

IMPORTANT INSTRUCTIONS - OPERATING MANUAL

QFAM



Inline Fan



READ AND SAVE THESE INSTRUCTIONS
READ CAREFULLY BEFORE ATTEMPTING TO ASSEMBLE, INSTALL, OPERATE OR MAINTAIN THE PRODUCT DESCRIBED. PROTECT YOURSELF AND OTHERS BY OBSERVING ALL SAFETY INFORMATION. FAILURE TO COMPLY WITH INSTRUCTIONS COULD RESULT IN PERSONAL INJURY AND/OR PROPERTY DAMAGE!



RETAIN INSTRUCTIONS FOR FUTURE REFERENCE.

GENERAL SAFETY INFORMATION



When using electrical appliances, basic precautions should always be followed to reduce the risk of fire, electric shock and injury to person, including the following:



WARNING: TO REDUCE THE RISK OF FIRE, ELECTRIC SHOCK AND INJURY TO PERSON, OBSERVE THE FOLLOWING:

- a) Use this unit only in the manner intended by the manufacturer. If you have questions, contact the manufacturer.
- b) Before servicing or cleaning the unit, switch power off at service panel and lock the 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 VENTILATING USE ONLY. DO NOT USE TO EXHAUST HAZARDOUS OR EXPLOSIVE MATERIALS AND VAPORS.

- d) This unit must be grounded.
- e) To avoid motor bearing damage and noisy and/or unbalanced impellers, keep drywall spray, construction dust, etc. off power unit.
- f) Read all instructions before installing or using exhaust fan.
- g) For residential installations only.
- h) Must use suitable weather hood with insect screen to protect air intake.



WARNING: TO REDUCE THE RISK OF FIRE, ELECTRIC SHOCK AND INJURY TO PERSON, OBSERVE THE FOLLOWING:

- a) Installation work and electrical wiring must be done by qualified person(s) in accordance with all applicable codes and standards, including fire-related construction.
- b) Sufficient air is needed for proper combustion and exhausting of gases through the flue (chimney) of fuel burning equipment to prevent back drafting. Follow the heating equipment manufacturer's guideline and safety standards such as those published by the National Fire Protection Association (NFPA) and the American Society for Heating, Refrigeration, and Air Conditioning Engineers (ASHRAE), and the local code authorities.
- c) When cutting or drilling into wall or ceiling, do not damage electrical wiring and other hidden utilities.



WARNING: TO REDUCE THE RISK OF FIRE, ELECTRIC SHOCK, DO NOT USE THIS FAN WITH ANY SOLID-STATE SPEED CONTROL DEVICE.

- a) Must be connected to a GFCI (ground fault circuit interrupter) protected branch circuit.



WARNING: DO NOT USE IN KITCHENS.



WARNING: THE DUCTING FROM THIS FAN TO THE OUTSIDE OF THE BUILDING HAS A STRONG EFFECT ON THE AIR FLOW, NOISE AND ENERGY USE OF THE FAN. USE THE SHORTEST, STRAIGHTEST DUCT ROUTING POSSIBLE FOR BEST PERFORMANCE, AND AVOID INSTALLING THE FAN WITH SMALLER DUCTS THAN RECOMMENDED. INSULATION AROUND THE DUCTS CAN REDUCE ENERGY LOSS AND INHIBIT MOLD GROWTH. FANS INSTALLED WITH EXISTING DUCTS MAY NOT ACHIEVE THEIR RATED AIRFLOW.

SAVE THESE INSTRUCTIONS

INSTALLATION INSTRUCTIONS



CAUTION: MAKE SURE POWER IS SWITCHED OFF AT SERVICE PANEL BEFORE STARTING INSTALLATION.

SECTION 1

Preparing the Fan

1. Unpack fan from the carton and confirm that all pieces are present. In addition to the fan you should have:
 - 2 - Collar Assembly (attached)
 - 2 - Mounting Brackets (attached)
 - 1 - Controller (attached)
 - 1 - Instruction/Safety Sheet
2. Choose the location for your fan. To ensure the best air and sound performance, it is recommended that the length of ducting and the number of elbows be kept to a minimum, the radius of each elbow be as large as possible for the installation, and that insulated hard ducting be used. This fan will require at least 12" of clearance in the ceiling or wall. The fan mounts using the provided mounting brackets or can be surface mounted to a wall or ceiling.

