

Curb Mount Solar Fan Installation Guide

Thank you for purchasing your new solar powered fan from *Attic Breeze*. Our curb mounted 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 tile 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:

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| (1) <i>Attic Breeze</i> solar powered fan with curb mount flashing | (1) 15 foot power cable (models featuring remote mounted solar panel only) |
| (1) <i>Attic Breeze</i> AB-004 roof curb installation kit (optional accessory) | (1) solar panel mounting bracket kit (models featuring remote mounted solar panel only) |

What's Needed

- cordless drill with nut driver attachments
- tape measure
- *Attic Breeze* AB-004 roof curb installation kit or alternative roof curb with appropriate flashing
- self-tapping screws (included with *Attic Breeze* AB-004 roof curb installation kit)
- reciprocating saw
- roofing-grade weatherproof sealant

Getting Started

To ensure optimum performance from your *Attic Breeze* solar 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.

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

<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
60 watt	6.8 sqft net free area

Figure 1 - Air Intake Ventilation Requirements

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 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 fan.

Installing the Roof Curb

Begin by removing roof tiles in the area where the roof curb will be installed. If your roof has a plywood decking, cut a 20" x 20" square from the decking in the area where you wish to install the roof curb.

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.

Install your *Attic Breeze* AB-004 roof curb installation kit per the included instructions. When complete, please proceed to the next section. If installing an as-built or third party roof curb box and flashing system, the roof curb should be constructed with dimensions of 23 ½" x 23 ½" x 6" and designed to support a weight load of at least 30 LBS. Please consult your roof curb provider for proper installation and flashing instructions.

Mount your roof curb to the framing structure or decking of the roof as required. Remove battens as needed in order to mount the roof curb flush to the decking. Position the roof curb over the vent hole, squaring the curb with your roof tiles. Securely fasten the roof curb in place to the framing members or decking. Replace roof tiles as needed up to the installed curb and secure the tiles in place. Flash in the roof curb installation as required for your choice of flashing system.

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 fan. Make sure the power cable is long enough to reach the location where the remote solar panel will be installed.

NOTE: 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 roof curb installation 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.

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 fan. Allow the control cable (and remote power cable connector if present) to hang freely from the bottom of the fan unit. If installing an *Attic Breeze* Pivot Bracket or Breeze Mate® control system, please follow the instructions included with those products at this time.

Located the control switch envelope included with your solar fan (skip this step if installing a Breeze Mate® control system). Plug the control switch into the fan's control cable connector.

NOTE: 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.

Caulk around the top of the roof curb box using the weatherproof sealant and position the fan over the roof curb. 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). If installing a Breeze Mate® control system, plug the Breeze Mate® cable into the fan's control cable connector.

With all fan cables connected and hanging inside the roof curb, mount the fan unit over the roof curb box and flashing, securing the fan to the sides of the roof curb box using three self-tapping screws per side. Apply additional sealant to weatherproof the installation as needed.

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