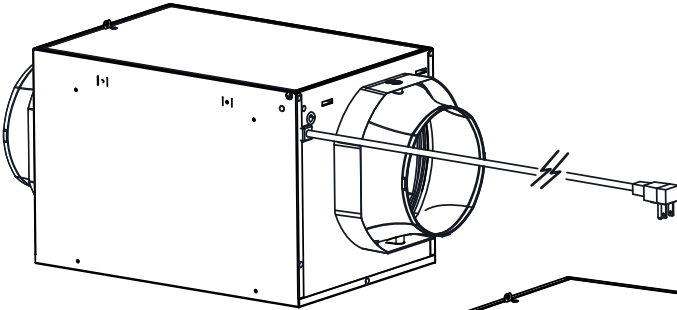
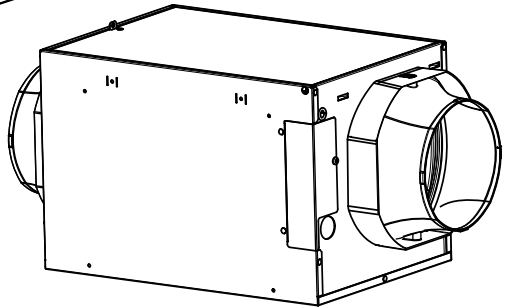


# BROAN®

## FRESH IN™ BASIC FIN-180B AND FIN-180B-HW INSTALLATION INSTRUCTIONS



**FIN-180B**  
**6-FT. POWER CORD**



**FIN-180B-HW**  
**HARDWIRED**

VB0260

**⚠ RESIDENTIAL USE ONLY ⚠**

**READ AND SAVE THESE INSTRUCTIONS**



Please take note that this manual uses the following symbols to emphasize particular information:

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**⚠WARNING**

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***Identifies an instruction which, if not followed, might cause serious personal injuries including possibility of death.***

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**CAUTION**

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***Denotes an instruction which, if not followed, may severely damage the unit and/or its components.***

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**💡** Indicates a supplementary information that may relate to optional parts or simply aim to facilitate a task.

**⚠WARNING**

TO REDUCE THE RISK OF FIRE, ELECTRIC SHOCK, OR INJURY TO PERSON(S) OBSERVE THE FOLLOWING:

1. Use this unit only in the manner intended by the manufacturer. If you have questions, contact the manufacturer.
2. Before servicing or cleaning this unit, turn power off at service panel.
3. This unit is not designed to provide combustion and/or dilution air for fuel-burning appliances.
4. Do not use this unit with any solid-state speed control device.
5. FIN-180B MODEL ONLY: Do not operate any fan with a damaged cord or plug. Discard fan or contact your HVAC contractor, or the manufacturer.
6. FIN-180B MODEL ONLY: Do not run cord under carpeting. Do not cover cord with throw rugs, runners or similar coverings. Do not route cord under furniture or appliances. Arrange cord away from traffic area and where it will not be tripped over.
7. Installation work must be done by qualified person(s) in accordance with all applicable codes and standards, including fire-rated construction.
8. When cutting or drilling into a wall or ceiling, do not damage electrical wiring and other hidden utilities.
9. ALL UNITS: This unit must be grounded. FIN-180B MODEL ONLY: The power supply cord has a 3-prong grounding plug for your personal safety. It must be plugged into a mating 3-prong grounding receptacle, grounded in accordance with the national electrical code and local codes and ordinances. Do not remove the ground prong. Do not use an extension cord.
10. When servicing, cleaning or performing installation of this unit, it is recommended to wear safety glasses and gloves.
11. When applicable local regulation comprises more restrictive installation and/or certification requirements, the aforementioned requirements prevail on those of this document and the installer agrees to conform to these at his own expenses.
12. The unit must be mounted at least 3.3 feet (1.0 meter) away from any accessible opening of the duct.

**CAUTION**

1. Please read specification label on product for further information and requirements.
2. Do not intake air into spaces within walls or ceiling or into attics, crawl spaces, or garage. Do not attempt to recover the exhaust air from a dryer or a range hood.
3. Intended for residential installation only in accordance with the requirements of NFPA 90B.
4. When leaving the house for a long period of time (more than two weeks), a responsible person should regularly check if the unit operates adequately.
5. At least once a year, the unit mechanical and electronic parts should be inspected by qualified service personnel.
6. Since the electronic control system of the unit uses a microprocessor, it may not operate correctly because of external noise or very short power failure. If this happens, turn power off at service panel and wait approximately 10 seconds. Then, restore the power to the unit.
7. Outdoor intake hood must be weather tight and comprise a bird screen.
8. Should you decide to dispose of this unit or of parts of it, do so in accordance with local laws and regulation.
9. Some areas are prone to a higher frequency of lightning-induced power surges. Using a surge protector device to protect units located in these areas is recommended.

