AMPACE P600

AMPACE P600 Portable Power Station User Manual

Model: P600

1. Introduction

The AMPACE P600 Portable Power Station is a versatile power solution designed for both indoor and outdoor use. It features a 584Wh LiFePO4 battery, providing a continuous output of 600W and a peak output of 1800W with A-Turbo technology. This manual provides essential information for the safe and efficient operation, maintenance, and troubleshooting of your P600 unit.

2. Safety Instructions

Read all safety instructions before operating the AMPACE P600. Failure to follow these instructions may result in electric shock, fire, or serious injury.

- Do not disassemble, repair, or modify the unit.
- Keep the unit away from fire, heat sources, and direct sunlight.
- Do not use or store the unit in a bathroom or in areas exposed to water or high humidity.
- Ensure proper ventilation during use and charging. Do not block ventilation openings.
- Use only original or certified accessories and charging cables.
- Keep out of reach of children and pets.
- The integrated Battery Management System (BMS) provides multiple protections including short-circuit, over-current, overload, over-voltage, low-voltage, high-temperature, and low-temperature protection.



Figure 2.1: BMS Multi-Protection System

3. Package Contents

Verify that all items are present in your package:

- 1 x AMPACE P600 Portable Power Station
- 1 x AC Adapter
- 1 x Car Charging Cable
- 1 x User Manual

4. Product Overview

The AMPACE P600 features a robust design with various input and output ports for diverse power needs. The front panel includes an LCD display, control buttons, and multiple output ports.



Figure 4.1: AMPACE P600 Front Panel and Ports

4.1. Ports and Features

- **DC Input (12-30V):** For charging the power station via AC adapter, car charger, or solar panel.
- **Car Outlet:** 12V output for car appliances.
- **DC Outputs (2x 5521):** For powering DC devices.
- **USB-C Output (60W):** For fast charging compatible devices.
- **USB-A Outputs (1x 18W, 2x 12W):** For charging various USB devices.
- **AC Output Sockets (2x Pure Sine Wave):** For powering standard household appliances (600W continuous, 1800W peak).
- **Jump Starter Port:** For connecting the smart jump starter cable to start a vehicle.
- **Extended Battery Port:** For connecting an optional AMPACE extra battery to double capacity.
- **LED Light:** Integrated flashlight with multiple modes.

- **LCD Display:** Shows battery capacity, output wattage, remaining hours, and port status.

5. Setup

5.1. Initial Charging

Before first use, fully charge the AMPACE P600. Connect the AC adapter to the DC input port and plug it into a wall outlet. The LCD display will indicate charging status. A full charge typically takes approximately 6.5 hours via AC wall charging.

5.2. Expanding Capacity (Optional)

The P600's capacity can be doubled from 584Wh to 1168Wh by connecting an optional AMPACE extra battery. Connect the extra battery to the dedicated Extended Battery port on the P600.



Figure 5.1: Expandable Capacity with Optional Battery

6. Operating the P600

6.1. Powering On/Off

Press and hold the main power button to turn the unit on or off. The LCD display will illuminate when the unit is on.

6.2. Using Output Ports

To activate specific output groups (e.g., AC, USB, DC), press the corresponding button next to the ports. The LCD display will show which outputs are active. The P600 can power up to 11 devices simultaneously, with a total output of 600W without interference, and up to 1800W with the A-Turbo function for heavy-duty loads.