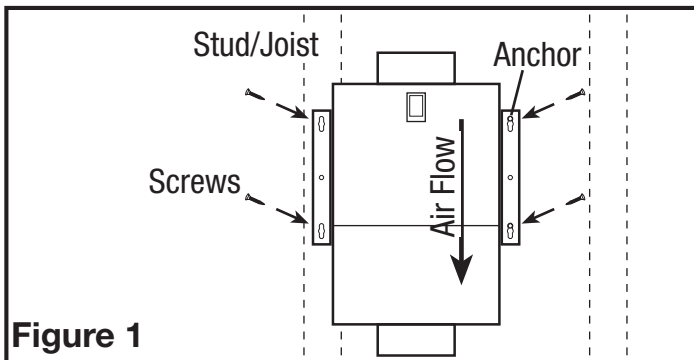
NOTE: The fan must be installed into a location that can be easily accessed once installed.

3. No additional vibration deadening materials are needed for this fan.

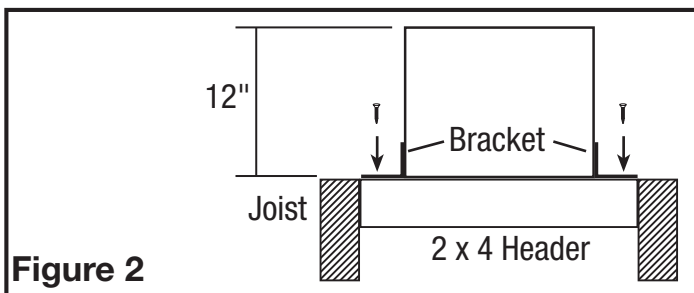
SECTION 2

Mounting the Fan

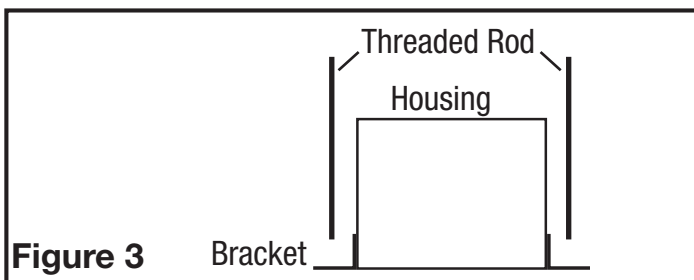
1. Confirm the fan is positioned so the air flow is in the correct direction.
- 2a. **Surface Mounting:** Locate at least one stud or joist. Place the fan in position so that the mounting bracket is centered on the stud or joist and make the location for the four (4) holes. Remove the fan and install properly rated wall/ceiling anchors for the holes that do not go directly into a joist or stud. Position fan in place and secure with screws (not included) (**Figure 1**).



- 2b. **Mounting to a Joist:** Install two - 2 x 4 headers (not included) between the joists. Position the fan housing on top of the headers and secure the mounting brackets with screws (not included) to the header (**Figure 2**).



- 2c. **Hanging Bar Mounting:** Lift unit up onto the threaded rods and secure in place using appropriate hardware (not included) (**Figure 3**).



SECTION 3

Ducting

NOTE: 6" OR LARGER RIGID DUCT IS RECOMMENDED FOR BEST PERFORMANCE.



CAUTION: ALL DUCTING MUST COMPLY WITH LOCAL AND NATIONAL BUILDING CODES.

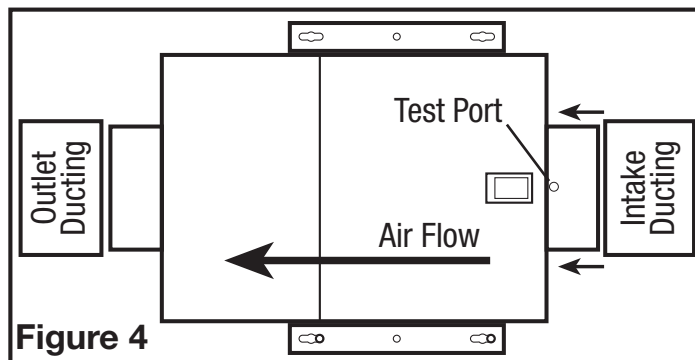
NOTE: The ducting from this fan to the outside of the building has a strong effect on the air flow, noise and energy use of the fan. Use the shortest, straightest duct routing possible for best performance, and avoid installing the fan with smaller ducts than recommended. Insulation around the ducts can reduce energy loss and inhibit mold growth. Fans installed with existing ducts may not achieve their rated air flow.



