

CX-S8-A30 Specifications

Enjoy you green life in sunshine

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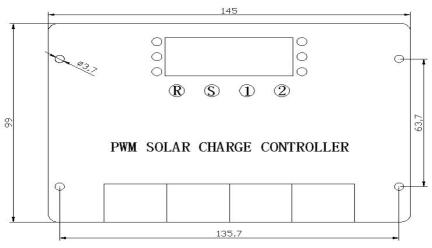
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1. Specifications:

- 1. Identify 12V/24V system voltage automatically.
- 2. LED indicates the working status of battery and load.
- 3. Two set output ports, can control independently.
- 4. Software implementation overload, short circuit protection.
- 5. PWM charging technology, greatly increase the service life of the battery.
- 6. Sixteen load mode design, suitable for street lamp and the monitor machine.
- 7. Industrial design, works in different severe environment .
- Various protections: Over charging protection, over discharging protection, over load, short circuit protection, reverse polarity protection,
- 9. TVS lightning protection

2. Assembly Instructions and Auction



1. Installation of controller should be stable and dimensions are as follows:

Overall dimension:145×99×27.5(mm)

Installation dimension:135.7×63.7(mm)

Installation hole diameter:3.7(mm)

2.CX - S803 controller can work under 12V or 24V voltage. Please connect the storage battery at first, controller will work after recognize the battery voltage automatically.

3. First, connected to the storage battery: Pay attention to the "+" and "-", in case of reverse connection. If connected well, LCD display the current battery immediately. If the LCD display is not bright, please check whether the battery is negative answer the reverse.

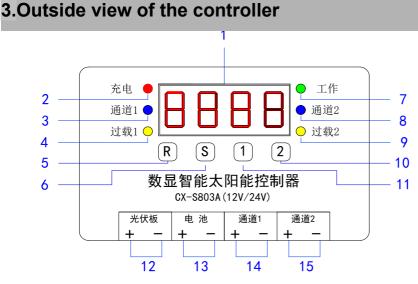
4. Second, connected to the solar panel: Pay attention to the "+" and "-" ,in case of reverse connection.

5. Third, connected to the load: connect the load lead with the load output end of controller, Note: this controller has a two-way output, could be controlled independently. Each channel max output current can be 30A,please choose the suitable load.)

6. Controller will become hot during running. Therefore, it is suggested to install it in a ventilated environment.

7. Choose the cable with enough capacities for connection to avoid excessive consumption on circuit which may result in wrong judgment of controller.

8. It is important to completely charge the storage battery, at least once a month. Otherwise, battery will suffer from permanent damage.



1. LCD display, shows the current storage battery voltage and the model setting process guide.

- 2. Charging indicator.
- 3. Channel 1 indicator.
- 4. Channel1 over load indicator. When channel 1 Over load or short current, overload indicator will be shiny.

5. Controller reset button. If you want to return to original state to set the working

Mode, press this button is OK . The according the LCD display's guide to set the Mode.

6. working model choose button.User can by key choose want working model.Each time to press this switch,LCD display back two hole will change one time.reference the follow model table,can be change to you needed working mode.

7. Main power indicator light:.When after controller over charging protection,this light will be off,at the same time cut off output.

8. Channel 2 indicator light.

9. Channel 2 over load indicator light.

- 10. Channel 2 output switch.Press button "2",ON/OFF.
- 11. Channel 1 output switch.Press "1",ON/OFF.
- 12. Solar panel connect port.Pay attention to the "+" and "-",
- 13. Battery connect port.Pay attention to the "+" and "-",
- 14. Channel 1 output port.
- 15. Channel 2 output port.

4. Introduction of modes and table of settings

CX - C803 controller Channel "1" and Channel "2" all have sixteen working modes. Table of settings is as below:

1. Purely light-operated (0): When there is no sunlight, the light intensity will fall to the starting point. Load will be opened as per set parameters to start working. When there is sunlight, the light intensity will rise up to the starting point. The controller will close output .

2. Light-operated + time-controlled (1~14.): Starting process is same to that of pure light control. The load will automatically close when it works to the preset time. Set time will be 1 to 14 hours.

3. Manual mode (15.): If being powered on, the load will be under the output status all the time. This mode is suitable for loads in need of 24-hour power supply.

