AC2A
Portable Power Station

User Manual  v2.0

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

1. Charge the unit before first use.
2. Do not use solar panels with open circuit voltage higher than 60V. Solar input voltage range for the unit is 12V-28VDC.
3. Charge the unit immediately when the SoC drops below 5%. If the SoC drops to 0, power off the unit and charge it for at least 30 minutes before restarting.
4. The unit is for off-grid use only. Do not connect its AC output to the grid.
5. If not used for more than 3 months, charge the unit to 40%-60% SoC and store it with the power off. For optimum battery life, discharge and charge the unit every 3 months.
Thank You!

Thank you for making BLUETTI a part of your family. From the very beginning, BLUETTI has tried to stay true to a sustainable future through green energy storage solutions while delivering an exceptional eco-friendly experience for our homes and our world. That’s why BLUETTI makes its presence in 100+ countries and is trusted by millions of customers across the globe.

Notice

BLUETTI’s products, services, and features are subject to the agreed-upon terms and conditions during purchase. Please note that some products, services, or features described in this manual may not be available under your purchase contract. Unless otherwise specified in the contract, BLUETTI makes no representations or warranties of any kind, express or implied, with respect to the contents of this manual. The contents of this manual are subject to change without notice. Please get the latest version from: https://www.bluettipower.com/pages/user-guides If you have any questions or concerns about this manual, please contact BLUETTI support for further assistance.
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1. Safety Instructions

Read this manual for instructions on the proper use and safety information for the product. The safety instructions provided herein are for illustrative purposes that include but are not limited to those listed in this manual. Actual operation shall comply with all applicable safety standards. If you have any questions, feel free to contact BLUETTI support or your local BLUETTI dealers.

1.1 Statement

To ensure a safe operation, it's crucial to observe and adhere to the following conditions:

- Always operate or store the product in the conditions specified in this manual.
- Avoid unauthorized disassembly, component replacement, or modification of software codes.

⚠️ BLUETTI shall not be liable for damages resulting from the following circumstances:

- Force majeure events such as earthquakes, fires, storms, floods, or mudslides.
- Damage caused by the customer's own transportation.
- Damage resulting from inadequate storage conditions as specified in the manual.
- Damage caused by customer negligence, improper operation, or intentional actions.
- System or hardware damage caused by third parties or customers, including but not limited to improper handling and installation not in accordance with the instructions in this manual.
- Usage of the product with devices that require a high-performance Uninterruptible Power Supply (UPS), including but not limited to data servers, workstations, medical equipment, and other similar devices.

1.2 General Requirements

INSTRUCTIONS PERTAINING TO RISK OF FIRE, ELECTRIC SHOCK, OR INJURY TO PERSONS

IMPORTANT SAFETY INSTRUCTIONS

WARNING:

When using this product, basic precautions should always be followed, including the following:

- Read all the instructions before using the product.
- To reduce the risk of injury, close supervision is necessary when the product is used near children.
- Do not put fingers or hands into the product. And do not insert foreign objects into any...
ports of the product.

- Use of an attachment not recommended or sold by the manufacturer may result in a risk of fire, electric shock, or injury to persons.
- To reduce the risk of damage to the electric plug and cord, pull the plug rather than the cord when disconnecting the product.
- Do not use a battery pack or appliance that is damaged or modified, as they may exhibit unpredictable behavior resulting in fire, explosion, or personal injury.
- Do not operate the product with a damaged cord or plug, or a damaged output cable.
- Do not attempt to replace the internal battery or any other component of the product by anyone other than authorized personnel. There are no end-user serviceable components. Do not disassemble the product, take it to a qualified service person when service or repair is required. Incorrect reassembly may result in a risk of fire or electric shock.
- To reduce the risk of electric shock, unplug the product from the outlet before attempting any instructed servicing.

- WARNING - RISK OF EXPLOSIVE GASES. To reduce the risk of battery explosion, follow these instructions and those published by the battery manufacturer and manufacturer of any equipment you intend to use in the vicinity of the battery. Review cautionary markings on these products and engines.

- PERSONAL PRECAUTIONS

  a. Wear complete eye protection and clothing protection. Avoid touching eyes while working near the battery.
  b. Never smoke or allow a spark or flame in the vicinity of the battery or engine.
  c. Be extra cautious to reduce the risk of dropping a metal tool onto the battery. It might spark or short-circuit the battery or other electrical parts which may cause an explosion.

- When charging the internal battery, work in a well ventilated area and do not restrict ventilation in any way.
- Under abusive conditions, liquid may be ejected from the battery; avoid contact. If contact accidentally occurs, flush with water. If liquid contacts eyes, additionally seek medical help. Liquid ejected from the battery may cause irritation or burns.
- Do not expose the product to fire or excessive temperature. Exposure to fire or temperature above 130°C (266°F) may cause an explosion.
- Have servicing performed by a qualified repair person using only identical replacement parts. This will ensure that safety is maintained.
• Do not stack anything on top of the product while in storage or use. Do not move the product while operating as vibrations and sudden impacts may lead to poor connections to the hardware inside.
• In case of fire, use only a dry powder fire extinguisher appropriate for the product.
• WARNING - RISK OF ELECTRIC SHOCK. Never use the product to supply power tools to cut or access live parts or live wirings, or materials that may contain live parts or live wirings inside, such as building walls, etc.

