



MC Series MPPT Solar Charge Controller

- Note:** Danger, Electric Shock Hazards! It is strongly recommended that you reference your local code requirements prior to system validation and installation.
- Warning:** Prior to installation, please reference the product manual and any applicable local codes.
- Important:** Please connect the battery first, and then the solar panel. Please follow the "+" first and "-" next method when wiring.

Step 1: Choose an installation location. Be sure to install the controller in a place free of direct sunlight, high temperature, water, and ensure good ventilation around the controller (see **Figure 1**). Controller is to be mounted vertically on a non-flammable substrate with power terminals facing downward. **

****NOTE: DO NOT install controller in same compartment as lead acid batteries.**

Step 2: Mark the mounting position according to the mounting dimensions of the controller. Drill 4 mounting holes of the appropriate size at the 4 marks. Fix screws into the upper two mounting holes.

Step 3: Fasten the controller. Align fixing holes of the controller with the two pre-fixed screws. Hang the controller vertically and then fix the lower two screws (see **Figure 2**).

Step 4: Wiring (continued). Follow diagram steps in **Figure 3**.

PV input wire cable size should be appropriately sized according to the total short circuit current of the array that is hooked to the solar controller.

Warning: Reversing the polarity of the battery connection can potentially damage the internal components of the controller if left unattended.

Notes:

- 1) Note that the battery fuse shall be installed as close as possible to the battery terminal. The recommended distance is not more than 18 inches but should be verified with local code requirements.
- 2) The battery temperature is 25°C (fixed value) when the controller is not connected to a remote temperature sensor.

Once installation is complete, confirm all wires are securely connected to the appropriate terminal with the correct polarity. After confirmation, connect the breaker or fuse to the battery and check for LED indicators on the controller. If no LED indicator is active, disconnect the fuse or circuit breaker from the battery immediately and confirm: there is an unbroken ground connection and the polarity at the controller is correct. Once the battery has been recognized by the controller, connect the solar panel. When sufficient sunlight is present, the charge indicator of the controller will be on (either steady or flashing) and the battery will begin to charge.



Figure 1
Installation and Heat Dissipation

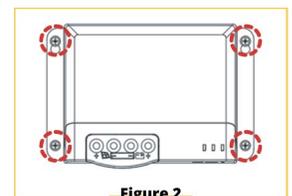


Figure 2
Fixing holes of Controller

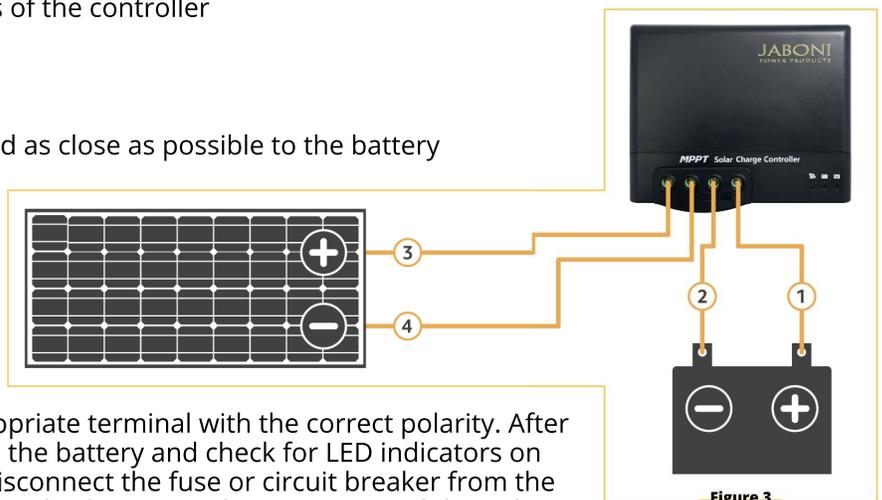


Figure 3
Wiring diagram