When Installing This Product:

1. This document provides instructions for the installation and electrical wiring of SecureAire's PlatinumPLUS Air Purification System.

2. Read these instructions carefully as failure to comply can damage the product or cause a hazardous condition.

3. Review the specifications provided to ensure that it is suitable for your application.

4. The installer must be a trained, experienced mechanical and electrical technician.

5. After the installation is complete, please complete the system start-up procedures to ensure correct installation and operation of the product.

What's Inside the Box:

• SecureAire Platinum Air Purifier
• 8-foot electrical plug-in cord

Installation Tools Needed:

• Phillips screwdriver
• Wire cutter
• Wire stripper
• Wire crimper
• Drill

• Custom sheet metal fittings
• Sheet metal cutting tools
• Locking pliers or clamps
• Sheet metal screws
• Silicone sealant

SecureAire Product Model Numbers and Airflow Rating:

Model Numbers	Maximum Airflow (cfm)
ACS1620-NG2	1200
ACS2020-NG2	1400
ACS1625-NG2	1400
ACS2025-NG2	2000

Replacement Air Purification Cartridge Part Numbers:

| ROC1620-NG2	Platinum Series Cartridge Part Number
16x20x2	ROC1620-NG2
20x20x2	ROC2020-NG2
16x25x2	ROC1625-NG2
20x25x2	ROC2025-NG2

Application Considerations:

The SecureAire Air Purifier is designed to work with gas, oil, and electric forced air furnaces and central air conditioning systems.

Airflow considerations are vital to the heating and cooling system's performance, longevity, and safety, as well as the performance of the SecureAire Air Purifier. Industry standards are established to ensure proper design and installation of this product and the associated ductwork.

Choosing a Mounting Position:

The SecureAire Air Purifier mounts in any position within the return air duct, usually next to the furnace blower compartment. There are directional arrows on the filter to confirm proper cabinet location. See below for proper locations for the SecureAire Air Purifier in a variety of furnace and air handler installations.
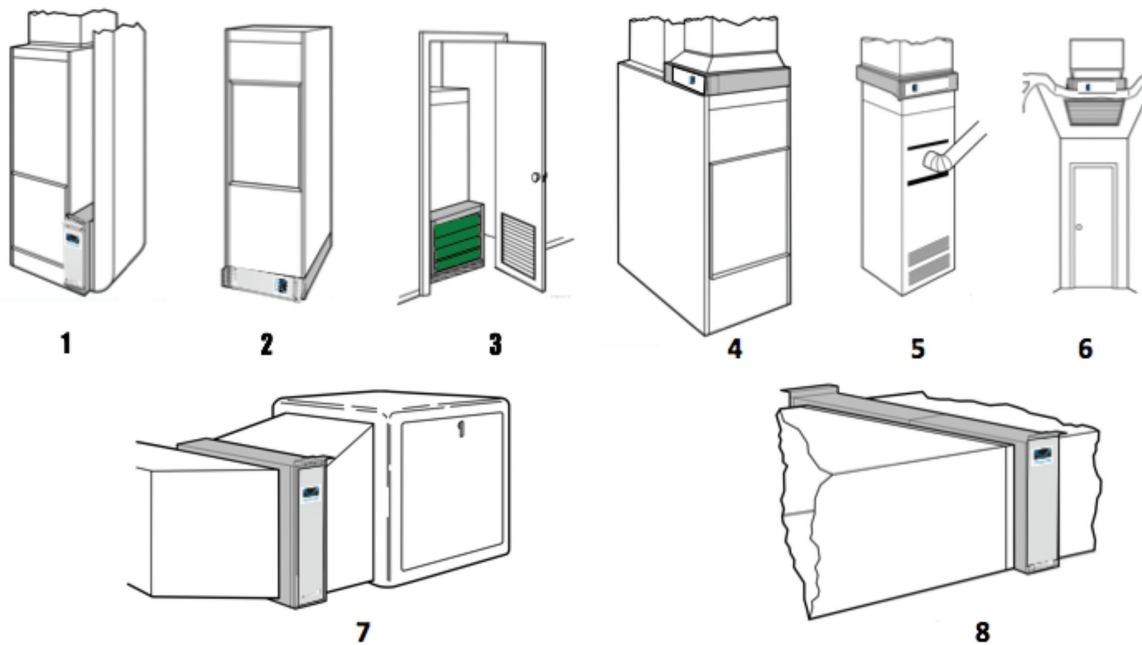
Type	Description	Type	Description
1	Upflow with side install. The SecureAire Air Purifier is mounted vertically where return enters side inlet of furnace.	5	Counterflow furnace with the SecureAire Air Purifier mounted horizontally in return duct or plenum just above furnace.
2	Upflow with install beneath furnace. The SecureAire Air Purifier is mounted horizontally where return enters from below.	6	Central fan installation, with the SecureAire Air Purifier mounted horizontally in central return duct.
3	Upflow with closet install. The SecureAire Air Purifier is mounted vertically on furnace between furnace and louvered return air opening in closet door.	7	Horizontal furnace, with the SecureAire Air Purifier mounted vertically in return duct near furnace.
4	Counterflow with the SecureAire Air Purifier is mounted horizontally in return plenum just above furnace and opposite heating plenum.	8	Two or more SecureAire Air Purifiers used in a high-capacity system.

