

## Bathroom Exhaust Fan/Fluorescent Light Combination

### MODEL: 8663RFT

Suitable for use in shower or tub enclosure when used with GFCI protected branch circuit.

The exhaust fan consists of the housing, power unit/blower assembly (motor, wheel, mounting plate,) grille/lens assembly, reflector/lamp plug assembly (lamps not furnished,) and duct collar.

- **WARNING:** To reduce the risk of shock, do not use this fan with any solid-state speed control device.
- Acceptable for use over tub or shower when installed on a GFCI protected branch circuit.
- Not for use in kitchens.

Do not install in a ceiling insulated to a value greater than R-40.

### IMPORTANT SAFETY INSTRUCTIONS

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

- A. Use this unit only in the manner intended by the manufacturer. If you have questions, contact the manufacturer.
- B. 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.

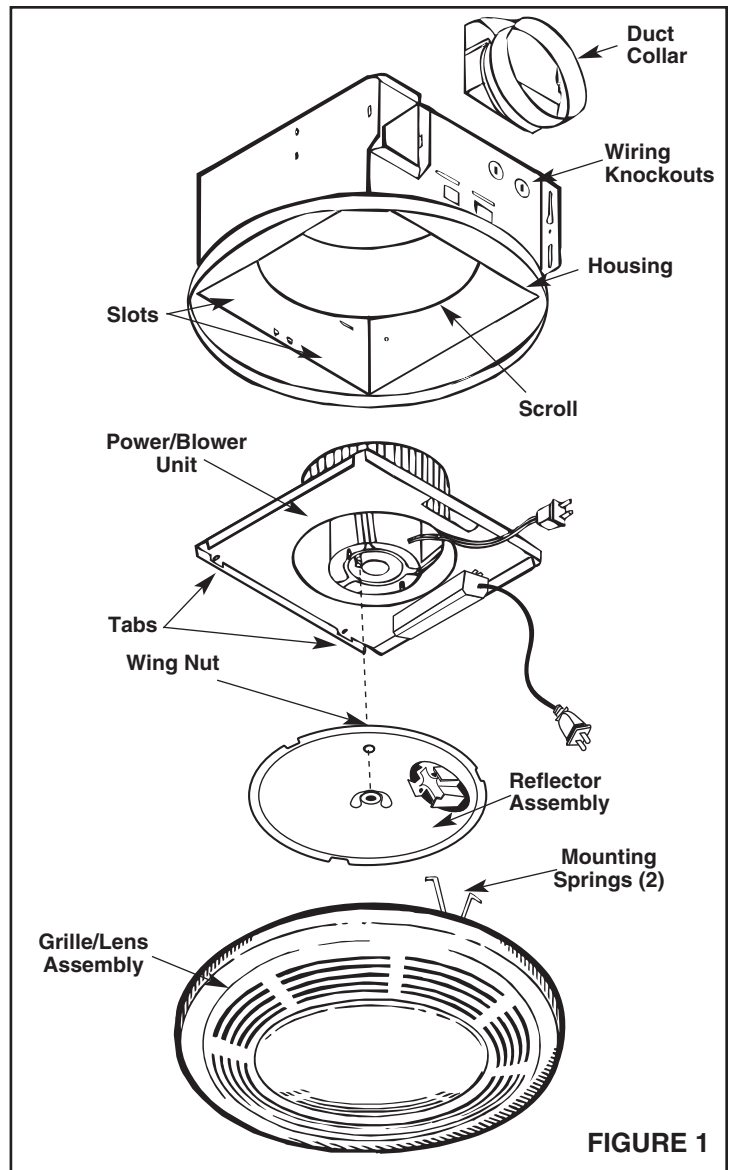
**CAUTION:**

For general ventilating use only. Do not use to exhaust hazardous or explosive materials and vapors.

### INSTALLATION INSTRUCTIONS

**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 qualified person(s) in accordance with all applicable codes and standards, including fire-rated 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 for Heating, Refrigeration and Air Conditioning Engineers (ASHRAE), and the local code authorities.
- C. When cutting or drilling into wall or ceiling, do not damage electrical 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.
- F. NEVER place a switch where it can be reached from a tub or shower.
- G. For installation in sloped ceilings up to 12/12 pitch.
- H. Ductwork must point up.



