

READ AND SAVE THESE INSTRUCTIONS

Installer: leave this guide with homeowner.

For Warranty Statement, Service Parts, Technical Support, or to Register your product, please visit our website or call:

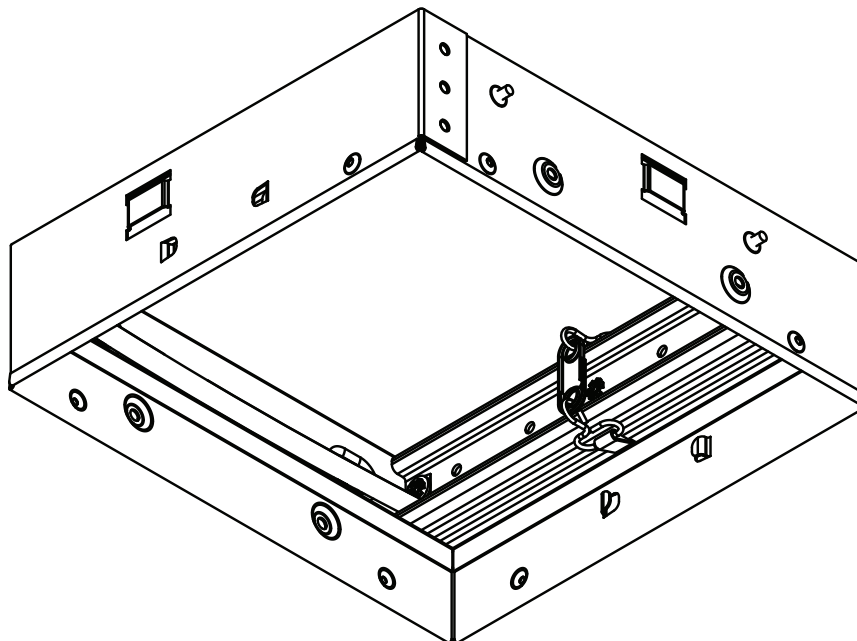
In the United States - Broan.com 800-637-1453 or NuTone.com 888-336-6151

In Canada - Broan.ca or NuTone.ca 877-896-1119

RDM2

Radiation Damper

INSTALLATION GUIDE



Easy installation

Usage

For use with 1, 2 or 3-Hour-Rated Floor-Ceiling and Roof-Ceiling Designs.

Flat Ceiling / Horizontal Mount Only.

For use with the following ventilation fan models:

Broan AE110-B, AE50110DC, AER110KC, AE110K, AE80K, A80-B, A80HD-B, AE50-B, AE80-B, AE80B-B, A110-B, AE50110DCS, AE110S-B, AE80S-B, AE80BS, AE50110DCL, AE80BL-C, AE80L-C, AE110L-C, AE80LK, AE110LK, AE50110DCSL, AE80SL-C, AE110SL-C

NuTone AEN110-B, AN80C-B, AEN50-B, AEN80-B, AEN80B-B, AN110-B, AERN50110DCKC, AERN110K, AERN80K, AERN80KC, AEN80BS, AEN80BL-C, AEN80L-C, AEN110L-C, AERN80LK, AERN110DCSL

