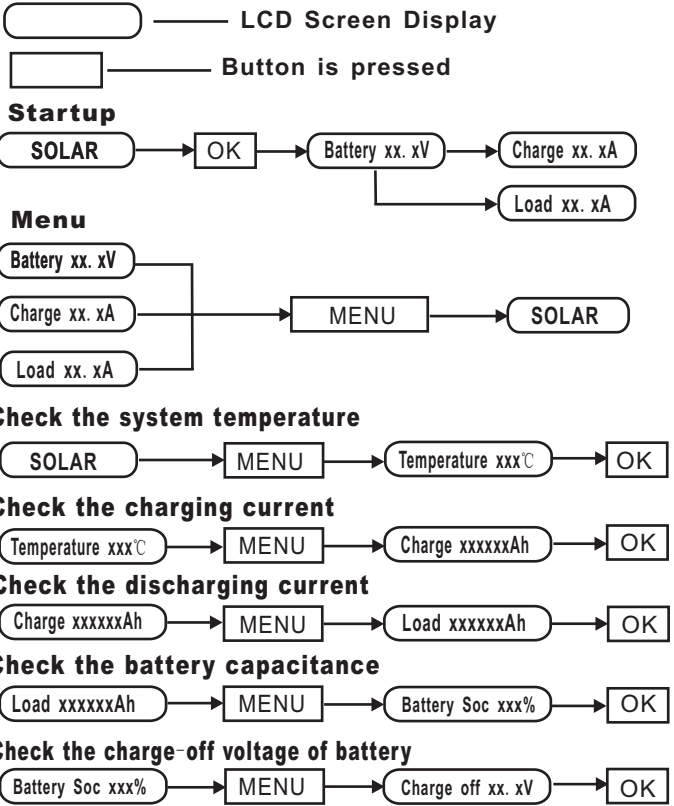


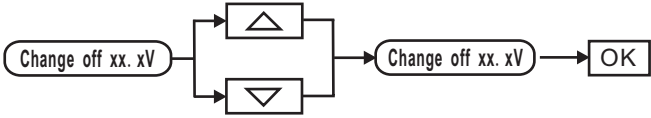
4. Operation

Please note, if you don't set 'the battery charge-off votage', 'Loads cut off voltage', 'Load-on voltage of loads'when you start up the controller, it will adopt the default value.

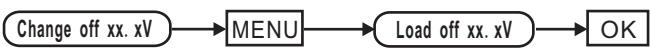


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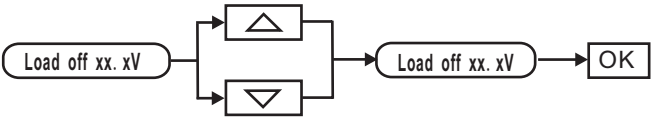
Setup the Charge off voltage of battery



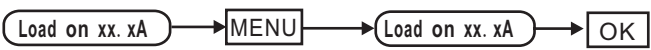
Check the Load-off voltage of Loads



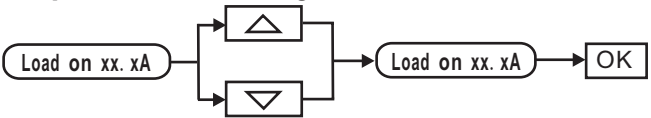
Setup the Load-off voltage of Loads



Check the Load-on voltage of Loads



Setup the Load-on voltage of Loads



Charge-off Voltage of battery / Load-off Voltage of Loads / Load-on Voltage of Loads reset. Press [MENU] more than five minutes

Setup for over-loads



Setup for short circuit



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5. Technical Parameters

Model	C4830 20A	C4830 25A	C4830 30A
Rated Voltage	48V		
Max Load current	20A	25A	30A
Full charge cut	54. 8V Default value, can be reset		
Low voltage cut	42V Default value, can be reset		
Temperature comp ensation	-3mv/°C/cell		
No load loss	≤20mA		
Max wire diameter	6mm <sup>2</sup>		
Length≤1m Charge loop drop	<0. 25V		
Length≤1m Disc harge loop drop	<0. 05V		
Ambient temp erature	-25℃—55℃		
Solar panel Input voltage	80V		

Model	C2430 30A	C2460 40A	C2460 50A	C2460 60A
Rated Voltage	12V/24V Automatic voltage recognition			
Max Load current	30A	40A	50A	60A
Full charge cut	13. 7V/27. 4V Default value, can be reset			
Low voltage cut	10. 5V/21V Default value, can be reset			
Temperature comp ensation	-3mv/°C/cell			
No load loss	≤30mA			
Max wire diameter	8mm <sup>2</sup>			
Length≤1m Charge loop drop	<0. 25V			
Length≤1m Disc harge loop drop	<0. 05V			
Ambient temp erature	-25℃—55℃			
Solar panel Input voltage	12V system 20V/24V system 40V			

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Model	C4860 40A	C4860 50A	C4860 60A
Rated Voltage	48V		
Max Load current	40A	50A	60A
Full charge cut	54. 8V Default value, can be reset		
Low voltage cut	42V Default value, can be reset		
Temperature comp ensation	-3mv/°C/cell		
No load loss	≤50mA		
Max wire diameter	12mm <sup>2</sup>		
Length≤1m Charge loop drop	<0. 25V		
Length≤1m Disc harge loop drop	<0. 05V		
Ambient temp erature	-25℃—55℃		
Solar panel Input voltage	80V		

