

ARUN

STORM 500

User Manual

500W Power Station



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1. Please keep the ARUN power stations and accessories dry and away from fire sources.
2. Please do not disassemble, collide products, or perform illegal operations on product parts.
3. Please recycle and dispose of products in accordance with local laws.
4. Please use and move the product under the protection of the supervisor.

Glossary

The following glossary describes the level of risk due to improper operation.

Attention

It may compromise the product performance and damage the product slightly if do not perform in accordance with manual.

Watch out

It may compromise the product performance and damage the product seriously if do not perform in accordance with manual.

Warning

It may compromise the product performance, cause accidents and damage the product seriously if do not perform in accordance with manual.

Warning

Please read the entire user manual before using the product and get familiar with the functions of the product before operating. ARUN will not be liable for any injury to yourself or others, product damage or property loss due to improper operation of the product.

Please do not use any accessories which is not recommended and provided by ARUN. Installation and use of products must be in strict compliance with ARUN's guidelines, otherwise ARUN after-sales service will not be available.

This manual describes security, operation, and maintenance. Be sure to read the manual carefully before assembly, setup and use.

Product safety guide

Warning

It may cause fire, product damage and injury with incorrect product using. Please be sure to follow the following safety instructions when using the product.

Product Disclaimer

Please read all safety tips, warning messages, Terms of use and disclaimers carefully. Before use, please refer to the terms of use and disclaimer on the manual and the label on the product. The user takes full responsibility for all uses and operations. Familiarize yourself with the laws and regulations in your area. It is your responsibility to understand all relevant regulations and use ARUN products in a compliant manner.

Product use

1. Do not touch the product with any liquid. Do not immerse the product in water or make it wet. Do not use the machine in the rain or wet environment, otherwise the battery will spontaneously burn, and may even lead to ignition the explosion.
2. Do not use non-official parts. For replacement, please visit ARUN's official website for purchase information. ARUN shall not be responsible for any product accident or failure caused by the use of products not officially provided by ARUN.
3. Before installing or pulling out other modules of the machine, please keep the power of the machine turned off. Do not remove or insert other modules or parts when the machine is powered on. Otherwise, the power interface may be damaged.
4. If the ambient temperature is too high (higher than 40 °C), batteries may catch fire or even explode. If the ambient temperature is too low (below -10°C), the product performance will be seriously degraded and cannot meet the requirements of normal use. The device can be used normally after the normal temperature is restored.
5. Do not use the machine in the environment of strong static electricity or magnetic field, because it may not work properly. Otherwise, some of the protection functions of the machine may fail, resulting in serious damage of the machine.
6. It is forbidden to disassemble or prick the product with sharp objects in any way. Otherwise, it will cause product failure, fire or even explosion.
7. The machine shall not be used again if it is hit by a strong fall or external force.
8. If the product accidentally falls into water during use, place it in a safe, open area and keep away from the product until the product is completely dried. The dried products should not be used again and should be properly disposed of in accordance with the waste method described in this article. In the event of a fire, it is recommended to use fire extinguishing equipment in the following order: water or water mist, sand, fire blanket, dry powder extinguishing agent, and carbon dioxide extinguisher.
9. Do not place the machine in the microwave oven or pressure cooker.
10. Do not use wires or other metal objects to cause short circuit of the product.
11. Do not hit the machine. Do not place heavy objects on the machine.
12. If there is dirt in the machine interface, clean it with a dry cloth. Otherwise it will cause poor contact, resulting in energy loss or failure to charge.
13. After the product power is used up, please recharge the product immediately, otherwise it will cause irreversible damage to the battery or the battery cannot be used.
14. If the product is not used, please turn off the main power switch in time.

Product charging:

1. The machine must be charged using ARUN official adapter. ARUN will not be responsible for any consequences caused by charging with an adapter other than the one officially designated by ARUN.
2. When charging, please place the machine on the ground without inflammable and combustible materials around. Please be on hand when charging the product to prevent accidents.
3. After continuous full load discharge, the battery may be in high temperature. Please wait until the machine drops to room temperature before charging.

Do not use adapters from other series of products to charge this series of products. Doing so will void your warranty. ARUN will not be liable for any injury or loss caused by the user's failure to follow the instructions in this manual.

Product storage and transportation:

1. Keep the machine out of the reach of children. If children accidentally swallow parts, seek medical attention immediately.
2. If the machine prompts serious low power after use, please charge it before storage. Otherwise, the battery inside the product may be damaged if stored for a long time. If the battery power of the machine is seriously insufficient and idle for a long time, the battery will enter the deep sleep mode. If the battery needs to be awakened from the deep sleep, the machine needs to be charged.
3. Do not put the machine near a heat source, such as in a car on a hot day, a fire source or a heating furnace.
4. The machine should be stored in a dry environment. Do not place the machine in water or where water may leak.
5. Do not store or transport the machine with glasses, watches, metal necklaces, hair clips or other metal objects.
6. If you need to use express or logistics to transport batteries, please reduce the machine power to less than 30%.

