

Foldable Solar Panel Operating Instructions

Foldable Solar Panels are lightweight, durable, and extremely portable. The solar modules are mounted to weather-resistant fabric that quickly folds for storage and unfolds for use.

To see our full line of solar products, accessories, and FAQs visit us at: www.powerfilmsolar.com

Important Notes

Foldable Solar Panels are designed for regular outdoor use, but not for permanent outdoor installations. The panels are not weatherproof and should not be left wet, if at all possible. If rained on, wipe panels dry and allow the fabric to air dry before folding.

Always store the Foldable Solar Panel in a cool, dry environment. If the panel is wet, allow it to thoroughly dry before folding and storing it to avoid damage.

All connections must be solar positive (red) to battery positive and solar negative (black or blue) to battery negative. Reversing can damage the solar panel. Consult your battery manufacturer if you have questions about the specifications of your battery.

A charge controller is not required if the battery capacity is 100x greater (or more) than the panel output. For example, a 100Ah battery would not need a charge controller as long as the panel output is 1A or less. If a charge controller is required, please size it appropriately to the panel output.

How To Charge

1. Unfold the panel with the solar side facing up and pointed towards the sun.
2. Use the grommets on each of the corners and a tie cord to hold the panel in place and reduce loss or damage from high winds.
3. Connect the appropriate accessory and cable for the type of device you will be charging.

Charging Electronics

1. Connect the 12V Female Car Charger Adapter (RA-2) (included) to the panel.
2. Use your own USB car charger adapter to connect your device to the RA-2 or use a 2.4A Dual USB 12V Adapter (RA-14B) (not included) to charge USB electronics.

Charging 12V Batteries

1. Connect panel output to the input of appropriate charge controller, if required (4.5A, 6A, and 10A charge controllers available) (not included) (see Important Notes section for more information).
2. Connect the desired cable to the output of the charge controller or panel. Use the 15 ft. Extension Cord with O-ring Connectors (RA-11) or 15 ft. Extension Cord with Alligator Clips (RA-8) (not included) when connecting directly to the battery. Use the 12V Male Car Charger Adapter (RA-1) (not included) when connecting through a vehicle's cigarette lighter or accessory outlet.
3. If using an RA-8 or RA-11, connect the red connector to the + battery connection and the blue or black connector to the - battery connection. If using the RA-1, plug into your vehicle's cigarette lighter or accessory outlet. Note: in some vehicles, these outlets are not connected to the battery when the ignition is off, so the solar panel will not charge the battery. Consult your vehicle's owner's manual for more information.

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How To Clean Your Solar Panel

Use a damp cloth and a mild soap solution wiping each of the panel's modules. Wait a few minutes for the panel to dry before folding and storing it.

Specifications

	5 Watt	20 Watt	30 Watt	60 Watt	90 Watt	120 Watt	220 Watt
Operating Voltage	15.4V	15.4V	15.4V	15.4V	15.4V	15.4V	15.4V
Operating Current	0.3A	1.2A	1.8A	3.6A	5.4A	7.2A	14.4A
Weight	0.5lb / 0.2kg	1.0lb / 0.5kg	1.4lb / 0.6kg	2.6lb / 1.2kg	5.2lb / 2.4kg	6.3lb / 2.9kg	14.0lb / 6.4kg
Folded Dimensions (in/mm)	10.3 x 3.3 x 0.6 261.6 x 83.8 x 15.2	12.7 x 7.5 x 1.5 322.6 x 190.5 x 38.1	13.0 x 7.5 x 1.7 330.2 x 190.5 x 43.2	13.0 x 7.5 x 2.7 330.2 x 190.5 x 68.6	14.0 x 11.7 x 3.0 355.6 x 297.2 x 76.2	14.5 x 14.0 x 3.0 368.3 x 355.6 x 76.2	31.5 x 17.7 x 2.5 800.1 x 449.6 x 63.5
Deployed Dimensions (in/mm)	24.0 x 10.3 609.6 x 261.6	33.7 x 25.3 856.0 x 642.6	47.0 x 25.5 1,193.8 x 647.7	47.0 x 51.5 1,193.8 x 1,308.1	67.0 x 54.3 1,701.8 x 1379.2	86.5 x 55.0 2,197.1 x 1,397.0	172.0 x 57.7 4,368.8 x 1,465.6

* Tests performed at Standard Test Conditions (STC) (Spectrum: AM1.5, Intensity: 1000W/m², Temperature: 25C). Power performance may vary due to temperature, spectral, and intensity variation.

Certifications

- CE (Directives 2014/30/EU and 2014/35/EU)
- MIL-STD-810G
- RoHS
- REACH
- Berry Amendment Compliance

Full compliance statements available at:
www.powerfilmsolar.com