1.3 Grounding Instructions
The product is designed for portable use and typically does not require earth grounding. However, if you connect it to the power grid, it’s important to ensure proper grounding for safety. If it should malfunction or break down, grounding provides a path of least resistance for electric current to reduce the risk of electric shock. This product is equipped with an AC power cord having an equipment-grounding conductor and a grounding plug. The plug must be plugged into an outlet that is properly installed and grounded in accordance with all local codes and ordinances.

WARNING:
Improper connection of the equipment-grounding conductor can result in a risk of electric shock. Check with a qualified electrician if you are in doubt as to whether the product is properly grounded. Do not modify the plug provided with the product - if it does not fit the outlet, have a proper outlet installed by a qualified electrician.

1.4 Handling Requirements
During transportation or storage, take care to avoid dropping, violently impacting, or tilting the product as it may result in internal damage. If necessary, use mechanical assistance such as carts or adjustable height workbenches to ensure safe handling.

<table>
<thead>
<tr>
<th>Weight</th>
<th>Number of people</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt;18kg (39.7lbs)</td>
<td>1</td>
</tr>
<tr>
<td>18kg ~ 32kg (39.7lbs ~ 70.5lbs)</td>
<td>2</td>
</tr>
<tr>
<td>32kg ~ 55kg (70.5lbs ~ 121.3lbs)</td>
<td>3</td>
</tr>
<tr>
<td>&gt;55kg (121.3lbs)</td>
<td>4 or a cart</td>
</tr>
</tbody>
</table>

1.5 Storage Instructions
• When the SoC drops to 5%, please charge the product immediately.
• Before storing the product, charge it to 40% to 60% SoC to keep it in optimal condition. In addition, power off the product and disconnect all electrical connections from it.
• Store the product in a cool and dry place, keeping it away from flammable or combustible materials.
materials and gases.

- The product can be safely stored within a temperature range of -20°C to 40°C (-4°F to 104°F). However, if the storage duration exceeds one month, it’s recommended to maintain an ideal storage temperature of around 30°C (86°F).
- Fully cycle the product every 3 months to maintain the battery’s health. It’s NOT recommended to store the product for extended periods of time, as it may affect its performance and overall lifespan.

If the SoC drops to 0 (during storage or upon startup), take the following actions to safely restart the product:

- Shut down immediately.
- Charge within 48 hours.
- Keep it at an ambient temperature of 5°C to 35°C (41°F to 95°F) for 6 hours before charging. It’s recommended to charge the product via an AC source. If charging via solar energy, ensure that your solar system provides an output of more than 100W.

⚠️ The symbol displayed is intended to remind you to read the instructions in the literature accompanying the product before operation and maintenance.
- Connect the product to a socket-outlet that has an earthing connection using the power cord provided.
- The socket-outlet should be installed near the product and easily accessible for safety purposes.
- Never dispose of a battery by throwing it into fire or a hot oven, or by mechanically crushing or cutting it, as these may cause it to explode.
- Avoid leaving batteries in extremely high-temperature environments, as this can result in an explosion or the leakage of flammable liquid or gas.
- The battery subjected to extremely low air pressure may result in an explosion or the leakage of flammable liquid or gas.
- Attention should be drawn to the environmental aspects of battery disposal.
- Please refer to the information on the exterior bottom enclosure for electrical and safety information before installing or operating the apparatus.

SAVE THESE INSTRUCTIONS

⚠️ BLUETTI shall not be liable for any equipment damage caused by the violation of the above instructions.
2. Packing List

### Standard Accessories

<table>
<thead>
<tr>
<th>Item</th>
<th>Picture</th>
<th>Qty.</th>
</tr>
</thead>
<tbody>
<tr>
<td>AC2A Portable Power Station</td>
<td><img src="image1" alt="AC2A Portable Power Station" /></td>
<td>1</td>
</tr>
<tr>
<td>AC Charging Cable</td>
<td><img src="image2" alt="AC Charging Cable" /></td>
<td>1</td>
</tr>
<tr>
<td>Solar Charging Cable</td>
<td><img src="image3" alt="Solar Charging Cable" /></td>
<td>1</td>
</tr>
<tr>
<td>Grounding Screws (M5 × 10)</td>
<td><img src="image4" alt="Grounding Screws" /></td>
<td>1</td>
</tr>
<tr>
<td>Product Documentation</td>
<td><img src="image5" alt="Product Documentation" /></td>
<td>1</td>
</tr>
</tbody>
</table>

### Optional Accessory

(Optional Accessory: Available on the official BLUETTI website: https://www.bluettipower.com)

<table>
<thead>
<tr>
<th>Item</th>
<th>Picture</th>
</tr>
</thead>
<tbody>
<tr>
<td>Car Charging Cable</td>
<td><img src="image6" alt="Car Charging Cable" /></td>
</tr>
</tbody>
</table>
3. Product Introduction

Introducing the BLUETTI AC2A, your perfect partner for lightweight and minimalist travel. With its 204.8Wh capacity and 300W output, it effortlessly charges smartphones, cameras, lights, laptops, drones, and more. Pair it with solar panels to extend its usage time, ensuring you stay powered up throughout your trip. Even if your plans change and you decide to stay longer, a 90-minute fast charge can bring unexpected joy and convenience.

But it’s not just for travel - it’s also ideal for gatherings at home. Power your favorite devices, whether it’s music speakers, ambient lighting, or other entertainment gadgets, to create an unforgettable delightful atmosphere. Get ready to experience the true potential of portable power with the AC2A!

