PowerFilm SOLAR
ASSEMBLED IN THE USA

160W SemiFlex Solar Panel with Integrated Edge Seal Installation Instructions

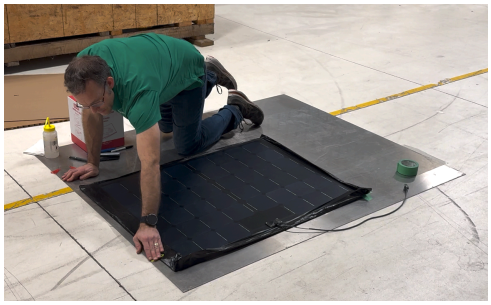
Clean the installation location with a >90% concentration of isopropyl alcohol and a **clean** towel or rag.

Pick up the 160W solar panel packaged in cardboard with banding. Place the box near the installation location, oriented correctly (**sticker shows THIS SIDE UP**).

Cut the banding and remove it.

Once the bands are removed, the cardboard sandwiching the panel can be removed. Gently slide the bottom piece of cardboard out.

Slide the panel approximately into place. Now, you can remove the plastic clips holding the thin plastic.



THIS STEP IS CRITICAL: To install the panel where intended, slowly pull the release liner, exposing 1-2 inches of the butyl adhesive. Ensure the panel is aligned as desired, and when ready, set the exposed butyl portion in the installation location. Use a plastic felt-edged squeegee to install the panel.

IMPORTANT: Strokes for the squeegee should start in the center of the panel and move at an angle toward the edge and the remaining release liner.

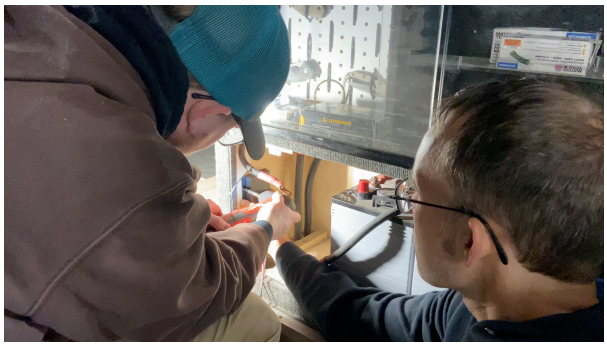
Slowly pull the double-release liner, and use the felt-tipped squeegee to work the panel down using the method described in 7.

Start in the center portion with the solar cells and fiberglass and work out along the integrated butyl adhesive border. The panel's position will be permanently fixed at this point, and there is no going back. **DO NOT** attempt to pull the panel up, or you will damage it.

Once complete, dispose of the release liner and continue to work out any potential air pockets under the panel and integrated edge tape exterior.

Route cable from the panel to the charge controller using the included zip ties and mounting blocks. **IMPORTANT:** Be sure to clean the area where mounting blocks will be positioned with a >90% concentration isopropyl alcohol

Affix the charge controller using included screws to a mechanically sound surface such as the side of a battery box or metal frame.

Remove the fuse in the wiring harness going from the charge controller to the battery.

Connect the ring terminals to the battery. Positive (+) is red, and negative (-) is black.

Measure the battery voltage to confirm 12V correct polarity, and reinstall the fuse.When the solar panel is exposed to sunlight, check the battery voltage. The battery voltage should be slightly higher depending on the amount of direct sunlight.

Connect a DC clampmeter around the wire with the fuse installed. Depending on the battery's state of charge and the amount of sunlight, the current will vary from 0-13A. A 0 or low current reading can occur if the battery is greater than 14.2V or below 9.5V.