

Outdoor Portable Energy Storage Operation Manual



ANHUI RAYLOVE TECHNOLOGY CO., LTD

Disclaimer

Prior to operate this product, please read the Operation Manual ("the Manual") of it to ensure correct operation after complete understanding. After reading, please keep the Manual properly for future reference. Failure to operate this product correctly may cause serious injury to yourself or others, or cause product damage and property damage. Once you operate this product, it is deemed that you have understood, acknowledged, and accepted all the terms and conditions contained herein. The operator shall undertake to be responsible for his/her actions and all consequences arising therefrom. Ruilu Technology will not bear any losses caused by operators' failure to use the product according to the Manual.

Ruilu Technology reserves the final right to interpret the Manual and all related documents of this product, provided that laws and regulations are complied with Updates, revisions, or terminations shall be subject to change without notice. Please visit our official website at www.raylove.cn for the latest product information.

1. Parameters and specifications

Mode		RS540
Battery type		Lithium iron phosphate battery cell
Battery capacity		537wh
Cycle life		3000 times(@25°C)
Storage temperature		-20°C-55°C
Operation temperature		-10°C-50°C
Charging temperature		0°C-45°C
Rated output power		500W/220V/50HZ (Chinese version) 500W/230V/50HZ (European version) 500W/110V/60HZ (US version and Japanese version)
Inverter		Sinusoidal wave
Charging	Charging with electrical supply/time	220V/230V 180W/3h(Chinese version /European version) 110V180W/3h(US version and Japanese version)
	Charging with solar panels/time	24V100W/5.5h
	Charging with vehicle/time	12V60W/9h
Output	AC	2*AC220V 500 (Chinese version) 2*AC230V 500W(European version) 2*AC110V 500W(US version and Japanese version)
	DC	4*USB 5V2A 1*12V5A 5525 interface 1*Type C(PD60W) 1*12V5A Cigarette Lighter Wireless charging ≤15w
Enclosure		ABS+PC
Net weight		8 kg
Size (L*W*H)		270* 215*209mm

Others	Bluetooth speaker, APP control, LED light
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Note: The above configuration parameters are for the high configuration version (smart version) and the low configuration version (exploration version), without Bluetooth speakers, APP control, and wireless charging functions.

2. Safety instructions

2.1 Use

1. Do not keep this product close to heat sources, such as ignition sources or heating furnaces, while operating.
2. Do not allow this product to come into contact with any liquid, and do not immerse this product in water. Do not operate this product in rain or under humid circumstances.
3. Do not use this product in strong electrostatic or magnetic field environments.
4. Do not disassemble or puncture this product with sharp objects in any way.
5. Do not short circuit this product with wires or other metal objects.
6. Do not use non-original components or accessories. If you need to replace the components or accessories, please inquire about relevant purchase information via official distribution channels.
7. When operating this product, please strictly follow the operating ambient temperature in the Manual, as too high temperatures may cause the battery to catch fire or even explode; while too low temperatures may reduce the performance of the product severely, even unable to meet the normal use requirements.
8. Do not stack other heavy objects on this product.
9. Do not forcibly stall the fan during operation, or place this product in an ventilated or dusty space.
10. Please avoid collisions, falls, and severe vibrations. In case of severe external impact, please immediately turn off the power supply and stop operating. Please fix it properly to avoid vibration and impact during transportation.
11. If the product is accidentally fell into the water during operation, please place it in a safe and open area, and keep away from the product until it is completely dried. However, the dried product should not be reused, and should be properly disposed of in accordance with the methods in Section 2.2 Discard of the Manual. If the product catches fire, please use fire extinguishing equipment in the following recommended order: water or mist, sand, fire blanket, dry powder, and carbon dioxide fire extinguisher.
13. If there is sewage on the interface of this product, please use a dry cloth to wipe it clean.
14. Please place this product carefully to prevent damage caused by product dumping. In case of serious damage caused by product dumping, please shut it down immediately, place it in an open area, keep it away from combustibles and people, and discard it in accordance with local

laws and regulations.

