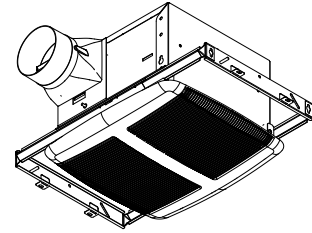


## ULTRA SILENT™ VENTILATION FAN



### READ AND SAVE THESE INSTRUCTIONS

#### WARNING

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

1. Use this unit only in the manner intended by the manufacturer. If you have questions, contact the manufacturer at the address or telephone number listed in the warranty.
2. 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.
3. Installation work and electrical wiring must be done by a qualified person(s) in accordance with all applicable codes and standards, including fire-rated construction codes and standards.
4. Sufficient air is needed for proper combustion and exhausting of gases through the flue (chimney) of fuel burning equipment to prevent backdrafting. 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.
5. When cutting or drilling into wall or ceiling, do not damage electrical wiring and other hidden utilities.
6. Ducted fans must always be vented to the outdoors.
7. Acceptable for use over a tub or shower when connected to a GFCI (Ground Fault Circuit Interrupter) - protected branch circuit (ceiling installation only).
8. This unit must be grounded.

#### CAUTION

1. For general ventilating use only. Do not use to exhaust hazardous or explosive materials and vapors.
2. To avoid motor bearing damage and noisy and/or unbalanced impellers, keep drywall spray, construction dust, etc. off power unit.
3. Please read specification label on product for further information and requirements.

To register this product visit:  
[www.broan.com](http://www.broan.com)

#### CLEANING & MAINTENANCE

For quiet and efficient operation, long life, and attractive appearance - lower or remove grille and vacuum interior of unit with the dusting brush attachment.

The motor is permanently lubricated and never needs oiling. If the motor bearings are making excessive or unusual noises, replace the motor with the exact service motor. The impeller should also be replaced.

#### OPERATION

Use an on/off switch or speed control to operate this ventilator. See "Connect Wiring" for details. Use of speed controls other than the Broan Models 78V and 78W may cause a motor humming noise.

#### WARRANTY

##### BROAN THREE YEAR LIMITED WARRANTY

Broan warrants to the original consumer purchaser of its products that such products will be free from defects in materials or workmanship for a period of three years from the date of original purchase. THERE ARE NO OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE.

During this three-year period, Broan will, at its option, repair or replace, without charge, any product or part which is found to be defective under normal use and service.

THIS WARRANTY DOES NOT EXTEND TO FLUORESCENT LAMP STARTERS AND TUBES. This warranty does not cover (a) normal maintenance and service or (b) any products or parts which have been subject to misuse, negligence, accident, improper maintenance or repair (other than by Broan), faulty installation or installation contrary to recommended installation instructions.

The duration of an implied warranty is limited to the three-year period as specified for the express warranty. Some states do not allow limitation on how long an implied warranty lasts, so the above limitation may not apply to you.

BROAN'S OBLIGATION TO REPAIR OR REPLACE, AT BROAN'S OPTION, SHALL BE THE PURCHASER'S SOLE AND EXCLUSIVE REMEDY UNDER THIS WARRANTY. BROAN SHALL NOT BE LIABLE FOR INCIDENTAL, CONSEQUENTIAL OR SPECIAL DAMAGES ARISING OUT OF OR IN CONNECTION WITH PRODUCT USE OR PERFORMANCE. Some states do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation may not apply to you.

This warranty gives you specific legal rights, and you may also have other rights, which vary from state to state. This warranty supersedes all prior warranties.

To qualify for warranty service, you must (a) notify Broan at the address or telephone number stated below, (b) give the model number and part identification and (c) describe the nature of any defect in the product or part. At the time of requesting warranty service, you must present evidence of the original purchase date.

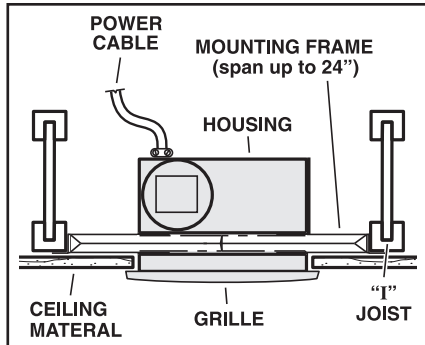
Broan-NuTone LLC Hartford, Wisconsin  
[www.broan.com](http://www.broan.com) 800-558-1711

**Installer: Leave this manual with the homeowner.**

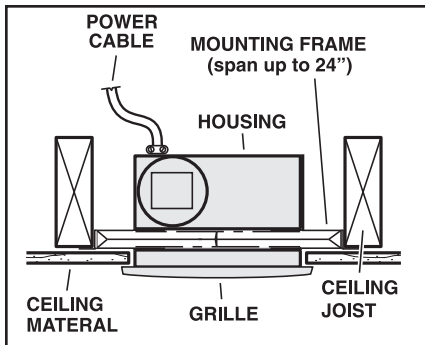
## TYPICAL INSTALLATIONS

A mounting frame is provided to allow for accurate positioning of the fan anywhere in the room. It can be used with I-joists, standard joists and trusses, from 16" to 24" on-center.

