

Apex 300

Portable Power Station

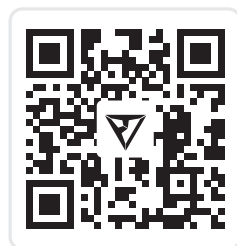
User Manual v1.0

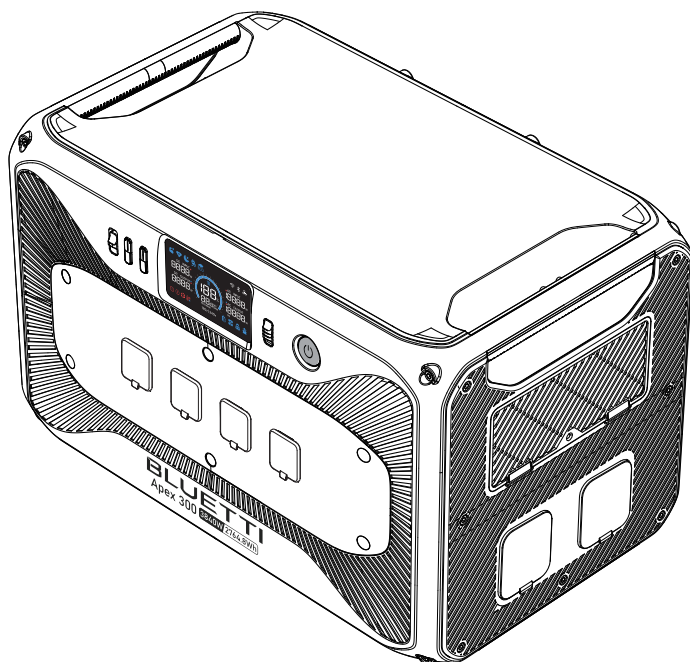
Important Instructions

For optimal performance, update your unit to the latest firmware before first use.

See the appendix "Update Firmware via BLUETTI App" for guidance.

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





Tips

1. Fully charge the unit before first use.
2. Do not use solar panels with open circuit voltage higher than 60V. Solar input voltage range for the unit is 12V-60V.
3. If the unit's SoC falls below 5%, please recharge the unit in time. If the SoC drops to 0, power off the unit and charge it for at least 30 minutes before restarting.
4. If not used for more than 3 months, charge the unit to 40%-60% SoC and store it with the power off. For optimum battery life, discharge and charge the unit every 3 months. It's recommended to charge via an AC source; if using solar energy, ensure an input of over 100W.

Legal Information

Notice

BLUETTI's products and services are subject to the terms and conditions agreed upon during purchase. Some aspects described in this manual may not be available under your purchase contract. Unless otherwise specified in the contract, BLUETTI makes no express or implied representations or warranties regarding the contents of this manual.

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

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

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

- Read all the instructions before using the product.
- Handle the product with care, avoiding drops, violent impacts, or tilting.
- To reduce the risk of injury, close supervision is necessary when the product is used near children.
- Do not put fingers or foreign objects into the product's ports.
- Use of an attachment not recommended or sold by the manufacturer may result in a risk of fire, electric shock, or injury to persons.
- Do not move the product during operation to avoid poor connections.
- Do not expose the battery to high temperatures, as this may cause an explosion or leakage of flammable liquids or gases.
- Do not use the product in the rain or high humidity environments.
- Do not use a battery pack or appliance that is damaged or modified. Damaged or modified batteries may exhibit unpredictable behavior resulting in fire, explosion, or risk of injury.
- Handle the product with caution in low air pressure environments to prevent explosions or leaks.
- Charge the product in a well-ventilated area.
- Under abusive conditions, liquid may be ejected from the product's battery; avoid contact. If contact accidentally occurs, flush with water. If liquid contacts eyes, additionally seek medical help. Battery liquid may cause irritation or burns.
- In case of fire, use a dry powder fire extinguisher appropriate for the product.
- Never dispose of the product's battery in fire, hot ovens, or by cutting it.
- Do not operate the product with a damaged cord, plug, or output cable.
- To reduce the risk of damage to the electric plug and cord, pull the plug rather than the cord when disconnecting the product.
- Do not disassemble the product; take it to a qualified service person if service or repair is required. Incorrect reassembly may result in a risk of fire or electric shock.
- Unplug the product before any servicing to reduce the risk of electric shock.
- Power off the unit before unplugging.

- **WARNING - RISK OF EXPLOSIVE GASES.** Follow these instructions and those published by manufacturer of any equipment you intend to use in vicinity of the product to reduce risk of battery explosion.
- **WARNING - RISK OF ELECTRIC SHOCK.** Never use the product to power tools to cut or access live parts, wirings, or materials containing them, such as building walls.
- Have servicing performed by a qualified repair person using only identical replacement parts. This will ensure that the safety of the product is maintained.



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.

- The socket-outlet should be installed near the product and easily accessible for safety purposes.
- When charging with lead-acid batteries or using the product to charge them, follow these safety precautions:
 - a. Wear complete eye and clothing protection; do not touch eyes when working near a battery.
 - b. No smoking, sparks, or flames near the battery or engine.
 - c. Avoid dropping metal tools onto the battery to prevent sparks or short circuits.

Disposal and Recycling

1. Take old electronic components and batteries to designated recycling centers. This prevents improper disposal and supports material recovery.
2. If possible, fully discharge the batteries and then place them in designated battery recycling boxes. The batteries in this product contain hazardous chemicals. Do not dispose of them with regular household waste. Please follow local laws and regulations for proper battery disposal.
3. If a battery cannot fully discharge due to product malfunction, do not place it in the battery recycling box. Instead, contact a professional battery recycling organization for safe handling.

Grounding Instructions (For AC charging only)

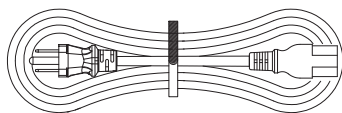
- This product must be grounded when connected to the grid. If this product should malfunction, grounding provides a path of least resistance for electric current to reduce the risk of electric shock.
- The product is equipped with an AC charging cable having an equipment grounding conductor and a grounding plug. The plug must be plugged into an appropriate outlet that is properly installed and grounded in accordance with all local codes and ordinances.
- **WARNING** - Improper connection of the grounding conductor can result in a risk of electric shock. Check with a qualified electrician if you're in doubt as to whether the product is properly grounded. Don't modify the plug provided with the product—if it'll not fit the outlet, have a proper outlet installed by a qualified electrician.

SAVE THESE INSTRUCTIONS

2. What's in the Box



Apex 300
Portable Power Station



AC Charging Cable
(5.91ft / 180cm)



Car Charging Cable
(Cig lighter - XT60, 2.41ft / 73.5cm)



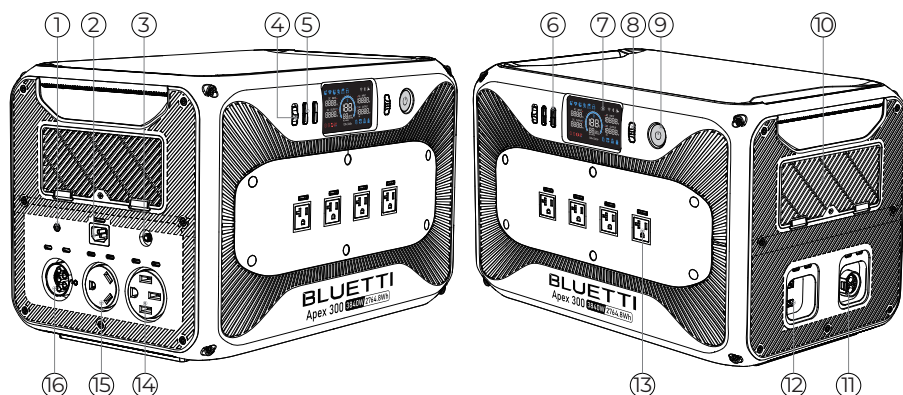
Grounding Screw
(M5*10)



User Manual & Warranty Card

3. Get to Know Your Apex 300

3.1 Apex 300 Overview



① Grounding Terminal*

② AC Input Outlet

③ Circuit Breaker

④ AC Output Voltage Selector

⑤ ECO Mode Button

⑥ AC Power Button

⑦ LCD Display

⑧ Charging Mode Selector

⑨ Power Button

⑩ Removable Dust Filter

⑪ Battery Expansion Port

⑫ DC Input

⑬ AC Outlet (NEMA 5-20R)

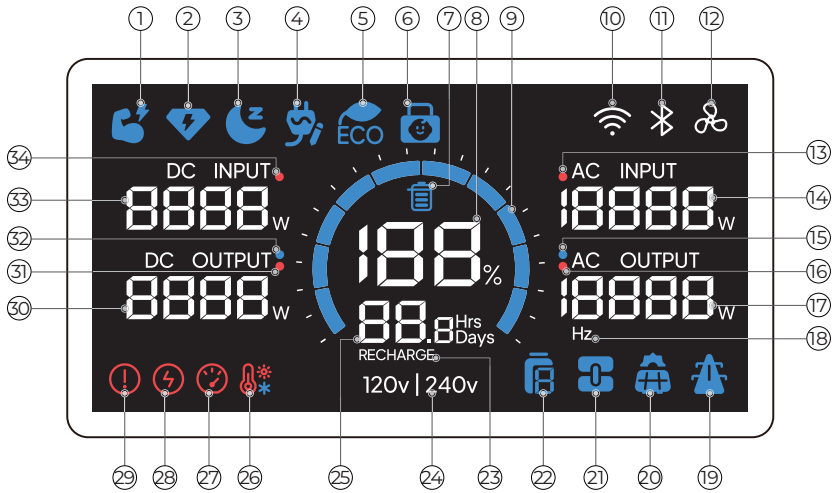
⑭ AC Outlet (NEMA 14-50R)

⑮ AC Outlet (NEMA TT-30R)

⑯ AC Input/Output Outlet(P050A)

* Used for grounding when powering certain appliances. For assistance, contact us or seek guidance from the appendix "Grounding Guidelines (Minimum cross-sectional area: 8AWG)".