⚠️ Danger:

Do not connect the AC output of AC2A to the grid.
4. Product Overview

1. DC Input
2. LCD Display
3. DC Power Button
4. POWER Button
5. AC Power Button
6. AC Outlet
7. Grounding Pole
8. AC Input
9. USB-A Port
10. USB-C Port
11. Cigarette Lighter Port
5. Power ON / OFF

**Attention:**

Please place the unit on the platform firmly and stably.

- **Power ON:** Press and hold the POWER Button for about 2 seconds, the button lights up indicating that the AC2A is now on standby.
- **Power OFF:** Press and hold the POWER Button for about 2 seconds to turn off the unit.
- **AC ON / OFF:** When the AC2A is on, press the AC Power Button to turn it on / off.
- **DC ON / OFF:** When the AC2A is on, press the DC Power Button to turn it on / off.
- **Restart:** Power off the AC2A first, then press the POWER Button to restart.

**Note:** When the AC2A is on, you can activate the LCD display by interacting with any of the buttons.

When AC and DC is off for more than 1 minute, the AC2A will be off automatically.
6. LCD Display

The AC2A features an informative LCD display that offers easy access to all the essential information about the unit's status and performance. When you power on the unit, the LCD display lights up, and when you power off the unit, the display turns off as well.

1. Fan Status
2. PV Input
3. Bluetooth Connection
4. Battery Capacity (SoC)
5. Power Lifting Mode
6. Turbo Charging
7. ECO Mode
8. Low Battery Alert
9. Output Power
10. AC Output Frequency
11. Grid Connection
12. DC Output
13. AC Output
14. Charge / Discharge Remaining Time
15. Charge / Discharge Status
16. High Temperature Alert
17. Overcurrent Alert
18. Overload Alert
19. Fault Alert
20. Charge / Discharge Progress
21. Input Power
<table>
<thead>
<tr>
<th>LCD Instructions</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Startup</strong></td>
<td>LCD lights up</td>
</tr>
<tr>
<td><strong>Shutdown</strong></td>
<td>LCD lights off</td>
</tr>
<tr>
<td>When it lights up, the fan is activated and working properly.</td>
<td><img src="image" alt="fan" /></td>
</tr>
<tr>
<td>If it flashes, there may be a problem with the fan.</td>
<td><img src="image" alt="fan" /></td>
</tr>
<tr>
<td>The AC2A is charging from solar panels.</td>
<td><img src="image" alt="solar panels" /></td>
</tr>
<tr>
<td>The AC2A connects to BLUETTI App via Bluetooth.</td>
<td><img src="image" alt="Bluetooth" /></td>
</tr>
<tr>
<td>The remaining battery capacity.</td>
<td><img src="image" alt="battery" /></td>
</tr>
<tr>
<td>The AC2A is operating in Power Lifting Mode.</td>
<td><img src="image" alt="power lifting" /></td>
</tr>
<tr>
<td>The AC2A is charging in Turbo Charging Mode.</td>
<td><img src="image" alt="turbo charging" /></td>
</tr>
<tr>
<td>The ECO Mode is enabled to save power.</td>
<td><img src="image" alt="eco" /></td>
</tr>
<tr>
<td>The SoC drops below 5%.</td>
<td><img src="image" alt="soc" /></td>
</tr>
<tr>
<td>The real-time total output.</td>
<td><img src="image" alt="total output" /></td>
</tr>
<tr>
<td>The real-time AC output frequency.</td>
<td><img src="image" alt="frequency" /></td>
</tr>
<tr>
<td>The AC2A is charging from the home grid.</td>
<td><img src="image" alt="grid" /></td>
</tr>
<tr>
<td>The DC output is turned on.</td>
<td><img src="image" alt="dc" /></td>
</tr>
<tr>
<td>The AC output is turned on.</td>
<td><img src="image" alt="ac" /></td>
</tr>
<tr>
<td>The remaining time of charging or discharging.</td>
<td><img src="image" alt="time" /></td>
</tr>
<tr>
<td><img src="image" alt="Charging" /> : Charging</td>
<td><img src="image" alt="Discharging" /> : Discharging</td>
</tr>
<tr>
<td>The temperature inside the unit is higher than 70°C (158°F).</td>
<td><img src="image" alt="temperature" /></td>
</tr>
<tr>
<td>The AC2A is drawing too much current, which can cause damage to the unit or any connected devices.</td>
<td><img src="image" alt="current" /></td>
</tr>
<tr>
<td>The AC2A is overloaded.</td>
<td><img src="image" alt="overload" /></td>
</tr>
<tr>
<td>There's an issue with the AC2A, which may require troubleshooting or repair.</td>
<td><img src="image" alt="issue" /></td>
</tr>
<tr>
<td>The bar increases during charging and decreases during discharging.</td>
<td><img src="image" alt="bar" /></td>
</tr>
<tr>
<td>The total input power.</td>
<td><img src="image" alt="input power" /></td>
</tr>
</tbody>
</table>
7. Charging

AC2A supports four charging methods: AC, solar, car, and generator.

⚠️ Attention:

- Double-check that all cables are firmly plugged in.
- Avoid getting the plug and socket wet to prevent any potential damage.

7.1 AC Charging

Plug the AC2A into a standard wall outlet and start charging. Once it’s fully charged, the AC2A automatically stops charging to prevent overcharging. For a fast charge, you can enable Turbo Charging in the BLUETTI App, which allows for an 80% capacity in just 45 minutes at an ambient temperature of 25°C (77°F).

