

EP800

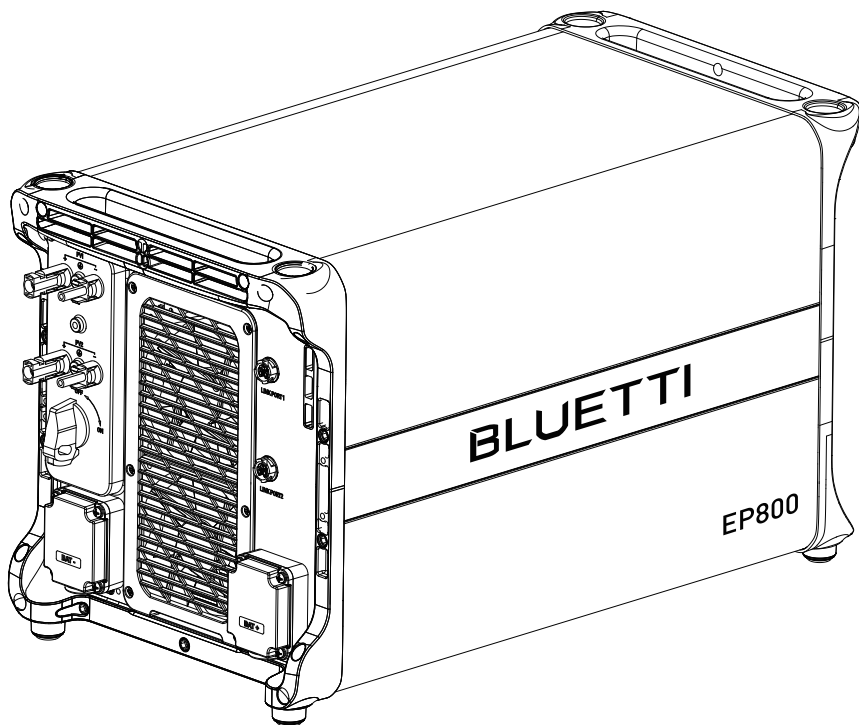
Home Energy Storage System

User Manual V2.4

Please Read This Manual Before Use And Follow Its Guidance.

Keep This Manual For Future Reference.





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.

Instruction

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If you have any questions or concerns about this manual, please contact BLUETTI support for further assistance.

Shenzhen PowerOak Newener Co., Ltd.

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

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

About the Manual

Purpose

This user manual describes the installation, electrical connection, commissioning, maintenance and troubleshooting of EP800 Home Energy Storage System (hereinafter referred to as EP800). **Please read and understand all instructions in this manual before use.**

Target Audience

This manual is intended for:

- Installation, operation, and maintenance technicians
- End-user

Symbol Conventions

This manual uses the following symbols to highlight important information:

| | |
|---|---|
|  | Danger It indicates a hazardous situation which, if not avoided, will result in death or serious injury. |
|  | Warning It indicates a hazardous situation which, if not avoided, could result in death or serious injury. |
|  | Caution It indicates a hazardous situation which, if not avoided, could result in minor or moderate injury. |
|  | Attention It indicates a potentially hazardous situation which, if not avoided, could cause substantial damage to property and the environment. |
|  | Instruction It contains important additional information as well as useful tips for safe, efficient and hassle-free operation of the EP800 energy system. |

Contents

| | | |
|-----|------------------------------------|----|
| 1 | Safety Guideline | 06 |
| 2 | EP800 Home Energy Storage System | 18 |
| 2.1 | Introduction | 18 |
| 2.2 | Working mode | 19 |
| 3 | EP800 Home Energy Storage Inverter | 23 |
| 3.1 | Introduction | 23 |
| 3.2 | Inverter Overview | 23 |
| 3.3 | Interfaces | 24 |
| 3.4 | LED Indicator | 27 |
| 3.5 | Buzzer Alarm | 27 |
| 3.6 | Inverter Cables | 28 |
| 4 | B500 Battery | 29 |
| 4.1 | Introduction | 29 |
| 4.2 | Overview | 29 |
| 4.3 | Interfaces | 30 |
| 4.4 | LED Indicators | 31 |
| 4.5 | Battery Cables | 31 |
| 5 | IoT Controller | 32 |
| 6 | System Installation | 35 |
| 6.1 | Installation Procedure | 35 |
| 6.2 | Preparation | 36 |
| 6.3 | Installation Requirements | 43 |
| 6.4 | Stacking the Units | 45 |
| 6.5 | Install the IoT controller | 47 |
| 6.6 | Electrical Connection | 49 |
| 7 | System Check | 61 |
| 8 | System Maintenance | 63 |
| 9 | System Disposal | 64 |
| 10 | Specifications | 65 |
| 11 | Troubleshooting | 68 |
| 12 | FAQs (Frequently Asked Questions) | 73 |
| 13 | FCC Warning | 78 |

1. Safety Guideline

1.1 Safety Instructions

Read this manual for instructions on the proper use and safety information for the unit. Pay attention to the "Instruction", "Caution", "Warning" and "Danger" symbols in this manual, and follow the instructions carefully to avoid injury or damage.


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.

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

- Always operate or store the equipment in the conditions specified in this manual.
- The installation and ambient conditions must comply with the regulations in the relevant international, national or regional standards.
- Avoid unauthorized disassembly, equipment 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.
- Damages caused by improper handling and installation that do not meet the requirements outlined in the manual.
- Damages resulting from inadequate storage conditions as specified in the manual.
- Hardware or data damage caused by customer negligence, improper operation, or intentional actions.
- System damage caused by third parties or customers.
- Adjustments, changes, or removal of labels in violation of this manual.

| Attention | |
|---|---|
|  | <p>This product is not intended for use with devices that have high-performance requirements for UPS (Uninterruptible Power Supply), including but not limited to data servers, workstations, medical equipment, and similar devices. Our company shall not be liable for any data loss, equipment damage, or personal injury resulting from the violation of this requirement.</p> |


1.2 General Requirements

| | |
|---|---------------|
|  | Danger |
| Follow these guidelines for proper operation. | |

- Do not install, use and maintain the equipment in adverse weather conditions such as lightning, rain, snow and strong breezes (including but not limited to handling and operating the equipment, plugging and unplugging signal connections to outdoor facilities, working at height, outdoor installations, etc.).
- Always turn off the power source before starting any electrical work.
- Do not clean the equipment with water.
- Do not disassemble, modify, tamper with or repair the equipment on your own.
- Regularly inspect the equipment and its accessories for damage or deterioration.
- Use a tester to check for the presence of dangerous voltage before touching any conductor or terminal.
- If the equipment's exterior sustains minor scratches during transportation or use, be aware that these do not impact the equipment's normal operation.
- If the equipment catches fire, your personal safety is paramount. If it's safe to do so, promptly disconnect power at the main distribution box and use a carbon dioxide (CO₂), FM-200, or ABC dry powder fire extinguisher to suppress the fire.
- In case of fire, EVACUATE the building or affected area immediately. Activate the closest FIRE ALARM system and CALL your local emergency phone number.
- Use genuine cables and accessories provided by BLUETTI.
- Keep the equipment away from heat sources or high temperatures, and do not expose it to direct sunlight.
- Do not store the equipment with flammable or explosive materials.
- Make sure the area where you are using the equipment is well ventilated and spacious.
- Do not block or cover the vents of the equipment.
- Use the equipment for its intended purpose and avoid stacking objects on top of it during storage or use.
- Do not move the equipment during operation as the vibrations and shocks associated with movement may cause damage to the internal hardware.

- In case of malfunction, turn off the equipment immediately and contact BLUETTI support or your local BLUETTI dealers if this manual cannot adequately explain the malfunction to you.
- Do not place the equipment on an unstable or inclined surface.
- Do not insert foreign objects into any port and vent of the equipment.
- Keep the system out of the reach of children and pets.
- Do not install the system in areas prone to water accumulation.


Comply with applicable laws and regulations.



| | |
|---|--|
|  | Instruction |
| | <ul style="list-style-type: none"> • The transportation, wiring and maintenance shall comply with all applicable laws, regulations and standards. • User-provided materials and tools required shall meet the requirements specified in applicable laws, regulations and relevant standards. |

1.3 Personnel Requirements

- The installation, commissioning and maintenance should only be performed by trained professionals who obtain an electrical certification, follow proper safety precautions and operating practices.
- To operate BLUETTI equipment, professionals must possess the necessary qualifications and electrical certifications required by local regulatory authorities.

1.4 Installation Safety

| | |
|---|--|
|  | Danger |
| | <ul style="list-style-type: none"> • Avoid working with live electrical components. • Before installation, double check the equipment for any signs of damage or defects to minimize potential risks. • Make sure that the equipment and all associated switches are in the "OFF" position to prevent electric shock. • Do not touch any terminal while the equipment is running, as it may pose a risk of electric shock. |

| | |
|---|--|
|  | <p style="text-align: center;">Warning</p> |
| | <ul style="list-style-type: none"> • The installation should only be performed by qualified professionals or trained personnel. • All cables should be securely connected and meet required specifications. • Do not touch the equipment, as the shell may become hot and pose a risk of burns when it's running. |
|  | <p style="text-align: center;">Attention</p> |
| | <p>Handle the equipment and accessories with care during loading, unloading and transportation.</p> |

1.4.1 General Requirements

- Before starting any work, turn off and isolate all electricity to the property at the main panel.
- Take measures to prevent the electricity from turning back on while working, such as a safety tag and lockout.
- Test the circuit's voltage before proceeding to verify that the course is off.
- After installing the equipment, remove the idle package materials from the site such as cartons, foam, plastic, nylon ties, etc.
- Keep people other than the installation technicians away from the energy storage system.
- When handling equipment and accessories, pack them in their original packaging or other materials to protect them from impact.
- Seal all the wiring ports with fireproof and water-proof materials to prevent possible electric shock or other risks.
- It's prohibited to alter, damage or cover the marking and nameplate of any part of the system.
- Check and make sure all safe guards, including screws and waterproof rings, are in place and properly tightened.
- Position the system on the flat surface and firmly secure it to a wall or other solid objects.
- Use a non-abrasive cloth to clean the equipment and accessories. Do not use water or harsh chemicals.
- Do not make changes or modifications to the equipment's structure, installation sequence, etc.

1.4.2 Anti-static Requirements

- Wear or use personal protective equipment (PPE) or clothing that is appropriate for the work; this may include items such as safety glasses or goggles, or a face shield (with safety glasses or goggles), hearing protection, dust mask, gloves, anti-static bracelet, safety boots or shoes, or rubber boots.
- If you use an anti-static bracelet for electrical connections, make sure the bracelet is properly grounded.

1.4.3 Drilling Requirements

When drilling holes in the wall or on the ground, the following safety measures should be considered.

- Wear goggles and protective gloves at all times.
- Shield and protect the equipment to prevent debris from falling into it and remove all debris after drilling.
- Drill holes on the unit are forbidden, as this may damage the equipment's electromagnetic shielding performance. The metal shavings may cause short circuits on the circuit board.

1.5 Battery Safety

1.5.1 Statement

BLUETTI shall not be liable for equipment abnormality component damage, personal injury property loss or other damage caused by the following reasons:

- Failure to promptly charge the battery after installation and system connection, leading to over-discharge and subsequent damage.
- Inadequate maintenance as instructed in the user manual, includes irregular charging, improper capacity expansion, or prolonged periods of incomplete charging and frequent over-discharging of the battery. If you need expansion, please contact BLUETTI support within 6 months of installation. Do not attempt this on your own.
- Failure to charge the battery as required during storage, resulting in capacity loss or irreparable damage.
- Improper operation or connection errors causing battery short-circuits, damage, drops, or leaks.
- Battery damage caused by operating conditions or external power parameters that do not meet environmental requirements.

- Users or third parties using the battery in ways not specified in the user manual, including using batteries from other brands, using BLUETTI batteries with different rated capacities, or mixing the specified batteries with the aforementioned types.

1.5.2 Installation Requirements

- Do not use batteries with compromised packaging. Make sure the battery switch is in the OFF position.
- Tighten the screws securely and conduct regular checks.
- Prevent the positive and negative terminals of the battery from touching each other or any metal objects to avoid heat generation or electrolyte leakage.
- After installing the equipment, remove unused packing materials such as foam, carton, plastic and excess cables from the equipment area.

1.5.3 General Requirements

- Do not expose the battery to high temperatures or around heat sources, such as sunlight, fire, transformers and heaters. If the battery overheats, it may cause a fire.
- To avoid leakage, overheating or fire, do not disassemble, modify or damage the battery. For example, do not insert foreign objects into the battery or place the battery in water or other liquids.
- If any part of the battery is immersed in water, do not touch the battery to avoid electric shock. Please contact the battery recycling company for handling.
- Do not short-circuit the battery terminals. A short circuit can cause a fire.
- Never use damaged batteries or components. Improper use or misuse of damaged batteries or components can damage your device or injure yourself as a result of battery fluid leakage, fire, overheating, or explosion.
- Do not perform welding or grinding work around the battery to prevent fire caused by sparks or arcs.
- Do not store damaged batteries near undamaged ones, as damaged batteries may leak flammable liquid or gas. Only qualified professional or trained personnel is allowed to approach damaged batteries.
- The fire hazard of lithium-ion battery energy storage system is high. Before handling batteries, consider the following risks:
 - (a) Battery thermal runaway may produce flammable and harmful gases such as CO and HF. Vapors from burning batteries may irritate eyes, skin and throat.
 - (b) The concentration of flammable gases from battery thermal runaway may lead to deflagration and explosion.

(c)The battery electrolyte is flammable, toxic and volatile.

- Avoid contact with spilled liquid or gas if the battery leaks chemicals or odors. Do not approach the battery and contact a professional for disposal. Professionals must wear goggles, rubber gloves, gas masks and protective clothing.
- Electrolyte is corrosive and can cause irritation and chemical burns. If you come into direct contact with battery electrolyte, do the following:
 - (a)Inhalation of Vapors: Evacuate contaminated area, get fresh air immediately, and seek medical attention.
 - (b)Eye Contact: Immediately flush eyes with water for at least 15 minutes, do not rub eyes, and seek medical attention immediately.
 - (c)Skin Contact: Immediately wash the infected area with soap and water and seek medical attention immediately.
 - (d)Ingestion: Seek medical attention immediately.
- Use the battery within the temperature range specified in this manual.
- Do not expose the battery to humidity or corrosives, as this may cause the battery to rust, corrode and leak chemicals.
- Do not turn the battery upside down or tilt it.
- Do not ignore warning signs on parts or products made by the manufacturer.
- If the battery exceeds its warranty period, please cease its usage and properly dispose of it according to your local regulations.


Fire Emergency Measures



Danger

- In case of fire, power off the system if it is safe to do so.
- Use carbon dioxide, FM-200, or ABC dry powder fire extinguisher.
- Remind firefighters to avoid contact with components carrying dangerous voltage to prevent the risk of electric shock.
- Overheating may cause the battery to deform and leak corrosive electrolytes or toxic gas. Keep away from batteries to avoid skin irritation and chemical burns.

Battery Drop Emergency Measures

| | |
|---|---|
|  | Danger |
| | <ul style="list-style-type: none">• If the battery pack is dropped, violently impacted or tilted during installation, internal damage may occur. So do not use such battery packs to avoid safety risks such as battery leakage and electric shock.• If the dropped battery is not obviously deformed or damaged, and there is no abnormal smell, smoke or fire, please contact a professional to transfer the battery to an open and safe place, and contact BLUETTI support.• If the battery is obviously damaged or there is an abnormal smell, smoke or fire, please evacuate immediately, and contact a professional or BLUETTI support. Professionals can use fire extinguishing facilities to extinguish the fire under safety protection. |

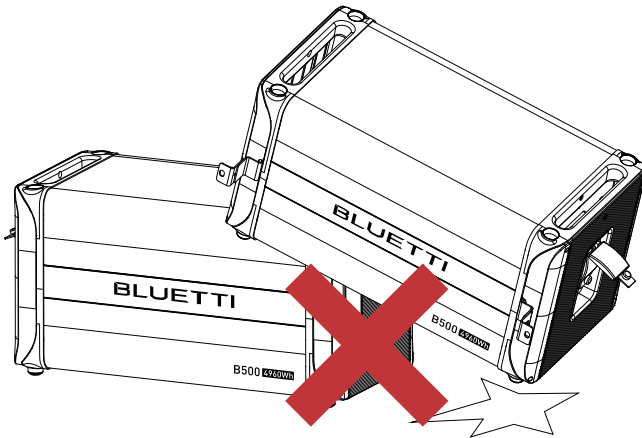


Fig. 1-1

1.5.4 Battery Disposal

- Safely and carefully dispose of used batteries by the provisions of local laws and regulations. Avoid treating batteries as regular household waste, as improper disposal can lead to environmental pollution.
- If you find a leaking or damaged battery pack, contact us immediately or an authorized battery recycling partner for expert assistance.
- If the battery pack reaches the end of its lifespan, please contact the battery recycling company for further assistance.
- To maintain battery integrity, do not expose used batteries to high temperatures or direct sunlight.

- Protect used batteries from moisture and corrosive substances to avoid potential hazards.

1.6 Electrical Safety

1.6.1 General Requirements

- Make sure that all electrical connections comply with your local electrical standards.
- User-prepared cables should adhere to local laws and regulations.
- When performing electrical operations, use insulated tools for safety.
- Wear anti-static gloves during work and avoid clothing that generates static electricity.


1.6.2 Grounding Requirements

- Always make the ground connection first and disconnect it last when installing or removing the equipment.
- Take care not to damage the grounding conductor.
- Before operating the equipment, always confirm that it is securely and reliably grounded.

