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# BROAN RM503604 Owner's Manual

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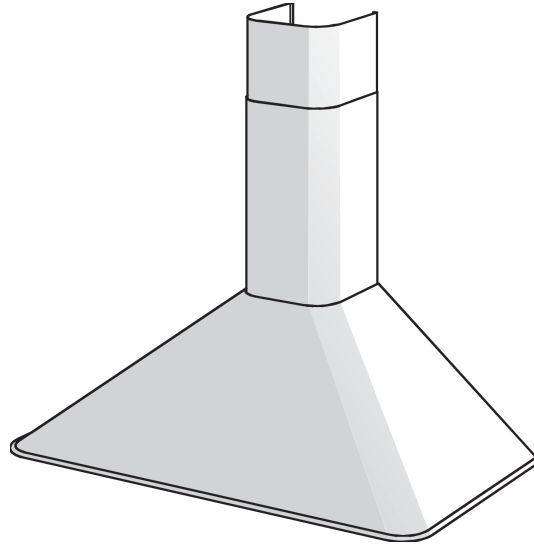


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**RANGEMASTER®**  
by Broan – NuTone

# RM50000 Series



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# READ AND SAVE THESE INSTRUCTIONS

**⚠ INTENDED FOR DOMESTIC COOKING ONLY ⚠**

## **⚠ ⚠ 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 service panel 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 guidelines 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. Do not use this unit with any separate solid-state speed control device.
8. To reduce the risk of fire, use only steel ductwork.
9. This unit must be grounded.

**TO REDUCE THE RISK OF A RANGE TOP GREASE FIRE:**

- A. Never leave surface units unattended at high settings. Boilovers cause smoking and greasy spillovers that may ignite. Heat oils slowly on low or medium settings.
- B. Always turn hood ON when cooking at high heat or when flambeing food (i.e. Crepes Suzette, Cherries Jubilee, Peppercorn Beef Flambe').
- C. Clean ventilating fans frequently. Grease should not be allowed to accumulate on fan or filter.
- D. Use proper pan size. Always use cookware appropriate for the size of the surface element.

## **⚠ ⚠ WARNING**

**TO REDUCE THE RISK OF INJURY TO PERSONS IN THE EVENT OF A RANGE TOP GREASE FIRE, OBSERVE THE FOLLOWING:\***

1. **SMOTHER FLAMES** with a close-fitting lid, cookie sheet, or metal tray, then turn off the burner. **BE CAREFUL TO PREVENT BURNS.** If the flames do not go out immediately, **EVACUATE AND CALL THE FIRE DEPARTMENT.**
2. **NEVER PICK UP A FLAMING PAN** - You may be burned.
3. **DO NOT USE WATER**, including wet dishcloths or towels - violent steam explosion will result.
4. Use an extinguisher **ONLY** if:
  - A. You know you have a Class ABC extinguisher and you already know how to operate it.
  - B. The fire is small and contained in the area where it started.
  - C. The fire department is being called.
  - D. You can fight the fire with your back to an exit.

\* Based on "Kitchen Fire Safety Tips" published by NFPA.

## CAUTION

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1. To reduce 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.
2. Take care when using cleaning agents or detergents.
3. Avoid using food products that produce flames under the Range Hood.
4. For general ventilating use only. Do not use to exhaust hazardous or explosive materials and vapors.
5. To avoid motor bearing damage and noisy and/or unbalanced impellers, keep drywall spray, construction dust, etc. off power unit.
6. Your hood motor has a thermal overload which will automatically shut off the motor if it becomes overheated. The motor will restart when it cools down. If the motor continues to shut off and restart, have the hood serviced.
7. For best capture of cooking impurities, the bottom of the hood should be a minimum of 24" and a maximum of 30" above the cooking surface.
8. Two installers are recommended because of the large size and weight of this hood.
9. This product is equipped with a thermostat which may start blower automatically. To reduce the risk of injury and to prevent power from being switched on accidentally, switch power off at service panel and lock or tag service panel.
10. Please read specification label on product for further information and requirements.

