

VTOMAN

SuperSafe LiFeBMS Power Station

VTOMAN FlashSpeed 600

User Manual



Please read this manual carefully before use and retain it for future reference.

Model No.: PB-86

Thank You for Choosing Vtoman

Thank you for welcoming Vtoman into your family. From our foundation, we have focused on providing top-tier service and sustainable energy solutions for both indoor comfort and outdoor adventures. That's why Vtoman services are available across over 10 countries, trusted by millions to power their homes and support their lifestyles responsibly.



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1.BEFORE YOU BEGIN

Welcome to Vtoman! This manual is designed to help you get the most out of your product with easy-to-follow instructions and helpful tips.

- This user manual provides essential guidance on how to operate and maintain your Vtoman unit effectively.
- Using only genuine Vtoman accessories guarantees the safety and optimal performance of your device.
- The diagrams included in this manual are designed to enhance your understanding of the assembly and operational procedures for the Vtoman FlashSpeed 600. Please refer to these visuals while setting up your device to ensure correct installation and operation.
- Vtoman cannot be held responsible for damages resulting from the use of non-genuine parts.
- For your safety and to ensure the best experience, please read this manual carefully before operating the device and keep it on hand for future reference.

Vtoman products are designed for safety and reliability. Please carefully read this guide for important safety information. Adhering to these guidelines ensures the safe setup, use, and care of your device, preventing potential damage and injury.

2.SAFETY INSTRUCTIONS

SAVE THESE INSTRUCTIONS!

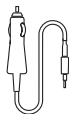
1. Operate within Specified Conditions: Always operate or store the unit within the specified temperature range of 32°F to 131°F for charging and -4°F to 131°F for general operation.
2. DO NOT Expose to Hazardous Conditions: Avoid exposing the unit to fire, liquids, or other contaminants to prevent risk of fire or electric shock.
3. DO NOT Place on Unstable Surfaces: Ensure the unit is on a stable, level surface to prevent accidents.
4. Ensure Adequate Ventilation: Operate the unit in well-ventilated and spacious areas to avoid overheating.
5. DO NOT Modify the Unit: Never attempt to dismantle, cut, crush, puncture, or otherwise tamper with the unit.
6. DO NOT Insert Objects: Avoid inserting any foreign objects into the fan, vents, ports, or other openings of the unit.
7. NEVER Use Damaged Components: Using a damaged battery or component can lead to leakage, fire, overheating, or explosion.
8. Use Only Approved Accessories: Ensure that only approved batteries and accessories are used with your device to minimize the risk of fire, explosion, and other hazards.
9. Turn Off Immediately If Malfunctioning: In the event of malfunction, turn off the unit immediately to prevent further issues.
10. DO NOT Modify Internally: Modifications or repairs should only be performed by qualified personnel. If repair is needed, take the unit to an authorized service center.
11. Charge Properly for Storage: When not in use for extended periods, power off the unit and charge it to 50-70% every 6 months.
12. Clean Carefully: Use a dry cloth to gently clean the unit.

3. WHAT'S IN THE BOX

Standard Packaging Includes:



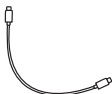
Vtoman FlashSpeed 600
Power Station



Car Charger Cable



AC charging cable



Type-C to Type-C Cable



USB-A to Type-C Cable



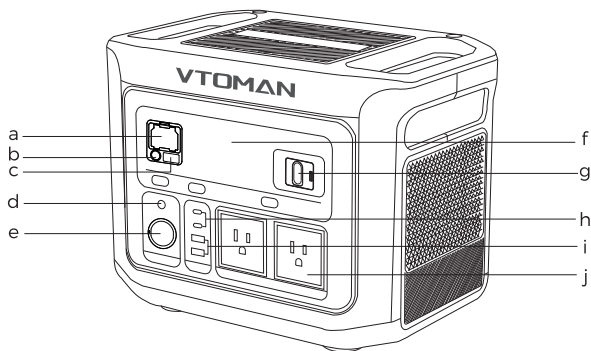
User Manual

Accessory Details:

1. AC Charging Cable: Connects to standard AC power outlets for charging.
2. Car Charging Cable: Enables charging from a vehicle's DC output.
3. Type-C to Type-C Cable: For charging and data transfer between USB-C compatible devices.
4. USB-A to Type-C Cable: Facilitates connections between USB-A and USB-C ports.