The following procedure describes a typical installation on an existing upflow furnace with a side return. (Figure 1-1). Other changes in installation procedures may be necessary to complete your installation.

NOTE: Prior to beginning your installation, remove and discard the existing furnace filter (if used). Thoroughly clean the blower compartment. EPA recommends a professional duct cleaning whenever the system's normal airflow will stir up and circulate dust or debris into the treated indoor environment.

https://www.epa.gov/indoor-air-quality-iaq/should-you-have-air-ducts-your-home-cleaned.

WARNING

Electric Shock Hazard!
Can cause personal injury!

Do not, under any circumstances, use an electrical extension cord other than the 8-foot cord provided with the unit.

Before installing or servicing this system, always make sure that the main power to the system is turned off. There may be more than one electrical disconnect switch.

The Step-by-Step Installation Process

Step 1: Review the installation plan and airflow direction

Temporarily place the SecureAire Air Purifier on the floor, orienting as it will be when installed. Temporarily insert and remove the SecureAire Air Purifier to make sure there is adequate clearance for easy removal if that is ever necessary.

If the installation of the unit requires the airflow direction to be reversed, this is easily accomplished by removing the main assembly (Step 6) and rotating it into the proper flow direction.
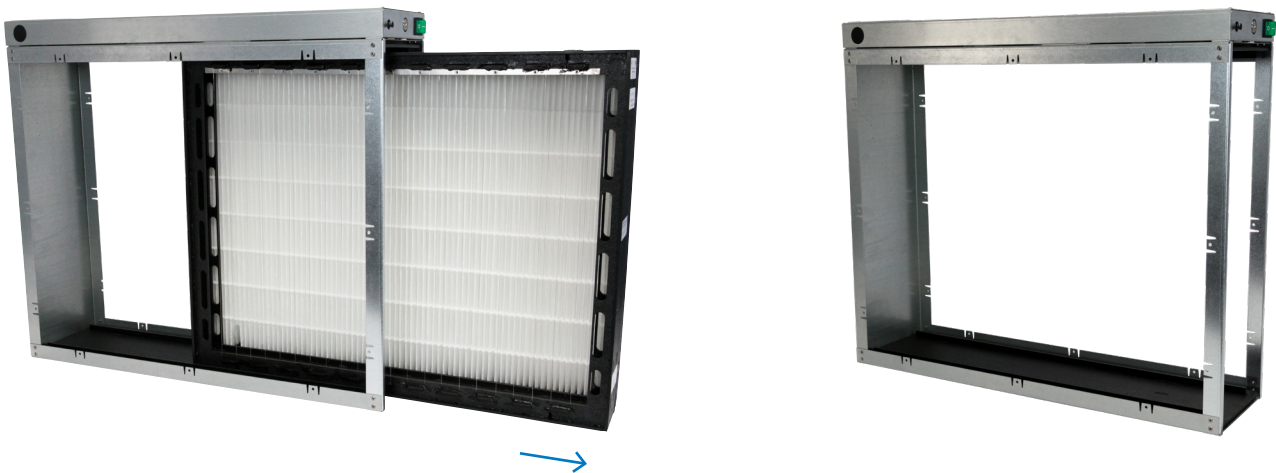
Step 2: Remove the PlatinumPLUS Assembly

A. Unlatch the front door.

B. Remove the main assembly.

Step 3: Pre-wire the power supply
(PRE-WIRE ONLY. DO NOT CONNECT TO POWER.)

