

Always read and observe safety considerations and installation instructions.

SAFETY CONSIDERATIONS & WARNINGS:

1. Use this unit only in the manner intended by GAF. If you have any installation questions, please contact Master Flow® Technical Services at 1-800-211-9612 or email WarrantyLLBP@gaf.com.
2. For rooftop or outdoor use only. This ventilator has an unguarded impeller. Do **NOT** use in locations readily accessible to people or animals.
3. Do **NOT** use on roofs having a slope less than 2:12.
4. For general ventilation purpose only. Do **NOT** use to exhaust hazardous material, dust, or combustible vapors.
5. During installation, always wear appropriate safety glasses, gloves, hard hats, restraints, and other safety equipment to avoid injury.

Warning: Always wear durable work gloves when handling this unit.

6. Observe all applicable building and electrical codes.
7. Installation work and electrical wiring should be done by a qualified person in accordance with all building codes and the National Electrical Code (U.S. only), including codes for fire ratings. Contact a qualified electrician if you are not comfortable or familiar with electrical codes and/or installations.
8. The ventilator should be plugged into a 110v grounded receptacle that meets local building and electrical codes. Do **NOT** use an extension cord to operate. Alternatively, for instructions on how to hard-wire your ventilator, refer to section 8b.
9. Inspect for hidden utilities before cutting or drilling. Do **NOT** damage electrical wiring or other hidden utilities when cutting or drilling.

10. Make sure the fan blade is on tight and ensure the set screw is securely tightened.
11. Ducted fans must always be vented to the outdoors.
12. **FOR HOMES WITH A GAS OR OIL FURNACE, OR APPLIANCE LOCATED IN THE SAME SPACE:** The ventilator **MUST** be wired with a switch or other interlocking device to prevent the furnace and ventilator from operating at the same time during the heating cycle. The switch or other interlocking device **MUST** disconnect the vent unit from the electrical circuit power. GAF recommends that the switch (not included) be installed by a qualified person in accordance with all applicable building codes and standards. For additional information, contact a qualified electrician in your area.

TOOLS REQUIRED

- Drill
 - Extension Cord
 - 1/8" Drill Bit
 - 7/16" Socket or Adjustable Wrench
 - Utility Knife
 - Power Saber or Jig Saw and Hand Saw
 - Safety Eyewear
 - Hard Hat and Other Safety Equipment
 - Fall-Restraint Equipment
 - Galvanized Roofing Nails
 - Caulking Gun
 - ASTM C920 Urethane Sealant or ASTM D4586 Type 1 or 2 Asphalt Roofing Cement
 - Work Gloves
 - Ladder
 - Claw Hammer
 - Flat Blade Screwdriver
 - Pencil or Marker
 - Tape Measure
 - 1/2" Trade Size Cable Clamp Connector*
 - Type NM Electrical Cable*
 - Wire Nuts*
- * Only required for hard-wired electrical installation.

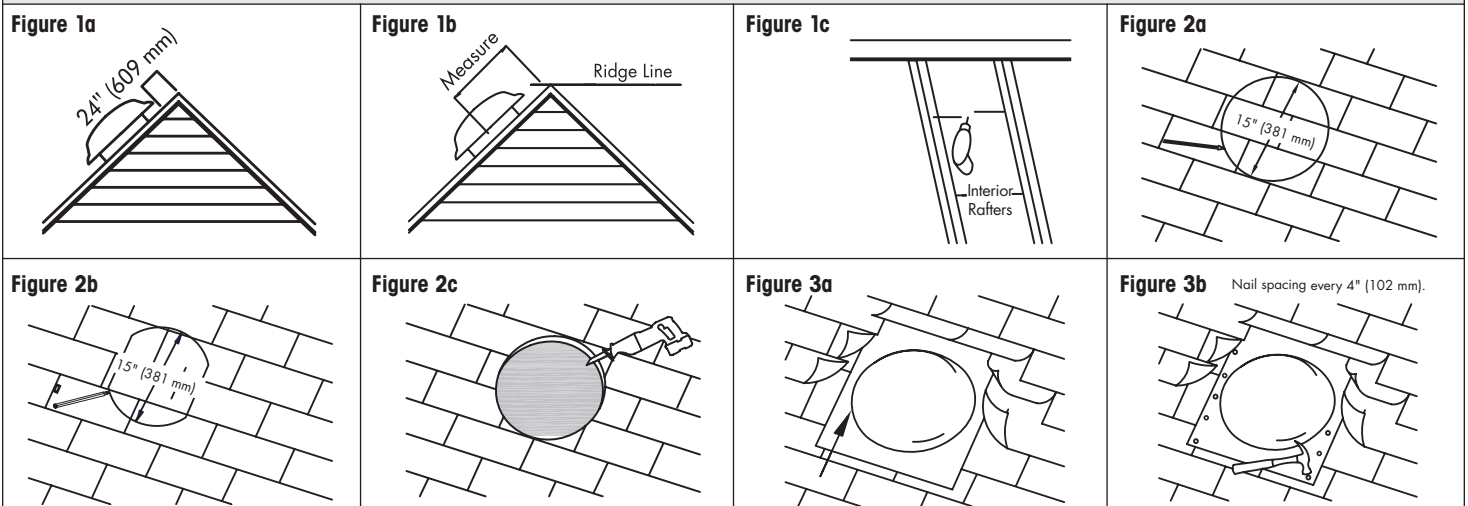


Figure 4a

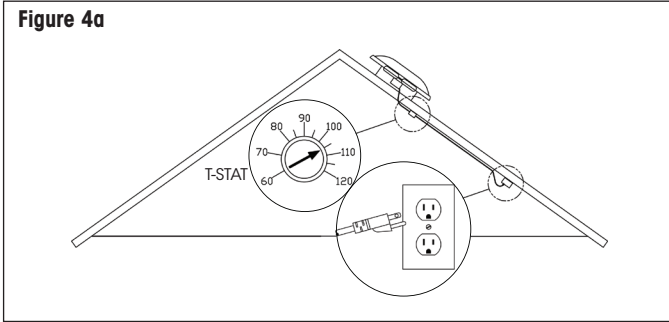
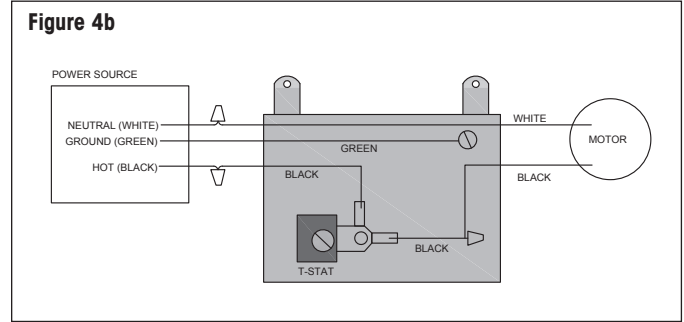


Figure 4b



- 1. Ensure Proper Intake Ventilation.** Always ensure there is proper intake ventilation at or near the soffit. This is required for a balanced ventilation system and to help avoid premature ventilator motor failure. Use the chart located on the outside of the package or visit gaf.com/ventcalculator to ensure the minimum recommended intake ventilation is installed on the home. Always consult local building codes for ventilation requirements.
- 2. Locate Position.** Locate the ventilator as high as possible on the roof, but not on the ridge line. The top opening of the hood must be 24" (609 mm) **BELOW** the ridge line (Figure 1a). Single ventilators should be centered; multiple ventilators should be evenly spaced over the length of the roof. Measure from the ridge line to the top center of the ventilator hood (Figure 1b). Using this measurement, go inside the attic and mark the location centered between two rafters and drill a hole. Put an object such as a pencil through the hole so that it is visible on the outside (Figure 1c).
- 3. Mark and Cut Opening.** Place and center the template printed on the outside of the package over the previously marked hole. Using a pencil or marker, use the 15" (381 mm) diameter template as a guide to mark a circle. For 24" (609 mm) on-center rafters, make the cutout shown (Figure 2a). For 16" (406 mm) on-center rafters, make the cutout shown (Figure 2b). Using a power saber, jig saw, or hand saw, cut out the opening (Figure 2c).

- 4. Prepare the Opening.** Roll back and separate any shingles (if existing). Remove all nails within 5 1/2" (140 mm) from the sides and top of the opening.
- 5. Test Ventilator Position.** Test the final position of the ventilator by sliding the flashing up under the upper shingles. Trim any shingles as needed and remove the ventilator (Figure 3a).

Note: For additional weather protection, install a 18" x 18" (457 mm x 457 mm) piece of GAF Leak Barrier around the opening. Remove release film and center the Leak Barrier over hole. Press into place and cut out the Leak Barrier covering the opening.

- 6. Seal and Fasten Ventilator.** With the position tested, apply a bead of roofing cement or urethane sealant to the underside of the ventilator's flashing. Proceed with sliding the ventilator up under the top shingles, with arrow on the flashing pointing up. Leave the lower portion of the ventilator flashing on top of the shingles for maximum weather resistance. Using roofing nails, fasten the ventilator at all corners of the flashing and approximately every 4" (102 mm) along the edge of the flashing (Figure 3b). Seal all exposed fasteners, flashing, stack seams, and loose shingles.

Note: For maximum wind resistance, remove the ventilator hood and fasten the flashing every 45 degrees, approximately 1" (25.4 mm) away from the stack wall. Replace ventilator hood when complete.

Warning: Using excess roof cement may cause blistering in the roofing shingles.

- 7. Mount the Thermostat.** Remove the thermostat cover and mount the thermostat box to the edge of an adjacent rafter or stud pre-punched holes in the box. Always leave some slack in the flexible conduit and ensure the thermostat element in the back of the box is **NOT** covered. Each ventilator must have its own thermostat.

NOTE: Select models include an optional combination humidistat/thermostat control.

- 8. Connect to Power Source.** For plug-in, see section 8A below. Alternatively, if you would like to hardwire your ventilator or are required to do so by local building and/or electrical code see section 8b below.
 - 8a. Plug-In:** Plug the fan into a 110v grounded receptacle as shown in figure 4a. **WARNING:** Fan may start immediately if temperature and/or humidity (select models) conditions are met. Refer to 'Ventilator Settings' in section 9.
 - 8b. Optional Hard Wire:** Always disconnect power supply before wiring the ventilator into an existing grounded circuit. Remove the thermostat cover and disconnect the EZ plug cord. Then remove the EZ plug cord from the thermostat box. Wire the thermostat as shown in figure 4b and replace the thermostat cover.
- 9. Ventilator Settings.** The included thermostat is adjustable from 60°F (15.5°C) to 120°F (48.8°C). The factory/recommended setting for efficient operation is **105°F (40.5°C)**. For select models with humidistat/thermostat control, the humidity should be set at **70%**.

Note: In the unlikely event accessories or parts are missing or this product does not operate correctly please contact Master Flow® Technical Services at 1-800-211-9612 or WarrantyLLBP@gaf.com. Do **NOT** return this ventilator to retailers or distributors.