

## BLUETTI AC50B

# BLUETTI AC50B Portable Power Station User Manual

Model: AC50B | Brand: BLUETTI

## 1. INTRODUCTION

The BLUETTI AC50B is a portable power station designed to provide reliable power for various applications, including camping, road trips, and as a backup during power outages. It features a durable LiFePO4 battery, multiple output ports, and versatile charging options to keep your devices powered.

## 2. PRODUCT FEATURES

### 2.1. Overview of Ports and Display



Image: Front panel of the BLUETTI AC50B showing the digital display, DC/PV input, DC output, USB-C and USB-A ports, and AC outlets.

The AC50B features a clear digital display that shows input/output wattage, battery percentage, and estimated run/charge time. It includes dedicated sections for DC and AC outputs, each with its own activation button.

## 2.2. Output Ports

- **AC Output:** 2x 120V/700W AC outlets (Pure Sine Wave). Supports Power Lifting up to 1000W for resistive loads.
- **DC Output:** 1x 12V/10A Car Port.
- **USB Output:** 2x 65W USB-C ports, 1x 15W USB-A port.

## 2.3. Battery Technology and Safety

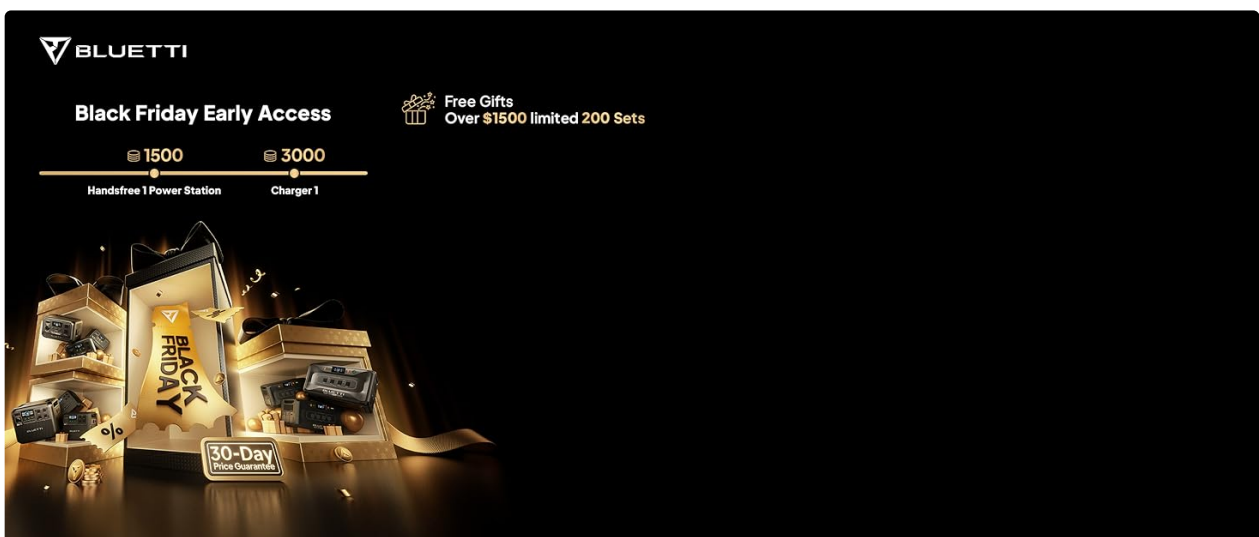


Image: Illustration of the BLUETTI AC50B's internal LiFePO4 battery cells and safety mechanisms.

The AC50B utilizes LiFePO4 batteries, known for their longevity with over 3500 charge cycles before capacity degrades to 80%, offering an approximate 10-year lifespan. The integrated BLUETTI AI-BMS (Battery



Management System) prevents overcharging, over-discharging, short circuits, and overheating, ensuring safe and optimal performance. The unit features a double-layered construction for enhanced durability against impacts.

## 2.4. Portability



Image: A person easily carrying the BLUETTI AC50B power station by its integrated handle, highlighting its portability.

Weighing only 14.8 lbs, the AC50B is designed for easy transport with a sturdy, integrated handle. Its compact dimensions (11"L x 7.9"W x 8.7"H) make it convenient for various outdoor and indoor uses.

