![OmniSite - Cellular Monitoring Solutions]

Solar Panel Kit

Instructions

Revision: 1.1

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1. Introduction

1.1 Purpose

This document describes the assembly procedures for the OmniSite Solar Panel. This OmniSite OEM solar panel kit is used to power OmniSite cellular RTU's in remote locations where AC power is not available. Installation can be completed in less than 4 hours, providing a complete stand-alone monitoring solution without the need to install an AC power circuit.

1.2 ⚠️ WARNINGS ⚠️

COVER the Solar Panel with the Black Trash Bag (Included) while installing in the field. The solar panel will start collecting energy as soon as it's exposed to the sun.
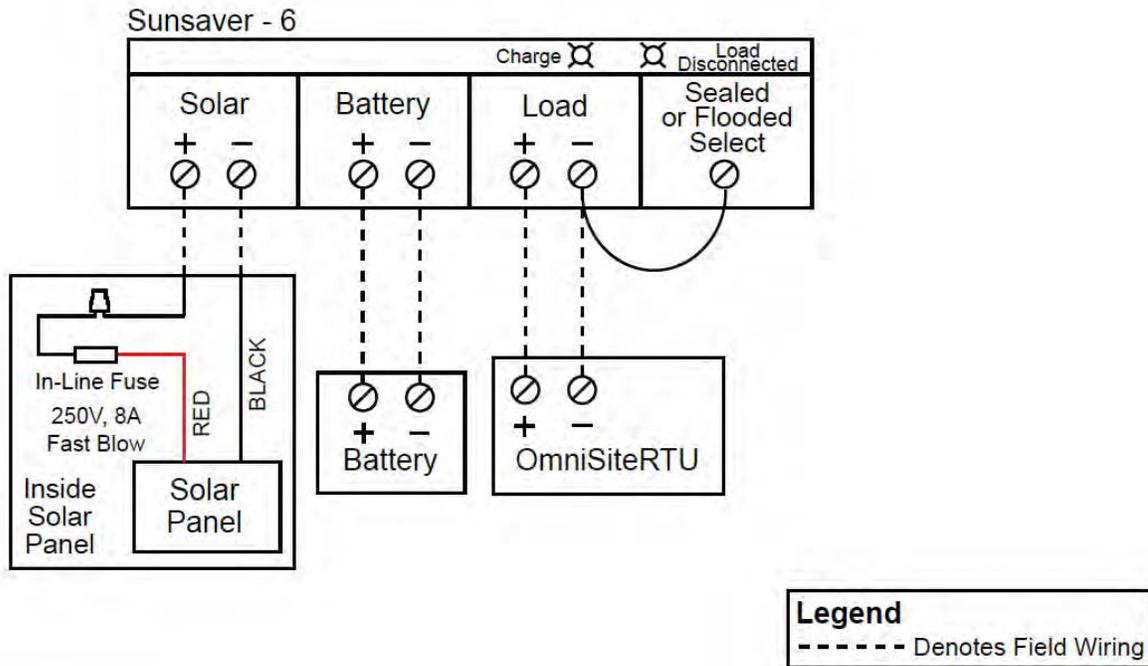

Mount the Bracket facing **SOUTH** at a **45 Degree Angle**.

DO NOT mount the Solar Panel near any obstructions such as a building or tree. The Solar Panel needs as much sunlight as possible during the day.

WATCH for any items which may fall on the solar panel to obstruct its full potential such as leaves from trees.

DO NOT plug in the backup small internal battery that comes with your OmniSite RTU. Use only the large, external battery supplied with the solar panel unit.

DO NOT short the solar panel wires!

Sunsaver - 6

Charge ⊠   ⊠ Load Disconnected

Solar	Battery	Load	Sealed or Flooded Select
+ −	+ −	+ −	
⊘ ⊘	⊘ ⊘	⊘ ⊘	⊘

In-Line Fuse
250V, 8A
Fast Blow

RED   BLACK

Inside Solar Panel   Solar Panel

⊘ ⊘
+ −
Battery

⊘ ⊘
+ −
OmniSiteRTU

Legend
- - - - - - Denotes Field Wiring

Follow this Wiring Diagram at all times.

