

Premium 30 V2

Portable Power Station

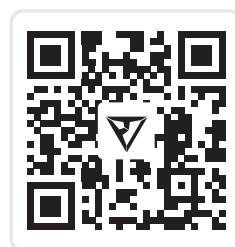
User Manual v1.0

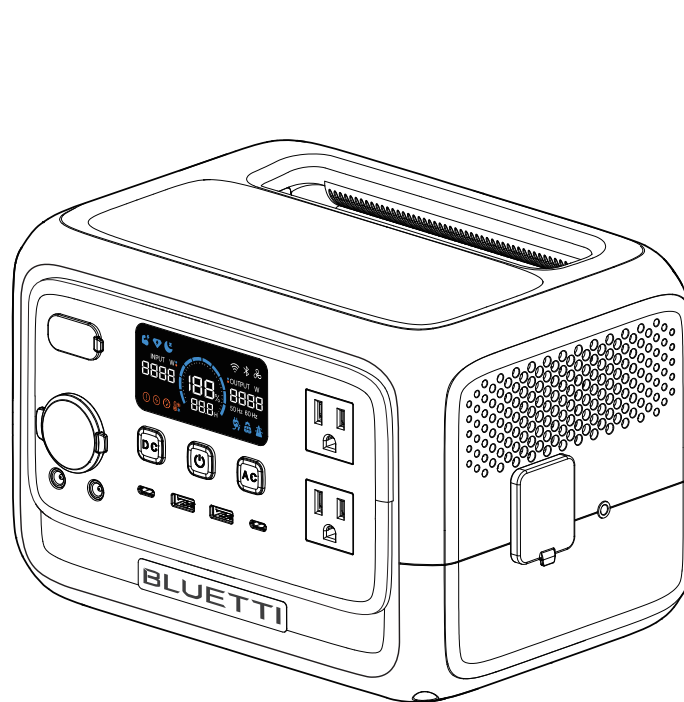
Important Instructions

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.





Warning

1. Fully charge the unit before first use.
2. Do not use solar panels with open circuit voltage higher than 28V. Solar input voltage range for the unit is 12V-28V.
3. 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. Do not connect the unit's AC output to the grid.
5. If not used for more than 3 months, charge the unit to 40%-60% SoC and store it with the power off.
6. For optimum battery life, discharge and charge the unit every 3 months.

Legal Information

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

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1. Safety Instructions

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

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.
- **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 power pack to supply power tools to cut or access to live parts or live wirings, or materials that may contain live parts or live wirings inside, such as building walls, etc.
- 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.
- **Caution:** The output of USB-C, DC5521, and cigarette lighter ports are classified as PS3 according to standard IEC 62368-1. Consider implementing safeguards against fire, such as a fire enclosure, for connected equipment or accessories.
- Do not expose a power pack to fire or excessive temperature. Exposure to fire or temperature above 130 °C (265 °F) may cause explosion.
- It is strictly forbidden to connect an external power source to the DC output port. Doing so may damage the device and, in severe cases, cause danger.



Not permitted on aircraft.

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. Attention should be drawn to environmental aspects of battery disposal. 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.
4. RFID is for internal manufacturer upgrades only.

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.

Storage Instructions

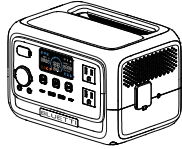
- When the SoC drops to 5%, charge the unit in time.
- Before storing, charge to 40%-60% SoC, then power off and disconnect all cables.
- Store it in a cool, dry place, away from flammable materials.
- Fully cycle every 3 months to maintain battery health.
- Avoid extended storage; it may impact performance and lifespan.
- The product can be safely stored within a temperature range of -20°C to 40°C (-4°F to 104°F). However, if the storage duration exceeds one month, it's recommended to maintain an ideal storage temperature of around 30°C (86°F).

If SoC drops to 0 during storage or startup, shut down immediately.

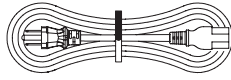
- Charge within 48 hours.
- Keep it at 5°C to 35°C (41°F to 95°F) for 6 hours before charging.
- Recommended to charge via an AC source; if using solar energy, ensure an input of over 60W.