WARNING: MAKE SURE THE FRESH AIR INTAKE PORT COMPLIES WITH ALL LOCAL AND NATIONAL CODES AND IS LOCATED AT LEAST 6 FEET AWAY FROM SOURCES OF CONTAMINATION SUCH AS BUT NOT LIMITED TO: DRYER, FURNACE OR CENTRAL VACUUM EXHAUSTS, GAS APPLIANCES SUCH AS BBQ GRILLS, GARBAGE BINS OR OTHER EXHAUST PORTS.

NOTE: To ensure quiet operation of in-line and remote fans, each fan shall be installed using sound attenuation techniques appropriate for the installation. For bathroom and general ventilation applications, at least 8 feet of insulated flexible duct shall be installed between the exhaust or supply grille(s) and the fan.

1. Connect the ducting to the fan's duct collar (**Figure 4**). Seal ducting to housing with appropriately rated tape. Use screws or suitable clamps to secure in place. Make sure the fresh air intake is connected to a properly installed intake port that is a suitable weather hood with insect screen to protect air intake. It is recommended that low restriction termination fittings be used.



2. Ensure duct joints and exterior penetrations are sealed with caulk or other similar material to create an air-tight path to minimize building heat loss or gain and to reduce the potential for condensation. Place/wrap insulation around duct and/or fan in order to minimize possible condensation buildup within the duct, as well as building heat loss or gain.

NOTE: At the base of the duct adapter, there is a small diameter test port hole covered with a plastic cap. Make sure the test port is not covered up with the ducting so that it can be accessed for pitot tube testing. To access the port, remove the port cover and insert tube.

SECTION 4

Wiring



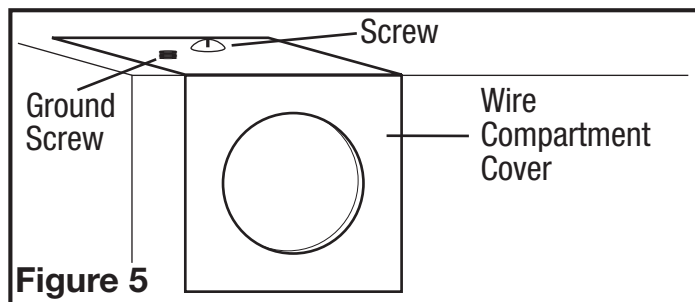
CAUTION: MAKE SURE POWER IS SWITCHED OFF AT SERVICE PANEL BEFORE STARTING INSTALLATION.



CAUTION: ALL ELECTRICAL CONNECTIONS MUST BE MADE IN ACCORDANCE WITH LOCAL CODES, ORDINANCES, OR NATIONAL ELECTRICAL CODE. IF YOU ARE UNFAMILIAR WITH METHODS OF INSTALLING ELECTRICAL WIRING, SECURE THE SERVICES OF A QUALIFIED ELECTRICIAN.

NOTE: This unit includes a side access panel for wiring that does not require the removal of the fan's blower assembly.

1. Remove the wire compartment cover screw and place cover in a secure place (**Figure 5**).



- Pull the loose black, white and green wires out from the wire compartment (additional wires will be present). Install an approved electrical connector to the wire compartment cover (not included). Run a black (hot), white (neutral), and a green or bare ground wire from the supply through the electrical connector. Connect all wires from the supply to their corresponding wires within the wire compartment (**Figure 6**). Use approved methods for all connections.

