

USER'S MANUAL

SOLAR CHARGE CONTROLLER



Please connect the battery first, and then connect the solar panel after setting the system parameters. If you do not operate in order, the battery will be damaged

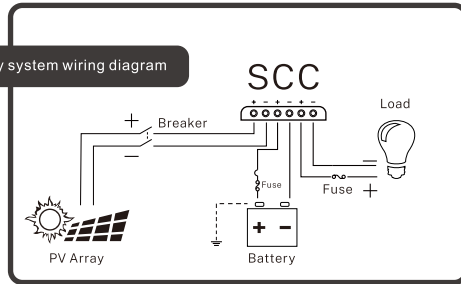
CATALOGUE

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When using lithium batteries, please set the system voltage first, and then set the corresponding battery type (see P7-3.5/P8-3.6).

1.Wiring Instruction

Solar energy system wiring diagram



※ Perform the following steps to connect cables and install them ※



Step 1
Connect
batteries



Step 2
Connect
the load



Step 3
Connect the
solar panels

2.Notice

NOTICE:



This product is a commonly used positive electrode controller, the positive electrode of the photovoltaic array, battery and load can be grounded at the same time.(In special circumstances, the negative pole of the battery can also be grounded, but in this case the negative pole of the photovoltaic terminal and the negative pole of the load terminal cannot be grounded.)

2



NOTICE:

If the inverter or other starting current is loaded in the system, please connect the inverter directly to the battery.
Do not connect with the controller's load terminal

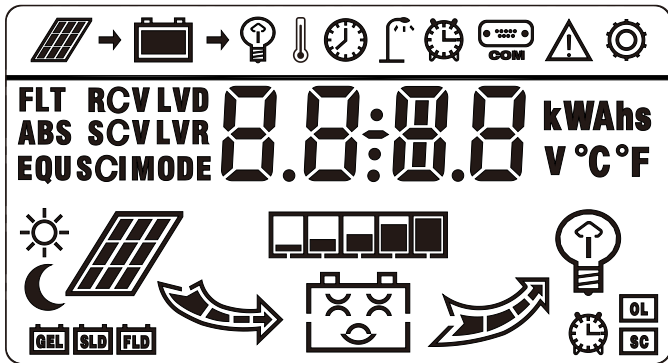


NOTICE:

If a lithium battery is used, set the system voltage and then the battery type before use. (See P7-3.5 / P8-3.6)

3.Description of display

3.1 LCD Screen



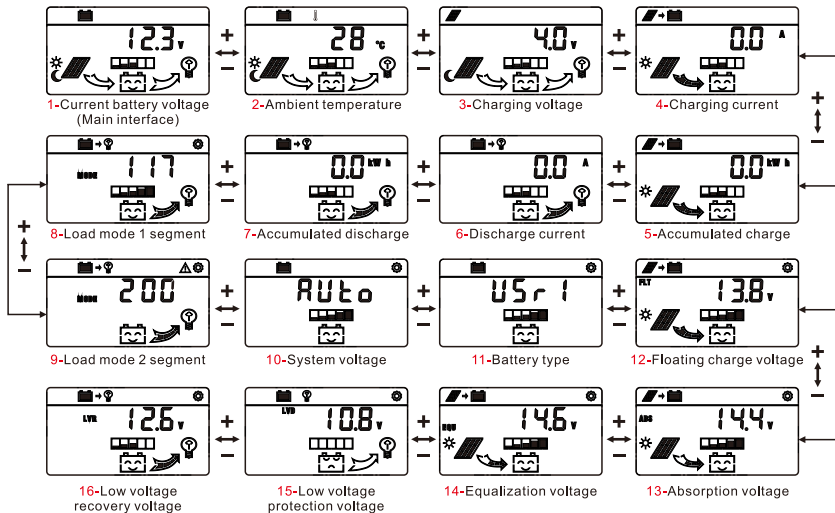
3.2 Icon meaning

Icon	Meaning	Icon	Meaning	Icon	Meaning
	Day		Data Relates to Charging	FLT	Float Charging
	Night		Data Relates to Discharging	ABS	Absorption Charging
	Charging		Data Relates to Temperature	EQU	Equalization voltage
	No Charging		Data Adjustable	SCI	Lithium terminates charging current
	Load On		Data not Adjustable	RCV	Recovery Charging Voltage
	Load Off		Sealed Battery	SCV	Constant Charging Voltage
	System Works Normally		GEL Battery	LVD	Low Voltage Disconnection Voltage
	System Works Abnormally		Flooded Battery	LVR	Low Voltage Re-connection Voltage

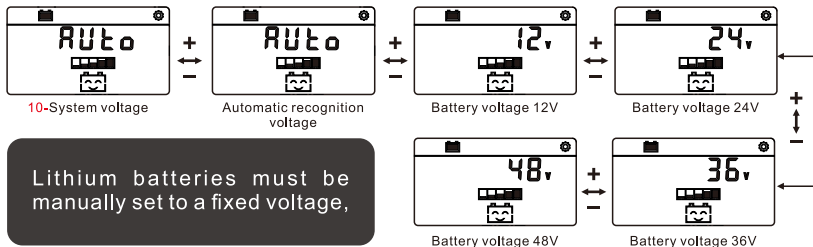
3.3 Button definition

Button meaning	Button symbol	Button function
MENU	+	Long press to enter or save settings, short press to turn the page or increment the value.
SET	—	Short press to turn the page or decrement the data ; Tap on the home screen to enable or disable the load; Long press in the setting state to exit without saving; On the temperature screen, hold down to restore the default parameter values of the current battery type.

