Installation Manual
RV 14-900A

The SolarAttic Ridge Ventilator

Perforate duct mounted near apex of attic.

High-End Product

The Company's Ridge Ventilator is a high-end ventilation product and is designed to compete against continuous ridge vent systems and other high-end ventilation products.

Description of Ridge Ventilator

The SolarAttic Ridge Ventilator is designed for controlled ventilation of the attic. It can also be used to collect attic heat and to redistribute this heat to another location. Unlike simple roof fans, the ridge ventilator provides a "systems solution" to the problems encountered in attics. It does this by using a patented custom duct technology that allows for the even collection of heat along its length. SolarAttic owns 100% of this new technology represented by U.S. Patent 5,746,653. Now, for the first time in history, proper ventilation of the attic is no longer guesswork. The ridge ventilator eliminates the need for roof based passive vents (holes).

Ridge ventilator has an in-line blower assembly.

SAVC02 temperature & humidity control.

The electronic control senses the temperatures of 28°, 60°, 70° and 105°F. When the attic peak temperature drops to 28°F the first time, a winter condition is sensed and the control activates its humidity sensor. The attic is then vented whenever relative humidity exceeds a preset (adjustable) %Rh (factory set to 35% Rh). Between 28° F and 60° F (spring), the attic is vented constantly. As an alternative, the SAVC02 can also be set to the manual-on position and the ventilator would then simply vent constantly regardless of temperature or humidity. This could be useful in prolonged extreme subzero weather conditions. When the attic reaches 60°F, the SAVC02 stops ventilation. Ventilation, then, only occurs when the attic temperature exceeds the 105°F setting. The SAVC02 control provides for fully automated year-around ventilation.

The **RV 14-900A** SolarAttic Ridge Ventilator comes with an in-line fan or centrifugal blower unit (nominal 900 cfm @ free air) which is matched to a 50 foot length of custom perforated 14" circular mylar non-insulated flex duct with end cap and gable mounting flange. The automatic system operates on temperature and humidity settings for year around automatic ventilation of the attic. Purchaser is responsible for proper installation and compliance with applicable codes.

Model RV 14-900A SolarAttic Ridge Ventilator Specifications

•Nominal free air flow: 900 cfm
•Blower: Inline 14" Assembly
•Blower Motor UL File: E-59097
•Fan: Axial In-line 12" Diameter
•Duct Size: 14" Non-insulated Flexible
•Duct Length: 25 feet Standard
•Air Discharge Method: Gable (typical)
•Distance To Air Discharge: 10 feet max
•Power Requirements: 115 vac
•Full Load Amperage: 1.9 amps
•Operating Current: Nominal 1.5 amps
•Automatic or Manual Operation

Benefits Of SolarAttic Ridge Ventilator

The main benefits of the SolarAttic Ridge Ventilator are:

- Helps Eliminate Winter Ice Dams
- Reduces Air Conditioning Costs
- Eliminates Roof Vents
- Extends Roof Life

First Installed In New Energy Home

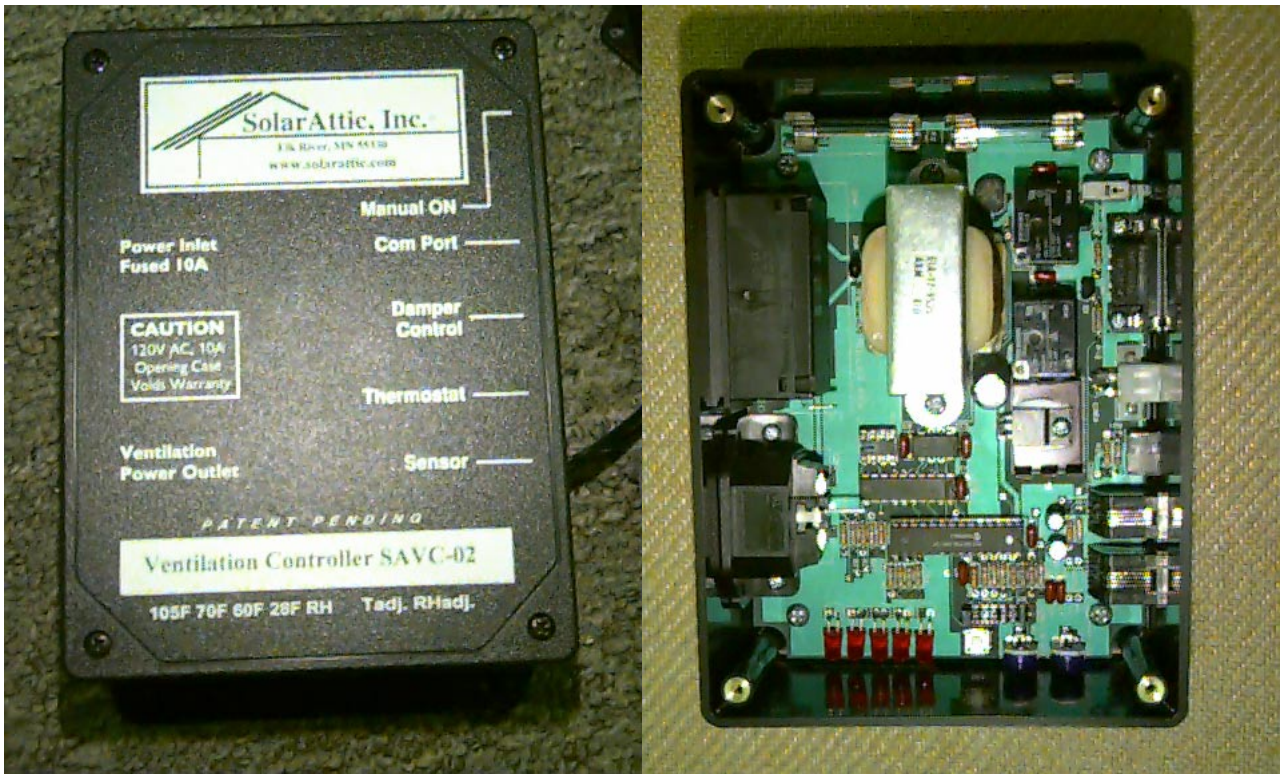
The above photos are taken from the Company's August 1997 Ridge Ventilator system installation in the Energy Home I located in Elk River, Minnesota 55330. This energy home was a joint project of Energy City (Elk River), Energy Alley (a project of the Minnesota Environmental Initiative) and the Suburban Northwest Builders Association of Elk River, Minnesota.