3.2 LCD Display



- | | | |
|----------------------------|------------------------|--------------------|
| ① Power Lifting Mode | ⑬ AC Input Alarm | ②⑤ Remaining Time* |
| ② Turbo Charging | ⑭ AC Input Power | ②⑥ High/Low Temp |
| ③ Silent Charging | ⑮ AC Output* | ②⑦ Overload |
| ④ AC Output Restore* | ⑯ AC Output Alarm | ②⑧ Overcurrent |
| ⑤ ECO Mode | ⑰ AC Output Power | ②⑨ System Fault |
| ⑥ Child Lock | ⑱ AC Output Frequency | ③⑩ DC Output Power |
| ⑦ Charge/Discharge Limits* | ⑲ AC Input* | ③① DC Output Alarm |
| ⑧ State of Charge (SoC) | ⑳ DC Input* | ③② DC Output* |
| ⑨ Progress Bar* | ㉑ Parallel Connection | ③③ DC Input Power |
| ⑩ WiFi | ㉒ Expansion Batteries* | ③④ DC Input Alarm |
| ⑪ Bluetooth | ㉓ Charge Reminder* | |
| ⑫ Fan* | ㉔ AC Output Voltage | |

* **AC Output Restore:** When the battery is depleted or reaches the SoC low value which causes the unit to shut down, the AC output status will be saved and automatically restored once connected to grid power.

Charge/Discharge Limits: Charging or discharging stops when the set limit is reached.

Progress Bar: Indicates charging progress (fills up during charging or pass-through charging, depletes during discharging).

* Fan: Flashes when the fan is malfunctioning.

DC/AC Output: Indicates active output.

AC Input: Shows Apex 300 charges via wall outlet or generator.

DC Input: Shows Apex 300 charges via solar panels, cars, or lead-acid batteries.

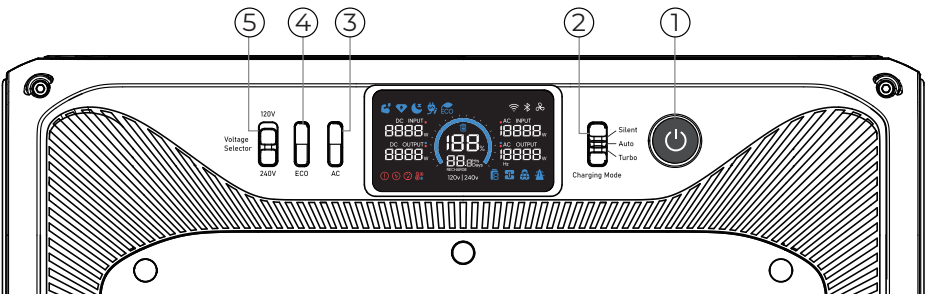
Expansion Batteries: Displays the number of connected expansion batteries.

Charge Reminder: SoC below 5%. Charge the unit in time.

Remaining Time: Shows the time remaining for charging or discharging.

4. Use Your Apex 300

4.1 Power On/Off



① Power On

Press the power button; the lit button indicates that the Apex 300 is on standby.

Power Off

Long press the power button for about 2 seconds to turn off the unit.

② Charging Mode Selector

		
Silent	Auto (Standard)	Turbo

③ AC Output On/Off

Press the AC power button to turn on when Apex 300 is on. Press again to turn it off.

④ ECO Mode On/Off

Press the ECO mode button to turn on when Apex 300 is on. Press again to turn it off.

⑤ AC Output Voltage Selector

Push up for 120V output or down for 240V output. This switch is unavailable in parallel mode, where the output is set to 240V by default.

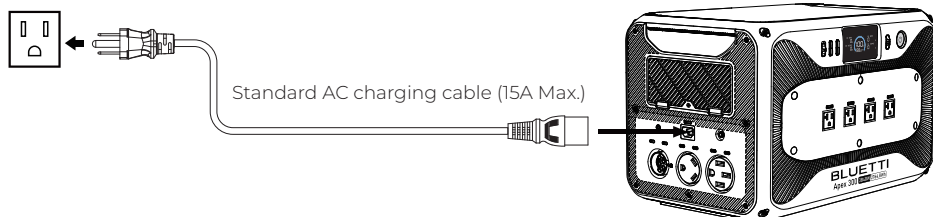
Notes:

- To set the charging mode via the app, select "Auto" charging mode.
- When connected in parallel, set all units to "Auto" for the app to control the charging mode.
- When Apex 300 is on, press any button to activate the LCD display.
- Switching between 120V and 240V output voltage cuts off the AC output.

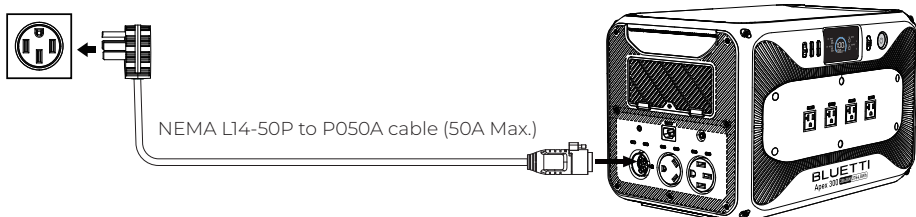
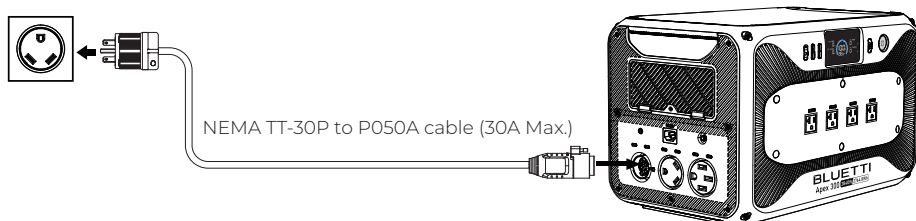
4.2 Charging Options

4.2.1 Wall Outlet

Plug the Apex 300 into a standard wall outlet. The charging stops once it's fully charged.



For quicker charging, enable Turbo Charging mode using the charging mode selector or the app. Connect the Apex 300 to a wall outlet through the P050A port with the optional NEMA TT-30P to P050A or NEMA L14-50P to P050A cable. This allows the Apex 300 to reach 80% charge in about 45 minutes at an ambient temperature of 77°F (25°C).



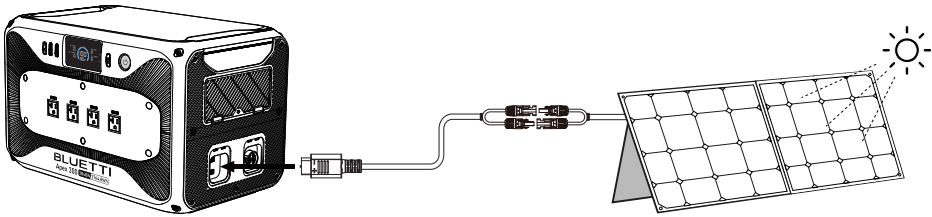
Note: Do not plug the unit's AC charging cable into its own AC outlets, as this could damage the connected device.

4.2.2 Solar Panel

Connect your solar panel(s) to the Apex 300 with the solar charging cable (sold separately).

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

Voc: 12V-60V Current: 20A Max. Power: 1,200W Max.



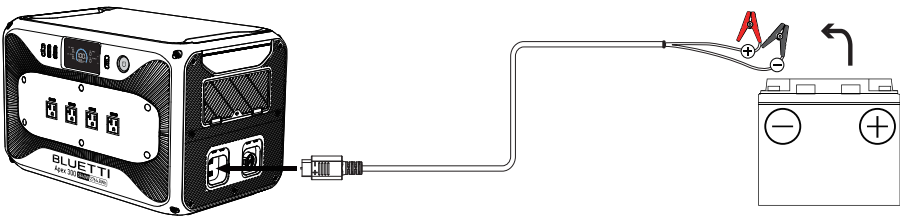
In the advanced mode of the APP, the DC input current can be adjusted.

DC Input Source	Non-Advanced Mode Settings	Advanced Mode Settings
PV	$12V \leq U^* \leq 30V, I^* \leq 8.2A$ $30V < U \leq 60V, I \leq 20A$	$12V \leq U \leq 16V, I \leq 8.2A$ $16V < U \leq 60V, I \leq 20A$

* U: Solar input voltage; I: Input current

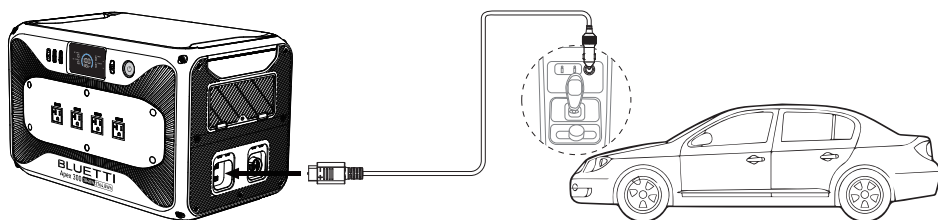
4.2.3 Lead-acid Battery

Connect the Apex 300 to a lead-acid battery using the optional lead-acid battery charging cable. Ensure the red cable is connected to the positive terminal and black to the negative. The maximum charging current is 20A (Use a 24V lead-acid battery and set to PV input mode.).