4. LCD two digits after represented mode as follows:

LED Display	Mode Specs	LED Display	Mode Specs
00	Purely light-operated	08	Light-operated + time-controlled for 8 hours
01	Light-operated + time-controlled for 1 hour	09	Light-operated + time-controlled for 9 hours
02	Light-operated + time-controlled for 2 hours	10	Light-operated + time-controlled for 10 hours
03	Light-operated + time-controlled for 3 hours	11	Light-operated + time-controlled for 11 hours
04	Light-operated + time-controlled for 4 hours	12	Light-operated + time-controlled for 12 hours
05	Light-operated + time-controlled for 5 hours	13	Light-operated + time-controlled for 13 hours
06	Light-operated + time-controlled for 6 hours	14	Light-operated + time-controlled for 14 hours
07	Light-operated + time-controlled for 7 hours	15	Always bright mode

5. Methods for setting

Mode setting:

1.When the system work, LCD will show the voltage of the current battery, after 2S, LCD will shows C-01(means at this point is channel 1 mode Settings), after 2S, LCD will shows ----(means Channel 1 entry model initialization), after 2S LCD shows 0000, (means Channel 1 is 00 model, the purely light-control is working). At the moment:

- ①Press "1"button on the panel.Press once each time,the LCD display will be increase one time(0-15),and the after 2 numbers is means channel 1 will be on working model.When you change to you need model,press "S"button,channel 1 working model will be save in the inside of the microprocessor at this moment.
- ②After LCD will shows C-02(means channel 2 mode setting),after 2S,LCD will shows---(means Channel 2 entry model initialization),after 2S LCD will shows 0000(means channel 2 is 00 model, the purely light-control is working),at the moment Press "2" button on the panel. press once each time,LCD display after 2 numbers will be increase one time(0-15) ,and the display after 2 numbers is channel 2 will be on working mode. When you change to your need model, press"S"button,channel 2 working model will be save to the inside of the microprocessor at this moment. Here to,channel 1 and2 model setting Finished.

2.In this moment LCD will show the battery voltage.Then,you can press button"1"and"2",to realize channel 1 and channel 2 on/off. CHANNEL1 lights on means channel 1 open,else off. CHANNEL2 lights on means channel 2 open,else off.

3.If you want to rest the working model,just need to press button"R" on the panel,it can reset the controller,then according the model setting process to begin.

6. Safety suggestions

- 1. This controller is 12/24V automatic conversion. If connect 12V battery, and the solar panel 18V/600W(max). Connect 24V battery, and the solar panel 36/1200W(max).
- When connecting 24V system, terminal voltage of battery panel may surpass the human body safety voltage. If operations are needed, insulating tools should be used and hands must be dry.
- 3. When the battery reverse connect, the controller will not damage, but the load will be negative voltage output, it may damage your load equipment, when using, please avoid this to happen
- 4. Please make sure that children are far away from the storage battery and the controller.

7. Instructions for parameters

System voltage	12V/24V Auto
System current	30A max
System current	30A(each channel)
No-load loss	< 5mA/12V;7.5mA/24V
Solar energy input voltage	18V; ×2/24V
Overvoltage protection	14.70V; ×2/24V
PWM charging voltage	13.7V; ×2/24V (25°C)
Charging recovery voltage	13.4V; ×2/24V (25°C)
Over-discharging recovery voltage	12.0V; ×2/24V
Over-discharging voltage	11.0V; ×2/24V
Temperature compensation	-4.0mv/℃/2V
Light-control voltage	5V/on,9V/off ;×2/24V
Working temperature	-35℃ to +65℃
Protection level	IP30
Weight	300g
	Reverse connect battery, solar panels,and reverse charging protection at night
Circuit protection	Over charging/over discharging/over load/short circuit protection
Size	145×99×27.5(mm); (L×W×H))

Notice: CX-S8-A20 max charging current is 20A and max discharging is 20A. Others are the same to CX-S8-A30.

8. Problems and solutions

Phenomena	Problems and solutions	
There is sunlight but indicator lamp of battery panel is not on.	Please check the wiring of photocell and the contact. Please check the battery and solar panel configured correctly	
LCD display not bright	Please check the wiring connect of Storage battery	
Over load indicator light and there is no output	Load port appliance power too big,please reduce the appliance power.(note: after over load indicator flash,channel 1 and channel 2 have no output,press R button,reset controller,then according model setting process to reset channel"1" and "2"working model.	
Lndicator lamp of load is on permanently and there is no output	 Check whether the channel is open? If open, the channel light will bright. If the channel light bright, and LCD shows 00-14, at night will be output. If the channel light bright, and LCD shows 15, please check whether the load connect correct and reliable. 	

Subject to change without notice.