

INSTALLATION INSTRUCTIONS MODELS FRAS90/120 FRAK50/80/90/100/110/130

READ AND SAVE THESE INSTRUCTIONS.

IMPORTANT SAFEGUARDS.

CAUTION: To reduce the risk of fire and to properly exhaust air, be sure to duct air outside. Do Not vent exhaust air into spaces within walls or ceilings or into attics, crawl spaces, or garages.

WARNING: To reduce the risk of fire or electric shock, Do Not use this fan with any solid-state speed control device.

WARNING: TO REDUCE THE RISK OF FIRE OR ELECTRIC SHOCK OR INJURY TO PERSONS OBSERVE THE FOLLOWING.

- Use this unit only in the manner intended by the manufacturer. If you have any questions, contact the manufacturer.
- Before servicing or cleaning 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.

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

- Installation work and electrical wiring must be done by a qualified person (s) in accordance with all applicable codes and standards, including fire-related construction.
- 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 of Heating, Refrigeration, and Air-Conditioning Engineers (ASHRAE), and the local code authorities.
- When cutting or drilling into wall or ceiling, do not damage electrical wiring and other hidden utilities.
- Ducted fans must always be vented to the outdoors.
- If this unit is to be installed over a tub or shower, it must be marked as appropriate for the application and be connected to a GFCI (Ground Fault Circuit Interrupter) - protected branch circuit.
- NEVER place a switch where it can be reached from a tub or shower.

This fan must be installed as per UL and CUL rated ceiling assembly (refer to fig. 2). This will require the installation of a minimum 3/8" fire rated gypsum board under the subfloor and a minimum 5/8" gypsum board to cover the top of the fan housing.

To install this fan you should not have to remove the fan's blower assembly. You gain access to the wiring compartment via the triangular wire cover on the outside of the fan housing. If for some reason you wish to remove the fan's blower it is secured in place with one screw through the venturi, once removed you can release the blower from the lances in the housing and lift the blower out. Place it somewhere so it does not get damaged.

MOUNTING THE HOUSING. REFER TO FIG. 2.

AS SHOWN BELOW THE CEILING DAMPER FRAME WILL REQUIRE A CUTOOUT OF 11-5/16" x 9-1/2". AFTER THE INSTALLATION IS COMPLETE, SEAL ANY GAPS BETWEEN THE DAMPER FRAME AND CEILING DRYWALL WITH CAULK CARRYING THE APPROPRIATE UL RATING.

- Select the best location to mount the housing in the ceiling. As per UL and CUL fire resistance construction, install a minimum 3/8" Fire Rated gypsum board 18" long so that it is centered above the fan. The gypsum board must span the distance between the joists, typically 14.5" for joists on 16" centers.
- Select the most convenient electrical knockout and remove it, remove the triangular wire cover.
- Insert the 4 slide rails into the channels on the housing side.
- Adjust the housing height so the housing will be flush with the finished ceiling.
- Secure the 4 slide rails to the joist using wood screws. Make sure you install a washer at the head of each screw as shown below. This will ensure the screw head does not slip out of the mounting rail.
- Once the 4 slide rails have been secured in place you will have to install the 2 rail supports on both sides of the housing. They hook onto the bottom of the rail channels and are secured at the top via two screws.

DUCTING.

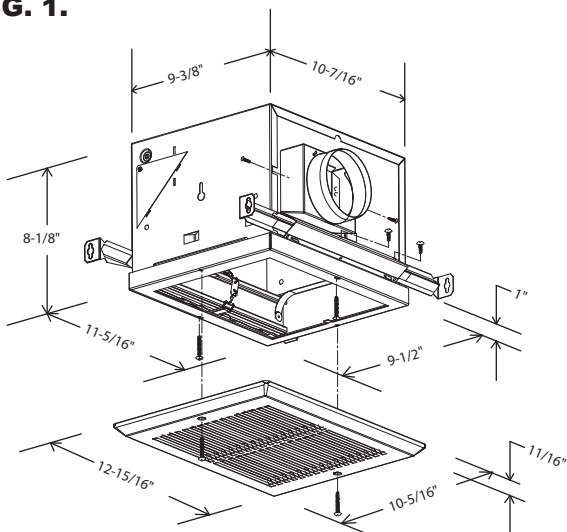
Note: All ducting must comply with local and national building codes.

- Ensure any tape holding the damper in place is removed and that the damper is operating freely.
- Connect the ducting to the fan's duct collar. Secure in place using duct tape or a screw clamp. Always duct the fan to the outside through a wall or roof cap.

ELECTRICAL WIRING.

CAUTION: MAKE SURE THE POWER IS TURNED OFF BEFORE BEGINNING THIS INSTALLATION.

FIG. 1.



Note: All wiring must comply with local and national codes. You MUST ground this fan.

- Run wiring from an approved wall switch carrying the appropriate rating. One neutral (White), one ground (Green or Bare Copper), and one hot (Black lead connected to the switch). Secure the electrical wires to the housing using an approved electrical connector. Make sure you leave enough wiring in the box to make connection to fan's wiring.
- Connect the white wire to the white wire on the fan's receptacle. Connect the black wire to the black wire on the fan's receptacle. Connect the ground from the house to the fan's ground.
- Retrieve the fan's triangular wire cover and secure in place with the #6 screw removed earlier.
- From below spin the fan's blower wheel to ensure it moves freely.

