

B500K

LiFePO₄ Battery Pack

User Manual v1.0

Important Instructions

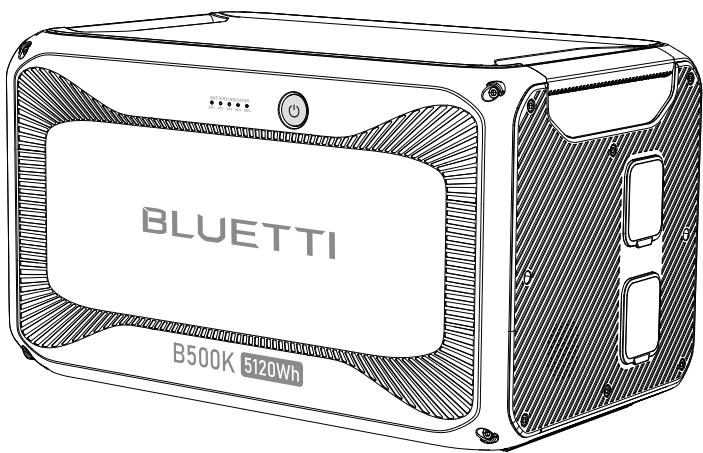
Inspect the packaging for damage before use.

Perform a charge cycle before first use.

Scan the QR code for the BLUETTI app.

Read and understand this manual before use and
keep it handy for future reference.





Legal Information

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The contents of this manual are subject to change without notice. Please obtain the latest version from BLUETTI official website.

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

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1. Safety Information

General Safety

WARNING – When using the product, basic precautions should always be followed to prevent the risk of fire, electric shock, or injury to persons:

- Read all the instructions before using the product.
- Use and store the product in a cool, dry place with good ventilation.
- Keep it away from flammable liquids, gases, explosives and corrosive substances.
- Do not expose it to high temperatures or heat sources like sunlight, fire, transformers, and heaters.
- Do not insert fingers or foreign objects into the product's ports.
- Do not use damaged or modified product to prevent electric shock, injury, etc.
- Operate the product only with undamaged plugs and cables.
- Do not move the product during use to avoid internal hardware damage from vibration and collision.
- Place the product on a stable platform.
- Keep the product out of reach of children and pets.
- Avoid submerging or cleaning the product with liquids.
- Power off the product before any servicing to reduce the risk of electric shock.
- Only professionals should handle leaks or defects — seek their assistance as needed.
-  The symbols on the unit and its accessories are intended to remind you to read the instructions in the literature accompanying the product before operation and maintenance.

Battery Safety

- Use the battery within the specified temperature range.
- Do not disassemble, modify, or damage the battery to prevent leakage, overheating, or fire.
- Keep the positive and negative battery terminals from touching each other or metal objects.
- Avoid welding or grinding near batteries to prevent fire from sparks or arcs.
- Do not drop metal tools onto the battery to prevent sparks or short circuits.
- Lithium-ion batteries pose fire risks, so be aware of these hazards:
 - a. Thermal runaway can release flammable and harmful gases such as CO and HF. Vapors from burning batteries may irritate the eyes, skin, and throat.
 - b. The concentration of these gases could lead to deflagration and explosion.
 - c. The battery electrolyte is flammable, toxic, and volatile.
- If a battery leaks chemicals or emits odors, don't approach it — contact professionals for safe disposal. They'll need proper protective gear.

- Do not touch a battery that's been submerged in water, to avoid electric shocks. Discard soaked batteries through proper recycling channels.
- Electrolyte is corrosive and can cause irritation and chemical burns. If you come into direct contact with battery electrolyte:
 - a. Inhalation of Vapors: Evacuate the 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.
- Follow local guidelines for proper battery disposal; never burn, crush, or discard them improperly.

Handling Requirements

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

Recommended Number of People Based on the Weight of Product

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

Personal Precautions

- When working near batteries, wear eye and clothing protection.
- Avoid smoking, sparks, or flames near the battery or engine.
- In abusive conditions, liquid may eject. If contact occurs, flush with water; seek medical help if liquid contacts eyes.

