



Powerology

Portable Power Generator

78000mAh Pure Sine-Wave Output

SKU: PPBCHA22

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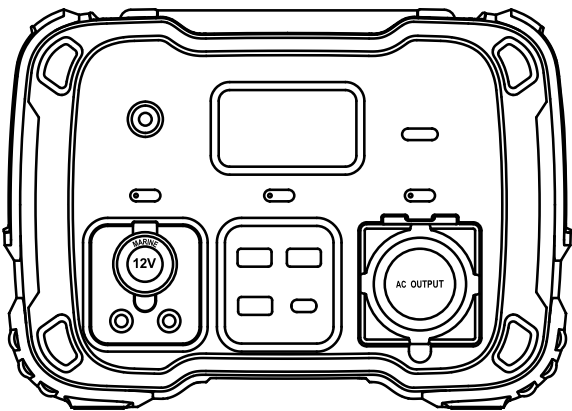
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Product Overview

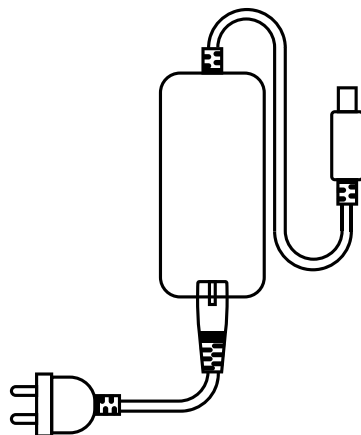
Thank you for purchasing our product. Should you encounter a power outage or require a charging solution while traveling, this device offers a temporary power supply for your electronic or digital devices. Engineered with a superior-quality lithium-ion battery, this power station delivers versatility with its USB, DC 12V, and AC output capabilities. Before utilizing this product, we strongly advise that you thoroughly peruse the user manual and retain it for future reference.

Package Contents

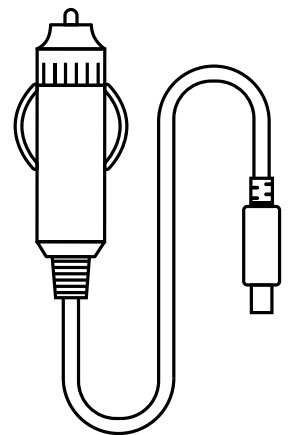
- A. Portable Power Generator.
- B. AC Charging Adapter.
- C. Car Charger Cable.