Note: Accessories are specifically designed to maximize the functionality and performance of your Vtoman FlashSpeed 600. The specifications and package contents are subject to updates to reflect product improvements without prior notice.

4. PRODUCT OVERVIEW



(1)Interface Introduction

a. AC Input: For standard wall outlet charging.

b. DC Input: Compatible with car and solar panel charging.

c. Anderson Input: Specialized for solar input.

d. DC5521 Output: 12V for DC-powered devices.

e. Car Charging Output: 12V for DC-powered devices.

f. LCD Display: Shows status and settings, including battery percentage, power output, power input, estimated time remaining, output methods, etc.

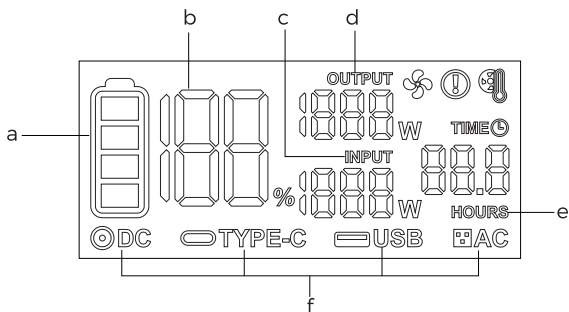
g. Battery Expansion Port: For connecting additional FlashSpeed 1500 extra battery.

h. USB-C PD Port: 100W output for high-speed charging.

i. USB-A Ports: Standard and Quick Charge options.

j. AC Outlets: Continuous power of 600W (Peak 1200W), suitable for small appliances and electronics requiring a pure sine wave.

(2)Overview of LCD Screen



a. Battery Level Indicator: Features a segmented battery icon at the left of the display, showing full charge in four segments. This provides a quick visual reference to the battery's current state.

b. Battery Percentage: Displayed at the center, it shows the remaining battery life as a percentage, enabling you to track energy reserve levels efficiently.

c. Power Input (W): Shows the power in watts that the device is currently receiving from external sources, useful for tracking the charging rate.

d. Power Output (W): Indicates the real-time power being consumed by connected devices, displayed in watts. This helps in managing the energy usage effectively.

e. Estimated Time Remaining: Calculates and displays the operation time left based on the current input and output, which assists in planning power usage.

f. Output Methods: Indicates the type of output methods currently enabled. When the icon of any output method on the display is lit, the corresponding output ports can power your device.

(3)Product Highlights

1.SUPER-FAST HOUR CHARGING:

FlashSpeed 600 powers up to 80% in an hour.

2.POWER 8 DEVICES SIMULTANEOUSLY:

FlashSpeed 600's diverse output ports, featuring 2*AC, 2*USB-A, 2*USB-C, 1*DC5521 and a car outlet, let you power up to 8 devices at once.

3.SAFETY FIRST, LIFE BMS & LFP BATTERY:

Trust VTOMAN's LIFE BMS system offering 10 layers of protection. The durable LiFePO₄ battery ensures 3000+ reliable cycles.

4.DOUBLE THE POWER:

Connect FlashSpeed 1500 Extra Battery (sold separately) to double your capacity to 2047Wh.

5.V-BEYOND TECHNOLOGY:

Our 600W pure sine wave AC inverter powers devices up to 1200 watts. Perfect for lighting, heating, toasting, and brewing.

6.SOLAR-POWERED:

Use the sun to your advantage with FlashSpeed 600's 200W Anderson input port. Maximize solar recharge up to 200 watts.

7.UNINTERRUPTED POWER SUPPLY(UPS):

FlashSpeed 600 ensures continuous power to your essentials with a switchover time of less than 20ms. No more blackouts!

8.CABLE ORGANIZATION:

Keep cables tidy with the built-in top storage box. No more lost or tangled cords.