# 1. USER SERVICING INSTRUCTIONS

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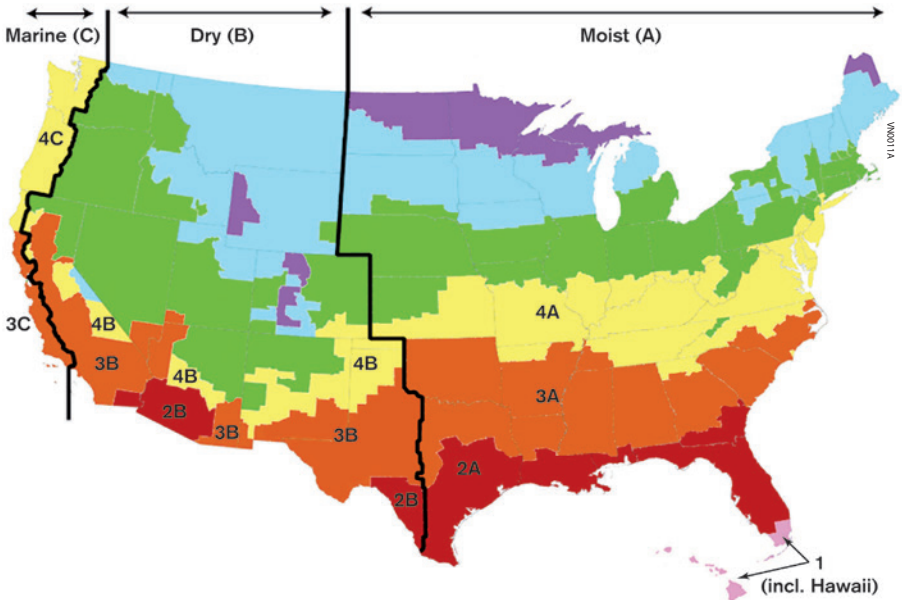
- The metal filter included with this unit should be cleaned every 6 months using water and a mild soap. To remove the filter(s), open the door, release the filter retaining clip and pull filter(s) out. Allow the filter to dry completely before putting it back in the unit; when reinserting it in the unit, make sure that it is standing straight.
- Inspect the outdoor air intake at least once a year.
- During the first year of operation, it is recommended to inspect your unit at a higher frequency, especially if you live near a highway or in an area where there is a lot of construction work, generating lots of dust. Your filter(s) may need more frequent cleaning or replacement in these types of environments.
- Replace the optional MERV filter at least once a year; do not attempt to clean and reuse the optional MERV filter.
- These recommendations may change according to the environmental conditions in your area.

# 2. PLANNING

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## 2.1 INSTALLATION ZONES

The FIN-180B and FIN-180B-HW can be installed in climatic zones 1 to 4 as defined by the Department of Energy (refer to the map below), whether as a stand alone unit or connected to the return ducting of an AHU. Installation in any other climatic zone may cause damage to the house.



## 2.2 INSTALLATION TYPES

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### CAUTION

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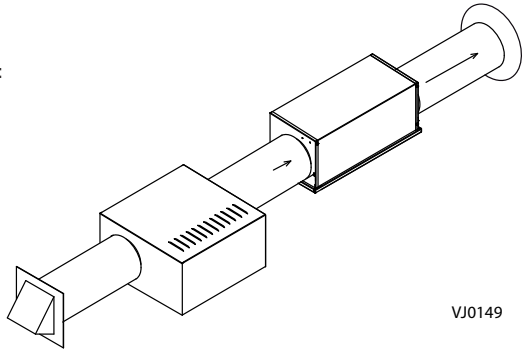
***Always use insulated ducting of a minimum R-4 insulation factor.***

#### 2.2.1 STAND ALONE INSTALLATION

The installer shall ensure that, if necessary, an in-line heater sized according to the required airflow and outside design heating temperature from Manual J or ASHRAE table is installed to avoid condensation on uninsulated duct distribution systems within the house or surfaces near the distribution register. The in-line heater shall have an integrated airflow sensor and an over temperature sensor to prevent heating in no-flow or low-flow conditions.

