

**MPPT 100|x Quick Guide:** The MPPT takes fluctuating power from photovoltaic (solar) cells and converts it to a more stable output, optimized for your Battle Born Batteries. It also controls whether current is delivered in response to battery charge state:

- Option 1:  
Default - When the solar charge controller is purchased as a stand-alone unit, it will be shipped with default settings.
- Option 2:  
Pre-Programmed - When the MPPT 100 is purchased as part of a kit, or if programming assistance is requested, it will be programmed by Dragonfly Energy staff prior to shipping.

Charging follows pattern below:

*Bulk-* MPPT 100 will provide all available current to charge the battery.

*Absorption-* Begins once battery reaches 14.6V. Charge Voltage is held constant at this level for 30 minutes per 100Ah of capacity. (2hrs. Max.)

*Float-* Float is set to engage whenever the battery voltage goes below the nominal rating of 13.5V

*Equalization-* Lithium battery self discharge rate is so low, that equalization is not necessary. The voltage is set at 14.4V so that if an equalization cycle happens to run, it is well within the safe voltage range for the lithium battery.

A basic connection diagram is shown below:

