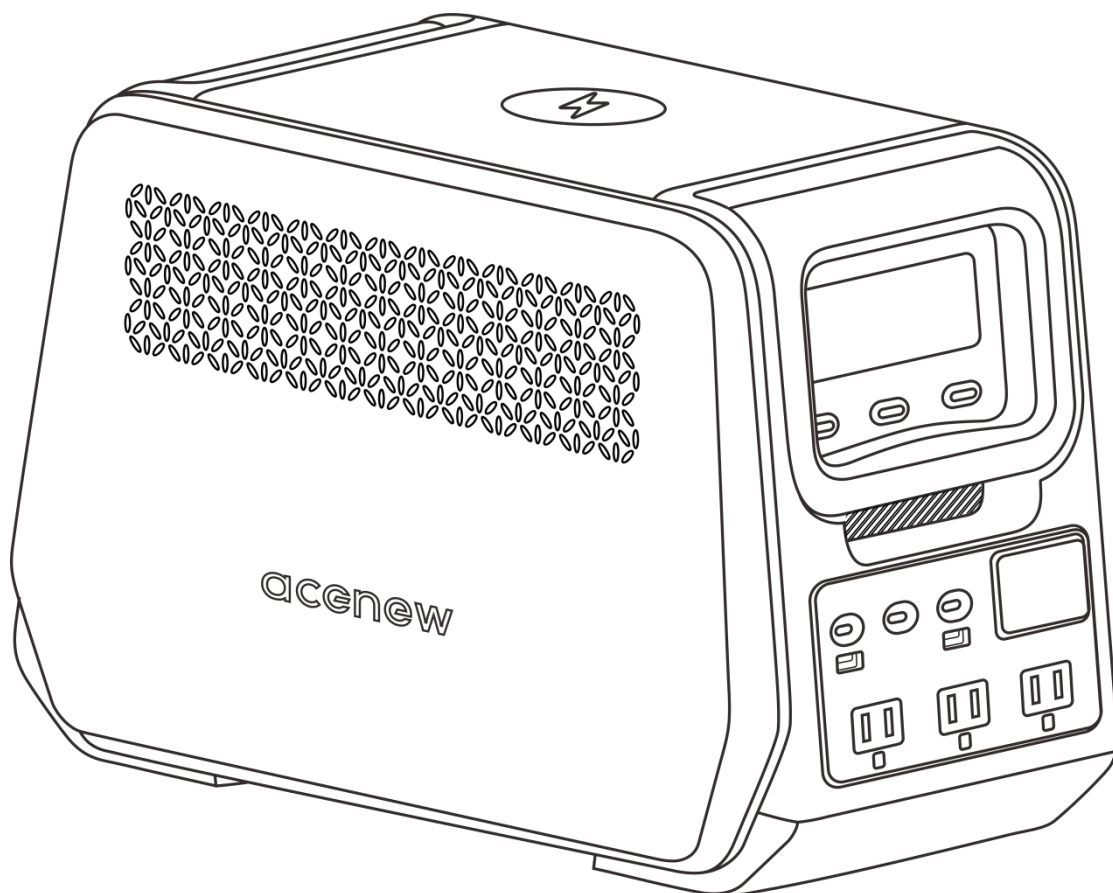


Acenew Neutron 1200 User Manual



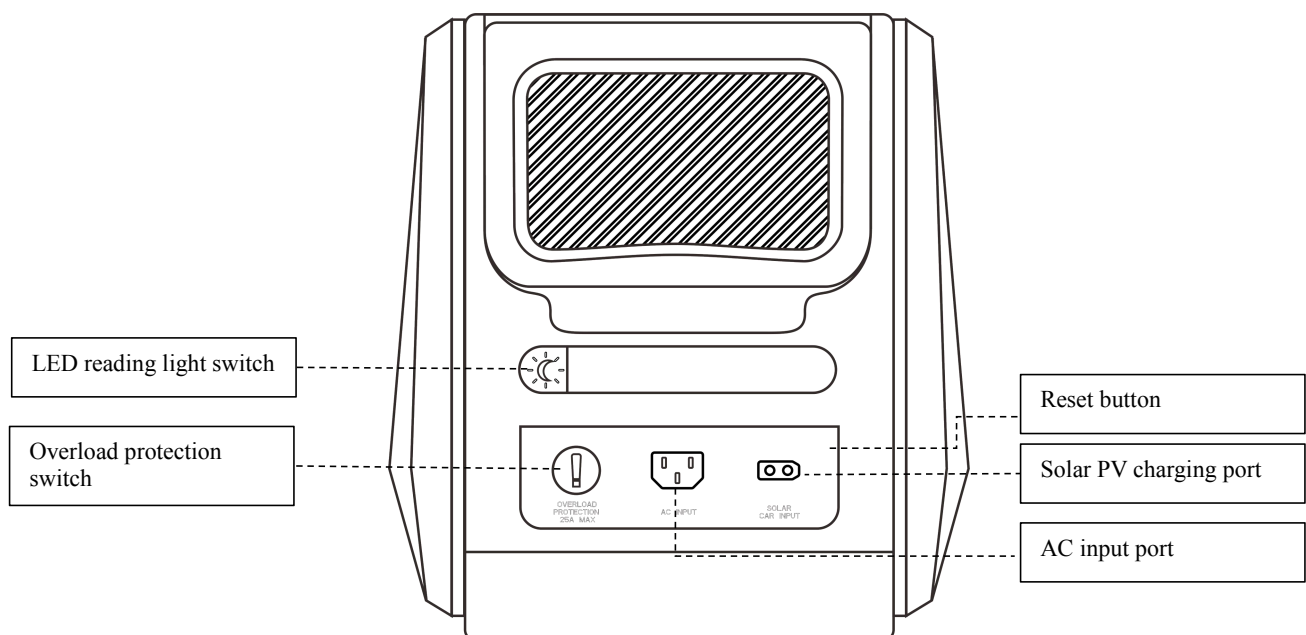
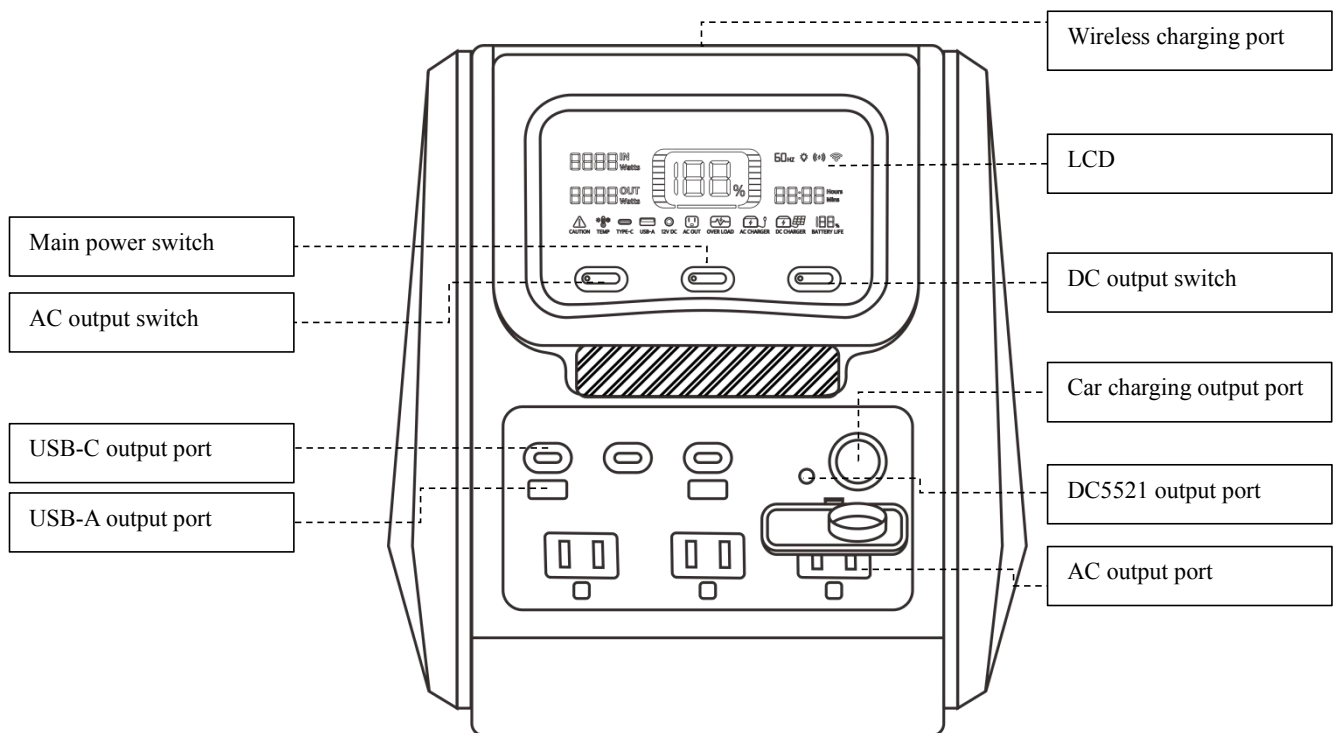
V1.0

Disclaimer

Please carefully read this user manual and fully understand the instructions before use to ensure correct operation. Keep this user manual after reading for future reference. If the product is not operated correctly, it could cause serious injury to you or others, or result in product and property damage. Once you use this product, you are considered to have understood, recognized and accepted all terms and contents of this document. Users shall be responsible for their own actions and all consequences from use of the product. Acenew is not responsible for all losses caused by the user's failure to use the product in accordance with the User Manual.

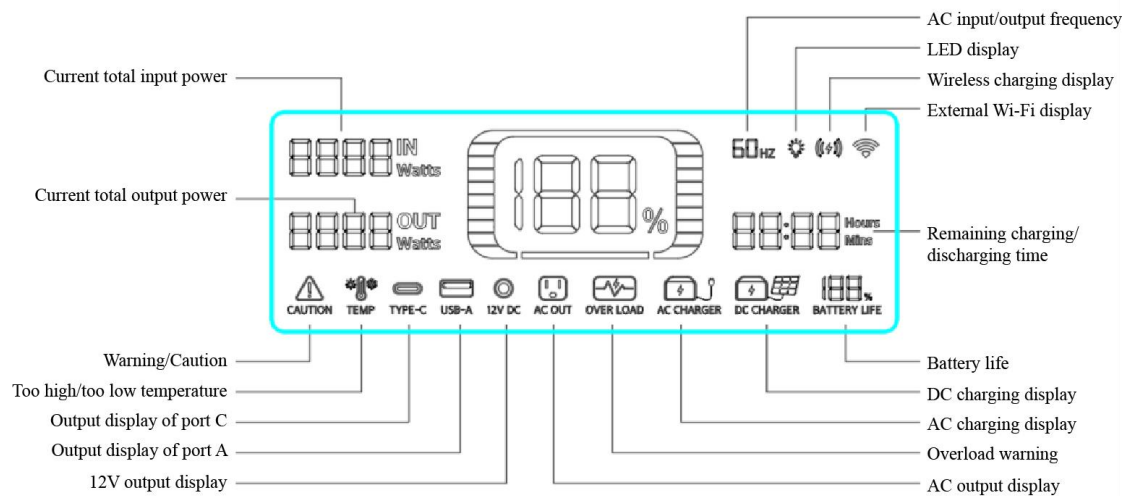
In compliance with laws and regulations, Acenew reserves the right of final interpretation of this document and all related documents of this product. Acenew has the right to update, revise, or terminate this document without prior notice. Please visit Acenew official website www.acenew.com for the latest product information.

1. Product Appearance















2. Description of Icons

2.1 Icon Introduction



2.2 Fault Display and Handling Methods

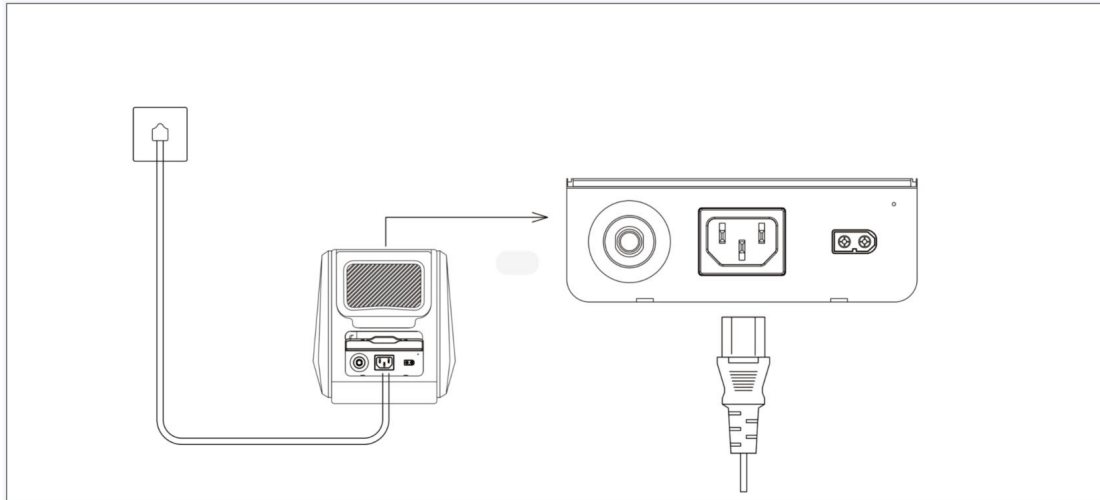
Abnormal Icon Phenomenon	Fault Type	Handling Method
  AC OUT OVER LOAD	Icon blinking AC output overloaded	Remove the over-powered device and press the AC switch or enable the AC port that automatically shuts down due to overload on the app.* Electrical appliances must be used within the rated power range.
  TYPE-C OVER LOAD	Icon blinking USB-C output overloaded	Remove the abnormal load. The icon will automatically resume to the normal state after the load becomes normal.
  USB-A OVER LOAD	Icon blinking USB- A output overloaded	Remove the abnormal load. The icon will automatically reset to normal after the load normalizes.
  12V DC OVER LOAD	Icon blinking 12V DC output overloaded	Remove the abnormal load. The icon will automatically reset to normal after the load normalizes.
  AC CHARGER TEMP	Icon blinking Battery high temperature protection while charging	The icon will automatically resume to the normal state after the temperature of the battery lowers to the specified range.
  CAUTION TEMP	Icon blinking Battery high temperature protection while discharging	The icon will automatically reset to normal after the temperature of the battery lowers to the specified range.

