PORTABLE SOLAR GENERATOR

Universal Instruction manual



ATTENTION: This product user manual is universal for portable solar generator AC output range between 100V~240V/50Hz~60Hz. Actual product specification, actual AC outlets will be different according to different countries, areas or customers. Please refer to the actual product before you use the product.

ABOUT THE UNIT

Thank you for applying our multi-function portable solar generator. In case of power failure or you need to charge on a travel, you can temporarily charge your electrical or digital devices with this unit. This unit can provide USB, DC and AC output. You can keep laptops, appliances, lights and more going for hours longer. Before using this unit, please read the user manual carefully and properly keep it for reference.

ATTENTION!

This manual is to help you use the product correctly; it does not represent any description on the hardware and software configuration of the product. About the product configuration, please refer to the contract related to this product (if there is), or consult to the seller that sells the product. Pictures in this manual is for reference only, if there are individual pictures do not match the actual, please prevail in actual products.

The unit provides Pure Sine Wave output

The unit is built-in pure-sine wave inverter, which means it produces an output that is exactly the same as supplied by an AC wall plug in your house. It produces power output that makes it compatible with almost all AC electric devices in your house. The pure-sine wave inverter allows unit to safely power almost everything under 400 watts in your house that you would normally plug into the wall. This product is only used for emergency, it cannot replace the normal alternating current for long-term use.



Oscilloscope display of sine wave

[I] PRODUCT PARAMETERS

Capacity	360Wh/97200mAh,3.7V	444Wh/120000mAh,3.7V
Dimensions(LWH)	307x134x184mm	
Weight	about 4.8Kg	about 5Kg
Built-in Battery	High Quality Lithium Polymer Batteries	
Input Recharging	13~22V, Up to 6.2A Max input charge	
Fully Charged Time	DC 15V/6A: about 6 hours	DC 15V/6A: about 7 hours
Output	3xUSB 5V-2.1A(Max); 2xDC 9-12.6V/15A (Max); 1x Cigarette Lighter 9~12.6V/15A Max	
AC Output	This user manual is universal for unit AC range between AC100V-240V /50Hz~60Hz (IMPORTANT! AC OUTLETS, VOLTAGE AND FREQUENCY ARE DIFFERENT ACCORDING TO DIFFERENT COUNTRIES, AREAS. PLEASE REFER TO THE ACTUAL PRODUCT BEFORE USING)	
AC Power	AC Continuous Power Output: 400W	
Power Indicator	LED Indicators	
Operation temperature range	-10°C-40°C	
Lifecycle	>500 times	
Package include	1 x Portable Solar Generator 1 x Power Adapter 1 x Car Charger Adapter 1 x User manual	

 $\,$ There may be some differences on different spare parts. Please adhere to the actual product instead.

[II] PRODUCT DESCRIPTION [Front]



[Right]



ATTENTION! AC Outlets, AC output voltage and frequency will be different according to different countries or areas. Please refer to the actual product before using.

[III] PRODUCT INSTRUCTION

1) How to provide power for DC12V appliances(such as head lamp, fan) with this product? The 5.5mm 12V DC output is plug and play. Plug your appliances to the DC output port to gain power.

Notices: Please confirm whether your DC12V appliance support charging with 5.5mm DC header interface (The diameter of the DC Port of the Product is: 5.5mm), otherwise it is unable to connect with the DC output, you can consult the electrical manufacturer, buy the corresponding adapter and connect with it.

[Left]



5.5000 DC12V for Fan or

LED lights (power<180W)



Note: The 12V DC output voltage is range between 9V~12.6V, maximum output current is 15A. DC output voltage drops while battery capacity drops due to chemical characteristics of the battery. If your appliance is not built-in input voltage stabilizing function, it may shutdown when input voltage is too low, please unplug your device from the unit in time. And please charge the unit in time.

2) How to provide power for AC appliances with this product?

Connect the power cable plug of the electrical appliance to the AC outlet of the product, switch on the power button and the unit will start providing power to your appliances.

WARNING! The Ac outlets, AC voltage and frequency are different according to different countries ; please carefully check whether the product specifications are consistent with the appliance specifications before use, otherwise it can lead to dangerous situations.

※ When the AC port is not in use, turn it off to conserve power.

[Right]



Protection Mode:

Shortcircuit/Overpower Protection: If the AC output is shortcircuited or overpowered(Load(s) power>400W), the unit will shutdown AC output to protect itself. Please clear the problem and re-press the AC button for AC output. % Some devices, such as refrigerator, ice maker or a laser printer may require a peak power to start or work during a very time period, the peak power could exceed 400W or even higher, this could cause overpower protection with this unit. Please remove the devices and consult with the device manufacturers for more information.please clear the problem and re-press the AC button for AC output.

3) How to provide power for USB digital appliances with this product?

