

**READ AND SAVE THESE INSTRUCTIONS**

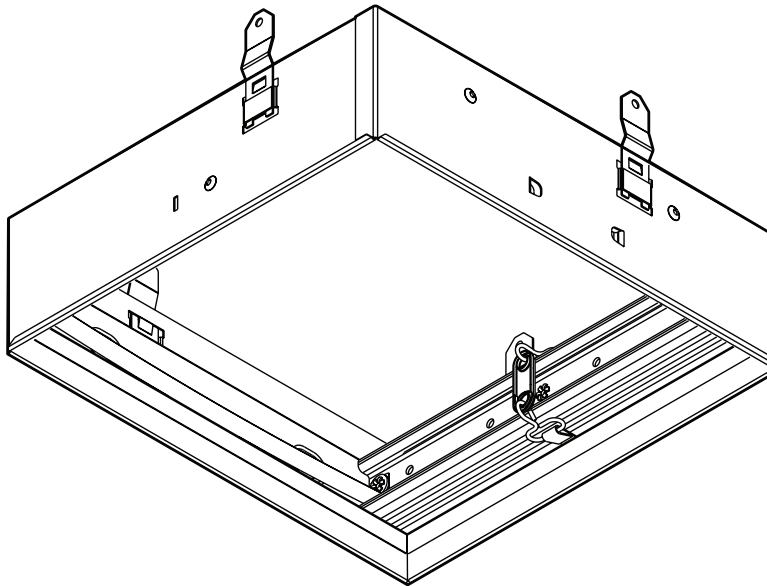
Installer: leave this guide with homeowner.

**RDFU**

Premium

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** QT130E, QT130LE, QT140E, QT140LE, QTXE150, QTXE150FLT, RB80, RB80L, RB80L1, RB110, RB110L, RB110L1, XB50, XB80, XB110, XB50L, XB50L1, XB80L, XB80L1, XB110L, XB110L1, XB110H, XB110HL, XB110HL1, ZB80, ZB110, ZB80L, ZB80L1, ZB110L, ZB110L1, ZB110H, ZB110HL, ZB110HL1, ZB80M, ZB110M, ZB80ML, ZB80ML1, ZB110ML, ZB110ML1

**NuTone** QTN130E, QTN130LE1, QTXEN150, QTXEN150FLT, RN80, RN80L, RN110, RN110L, XN50, XN80, XN110, XN50L, XN80L, XN110L, XN110H, XN110HL, ZN80, ZN110, ZN80L, ZN110L, ZN110H, ZN110HL, ZN80M, ZN110M, ZN80ML, ZN110ML

**Twin City** T080E, T110E, T150LP

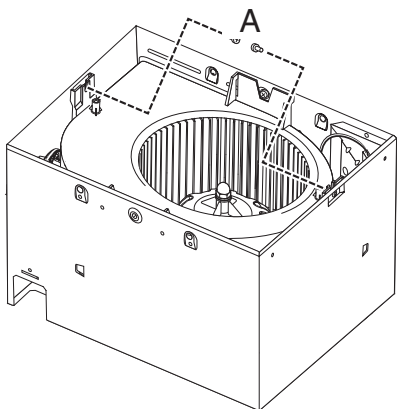


SEE DETAILS ON  
UL CLASSIFICATION  
MARKING ON PRODUCT

## Prepare Fan

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

1. Install (2) #8 x ½" HEX HEAD SHEET METAL SCREWS (A) supplied in fan parts bag.



2. Slide (4) MOUNTING BRACKETS (B) into slots on four sides of RADIATION DAMPER EXTENSION FRAME (C). Make sure they snap into place and are securely engaged after assembly.
3. Center the radiation damper over the fan housing. Make sure NOTCH (D) is correctly positioned relative to the DUCT CONNECTOR OPENING (E).
4. Align radiation damper brackets with holes in the fan housing. Secure brackets to fan housing with (4) #8 X 3/8" SHEET METAL SCREWS (F) (Supplied in radiation damper parts bag.)