Installation of the SecureAire Air Purifier should be performed by a licensed electrician or a certified HVAC technician. Electrical wiring must comply with applicable local codes and standards.

These are pre-wire instructions only. Power is not connected to the unit at this point.

Wire ring lugs must be used when connecting input line voltage to the terminal block. These are supplied on the plug-in power cord supplied with the SecureAire unit.

If connecting directly from another source, the technician must install wire ring lugs on the power wires that connect to the SecureAire terminal block.

The supply line voltage power source is 120V/60 Hz.

**A.** Remove the 2 (two) Phillips head lock screws from the cabinet's top access panel.

B. If the existing wiring connection out of the back of the power supply will be obstructed when the unit is installed, additional knockouts are provided on both sides of the power supply. Remove the existing wiring strain relief and relocate it if needed.
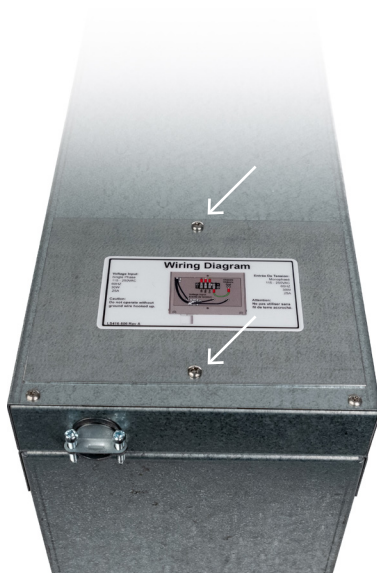
C. Connect unpowered wire ring lugs as shown.
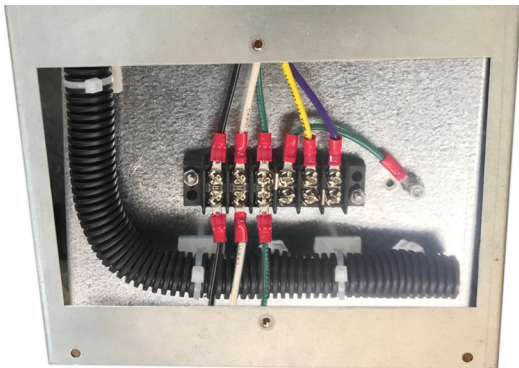
D. When using the supplied plug-in cord, match the cord wiring color to the same color wires on the wiring terminal block.

E. Tighten the wiring strain relief on the outside of the power supply box.

F. Re-install the access panel with the 2 (two) lock screws.

Step 4: Wire the system fan contacts (optional)

The SecureAire system can be wired to conserve power while the system fan isn't running. If the installation includes a contact closure when the system fan is on, follow the steps below. Otherwise, leave the shunt between the yellow and violet terminals in place to keep the unit on continuously.

Note: The SecureAire Air Purifier may be wired to be on continiously, even without the system fan being on, as there are no harmful byproducts, such as ozone, producted by this device.

A. Remove the metal shunt between the yellow and violet wires of the terminal block.

B. Connect wires from the yellow and violet wires of the termina block to the relay contacts. Note that the contacts should be open when the system fan isn't running and closed when the system fan is running.

Step 5: Connect the cabinet to the furnace or air handler

A. If needed, cut an opening in the equipment cabinet to match the SecureAire Air Purifier's cabinet or provide a proper sheet metal transition from the cabinet to the equipment.

