

Bluetooth WiFi Solar Controller User Manual

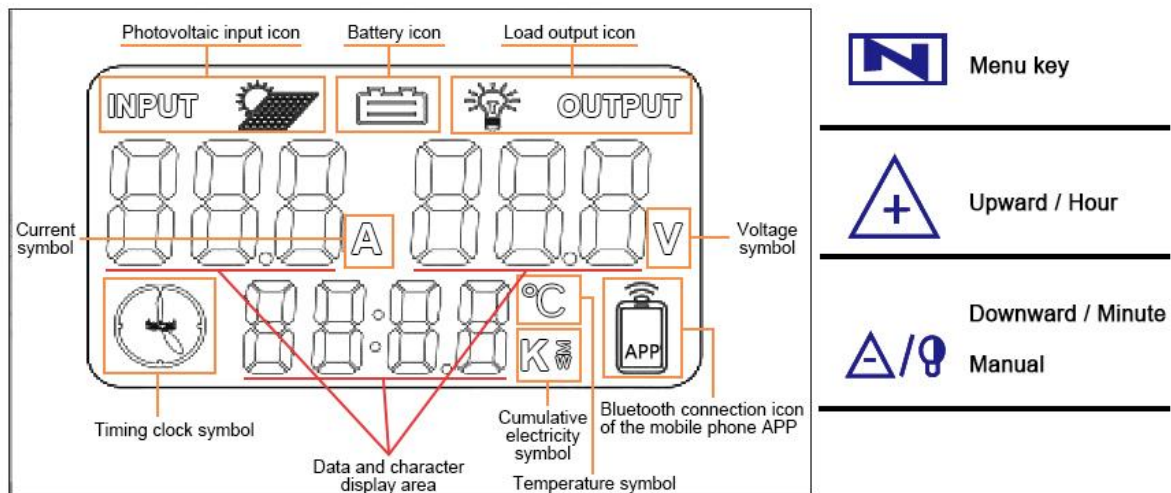
Recommendations for Safe Use

1. This controller is 12V/24V auto adaptive, or another version 12/24/36/48/60V manually set suitable battery charging mode. When installing the controller for the first time, please make sure the battery has enough voltage to start and set the controller parameters automatically.
2. Install the controller as close to the battery as possible to avoid voltage drop caused by long wires, affecting the normal voltage judgment.
3. This controller is suitable for charging lead-acid, solid, lithium, lithium iron phosphate and other batteries. If charging lithium batteries, to be very familiar with the characteristics of its batteries, power must be set up after charging parameters to use. For example: charging 12V lithium batteries, prohibit the output protection set 9.5V, full protection 12.2V, battery drop start charging voltage 11.5V.
4. This controller can only use photovoltaic panels as charging source, please do not use DC or other power sources as charging source.
5. This controller will be hot when running, please pay attention to install the controller on a flat, well-ventilated surface.
6. When charging lithium batteries must be with a battery protection board, be sure to use certified lithium battery manufacturers to meet the requirements of the product. It is strictly prohibited to charge directly without a protection board, and it is strictly prohibited to privately transform the lithium battery pack charging.

Product Features

1. Industrial-grade main control chip, 16-level AD sampling accuracy, temperature, charging current, discharging current accurate real-time display, power generation at a glance.
2. Automatic focusing MPPT tracking charging, high charging efficiency, charging process without stopping detection, two-way focusing tracking.
3. Large LCD display, adjustable charging and discharging parameters. Ultra-wide charging and discharging adjustable, as long as you understand the characteristics of the battery and set its corresponding charging parameters, you can charge any battery. Output power off points, time can be adjusted, more convenient (the market only sometimes there is no sub-adjustment).
4. Complete 3-stage charging management, effective protection of the battery, the battery more durable.
5. Built-in overheating, overcurrent, short-circuit, open-circuit protection, reverse connection protection, when the fault is eliminated, the controller automatically restores the equipment without damage.
6. Bi-directional MOS tube anti-backflow circuit, high power charging mode, ultra-low heat generation.
7. R5.0 solar charging DC plug, R5.0 DC lamp output DC plug, easy to connect.

