

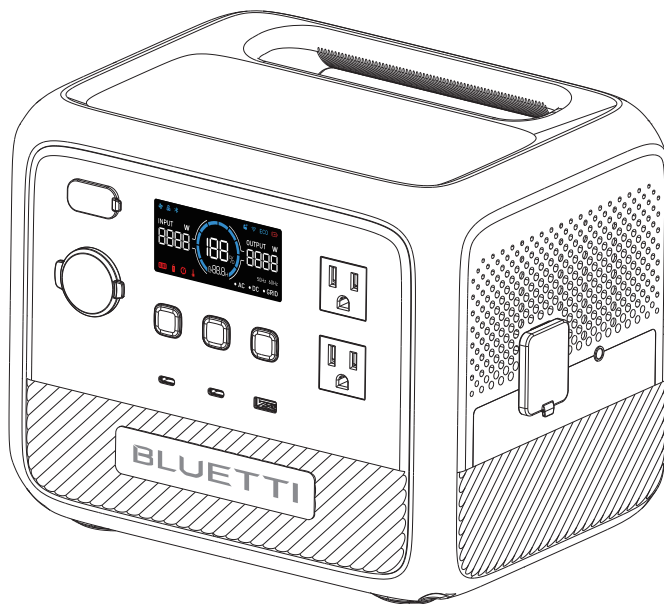
# AC50B

# Portable Power Station

## User Manual v1.0

Please Read This Manual Before Use And Follow Its Guidance.  
Keep This Manual For Future Reference.





### Warning

1. Charge the unit before first use.
2. Do not use solar panels with open circuit voltage higher than 28V. Solar input voltage range for the unit is 12V-28V.
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.



**Copyright © Shenzhen PowerOak Newener Co., Ltd. All rights reserved.**

No part of this document may be reproduced or transmitted in any form or by any means without the prior written consent of Shenzhen PowerOak Newener Co., Ltd.

**Shenzhen PowerOak Newener Co., Ltd.**

F19, BLD No.1, Kaidaer, Tongsha RD No.168, Xili street, Nanshan, Shenzhen, China

Web: <https://www.bluettipower.com>

### 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.

### Symbol Conventions

This manual uses the following symbols to highlight important information:

| Symbol                                                                            | Category                        | Description                                                                                                                           |
|-----------------------------------------------------------------------------------|---------------------------------|---------------------------------------------------------------------------------------------------------------------------------------|
|  | Danger / Warning<br>/ Attention | It indicates a hazardous situation which, if not avoided, could result in death or serious injury.                                    |
|  | Notice / Hint                   | It indicates a potentially hazardous situation which, if not avoided, could cause substantial damage to property and the environment. |

Contents

1 Safety Instructions ..... 06

2 Packing List ..... 10

3 Product Introduction ..... 11

4 Product Overview ..... 11

5 Power ON/OFF ..... 12

6 LCD Display ..... 13

7 Charging ..... 15

8 Discharging ..... 17

9 Settings ..... 17

10 BLUETTI App ..... 19

11 Specifications ..... 20

12 Troubleshooting ..... 21

Appx. 1 Estimating Operation Time ..... 22

Appx. 2 FAQs ..... 23

Appx. 3 Grounding Guidelines ..... 24

Appx. 4 FCC Statement ..... 25

Appx. 5 IC Caution ..... 26

Appx. 6 Consignes de sécurité ..... 26

# 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.
- The installation and ambient conditions must comply with the requirements in the relevant international, national, or regional standards.
- Avoid unauthorized disassembly, component replacement, or modification of software codes.

*BLUETTI shall not be liable for the following circumstances:*

- Damage resulting from 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 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.
- The product doesn't fulfill power supply needs for power-reliant equipment in critical sectors like atomic energy, aviation, medical, and other domains where safety is paramount. BLUETTI assumes no liability for incidents involving personal safety, fire, equipment malfunction, or any adverse aftermath resulting from using this product with such equipment.
- Damage caused by adjustments, changes, or removal of labels in violation of this manual.
- This product is not intended for use 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. BLUETTI shall not be liable for any data loss, equipment damage, or personal injury resulting from the violation of this requirement.

## 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.
- The cigarette lighter port, categorized as PS3 according to the IEC 62368-1 standard, should take into account the fire safety measures of the connected devices or accessories (such as fire-resistant casings).

1.3 Grounding Instructions

When connecting this product to the power grid, ensure proper grounding for safety. Grounding reduces the risk of electric shock in case of malfunctions. The AC power cord has a grounding plug, which should be inserted into a correctly installed grounded receptacle following local codes and regulations.

 **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.

Recommended Number of People Based on the Weight of Product

| Weight                       | Number of people |
|------------------------------|------------------|
| <18kg (39.7lbs)              | 1                |
| 18kg-32kg (39.7lbs-70.5lbs)  | 2                |
| 32kg-55kg (70.5lbs-121.3lbs) | 3                |
| >55kg (121.3lbs)             | 4 or a cart      |

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 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.

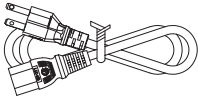
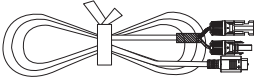
- Connect the product to a socket-outlet that has an earthing connection using the power cord provided.
- The socket-outlet should be installed near the product and easily accessible for safety purposes.
- Never dispose of a battery by throwing it into fire or a hot oven, or by mechanically crushing 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.