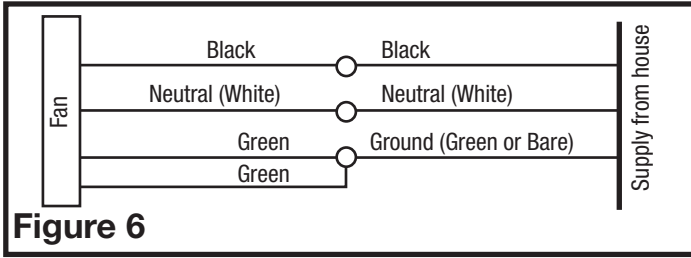


Figure 6

- Carefully tuck wires back inside wire compartment and replace wire compartment cover securing with the screw that was removed earlier.

SECTION 5

Setting the Speed

- Determine the CFM required. The unit can be set from 40 CFM to 120 CFM in increments of 10 CFM. Remove the screw securing the access panel cover in place and open the cover to gain access. Locate the speed control panel inside the unit (**Figure 9**).
- For setting of 40 CFM to 60 CFM:** Place the rocker switch in the "Low" position and the first dial in the "Lower" position then set the second dial to the required CFM (**Figure 10**).
- For settings of 70 CFM to 90 CFM:** Place the rocker switch in the "Low" position and set the first dial to the required CFM (**Figure 10**).
- For settings of 100 CFM to 120 CFM:** Place the rocker switch in the "High" position and set the top dial to the required CFM (**Figure 10**).

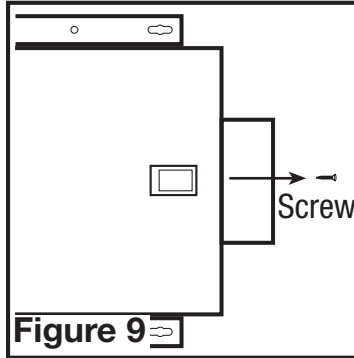


Figure 9

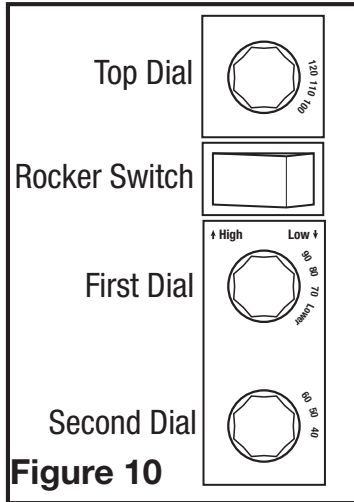


Figure 10

SECTION 6

Optional Air Filter

An air filter (available separately) can be added to this unit to provide additional filtration of the intake air. The unit will accept a 10" x 10" x 2" filter. To install:

NOTE: Adding an air filter will decrease the airflow of the unit. You will need to increase the CFM selected in **SECTION 6** to account for the decreased air flow. Filters must be changed regularly. Refer to the filter manufacturer's recommendations to determine how often the filter should be changed.

- Remove the screw securing the access panel cover in place and open the cover to gain access to the controls and filter area.
- Ensure the filter is facing the correct way and slide the filter into the slot in the housing. Make sure the filter is seated all the way to the bottom of the housing (**Figure 11**).

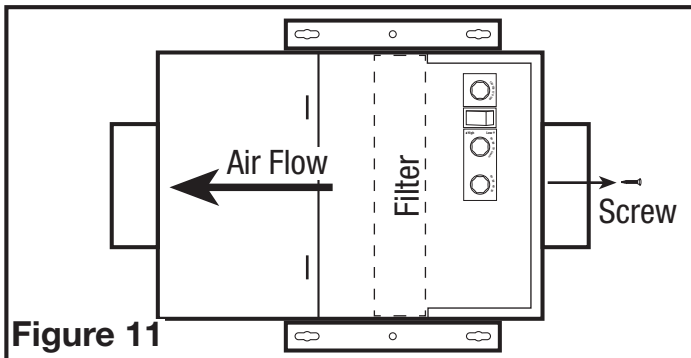


Figure 11

- Close the access panel and reinstall the screw holding the access panel in place.

