

Attic Breeze®

America's Leader in Solar Powered Ventilation

Installation Guide



AB-2022

AB-3022

AB-4022

AB-6022

GEN II SFA/SFD Model Series Fans



ATTENTION: PLEASE READ THROUGH THIS ENTIRE INSTRUCTION GUIDE BEFORE PROCEEDING WITH YOUR INSTALLATION. MAKE SURE YOU HAVE THE REQUIRED TOOLS AND MATERIALS TO COMPLETE THE INSTALLATION OF YOUR SOLAR ATTIC FAN BEFORE BEGINNING.

Getting Started

Your Attic Breeze solar attic fan is designed for easy installation with composite shingle roofs or other low-profile roofing materials which may accommodate self-flashing roofing products. For installation of our products on metal or tile roofs, please contact Attic Breeze for information about our curb-mount fans and roof curb adapter kits designed for these roof types.



Your local building code may require specific fasteners or anchoring systems not discussed in this installation guide. If installing this product in an area of either Florida or Texas that has been designated as a high velocity wind zone area, review applicable building code requirements for additional installation instructions.

What's Needed



Cordless Drill with Nut Driver



Weatherproof Roofing Grade Sealant



Self-Tapping Screws with Rubber Bonded Washers



Roofing Knife



Reciprocating Saw



Ladder



Measuring Tape



Marker or Carpenter Pencil

Safety Information

Safety precautions should be taken when performing the roofing work described in this installation guide. You can significantly reduce your risk of danger by following the below recommendations:

- Do not perform roofing work in wet or windy conditions
- Tie-off both yourself and your equipment when working on steep pitched roofs to avoid falls
- Wear safety glasses and protective gloves when using power tools
- Always wear slip-resistant shoes when working on the roof
- Do not cut through any rafters or structural members of the roof during installation
- Leave the solar panel covered until your installation is complete

Choosing the Right Location

Choose a location to install your solar attic fan that allows for balanced air flow throughout the attic space. The solar fan should be installed roughly centered on the roof and three feet below the ridge line. For optimum performance, choose an area on the south side of your roof that is not shaded or blocked from the sun for extended periods throughout the day. If a location on the southern side of your roof is not available, you may raise the solar panel mounting bracket and face the fan unit toward the south for better sun exposure. Your solar attic fan should not be installed any closer than within 10 feet to an existing passive vent, ridge vent, or additional fan unit.

Ventilation Requirements

In order for your Attic Breeze solar attic fan to operate at maximum performance, your attic must have enough intake ventilation (net free area) to support the amount of air that your fan is moving. The minimum recommended amount of intake ventilation for your product model is shown in Table 1. Your installation should either meet or exceed these recommendations for optimum fan performance. If you need assistance determining the proper amount of intake ventilation for your home, please visit our website for more information.

Fan Model	Intake Ventilation
AB-2022	4.7 sqft
AB-3022	5.7 sqft
AB-4022	6.3 sqft
AB-6022	7.0 sqft

Table 1 - Intake Ventilation Requirements

Installing the Fan

Step 1 - Cut the Hole

After choosing the location where your solar attic fan will be installed, find the closest rafter to that location and determine if your roof has either 16" on center or 24" on center rafter spacing. If your roof has 24" on center rafter spacing, find the center point between two rafters and mark it as the center of the vent hole. For roofs with 16" on center spacing, mark the rafter itself as the center of the vent hole. Partially insert a screw into the center point mark. Using the screw as a reference point, trace out a 10" radius circle (20" across) as shown in Figure 1. Next, use a reciprocating saw to cut out the traced hole pattern from the roof decking. Remove the cut out decking material from around the hole as needed.



ATTENTION: DO NOT CUT THROUGH ANY RAFTERS OR STRUCTURAL MEMBERS WHILE CUTTING THE VENT HOLE. ONLY CUT OUT THE ROOF DECKING.