3. Product Specifications

Basic Parameters			
Net weight	12 kg		
Dimensions	L*W*H:365*228*254mm 365 mm (L) × 228 mm (W) × 254 (H) mm		
Capacity	1221 Wh		
Certification	FCC/UL/UN38.3/CE/Rohs/reqch/IEC62133/UKCA/UCKA-ROHS		
Output Specifications			
DC output	USB-C port 1	PD3.0 100 W Max, bidirectional 5 V-9 V-12 V-15 V/3 A, 20 V/5 A	
	USB-C port 2	PD3.0 100 W Max, bidirectional 5 V-9 V-12 V-15 V/3 A, 20 V/5 A	
	USB-C port 3	PD3.0 100 W Max 5 V-9 V-12 V-15 V/3 A, 20 V/5 A; PPS3.3-21 V/3 A	USB-C port 3 and USB-A port share 5 V/Max 21 W at the same time.
	USB-A port 1	22.5 W Max	
	USB-A port 2	22.5 W Max	
	5521×1	12 V/10 A,120 W Max	Sharing 10 A
	Car cigarette lighter output	12 V/10 A,120 W Max	
Wireless charging port	10 W Max		
AC output	AC output	Pure sine wave, 3 channels of 220 V/50 Hz, total output of 1500 W	
Input Specifications			
AC input	AC input	100V-240V wide voltage input, maximum input power of 1500 W	
DC input	USB input	Maximum input power of 300 W (100 W for each of three USB-C ports)	Total 420 W DC output
	5521&car cigarette lighter input	Maximum input power of 120 W	
Solar input	MPPT	5-22V,Maximum input power of 200W	
Environmental Characteristics			
Operating ambient temperature		Charging: -20℃ to 55℃ (optimal range: 10℃ to 35℃)	
		Discharging: -30℃ to 55℃ (optimal range: 10℃ to 35℃)	
Storage ambient temperature		-20℃ to 35℃	
Operating ambient humidity		65±20% RH	
Storage ambient humidity		65±20% RH	

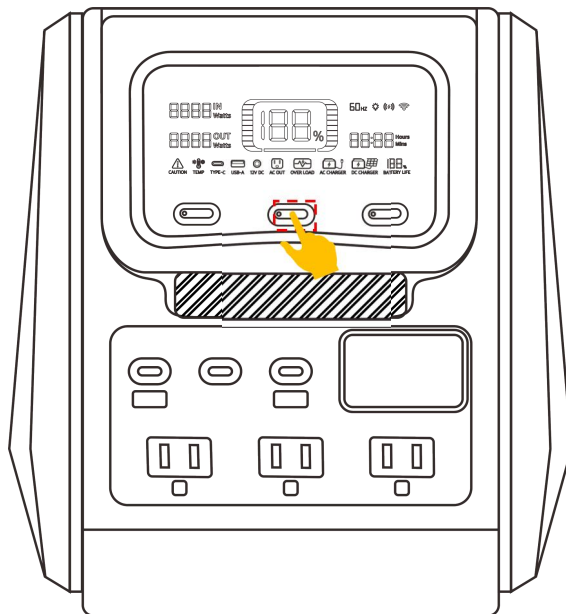
4. How to Use the Product

4.1 First-time Use



When using the product for the first time, please charge and activate the device first. It will automatically turn on after charging.

4.2 Normal Use



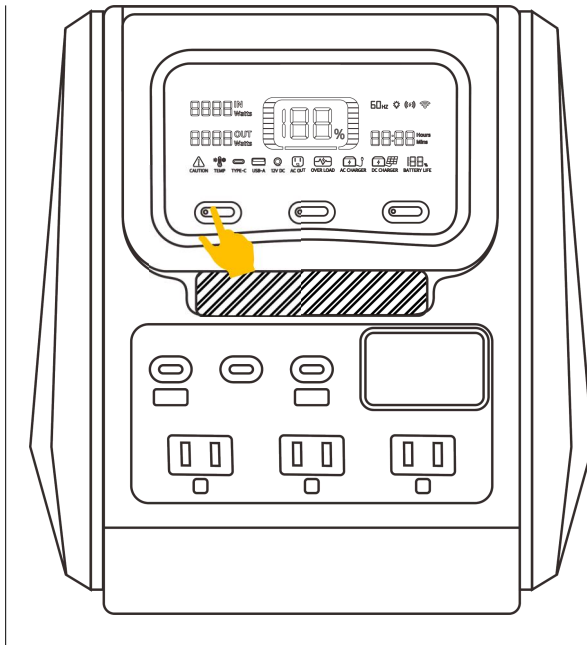
Power-on: Press and hold the main power switch for 3s to turn on the device, and the LCD will be lit after startup.