SECTION 7

Completing the Installation

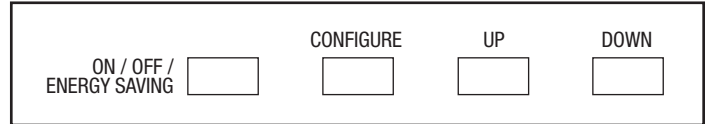
NOTE: When fan is mounted inline and no penetration is made into unconditioned spaces, there is no need to use a sealant appropriate for contact with the building materials present and for the temperature requirements of the installation to prevent air leakage from unconditioned spaces. Additional material (backing rod, ceiling material) are also not required.

- Close the access panel and reinstall the screw holding the access panel in place.
- Restore power and test your installation.

SECTION 8

Setting the Controller

The unit mounted controller monitors temperature and humidity of incoming air and allows the installer to configure optimal ventilation.



With power to the unit turned on, the initial screen will show "OFF". Press the "ON" button to show the current temperature and humidity condition. By pressing the "ON" button, the unit will turn on for continuous air flow using the CFM settings from **SECTION 6** *Setting the Speed*.

ENERGY SAVING MODE

NOTE: This unit is equipped with an Energy Saving Mode that allows you to configure upper and lower limits for temperature and humidity. By setting these limits, you will help prevent extreme temperature or humidity changes from entering into the living space.

- If you have not already pressed the "ON" button in step one of this section, do so now. Press the "CONFIGURE" button once and the display will show a "C" and "Temp Unit" on the right hand side.
- Press the up or down button to display the temperature in Fahrenheit or Celsius.
- Press the "CONFIGURE" button again to set the upper limit temperature. This is the temperature that when the outside air coming into the home exceeds, the fan will stop and enter sampling mode. You will see "Upper Limit" and "Temperature" on the right hand side. Use the "UP" and "DOWN" buttons to adjust the temperature.
- Press the "CONFIGURE" button again to set the upper limit humidity level. This is the humidity level that when the outside air coming into the home exceeds, the fan will stop and enter sampling mode. You will see "Upper Limit" and "Humidity" on the right hand side. Use the "UP" and "DOWN" buttons to adjust the temperature.
- Press the "CONFIGURE" button again to set the lower temperature level. This is the temperature that when the outside air coming into the home falls below, the fan will stop and enter sampling mode. You will see "Lower Limit" and "Temperature" on the right hand side. Use the "UP" and "DOWN" buttons to adjust the temperature.
- Press the "CONFIGURE" button again to set the lower limit humidity level. This is the humidity level that when the outside air coming into the home falls below, the fan will stop and enter sampling mode. You will see "Lower Limit" and "Humidity" on the right hand side. Use the "UP" and "DOWN" buttons to adjust the temperature. Setting this to 0 or "LO" will override the humidity set level. This may be necessary in very low humidity areas of the country.
- Press the "CONFIGURE" button until it returns to the main screen. You will see "ON" in the top left corner of the display. At this point, the information has been stored.

SECTION 9

Using the Controller

- Energy Savings Mode:** To enter the Energy Savings mode, press the "ON/OFF/ENERGY SAVINGS" Button until "Energy Savings" appears on the left side of the display. Energy Savings mode engages the settings configured in **SECTION 8** *Energy Saving Mode*.
- When the unit is on, the display will show the current conditions (temperature and humidity level) as well as if it is in Energy Savings mode or not. Other icons/information that may be on the display include:
 - Fan icon appears when the fan is on.
 - "Hi°F" appears if the intake temperature is above 150°F.
 - "Lo°F" appears if the intake temperature is below 15°F.
 - "Lo%" appears if the intake humidity is below 10%.
- Optional Heater Unit:** An optional heater unit is available for climates that the air coming into the unit falls below 54°F. To install the unit, follow the direction that are included with that unit. The display will show a thermometer icon with either a "1" or "1 2" when the temperature range is at a level where the heating element would come on if present. Stage 1 - "1" turns on when the intake air temperature is between 39°F and 54°F. Stage 1 and 2 "1 2" turn on when the intake air temperature is between 33°F and 39°F.
- To restore the factory setting, make sure the unit is in the "OFF" setting. Hold both the "UP" and "DOWN" buttons for approximately 5 seconds. The "OFF" on the display will flash to confirm the settings have been restored.

SECTION 10

Use and Care



CAUTION: MAKE SURE POWER IS SWITCHED OFF AT SERVICE PANEL BEFORE SERVICING THE UNIT.