15. Please store this product away from children and pets.

16. Please store this product in a dry and ventilated place.

17. It is recommended to use a moisture-proof bag together in a humid environment (such as near the seaside and water) to avoid it soaking in water. If the water is got in the product, it is not allowed to operate/start it again. Before touching the product, please take measures to prevent electric shock, immediately place it in a safe and waterproof open area, and immediately contact official customer service for treatment.

18. This product is not recommended for powering personal safety related medical devices, including but not limited to Continuous Positive Airway Pressure (CPAP), and Extracorporeal Membrane Oxygen (ECMO). If it is used for general medical devices, please pay attention to the power condition to ensure that the power does not run out.

19. Power supply products inevitably generate electromagnetic fields during use, which may affect the normal operation of implanted medical devices or personal medical devices, such as pacemakers, cochlear implants, hearing aids, and defibrillators. Therefore, if it is necessary to use such medical devices, please consult their manufacturers about the restrictions on using the relevant equipment to ensure that this product maintains a sufficient safety distance from implanted medical devices (such as pacemakers, cochlear implants, hearing aids, and defibrillators) during operating.

20. The power supply shall be connected to the refrigerator load in the normal mode. In view of the power fluctuation property of refrigerator, it is suggested that when connecting refrigerator storing medicines, vaccines or other high-value items to power products, it is necessary to check whether the power of electrical appliances is within the rated power range of this product, so as to ensure continuous power supply. Users should pay attention to the power loss of power supply.

21.FCC Warning

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, and (2) this device must accept any interference received, including interference that may cause undesired operation.

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

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection

against harmful interference in a residential installation. This equipment generates uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

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

FCC RF exposure statement:

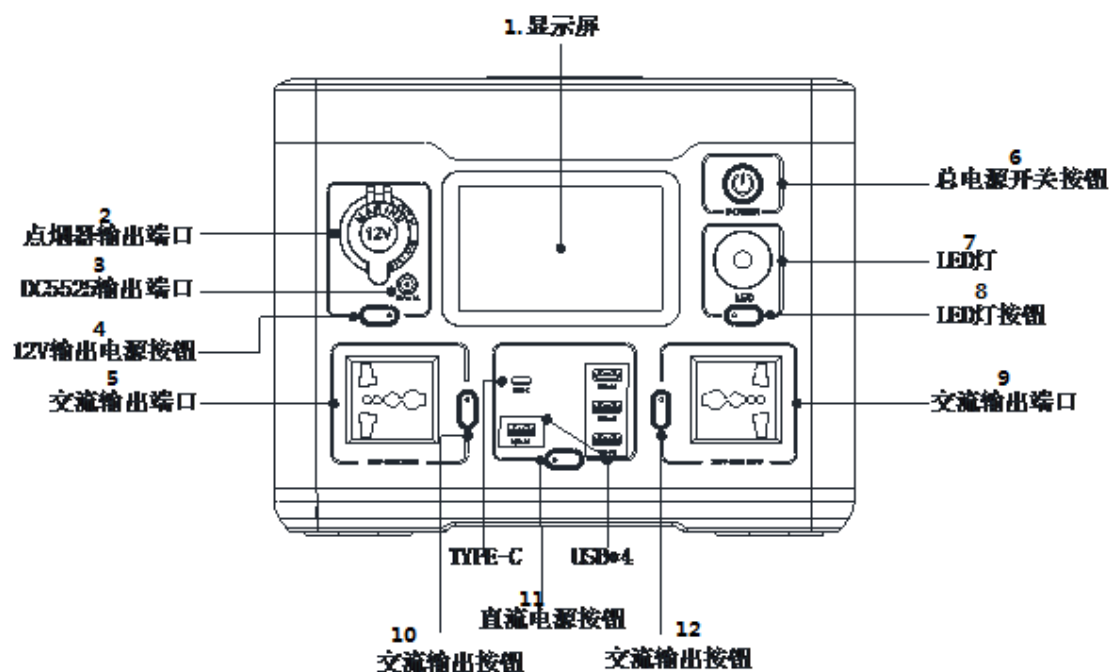
The equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance between 20cm the radiator your body.