When deciding if a preheater is required and whether it should be installed BEFORE or AFTER the supply fan, consider the following:

- This supply fan's minimum operating temperature is 14°F.
- The minimum distance between the preheater and the supply fan is 12 inches.
- The temperature distributed in the dwelling should not be below 55°F.



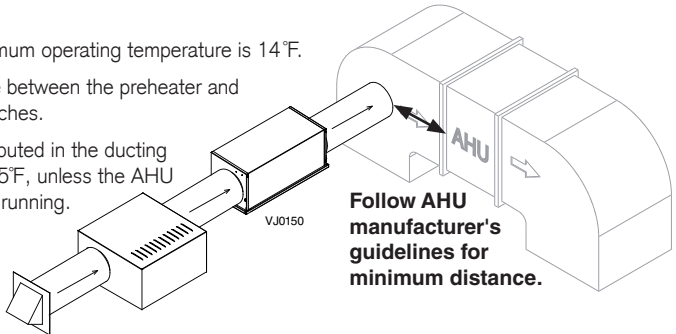
VJ0149

#### 2.2.2 INSTALLATION WITH AN AHU

The installer shall ensure that, if necessary, an in-line heater sized according to the required airflow and outside design heating temperature from Manual J or ASHRAE table is installed to ensure that the air delivered to the AHU is never below the minimum temperature allowed by the manufacturer (generally 55°F). The in-line heater shall have an integrated airflow sensor and an over temperature sensor to prevent heating in no-flow or low-flow conditions.

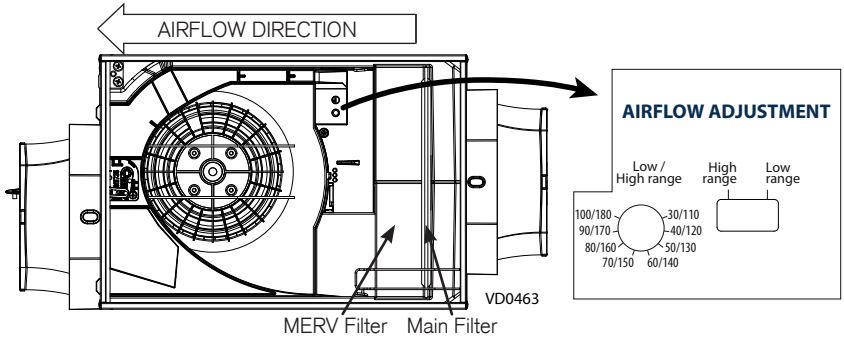
When deciding if a preheater is required and whether it should be installed BEFORE or AFTER the supply fan, consider the following:

- This supply fan's minimum operating temperature is 14°F.
- The minimum distance between the preheater and the supply fan is 12 inches.
- The temperature distributed in the ducting should not be below 55°F, unless the AHU blower is continuously running.



### 3. PREPARATION

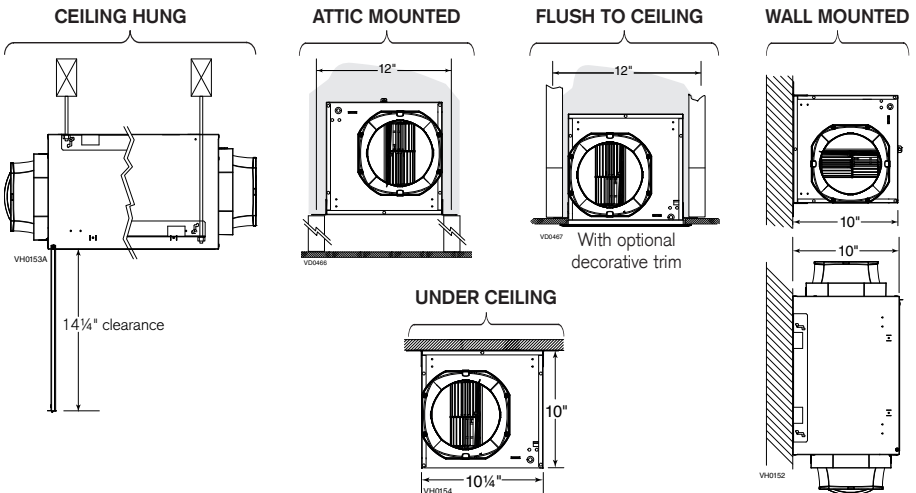
1. Remove the unit from the box and inspect for damage. Installation hardware is located in a plastic bag along with this guide, on top of the filter.
2. Put the unit down on a protected surface.
3. Refer to your local building code to determine the required airflow.
4. Open the unit's door to access the settings on the electrical compartment cover.
5. Adjust the settings according to the required airflow. The first number around the Airflow Range adjustment is the Low Range CFM value (30-100 CFM), and the second number is the High Range CFM value (110-180 CFM). Use a small flat blade screwdriver to switch from Low Range to High range, and to adjust the CFM value.