A



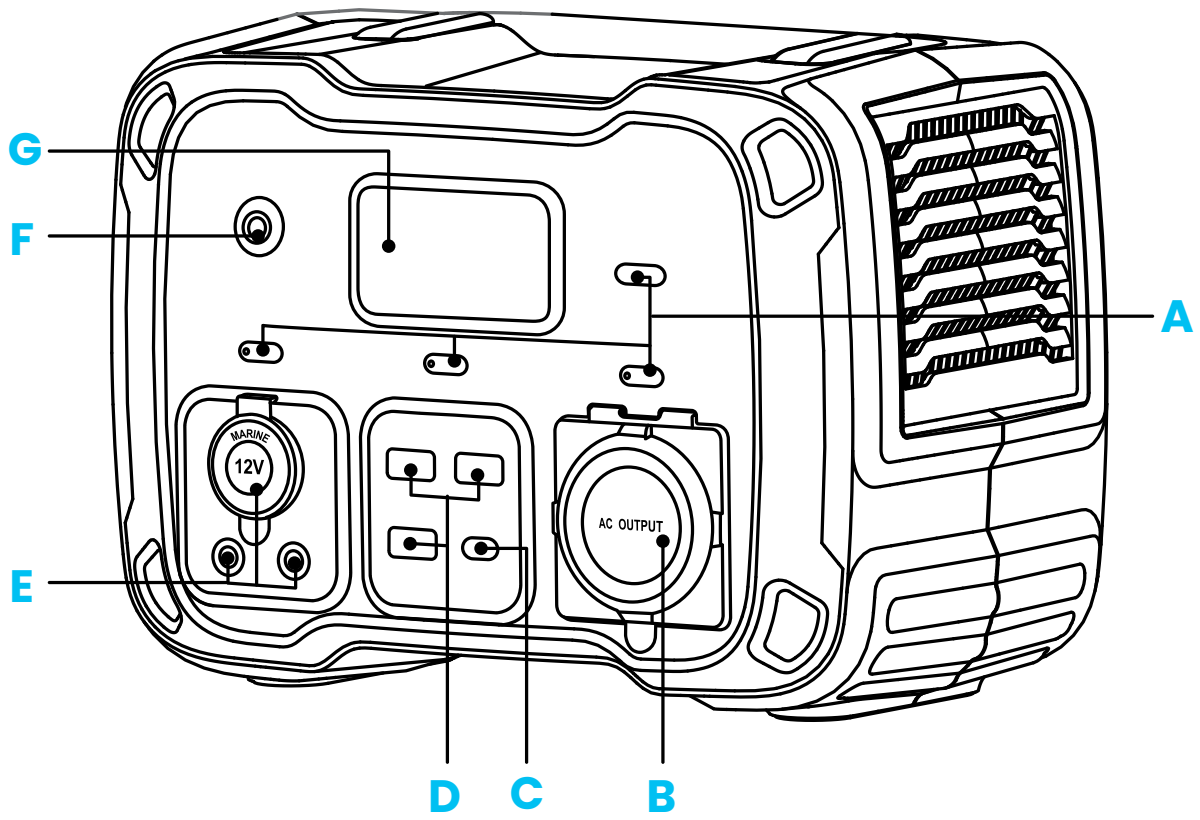
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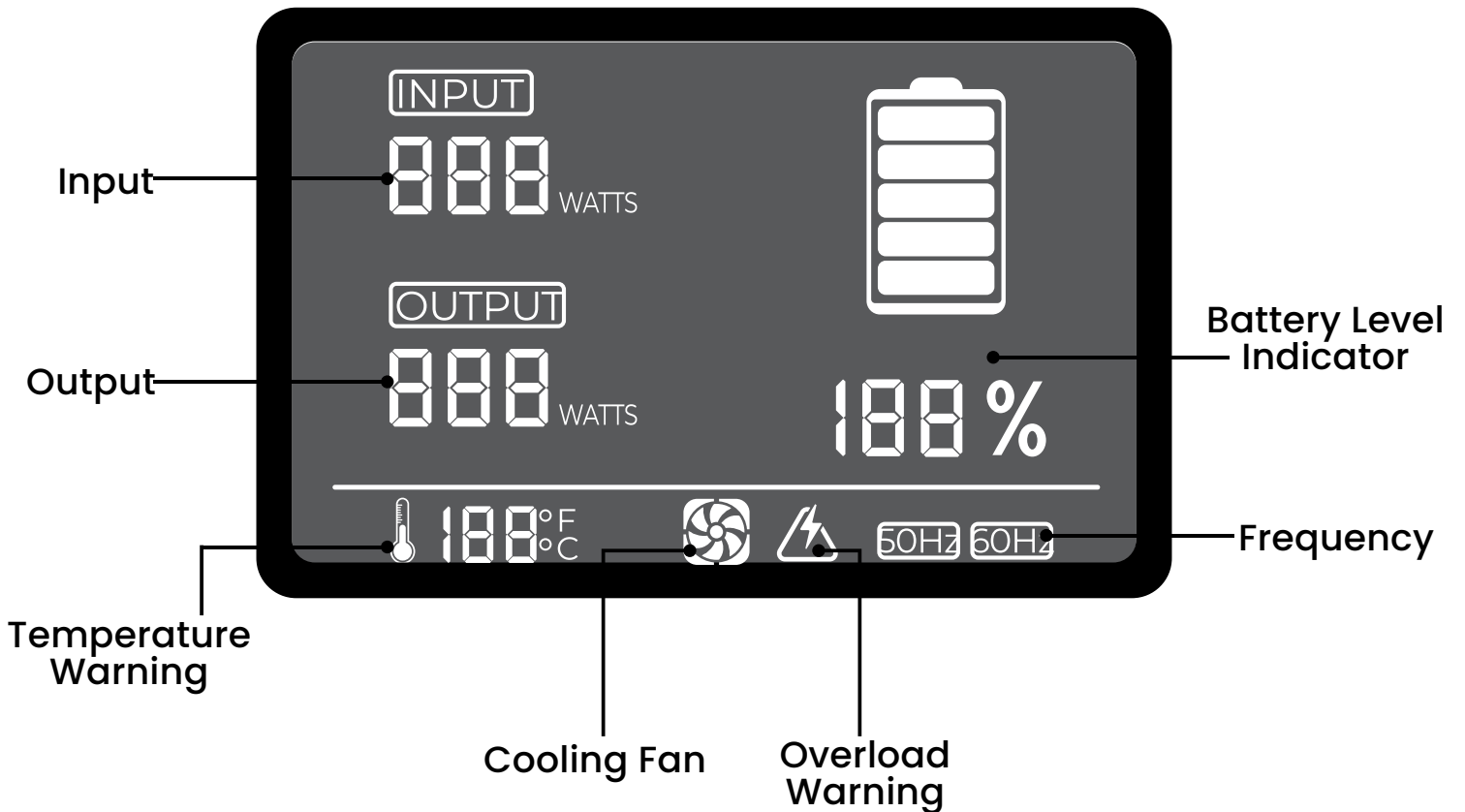
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Schematic View

