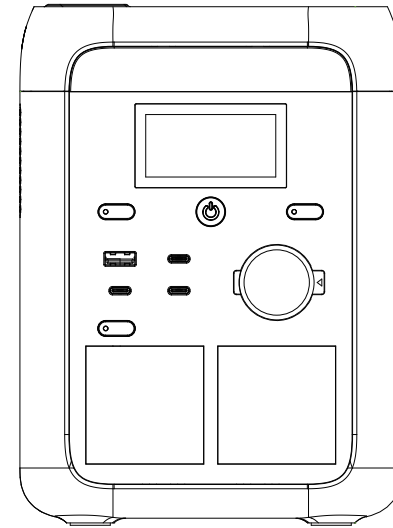


User Manual

300W Portable Power Station



This manual is a general version. If the purchased unit does not support wireless charging, please disregard the related descriptions.

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1. Parameters

General

Net weight	≈3.5kg (≈7.72lbs)
Dimension	162x219x135mm (6.4*8.6*5.3in)
Battery capacity	256Wh, 12.8V [⎓] , 20Ah

Output

(UK/EU/FR/AU/ZA) AC socket*2

Inverter mode	pure sine-wave, total 300W (peak 500W), 220-240V~, 50Hz/60Hz, 1.5A
Bypass mode	220-240V~, 50Hz/60Hz, 300W Max., 1.5A

(US) AC socket*3

Inverter mode	pure sine-wave, total 300W (peak 500W), 100-120V~, 60Hz, 3A
Bypass mode	100-120V~, 60Hz, 300W Max., 3A

USB-A1	5V [⎓] 2.4A, 12W Max.
USB-C1/C2	5V [⎓] 3A, 9V [⎓] 2.22A, 20W Max.
USB-C3	5/9/12/15V [⎓] 3A, 20V [⎓] 3.25A, 65W Max.
Car charger	12.6V [⎓] 10A, 126W Max.
Wireless Charger (Optional)	25W Max.

* Inverter mode: the output AC power comes from the battery, not the grid.

* Bypass mode: the output AC power comes from the grid, not the battery.

Input

(UK/EU/FR/AU/ZA)

AC input power	550W Max., 3A
AC input voltage	220-240V~, 50Hz/60Hz

(US)

AC input power	550W Max., 6A
AC input voltage	100-120V~, 60Hz

PV charge	140W Max., 15-36V \equiv 9A
Car charging input	12V battery supported, 4A by default

Input charging

AC charging power	250W Max.
PV charging input	140W Max.
Car charging input	48W Max.
AC+PV charging power	250W Max.

Battery

Cell Type	lithium iron phosphate battery (LiFePO ₄)
Life cycle	4000 cycles
Protection type	over temperature protection, low temperature protection, over discharge protection, over charge protection, over load protection, short circuit protection, over current protection

*Test conditions: 95%DOD, 0.5C charge & discharge at +25°C±3°C, 70%SOH.

Operating temperature

Optimal operating temperature	20°C~30°C (68°F~86°F)
Discharge temperature range	-20°C~45°C (-4°F~113°F)
Charge temperature range	0°C~45°C (32°F~113°F)
Storage ambient temperature	-20°C~45°C (20°C~30°C preferred) [-4°F~113°F(68°F~86°F preferred)]

*Whether the product can be charged or discharged is subject to the actual battery pack temperature.