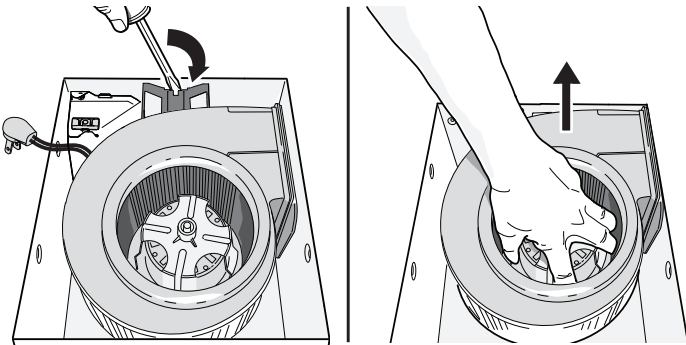
PennBarry ZQ75



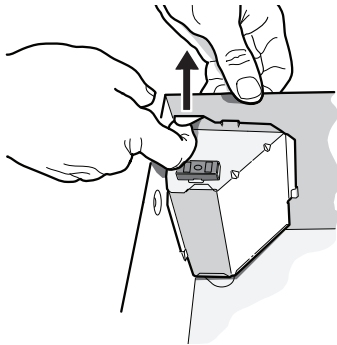
SEE DETAILS ON
 UL CLASSIFICATION
 MARKING ON PRODUCT

Remove Blower & Wiring Panel

The following steps are best performed on a work surface before fan installation. Protect counter tops by placing corrugated sheet under the fan.

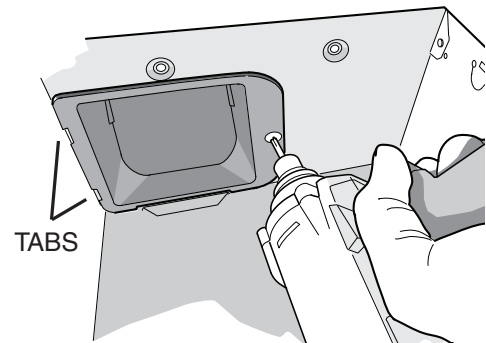


1. Remove blower and all packing material from fan housing.



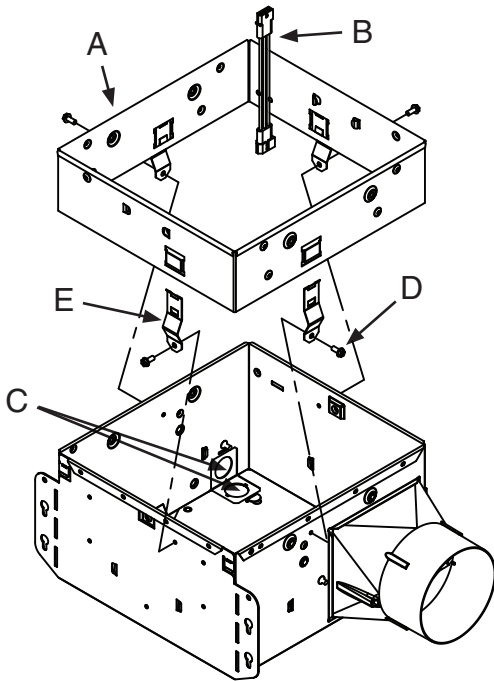
2. Remove wiring panel from fan housing.

Install Duct Connector



3. Install duct connector supplied with fan.
 - a. Push duct connector through opening from inside of housing.
 - b. Engage tabs and secure with #8-18 hex head screw from parts bag.

