

BLUETTI AC2A + 60W Solar Panel

BLUETTI Solar Generator AC2A User Manual

Model: AC2A + 60W Solar Panel

Brand: BLUETTI

1. PRODUCT OVERVIEW

The BLUETTI AC2A is a compact and portable solar generator designed to provide reliable power for various applications, including camping, RV trips, and outdoor adventures. This kit includes the AC2A portable power station and a 60W foldable solar panel, offering a versatile and eco-friendly energy solution.



Figure 1: BLUETTI AC2A Portable Power Station with 60W Solar Panel.

With a 204Wh LiFePO4 battery and 300W (600W Power Lifting) AC outlets, the AC2A is engineered for efficiency and durability. Its lightweight design, weighing 7.9 pounds, and ergonomic handle ensure ease of transport and storage, making it an ideal companion for on-the-go power needs.

204Wh / 300W

Best buddy for lightweight travel



Slow Cooker (200W)

0.8 Hours



Laptop (60W)

2.2 Hours



Cell Phone (10W)

7.8 Times



Projector (100W)

1.6 Hours



Figure 2: The BLUETTI AC2A providing power in a mobile setting, illustrating its capacity for various devices.

2. INCLUDED COMPONENTS

Upon receiving your BLUETTI Solar Generator AC2A, please verify that all the following components are included:

- BLUETTI AC2A Portable Power Station
- 60W Foldable Solar Panel (ships separately)
- AC Charging Cable
- Solar Charging Cable
- User Manual (this document)

3. SETUP GUIDE

3.1 Initial Charging

Before first use, it is recommended to fully charge the BLUETTI AC2A. This ensures optimal battery performance and calibration.

1. Connect the AC Charging Cable to the AC2A's input port.
2. Plug the other end of the AC Charging Cable into a standard wall outlet (120V AC).
3. The display will indicate charging status. The unit supports 270W Turbo Charging, allowing 0-80% charge in approximately 40 minutes and a full charge in about 70 minutes.

Auto-off at Full Charge

Prevents power drain & repeated charging



Max. **270W** Input
40 Mins to **80%**



Figure 3: AC Charging of the BLUETTI AC2A.

3.2 Solar Panel Setup

To utilize solar charging, unfold the 60W solar panel and connect it to the AC2A using the provided solar charging cable.

Universal Compatibility

Efficient solar energy storage



			
6 H	11 H	4.8 H	9.8 H
Handsfree 1 (268Wh)	Handsfree 2 (512Wh)	AC2A (204Wh)	AC50B (448Wh)

Note: For reference ONLY.

Figure 4: Solar charging setup for the BLUETTI AC2A.

Ensure the solar panel is positioned to receive maximum sunlight for efficient charging. The AC2A can be fully charged via solar energy in 3.4-6.8 hours depending on sunlight conditions.

4. OPERATING INSTRUCTIONS

4.1 Powering On/Off

Press and hold the main power button for a few seconds to turn the unit on or off. The LCD display will illuminate, showing battery level, input/output wattage, and active ports.

4.2 Connecting Devices

The AC2A offers multiple output ports to power various devices:

- **AC Outlets:** Two 300W (600W Power Lifting) AC outlets for standard electronics.
- **USB-C:** One Type-C port for fast charging compatible devices.
- **USB-A:** Two USB-A ports for charging smaller devices.
- **Cigarette Lighter:** One 12V cigarette lighter port for car appliances.



Figure 5: Front panel of the BLUETTI AC2A with various output options.

4.3 BLUETTI App Remote Control

The BLUETTI AC2A supports remote control via the BLUETTI App. This allows you to monitor its

status, set charging/discharging modes, and perform OTA updates directly from your smartphone. Download the BLUEETTI App from your device's app store and follow the in-app instructions for pairing.

5. CHARGING METHODS

The BLUEETTI AC2A offers flexible charging options to suit your needs:

- **AC Charging:** Connect to a standard wall outlet using the AC charging cable. Supports 270W Turbo Charging for rapid replenishment.
- **Solar Charging:** Connect the 60W solar panel using the solar charging cable. Max 200W solar input.
- **Car Charging:** Charge from your vehicle's 12V/8.2A car socket.
- **AC+PV Charging:** Combine AC and solar input for faster charging, utilizing a max input power of 270W.

6. MAINTENANCE

Proper maintenance ensures the longevity and optimal performance of your BLUEETTI AC2A:

- **Battery Care:** For optimal battery health, it is recommended to discharge and recharge the battery every 3 months if not in regular use.
- **Cleaning:** Use a dry, soft cloth to clean the exterior of the unit. Avoid using harsh chemicals or abrasive materials.
- **Storage:** Store the unit in a cool, dry place away from direct sunlight and extreme temperatures. Ensure the battery is charged to approximately 50-80% before long-term storage.

7. TROUBLESHOOTING

If you encounter issues with your BLUEETTI AC2A, consider the following basic troubleshooting steps:

- **Unit Not Turning On:** Ensure the battery is charged. Connect to an AC outlet to verify charging.
- **No Output from Ports:** Check if the specific output (AC/DC/USB) is enabled on the unit. Verify that the connected device is within the power station's output limits.
- **Slow Charging:** Ensure all charging cables are securely connected. For solar charging, verify the solar panel is receiving adequate sunlight and is clean.
- **Overload Protection:** If the unit shuts down due to overload, disconnect the high-power device, restart the AC2A, and connect devices within its rated output.

For persistent issues, please refer to the detailed troubleshooting section in the full user manual or contact BLUEETTI customer support.

8. SPECIFICATIONS

Feature	Specification
Brand	BLUETTI
Model Name	AC2A + 60W Solar Panel
Battery Type	LiFePO4 (Lithium Iron Phosphate)
Capacity	204 Wh
AC Output	2 x 300W (600W Power Lifting) AC Outlets, 120V AC
DC Output	1 x 12V Cigarette Lighter Port
USB Output	1 x USB-C, 2 x USB-A
Max Input Power	270W (AC + PV)
Dimensions (L x W x H)	9.8"L x 6.2"W x 6.9"H
Weight	7.9 Pounds
Life Cycles	3,000+ to 80% capacity

9. SAFETY INFORMATION

The BLUETTI AC2A is built with multiple layers of protection to ensure user safety and product reliability. Key safety features include:

- **Robust Materials:** Constructed with flame-retardant and wear-resistant ABS material for enhanced durability.
- **Automotive-Grade LiFePO4 Battery:** Provides superior safety with no risk of explosion or fire, and a longer lifespan (3,000+ cycles, approximately 10 years).
- **BLUETOPUS AI-BMS:** An intelligent Battery Management System that provides real-time monitoring and precise charge/discharge control, preventing overheating, overcurrent, overvoltage, and other risks.
- **Advanced Temperature Control:** Built-in cooling fans ensure stable performance even under heavy use or high temperatures.
- **Solid-State Capacitors:** Premium solid-state capacitors on the motherboard and other circuit boards enhance performance and stabilize CPU operations.
- **EMC Class B Standards:** All BLUETTI products, including the AC2A, comply with Class B EMC standards, ensuring minimal electromagnetic interference with other devices.

Video 1: A detailed teardown of the BLUETTI AC2A, showcasing its internal components and robust build quality designed for safety and reliability.

10. WARRANTY AND SUPPORT

BLUETTI is committed to providing reliable products and excellent customer service. We maintain widespread sales and after-service networks to assist you. Should you have any questions or require support regarding your BLUETTI AC2A, please do not hesitate to contact our customer service team. Refer to the product packaging or the official BLUETTI website for specific warranty details and contact information.