When you do not operate the product for 10 minutes, the product will enter the sleep state, and the LCD will automatically turn off. When there is a load or operation change, the LCD will be automatically lit.

Power-off: Press and hold the main power switch for 3s to turn off the device.

The default standby time of this product is one hour. If the AC output switch and DC output switch are not turned on within 1 hour, and the product has no load connected or manual operation, it will automatically shut down. (*If the off-peak charging function is set, the device will automatically wake up to charge after the set time is due.)

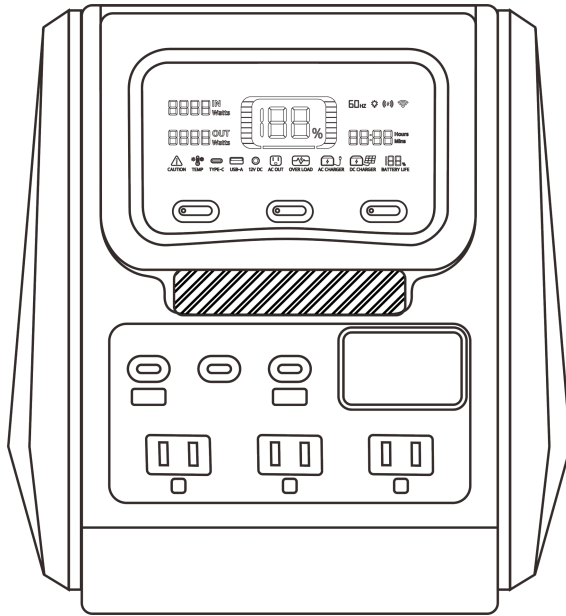
4.3 AC Output Application



When the main power switch is switched on, press the AC output power switch to enable the AC output port. Press the AC output power switch again to disable.

- A. You can use the app to control the three AC_OUT channels separately.
- B. When the AC output is not in use, turn it off in a timely manner to avoid the loss of battery power due to the power consumption of the inverter.
- C. The default standby time of the AC output port is 3 hours. After 3 hours without any load connected to the AC output port of the product, the AC output power switch will automatically switch off.

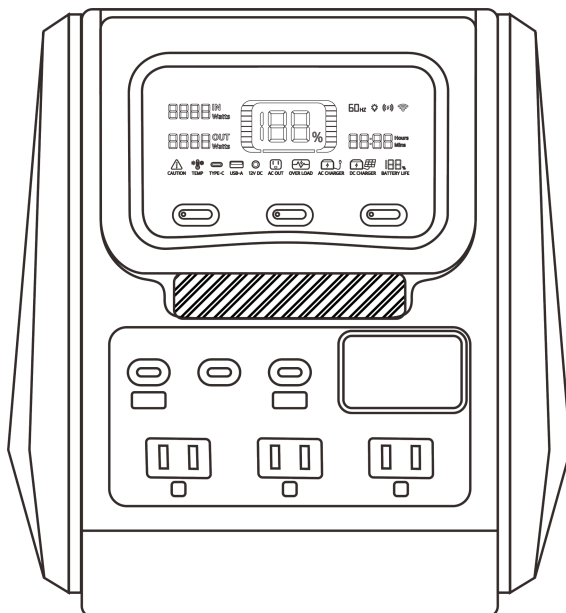
4.4 DC Output Application



When the main power switch is switched on, press the DC_OUT power switch to enable the DC output port. Press the DC_OUT power switch again to disable the DC output port.

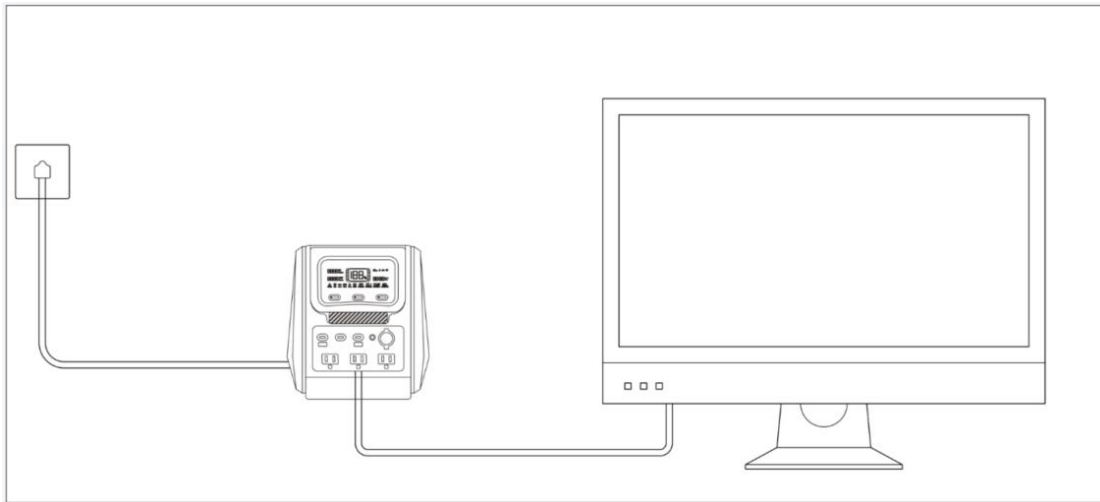
*When the DC_OUT power switch is switched on, the product will not automatically shut down.

4.5 USB Port Application



When the main power switch is switched on, you can directly use the USB port.

4.6 AC Charging (Maximum Power of 1500 W)

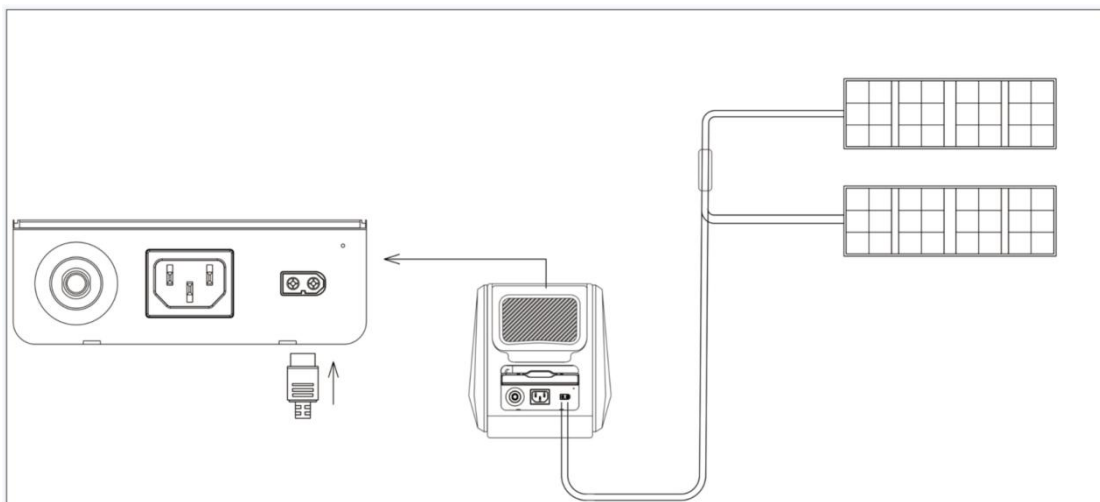


The product employs intelligent two-way inverter technology. In order to protect battery life, it defaults to the regular charging mode and can be fully charged within 2 hours. In case of emergency, you can enable the fast charging mode through the app to fully charge the product within one hour.

*Long-term use of the fast charging mode will reduce battery life.

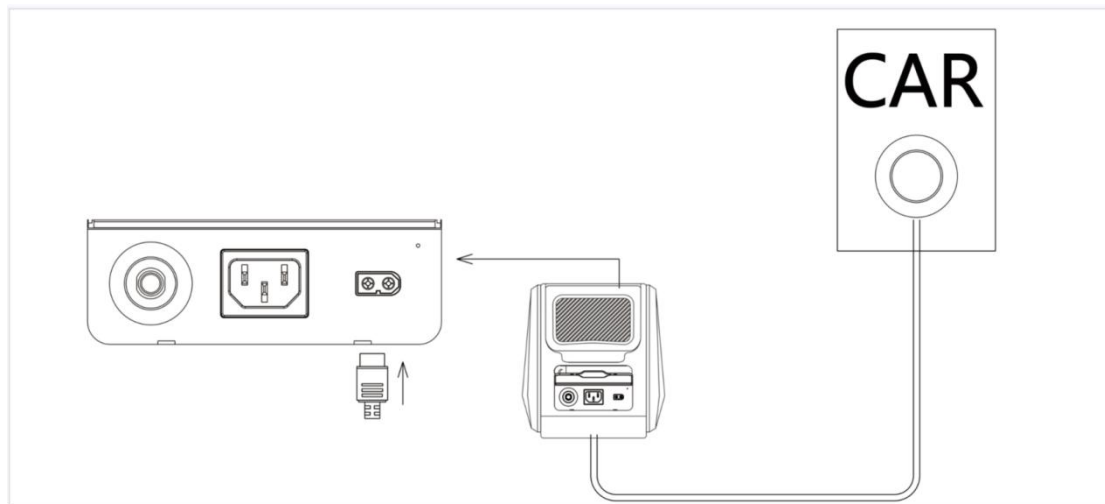
*For AC charging, please use the standard AC charging cable provided by Acenew. Directly connect the AC charging cable plug to a socket that supports a current higher than 10 A.