2.2 Discard

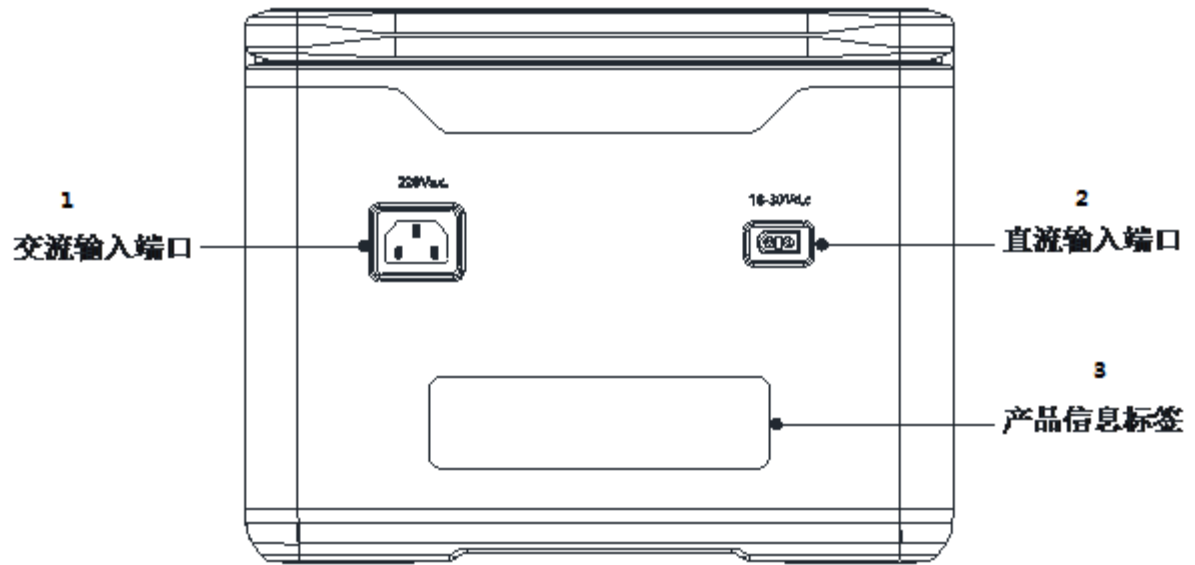
1. If the condition permits, please be sure to completely discharge the battery of this product before placing it in the designated battery recycling box. This product contains batteries, which are hazardous chemicals and shall be strictly prohibited from being discarded in ordinary trash cans. For other relevant details, please abide by local laws and regulations on battery recycling and disposal.
2. If the battery cannot be completely discharged due to its own fault, please do not discard it directly in the battery recycling box, but contact a professional battery recycling company for further treatment.
3. The battery will fail to start again after overcharging, and should be disposed as waste.

3. Beginner's guide

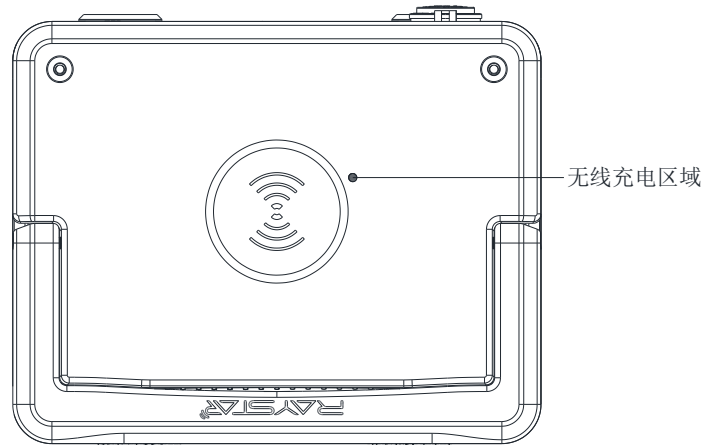
3.1 Product appearance introduction



1	Display screen
2	Output port of cigarette lighter
3	DC5525 output port
4	12V output power button
5	AC output port
6	General power switch button
7	LED light
8	LED light button
9	AC output port
10	AC output button
11	DC power button
12	AC output button

