

SR8001 SOLVENT Attic Fan

Installation Instructions

Version 1.01 February 2016

SolarEast is not responsible for any loss or damage to any person or property in the course of installation or operation of this equipment.

Each person that installs or services this equipment must comply with all applicable OH&S requirements relevant the work being undertaken including but not limited to plumbing work, electrical work and working on roof tops.



Congratulations on your purchase of the SOLVENT PV Attic Fan by SolarEast Australasia, an Australian corporation. We trust your home will benefit from its operation for many years. It is important that you read this manual before you install this equipment



This equipment should be installed by a professional installer due to the dangers at heights. Installation should not be undertaken unless you are accustomed to and confident in performing this work safely. All State and Federal legislation pertaining to Occupational Health and Safety must be complied with. It is the installer's responsibility to ensure the product can be installed without risk of future leakage or damage to the property.



Warning – Prior to operation of this equipment, air intake eave grills MUST be installed, preferably on the opposite side of the house (south side). Recommended air intake venting for eaves and soffits is roof space area (Square Metres)/0.3 = Square centimeters of inlet vent area. Failure to do so could create negative pressures in the roof cavity and house which could interfere with proper fluing of carbon monoxide steaming from combustion heating appliances



Take Note - Installation and service must be performed by an authorised person. This equipment must be installed in accordance with:

1. Manufacturers Installation Instructions
2. Municipal Building Codes
3. Any other State or Federal Statutory Regulations



Take Note – Special consideration must be given in flat roof installations to ensure against water ingress back into the roof cavity via the equipment. It is the installer's responsibility to ensure that excessive roof pitch above 30° does not allow water ingress into the roof cavity via the equipment.



IMPORTANT- SolarEast Australasia Pty Ltd or any of its authorised representatives do not accept responsibility or implied responsibility for failure to install the equipment in accordance with this installation manual or for costs associated with any leakage into the property and any subsequent direct or indirect damage.

This equipment must be installed to comply with all State and Federal laws, building codes, roof warranties and regulations. Installation of this equipment must only be undertaken by individuals skilled in the use of the tools required for installation.

GENERAL INSTALLATION NOTES.

- Prior to installation of this equipment, use the cardboard wrapping to cover the solar cell to prevent fan operation during installation. Secure the wrapping to the equipment with tape. Remove the cardboard as the final installation action. The fan blade may pose a laceration risk should it operate during the installation process.
- Also use part of the cardboard to cut a template for marking the roof cut out. This should be a 540mm square section with a 400mm diameter hole in the centre.



- Orientation of the equipment should be north facing and free of shading from trees or other structures.
- The equipment is fitted with a thermostat set to 30°C. The fan will not operate if the air temperature at the thermostat is below 30°C. This thermostat will prevent operation in winter months reducing venting of roof heat.
- Any additional flashing use during installation of this equipment must comply with AS/NZS 4020 “Testing of products for use in contact with drinking water”.
- Roof rafters must not be interfered with during this installation. If a rafter is required to be cut, please seek advice from a certified building professional.
- **NOTE** – The following installation instructions are offered as a guide only due to the diversity of roof types and profiles. Solavent attic fans should be installed by suitably qualified persons who can decide on the best installation method for your roof top.

METAL ROOF TOP INSTALLATION

1. Prior to installation of this equipment, use the cardboard wrapping to cover the solar cell to prevent fan operation during installation. Secure the wrapping to the equipment with tape. Remove the cardboard as the final installation action. The fan blade may pose a laceration risk should it operate during the installation process.
2. Locate the Solavent carefully on the roof top. It should be positioned so that the higher horizontal edge is located under the ridge cap to ensure against water ingress.
3. **NOTE** - Try to locate the Solavent horizontally between roof rafters
4. **NOTE** – Locate the Solavent such that there is even overlap of the vertical edges over the peaks of the corrugations so that these edges can be effectively sealed against water ingress.
5. Remove the screws from the section of ridge cap to be used and keep these screws.
6. Use the 540mm x 540mm cardboard template to mark the position of the Solavent and the 400mm diameter area of the roof to be removed. Mark these mounting positions on the roof top using a permanent marker.
7. Use an appropriate cutting tool such as tin snips and remove the 400mm diameter section of metal roof. Ensure correct protection including gloves and eye protection is used during this process. Remove any insulation from this section if required.
8. You may wish to fasten a batten under the roof to along the line of the bottom edge of the Solavent to fasten the roofing screws to. This would be more of a consideration in high-wind areas.
9. Apply generous beads of a high quality roof and gutter silicon to the roof corrugation peaks inside of the marked area on the roof top and gently tilt and slide the Solavent up under the ridge cap setting it down onto the silicone beads.
10. Re-insert the roofing screws through the Solavent and ridge cap of the roof using roofing screws removed at the commencement of the installation. Note that at least two roofing screws should be used. If screws are old or corroded, they should be replaced.
11. Contoured bitumen impregnated foam, available from most major hardware chains, should be inserted across the full span of the bottom horizontal edge of the Solavent to protect against any wind driven rain or splash backs into the roof cavity and to prevent ingress by insect and small animals. The contoured foam is pre-formed and effectively fills the gaps in the valleys of the corrugated iron roof.
12. The two vertical edges and lower edge can now be fastened to the roof using suitable self-drilling roofing screws. A minimum of six additional roofing screws should be used. If the pre-drilled holes in the base of the Solavent do not line up with the peaks of the roof, ignore these holes however fill with silicon.
13. **NOTE** – ONLY fasten roofing screws to peaks of corrugations. Insert silicone into holes before fastening with roofing screws. Insert silicone into any unused pre-drilled holes in the Solavent base plate.
14. Do a final inspection and use silicon around any the edges of the Solavent base and any other gaps that are evident.
15. Remove the cardboard cover from the PV panel and the Solavent will now be fully operational