Connect the standard USB cable of digital appliance to the USB output of the unit to gain power. USB output is plug and play. But if the unit fail to supply power to the USB appliances automatically, press the "Batt.Check /USB Out" button or press the AC power output button to switch on manually.Please switch off the AC power output button to save power when USB digital appliances are fully charged. **[Right]**



4) How to charge the unit? a. Charge through AC Wall Charger

Using the included AC Wall Charger, plug the unit into any wall outlet to charge the unit. You will know the unit is charging when the blue LED battery indicators are blinking. The unit is fully charged when all battery indicators stop blinking and remain solid. After the unit is fully charged, please remove the AC wall charger in time.



AC Adapter (charger) 15V/6A

b. Charge from Solar panel

1. Place your solar panel where it will get as much direct sunlight as possible.

2. Plug the output of the solar panel into the input of the unit to start charging. You will know the unit is charging when the blue LED Battery Indicator lights up and blinks. The

unit is fully charged when all battery indicators stop blinking and remain solid.



SUPPORT MPPT TECHNOLOGY

This unit is designed to support charging by solar panel. It's built-in MPPT (Maximum Power Point Tracking) technique, which is designed to use with wind turbines and photovoltaic (PV) solar systems to maximize power extraction under all conditions.

With MPPT technology, the unit can compare the output of the solar panels to the battery voltage. It then figures out what is the best power that the panel can put out to charge the battery. And help the unit get maximum AMPS from the solar panels. X Actual gain can vary widely depending weather, temperature, battery state of charge, and other factors.

c. Charge from your car with a 12V cigarette lighter.

Using the included car charger, plug the unit into a 12V cigarette lighter (car port) of your car. You will know the unit is charging when the blue LED Battery Indicator lights up and blinks. The unit is fully charged when all battery indicators stop blinking and remain solid.

Attention: To avoid car battery power loss. Charging this unit through your car cigarette lighter is only available when your car engine is started.

[IV] LED light indicator instruction



The Battery indicators indicate the charge level of the unit. There are 5 indicators to the battery, approximating 20% - 40% - 60% - 80%-100% capacity. As you use the unit, indicators will be on, indicating the remaining capacity. When charging the unit you will notice a battery indicator blinking at about 1 second interval. This indicates the current charge status. Once the unit is fully charged, all battery segments will be lit and remain solid.

[V] SECURITY AND MAINTENCE

a) Do not short-circuit the unit. To avoid short-circuiting, keep the unit away from all metal objects (e.g. coins, hair-pins, keys, etc.).

b) Do not heat the unit, or dispose of it in fire, water or other liquids. Keep away from high temperatures. Do not expose the unit to direct sunlight.

c) Keep away from high humidity, dusty places.

d) Do not disassemble or reassemble this unit.

e) Do not drop, place heavy objects on, or allow strong impact to this unit.

f) This appliance is not intended for use by persons (including children) with reduced physical, sensory or mental capabilities, or lack of experience and knowledge, unless they have been given supervision or instruction concerning use of the appliance by a person responsible for their safety.

g) Children should be supervised to ensure that they do not play with the appliance.

h) Do not cover the device with towels, clothing and other item.

i) The unit may become hot when charging. This is normal. Use caution when handling.

j) Do not charge the unit over the required time.

k) Disconnect the unit when fully charged.

I) Use the unit properly to avoid electronic shock.

m) Please deal with scrap products in accordance with the regulations, do not treat the built-in battery as a household garbage, so as not to cause the explosion and pollution.n) The product is only used for emergency situations, it cannot replace the standard DC or AC power of household appliances or digital products.

[VI] PRODUCT APPLICATION SKILLS

a) This product is built in high quality original lithium ion battery, it has no memory effect but high-capacity, and it is durable. However, we still recommend you to apply in the range of 10 °C ~30 °C, so as to obtain the optimal charging capacity.

b) When charging, in order to avoid interference, please stay away from TV, radio and other equipment.

c) If the device has not been used for a long time, please disconnect the cable and store.

d) Some portable devices may need to be set in charge mode to charge, see the corresponding equipment use manual for more information.

e) In order to extend the life of product (lithium battery), it is best to charge within 3 months, and charge at least once within 6 months.

Cold Weather Usage

Cold temperatures (below freezing) can affect the unit's battery capacity due to chemical characteristics of the battery. If you'll be living off-grid in sub-zero conditions, we recommend you keep your unit in an insulated cooler, and connected to a power source (solar panels). The natural heat generated by the unit contained in an insulated cooler will keep battery capacity at its highest.

Recycle

Always return your used electronic products, batteries, and packaging materials to dedicated collection points. This way you help prevent uncontrolled waste disposal and promote the recycling of materials.

Battery information

Your device has and internal, non-removable, rechargeable battery. Do not attempt to remove the battery, as you may damage the device.

The battery can be charged and discharged over 500 times, but it will eventually wear out.

Statement

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