1.6.3 Wiring Requirements

- Keep cables at least 1.18in/30mm away from the heating devices or heat sources to prevent damage caused by excessive heat.
- Group cables of the same type together to minimize electromagnetic interference. Additionally, ensure that cables of different types should be laid at least 1.18in/30mm apart without intertwining and crossing.
- Cables used in the PV grid-connected power generation system must be firmly connected, well insulated, and has proper specifications.
- Take necessary measures to protect cables when passing through pipes or holes.
- Safe Construction Practices:
 - (a) All cable installations should be carried out in environments above 0°C to maintain cable flexibility and integrity. Handle the cable with care, especially when working in low temperature environments.
 - (b) If the cable has been stored below 0°C, allow it to acclimate to room temperature for a minimum of 24 hours before installation.

1.7 Maintenance Requirements

| | |
|---|---------------|
|  | Danger |
| <p>The equipment generates high voltage during operation, which can cause electric shock leading to severe injury, property damage, or even death. Please strictly follow the safety instructions provided in the user manual and adhere to relevant electrical safety codes.</p> | |

To ensure your safety while maintaining the system, please follow the following steps:

Step1: Disconnect the power grid.

Step2: Disconnect the battery and solar systems.

Step3: Wait at least 30 minutes until the equipment is discharged.

- Follow the anti-static requirements to prevent electric shock and other potential hazards.
- For any maintenance needs, please contact your local authorized service center.
- Place temporary warning signs or erect fences to prevent unauthorized access to the maintenance site.
- To ensure personal safety and proper equipment usage, establish a reliable grounding connection before use.
- Wear personal protective equipment (PPE) during operation. If there is a possibility of personal injury or equipment damage, stop operation immediately, and take appropriate protective measures.
- Use tools correctly to avoid injury or damage to equipment.
- Do not touch energized equipment.
- Do not clean the electrical components inside and outside the cabinet with water.
- Do not stand, lean on or sit on top of the equipment.
- Do not damage the equipment modules.
- When the battery fails, avoid touching the battery and be careful of high temperature.
- Do not disassemble or damage the battery. The released electrolyte is harmful to your skin and eyes. Avoid contact with electrolyte.
- Batteries can cause electric shock and high short-circuit current. When using batteries, please note the following:
 - (a) Remove any metal objects, such as watches and rings, from yourself.
 - (b) Use tools with insulated handles.
 - (c) Wear rubber gloves and boots.

(d) Avoid the metal objects to short circuit battery terminals.

(e) Do not place tools or metal parts on top of the battery.

Disconnect the charging power source before connecting or disconnecting battery terminals.

1.8 Transportation Requirements

All components of the EP800 energy storage system leave the factory in optimum electrical and mechanical state. It's necessary to use original or appropriate packaging to ensure the product safety during transportation. When you receive the product, inspect for any kind of damage and note the damage on the delivery receipt. The shipping company will be responsible for any damage or loss of the product during transportation. If necessary, please contact us for further assistance.

1.9 Storage Requirements

- When not using the EP800 for extended periods of time, power it off and remove all electrical connections.
- Charge the system to 40%-60% SoC before storage.
- In order to keep the battery healthy, fully charge and discharge the system every 3 months.
- Make sure the place where to store the system is well ventilated and spacious.
- Do not store the system in flammable or explosive environments.
- It is recommended to clean the surface frequently with a dry soft cloth.
- Keep the system out of the reach of children and pets.
- Do not stack anything on top of the equipment during storage.
- Avoid exposing the equipment to rain, humidity or direct sunlight.
- For details of storage temperature, please refer to Chapter 10. Specifications.







1.10 Handling Requirements

Table 1-1 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 |

1.11 Label Description

Table 1-2 Labels and Description

| Label | Name | Description |
|---|--------------------------|--|
|  | Discharge delay | There is still residual voltage after the equipment is powered off. Please wait at least 5 minutes until the equipment is discharged. |
|  | Electrical shock warning | The system generates high voltage during operation. The installation, commissioning, and maintenance should only be performed by qualified professionals or trained personnel. |
|  | Warning | Be careful. Hazards may occur during operation. |
|  | Read instruction | Please read the instruction carefully before operating the energy storage system. |
|  | This side up | It must be transported, handled and stored in the correct orientation. The arrow always faces upwards. |
|  | Weight | The inverter and battery packs are quite heavy and need to be carried by several people. |



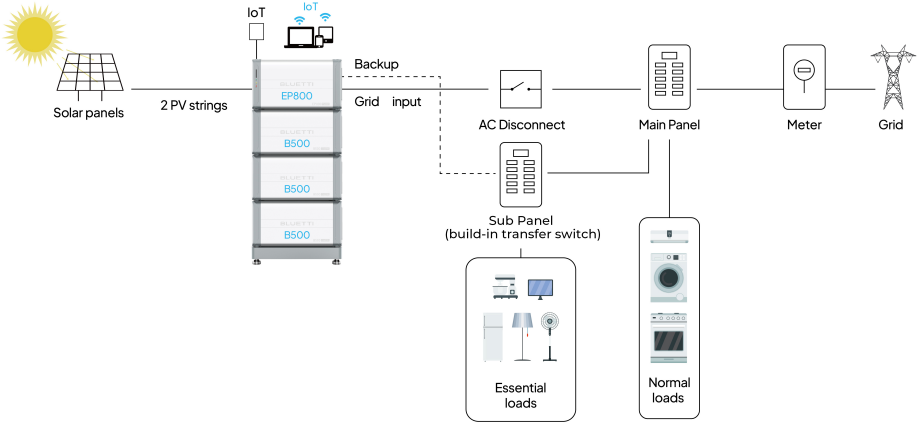
Attention

- The symbols on the box contain important information for safe operation.
- The nameplate on the side of the box contains important parameter information related to the product.

2. EP800 Home Energy Storage System

2.1 Introduction

EP800 is a Home energy storage power product that integrates PV application, off-grid inverter, UPS function and LiFePO₄ battery storage extension.



Note: This sketch only for reference, details according to the needs of customer and must follow the NEC code.

Table 2-1

| Component | Description | Note |
|----------------|--|---|
| EP800 Inverter | An energy storage photovoltaic grid-connected inverter to handle photovoltaic input, grid-connected charging, and discharging. | Please refer to Chapter 3. EP800 Home Energy Storage Inverter for details. |
| B500 Battery | LiFePO ₄ battery pack, used to store energy and power the EP800. | Please refer to Chapter 4. B500 Battery for details. |
| IoT Controller | A component to facilitate seamless near-end communication (Bluetooth) or remote communication (WiFi) with EP800 inverter. | Please refer to Chapter 5. IoT Controller for details. |
| BLUETTI App | An application to monitor and control the EP800. | Please refer to EP800 Home Energy Storage System BLUETTI App User Manual for details. |
| Rapid Shutdown | A component to disconnect the DC input from the solar system. A component to disconnect the AC input from the grid. | |
| Sub Panel | A component that essential loads connect to. Automatically switches to EP800 to power essential loads during a power outage. Manually switches to the grid for load power in case of an EP800 malfunction. | Please purchase it separately and contact BLUETTI support before making the purchase. |

2.2 Working mode

The EP800 offers three operating modes to accommodate various energy plans. You can choose the one that best suits your home power supply configuration.

• Self-consumption

In this mode, the EP800 prioritizes the direct consumption of solar energy to meet immediate household energy needs. Any surplus solar energy generated during the day is intelligently stored in the battery for usage during peak hours or in the event of a power outage. With such a strategy, the EP800 ensures an efficient and reliable power supply, reducing reliance on the grid and promoting energy independence.

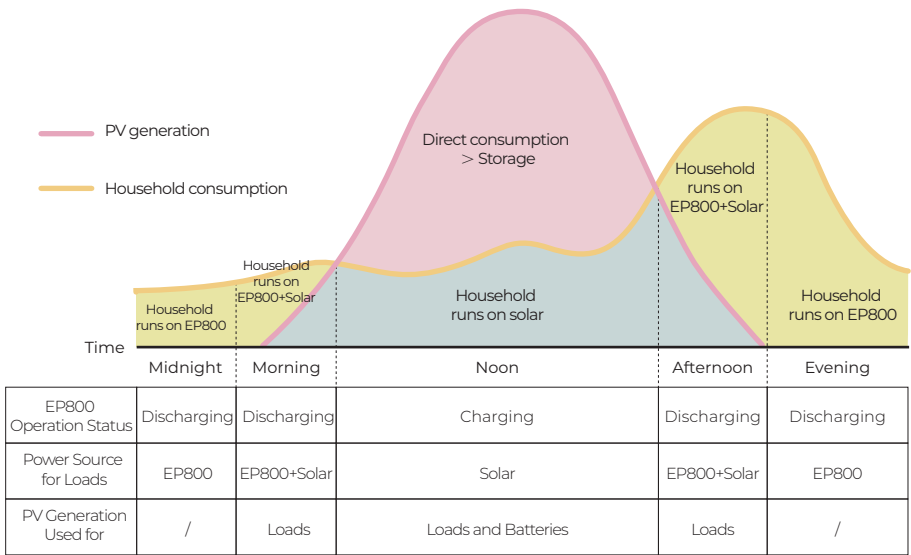


Fig. 2-1

• Backup

In this mode, the EP800 acts as a reliable home backup power source that only power from battery when the grid fails. It prioritizes charging its batteries from solar energy over the grid, making it an eco-friendly and sustainable choice for your home energy needs. With ample energy reserves, it provides a seamless power supply, perfect for areas with unreliable grids.

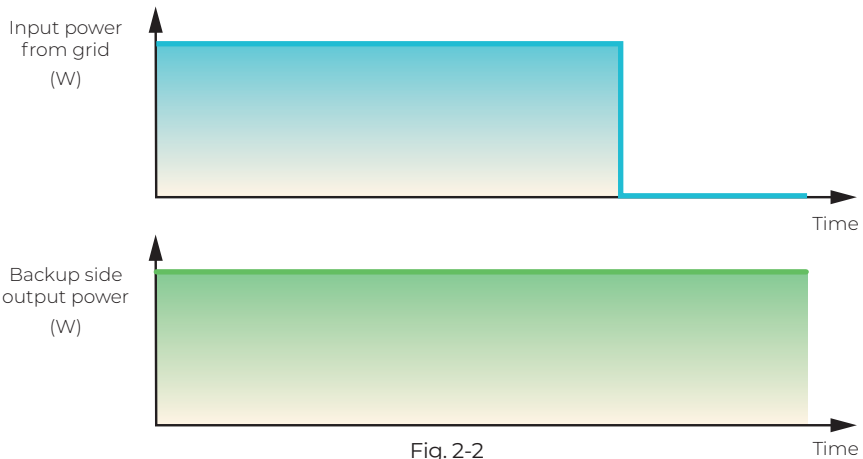


Fig. 2-2

• Time of Use

In this mode, you can customize the charge and discharge periods as well as charging power according to your specific requirements. During the charge period, the EP800 will draw power from the grid, usually making use of off-peak tariff time windows (TOU) when electricity rates are lower, to replenish its energy storage.

Moreover, you can set the battery State of Charge (SoC) limits to regulate the amount of power that the EP800 draws from the grid, while reserving the remaining capacity in the battery for solar energy supplement.

You can set this mode via the BLUETTI App. For details, please refer to EP800 Home Energy Storage System BLUETTI App User Manual.

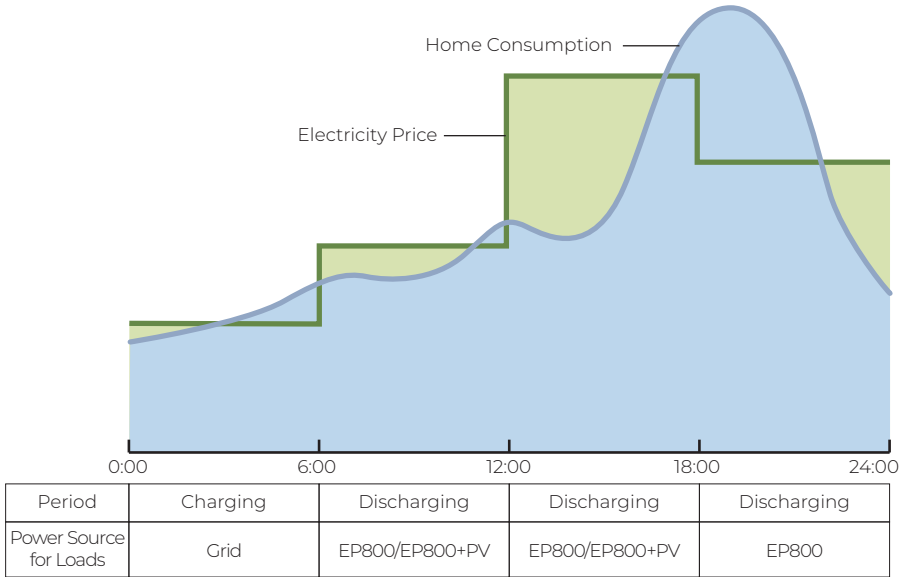


Fig. 2-3

• Custom Mode

In this mode, you can customize all of the above mode settings to your preference on the BLUETTI App.

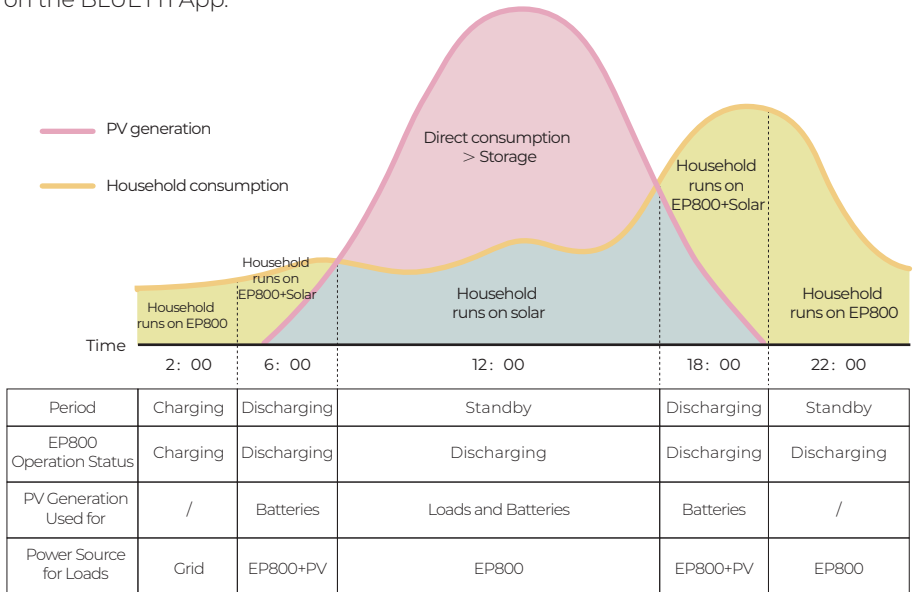


Fig. 2-4

Note: Mode availability may vary by version.

3. EP800 Home Energy Storage Inverter

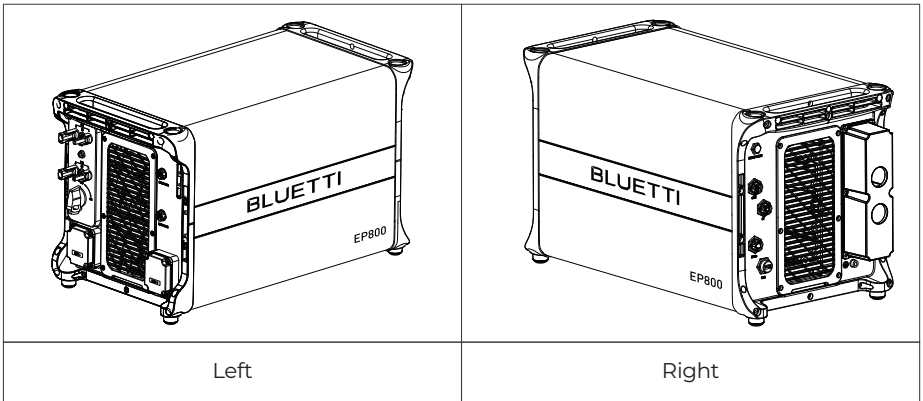
3.1 Introduction

EP800 inverter is an integrated split-phase photovoltaic energy storage inverter that can handle photovoltaic (PV) input, grid-connected charging. It is an important part of the home energy storage system.

3.2 Inverter Overview

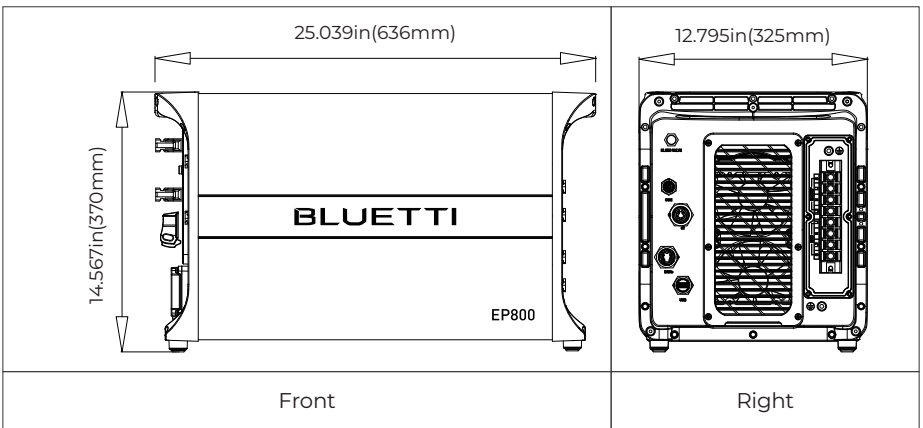
3.2.1 Appearance

Table 3-1



3.2.2 Dimensions

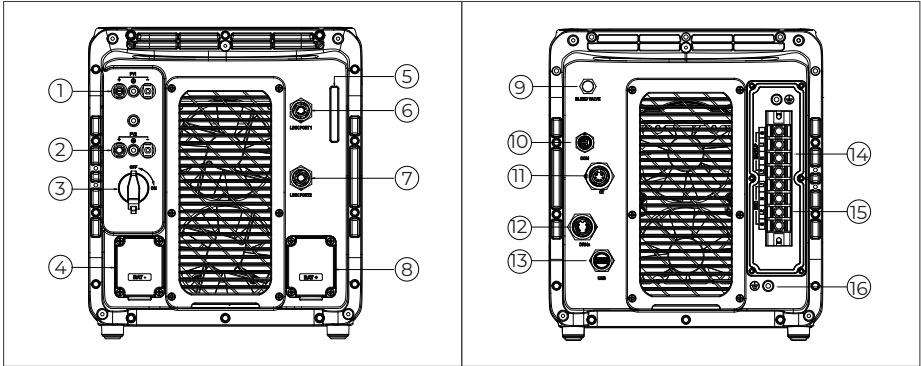
Table 3-2 (Unit: in/mm)



3.3 Interfaces

3.3.1 Interface Description

Table 3-3





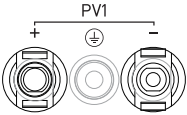
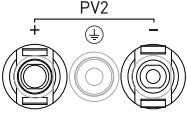
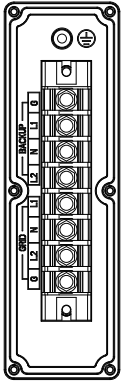
Left

Right

| No. | Name | No. | Name |
|-----|---------------|-----|-----------------------------|
| 1 | PV1 Input | 9 | BLEED VALVE |
| 2 | PV2 Input | 10 | COM |
| 3 | DC Switch | 11 | CT |
| 4 | BAT- Terminal | 12 | DRMs Port (Generator Input) |
| 5 | LED Indicator | 13 | USB Port |
| 6 | LINK PORT1 | 14 | BACKUP Terminal |
| 7 | LINK PORT2 | 15 | GRID Terminal |
| 8 | BAT+ Terminal | 16 | GND Terminal (Grounding) |

3.3.2 Wiring Interface Instructions

Table 3-4

| Terminal | Description | Type of Cable Required | Cable specification | |
|--|---|---------------------------------|---------------------------------|----------------------------|
|  <p>BAT+</p> | BAT+: to the battery BAT+ terminal | Standard accessories | | |
|  <p>BAT -</p> | BAT-: to the battery BAT- terminal | Standard accessories | | |
|  <p>PV1</p> | PV1+: to the positive terminal of solar panel PV1-: to the negative terminal of solar panel PV1 PE: PV1 grounding | Outdoor multi-core copper cable | Minimum wire size: 12AWG | |
|  <p>PV2</p> | PV2+: to the positive terminal of solar panel PV2-: to the negative terminal of solar panel PV2 PE: PV2 grounding | Outdoor multi-core copper cable | Minimum wire size: 10AWG | |
|  | BACKUP | G | Outdoor multi-core copper cable | Minimum wire size: 6AWG |
| | | L1 | | |
| | | N | | |
| | | L2 | | |
| | GRID | L1 | Outdoor multi-core copper cable | Minimum wire size: 6AWG |
| | | N | | |
| | | L2 | | |
| | | G | | |

3.3.3 USB

| | |
|---|--|
|  | Warning |
| | Only for USB drive access, not for USB charging. |

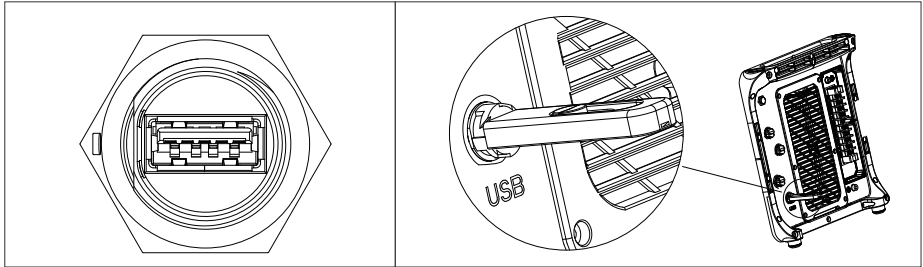


Fig. 3-1

The port is used for EP800 inverter firmware upgrade.

The USB drive should be formatted as FAT32 with no more than 32G in size.

3.3.4 DRMs Port

The EP800 offers the flexibility to be upgraded for solar energy storage, allowing you to harness more power form the sun. Additionally, it features a DRM interface specifically designed to serve as a convenient ignition reserve port for generators, ensuring a seamless integration of backup power solutions.

Table 3-5

| PIN | Category | Definition | Specifications |
|-----|----------|---|--|
| 1 | GEN COM | Single-pole & double-throw relay common terminal | External DC input limit: 30VDC / 3A. (For generator input) |
| 2 | GEN NC | Single-pole & double-throw relay normally closed output | |
| 3 | GEN NO | Single-pole & double-throw relay normally open output | |
| 4 | INS GND | Signal ground | / |
| 5 | 485-A3 | A: RS485 differential signal + | Connect to meter A2 |
| 6 | 485-B3 | B: RS485 differential signal - | Connect to meter B2 |

3.3.5 LINK PORT 1 & LINK PORT 2

Table 3-6

| Interface | Function | Note |
|-------------|----------------------------|--------------------------------|
| Link Port 1 | Connect the IoT controller | Refer to Fig. 6-8 for details. |
| Link Port 2 | Connect the battery pack | |

3.4 LED Indicators

Table 3-9



Fig. 3-2

| System Status \ LED | Green | Yellow | Red |
|---------------------|-------|--------|-----|
| Run | ON | OFF | OFF |
| Run +Alarm | ON | ON | OFF |
| Fault | OFF | OFF | ON |
| Alarm and fault | OFF | ON | ON |

3.5 Buzzer Alarm

When a fault occurs, the buzzer emits a series of 5 beeps. Each beep lasts for 2 seconds, with a 3-second interval between each beep.

Note: The buzzer alarm can be turned off in the BLUETTI App.




Table 3-10 Fault Code

| Fault Code | Description | Troubleshooting |
|------------|---|---|
| B005. | Hardware BUS overvoltage | Turn off the inverter and wait 30 minutes to restart it. If the symptom persists, please contact the BLUETTI support. |
| B006. | Hardware BUS2 overvoltage | |
| B007. | Hardware Battery overvoltage | |
| B008. | Hardware Inverter overcurrent | |
| B010. | Hardware LLC1 current overcurrent input | |
| B011. | Hardware LLC2 current overcurrent input | |
| B026. | Hardware PV1 fault | Please contact the BLUETTI support team. |
| B027. | Hardware PV2 fault | Please contact the BLUETTI support team. |
| B034. | Hardware Overcurrent input | Please contact the BLUETTI support team. |

Note: Please refer to Chapter 11. Troubleshooting for details.

3.6 Inverter Cables

Table 3-11 Inverter Cables

| Picture | Description | Interface (connect to) |
|---|--------------------------------------|------------------------|
|  | Red battery power cable (Positive) | BAT+ |
|  | Black battery power cable (Negative) | BAT- |
|  | Generator communication cable | DRMs port |

4. B500 Battery

4.1 Introduction

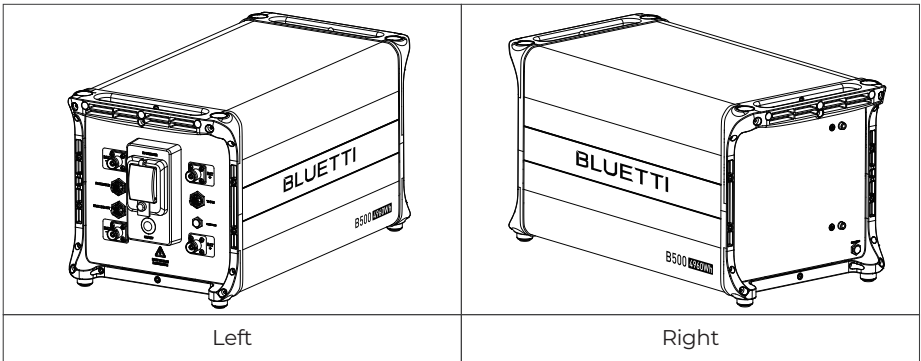
The B500 battery energy storage system is designed for residential and light commercial use. Single B500 battery pack has a capacity of 4.96kWh. BLUETTI EP800 supports 4 *B500 units for a whopping 19.84kWh.

The B500 comes with a reliable battery management system (BMS) with a multi-stage architecture that provides real-time detection of the battery pack's voltage, current and temperature, protecting the system from overvoltage, under-voltage, overcurrent, overtemperature and undertemperature. At the same time, the redundancy design provides unprecedented safety and stability for the B500 battery energy storage system.

4.2 Overview

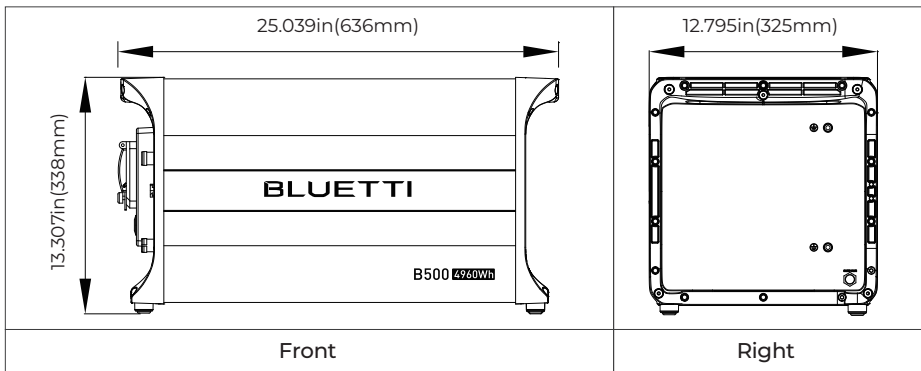
4.2.1 Appearance

Table 4-1



4.2.2 Dimensions

Table 4-2 (Unit: in/mm)



4.3 Interfaces

4.3.1 Interface Description

Table 4-3

| Left | | Right | |
|------|------------------------------|-------|------------------|
| No. | Name | No. | Name |
| 1 | BAT- terminal 1 | 8 | Bleed valve 1 |
| 2 | Pack link-in | 9 | BAT+ terminal 2 |
| 3 | Pack link-out | 10 | Power button |
| 4 | BAT- terminal 2 | 11 | Grounding port 1 |
| 5 | Main switch | 12 | Grounding port 2 |
| 6 | BAT+ terminal 1 | 13 | Bleed valve 2 |
| 7 | To Pcs(Inverter signal port) | | |

4.3.2 Wiring Interface Instructions

Table 4-4

| Interface | Description |
|----------------------------------|--|
| To Pcs (Inverter signal port) | For communication between inverter and battery packs. Only the top B500 needs to be connected to the LINK PORT 2 of the inverter. |
| PACK LINK IN | For communication between battery packs. Connect to the PACK LINK OUT port of the upper battery when multiple B500s are stacked (except for the top B500). |
| PACK LINK OUT | For communication between battery packs. Connect to the PACK LINK IN port of the lower battery when multiple B500s are stacked (except for the bottom B500). |
| BAT+ terminal | Connect to the BAT+ terminal of another B500 or the inverter. |
| BAT- terminal | Connect to the BAT- terminal of another B500 or the inverter. |


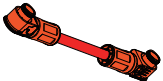
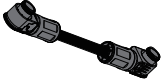

4.4 LED Indicators

Table 4-5

| Light | Description | Note |
|----------------|------------------------|--|
| OFF | B500 is not started. | Can operate the circuit breaker. |
| ON | B500 is running. | Can not operate the circuit breaker. |
| Flash at 0.5Hz | B500 is shutting down. | Can not operate the circuit breaker. |
| Flash at 1Hz | B500 is not running. | <p>If all indicators are flashing, the battery module is temporarily unavailable and is restoring, please wait patiently.</p> <p>If it lasts for more than 1 hour, please contact an authorized dealer or our company.</p> <p>If a single indicator flashes, the B500 is in a fault condition. Please contact an authorized dealer or our company.</p> |

4.5 Battery Cables

Table 4-6 Battery Cables

| Picture | Description | Interface (connect to) |
|---|--|-----------------------------|
|  | Communication cable | LINK PORT 2 of the inverter |
|  | Red battery expansion cable (Positive) | BAT+ terminal 2 |
|  | Black battery expansion cable (Negative) | BAT- terminal 2 |
|  | Grounding cable | Grounding port |

5. IoT Controller

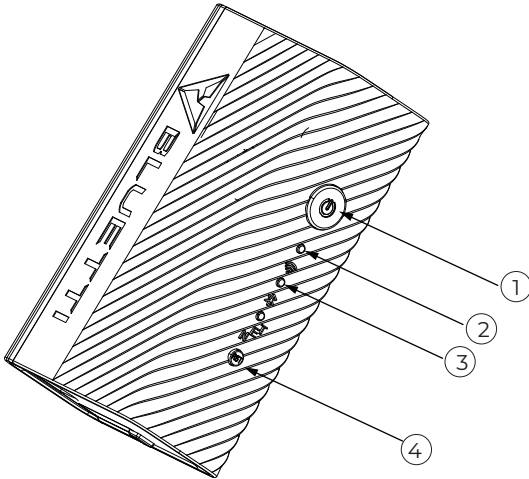
5.1 Communication Principle

The IoT controller supports WiFi and Bluetooth dual-mode communication, allowing connectivity between the EP800 and BLUETTI App. Everything about the system, including power generation and consumption, alarms, and operating status, can be uploaded to the BLUETTI server via the WiFi network. By registering the EP800 with your BLUETTI App, you're able to monitor and control this unparal-leled power plant anytime and anywhere.

Table 5-1

| Communication | Note |
|---------------|----------|
| WiFi | Standard |
| Bluetooth | Standard |


5.2 Overview



- 1.Menu Button.
To factory reset the controller, press and hold this button for about 5s till all LED indicators flash.
- 2. WiFi Indicator.
Flash till the controller connected to WiFi.
- 3. Bluetooth Indicator.
Flash till the controller connected to Bluetooth.
- 4.Reboot Button.
Press to reboot the controller.

5.3 Safety Instructions

- The IoT controller is ONLY applicable to BLUETTI products only.
- Do not keep the controller near heat sources or in high temperatures.
- Do not store the controller with flammable liquids, gases, or explosive materials.
- The inspection, testing, and maintenance should be performed by qualified personnel.

| Warning | |
|---|---|
|  | <ul style="list-style-type: none">• Do not block or cover the openings of the controller. Keep it out of the reach of children.• Use dry powder fire extinguisher in case of fire. |

5.4 Connection and Operations

Step1: Plug the IoT cable into EP800 Link Port 1.

Step2: Turn on EP800, and the IoT controller starts up automatically.

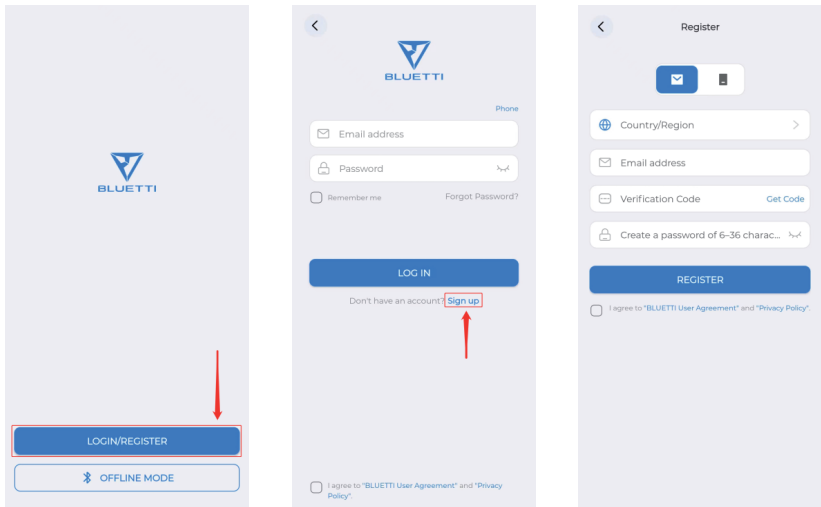
Step3: When an upgrade is needed, please follow the instructions provided in the EP800 Home Energy Storage System BLUETTI App User Manual.

To register and log in, simply follow the steps below:

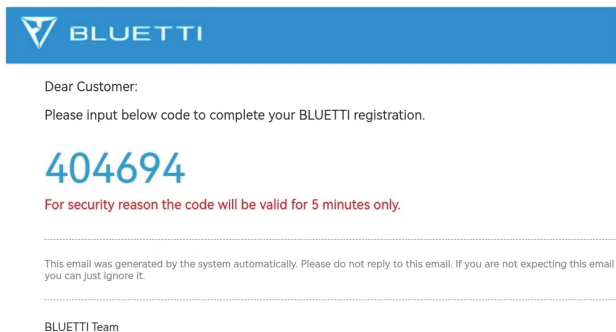
- Scan the QR code below to download the BLUETTI App, or search for “BLUETTI” in the App Store/Google Play.




- The BLUETTI app connects to EP800 via Bluetooth or WiFi. Tap “LOGIN/REGISTER” and “Sign up” to register your BLUETTI account. Fill in the necessary information to continue.



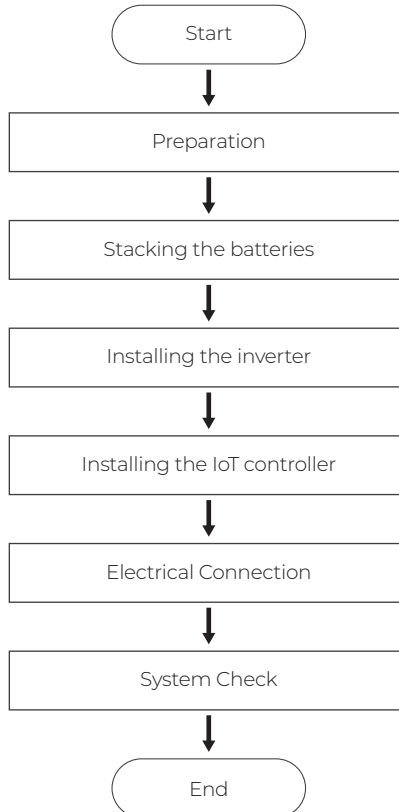
- Check your email for verification code from BLUETTI server, and fill in the code to activate your BLUETTI account.



6. System Installation

| Danger | |
|---|---|
|  | <ul style="list-style-type: none">• When the EP800 is not activated, the grid side and off-grid side are directly connected. Therefore, it is important not to touch any exposed terminals to ensure safety.• When the grid side is powered on, the off-grid side will also be energized with AC output. Please strictly adhere to safety operating procedures to avoid electric shock.• Before installation, disconnect all circuit breakers for the battery pack, solar system, and the main switch of the grid to ensure safe operations.• Required minimum space for the EP800 system installation is 23.15 m³. |

6.1 Installation Procedure



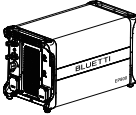
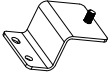




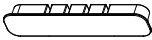

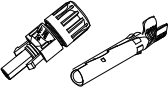
6.2 Preparation

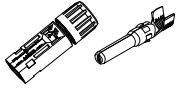








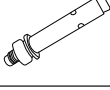
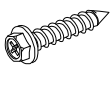


6.2.1 Check Packing List








Upon receiving the package, we kindly ask you to carefully inspect and verify the presence of all components and accessories included.

EP800 Inverter Packing List

Table 6-1

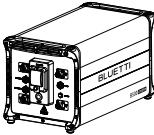








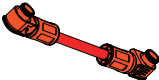
| No. | Picture | Description | Qty. |
|-----|---|---|------|
| 1 |  | EP800 inverter | 1 |
| 2 |  | Bracket #1 | 2 |
| 3 |  | Bracket #2 | 2 |
| 4 |  | M5 hex nut | 2 |
| 5 |  | Plastic cover (PV) | 1 |
| 6 |  | Plastic cover (AC, with label) | 1 |
| 7 |  | Cord organizer | 2 |
| 8 |  | AC cable protection case | 1 |
| 9 |  | Plastic housing (PV+ Input) Metal core (PV+ Input) | 2 |

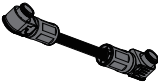

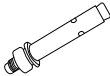
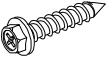

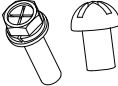
| | | | |
|----|---|--|----|
| 10 |  | Plastic housing (PV- Input) Metal core (PV- Input) | 2 |
| 11 |  | MC4 wrench | 2 |
| 12 |  | Black protection cover (BAT- Input) (Pre-installed on EP800 inverter) | 1 |
| 13 |  | Red protection cover (BAT+ Input) (Pre-installed on EP800 inverter) | 1 |
| 14 |  | M4*12 screw (8 for BAT+/- protection cover, 6 for AC cable protection case, pre-installed on EP800 inverter) | 14 |
| 15 |  | M8*12 screw (For battery power cable) | 2 |
| 16 |  | M6*12 screw (For bracket, pre-installed on EP800 inverter) | 2 |
| 17 |  | M5*10 screw (4 for fixing device to the bracket, 2 for PV grounding) | 6 |
| 18 |  | M4*10 screw (For exterior trim) | 10 |
| 19 |  | M8*60 expansion bolt | 2 |
| 20 |  | Self-tapping screw, ST8*40 | 2 |
| 21 |  | RNB8-6S OT terminal (AC) | 7 |
| 22 |  | RNB3.5-5S OT terminal (PV Grounding) | 3 |

| | | | |
|----|---|--------------------------------------|---|
| 23 |  | Red battery power cable (Positive) | 1 |
| 24 |  | Black battery power cable (Negative) | 1 |
| 25 |  | IoT Controller | 1 |
| 26 |  | Mounting bracket (IoT controller) | 1 |
| 27 |  | Expansion wall plug | 2 |
| 28 |  | M3 tapping screw (KA3*25) | 2 |
| 29 |  | DRMs communication cable (4m /13ft) | 1 |

B500 Battery Packing List

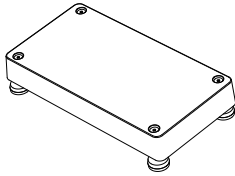
Table 6-2

| No. | Picture | Description | Qty. |
|-----|---|--|------|
| 1 |  | B500 Battery Module | 1 |
| 2 |  | Bracket #1 | 2 |
| 3 |  | Bracket #2 | 2 |
| 4 |  | M5 hex nut | 2 |
| 5 |  | Left cover | 1 |
| 6 |  | Right cover | 1 |
| 7 |  | M4*8 screw (for fastening covers) | 10 |
| 8 |  | M5*10 screw (for brackets) | 4 |
| 9 |  | Communication cable | 1 |
| 10 |  | Red battery expansion cable (Positive) | 1 |

| | | | |
|----|---|--|---|
| 11 |  | Black battery expansion cable (Negative) | 1 |
| 12 |  | Grounding cable | 1 |
| 13 |  | M8*60 expansion bolt (for brackets) | 2 |
| 14 |  | Self-tapping screw, ST8*40 | 2 |
| 15 |  | M6*12 screw (Grounding cable) | 2 |
| 16 |  | Spare screw kit | 1 |

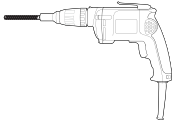
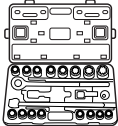
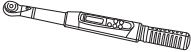

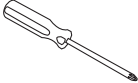

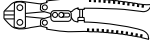
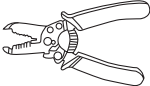
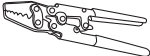

6.2.2 Base Packing List



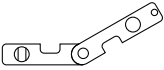


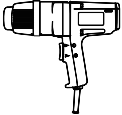
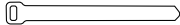




Table 6-3 Base Packing List



| No. | Picture | Description | Quantity |
|-----|---|-------------|----------|
| 1 |  | Base | 1 |

6.2.3 Required Tools

Table 6-4 Required Tools

| No. | Picture | Description |
|-----|---|---|
| 1 |  | Electric drill (0.197/0.315/0.394(in) 5/8/10(mm)) |
| 2 |  | Socket wrench set |
| 3 |  | Torque wrench |
| 4 |  | Flat screwdriver |
| 5 |  | Cross screwdriver (0.157in/4mm) |
| 6 |  | MC4 spanner |
| 7 |  | Cable cutter |
| 8 |  | Cable stripper |
| 9 |  | Cable Crimper |
| 10 |  | Multimeter (DC voltage \geq 1000VDC) |

| | | |
|----|---|--------------------|
| 11 |  | Marker |
| 12 |  | Measuring tape |
| 13 |  | Level ruler |
| 14 |  | Box cutter |
| 15 |  | Heat shrink tubing |
| 16 |  | Heat gun |
| 17 |  | Cable tie |
| 18 |  | Anti-static gloves |
| 19 |  | Protective goggle |
| 20 |  | Mask |
| 21 |  | Safety-toe shoes |

| | | |
|----|---|----------------|
| 22 |  | Allen driver |
| 23 |  | Vacuum cleaner |

6.3 Installation Requirements

6.3.1 Environment Requirements

- Install the EP800 in a well-ventilated and spacious area to ensure good heat dissipation.
- The EP800 has an IP65 rating and can be installed indoors and outdoors. Please note that if you place the system outside the house, use a cabinet to protect it from direct sunlight, as this may cause a degradation in system performance.
- The enclosure and heat sink are very hot while the inverter is working, therefore do NOT install the inverter in places where you might touch inadvertently.
- Keep the EP800 away from flammable liquids, gases, or explosive materials.
- Keep away from children and pets.
- Do not install the EP800 outdoors in salt-affected areas, as the accumulation of salt may corrode the system. Salt-affected areas are those within 500 meters from the coast or susceptible to sea breezes. Salt accumulation is influenced by seawater, sea breeze, precipitation, air humidity, topography and forest cover of adjacent sea areas.
- Do not install the system in low-lying areas where water tends to accumulate. Otherwise, water may leak into the equipment and result in system failure.
- Ambient temperature range: -4°F-104°F / -20°C-+40°C
- Relative humidity: 5%~95% (non-condensing)
- Maximum height: 6561ft / 2000m.



Attention

If the battery pack is dropped, violently impacted or tilted during installation, it may result in internal damage. So do not use such battery packs to avoid safety risks such as battery leakage and electric shock.

6.3.2 Location Requirements

- The EP800 should be installed on a firm, flat, level base.
- Do not install the system on flammable materials.
- Consider the weight and placement of components to ensure adequate structural support.

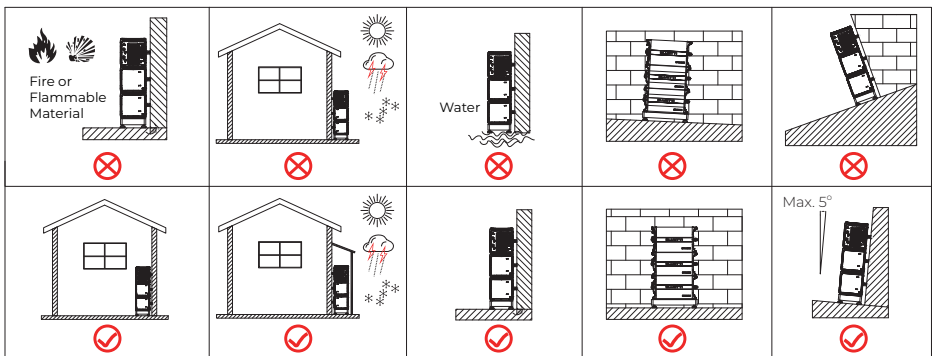


Fig. 6-2

6.3.3 Space Requirement



Danger

Make sure to check for any cables or pipes before drilling into the wall.

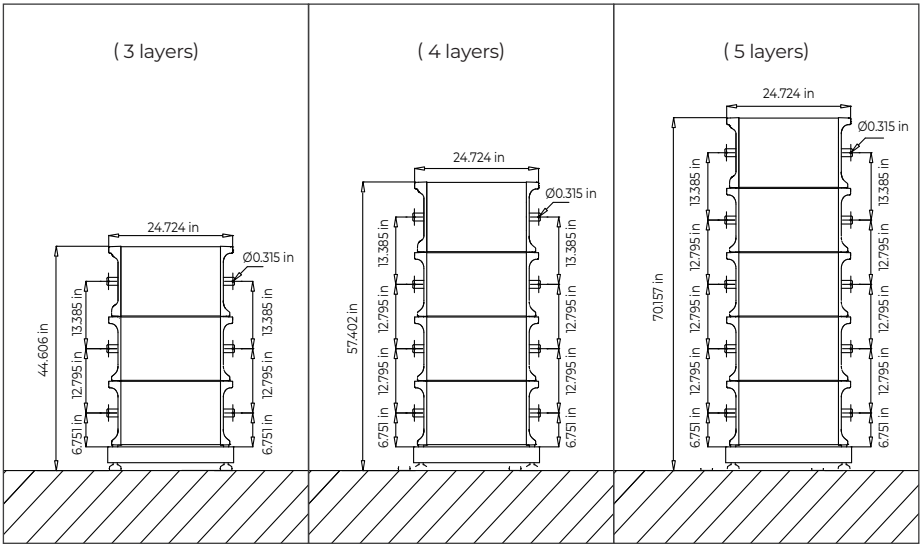


Fig. 6-3 (Unit: in)

6.4 Stacking the Units

Step 1: Place the base on the ground and adjust the height of leveling feet so that the base stands stably on the ground. Don't forget to tighten the nuts to secure the leveling feet.

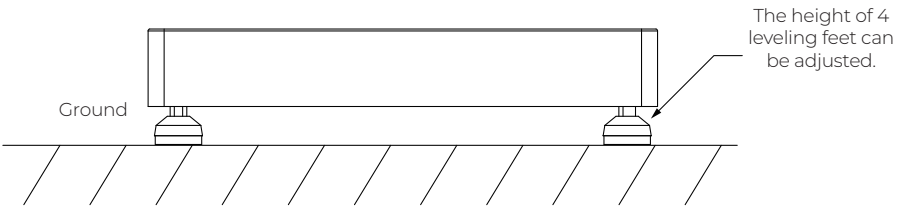


Fig. 6-4

Step 2: Mark the drilling positions with tape and marker. Drill holes with the M10 electric drill and insert M8 expansion bolts (Self-tapping screws for wooden walls).

Note: If you are working with a wooden wall, simply mark the positions and use M8 self-tapping screws to secure the unit directly onto the wall.

Step 3: Move the B500 battery pack to the base. Two people are required to transport the B500. Align the bumps on the battery with the notches on the base to secure the battery in place.

Step 4: Fix 2 brackets #1 to two sides of B500 with 4 M5*10 screws. Put the bracket #2 through the compression rivet screw of bracket #1 and M8 expansion bolts. Secure the connection with M8 and M5 nuts.

Step 5: Repeat Step3 and 4 to secure all battery packs.

Step 6: Follow the same steps to install the EP800 inverter on top.

Note: A set of EP800 energy storage system installation space needs to meet the minimum 23.15m³.

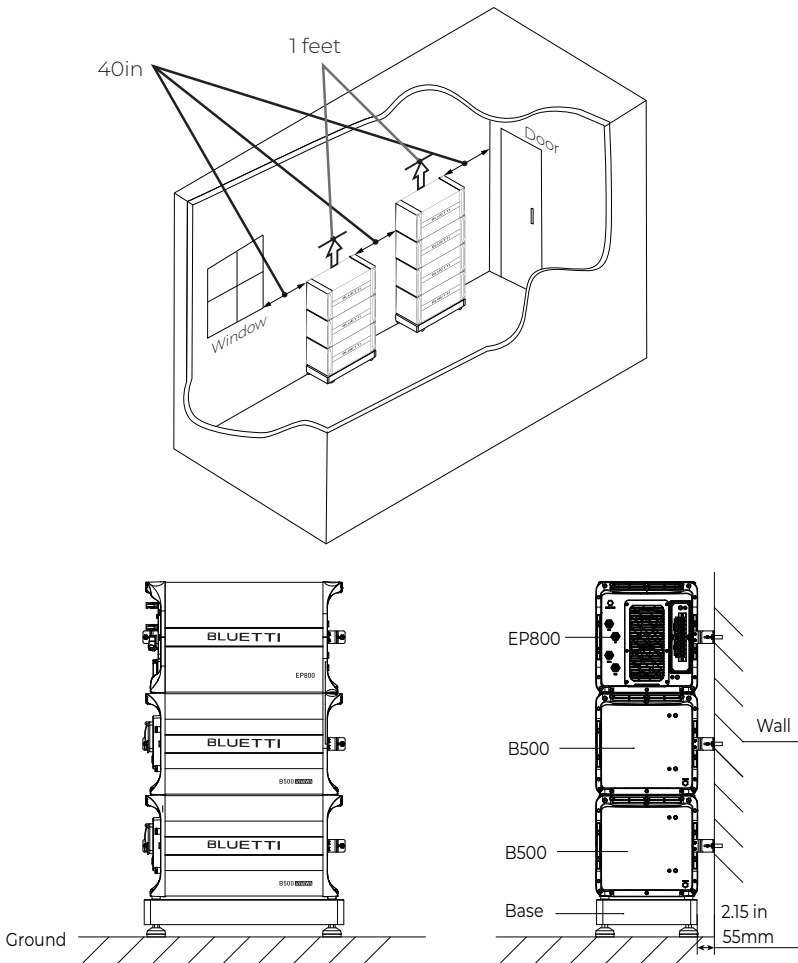


Fig. 6-5

6.5 Install the IoT Controller



Danger

Make sure to check for any cables or pipes before drilling into the wall.

To ensure a strong and uninterrupted wireless signal, it is recommended to install the IoT controller in an open space, away from obstructions, and minimize the distance between your home WiFi router and the IoT controller.

Avoid installing the IoT controller near steel-reinforced concrete or metal walls, as these materials can interfere with WiFi and Bluetooth signals.

Step 1: Drill 2 pilot holes in the wall. Please refer to the drill position and hole size shown in Fig. 6-6-1 and Figure 6-6-2. The depth of hole is 0.94in(24mm).

Step 2: Hammer the expansion wall plug in until it's flush with the wall. See Fig. 6-6-3.

Step 3: Fix the mounting bracket onto the wall and use the cross screwdriver to fasten 2 self-tapping screws into the wall plugs. See Fig. 6-6-4.

Step 4: Align the controller's buckle over the U-slot and push the controller downwards until it snaps in place. See Fig. 6-6-5 and Fig. 6-6-6.

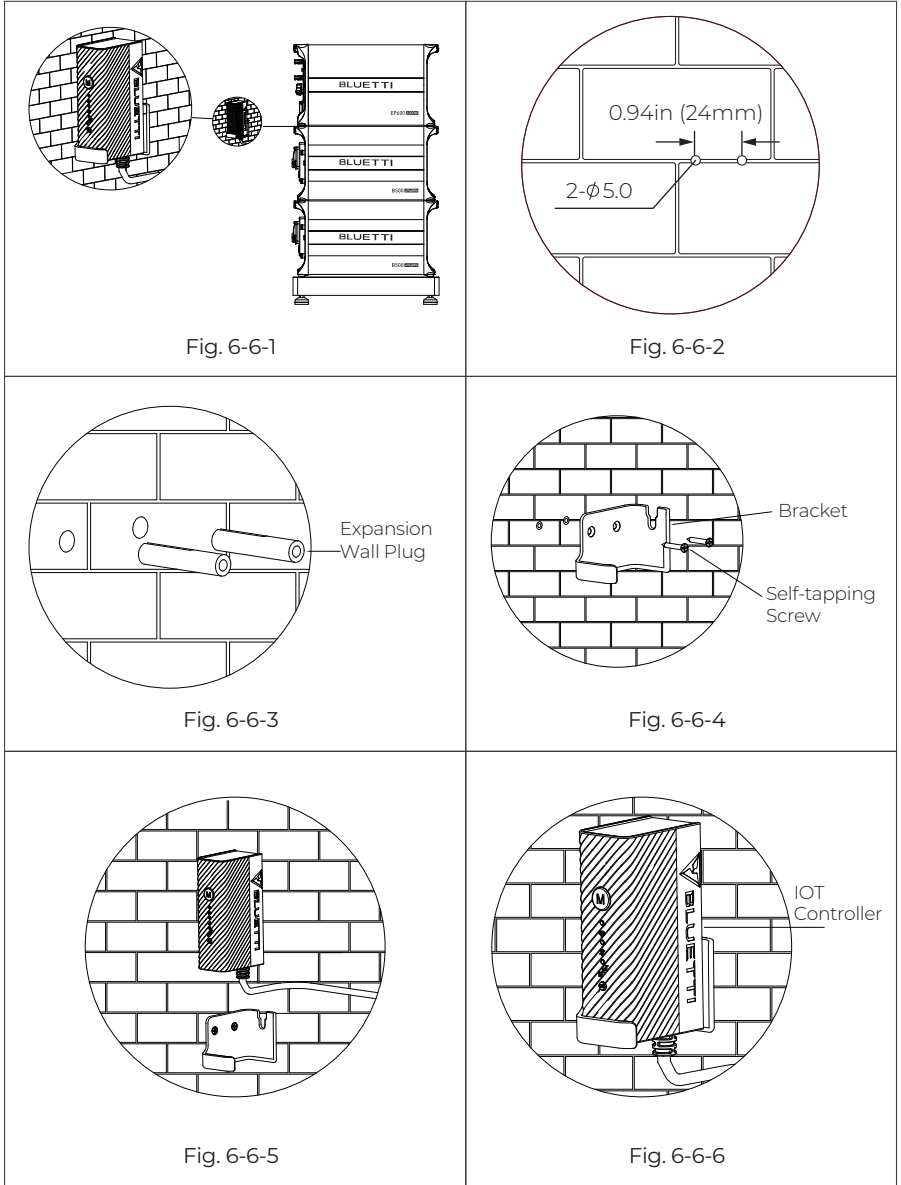








Fig. 6-6

6.6 Electrical Connection

6.6.1 Cables

Table 6-5 Cables

| Picture | Cable |
|---|--|
|  | Red battery power cable (Positive) |
|  | Black battery power cable (Negative) |
|  | Communication cable |
|  | Red battery expansion cable (Positive) |
|  | Black battery expansion cable (Negative) |
|  | Grounding cable |

6.6.2 Connection Procedure

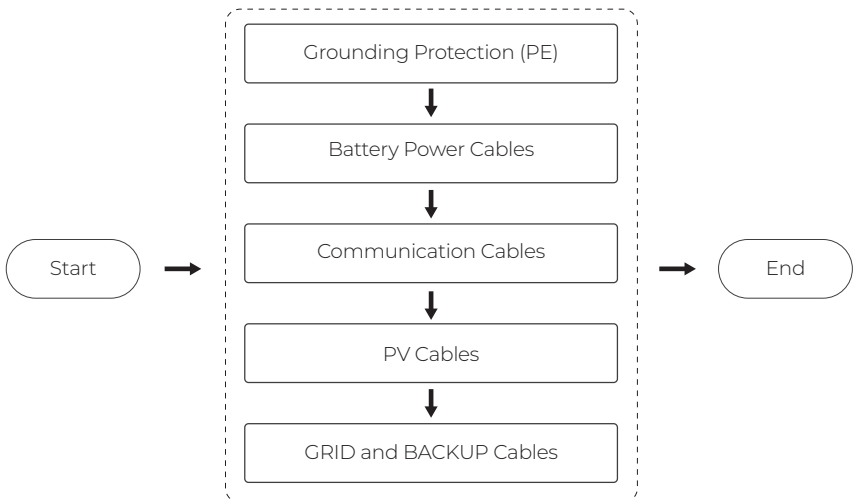


Fig. 6-7

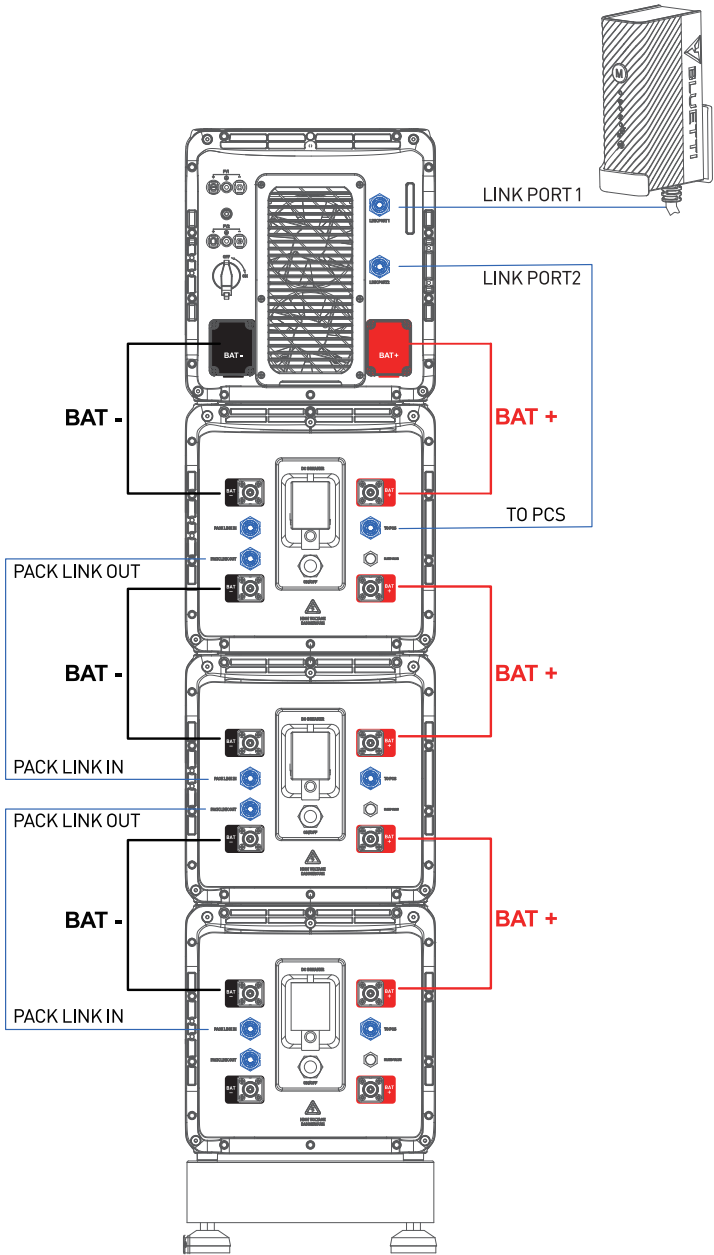
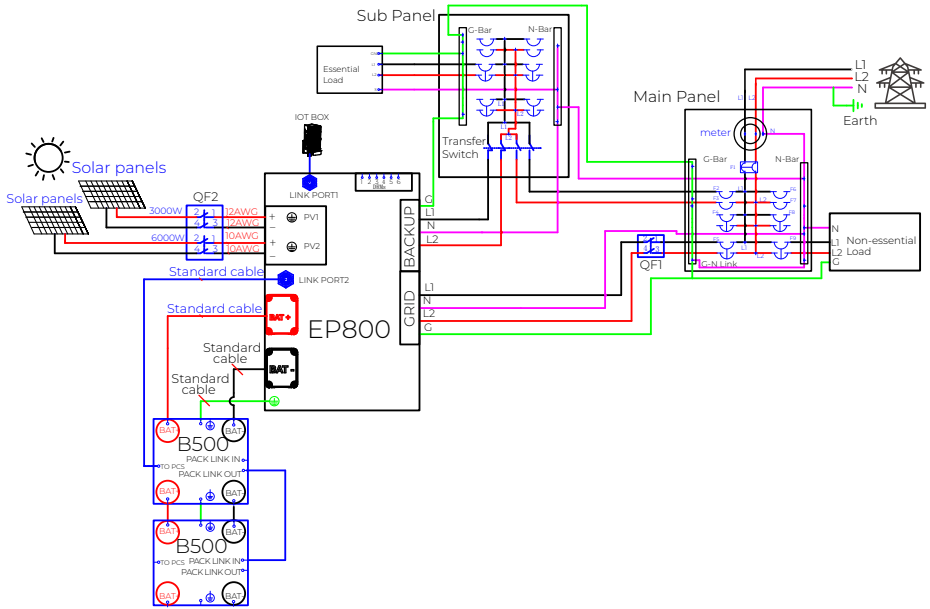



Fig. 6-8



6.6.3 Grounding Protection (PE)

| Danger | |
|--|---|
|  | <p>The positive and negative terminals of the PV (photovoltaic) system inverter should not be grounded, as it may lead to inverter failure. However, it is important to ground all non-current carrying metal parts, including brackets, distribution boxes, inverter enclosures, battery pack enclosures, and other relevant components.</p> |

Step 1: It is recommended to use a 12AWG outdoor power cable and RNB3.5-5S OT terminals. Strip the insulation layer of the ground cable with a cable stripper to a proper length. See Fig. 6-9-1.

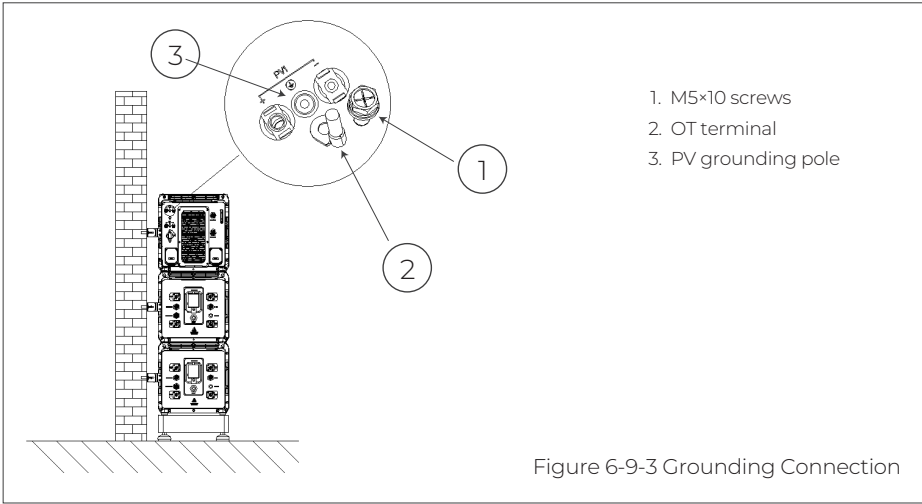
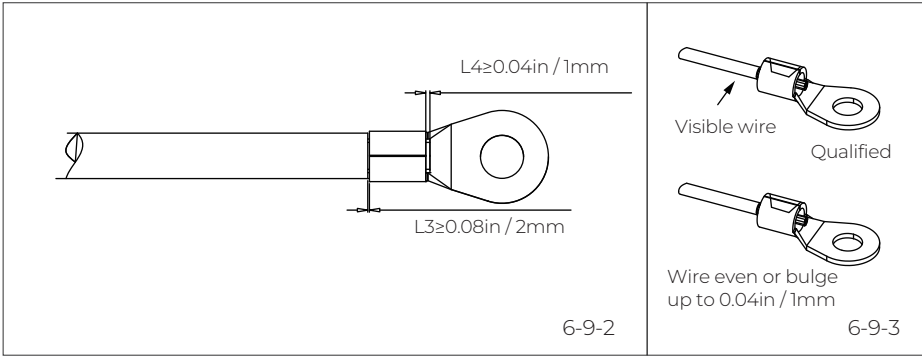
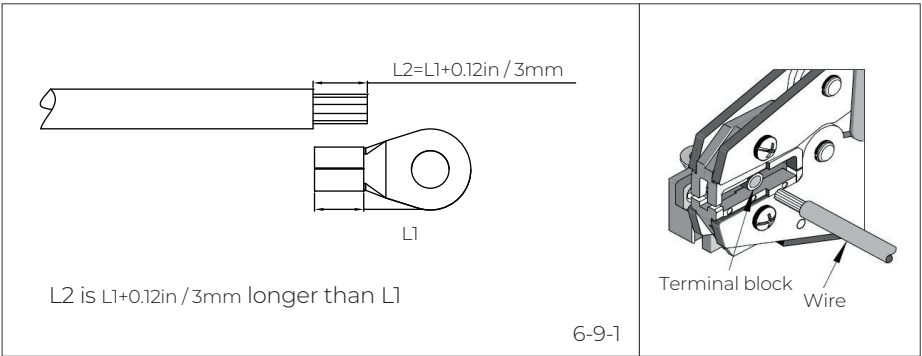
Step 2: Insert the exposed core wires into the OT terminal and crimp them with a crimper, as shown in Fig. 6-9-2.

Step 3: Fix the OT terminal with M5 screws at the position shown in Fig. 6-9-3.

Recommended torque: **3N m (27 to 32 in-lbs)**.

Note: L3 is the length between the insulation of the cable and the crimped part. L4 is the length between the crimped part and core wires protruding from the crimped part.

The cavity formed after crimping the conductor crimp strip shall wrap the core wires completely. The core wires shall contact the terminal closely.



6.6.4 Battery Power Cable

Step 1: Connect two B500 battery packs via the battery expansion cables - black cable for negative terminals, red for positive terminals. See “①” “②” of Figure 6-10-1 and 6-10-2.

Step 2: Connect the top B500 to EP800 inverter via the battery power cables - black cable for negative terminals, red for positive terminals. See “③” “④” of Figure 6-10-1 and 6-10-2.

- Fix the black battery power cable to the EP800 inverter BAT- terminal with M8 screws.
- Secure the black protection cover with M4 screws. See Figure 6-10-3.
- Connect the other end of the cable to the B500 BAT- terminal.
- Repeat to connect the red battery power cable. See Figure 6-10-4.

Recommended torque: Less than **6N m (53- to 58 in-lbs)** for M8 screws, **1.2N m (11 to 16 in-lbs)** for M4 screws.

Step 3: Check that the cables are properly connected.

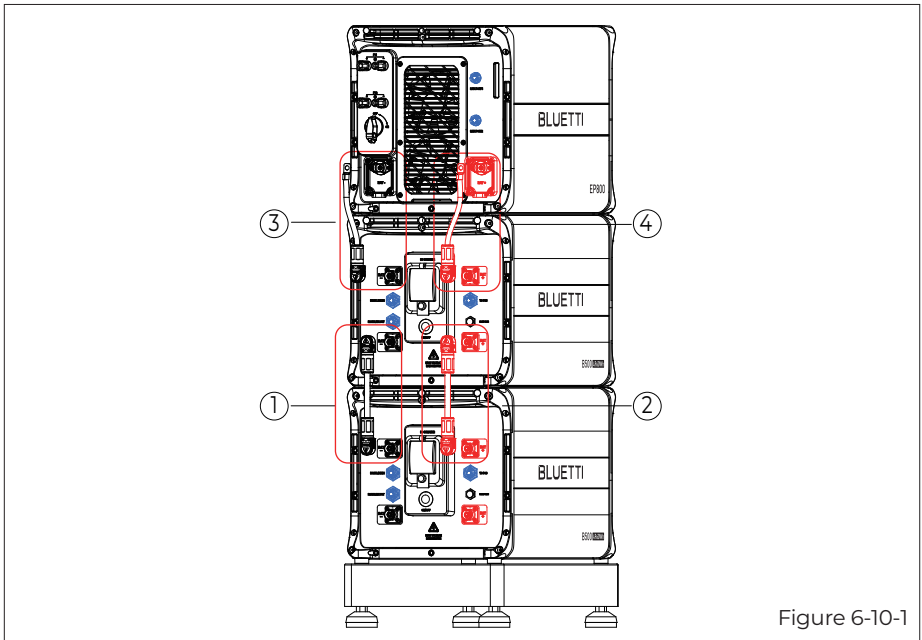


Figure 6-10-1

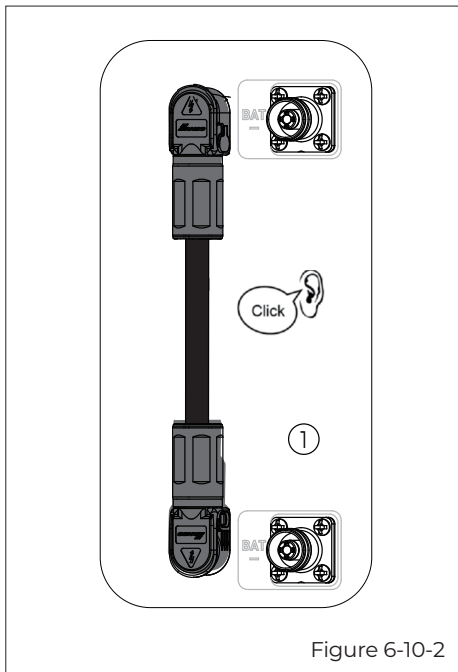


Figure 6-10-2

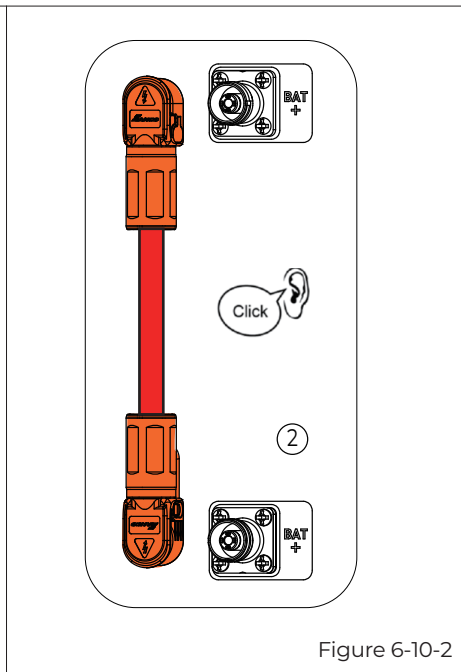


Figure 6-10-2

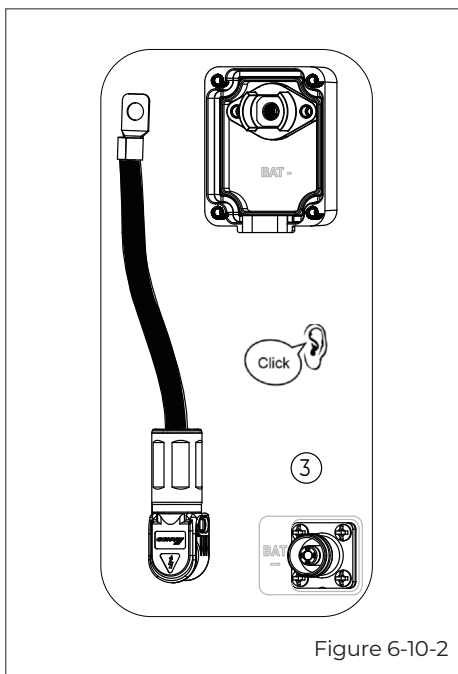


Figure 6-10-2

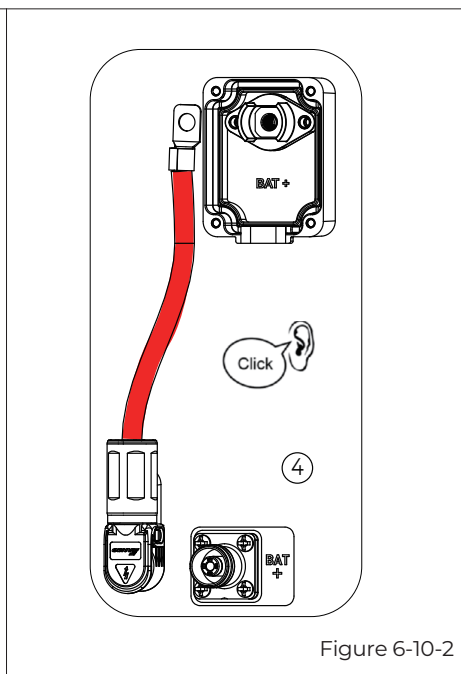


Figure 6-10-2

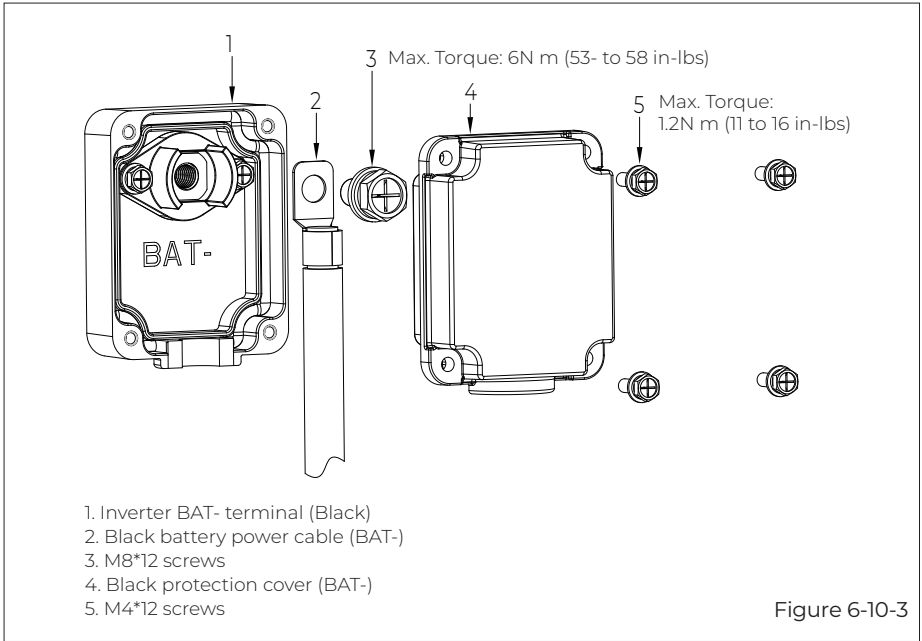


Figure 6-10-3

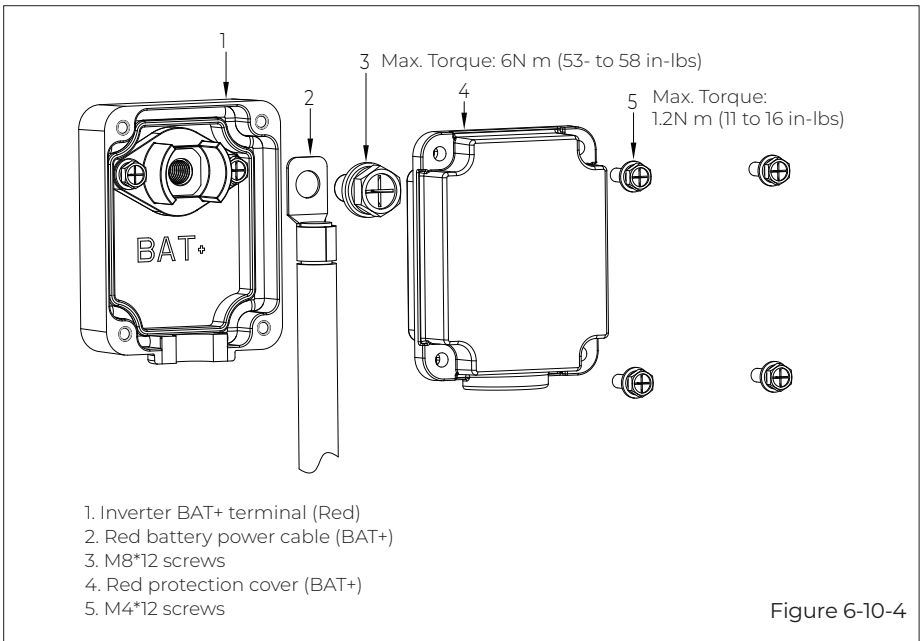


Figure 6-10-4

6.6.5 Communication Cable

Step1:

To achieve communication between two B500 battery packs, a communication cable is required. Plug one end of the cable to the B500 Link-in port, and the other to the upper B500's Link-out port. See Fig. 6-11 "①".

Step2:

For communication between the EP800 inverter and B500 battery packs, plug one end of the communication cable to the top B500's inverter signal port (To Pcs), and the other to the Link Port 2 of the EP800 inverter. See Fig. 6-11 "②".

Step3:

Connect the IoT controller to the EP800 inverter. See Fig. 6-11 "③".

Note: For how to integrate multiple B500s to the EP800, please refer to Fig. 6-8.

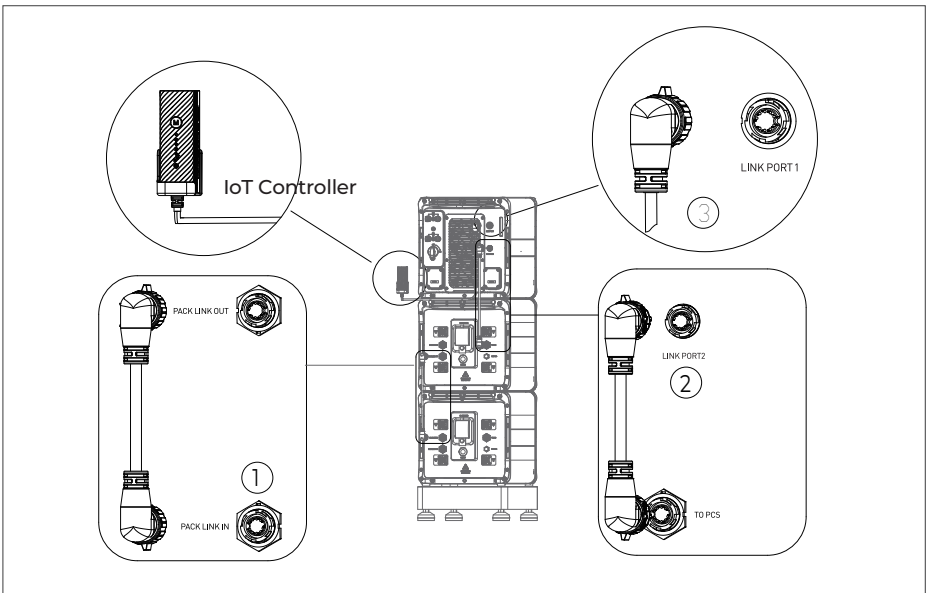


Figure 6-11

6.6.6 PV Cables



Attention

Before removing the PV input positive and negative connectors, make sure the DC switch on the inverter has been set to “OFF”.

Step 1: It is recommended to use 12AWG outdoor power cable for PV1 and 10AWG outdoor power cable for PV2. Disconnect the cable connector from the EP800 positive and negative connectors. (You're strongly recommend to distinguish the positive and negative connectors with different colors.)

Step 2: Use wire strippers to peel off the insulation layer of the positive and negative power cables. For the specific stripping length, refer to Fig. 6-12-1.

Step 3: Insert the positive and negative power cables into the positive and negative metal terminals separately. Crimp them tightly to ensure that the cable can not be pulled out. See Fig. 6-12-2.

Step 4: Insert the crimped positive and negative power cables through the locking nut and into the corresponding plastic housing until you hear a click, which indicates that the metal core has been snapped into place, and then tighten the locking nut. See Fig. 6-12-3 and Fig. 6-12-4.

Step 5: Use a multimeter to confirm the positive and negative poles. See Fig. 6-12-5. The positive and negative connectors can then be inserted into the PV input of EP800 inverter. See Fig. 6-12-6.

If you need to remove the PV positive and negative connectors from the inverter, use a removal crimper to insert the bayonet as shown in Fig. 6-12-7, and press down to remove the connectors.

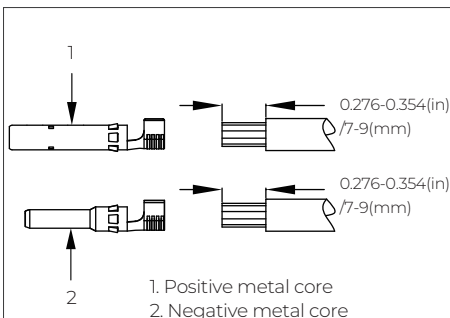


Figure 6-12-1

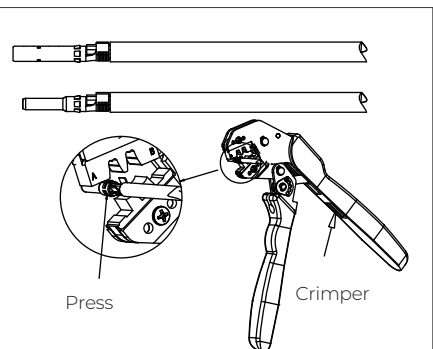
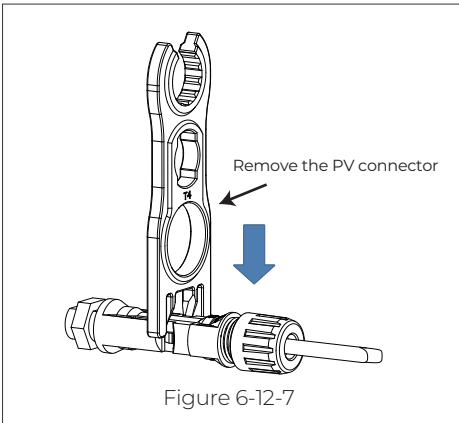
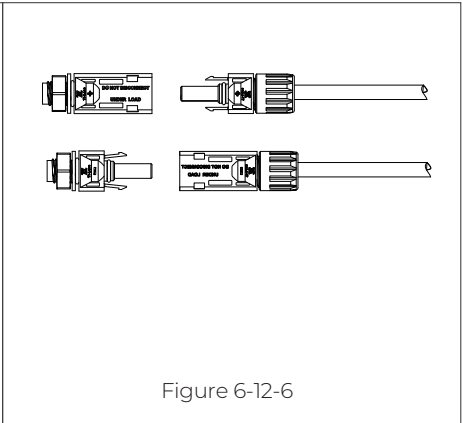
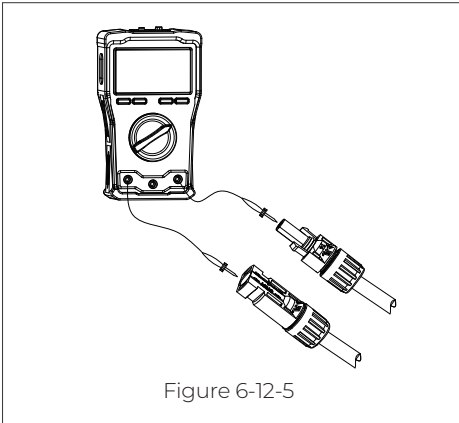
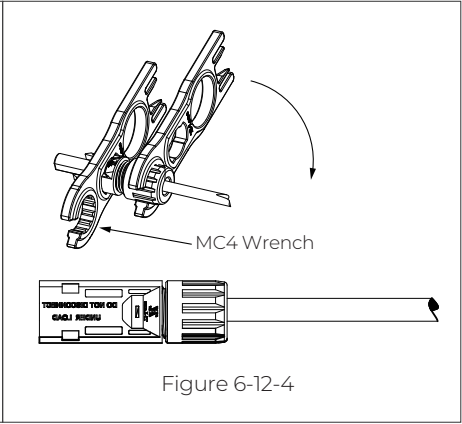
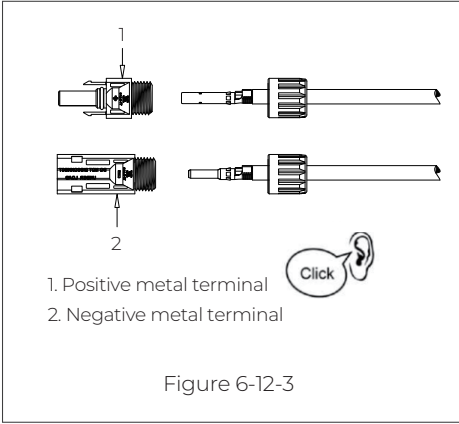


Figure 6-12-2



6.6.7 GRID and BACKUP Cables

Prerequisite: Prepare neutral, live, and grounding wires (recommended colors: white, black, green; use 6AWG/6AWG outdoor power cables).

Step 1: Select the appropriate type and size of cables (see table 7-2). Strip the cables with a length of 0.8 inches, as shown in Fig. 6-13-1.

Step 2: Install the terminal block onto the junction box's terminal strip, as shown in Fig. 6-12-2.

Step 3: Connect the 6AWG BACKUP cable as labeled (G, L1, N, L2) in the BACKUP section of the junction box. Secure it using a hex wrench, as shown in Fig. 6-13-3/6-13-4.

Step 4: Connect the 6AWG GRID cable as labeled (L1, N, L2, G) in the GRID section of the junction box. Secure it with a hex wrench, as shown in Fig. 6-13-5.

Step 5: Attach the PG waterproof connector to the AC cable protection case. Tighten the hexagon nut at the bottom of the connector with a socket tool, as shown in Fig. 6-13-6.

Step 6: Pass the DRMs cable through the PG conductor, as shown in Fig. 6-13-7.

Step 7: To complete the installation, pass the fitting through the waterproof hose and insert the BACKUP and GRID cables into the hose. Tighten the fitting to the protection case as shown in Fig. 6-13-8.

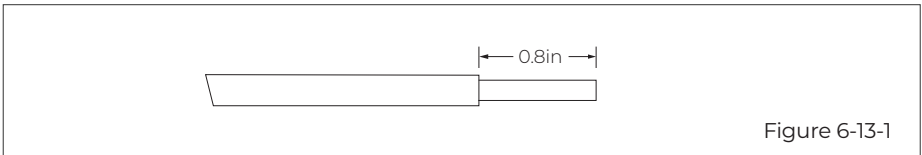


Figure 6-13-1

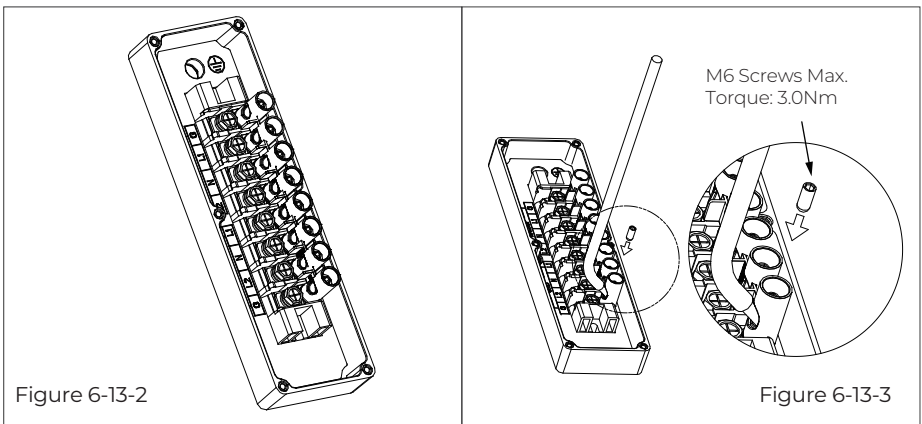


Figure 6-13-2

Figure 6-13-3

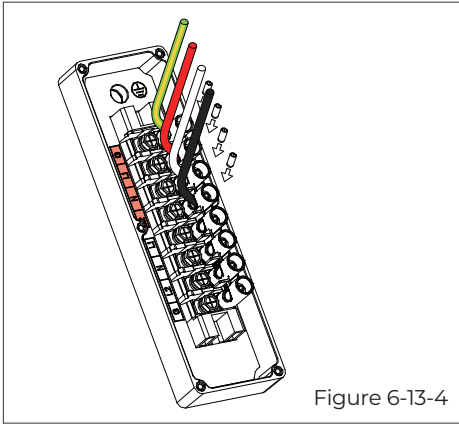


Figure 6-13-4

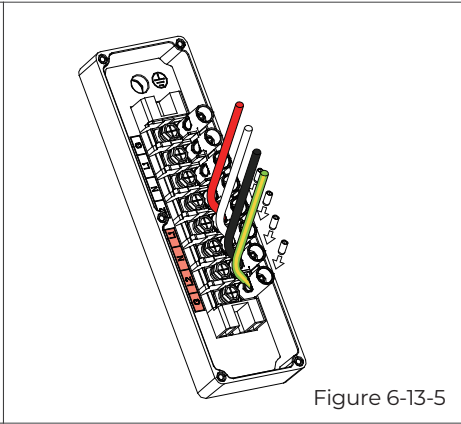


Figure 6-13-5

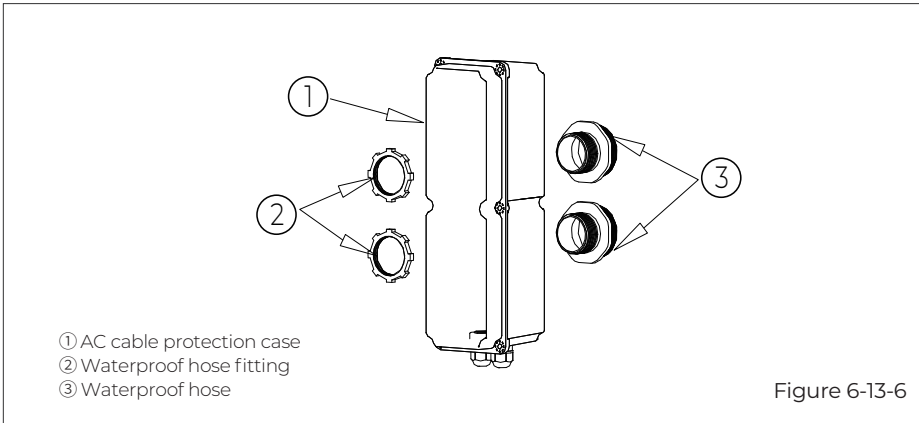


Figure 6-13-6

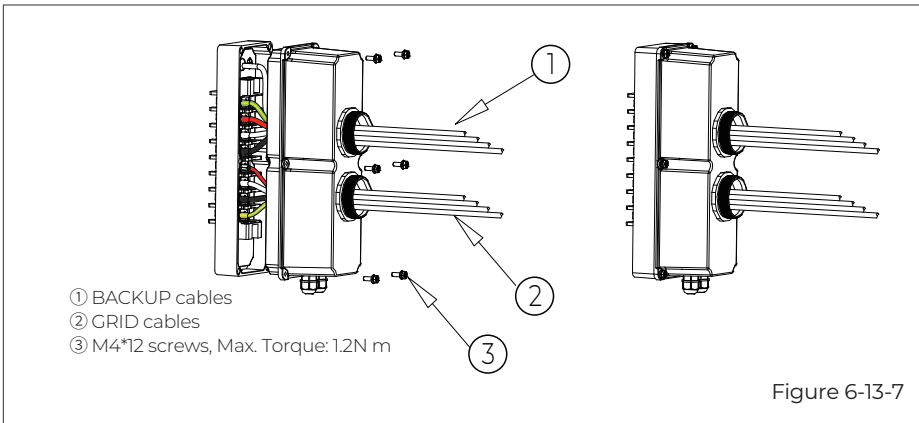
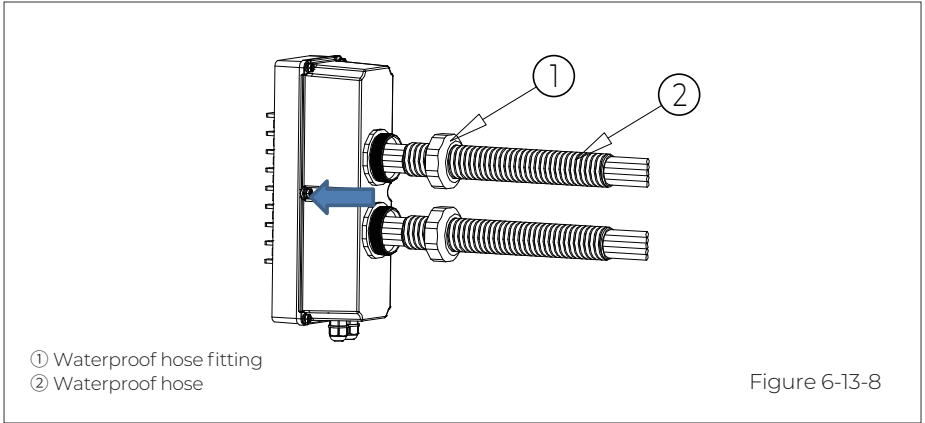


Figure 6-13-7

Fig. 6-13 Load cable connection



7. System Check

7.1 Preliminary Check

Check the followings before first use.

- Confirm that all components of the system are installed according to specific requirements.
- Make sure the PV+ / PV- and BAT+ / BAT- cables are connected with correct polarity and proper voltage.
- Switch off all AC and DC circuit breakers.
- Circuit breakers should be selected according to the requirements of this manual and local regulations.
- Make sure grid and load cables are held firmly in place.
- All safety signs and warning labels shall be firmly attached and clearly visible when needed.

7.2 Commissioning

Step 1: Switch on the DC power on EP800.

Step 2: Switch on the DC circuit breakers on B500 battery packs. Press and hold the power button on any B500 for 3 seconds, the button lights up green.

Step 3: Wait for about 40 seconds till the inverter indicator keeps steady green.

Step 4: Switch on the AC circuit breakers and rapid shut down switch connected to the inverter GRID terminal.

Step 5: Turn on “System Switch” in the BLUETTI App. For details, please refer to BLUETTI App User Manual.

Step 6: Check the output voltage of BACKUP terminal.

Step 7: Switch on the AC circuit breakers connected to the inverter BACKUP terminal.

Step 8: Check the EP800 system status through the App.

7.3 Decommissioning

Step 1: Turn off the “System Switch” on BLUETTI App.

Step 2: Switch off the AC circuit breakers connected to the inverter GRID and BACKUP terminals.

Step 3: Switch off the DC power of the inverter.

Step 4: Press the circular power button on any B500, the button light flashes green.

Step 5: The indicator continues to flash.

Step 6: When the indicator is off, B500 battery packs turn off.

Step 7: Switch off main switches for all B500 and the EP800 powers off.



Warning

There is still residual voltage after the EP800 is powered off, which may cause electric shock or burns. Please wait at least 30 minutes before operating the system.

8. System Maintenance

8.1 USB Firmware Upgrade

The EP800 inverter supports firmware upgrades via a USB drive to optimize its performance and avoid failures caused by firmware errors.

Step 1: Connect the USB drive to a USB port on your computer.

Step 2: Download the upgrade file*, unzip and store it on the USB drive.

Step 3: Connect the USB drive to the USB port on EP800.

Step 4: Power on EP800.

Step 5: The firmware upgrade starts automatically once the upgrade files are detected.

Step 6: The buzzer beeps after the firmware is updated successfully. Please unplug the USB drive, or EP800 will report a USB Format Error.

Step 7: Pair EP800 with BLUETTI App, then you can check the current firmware version. If any of the following occurs, please try the solutions provided. If the symptom persists after 5 attempts, contact the BLUETTI support team.

* Please contact our company for further assistance.

Table 8-1

| Error Description | Troubleshooting |
|--|---|
| USB Upgrade Failed. | Please contact the BLUETTI support team. |
| USB Format Error | 1. Make sure the USB is formatted as FAT32 with no more than 32G in size. 2. Check if the upgrade files exist or expire. Please download the latest upgrade files. |
| Firmware version not updating or abnormal. | Please download the latest upgrade files. If the symptom persists, contact the BLUETTI support team. |

8.2 OTA Firmware Upgrade

The EP800 also supports OTA firmware upgrade. For details, please refer to the “Upgrade” section within the “Basic Settings” of the EP800 Home Energy Storage System BLUETTI App User Manual.

9. System Disposal

9.1 Remove the Inverter

When the inverter is no longer in use, it must be disposed of properly.

Step 1: Power off the system.

Step 2: Disassemble all electrical connections to the inverter, such as signal cable, DC input cable, power cable, AC input cable, grounding cable, etc.

Step 3: Remove the inverter and related parts.

9.2 Recycle the Inverter and Battery Pack

When the battery pack reaches the end of its lifespan, it must be safely and carefully disposed of by the provisions of local laws and regulations.

Please contact our company for further assistance if the battery pack is

- a. Leaked or damaged.
- b. Out of warranty or severely degraded in performance.
- c. To be replaced or not intended for further use.

10. Specifications

10.1 AC Port

| Grid Input | | |
|---|-----------------------|------------------------|
| Item | Description | Note |
| Wiring | L1/L2/N/G | |
| Rated Voltage | 120VAC / 240VAC | |
| Voltage Range | 110V-126V / 220V-252V | |
| Input Frequency Range | 55Hz-65Hz | |
| Maximum Input Apparent Power | 12000VA | Bypass + Grid Charging |
| Maximum Input Current | 50A | Bypass + Grid Charging |
| Maximum Input Power | 7680W | |
| Power Factor (PF) | 1.0 | Grid Charging |
| Current Total Harmonic Distortion (THD) | <3% | Grid Charging |
| On and Off-Grid Switching Time | <20ms | |
| Grid Charging Efficiency | 94% Peak | |

| Off-grid Load Output | | |
|----------------------------------|---|---------------------|
| Item | Description | Note |
| Rated Output Power | 7680W | |
| Output Voltage | 120V / 240V | |
| Output Current | 32A | |
| Output Frequency | 60Hz | |
| Inversion Efficiency | 94% Max. | |
| Output Voltage THD | <3% | Pure resistive load |
| Crest Factor (CF) | 3:1 | |
| Maximum Number of Parallel Units | 2 | |
| Overload | 100%-110% of rated power, 10min; 110%-150% of rated power, 10s. | |
| Protection | Output overcurrent protection Output short-circuit protection Over temperature protection | |

10.2 DC Port

| PV Input | | |
|---|--|--|
| Item | Description | Note |
| Maximum Input Power | 9000W | |
| MPPT Channel | 2 | 3000W+ 6000W (With 2 battery packs: Managed flexibly by BMS) |
| Array In Series | 1/2 | |
| Maximum Input Voltage | 550V | |
| MPPT Voltage Range/Rated | 150V-500V / 360V | |
| Single MPPT Maximum Input Current | 12.5A / 25A | |
| Single MPPT Maximum Short-circuit Current | 15A / 30A | |
| MPPT Efficiency | 99.9% | PV Input |
| PV Inversion Efficiency | 96.0% Peak | |
| Protection | Reverse polarity protection Insulation resistance detection Arcing detection | |

| Battery | | |
|--------------------------|----------------------|--|
| Item | Description | Note |
| Battery Model | B500 | |
| Number of Parallel Units | 2-4 | |
| Maximum Input Power | 9000W | When there are only two units connected, the input power is lower. |
| Charging Strategy | BMS Orders (CC / CV) | |

General

| AC (Grid-tied) | | |
|-------------------------------------|---|------|
| Item | Description | Note |
| Relative Humidity | 5%-95% | |
| Static Power | 18W | |
| Standby Power | 35W | |
| Operating Ambient Temperature Range | 4°F to 104°F / -20°C to 40°C | |
| Noise Emission (dB) | ≤50dB (A) | |
| Cooling | Forced air cooling | |
| Ingress Protection (IP) Rating | NEMA 4X / IP65 | |
| Working Altitude | ≤6561ft / 2000m | |
| Dimensions (L*W*H) | 25.0in × 12.8in × 14.6in / 636mm × 325mm × 370mm | |
| Net Weight | 105lbs / 48kg | |
| Communication | USB / WiFi / Bluetooth | |
| Warranty | 10 years | |

11. Troubleshooting

| No. | Error Description | Troubleshooting |
|-------|---------------------------------|--|
| B001. | BUS Overvoltage | <p>1. Log in to the App and bind your EP800. Connect to it via Bluetooth to check for any firmware updates.</p> <p>2. After successfully upgrading, restart your EP800*. If the issue persists, please contact BLUEETTI support for assistance.</p> <p>* See FAQ 1.</p> |
| B002. | BUS2 Overvoltage | |
| B003. | BUS Undervoltage | |
| B004. | BUS2 Undervoltage | |
| B005. | Hardware BUS Overvoltage | |
| B006. | Hardware BUS2 Overvoltage | |
| B007. | Hardware Battery Overvoltage | |
| B008. | Hardware Inverter Overcurrent | |
| B009. | Hardware Inverter2 Overcurrent | |
| B010. | Hardware LLC1 Input Overcurrent | |
| B011. | Hardware LLC2 Input Overcurrent | |
| B012. | Reserved | |
| B013. | Auxiliary Power Undervoltage | |
| B014. | DC Component Exception | |
| B015. | Relay Failure | |
| B016. | PV Connection Error | |
| B017. | PV1 Overcurrent | <p>1. Log in to the App and bind your EP800. Connect to it via Bluetooth to check for any firmware updates.</p> <p>2. Make sure the input currents for PV1 and PV2 are below 12.5A and 25A, respectively. You can monitor the real-time current in the App.</p> <p>3. Restart your EP800*. If the issue persists, please contact BLUEETTI support for assistance.</p> <p>* See FAQ 1.</p> |
| B018. | PV2 Overcurrent | |
| B019. | Reserved | |
| B020. | PV1 Voltage High | <p>1. Immediately turn off the PV input switch. Check if the total open circuit voltage is within 500V. If it exceeds the limit, reduce the number of PV modules connected in series.</p> <p>2. The inverter will automatically resume normal operation after the necessary corrections.</p> <p>3. Restart your EP800*. If the issue persists, please contact BLUEETTI support for assistance.</p> <p>* See FAQ 1.</p> |
| B021. | PV2 Voltage High | |