- ⚠ An optional MERV filter may be installed now. The main filter should remain as a prefilter, and the MERV filter should be installed as indicated above.

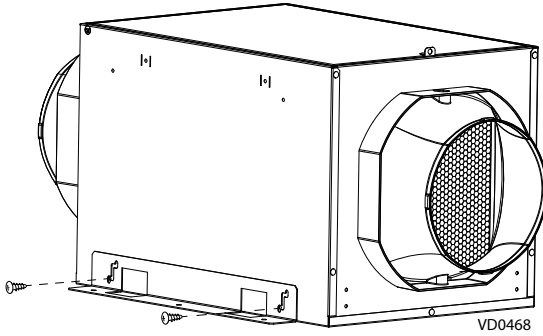
#### 3.1 MOUNTING THE UNIT

- ⚠ When choosing a location for this unit, keep in mind that maintenance will have to be performed by the end user on a regular basis. Choose an easily accessible location and plan for a 1¼-in. clearance for the door to open.
- ⚠ For a 16-in. or 24-in. cc joists installation, use the optional bracket FIN-S1624 (see instructions packed with bracket).



### 3.1.1 UNDER CEILING OR WALL MOUNTED

1. Using 4 screws no. 8-18 x 0.375 in., install the brackets on the unit as illustrated in Figure A. **DO NOT USE OTHER SCREWS.**
  2. Using 4 screws no. 10-12 x 0.625 in. or longer screws if necessary, secure the unit to the wall or ceiling, into the studs, joists or other solid material.
- 💡 When wall mounted, the unit can be positioned in any orientation to suit your need.

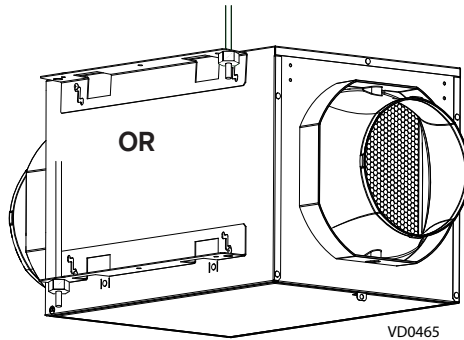


**Figure A: Bracket installation**

### 3.1.2 CEILING HUNG

The brackets have been designed to allow that the unit be hung using threaded rods.

1. Using 4 screws no. 8-18 x 0.375 in., install the brackets on the unit in one of both ways illustrated below. **DO NOT USE OTHER SCREWS.** Use nuts to secure the unit.

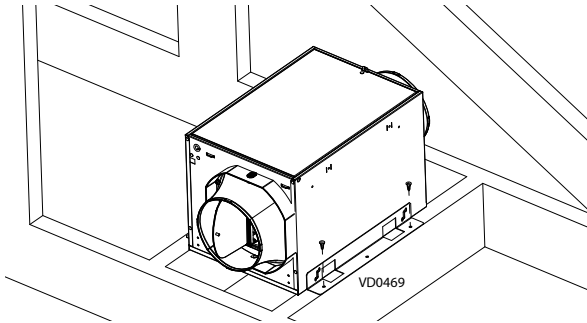


### 3.1.3 IN THE ATTIC

#### CAUTION

**Do not install in an attic where the temperature may exceed 160°F.**

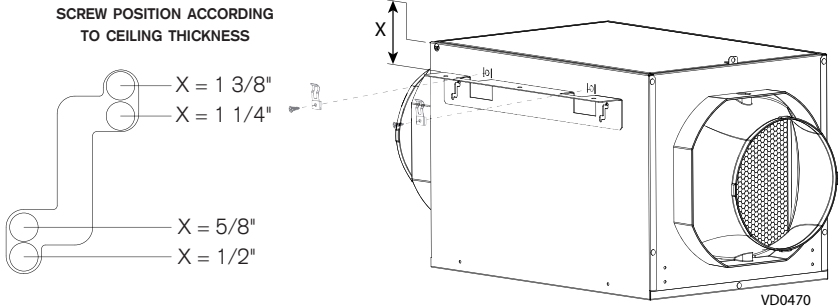
1. Using 4 screws no. 8-18 x 0.375 in., install the brackets on the unit as illustrated on previous page in Figure A. DO NOT USE OTHER SCREWS.
2. Using 4 screws no. 10-12 x 0.625 in., secure the unit to the joists or cross framing.



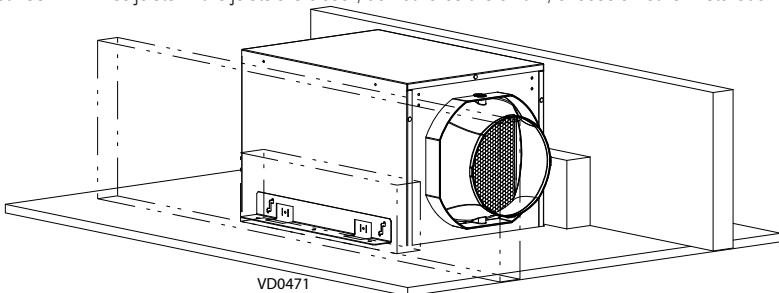
### 3.1.4 FLUSH-TO-CEILING

⚠ If the finishing will be done using the optional decorative finishing trim (part no. FIN-R1015), the springs included in the optional kit should be installed before installing the brackets.

1. Using 4 screws no. 8-18 x 0.375 in., install the brackets on the unit following the diagram below to adapt to the thickness of the ceiling. DO NOT USE OTHER SCREWS.



2. Using 4 screws no. 10-12 x 0.625 in., install the unit between the joists. This unit is designed to fit between 12 in. cc joists. If the joists are closer, do not force the unit in, choose an other installation method.

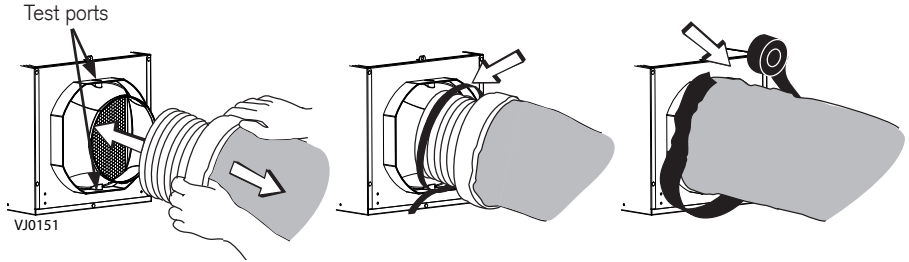


⚠ Prior to painting, clean the metal housing using solvent and the optional decorative trim using water.

### 3.2 CONNECTING THE INSULATED DUCTS TO THE UNIT

1. Slide the inner flexible duct over the port and tie it using a tie-wrap.
2. Pull the insulation over the outer ring of the port without compressing it.
3. Use duct tape to seal the outer membrane of the insulated duct to the outer ring of the port.

⚠ Avoid blocking the test ports with the duct tape.



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#### **⚠ WARNING**

***Make sure the outdoor intake hood is at least 12 inches above the ground and 6 feet away from any of the following: Dryer exhaust, high-efficiency furnace vent, central vacuum vent, gas meter exhaust, gas barbecue-grill, any exhaust from a combustion source, garbage bin and any other source of contamination.***

⚠ Make sure that the outdoor intake hood is easily accessible for annual maintenance. If located above the first floor, place it close to a window or balcony to allow ease of access.

### 3.3 CONNECT POWER

⚠ If desired, the power can be related to an ON/OFF wall switch. Do not use this unit with a dimmer switch or any other type of control.

#### 3.3.1 FIN-180B

Plug the unit power cord into a mating 3-prong grounding receptacle.