Icon Definition/Key



- **Menu key:** used to switch the parameter display interface and settings, lightly press to switch, long press to modify the parameters, after modification. The parameters are automatically memorized after modification.
- **Upward flip:** press the parameter once to add one step upward. Press and hold to change the parameter display interface and setting, and press and hold to modify the parameter, after modification, the parameter will be memorized automatically.
- **Down:** Press the parameter once to decrease one step downwards in the main interface, long press the center key to display the word rEst, reset all the parameters except the battery.

Setting Instructions

1. Main interface Press the menu key to select the interface to adjust the corresponding parameters and set the working status of the device.
2. Working Mode of Load Cot Manually Control Load Output Auto Auto Light Control Mode \00:58\OUT Continuous Output 00:58 Setting the time of load output after no sunlight, hour and minute can be set individually. OUT Continuous Output, 24 Hours Output Status.
3. Set real-time working status d13.1V display battery voltage value load output current display d29.1 °C temperature display 3, d2.1 A solar charging current display energy charging current display, high-current charging charging arrows flow fast, and vice versa slow d0.0A output load current display, high-current discharging discharging arrows flow fast, and vice versa slow.
4. BAAt set the charging battery voltage value, AUt0 automatic recognition mode, low voltage machine 12\24V, high voltage machine 12V 24V 36V 48V 60V.