1. **Cleaning the Fan Assembly:** Wipe all parts with a dry cloth or gently vacuum the fan. NEVER IMMERSE ELECTRICAL PARTS IN WATER.
2. **Optional Air Filter:** If an optional air filter is installed, it should be checked every month and replaced at least once every 3 months. Reverse the instructions in the **SECTION 7** of these instructions to remove filter.

NOTE: If you notice a large amount of insects and debris in the air filter, this could be a sign that the intake weather hood (roof cap or wall cap) might be compromised and need repair or replacing.

CALIFORNIA RESIDENTS ONLY:



WARNING: THIS PRODUCT CAN EXPOSE YOU TO A CHEMICAL [OR CHEMICALS] KNOWN TO THE STATE OF CALIFORNIA TO CAUSE CANCER.



WARNING: THIS PRODUCT CAN EXPOSE YOU TO A CHEMICAL [OR CHEMICALS] KNOWN TO THE STATE OF CALIFORNIA TO CAUSE REPRODUCTIVE TOXICITY.

Troubleshooting Guide

Trouble	Probable Cause	Suggested Remedy
1. Fan does not operate.	1a. Control setting. 1b. A fuse may be blown or a circuit tripped. 1c. Wiring is not connected properly. 1d. Motor has stopped operating.	1a. Check temperature and humidity level settings. If the intake air is not within the preset range, the fan will not turn on. Either adjust the settings or wait for the intake air temperature and/or humidity to change. 1b. Replace fuse or reset circuit breaker. 1c. Turn off power to unit. Check that all wires are connected. 1d. Replace motor.
2. Fan is operating, but air moves slower than normal.	2a. Obstruction in the ducting. 2b. Filter is clogged	2a. Check for any obstructions in the ducting. The most common are bird nests in the roof cap or wall cap where the fan intakes from the outside. 2b. Change air filter (if equipped). 2c. Change/clear bug filter
3. Fan is operating louder than normal	3a. Motor is loose. 3b. Fan blade is hitting housing of unit.	3a. Turn off power to unit and check that all screws are fully tightened. Restore power to unit. 3b. Call your dealer for service.

LIMITED WARRANTY

WHAT THIS WARRANTY COVERS: This product is warranted against defects in workmanship and/or materials.

HOW LONG THIS WARRANTY LASTS: This warranty extends only to the original purchaser of the product and lasts for three (3) years from the date of original purchase or until the original purchaser of the product sells or transfers the product, whichever first occurs.

WHAT AIR KING WILL DO: During the warranty period, Air King will, at its sole option, repair or replace any part or parts that prove to be defective or replace the whole product with the same or comparable model.

WHAT THIS WARRANTY DOES NOT COVER: This warranty does not apply if the product was damaged or failed because of accident, improper handling or operation, shipping damage, abuse, misuse, unauthorized repairs made or attempted. This warranty does not cover shipping costs for the return of products to Air King for repair or replacement. Air King will pay return shipping charges from Air King following warranty repairs or replacement.

ANY AND ALL WARRANTIES, EXPRESSED OR IMPLIED (INCLUDING, WITHOUT LIMITATION, ANY IMPLIED WARRANTY OF MERCHANTABILITY), LAST ONE YEAR FROM THE DATE OF ORIGINAL PURCHASE OR UNTIL THE ORIGINAL PURCHASER OF THE PRODUCT SELLS OR TRANSFERS THE PRODUCT, WHICHEVER FIRST OCCURS AND IN NO EVENT SHALL AIR KING'S LIABILITY UNDER ANY EXPRESS OR IMPLIED WARRANTY INCLUDE (I) INCIDENTAL OR CONSEQUENTIAL DAMAGES FROM ANY CAUSE WHATSOEVER, OR (II) REPLACEMENT OR REPAIR OF ANY HOUSE FUSES, CIRCUIT BREAKERS OR RECEPTACLES. NOTWITHSTANDING ANYTHING TO THE CONTRARY, IN NO EVENT SHALL AIR KING'S LIABILITY UNDER ANY EXPRESS OR IMPLIED WARRANTY EXCEED THE PURCHASE PRICE OF THE PRODUCT AND ANY SUCH LIABILITY SHALL TERMINATE UPON THE EXPIRATION OF THE WARRANTY PERIOD.

