



Solar Powered Ventilation

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Self-Flashing Solar Fan Installation Guide

Thank you for purchasing your new solar powered fan from *Attic Breeze*. Our self-flashing solar fans have been carefully designed to provide easy installation with minimal tools or experience required. Before beginning, please completely review this guide and the tools required for installation.

Application

This guide applies to composite (shingled) roof installations only. Please consult your *Attic Breeze* dealer for more information regarding alternate installation methods for other roof types.

Parts & Equipment

The following parts and equipment are included for your installation:

- (1) *Attic Breeze* solar powered fan with self-flashing base
- (1) solar panel mounting bracket kit (models featuring remote mounted solar panel only)
- (1) 15 foot power cable (models featuring remote mounted solar panel only)

What's Needed

- cordless drill with nut driver attachments
- self-tapping screws
- tape measure
- reciprocating saw
- roofing-grade weatherproof sealant
- roofing knife or box cutter

Getting Started

To ensure optimum performance from your *Attic Breeze* solar attic fan, attic air intake ventilation must be evaluated prior to installation. The minimum recommended net free area of intake ventilation for your product model is shown in Figure 1. Your installation should either meet or exceed these recommendations for optimum fan performance. For assistance in determining proper intake ventilation requirements, please consult your local *Attic Breeze* dealer or visit our website for more information.

<i>Attic Breeze</i> Fan Model	Minimum Required Intake Ventilation
20 watt	4.5 sqft net free area
25 watt	5.2 sqft net free area
40 watt	6.0 sqft net free area

Figure 1 - Air Intake Ventilation Requirements

NOTE: Lack of proper attic air intake ventilation may result in poor airflow performance from your fan.

Next, choose a location to install your fan that allows for balanced air flow throughout the attic space or ventilation area. The solar fan should be installed roughly centered on the roof and three feet below the ridge line. For optimum performance, choose an area of the roof that is oriented in a southern direction and is not shaded or otherwise blocked from the sun for extended periods throughout the day. If an installation location on the southern side of your roof is not available, please consult your *Attic Breeze* dealer for additional solar panel mounting options. Your solar attic fan should not be installed any closer than within 10 feet to an existing passive vent or additional fan unit. If installed in combination with a ridge vent, the solar attic fan should not be installed any closer than roughly 5-7 feet below the ridge vent.

Finally, consider sealing your attic space to prevent air exchange with the inside of your home. Eliminating air leaks increases both your attic insulation efficiency and the performance of your *Attic Breeze* solar attic fan.

Cutting the Vent Hole

Begin by marking out the rough outline of a 20" diameter circle in the location where the solar attic fan will be installed. Drill a pilot hole in the outline and cut out the circle using a reciprocating saw. Only cut through the roof decking and shingles, cutting around any rafters or framing members. When completed, clear away any remaining pieces of wood and shingle from the sides of the hole, rafters, or framing members (see Figure 2).

NOTE: DO NOT CUT THROUGH ANY RAFTERS OR FRAMING MEMBERS WHILE CUTTING THE VENT HOLE. Rafters or framing members located under the vent hole will not effect the performance of your solar attic fan.

Next, insert the reciprocating saw sideways between the shingles and roof decking. Starting at the 9 o'clock position of the vent hole, begin cutting in a sweeping motion under the shingles, sawing through any roofing nails or staples. Continue cutting clockwise across the vent hole until reaching the 3 o'clock position. Using a roofing knife, cut a 4 inch horizontal gap in the shingles at the 9 o'clock and 3 o'clock positions of the hole, allowing the fan's flashing to slide underneath the shingles.



Figure 2 - Cutting the Vent Hole

Solar Panel Mounting

If your *Attic Breeze* fan model is equipped with a unit mounted (attached) solar panel, please proceed to the next section. For *Attic Breeze* models featuring a remote mounted solar panel, the solar panel will be mounted prior to installation of the fan unit.

Begin by locating the power cable included with your *Attic Breeze* solar attic fan. Make sure the power cable is long enough to reach the location where the remote solar panel will be installed. Route the power cable through the attic, starting from the vent hole area to the location where your remote solar panel will be installed. Secure the power cable in place. The power cable may be routed out of the attic by bringing the cable through an existing passive vent, penetrating a gable wall and running the cable along the roof eave, or simply routing the power cable directly through the roof. When making any wall or roof penetration, caulk around the penetration using a roof-grade weatherproof sealant.

NOTE: The remote solar panel should be installed no further than 15 feet from the fan unit. If additional power cable length is needed for your installation, *Attic Breeze* offers a 40 foot extended power cable as an available option.

Install the solar panel mounting brackets per the instructions included with your specific *Attic Breeze* bracket kit. Plug in the power cord to the connector on back of the remote solar panel. Securely mount the solar panel as required to your roof or structure.

Installing the Fan Unit

Remove all packaging material and tape from your *Attic Breeze* solar attic fan. Allow the thermal switch cable (and remote power cable connector if present) to hang freely from the bottom of the unit. If an *Attic Breeze* pivot bracket is required for your installation, follow the instructions included with the bracket kit and mount the adjustable bracket at this time.

NOTE: KEEP THE SOLAR PANEL COVERED DURING INSTALLATION. Your *Attic Breeze* solar attic fan will begin operating immediately when the solar panel is exposed to sunlight.

Position the solar attic fan so that it is centered with the vent hole and ready for mounting. For models featuring a remote mounted solar panel, plug the power cable from the solar panel into the fan unit power cable connector at this time. Lifting the fan unit up at an angle, caulk around the bottom side of the flashing facing the roof using the weatherproof sealant. With all fan cables hanging inside the vent hole, slide the flashing of the fan unit underneath the shingles until the fan housing reaches the top of the hole.

Secure the fan flashing to the roof using three self-tapping screws per side. Apply additional sealant to weatherproof the installation as needed. Uncover the solar panel and your new *Attic Breeze* solar attic fan is now ready for operation.

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