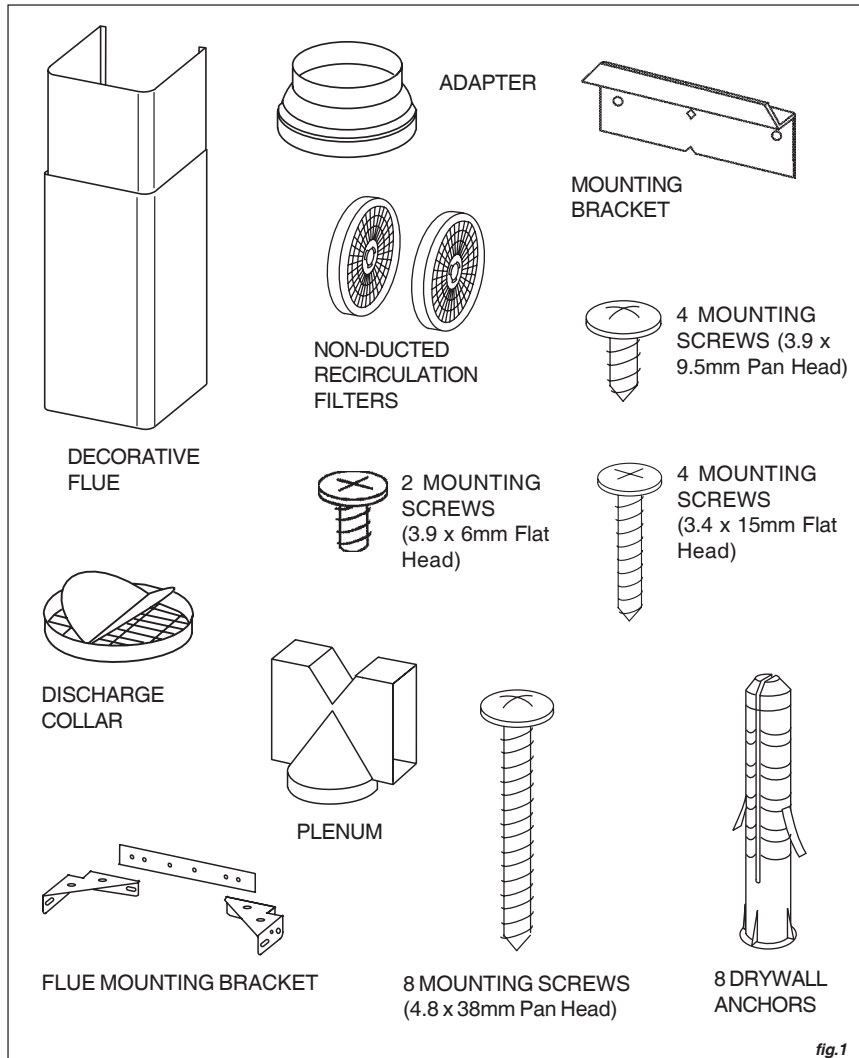
## PREPARE THE HOOD

Unpack hood and check contents.

You should receive:

- 1 - Hood
- 1 - Decorative Flue Assembly
- 1 - Adapter
- 2 - Non-ducted recirculation filters
- 1 - Parts Bag (B080810471) containing:
  - 1 - Mounting Bracket
  - 1 - Discharge Collar
  - 1 - Flue Mounting Bracket

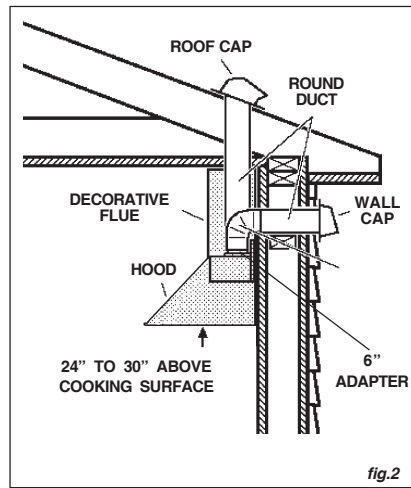
- 8 - Mounting Screws  
(4.8 x 38mm Pan Head)
- 4 - Mounting Screws  
(3.9 x 9.5mm Pan Head)
- 8 - Drywall Anchors
- 1 - Plenum
- 4 - Mounting Screws  
(3.4 x 15mm Flat Head)
- 2 - Mounting Screws  
(3.9 x 6mm Flat Head)
- 1 - Installation Instructions



## INSTALL THE DUCTWORK (DUCTED HOODS ONLY)

**NOTE: To reduce the risk of fire, use only metal ductwork.**

1. Decide where the ductwork will run between the hood and the outside.
2. A straight, short duct run will allow the hood to perform most efficiently.
3. Long duct runs, elbows, and transitions will reduce the performance of the hood. Use as few of them as possible. Larger ducting may be required for best performance with longer duct runs.
4. Install a roof or wall cap. Connect round metal ductwork to cap and work back towards hood location. Use duct tape to seal the joints between ductwork sections.

