

V 1.3

SDYU Series

(SDYU1024 SDYU2024 SDYU1048 SDYU2048)

Solar Charge Controller

USER MANUAL



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1.0 Features

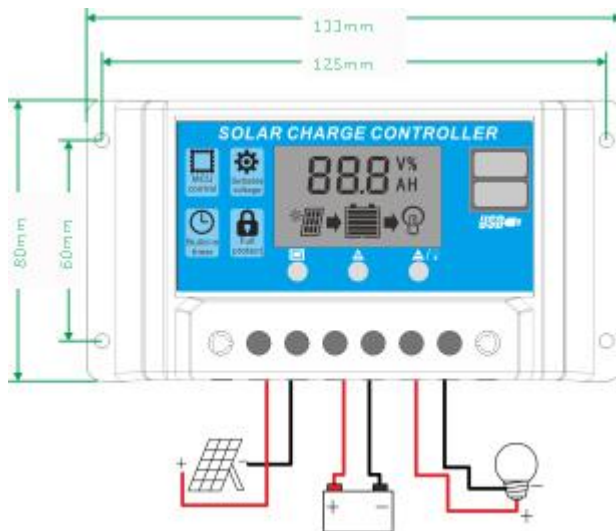
1. Build-in industrial micro controller.
2. Big LCD display, all adjustable parameter.
3. Fully 4-stage PWM charge management.
4. Build-in short-circuit protection, open-circuit protection, reverse protection, over-load protection.
5. Dual mosfet Reverse current protection, low heat production.
6. Dual USB 5V output
7. Charging mode: Pulse Width Modulated control, allows for high efficiency boost, recovery and float charging. Temperature compensation ensures that these parameters are adjusted for maximum battery condition and hence, prolonged battery life.

2.0 Installation & Operation

2.1 Controller Size:

Controller Dimensions: 133×80×34mm

Installation Hole Dimensions:125x60mm



2.2 Cable Information

Choose the plastic Copper wire. Current density no more than $4A/mm^2$. Cut the suitable length of wire and make it as short as possible. Peel off 5mm the plastic at the end of wire.

2.3 Battery Cable Connection

Connect battery Positive and Negative to the controller first to power on the controller. Make sure correct polarity of terminals.

The controller has protection of reverse polarity, so even not connect correctly for positive and negative, the controller will not be burned.

2.4 PV Cable Connection

Connect the solar panel to the controller terminals, be careful of Positive and Negative. When the sun is available in the daytime, the PV LED indicator will be green color, otherwise NOT, then you need to check the connection is correctly or NOT.

2.5 Load Cable Connection

After connected with battery and PV, then connected the Load cable, also be careful of Positive and Negative, if not connect correctly, it is easy to burn down the electrical appliances.

2.6 Operation

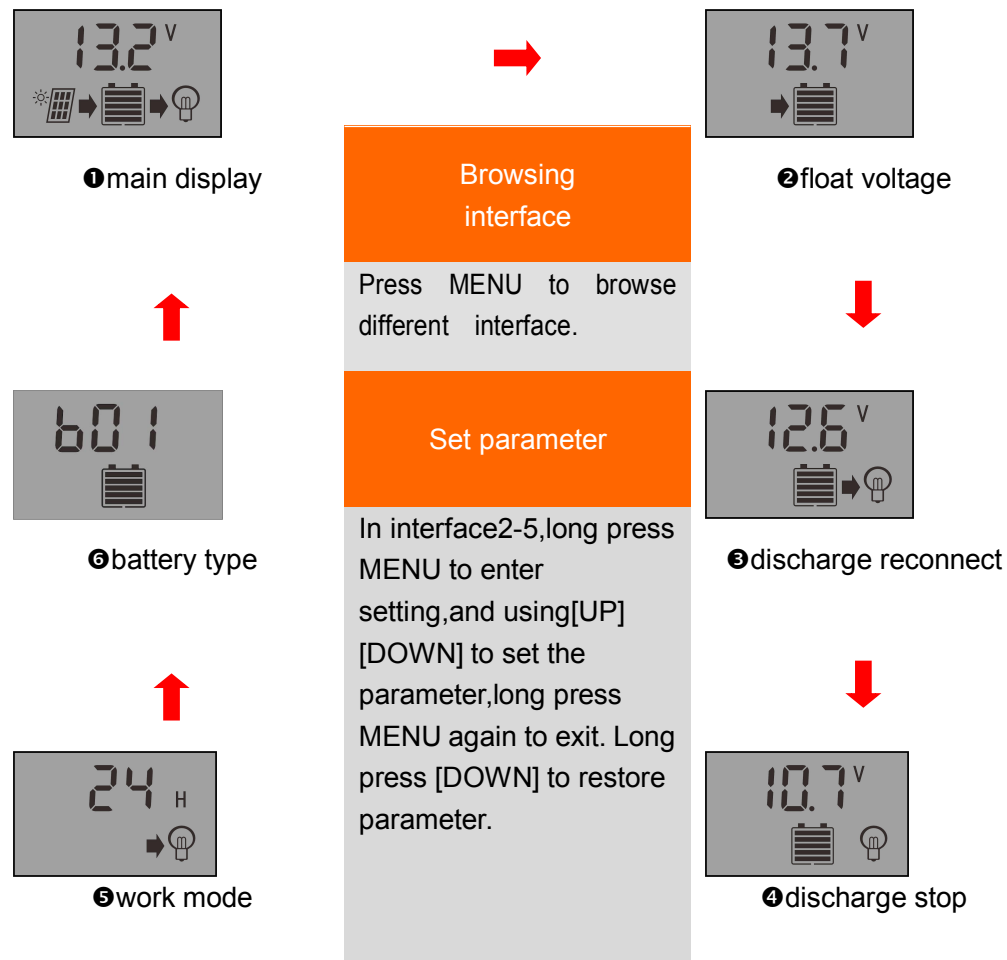
Step to do connection terminals

① Battery  ② PV  ③ Load

Attention to the reverse order connection(“+”&“-” when do installing!

An improper sequence order can damage the controller!

3.0 Display&Setting



Attn :

1. press the [Down] button to ON/OFF load manually at main display.

2. the work mode is working as below:

[24H] load output 24hours

[1-23H] load on after sunset and closed after setting hours

[0H] Dusk to dawn

4.0 Specification

MODEL	SDYU1024	SDYU2024	SDYU1048	SDYU2048
Batt voltage	12V/24V auto		48V	
Charge current	10A	20A	10A	20A
Discharge current	10A	20A	10A	20A
Max Solar input	<50V		<80V	
Equalization	B01 sealed		B02 Gel	B03 flood
	14.4V		14.2V	14.6V
Float charge	13.7V(adjustable)×2/24V; ×4/48V			
Discharge stop	10.7V(adjustable)×2/24V; ×4/48V			
Discharge reconnect	12.6V(adjustable)×2/24V; ×4/48V			
USB output	5V/3A			
Self-consume	<10mA			
Operating temperature	-35~+60 ℃			
Dimension(L*W*H)	133*80*34mm			
Weight	240g			

5.0 Problem & Trouble Shooting

Situation	Probable cause	Solution
Charge icon not on when sunny	Solar panel opened or reversed	Reconnect
Load icon off	Mode setting wrong	Set again
	Battery low	recharge
Load icon slow flashing	Over load	Reduce load watt
Load icon slow flashing	Short circuit protection	Auto reconnect
Power off	Battery too low/reverse	Check battery/connection

6.0 Warranty

1. The product warranty period is two years since factory.
2. During the warranty period, any problem caused by normal use under the user manual (determined by the controller factory), reparation is free of charge.