

SCC-Omega PWM Quick Guide

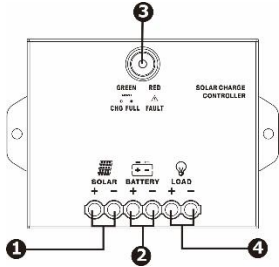
Version. 1.1

1. Package Contents

You should have received the following items inside of package:

- Charger Unit
- Quick Guide

2. Product Overview



- 1 Terminal block for solar panel connection
- 2 Terminal block for battery connection
- 3 Charging status indicator
- 4 Terminal block for load connection (only available for 360W-1200W models)

3. Installation and Initial Startup

NOTE: Before installation, please inspect the unit. Be sure that nothing inside the package is damaged.

Mounting

Step 1: Choose mounting location

Locate the solar charge controller on a vertical surface. Select an appropriate mounting location. Use a horizontal line and mark the two ends of the ears on the wall.

Step 2: Check the clearance

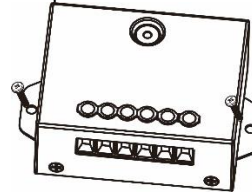
Install the solar charge controller in a protected area that is free of excessive dust and has adequate air flow. Please place the solar charge controller away from other units at least 20 cm to avoid interference. Do NOT operate it where the temperature and humidity is outside the specific limits. (Please check the specs for the limitations.)

Step 3: Drill the holes

Remove the controller and drill 2 holes in the marked locations with 2 screws.

Step 4: Secure controller

Place the unit on the surface and align the mounting holes with 2 screws in step 3. Refer to below figure.



Wiring

CAUTION! Be sure to secure all wiring, especially for mobile applications. Use cable clamps to prevent cables from swaying when the vehicle is in motion. Unsecured cables create loose and resistive connections which may cause excessive heating or fire

Step 1: Connect battery positive (+) wire to the positive terminal (A) of the unit and battery negative (-) wire to the negative terminal (B) of the unit.

Step 2: Install a DC Breaker or a DC fuse holder in battery positive wire. Keep the DC breaker off or do not install the DC fuse.

Step 3: connect positive (+) wire of solar module to the positive terminal (C) of the unit and negative (-) wire of solar module to the negative terminal (D) of the unit. (See Fig.3 for 12VDC battery wiring and Fig.4 for 24VDC battery wiring)

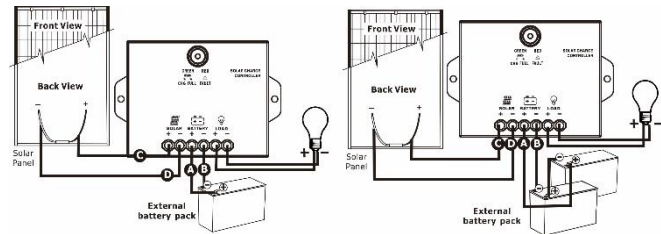


Fig. 3

Fig. 4

Operation

After all wires are connected, turn on the DC breaker or install the DC fuse. Then the solar charge controller will automatically work. At this time, the green LED will light up. Be sure solar panel is at least 6VDC higher than battery voltage to start charging.

Indicators Table for Operation

Model	Condition	Visual Condition
120W / 240W	Battery is charging	Green LED lighting
	Charging is complete	Green LED flashing
360W / 720W / 600W / 1200W	Battery is charging	Green LED flashing
	Charging is complete	Green LED lighting
	Fault occurs	Red LED lighting

4. Important Safety Warning (SAVE THESE INSTRUCTIONS)

CAUTION! To prevent the risk of fire or electric shock, install in a temperature and humidity controlled indoor area free of conductive contaminants. (See the specifications for the acceptable temperature and humidity range.)

CAUTION! Do not allow liquids or any foreign object to enter inside of this unit. Do not place beverages or any other liquid-containing vessels on or near the unit.

CAUTION! Servicing of batteries should be performed or supervised by personnel knowledgeable of batteries and the required precautions. Keep unauthorized personnel away from batteries.

CAUTION! When replacing the batteries, use the same number and type of batteries.

CAUTION! A battery can present a risk of electric shock and high short circuit current. The following precaution should be observed before replacing batteries:

- 1) Remove watches, rings, or other metal objects.
- 2) Use tools with insulated handles.
- 3) Wear rubber gloves and boots.
- 4) Do not lay tools or metal parts on top of batteries.
- 5) Disconnect charging source prior to connecting or disconnecting batteries terminal.

5. Trouble Shooting

Use the table below to solve minor problems.

Problem	Possible Cause	Solutions
No LED display on the front panel.	Low battery.	Charge the unit at least 8 hours.
	Battery fault.	Replace the battery with the same type of battery.
No solar energy input during daytime.	Wires are not firmly connected.	Check if all wires are connected properly.
	Solar module defect.	Check solar modules or call local dealer to replace solar modules.

6 Specifications

Model	120W	240W	360W	720W	600W	1200W
INPUT						
Maximum PV Array Open Circuit Voltage	25 V	50 V	75 V			
Maximum PV Array Power	120 W	240W	360W	720W	600W	1200W
OUTPUT						
Nominal Battery Voltage	12V	24V	12V	24V	12V	24V
Maximum Charging Current	10A		30A		50A	
Connected Battery Type	Sealed lead acid					
PHYSICAL						
Dimension (DxWxH mm)	92.6 x 60.7 x 30.8		107.6 x 75 x 30.8		131 x 85 x 40.5	
Net Weight	210g		340g		490g	
ENVIRONMENT						
Humidity	0-90 % RH (non-condensing)					
Operating Temperature	-20°C - 55°C					
Storage Temperature	-40°C - 75°C					