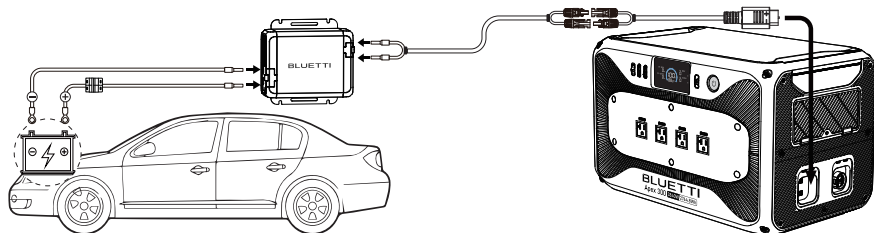


4.2.4 Car

Connect the Apex 300 to your car's 12V or 24V cigarette lighter port using the car charging cable. It charges at up to 96W with a 12V port and 192W with a 24V port, automatically stopping when fully charged.



For faster charging, you can use the optional BLUETTI Charger 1. For details, refer to *CHARGER 1 DC-DC Charger User Manual*.



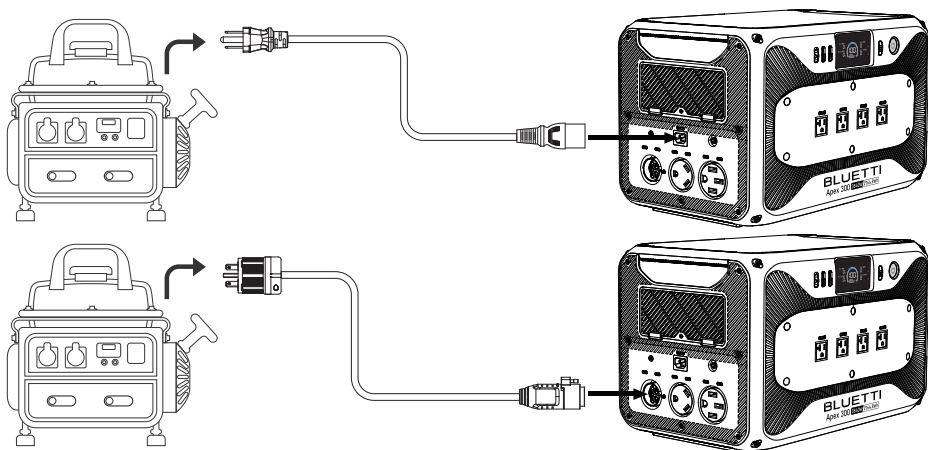
Note: Make sure your car has power and the engine is running while charging to prevent over-discharging the car battery.

4.2.5 Generator

Connect the Apex 300 to a gasoline, propane, or diesel generator using the AC charging cable. The charging stops automatically when fully charged.

Notes:

- Make sure the generator delivers a pure sine wave output with matching voltage and frequency.
- Ensure the generator's output power exceeds the Apex 300's charging requirements.
- It's recommended to enable the Grid Self-Adaption mode when charging the Apex 300 with a generator.

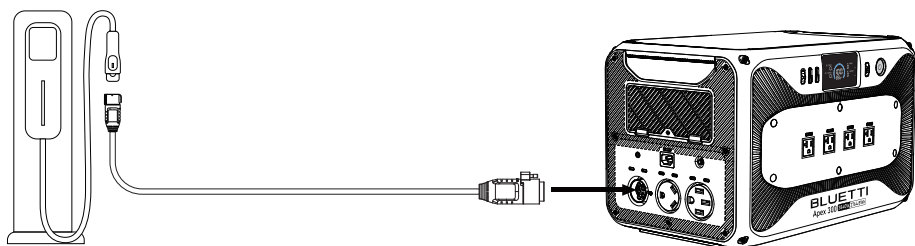


4.2.6 EV Charging Station

Connect the Apex 300 to an EV charging station using the optional EV charging cable (sold separately).

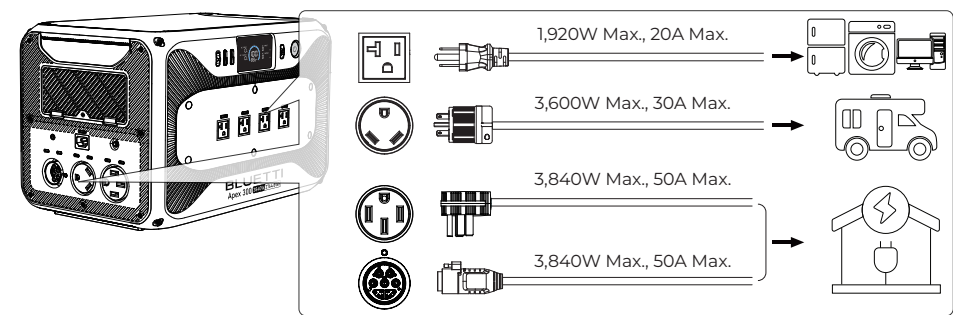
Notes:

- Make sure the EV charging station delivers a pure sine wave output with matching voltage and frequency.
- Ensure the EV charging station's output power exceeds the Apex 300's charging requirements.
- It's recommended to enable the **Charging Station** in the app's Advanced Settings.



4.3 Power Your Devices

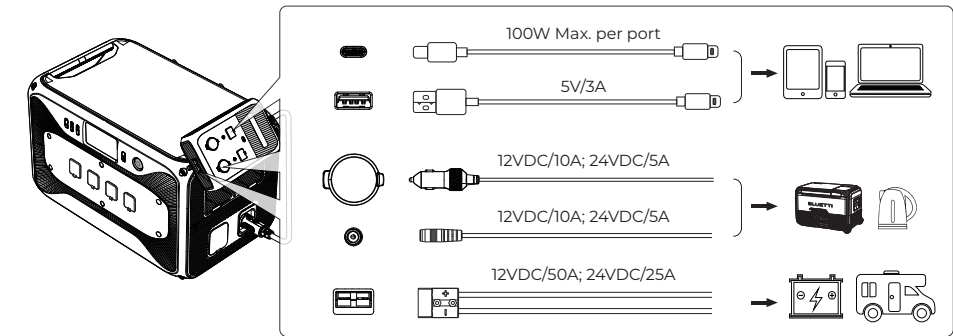
AC Output



Note: When servicing the devices connected to the unit, remember to unplug them from the outlets. Even if the AC output is turned off, physically unplugging the devices is necessary for complete disconnection.

TT-30 can only output 16A Max. when the AC output voltage is switched to 240V.

DC Output



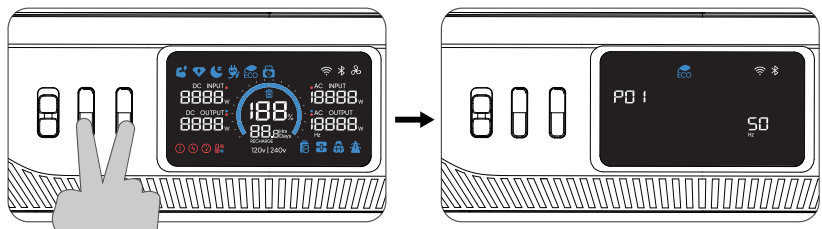
Note: A Hub D1 is required. For details, please refer to the *Hub D1 DC Power Hub User Manual*.

5. Configure Your Apex 300

Use the buttons on the unit or the app to switch frequencies, toggle WiFi and Bluetooth, and activate modes like Power Lifting, Turbo and Silent Charging, and ECO. For advanced settings and features - such as Grid Self-Adaption mode, UPS mode, adjusting maximum grid input current, and detailed ECO mode settings - use the BLUETTI app. Refer to the app manual for more details.

5.1 Settings Mode

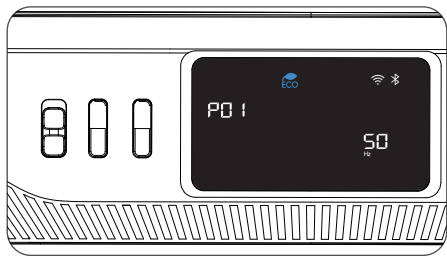
Enter the Mode: Press and hold the AC power and ECO mode buttons simultaneously for about 2 seconds. The frequency icon flashes.



Exit the Mode: Press and hold both the AC power and ECO mode buttons again. If left idle for 1 minute, the Apex 300 automatically exits without saving any changes.

Adjust settings in Settings Mode.

- Turn off AC output before setting the frequency.
- Press the ECO mode button to navigate through the items, and press the AC power button to adjust.



Page Code	Setting
P01	Frequency
P03	Charging Mode
P04	Power Lifting Mode
P05	ECO Mode
P06	Bluetooth
P07	WiFi
P08	Child Lock

5.2 AC Charging Mode

The Apex 300 offers three charging modes: Standards, Turbo, and Silent. By default, the unit charges in Standard mode.

Mode	AC Input	Solar Input	AC + Solar Input	Note
Standard	1,440W Max.	1,440W Max.	1,440W Max.	Battery-friendly
Turbo	3,840W Max.	2,400W Max.	3,840W Max.	Quick recharge
Silent	500W Max.	500W Max.	500W Max.	Quiet and low-power operation

Note: The data above is for reference only.

5.3 Power Lifting Mode

Power Lifting Mode is disabled by default. It allows Apex 300 to power up to 7,680W pure resistive loads like kettles, electric blankets, hairdryers, and similar heating devices.

- Notes:**
- This mode is only for pure resistive loads rated 3,840W-7,680W.
 - In this mode, the actual operating power of the connected device will be lower than its rated power.

5.4 ECO Mode

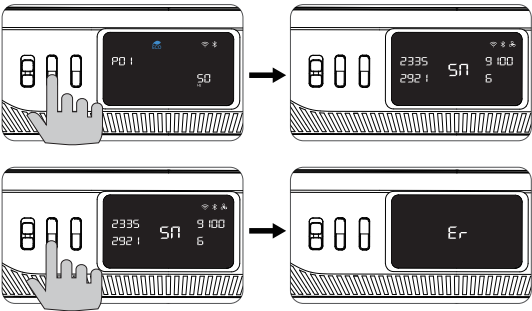
AC-ECO and DC-ECO modes are enabled by default. The Apex 300 shuts off the AC or DC output after a period of low (default 4 hours with 10W for AC, 5W for DC) or no load.