Step 2 - Release the Shingles

Insert the reciprocating saw sideways between the shingles and roof decking. Starting at the 3 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 counter-clockwise around the vent hole until reaching the 9 o'clock position. Using a roofing knife, cut a 4 inch horizontal slit 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.

Step 3 - Remote Mounted Solar Panel

If your Attic Breeze fan 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.



If additional power cable length is needed for your installation, Attic Breeze offers a 40 foot extended power cable as an available option.

Route the power cable through the attic, starting from the vent hole area to the location where your remote solar panel will be installed and 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.

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 and securely mount the solar panel/bracket assembly as required to your roof or structure.

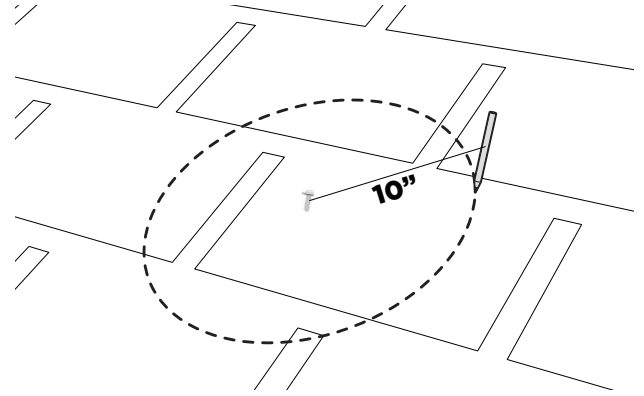


Figure 1 - Cutting the Hole

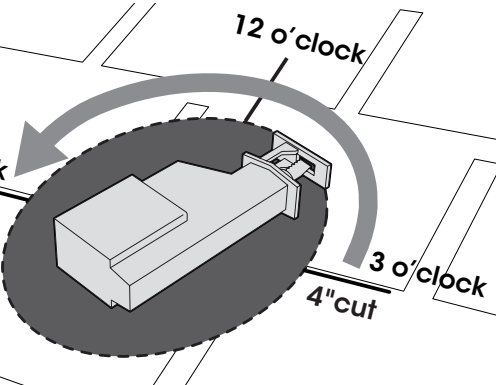
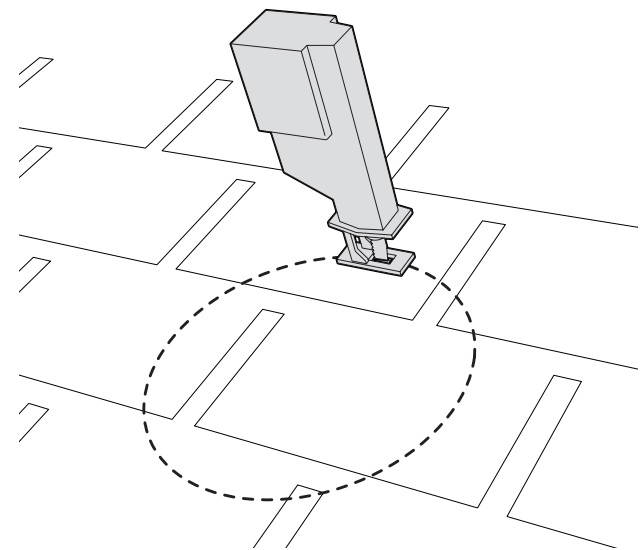


Figure 2 - Releasing the Shingles

Step 4 - Mount the Fan

Remove all packaging material and tape from your fan. Position the fan so that it is centered with the vent hole and allow the control cable (and remote power cable connector if present) to hang freely from the bottom of the fan unit. Locate the control switch envelope included with your solar fan, or if installing a Breeze Mate® control system, please follow the instructions included with that product at this time. Plug the control switch or Breeze Mate® connector into the fan's control cable connector. For models featuring a remote mounted solar panel, plug the power cable from the solar panel into the power cable connector on the fan (black cable).



ATTENTION: KEEP THE SOLAR PANEL COVERED DURING INSTALLATION.