SAVE THESE INSTRUCTIONS

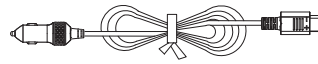
2. Packing List



Premium 30 V2
Portable Power Station



AC Charging Cable
(70.87in / 1.8m)



Car Charging Cable
(28.35in / 0.72m)



Grounding Screw
(M5*8, ×1)

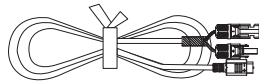


Documentation

The following accessories are not included.

Please purchase optional accessories at <https://www.bluettipower.com>

Note: All images are for reference only.



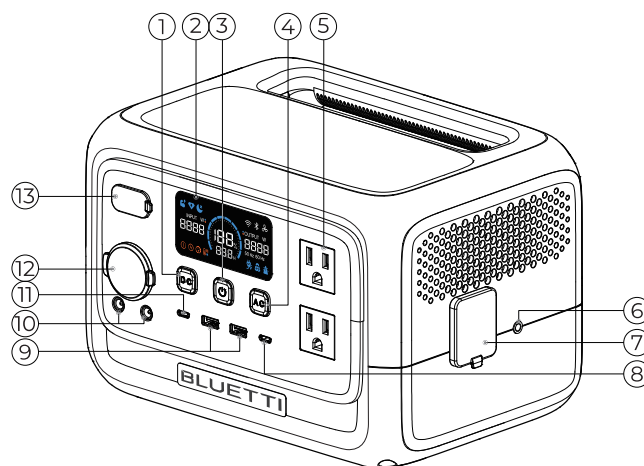
Solar Charging Cable
(59.06in / 1.5m)



Lead-acid Battery Charging Cable
(19.69in / 0.5m)

3. Get to Know Your Premium 30 V2

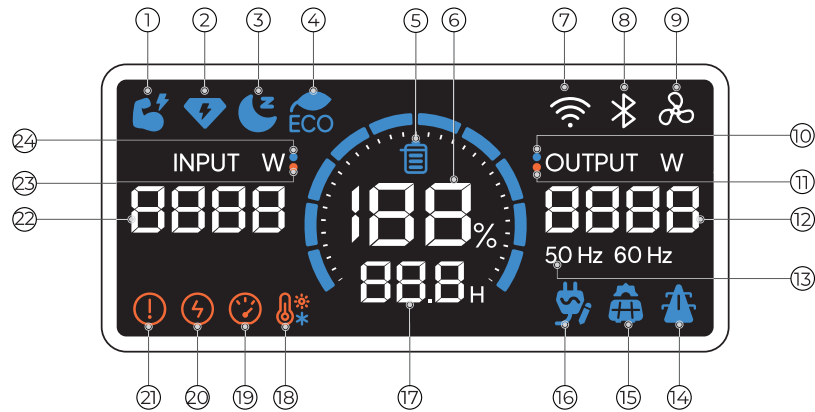
3.1 Overview



- | | |
|-----------------------|--------------------------|
| ① DC Power Button | ⑧ 100W USB-C Port |
| ② LCD Display | ⑨ USB-A Ports |
| ③ Power Button | ⑩ DC5521 Ports |
| ④ AC Power Button | ⑪ 140W USB-C Port |
| ⑤ AC Outlet | ⑫ Cigarette Lighter Port |
| ⑥ Grounding Terminal* | ⑬ DC Input |
| ⑦ AC Input | |

* Used for grounding when powering certain equipment. For assistance, contact us or seek guidance from the appendix "Grounding Guidelines".

3.2 LCD Display



- | | | |
|-------------------------|-----------------------|-------------------|
| ① Power Lifting Mode | ⑨ Fan* | ⑰ Remaining Time* |
| ② Turbo Charging | ⑩ Output Active | ⑱ High/Low Temp |
| ③ Silent Charging | ⑪ Output Alarm | ⑲ Overload |
| ④ ECO Mode | ⑫ Output Power | ⑳ Short Circuit |
| ⑤ Charge Limit * | ⑬ AC Output Frequency | ㉑ System Fault |
| ⑥ State of Charge (SoC) | ⑭ AC Input* | ㉒ Input Power |
| ⑦ WiFi Connection | ⑮ DC Input* | ㉓ Input Alarm |
| ⑧ Bluetooth Connection | ⑯ AC Output Restore* | ㉔ Input Active |

Charge Limit: Set through the app's working mode.