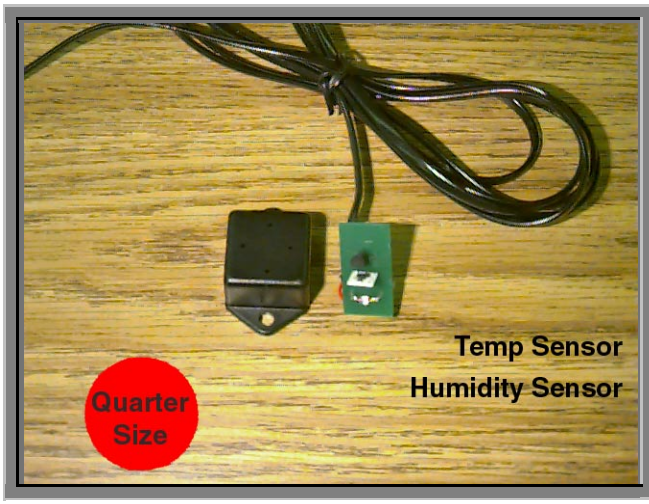
Shipping Contents:

• Blower motor with angle ring flange
• Power Cord wired to blower motor
• Perforated duct with end cap
• SAVC-02 Controller
• SAVC-02 Power Cord
• Sensor with phone cord plug
• Mounting screws
• Nylon banding straps
• Metal tape

A Systems Solution to Attic Ventilation

"SAVC02 Electronic Controller"





A new solid state temperature and humidity sensor comes with the SAVC02 and is placed at the attic's peak. It simply plugs into the side of the SAVC02. There are no complicated controls to operate or settings to make. Simply plug the control into a 115-vac source and plug the Ridge Ventilator, Space heater or the combination unit into the control. Everything is fully automatic!

- 115 vac @ 10 Amps Max current output
- Can be used with existing attic fans
- Temperature sensing -40° F to +150°F
- Humidity sensing 0-50% Rh @ -40 to 185°F

Other specs include the following: Winter vent condition is set at 28° F; Summer vent condition is set at 105° F; Excess humidity vented @ 28° F and below when humidity exceeds 35% Rh; Summer heat is vented above 105° F; Winter ventilation occurs from 28° F - 60° F if winter is set.

How To Install the RV 14-900A

Step

a) As shown in photograph on page 2, mount the blower motor at desired discharge point in attic (near peak). Note: Blower motor assembly can be up to 10 feet away from discharge point by using a non-perforated section of duct. This may be helpful in some hip roof conditions.

b) Extend duct out its entire length, and support at end with picture mounting wire through eyebolt on end cap. Use nylon banding straps to support duct approximately every 4 feet. Duct should not noticeably sag. Staple support straps to roof trusses or rafters.

c) Mount controller to trusses or rafters. Mount controller close enough for blower motor cord to reach controller, and for power cord to reach 110v attic outlet from controller.

d) Mount sensor to attic truss or rafter near roof peak, in towards center of attic. Do not mount sensor on an end-wall. Warning: Do not over tighten sensor-mounting screws!

e) Plug sensor into controller side port.

f) Plug power cord into 110v outlet and into controller. Make sure pushbutton switch on side of controller is in the out position for automatic operation.

g) Metal tape is supplied for making minor repairs to the duct if needed. It can also be used to reattach the duct to the blower assembly or end cap if required.

h) Miscellaneous supplies such as staples for nylon straps, and picture wire for the end-cap eye bolt are not included.