Attach Radiation Damper Extension to Fan Housing

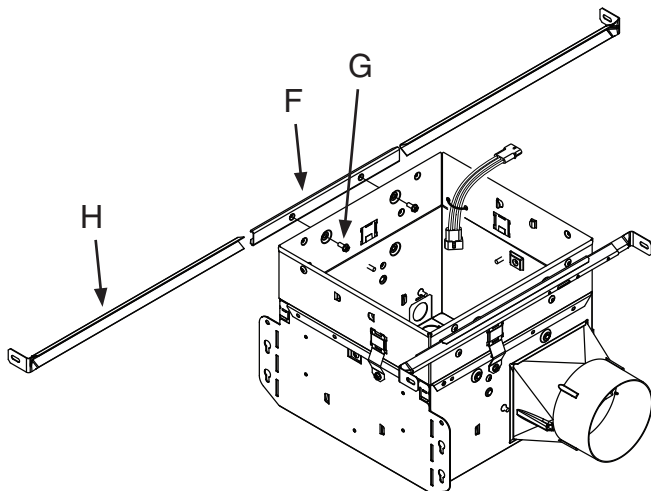


4. Attach **RADIATION DAMPER EXTENSION (A)** to the fan housing.

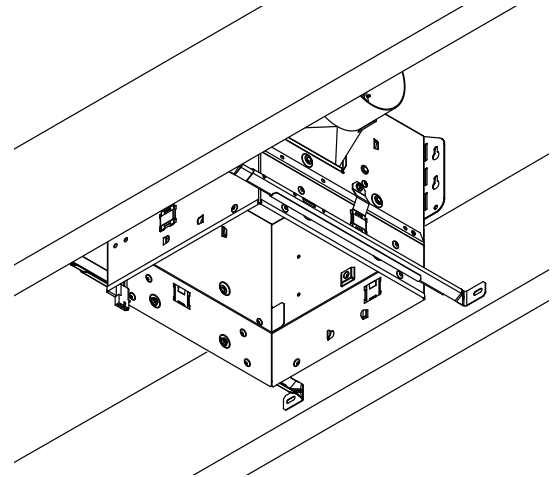
For lighted units only: Make sure **WIRE HARNESS (B)** is positioned above $7/8$ " diameter **ELECTRICAL ACCESS HOLES (C)**.

5. Drill $1/8$ " diameter holes through dimples in housing and use **(4) #8 x 3/8" SHEET METAL SCREWS (D)** and **(4) METAL BRACKETS (E)** supplied in radiation damper parts bag.

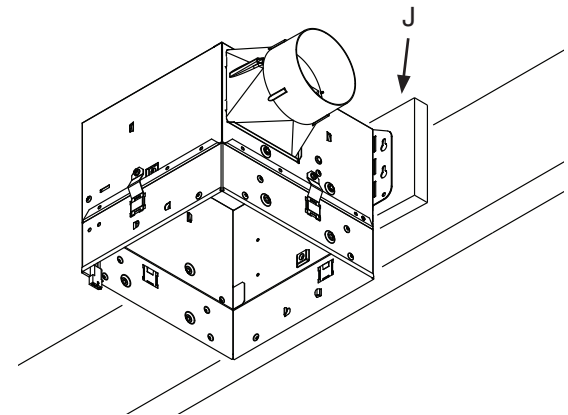
Install Fan Housing



6. If fan will be mounted between ceiling structure, purchase Hanger Bar Kit MHB4 from your local Broan-NuTone dealer or distributor.
- Fasten **(2) MOUNTING CHANNELS (F)** to the fan housing or radiation damper with supplied **#8 HEX HEAD SCREWS (G)**.
 - Install **(2) SUPPORT BARS (H)** per side.



- Lift fan housing up into position in ceiling support structure.
- MAKE SURE BOTTOM EDGE OF RADIATION DAMPER IS FLUSH WITH INTERIOR SIDE OF FINISHED CEILING.**
- Extend support bars and secure to ceiling structure with #8 (M4) sheet metal screws or $1/4$ " diameter bolts with nuts.



7. If the fan will be mounted directly to the ceiling support structure:
- MAKE SURE BOTTOM EDGE OF RADIATION DAMPER IS FLUSH WITH INTERIOR SIDE OF FINISHED CEILING.**
 - Additional **BLOCKING (J)** may be necessary to securely fasten fan housing to ceiling support structure.

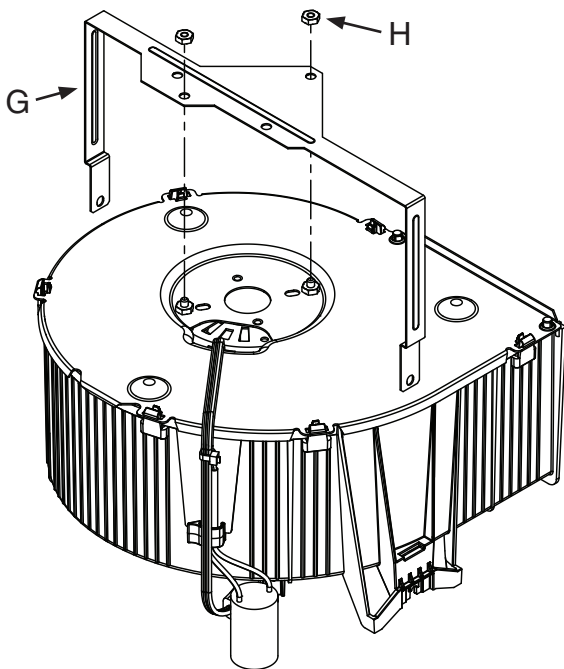
Attach 4-inch Round Metal Duct

8. Attach 4-inch round metal duct to the duct connector and discharge air to an outside location. Seal all joints with duct tape.
9. Make sure damper flap opens and closes freely without binding.

