



ECO-WORTHY

10A Solar Charge Controller Manual



Contents

| | |
|-----------------------------|---|
| SAFETY INSTRUCTIONS..... | 1 |
| PRODUCT FEATURES..... | 1 |
| SYSTEM CONNECTION | 2 |
| INDICATOR DESCRIPTION | 3 |
| TECHNICAL PARAMETER | 4 |
| SUPPORT | 5 |

SAFETY INSTRUCTIONS

1. Make sure your battery has enough voltage for the controller to recognize the battery type before first installation.
2. The battery cable should be as short as possible to minimize loss.
3. This controller is suitable for 12V Sealed, GEL, Flooded and Lithium battery.
4. The charge controller is only suitable for regulating solar modules. Do not connect other DC or AC sources to the charge controller.

PRODUCT FEATURES

1. Built-in MCU chip to achieve intelligent charge and discharge control.
2. Overcharge, over discharge, short circuit, reverse current protection for battery.
3. PWM charge management chip avoids damage to the solar panel.
4. Normal direct charge mode and floating charge mode lengthen the system's service life.
5. The intuitive LED indicates the current battery charge and discharge status.
6. With USB port, it can charge mobile phones, tablet and other DC devices.

SYSTEM CONNECTION



1. Connect the battery to the charge controller
2. Connect the solar module to the controller
3. Connect DC loads to the charge controller (optional)

* The order reverses when uninstalls!
An improper sequence order can damage the controller!

OPERATION

Select battery type

When the battery has connected to the controller, press the button for 5s till the battery indicator lights flash. Short press to select battery type. Press the button for 5s or leave it for 5s to confirm.

| LED 1 | LED 2 | LED 3 | LED4 | Battery Type |
|-------|-------|-------|------|-----------------|
| ● | ○ | ○ | ○ | Sealed / Lithiu |
| ● | ● | ○ | ○ | Gel |
| ● | ● | ● | ○ | Flooded |

Turn on/off the load

When all the components are connected as order, short press the button to turn on/off the load. The "LOAD" indicator light would turn on when the load output is on.

INDICATOR DESCRIPTION

| Indicator | Status | Indication |
|-----------|-------------|-----------------------------------|
| PV | Off | At night or PV does not work |
| | On | Stable PV charging |
| | Flash | Over-voltage protection activate |
| LOAD | Off | Load unconnected or does not work |
| | On | Load at working |
| | Slow flash | Overload protection activate |
| | Quick flash | Short-circuit protection activate |
| BATTERY | Slow flash | Under-voltage warning |
| | Quick flash | Low-voltage protection |

TECHNICAL PARAMETER

| 10A 12V Solar Charge Controller | |
|--|-----------------|
| Nominal output(automatic identification) | 12V |
| USB output | 5V 1.2A |
| Rated charge/discharge current | 10A |
| Battery input voltage range | 8V~16V |
| Max. PV open circuit voltage | 30V |
| Self-consumption | ≤5mA |
| Over charge protection | 14.4V |
| Over discharge protection | 10.8V |
| Float charge | 13.8V |
| Charging type | PWM |
| Working environment temperature | -35℃ ~ +50℃ |
| Size | 120.3x67x21.8mm |
| Weight | 0.1kg |
| Terminals | 12AWG |

SUPPORT

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This product is covered by a 1 year warranty provided by ECO-WORTHY Ltd. We will refund or partial refund or replace any products with defects due to our imprudence.

If you are experiencing technical problems and cannot find a solution in this manual, please contact ECO-WORTHY for further assistance.

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