7.2 Solar Charging

Connect the solar panels (in series or parallel) to AC2A via the solar charging cable. When receiving a continuous input of 200W, the AC2A will automatically stop charging within 1.5 hours. However, please be aware that the charging time may vary based on weather conditions, sunlight intensity, panel orientation, and other variables.

Note: Make sure your solar panel(s) meet the following requirements:

7.3 Car Charging

Connect AC2A to the vehicle's 12V cigarette lighter port via the car charging cable. The AC2A can charge at a maximum of 96W, and it'll automatically stop charging once it's fully charged.

Note: Make sure your vehicle meets the following conditions for charging:

- The vehicle is capable of supplying power.
- The vehicle's engine is running during the charging process.

Attention:
The AC2A has a low-voltage disconnect function designed to protect your vehicle's battery during charging. If the input voltage drops below 10.5V, the unit will automatically stop charging to prevent over-discharging and potential damage to the battery.

7.4 Generator Charging

Connect the AC2A to a generator via the AC charging cable. The AC2A will also automatically stop charging when it’s fully charged, typically within 1.4 hours if the generator output is stable.

Note: Make sure your generator delivers the AC output with charging voltage, frequency, and Grid Self-adaption Mode voltage that meet AC2A's specifications.

If the total power demand of your connected devices exceeds the generator's output capacity, please turn on the Grid Self-adaption Mode to ensure a seamless charging experience.
8. Discharging

8.1 AC Discharging

<table>
<thead>
<tr>
<th>Port</th>
<th>Picture</th>
<th>Specifications</th>
<th>Compatibile Loads</th>
</tr>
</thead>
<tbody>
<tr>
<td>AC Outlet x 2</td>
<td><img src="image" alt="AC Outlet" /></td>
<td>120V / 50Hz / 60Hz</td>
<td>Appliances up to 300W power.</td>
</tr>
</tbody>
</table>

**Note:** Do not apply AC2A to loads higher than 300W, as this may cause damage to AC2A and your devices.

8.2 DC Discharging

<table>
<thead>
<tr>
<th>Port</th>
<th>Picture</th>
<th>Specifications</th>
<th>Compatibile Loads</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cigarette Lighter Port x 1</td>
<td><img src="image" alt="Cigarette Lighter" /></td>
<td>12V / 10A</td>
<td>12V DC appliances up to 120W power. e.g. car refrigerator, air conditioner</td>
</tr>
<tr>
<td>USB-A x 2</td>
<td><img src="image" alt="USB-A" /></td>
<td>5V / 2.4A</td>
<td>Mobile phones and other small loads.</td>
</tr>
<tr>
<td>USB-C x 1</td>
<td><img src="image" alt="USB-C" /></td>
<td>5V / 9V / 12V / 15V / 20V, 3A; 20V / 5A</td>
<td>Mobile phones, laptops, etc.</td>
</tr>
</tbody>
</table>

**Note:** To ensure optimal performance, avoid short-circuiting the ports and keep them dry during use or storage. Additionally, do not block or cover the ports while ensuring proper ventilation.
9. Settings

The AC2A offers the convenience of adjusting its settings either via physical buttons or the BLUETTI App. With the buttons located on the device itself, you have direct control over various settings such as ECO Mode, Power Lifting Mode, output frequency, charging modes, and other functionalities. Additionally, by using the BLUETTI App, you can access a user-friendly interface on your phone to conveniently monitor and control the AC2A.

9.1 Setting Mode

When the display is on, press and hold the AC and DC Power Buttons for about 2 seconds till the output frequency flashes to enter the Setting Mode.

9.2 ECO Mode

The AC2A has two ECO modes that help you save power and extend battery life:

- **AC-ECO Mode**
  
  In this mode, if the AC power output falls below or remains at a certain level for a set period of time, the AC power will automatically turn off.

- **DC-ECO Mode**
  
  In this mode, if the DC power output falls below or remains at a certain level for a set period of time, the DC power will automatically turn off.

**Attention:**

- The AC-ECO and DC-ECO modes are enabled by default to save energy, and it’s recommended to keep them enabled at all times.
- Use the BLUETTI App to enable or disable AC-ECO Mode and DC-ECO Mode separately. If you use the LCD display, they’ll be turned on or off at the same time.
- To avoid any interruption in charging, disable ECO Mode when charging a small device that consumes less than 15W of power.

In the Setting Mode, press the DC Power Button to navigate through the setting items. When the ECO icon flashes on the display, press the AC Power Button to enable or disable the ECO Mode.

9.3 Frequency Switching

The current output frequency (50Hz / 60Hz) is displayed in the lower right corner of the display. When the AC output is off, in the Setting Mode, press the AC Power Button to
switch the frequency options based on your requirements.

9.4 Power Lifting Mode

The Power Lifting Mode is specifically designed to handle resistive loads up to 600W, including electric blankets, kettles, hairdryers, and other heating devices. To enable it, access the Setting Mode, navigate with the DC Power Button until the 📦 icon appears, and press the AC Power Button to enable the mode.

**Note:** The Power Lifting Mode is not enabled by default and is only suitable for resistive loads with a power rating between 300W-600W.

Although the AC2A can handle higher power demands, its actual operating power remains at 300W.

9.5 AC Charging Mode

The AC2A supports 3 AC charging modes - Standard, Turbo, and Silent to fit your specific needs. In the Setting Mode, use the DC power button to navigate until the 🔋 icon starts flashing on the screen ( P03 ). Then, press the AC power button to choose the Turbo mode.