2. Safety guidelines

2.1 Warning

- Do not place this product near heat sources while it is operating, such as open flames or heaters.
- Keep this product away from all liquids. Do not immerse it in water or allow it to get wet. Never use the product in the rain or in humid environments.
- Do not use this product in environments with strong static electricity or strong magnetic fields.
- Do not disassemble or puncture this product in any way using sharp objects.
- Do not short-circuit the product using wires or other metal objects.
- Do not step on, sit on, or climb on the product.
- Do not use any parts or accessories not provided by the manufacturer. For replacements, please refer to official sales channels.
- Use this product strictly within the operating temperature range specified in this manual. Excessive heat may cause the battery to catch fire or even explode; excessive cold may severely reduce product performance and affect normal use.
- Do not place heavy objects on top of this product.
- Do not forcibly block the fan while the product is in use. Avoid using the product in poorly ventilated or dusty environments.
- Avoid impacts, drops, or strong vibrations. If the product experiences significant external impact, immediately power it off and stop using it. Secure the product during transport to prevent shock or collision.
- If the product is accidentally dropped into water, place it in a safe and open area, and stay away until it is completely dry. Do not reuse the product once dried. Dispose of it properly as described in Section 2.2 (Disposal). If the product catches fire, use firefighting equipment in the following recommended order: water or mist, sand, fire blanket, dry powder, or CO₂ extinguisher.
- If there is dirt on the product's ports, wipe it off with a dry cloth.
- Place the product securely to prevent it from tipping over. In case of severe damage caused by tipping, immediately shut it down, place the battery in an open area away from flammable materials and people, and dispose of it in accordance with local laws and regulations.
- Keep the product out of reach of children and pets.
- Store the product in a dry, well-ventilated place.
- When using the product in humid environments (e.g., near the sea or water), it is recommended to use it with a moisture-proof bag to avoid water ingress. If water enters the product, do not reuse or power it on.
- This product is not recommended for powering life-support or safety-critical medical devices, including but not limited to hospital-grade CPAP (Continuous Positive Airway Pressure) machines and ECMO (Extracorporeal Membrane Oxygenation) systems. However, home-use CPAP machines for general household environments may be used, as they typically do not require constant professional monitoring. Please follow medical advice and consult the device manufacturer regarding usage limitations. For general medical equipment, always monitor battery levels to avoid power depletion.
- Power supplies will inevitably generate electromagnetic fields when it is in use, which might affect the implantable medical device or normal operation of personal medical device, such as pacemaker devices, cochlear implants, hearing AIDs, defibrillators, etc. If any of these medical devices are used, please consult the manufacturer about the restrictions on the use to ensure that power station is operated at a safe distance from implanted medical devices such as pacemakers, cochlear implants, hearing AIDs, defibrillators, etc.

20. When the power station is connected to a refrigerator load in normal mode, the power fluctuation characteristics of the refrigerator may cause the power station to shut down automatically. For refrigerators storing medicines, vaccines, or other high-value items, it is recommended to long-press the LED button to activate the "Never Shutdown" mode when connecting to the power station, ensuring continuous power supply. Meanwhile, the user should monitor the power station's battery level to avoid unexpected power loss.

21. Do not place any items on top of the product while moving it by pushing or pulling.

2.2 Disposal

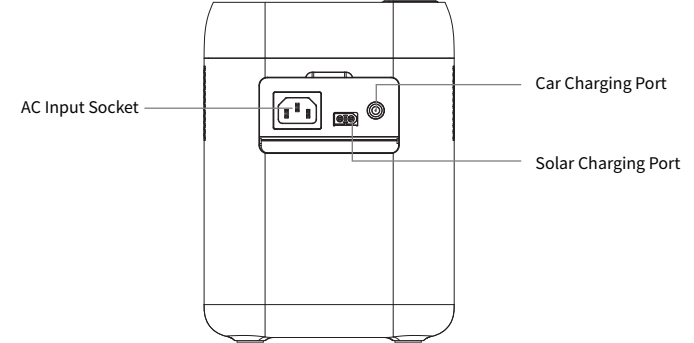
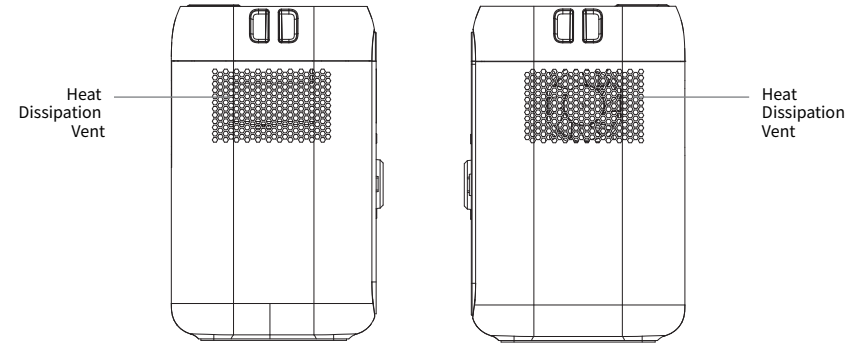
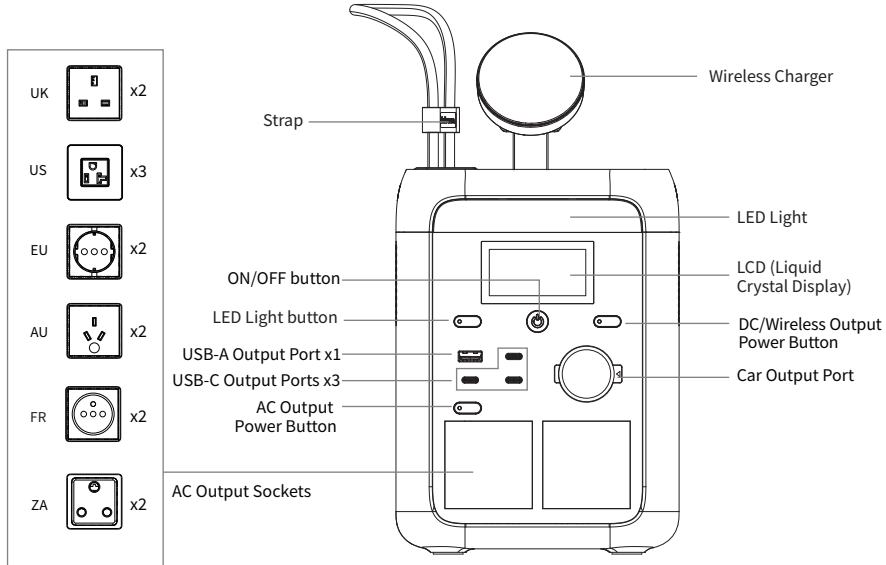
1. If conditions permit, please ensure the battery is fully discharged before placing the product in a designated battery recycling bin. Power station contains a battery, which is classified as hazardous chemical waste and must not be disposed of in regular trash bins. For more details, please follow local laws and regulations regarding battery recycling and disposal.