SAVE THESE INSTRUCTIONS

2. Packing List



B500K
LiFePO₄ Battery Pack



Documents



CA90*
Battery Expansion Cable
(270 mm/10.62 in)



P090A*
Battery Expansion Cable
(800 mm/31.49 in)

*The package includes only one battery expansion cable (CA90 or P090A), based on the ordered kit.

The following optional accessory is not included. You can purchase it at <https://www.bluettipower.com>

Note: Image for reference only.

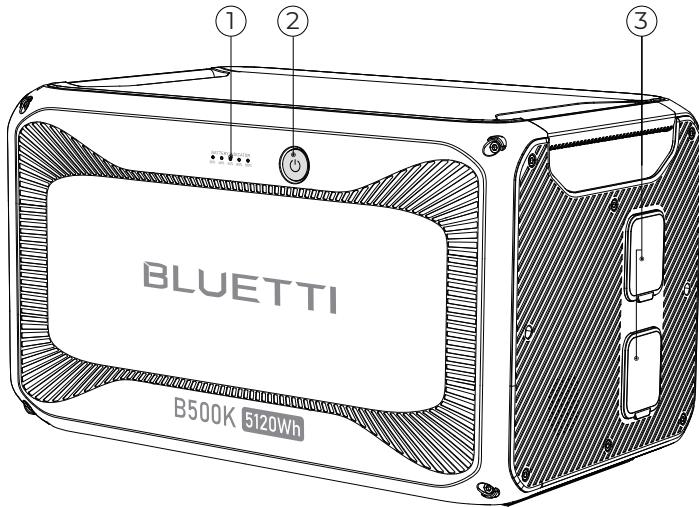


P090D to P150D Battery Expansion Cable
(800 mm/31.49 in)

Battery Expansion Cables:

- ① Connect the B500K to Apex 300, B300K, or other B500K units with the CA90 battery expansion cable.
- ② Use the P090A cable to connect to B300, AC300, AC200MAX, or AC200L.
- ③ For AC500 and B300S, use the optional P090D to P150D cable.

3. Get to Know Your B500K



① Battery Level Indicators*

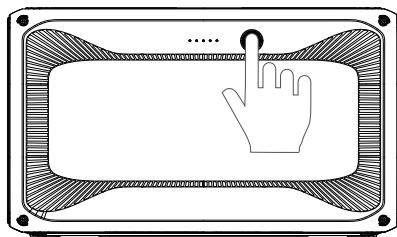
③ Expansion Ports

② Power Button*

*See Chapter 5 for details on the indicators.

4. Use Your B500K

4.1 Power On/Off



Power On

1. Long press the power button.
2. When the button lights up, the B500K is on standby.

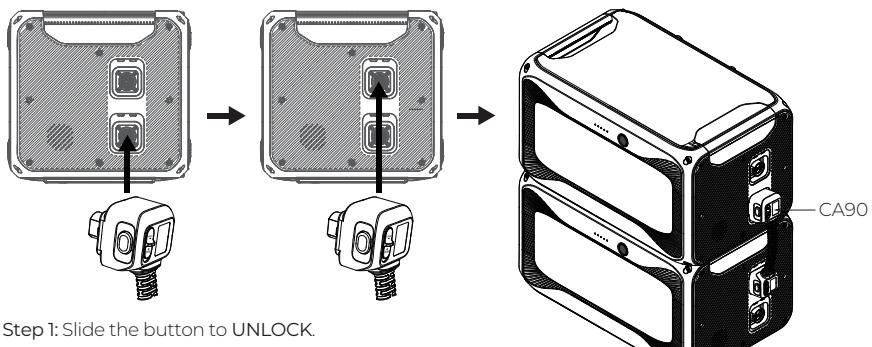
Power Off

1. Long press the power button.
2. The button light and indicators turn off.

Note: Connected to a power station, the B500K automatically turns on when the combo charges with AC power or solar panels.

