

# **INSTALLATION INSTRUCTIONS MODELS FRAS90/120** FRAK80/90/110/130

**READ AND SAVE THESE INSTRUCTIONS.** 

IF YOU DISCOVER ANY MISSING COMPONENTS OR DAMAGE CALL 1-800-465-7300 BETWEEN 8:00 AM & 3:30 PM EASTERN TIME MONDAY TO FRIDAY.

#### 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.

- a) Use this unit only in the manner intended by the manufacturer. If you have any questions, contact the manufacturer.
- b) Before servicing or cleaning unit, switch power off at service panel and lock the service disconnecting means to prevent power from being switched on accedentally. 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.

- a) 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.
- 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 of Heating, Refrigeration, and Air-Conditioning Engineers (ASHRAE), and the local code authorities.
- When cutting or drilling into wall or ceiling, do not damage electical wiring and other hidden utilities.
- d) Ducted fans must always be vented to the outdoors.
- e) 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.
  f) NEVER place a switch where it can be reached from a tub or shower.

To ensure the best air and sound preformance it is recommended that the length of ducting and the number of elbows be kept to a minimum, and that insulated hard ducting be used. Larger duct sizes will reduce noise and airflow restrictions.

To install this fan you will should not have to remove the fan's blower assembly. You gain access to to the wiring compartment via the trianglar 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 some where so it does not get damaged.

**MOUNTING THE HOUSING. REFER TO FIG. 2.** AS SHOWN BELOW THE CEILING DAMPER FRAME WILL REQUIRE A CUTOUT OF 11-5/16" x 9-1/2" IF AFTER THE INSTALLATION IS COMPLETE ANY GAP IS PRESENT BETWEEN THE DAMPER FRAME AND CEILING DRY WALL SEAL WITH CAULK CARRYING THE APPROPIATE UL RATING.

Select the best location to mount the housing in the ceiling. This fan will require at least 8" of clearance in the ceiling, and will mount through dry wall up to 3/4" thick. The housing will mount between 16" or 24" OCJ.

- 1. Determine the best location to mount the fan.
- 2. Select the most convenient electrical knockout and remove it, remove the trianglar wire cover.
- 3. Insert the 4 slide rails into the channels on the housing side. 4. Adjust the housing height so the housing will be flush with the
- finished ceiling.

  5. 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 in the diagram below This will ensure the screw head does not slip out of mounting rail.
- 6. 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 hood onto the bottom of rail channels and are secured at the top via two

## DUCTING.

Note: All ducting must comply with local and national building codes. 1. Ensure any tape holding the damper in place is removed and that the damper is operating freely.

2. 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 switch off before beginning this installation.

- Note: All wiring must comply with local and national codes. You MUST ground this fan
- 1. 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 electical connector. Make sure you leave enough wiring in the box to make connection to fan's wiring.

  2. 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.
- 3. Retrieve the fan's trianglar wire cover and secure in place with the #6 screw removed earlier.
- 4. From below spin the fan's blower wheel to ensure it moves freely.

#### COMPLETEING THE INSTALLATION.

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

CAUTION: The ceiling damper supplied is spring loaded and has the potential to release suddenly when handled improperly. A damage 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.

1. Install the ceiling damper & ceiling damper frame into the opening of

- the fan housing. The ceiling damper frame is designed fit on the outside of the housing and the ceiling damper will sit on the inside of the fan housing.

  2. 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.

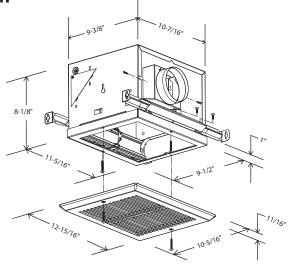
  3. Once the ceiling damper is installed and secure, position the metal fan
- grill in place aligning the two holes in the grill with the two extruded holes on the ceiling damper frame. Use the remaining two #8 x 1" screws to secure the grill onto the fan.

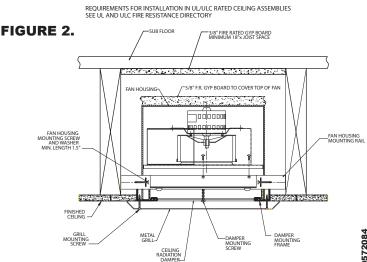
## CARE AND MAINTENANCE

CAUTION - BEFORE CLEANING OR SERVICING TURN OFF THE POWER

- 1. Clean the grill using a mild soap or detergent only, no abrasives.
- The fan motor is permanately 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 vacum with an extension hose to clean inside the fan.

FIG. 1.





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