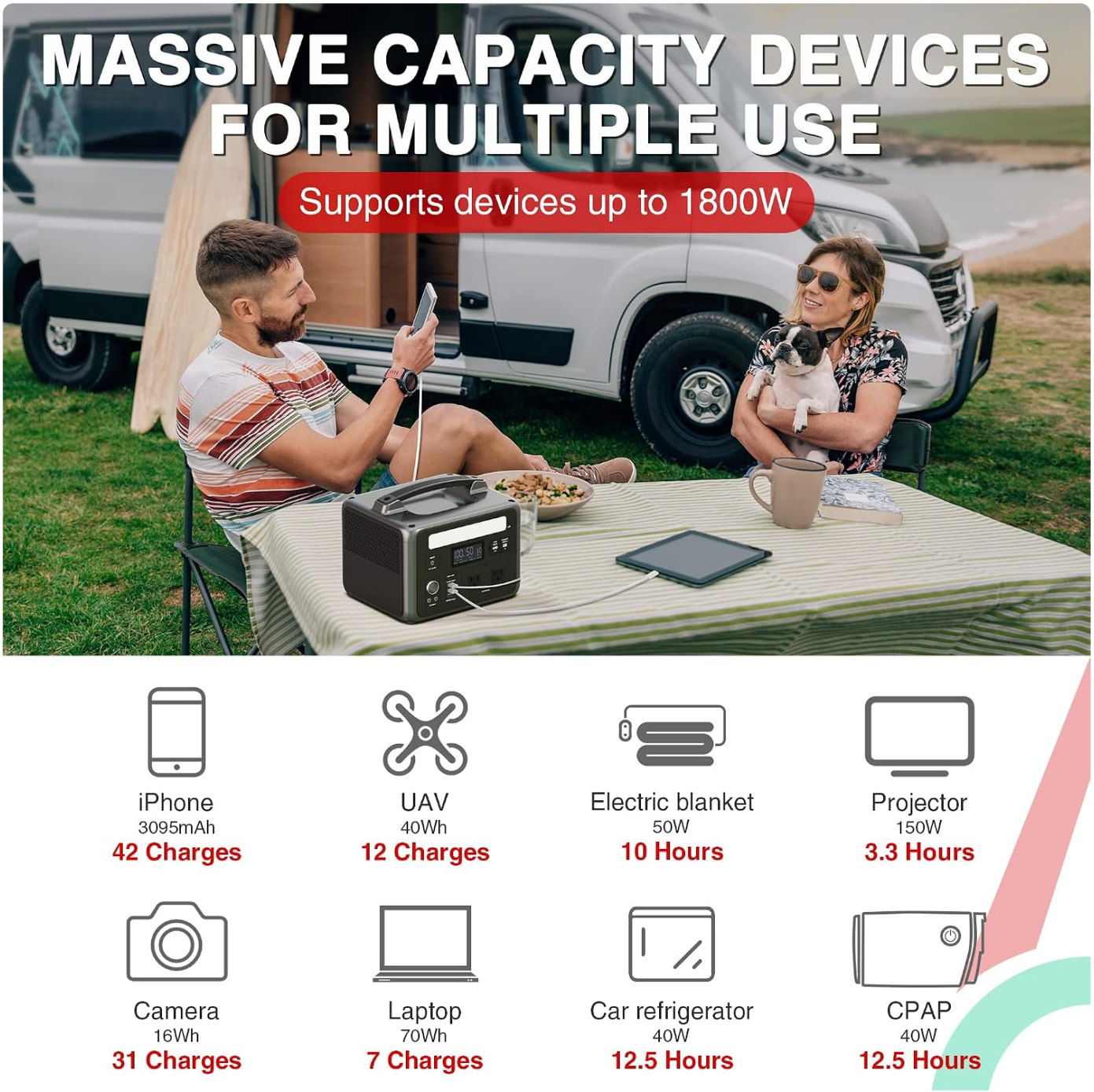


Figure 6.1: Powering Multiple Devices

6.3. Car Jump Starter Function

The P600 can function as a car jump starter using the included smart jump starter cable. This feature allows for quick starting of vehicles with 12V batteries, supporting up to 8.0L gas engines and 6.0L diesel engines.

1. Ensure the P600 has sufficient charge.
2. Connect the smart jump starter cable to the dedicated Jump Starter port on the P600.
3. Connect the red clamp to the positive (+) terminal of the car battery and the black clamp to the negative (-) terminal.
4. Start the vehicle.
5. Once the vehicle starts, immediately disconnect the clamps from the car battery, then disconnect the cable from the P600.



