

# SOLAR STAR<sup>®</sup>

by SOLATUBE<sup>®</sup>

## SUNUP TO SUNDOWN – SOLAR STAR IS ON THE JOB

Solar Star, the solar-powered attic ventilation leader, brings you the most technologically-advanced, environmentally-friendly solution today. Best of all, Solar Star brings you the solution that costs nothing to operate. Imagine the savings!

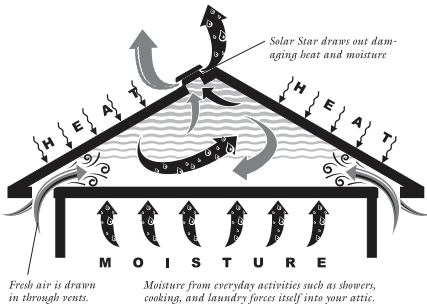
Most electric-powered attic ventilators are engaged by a thermostat, so they only work when attic temperatures have already built up. Because of this, thermostat activated units are forced to play catch up with built up heat. Other systems may have a humidistat measuring the moisture level in an attic. This too is a problem because when humidity levels reach the preset activation level, condensation and moisture have already reached a critical point.

The solution is Solar Star. Solar Star doesn't have the costly problem of replacing thermostats or humidistats like electric attic ventilators. And since Solar Star functions from sunup to sundown, humidity and temperature levels never reach those critical activation levels. Add in the fact that there is NO electrical wiring; it is easy to see why Solar Star is the perfect solution.

## SUPPRESS HEAT BUILD-UP

A hot attic acts like a giant radiator, transferring heat into your living spaces and sending both utility bills and temperatures soaring. In colder climates, heat build-up in an attic causes snow to melt and run down where it freezes at the eaves, which cause destructive ice damming. With Solar Star, you can ventilate your attic, helping to equalize interior and exterior temperatures. The result is a properly ventilated attic which prolongs your roof's life, lowers your utility costs, and makes your living environment more comfortable. Solar Star:

- Reduces heat build up.
- Reduces air conditioning costs.
- Prolongs roof life.
- Prevents ice damming.



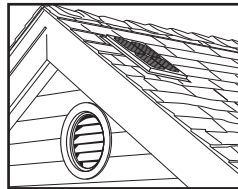
## BATTLES MOISTURE

Many of today's houses have insufficient ventilation and air exchange. This causes high humidity levels from everyday activities. This moisture migrates through the ceiling towards the roof where it comes in contact with the cold structure. Here ice and frost form causing damage to your roof structure. Additionally, moisture can saturate insulation, reducing its functionality. Not to mention that moisture in the attic can promote mold, fungal decay and plywood delamination. Solar Star:

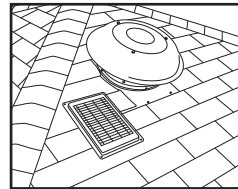
- Reduces moisture.
- Fights mold.
- Protects roof structure.
- Reduces heating costs.

## CONVERT ANY ATTIC VENT TO A SOLAR-POWERED VENT WITH OUR SOLAR STAR CONVERSION KIT.

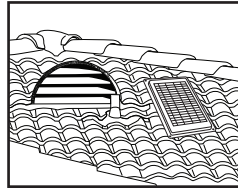
The Solar Star Conversion Kit can transform any vent into an eco-friendly solar-powered vent. Now you can easily and quickly use the power of the sun to reduce attic heat and battle moisture. No electrician, no electrical hook ups, easy to install. Great for converting:



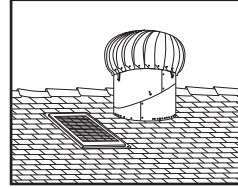
Gable Vents



Powered Vents



Dormer Vents



Whirlybirds

## INSTALLATION TIPS

1. Solar Star products develop 100% of their operational power from the sun; therefore it is very important that the solar panel be exposed to as much sunlight as possible. The best location for the solar panel is on a south-facing slope.
2. When using the Solar Star Conversion Kit, install the fan at the highest vent on the roof for best results.
3. If the fan does not completely cover the vent opening it is installed to, block any remaining areas of the vent opening to allow the fan to draw air from lower intake vents. Ensure net free air opening is a minimum of 1/150 of attic area or in compliance with local building code requirements.
4. Install intake vents (not provided) low on the roof slope to create continuous airflow through your attic. Soffit or eave vents are preferred.

