

# **Electrical Installation**

Please confirm that you have all parts to your system before starting installation.

Below image shows how to connect the solar panel to the 12 Volt batteries

**Step1** Cover the panel with card board, cloth, or a similar option so there are no output power **Step2** Connect the charge controller to the solar panel

Step3 Connect the battery clamps to the charge controller

**Step4** Connect the battery clamps to the battery in parallel. Parallel connections = Positive to

Positive and Negative to Negative

**Step5** Remove the cover from solar panel



When installing solar panels configuration and systems, please carefully observe correct cable connections and polarity. The solar panels can be damaged by not observing the correct electrical installation and polarity; in addition, this will void the warranty of your solar panels. Having a multimeter handy will help to confirm correct polarities.

#### Extending the wiring

If you choose to mount your solar panel further away from the charge controller by extending the wiring we recommend the following gauges at each specified distance. Use stranded wire instead of solid wire. Stranded wire does not fatigue or loose connections over time.

Appropriate wire gauge should be used for distance and total amperage, for further information please consult with a licensed electrician or through an online wiring chart calculator To prevent loss of current we suggest mounting the solar panel within 20 feet of the charge controller and the charge controller should be installed within 5 feet of the battery.

# **Connecting Additional Solar Panels**



- Step1 Cover the panel with card board, cloth, or a similar option so there are no output power
- Step2 Connect 4 solar panels with the 4 in 1 SAE connector
- Step3 Connect the charge controller, battery and inverter
- **Step4** Remove the cover from solar panel

### Noted: 9AWG wire are recommend for the 400 Watt solar power kit

## These Parts are needed for the solar system install









4 in 1 SAE connector

SAE-Bare end cable

SAE-Battery clamp cable

SAE extension cable

## Additional 12V DC Batteries

Addition batteries may be desired for extra electrical storage.

For 12 Volt battery bank configurations; make sure your batteries are connected in parallel Positive to Positive and Negative to Negative

When installing solar panels configuration and systems, please carefully observe correct cable connections and polarity. The solar panels can be damaged by not observing the correct electrical installation and polarity; in addition, this will void the warranty of your solar panels. Having a multimeter handy will help to confirm correct polarities.

#### Extending the wiring

If you choose to mount your solar panel further away from the charge controller by extending the wiring we recommend the following gauges at each specified distance. Use stranded wire instead of solid wire. Stranded wire does not fatigue or loose connections over time.

Appropriate wire gauge should be used for distance and total amperage, for further information please consult with a licensed electrician or through an online wiring chart calculator To prevent loss of current we suggest mounting the solar panel within 20 feet of the charge controller and the charge controller should be installed within 5 feet of the battery.

# **Connecting an Inverter**

An inverter can be used to converting the 12 Volt energy created to 110 Volt Electricity. connect battery to Nature power 750 Watt inverters, Positive to Positive and Negative to Negative, Inverter sizes and types vary depending on your power consumptions needs.