B. If necessary, place blocks under the SecureAire Air Purifier to make sure the unit sits securely.

C. Connect the SecureAire Air Purifier securely to the furnace. Fasten with sheet metal screws or use S-cleat type slip joints. If you are drilling holes, use locking pliers to help hold the cabinet in place during drilling.

Step 6: Connect the cabinet to the return air plenum

A. If needed, install turning vanes to help distribute air equally over the full surface of the upstream side of the SecureAire Air Purifier.

B. Connect the SecureAire Air Purifier securely to the return air ductwork. Fasten with sheet metal screws or use S-cleat type slip joints. If you are drilling holes, use locking pliers to help hold the cabinet in place during drilling.

C. Inspect the SecureAire Air Purifier to make sure that no metal filings are lodged in the unit and the cabinet is free of any debris.

Step 7: Reinstall the PlatinumPLUS Assembly

Reinstall the cartridge assembly making sure that the airflow arrows are pointing in the desired airflow direction.

Step 8: Seal all sheet metal joints

Seal all joints in the sheet metal connections you made to prevent ambient air from entering or leaving the ductwork. May use silicone sealant, mastic, or UL-approved sealant tape.

## Step 9: Connect power to the power supply

Installation of the SecureAire Air Purifier should be performed by a licensed electrician or a certified HVAC technician. Electrical wiring must comply with applicable local codes and standards.

Wire ring lugs must be used when connecting input line voltage to the terminal block.

The supply-line voltage power source is 120V/60 Hz. When using the supplied plug-in power cord, plug the cord into an accessible outlet. When connecting power through another source, such as the equipment manufacturer's provided EAC terminals, follow the equipment manufacturer's directions on how to make that connection.

SecureAire Wiring Terminal Block
Line Voltage: 120V/60 Hz
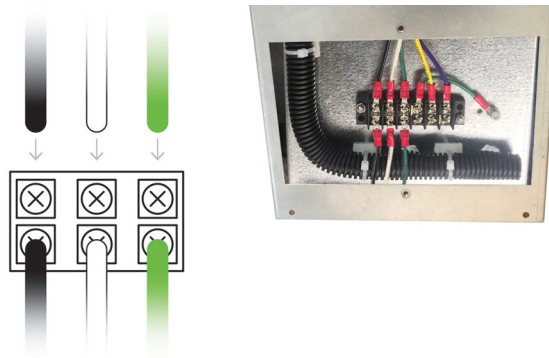
Step 10: System Operation Check

A. With the door closed, turn on the SecureAire Air Purifier with the ON/OFF switch. The switch will glow with a green light indicating that the power supply is on and operating properly.

B. Turn off the SecureAire Air Purifier and the ON/OFF switch light turns off, indicating the entire SecureAire power supply is powered off. The SecureAire Air Purifier is now safe to access.

Built-in User Safety — Opening the front door before turning off the SecureAire Air Purifier will disable the high voltage circuit and de-energize the entire device.

Congratulations!
The SecureAire Air Purifier installation is complete.

Addendum: Wi-Fi Network Setup

The SecureAire Whole Home Air Purification System connects to the homeowner's Wi-Fi network to provide additional system functionality. The Setup is accomplished by passing the Wi-Fi network information to the SecureAire System using an SD card. The SD card may be prepared prior to the on-site installation in an effort to simplify the process.

Equipment needed:

• Laptop
• USB SD card reader
• SD card (formatted FAT16 or FAT32, any capacity, speed, brand)