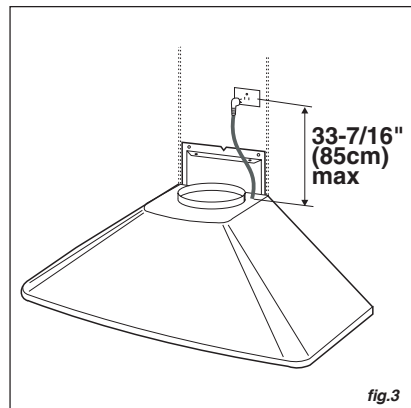


## WIRING

**Note: This range hood must be properly grounded. The unit should be installed by a qualified electrician in accordance with all applicable national and local electrical codes.**

### GROUNDING INSTRUCTIONS

This appliance must be grounded. In the event of an electrical short circuit, grounding reduces the risk of electric shock by providing an escape wire for the electric current. This appliance is equipped with a cord having a grounding wire with a grounding plug. The plug must be plugged into an outlet that is properly installed and grounded.



**WARNING -** Improper grounding can result in a risk of electric shock.

Consult a qualified electrician if the grounding instructions are not completely understood, or if doubt exists as to whether the appliance is properly grounded.

Do not use an extension cord. If the power supply cord is too short, have a qualified electrician install an outlet near the appliance.

Set the electrical power supply within the space covered by the decorative flues. Position the power socket at a maximum distance of 33-7/16" (850 mm) from where the lead exits from the hood (see illustration alongside). Make sure this does not interfere with the bracket fastening area or with the decorative pipe (where the flue touches the wall). Fit the plug into the power socket.

## INSTALL MOUNTING BRACKET

1. Construct wood wall **framing** that is **flush** with interior surface of wall studs.  
Make sure:
  - a) the framing is centered over installation location.
  - b) the height of the framing will allow the **mounting bracket** to be secured to the framing within the dimensions shown.
2. After wall surface is finished, secure mounting bracket to framing using dimensions shown.

### NOTE:

- On 8' ceilings, the hood distance above cook top is :  
minimum 24", maximum 28" (for Ducted Configuration).  
minimum 24", maximum 27" (for Non-Ducted Configuration).

- On 9' ceilings, the hood distance above cook top is :  
- minimum 28", maximum 30" (the air vents on the upper flue will be exposed after installation).

## INSTALL FLUE MOUNTING BRACKET

### DUCTED AND NON-DUCTED

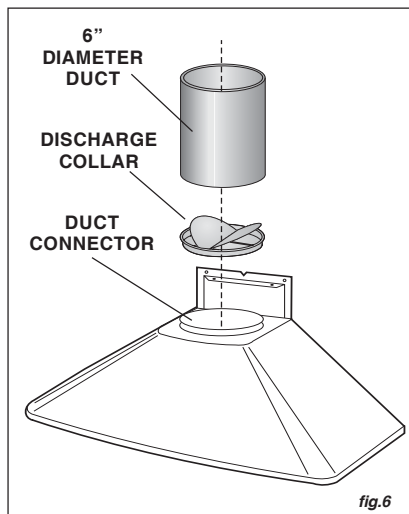
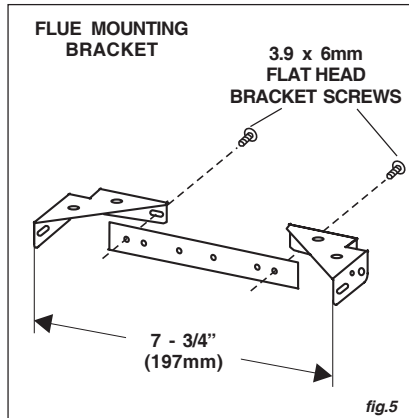
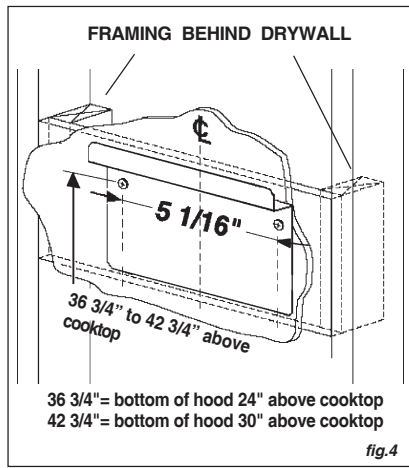
1. Assemble the flue mounting bracket, adjusting outside width as shown. Fig.5
2. **Carefully** center the mounting bracket directly over the range hood location.
3. Secure the bracket assembly to the ceiling using (2) 4.8x38mm mounting screws and drywall anchors. Make sure the bracket is pushed into the corner, tight against the wall and centered over the hood.