- Notes:**
- AC-ECO Mode is not available when charging with AC power.
 - Press the ECO mode button to turn on/off AC-ECO and DC-ECO modes together, and use the BLUETTI app to control them separately.
 - Disable the ECO mode when connecting small devices under 60W or critical appliances such as lights and refrigerators.

6. View Device Information

View device information in Settings Mode, too.

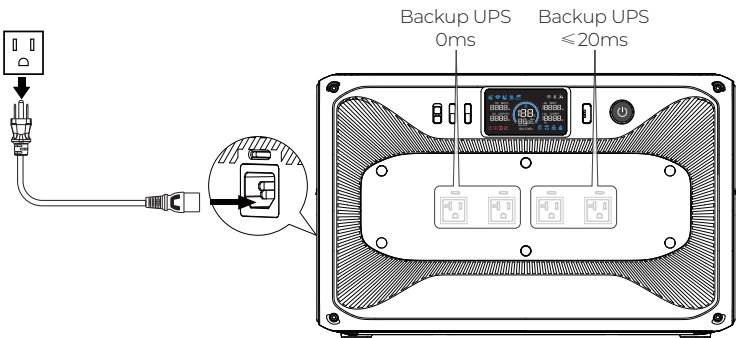
- Go to the P01 frequency page and long press the ECO mode button to view the unit's SN.
- To navigate through the settings, press and hold the ECO mode button again for about 2 seconds.
- When on Fault History page, long press the AC power button for about 2 seconds, then release to clear the history.



Page Code	Information
SN	Serial Number (SN)
Er	Error Code
HI	Fault History
UE	Version

7. UPS Feature

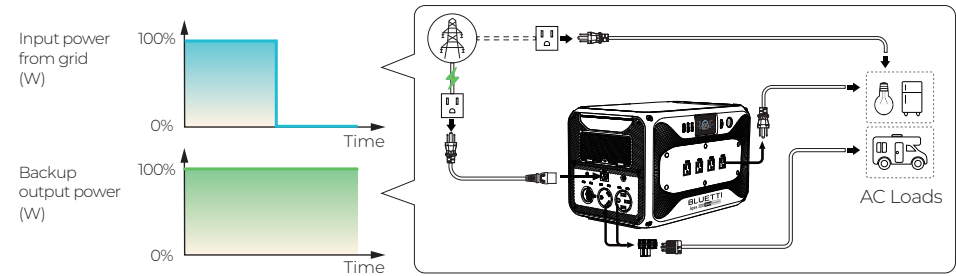
Connect Apex 300 to the wall, and it directly draws power from the outlet to operate connected devices. It switches to battery power instantly (within 0 ms or 20ms with specific outlets) during an outage when connected to specific outlets. Set UPS modes in the app.



Note: When the output voltage switches to 240V, the 20A socket has a difference of 0ms and 20ms. When the output voltage switches to 120V, both are 20ms.

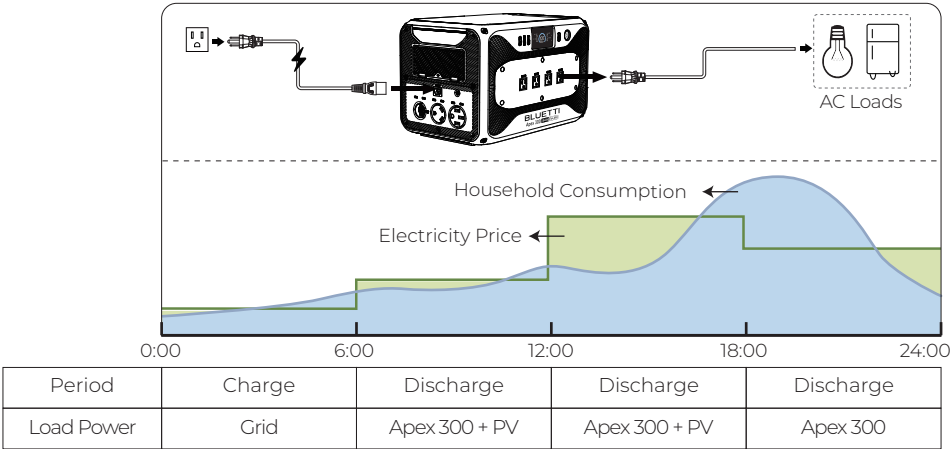
• Backup

Apex 300 charges using available solar and grid power, with a priority on solar.



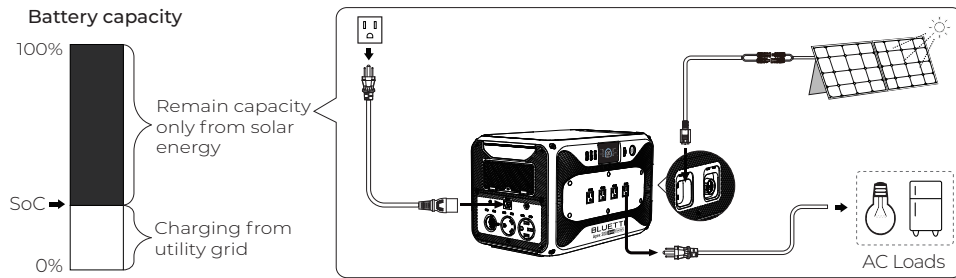
• Time of Use

Save costs by scheduling Apex 300 to charge during off-peak hours and power devices during peak hours.



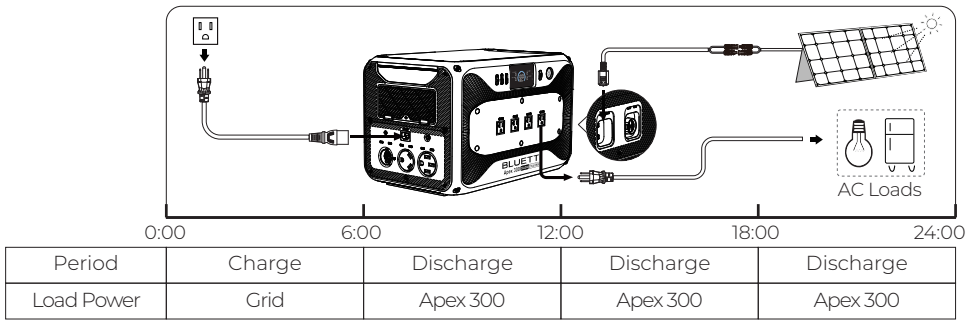
• Self-consumption

Efficiently uses solar energy. Apex 300 initially charges from the grid to a set SoC and seamlessly switches to solar replenishment.



• Custom

Personalize charging/discharging schedule, set battery SoC limits, and control the schedule and grid input switches.

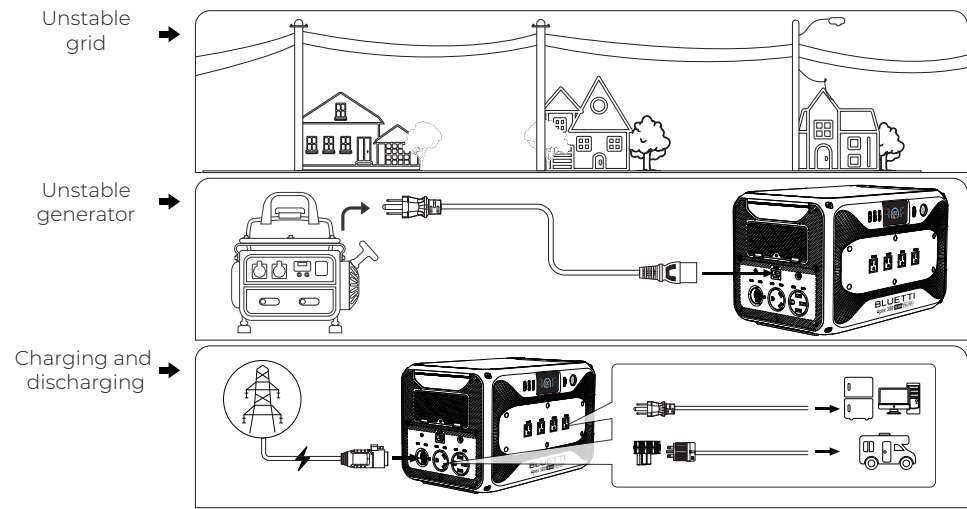


Attention: Not for devices like data servers or workstations that require high-performance UPS. BLUETTI assumes no liability for issues arising from violating this restriction.

Notes: For a seamless 0ms UPS switchover, set the voltage to 240V and connect to the grid via the 15A AC input. Then, plug essential loads into the two left AC outlets.

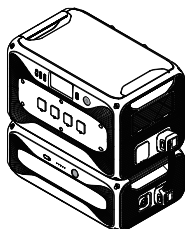
8. Grid Self-Adaption Mode

When charging with an unstable generator or grid power, or if consumption power exceeds charging power, enable this mode in the app. The Apex 300 automatically adjusts to handle power fluctuations, protecting the unit and connected devices from potential issues due to variations in power quality.

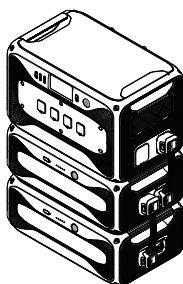


9. Connect Expansion Battery

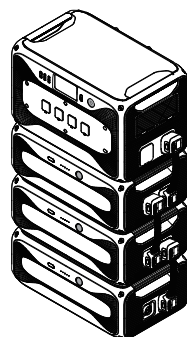
Use the battery expansion cables to connect to up to 6 B300K batteries for a maximum capacity of 19,353.6Wh.