Fan: Flashing for abnormal fan operation.

AC Input: Charges from a wall outlet or generator.

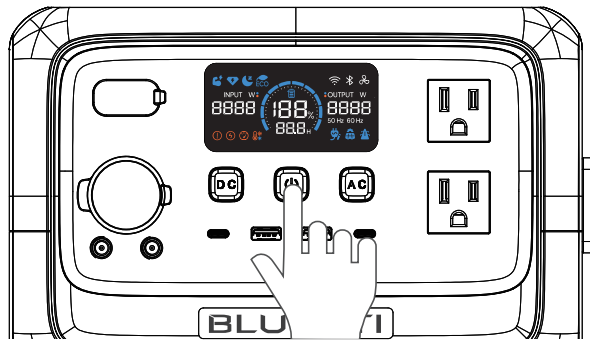
DC Input: Charges from solar panel(s) or a car.

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.

Remaining Time: Remaining discharging time.

4. Use Your Premium 30 V2

4.1 On/Off



Power On

Press the power button; the lit button indicates that the Premium 30 V2 is on standby.

Power Off

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

AC On/Off

Press AC power button when Premium 30 V2 is on.

DC On/Off

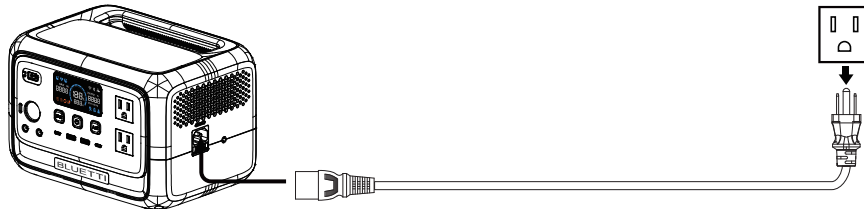
Press DC power button when Premium 30 V2 is on.

Note: When Premium 30 V2 is on, press any button to activate the display.

4.2 Charging Options

4.2.1 Wall Outlet

Plug the Premium 30 V2 into a standard wall outlet. It stops charging when fully charged.



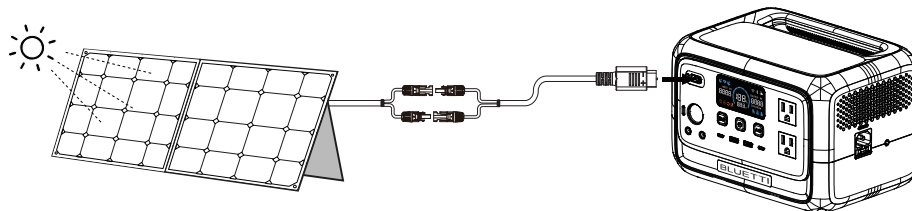
Note: Do not plug the unit's AC charging cable into its own AC outlets. Doing so could damage the connected device.

4.2.2 Solar Panel

Connect the solar panel(s) either in series or parallel, and use the solar charging cable to link them to Premium 30 V2.

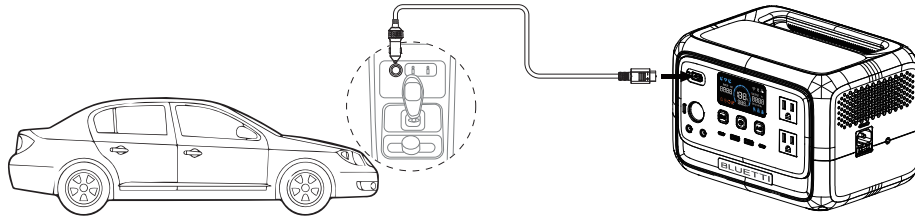
Notes:

- Make sure the solar panel(s) meet the following requirements:
Voc: 12V-28V Current: 10A Max. Power: 200W Max.



4.2.3 Car (12V/24V)

Connect the Premium 30 V2 to your car's 12V or 24V cigarette lighter port or socket using the car charging cable.