<table>
<thead>
<tr>
<th>Mode</th>
<th>Recharging Time</th>
<th>Note</th>
<th>Icon</th>
</tr>
</thead>
<tbody>
<tr>
<td>Standard</td>
<td>2 hours</td>
<td>More friendly to AC2A’s battery. It can only be configured using the BLUETTI App.</td>
<td>None</td>
</tr>
<tr>
<td>Turbo</td>
<td>80% charge in 45 minutes; full charge in 14 hours</td>
<td>Comes in handy when recharging time is a priority.</td>
<td>🚂</td>
</tr>
<tr>
<td>Silent</td>
<td>4 hours</td>
<td>Offers a quiet, low-power operation for long battery life. It can only be configured using the BLUETTI App.</td>
<td>None</td>
</tr>
</tbody>
</table>

9.6 Grid Self-adaption Mode

If you’re charging the AC2A using a generator or unstable grid voltage, and the total power demand of your connected devices exceeds the AC2A’s input power, it is recommended that you enable the Grid Self-adaption Mode through the BLUETTI App to ensure a stable, safe charging experience for both the AC2A and your devices.

9.7 Exit Setting Mode

To save your AC2A settings and exit the Setting Mode, press and hold both the AC and DC Power Buttons at the same time.

**Note:** If you do not perform any operation in 1 minute, the AC2A will automatically exit the Setting Mode, and no changes will be saved.
10. BLUETTI App

Scan the QR code below or search "BLUETTI" in the App Store or Google Play to download the BLUETTI App.

For more details, please refer to BLUETTI APP INSTRUCTIONS.
### 11. Specifications

<table>
<thead>
<tr>
<th>Model</th>
<th>AC2A</th>
</tr>
</thead>
<tbody>
<tr>
<td>Battery Capacity</td>
<td>204.8Wh / 8Ah</td>
</tr>
<tr>
<td>Cell Type</td>
<td>Lithium Iron Phosphate (LiFePO₄, LFP)</td>
</tr>
<tr>
<td>AC + DC Input</td>
<td>270W Max.</td>
</tr>
<tr>
<td>Weight</td>
<td>3.6kg / 7.9lbs</td>
</tr>
<tr>
<td>Dimensions (L × W × H)</td>
<td>250mm × 150mm × 180mm / 9.8in × 5.9in × 7.1in</td>
</tr>
<tr>
<td>Charging Temperature</td>
<td>0°C to 40°C / 32°F to 104°F</td>
</tr>
<tr>
<td>Discharging Temperature</td>
<td>-20°C to 40°C / -4°F to 104°F</td>
</tr>
<tr>
<td>Storage Temperature</td>
<td>-20°C to 40°C / -4°F to 104°F</td>
</tr>
<tr>
<td>Working Humidity</td>
<td>10% to 90%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>AC Output</th>
</tr>
</thead>
<tbody>
<tr>
<td>Power</td>
</tr>
<tr>
<td>Voltage</td>
</tr>
<tr>
<td>Current</td>
</tr>
<tr>
<td>Frequency</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>DC Output</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cigarette Lighter Port × 1</td>
</tr>
<tr>
<td>USB-A × 2</td>
</tr>
<tr>
<td>USB-C × 1</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>DC Input</th>
</tr>
</thead>
<tbody>
<tr>
<td>Interface</td>
</tr>
<tr>
<td>Power</td>
</tr>
<tr>
<td>Current</td>
</tr>
<tr>
<td>Voltage</td>
</tr>
</tbody>
</table>
## 12. Button Operation Instructions

<table>
<thead>
<tr>
<th>Operation</th>
<th>Function</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Press the AC Power Button</td>
<td>Turn on / off the AC output</td>
<td>/</td>
</tr>
<tr>
<td>Press the DC power button</td>
<td>Turn on / off the USB-A, USB-C, DC output, and the indicators</td>
<td>/</td>
</tr>
<tr>
<td>Press the AC and DC Power Buttons simultaneously and hold for more than 2 seconds till the output frequency flashes</td>
<td>Enter / exit the Setting Mode</td>
<td>In the Setting Mode, the icons for the currently enabled functions remain lit, except for the flashing output frequency icon. If you do not perform any operation in 1 minute, the AC2A will automatically exit the Setting Mode, and no changes will be saved.</td>
</tr>
<tr>
<td>Press the DC Power Button in the Setting Mode</td>
<td>Navigate through the setting items</td>
<td>The flashing setting item is selected and editable. In the Setting Mode, the corresponding codes will be displayed on the left side: P01: Output Frequency P03: Charging Mode P05: ECO Mode P06: Bluetooth</td>
</tr>
<tr>
<td>Press the AC Power Button when the setting item is flashing</td>
<td>Enable or disable the selected function</td>
<td>/</td>
</tr>
</tbody>
</table>
| Press and hold the DC Power Button in the Setting Mode                    | Switch the status page                                                   | You can view relevant information on the status page.  
  📊: Serial Number  
  🚷: Error code  
  📈: Historical faults  
  📦: Version                                                                 |
# Troubleshooting

In the Setting Mode, press and hold the DC Power Button for more than 2 seconds until the error code appears on the display. Please refer to the table below for helpful guidance.