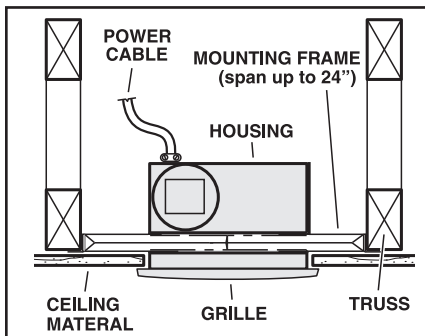
Housing mounted anywhere between I-joists using mounting frame.



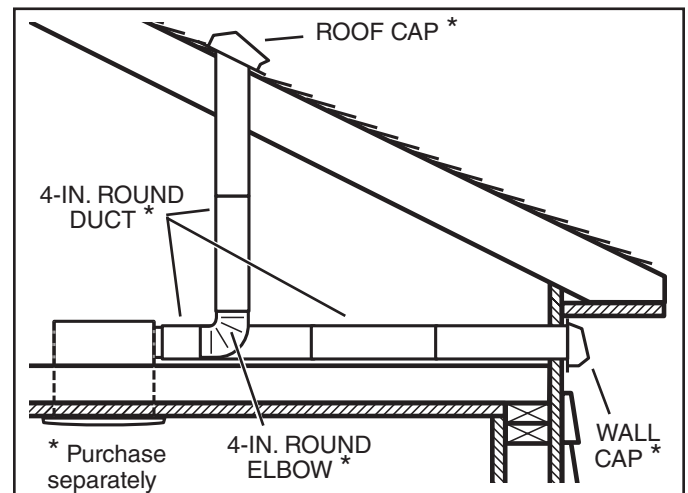
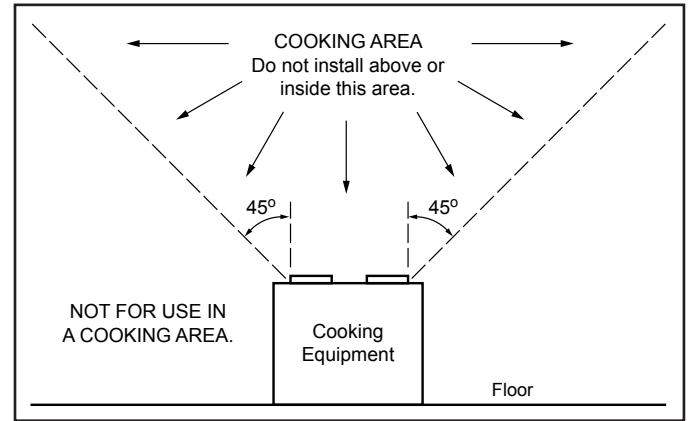
Housing mounted anywhere between standard joists using mounting frame.



Housing mounted anywhere between trusses using mounting frame.



## PLAN THE INSTALLATION



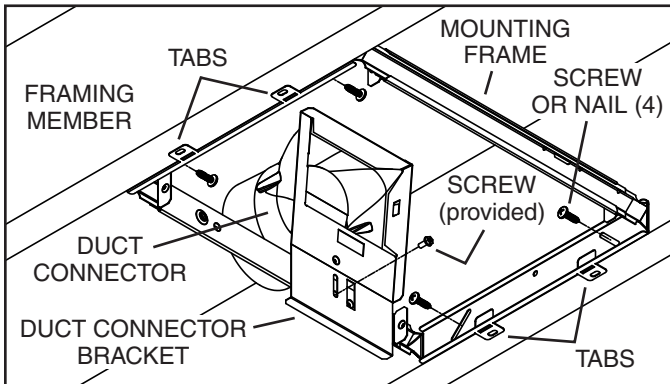
The unit will operate most quietly and efficiently when located where the shortest possible duct run and minimum number of elbows will be needed.

Use a roof cap or wall cap that has a built-in damper to reduce backdrafts.

