



60 WATT SOLAR 12 VOLT POWER GENERATOR KIT



User's Manual

Congratulations on your Sunforce Products solar product purchase. This product is designed to the highest technical specifications and standards. It will supply years of maintenance free use. Please read these instructions thoroughly prior to installation, then store in a safe place for future reference. If at any time you are unclear about this product, or require further assistance please do not hesitate to contact our trained professionals operating the customer support line 1-888-478-6435 or email to info@sunforceproducts.com

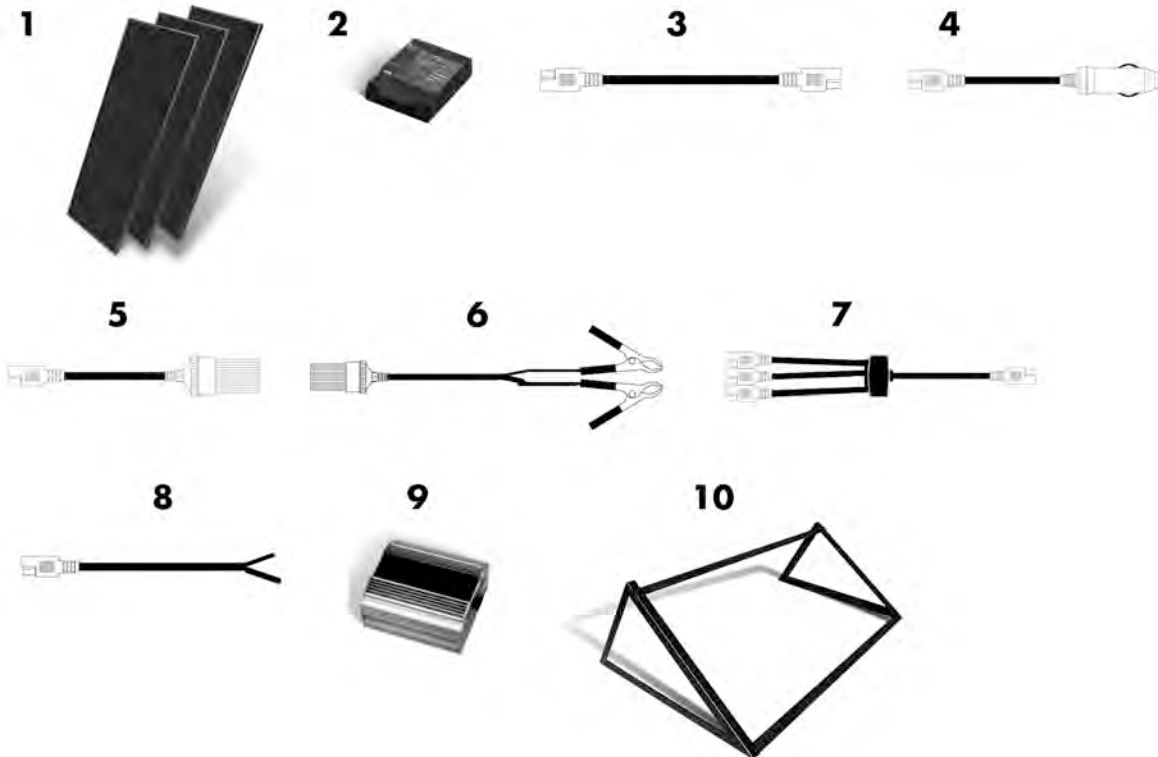
Specifications

Power Rating: Up to 60 Watts - Maximum rating – Under optimum conditions.

Current: 4 Amps @ 15Volts.