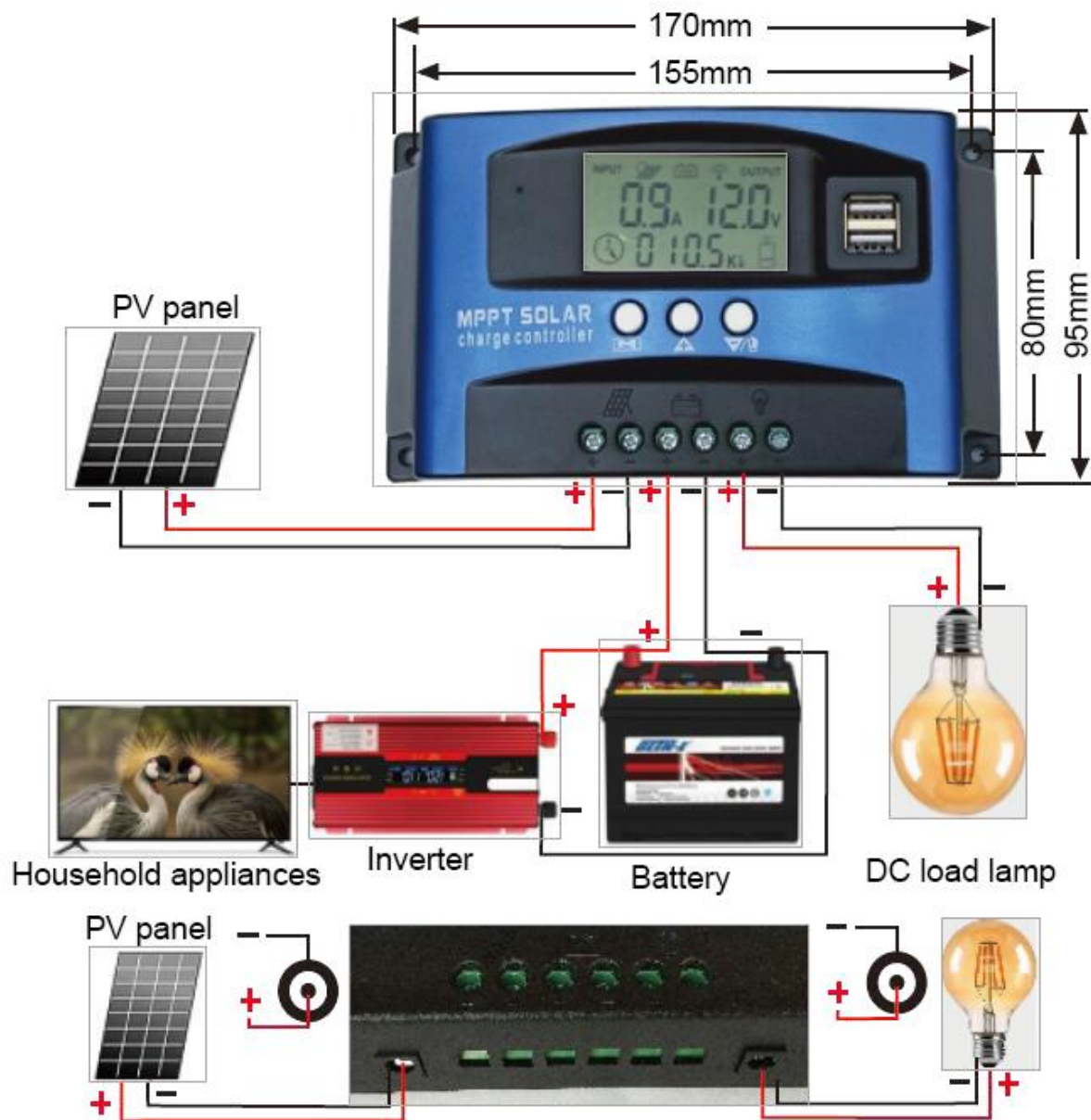
System Connection

1. Connect the positive terminal of the battery to the controller as shown in the picture, the controller will automatically detect the battery voltage.
2. Connect the load positive and negative poles to the controller as shown in the picture, and be careful

not to reverse the connection.

3. Connect the solar panel to the controller according to the diagram.

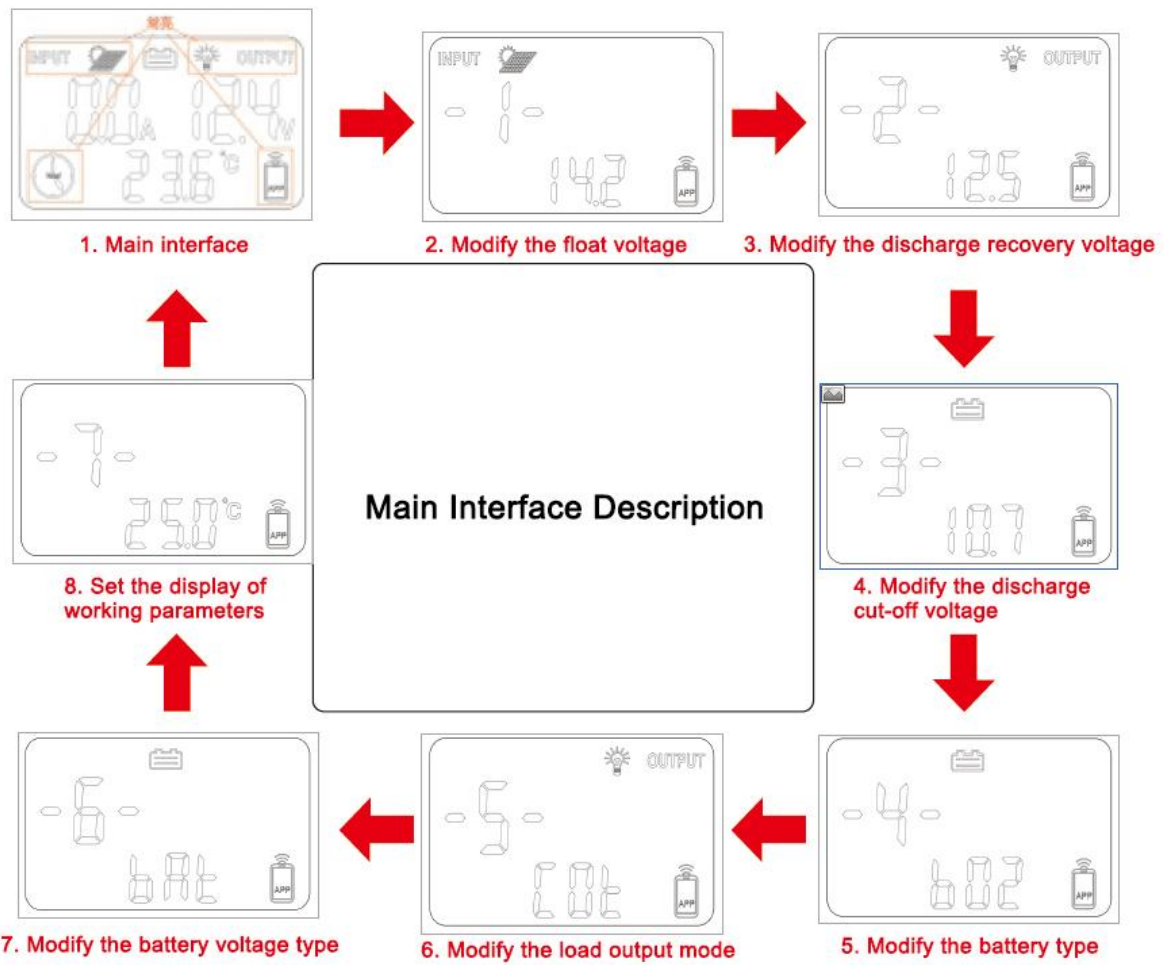
Note: Please follow the above order strictly to access, otherwise it may damage the controller disassembling order and wiring order is reversed.