- A. Interactive Buttons
- B. AC Output
- C. USB-C PD Input/Output
- D. USB-A Output
- E. 12V Output
- F. Input Port
- G. LCD Display



◀ LCD Display Interface



INPUT: Displays the power generator's supplied input power (in watts) during the recharging process.

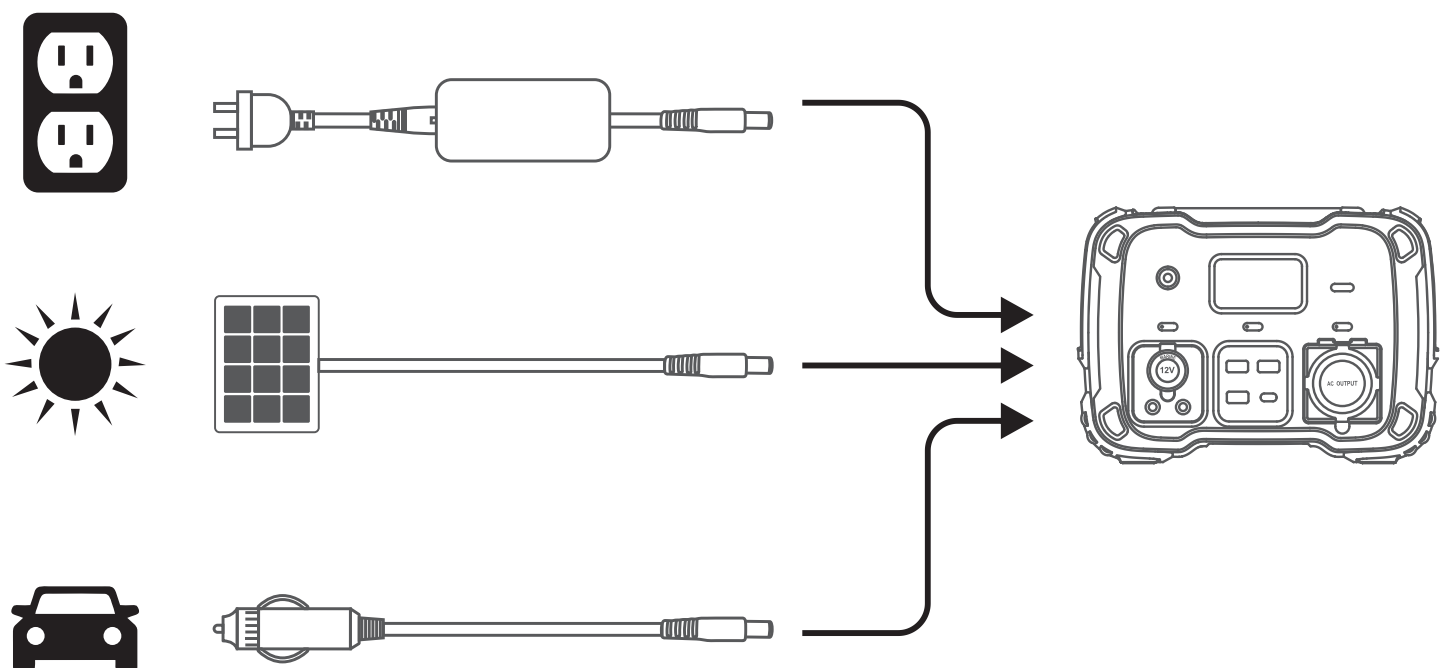
OUTPUT: Indicates the power generator's output power (in watts) of when connected to other devices.