<table>
<thead>
<tr>
<th>Error Code</th>
<th>Alarm Icon</th>
<th>Description</th>
<th>Troubleshooting</th>
</tr>
</thead>
<tbody>
<tr>
<td>E001</td>
<td>![Alarm Icon]</td>
<td>Inverter overload</td>
<td>Check if the power consumption of your devices is too high. Reduce the load if necessary.</td>
</tr>
<tr>
<td>E002</td>
<td>![Alarm Icon]</td>
<td>Inverter overtemperature protection, AC output off</td>
<td>Wait for about 10 minutes until the unit cools down, then turn on the AC output again.</td>
</tr>
<tr>
<td>E003</td>
<td>![Alarm Icon]</td>
<td>Inverter short circuit</td>
<td>1. Check if the power consumption of your devices is too high. 2. Check if any of your electrical devices are causing a short circuit.</td>
</tr>
<tr>
<td>E033</td>
<td>![Alarm Icon]</td>
<td>PV overvoltage</td>
<td>Make sure the PV input voltage is within the range of 12V to 28VDC.</td>
</tr>
<tr>
<td>E039</td>
<td>![Alarm Icon]</td>
<td>PV overtemperature</td>
<td>Wait for about 10 minutes until the unit cools down, then re-enable the PV input.</td>
</tr>
<tr>
<td>E065</td>
<td>![Alarm Icon]</td>
<td>DC output short circuit</td>
<td>1. Check if the power consumption of your devices is too high. 2. Check if any of your electrical devices are causing a short circuit.</td>
</tr>
<tr>
<td>E067</td>
<td>![Alarm Icon]</td>
<td>DC output overcurrent</td>
<td>Check if the power consumption of your devices is too high. Reduce the load if necessary.</td>
</tr>
<tr>
<td>E068</td>
<td>![Alarm Icon]</td>
<td>DC output overtemperature</td>
<td>Wait for about 10 minutes until the unit cools down, then restart your devices.</td>
</tr>
<tr>
<td>E085</td>
<td>![Alarm Icon]</td>
<td>Charging temperature too high</td>
<td>Wait for the unit to cool down before charging.</td>
</tr>
<tr>
<td>E086</td>
<td>![Alarm Icon]</td>
<td>Charging temperature too low</td>
<td>Make sure the unit is placed in an ambient temperature of 0°C to 40°C (32°F to 104°F).</td>
</tr>
<tr>
<td>E087</td>
<td>![Alarm Icon]</td>
<td>Discharging temperature too high</td>
<td>Wait for the unit to cool down before discharging.</td>
</tr>
<tr>
<td>Code</td>
<td>Icon</td>
<td>Description</td>
<td>Actions</td>
</tr>
<tr>
<td>-------</td>
<td>--------</td>
<td>-------------------------------</td>
<td>--------------------------------------------------</td>
</tr>
<tr>
<td>E088</td>
<td><img src="image1" alt="Icon" /></td>
<td>Discharging temperature too low</td>
<td>Make sure the unit is placed in an ambient temperature of -20°C to 40°C (-4°F to 104°F).</td>
</tr>
<tr>
<td>E113</td>
<td><img src="image2" alt="Icon" /></td>
<td>Grid overvoltage</td>
<td>Check if the grid voltage is too high.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Change the input source if necessary.</td>
</tr>
<tr>
<td>E114</td>
<td><img src="image3" alt="Icon" /></td>
<td>Grid undervoltage</td>
<td>Check if the grid voltage is too low.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Change the input source if necessary.</td>
</tr>
<tr>
<td>E115</td>
<td><img src="image4" alt="Icon" /></td>
<td>Grid overfrequency</td>
<td>Check if the grid frequency is too high.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Contact your local power provider if necessary.</td>
</tr>
<tr>
<td>E116</td>
<td><img src="image5" alt="Icon" /></td>
<td>Grid underfrequency</td>
<td>Check if the grid frequency is too low.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Contact your local power provider if necessary.</td>
</tr>
<tr>
<td>Others</td>
<td><img src="image6" alt="Icon" /></td>
<td>/</td>
<td>Please contact BLUETTI support for assistance.</td>
</tr>
</tbody>
</table>
**Appx. 1 Estimating Operation Time**

To estimate the operation time of the AC2A, consider the load you’re applying:

- For high-power loads (above 100W):
  \[
  \text{Operation time} = \frac{\text{Battery Capacity (Wh)} \times \text{DoD} \times \eta}{\text{Load Power}}
  \]

- For small-power loads (below 100W):
  \[
  \text{Operation time} = \frac{\text{Battery Capacity (Wh)} \times \text{DoD} \times \eta}{\text{Load Power} + \text{AC2A Self-consumption}}
  \]

**Note:** DoD refers to the depth of discharge. AC2A works at 90% DoD for longer battery life.

- \(\eta\) is the conversion efficiency of the inverter, typically over 85% for AC2A.
- The self-consumption of AC2A is approximately 7.5W.

E.g. If you have a 40W refrigerator, you can run it for about 3.3 hours.

\[
\text{Operation time} = \frac{204.8\text{Wh} \times 90\% \times 85\%}{40\text{W} + 7.5\text{W}} \approx 3.3\text{ hours.}
\]

Please keep in mind that the estimated operation time provided is for reference purposes and may vary based on actual usage conditions. Factors such as low temperature and excessive loads can significantly affect the battery capacity, leading to a reduction in the average operation time.
Appx. 2 FAQ

Q1: How do I know whether my devices will work well with this product?
A: Please evaluate the total constant load of your devices. If it doesn't exceed the Max. output power of AC2A (300W), you can use this power station to run your devices.