2. If the battery cannot be fully discharged due to a product malfunction, do not place it directly into a recycling bin. Instead, contact a certified battery recycling company for proper handling.

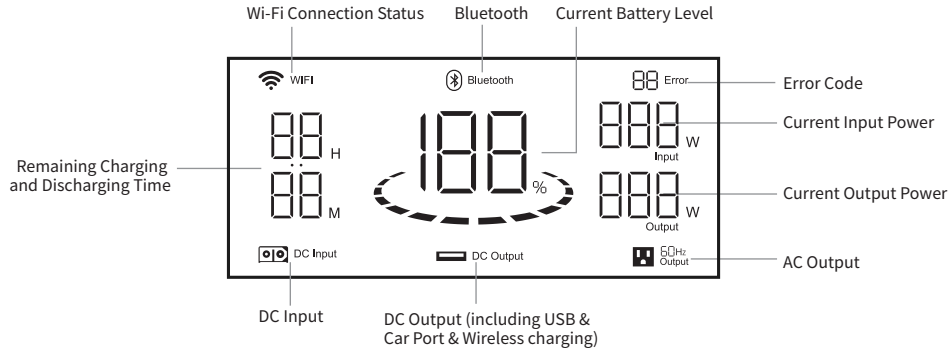
3. If the battery is over-discharged and cannot be restarted, please treat it as waste and dispose of it accordingly.

3. Guideline for users

3.1 Product overview



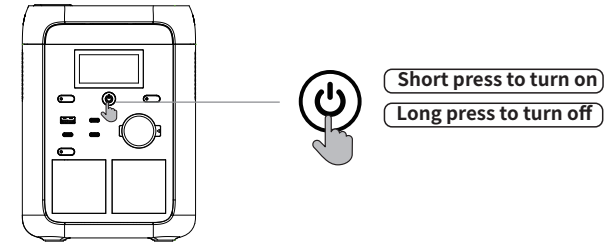
3.2 LCD screen



Battery Capacity: When the power station is charging, the SOC (State of Charge) icon will blink.

* Please refer to clause 5 for more details regarding error message.

3.3 Use




Power On and Off

- To turn on the device, press the main power switch. The screen will light up, and the main power indicator will turn on.
- If the device remains idle for 5 minutes, the LCD display will automatically turn off. The LCD will light up again when the device is plugged in or unplugged from the grid, PV, car charger, or when the key operation is used. You can manually control the LCD display by pressing the main power switch to turn it on or off.
- To completely power off the device, press and hold the main power switch.

