



# Solar Powered Ventilation

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## Retrofit Style Solar Gable Fan Installation Guide

Attic Breeze® retrofit style GM model series fans are a great alternative for customers who want the benefits of solar powered ventilation without the need for making a roof penetration, offering easy installation behind or underneath any properly sized passive vent.

### Application

The Retrofit Style Solar Gable Fan Installation Guide applies to the following Attic Breeze® models:

AB-205 AB-255 AB-255C AB-405

### Parts & Equipment

The following parts and equipment are included for your installation:

- |  |   |
|--|---|
| (1) Attic Breeze® retrofit style solar gable fan                           | <b>For The Grande™ Series 40W Products Only...</b>  |
| (1) 20W or 25W monocrystalline solar panel per model requirements          | (1) Additional 20W monocrystalline solar panel for remote solar array with power cable splitter |
| (1) 15' power cable (18 AWG) or optional extended 40' power cable (14 AWG) | (1) 15' power cable (18 AWG) set or optional extended 40' power cable (14 AWG) set              |
| (1) Standard Mounting Bracket or optional Universal Mounting Bracket       | (1) Standard Mounting Bracket set or optional Universal Mounting Bracket set                    |

### What's Needed

- Cordless Drill
- Self-Tapping Screws (hex head 10-16 x 1")
- Caulking Gun
- Roofing Grade Weatherproof Sealant
- Lumber (2x4)
- Woodscrews (hex head 10-16 x 2 ¼")
- Saw
- Tape Measure

### Getting Started

Please read this instruction guide completely before beginning your installation. To ensure optimum performance from your Attic Breeze® solar gable fan, both attic intake AND exhaust ventilation must be evaluated prior to installation.

The minimum recommended net free area air intake for your product model is shown in Figure 1. For assistance in determining if your application meets intake ventilation requirements, please visit our website for more information. Additionally, please note that the gable or passive exhaust vent where your fan will be installed must be have the same venting area or larger than the fan itself.

Attic Breeze® 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 - Intake Ventilation Requirements

**NOTE:** Lack of proper air intake and/or exhaust ventilation will result in poor airflow performance from your solar gable fan. Make sure that your application either meets or exceeds the ventilation recommendations above to ensure optimum fan performance.

## Building the Mounting Box

Begin by building a mounting box around your existing gable or passive vent inside the attic. Measure the length between the studs or rafters adjoining the vent and cut the 2x4 boards to complete the box as shown in Figure 2. Secure the boards in place using woodscrews.

**NOTE:** Mounting box should be no larger than 21" x 21". If gable or passive vent extends beyond this area, block off excess venting area to prevent backflow of exhaust air.

When completed, the mounting box should provide an air channel for the gable fan to properly exhaust through.

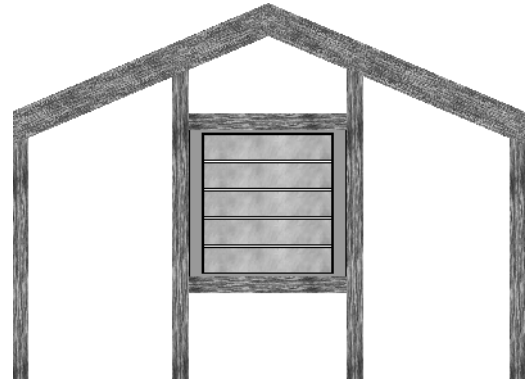


Figure 2 - Building the Mounting Box

## Installing the Fan Unit

Next, install the *Attic Breeze*<sup>®</sup> retrofit style solar gable fan flush to the mounting box (see Figure 3). The fan housing (cylinder) should be positioned facing toward the attic space. Secure the fan unit to the mounting box with self tapping screws.

## Routing the Power Cable

Locate the power cable include with your *Attic Breeze*<sup>®</sup> product. Make sure the power cable is long enough to reach the location where the remote solar panel will be installed. Plug the cable into the power cable connector located on the fan unit.

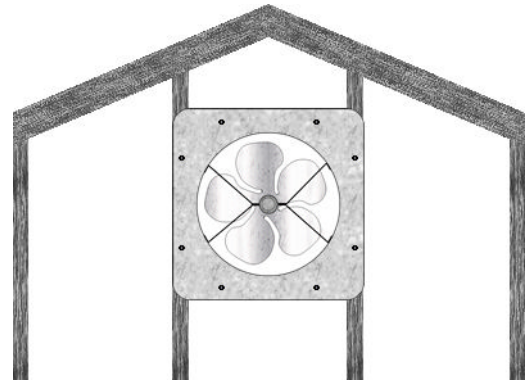


Figure 3 - Mounting the Fan Unit

**NOTE:** If installing *The Grande*<sup>™</sup> Series 40W solar gable fan product, plug the power cable splitter into the power cable connector located on the fan unit and then connect the two power cables to the splitter.

Route the power cable to the location where your remote solar panel will be installed. There are various methods for bringing the power cable out of the attic. These include either bringing the cable through an existing passive vent, penetrating a gable wall and running the power cable along the roof eave, or simply routing the power cable directly through the roof.

**NOTE:** When making a wall or roof penetration, be sure to weatherproof around the power cable penetration using a roofing grade sealant.

## Solar Panel Mounting

Install the solar panel mounting brackets per the instructions included with your specific bracket kit and plug in the power cord to the connector on back of the solar panel.

**NOTE:** When installing the *Attic Breeze*<sup>®</sup> low-profile Standard Mounting Bracket, make sure to connect the solar panel and power cable **BEFORE** mounting the solar panel to the roof.