

User's Manual

SAFETY INSTRUCTIONS

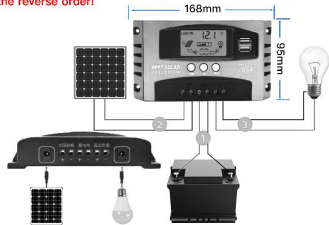
- 1.This controller is designed for automatic recognition of 12V/24V systems. During the initial installation, please ensure that the battery has sufficient voltage so that the controller can correctly identify the battery type.
- 2.Install the controller as close to the battery as possible to avoid long wire lengths, which may cause voltage drop and affect accurate voltage judgment.
- 3.This controller is only applicable to various types of lead-acid batteries (including open, sealed, AGM batteries, etc.). If charging lithium batteries, it is necessary to be familiar with their battery characteristics, and the charging parameters must be properly set before use.
- 4.Battery type explanations: b1 represents lead-acid batteries (12V/24V automatic recognition); b2 represents lithium-ion batteries (3 series 11.1V lithium batteries); b3 represents lithium iron phosphate batteries (4 series 12.8V). The default factory setting is b1.
- 5.This controller can only use photovoltaic panels as the power source for charging. **Do not use DC or other power sources as the charging input.**
- 6.The controller will generate heat during operation. **Please ensure that the controller is installed on a flat surface with good ventilation.**

PRODUCT FEATURES

- 1.Industrial-grade main control chip is used.
- 2.Large LCD screen displays charging and discharging currents; cumulative power generation and discharge information; temperature display; light control + delay control; adjustable charging and discharging parameters; with power-off memory and other functions.
- 3.Dual USB outputs with a maximum current of 2A, supporting charging for Apple phones.
- 4.Complete 3-stage charging management.
- 5.Built-in overcurrent, short circuit, open circuit protection.

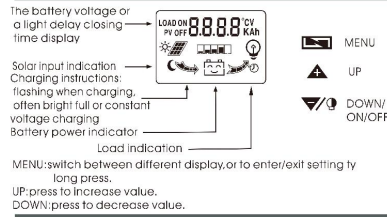
SYSTEM CONNECTION

- 1.Connect the positive and negative terminals of the battery to the controller as shown in the diagram. The controller will automatically detect the battery voltage.
- 2.Connect the positive and negative terminals of the solar panel to the controller as shown in the diagram.
- 3.Connect the positive and negative terminals of the load to the controller as shown in the diagram. When unloading, follow the reverse order!

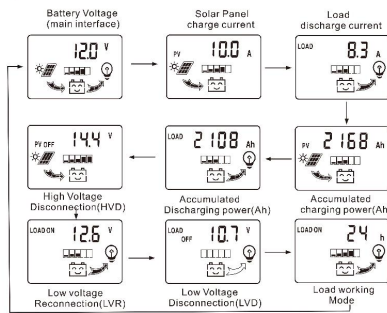


Note: Devices with DC connectors can be directly plugged into the DC port. For devices without DC connectors, please follow the wiring hole markings for proper

LCD DISPLAY/KEY



DISPLAY/SETTING



Operation instructions:

- 1.short press menu key to cycle through the interface and parameters;
2. long press the menu button for 3S to enter the settings manually, this number will be flashing, into the corresponding set project on turn, turn key adjustment parameters you want value, after the completion of the system of automatic memory setting value and exit setup menu;

Function declaration:

1. discharge recovery voltage: refers to the battery discharge.protection, the battery voltage to restore voltage, open the output;
- 2.the discharge cut-off voltage: refers to the battery discharge to thevoltage when the load off, to protect the battery, to prevent the battery over discharge damage.
- 3.load operation mode:
[24H] Load output 24Hours (except for battery under voltage)
[1-15H] Load on after sunset and closed after setting hours
[0H] Dusk to dawn

Note: 1. the light control function is controlled by the solar panel, the use of light control function must access the solar panel, otherwise the light had no effect.
2.Load symbol () Light, only that the load output has been turned on, and there is no connection to the load.

As long as it is not set to [1-15H] Or [0H] model,(The optical delay model), Battery not under pressure condition(Battery symbol does not blink),Single short press the turn key can open /Close load output .

TROUBLE SHOOTING

Situation	Probable cause	Solution
Charge icon not on when sunny	Solar panel opened or reversed	Reconnect
Load icon off	Mode setting wrong	Set again
	Battery low	Recharge
Load icon slow flashing	Over load	Reduce load watt
	Short circuit protection	Remove short circuit, 1 minutes or so automatic recovery
Power off	Battery too low/reverse	Check battery/connection

TECHNICAL SPECIFICATIONS

Batt voltage	12V/24V auto				
Charge current	30A	40A	50A	60A	100A
Discharging Current	10A	20A	30A	30A	50A
Max solar input	For 12V batteries: 15-23V solar panels,For 24V batteries: 30-45V solar panels				
Float Charge	14.2V (default, adjustable)				
Discharge stop	10.5V (default, adjustable)				
Discharge reconnect	12.6V (default, adjustable)				
Voltage of open light	Solar panel 8V(Light lights delay)				
Voltage of close light	Solar panel 8V(Light off delay)				
USB Output	2 way USB output,5V/2A(MAX)				
Self-consum	<10mA				
Operating temperature	-35~+60°C				
Size/Weight	168*95*45mm/300g				

Friendly Reminder: The battery voltage displayed on the screen may have a slight deviation. Please refer to the actual values.
The voltage marked in red font is applicable only to 12V systems. For 24V systems, please multiply by 2.
*This manual is a general manual. If there are slight differences compared to the actual product, please refer to the actual product.

*We reserve the right to make changes to the product specifications without prior notice.