TILED ROOF TOP INSTALLATION

1. Prior to installation of this equipment, use the cardboard wrapping to cover the solar cell to prevent fan operation during installation. Secure the wrapping to the equipment with tape. Remove the cardboard as the final installation action. The fan blade may pose a laceration risk should it operate during the installation process.
2. Prior to lifting the Solavent to the roof top, use a suitable bending tool such as pliers to lift the left hand and right hand edges of the Solavent. This will aid against any water ingress after the Solavent is installed.
3. Locate a suitable position on your roof, facing north if possible and un-shaded by trees or adjacent structures. The Solavent will operate best at a high position on your roof-top.
4. The Solavent will eventually be located under your tiles with water ingress protection from bitumen impregnated foam available most leading hardware stores.
5. Lift 5 tiles from the roof top (three lower and two higher) and push the sixth (top right) up for later in the installation process. Please note that due to the many sizes and profiles of tiles, the appropriate number of tiles should be lifted by a professional person.
6. The two left hand side tiles will be used later in the installation so ensure they are not damaged in removal.
7. Slide the Solavent in under tiles on the top and left hand edges as far as is practical without disturbing these tiles
8. Ensure the Solavent top edge overlays the roofing batten so it can be fastened. Using approved roofing screws, fasten the top edge to the battens and left hand edge to the rafter or batten.
9. **NOTE** - Be sure not to drive the left hand edge screws down to hard if fastening to rafter as this will depress the left hand edge of the Solavent base plate and possibly disturb tiles.
10. Fasten the right hand side vertical edge o the batten or rafter being aware of 9, above.
11. **NOTE** – All screw points must be sealed with a high quality roof and gutter silicon.
12. Cut lengths of bitumen impregnated foam for the top edge and the two vertical edges. Insert the foam between the top line of tiles and top edge of baseplate. Secure with silicone effectively to prevent water ingress.
13. The right hand vertical edge foam can also be silicon sealed to the baseplate being sure to extend it up under the tile that has been lifted. This will now sit under the high part of the tiles that will be re-installed. Do the same to the left hand side foam.
14. Re-install the tiles on the right hand side and slide the sixth tile that had previously been pushed upwards back into position. This effectively protects against water ingress on this side.
15. Using the two tiles removed from the left hand side of the Solavent cavity, mark and cut them vertically so that the vertical tile edge is between 20 and 30mm from the intersection between the horizontal and vertical (exhaust neck) edges of the Solavent.
16. Cut the two left hand side tiles vertically using an approved tile cutting device.
17. **NOTE** – Ear and eye protection must be used and ensure cuts are made by a competent trained person.
18. Slide in the two cut tiles over the foam that was previously installed. At this time, you will have foam installed on the top and two vertical edges of the baseplate, all fully sealed with silicon.
19. The final installation is the foam under the bottom edge of the baseplate, effectively sealing the gap between the Solavent baseplate and the tiles.
20. Use additional silicon to effectively seal all gaps on and around the Solavent. Ensure all tiles are sitting normally on and around the Solavent.
21. **NOTE** – If tiles have lifted, it may be possible that the bitumen impregnated foam chosen by the installer is too thick. It is important that the tiling surrounding the Solavent is not raised or cracked. If raised the professional installer may choose to lift the tiles and trim the foam to better suit the installation.
22. Adjust the panel elevation if required to optimize the elevation and direction of the Solavent
23. Remove the cardboard cover from the PV panel and the Solavent will now be fully operational