Standby Mode

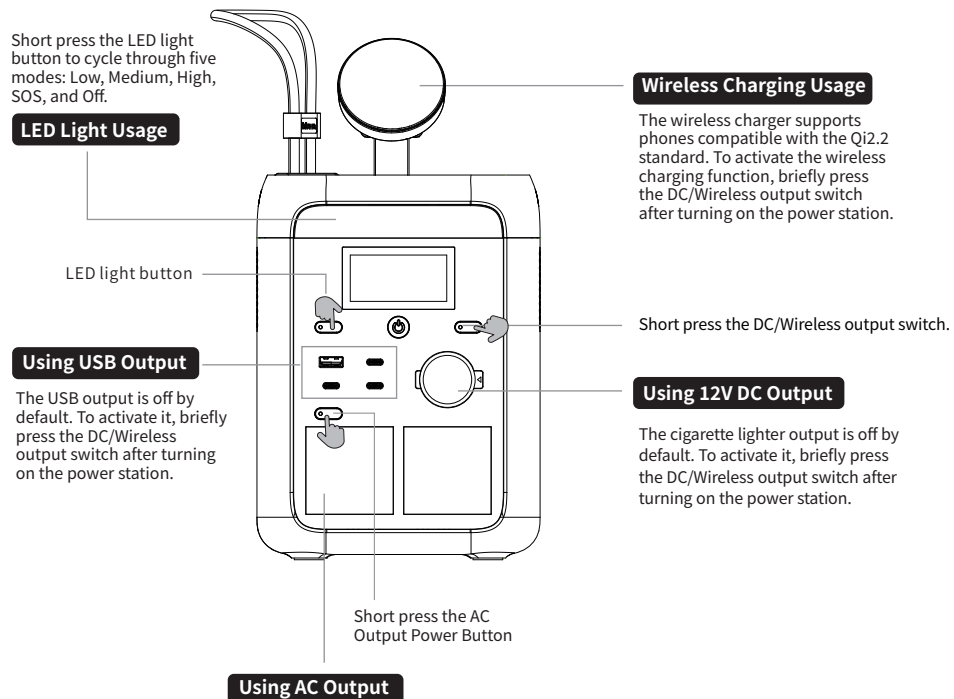
- In normal operation (when power is above 5%), the default standby time is set to 1 hour. If the AC output switch is off, and there is no charge or discharge activity for 1 hour, the device will automatically shut down. You can adjust the standby time via the app.
- When the power level reaches 5% or below, the device will enter low power mode. If there is no charge or discharge activity, the standby time will adjust based on the remaining power, and the device will automatically shut down.

Never-Power-Off Mode

- In normal mode, press and hold the LED light button to enable Never-Power-Off mode. The icon  on the screen will flash. Press and hold again to re-enter the automatic shutdown mode, at which point the icon will remain steady.

Note: The automatic shutdown feature is designed to protect the battery from overdischarge. Exiting this setting may reduce battery lifespan, so please proceed with caution.

Note: When there is no AC input, you can switch the AC off-grid output frequency (50Hz Output / 60Hz Output) by long pressing the AC output button for 2 seconds. The AC output icon will flash three times to indicate successful switching.

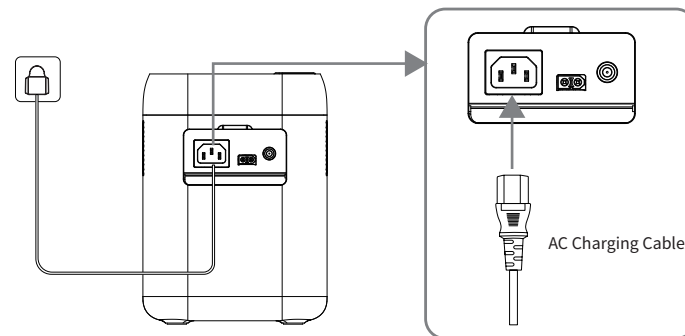


3.4 AC charging

- By default, the product is set to fast charging mode when powered on.
- In fast charging mode, the battery can be fully charged in approximately 1.5 hours.

*AC Fast Charging Mode: charging time deviation $\pm 0.1h$.

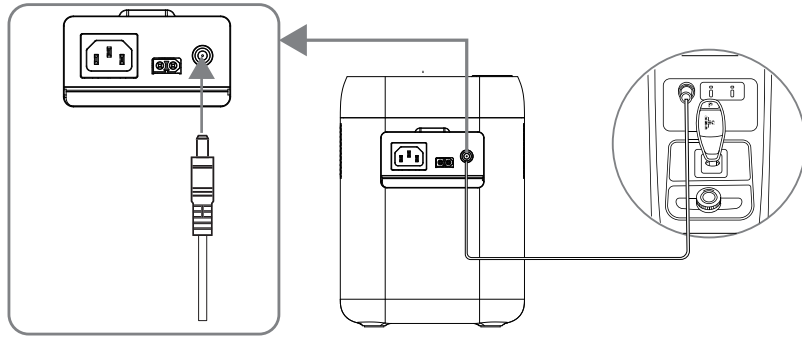
*Conditions: New battery, fully discharged at 1C rate under room temperature, then rested for 2 hours at room temperature before performing AC fast charging at room temperature.



Please ensure to use the standard AC charging cable provided. Connect the cable directly to a wall outlet rated for 10A or higher. We are not liable for any damages resulting from the use of unauthorized charging accessories or failure to follow these instructions.

- After ensuring the power station is turned on, briefly press the AC output power switch to activate the AC output. Press it again to turn off the AC output.
- The default standby time for the AC output port is 30 mins. If no load is connected within this period, the AC output will automatically turn off. To enable the Never-Power-Off function, press and hold the LED light button. The icon () will flash to indicate the change. Press and hold the LED light button again to exit the Never-Power-Off setting, and the icon () will stop flashing. (Note: The Never-Power-Off mode is disabled by default. After restart, you need to press and hold the LED light button again to turn it on.)
- The option to enable the Never-Power-Off setting is suitable for AC equipment below 10W and pulse-operated devices.
- To conserve energy, please turn off the AC output and the Never-Power-Off mode when it's not in use.