5.SPECIFICATIONS

General

Product Name	FlashSpeed 600
Battery Capacity	499Wh
Battery Type	LiFePO4
Dimensions (LxWxH)	316 x 202.5 x 243 mm(12.4 x 7.9 x 9.5 inches)
Weight	7.2 kg (15.9 lbs)
Operating Temperature	-4°F to 131°F
Charging Temperature	32°F to 131°F
Storage Temperature	-13°F to 131°F
Working Humidity	10-90%

AC Output

Continuous Power	2x600W, total 600W
Peak Power	1200W
Voltage	110V
Frequency	60Hz

DC Output

USB-A Output	2 x 18W Max(QC3.0)
USB-C PD Output	2 x 100W Max(Output Only)
DC5521 Output	12V/10A
Cigarette Lighter Port	12V/10A

Input

AC Input	100-130V, up to 400W
DC & Anderson Input	12-50V, up to 200W

Special Features

UPS Functionality	Supported
Expansion Capabilities	Compatible with FlashSpeed 1500 extra battery

6. OPERATION

(1) Powering On/Off

1. Powering On: Press any of AC/DC/USB button on the FlashSpeed 600. The LCD screen will activate, showing that the device is ready for use.
2. Powering Off: Turn off all AC/DC/USB outputs, and FlashSpeed 600 will automatically shut down in about half a minute. The screen will turn off, indicating that the power station is now off.

(2) AC/DC/USB Output Control

1. AC Output: Press the 'AC' button to switch the AC power output on or off.
2. DC Output: Press the 'DC' button to switch the DC power output on or off. This controls the power supplied through the DC5521 and cigarette lighter ports.
3. USB Output: Press the 'USB' button to switch the DC power output on or off. This controls the power supplied through the USB and Type-C ports.

USB Output Features

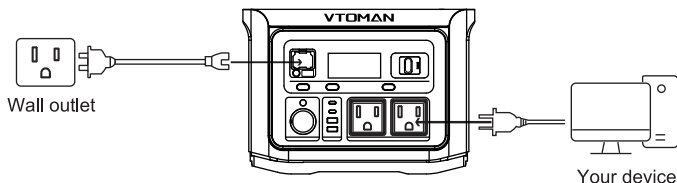
- Quick Charge USB-A (QC3.0): Up to 18W for devices supporting fast charging.
- USB-C Ports (PD): Each port delivers up to 100W, ideal for fast charging laptops and other high-powered devices.

(3) V-Beyond Technology

This feature allows the FlashSpeed 600 to operate efficiently within its capacity, supporting devices up to 600 watts continuously but no more than 1200 watts. It manages the output voltage to prevent overload protection activation, facilitating continuous operation of your devices. It's suitable for resistive loads such as lights, space heaters, toasters, etc.

(4)Uninterruptible Power Supply(UPS)

1. FlashSpeed 600 power station features uninterruptible power supply. With switchover time less than 20ms, it can help to ensure uninterrupted operation for your device and protect sensitive equipment from potential damage in the event of grid power failure.
2. To use the UPS function, just connect the power station to a wall outlet with AC charging cable, then press the 'AC' button and connect your devices via the AC output ports.

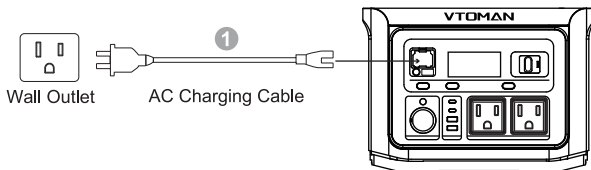


7.CHARGING & DISCHARGING

charging

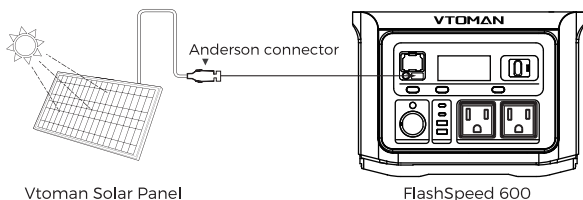
(1)AC Charging:

1. Utilize the AC input for AC charging.
2. Use the provided AC charging cable to connect your FlashSpeed 600 to a standard AC outlet (100-130V).
3. Completing Charge: Disconnect the power station once the display shows a full charge to avoid overcharging, preserving battery health and efficiency.
4. Charging time: About 60 mins to 80%