Figure 6.2: Car Jump Starting Procedure

6.4. LED Light Operation

The P600 includes an integrated LED light with 5 modes: 3 levels of constant brightness, a flashlight mode, and an SOS mode. Press the LED light button to cycle through the modes.



Figure 6.3: Using the Integrated LED Light

7. Charging the P600

The AMPACE P600 supports four charging methods:



Figure 7.1: Recharging Methods and Times

7.1. AC Wall Charging

Connect the included AC adapter to the DC input port and plug it into a standard wall outlet. Charging time is approximately 6.5 hours.

7.2. Car Charging

Use the included car charging cable to connect the P600 to your vehicle's 12V cigarette lighter socket. Charging time is approximately 10 hours.

7.3. Solar Charging

Connect an AMPACE solar panel (not included) to the DC input port. The built-in MPPT controller optimizes solar charging efficiency. Charging time is approximately 8 hours, depending on sunlight conditions and panel wattage.

7.4. Generator Charging

The P600 can be charged using an electric generator. Connect the AC adapter to the generator's AC outlet and then to the P600's DC input. Charging time is approximately 6.5 hours.

8. Maintenance

8.1. Storage

Store the P600 in a cool, dry place, away from direct sunlight and extreme temperatures. For long-term storage, charge the unit to 50-80% every 3-6 months to preserve battery health.

8.2. Cleaning

Use a dry, soft cloth to clean the exterior of the unit. Do not use abrasive cleaners or immerse the unit in water.

8.3. Battery Life

The P600 uses a durable LiFePO4 hybrid battery designed for over 1000 charge and discharge cycles, maintaining optimal performance even in extreme temperatures (-20°C to 45°C / -4°F to 100°F).

9. Troubleshooting

If you encounter issues with your AMPACE P600, refer to the following common problems and solutions:

Problem	Possible Cause	Solution
Unit does not turn on	Battery is depleted	Charge the unit using an AC adapter or solar panel.
No output from ports	Output ports not activated	Press the corresponding output button (AC, USB, DC) to activate.
Device not charging/powering	Device power exceeds P600 output	Check device wattage. Ensure total load does not exceed 600W (or 1800W with A-Turbo).
Overload warning on LCD	Connected devices draw too much power	Disconnect some devices. The unit will automatically shut down to prevent damage.
Jump starter not working	Incorrect connection or low P600 battery	Ensure clamps are correctly connected (+ to +, - to -). Charge P600 if battery is low.

For further assistance, please contact AMPACE customer support.

10. Specifications

Feature	Specification
Brand	AMPACE
Model Number	P600

Feature	Specification
Battery Type	LiFePO4 Hybrid
Capacity	584 Wh (Expandable to 1168 Wh)
Operating Power (Rated)	600 W
Peak Power (A-Turbo)	1800 W
AC Output	2x Pure Sine Wave, 60 Hz
USB-C Output	1x 60 W
USB-A Output	1x 18 W, 2x 12 W
DC Output	2x 5521 ports
Car Outlet	1x 12V
DC Input Voltage	12-30 V
Operating Temperature	-20°C to 45°C (-4°F to 100°F)
Cycle Life	1000+ cycles
Manufacturer Part Number	PCB1001

11. Warranty and Support

11.1. Warranty Information

AMPACE provides a **12-month warranty** for the P600 Portable Power Station from the date of purchase. This warranty covers manufacturing defects and workmanship under normal use.

11.2. Customer Support

For any questions, technical assistance, or warranty claims, please contact AMPACE customer service. Our support team is available **7 days a week, 24 hours a day** to assist you.
Please refer to the AMPACE official website or your purchase documentation for specific contact details.

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Example: How do I reset this device or fix this error?

Details

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