USING INSTRUTION FOR CQ SERIES SOLAR CONTROLLER

(HOUSHOLD TYPE)

(This instruction can be applied to 12V-48V, 30A controller)

Summary: The solar controller is the most important part of the solar system. It is too intelligent and automatically to control the charge, discharge and load of the system. The performance of the controller can influence the stability of the system, especially the lifetime of Battery.

CQ series solar controller will supply perfect protection functions for the battery, it will make battery work reliability. And the controller could be widely used in the solar system such as lamps, pastoral, frontier and island and so on, it is also could be used for mobile basics, microwave stations and traffic systems.

Theory introduction: Use the industrial MCU as the host controller. According to the surrounding temperature, the voltage and ampere of battery and solar cell。

Protection function: Battery Overcharge and charge protection; Battery Open-circuited protection; Load Over-voltage protection; Reversed charge protection at night; Flow and short circuit protection; Battery Open-circuited protection; Solar Cells Reversed protection; Over-voltage protection; Temperature Compensation(With automatic identification of the temperature sensor is online)

※Battery Reversed protection : The "+" and "-" polarity reversed, please replace the fuse.

※Solar Cells Reversed protection: the "+" and "-" polarity reversed, Please replace the polarity.

※Flow and short circuit protection: the load exceed rated current or load short circuit, please replace the fuse

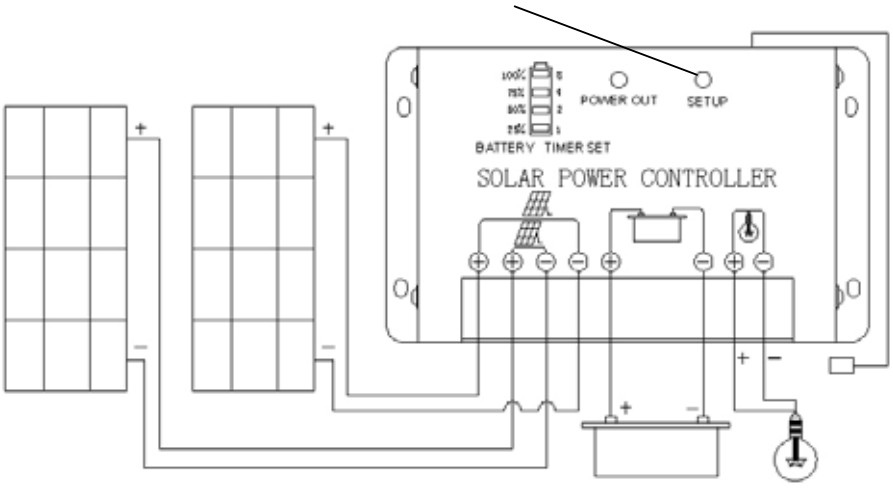
※Battery Open-circuited protection: When battery open-circuited, but the solar cell charging normally, the controller will cut-off the load.

※Overcharge protection: When the charging voltage higher than protection voltage (14.4V/28.8V/57.6V), the controller will shut off the charging automatically, When the voltage drop to the maintain voltage(13.8V/27.6V/55.2V), the battery go into the floating station. When the charging voltage lower than recovery voltage(13.3V/26.6V/53.2V), the floating shut off, and come into equalized charging.

※When the battery voltage under protection voltage, the controller will shut off the output automatically to protect the battery.

※Over-voltage protection: When the voltage is higher, the output will shut-off automatically to protect appliances.

When streetlight type, the set up button have function and can operate; when household type, the set up button have no function and operate invalid.



Note:

1. Streetlight type controller mainly function: get light control light up or light off or timing light off.

2. Household type controller, mainly is family use, 24 hours have output

Installation and usage: please connect as the following picture. Please pay attention to the "+" and "-" polarity. Firstly, connect the battery; then the solar cells, once more the load; at last the appliances. The 4 LED of controller are match to the battery power and display the charge state, all lighting when the battery is full. To prevent the wrong action, under voltage protection, under voltage recovery and over pressure recovery have 10 seconds delay. Over voltage protection have no delay time.

Accessories： The 30A controller uses 2 fuses, while 1 fuse uses 40A fuse.

Specifications:

TYPE		4830/LT	2430/LT	1230/LT
Rating Voltage		48V	24V	12V
MAX. Input Power		1440W	720W	360W
Current	Discharge	30A	30A	30A
	Charge	30A	30A	30A
Charge	Equalized /Floating Charge	57.6V/55.2V ±1%	28.8V/27.6V ±1%	14.4V/13.8V ±1%
	Resume	53.2V/54V±1%	26.6V/27V±1%	13.3V/13.5V±1%
	Temperature Compensation	-72mV/°C	-36mV/°C	-18mV/°C
Start Voltage		/	/	/
Over Discharge	Shut off	44.4V±1%	22.2V±1%	11.1V±1%
	Resume	48V±1%	24V±1%	12V±1%
		52.8V±1%	26.4V±1%	13.2V±1%
Over Voltage	Shut off	66V±1%	33V±1%	16.5V±1%
	Resume	60V±1%	30V±1%	15V±1%
No-load Current		≤6mA	≤6mA	≤5mA
Voltage of Light Open		≤8V±1%	≤4V ±1%	≤2V±1%
Voltage of Light Shut		≥28V±1%	≥14V±1%	≥7V±1%
Max. Open-Circuit Voltage		100V	50V	25V
Voltage Drop		Input≤0.7V	Input≤0.6V	
		Output≤0.3V	Output≤0.3V	
Working Temperature		-25□~+55□		
Height		≤5500m(More than 2000m need reduce the power to use)		
Size & Weight		210mmx110mmx60mm 1.035Kg		