4.7 Solar Charging



The product can be connected to a PV panel for charging as shown in the figure below.

4.8 On-board Charging (Maximum Power of 120 W)



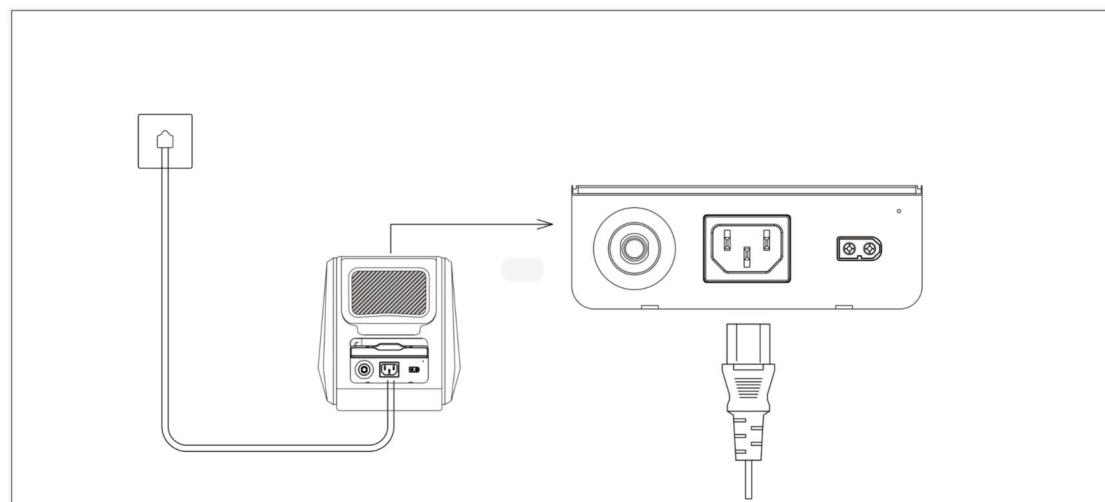
The product can be charged through the car cigarette lighter. It is required to use the car cigarette lighter to charge the product only after the car is running, so as not to drain the car battery which could result in the car not starting.

4.9 EPS Function

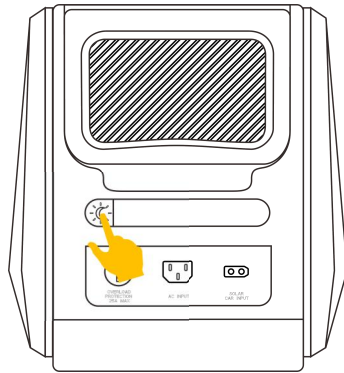
This product supports the emergency power supply (EPS) function. When connected to the power grid and the AC input port through the AC charging cable, the electrical appliance can use the AC output port to work. The power supply mode is in bypass mode at this time, and AC power comes from the power grid instead of battery. When the power grid is suddenly cut off, the product can automatically switch to battery power supply mode within 20 ms.

*This product does not support the UPS function or 0 ms seamless switching. Please do not use it on devices with high power supply requirements.

*It is recommended to use the product on only one device at a time to avoid triggering overload protection caused by using multiple devices simultaneously.



4.10 Using the LED Emergency Light



Press the button: Turn on the LED light (with a brightness of 50%).

Press the button again: Increase the brightness (to 100%).

Press the button again: Turn off the LED light.

In any mode, press and hold the button for 3s to enter the SOS mode. The product can directly enter the SOS mode in shutdown state.

5. FAQs

Q1: What Electrical Appliances Are Supported by the AC Output Port?

