



CMTD Series Solar Charge Controller

User's manual

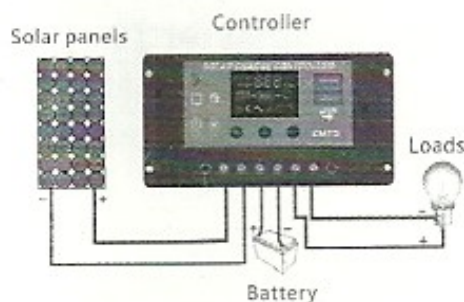
Product Introduction

CMTD series solar charge controller is a kind of intelligent, multi-functional solar charge and discharge controller. All the controlling parameters can be reset flexibly to satisfy your different needs.

This controller has the following features:

• Visual LCD graphic symbol	• Brief key operationon
• Automatic identification system voltage level	• Intelligent PWM charge mode
• Adjustable charge-discharge control	• Settable operating modes of loads
• Multiple selection of battery	• Battery over temperature protection
• Battery low voltage protection	• Battery reverses polarity protection
• Overload & short circuit protection	• With Dual USB 5V output

Installation Instructions



As shown in the installation connection diagram, the battery, solar panel, load and controller should be connected by turns. Please connect the battery first, and then the solar panel or load.

Specification

Model	CMTD-2410	CMTD-2420
Max. charge current	10A	20A
Max. discharge current	10A	20A
Max. solar panel input voltage	≤50V	
Rated voltage	12V/24V auto work	
Stop charge voltage	14.7V/29.4V	
Low voltage recovery	12.2V/24.4V	
Low voltage protection	10.5V/21.0V	
USB output voltage/current	5V 2A	
Characteristic	No load loss:≤10mA; Temperature compensation:-3mV/cell/°C	
Operation temperature	-20°C~60°C	

*Parameters may customized by customers.

Setting Instructions and Parameters Display

☐ Parameters setting and checking button

Setting method:





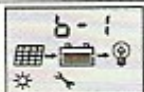
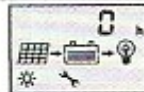

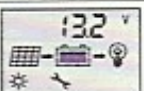
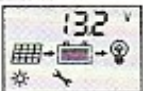


At the setting interface, keep pressing the **☐** button for 5 seconds, the figure flickers, it means the controller enters into the setting mode. After finish setting the parameters, shortly press the **☐** button and the controller will save the set parameters automatically.

At this interface, when there is no operation for 20 seconds, it will automatically exit the setting mode, cancel to save the parameters and return to the main interface.

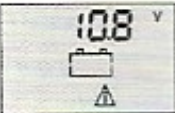

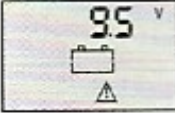


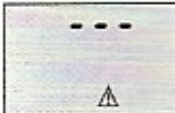

▲ Parameters plus button

▼/⏻ Parameters minus button (load output switch)

Parameters Display

			
Battery voltage	Ambient temperature	Stop charge voltage (settable)	Low voltage recovery (settable)
			
Battery type (settable) b-1 AGM lead-acid battery b-2 GEL lead-acid battery b-3 OPEN lead-acid battery	Load working mode (settable) [0h] Manual mode [1-23h] Light control delayed mode [24h] Light control mode	Low voltage protection (settable)	
			
As shown above, the left arrow static display means it is in direct charge; the left arrow flickers means it is in float charge. If the left arrow without display means it is no charge.	The load output switch default ON. At the battery voltage interface, you can press the  button to turn on or turn off the load. After pressing the  button, the load is disconnected and the load output is stopped.		

Trouble Shooting

	Low voltage early alarm	When the voltage of the battery less than 11V ($\times 2/24V$), the  icon appears in the bottom of the LCD.
	Low voltage alarm	When the battery voltage lower than 10.5V ($\times 2/24V$), the controller enter into the state of low voltage protection, the  icon appears in the bottom of the LCD and the  icon flickers. The load is disconnected in order to prevent it from over discharging. At this time, you need to charge the battery. When the battery voltage return to the low voltage recovery 12.2V ($\times 2/24V$), the load output restart.
	Short circuit	When short circuit occurs, it shows as the right figure. The controller will not recover after trying to recover for ten times. At this time, you need to shortly press the  button to turn off the load output, and then the system return to normal work.
Over temperature protection: when the temperature of the controller is higher than 70°C, the charge and discharge of the controller stop working. When the temperature of the controller is less than 65°C, the controller returns to the previous working state.		

GUARANTEE

Customer Name		Telephone	
Model		E-mail	
Bar Code No.		Purchase Area	
Address			

After-Sales Service

1. After the product has sold, if the function failure occurs, you can choose change or repair it within _____ months.
2. Warranty: _____ years upon the date of purchase. If the product exceeds the warranty period or do not belong to the free repair, our company repair center is still dedicated to serve you.
3. Man-made damage, disassemble the product by yourself, product appearance damage and improper use, all of these may cause the invalidation of product guarantee.

Note:

We keep right to change and update without prior notice.
Any purchase channel of our product may enjoy the appropriate warranty service and technical service in the local agents or in our company.

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