Notes:

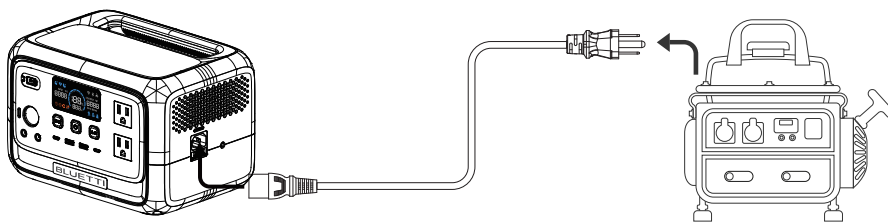
- Make sure your car has power and the engine is running while charging.
- Avoid over-discharging the car's battery.

4.2.4 Generator

Connect the Premium 30 V2 to a generator using the AC charging cable. The charging stops automatically when fully charged.

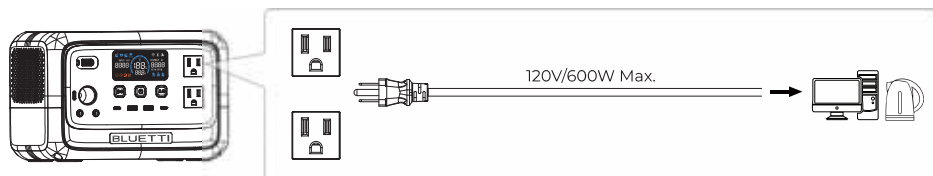
Notes:

- Use a generator with a pure sine wave output that matches the required voltage and frequency and meets or exceeds the Premium 30 V2's input needs.
- It's recommended to enable **Grid Self-Adaption** mode when charging the Premium 30 V2 with a generator.
- If the generator's output is too low, adjust the **Max. Grid Charging Current** in the app to match.



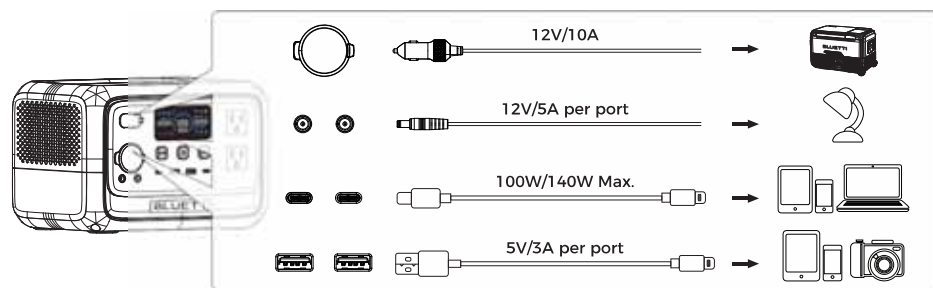
4.3 Power Your Devices

AC Outlets



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.

DC Outlets

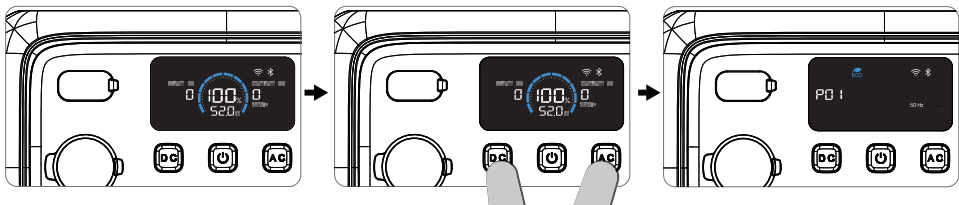


5. Configure Your Premium 30 V2

The Premium 30 V2 can be configured using either the device's buttons or the BLUETTI app. For advanced settings, such as adjusting the Max. Grid Input Current or configuring ECO mode, use the BLUETTI app. Refer to the app manual for more details.

5.1 Settings Mode

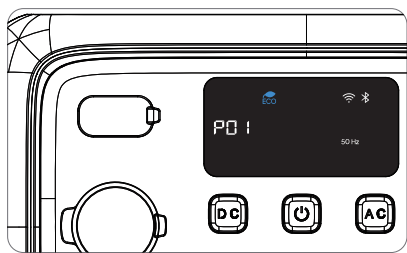
Enter the Mode: Press and hold the AC and DC power buttons simultaneously for about 2 seconds. The frequency icon flashes.