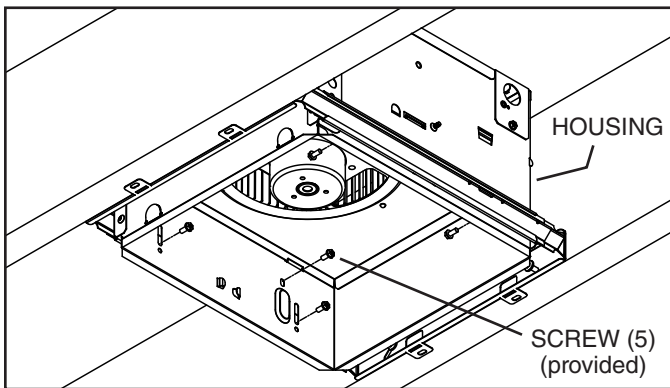
Plan to supply the unit with proper line voltage and appropriate power cable.

## NEW CONSTRUCTION INSTALLATION

### INSTALL MOUNTING FRAME & HOUSING



1. Hold one side of the mounting frame so the tabs touch the bottom edge of the framing member. Nail or screw mounting frame in place. Extend the mounting frame to the opposite framing member, and nail or screw in place.
2. Snap the duct connector onto the duct connector bracket. Attach the duct connector bracket to the mounting frame using the screw provided. Position the bottom edge of the duct connector bracket so it will be flush with the finished surface of the ceiling and tighten the screw.

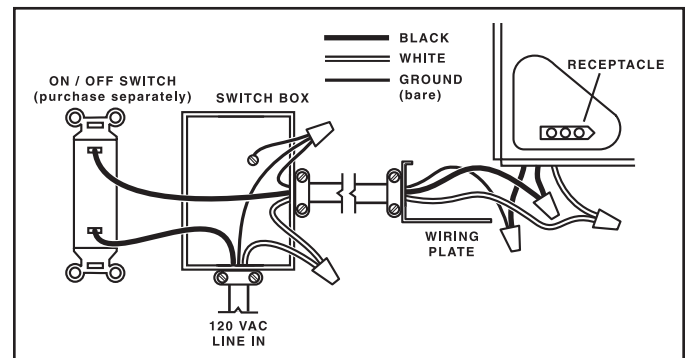
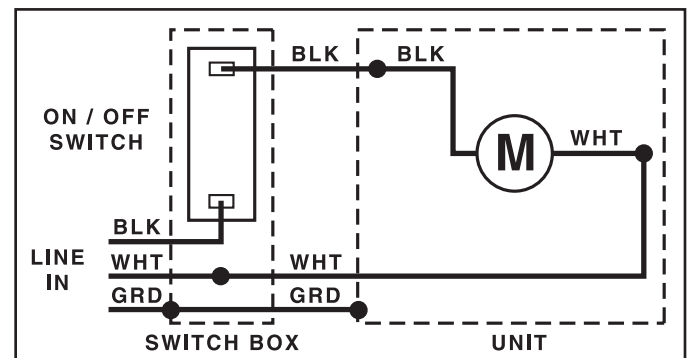


3. Position the two movable brackets of the mounting frame directly across from each other and insert the housing into the mounting frame until it touches the duct connector bracket. Secure the housing to the mounting frame and duct connector bracket using the (5) screws provided. Position the housing horizontally as desired.

### INSTALL DUCTWORK

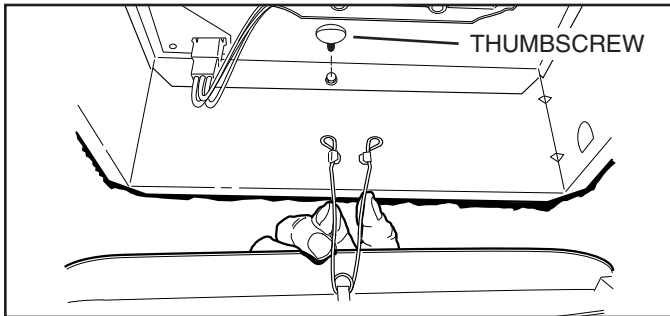
4. Connect 4" round ductwork to duct connector. Run ductwork to a roof cap or wall cap. Tape all ductwork connections.

### INSTALL ELECTRICAL WIRING



5. Run 120 VAC housing wiring to installation location. Use a UL approved connector to secure house wiring to wiring plate. Connect wires as shown in wiring diagrams.