PARTS INCLUDED:

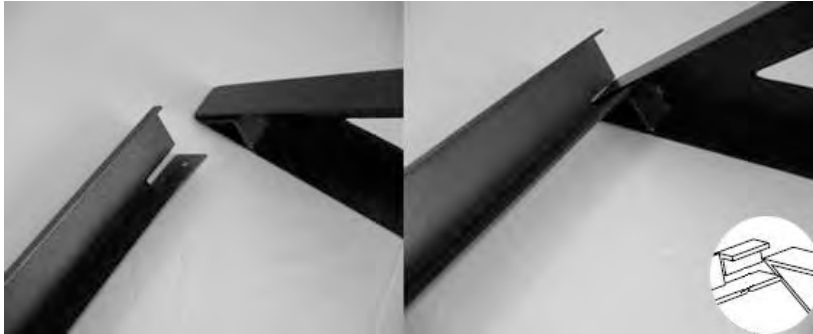
1. Three x 20 Watt Amorphous Solar Panels
2. 7 Amp Solar Charge Controller
3. 'Quick connect' extension cable
4. 12 Volt plug
5. Female 12 Volt connector
6. 12 Volt inverter plug
7. 3 in 1 cable connector
8. 'Stripped' wire charge controller connector
9. 200 watt power Inverter
10. Support frame



Constructing your frame

The construction of your Sunforce 60 watt solar power generator kit frame can be achieved in four easy steps (no additional tools required).

1. Stand the two side triangle supports up on there longest edge.
2. Slide the base support bar into the side triangles. The base support bar has no visible studs.



3. Slide remaining top support bar onto side triangle supports utilizing the stud/slot join.



4. Place the panels onto the frame. The panels have mounting holes in the frame that correspond to studs on the triangle supports and top support bar.



Your 60 watt solar power generator kit is now mounted!

For AC devices or appliances use the 200 Watt inverter included in the kit. Connect to the battery making sure the positive is attached to the positive battery terminal and the negative is attached to the negative battery terminal (Note: some inverters may have similar color coded alligator clamps). Next, plug the AC device into the inverter. Remember that the start up surge power of the device, which is approximately double the continuous power, must be under the wattage value of the inverter. Please refer to the inverter manual for operating instructions.

It is strongly recommended to turn off the inverter when not in use.

GENERAL TESTING PROTOCOL

Always test outdoors under optimal sunlight.

Test Solar Panels for Voltage.

If a Voltage read out is desired, connect a voltmeter(not included) and test each panel individually and observe the open voltage. The open Voltage can range from 16 Volts to 24 Volts.

Test Connection to Charge Controller for Voltage.

Reconnect solar panels, and connect to charge controller as per instructions. Measure the Open Circuit Voltage at the battery side of the charge controller. Open circuit voltage should read 5-10% lower than without the charge controller. Open circuit measurement will read between 15 and 23.5 Volts DC.

Connect Charge Controller to Battery

First, disconnect solar panels and connect the charge controller to the battery. Always connect the charge controller to the battery first and remove last. Observe polarity – positive to positive and negative to negative.

Reconnect Solar Panels to Charge Controller

If battery voltage is 14.2 Volts or higher, the GREEN LED on the charge controller should be on. If battery voltage is between 13 and 14.2 Volts, the YELLOW LED should be on. If battery voltage is 13 Volts or lower, the RED LED should be on.

If all testing results are within the above indicated ranges, the solar array is functioning. If Voltage readings indicate lower ranges, repeat above connections and retest.

FAQ

Can I use these solar panels outdoors?

Yes, these solar panels are weatherproof. The weatherproofing includes UV protection and protects from weather effects of -35°F / 175°F (-37°C / 79°C).

Can I overcharge my battery?

No, as long as a Sunforce 7 Amp Solar Charge Controller is used, it will protect the battery from overcharging.

How many panels can I connect to my 7 Amp Solar Charge Controller?

You can connect up to 105 Watts of Solar Power to the 7 Amp Solar Charge Controller. Panels should be connected in parallel – positive to positive, negative to negative.

When will the Charged Indication light (green) on the charge controller light up?

The charged indication green light will light up when the battery voltage reaches 14.2 Volts and the SCC will prevent the solar panels from overcharging the battery. It is normal for the SCC LED to light on and off as the battery voltage cuts in and out.

WARRANTY

The solar panel is covered by a five year limited warranty of 80% of power output, and must be tested under optimal conditions. This product is warranted from defects in materials and workmanship for a period of five years from date of purchase. This warranty does not apply in the event of misuse or abuse and or repairs and alterations.

For more information or technical support

1-888-478-6435

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MADE IN CHINA

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