Exit the Mode: Press and hold both the AC and DC power buttons again. If left idle for 1 minute, the Premium 30 V2 automatically exits without saving any changes.

Adjust settings in Settings Mode.

- Turn off the AC power before setting the frequency.
- Press the DC power button to navigate through the items, and use the AC power button to adjust.



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

5.2 AC Charging Mode

The Premium 30 V2 offers three charging modes: Standard, Turbo, and Silent. By default, the unit charges in Standard mode.

Mode	AC Input	Solar Input	AC + Solar Input	AC Charging Time (Estimated)
Standard	200W Max.	200W Max.	200W Max.	2 hrs
Turbo	380W Max.	200W Max.	380W Max.	80% in 50 mins
Silent	200W Max.	200W Max.	200W Max.	3 hrs

Notes:

- Charging time may vary depending on the ambient temperature.
- The above data is for reference only.

5.3 Power Lifting Mode

Power Lifting mode is disabled by default. It allows Premium 30 V2 to power up to 1500W pure resistive loads like electric kettles, blankets, hairdryers, and similar heating devices.

Note: This mode is only for pure resistive loads rated 600W-1500W. While the Premium 30 V2 can handle such loads, its actual output power is still 600W.

5.4 ECO Mode

AC-ECO and DC-ECO modes are enabled by default. The Premium 30 V2 shuts off the AC or DC output after a period of low or no load.

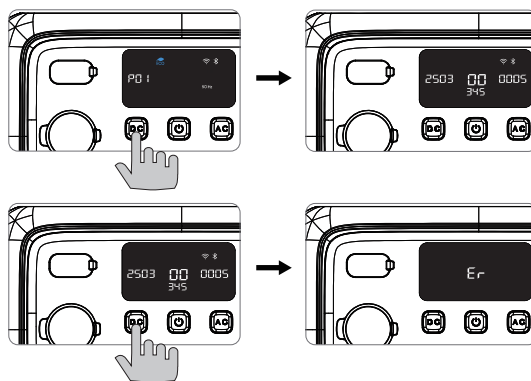
Notes:

- AC-ECO mode is not available when charging with AC power.
- Press the AC power 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 10W or critical appliances such as lights.

6. View Device Information

View device information in Settings Mode, too.

- Go to the P01 frequency page and long press the DC power button to view the unit's SN. Press the DC power button again to navigate through other information.
- When on Fault History page, long press the AC power button for about 2 seconds, then release to clear the history.



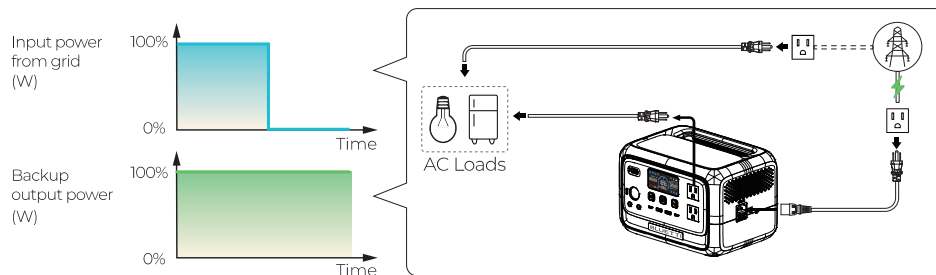
Page Code	Information
2503 00 0005 345	Serial Number (SN)
Er	Error Code
HI	Fault History
UE	Version

7. UPS Feature

Connect Premium 30 V2 to the wall, and it directly draws power from the outlet to operate connected devices. It swiftly switches to battery power within 10ms during an outage. Set UPS modes in the app.