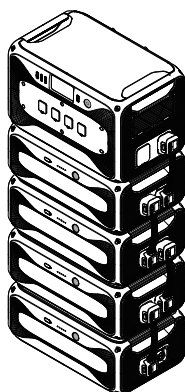
Apex 300 + 1*B300K



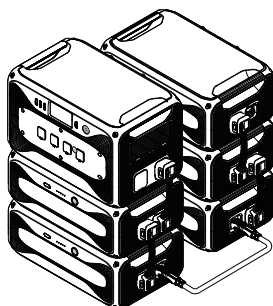
Apex 300 + 2*B300K



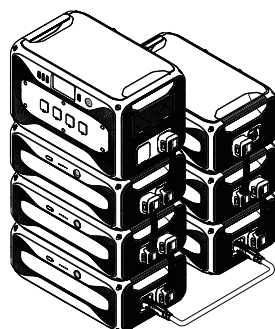
Apex 300 + 3*B300K



Apex 300 + 4*B300K



Apex 300 + 5*B300K



Apex 300 + 6*B300K

Notes:

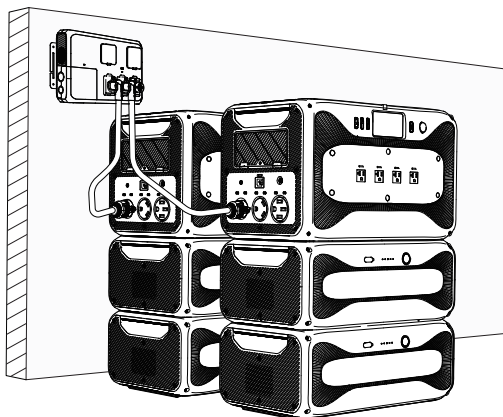
- Power off all units before connecting.
- Power on the Apex 300, and the battery activates automatically. Stacking the units is recommended.
- When connecting two or more B300K batteries, it's recommended to securely mount the units to the wall using metal brackets and screws.
- The Apex 300 is compatible with both B300 and B300S battery packs, but mixing them is not recommended.
- Both ends of all battery cables must be locked for normal charging and discharging.
- The P090D cable needs to be purchased separately.

10. Parallel Connection

To increase your power output, you can connect two or three Apex 300 units in parallel using the Hub A1 parallel box. For details, refer to the *Hub A1 User Manual*.

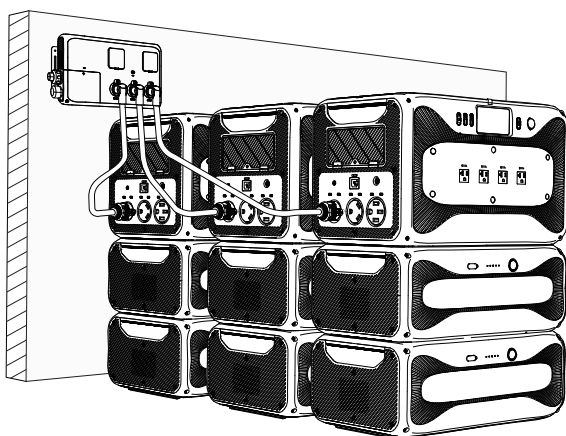
Connecting Two Apex 300 Units

This setup provides up to 7,680W of power and 38,707.2Wh of capacity with 12 B300K batteries.



Connecting Three Apex 300 Units

This setup provides up to 11,520W of power and 58,060.8Wh of capacity with 18 B300K batteries.



Notes:

- Make sure all Apex 300 units are powered off before connecting.
- Power on one Apex 300 unit to automatically turn on the others.
- Settings from one unit will sync with all connected units.

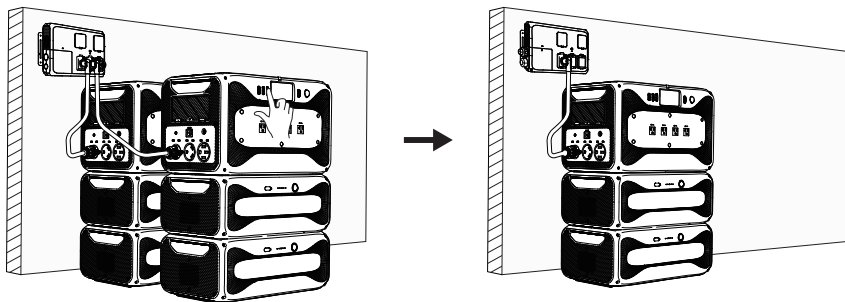
Disconnecting the System

To disconnect the parallel system, follow these steps:

Step 1: Press and hold the AC power button on one Apex 300 unit until both AC input and output power display "OFF" on the screen.

Step 2: Disconnect its parallel cable from Hub AI.

Step 3: Close the cover of the Hub AI's unused outlet.

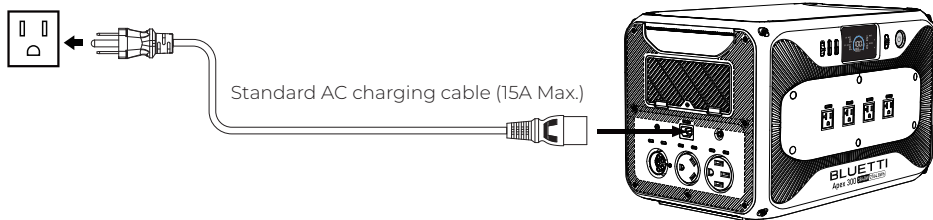


Attention: Follow proper steps when connecting or disconnecting devices. BLUETTI is not responsible for any issues caused by unauthorized actions.

11. Adjust Grid Input Current

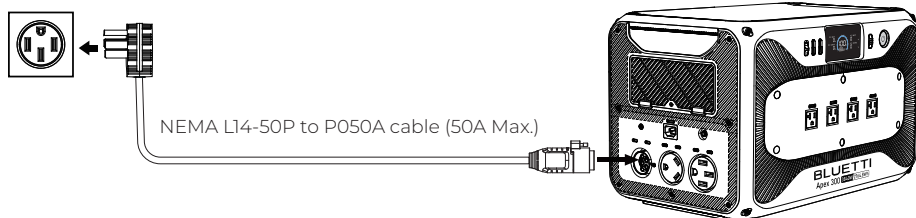
Standard Charging

The default grid input current is set at 12A.



Turbo Charging

The maximum grid input current is 50A.



Notes:

- Use the BLUETTI app to adjust the grid input current.
- It is recommended that an overcurrent protection device (OCPD) be installed upstream. A model rated at 60A, 2-pole, 120/240VAC is suggested to ensure the safety and stability of the circuit.
- It's recommended to consult a licensed electrician to confirm your home circuit can support the required current.
- To achieve a grid input current exceeding 15A, the NEMA L14-50P to P050A cable must be purchased separately.
- The Standard AC charging cable and the NEMA L14-50P to P050A cable cannot be connected simultaneously to charge the device.

12.Maintenance and Care

- If the unit's SoC falls below 5%, please recharge the unit in time.
- Before storing, charge to 40%-60% SoC, then power off and disconnect all cables.
- Store it in a cool, dry place, away from flammable materials.
- Safe storage temperature: -10°C to 40°C (14°F to 104°F). For storage over a month, keep it below 35°C (95°F).
- Fully cycle every 3 months to maintain battery health.
- Avoid extended storage; it may impact performance and lifespan.

If SoC drops to 0 during storage or startup:

- Shut down immediately.
- Charge within 48 hours.
- Keep it at 5°C to 35°C (41°F to 95°F) for 6 hours before charging.
- Recommended to charge via an AC source; if using solar energy, ensure an input of over 100W.

13. Specifications

Model	Apex 300
Battery Capacity	2,764.8Wh (51.2V/54Ah)
Battery Type	LiFePO ₄
Weight	About 38kg (83.78lbs)
Dimensions (L × W × H)	525 × 327 × 320mm (20.67 × 12.87 × 12.6in)
Charging Temperature	0°C to 40°C (32°F to 104°F)
Discharging Temperature	-20°C to 40°C (-4°F to 104°F)
Storage Temperature	-20°C to 40°C (-4°F to 104°F)
Working Humidity	10% to 90%
IP Rating	IP20
AC Output	
4 × AC Outlet (NEMA 5-20R)	3,840W Max. Output (Voltage Selector: 120V):120V 50/60Hz, 20A Max. each port Output (Voltage Selector: 240V): 120V 50/60Hz, 16A Max. each port (Every Two Ports: 1920W Max.)
1 × AC Outlet (NEMA TT-30R)	3600W Max. Output (Voltage Selector: 120V): 120V 50/60Hz, 30A Max. Output (Voltage Selector: 240V): 120V 50/60Hz, 16A Max.
1 × AC Outlet (NEMA 14-50R)	3840W Max. Output (Voltage Selector: 120V): (Discharge Only): 120V 50/60Hz, 32A Max. (Bypass Mode): 120V 50/60Hz, 50A Max. Output (Voltage Selector: 240V): (Discharge Only): 120V/240V 50/60Hz, 16A Max. (Bypass Mode): 120V/240V 50/60Hz, 50A Max.
1 × AC Output (P050A)	3,840W Max. (Requires to be used with Hub AI)
AC Charging	3,840W Max. (80% in 45 mins @15°C to 25°C / 59°F to 77°F)
AC Input	
AC charging input port	120V, 50Hz / 60Hz, 15A Max. 1,800W Max. (Charging + Bypass)
1 × AC Input (P050A)	120V/208V or 120V/240V 50/60Hz, 50A Max. 120V: 6,000W Max. (Charging + Bypass) 240V: 12,000W Max. (Charging + Bypass)
DC Input (2 × XT60PM-M)	1,200W Max. per port, 12V-60V, 20A Max.
AC + DC Charging	Apex 300: 3840W Max Apex 300+1~6 B300K: 6240W Max

Battery Expansion Port	51.2VDC, 90A Max.
Parallel Port	
Interface	P050A

14. Troubleshooting & FAQs

Error Code	Description	Solutions
E001	Inverter overload	• Check device power usage. • Reduce load if too high.
E002	Inverter overtemperature protection, AC output off	• Wait 10 mins for the unit to cool down. • Turn on the AC output again.
E003	Inverter short circuit	• Check devices for short circuits. • Disconnect and fix.
E033	PV overvoltage	• Make sure the PV input voltage is within 12V-60V.
E039	PV overtemperature	• Wait 10 mins for the unit to cool down. • Re-enable the PV input.
E085	Charging temperature too high	• Wait for the unit to cool down before using it again.
E086	Charging temperature too low	• Place the unit in an ambient temperature range of 0°C to 40°C (32°F to 104°F).
E087	Discharging temperature too high	• Wait for the unit to cool down before using it again.
E088	Discharging temperature too low	• Place the unit in an ambient temperature range of -20°C to 40°C (-4°F to 104°F).
E115	Grid overfrequency	• Verify home grid frequency. • Contact utility company if necessary.
E116	Grid underfrequency	• Verify home grid frequency. • Contact utility company if necessary.
Others	/	• Contact BLUETTI support for assistance.