Wire the Solar Panel Kit up in Order from 1-6 shown on the Sun Saver Solar Controller.

1.3 Materials

Materials Included:

OmniSite Solar Panel

OmniSite Enclosure w/ Sun Saver Solar Controller and Metal Back Plate

Enclosure Mounting Feet w/ Instructions

12 V 18aH Battery

14 MTW Red Wire for Positive Solar Connection with In-Line Fuse

14 MTW Black Wire for Negative Solar Connection

14 MTW Red Wire for Positive Battery Connection

14 MTW Black Wire for Negative Battery Connection

Mounting Bracket

U-Bolt

Mounting Bracket Hardware Kit w/ Instructions

Black Trash Bag

1.4 Tools Needed

7/16" Open End Wrench

Phillips Screwdriver

9/16" Open End Wrench

Channel lock pliers

Wire Stripper & Cutter

Cable Ties (Size to Fit)
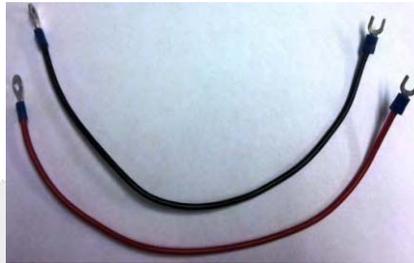
2. Installation Instructions

1. Carefully remove the Solar Panel Kit from the boxes in which it was shipped in.

2. Cover the Solar Panel with the **Black Trash Bag** as soon as it can be exposed to any light.

3. Read the "Fixed Pole Mount Assembly Instructions" which are included in the Mounting Bracket Hardware Kit.

4. Following the instructions, mount the solar panel at a **45 DEGREE ANGLE** pointing towards the **SOUTH** for best results.

5. After securely mounting the Solar Panel and verifying there will not be any obstructions, you will now mount the Enclosure. The Enclosure Mounting Feet and Instructions have been provided to show you how to properly and securely mount the Enclosure.

6. Open the Enclosure, and place the Battery to the right of the cord grip and conduit fitting.

7. Using the Positive and Negative Battery Wires (shown below), attach the Insulated Ring Terminal end to the battery with the bolt and nut on the battery post. Attach the corresponding Insulated Spade Terminal end to the Sun Saver Solar Controller. Be sure to first attach the negative and then the positive.

8. Run the wires from the Solar Panel up through the Cord Grip on the Enclosure.

9. Attach the Solar Panel wires to the Negative and Positive Solar Connection wires with the provided wire nuts attached.
   *Make sure the In-Line Fuse is attached to the Positive (Red) Wire

10. Attach the spade end of the **Negative** (Black) Solar Connection Wire to the Sun Saver Solar Controller, and then attach the spade end of the **Positive** (Red) Connection Wire to the Sun Saver Solar Controller once the Negative wire has been attached securely.

11. Tighten the cord grip which you ran the Solar Panel wires through by turning clockwise.

3. Unit Instructions

12. Attach (2) 18 Gauge Wires (not provided) to the 3 Position Terminal Plug (One for + and One for -), and we recommend running this through Liquid Tight Conduit (not provided) through the straight conduit fitting on the Enclosure.

13. Attach the RTU Negative (Black) Wire first followed by the Positive (Red) Wire to the Sun Saver Solar Controller.

14. Power on your Unit by plugging in the 3 Position Terminal Plug into the Socket located on the bottom right side of the Metalwork.

15. Press the buttons to go through the following menus to put the Unit in Lower Power Mode.
Main Menu > Diagnostics > RTU Status > Low Pwr Mode

16. Press Enter with "EDIT POWER MODE" flashing.

17. Press enter again on "Select" to move to "Disabled".

18. Press the UP Arrow to choose "Enabled".

19. Press the Enter button to select "Enabled".

20. Exit the Menus back to Main Menu by pressing the Exit button.

The Solar Panel Kit is now fully installed and ready to use. If you have any questions, please don't hesitate to call OmniSite Tech Support at 317-885-6330 ext. 3.