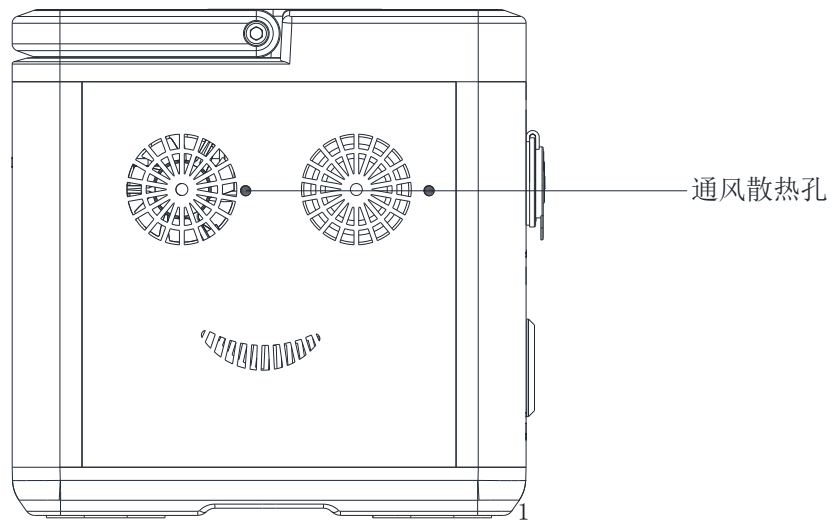


1	AC input port
2	DC input port
3	Label of product information

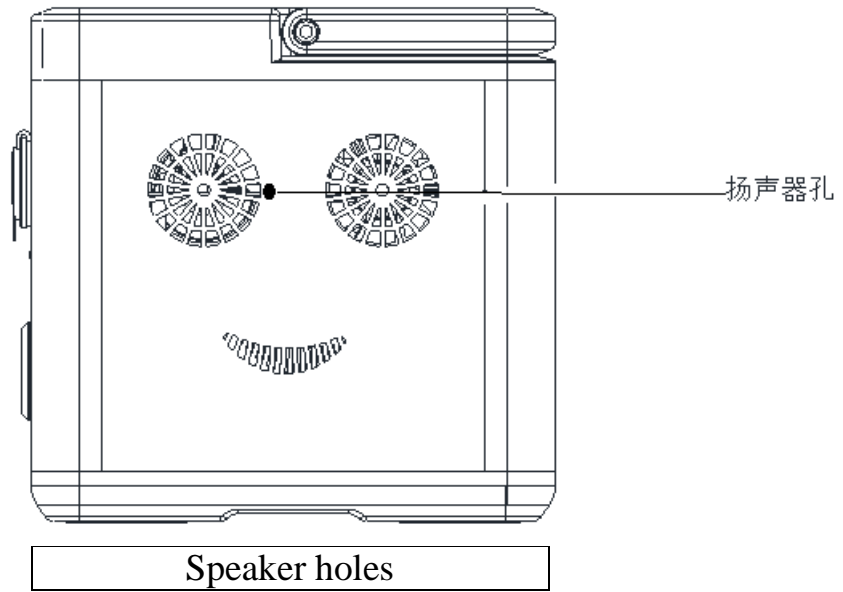


(Smart version as standard configuration)