3.5 Car charging



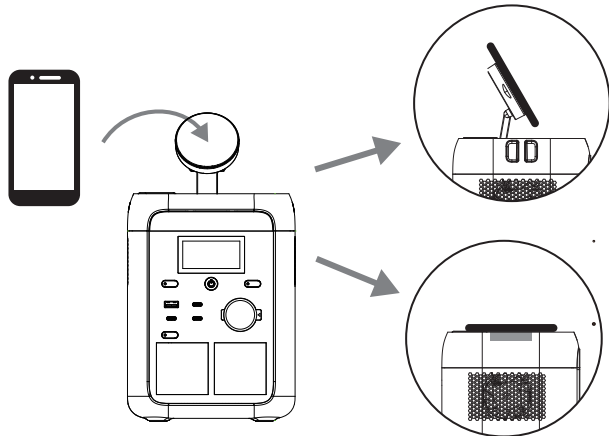
Car charger cable (DC7909)

The power station can be charged via the vehicle's cigarette lighter port. To prevent battery drain and potential failure to start the engine, charging should only begin after the vehicle is running. Always ensure a secure connection between the car charging port (DC 7909) and the cigarette lighter adapter. We are not liable for any losses resulting from improper operation.

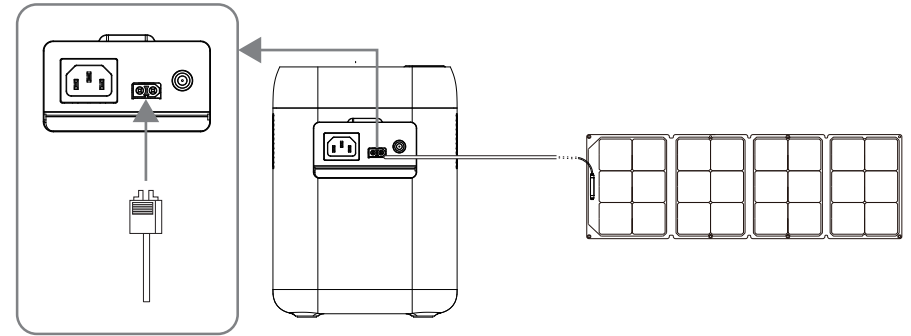
3.6 Wireless Charging (Optional)

Place your phone steadily on the wireless charging stand to charge devices that support the Qi2.2 standard.

Note: Ensure that the DC/Wireless output is turned on before using the wireless charger. You can place your phone flat on the wireless charger stand or at different angles for charging.



3.7 PV charging



The user can charge the product with a solar panel as shown in the diagram.

Solar Charging Cable (XT60)

- When using the company's solar panel to charge this product, please follow the connection guidelines outlined in the user manual.
- Before connecting the solar panel, ensure that its output voltage is within the supported range of the product to avoid damage.
- This product supports solar charging via the XT60 terminal. If an XT60 to MC4 adapter cable is needed, please purchase it separately.

Solar Panel Charging Notice

To ensure system safety and stable operation, the solar input power will automatically adjust according to the input voltage and temperature conditions, as described below:

1. Input Voltage: 16V-27V

Maximum solar input power: 140W MAX

Within this voltage range, the unit can achieve its rated maximum solar charging power.

2. Input Voltage: 28V-36V

Maximum solar input power: 90W MAX

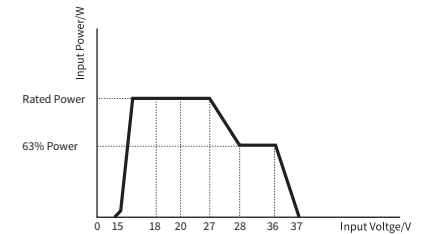
When the solar panel voltage exceeds 27V, the system will automatically reduce the charging power to ensure circuit safety and long-term stability.

3. Temperature Protection Mechanism (PV NTC)

When the PV port temperature (NTC sensor reading) exceeds 85°C,

the solar input power will automatically be reduced from 140W to 120W MAX.

This protection mechanism prevents overheating of internal components under high-temperature conditions and is part of normal system operation.



Note:

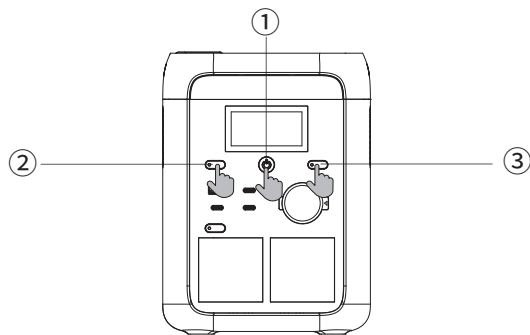
Actual charging power may vary depending on sunlight intensity, ambient temperature, and battery state.

