

VENTURA 3400, 4300, 5300

WHOLE HOUSE FANS

INSTALLATION & OPERATION MANUAL



Thank you for purchasing a Ventura™ whole house fan by AirScape®. Your fan has been designed to provide natural, quiet, and energy-efficient cooling for many years.

Before installing this fan, inspect it and all of its parts for any damage it may have sustained during shipping. **DO NOT INSTALL DAMAGED EQUIPMENT. If you suspect this fan has been damaged during shipping, contact AirScape technical support by phone at 1.866.448.4187, or email at experts@airscapefans.com.**

Whole house fans are installed within a home's attic, which makes them extremely difficult to access once installed. **TEST THIS FAN OUTSIDE OF THE ATTIC BEFORE INSTALLING IT.** Connect the fan to its controls and to a power supply, and ensure they operate properly by turning the fan on, cycling through its speed settings, and turning the fan off. If any difficulties are encountered, contact AirScape technical support at the numbers listed above.

SAFETY INFORMATION



Some of the principles of this product's safe installation and operation are not immediately obvious. Read the following safety information before continuing further:



- Never operate this fan without a window or door opened.
- This fan is meant for general ventilation. **DO NOT USE THIS FAN TO VENTILATE PARTICLE-LADEN AND/OR EXPLOSIVE MIXTURES OF AIR.**
- Do not use this fan for kitchen ventilation.
- **Before installing or servicing this fan, disconnect it from power to reduce the risk of damaging circuit boards, fire, electrical shock, or injury.**
- Install this fan in accordance with this manual and all local codes and standards.

ELECTRICAL REQUIREMENTS

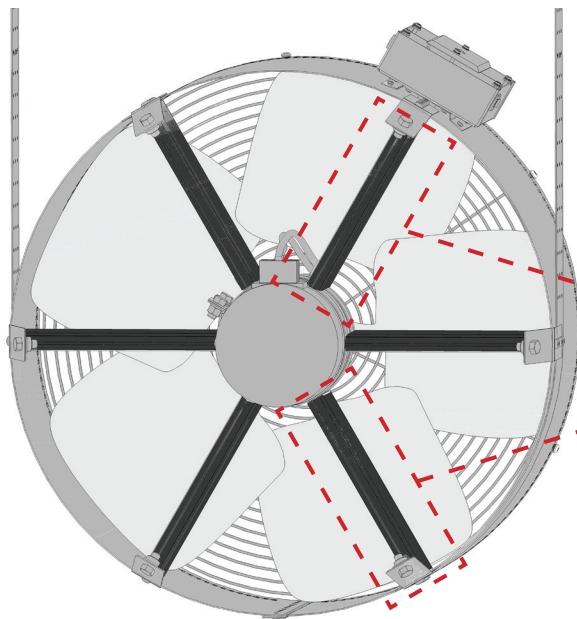
This fan requires a 120 volt uninterrupted electricity supply. We strongly recommend providing a dedicated circuit for this fan.

This fan has a factory-installed, 10 ft. power cord that originates at the fan-mounted electrical box. Consider this length when choosing a location for this fan. Depending on the location of existing outlets in the attic, the installation of an additional outlet may be required.

All wiring and connections must be made according to this manual and acceptable wiring standards. All local codes must be followed. Consult an electrician if necessary.

▲ HANDLING INSTRUCTIONS ▲

This fan's aluminum construction is corrosion-resistant and extremely durable. However, this fan should never be handled using any of the aerodynamic brackets that mount the motor within the assembly. These brackets are highlighted in the illustration below. Always handle this fan by either its external casing or the motor itself. You can also handle this fan by its hanging straps, but be careful as their edges are sharp.



NEVER handle the fan using any of these brackets.