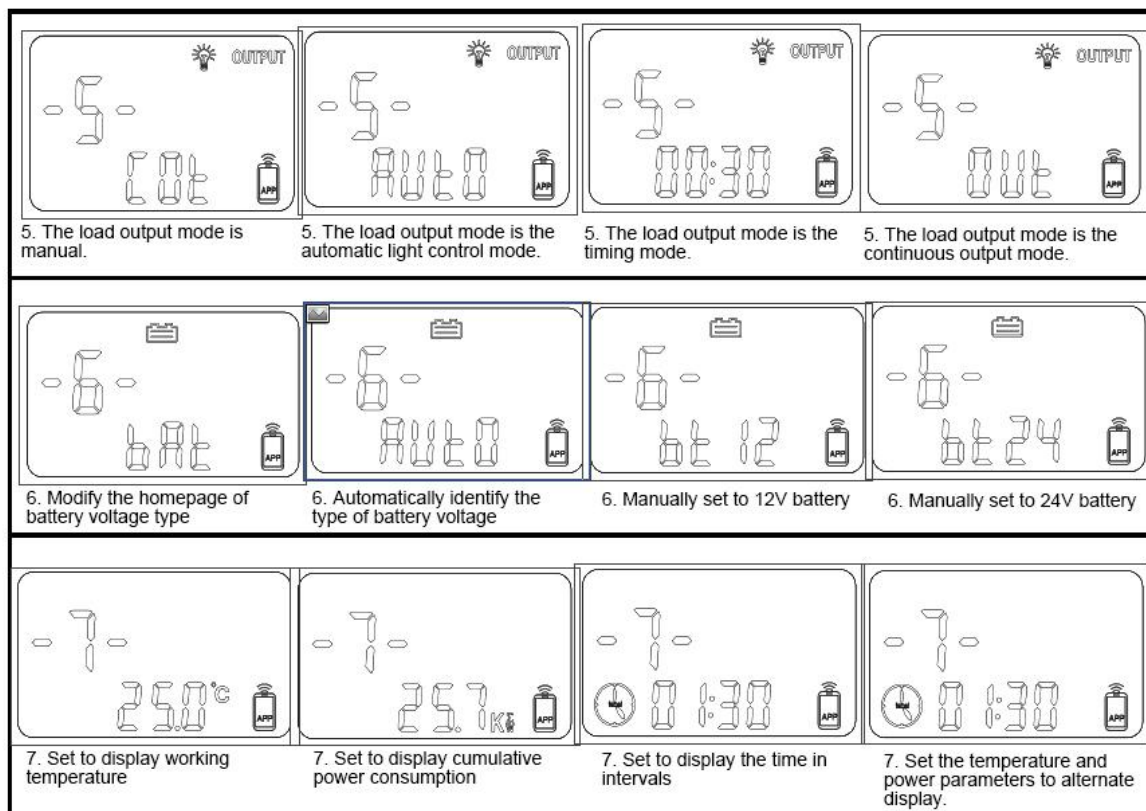


When using the battery 0V start and battery repair function must be memorized to charge the battery voltage value. For example: repair the battery for 12V, set bt12v and memorize it well, the battery can do 0V start without power behind.

DANGER WARNING: Only professionals can install each maintenance this equipment can only be connected to the solar panel to charge the battery.

Display Interface/Parameter Setting





Main interface description

PV input and load output icons have three display states: normally lit (off), slow flashing (on), fast flashing (the type of current parameter in the data field is the corresponding fast flashing icon, such as fast flashing Volt input icon, the current parameter at the bottom is the PV input current);

Clock and Bluetooth connection icons have two display states: always on (off), blinking (on/connected), Bluetooth connection icons follow this display in any interface.

