

Rollable Solar Panel Operating Instructions

PowerFilm[®] Rollable Solar Panels are made with professional, marine-grade components and rugged, UV-stabilized materials. To see our full line of solar products, visit us at: www.powerfilmsolar.com.

Important Notes

Always roll solar side out and don't roll too tight. Rolling the panel too tightly will likely reduce the effectiveness of the solar panel. The inner roll should measure at least 3" across (R-42 / R-60 at least 5").

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

If your battery capacity (Ah) divided by 100 is less than or equal to the panel current (assuming that the voltages are matched) you do not need to use a charge controller in your setup. If however the battery capacity divided by 100 is greater than the panel current. Make sure to use a charge controller to ensure safe charging.

Easy Charging

1. Charge Wireless Electronics

Use the 12V (RA-2) Female Cigarette Lighter Adapter with your wireless electronics product.

2. Charge 12V Systems

To charge 12V batteries, use an extension cord with O-ring battery terminal connectors (RA-11), an extension cord with alligator clips (RA-8), or a 12V Male Cigarette Lighter Adapter (RA-1) to charge via 12V outlet.

How To Charge a 12V Battery

1. Unroll your solar panel (dark side) face up pointed towards the sun.
2. If necessary, use the grommets on each of the corners and a tie cord to hold the panel in place. This is important to reduce loss or damage from high winds.
3. Ensure the solar panel cable is well connected to the included 15 ft. extension cord (RA-11).
4. Identify the correct polarity red +, black -.
5. Attach the 15 ft. extension cord's (RA-11) O-ring terminal connectors at the end of the extension cord to your 12 volt battery or the 12V device you are directly powering.
6. You may leave the panel permanently connected to your battery since the built-in blocking diode in the junction box blocks the draining of your battery. As with any permanent connection to a battery, safely clean the connection as needed (charge controller may be necessary).
7. To store the product, simply disconnect the cords. Ensure the product is clean and dry (use a damp cloth and a mild soap solution), and then roll with the solar side facing out. Use the attached Velcro[®] strip to hold in place when rolled.

Specifications	7 Watt	14 Watt	21 Watt	28 Watt	42 Watt	60 Watt
Operating Voltage	15.4V	15.4V	15.4V	15.4V	15.4V	15.4V
Operating Current	0.45A	0.9A	1.35A	1.8A	2.7A	3.9A
Weight (lbs/kg)	0.7 / 0.3	1.1 / 0.5	1.6 / 0.1	2.0 / 0.9	2.7 / 1.2	3.7 / 1.7
Dimensions (in/mm)	22.8x 14.6 579.1x 370.8	41.8 x 14.6 1061.7 x 370.8	60.8 x 14.6 1544.3 x 370.8	79.6 x 14.6 2021.8 x 370.8	60.7 x 26.5 1541.8 x 673.1	85.7 x 26.5 2176.8 x 673.1

*Operating Voltage and Operating Current at AM1.5. Power performance may vary due to temperature variation, spectral variation and related effects.