



1.0 Features

SunMan's portable solar charger is a perfect solution as a portable, reliable and convenient power resource for the camping, hiking and some other off-grid environment.

- Portable: Foldable design with side bag result in a much smaller size and easy to carry.
- Ultra-light: The power-weight ratio is more than 30W/kg due to patented materials.
- High efficiency: The maximum power up to 160W can produce more than 500wh per day in most areas.
- Durability: The same materials as SunMan's unique eArc used lead to strong weather resistance and wide application range.

2.0 Construction

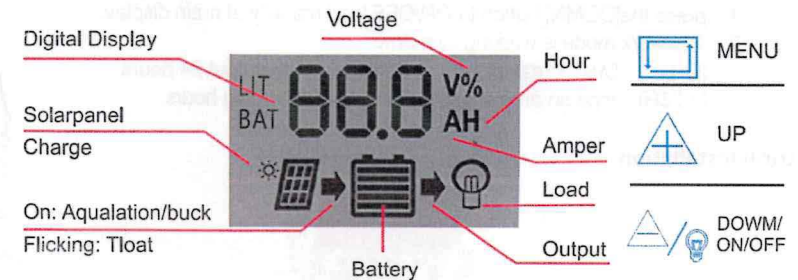
- 12V/24V charge controller with LCD display
- Alligator clips for battery connection
- 5 m extension cable with Anderson Plugs



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Controller panel introduction

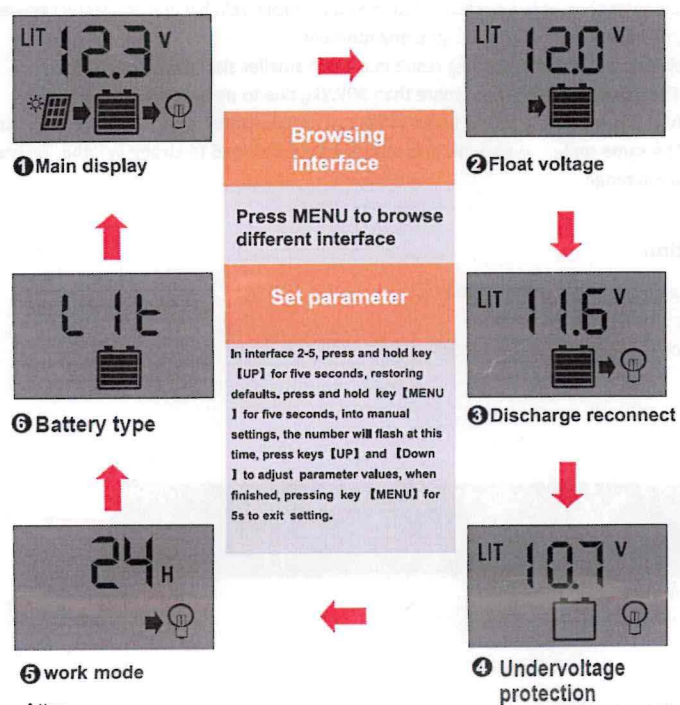


MENU : Switch between different display or to enter / exit setting by long press.

UP : Press to increase value.

DOWN : Press to decrease value

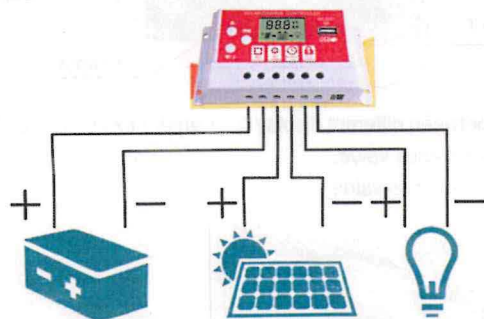
3.0 Controller usage



Attn:

1. press the [DOWN] button to ON/OFF load manually at main display.
2. The work mode is working as below.
 [OH] Dusk to dawn [24H] load output 24 hours
 [1-23H] load on after sunset and close after setting hours.

4.0 Electrical Installation



5.0 Main Technical Specifications

Product	Portable SMF235M-12
Solar Cell	Mono (6 inches)
No. of Cells	48
Folded Dimensions	670×540×24 mm
Unfold Dimensions	670×2600×5 mm
Weight	6.7 kgs
Color	Black
Materials of bag	Waterproof nylon fabric
Connector	Anderson Plugs
Batt voltage	12/24V auto adapt
Charge current	10A
Discharge current	10A
Equalization	lithium battery (Li): 12.8V
	Lead acid battery (bAt): 14.4V
Float	Lead acid battery: 13.7V
	Lithium battery: 12.0V
Undervoltage protection	Lead acid battery: 10.7V
	Lithium battery: 10.7V
Discharge reconnect	Lead acid battery: 12.6V
	Lithium battery: 11.6V
USB output	5V/2A
Operation temperature	-20~+65 °C

6.0 Trouble shooting

Situation	Probable cause	Situation
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

7.0 Caution

- Do not place any heavy object on the eArc solar panel and make sure there's no shade.
- Do not use the portable solar charger in the event of strong winds or rain.
- Do not use portable solar charger in series.

8.0 Disclaimer of liability

- No responsibility is assumed by SUNMAN for any infringement of patents or other rights of third parties, which may result from the use of the portable solar charger. No license is granted by implication or otherwise under any patent or patent rights.
- The information in this manual is based on SUNMAN's best knowledge and experience and is believed to be reliable; But such information including product specification (without limitations) and suggestions do not constitute a warranty, express or implied. SUNMAN reserves the right to change the manual, the portable solar charger, the specifications, or product information sheets without prior notice.