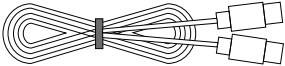
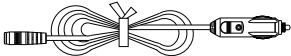
## 2. Packing List

### Standard Packaging

| Item                   | Picture                                                                            | Qty. |
|------------------------|------------------------------------------------------------------------------------|------|
| Portable Power Station |   | 1    |
| AC Charging Cable      |   | 1    |
| Car Charging Cable     |   | 1    |
| Solar Charging Cable   |   | 1    |
| Grounding Screws       |   | 1    |
| User Manual            |   | 1    |
| Warranty Card          |  | 1    |

### Optional Accessories

(Available on the official BLUETTI website: <https://www.bluettipower.com>)

| Item                                                                                                       | Picture                                                                             |
|------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| USB-C to USB-C Cable<br>(Output)                                                                           |  |
| Cigarette Lighter to DC5521 Cable<br>(For 12V devices with DC5521 port,<br>such as routers, cameras, etc.) |  |

### 3. Product Introduction

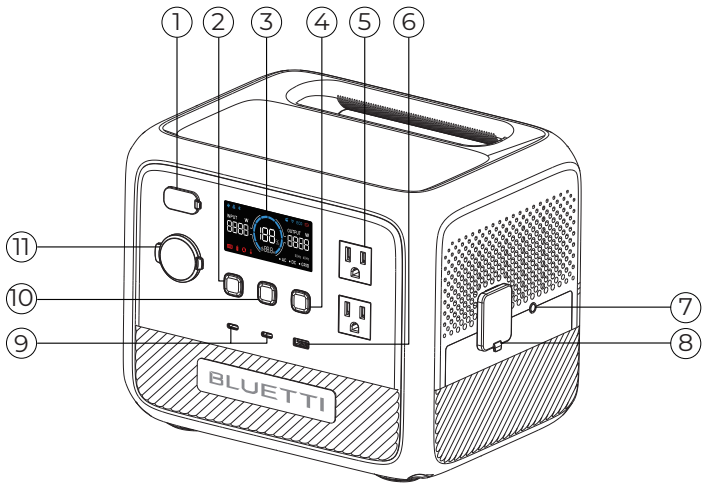
Introducing the AC50B portable power station—a reliable power solution with a 700W pure sine wave inverter and a 448Wh lithium iron phosphate (LiFePO4) battery. Engineered for safety, portability, and reliability, it's ideal for keeping essential devices like car fridges, water heaters, fans, and laptops charged during your journeys.

Designed for efficiency, the AC50B features Turbo charging, allowing it to reach an 80% charge in just 45 minutes at a room temperature of 25 C with proper ventilation. Achieving a full 100% charge takes roughly 70 minutes. If solar charging is your preference, it can fully charge in 3 hours. The AC50B is your practical and efficient power solution for on-the-go energy needs.

**⚠ Attention**

Do not connect the AC output of AC50B to the grid.

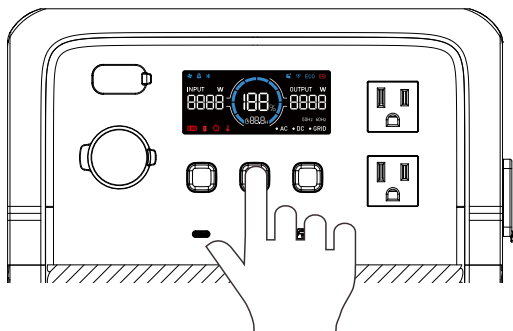
### 4. Product Overview



- |                   |                          |
|-------------------|--------------------------|
| ① DC Input        | ⑦ Grounding Terminal*    |
| ② DC Power Button | ⑧ AC Input               |
| ③ LCD Display     | ⑨ USB-C Port             |
| ④ AC Power Button | ⑩ POWER Button           |
| ⑤ AC Outlet       | ⑪ Cigarette Lighter Port |
| ⑥ USB-A Port      |                          |

\* Refer to Appendix 3 for specific grounding guidelines.

## 5. Power ON/OFF



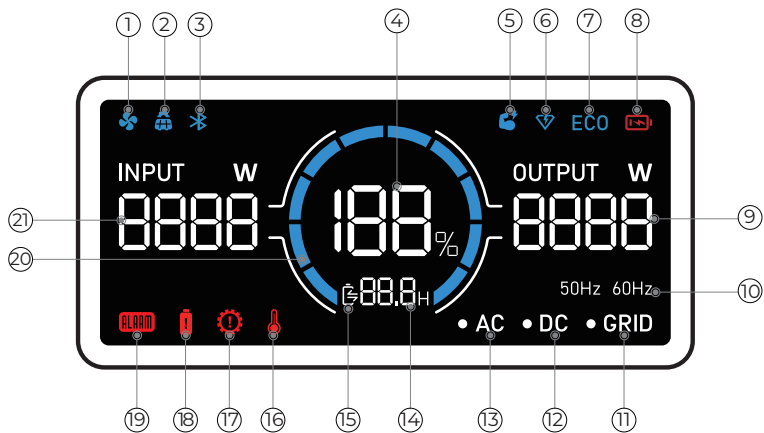
- **Power ON:** Press and hold (  ) for about 2 seconds, the button lights up indicating that the AC50B is now on standby.
- **Power OFF:** Press and hold (  ) for about 2 seconds to turn off the unit.
- **AC ON / OFF:** When the AC50B is on, press the AC power button to turn it on / off.
- **DC ON / OFF:** When the AC50B is on, press the DC power button to turn it on / off.
- **Restart:** Power off the AC50B first, then press and hold (  ) for about 2 seconds to restart.