**FIGURE 1**

### FOR BEST RESULTS

When installing the Exhaust Fan/Light in a new construction site, install housing during the rough-in construction of the building. The blower unit, reflector and grille should be installed after the finished ceiling is in place.

### PLANNING DUCTWORK AND WIRING

#### DUCTWORK

1. Use 4" round duct.
2. Plan duct run from discharge opening of fan to the outside. For best fan performance, make duct run as short as possible and use minimum number of elbows.
3. Use optional NuTone ducting accessories as needed.

#### WIRING

Plan to run 120vAC house wiring (with ground) from power source, through wall switch, to junction box in housing. For separate control of fan and light use an optional NuTone switch.

**IMPORTANT:** Use wire suitable for 90°C.

## INSTALLATION IN A NEW CONSTRUCTION SITE

### PREPARATION

1. Refer to Figure 1. Remove power unit/blower assembly from housing.
  - A. Unplug power unit.
  - B. Remove screw (located next to plug-in receptacle) which holds power/blower unit mounting plate in place. Save screw.
  - C. Lift mounting plate at end near the plug-in receptacle until blower wheel clears the scroll.
  - D. Remove plate by pulling its tabs out of slots in housing. Set power/blower unit aside until needed.

## MOUNTING THE HOUSING

### MOUNTING USING MOUNTING TABS

Refer to Figure 2.

1. Locate fan housing next to ceiling joist.
2. Use wood screws (not provided) to loosely attach housing to ceiling joist through the keyhole slots in mounting tabs.
3. Adjust housing so that it will be flush with finished ceiling. For the grille to fit properly, the housing's rim must not extend beyond finished ceiling surface.
4. When housing is properly adjusted, tighten screws in slots.

### MOUNTING USING HANGER BARS

Refer to Figure 3.

1. Insert hanger bars in slots provided in housing.
2. Locate fan housing between joists so that the bottom of the housing is even with the planned finished ceiling. Extend the hanger bars to the joists.
3. Use screws or nails (not provided) to secure hanger bars to ceiling joists.

## INSTALLING DUCTWORK

1. Refer to Figure 2. Place duct collar over flanges at discharge opening of fan. Secure collar by snapping tabs into slots in flanges.
2. Run 4" round duct from fan's discharge opening to the outside and terminate.
3. Connect duct to fan's duct collar.

## WIRING

All wiring must comply with local codes and unit must be properly grounded.

1. Run 120vAC house wiring (with ground) from wall switches to fan location.
2. Insert and secure an approved box connector into wiring entrance hole.
3. Pull wires through box connector and into junction box. Tighten box connector.
4. Refer to Figures 4 and 5. If a single switch will be used to control both the fan and the light, make wiring connections as shown in Figure 4. If a double switch will be used for separate control of the fan and light, make connections as shown in Figure 5.
5. Connect the green (or bare) ground wire to the green ground lead.

## POWER/BLOWER UNIT INSTALLATION

1. Refer to Figure 1. Place power/blower unit into housing so that mounting plate's tabs insert into slots in housing.
2. Press other end of mounting plate down until it is firmly seated over scroll and plug-in receptacles.
3. Secure mounting plate to housing with provided screw.
4. Insert motor plug into junction box receptacle.

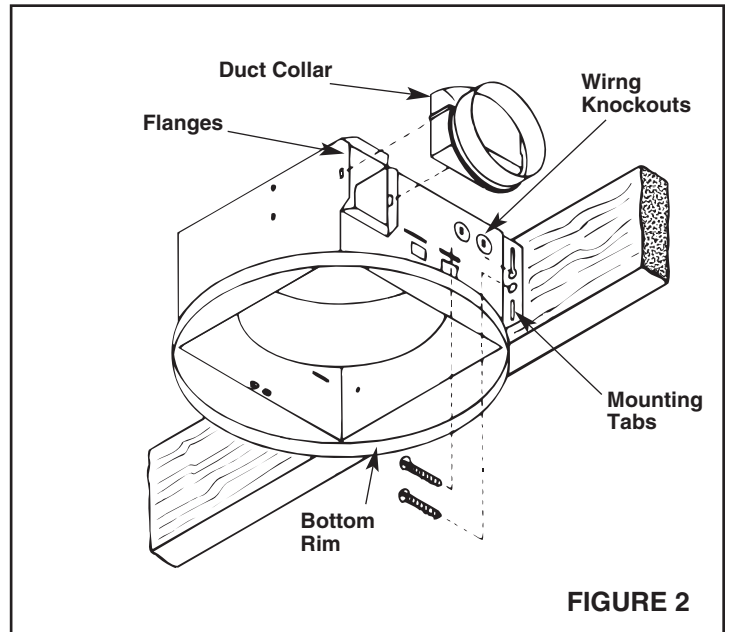


FIGURE 2

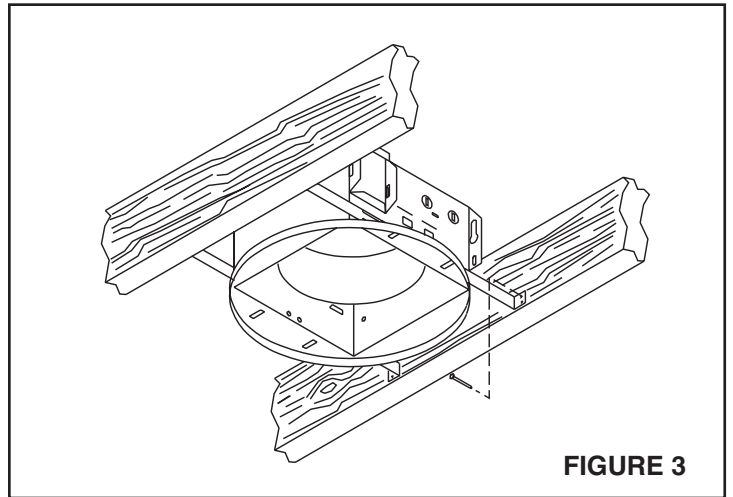


FIGURE 3

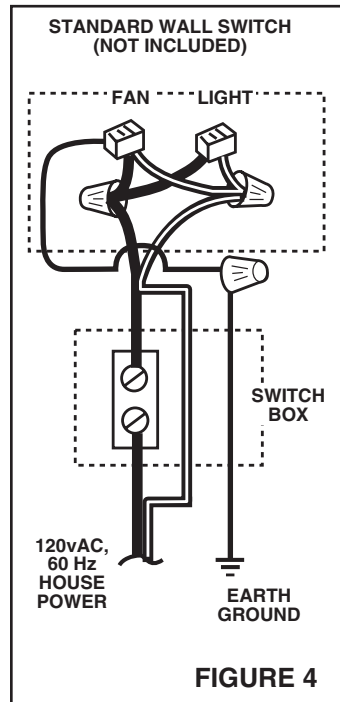


FIGURE 4

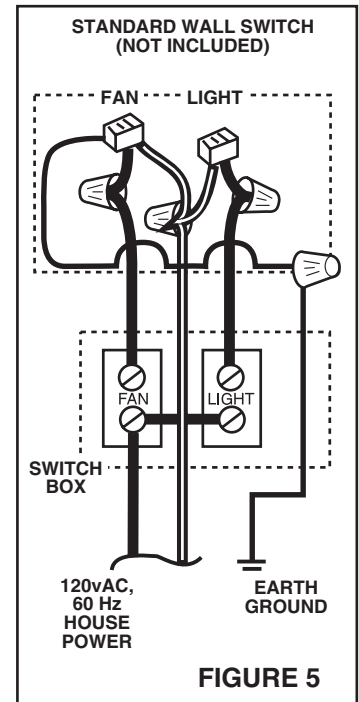


FIGURE 5

## COMPLETING INSTALLATION

1. Insert lamp plug into junction box receptacle and secure reflector assembly to motor frame with wing nut provided.
2. Insert lamp (26 watt compact fluorescent - NEMA Type CFTR42W/GX24Q) into the socket.  
**NOTE:** Lamp must be purchased separately.
3. Insert the grille assembly's mounting springs into the slots on both sides of the housing by squeezing the springs together.
4. Press grille assembly firmly into place against the ceiling.

## CLEANING AND RELAMPING

1. Pull grille assembly away from ceiling.
2. Squeezing the grille assembly's mounting springs together, remove grille assembly from housing to expose socket for relamping.
3. Clean grille and lens of assembly using a mild soap and water solution.
4. Replace grille assembly flat against ceiling after cleaning or relamping.

## INSTALLATION IN EXISTING CONSTRUCTION

### PLANNING

Review "INSTALLATION IN A NEW CONSTRUCTION SITE" and follow all instructions which apply to your installation.

**LOCATION:** Locate fan between ceiling joists.

**WIRING AND DUCTING:** Plan ducting and wiring BEFORE proceeding with installation. Refer to Figures 4 and 5 for wiring and Figure 3 for ducting.

**CAUTION:** Check area above planned location to be sure that:

1. Ducting can be installed or that area is sufficient for proper venting.
2. Wiring can be run to the planned location.
3. No wiring or other obstruction might interfere with installation.

### INSTALLATION

1. The fan must be mounted between ceiling joists. Decide where you want to locate the fan, and then determine where the nearest joists are.
2. Locate the joists. Drill a starter hole in the ceiling between the joists.
3. To exactly locate the edge of joist, saw a line from hole to joist.
4. **Refer to page 1.** Remove power/blower unit from housing.
5. Use the housing pan as a template to mark cutout: place pan centered between joist and trace around pan.
6. Make cutout along outside of marked line.
7. **Refer to Figure 6.** Install 2 x 4 cleats to both ceiling joists. In some cases it may be necessary to use more than a single cleat on one side. The distance between cleats must be at least 9 1/8" but not more than 10".
8. Remove side wiring knockout and insert and secure an approved box connector into the wiring entrance hole.
9. Use pliers to bend both mounting tabs as flush as possible to the side of the housing.
10. Install duct collar.
11. String wiring through box connector and connect 4" flexible duct to duct collar.
12. Carefully push ductwork and wiring back into cutout. Place housing into cutout.
13. Use wood screws to secure housing to cleats through four holes in housing's pan. make sure pan is flush to finished ceiling.
14. Install Power/Blower Unit and complete installation.