Connect Wiring

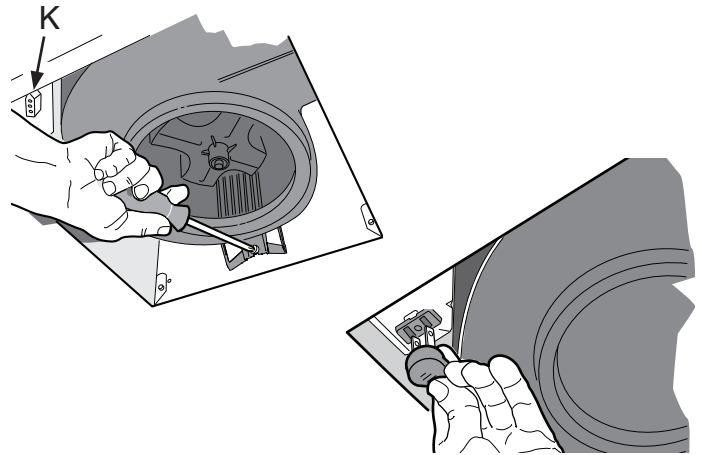
10. Refer to instructions supplied with the fan for various electrical wiring options.
11. Install electrical box cover removed in Step 2. Secure with one #8-18 hex head screw provided in fan parts bag.
12. Lighted fan models: Connect **WIRE HARNESS (B)** from radiation damper extension to the **CONNECTOR (K)** on the wiring box.
Non-lighted fan models: **WIRE HARNESS (B)** from radiation damper extension is not used and can be removed. Cut wire tie and discard the harness.

Attach Support Bracket to Fan Blower



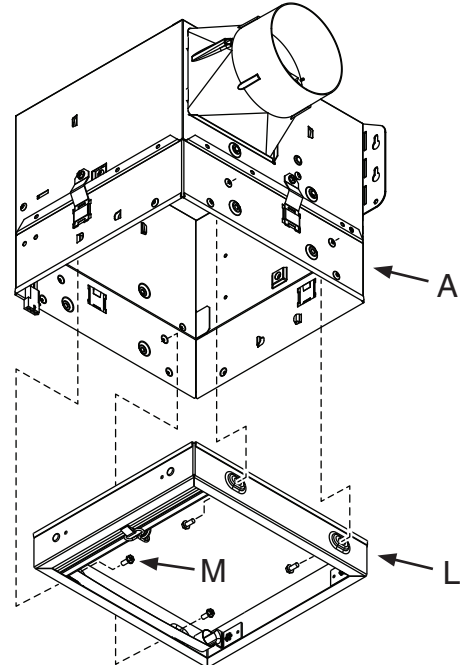
13. Assemble **SUPPORT BRACKET (G)** (supplied with radiation damper) to fan blower as shown. Secure the bracket to motor studs with **(2) #8-32 HEX NUTS (H)** supplied in radiation damper parts bag.

Install Blower into Fan Housing



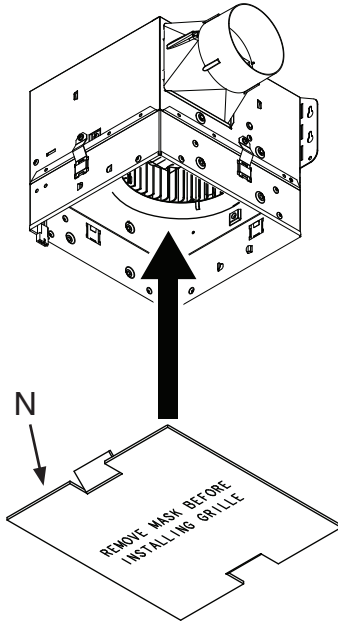
14. Push blower straight up in fan housing and snap into position.
15. Secure blower with **(2) #8-18 hex head screws** from the fan parts bag.
16. Plug blower motor into receptacle located on wiring panel.