## PREPARE THE HOOD

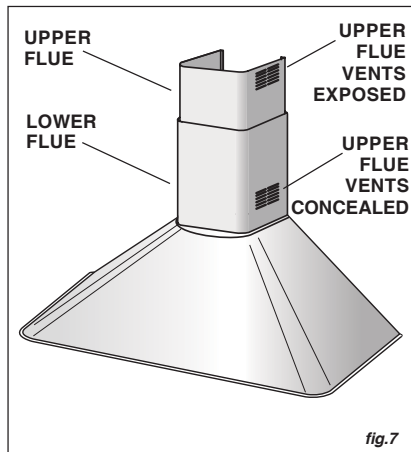
**Note:** On stainless steel hoods, carefully remove the plastic protective film from all exterior surfaces of the hood and decorative flues, prior to final installation.

### DUCTED CONFIGURATION

1. Install the discharge collar into the duct connector of the range hood. Fig.6



2. Attach an adequate length of 6" round steel ducting to the range hood duct connector. Fig.6
3. Duct tape all joints to make them secure and air tight.
4. Carefully place the lower decorative flue into the recessed area of the range hood top. Fig. 7
5. Carefully slide the upper decorative flue down inside the lower flue. Fig. 7



## PREPARE THE HOOD

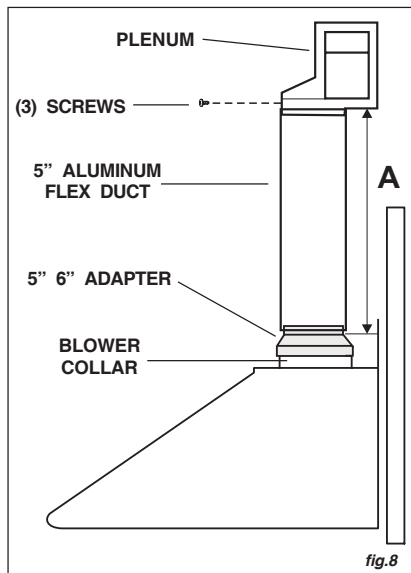
### NON - DUCTED CONFIGURATION

**Note: The following materials must be purchased separately for non-ducted recirculation installations.**

- 5" diameter expandable / flexible aluminum duct.
- 1/16" diameter twist drill.

**CAUTION: Do not use plastic or rigid metal ducting.**

1. Discard discharge collar and damper supplied with the hood. Install the 5" to 6" adapter (supplied).
2. Measure the distance "A"
3. Attach aluminum flexible duct to the 5" adapter. Tape all joints with duct tape. Fig.8
4. Assemble the recirculation plenum to the flexible duct. Fig.8
5. Drill three (3) 1/16" diameter equally spaced holes through the duct and duct connector of the recirculation plenum. Fig.8
6. Secure duct to the plenum's connector with (3) sheet metal screws. Tape all joints with duct tape. Fig.8