## 2.5. Uninterruptible Power Supply (UPS) Functionality

The AC50B supports UPS mode, allowing it to act as a backup power source. When connected to a wall outlet and powering devices, if the grid power fails, the unit will instantly switch to battery power, ensuring continuous

operation for connected devices like computers or medical equipment.

## 3. SETUP

### 3.1. Included Charging Cables

- AC Charging Cable
- Car Charging Cable
- Solar Charging Cable (XT60 to MC4)

### 3.2. Charging the AC50B





Image: The BLUETTI AC50B being charged via a standard wall outlet using the included AC charging cable.

The AC50B can be charged using multiple methods:

- **AC Wall Outlet:** Connect the included AC charging cable to the AC input port on the side of the unit and then to a wall outlet. The unit supports Turbo Charging Mode (up to 580W input), achieving 0-80% charge in 45 minutes and a full charge in approximately 70 minutes.
- **Solar Panel:** Connect a compatible solar panel (up to 200W) using the included XT60 to MC4 solar charging cable to the DC/PV input port. A full charge can be achieved in approximately 3 hours under optimal sunlight conditions.
- **Car Charger:** Use the included car charging cable to charge the unit from your vehicle's 12V cigarette lighter port.
- **Generator:** The unit can also be charged via a generator using the AC charging cable.

## 4. OPERATING INSTRUCTIONS

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### 4.1. Powering On/Off Outputs

To activate the DC outputs (USB ports, 12V car port), press the 'DC' button on the front panel. To activate the AC outlets, press the 'AC' button. The digital display will indicate when outputs are active. Press the respective buttons again to turn them off.

### 4.2. BLUETTI App Control

Video: Demonstration of connecting the BLUETTI AC50B to the BLUETTI mobile application via Bluetooth, showing real-time monitoring of battery status, input/output power, and control over DC/AC outputs. The app also allows selection of charging modes (Standard, Silent, Turbo) and ECO mode settings.

The BLUETTI app allows remote control and monitoring of your AC50B via Bluetooth. Features include:

- Real-time power consumption and battery status.
- Activating/deactivating DC and AC outputs.
- Selecting charging modes: **Standard**, **Silent** (slowest, quietest), and **Turbo** (fastest charging).
- Configuring **ECO Mode**: This feature allows the unit to automatically shut off outputs after a period of low power draw, conserving battery life. You can set the power threshold and shutdown time.

## 5. USAGE EXAMPLES

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# It's for Short Trips

448Wh / 700W



**17** Times  
Phone (10Wh)



**15** Hours  
Lamp (12W)



**5.7** Hours  
Mini-Fridge (60W)



**40** Min  
Kettle (500W)



**Power Lifting\*: 1000W**

\*Suitable for pure resistive loads like kettles, electric blankets, etc.

Image: The BLUETTI AC50B providing power for common camping and travel items, illustrating its capacity to run phones, lamps, mini-fridges, and kettles.

The AC50B is versatile for powering a range of devices:

- **Camping & Outdoor:** Power phones (approx. 17 times), 12W lamps (approx. 15 hours), 60W mini-fridges (approx. 5.7 hours), or a 500W kettle (approx. 40 minutes).
- **Road Trips:** Charge laptops, tablets, or power small appliances like juicers.
- **Emergency Backup:** Keep essential devices running during power outages, such as Wi-Fi routers, TVs, desktop PCs, or electric blankets.
- **Professional Use:** Fast charge camera batteries, drone batteries, or power small tools.

Video: A demonstration of the BLUETTI AC50B powering a small portable washing machine/spinner, showcasing its ability to handle loads up to 700W (1000W Power Lifting) for practical tasks.

## 6. MAINTENANCE

To ensure the longevity and optimal performance of your BLUETTI AC50B, follow these maintenance guidelines:

- **Storage:** Store the unit in a cool, dry place away from direct sunlight and extreme temperatures.
- **Charging:** For long-term storage, it is recommended to charge the unit to 50-80% every 3-6 months to maintain battery health.
- **Cleaning:** Use a dry, soft cloth to clean the exterior of the unit. Avoid using harsh chemicals or abrasive materials.
- **Ventilation:** Ensure the ventilation vents are clear of obstructions to prevent overheating.