### Note:

When the AC50B is on, you can activate the LCD display by interacting with any of the buttons.

## 6. LCD Display

The AC50B 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             | ⑫ DC Output                         |
| ② PV Input               | ⑬ AC Output                         |
| ③ Bluetooth Connection   | ⑭ Charge / Discharge Remaining Time |
| ④ Battery Capacity (SoC) | ⑮ Charge / Discharge Status         |
| ⑤ Power Lifting Mode     | ⑯ Temperature Abnormal              |
| ⑥ Turbo Charging         | ⑰ Overload Alert                    |
| ⑦ ECO Mode               | ⑱ Overcurrent Alert                 |
| ⑧ Low Battery Alert      | ⑲ Fault Alert                       |
| ⑨ Output Power           | ⑳ Charge / Discharge Progress       |
| ⑩ AC Output Frequency    | ㉑ Input Power                       |
| ⑪ Grid Connection        |                                     |

| LCD Instructions                                                                                                                                                                              |                                                                                                       |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------|
| Fan on or abnormal                                                                                                                                                                            |  displays or flashes |
| PV input                                                                                                                                                                                      |  displays            |
| Bluetooth connected                                                                                                                                                                           |  displays            |
| State of Charge                                                                                                                                                                               |                      |
| Power Lifting Mode enabled                                                                                                                                                                    |  displays            |
| Turbo Charging enabled                                                                                                                                                                        |  displays            |
| ECO Mode enabled                                                                                                                                                                              |  displays            |
| Battery low (below 5%)                                                                                                                                                                        |  displays            |
| AC/DC output power                                                                                                                                                                            |                      |
| AC output frequency                                                                                                                                                                           |  displays            |
| AC input                                                                                                                                                                                      |  displays            |
| DC output enabled                                                                                                                                                                             |  displays            |
| AC output enabled                                                                                                                                                                             |  displays            |
| Remaining charge / discharge time (hour)                                                                                                                                                      |  displays            |
|  : Charging;  : Discharging |  displays            |
| Battery / unit overheating                                                                                                                                                                    |  displays            |
| Overload                                                                                                                                                                                      |  displays            |
| Overcurrent                                                                                                                                                                                   |  displays            |
| Error report                                                                                                                                                                                  |  displays            |
| Remaining battery level (10% per bar)                                                                                                                                                         |                      |
| Input power                                                                                                                                                                                   |                    |

## 7.Charging

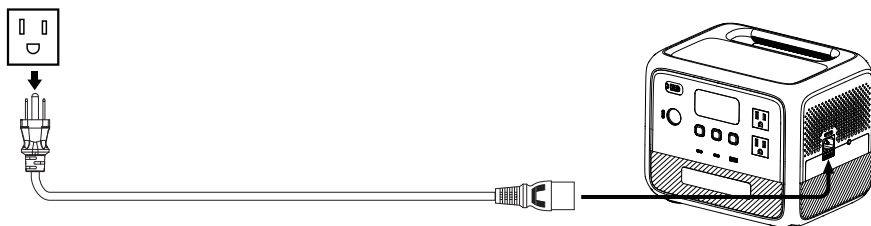
AC50B supports four charging methods: AC, solar, car, and generator.

### 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 AC50B into a standard wall outlet and start charging. Once it's fully charged, the AC50B 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).



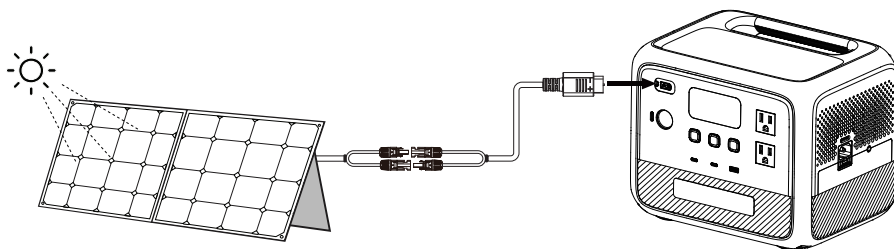
### 7.2 Solar Charging

Connect the solar panels (in series or parallel) to AC50B via the solar charging cable. When receiving a continuous input of 200W, the AC50B will automatically stop charging within 3 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:

Voc: 12V-28V    Current: 8.5A Max.    Power: 200W Max.

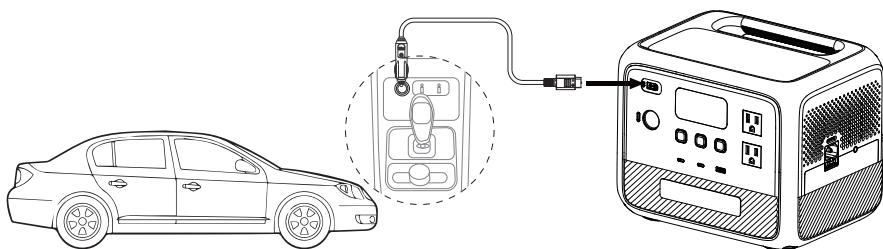


### 7.3 Car Charging

Connect the AC50B to the vehicle's 12V / 24V cigarette lighter port via the car charging cable. The AC50B also automatically stops charging when it's fully charged. On average, it takes about 5-7 hours to refill the AC50B using a 12V port and 3-4 hours with a 24V port at an ambient temperature of 25°C (77°F).

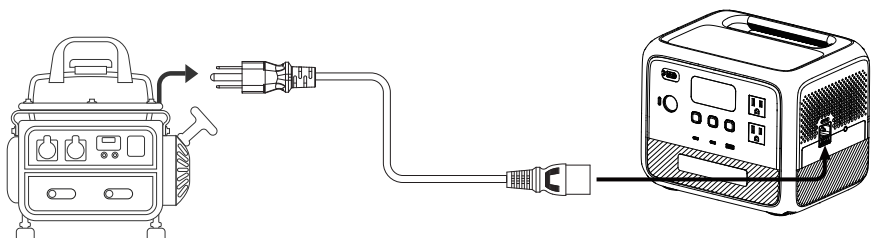
 **Note:** Make sure your vehicle meets the following conditions for charging:

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



### 7.4 Generator Charging

Connect the AC50B to a generator via the AC charging cable. The AC50B also automatically stops charging when it's fully charged. It takes approximately 1.2 hours to reach a full charge at an ambient temperature of 25°C (77°F) if the generator output is stable.



 **Note:**

- Make sure your generator delivers pure sine wave AC output with charging voltage and frequency that meet AC50B'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.
- For stable and efficient charging, avoid using unreliable power sources like wind turbines.

## 8. Discharging

### 8.1 AC Discharging

| Item          | Specifications                           | Compatible Loads             |
|---------------|------------------------------------------|------------------------------|
| 2 × AC Outlet | 100V / 120V / 220V / 230V<br>50Hz / 60Hz | Appliances up to 700W power. |

**Note:** Do not apply AC50B to loads higher than 700W, as this may cause damage to AC50B and your devices.

### 8.2 DC Discharging

| Item                          | Specifications                            | Compatible Loads                                             |
|-------------------------------|-------------------------------------------|--------------------------------------------------------------|
| 1 × Cigarette<br>Lighter Port | 12V / 10A                                 | 12V DC appliances up to 120W power.<br>e.g. car refrigerator |
| 2 × USB-A Port                | 5V / 3A                                   | Mobile phones and other small loads.                         |
| 2 × USB-C Port                | 5 / 9 / 12 / 15 / 20V, 3A;<br>20V / 3.25A | Mobile phones, laptops, etc.                                 |

 **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 AC50B 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, 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 AC50B.

### 9.1 Enter Setting Mode

When the display is on and the AC output is off, 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 Frequency Switching

The current output frequency (50Hz / 60Hz) is displayed in the lower right corner of the display. In the Setting Mode, press the DC power button to navigate to page P01; the frequency will appear. Then, press the AC power button to switch the frequency options based on your requirements.

### 9.3 AC Charging Mode

The AC50B supports 3 AC charging modes - Standard, Turbo, and Silent, all configurable via the app. Alternatively, in the Setting Mode, navigate to page P03 using the DC power button; the (  ) icon will start flashing on the screen. Then, press the AC power button to enable or disable the Turbo charging mode.

| Mode     | Recharging Power |      |       | Recharging Time                                     | Note                                                       | Icon                                                                               |
|----------|------------------|------|-------|-----------------------------------------------------|------------------------------------------------------------|------------------------------------------------------------------------------------|
|          | AC               | PV   | AC+PV |                                                     |                                                            |                                                                                    |
| Standard | 275W             | 200W | 275W  | 2.5 hours                                           | More friendly to AC50B's battery.                          | None                                                                               |
| Turbo    | 580W             | 200W | 580W  | 80% charge in 45 minutes; full charge in 70 minutes | Comes in handy when recharging time is a priority.         |  |
| Silent   | 168W             | 168W | 168W  | 3 hours                                             | Offers a quiet, low-power operation for long battery life. | None                                                                               |

### 9.4 Power Lifting Mode

Power Lifting Mode allows AC50B to handle high-power resistive loads up to 1000W, including electric blankets, kettles, hairdryers, and other heating devices. To enable it, access the Setting Mode, navigate to page P04 using the DC power button; the (  ) icon will appear. Then, press the AC power button to enable or disable the mode.

 **Note:**

- The Power Lifting Mode is not enabled by default and is only suitable for resistive loads with a power rating between 700W-1000W.
- Although the AC50B can handle higher power demands, its actual operating power remains at 700W.

### 9.5 ECO Mode

ECO Mode is a power-saving mode that is enabled by default. When operating on ECO Mode, the AC / DC output will automatically turn off if the AC50B is bearing low (default 10W for AC, 5W for DC) or no load for a while. You can adjust these thresholds using the app if needed.

 **Note:**

When connecting a small power device, disable the ECO Mode for a successful and uninterrupted charge experience.

In the Setting Mode, navigate to page P05 using the DC power button; the ( **ECO** ) icon will appear. Then, press the AC power button to enable or disable the mode.