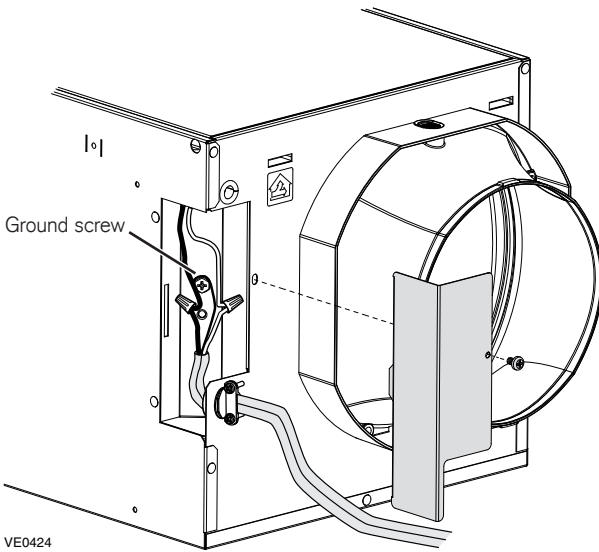


**⚠ WARNING**

***Risk of electric shock. Electrical wiring must be done by qualified personnel in accordance with all applicable codes and standards. Before connecting wires, switch power off at service panel and lock service disconnecting means to prevent power from being switched on accidentally.***

NOTE: The insulated duct not shown to simplify the illustration below.

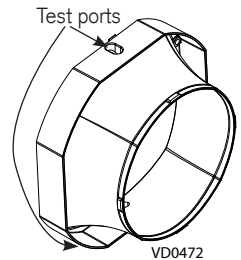
1. Detach the electrical compartment cover from the unit by removing its retaining screw.
2. Install the included wire clamp on the unit. Insert the house wiring cable through the wire clamp and tighten the wire clamp to secure the cable.
3. Using provided wire connectors, connect wires as follows: BLACK to BLACK, WHITE to WHITE and GREEN or BARE wire under ground screw. **DO NOT FORGET TO CONNECT THE GROUND.**
4. Put back in place the electrical compartment cover, taking care not to pinch wires. Restore power at service panel.



**3.4 TEST THE UNIT**

You may test the unit at this point using the test port on the intake side (closest to the filter) and a Pitot tube. The distance between the test port and the center of the duct is 3.75 inches.

- ⚠ If the unit is connected to an AHU, make sure that the AHU is not running while measuring the airflow.

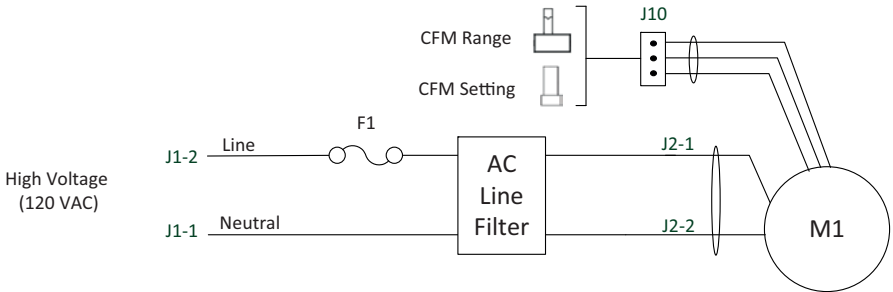


## 4. WIRING DIAGRAM

### ⚠ WARNING

**Risk of electric shock. Electrical wiring must be done by qualified personnel in accordance with all applicable codes and standards. Before connecting wires, switch power off at service panel and lock service disconnecting means to prevent power from being switched on accidentally.**