FAQs (Frequently Asked Questions)

Q1: How do I know whether my devices will work with this product?

A: Keep the total AC power below 3,840W. Some devices with motors or compressors may start at 2-4 times their rated power, which could easily overload the Apex 300.

Q2: Can I use third-party solar panels to charge this product?

A: Yes, you can use third-party solar panels with open circuit voltage of 12V-60V and MC4 connectors. Avoid mixing different types of solar panels.

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

A: Yes, the Apex 300 supports pass-through charging.

Q4: Why is the charging power often too low?

A: The built-in BMS adjusts the charging power based on battery temperature and SoC to protect the battery and extend its life.

Q5: How to calculate the operation time?

A: Operation time = Battery Capacity × DoD × η ÷ (Load + Apex 300's Self-consumption)

Note: DoD (Depth of Discharge) is 95%. η (inverter efficiency) is over 90%. The Apex 300 self-consumption is about 20W.

Q6: Why does a warning come up when using a diesel heating pump with the cigarette lighter port?

A: The pump may require more initial power to start. Use a compatible adapter to start and run the pump with our AC outlets.

Appendix

Update Firmware via BLUETTI App

Keeping firmware updated is IMPORTANT for optimal performance. For detailed instructions, refer to the app user manual in the app. Using the Elite 200 V2 upgrade as an example.

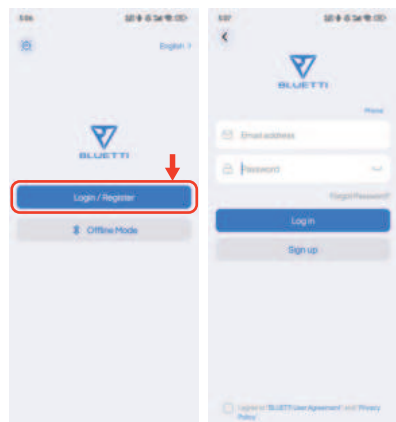
1. Download the BLUETTI app

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



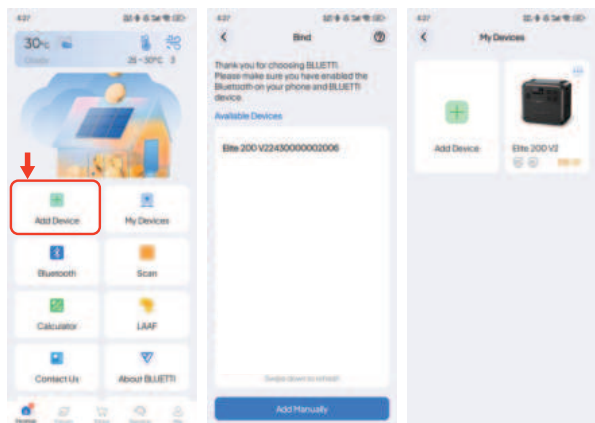
2. Log in or sign up

Log in with a BLUETTI account. If there is no account, create one by following the on-screen instructions.



3. Bind the unit

- Tap Add Device directly or access My Devices > Add Device to start the process.
- Select the unit from the available device list, or choose Add Manually and enter the unit's serial number (SN).
- Alternatively, tap Scan on the Home page or in Add Device page to bind via QR code.



4. Connect via Bluetooth

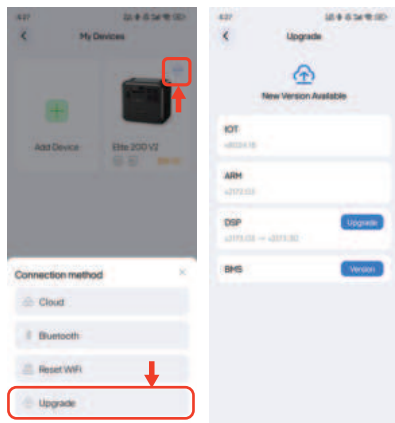
On the My Devices page, tap the unit and select Bluetooth as the connection method.



5. Check for Firmware Updates

Tap **Upgrade** to access the Upgrade page.

The app will check for the latest firmware version available for the unit.



6. Download and Install the Update

If a new firmware update is available, tap

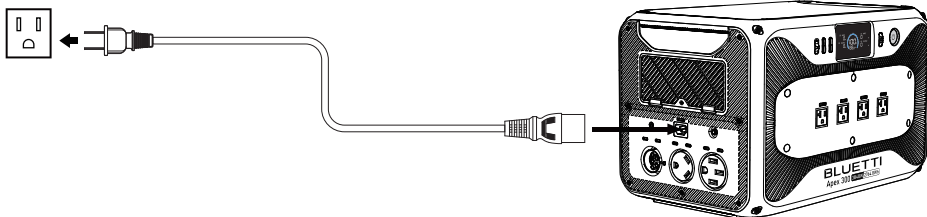
Upgrade and follow the on-screen instructions.

Note:

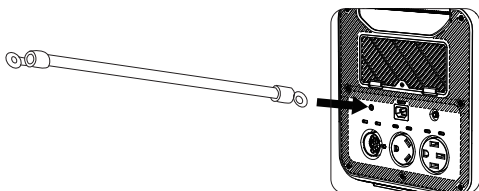
- Ensure the unit remains powered on and connected during the update.
- Keep your phone and the unit close together (recommended range: 16.4ft / 5m).
- Do not exit app until done.

Grounding Guidelines

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



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



Compliance

• FCC Statement

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions:

- (1) This device may not cause harmful interference.
- (2) This device must accept any interference received, including interference that may cause undesired operation.

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio / TV technician for help.

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

IMPORTANT NOTE: FCC Radiation Exposure Statement

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

• IC Caution

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

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

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

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

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

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

CAN ICES (B) / NMB (B)

Need Help? We're here for you!

☎ +1 800-200-2980 (Mon-Sun 9:00-17:00)

✉ service@bluettipower.com



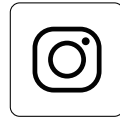
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<https://bluetti.com/>

B300K

Portable Power Station

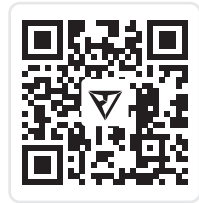
User Manual v1.0

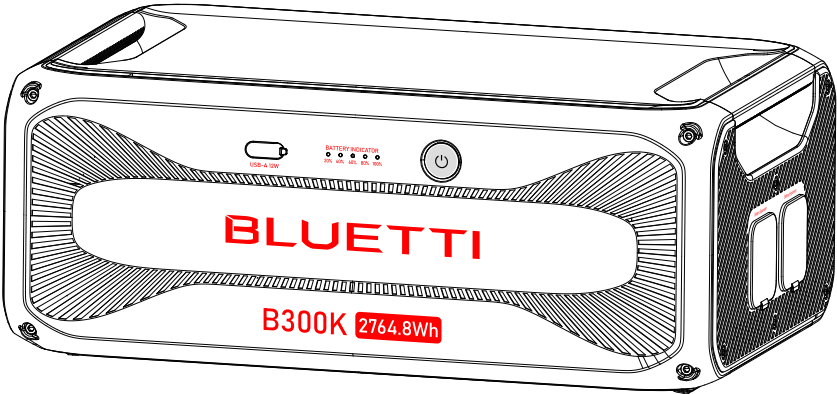
Inspect the packaging for damage before use.

Perform a charge cycle before first use.

Scan the QR code for the BLUETTI app.

Register for warranty at <https://www.bluettipower.com/>





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.



Disclaimer

BLUETTI's products and services are subject to the terms and conditions agreed upon during purchase. Some aspects described in this manual may not be available under your purchase contract. Unless otherwise specified in the contract, BLUETTI makes no express or implied representations or warranties regarding the contents of this manual.

BLUETTI should assume no liability for the failures, damages, or injuries resulting from force majeure, repair attempts by unqualified personnel, or improper installation and operation.

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.

About the Manual

Introduction

This manual provides information on the functionality, basic operation and safety instructions of the B300K portable power station. **Please read and understand all instructions in this manual before use.**

Target Audience

- Technical support engineer
- End-user

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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.
- Handle the product with care to prevent drops, violent impacts, or tilting.
- 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.

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.

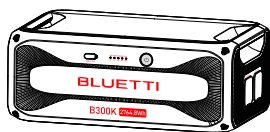
- Electrolyte is corrosive and can cause irritation and chemical burns. If you come into direct contact with battery electrolyte:
 - a. Inhalation of Vapors: Evacuate the contaminated area, get fresh air immediately, and seek medical attention.
 - b. Eye Contact: Immediately flush eyes with water for 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.