## 9.6 Bluetooth On/Off

In the Setting Mode, navigate to page P06 using the DC power button; the (  ) icon will start flashing on the screen. Then, press the AC power button to turn the Bluetooth on or off.

## 9.7 Grid Self-adaption Mode

If you're charging the AC50B using an unstable generator or grid voltage, and the total power demand of your connected devices exceeds the AC50B'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 AC50B and your devices.

## 9.8 Exit Setting Mode

To save your AC50B 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 AC50B 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 the product's BLUETTI App User Manual.

# 11.Specifications

| Model                      | AC50B                                          |        |        |                   |
|----------------------------|------------------------------------------------|--------|--------|-------------------|
| Country / Region           | JP                                             | US     | CN     | EU / UK / AU / SA |
| Battery Capacity           | 448Wh / 20Ah                                   |        |        |                   |
| Cell Type                  | Lithium Iron Phosphate (LFP)                   |        |        |                   |
| AC + DC Input              | 580W Max.                                      |        |        |                   |
| Net Weight                 | About 7.5kg / 16.53lbs                         |        |        |                   |
| Dimensions (L × W × H)     | 280mm × 200mm × 220mm / 11in × 7.9in × 8.7in   |        |        |                   |
| Charging Temperature       | 0°C to 40°C / 32°F to 104°F                    |        |        |                   |
| Discharging Temperature    | -20°C to 40°C / -4°F to 104°F                  |        |        |                   |
| Storage Temperature        | -20°C to 40°C / -4°F to 104°F                  |        |        |                   |
| Working Humidity           | 10% to 90%                                     |        |        |                   |
| AC Output                  |                                                |        |        |                   |
| Power                      | 700W Max.                                      |        |        |                   |
| Voltage                    | 100VAC                                         | 120VAC | 220VAC | 230VAC            |
| Current                    | 7A                                             | 5.8A   | 3.2A   | 3.0A              |
| Frequency                  | 50Hz / 60Hz                                    |        |        |                   |
| DC Output                  |                                                |        |        |                   |
| Cigarette Lighter Port × 1 | 12V / 10A                                      |        |        |                   |
| USB-A × 1                  | 5V / 3A                                        |        |        |                   |
| USB-C × 2                  | 5 / 9 / 12 / 15 / 20V, 3A; 20V / 3.25A         |        |        |                   |
| AC Input                   |                                                |        |        |                   |
| Voltage                    | 100VAC                                         | 120VAC | 220VAC | 230VAC            |
| Max. Current               | 8A                                             | 8A     | 4.5A   | 4.3A              |
| Frequency                  | 50Hz / 60Hz                                    |        |        |                   |
| UPS                        | Switching time ≤20ms                           |        |        |                   |
| Charging Power             | 580W Max. (0%-80% in 45 minutes @ 25°C / 77°F) |        |        |                   |
| DC Input                   |                                                |        |        |                   |
| Interface                  | XT60PM-M                                       |        |        |                   |
| Power                      | 200W Max.                                      |        |        |                   |
| Current                    | 8.5A Max.                                      |        |        |                   |
| Voltage                    | 12V to 28V                                     |        |        |                   |

## 12.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.

| Error Code | Description                              | Troubleshooting                                                                                 |
|------------|------------------------------------------|-------------------------------------------------------------------------------------------------|
| E001       | Inverter overload                        | Check if the power consumption of your devices is too high. Reduce the load if necessary.       |
| E002       | Temperature protection                   | Check if any of your devices are overheating. Allow them to cool down before use.               |
| E003       | Inverter short circuit                   | Check if the power consumption of your devices is too high. Reduce the load if necessary.       |
| E004       | Output failure                           | Ensure the output voltage is within $\pm 10\%$ of the rated voltage or proper grid connection.  |
| E016       | Fan failure                              | Check if the fan is blocked, unplugged, or not functioning properly. Ensure proper ventilation. |
| E033       | PV overvoltage                           | Make sure the PV input voltage is within the range of 12V to 28VDC.                             |
| E065       | Cigarette lighter output short circuit   | Check if the power consumption of your devices is too high. Reduce the load if necessary.       |
| E068       | Cigarette lighter output overtemperature | Wait for the device connected to the cigarette lighter port to cool down.                       |
| E085       | Charging temperature too high            | Wait for the unit to cool down before charging.                                                 |
| E086       | Charging temperature too low             | Make sure the unit is placed in an ambient temperature of 0°C-40°C (32°F-104°F).                |
| E087       | Discharging temperature too high         | Wait for the unit to cool down before discharging.                                              |
| E088       | Discharging temperature too low          | Make sure the unit is placed in an ambient temperature of 0°C-40°C (32°F-104°F).                |
| E113       | Grid overvoltage                         | Check if the grid voltage is too high. Contact your local power provider if necessary.          |
| E114       | Grid undervoltage                        | Check if the grid voltage is too low. Contact your local power provider if necessary.           |
| E115       | Grid overfrequency                       | Check if the grid frequency is too high. Contact your local power provider if necessary.        |
| E116       | Grid underfrequency                      | Check if the grid frequency is too low. Contact your local power provider if necessary.         |
| E117       | Grid oscillation                         | Disconnect the grid input and contact BLUETTI support for further assistance.                   |
| Others     | /                                        | Please contact BLUETTI support for assistance.                                                  |