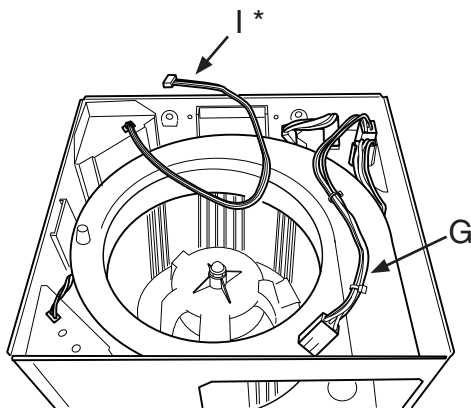
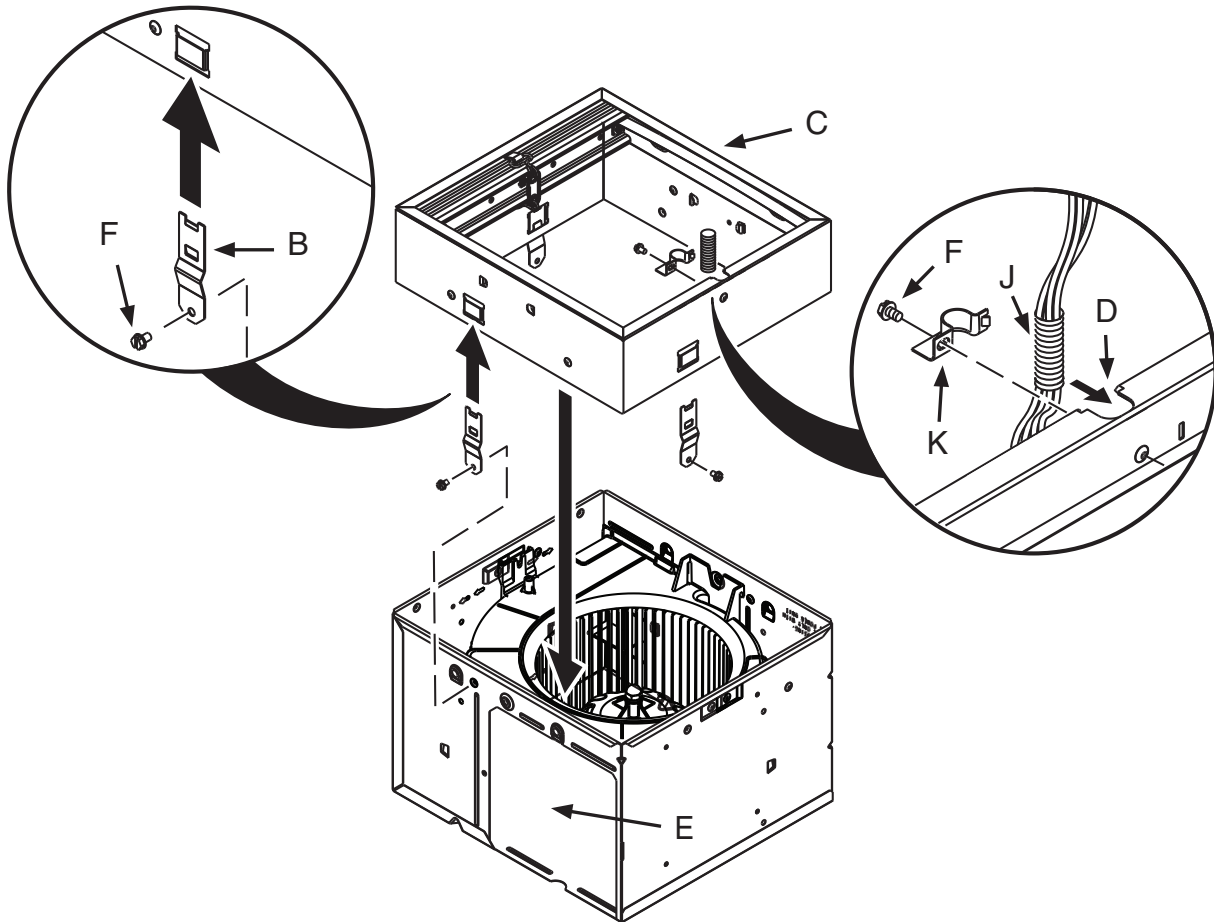
### Steps 5 through 9: Lighted Fans, Humidity-Sensing Fans, or Motion Sensing Fans ONLY.