3.8 P-Boost function

The constant power output function of this product allows you to use appliances exceeding its rated power without overloading the battery. When the power station needs to drive high-power appliances, the inverter will intelligently adjust the power station's output power to maintain a constant actual output power, ensuring the appliances operate reliably.

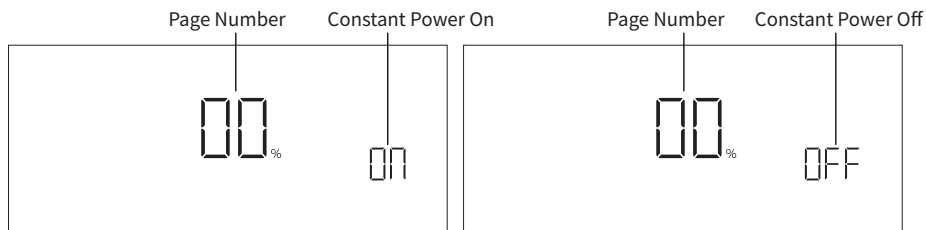
Enter/Exit the Constant Power Output Function Settings Interface:

Short-press Button ① (Power Button) and Button ③ (DC Button) simultaneously to enter the parameter settings interface. Short-press Button ① (Power Button) to cycle through the interfaces.

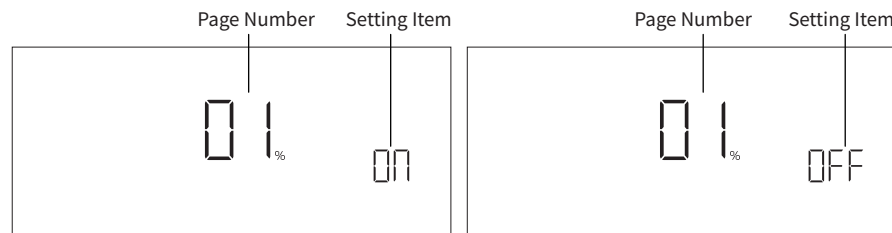


Page 0 allows control of the Constant Power mode's on/off: displaying "OFF" indicates the mode is disabled, while displaying "On" indicates it is enabled.

On this page, short-press Button ② (LED Button) to enter the parameter modification mode, where the battery percentage icon $\frac{\square}{\square}\%$ will flash. In the parameter modification mode, short-press Button ① (Power Button) to toggle the Constant Power mode on or off. Short-press Button ② (LED Button) again to exit the parameter modification mode and confirm the parameter changes.



In the settings interface, short-press Button ① (Power Button) to navigate to Page 1, where the factory reset function can be configured. The page displays "0" by default. Short-press Button ② (LED Button) to enter the parameter modification mode. Use short-presses of Button ① (Power Button) to select whether to perform a factory reset. When the display shows "1", short-press Button ② (LED Button) to exit the parameter modification mode and execute the factory reset. The display will automatically revert to "0" after the factory reset is completed.



Important Notes for Use:

1. The Constant Power Output function is enabled by default.

The Constant Power Output function is unavailable in the following cases:

- (1) AC output is turned on during charging (operates in bypass mode at this time);
- (2) The Constant Power Output mode is disabled.

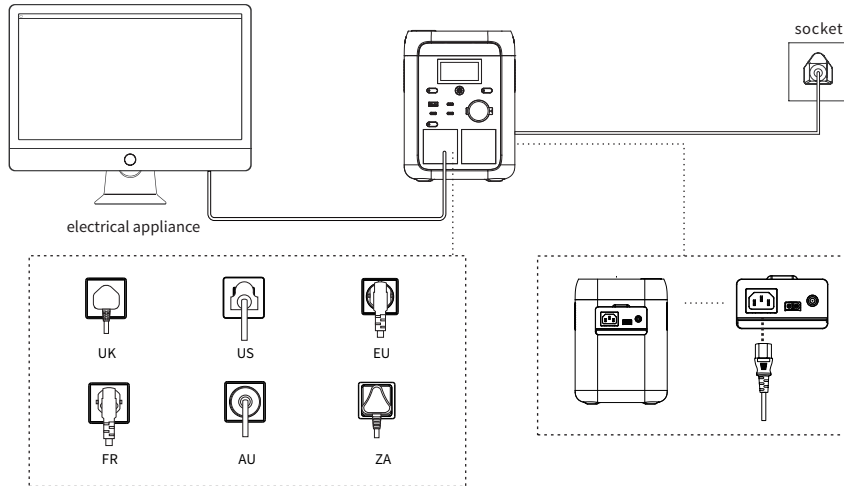
2. When connecting high-power appliances, connect only one appliance at a time. This avoids voltage fluctuations caused by multiple appliances operating simultaneously from affecting the performance of other devices.