SUPPLIES INCLUDED IN THE BOX

Prior to beginning installation, please verify all of the following items were received:

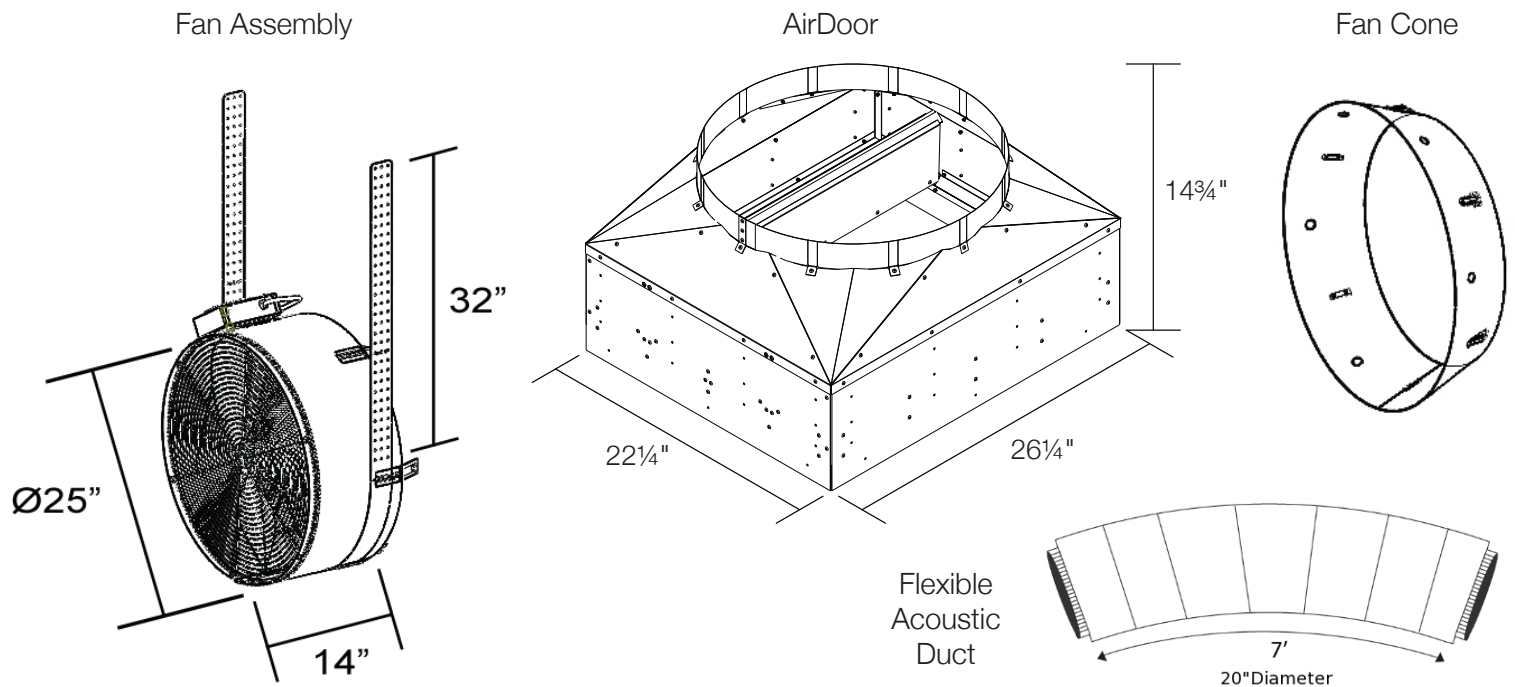
- Box 1 of 3: AirDoor and mounting kit, including mounting flanges, 16 assembly screws, and 24 ft. of aluminum tape; Control package including Digital Touch Controller, mounting bracket, 2 white, flat-head faceplate screws, and 50 ft. red CAT5 cable; White cube-core grille with 8 white wood screws; Installation and Operation Manual, green "Theory of Operation" insert, and blue "Warranty Card."
- Box 2 of 3: Fan.
- Box 3 of 3: 7 ft., 20" diameter flexible acoustic duct; fan cone; 20 ft of aluminum tape; 20 ft. of 1¼" polypropylene webbing; 6 collar screws.

REQUIRED TOOLS & SUPPLIES NOT INCLUDED

In addition to the included items listed above, the following tools and supplies are required to install the fan:

- Lumber matching dimensions of the attic joists (e.g. 2" x 6", 2" x 8", etc.) and cut to fit according to this manual's INSTALLATION: FRAMING section, as well as any additional supplies needed to frame the fan's rough opening.
- Cordless drill with phillips-head screwdriver and miscellaneous drill bits.
- At least 16 wood screws (1½" min. length) and washers sized to fit.
- Socket wrench with ¼" and 9/16" sockets or standard wrenches in the same sizes.
- Phillips and flat-head manual screwdrivers.
- Drywall Cutter.
- High quality latex caulk.
- If your home's framing is 16" on-center, you will also need a hacksaw or dremel tool to notch the flange of the cube-core grille according to the instructions in the INSTALLATION: FRAMING section.