Some states and provinces do not allow limitations on how long an implied warranty lasts, or the exclusion or limitation of incidental or consequential damages, so these exclusions or limitations may not apply to you. This warranty gives you specific legal rights. You may also have other rights which vary from state to state and province to province. Proof of purchase is required before a warranty claim will be accepted.

CUSTOMER SERVICE:

Toll-Free (800) 465-7300

Our Customer Service team is available to assist you with product questions, service center locations, and replacement parts. They can be reached Monday through Friday, 8am-4pm Eastern. Please have your model number available, as well as the type and style (located on the label inside of your product).

Please do not return product to place of purchase.

www.airkinglimited.com

PARTS FOR DISCONTINUED, OBSOLETE AND CERTAIN OTHER PRODUCTS MAY NOT BE AVAILABLE. DUE TO SAFETY REASONS, MANY ELECTRONIC COMPONENTS AND MOST HEATER COMPONENTS ARE NOT AVAILABLE TO CONSUMERS FOR INSTALLATION OR REPLACEMENT.

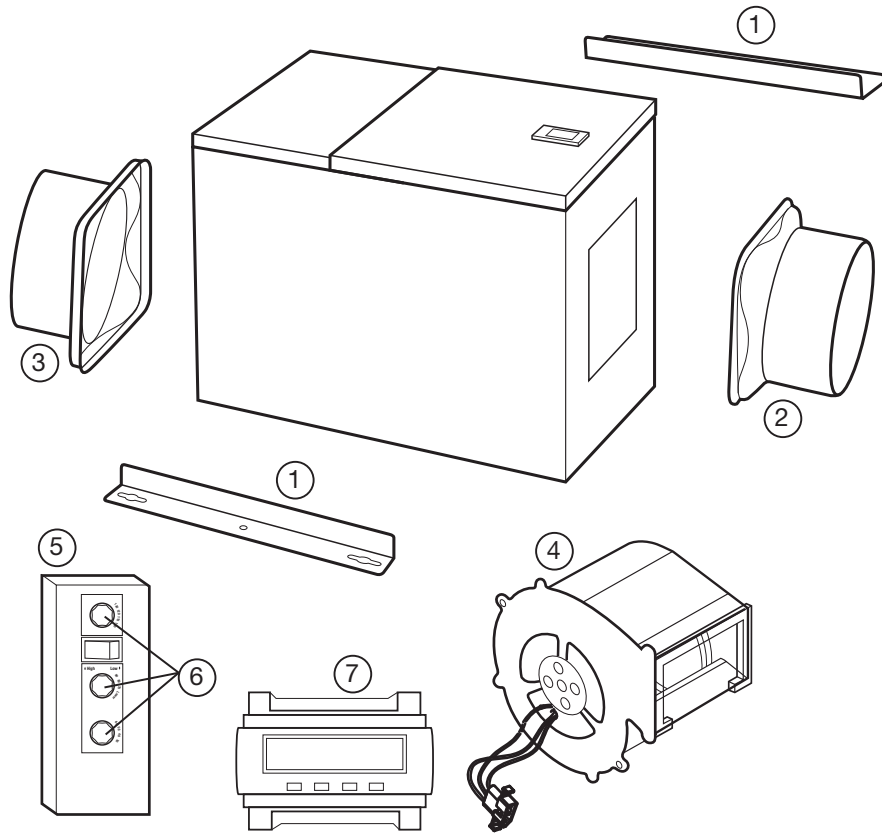
Installer: _____

Installation Date: _____

Place of Purchase: _____

Model Number: _____

REPLACEMENT PARTS DIAGRAM



#	Qty.	Description	Replacement Part #
1	2	Mounting Brackets	5S1650001
2	1	6" Metal Collar (Intake)	5S1650002
3	1	6" Metal Collar (Outlet)	5S1650003
4	1	Blower Assembly	5S2202013
5	1	Wire Compartment Assembly	5S1650100
6	3	Adjustment Knobs	5S1299802
7	1	LCD Controller	5S1650004

NOTES: