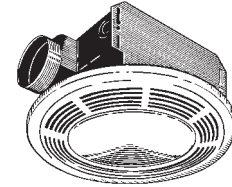


## VENTILATION FAN WITH LIGHT



### READ AND SAVE THESE INSTRUCTIONS

#### WARNING

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

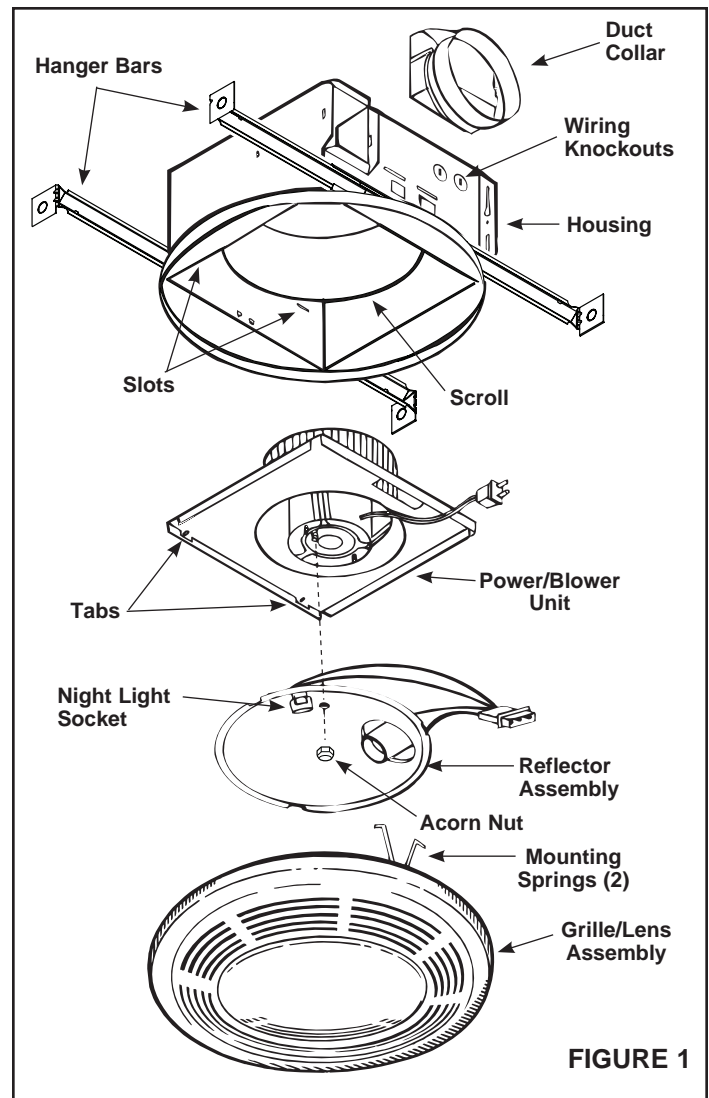
1. Use this unit only in the manner intended by the manufacturer. If you have questions, contact the manufacturer at the address or telephone number listed in the warranty.
2. Before servicing or cleaning unit, switch power off at service panel and lock the service disconnecting means to prevent power 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. If this unit is to be installed over a tub or shower, it must be marked as appropriate for the application and be connected to a GFCI (Ground Fault Circuit Interrupter) - protected branch circuit.
8. Never place a switch where it can be reached from a tub or shower.
9. To reduce the risk of electrical shock, do not use this fan with any solid-state speed control.
10. Not for use in kitchens.
11. Do not install in a ceiling insulated to a value greater than R-40.
12. 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.

#### 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 Broan ducting accessories as needed.

#### WIRING

Plan to run 120 VAC house wiring (with ground) from power source, through wall switch, to junction box in housing. For separate control of fan, light, night light, three wall switches are required and five conductors are needed between the wall switch box and the fan's junction box.

**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. See Figure 4.
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 Figure 4. Connect white wires from the fan and light receptacles to white (neutral) wire from the supply. Connect black wire to wire from fan switch. Connect red wire to wire from light switch. Connect yellow wire to wire from night light switch.
5. Connect the green (or bare) ground wire to the green ground lead.

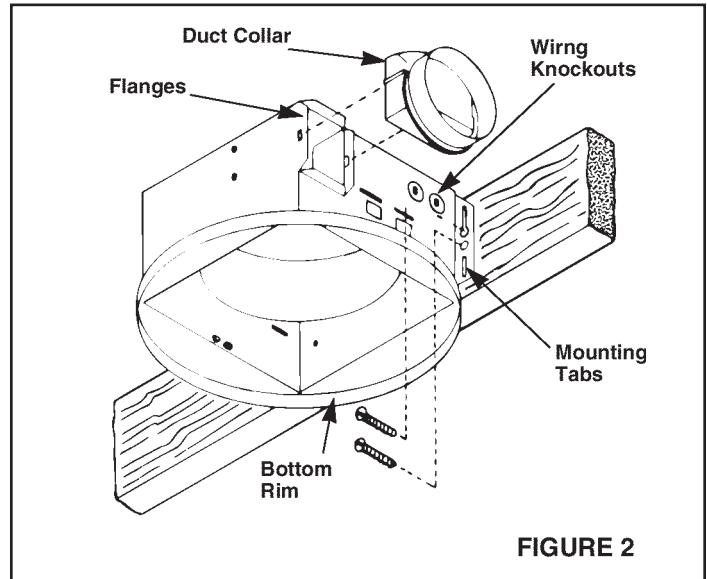


FIGURE 2

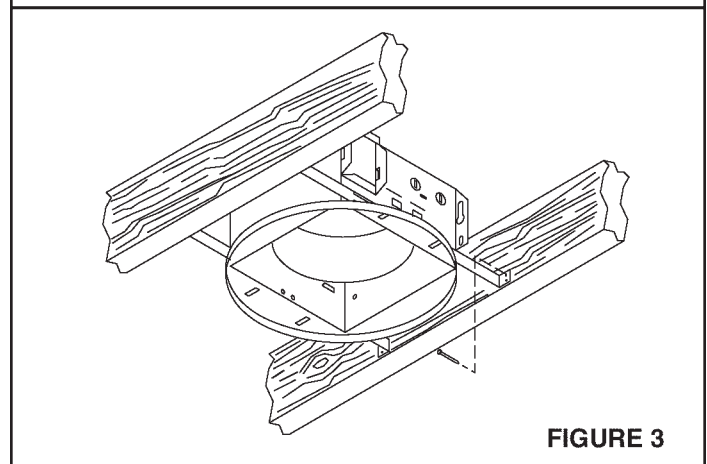


FIGURE 3

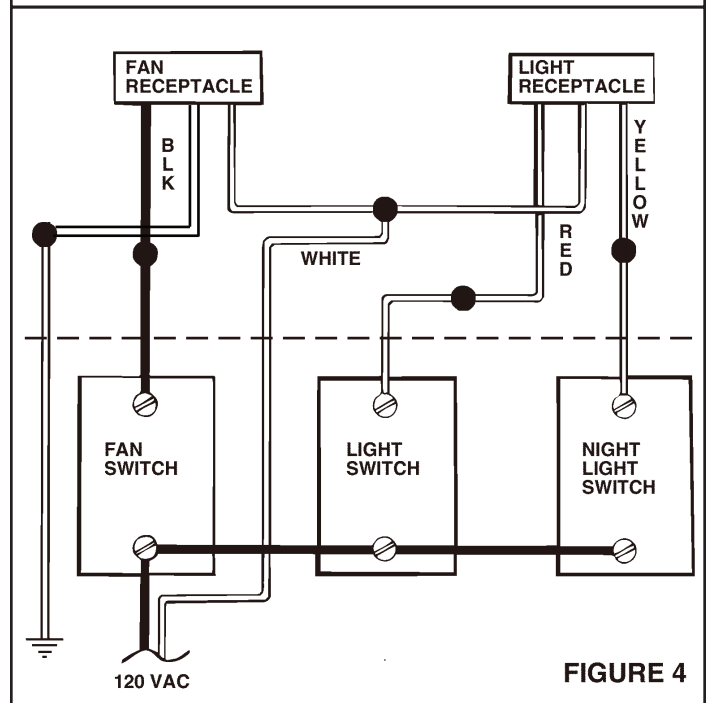


FIGURE 4

## 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.

## COMPLETING INSTALLATION

1. Insert lamp plug into junction box receptacle and secure reflector assembly to motor frame with wing nut provided.
2. Insert lamp (100 watt maximum for light - 7 watt maximum for night light) 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.

## 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.

**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.

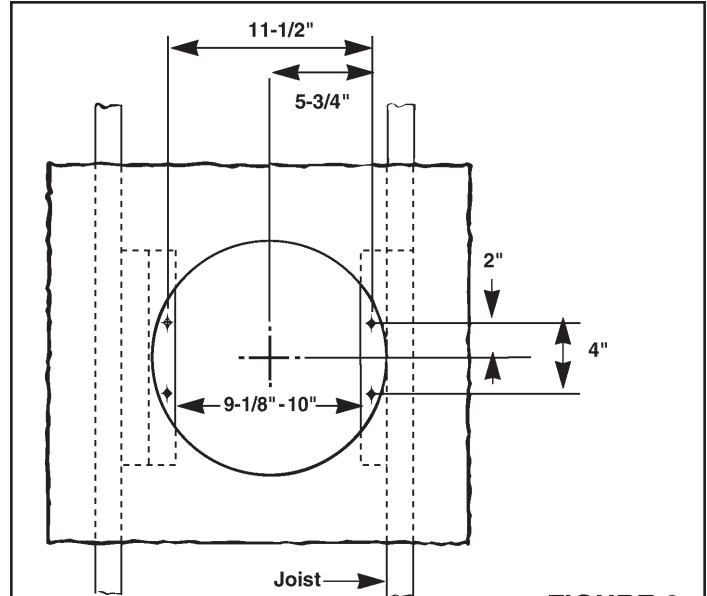


FIGURE 6

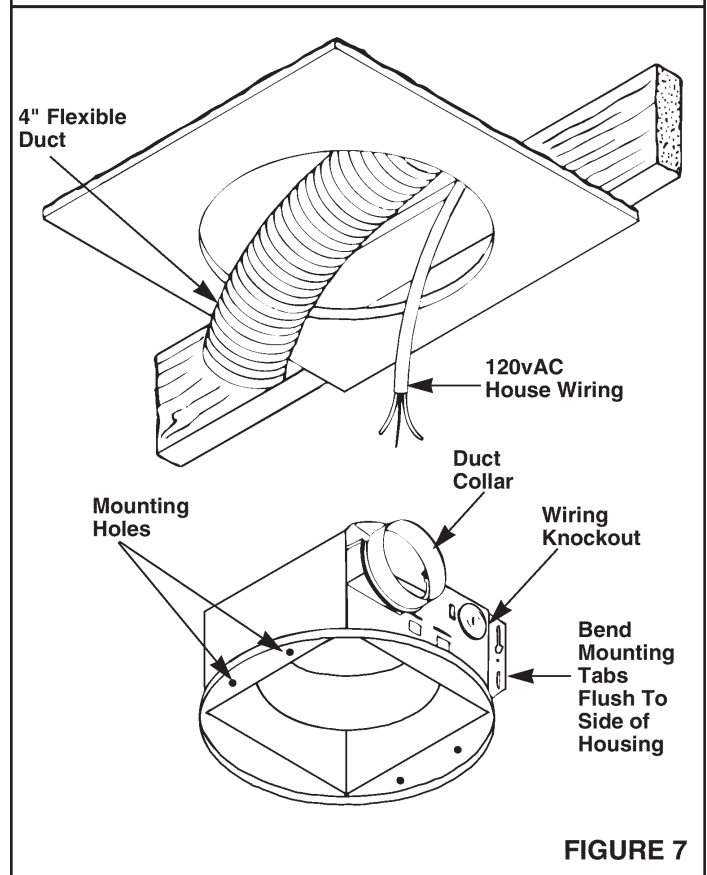


FIGURE 7

## USE AND CARE

**WARNING: DISCONNECT ELECTRICAL POWER SUPPLY AND LOCK OUT SERVICE PANEL BEFORE RELAMPING, CLEANING, OR SERVICING THIS UNIT.**

### RELAMPING

Pull grille assembly away from ceiling.

Squeeze the grille assembly's mounting springs together, and remove grille assembly from housing to expose socket for relamping.

Insert lamp (100 watt maximum for light - 7 watt maximum for night light) into the socket. **NOTE:** Lamp must be purchased separately.

Replace grille assembly flat against the ceiling after relamping.

## USE AND CARE

### CLEANING

Pull grille assembly away from ceiling.

Squeeze the grille assembly's mounting springs together, and remove grille assembly from housing for cleaning.

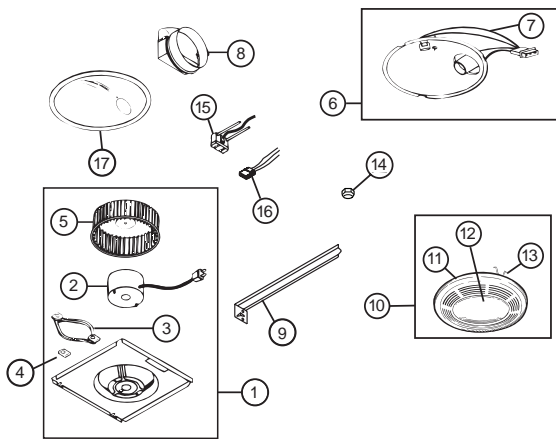
Clean grille and lens assembly using a mild soap and water solution. Assemblies with wood frames should not be immersed.

Replace grille assembly flat against the ceiling after cleaning.

### MOTOR LUBRICATION

The motor is permanently lubricated. Do not oil or disassemble motor.

## SERVICE PARTS



KEY	PART NO.	DESCRIPTION
1	97017703	Power Unit Assembly
2	100599-000	Motor
3	32787-000	Motor Isolation Mount
4	32788-000	Ground Clip
5	100603-000	Blower Wheel
6	85974-000	Reflector Assembly
7	85950-000	Lamp Socket Assembly
8	101183-000	Duct Adapter Assembly
9	44388-000	Hanger Bar
10	97017702	Grille & Lens Assembly
11	99111406	Grille
12	61753-000	Lens
13	0444A-000	Grille Spring (2 req.)
14	99260575	Acorn Nut
15	99271654	Fan Receptacle
16	36892-000	Light Receptacle
17	101049-000	Reflector

\* Not shown assembled.

Order replacement parts by "PART NO." - not by "KEY NO."