Attach Radiation Damper



17. Align **RADIATION DAMPER (L)** holes with holes in the fan **EXTENSION (A)**.
18. Push radiation damper up into the fan extension. Make sure flange is installed as shown. Label inside damper shows correct installation position.
19. Fasten radiation damper to the fan extension with **(4) #8 X 3/8" SHEET METAL SCREWS (M)** from the radiation damper parts bag.

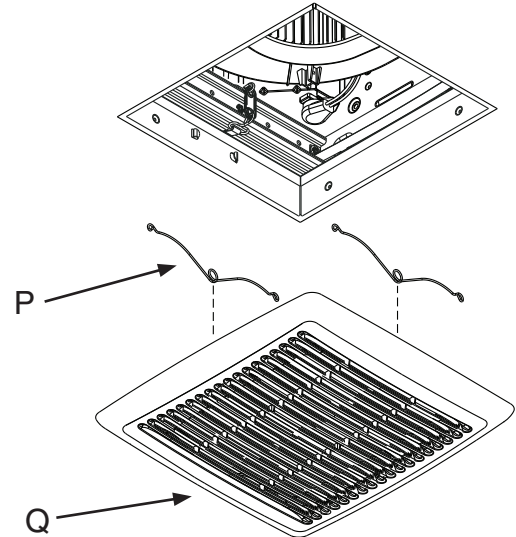
Install Mask, Finish Ceiling and Install Plaster Supports



20. Install **CORRUGATED MASK (N)** supplied with the fan to protect unit from drywall spray, construction dust, etc.
21. Finish the ceiling around radiation damper opening. Ceiling opening must be no larger than the outside of the radiation damper.

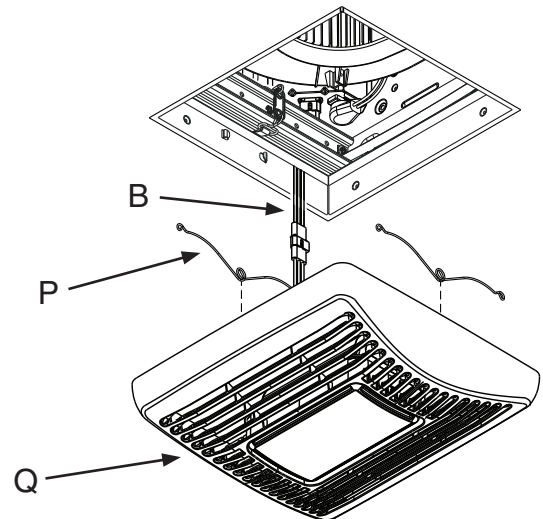
Install Grille

REMOVE THE MASK BEFORE INSTALLING GRILLE OR OPERATING FAN.



FOR FAN MODELS WITHOUT LIGHTS

22. Squeeze **GRILLE SPRINGS (P)** and slide into tabs on the radiation damper frame. Push **GRILLE (Q)** until it's tight against ceiling surface.
23. Follow instructions packed with the fan to finish the installation.



FOR FAN MODELS WITH LIGHTS

22. Attach connector from the **WIRE HARNESS (B)** to mating connector from the grille.
23. Squeeze **GRILLE SPRINGS (P)** and slide into tabs on the radiation damper frame. Push **GRILLE (Q)** until it's tight against ceiling surface.
24. Follow instructions packed with the fan to finish the installation.

Service Feature For Fans

If your ventilation fan needs service, the inner damper can be removed from the outer frame without disturbing the surrounding ceiling material.

Remove the grille and disconnect all electrical connections from the grille (if lighted).

Remove screws from plaster supports. Make sure plaster supports are reinstalled after servicing fan.

Remove (4) screws from the radiation damper. Completely remove radiation damper to access blower. Replace the inner damper before operating fan.