Battery Level Indicator: Features a five-segment indicator (including 80 %, 60 %, 40 %, 20 %, and 100 % levels) representing the battery levels of the device. The battery level indicator light starts flashing during the charging of the power generator. When the power generator is fully charged, the indicator illuminates with a solid light and stays on.

Overload Warning: This alert signifies that the power generator is operating above its standard rated power output. In case of power overload, the warning sign is displayed and the port's button illuminates in red light.

Temperature Warning: This sign indicates that the power generator is operating at high temperatures and there is a risk of overheating.

◀ Charging the Power Generator



1. Charging via Wall Electric Outlet

To charge your power generator, connect it to any wall outlet using the provided AC adapter. The completion of charging will be clearly indicated on the LCD display when it reads 100 % .

2. Charging via Solar Panel

Your power generator can be charged using solar panels through the 6.5mm DC input port. For optimal charging:

A. Position the solar panel to receive maximum direct sunlight exposure.

B. Note that the duration of solar charging is subjected to weather conditions.

Important Note: In the process of solar recharging the power generator, you must check the voltage ratings of the solar panels. The voltage of the single solar panel or a series-connected array of solar panels, should not exceed 26V. Connecting solar panels with higher voltage ratings to the power generator is not permissible and may lead to significant damage to the unit.

3. Charging via Car Charger

It is possible to charge your power generator using a 12V source, such as your vehicle, although this method is not suggested due to the prolonged charging time.

Usage Guideline



Light Bulb



Phone



Laptop



Mini Fridge

Instructions for Power Generator Operation

1. Activate the desired port by pressing the power button above the port.

To activate the USB/DC 12V output, press and hold for 1 second.

To activate the AC output, press and hold for 2 seconds.

2. The activation of the port is confirmed when the green LED indicator on the button is turned on.

3. Plug in the desired electric device.

4. Press the DISPLAY button to turn the display on or off.

5. To maximize energy efficiency, ensure to turn off ports that are not in use.

Optimal Usage Guidelines

1. Before starting the charging process, ensure the electronic device is compatible and functions correctly. The maximum power allowance for connected electronics is 300W. Check that during the operation of the power generator the battery power level is indicated on the LCD.

2. Be aware that connecting devices with substantial energy requirements (such as large refrigerators) can rapidly reduce the battery level of your power generator, possibly resulting in less than the total 280.8Wh of energy output. This is particularly notable when using the AC power output, as the generator will convert DC power from the battery to meet the AC requirements of your device. While the power generator is equipped with an efficient inverter, energy loss during conversion is inevitable, which may result in not achieving the full rated capacity of the battery.

Recommended Temperature Parameters

The performance and capacity of the battery, as well as the output power of the power generator, can be adversely affected by low temperatures. The device is designed to operate efficiently within a temperature range of -10°C to 40°C . The power generator stops working outside of this specified temperature range.


Specifications


Battery	
Battery Cell Type	Lithium-Ion NMC
Capacity	280.8Wh (10.8V, 26Ah)
Lifespan	Up to 500 charge cycles until 80 % of original capacity
Storage Maintenance	Charge every 3 to 6 months for optimal battery health
Management System	Includes an MPPT charge controller and a BMS
Port Details	
AC Output Ports	300W (Rated), 500W (Surge), 240-220V/50Hz
12V DC 5.5mm Port (Output)	12V/5A, 60W (Max.)
12V Car Port (Output)	12V/10A, 120W (Max.)
USB-A Ports (Output)	5V/3.1A
USB-A QC Port (Output)	5-9V, 18W (Max.)
USB-C PD Port (Input/Output)	5-20V, 60W (Max.)
Input Port (DC 6.5mm)	11-26V, 72W (Max.)
General Information	
Weight	3.7kg
Dimensions	258.7 x 157.3 x 118.2 mm
Operating Temperature	-10°C to 40°C
Charging Temperature	0°C to 40°C