UNIT PARTS & DIMENSIONS



Connect to fan to power using factory-installed power cord (10 ft).

Suspend fan from rafters using hanging strap. Secure hanging strap to rafters using wood screws (1½" minimum length, NOT provided) through the pilot holes on strap; washers recommended between screw heads and straps. USE BOTH SIDES OF STRAP AND KEEP FAN AS LEVEL AS POSSIBLE.

All wiring connections to and from fan are made at fan-mounted electrical box.

Face of fan must remain unobstructed; 24-INCH MINIMUM CLEARANCE REQUIRED. Route all wiring away from face of fan to prevent entanglement.

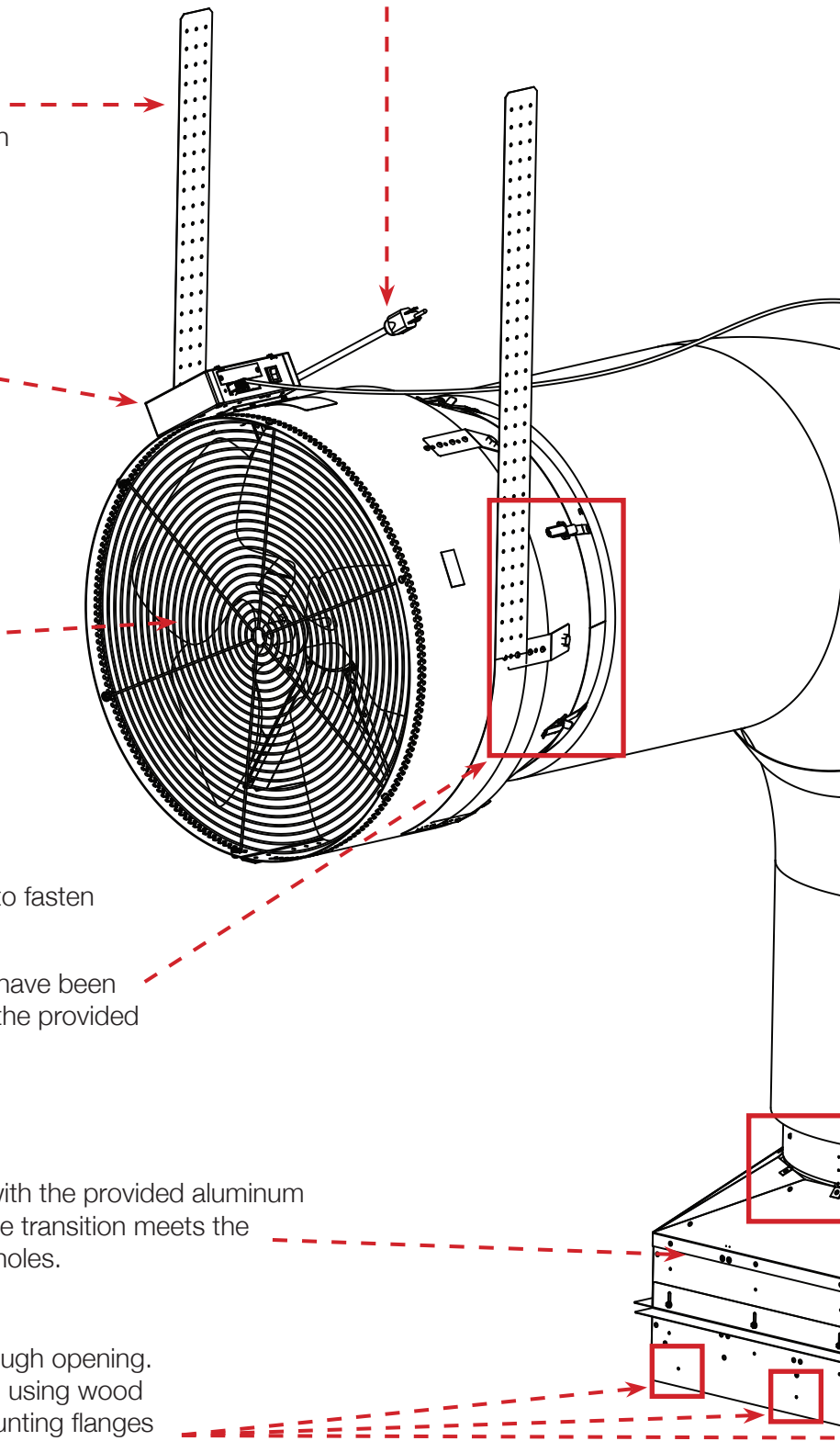
Use bolts to fasten fan cone to fan and latches to fasten ductwork to fan cone.

