

# Solar System Troubleshooting Guide

## 1. Ensure the Solar Panel is putting out power

- a. Using a multimeter, check the voltage coming directly from the power using a multimeter while the panel is in full sun. The 160W should have an open voltage of 22V - 30V. If the voltage is below 22V, something is not right and the panel is the issue.
- b. Visually inspect the panel for any bubbles or visible creases / cracks
- c. Check the SAE connector from the roof outlet is not loose and securely plugged in.

## 2. Reset the MPPT Controller

- a. Visually check the controller and ensure wires are secured in the bottom of the controller.
- b. Remove and inspect the fuse on the bottom of the controller.
- c. Do a factory reset of the controller via the display.
- d. Check that the controller is charging normally.

## 3. Check the Battery

- a. Make sure the wires from the controller to the battery are connected and tight.
- b. Check the battery voltage with a multimeter.

## Most Common Customer Issues

- The SAE plug on the roof is loose.
- The fuse between the controller and the battery is too small and blown.
- Customer has made some alteration to the panel, changed connectors, or cut the wrong wires.
- The panel is not in the sun, the customer is in the garage and wondering why there is no solar power showing on the display.
- The battery is fully charged (13.7V) and customers are confused why the solar output is low.
- The battery is old or worn down
- Customer has programmed the charge controller and made an error
- Protective film is not removed and power output is low, visually the panel appears to be delaminating or cloudy.