Note: Some devices with built-in motors or compressors may start at 2-4 times the rated power, which can easily overload the AC2A.

Q2: Can I use third-party solar panels to charge this product?
A: Yes, you can. However, make sure your solar panels have an open circuit voltage of 12V-28V and are equipped with MC4 connectors. It's also important not to mix different types of solar panels.

Q3: Can it charge and discharge at the same time?
A: Yes. It supports pass-through charging. The AC2A comes with the premium LiFePO4 battery and proprietary Battery Management System to ensure that it can charge and discharge at the same time.

Q4: Why is the charging power often too low?
A: AC2A has a built-in intelligent BMS that automatically adjusts the charging power in response to the battery temperature and SoC, thus protecting the battery and extending its service life.
Appx. 3  FCC Statement

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions:
(1) This device may not cause harmful interference.
(2) This device must accept any interference received, including interference that may cause undesired operation.

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:
- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

FCC Caution: Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment.

IMPORTANT NOTE: FCC Radiation Exposure Statement

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with a minimum distance of 20cm between the radiator & your body.
**Appx. 4 IC Caution**

This device contains licence-exempt transmitter(s) / receiver(s) that comply with Innovation, Science and Economic Development Canada’s licence-exempt RSS(s). Operation is subject to the following two conditions:

1. This device may not cause interference.
2. This device must accept any interference, including interference that may cause undesired operation of the device.

**RF exposure statement:** The equipment complies with IC Radiation exposure limits set forth for uncontrolled environments. This equipment should be installed and operated with a minimum distance of 20cm between the radiator and your body.

**CAN ICES-3 (B)/NMB-3(B) (Canada)**

This Class B digital apparatus complies with Canadian ICES-003.
Appx. 5 Consignes de sécurité

Lisez ce manuel pour savoir comment utiliser correctement le produit et connaître les consignes de sécurité correspondantes. Les exigences en matière de sécurité sont fournies à titre d'exemple et comprennent, sans s'y limiter, les exigences énumérées dans le présent manuel. Le fonctionnement réel doit être conforme à toutes les normes de sécurité applicables. Si vous avez des questions, n'hésitez pas à contacter l'équipe de support BLUETTI ou votre revendeur local.

1) Déclaration
Pour garantir un fonctionnement sûr, il est essentiel de respecter les conditions suivantes :
• Utilisez ou stockez toujours le produit dans les conditions spécifiées dans ce manuel.
• Évitez tout démontage, tout remplacement des composants ou toute modification des codes logiciels non autorisés.

⚠️ BLUETTI n’est pas responsable des dommages résultant des circonstances suivantes :
• Les cas de force majeure tels que les tremblements de terre, les incendies, les tempêtes, les inondations ou les coulées de boue.
• Les dommages causés par le transport du client.
• Les dommages résultant de conditions de stockage inadéquates telles que spécifiées dans le manuel.
• Les dommages causés par la négligence du client, une mauvaise utilisation ou des actions intentionnelles.
• Les dommages occasionnés au système ou au matériel par des tiers ou des clients, y compris, mais sans s'y limiter, une manipulation ou une installation non conforme aux consignes du présent manuel.
• L'utilisation du produit avec des appareils nécessitant une alimentation sans interruption (ASI) de haute performance, y compris, mais sans s'y limiter, les serveurs de données, les stations de travail, les équipements médicaux et d'autres appareils similaires.

2) Exigences générales
CONSIGNES RELATIVES AU RISQUE D'INCENDIE, D'ÉLECTROCUTION OU DE BLESSURE
CONSIGNES DE SÉCURITÉ IMPORTANTES
AVERTISSEMENT – Les précautions de base suivantes doivent toujours être prises lorsque vous utilisez ce produit :

a. Lisez l'ensemble des consignes avant toute utilisation du produit.
b. Pour réduire le risque de blessure, une surveillance étroite est nécessaire lorsque vous utilisez le produit à proximité d'enfants.
c. Ne placez pas vos doigts ou vos mains à l'intérieur du produit. N'insérez pas de corps étrangers dans les ports du produit.
d. L'utilisation d'un accessoire non recommandé ou vendu par le fabricant peut entraîner un risque d'incendie, d'électrocution ou de blessure.

e. Pour réduire le risque d'endommagement de la fiche et du câble électriques, tirez au niveau de la fiche plutôt que sur le cordon lors du débranchement.
f. N'utilisez pas un bloc-batterie ou un appareil endommagé ou modifié, car ils peuvent présenter un comportement imprévisible entraînant un risque d'incendie, d'explosion ou de blessure.
g. N'utilisez pas le produit avec un câble ou une fiche endommagés, ou un câble de sortie endommagé.
h. SEUL du personnel autorisé peut remplacer la batterie interne ou tout autre composant du produit. Aucun composant ne peut être réparé par l'utilisateur final. Ne démontez pas le produit par vous-même, adressez-vous à un technicien qualifié pour tout service de réparation ou d'entretien. Un réassemblage incorrect peut entraîner un risque d'incendie ou d'électrocution.
i. Pour réduire le risque d'électrocution, débranchez le produit de la prise avant de procéder à toute opération d'entretien prévue dans les consignes.
j. AVERTISSEMENT – RISQUE DE GAZ EXPLOSIFS. Pour réduire le risque d'explosion de la batterie, suivez ces consignes ainsi que les consignes du fabricant de la batterie et du fabricant de tout équipement que vous avez l'intention d'utiliser à proximité de la batterie. Examinez les mises en garde apposées sur ces produits et sur les moteurs.
k. PRÉCAUTIONS PERSONNELLES

1) Protégez-vous complètement et portez des vêtements et des lunettes de protection. Évitez tout contact avec les yeux lorsque vous travaillez à proximité de la batterie.