Step 1: Prepare the SD card

A. Connect the USB card reader to a laptop. Insert the SD card into the card reader.

B. Create a file named "wifi.txt" in the root directory of the SD card.
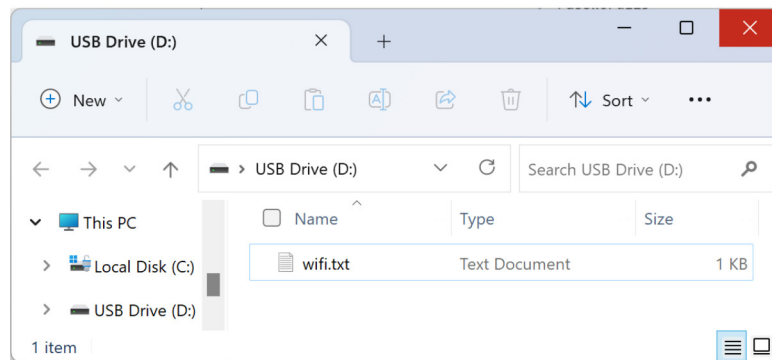
C. Open "wifi.txt" in a text editor. Enter the homeowner's Wi-Fi network information in the following format. In this example, the SSID is Linksys and the password is Password123.
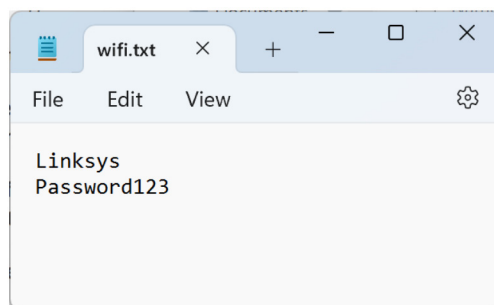
D. Save and close the file in the text editor. DON'T FORGET to "Eject" the SD card before removing it from the card reader.

Step 2: Turn on the system power button.

Step 3: Unlatch and remove the front door.

Step 4: Insert the SD card into the slot adjacent to the power button.

A blue LED inside the unit will illuminate when the card is detected.

• The blue LED will blink 3 times and then turn off if the SSID and password were read successfully.

• The blue LED will blink continuously if there was a problem reading the SSID or password. Check that the SD card is formatted as FAT16 or FAT32, verify the "wifi.txt" filename, and make sure the SSID and password are in the format of Step 1.

Step 5: Remove the SD card from the slot.

The SecureAire System will reset and connect to the Wi-Fi network.

PLEASE NOTE:
Refer to the Device ID on the label behind the front door when setting up the SecureAire System.

Step 6: Re-attach and close the front door.

Please check the installation for the following:

☐ System Airflow is in the direction of the arrows on the SecureAire .

☐ Turning vanes and transitions, if used, are properly installed.

☐ Joints in all sheet metal connections are sealed.

☐ All sheet metal connections are complete.

☐ Original furnace filter has been removed and blower compartment is cleaned.

☐ Replace any equipment access doors removed during the installation.

☐ Run the furnace or cooling system through one complete cycle to ensure system is operating.

☐ Consider asking the homeowner if they would like to program the thermostat's fan control for intermittent, circulate, or constant fan control.

Replacing the Filter Cartridge

The SecureAire Whole Home Air Purification System is designed to require minimal maintenance. System maintenance is limited to the replacement of the system's air purification cartridge, which is easily accomplished using the following steps.

Step 1: Turn off the system power button.

Step 2: Unlatch and remove the front door.

## Step 3: Carefully remove the PlatinumPLUS assembly to access the replacement cartridge.

Once the assembly is removed, the air purification replacement cartridge is accessed by separating the assembly at the male and female tabs. Once separated, gently pull out the used air purification cartridge without disturbing the accumulated dirt on the cartridge and place the cartridge in a large plastic bag for disposal.

Step 4: Insert the new replacement air purification cartridge.