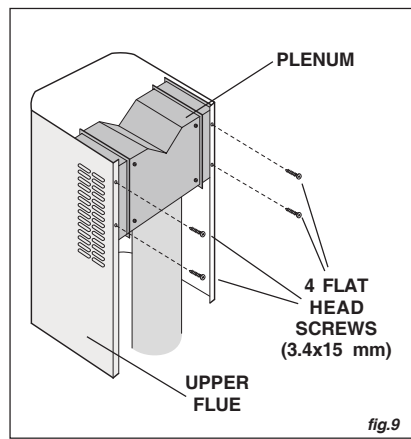




## PREPARE THE HOOD

### NON-DUCTED CONFIGURATION, cont'd.

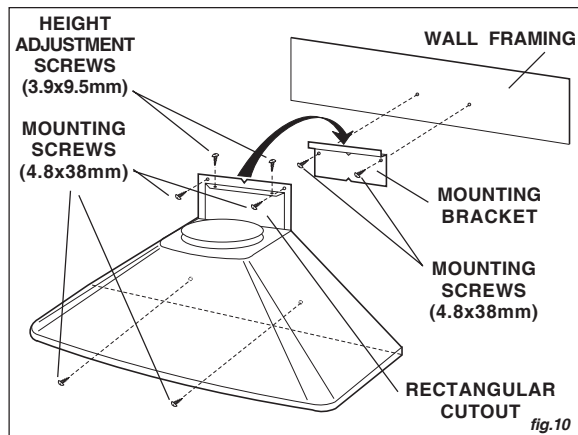
- Carefully place the lower decorative flue into the recessed area of the range hood top. Fig.7
- Carefully slide the upper decorative flue down inside the lower flue.  
Note: air vents must be up. Fig.7
- Secure the recirculation plenum to the upper flue with (4) flat head screws. Fig.9



## INSTALL THE HOOD

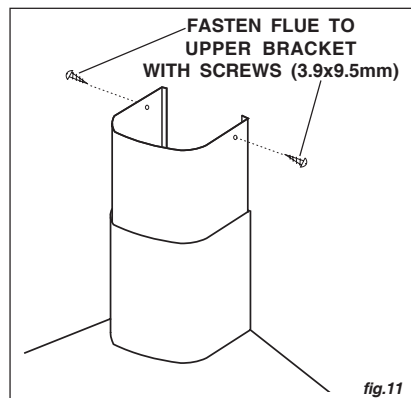
Note: at least two people will be required to mount the hood.

- Raise the hood into its mounting position.
- Plug the power cord into the electric wall receptacle. Tuck excess cord behind the flue.
- Align the rectangular opening on the back of the hood with the wall-mounting bracket. Gently lower the hood until it securely engages the bracket. Fig.10
- Level the hood.



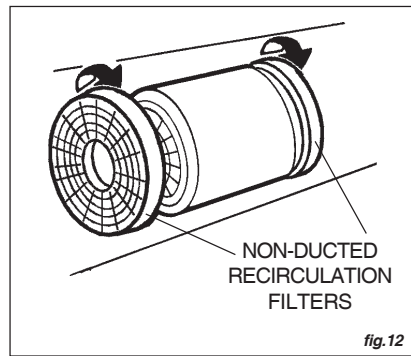
**Height adjustment screws** provide vertical adjustment.  
Secure the hood with **mounting screws** (4.8x38mm). Use drywall anchors, provided, if wall studs or framing are not available.  
Secure with (2) mounting screws (4.8x38mm). Use drywall anchors provided if wall studs or framing are not available. Fig.10

- Raise the upper flue until its holes align with holes in the flue mounting bracket (located on ceiling). Fig.11
- Secure the flue with (2) mounting screws (3.9x9.5mm). Fig.11



## NON-DUCTED RECIRCULATION FILTERS INSTALLATION

1. Non-ducted recirculation filters (B03300487) is included.
2. Position the filters over the blower.
3. Rotate to lock filters in place.



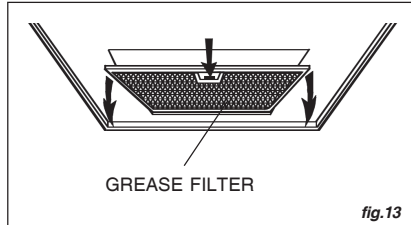
## MAINTENANCE

Proper maintenance of the Range Hood will assure proper performance of the unit.

### **Grease Filter**

The **grease filter** should be cleaned frequently. Use a warm detergent solution. Grease filter is dishwasher safe.

Remove filter by pushing filter towards the back of hood and rotating filter downward.



### **Non-ducted recirculation filters**

The non-ducted recirculation filters should be changed every 6 months. Rotate the filters to remove and replace.

### **Hood Cleaning**

Stainless steel is one of the easiest materials to keep clean. Occasional care will help preserve its fine appearance.

Cleaning tips:

- Hot water with soap or detergent is all that is usually needed.
- Follow all cleaning by rinsing with clear water. Wipe dry with a clean, soft cloth to avoid water marks.
- For discolorations or deposits that persist, use a non-scratching household cleanser or stainless steel polishing powder with a little water and a soft cloth.
- For stubborn cases, use a plastic scouring pad or soft bristle brush together with cleanser and water. Rub lightly in direction of polishing lines or "grain" of the stainless finish. Avoid using too much pressure which may mar the surface.
- **DO NOT** allow deposits to remain for long periods of time.
- **DO NOT** use ordinary steel wool or steel brushes. Small bits of steel may adhere to the surface causing rust.
- **DO NOT** allow salt solutions, disinfectants, bleaches, or cleaning compounds to remain in contact with stainless steel for extended periods. Many of these compounds contain chemicals which may be harmful. Rinse with water after exposure and wipe dry with a clean cloth.

