



## 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:

- 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, electrical 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 or other dusty area, 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.

Solar Star products may have sharp edges. Always wear leather or canvas work gloves while handling and installing Solar Star products. Solar Star products have an unguarded fan blade. Do not use Solar Star products in areas that are easily accessible. Keep children out of attic area and away from Solar Star products.

Keep Solar Star solar panels covered until product is mounted and sealed to roof. Cover solar panel whenever motor, fan or unit is to be serviced. Fan blade is controlled by solar panel and may become operational when panel is exposed to sunlight.

Carbon Monoxide (CO) is a colorless, odorless gas that can be hazardous to your health and may cause death. Carbon monoxide may be drawn into a house or attic space with the operation of Solar Star products if fuel-burning equipment is not serviced or monitored regularly. Fuel-burning equipment must have proper ventilation, Solar Star products are not designed to provide ventilation for fuel-burning products.

Solar Star products are designed for general ventilation purposes only. Do not exhaust any hazardous materials or gases such as flammable, explosive or incendiary materials.

## Warranty Information

For all Solar Star products purchased or delivered hereunder, Solatube International, Inc. warrants they are free from defects of workmanship and/or material for a period of time from the date of purchase as noted hereafter:

- 5 years on solar panel and motor
- 10 years on all other components, including metal housing, roof flashing bases, fan blade, plastic, rubber or metal seals, gaskets and fasteners.

Should any products be determined by Solatube to be defective, at the option of Solatube, such products shall be replaced or repaired and returned to Buyer free from defect. Buyer shall give notice of any such defect to Solatube within thirty (30) days of discovery of such defects. Buyer shall provide proof of purchase over life of warranty on all warranty claims as required.

In no event shall Solatube be liable for loss of profits, indirect, special incidental, consequential or other similar damages, including but not limited to any claim or demand arising out of the installation, existence, furnishing or functioning of any of the products or use by any breach of warranty for improper installation of these products. To the fullest extent allowed by law, Solatube's liability to all Buyers for all claims with respect to the products shall be limited to the lesser of (a) the cost of replacing the products; (b) the cost of obtaining equivalent products; or (c) the cost of having products repaired.

# SOLAR STAR

by  SOLATUBE®

## 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!

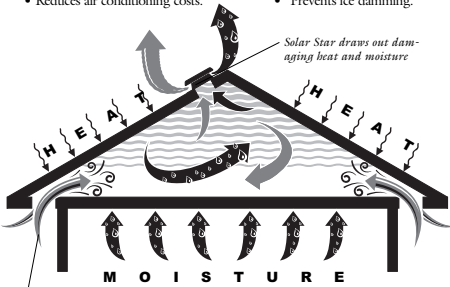
Most electric-powered attic ventilators are engaged by a thermostat, so they only work when attic temperatures have already built up. Because of this, thermostat activated units are forced to play catch up with built-up heat. Other systems may have a humidistat measuring the moisture level in an attic. 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 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, causing destructive ice damming. By placing the Solar Star Roof Mount Vent where it is most effective - high on the roof - it can properly 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.



Fresh air is drawn in through vents.

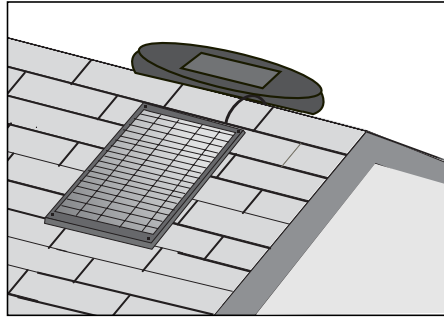
Moisture from everyday activities such as showers, cooking, and laundry forces itself into your attic.

## BATTLE 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.

## NEED ANOTHER SOLAR PANEL? BUY THE SOLAR PANEL ADD-ON KIT



When continuous exposure to the sun is limited on your roof, consider adding an additional solar panel. Solar Star's Add-On solar panel is the perfect solution for:

- east/west facing roof slopes,
- shadowing from trees, and/or
- avoiding morning or afternoon shadowing from other structures or rooftop equipment.

## 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 Star Roof Mount Vent is on a south-facing slope.
2. Install the Solar Star Roof Mount Vent just below the top ridge of the roof, since hot moist air will naturally rise to the top portion of the attic. Ensure net free air opening is minimum of 1/150 of attic area or is meeting your local building code requirements.
3. Install intake vents (not provided) low on the roof slope to create continuous airflow through your attic. Soffit or eave vents are preferred.
4. If your home has gable vents, install the Solar Star Roof Mount Vent between gable vents or consider the Solar Star Gable Fan.

*Notes: 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.*

## INSTALLATION

### REQUIRED TOOLS:

- |                               |                |             |
|-------------------------------|----------------|-------------|
| 1. Saber or reciprocating saw | 3. Power drill | 5. Flat bar |
| 2. Hammer and nail            | 4. Ladder      |             |



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### PRECAUTIONS

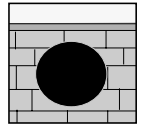
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## INSTALLATION AS EASY AS 1,2,3

### Step 1: Select your Spot

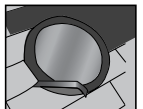
Look for a sunny rooftop exposure, then find the approximate roof hole location from within the attic. Drive a nail through the roof sheathing, between roof joists. Take the Solar Star, screws, sealant and appropriate tools onto the roof. While on the roof, measure out a 9" radius circle from the nail hole. Using a saber (or reciprocating) saw, cut out the 18" diameter circle in the roof materials and sheathing. Avoid cutting framing members.



Step 1

### Step 2: Prepare the Hole

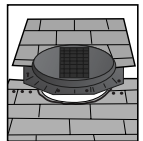
Using a flat bar, break the asphalt sealing tabs of the shingles and carefully pull out the staples or nails above the midpoint to upper edge of the hole. Remove enough shingles to expose the felt underlayment at the middle of the roof hole.



Step 2

### Step 3: Install your Solar Star

Apply a continuous 1/2" (12.7mm) bead of roof sealant to the underside perimeter of the Solar Star flashing. Turn the flashing upright and center over the roof hole with the panel label located on the high side of assembly. Fasten flashing to the roof and underlayment with 2" (50mm) flashing screws through pre-drilled holes in flashing. Tighten the screws until the sealant is a minimum of 1/8" (3mm) and a maximum of 1/4" (6mm) thick between the flashing and the roofing material (do not overtighten). Coat the screw heads with sealant. Replace the shingles and refasten them into place. Fill all the old holes, and resecure the shingle tabs every 4" (100mm) with spots of roofing sealant under each tab.



Step 3