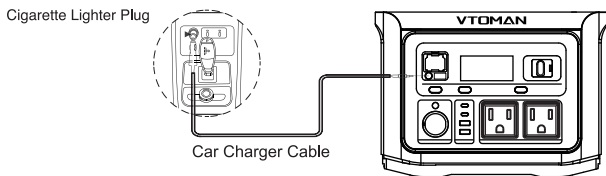
(2)Solar Charging:

1. Utilize the Anderson input or DC5521 input for connecting solar panels.
2. Ensure the solar panel's open voltage is within the 10-50V range. (It's recommended to use Vtoman solar panels for best charging experience.)
3. Charging time: About 2~4 hours to 80% using 200W solar panel (It depends on sunlight intensity.)



(3)Car Charging:

1. Utilize the DC5521 input for car charging.
2. Connect the DC5521 input port on FlashSpeed 600 with your vehicle's cigarette lighter port using the included car charging cable.
3. Ensure your car's output voltage matches the power station's DC input requirements (10-20V).
4. Charging time: About 3.5 hours to 80% (At 12V/10A car outlet)



Note: The charging power of the DC charging port and the Anderson charging port will not be superimposed. The input power of both input ports charging at the same time is 200W max.

Discharging

(1). Using AC Outlets:

1. Power up to two devices using the AC outlets with a combined load of 600W (Peak 1200W).
2. Suitable for small appliances and electronics requiring a pure sine wave.

(2). Using DC Outputs:

1. Connect devices like car refrigerator or gadgets requiring 12V to the DC output ports.
2. Each port supports a maximum of 10A output.

(3). Using Type-C and USB Outputs:

1. Connect devices directly to the USB-C or USB-A ports for fast charging.
2. Check device compatibility with the output specifications for voltage and current.

Key Points to Remember:

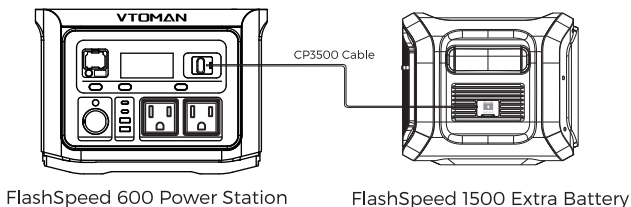
- Monitor the battery percentage to avoid power interruptions.
- Regularly check the output and input watts to ensure the device operates within safe limits.
- Use the estimated time display to manage your power needs throughout the day.

8.BATTERY CAPACITY EXPANSION

The Vtoman FlashSpeed 600 power station not only delivers reliable and portable power but also offers the flexibility of capacity expansion through extra batteries. Enhance your power capabilities to support longer operation times and higher power needs.

Compatible Extra Battery:

1. Product Name: FlashSpeed 1500 Extra Battery (Available individually)
2. Capacity: 1548Wh
3. New Combined Total Capacity: 2047Wh



Step-by-Step Connection Guide:

1. Connect the FlashSpeed 600 to the FlashSpeed 1500 Extra battery using the CP3500 cable(Included in the package of FlashSpeed 1500 Extra Battery).
2. Attach connectors securely to ensure a stable and safe connection.
3. Power on the FlashSpeed 600. The device will automatically detect the extra battery and adjust its power management settings to reflect the increased capacity.
4. Verify the new capacity on the LCD display of FlashSpeed 600 power station, which will confirm successful integration.

Usage Tips

1. Battery Prioritization: When connected, the power station utilizes the extra battery first, then switches to the main unit's supply.
2. Charging Sequence: The device prioritizes charging its main battery first before charging any connected external batteries.

9.MAINTENANCE

Battery Maintenance

1. Proper Storage: Keep the power station in a cool, dry place, away from direct sunlight. Optimal storage temperatures range from 5°C to 20°C (41°F to 68°F).
2. Charge Maintenance: For long-term storage, maintain the battery charge level at approximately 50% to ensure longevity.

Regular Maintenance Checks

1. Visual Inspection: Regularly inspect the unit for signs of wear such as cracks or leaks. Ensure that all ports are free of dust and corrosion.
2. Function Tests: Periodically turn on the power station to test its capacity to hold and release charge efficiently.