Personal Precautions

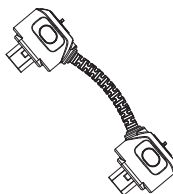
- When working near batteries, wear eye and clothing protection.
- Avoid smoking, sparks, or flames near the battery or engine.
- In abusive conditions, liquid may eject. If contact occurs, flush with water; seek medical help if liquid contacts eyes.

SAVE THESE INSTRUCTIONS

2. Packing List



B300K
Portable Power Station



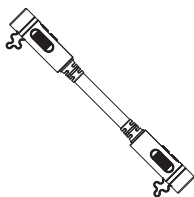
CA90
Battery Expansion Cable
(10.62in / 270mm)



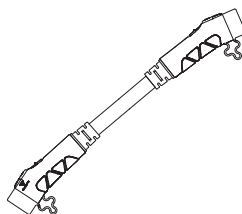
Documentation

The following accessories may not be included. Please purchase optional accessories at <https://www.bluettipower.com>

Optional Accessories



P090A
Battery Expansion Cable
(31.49in / 800mm)



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

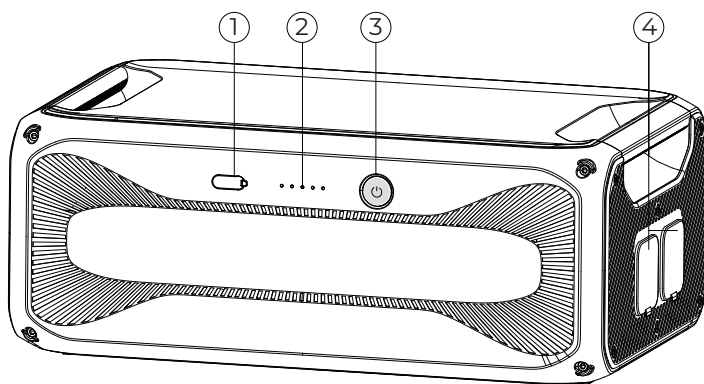
Note:

Battery Expansion Cables:

Connect the B300K to Apex300, or other B300K units with the CA90 battery expansion cable. Connect the B300K to AC300, AC200MAX, AC200L with the P090A battery expansion cable. Use the P090D to P150D cable to connect to AC500.

3. Get to Know Your B300K

The B300K can be used with AC300, AC500, AC200MAX, and AC200L as a 2764.8Wh expansion pack.



① USB-A Port

② LED Indicators*

③ Power Button**

④ Battery Expansion Ports

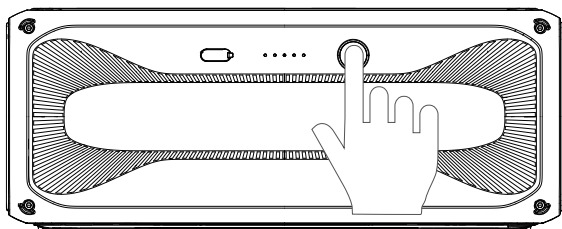
* Indicate battery level and operation status.

** Button light indicates operation status with LED indicators.

Refer to Chapter 5 (Indicators Status) and Chapter 8 (Troubleshooting) for details.

4. Use Your B300K

Power On/Off



Power On

1. Long press the power button.
2. When the button lights up, the B300K is on standby.
3. The LED indicators show the battery level.

Power Off

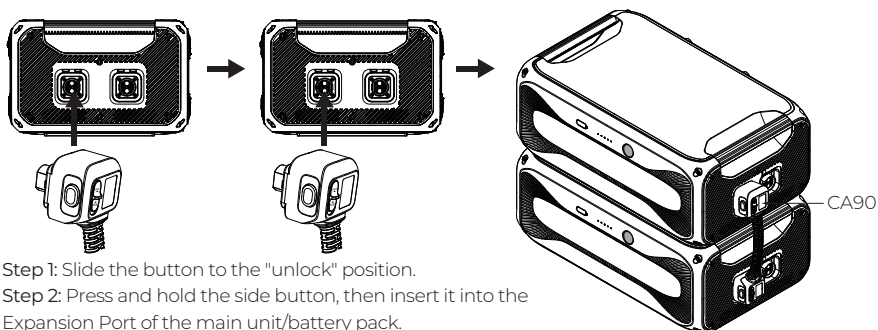
1. Long press the power button.
2. The button light and indicators turn off.

Note: Connected to a power station, the B300K automatically turns on when the combo charges with AC power or solar panels.

Connect to B300K and Power Station

Connecting to B300K Battery

Use the P090A battery expansion cable to interconnect the B300K units.



Step 1: Slide the button to the "unlock" position.

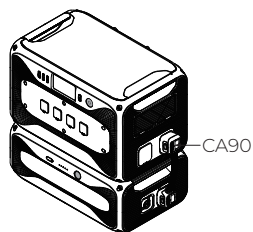
Step 2: Press and hold the side button, then insert it into the Expansion Port of the main unit/battery pack.

Step 3: After confirming a secure connection, slide the button to the "lock" position.

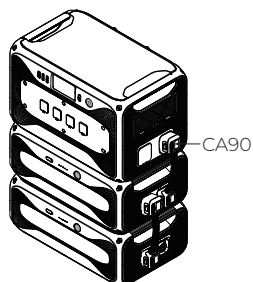
*Be sure to LOCK the connection.

Connecting to Apex300

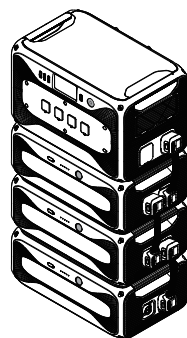
Use the battery expansion cables to connect to up to 6 B300K batteries for a maximum capacity of 19,353.6Wh.



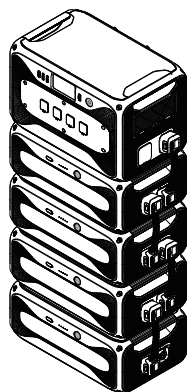
Apex 300 + 1*B300K



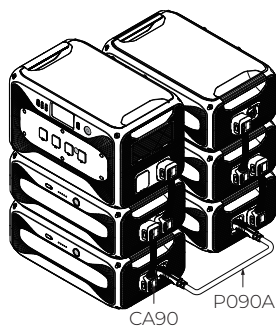
Apex 300 + 2*B300K



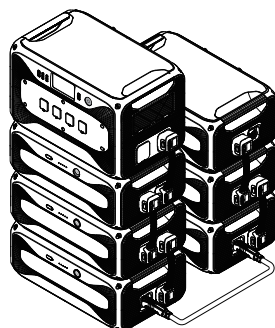
Apex 300 + 3*B300K



Apex 300 + 4*B300K



Apex 300 + 5*B300K



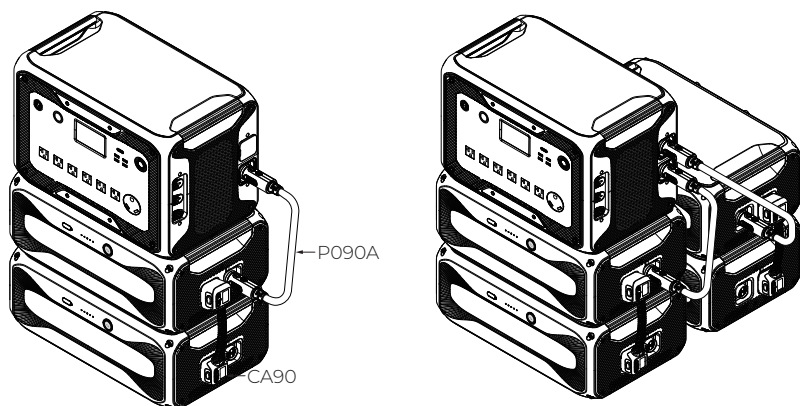
Apex 300 + 6*B300K

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 B300K batteries, it's recommended to securely mount the units to the wall using metal brackets and screws.

Connecting to AC300

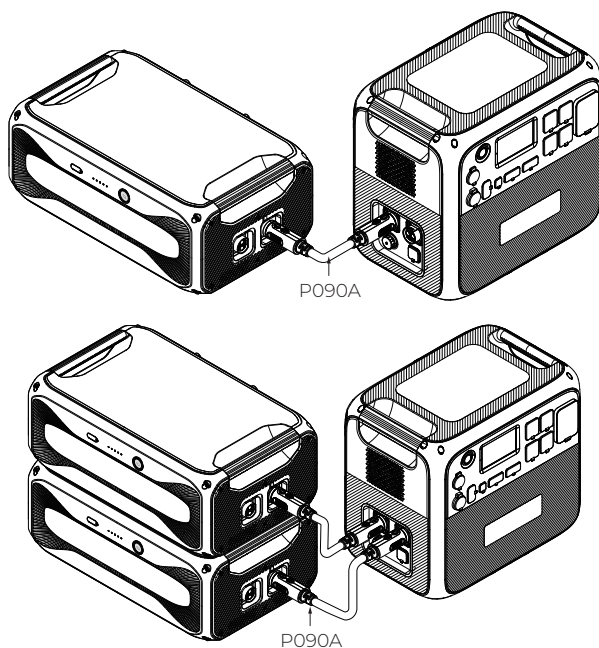
Connect up to 4 B300K units for a maximum capacity of 11,059.2Wh.



Note: The AC300 can work with B300K and B300 expansion batteries simultaneously using P090A battery expansion cables.

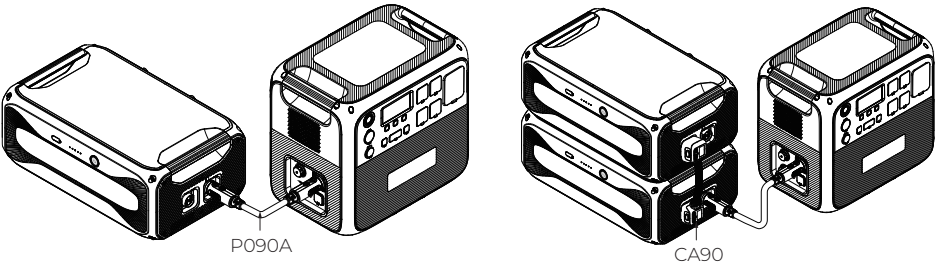
Connecting to AC200MAX

Connect up to 2 B300K units for a maximum capacity of 5,529.6Wh.