Wireless charging area

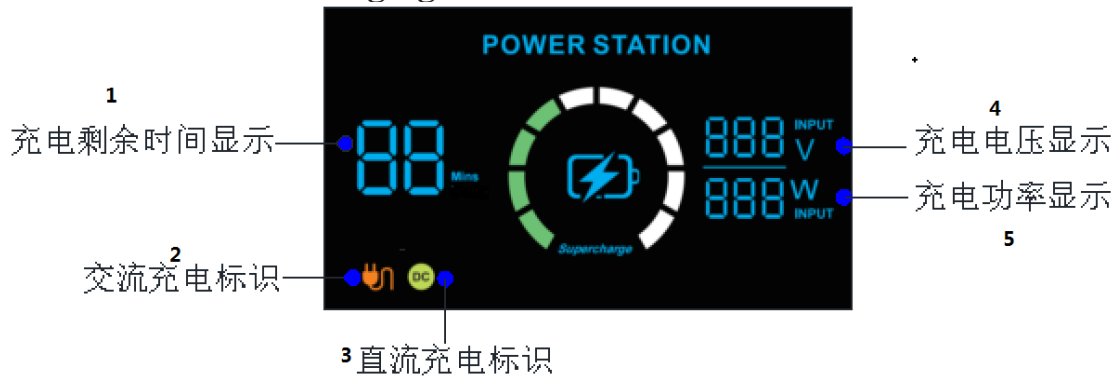


Holes for ventilation and heat¹ dissipation



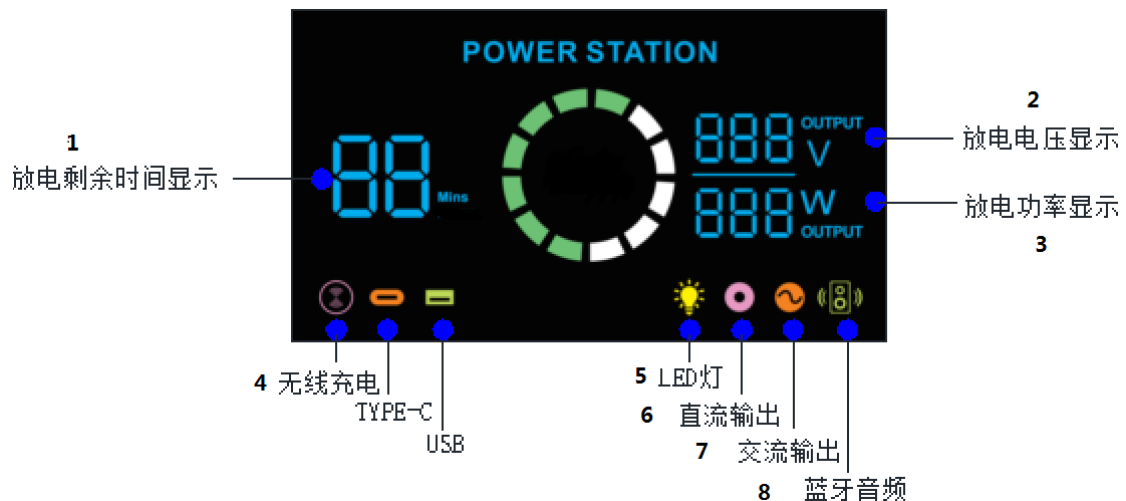
3.1 Introduction to the icons on the display screen

Charging status



1	Display of the charging remaining time
2	AC charging logo
3	DC charging logo
4	Charging voltage display
5	Charging power display

Discharging status

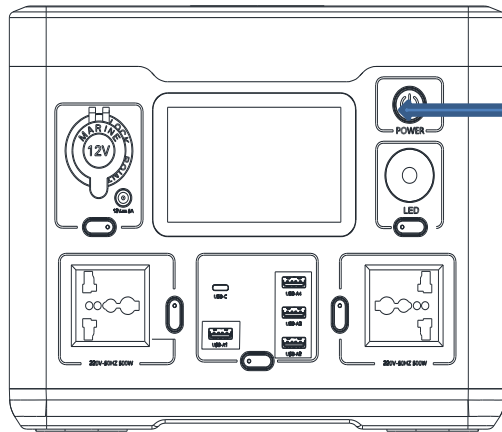


1	Display of the discharging remaining time
2	Discharging voltage display
3	Discharge power display

4	Wireless charging glow (The exploration version does not have this logo)
5	LED light
6	DC output
7	AC output
8	Bluetooth audio (The exploration version does not have this logo)