## INSTALL THUMBSCREW & GRILLE



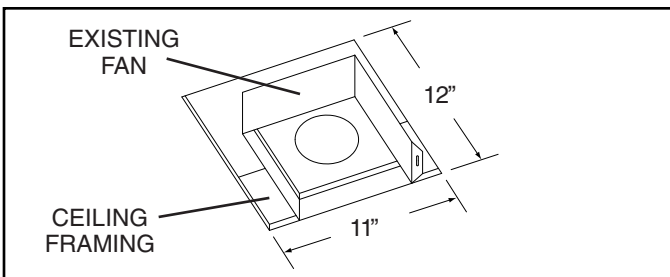
6. Install thumbscrew through flange of motor plate as shown.
7. Install ceiling material. Cut out around housing.
8. Squeeze grille springs and insert them into slots on each side of housing. Push grille against ceiling.

## EXISTING CONSTRUCTION INSTALLATION

### REMOVE EXISTING FAN

#### WARNING

Before removing existing fan, 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.

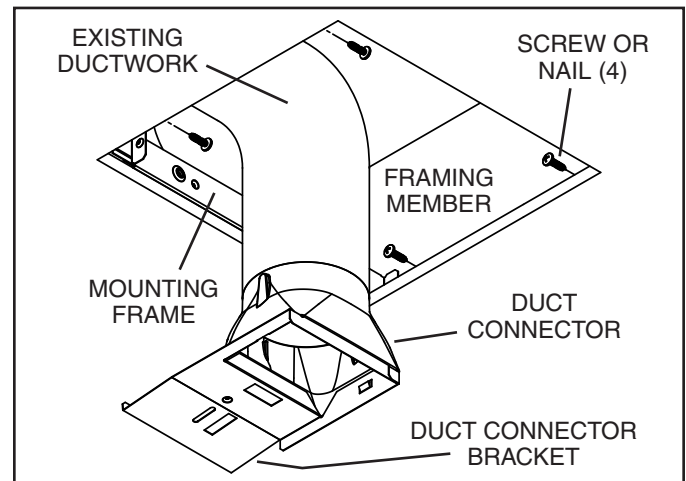


1. Enlarge the ceiling opening around the existing fan to 11" x 12". The 11" dimension should run parallel to the ceiling framing.
2. Carefully remove the existing fan housing from the ceiling. Disconnect the ductwork and electrical wiring from the housing and leave them in place above the ceiling.

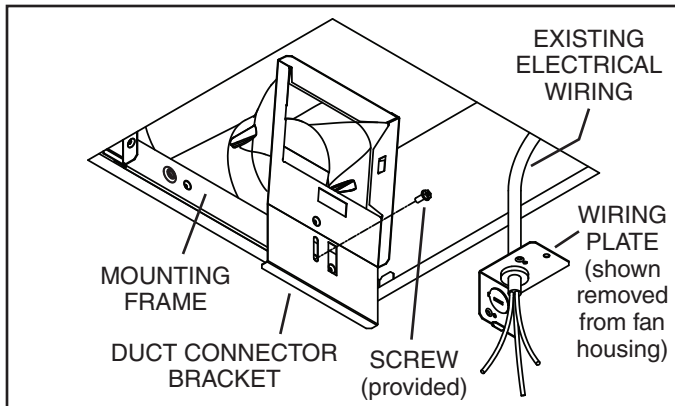
### INSTALL MOUNTING FRAME

3. Bend the four tabs back against the sides of the mounting frame. Insert the mounting frame through the ceiling opening and let it rest on the back side of the ceiling material, directly over the ceiling opening. Position one side of the mounting frame so it touches the framing member. Nail or screw mounting frame in place. Extend the mounting frame to the opposite framing member, and nail or screw in place.

### CONNECT DUCTWORK

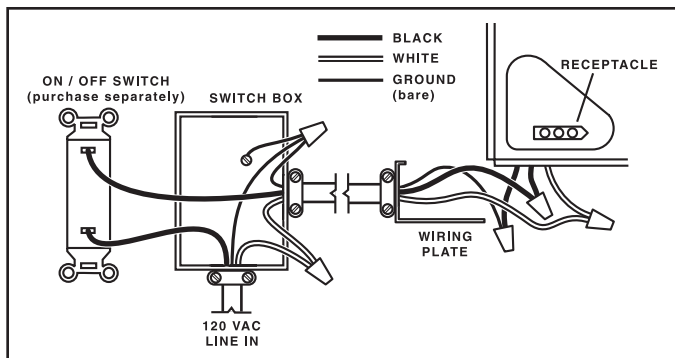
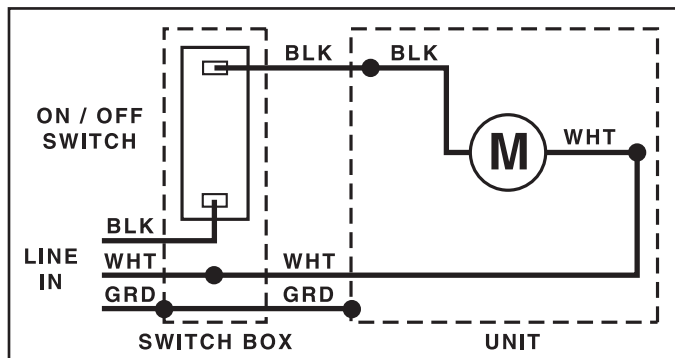