For fans not equipped with a light, a humidity sensor or a motion sensor: Skip to Step 10.

5. Make lead wires longer. Purchase jumper kit model RDJUMPU or RDJUMPU1 from your local Broan dealer or distributor.

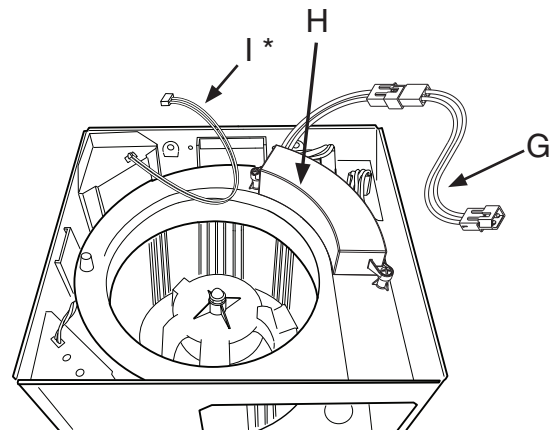
Each kit contains:

- 1 - Jumper for lighted fan models
- 1 - Jumper for sensor fan models
- 6a. For fans equipped with incandescent or fluorescent lights, connect one end of the LIGHTING JUMPER (G) to mating connector in the fan's wiring box.
- 6b. For fans equipped with LED lights, connect one end of the LIGHTING JUMPER (G) to mating connector from LED DRIVER (H).
- 6c. For fans equipped with humidity or motion sensors, connect one end of the SENSOR JUMPER (I) to mating connector in the fan's wiring box.
7. Route JUMPER(S) (G) (I) towards the NOTCH (D) in the damper frame.
8. Press jumper wires into PLASTIC SPLIT TUBE INSULATOR (J) (supplied in damper parts bag). Push plastic split tubing into NOTCH (D) opening.
9. Align tab on CABLE CLAMP (K) with mating slot in damper extension. Secure clamp with supplied #8 x 3/8" SHEET METAL SCREW (F).



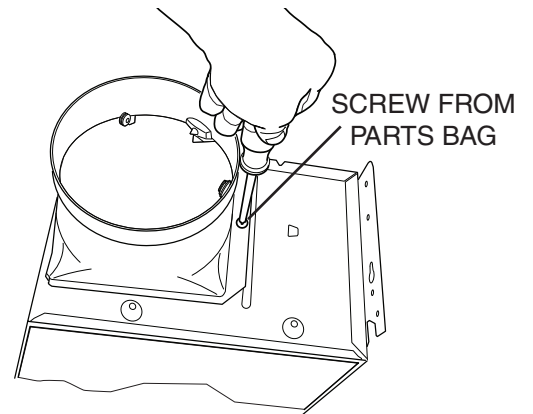
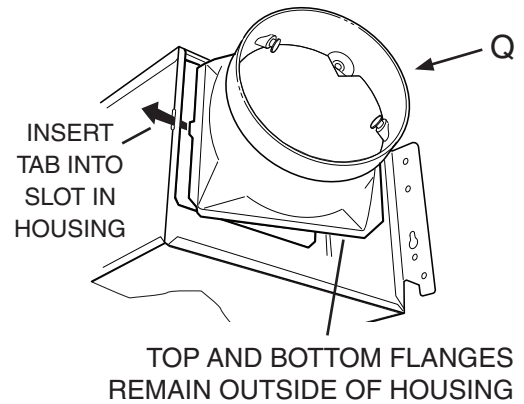
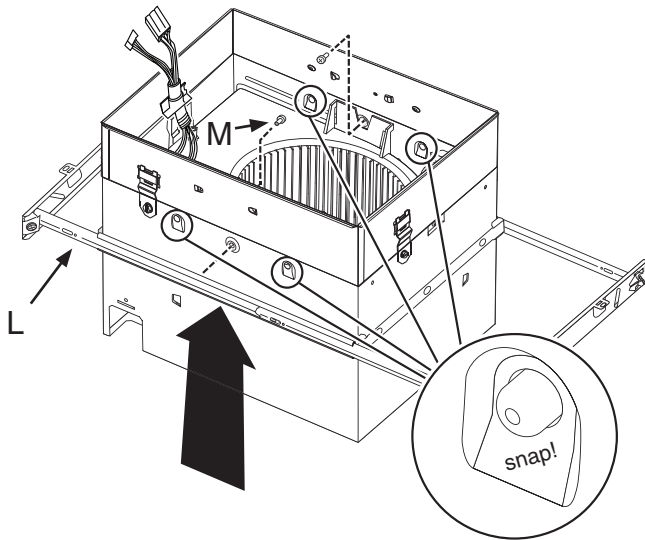
**FANS WITH INCANDESCENT  
OR FLUORESCENT LIGHTS**