# Appx. 1 Estimating Operation Time

To estimate the operation time of the AC50B, consider the load you're applying:

- For high-power loads (above 300W):  
Operation time = Battery Capacity (Wh) x DoD x  $\eta$  ÷ Load Power
- For small-power loads (below 300W):  
Operation time = Battery Capacity (Wh) x DoD x  $\eta$  ÷ (Load Power + AC50B Self-consumption)

 **Note:**

DoD refers to the depth of discharge. AC50B works at 90% DoD for longer battery life.  
 $\eta$  is the conversion efficiency of the inverter, typically over 85% for AC50B.  
The self-consumption of AC50B is approximately 10W

**E.g.** If you have a 40W refrigerator, you can run it for about 6.8 hours.

Operation time = 448Wh × 90% × 85% ÷ (40W + 10W) ≈ 6.8 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 FAQs

**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 AC50B (700W), 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 AC50B.

**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 AC50B comes with the premium LiFePO<sub>4</sub> battery and proprietary Battery Management System to ensure that it can charge and discharge at the same time.

**Q4:** What is ECO Mode and can I turn it off?

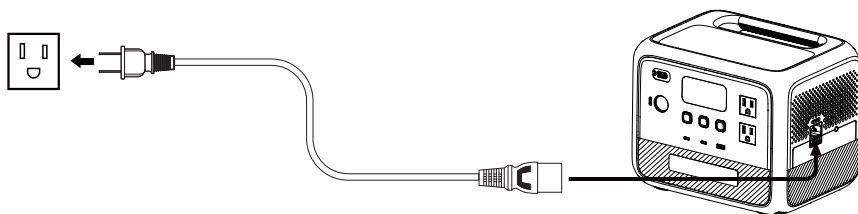
**A:** ECO Mode is a power-saving mode that is enabled by default. When operating on ECO Mode, the AC / DC output will automatically turn off if the AC50B is bearing low (default 10W for AC, 5W for DC) or no load for a while. You can adjust these thresholds using the app if needed. When connecting a small power device, disable the ECO Mode for a successful and uninterrupted charging experience.

**Q5:** Why is the charging power often too low?

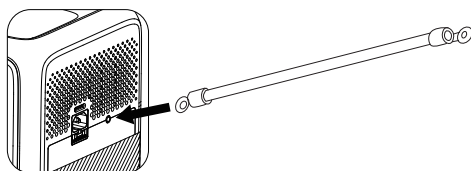
**A:** AC50B has a built-in intelligent BMS that automatically adjusts the charging power in response to the battery temperature and SoC, thus protecting the battery and extending its service life.

## Appx. 3 Grounding Guidelines

Only use the grounding terminal when the AC50B is connected to the home grid using a 2-pin cable, or if the wall outlet's grounding is ineffective, and the connected device features a metal case.

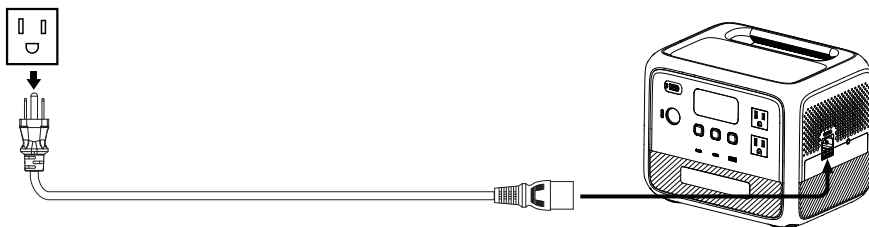


Use a cable with OT terminals for grounding. Connect one end to the grounding terminal with a grounding screw and the other end to the wall outlet or home distribution box ground.



The grounding terminal is unnecessary in the following scenarios.

- When connecting the AC50B to the wall outlet with a 3-pin cable, it's already grounded effectively.



- When the AC50B is not connected to the grid, touching its case won't cause an electrical shock.

## Appx. 4 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. 5 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.

L'émetteur/récepteur exempt de licence contenu dans le présent appareil est conforme aux CNR d'Innovation, Sciences et Développement économique Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes:

- (1) L'appareil ne doit pas produire de brouillage;
- (2) L'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

**Déclaration d'exposition aux RF :** L'équipement est conforme aux limites d'exposition aux rayonnements IC définies pour les environnements non contrôlés. Cet équipement doit être installé et utilisé avec une distance minimale de 20 cm entre le radiateur et votre corps.

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

This Class B digital apparatus complies with Canadian ICES-003.

## **Appx. 6 Consignes de sécurité**

Lisez ce manuel pour obtenir des instructions sur l'utilisation correcte et des informations sur la sécurité du produit. Les consignes de sécurité fournies dans le présent document sont données à titre d'exemple et comprennent, sans s'y limiter, celles qui sont énumérées dans le présent manuel. L'utilisation réelle doit être conforme à toutes les normes de sécurité applicables. Si vous avez des questions, n'hésitez pas à contacter le service d'assistance de BLUETTI ou votre revendeur local.

### **1) Déclaration**

Pour garantir un fonctionnement sûr, il est essentiel d'observer et de respecter les conditions suivantes :

- Utilisez ou stockez toujours le produit dans les conditions spécifiées dans ce manuel.
- L'installation et les conditions ambiantes doivent être conformes aux exigences des normes internationales, nationales ou régionales applicables.
- éviter le démontage non autorisé, le remplacement des composants ou la modification des codes logiciels.