2) Ne fumez JAMAIS et ne produisez JAMAIS d'étincelles ou de flammes à proximité de la batterie ou du moteur.

3) Travaillez avec une extrême prudence et évitez toute chute d'outil métallique sur la batterie. Cela pourrait provoquer une étincelle ou un court-circuit de la batterie ou d'autres pièces électriques, entraînant par conséquent un risque d'explosion.

l. Lorsque vous chargez la batterie interne, travaillez dans un endroit bien ventilé et ne limitez en rien la ventilation.

m. Dans des conditions abusives, du liquide peut être éjecté de la batterie, évitez tout contact. En cas de contact accidentel, rincez à l'eau. Si le liquide entre en contact avec les yeux, consultez immédiatement un médecin. Le liquide éjecté de la batterie peut provoquer des irritations ou des brûlures.

n. N'exposez pas le produit au feu ou à une température excessive. L'exposition au feu ou à une température supérieure à 130 °C peut entraîner un risque d'explosion.

o. Confiez l'entretien du produit à un réparateur qualifié qui utilisera uniquement des pièces de rechange identiques, de manière à assurer une sécurité continue.
3) Consignes de mise à la terre

Ce produit doit être mis à la terre. En cas de dysfonctionnement ou de panne, la mise à la terre fournit un chemin de moindre résistance pour le courant électrique afin de réduire le risque d'électrocution. Ce produit est équipé d'un câble muni d'un conducteur de mise à la terre et d'une fiche de mise à la terre. La fiche doit être branchée dans une prise correctement installée et mise à la terre conformément à tous les codes et règlements locaux.

⚠️ AVERTISSEMENT

Une mauvaise connexion du conducteur de mise à la terre de l’équipement peut entraîner un risque d'électrocution. Vérifiez auprès d’un électricien qualifié en cas de doutes quant à la mise à la terre de l’appareil. Ne modifiez pas la fiche fournie avec le produit. Si elle n’est pas adaptée à la prise, faites installer une prise adéquate par un électricien qualifié.

4) Consignes de stockage

a. Lorsque le SoC atteint 5 %, veuillez charger le produit immédiatement.

b. Avant de stocker le produit, veuillez le charger de manière à ce que le SoC soit compris entre 40 % et 60 % afin de préserver l’état optimal du produit. De plus, éteignez le produit et débranchez toutes les raccordements électriques de celui-ci.

c. Stockez le produit dans un endroit frais et sec, à l’écart des matériaux et des gaz inflammables ou combustibles.
Le produit peut être stocké en toute sécurité à une température comprise entre -20 °C et 40 °C (entre -4 °F et 104 °F). Toutefois, si la durée de stockage dépasse un mois, il est recommandé de maintenir une température de stockage idéale d'environ 30 °C (86 °F). Afin de maintenir le produit en bon état, veuillez décharger et charger complètement l'appareil au moins une fois tous les 3 mois. Il n'est PAS recommandé de stocker l'appareil pendant des périodes prolongées, car cela peut altérer les performances et la durée de vie générale du produit.

Si le SoC chute à 0 (pendant le stockage ou au démarrage), prenez les mesures suivantes pour redémarrer le produit en toute sécurité :

- Mettez-le immédiatement hors tension.
- Chargez-le dans les 48 heures.
- Placez-le à une température ambiante comprise entre 5 °C et 35 °C (entre 41 °F et 95 °F) pendant 24 heures avant de le charger. Il est recommandé de charger le produit via une source CA. Si vous le chargez à l'aide de l'énergie solaire, assurez-vous que votre système solaire fournit une puissance supérieure à 100 W.

⚠️ BLUETTI n'est pas responsable des dommages causés à l'équipement en raison du non-respect des consignes ci-dessus.

**CONSERVEZ CES CONSIGNES**

⚠️ Le symbole représenté vous rappelle de lire les consignes figurant dans la documentation accompagnant le produit avant toute utilisation ou tout entretien.

- Branchez le produit sur une prise de courant avec mise à la terre à l'aide du câble d'alimentation fourni.
- La prise de courant doit être installée à proximité du produit et facilement accessible pour des raisons de sécurité.
- Concernant l'élimination, ne JAMAIS procéder aux actions suivantes pour cause de risque d'explosion : ne jamais placer une batterie au feu ou dans un four chaud et ne jamais écraser ou couper mécaniquement une batterie.
- Évitez de placer les batteries dans des environnements à très haute température, car cela peut entraîner une explosion ou une fuite de liquide ou de gaz inflammable.
- Les batteries soumises à une pression d'air extrêmement basse peuvent entraîner une explosion ou une fuite de liquide ou de gaz inflammable.
- Il convient d'attirer l'attention sur les critères environnementaux quant à l'élimination des batteries.
- Avant toute installation ou utilisation de l'appareil, veuillez vous référer aux informations figurant sur le dessous extérieur de l'appareil pour obtenir des informations sur les caractéristiques électriques et la sécurité.
For more information, please visit:

Web: https://www.bluettipower.com

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service@bluettipower.com (After-sales)
Certificate

Inspector: ____________

QC: ____________

Just Power On