Once the fan, fan cone, ductwork, and AirDoor have been successfully connected, seal these seams with the provided aluminum tape.

Seal the AirDoor's outside seams with the provided aluminum tape at: 1) each corner; 2) where the transition meets the sides; and, 3) over all unused pilot holes.

Install AirDoor within the framing around the rough opening. From below, secure the AirDoor to the framing using wood screws through the pilot holes in its sides. Mounting flanges can be attached to the AirDoor to assist.

Use a high-quality latex caulk to seal all wood-to-wood and wood-to-metal seams within the rough opening.



Maintain ductwork's 20" diameter throughout bend, keep the section of duct immediately prior to the fan as straight as possible, and avoid contact with any metal fixture, pipes, or conduits.

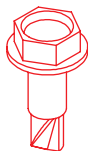
Support the ductwork under the bend using the provided polypropylene webbing. To fasten the webbing to the attic joists, fold over the end of the webbing and screw at least two 1½" or longer wood screws (NOT provided) through both layers of webbing and into the joists.

Use red CAT5e cable (50 ft) to connect Digital Touch Controller to fan. NOTE: this cable is low voltage, DO NOT run it parallel to high-voltage wiring; building codes generally require low-voltage cables to be run through shielded conduit.

Controller must be connected to fan for unit to function, even if it is not ultimately installed in a wall.

Once the fan has been hung and the ductwork attached thereto, slide the collared end of the duct over the collar on the AirDoor. Fasten the two collars together using the 6 provided collar screws.

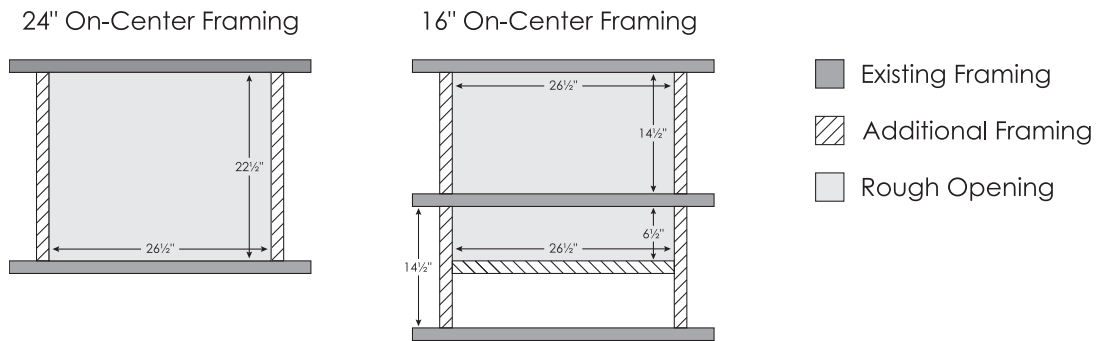
Once the fan, fan cone, ductwork, and AirDoor have been successfully connected, finish by sealing this seam with the provided aluminum tape.



Collar Screw (x6)

INSTALLATION: FRAMING

Using appropriately sized lumber (e.g. 2" x 6", 2" x 8", etc.) cut to fit, frame in a rough opening from the living space into the attic as shown below. Cut out the drywall inside of the framing to create the rough opening.



If your home's framing is 16" on-center, the AirDoor will not fit through the rough opening created above: an alternative access into the attic will be required. Additional framing will also be needed. To install this unit on 16" framing, use appropriately sized lumber to create a "box" with interior dimensions of 22 1/2" x 26 1/2". Mount this "box" atop the rough opening as shown below. The AirDoor installs within this "box."