## 7. TROUBLESHOOTING

If you encounter issues with your AC50B, consider the following:

- **No Output:** Ensure the DC or AC output buttons are pressed and their indicators are lit. Check if the device you are trying to power is within the unit's wattage limits.
- **Charging Issues:** Verify that all charging cables are securely connected. Check the power source (wall outlet, solar panel, car) for functionality. If using solar, ensure panels are in direct sunlight.
- **Overload Protection:** If the unit shuts down unexpectedly, it may be due to an overload. Disconnect the device causing the overload and restart the AC50B.
- **App Connectivity:** Ensure Bluetooth is enabled on your mobile device and the AC50B is within range. Restarting both the app and the power station can resolve connectivity issues.
- **Unusual Behavior:** Refer to the full user manual for detailed troubleshooting steps or contact BLUETTI customer support.

## 8. SPECIFICATIONS





| Specification          | Value                              |
|------------------------|------------------------------------|
| Brand                  | BLUETTI                            |
| Model Name             | AC50B                              |
| Battery Type           | LiFePO4                            |
| Capacity               | 448Wh                              |
| AC Output              | 2x 120V/700W (1000W Power Lifting) |
| DC Output              | 1x 12V/10A Car Port                |
| USB Output             | 2x 65W USB-C, 1x 15W USB-A         |
| Max AC Input           | 580W (Turbo Charging)              |
| Max Solar Input        | 200W                               |
| Weight                 | 14.8 lbs                           |
| Dimensions (L x W x H) | 11" x 7.9" x 8.7"                  |

## 9. WARRANTY AND SUPPORT



The BLUETTI AC50B Portable Power Station comes with a 5-year warranty, ensuring peace of mind regarding product quality and performance.

For any questions, technical assistance, or warranty claims, please contact BLUETTI customer support through their official website or the contact information provided in your product packaging.

### Related Documents - AC50B

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|--|---|
| <div>AC50B<br/>Portable Power Station</div> <div>User Manual v1.0</div> <div><small>Please Read This Manual and Safety Instructions Carefully Before Using the Product.</small></div> <div></div>   | <div><a href="#">BLUETTI AC50B Portable Power Station User Manual</a></div> <div>User manual for the BLUETTI AC50B Portable Power Station, detailing its features, operation, safety instructions, specifications, and troubleshooting. Learn how to charge, discharge, and use the device effectively for on-the-go power needs.</div>                                     |
| <div>AC50B<br/>Portable Power Station</div> <div>User Manual v1.0</div> <div><small>Please Read This Manual and Safety Instructions Carefully Before Using the Product.</small></div> <div></div> | <div><a href="#">BLUETTI AC50B Portable Power Station User Manual</a></div> <div>Comprehensive user manual for the BLUETTI AC50B Portable Power Station, covering safety instructions, product overview, charging, discharging, settings, specifications, troubleshooting, and FAQs. Learn how to safely and effectively use your AC50B for on-the-go energy needs.</div>   |
| <div>AC50B<br/>Portable Power Station</div> <div>User Manual v1.0</div> <div><small>Please Read This Manual and Safety Instructions Carefully Before Using the Product.</small></div> <div></div> | <div><a href="#">BLUETTI AC50B Portable Power Station User Manual</a></div> <div>Comprehensive user manual for the BLUETTI AC50B Portable Power Station, covering safety instructions, product overview, charging, discharging, settings, specifications, troubleshooting, and FAQs. Learn how to safely operate and maintain your 700W, 448Wh LiFePO4 power station.</div> |
| <div>BLUETTI EB55</div> <div>User Manual</div> <div></div>  | <div><a href="#">BLUETTI EB55 Portable Power Station User Manual</a></div> <div>User manual for the BLUETTI EB55 portable power station, featuring 537Wh LiFePO4 battery, 700W AC outlets, 100W Type-C, and solar generator capabilities for outdoor and emergency use.</div>   |



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| <p>BLUETTI EB55</p> <p>User Manual</p>          | <p><a href="#">BLUETTI EB55 Portable Power Station User Manual</a></p> <p>User manual for the BLUETTI EB55 portable power station. Learn about safety, operation, specifications, charging methods (AC, PV, Car, Generator, Dual), discharging capabilities, and FAQs.</p> |
| <p>BLUETTI EB55</p> <p>Краткое руководство</p>  | <p><a href="#">BLUETTI EB55 Portable Power Station User Manual</a></p> <p>Comprehensive user manual for the BLUETTI EB55 portable power station. Learn about its features, specifications, operation, safety guidelines, charging methods, and discharging examples.</p>   |