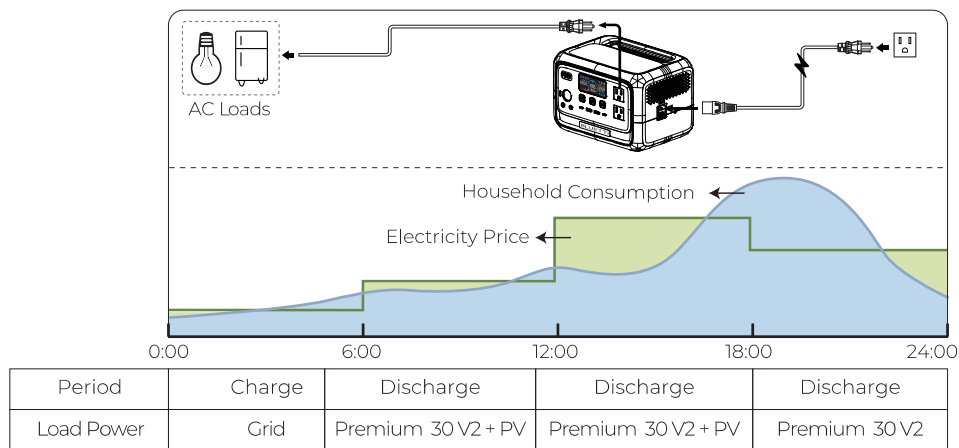
• Standard

The Premium 30 V2 charge fully using a combination of solar and grid power, prioritizing solar when available. When the grid is active, it directly powers your devices. If the grid goes out, the Premium 30 V2 seamlessly takes over.



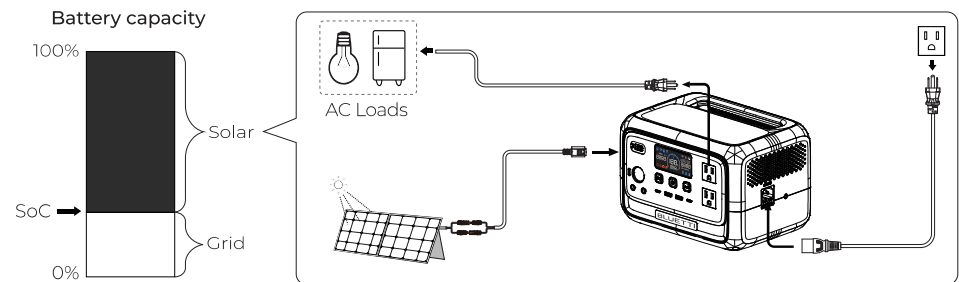
• **Time Control**

Save costs by scheduling Premium 30 V2 to charge during off-peak hours and power devices during peak hours.



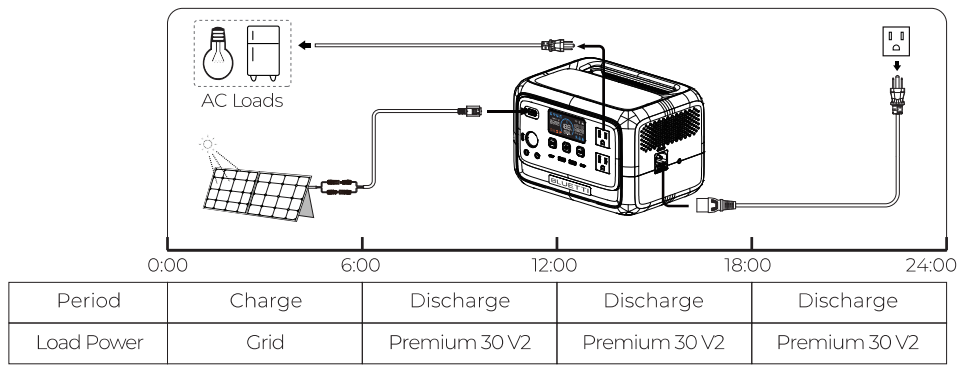
• **PV Priority**

Efficiently uses solar energy. Premium 30 V2 initially charges from the grid to a set SoC and seamlessly switches to solar replenishment.