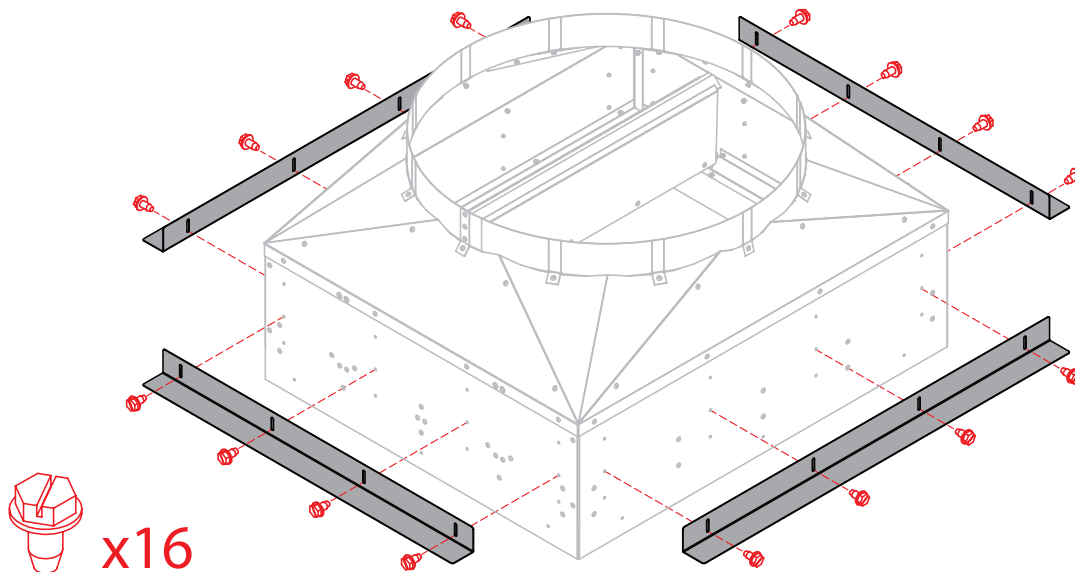


If your home's framing is 16" on-center, a notch will need to be cut in the Grille in order to accommodate the center joist running across the opening, as shown at right. **DO NOT CUT THE CENTER JOIST ITSELF.**



INSTALLATION: AIRDOOR MOUNTING FLANGES

Mounting flanges have been provided to assist you with installin the AirDoor within the rough opening. They can be attached to the as shown below:



INSTALLATION: WIRING & CONTROLS

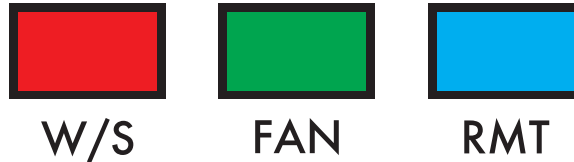


THIS FAN WILL OPERATE ONLY WHEN CONNECTED TO THE PROVIDED DIGITAL TOUCH CONTROLLER! If it is not desired to be installed in a wall, the controller can be connected to the fan and kept in the attic with the CAT5 cable kept spooled. **Do not install the Digital Touch Controller in an external, south-facing wall as this may expose its circuitry to excessive heat.**



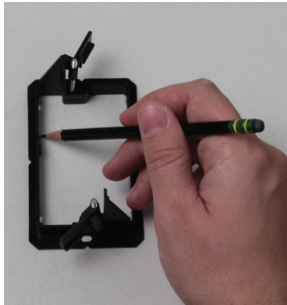
The standard control package included with this fan contains 1 wall-mounted Digital Touch Controller; 1 mounting bracket for the controller; and 50 ft. of red CAT5 cable.

All wiring connections to the fan assembly are made at the fan-mounted electrical box. These include: a 10 ft, black, factory-installed power cord, and three RJ45 (“ethernet”) ports for connecting the fans controls and accessories, labeled as follows:



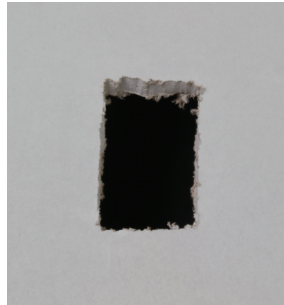
Ventura fans do not use the green **FAN** port for any purpose. To install the Digital Touch controller, first, locate the desired location. Cut a rough opening and secure the mounting bracket according to Figures A–C below.

Figure A



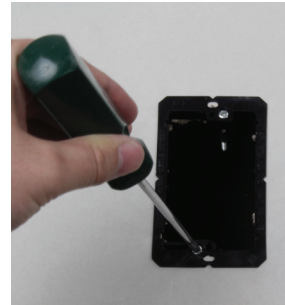
Use the mounting bracket as a template to mark the hole location.