3. The Constant Power Output function is more suitable for heating and motor-driven devices, and not compatible with all appliances. Certain devices equipped with voltage protection (e.g., precision instruments) are not suitable for this function. To confirm if a device can use the Constant Power Output function, please refer to actual testing for compatibility.

3.9 EPS function

This product supports the EPS (Emergency Power Supply) function. To use it, connect the AC input port of the product to the wall socket via the AC charging cable. In Bypass mode, the AC power is supplied by the grid, not the battery. When the grid power is interrupted, the product will automatically switch to Inverter mode within 10ms, where AC power will be supplied by the battery instead of the grid. This function does not support 0ms switching. Do not connect it to devices requiring uninterrupted power supply, such as data servers or workstations. If you choose to use it with such devices, ensure multiple tests are conducted to confirm compatibility. It is recommended to use only one device at a time to avoid triggering overload protection.

Please note, if the device does not operate correctly or if data loss occurs due to non-compliance with these instructions, our company will not be responsible for any resulting issues.



4. FAQs (Frequently Asked Questions)

1. What kind of battery is used?

Lithium iron phosphate battery (LiFePO4).

2. What kind of equipment can be connected to the AC output ports?

The AC output port of the product has a high-rated power capacity, suitable for small household equipment. We recommend verifying the power requirements of your equipment before use to ensure that the total power consumption of all connected devices is lower than the rated power.

3. How to know how long the PPS can supply power?

The time is displayed on the LCD screen, which can be referred to for estimating the runtime of equipment with stable power consumption.

4. How to know it is charging?

When charging, the LCD will display the remaining charging time. The SOC icon will flicker, and input power will be shown.

5. How to clean the unit?

Clean the unit with a dry, soft and clean cloth or tissue.

6. How to store the unit?

Turn off the unit and store it in a dry, well-ventilated place. Avoid exposure to water. For long-term storage, charge and discharge the unit every 3 months. Discharge it to 0%, then charge it to 100%, and finally discharge it to 48%–52%.

7. Can it be taken on board an airplane?

No.

5. Error messages & solutions

Icon	Fault Description	Solution
02 Error Error code always on	Excessive Voltage Difference	When triggered during charging: Remove all charging and discharging equipment, and the fault will be automatically cleared. When triggered when not charging: Remove all charging and discharging equipment, charge using AC or PV power, and the fault will be automatically cleared once charging starts successfully.
04 Error Error code always on	Battery OTP (over temperature protection) fault	Auto shutdown, fault cleared when temperature is restored.
05 Error Error code always on	Battery UTP (under temperature protection) fault	
06 Error Error code always on	OCP (over current protection) fault	Remove all charging and discharging equipment, and the fault will be automatically cleared.
08 Error Error code always on	Abnormal precharge	Remove all charging and discharging devices, and the fault will be automatically cleared.
09 Error Error code always on	Battery under voltage fault	Automatic shutdown. Requires charging. Contact after-sales service if charging fails repeatedly or is unavailable.
11 Error Error code always on	Abnormal INV battery voltage	Remove all charging and discharging devices, charge using AC or PV power, and the fault will be automatically cleared once charging starts successfully.
12 Error Error code always on	Grid voltage or frequency fault	Remove all charging and discharging equipment, the fault will be automatically cleared, and check whether the voltage, frequency, etc. of the charging equipment meet the specifications.
13 Error Error code always on	Abnormal INV BUS voltage	Remove all charging and discharging devices, and the fault will be automatically cleared.
14 Error Error code always on	Abnormal INV output	

Icon	Fault Description	Solution
15 Error Error code always on	INV discharge overload	Remove all charging and discharging equipment, the fault will be automatically cleared, and check whether the load power exceeds the equipment specifications.
16 Error Error code always on	Charge overload	Remove all charging and discharging equipment, and the fault will be automatically cleared. If there is a connected load, check whether the load power exceeds the equipment specifications.
17 Error Error code always on	Hardware Overcurrent Brake Protection	
20 Error Error code always on	MOSFET OTP(Over Temperature Protection) Fault	Remove all charging and discharging equipment, keep away from high-temperature sources, wait for the product temperature to return to normal, and the fault will be automatically cleared.
23 Error Error code always on	Charging Soft Start Fault	Remove all charging and discharging devices, and the fault will be automatically cleared.
24 Error Error code always on	MOSFET UTP(Under Temperature Protection) Fault	Remove all charging and discharging equipment, keep away from low-temperature sources, wait for the product temperature to return to normal, and the fault will be automatically cleared.
27 Error Error code always on	DC input hardware overcurrent protection	Remove the DC charging equipment, the fault will be automatically cleared, and check whether the DC input meets the specifications.
28 Error Error code always on	DC input software overcurrent protection	