4. Snap the duct connector onto the duct connector bracket. Retrieve the existing ductwork from above the ceiling and connect it to the duct connector. Tape the connection. NOTE: Existing rigid ductwork will require a short length of 4" flexible duct. Existing 3" ductwork will require a 3" to 4" transition.



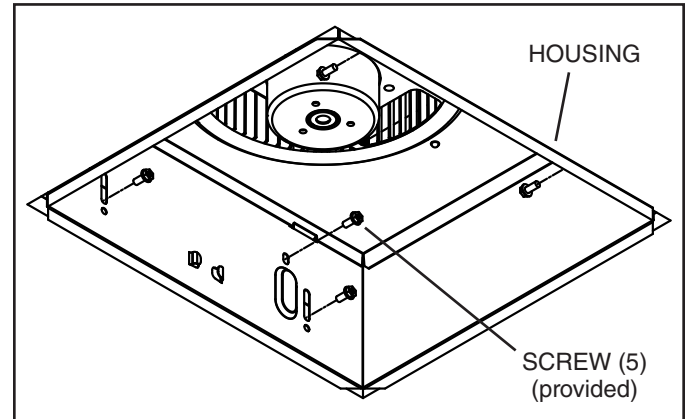
- Attach the duct connector bracket to the mounting frame using the (1) screw provided. Position the bottom edge of the duct connector bracket so it touches the finished surface of the ceiling and tighten the screw.

## CONNECT ELECTRICAL WIRING



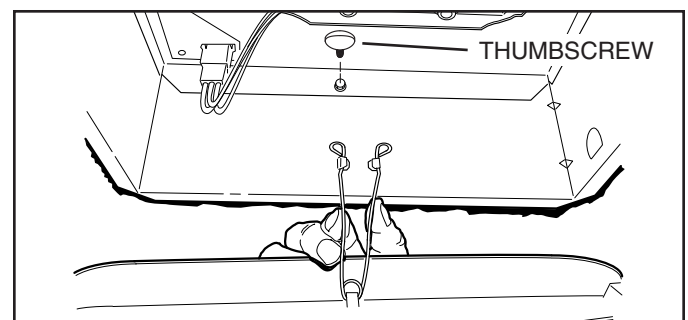
- Retrieve the existing electrical wiring from above the ceiling and use a UL approved connector to secure it to the wiring plate. Re-attach wiring plate to fan housing, if necessary. Connect wires as shown in wiring diagrams.

## INSTALL HOUSING



- Position the two movable brackets of the mounting frame directly across from each other and insert the housing into the mounting frame until it touches the duct connector bracket. Secure the housing to the mounting frame and duct connector bracket using the (5) screws provided.

## INSTALL THUMBSCREW & GRILLE



- Install thumbscrew through flange of motor plate as shown.
- Squeeze grille springs and insert them into slots on each side of housing. Push grille against ceiling.

## SERVICE PARTS

Key No.	Part No.	Description
1	97018118	Housing
2	97016449	Duct Connector-4"
3	98010102	Wiring Plate
4	99170245	Screw, #8-18 X .375 (7 Req.)
5	97018010	Wire Panel/Harness Assembly
6	97017853	Blower Assembly
7	97016497	Grille Assembly (includes key no. 8)
8	99140199	Grille Spring (2 req'd)
9	98010614	Duct Connector Bracket
10	97018138	Frame Assembly
11	99420665	Thumbscrew, #8-18 x .375

Order service parts by "Part No." - not by "Key No."

**SERVICE NOTE** To remove Blower Assembly: Unplug motor. Remove thumbscrew (11) from motor plate flange. Find the single **TAB** on the motor plate (located next to the receptacle). Push up near motor plate tab while pushing out on side of housing. Or insert a straight-blade screwdriver into slot in housing (next to tab) and twist screwdriver.

Replacement parts  
can be ordered on our  
website. Please visit us  
at [www.broan.com](http://www.broan.com)