Figure B



Cut out a rough opening.

Figure C



Place the mounting bracket and secure its locking tabs by tightening the silver screws

Figure D



Connect the CAT5 cable. Mount the faceplate to the bracket with the provided white faceplate screws

Return to the attic and connect the red CAT5 cable to the red **W/S** port. Run this cable from the electrical box to the location of the controller. NOTE: this is a low-voltage cable, DO NOT RUN IT PARALLEL TO HIGH-VOLTAGE WIRING; building codes generally require low-voltage cable to be run through shielded conduit.

Connect the CAT5 cable to the RJ45 port on the back of the Digital Touch Controller. Mount the controller’s faceplate to the mounting bracket with the provided white faceplate screws, as shown above in Figure D.

Finish by plugging the power cord into an outlet with uninterrupted 120-volt power.

NOTE: A 10 ft. grey molex cord also originates from the fan-mounted electrical box. This connection is not used with Ventura units, but has been included for the purposes of upgradability. Keep this cord spooled and secured in the attic, away from the face of the fan so as to prevent entanglement.

INSTALLATION: GRILLE

The cube-core grille is installed from within the living space after the fan, duct, and AirDoor have been installed in their final location within the attic. From beneath the rough opening, first, use a high-quality latex caulk to seal all wood-to-wood and wood-to-metal seams within the space formed by the AirDoor and framing.

Next, mount the grille to the framing using the eight white wood screws provided. We strongly recommend pre-drilling holes in the framing for these screws; be careful to prevent them from stripping.

MAINTENANCE, TROUBLESHOOTING, TECHNICAL SUPPORT

There is no routine maintenance required for this fan other than making sure the fan and AirDoor remain clear of dust or debris, and that the area in front of the fan remains as unobstructed as possible, with no object closer than 24" to the face of the fan.

A resettable circuit breaker is located on the fan-mounted electrical box to protect circuit boards from power surges. In the case of a power surge, this breaker can be reset by simply pushing the button back in.

If problems are encountered, please take a few moments to run through the troubleshooting procedures described on the blue Warranty Card. If these suggestions do not work, contact AirScape technical support at 1.866.448.4187 or by email at experts@airscapefans.com for further assistance.

SPECIFICATIONS*

<u>Speed Setting:</u>	<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>	<u>6</u>	<u>7</u>	<u>8</u>	<u>9</u>	<u>10</u>	
5300	Airflow (CFM):	916	1921	2699	3214	3681	4219	4459	4807	5090	5202
	Power (watts):	27.6	78.7	146	231	324	435	558	692	813	850
	Efficiency (watts/CFM):	33.2	24.4	18.5	13.9	11.4	9.7	8.0	6.9	6.3	6.1
	Noise (dBA):	37	38	41	46	50	52	53	56	58	60
4300	Airflow (CFM):	≤225	736	1837	2351	2796	3154	3454	3708	3965	4191
	Power (watts):	15	33.4	71.2	115	167	226	290	362	440	519
	Efficiency (watts/CFM):	≤15	22.0	25.8	20.4	16.7	14.0	11.9	10.2	9.0	8.1
	Noise (dBA):	37	38	40	42	46	48	50	52	54	55
3400	Airflow (CFM):	≤225	409	1114	1794	2162	2554	2783	2994	3192	3342
	Power (watts):	15	22.7	45.8	72.4	102	137	172	210	250	292
	Efficiency (watts/CFM):	≤15	18.0	24.3	24.8	21.2	18.6	16.2	14.3	12.8	11.4
	Noise (dBA):	37	38	40	42	44	46	48	49	50	52

Rough Opening Dimensions: 22.5" x 26.5"

Grille Outer Dimensions: 24.5" x 28.5"

Grille Build: Cube Core, Aluminum, White Powder Coat

AirDoor Dimensions: 26¼" x 22¼" x 14¾" (L x W x H)

Duct Length: 7 ft.

Duct Diameter: 20"

Electrical: 120VAC, 60 Hz, 15 amps

Controls: Low Voltage; Hardwired Wall Switch, Optional Wireless Remote

Installation: Installs easily on 24" or 16" O/C framing

Warranty: 3 years

**Actual performance will vary from installation to installation. Due to our continual product improvement efforts, performance ratings and specifications are subject to change without notice.*