I \* Jumper for Motion or  
Humidity-Sensing units only.



**FANS WITH LED LIGHTS**

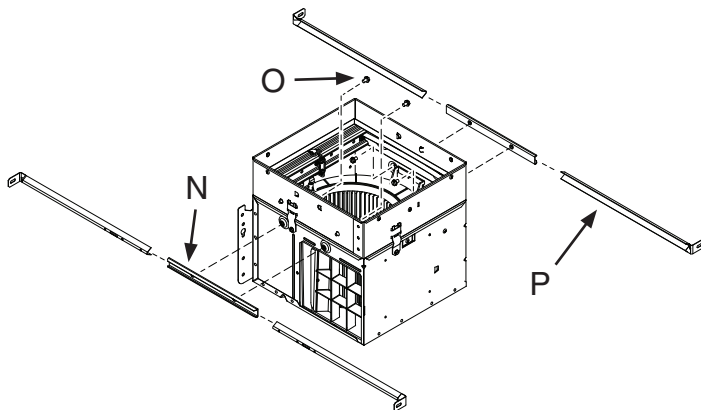
I \* Jumper for Motion or  
Humidity-Sensing units only.



**Step 10:**  
RB, XB, ZB, RN, XN, ZN Models ONLY

10. Slide **MOUNTING FRAME (L)** onto fan housing. Pull frame up around housing until it snaps into place.

Secure mounting frame to fan housing with **(2) #8 X 3/8" FLAT HEAD SHEET METAL SCREWS (M)** supplied in the fan parts bag.



12. Install **6" DUCT CONNECTOR (Q)** to fan housing and secure with screw supplied in fan parts bag.

**Step 11:**  
QT Models ONLY

11. Attach **MOUNTING CHANNELS (N)** to housing using **SCREWS (O)** supplied in fan parts bag.

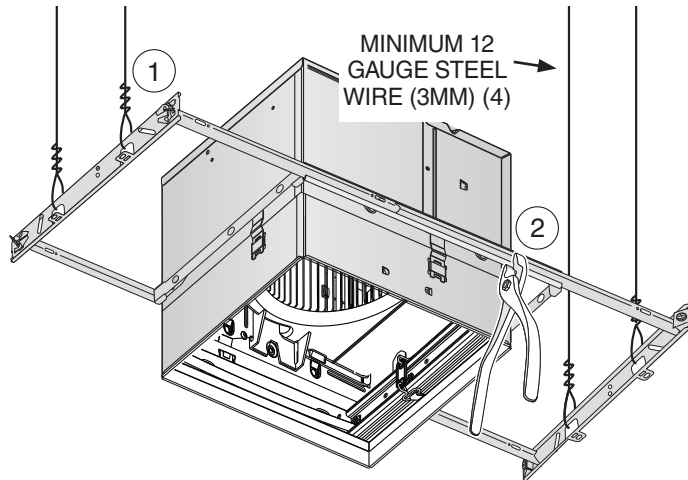
Insert **SLIDE BRACKETS (P)** into mounting channels.