3.4 Main loop pages



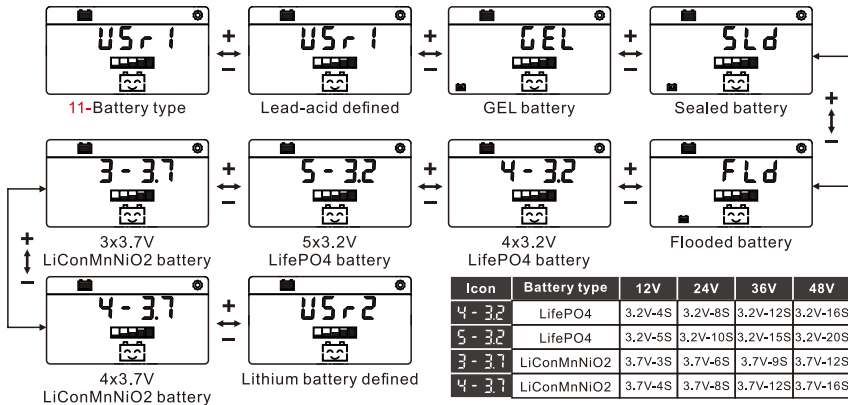
3.5 System voltage setting



※ 36V is not automatically identified and must be set to a fixed system voltage.

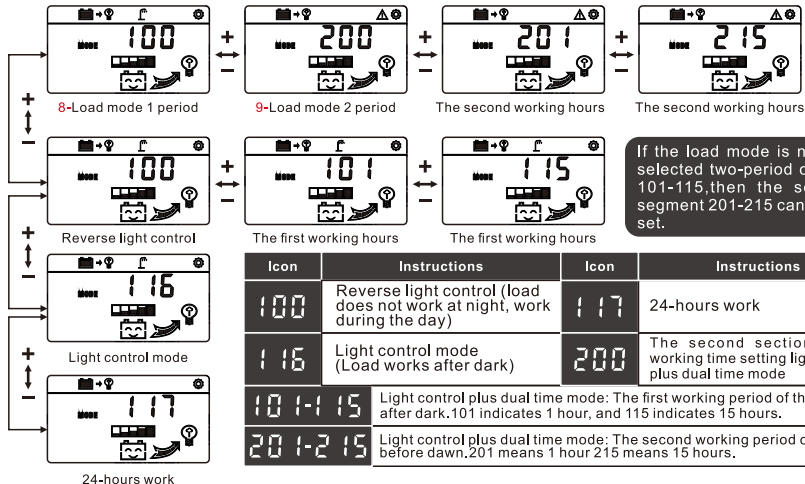
Press “+” on the home screen to switch to the screen (10), hold down the “+” key to enter settings, select the corresponding battery voltage, and hold down the + key to save the settings.

3.6 Battery type setting



Press + on the home screen to switch to the screen (11), hold down “+” to enter settings, select the corresponding battery type, and hold down “+” to save the settings.

4. Load working modes



5.Fault code

Error Code	Cause	Solution
Ex1	Battery undervoltage	Undervoltage protection, load off Battery overvoltage
Ex2	Battery overvoltage	Overvoltage protection, load off, charging stop
Ex3	Overload protection	Check the load wiring, or reduce the load device
Ex5	Overheating protection	Controller internal overheat protection,charging stopped, automatic recovery after cooling
Ex6	Overcurrent protection	Charging overcurrent protection, rated current +2A, 60 second protection; 1.25 times, 5-second protection; Automatic recovery in 2 minutes

"E" stands for "Error";

"X" indicates the number of errors. If there are multiple errors, press "+" or "-" to check the loop.

"1-6" indicates the code name.

6. Technical parameter

Max Current		10A	20A	30A	40A	10A	20A	30A	40A	50A	60A	80A
Rated discharge current		10A	10A	20A	20A	10A	10A	20A	20A	30A	30A	40A
PV maximum input power	12V	130W	260W	390W	520W	130W	260W	390W	520W	650W	780W	1040W
	24V	260W	520W	780W	1040W	260W	520W	780W	1040W	1300W	1560W	2080W
	36V	\	\	\	\	390W	780W	1170W	1560W	1950W	2340W	3120W
	48V	\	\	\	\	520W	1040W	1560W	2080W	2600W	3120W	4160W
Terminals		8AWG/10mm2		6AWG/16mm2		8AWG/10mm2		6AWG/16mm2		4AWG/25mm2		
Max PV Open Circuit Voltage		50V				100V						
Self-consumption		≤12mA				≤30mA						
Loop Voltage Drop		≤0.3V										
USB Output		5V										
Temperature Compensation		-4mV/°C/2V (25℃)										
Operating Temperature		-20℃~+50℃										
Protection Category		IP30										
Humidity		95%, no-condensing										
Working Frequency		2402-2480MHz										

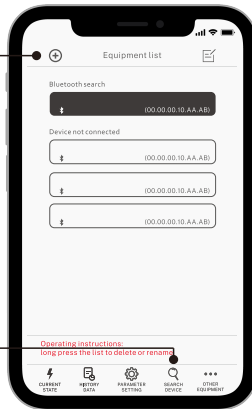
7.APP Download and Connection(optional)

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2.Click "+" to search for products



1.Select the Device Search screen



Above 30A(including 30A)is equipped with Bluetooth function

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and

(2) This device must accept any interference received, including interference that may cause undesired operation.

Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment. This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- - Reorient or relocate the receiving antenna.
- - Increase the separation between the equipment and receiver.
- - Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- - Consult the dealer or an experienced radio/TV technician for help.ct.

This equipment complies with the FCC RF radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with a minimum distance of 20cm between the radiator and any part of your body.