3.2 Product instructions

Power on button

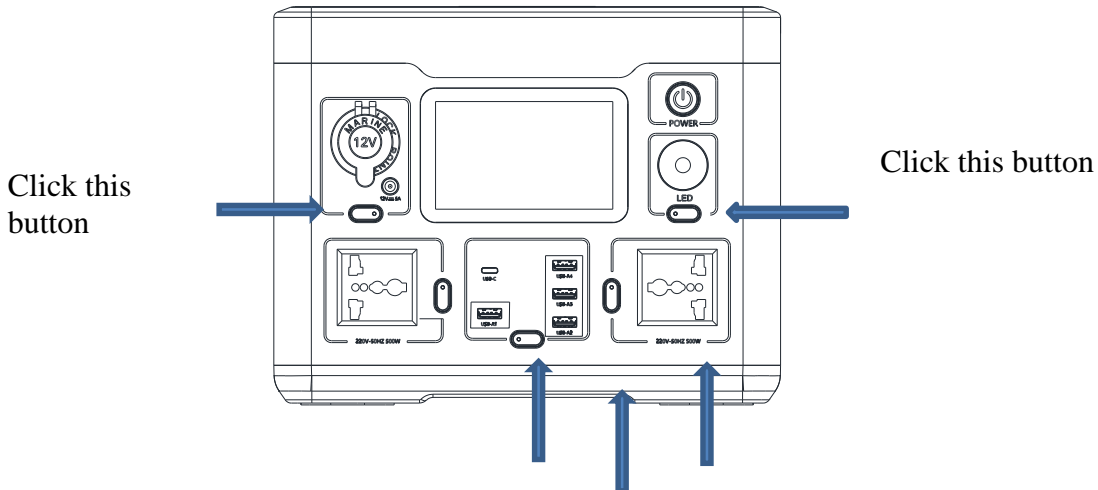


Press and hold this button

Step: Press and hold the main power switch button for 3s to turn on the product until the display screen displays the image, and then release it. During the use, after 5 minutes of the screen, it will enter the screen to turn off the screen to protect it. After pressing the switch button (except the total power switch), the screen will be lit again.

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Function button



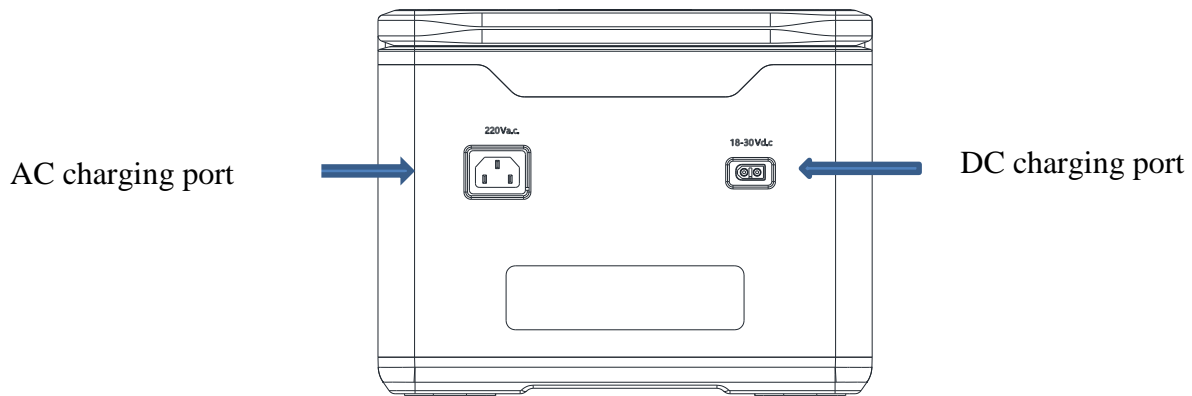
Click this button

Click this button

Click this button

Step: After the product is powered on, click related function button for 1s until the instruction light of related function on the display screen is on

