapid flashing code occurs on the green light, the controls for the high voltage need to be reset. To reset the controls, the power switch needs to be turned on and off for three cycles.

1. Turn off power by depressing the power switch.
2. Wait approximately 2 seconds before turning the power back on.
3. Wait approximately 2 seconds before turning the power off.
4. Repeat Steps 2 and 3 for two more on/off cycles.

5. After the three on/off cycles are completed, turn on power by depressing the power switch on. The rapid flashing code on the green light should no longer be displayed . If the rapid flashing code on the green light is still displayed, repeat Steps 1 through 5.

NOTE: By resetting the air purifier controls the issue with air purifier will need to be addressed by cleaning or servicing the air purifier.

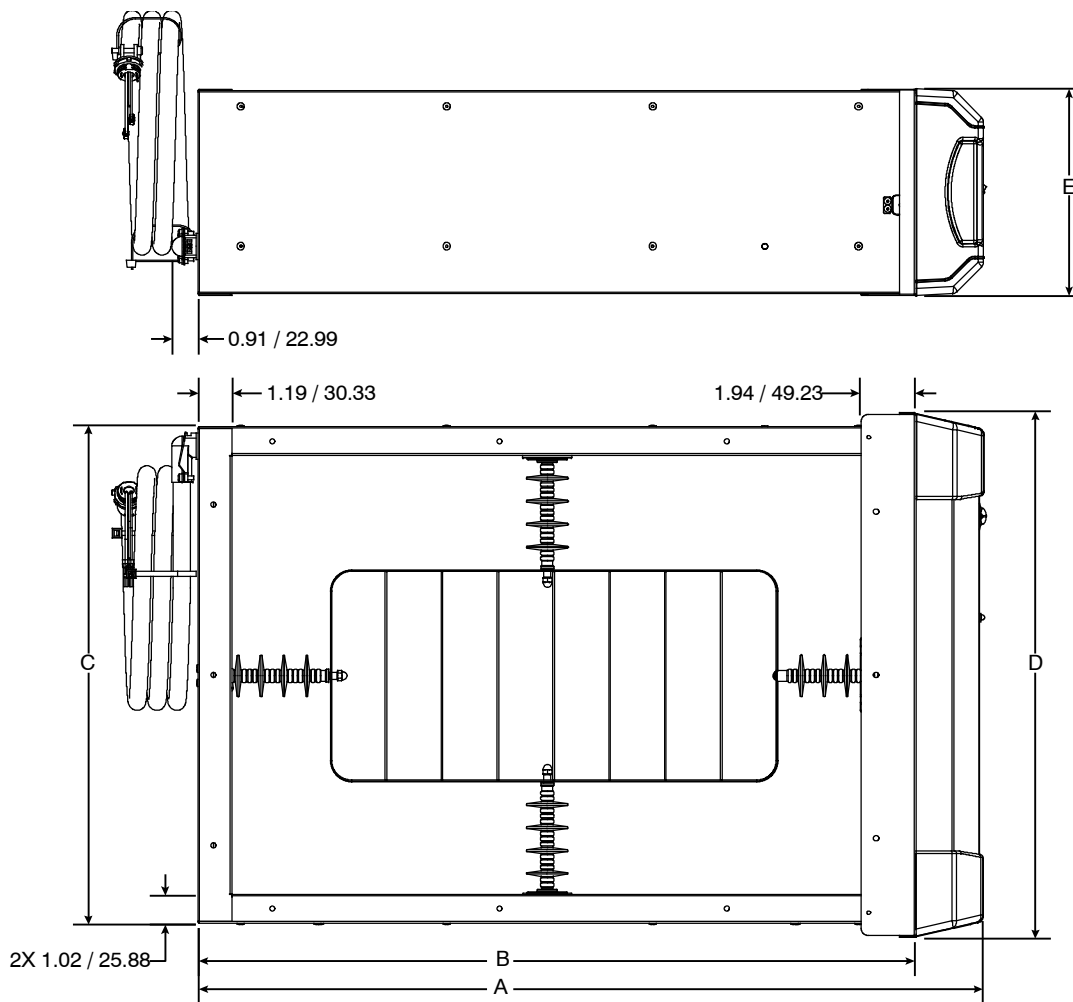


Fig. 21 - Dimensions

A11334

Fig. 20 - Dimensions

A11334

UNIT	1625	2025	1620	2020	2420
A	27.68" / 703.0 mm		24.68" / 626.8 mm		
B	25.28" / 642.1 mm		22.28" / 565.9 mm		
C	17.49" / 444.2 mm	21.19" / 538.2 mm	17.49" / 444.2 mm	21.19" / 538.2 mm	24.69" / 627.1 mm
D	18.48" / 469.3 mm	22.18" / 563.3 mm	18.48" / 469.3 mm	22.18" / 563.3 mm	25.68" / 652.2 mm
E	7.25" / 184.2 mm				

REPLACEMENT FILTERS, REPLACEMENT COMPONENT KITS, AND ACCESSORIES

Air Purifier Model PGAPACR	1625	2025	1620	2020	2420
Filter Enhancement Module (FEM)	KIT- 140- 000	KIT- 141- 000	KIT- 142- 000	KIT- 143- 000	KIT- 144- 000
Front Door including Power Supply	KIT- 156- 000	KIT- 157- 000	KIT- 156- 000	KIT- 157- 000	KIT- 158- 000
Flow Sensor	KIT- 160- 000 (Included as standard with Models PGAPACR1620, PGAPACR2020, and PGAPACR2420)				
Flow Sensor Bypass	KIT- 161- 000 (Included as standard with Models PGAPACR1625 and PGAPACR2025)				
Front Screen Accessory	KIT- 170- 000	KIT- 171- 000	KIT- 172- 000	KIT- 173- 000	KIT- 174- 000
240 VAC Equipment Accessory Kit	KFAPS0110KIT (Included as standard with Models PGAPACR1620, PGAPACR2020, and PGAPACR2420)				
Replacement filter Cartridge (2- Pack)	PGAPXCAR1625- A02	PGAPXCAR2025- A02	PGAPXCAR1620- A02	PGAPXCAR2020- A02	PGAPXCAR2420- A02