### *BLUETTI n'est pas responsable des circonstances suivantes :*

- Les dommages résultant d'événements de force majeure tels que les tremblements de terre, les incendies, les tempêtes, les inondations ou les coulées de boue.
- Dommages causés par le transport du client.
- Dommages résultant de conditions de stockage inadéquates telles que spécifiées dans le manuel.
- Dommages causés par la négligence du client, une mauvaise utilisation ou des actions intentionnelles.
- Dommages au système causés par des tiers ou des clients, y compris, mais sans s'y limiter, une mauvaise manipulation et une installation non conforme aux instructions de ce manuel.
- Le produit ne répond pas aux besoins d'alimentation des équipements dépendants de l'énergie dans des secteurs critiques tels que l'énergie atomique, l'aviation, la médecine et d'autres domaines où la sécurité est primordiale. BLUETTI n'assume aucune responsabilité pour les incidents impliquant la sécurité des personnes, les incendies, les dysfonctionnements de l'équipement ou toute autre conséquence négative résultant de l'utilisation de ce produit avec un tel équipement.
- Dommages causés par des ajustements, des changements ou le retrait d'étiquettes en violation de ce manuel.
- Ce produit n'est pas destiné à être utilisé 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, l'équipement médical et d'autres appareils similaires. BLUETTI ne peut être tenu responsable de toute perte de données, de tout dommage matériel ou de toute blessure personnelle résultant de la violation de cette exigence.

## **2) Exigences générales**

### INSTRUCTIONS RELATIVES AU RISQUE D'INCENDIE, DE CHOC ÉLECTRIQUE OU DE BLESSURE DES PERSONNES

 **AVERTISSEMENT** - Lors de l'utilisation de ce produit, des précautions de base doivent toujours être prises, notamment les suivantes:

- Lisez toutes les instructions avant d'utiliser le produit.
- Pour réduire le risque de blessure, une surveillance étroite est nécessaire lorsque le produit est utilisé à proximité d'enfants.
- Ne mettez pas vos doigts ou vos mains dans le produit. N'insérez pas d'objets étrangers dans les orifices du produit.
- L'utilisation d'un accessoire non recommandé ou vendu par le fabricant peut entraîner un risque d'incendie, d'électrocution ou de blessure.

- 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.
- N'utilisez pas un bloc-batterie ou un appareil endommagé ou modifié, car ils peuvent avoir un comportement imprévisible et provoquer un incendie, une explosion ou des blessures.
- Ne pas utiliser l'appareil avec un cordon ou une fiche endommagé(e), ou un câble de sortie endommagé(e).
- 'essayez pas de remplacer la batterie interne ou tout autre composant du produit par quelqu'un d'autre que le personnel autorisé. Il n'y a pas de composants réparables par l'utilisateur final. Ne démontez pas l'appareil, confiez-le à un technicien qualifié en cas de réparation ou d'entretien. Un réassemblage incorrect peut entraîner un risque d'incendie ou d'électrocution.
- Pour réduire le risque d'électrocution, débranchez l'appareil de la prise de courant avant de procéder à toute opération d'entretien.
- **AVERTISSEMENT - RISQUE DE GAZ EXPLOSIFS.** Pour réduire le risque d'explosion de la batterie, suivez ces instructions et celles publiées par le fabricant de la batterie et le fabricant de tout équipement que vous avez l'intention d'utiliser à proximité de la batterie. Examinez les marques d'avertissement apposées sur ces produits et moteurs.
- **PRÉCAUTIONS PERSONNELLES**
  - a. Portez une protection complète des yeux et des vêtements. évitez de toucher les yeux lorsque vous travaillez à proximité de la batterie.
  - b. Ne fumez jamais et ne laissez jamais d'étincelle ou de flamme à proximité de la batterie ou du moteur.
  - c. Soyez très prudent afin de réduire le risque de chute d'un outil métallique sur la batterie. Cela pourrait provoquer une étincelle ou un court-circuit de la batterie ou d'autres pièces électriques, ce qui pourrait entraîner une explosion.
- Lorsque vous chargez la batterie interne, travaillez dans un endroit bien ventilé et ne limitez en aucun cas la ventilation.
- Dans des conditions abusives, du liquide peut être éjecté de la batterie ; évitez tout contact. En cas de contact accidentel, rincer à l'eau. Si le liquide entre en contact avec les yeux, consulter immédiatement un médecin. Le liquide éjecté de la batterie peut provoquer des irritations ou des brûlures.
- N'exposez pas le produit au feu ou à des températures excessives. L'exposition au feu ou à une température supérieure à 130°C (266°F) peut provoquer une explosion.
- Confiez l'entretien à un réparateur qualifié qui n'utilisera que des pièces de rechange identiques. Cette précaution permet de garantir la sécurité de l'appareil.
- N'empilez rien sur le produit lorsqu'il est stocké ou utilisé. Ne déplacez pas l'appareil lorsqu'il fonctionne, car les vibrations et les chocs soudains peuvent entraîner de mauvaises connexions avec le matériel à l'intérieur.