Troubleshooting

If the devices connected to the power generator are not recharging, please proceed with the following steps:

1. Confirm the activation of the desired output port by checking that the green LED on the power button has turned on.
2. Inspect the battery level of the power generator. If the battery level of the power generator is 20 %, charge the device before starting to use it.
3. Check the compatibility of your device with the power generator's specifications, ensuring it does not exceed the designated maximum power capacity for the output port being used.
4. Monitor the LCD Display for any of the following alerts:

 **Overload warning sign:** This sign indicates that the power drawn by the device surpasses the port's capacity. The engaged port's light illuminates in red light. To resolve this issue, disconnect the device from the port, then press the port's button to reset.

 **Temperature warning sign:** This sign alerts the user that the temperature of the power generator is higher than the standard range. In this case, the device stops functioning. To proceed using the device safely, turn off the device and allow it to cool down before resuming operation.

FAQ

1. What type of battery is used in this device?

Answer: The power generator is equipped with a high-energy-density battery pack composed of cylindrical 18650 lithium battery cells.

2. Is it possible to recharge the power generator and use it to charge electric devices at the same time?

Answer: During the recharging process of the power generator, both the USB and DC 12V output ports remain functional, but the AC output is temporarily disabled.

3. Am I allowed to carry my power generator on a plane?

Answer: Transporting a power generator on a plane is not permissible, as it comprises a substantial number of lithium-ion batteries, which are often classified as hazardous by aviation authorities due to their capacity.

4. How can I verify if my device is compatible with the power generator?

To determine compatibility, you will need to acquire information regarding the power input of your device. For this matter, refer to the electrical device's user manual or search on the Internet.

Note that the power generator's maximum output capacity of 300W.

Safety Precautions

1. Prevent short-circuiting by ensuring the unit is not in proximity to any metallic objects, such as coins, hairpins, or keys.

2. Do not subject the unit to extreme heat, nor attempt to discard it in fire, water, or other liquids.

- 3.** Avoid exposing the unit to high temperatures and direct sunlight to prevent damage.
- 4.** Maintain the unit in environments free from excessive humidity and dust.
- 5.** The unit should not be disassembled or reassembled by the user.
- 6.** Protect the unit from drops, heavy loads placed upon it, or substantial impacts.
- 7.** This device is not suitable for use by individuals (including children) who may have impaired physical, sensory, or mental abilities, or a deficiency in experience and understanding unless they are under the direct supervision or guidance of a responsible adult.
- 8.** Ensure that children are monitored to not play with this device as a toy.
- 9.** Do not obstruct the ventilation of the device with materials such as towels or clothing.
- 10.** Operate the unit correctly to avoid the risk of electric shock.
- 11.** Dispose of this product in compliance with prevailing regulations; the internal battery should not be discarded as regular household waste to prevent possible environmental hazards, such as explosions or pollution.
- 12.** This product is intended for use as an emergency power supply and is not designed to be a substitute for standard DC or AC power sources for household appliances or digital devices.

Warranty

Products that you buy directly from our **Powerology** website or shop come with a 24-month warranty.

The 24 months warranty applies to products purchased directly from our Powerology website or store. If **Powerology** products are bought from any of our verified retailers, then the product is eligible for only 12 months warranty. To extend your product's warranty, visit our website <https://powerology.me/warranty> and fill your details in the provided form along with an uploaded picture of the product to process your request. Once approved, you will receive a confirmation email of the extended product warranty. Upload the required information within 48 hours of purchase to be eligible for 24 months of warranty period.

For more info, please check:

<https://www.powerology.me/warranty>

Contact Us

If you have any questions about this Privacy Policy, please contact us at: <https://hey@powerology.me/>

Website: <https://www.powerology.me/>

Instagram: **Powerology.me**

Facebook: **Powerolog**