COMPLETING THE INSTALLATION.

Once the fan housing has been installed and the ceiling drywall is in place you can complete the fan's installation CEILING DAMPER & GRILL INSTALLATION.

CAUTION: The ceiling damper supplied is spring loaded and has the potential to release suddenly when handled improperly. A damaged spring or defective fusible link can allow the damper to close violently into the handler's hand or arm, causing serious injury. Care should be exercised when handling and installing spring loaded dampers. It is recommended that gloves be worn by handlers and installers.

The ceiling damper supplied with the unit is designed to install only in Air-King Model AKFH2 housings.

- Install the ceiling damper & ceiling damper frame into the opening of the fan housing. The ceiling damper frame is designed to fit on the outside of the housing and the ceiling damper will sit on the inside of the fan housing.
- Once positioned in place secure the ceiling damper frame to the fan housing using two of the supplied #8 x 1" screws. Carefully drive the screws through the two oblong slots on the ceiling damper frame into the screw retaining lances on each side of the fan housing. Complete this step slowly as you do not want to damage the lances on the housing.
- Once the ceiling damper is installed and secure, position the metal fan grill in place aligning the two holes in the fan grill with the two extruded holes on the ceiling damper frame. Use the remaining two #8 x 1" screws to secure the grill onto the fan.

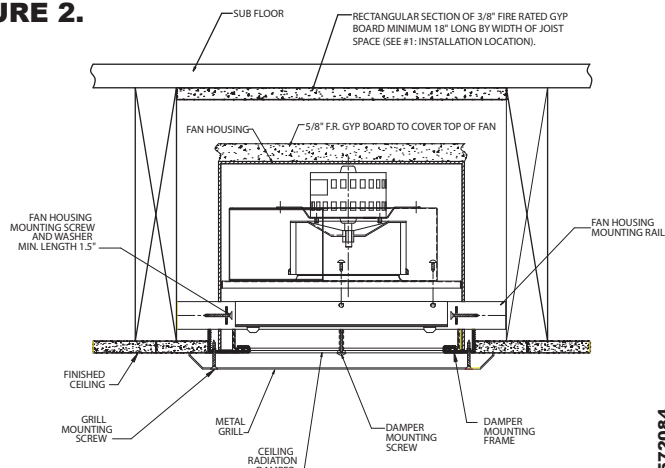
CARE AND MAINTENANCE

CAUTION - BEFORE CLEANING OR SERVICING TURN OFF THE POWER TO THE FAN.

- Clean the grill using a mild soap or detergent only, no abrasives.
- The fan motor is permanently lubricated, DO NOT oil the motor.
- Once a year it is a good idea to inspect and clean the internal parts of the fan, over time debris will build up on the fan blade causing the motor to work harder than it should. When cleaning the internal parts be extremely careful working around the spring loaded ceiling damper. Wear gloves and use a vacuum with an extension hose to clean inside the fan.

REQUIREMENTS FOR INSTALLATION IN UL/ULC RATED CEILING ASSEMBLIES
SEE UL AND ULC FIRE RESISTANCE DIRECTORY

FIGURE 2.



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 five (5) 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:

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.

FRAK Series Supplemental

Additional Installation Requirements

1. 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. Larger duct sizes will reduce noise and airflow restrictions.
2. It is recommended that low restriction termination fittings be used.
3. No additional vibration deadening materials are needed for this fan.
4. 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 is recommended. If gaps between unit housing and ceiling are great, additional material (backing rod, ceiling material) may be required.

NOTE: This fan is rated for direct insulation contact (Type IC) and it is recommended that this fan be completely covered by insulation in order to reduce heat loss or gain to unconditioned space.

Supplément à la série FRAK

Exigences d'installation supplémentaires

1. Pour garantir la meilleure qualité d'air et performance acoustique, il est recommandé que la longueur de la canalisation et le nombre de coudes soient réduits au minimum, que le rayon de chaque coude soit aussi grand que possible pour l'installation, et que des conduits rigides isolés soient utilisés. Des conduits plus gros réduiront le bruit et les restrictions du débit d'air.
2. Il est recommandé que les raccords d'extrémité basse de restriction sont utilisées.
3. Aucun matériel amortissant de vibrations supplémentaire n'est nécessaire pour ce ventilateur.
4. Il est recommandé d'utiliser un scellant approprié pour le contact avec les matériaux de construction actuels et pour les besoins de la température de l'installation, afin d'empêcher les fuites d'air à partir des espaces non conditionnés. S'il y a des grands écarts entre le boîtier de l'appareil et le plafond, du matériel supplémentaire (tige de support, matériel de plafond) peut être nécessaire.

NOTE : Ce ventilateur est conçu pour le contact d'isolation directe (type IC). Il est aussi recommandé que ce ventilateur soit complètement recouvert par l'isolation afin de réduire la perte de chaleur ou de gagner de l'espace inconditionné.

