

INSTALLATION & OPERATION INSTRUCTIONS

4042720 - Standard Ceiling HEPA

4042660 - Mini Ceiling HEPA



Ceiling HEPA Filter Box



Mini



Standard

The **Santa Fe Ceiling HEPA** is an air purifier that utilizes a HEPA grade filter. The unit is installed in a drop/open ceiling to provide clean air to a space.

- + Runs independent of the HVAC system to eliminate pressure drop issues
- + Minimizes sound for occupants
- + Does not take up floor space like typical portable air cleaners

Serial Number _____

Install Date _____

Sold By _____



Patent: thermastor.com/patents

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**FOR REPAIR & TECH SUPPORT: 1-800-533-7533 (follow prompts)
or CONTACT US AT: service@madisoniaq.com**

Santa Fe is committed to manufacturing quality products. To maintain our standards, product specifications may change without notice.



4201 Lien Road, Madison, WI 53704
(800) 533-7533
Thermastor.com | Santa-Fe-Products.com

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SAFETY INSTRUCTIONS

Read the installation, operation and maintenance instructions carefully before installing and operating this device. Proper adherence to these instructions is essential to obtain maximum benefit from the Santa Fe Ceiling HEPA Air Purifier.

⚠ WARNING!

THIS SYMBOL MEANS IMPORTANT INSTRUCTIONS. FAILURE TO HEED THEM CAN RESULT IN SERIOUS INJURY OR DEATH.

⚠ CAUTION!

THIS SYMBOL MEANS IMPORTANT INSTRUCTIONS. FAILURE TO HEED THEM CAN RESULT IN INJURY OR MATERIAL PROPERTY DAMAGE.

Registrations



The Santa Fe Ceiling HEPA conforms to unified standard UL 507:2017 Ed.10+R:15 and CSA C22.2#113:2015 Ed.10+U1.

⚠ WARNING!

120 VOLTS MAY CAUSE SERIOUS INJURY FROM ELECTRIC SHOCK. DISCONNECT ELECTRICAL POWER BEFORE STARTING INSTALLATION OR SERVICING, AND LEAVE POWER DISCONNECTED UNTIL INSTALLATION OR SERVICE IS COMPLETED.

⚠ CAUTION!

READ ALL INSTRUCTIONS BEFORE BEGINNING INSTALLATION.
ALWAYS USE CAUTION AND WEAR CUT RESISTANT GLOVES WHEN HANDLING SHEET METAL.
IMPROPER INSTALLATION MAY CAUSE PROPERTY DAMAGE OR INJURY. INSTALLATION, SERVICE, AND MAINTENANCE MUST BE PERFORMED BY A QUALIFIED SERVICE TECHNICIAN.
NEVER OPERATE A UNIT WITH A DAMAGED POWER CORD. IF THE POWER CORD IS DAMAGED, IT MUST BE REPLACED BY THE MANUFACTURER, ITS SERVICE AGENT, OR A SIMILARLY QUALIFIED PERSON IN ORDER TO AVOID A HAZARD.

SPECIFICATIONS

Part Number	4042720 - Standard Ceiling HEPA 4042660 - Mini Ceiling HEPA 4031864 - Replacement HEPA Filter 18" x 18" x 2.5" 4042976 - Pre-Filter MERV-8
Electrical	115V, 2.4A, 273W (Standard Ceiling HEPA) 115V, 1.5A, 171W (Mini Ceiling HEPA)
Sound Rating	55dBA (No Drop Ceiling Install) 45-50 dBA (Drop Ceiling Install)
Sizing per ACH (8' ceiling)	2 ACH - 1,930 Sq. Ft. (Standard Ceiling HEPA) 4 ACH - 965 Sq. Ft. (Standard Ceiling HEPA) 2 ACH - 1,030 Sq. Ft. (Mini Ceiling HEPA) 4 ACH - 515 Sq. Ft. (Mini Ceiling HEPA)
Total System Airflow	>515 CFM @ 1.0 IWG (Standard Ceiling HEPA) >275 CFM @ 1.0 IWG (Mini Ceiling HEPA)
HEPA Effectiveness	99.97% @ 0.3 um
Fan Box Dimensions	26" x 22" x 11.7" (Standard Ceiling HEPA) 17" x 14" x 11.7" (Mini Ceiling HEPA)
Ceiling HEPA Box Dimensions Including the filter grille:	23.75" x 23.75" x 7.8" (without the duct collar) and x 9.7" (with the duct collar attached)
Not including the filter grille:	20.7" x 20.6" x 6.8" (without the duct collar) and x 8.7" (with the duct collar attached)
Unit Weight	45 lbs. (Standard Ceiling HEPA) 25 lbs. (Mini Ceiling HEPA)

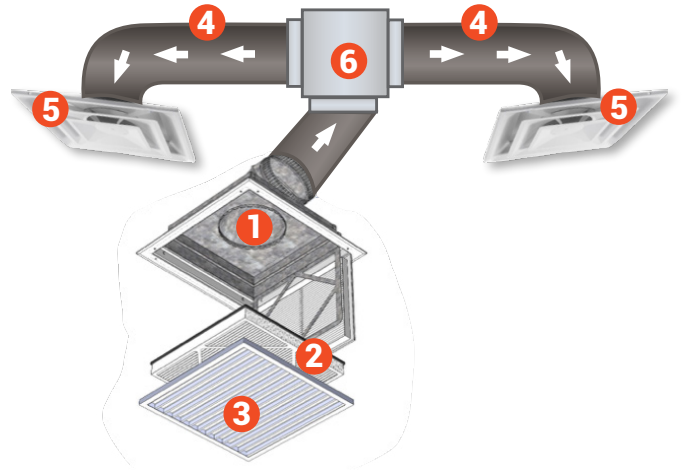
SAFETY PRECAUTIONS

⚠ CAUTION!

TO REDUCE THE RISK OF FIRE, ELECTRIC SHOCK, OR INJURY TO PERSONS, OBSERVE THE FOLLOWING

SYSTEM COMPONENTS

1. Custom return filter enclosure with 10" collar
2. Gasketed HEPA filter: 18" x 18" x 2.5
3. MERV-8 pre-filter: 20" x 20" x 1"
4. 25' of 10" R6 insulated ductwork (not included)
5. Supply air diffusers with 10" collar (not included)
6. Fan box with 6' cord

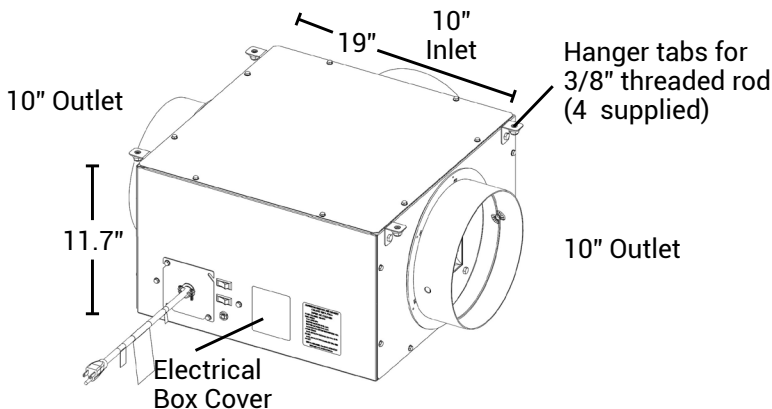


INSTALLATION INSTRUCTIONS

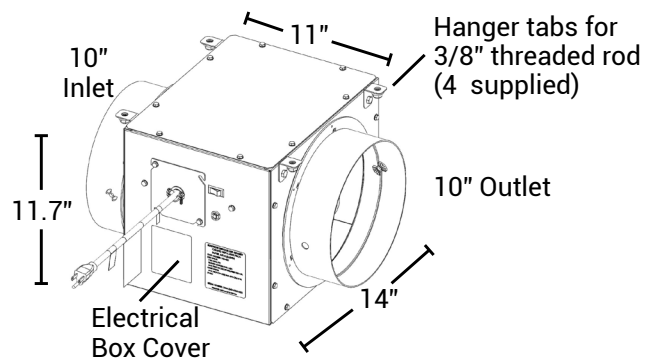
- Installation work and electrical wiring must be done by qualified person(s) in accordance with all applicable codes and standards, including fire-rated construction.
- When cutting or drilling into wall or ceiling, do not damage electrical wiring and other hidden utilities.

Location of the Santa Fe Ceiling HEPA

- The Santa Fe Ceiling HEPA fan boxes must be installed 4' to 12' from the Santa Fe Ceiling HEPA filter box. The boxes are to be connected with 10" insulated flexible ducting. The fan box should be connected with as straight duct path as possible. Sharp bends and collapsed ducting will affect system performance.
- The Santa Fe Ceiling HEPA system is ducted above drop ceilings or open ceiling installations. The filter box return and supply diffuser(s) should be positioned approximately 20' apart, with the fan box positioned in the middle of the duct return. The supply ducts should be located to provide balanced coverage no more than 15' from the fan box.

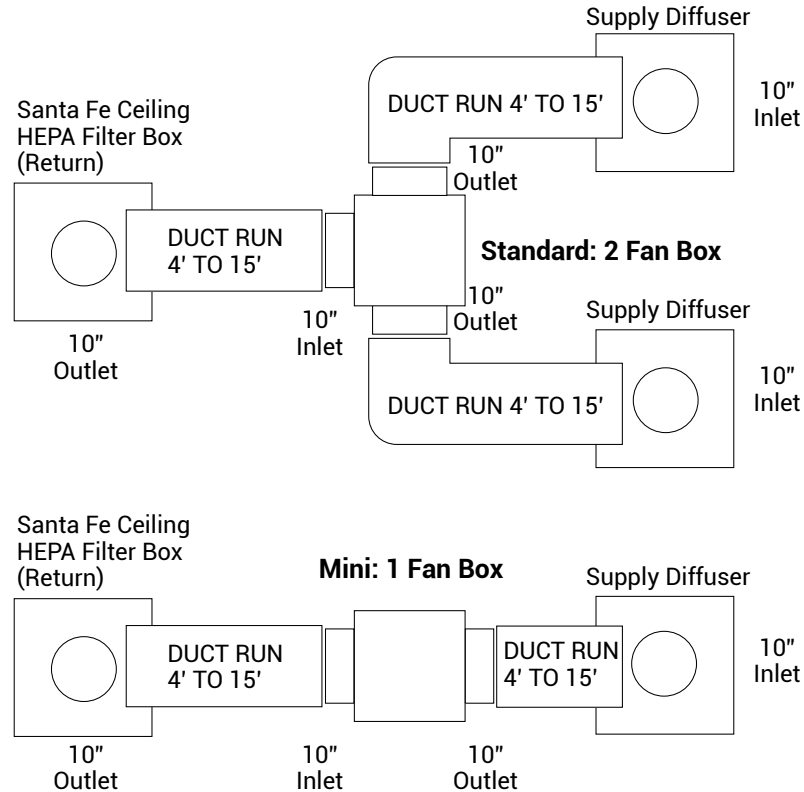


Standard: 2 Fan Box



Mini: 1 Fan Box

INSTALLATION INSTRUCTIONS



Filter Media

- 20"x20"x1" MERV-8 or equivalent pre-filter must be used and maintained in the Santa Fe Ceiling HEPA filter box to prevent debris from entering the Santa Fe Ceiling HEPA fan box.

Assembly

- Assemble the supplied 10" duct collars with self threading screws. Duct collars on the fan outlets (square hole) must be positioned such that they do not obstruct air flow.
- To make installation easy, the Santa Fe Ceiling HEPA system uses 10" circular duct collars. Insulated, flexible 10" duct is recommended to minimize device noise.

Hanging the Santa Fe Ceiling HEPA Fan Box

- The Ceiling HEPA fan boxes have four mounting tabs for hanging from joists, rafters, or trusses and uses (4) 3/8" diameter lag bolts or the equivalent. The tabs may also be used to directly mount to the ceiling above the drop-ceiling so long as fasteners and anchoring hardware are designed to support 200 pounds. Chains may also be used on the tabs to provide additional vibration dampening so long as the chains and hardware are designed to support a minimum of 200 pounds.

Ducting To and From the Santa Fe Ceiling HEPA

- All flexible ducting connected to the unit should be UL listed. The preferred method of ducting is to use 10" insulated round duct from the filter box collar to the fan box inlet. 10" insulated ducting will connect the fan box exhaust to the supply diffuser.

INSTALLATION INSTRUCTIONS

- To obtain maximum HEPA system performance, the use of aluminum tape and/or nylon strapping is needed to secure ducting to the duct collars.
- Do not locate the return grill filter box near the supply diffusers. They should be located 8' minimum apart. If ceiling geometry does not allow this specification, locate the return and diffusers as far apart as is practical.

WIRING

Wiring the Santa Fe Ceiling HEPA

- NOTE: All electrical connections must be installed by a qualified electrician. All wiring must conform to the local electric codes and/or the National Electrical Code.

The Santa Fe Ceiling HEPA uses a 115 volt, 10 amp circuit which is connected to the black and white wires in the electrical cabinet (see Fig. 3). Additionally, the included grounded power cord may be used in non-plenum rated space above the drop ceiling provided 115 Volt grounded outlet is available.

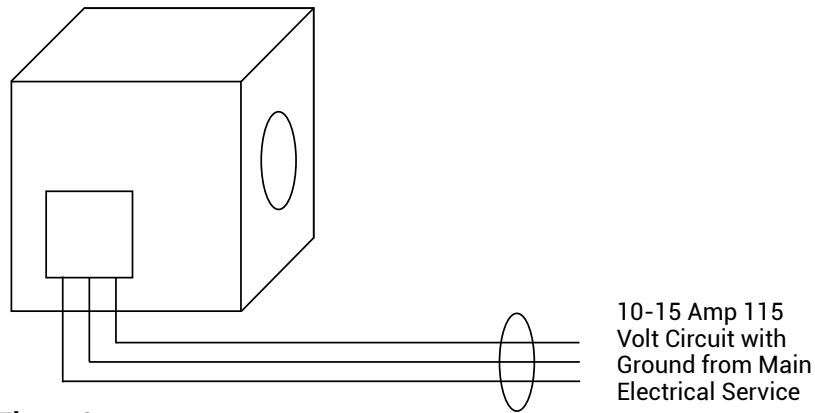
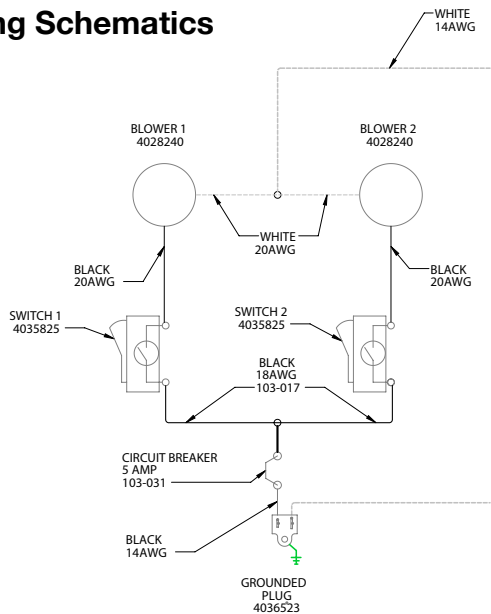
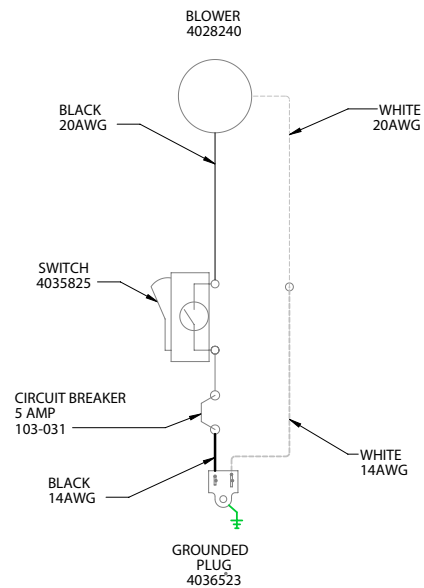


Figure 3

Wiring Schematics



Standard: 2 Fan Box



Mini: 1 Fan Box

WIRING CONTINUED

UL listed switches are used to turn each fan in the fan box on or off.

⚠ WARNING!

THE FAN SWITCHES MUST BE IN THE OFF POSITION DURING INSTALLATION. THE FAN BOXES ARE RATED FOR DUCT USE ONLY AND DO NOT PROVIDE PROTECTION FROM FAN BLADES UNTIL DUCTING INSTALLATION IS COMPLETE.

The fan boxes include one UL listed 5 Amp circuit breaker. If the fan box switch does not activate the fan, reset the circuit breaker by pressing the round button in the center

A 4" junction box cover is used to cover the internal wiring.

⚠ WARNING!

TO REDUCE THE RISK OF FIRE, ELECTRIC SHOCK, OR INJURY TO PERSONS, OBSERVE THE FOLLOWING

- Use this unit only in the manner intended by the manufacturer. If you have questions, contact the manufacturer.
- Before servicing or cleaning unit, switch power off at service panel and lock service disconnecting means to prevent power from being switched on accidentally. When the service disconnecting means cannot be locked, securely fasten a prominent warning device, such as a tag, to the service panel.

⚠ CAUTION!

FOR GENERAL AIR FILTRATION ONLY. THIS DEVICE DOES NOT PROVIDE EXTERNAL VENTILATION. DO NOT USE TO EXHAUST HAZARDOUS OR EXPLOSIVE MATERIALS AND VAPORS.

OPERATION

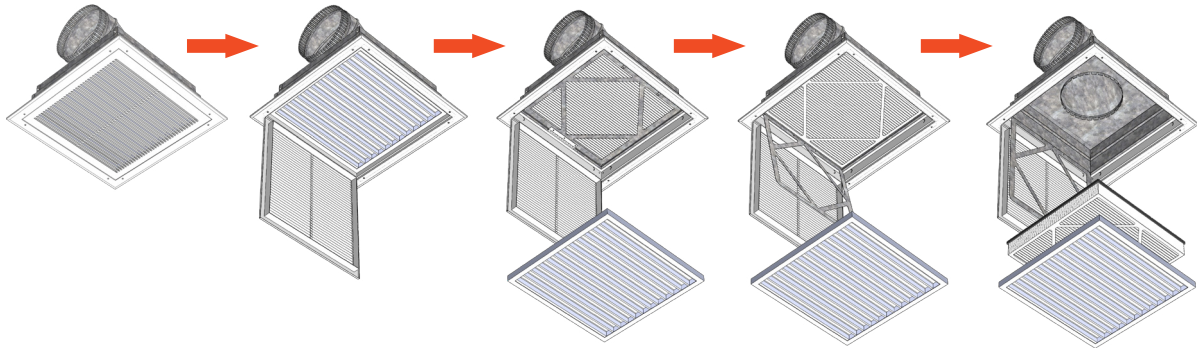
The Ceiling HEPA fan boxes are to be used with the Santa Fe Ceiling HEPA system only. No other use is allowed.

Adjusting the Amount of Air Flow

- The fan box is controlled with a switch for each blower. After mounting, duct installation is complete, and power is supplied, turn each blower switch to "ON". There is one speed for each blower.
- If the blower does not operate, press the button on the circuit breaker to reset.
- The air flow rate may not be balanced between each of the supply diffusers, this is normal operation and depends on many variables.
- Total system air flow is 500 cfm total for two blowers and 250 cfm for one blower.

MAINTENANCE

Filter Removal



Unit design allows for easy removal of both the pre-filter and HEPA filter without the use of additional tools.

Cleaning the Blower Screen

It is recommended to check air flow annually to confirm the system is operating correctly and there are no obstructions.

⚠ CAUTION!

REQUIRES A QUALIFIED SERVICE PERSON BECAUSE ELECTRICAL SHOCK HAZARD IS PRESENT.

TROUBLESHOOTING

Circuit Breaker Trips

- If the circuit breaker trips, locate a short in the wiring and reset the circuit breaker. If the circuit breaker then trips, check the blower motor.

Blower Operates on One Speed Only

- If the blower motor fails to operate when voltage is present at its leads, the motor is defective and the blower must be replaced.

WARRANTY

Warrantor:

Therma-Stor LLC

4201 Lien Rd

Madison, WI 53704

Telephone: 1-800-533-7533

Who Is Covered: This warranty extends only to the original end-user of the Santa Fe Ceiling HEPA Air Purifier, and may not be assigned or transferred.

Five Year Warranty: Therma-Stor Products warrants that, for five (5) years the Santa Fe Ceiling HEPA Air Purifier will operate free from any defects in materials and workmanship, or Therma-Stor Products will, at its option, repair or replace the defective part(s), free of any charge.

End-User Responsibilities: Warranty service must be performed by a Servicer authorized by Therma-Stor Products. If the end-user is unable to locate or obtain warranty service from an authorized Servicer, he should call Therma-Stor Products at the above number and ask for the Therma-Stor Products Service Department, which will then arrange for covered warranty service. Warranty service will be performed during normal working hours.

The end-user must present proof of purchase (lease) upon request, by use of the warranty card or other reasonable and reliable means. The end-user is responsible for normal care. This warranty does not cover any defect, malfunction, etc. resulting from misuse, abuse, lack of normal care, corrosion, freezing, tampering, modification, unauthorized or improper repair or installation, accident, acts of nature or any other cause beyond Therma-Stor Products' reasonable control.

Limitations and Exclusions: If any Santa Fe Ceiling HEPA Air Purifier part is repaired or replaced, the new part shall be warranted for only the remainder of the original warranty period applicable thereto (but all warranty periods will be extended by the period of time, if any, that the Santa Fe Ceiling HEPA Air Purifier is out of service while awaiting covered warranty service).

UPON THE EXPIRATION OF THE WRITTEN WARRANTY APPLICABLE TO THE Santa Fe Ceiling HEPA Air Purifier OR ANY PART THEREOF, ALL OTHER WARRANTIES IMPLIED BY LAW, INCLUDING MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, SHALL ALSO EXPIRE. ALL WARRANTIES MADE BY THERMA-STOR PRODUCTS ARE SET FORTH HEREIN, AND NO CLAIM MAY BE MADE AGAINST THERMA-STOR PRODUCTS BASED ON ANY ORAL WARRANTY. IN NO EVENT SHALL THERMA-STOR PRODUCTS, IN CONNECTION WITH THE SALE, INSTALLATION, USE, REPAIR OR REPLACEMENT OF ANY Santa Fe Ceiling HEPA Air Purifier OR PART THEREOF BE LIABLE UNDER ANY LEGAL THEORY FOR ANY SPECIAL, INDIRECT OR CONSEQUENTIAL DAMAGES INCLUDING WITHOUT LIMITATION WATER DAMAGE (THE END-USER SHOULD TAKE PRECAUTIONS AGAINST SAME), LOST PROFITS, DELAY, OR LOSS OF USE OR DAMAGE TO ANY REAL OR PERSONAL PROPERTY.

Some states do not allow limitations on how long an implied warranty lasts, and some do not allow the exclusion or limitation of incidental or consequential damages, so one or both of these limitations may not apply to you.

Legal Rights: This warranty gives you specific legal rights, and you may also have other rights which vary from state to state.



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