Painted surfaces should be cleaned with warm water and mild detergent only.

## OPERATION

### Controls

The hood is operated using the slide controls under the bottom of the hood.

The **light switch** turns the lamps on and off.

The **blower switch**: makes it possible to select the motor operating speed.

Position 0: motor off.

The **pilot lamp** lights up whenever the blower is on.

### HEAT SENTRY™

Your hood is equipped with a HEAT SENTRY™ thermostat. This thermostat is a device that will turn on or speed up the blower if it senses excessive heat above the cooking surface.

- 1) If blower is OFF - it turns blower ON to HIGH speed.
- 2) If blower is ON at a lower speed setting - it turns blower up to HIGH speed.

When the temperature level drops to normal, the blower will return to its original setting.

### WARNING

**The HEAT SENTRY thermostat can start the blower even if the hood is turned OFF. When this occurs, it is impossible to turn the blower OFF with its switch. If you must stop the blower, do it from the main electrical panel.**

## LIGHT BULBS

This range hood requires two 40-Watt light bulbs (included).

**ALWAYS SWITCH OFF THE ELECTRICITY SUPPLY BEFORE CARRYING OUT ANY OPERATIONS ON THE APPLIANCE.**

To change bulbs:

1. Remove the screw securing the light fitting.
  2. Pull down lens to remove.
  3. Replace with light bulbs of the same type.
- CAUTION: BULB MAY BE HOT!

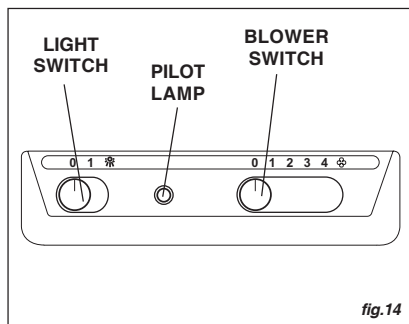


fig.14

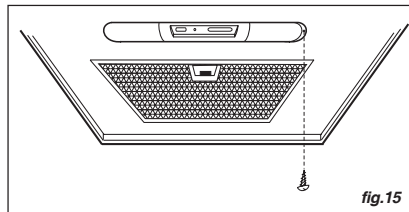


fig.15

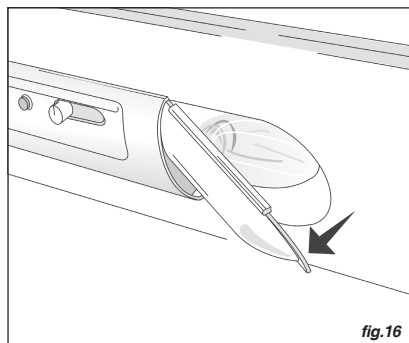


fig.16

## WARRANTY

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### **BROAN-NUTONE LLC ONE YEAR LIMITED WARRANTY**

Broan-NuTone LLC 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 one year from the date of original purchase. THERE ARE NO OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, IMPLIED WARRANTIES OR MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE.

During this one-year period, Broan-NuTone LLC 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, TUBES, HALOGEN AND INCANDESCENT BULBS. 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-NuTone LLC), faulty installation or installation contrary to recommended installation instructions.

The duration of any implied warranty is limited to the one-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-NUTONE LLC'S OBLIGATION TO REPAIR OR REPLACE, AT BROAN-NUTONE LLC'S OPTION, SHALL BE THE PURCHASER'S SOLE AND EXCLUSIVE REMEDY UNDER THIS WARRANTY. BROAN-NUTONE LLC 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 or exclusion 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-NuTone LLC at the address stated below or telephone: 1-800-637-1453, (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**, 926 West State Street, Hartford, WI 53027 (1-800-637-1453)

**NuTone, Inc.**, 4820 Red Bank Road, Cincinnati, OH 45227 (1-800-543-8687)

**Broan-NuTone Canada, Inc.** 1140 Tristar Drive, Mississauga, Ontario, L5T 1H9 (1-888-882-7626)