• Customized

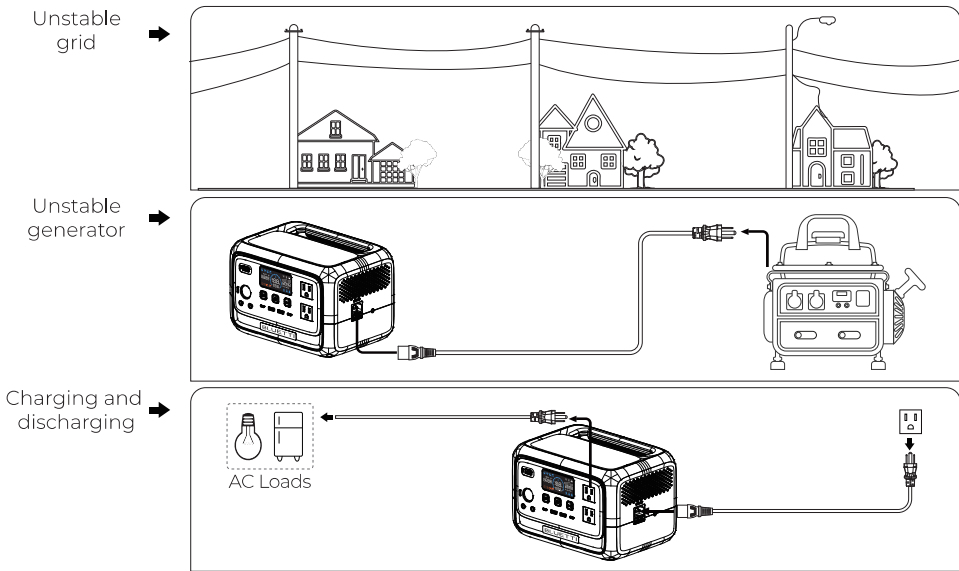
Personalize charging/discharging schedule, set battery SoC limits, and control the schedule and grid input switches.



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

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 Premium 30 V2 automatically adjusts to handle power fluctuations, protecting the unit and connected devices from potential issues due to variations in power quality.



9. Specifications

Model	Premium 30 V2
Battery Capacity	320Wh (20Ah)
Battery Type	LiFePO ₄
Weight	About 4.3kg/9.48lbs
Dimensions (L × W × H)	250 × 178 × 167.5mm (9.8 × 7 × 6.6in)
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)
Operating Humidity	10% to 90%
AC Charging	380W Max., 80% in 50 mins, @ 25°C / 77°F
AC Input (with Bypass)	980W Max.
DC Input	200W Max., 12V-28V, 10A Max.
AC + DC Input	380W Max.
AC Output	600W in Total, 120V, 5A, 50Hz/60Hz
Uninterruptible Power Supply (UPS)	
Switchover Time	≤10ms
DC Output	
1 × Cigarette Lighter Port	12V/10A
2 × DC5521	12V/5A (per Port), 8A in Total
2 × USB-A	5V/3A (per Port), 15W Max.
1 × 100W USB-C	100W Max., 5V/3A, 9V/3A, 12V/3A, 15V/3A, 20V/5A
1 × 140W USB-C	140W Max., 5V/3A, 9V/3A, 12V/3A, 15V/3A, 20V/5A, 28V/5A
AC + DC Output	600W Max.
IP Rating	IP20

Note: The cigarette lighter port and DC5521 ports are wired in parallel with a total maximum output of 10A.

10. Troubleshooting & FAQs

On the Error Code page, the **Er** and error code appears simultaneously on the screen. See the table below for guidance.

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 device power usage. • Check devices for short circuits.
E033	PV overvoltage	• Ensure the PV input voltage is within 12V-28V.
E039	PV overtemperature	• Wait 10 mins for the unit to cool down. • Re-enable the PV input.
E065	DC output short circuit	• Check device power usage. • Check devices for short circuits.
E067	DC output overcurrent	• Check device power usage. • Reduce load if too high.
E068	DC output overtemperature	• Wait 10 mins for the unit to cool down. • Restart your devices.
E085	Charging temperature too high	• Wait for the unit to cool down before charging 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 help.

FAQs (Frequently Asked Questions)

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

A: Keep the total power below 600W. Some devices with motors or compressors may start at 2-4 times their rated power, which could easily overload the Premium 30 V2 .

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-28V and MC4 connectors. Avoid mixing different types of solar panels.