Longevity Practices

1. Cycling the Battery: Occasionally fully discharge and then recharge the power station to maximize battery life.
2. Avoid Extreme Conditions: Protect the device from exposure to extreme environmental conditions to prevent premature degradation.

10.TROUBLESHOOTING GUIDE

(1)Frequently Asked Questions

Q1: Can I expand the capacity of my Vtoman FlashSpeed 600 by using an additional battery?

A: Yes, you can expand the capacity by connecting a FlashSpeed 1500 Extra battery, increasing total capacity to 2047Wh.

Q2: Does the FlashSpeed 600 support UPS functionality?

A: Yes, the FlashSpeed 600 supports UPS functionality and will automatically switch to battery power during a power outage.

Q3: What type of display does the FlashSpeed 600 have?

A: The FlashSpeed 600 features an LCD display that shows remaining battery life, estimated runtime, charging power, discharging power, and current output mode.

Q4: What should I do if the FlashSpeed 600 overheats?

A: If your device overheats, disconnect it immediately, cease operation, and allow it to cool down. If the problem persists, contact Vtoman support for a safety check.

Q5: What type of solar panel does FlashSpeed 600 support?

A: To charge FlashSpeed 600 by solar panels, the panels need to meet the following requirements:

- 1)The open voltage of solar panel is between 10V-50V;
- 2)The solar panel has an Anderson or DC5521 connector.

Usage Tips:

It's recommended to use Vtoman portable solar panel to recharge FlashSpeed 600 power station for better charging experience.

(2)Common Issues and Solutions

Issue	Possible Cause	Solution
Battery Won't Charge	Improper connection or faulty power source	Ensure the AC Charging Cable is securely connected to both the battery and the power source. Check for any damage to the cable and replace if necessary.
Battery Not Holding Charge	Battery degradation	If the battery consistently fails to hold a charge and is older, it may be nearing the end of its lifecycle. Consider contacting Vtoman support for a battery health check or replacement.
Battery Powers Off Unexpectedly	Overload or extreme temperatures	Reduce the number of devices connected. Ensure the battery is used and stored within the recommended temperature ranges. Reset the internal circuit protection by restarting the device.
Indicator Lights Not Functioning	LED malfunction or deeply discharged battery	Charge the battery fully. If the LED indicators still do not function, the LED might be defective, and further assistance from Vtoman support may be necessary.
Unusual Noise or Heat During Operation	Environmental factors or device malfunction	Operate the battery in a well-ventilated area away from heat sources. If overheating continues, stop using the device and contact Vtoman support.

11. TECHNICAL SUPPORT

(1) Contact Information

For any support needs regarding the Vtoman FlashSpeed 600 Power Station, please reach out to our dedicated customer service team. They are ready to assist you with any queries or issues you might have.

- Email: **service.us@vtoman.com**
- Support Hours: Monday through Friday, 9:00 AM to 5:00 PM EST

When contacting support, please have your product model and purchase information handy to expedite the service process.

(2) Warranty Information

Warranty Coverage:

1. Duration: The FlashSpeed 600 Power Station comes with a 24-month warranty from the date of purchase.
2. Scope: The warranty covers any defects in materials and workmanship under normal use conditions.
3. Proof of Purchase: To activate the warranty, customers must present a sales receipt or other documentary evidence showing the date of purchase.

Service and Support:

1. Product Replacement: Should your FlashSpeed 600 Power Station fail due to manufacturing defects within the warranty period, Vtoman will replace the unit at no extra cost, including shipping.
2. Money-Back Guarantee: A 30-day money-back guarantee is available for units purchased directly from Vtoman. The product must be returned in its original packaging and condition to qualify.

Exclusions:

- Limitations: This warranty does not cover damages caused by misuse, abuse, unauthorized modifications, external accidents, or cosmetic issues.
- Non-Covered Parts: Battery cells and damages resulting from repairs conducted outside Vtoman authorized service centers are not covered under this warranty.

For more detailed information on our warranty terms, or to initiate a warranty claim, please contact our support team directly via the email provided. Our goal is to ensure your satisfaction and the optimal performance of your FlashSpeed 600 Power Station throughout its lifetime.



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RoHS



MADE IN CHINA