After the control switch is connected, your Attic Breeze solar fan may begin operating immediately when exposed to sunlight.

Lifting the fan unit up at an angle, apply weatherproof caulking to the bottom side of the fan unit (see Figure 3). Align the fan unit with the vent hole so that the sticker "solar panel pivots this way" is facing the desired direction. If the solar panel is to remain in the flat unraised position, the sticker will be on the top side (12 o'clock position) of the fan unit.

With all fan cables connected and hanging inside the vent hole, slide the fan unit underneath the shingles until the fan reaches the top of the hole. Secure the fan flashing to the roof with self-tapping screws through the pre-drilled holes in the base flashing. Apply caulk around the fan unit where the shingles meet the flashing, across the 4" slit cuts, and over any exposed screw heads to weatherproof your installation.

Adjusting the Solar Panel

The solar panel on your Attic Breeze solar attic fan may either be left down in the horizontal mounted position as received from the factory, or the solar panel bracket may be raised to pivot the solar panel toward the south in order to get better sun exposure.

To raise the solar panel, first loosen the set bolts on the solar panel mounting brackets using a 7/16" wrench as shown in Figure 4. Raise the solar panel to the desired tilt angle using the provided adjustment slots and tighten the set bolts.



DO NOT OVER TIGHTEN THE SET BOLTS! You may damage your bracket if too much torque is applied to the set bolts.



ATTENTION: Do not raise the solar panel if installing this product in an area of either Florida or Texas that has been designated as a high velocity wind zone area. The solar panel must remain in the flat horizontal position due to building code requirements.

Warranty Registration

Attic Breeze offers an industry leading LIFETIME WARRANTY on your new solar attic fan. For more information about the terms and conditions of our warranty, please see our website for details. Thank you for choosing Attic Breeze!



YOUR WARRANTY MUST BE REGISTERED WITHIN 90 DAYS OF INSTALLATION.

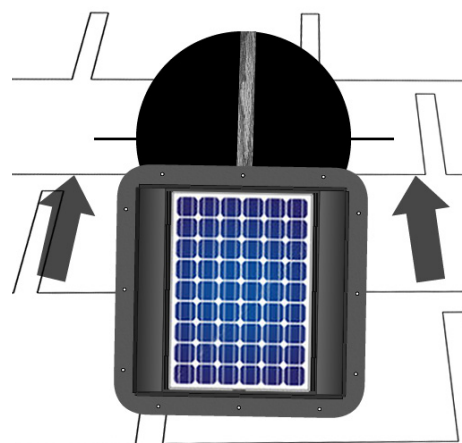
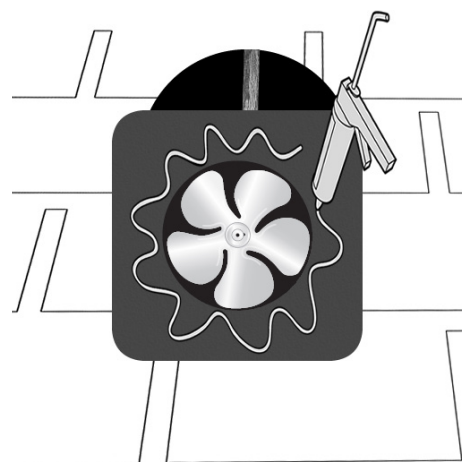


Figure 3 - Mounting the Fan

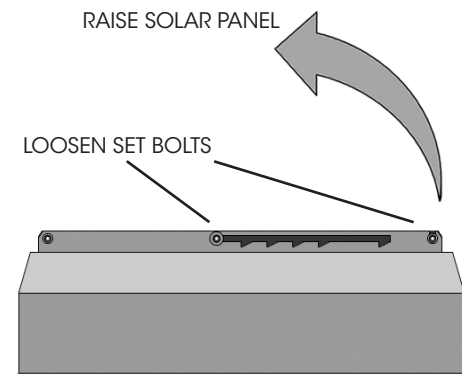


Figure 4 - Adjusting the Solar Panel