Troubleshooting Guide

Abnormal phenomenon	Possible Causes	Solution
Sunny but not charging	PV board open or reversed	Reconnect the PV panels
Load logo does not light up	Wrong mode setting	Reset manual mode
Load does not turn on	Battery voltage too low causing protection	Recharge
Load logo blinks slowly	Load overcurrent	Reduce load power
Load logo blinks fast	Short circuit protection	Remove short circuit and recover on your own
Controller does not light up	Battery voltage too low/reversed	Replace battery/check reverse connection
Suddenly not charging	Solar panel disappears	Overheat protection, device recovers on its own

Technical Reference

Rated Charging Current	30A	40A	50A	60A
Rated Discharge Current	10A	20A	20A	30A
Quick Select Setup Rechargeable Battery 12V/24V	Li-ion battery	Colloid type		Aperture type
	12.2V/24.4V	14.2V/28.4V		14.6V/29.2V
Quick Select Setup Rechargeable Battery 60V	Li-ion battery	Colloid type		Aperture type
	61V	71V		73V
Standby Current	<10mA			
USB output	5V/2A Max			
Working Temperature	-10 ~ +60℃			
Size/Weight	170*95*45mm/300g			

Device number binding instructions

The product supports WIFI/Bluetooth for global use.

Please buy the right machine and do the corresponding settings and operation.

Download and ZhijinPower APP in the software store to support Android and Apple phones, please download the appropriate software. Bluetooth APP is for one-to-one use, only one cell phone can be accessed at the same time, WIFI/BT can be used globally. Sweep the box or manual QR code to download APP software, automatic identification and installation of Android and Apple phones in the main interface, click on the link Bluetooth/WIFI can be added by searching the name of the ZJXX device, WIFI first search for Bluetooth and normal control, through the “network to add WIFI and enter the password to complete the device connection. After the registration is completed, you must search the correct Bluetooth ZJBE/ZJBX/ZJBW name in the APP interface and add the device to operate.

Installation Process

1. ZhijinPower APP download link, or search ZhijinPower
 - Android: <https://tt.appc02.com/j73q9l>
 - Apple: <https://apps.apple.com/cn/app/zhijinpower/id6450771899>
 - Customer PC use the entrance link: <http://app.gz529.com/VuGvSgOfDB.php/index/userlogin>
Login account and password through the same cell phone, download and install the software, enter the cell phone number to register, install the password 1234562.
2. Cell phone search ZJBX, ZJBW, ZJBX bluetooth number, add equipment, edit the name of the device to facilitate the operation of multi-device multi-projects.



Scan QR code to download APP



PC Admin Portal

Remote control APP operation instructions

APP interface description

The following specifically refers to the Bluetooth / WIFI connection and operation of the device with the network, open the cell phone Bluetooth and the controller to connect to the ZJBE-CXXXX Bluetooth automatically copy the current cell phone with the WIFI, enter the password and press the “Confirm”, when the machine is only connected to the Bluetooth, but also through the Bluetooth and the machine APP short-distance operation, WIFI connection to achieve remote control, mobile phone WIFI or traffic card for remote control. WIFI connection to realize remote control, cell phone WIFI or traffic card for remote control.

1. Data acquisition corresponds to the machine, displaying the current working status of the device.
2. Parameter configuration can modify the solar control parameters and automatically memorize them after modification.
3. Real-time power generation collection and display, daily sunlight utilization power generation clearly recorded
4. Accumulated power generation, the first 4 bits are accumulated, the last 4 bits are synchronized with the solar controller display.

Solar controller remote control adjustment

Use battery type setting:

- lithium battery
- Gel battery
- Lead-acid battery/Lithium iron battery

Valid in timed output mode, turn off lights by hour after no sunlight, range 0--23 hours.

Valid in timed output mode, turn off the light by minute after no sunlight, range 0 - 59 minutes.

Set the full voltage value of the battery to prevent overcharging and damaging the battery, the setting range is 12.0--15.0V, or you can select the appropriate parameters automatically when selecting the battery.

Set the use mode of the load: 0 - manual control of the load output, 1 - automatic light control mode, 2 - load output when there is no sunlight, 3 - forever output and other four use states.

Set the value of over-discharge voltage of the battery to prevent over-discharge from damaging the battery, the setting range is 9.0--12.0V, or you can select the battery to choose the appropriate parameters automatically.

Load output control, close or open, display the current status through data acquisition.

Battery voltage selection, select the voltage value of the rechargeable battery, automatic detection mode (low voltage models only 12V and 24V batteries), or high voltage models lock 12V, 24V, 36V, 48V, 60V batteries.