*Note: Research has shown that for the highest level of effectiveness, Solar Star products, matched with proper location and static intake vents, provide balanced ventilation. Airflow will vary according to latitude as well as atmospheric and climate conditions.*

## REQUIRED TOOLS

1. Power Drill
2. Ladder



**WARNING: DO NOT PROCEED WITH THE INSTALLATION UNTIL YOU HAVE READ THE ENTIRE INSTRUCTIONS INCLUDING THESE WARNINGS.**



## PRECAUTIONS

### Install at your own risk!

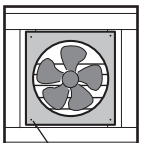
Installation requires climbing and working at dangerous heights, including on ladders, scaffolding, roofs and in attic spaces. Risk of death, personal injury and property damage may result from a fall, or from falling objects. Use extreme caution to minimize risk of accidental injury, including, but not limited to the following procedures:

- Avoid working on surfaces that are slippery or wet.
- Use foot-wear with excellent traction.
- Use only strong, well supported ladders.
- Work only in calm dry weather.
- When in an attic, ensure that your weight is supported at all times with structurally sound framing; dry wall material is not designed to carry a person's weight.
- To reduce the risk of fire, electric shock, and personal injury; basic safety precautions should always be followed when using electric tools, including always wearing safety goggles or other suitable eye protection, and ensuring work area is clear of all electrical wires, gas pipes, water pipes, and other obstacles.
- When working in an attic, use of a mask or respirator is recommended to avoid lung irritation. Attic spaces may be dark, confined, and subject to extreme temperatures. Beware of sharp protruding objects. Do not attempt installation without having someone within range of your voice or close enough to come to your aid if necessary.

## INSTALLATION INSTRUCTIONS

### Step 1: Select Unit Location

Determine area to attach fan. Fan may be secured to the studs of a gable vent, the roof deck surrounding a powered vent, or framing adjacent to a dormer vent or other passive attic vent that is 16 in (405 mm) wide. Create wood framing for vents without appropriate pre-existing framing or decking material.



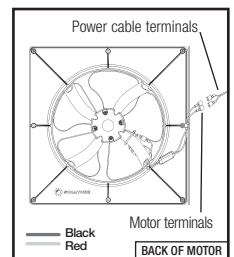
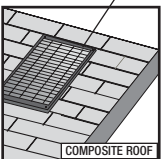
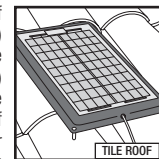
screw to stud

### Step 2: Install the Fan

Secure fan with at least four (4) screws (provided) to the framing area with motor facing the attic. If converting a power attic vent to solar-powered, for best performance you should remove the existing fan and motor for maximum air flow (and cap the electrical wire in the junction box).

### Step 3: Mount Solar Panel

Mount solar panel to roof within a 12 ft (3.5 m) area of fan. Using the four (4) 2 in (50 mm) screws provided, secure unit to composition roof through the four corner holes in the mounting bracket. (For tile roofs, align and mark the four corners of the solar panel with the peaks of the curved tile. Drill four (4) holes in the tile using a 1/4" masonry bit and insert the four anchors. Secure to roof with four (4) 2 in screws through the four corner holes. Insert two (2) 1" spacers on the down slope portion of the panel if needed.) Coat screw heads with sealant (not provided). Route 15 ft (4.5 m) power cable to fan.



**Step 4: Connect Power Cable**  
Connect power cable terminals to motor terminal in fan. Connect black wire to black terminal, and red wire to red terminal.

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