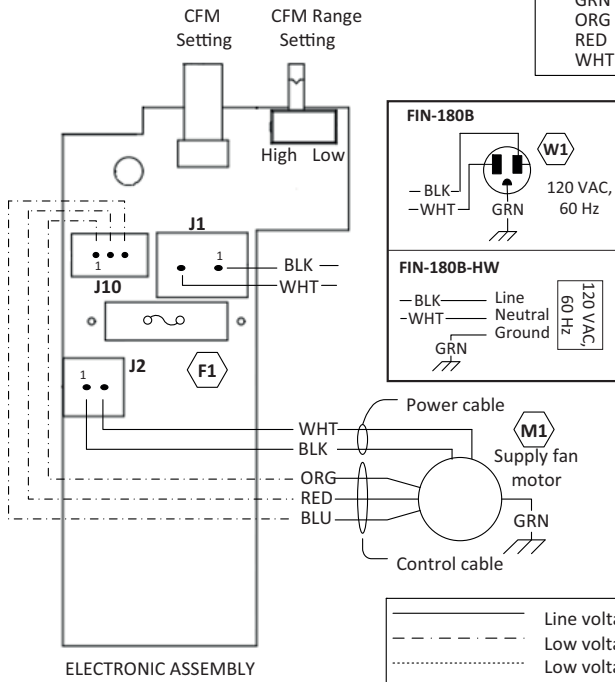
#### LOGIC DIAGRAM



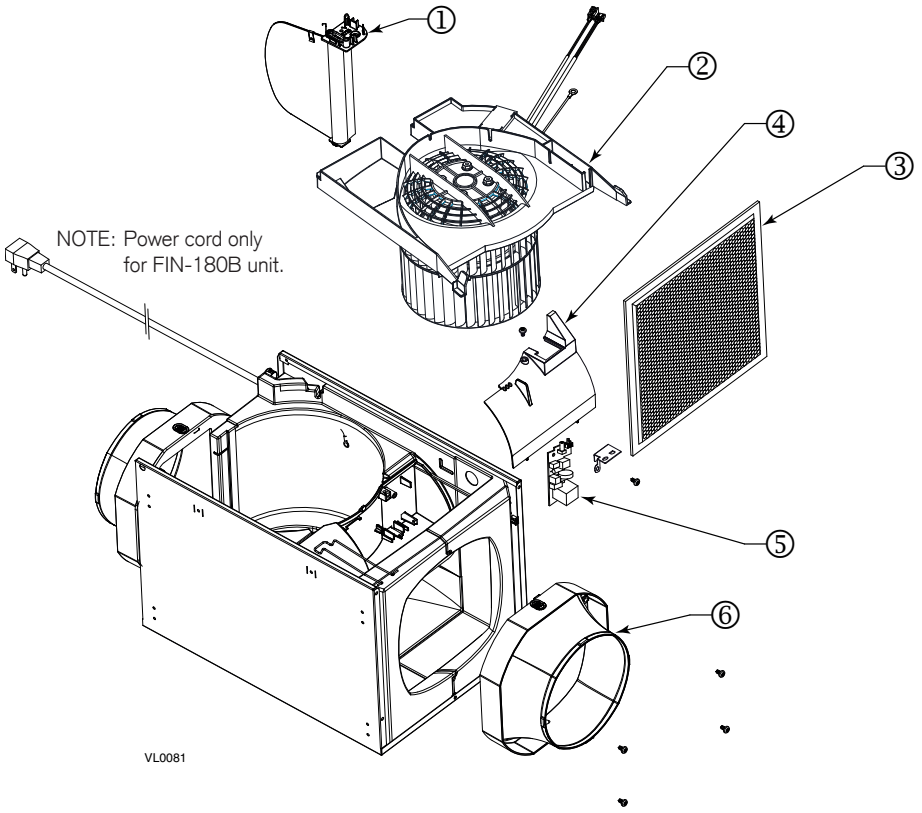
#### WIRING DIAGRAM

##### WIRING COLOR CODE

BLK	BLACK
BLU	BLUE
GRN	GREEN
ORG	ORANGE
RED	RED
WHT	WHITE



## 5. SERVICE PARTS



Item no.	Part no.	Description
1	S97021042	Damper Assembly
2	S97021044	Motor Assembly
3	S97021045	Main Filter
4	S97021048	Electronic Cover
5	S97021046	Electronic Board
6	S97021041	6-in. Port
Not shown	FIN-S1624	Optional Bracket
Not shown	FIN-R1015	Optional Decorative Trim
Not shown	S99010461	Optional MERV 8 Filter
Not shown	S99010462	Optional MERV13 Filter

### Replacement Parts and Repair

In order to ensure your ventilation unit remains in good working condition, you must use Broan-NuTone LLC genuine replacement parts only. The Broan-NuTone LLC genuine replacement parts are specially designed for each unit and are manufactured to comply with all the applicable certification standards and maintain a high standard of safety. Any third party replacement part used may cause serious damage and drastically reduce the performance level of your unit, which will result in premature failing. Also, Broan-NuTone LLC recommends to contact a Broan-NuTone LLC certified service depot for all replacement parts and repairs.

# 6. TROUBLESHOOTING

## ⚠️ WARNING

**Risk of electric shock. Before performing any maintenance or servicing, always disconnect the unit from its power source or turn power off at service panel.**