6. Trouble Shooting

**Phenomenon:** Green ligt goes out, the loads stops working, and LCD shows Battery low  
**Reason:** Low voltage of battery  
**Solution A:** Cut off the loads andrestaet the controller by pressing Button RESET. After the battery finish charging, reconnect the loads.  
**Solution B:** Increase solar panel' s power or change battery. When there is something trouble whilecharging the battery, increase solar panel' s power or change battery.  
**Phenomenon:** Green light goes out, the loads stops working, andLCD shows Over load  
**Reason:** Overload  
**Solution:** Reduce the quantity of loads and then press Button Reset  
**Phenomenon:** Green light goes out, the loads stops working, andLCD shows Short circuit  
**Reason:** The loads short circuited  
**Solution:** Eliminate the malfunction and then press Button Reset  
**Phenomenon:** GreenLED is on-----Loads are normally working  
**Phenomenon:** Red IED is on-----Battery is fast charging  
**Phenomenon:** Red LED is flickering---Battery is charging in constant voltage (or floating) condition.  
**Trouble:** Red LED goes out  
**Reason:** Out of power  
**Solution:** It is common during the night, If it doesn' t charge for long time, please carefully check the connection of solar panels, controller and battery to avoidloose-connection or disconnection.  
**Special Notes:** It is a normal phenomenon the red LED indicator is on when the controller is connected to the battery; the red LED indicator is charging-allowed indicator, if the solar paelis meet the charging conditions, the LCD will display the charging current, the red LED indicator is off only when the battery is full

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Solar Conroller  
C2430/C4830/C2460/C4860

USER'S MANUAL

Thank you for purchasing our solar controller  
please read these instructions before use

1, safety

Full consieration to the safety of persons and property has been given when designing the products. However the incorrect connection may cause the system breakdown or even safety accident. For your safety and benefits, the following rules must be complied with during the operation

- Installation ofthis product shall be carried out by professional staffs.
- Prevent any liquid spattered on the controller. Do not clean the controller with wert cloth.
- Keep children and incapable persons away from the controller.
- Keep the controller awayfrom electrical heater, heating machine and other high temperature electrical appliances, avoid the controller from direct sunlight.
- Pkease check the rated voltage of solar panel, battery, and loads before connection. Their rated voltage should be all 12V, 24Vor48V
- Make sure that connections between positive and negative poles of solar panels, batteries and loads sre correct.
- The diameter of connecting cable must be match with the requir ements of the current.
- The diameter should not be too thin, prevent controller from high temperature decreasing.
- The rated current of solar panels and loads must be smaller than the controller's.
- Components of system must be correctly and firmly connected to guarantee the controller workswell.

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2. Features

C2430/C2460/C4860 solar charge controller is controlled by micro-CPU, with a perfect SOC management function, they are able to control the charge current and decide whether to supply power to the loads according to the voltage of battery. The product has the following features:

- lthas charging and discharging functions at the same time
- Always keep the battery on full voltage condition.
- Prevent the battery from over-charging.
- Prevent the battery from over-discharging
- Prevent the battery from reverse charging to solar panels during nights.
- Reverse polarity protection for Battery
- Reverse Polarity Protection for Solar panels
- The loads current exceeds the rated current of the controller, it will activate the protection mode and lock up, and LCD display shows Overload.
- Short circuit of loads, the controller will activate the protection mode and lock up, the LCD display shows short circuit.
- Lowbattery voltage the controller will cut offthe loads and LCD shows batterylow Recover to nomal voltage and then loads auto activate
- Thunder protection
- LCD display shows the voltage of battery, charging current and loads current in tumby every 5 seconds in condition of working well of solar controller.
- The controller can store the charging current data and discharging current data of the battery.
- When starts up, the controller will self-setup the charging-off voltage, the load-off voltage and the load-on voltage according to the voltage of battery These default parameters bring into effect in the standard environment temperature (25℃) .
- The controller will automatically colpensate the temperature of the charging voltage according to the changes of the ambient temperature
- The charge-off voltage, load-off voltage and load-on voltage could be settled according to user srequirement.
- To prevent battery from over discharging, the controller will automatically control the lowest load-off voltage of the load, 12V, 24Vand48V should no less than 10V, 20V and40V respectively.
- To recover the default parameters, please keep pressing the button Menu for morethan 5 seconds.

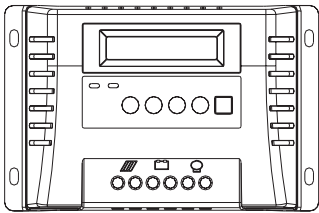
2

3. Connection

There are 6 connection ports with marks which will help you connecting  
Caution!

- Don' t use the lamplight shine solar panels to generate electricity (the lamplight intensity is weak)
- Don' t replace the solar panel with DC power supply in case of troubles to solar controller.
- Do connect the solar controller with the batteryfirst, and have the solar panel connected.
- Don' t reverse electrodes (the positive and negative poles) of the solar panels, battery and loads
- Match a suitable cable according to the current. Don' t choose a too thin diameter. (we suggest: cable diameter ≥6mm2 (C4830) , ≥8MM2 (C2460) , ≥12MM2 (C4860) .

Solar Conroller



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