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

A: Yes, the Premium 30 V2 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 x DoD x η $\div$ (Load + Premium 30 V2 Self-consumption)

Note: DoD (Depth of Discharge) is 95%. η (inverter efficiency) is over 90%. Premium 30 V2 self-consumption is about 9W .

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.

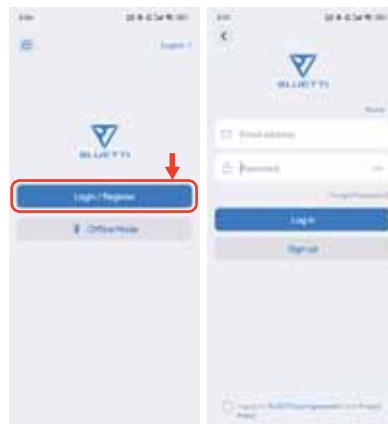
1. Download the BLUETTI app

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



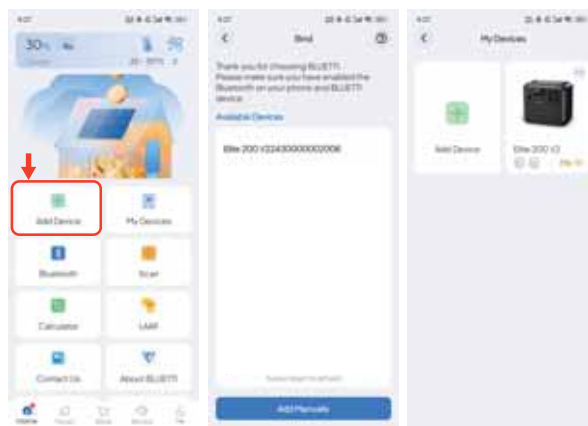
2. Log in or sign up

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



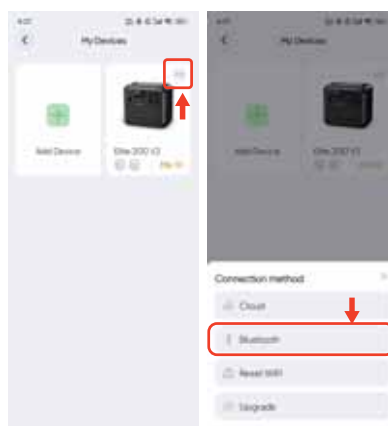
3. Bind the unit

- 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.



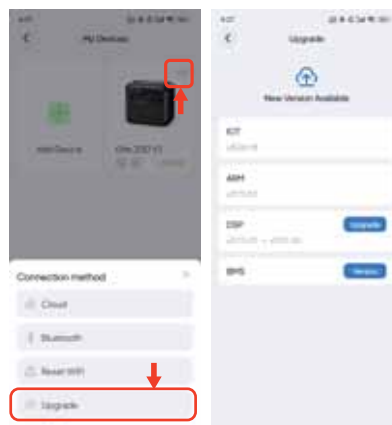
4. Connect via Bluetooth

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

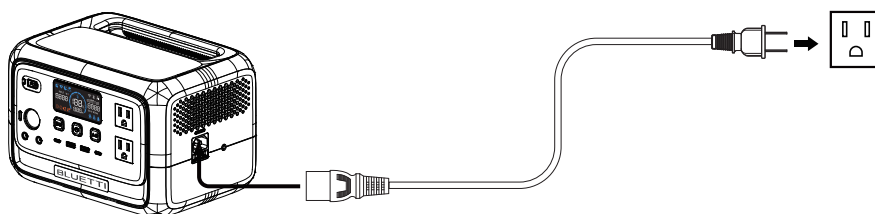
If a new firmware update is available, tap Upgrade and follow the on-screen instructions.

Notes:

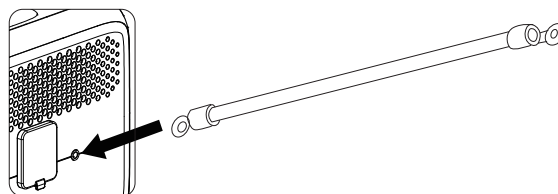
- Ensure the unit remains powered on and connected during the update.
- Keep your phone and the unit close together (recommended range: 16.4ft / 5m).
- Do not exit app until done.

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 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 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!

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