| | | |
|-----------------|---|--|
| B022. | Reserved | |
| B023. | PV1 ISO Failure | Restart your EP800*. If the issue persists, please contact BLUETTI support for assistance. * See FAQ 1. |
| B024. | PV2 ISO Failure | |
| B025. | Reserved | |
| B026. | Hardware PV1 Failure | <ol style="list-style-type: none"> 1. Log in to the App and bind your EP800. Connect to it via Bluetooth to check for any firmware updates. 2. Make sure the total open circuit voltage of your PV modules doesn't exceed 500V, and the operating currents for PV1 and PV2 stays within 12.5A and 25A, respectively. You can monitor the PV input in real time in the App. If the voltage exceeds the limit, reduce the number of PV modules connected in series. 3. The inverter will automatically resume normal operation after the necessary corrections. 4. Restart your EP800*. If the issue persists, please contact BLUETTI support for assistance. * See FAQ 1. |
| B027. | Hardware PV2 Failure | |
| B028.- B030. | Reserved | |
| B031. | Phase Sequence Error | <ol style="list-style-type: none"> 1. When installing for the first time, make sure to connect the mains' L1 and L2 phases correctly to the GRID terminals of the EP800. 2. Switch on or off both two phases of the mains simultaneously. 3. Restart your EP800*. If the issue persists, please contact BLUETTI support for assistance. * See FAQ 1. |
| B032. | Fan Failure | <ol style="list-style-type: none"> 1. Check if the EP800 inverter's fan is spinning properly. Log in to the App and bind your EP800. Connect to it via Bluetooth to check for any firmware updates. 2. After successfully upgrading, restart your EP800*. If the issue persists, please contact BLUETTI support for assistance. * See FAQ 1. |
| B033. | Zero Drift Abnormal (Sampling zero abnormal) | |
| B034. | Hardware Input Overcurrent | |
| B035. | DC Input Voltage Low | <ol style="list-style-type: none"> 1. Check if the EP800 inverter's fan is spinning properly. Log in to the App and bind your EP800. Connect to it via Bluetooth to check for any firmware updates. 2. After successfully upgrading, restart your EP800*. If the issue persists, please contact BLUETTI support for assistance. * See FAQ 1. |
| B036. | DC Input Voltage High | |
| B037. | DC Input Overcurrent | <ol style="list-style-type: none"> 1. Check if the EP800 inverter's fan is spinning properly. Log in to the App and bind your EP800. Connect to it via Bluetooth to check for any firmware updates. 2. After successfully upgrading, restart your EP800*. If the issue persists, please contact BLUETTI support for assistance. * See FAQ 1. |
| B038. | LLC Output Overvoltage | |
| B039. | LLC2 Output Overvoltage | |

| | | |
|-------|--|--|
| B040. | Inverter Overload | 1. Disconnect the loads on the GRID terminals while keeping the BACKUP operation normal. Check the power and current of the two phases on the BACKUP terminals. If they exceed the limits and trigger an alarm, reduce the connected loads accordingly. 2. Restart your EP800*. If the issue persists, please contact BLUETTI support for assistance. * See FAQ 1. |
| B041. | L2 Inverter Overload | |
| B042. | Reserved | |
| B043. | L1 Inverter Output Failure | 1. Log in to the App and bind your EP800. Connect to it via Bluetooth to check for any firmware updates. 2. After successfully upgrading, restart your EP800*. If the issue persists, please contact BLUETTI support for assistance. * See FAQ 1. |
| B044. | L2 Inverter Output Failure | |
| B045. | L3 Inverter Output Failure | |
| B046. | Overtemperature Protection | 1. Make sure the EP800 is placed in a well-ventilated environment. 2. Allow the EP800 to cool down and then restart*. If the issue persists, please contact BLUETTI support for assistance. * See FAQ 1. |
| B047. | Communication Failure | 1. Make sure all connections are secure. 2. Restart your EP800*. If the issue persists, please contact BLUETTI support for assistance. * See FAQ 1. |
| B048. | Reserved | |
| B049. | DSP Communication Interrupted | 1. Make sure all connections are secure. 2. Restart your EP800*. If the issue persists, please contact BLUETTI support for assistance. * See FAQ 1. |
| B050. | BMS Communication Interrupted | |
| B051. | IoT Communication Interrupted | |
| B052. | Zero Drift Abnormal-ARM | |
| B053. | RTC Read and Write Abnormal | |
| B054. | Inverter Leakage Current High | |
| B055. | Operating Ambient Environment Abnormal | 1. Make sure the EP800 is placed in a well-ventilated environment. 2. Restart your device*. If the issue persists, please contact BLUETTI support for assistance. * See FAQ 1. |
| B056. | Temperature 1 Abnormal | |
| B057. | Temperature 2 Abnormal | |
| B058. | Temperature 3 Abnormal | |
| B059. | Temperature 4 Abnormal | |

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| B060. | BMS Charge Protection | <ol style="list-style-type: none"> 1. Make sure the EP800 is placed in a well-ventilated environment. 2. Restart your device*. If the issue persists, please contact BLUETTI support for assistance. <p>* See FAQ 1.</p> |
| B061. | BMS Discharge Protection | |
| B062. | BMS System Failure | |
| B063.- B064. | Reserved | |
| B065. | PV Input Voltage Too High | <ol style="list-style-type: none"> 1. Immediately turn off the PV input switch. Check if the total open circuit voltage is within 500V. If it exceeds the limit, reduce the number of PV modules connected in series. 2. The inverter will automatically resume normal operation after the necessary corrections. 3. Restart your EP800*. If the issue persists, please contact BLUETTI support for assistance. <p>* See FAQ 1.</p> |
| B066. | LLC Output Voltage Low | <ol style="list-style-type: none"> 1. Log in to the App and bind your EP800. Connect to it via Bluetooth to check for any firmware updates. 2. After successfully upgrading, restart your EP800*. If the issue persists, please contact BLUETTI support for assistance. <p>* See FAQ 1.</p> |
| B067. | BUS Soft Start Abnormal | |
| B068. | Parallel Configuration Error | <ol style="list-style-type: none"> 1. Log in to the App and bind your EP800. Connect to it via Bluetooth to check for any firmware updates. 2. Inspect the parallel configuration parameters in the App. 3. Check if the system wiring is properly installed and connected, especially the parallel communication cable. 4. Restart your EP800*. If the issue persists, please contact BLUETTI support for assistance. <p>* See FAQ 1.</p> |
| B069. | Parallel Communication Loss | |
| B070- B096 | Reserved | |
| B097. | Grid Voltage High | <ol style="list-style-type: none"> 1. Check if the grid voltage and frequency are within the normal range. If the issue occurs occasionally, it may be due to abnormal working conditions of the grid. The inverter will recover once the grid returns to normal. 2. If the issue happens frequently, consult your utility company to confirm if the voltage and frequency are within the normal range. If they are, and your connections are secure, restart the EP800* and enable the Grid Self-adaption Mode in Advanced Settings. If the issue persists, please contact BLUETTI support for assistance. <p>* See FAQ 1.</p> |
| B098. | Grid Voltage Low | |
| B099. | Grid Frequency High | |
| B100. | Grid Frequency Low | |
| B101. | Grid Oscillation | |
| B102. | Grid Loss | |
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| B103. | PV1 Voltage Low | <ol style="list-style-type: none"> 1. Make sure the total open circuit voltage is higher than 200V. You can check this in the App. If it's lower, add more PV modules in series. 2. The inverter will automatically resume normal operation after the necessary corrections. 3. It's normal to receive this alarm when the sun is less intense, especially in the morning and evening. 4. Restart your EP800*. If the issue persists, please contact BLUETTI support for assistance. * See FAQ 1. |
| B104. | PV2 Voltage Low | |
| B105.- B128. | Reserved | |
| B129. | EEPROM Read and Write Abnormal | <ol style="list-style-type: none"> 1. Log in to the App and bind your EP800. Connect to it via Bluetooth to check for any firmware updates. 2. After successfully upgrading, restart your device*. If the issue persists, please contact BLUETTI support for assistance. * See FAQ 1. |
| B130- B133. | Reserved | |
| B134. | USB Format Error | <ol style="list-style-type: none"> 1. Check if there are any available upgrade files. If needed, contact BLUETTI support for assistance. 2. Make sure the USB is formatted as FAT32 and its maximum memory is 32G. 3. Restart your EP800*. If the issue persists, please contact BLUETTI support for assistance. * See FAQ 1. |
| B135. | USB Upgrade Abnormal | |
| B137. | USB Communication Abnormal | |
| B138. | USB No Upgrade File | |
| B136. | Arcing Detection Abnormal | <ol style="list-style-type: none"> 1. Log in to the App and bind your EP800. Connect to it via Bluetooth to check for any firmware updates. 2. After successfully upgrading, restart your EP800*. If the issue persists, please contact BLUETTI support for assistance. * See FAQ 1. |
| B139- B140. | Reserved | |
| B141. | Arcing Module Self-Test Failure | <ol style="list-style-type: none"> 1. Log in to the App and bind your EP800. Connect to it via Bluetooth to check for any firmware updates. 2. After successfully upgrading, restart your EP800*. If the issue persists, please contact BLUETTI support for assistance. * See FAQ 1. |
| B142. | Arcing Module Communication Failure | |
| B143. | Data Clearing in Progress | |
| B144- B145. | Reserved | |
| B146. | Excessive Relay Switching Today | <p>While the EP800 operates, it manages the system's built-in relays automatically. To prolong the system lifespan, the system is programmed to track the number of relay switches. When you receive this alert, it means that the relay switches have reached the maximum allowed for the current day or time period. However, the count will reset automatically when a new day (or time period) begins.</p> |
| B147. | Excessive Relay Switching at this Moment | |

12. FAQs (Frequently Asked Questions)

Q1: How to restart the EP800?

A: 1. Switch off the system:

- a. Open the App and turn off the System Switch.
- b. Disconnect the PV and Grid switches.
- c. If you need uninterrupted power for your BACKUP loads, turn the transfer switch of the sub-panel to Grid.
- d. Press and hold the power button on any B500 unit for about 3 seconds until the button light starts flashing.
- e. Wait for the green light on the EP800 inverter to turn off, indicating that the entire system is now powered off.
- f. Make sure to turn off all the power switch on the B500 units.

2. Restart:

- a. Turn on all B500 unit's power switch.
- b. Press and hold the power button on any B500 unit for about 3 seconds until the button light starts flashing.
- c. When the EP800 light is on, the entire system is switched on.
- d. In the App, turn on the System Switch.
- e. Switch on the PV and Grid switches. Turn the transfer switch of the sub-panel to Backup.

Q2: Why can't I connect it via Bluetooth?

A: Please follow the steps below to troubleshoot the issue:

1. Check if the IoT controller is properly connected.
2. Make sure you've granted the App access to use Bluetooth.
3. Enable Bluetooth on your phone.
4. Grant the App access to your phone's location service.

If the issue persists, please contact BLUETTI support for further assistance.

Q3: Why can't I connect it remotely via Cloud?

A: Please follow the steps below to troubleshoot the issue:

1. Check if the IoT controller is properly connected.
2. Configure a WiFi network for the EP800.
3. Make sure you've input correct WiFi password and match the specific character requirements.
4. Check if the WiFi is operating within the 2.4GHz band. The EP800 supports 2.4GHz WiFi only.

If the issue persists, please contact BLUETTI support for further assistance.

Q4: Why aren't the devices connected to the BACKUP side receiving any power?

A: Please follow these self-check steps first:

1. Make sure you have turned on the System Switch in the App.
2. If the B500 batteries have run out of power and both the PV and Grid switches are off, the system automatically disables the power output to protect the batteries.

If the issue persists, please contact BLUETTI support for further assistance.

Q5: How long does it take to start the entire system?

A: Typically, it takes a maximum of 3 minutes to start the system. However, the duration may vary depending on how you initiate the system. If you encounter any issues or have any questions about using the EP800, please feel free to contact BLUETTI support.

Q6: Can I connect a 12kWp solar system to the EP800, even if it exceeds the PV input power? Will the EP800 automatically adjust the PV input current?

A: Whether you can connect a 12kWp solar system to the EP800 depends on the voltage of your solar setup. The EP800 can work with solar systems that have an open-circuit voltage ranging from 150V to 500V. It's able to accommodate two PV inputs, with a total power of 9,000W (3kW for PV1 and 6kW for PV2). The EP800 can automatically adjust the input current to stay within these limits, but it won't exceed 12.5A for PV1 and 25A for PV2.

Q7: Can it charge and discharge at the same time?

A: Yes. The EP800 supports pass-through charging.

Q8: Can my household appliances be powered by solar panels while they are charging the battery?

A: Yes, in the "Self-consumption" mode, the EP800 prioritizes solar power for running household appliances, and any extra energy is used to charge the battery.

Q9: How does the EP800 power my household appliances? Does it use solar power first and then switch to grid power when needed?

A: You can configure the EP800 to operate in "Self-consumption" mode. In this mode, the EP800 prioritizes solar energy for running household appliances. If there's not enough solar power available, the EP800 combines it with stored energy from the battery to power your appliances. Only if there's still not enough power, it will draw electricity from the grid to meet your demand.

Q10: Why isn't my solar system able to charge the EP800?

A: Please follow these self-check steps:

- 1: Make sure the PV switch of the EP800 is in the "ON" position.
 - 2: Check the connections of your solar panels and the PV input cables.
 - 3: Check if there are any PV-related error messages in the App.
 - 4: Make sure you've turned on the System Switch in the App.
- If the issue persists, please contact BLUETTI support for further assistance.

Q11: How can I upgrade the EP800 firmware?

A: To upgrade the firmware of your EP800, follow these steps:

1. Log in to the App and bind your EP800.
2. Connect to the EP800 via Bluetooth.
3. In the App, navigate to the Firmware Upgrade section.
4. Select the option to upgrade the firmware

Without logging in and binding your EP800, you won't find the upgrade option, even if connected to WiFi.

Q12: What if the B500 battery pack's circuit breaker automatically trips and cuts off the power?

A: Please don't manually reset it, and contact BLUETTI support for assistance.

Q13: What should I do if the SoC readings seem to be inaccurate?

A: Please try these steps to address the issue:

1. Use the App to update to the latest software for the BMS.
2. Fully charge and discharge your EP800 twice.

This will help recalibrate the system and restore accurate SoC readings.

Q14: Why doesn't the App show the load power?

A: The App is designed to display the load power only when it exceeds 100W for each phase.

Q15: If I set the SoC low value to 5%, will the EP800 shut down due to overnight self-discharge?

A: No, the EP800 can automatically recharge from the grid and maintain a minimum SoC of 4% to ensure the system doesn't shut down.

Q16: What should I keep in mind when setting the charging and discharging time?

A: When setting the charging and discharging time, it's important to note the following:

1. Arrange the time periods in chronological order, starting with the earliest and ending with the latest.
2. Avoid time periods that span into the next day.

Q17: Why does the solar panel stop working when the battery is full, even if there are devices using power?

A: This is completely normal. If there are fluctuations in the power usage while the solar panel is charging the battery, it can temporarily stop to prevent overcharging. As soon as the battery's power level decreases while running devices, the solar panel will automatically start working again.

Q18: How can I share access to the EP800 with others?

A: If you want to invite other BLUETTI App users to control the EP800, please follow the steps below:

1. Open the App and go to Settings.
2. Select the Share Device option and generate the QR code.
3. Have others scan the QR code using the BLUETTI App.

Please note that the QR code is valid for 10 minutes and you can share access with up to 5 accounts simultaneously.

Q19: How can I set the EP800 as a backup power source?

A: The EP800 is designed to operate in Backup UPS mode by default, providing a reliable home backup power source that kicks in only when the grid fails.

To activate this mode, access the Settings menu, navigate to Working Mode, and select the Backup mode.

Q20: How can I optimize solar energy usage and achieve energy self-sufficiency?

A: You can enable the Self-consumption mode on the EP800. In this mode, the EP800 prioritizes direct consumption of solar energy for immediate household needs and stores excess energy in the battery for later use. With such a strategy, the EP800 ensures an efficient and reliable power supply, reducing reliance on the grid and promoting energy independence.

To enable this mode, access the Settings menu, navigate to Working Mode, and select the Self-consumption mode.

Q21: My utility provider offers a Time of Use (TOU) electricity tariff. How can I use the EP800 to save on peak electricity costs?

A: You can configure the Time of Use mode to fit your specific needs. During the charge period, the EP800 draws power from the grid, typically during off-peak tariff hours when electricity rates are lower, to replenish its energy storage and discharges during peak hours.

To set this mode, please follow the steps below:

1. Go to the Advanced Settings and turn on the Charge From Grid.
2. Go to the Settings menu, tap on Working Mode, and select Time of Use.
3. Tap on Manage Charge/Discharge Time and designate time periods with lower electricity rates as Off-Peak and higher rate periods as Peak.

Note: A maximum of 6 time periods can be set, with the earliest as the first and the latest as the last.

Q22: Can I power on the B500 unit separately by pressing its power button?

A: Yes, you can.

Q23: Can I charge the EP800 using a generator?

A: We recommend using a generator with a voltage greater than 240V and a power greater than 5000W to charge the EP800.

Q24: Can I install the EP800 outdoors?

A: Absolutely, the EP800 is equipped with a NEMA 4X protection rating. However, if you plan to install it in a location that is directly exposed to sunlight, it is advisable to purchase a separate power shelter from BLUETTI's official website. This will provide additional protection and ensure the EP800 operates safely, reliably, and efficiently in all weather conditions.

13. FCC Warning

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 RF Exposure Warning Statement:

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This equipment shall be installed and operated with minimum distance 20cm between the radiator & body

Please note that changes or modifications of this product is not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment

IC

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.

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.

Radio Frequency Exposure Statement for IC

This equipment complies with IC exposure limits set forth for an uncontrolled environment. This equipment shall be installed and operated with minimum distance 10cm between the radiator & body.

Cet équipement est conforme aux limites d'exposition IC définies pour un environnement non contrôlé. Cet équipement doit être installé et utilisé avec une distance minimale de 10cm entre le radiateur et la carrosserie.

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

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

(Cet appareil numérique de la Classe B conforme à la norme NMB-003 du Canada).

For more information, please visit:

Customer Service

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

Mail: sale@bluettipower.com (Pre-sales), service@bluettipower.com (After-sales)

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

Add: 6185 S Valley View Blvd Ste D.Las Vegas,NV 89118.



@ BLUETTI Support
@ BLUETTI Official



@ bluetti_inc



@bluetti.inc



@bluetti_official



service@bluettipower.com



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