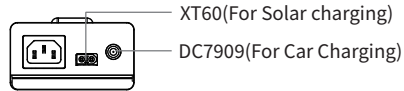
Icon	Fault Description	Solution
31 Error Error code always on	PV output OVP (over voltage protection) fault	Remove the PV input, the fault will be automatically cleared, and check whether the PV input voltage meets the equipment specifications.
32 Error Error code always on	DC Input Overvoltage Protection	Remove the PV input, the fault will be automatically cleared, and check whether the PV input voltage meets the equipment specifications.
35 Error Error code always on	DC input over temperature protection	Remove all charging and discharging equipment, keep away from high-temperature sources, wait for the product temperature to return to normal, and the fault will be automatically cleared.
37 Error Error code always on	Car charger Output OTP (Over-Temperature Protection)	The DC output turns off automatically, remove all charging and discharging equipment, keep away from high-temperature sources, wait for the product temperature to return to normal, and the fault will be automatically cleared.
38 Error Error code always on	Abnormal communication	Restart the machine or change the operating environment. If the fault is not resolved, contact after-sales service for handling.
43 Error Error code always on	The battery voltage is too low. The battery is broken	Contact after-sales service for handling.

Important:

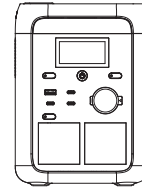
If a warning appears during product use, and the warning icon remains after restarting the device, please stop using the product immediately. Do not attempt to charge or discharge it.

If the issue persists and the above steps do not resolve the problem, please contact customer service for further assistance.

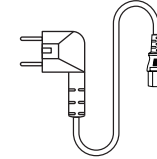
When charging with PV panels, please connect the cable to the XT60 terminal. For car charger usage, connect the cable to the DC7909 terminal.



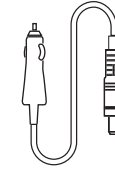
6. What's in the box



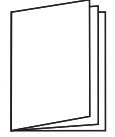
Power station



AC cable



Car charge cable



User manual

7. Maintenance

- It's recommended to use or store the power station in an environment with ambient temperatures between 20°C and 30°C. Keep the unit away from water, heat sources, and metal objects to avoid damage.
- For storage periods exceeding 3 months, perform a cycle of charging and discharging every 3 months. First, discharge to 0%, then charge to 100%, and finally discharge to 48%-52% to maintain battery health.
- Do not store the power station in temperatures above 45°C or below -10°C, as this could damage the unit.
- If the battery capacity falls below 1%, charge the unit to at least 60%. Storing the product with low power for extended periods may cause irreversible damage to the cells, reducing the overall lifespan.
- If the power station has been idle for too long with insufficient battery, it will enter a "deep sleep" mode. To reactivate it, simply charge the product.
- After charging or discharging, wait at least 30 minutes before using the power station to ensure optimal performance and safety.

8. Disclaimer

• The product is equipped with a built-in battery management system, which provides several protections including overcharge, overdischarge, overcurrent, short circuit, high and low temperature, and abnormal communication. During use, these protections may activate and cause an interruption in output. The company is not responsible for any indirect losses caused by accidental power failures, including those affecting medical equipment or servers. Additionally, any damage resulting from improper use, tampering, or human error is not the responsibility of the company.

• Before using the power station, please thoroughly read this user manual to ensure proper understanding and safe usage. After reviewing the manual, please store it in a safe place for future reference. Improper operation can lead to serious injury, product damage, or property loss. By using the power station, you acknowledge and accept all terms and conditions outlined in this manual. Users are fully responsible for their actions and any consequences resulting from non-compliance.

• In accordance with applicable laws and regulations, the company reserves the right to make the final interpretation of this document and all related materials for this product. The content may be updated, revised, or discontinued without prior notice. Please visit the official website for the most up-to-date product information.

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.

2. Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

Note: 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.

The device has been evaluated to meet general RF exposure requirement, This equipment should be installed and operated with a minimum distance of 20 cm between the radiator and your body.

ISED 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:

This device may not cause interference.

This device must accept any interference, including interference that may cause undesired operation of the device.

This equipment should be installed and operated with a minimum distance of 20 cm between the radiator and your body.

Le présent appareil est conforme aux CNR d'Industrie 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, et (2) l'utilisateur de l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement. Cet équipement doit être installé et utilisé avec une distance minimale de 20 cm entre le radiateur et votre corps.