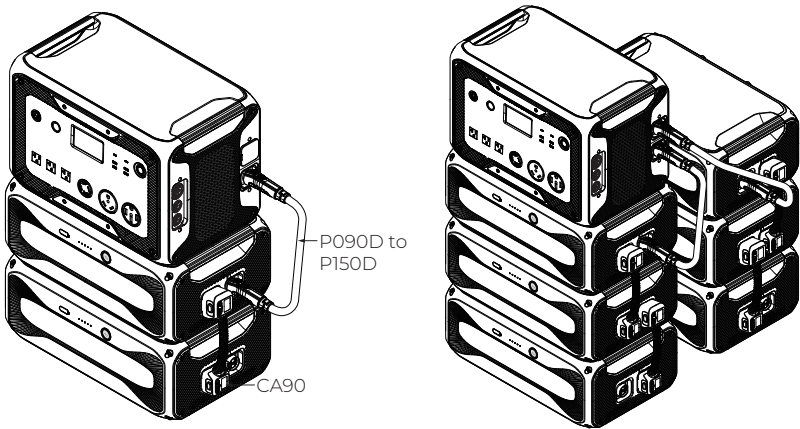
Connecting to AC200L

Connect up to 2 B300K units for a maximum capacity of 5,529.6Wh.



Connecting to AC500

Connect up to 6 B300K units for a maximum capacity of 16,588.8Wh.

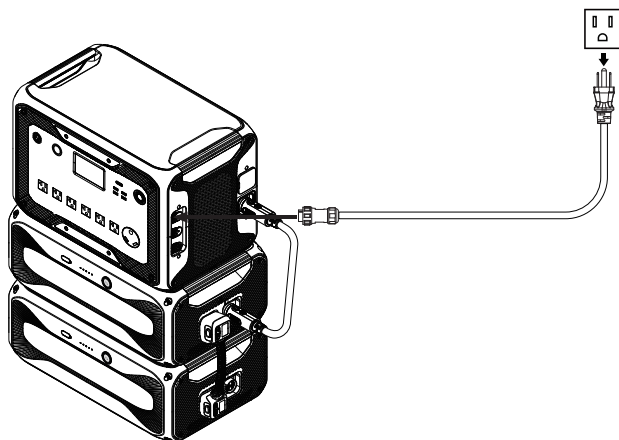


Note: The AC500 can work with B300K, B300S and B300 expansion batteries simultaneously. To connect them:

Connection	Cable Required
AC500 to B300S	P150D battery expansion cable
AC500 to B300K/B300	P090D to P150D battery expansion cable
B300K/B300 to B300S	P090D to P150D battery expansion cable
B300K to B300	P090A battery expansion cable

Charge Up

Connect the B300K to a power station for charging. It charges from 5% to 80% in about 45 minutes when connected to AC300 or AC500.



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

Control and Monitor

Connect the B300K 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

Indicator	Status	Description
Power Button	Steady green	Normal operation
	Flashes 4 times per second	Malfunction
	Flashes once every 1.5 seconds	Upgrading
	Off	Shutdown
	Flashes twice, pause for 4 seconds, and repeat	The battery expansion cable is not locked.
LEDs	• 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.	

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

General	
Model	B300K
Battery Capacity	2,764.8Wh (51.2V, 54Ah)
Battery Type	LFP
Net Weight	Approx. 29.5kg (65.04lbs)
Dimensions (L × W × H)	525 × 327 × 209mm (20.67 × 12.87 × 8.23in)
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	60A Max. (Current may decrease outside specified temperatures)
Discharging Current	70A Max.
2 × Expansion Port	58.4VDC Max., 90A Max.
DC Output	
USB-A	12W Max., 5V / 2.4A

8. Troubleshooting

When the B300K malfunctions, the LEDs may flash or turn off in various combinations. For soft errors, restart the unit. For hardware issues, contact BLUETTI support for repair or replacement. See the table below for details.

Indicators Status	Description
Soft Errors	
	Low voltage
	High/low temperature
	Pre-charge failure
	Short circuit
	Address allocation mix-up
	Charging/discharging overcurrent
	Overdischarging protection
Hardware Failures	
	NTC fault
	Cell fault
	Voltage reference fault (3.3V)
	AFE fault
	Current zero point error
	Battery cell disconnect
	Charging MOS fault
	Discharging MOS fault
	Cell voltage difference fault
	Current detection error

Appx. 1 FAQ (Frequently Asked Questions)

Q1: How to claim warranty?

A: Please refer to the warranty card.

Q2: How to upgrade the B300K?

A: Connect the B300K 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 B300K supports pass-through charging.

Q4: Why doesn't the B300K drain all its power?

A: The B300K 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.

Appx. 2 Compliance

FCC Statement

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions:

- (1) This device may not cause harmful interference.
- (2) This device must accept any interference received, including interference that may cause undesired operation.

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

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

IMPORTANT NOTE: FCC Radiation Exposure Statement

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

IC Warning statement

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

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

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

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

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

Déclaration d'exposition aux radiofréquences ISDE:

Cet équipement est conforme aux limites d'exposition ISDE établies pour un environnement non contrôlé. Cet équipement doit être installé et utilisé avec une distance minimale de 20 cm entre le radiateur et le corps.

CAN ICES (B)/NMB(B)

Appx. 3 Consignes de sécurité

Sécurité générale

AVERTISSEMENT - Lors de l'utilisation du produit, des précautions de base doivent toujours être suivies pour éviter tout risque d'incendie, de choc électrique ou de blessure:

- Lisez toutes les instructions avant d'utiliser le produit.
- Ne l'exposez pas à des températures élevées ou à des sources de chaleur comme la lumière du soleil, le feu, les transformateurs et les radiateurs.
- N'insérez pas les doigts ou des objets étrangers dans les ports du produit.
- N'utilisez pas de produit endommagé ou modifié pour éviter les chocs électriques, les blessures, etc.
- Utilisez le produit uniquement avec des fiches et des cables intacts.
- Ne déplacez pas le produit pendant l'utilisation pour éviter tout dommage matériel interne dû aux vibrations et aux collisions.
- Manipulez le produit avec précaution pour éviter les chutes, les chocs violents ou le basculement.
- Placez le produit sur une plate-forme stable.
- Gardez le produit hors de portée des enfants et des animaux domestiques.
- évitez de submerger ou de nettoyer le produit avec des liquides.
- éteignez le produit avant tout entretien pour réduire le risque de choc électrique.
- Seuls des professionnels doivent gérer les fuites ou les défauts – demandez leur aide si nécessaire.

Sécurité de la batterie

- Utilisez la batterie dans la plage de température spécifiée.
- Ne démontez pas, ne modifiez pas et n'endommagez pas la batterie pour éviter une fuite, une surchauffe ou un incendie.
- évitez que les bornes positives et négatives de la batterie ne se touchent ou ne touchent des objets métalliques.
- évitez de souder ou de meuler à proximité des batteries pour éviter tout incendie dû à des étincelles ou à des arcs.
- Ne laissez pas tomber d'outils métalliques sur la batterie pour éviter les étincelles ou les courts-circuits.
- Les batteries au lithium-ion présentent des risques d'incendie, alors soyez conscient de ces dangers:
 - a. L'emballage thermique peut libérer des gaz inflammables et nocifs tels que le CO et le HF. Les vapeurs provenant des batteries en feu peuvent irriter les yeux, la peau et la gorge.

- b. La concentration de ces gaz pourrait entraîner une déflagration et une explosion.
- c. L'électrolyte de la batterie est inflammable, toxique et volatil.
- Si une batterie laisse échapper des produits chimiques ou dégage des odeurs, ne vous en approchez pas - contactez des professionnels pour une élimination en toute sécurité. Ils auront besoin d'un équipement de protection approprié.
- Ne touchez pas une batterie qui a été immergée dans l'eau pour éviter les chocs électriques. Jetez les piles usagées via les filières de recyclage appropriées.
- L'électrolyte est corrosif et peut provoquer des irritations et des brûlures chimiques. En cas de contact direct avec l'électrolyte de la batterie:
 - a. Inhalation des vapeurs: évacuer la zone contaminée, respirer immédiatement de l'air frais et consulter un médecin.
 - b. Contact avec les yeux: Rincer immédiatement les yeux à grande eau pendant au moins 15 minutes, ne pas se frotter les yeux et consulter immédiatement un médecin.
 - c. Contact avec la peau: Lavez immédiatement la zone infectée avec de l'eau et du savon et consultez immédiatement un médecin.
 - d. Ingestion: Consulter immédiatement un médecin.
- Suivez les directives locales pour une mise au rebut appropriée de la batterie; ne les brûlez jamais, ne les écrasez pas et ne les jetez jamais de manière inappropriée.

Personnel Précautions

- Lorsque vous travaillez à proximité de batteries, portez des lunettes et des vêtements de protection.
- évitez de fumer, d'étincelles ou de flammes à proximité de la batterie ou du moteur.
- Dans des conditions abusives, du liquide peut s'échapper. En cas de contact, rincer à l'eau; consulter un médecin si le liquide entre en contact avec les yeux.

SAVE THESE INSTRUCTIONS

Need Help? We're here for you!

☎ +1 800-200-2980 (Mon-Sun 9:00-17:00)

✉ service@bluettipower.com



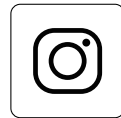
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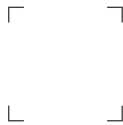
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Certificate

Inspector: _____

QC: _____

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