



## MIDDLETON SOLAR EV1 VENTILATION UNIT APPLICATION NOTE



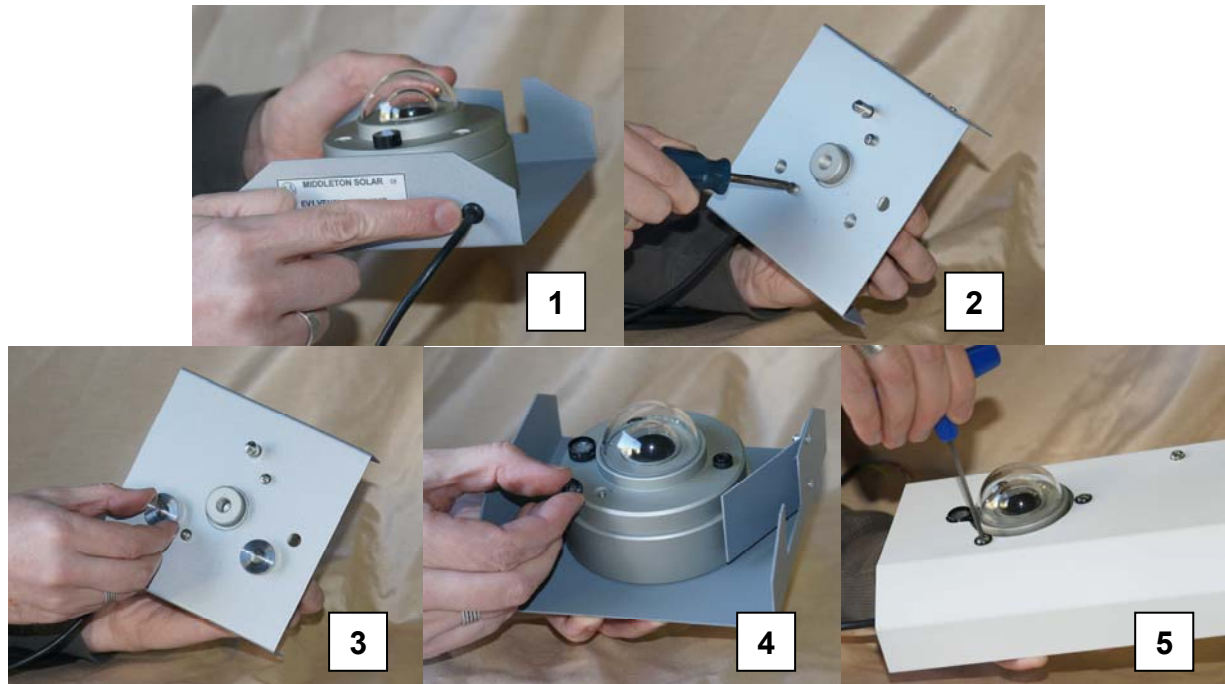
The EV1 Ventilation Unit provides a means to stop the formation of dew on the window dome of a pyranometer. It is suitable for use with Middleton Solar EQ series pyranometers<sup>1</sup>. The standard shade disk is replaced with an enclosed box housing a compact blower. Turbulent air exits around the dome perimeter and keeps the window surface dry and clear.

- **fits directly to pyranometer, no modifications required**
- **stops dew formation, clears dust and raindrops**
- **compatible with AST series Trackers**
- **improves thermal stability of sensor**

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<sup>1</sup> EQ08; EQ08-E; EQ08-S; EQ08-SE

## Installation of EV1



- 1) Remove the Shade Disk from the pyranometer, and discard
  - use a 2.5mm AF hexkeyRemove the two Adjustable Feet from the pyranometer bottom.  
Pass the pyranometer lead through the Grommet in the end of the EV1 Base.  
Position the pyranometer on the EV1 Base
  - orient bubble level at grommet end of the EV1 Base
- 2) Screw the EV1 Base to the pyranometer bottom
  - use two M4x8mm screws, and spring washers, provided
  - if necessary unscrew & reposition pyranometer top & bottom so bubble level remains correctly oriented
- 3) Refit the two adjustable feet to the pyranometer.
- 4) Place the three existing Shade Disk Spacers onto the pyranometer top.
- 5) Screw the EV1 Top to the pyranometer top
  - use three existing screws and washers
  - ensure that the blower fan locates into the cutout in the EV1 Base

Mount pyranometer as normal. Connect EV1 to 12VDC power, red to +ve.

### Specification

size	235 x 150 x 50mm
weight, complete with fasteners	0.65kg (includes lead)
construction	aluminium & stainless steel
power requirement	12VDC, 3.6W
lead	6m

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