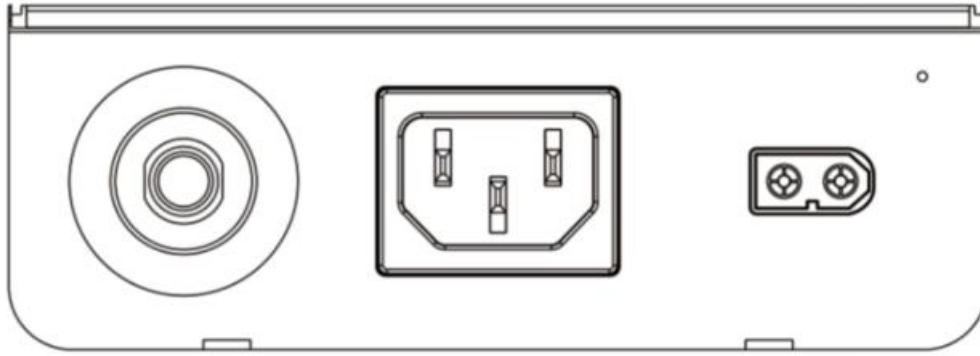
The rated output of the AC output port of this product supports electrical appliances with a maximum power of 1500 W, which can supply power to most household appliances. It is recommended to confirm the operating power of the electrical appliance before use. This ensures that the total power of all electrical appliances loaded is lower than the rated output power of the product.

Q2: How to Resume to Normal When the AC Output Overload Protection Is Triggered?

The three AC output ports support a total output of up to 1500 W. When the total operating power of the loaded electrical appliances with single-channel/two-channel/three-channel AC output exceeds 1500 W, the overload protection function of this product will be triggered (the overload icon blinks on the screen, and the output function of the AC port is disabled). At this time, it is necessary to unplug the overloaded electrical appliance from the AC output port. Then switch off and on the AC output power switch again or enable the AC output port through the app (*Electrical appliances must be used within the rated power range of this product).

Q3: What to Do If the product Cannot Be Charged?

When AC charging is unavailable, please check whether the overload protection switch is switched on. If so, press this switch to reset the function, and then charging will return to normal.



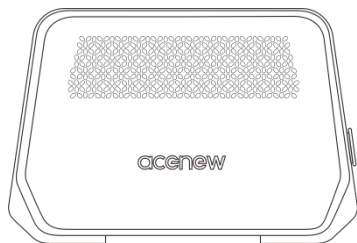
Q4: Why Does the Battery Run Out Even If It Is Not Connected to Any Device for a Long Time?

When the AC_OUT (AC output) or DC_OUT (DC output) switch is on, there will be a certain amount of no-load power consumption even when no device is connected for charging. To avoid this, switch off the AC output and DC output switches in a timely manner when the product is not in use. (Tips: When the output is disabled, the indicator on the corresponding switch is off.)

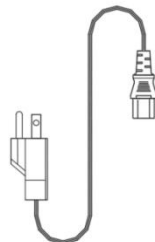
Q5: Can This Product Be Taken On Board a Plane?

No.

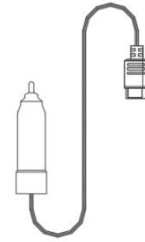
6. Packing List



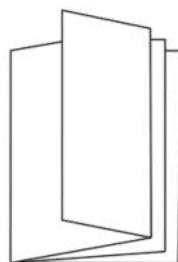
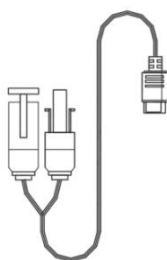
ACNEW 1500W



AC charging cable



On-board charging cable



7. Important Safety Instructions

When using this product, you must take basic precautions, including:

Read all instructions carefully before using this product.

- (1) To reduce the risk of injury, close monitoring is required when using this product around children.
- (2) Do not put your fingers or hands into the product.
- (3) Do not expose to rain or snow.
- (4) Using a power supply or charger not recommended or sold by the product manufacturer can result in a risk of fire or personal injury.
- (5) Do not exceed the rated output power when using this product. Overloaded output beyond the rated value will cause product damage and even a risk of fire and personal injury.
- (6) Do not use a damaged or altered product. Damaged or modified batteries may behave in unexpected ways that could result in a risk of fire, explosion, or personal injury.
- (7) Please do not use a damaged power cable or plug.
- (8) Do not disassemble this product. If you need any service or repair for this product, please contact the manufacturer for after-sales services or repair personnel with professional certification. Incorrect reassembly of the product may result in a risk of fire or electric shock.
- (9) Do not expose the product to fire or high temperature.
- (10) The product may become hot when charging other devices. This is normal. Place the device in a well-ventilated place for charging or use, and ensure that the ventilation holes are not be covered.

8. Instructions for Storage and Servicing

- (1) It is recommended to use or store the product at 20°C-35°C, and avoid using in rain or humid environments.
- (2) For long-term storage, discharge the battery to 30%, and then charge and discharge the battery every 3 months (that is, discharge the battery to 30%, and then recharge it to 60%).
- (3) If the battery level is lower than 1% after use, charge it to 60% before storage. If the product is left idle for a long time when the battery is seriously insufficient, it will cause irreversible damage to the battery cell and shorten the service life of the product.
- (4) For safety reasons, do not store the product in an environment above 45°C or below -10°C for a long time.

FCC Requirement

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

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.

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.