## Install Fan / Radiation Damper

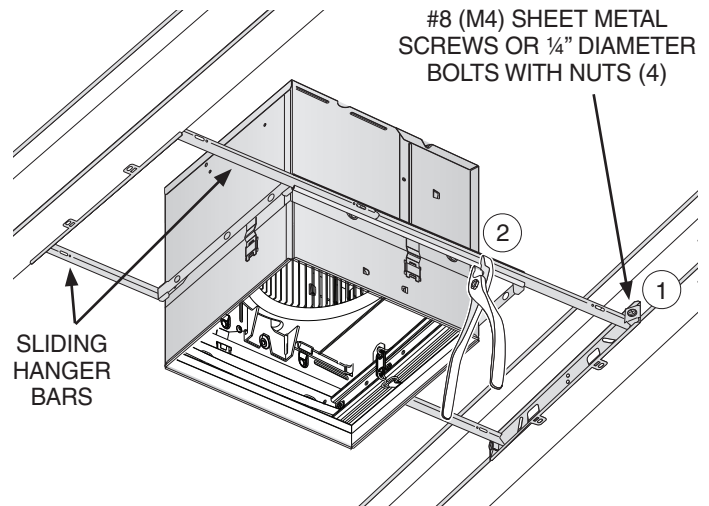
### Install Fan / Radiation Damper In Ceiling

MAKE SURE FINISHED CEILING IS FLUSH WITH BOTTOM EDGE OF RADIATION DAMPER.

13. If the fan assembly is hung from the structure above, **MINIMUM 12 GAUGE STEEL WIRE (3MM)** must be used to suspend the fan. Use one wire on each side of fan and secure to mounting channels as shown.

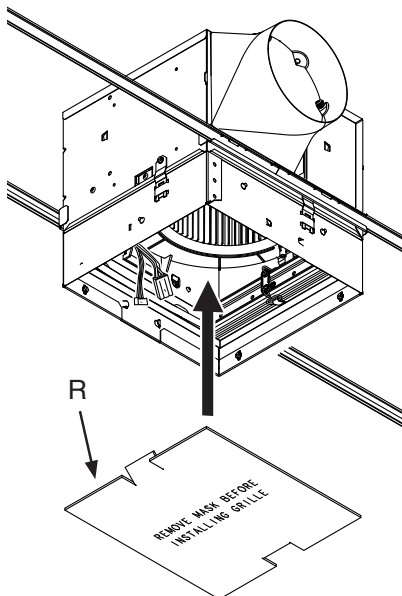


14. If the fan is directly mounted to adjacent ceiling structure, use **#8 (M4) SHEET METAL SCREWS OR 1/4" DIAMETER BOLTS WITH NUTS** to fasten **SLIDING HANGER BARS**. Sliding hanger bars are provided to allow for accurate positioning of fan between ceiling members.



15. Refer to instructions supplied with the fan for various electrical wiring configurations.

## Finish Installation

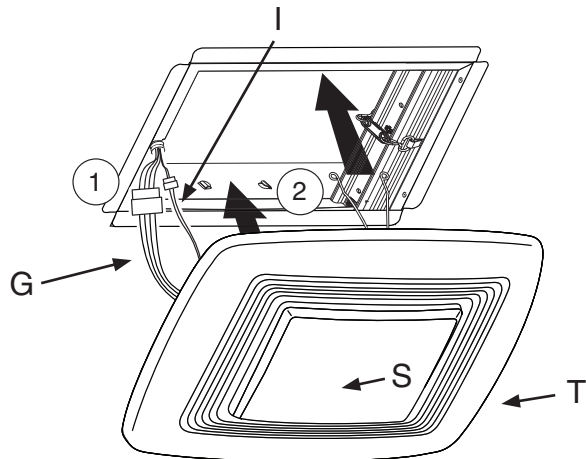


16. Install **MASK (R)** supplied with the fan to protect damper and fan from drywall spray, construction dust, etc.

17. Finish ceiling around radiation damper opening. Ceiling opening must be no larger than the outside of the radiation damper.

18. Remove **MASK (R)** from housing.

## Install Grille



### Step 19: Lighted Fans ONLY.

19. Attach connector from the **LIGHT JUMPER WIRE (G)** to mating connector(s) from the grille.

### Step 20: Humidity-Sensing Fans and Motion Sensing Fans ONLY.

20. Connect **SENSOR JUMPER WIRE (I)** into the sensors connector located on the grille.
21. Squeeze **2 GRILLE SPRINGS (S)** and slide into tabs on the radiation damper frame. Push **GRILLE (T)** until it's tight against ceiling surface.

If additional clearance is required between ceiling and grille, replace grille springs with longer ones (provided in parts bag).

## 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.

Remove (4) screws, then lower the inner damper to access ventilation fan. Replace the inner damper before operating fan.