4.2 Connect to B500K and Power Station

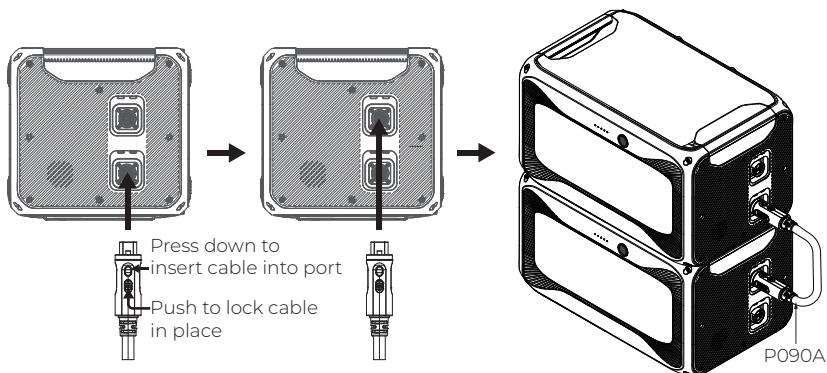
Connecting to B500K Battery



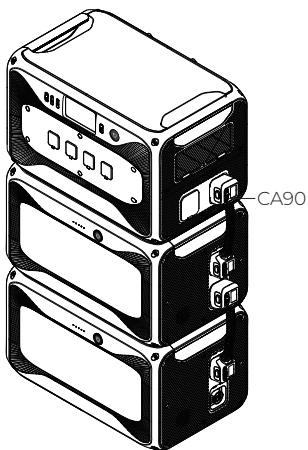
Step 1: Slide the button to UNLOCK.

Step 2: Press and hold the side button, then insert the connector into the main unit/battery pack.

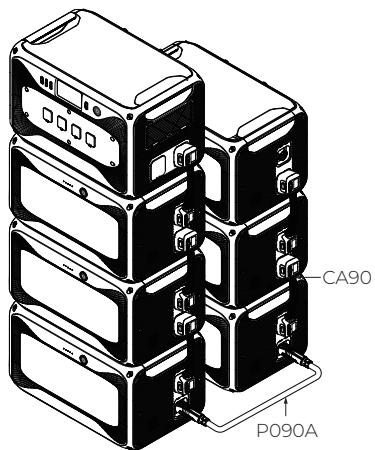
Step 3: Once securely connected, slide the button to LOCK.



Connecting to Apex 300



Apex 300 + 2* B500K

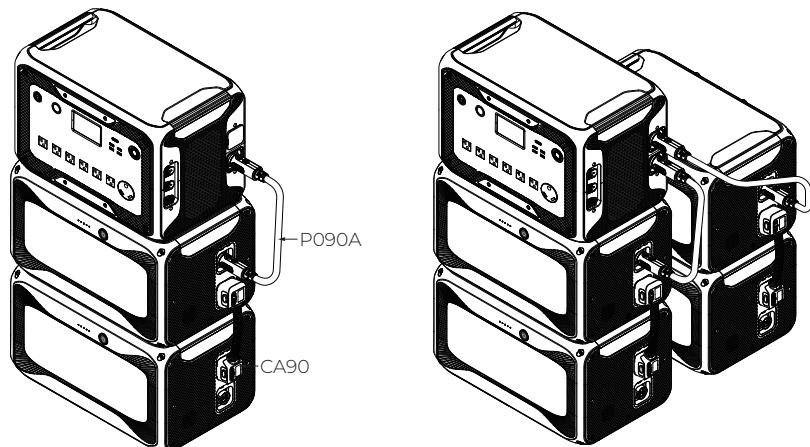


Apex 300 + 6* B500K

Notes:

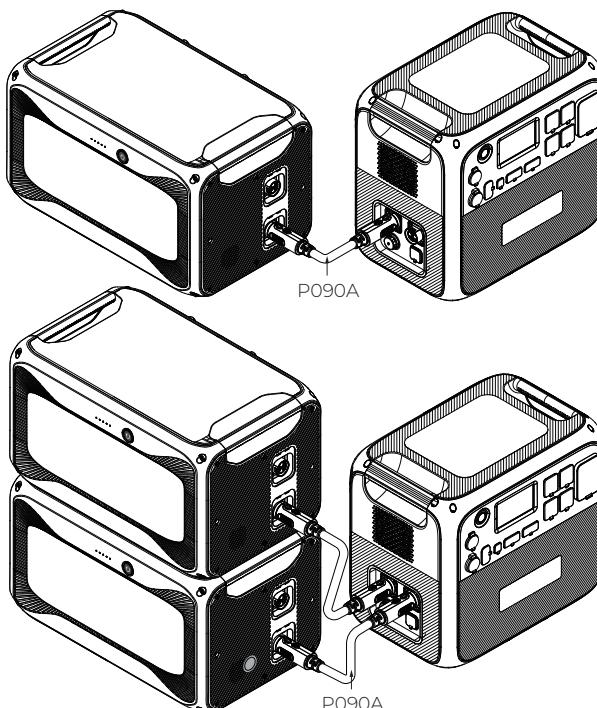
- Power off all units before connecting.
- Power on the Apex 300, and the battery activates automatically. Stacking the units is recommended.
- When connecting two or more B500K batteries, it's recommended to securely mount the units to the wall using metal brackets and screws.

Connecting to AC300

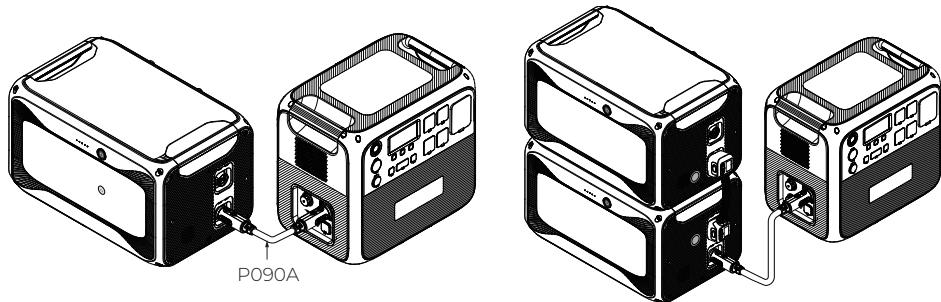


Note: The AC300 can work with B500K and B300 expansion batteries simultaneously using P090A battery expansion cables.

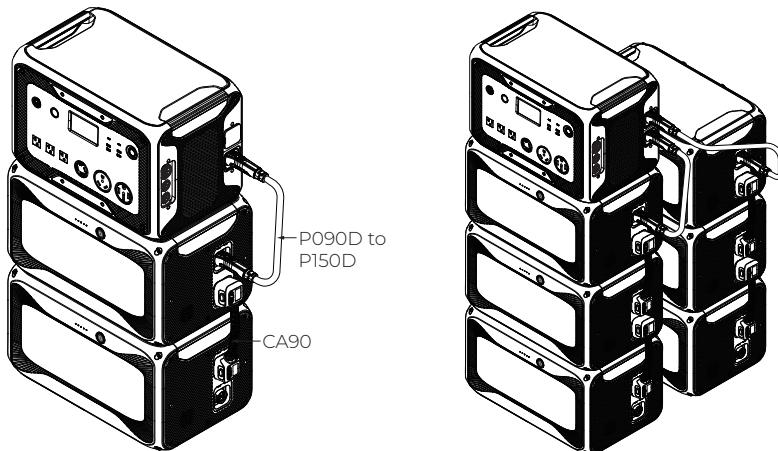
Connecting to AC200MAX



Connecting to AC200L



Connecting to AC500

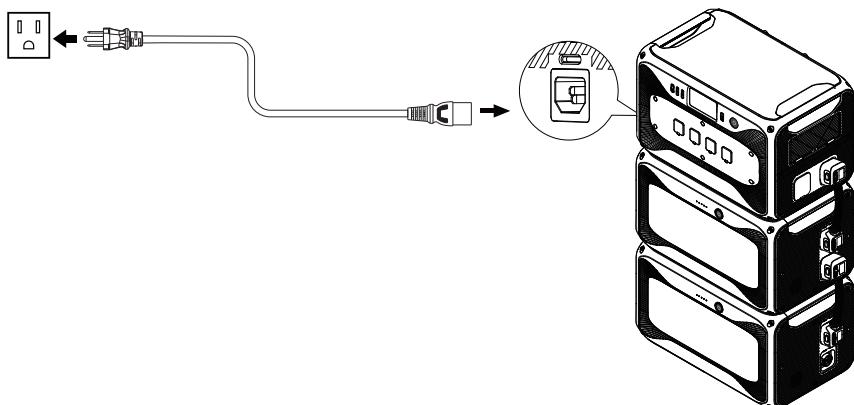


Note: The AC500 can work with B500K, B300S and B300 expansion batteries simultaneously. To connect them:

| Connection | Cable Required |
|---------------------|--|
| AC500 to B300S | P150D battery expansion cable |
| AC500 to B500K/B300 | P090D to P150D battery expansion cable |
| B500K/B300 to B300S | P090A battery expansion cable |
| B500K to B300 | P090A battery expansion cable |

4.3 Charge Up

Connect the B500K to a power station for charging.



Note: Recommended charging temperature: 15°C to 30°C (59°F to 86°F)

4.4 Control and Monitor

Connect the B500K to a power station, and check the battery level and upgrade it using the BLUETTI app. For more details, please refer to your power station's app user guide.

5. Indicators Status

| Indicators | Status | Description |
|---------------|---|--|
| Power Button | Steady green | Normal operation |
| | Flashes 4 times per second | Malfunction |
| | Flashes 1.5 s on, 1.5 s off | Upgrading |
| | Off | Shutdown |
| | Flashes twice, pause 4 seconds, repeat | The battery expansion cable is not locked. |
| Battery Level | <ul style="list-style-type: none">• Each lit indicator represents 20% SoC.• All indicators remain steady when fully charged and go off when fully discharged.• Flashing indicators show the charging progress. Only one flashes when nearly full. | |

6. Maintenance and Care

- When the SoC drops to 1% without any power input, power off the unit promptly to prevent overdischarge.
- Before storing, charge it to 60%–80% SoC and fully cycle every 6 months to maintain battery health.
- For long-term storage over 6 months, charge it to 40%–60% SoC and fully cycle every 3 months.
- Safe storage temperature: -20°C to 40°C (-4°F to 104°F). For storage over a month, aim for a range of -20°C to 25°C (-4°F to 77°F). Perform a cycle charge before reuse.
- Avoid extended storage periods as it can impact the battery's performance and lifespan.
- Use a dry and soft towel to clean the battery's exterior.

7. Specifications

| Model | B500K |
|-------------------------|--|
| Battery Capacity | 5,120 Wh |
| Battery Type | LiFePO ₄ |
| Net Weight | Approx. 45 kg/99.21 lbs |
| Dimensions (L × W × H) | 520 × 327 × 308.5 mm/20.47 × 12.87 × 12.15 in |
| Charging Temperature | 0°C to 40°C/32°F to 104°F |
| Discharging Temperature | -20°C to 40°C/-4°F to 104°F |
| Storage Temperature | Up to 1 month: -20°C to 40°C/-4°F to 104°F Up to 6 months: -20°C to 25°C/-4°F to 77°F |
| Working Humidity | 5% to 95% RH |
| Charging Current | 60 A Max. (Current may decrease outside specified temperatures) |
| Discharging Current | 70 A Max. |
| 2 × Expansion Port | 58.4 VDC Max., 90 A Max. |
| Enclosure Rating | IP20 |

8. Troubleshooting

When the B500K malfunctions, the indicators may flash or turn off in various combinations. Check the BLUETTI app for error details and solutions. If the issue persists, stop using the product immediately and contact BLUETTI support for assistance.

Appx. 1 FAQs (Frequently Asked Questions)

Q1: How to claim warranty?

A: Please refer to the warranty card.

Q2: How to upgrade the B500K?

A: Connect the B500K to the power station and upgrade it via the BLUETTI app in Settings > Firmware Upgrade. Follow in-app instructions.

Q3: Can it charge and discharge at the same time?

A: Yes, the B500K supports pass-through charging.

Q4: Why doesn't the B500K drain all its power?

A: The B500K reserves some energy to avoid overdischarging and protect the battery's lifespan.

Q5: Can I leave the battery uncharged after fully discharging?

A: No, charge promptly after use to prevent damage. Keep the battery in the environment of at least 10°C (50°F) for at least 12 hours beforehand.

Need Help? We're here for you!

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