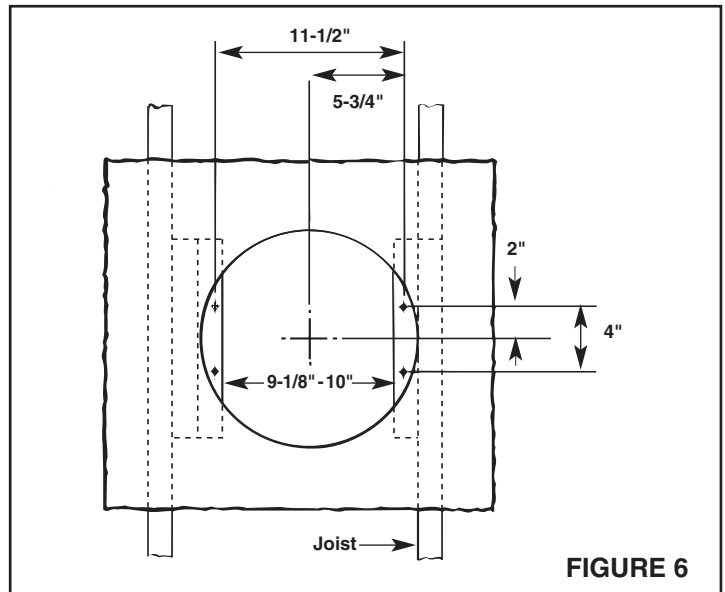


FIGURE 6

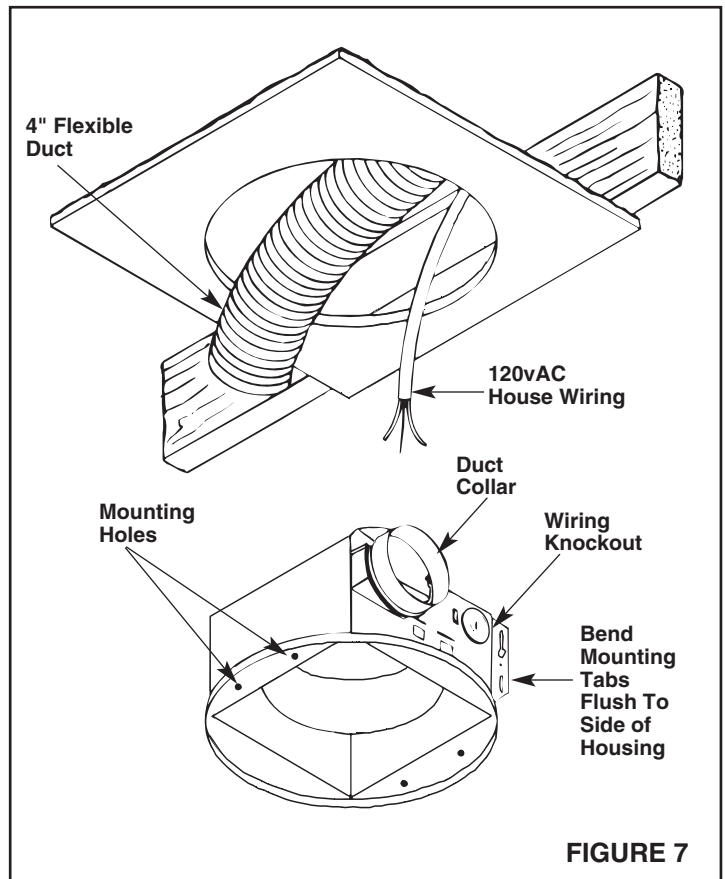


FIGURE 7

# NuTone®

## One Year Limited Warranty

**WARRANTY OWNER:** NuTone 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 (1) year 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 one year period,** NuTone 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 OR TUBES, FILTERS, DUCT, ROOF CAPS, WALL CAPS AND OTHER ACCESSORIES FOR DUCTING.** 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 NuTone), 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.

**NUTONE'S OBLIGATION TO REPAIR OR REPLACE, AT NUTONE'S OPTION, SHALL BE THE PURCHASER'S SOLE AND EXCLUSIVE REMEDY UNDER THIS WARRANTY. NUTONE 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.

**WARRANTY SERVICE:** To qualify for warranty service, you must (a) notify NuTone at the address stated below or telephone 1/800-543-8687, (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.

Date of Installation

Builder or Installer

Model No. and Product Description

**IF YOU NEED ASSISTANCE OR SERVICE:**

For the location of your nearest NuTone Independent Authorized Service Center:

**Residents of the contiguous United States** Dial Free 1-800-543-8687

Please be prepared to provide:

Product model number • Date and Proof of purchase • The nature of the difficulty

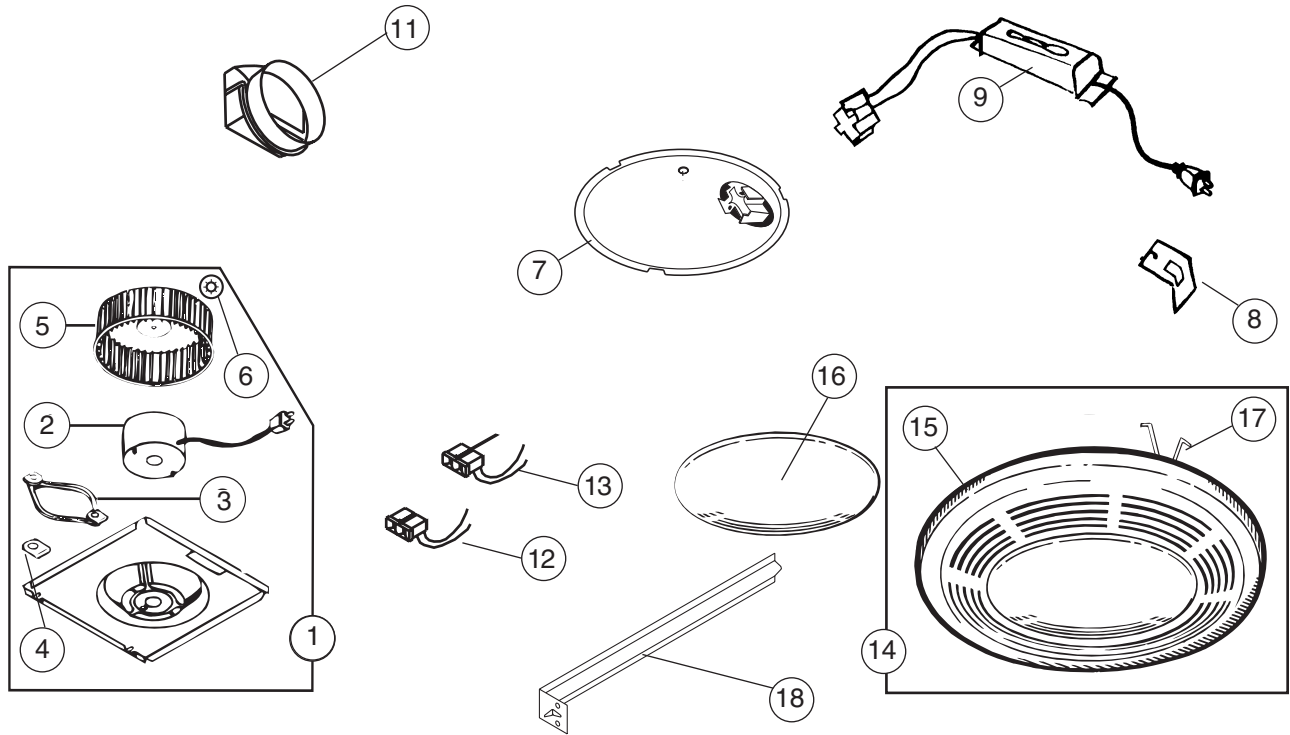
**Residents of Alaska or Hawaii should write to:** NuTone Inc. Attn: Department of National Field Service, 4820 Red Bank Road, Cincinnati Ohio 45227-1599.

**Residents of Canada should write to:** Broan-NuTone Canada, 1140 Tristar Drive, Mississauga, Ontario, Canada L5T 1H9.

Rev. 01/2005

# PARTS LIST

EFFECTIVE DATE	MODEL NUMBER	PRODUCT GROUP
OCTOBER 2005	8663RFT	FAN



REF.	ORIGINAL PART NO.	PART DESCRIPTION	MODEL USED ON	CURRENT REPLACEMENT PART NO.
1	87587	POWER UNIT ASSEMBLY	8663RF	87587-000
2	86933	MOTOR	8663RF	86933-000
3	32787	MOTOR ISOLATION MOUNT	8663RF	32787-000
4	32788	GROUND CLIP	8663RF	32788-000
5	51919	BLOWER WHEEL	8663RF	51919-000
6	63007	PUSH NUT	8663RF	51919-000
7	89248	REFLECTOR	8663RF	89248-000
8	85936	LAMPHOLDER BRACKET	8663RF	85936-000
9	97016879	LAMPHOLDER, BALLAST & PLUG ASSEMBLY	8663RF	97016879-000
10	16133	WING NUT	8663RF	16133-000
11	30652	DUCT ADAPTER ASSEMBLY	8663RF	30652-000
12	82304	RECEPTACLE - WHITE	8663RF	82304-000
13	61326	RECEPTACLE - BLACK	8663RF	61326-000
14	85970	GRILLE ASSEMBLY	8663RF	85970-000
15	89539	GRILLE	8663RF	89539-000
16	85937	LENS	8663RF	85937-000
17	57000	GRILLE SPRING (1)	8663RF	57000-000
18	44388	HANGER BAR (1)	8663RF	44388-000

# NuTone®

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8663RF I.I.