Once the replacement air purification cartridge has been installed, simply snap the assembly back together. With the assembly back together, re-insert it into the SecureAire cabinet with the airflow arrows on the filter pointing in the direction of the airflow.
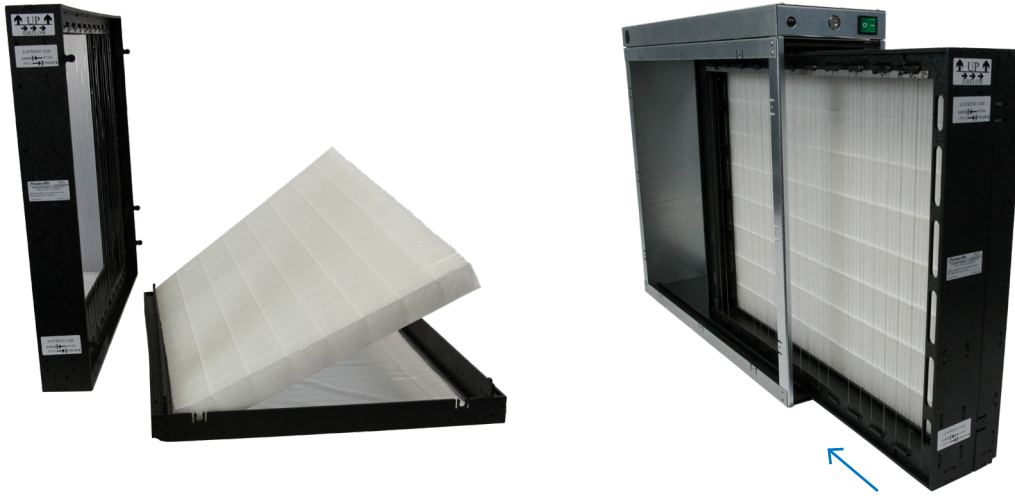
Step 5: Reinserting the PlatinumPLUS Assembly

Step 6: Re-attaching the front door and turning on the power switch.

The SecureAire Air Purifier cartridge replacement is now complete!

SecureAire Specifications

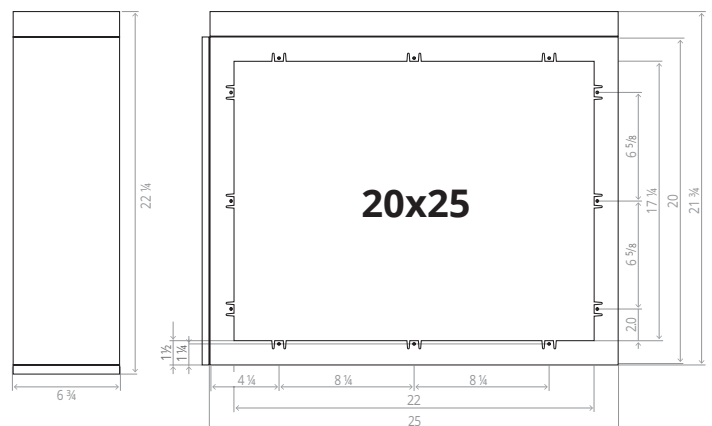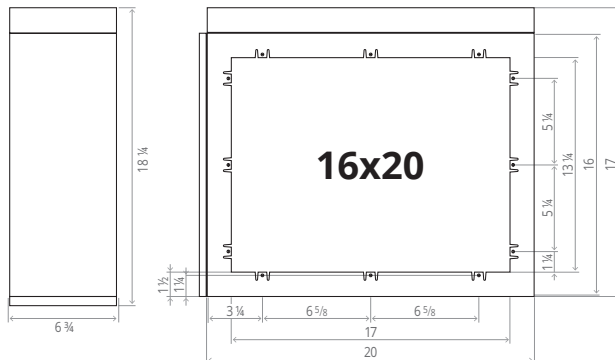| System Specification	ACS1620-NG2	ACS2020-NG2	ACS1625-NG2	ACS2025-NG2
Color	Alpine White			
Cabinet Material	Aluminum/Galvanized Steel			
Electrical	120/240 VAC at 60 Hz, Single Phase, 0.5A max			
Operating Temperature Range	-40 to 165 F (-40 to 74 C)			
Operating Humidity Range	0 to 95% RH (non-condensing)			
Maximum Airflow (CFM)	1200	1400	1400	2000
Unit Weight (lbs.)	14	15	15	17
Initial Pressure Drop (in WC.)	(0.11)	(0.10)	(0.10)	(0.10)

SecureAire Air Purifier Dimensions

Part Numbers	Height	Width	Depth
ACS1620-NG2	16"	20"	6.75"
ACS2020-NG2	20"	20"	6.75"
ACS1625-NG2	16"	25"	6.75"
ACS2025-NG2	20"	25"	6.75"

SecureAire Cartridge Dimensions – Nominal

Part Number	Height	Width	Depth
ROC1620-NG2	16"	20"	2"
ROC2020-NG2	20"	20"	2"
ROC1625-NG2	16"	25"	2"
ROC2025-NG2	20"	25"	2"

