

User Manual

Portable Solar Generator (20W)

Feature

The system is a small AC and DC Power Supply System which is designed for the Villages, Districts, Health Centres farmers, herdsman, outdoor camping, tourism etc. Easy to operate, convenient to carry. Solar panel, solar controller, inverter and battery all are put in one box.



Specification

- ❑ Solar Panel: 20W Polycrystalline Silicon Solar Panel
- ❑ Battery: 12V/24Ah Maintenance-free Lead-acid battery
- ❑ Solar Charge Controller: 10A/12V
- ❑ Inverter: input DC12V, output 220V/150W
- ❑ Output: DC 12V, AC 220V.
- ❑ Maximum Load: 150W
- ❑ Size (LxWxH): 38.4 * 27.9 * 18.0 cm
- ❑ Weight: 12.0kg

Typical Use Case

Appliances	Load Power	Quantity	Daily Working Hours	Daily Power Consumption	Continued Working Days
Fluorescent lamp	40W	2	2	160Wh	1.5 Days
TV (21 inch)	60W	1	2	120Wh	2 Days
Laptop	60W	1	2	120Wh	2 Days
Inkjet printer	30W	1	0.5	15Wh	18 Days
Inkjet fax	150W	1	0.5	75Wh	3.5 Days
TV topbox	25W	1	2	50Wh	5 Days
Fan	50W	1	2	100Wh	2.5 Days
FM Radio	3W	1	6	18Wh	16 Days
Cell phone	2.5W	1	8	40Wh	6.5 Days
Intercom	7.5W	1	6	45Wh	6 Days
Satellite Phone	12W	1	2	24Wh	12 Days
GPS	4W	1	4	16Wh	17 Days

Control Panel



- 1 – AC 220V output socket
- 2 – DC 12V output socket
- 3 – LED indicator, left for solar panel, middle for storage battery, right for output
- 4 – Output Button and LED display
- 5 – Switch

LED Indicator Description



The left LED for solar panel status
Green ON when solar is charging battery
Green blink when the system over voltage



The middle LED for battery status
Green ON when battery level in the right range
Green slowly flashing when battery level full
Green blink when the system over voltage
Yellow ON when battery level low



The right LED for output status
Yellow ON when the output is on.
Yellow slowly flashing when over load (the load amps is 1.25 times of rated current for 60 seconds, or the load amps is 1.5 times of rated current for 5 seconds)
Yellow blink when the load is short-circuit.



How to Charge the Box from Sunlight

Put the box under directly sunlight, turn on Switch 5, the middle LED indicator will be green. Open it and make sure the solar panel can get as much sunlight as possible. The left LED indicator will be green, which means it is charging. When full-charged, the left LED indicator will flash in green, you should close the box, and take it away from sunlight to protect the battery.

Notice: never open the box under the sun before turn on switch.

How to Use the Box to Supply Power

Turn on Switch, make sure the middle LED indicator becomes green. Click Output Button, make sure the right LED indicator becomes yellow. The LED display above the button will display number 6 for a while then black out.

DC 12V Load

Connect DC 12V device to output socket 2.

AC 220V Load

Connect AC 220V device to output socket 1. Most important, make sure the power of load not more than 150W.

When finish using the load, disconnect it from the box, click the Output Button, make sure the left LED indicator black out.



Caution

- ❑ Before using the box, please firstly charge built-in battery under the direct sunlight through solar panel.
- ❑ Keep the box in dry environment. Keep away from Children.
- ❑ Don't keep the box in high-temperature environment.

This **portable solar generator** converts sun light into electricity stored in battery using high quality crystalline silicon solar cells. It provides AC 220V output. With a built-in multiplex outlet, it's able to power a wide range of devices with a socket at the same time, such as electric guitar, TV, light, radio, recorder, electric fan, and other small home electric appliances. Therefore, it is suitable for home power supply, camping, outdoors activities and traveling.