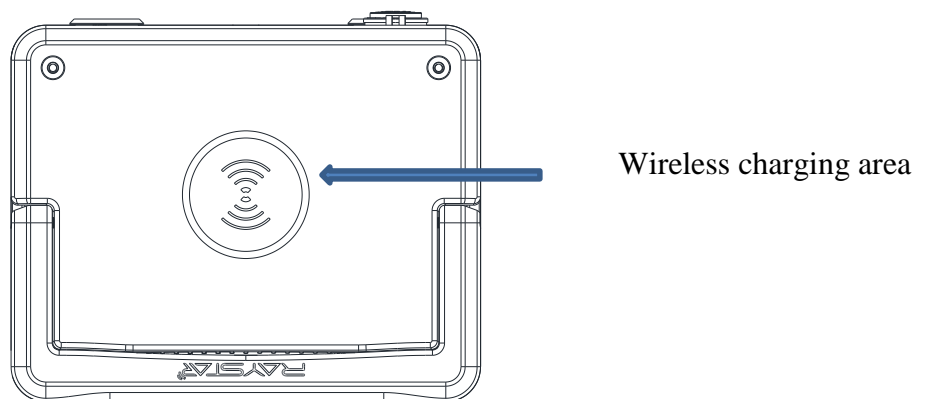
Charging port



Step: When the product is powered off, choose corresponding power supply for charging

*Solar charging cords (XT60 interface). When using a solar panel to charge this product, it is necessary to confirm whether the output voltage of the solar panel is within the product specification range before connecting the solar panel, so as to avoid damage to this product.

*When charging this product through the charging port on the vehicle, it is necessary to use the vehicle charging device after the vehicle ignition is started to avoid causing the vehicle battery under voltage and cannot be started. In addition, it should also be ensured that the vehicle charging port and the cigarette lighter of the vehicle charging input line are in good contact. If losses are caused due to non compliance with the specifications, Ruilu Technology will not bear corresponding responsibilities.



Step: When the product is powered on, the mobile phone can be

placed at the wireless charging area for charging (Due to the different positions of wireless charging coils on different mobile phones, it is necessary to adapt to the optimal placement position when charging with this product)

3.3 APP



You can download the app for this product through the app store to view information, control devices, and make personalized settings. Welcome to follow the WeChat official account of Ruilu Technology to get the download link and instructions of the App, and learn about the latest products and activities of RAYSTAR.

3.4 Bluetooth audio

You can turn on the Bluetooth on your phone and search for "RayStar" to connect it to the phone via bluetooth. After connecting, the phone audio playback function can be realized.

4. Common issues

1. What type of battery is applicable for the product?

This product is equipped with high-quality automotive grade lithium iron phosphate batteries.

2. What equipment can be connected to the AC output port of the product?

The AC output port of the product boasts a high rated power and a maximum power, which can power most household devices. It is recommended to confirm the power of the equipment before use to ensure that the total power of all loaded equipment is lower than the rated power.

3. How to know the endurance of power supply of the product?

The LCD display of this product will display the battery life, which can be estimated for devices with stable power consumption.

4. How to determine whether the product is charging?

When the product is charging, the LCD screen will display the remaining charging time, and the power indicator circle out of the power percentage will start to rotate constantly, showing the input power at the same time.

5. How to clean this product?

Please use a dry, soft, clean cloth or paper towel to wipe this product.

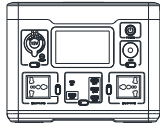
6. How to store this product?

When the product needs to be stored, please shut down the product at first, and then store it in a dry and ventilated place at room temperature. Do not place this product near any water sources. For long-term storage, it is recommended to discharge the battery to 30% every two months, and then charge it to 100% to extend the service life of this product.

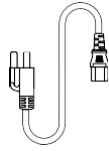
7. Can this product be taken onto an aircraft?

No.

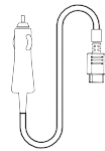
5. Packaging content



Complete
machine



AC charging
cord



DC charging
cord



Product Manual

6. How to service and maintain the product

1. It is recommended to use or store this product in an environment at 20 °C~30 °C, and keep away from water sources, heat sources, and other metal objects.
2. If it is necessary to be stored for a long time, please charge and discharge it once every two months, that is, first discharge this product to 30%, and then recharge it to 100%).
3. For safety reasons, please do not store this product in an environment above 45 °C or below - 10 °C for a long time.
4. Aiming to extend the battery life, it is suggested to operate this product at a temperature range of 20 °C to 30 °C.
5. If it is not used for a long time, please charge it to 100% before storing it. If the battery is seriously insufficient and left unused for a long time, it may result in irreversible damage to the battery cell, thus reducing the service life of this product.
6. The warranty period for the product is 3 years, and that for the accompanying charging cords is 1 year.