Dimensional drawings of the SecureAire Whole Home Residential System
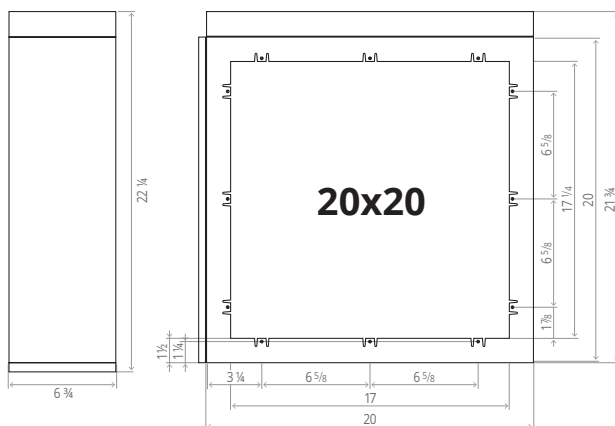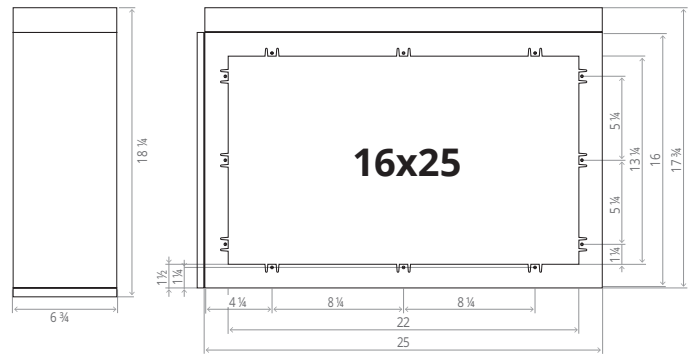
Model	Width	Height	Depth
ACS1620-NG2	20"	16"	6.75"
ACS1625-NG2	25"	16"	6.75"

Model	Width	Height	Depth
ACS2020-NG2	20"	20"	6.75"
ACS2025-NG2	25"	20"	6.75"

Platinum Series Pressure Drop Curves

Air purification cartridge size key:
- 16x20
- 20x20/16x25
- 25x20
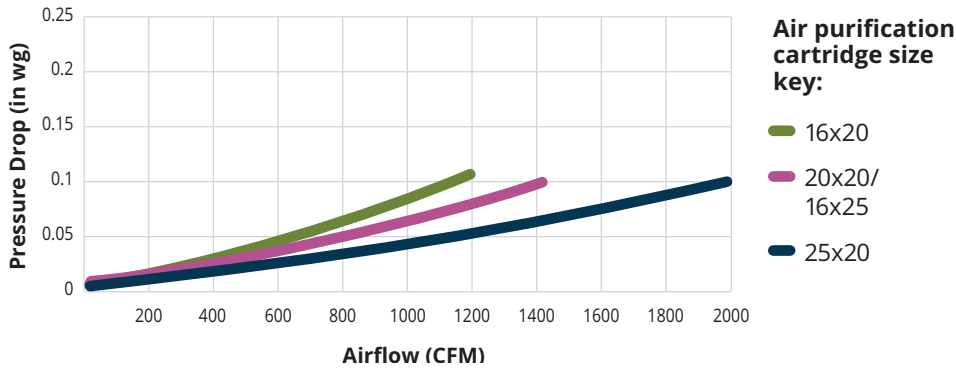
Standards and Approvals

The SecureAire PlatinumPLUS Air Purification System has been tested and verified to meet or exceed the following:

- UL 867 Electrical Standard
- CSA C22.2 No. 187-09 Electrical Standard
- ASHRAE 52.2 Filter Efficiency Rating Standard. (Current version)

Safe, Healthy, and Clean Indoor Air!

To Learn More
Visit our website at: www.secureaire.com/residential

Revision Table

Rev	Description	ECO#	Date	Approval
F	Sixth Release		10/11/23	JC

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