- En cas d'incendie, utilisez uniquement un extincteur à poudre sèche adapté au produit.
- **AVERTISSEMENT - RISQUE DE CHOC ÉLECTRIQUE.** N'utilisez jamais le produit pour alimenter des outils électriques afin de couper ou d'accéder à des pièces ou des câbles sous tension, ou à des matériaux pouvant contenir des pièces ou des câbles sous tension, tels que les murs d'un bâtiment, etc.
- Le port de l'allume-cigare, classé PS3 selon la norme IEC 62368-1, doit prendre en compte les mesures de sécurité incendie des appareils ou accessoires connectés (tels que les boîtiers résistants au feu).

### 3) Instructions de mise à la terre

Lorsque vous raccordez ce produit au réseau électrique, veillez à ce qu'il soit correctement mis à la terre pour des raisons de sécurité. La mise à la terre réduit le risque de choc électrique en cas de dysfonctionnement. Le cordon d'alimentation CA est équipé d'une fiche de mise à la terre, qui doit être insérée dans une prise de terre correctement installée, conformément aux codes et réglementations 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 si vous avez des doutes sur 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) Exigences en matière de manutention

Pendant le transport ou le stockage, veillez à ne pas faire tomber, heurter violemment ou incliner le produit, car cela pourrait entraîner des dommages internes. Si nécessaire, utilisez une assistance mécanique telle que des chariots ou des établis à hauteur réglable pour assurer une manipulation sûre.

#### Nombre de personnes recommandé en fonction du poids du produit

| Le poids                     | Nombre de personnes |
|------------------------------|---------------------|
| <18kg (39.7lbs)              | 1                   |
| 18kg-32kg (39.7lbs-70.5lbs)  | 2                   |
| 32kg-55kg (70.5lbs-121.3lbs) | 3                   |
| >55kg (121.3lbs)             | 4 ou un chariot     |

### 5) Instructions de stockage

- Lorsque le SoC tombe à 5 %, rechargez immédiatement le produit.
- Avant de ranger le produit, chargez-le entre 40 % et 60 % de SoC pour le maintenir dans un état optimal. En outre, éteignez le produit et débranchez toutes les connexions électriques.

- Conservez 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 dans une plage de température allant de -20°C à 40°C ( -4°F à 104°F). Cependant, si la durée de stockage dépasse un mois, il est recommandé de maintenir une température de stockage idéale d'environ 30°C (86°F).
- Effectuez un cycle complet du produit tous les 3 mois pour préserver la santé de la batterie. Il n'est PAS recommandé de stocker le produit pendant des périodes prolongées, car cela pourrait affecter ses performances et sa durée de vie globale.

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

- Arrêter immédiatement.
- Rechargez l'appareil dans les 48 heures.
- Conservez le produit à une température ambiante comprise entre 5 °C et 35 °C pendant 6 heures avant de le recharger. Il est recommandé de charger le produit à l'aide d'une source de courant alternatif. Si vous le chargez à l'aide de l'énergie solaire, assurez-vous que votre système solaire fournit une puissance supérieure à 100 W.

  Le symbole affiché a pour but de vous rappeler de lire les instructions contenues dans la documentation accompagnant le produit avant de l'utiliser et de l'entretenir.

- Branchez le produit sur une prise de courant avec mise à la terre à l'aide du cordon d'alimentation fourni.
- La prise de courant doit être installée à proximité du produit et facilement accessible pour des raisons de sécurité.
- Ne vous débarrassez jamais d'une pile en la jetant au feu ou dans un four chaud, ou en l'écrasant ou en la coupant mécaniquement, car cela pourrait la faire exploser.
- évitez de laisser les piles dans des environnements à très haute température, car cela peut entraîner une explosion ou une fuite de liquide ou de gaz inflammable.
- La batterie soumise à une pression d'air extrêmement basse peut entraîner une explosion ou une fuite de liquide ou de gaz inflammable.
- Il convient d'attirer l'attention sur les aspects environnementaux de l'élimination des batteries.
- Avant d'installer ou d'utiliser l'appareil, veuillez vous référer aux informations figurant sur le fond extérieur de l'appareil pour obtenir des informations sur l'électricité et la sécurité.

### CONSERVER CES INSTRUCTIONS

 BLUETTI n'est pas responsable des dommages causés à l'équipement par la violation des instructions ci-dessus.

**For more information, please visit:**

Web: <https://www.bluettipower.com>



@ BLUETTI Support

@ BLUETTI Official



@ bluetti\_inc



@bluetti.inc



@bluetti\_official



service@  
bluettipower.com

#### Customer Service

Tel: **800-200-2980** (Monday to Sunday 9:00-17:00)

Email: [sale@bluettipower.com](mailto:sale@bluettipower.com) (Pre-sales),

[service@bluettipower.com](mailto:service@bluettipower.com) (After-sales)

#### SHENZHEN POWEROAK NEWENER CO., LTD.

Add: F19, BLD No.1, Kaider, Tongsha Rd No.168,  
Xili Street, Nanshan, Shenzhen, China

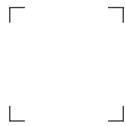
#### USA Company

Company: BLUETTI POWEROAK INC

Add: 6185 S VALLEY VIEW BLVD STE D LAS VEGAS  
NEVADA 89118 United States

FRN: 0033559824





## Certificate

Inspector: \_\_\_\_\_

QC: \_\_\_\_\_

Just Power On

P/N:17.0303.0737-01A1