Product battery waste:

1. Make sure that the battery of the machine is completely discharged before placing the battery in the specified battery recycling bin. Batteries are dangerous chemicals, do not waste in ordinary dustbins. Follow the local laws and regulations on battery recycling and disposal.

Product maintenance:

1. The operating/storage temperature of the product ranges from -10°C to 40°C , and the optimal operating/storage temperature ranges from 20°C to 25°C .
2. If the machine is idle for a long time, its performance will be affected.
3. Please charge and discharge the battery every three months, that is, discharge the battery to 30% and then charge it to 85%. This preserves battery performance.

Precautions for boarding:

Unable to carry this machine on board.

Guide to product use care and safety

Congratulations to you!

Congratulations on becoming an ARUN user! This short manual will help you. Please take a moment to read the manual and follow the instructions in the manual to use the product, master how to use!

Attention

To turn the product on or off, you need to hold down the main power button. To enable the AC output power outlet, you need to hold down the AC power button while the product is on. This is designed to save battery power so that the product's power can be saved for a rainy day. Please follow this manual to understand each port, button, display screen, etc. (Before you go any further, it is recommended that you charge the battery to 100%!).

Warning

Changes or modifications to this unit 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 Class B digital devices pursuant to Part 15 Subpart B, of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential environment. This equipment generates, uses, and can radiate radio frequency energy, and, if not installed and used in accordance with the instruction manual, 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 and correct the interference by one or more of the following measures:

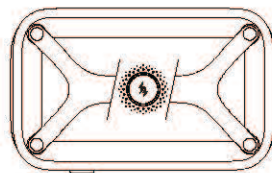
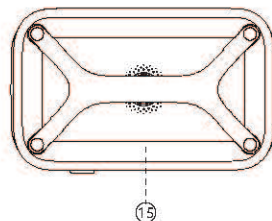
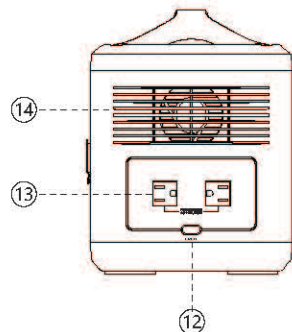
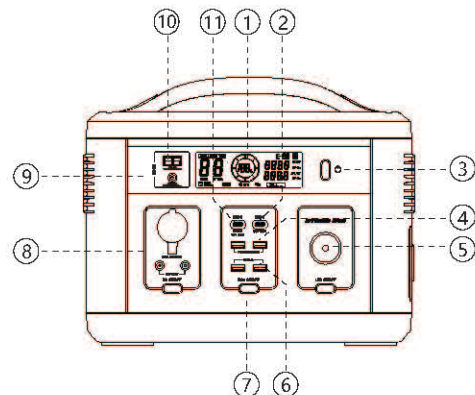
- Reorient or relocate the receiving antenna. - Increase the separation between the equipment and the receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

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.

Product Functions



1. Liquid Crystal Display

Display the remaining power of the product, charge/discharge power and other information of the product.

2. PD 30W Type-C

The port supporting PD 3.0 protocol can charge various devices (tablet PC, mobile phone, etc.). The maximum output is up to 30W.

3. Main power supply button

Long press this button for 1.5s to on/off the product. Only after this button on, other buttons can work normally. When it is turned on, the LCD display will light up. If other buttons is off and the power station is not charging at this time, the LCD display will turn off after 30s. If any button is on, but without output, the system will sleep after 2h and the LCD display will turn off. When the system is asleep, press any of the button to wake up. In the charge and discharge status, the system does not sleep. In the charge state, the LCD will not turn off. If the product is turned off, the LCD display will turn off.

4. 22.5W USB A

The maximum output is 22.5W. It can be used to charge various devices (tablet computers, mobile phones, etc.).

5. LED lights and LED button

Press the button for 1.5s to turn on the LED lighting. The LED light has four modes: weak light, strong light, slow flash and SOS flash. Press the button once to switch the status.

6. 18W USB A

The maximum output is 18W. It can be used to charge various devices (tablet computers, mobile phones, etc.).

7. USB (USB A, Type-C) button

Press the button for 1 second to turn on/off all USB A, Type-C, and wireless charge output.

8. Car charger output port, 2*DC5521 output ports and DC car charger output button

Press the button for 1S to turn on/off the car charge and DC output; The vehicle charge outlet and DC5521 port share a 12V/10A maximum 120W output.

9. DC6530 charging port

Use the power adapter or car charging to charge the energy storage power through the DC6530 port, with a maximum charging power of 150W.

10. Solar charging port

The solar charging panel can be used to charge the energy storage power supply through this port, with a maximum charging power of 150W.

11. Two-way Type-C

The port supports PD 3.0 protocol, which can charge various devices (notebook, tablet PC, mobile phone, etc.). The maximum output is up to 100W. A charger supporting PD protocol can also be used to charge the power station by this Type-C port.

12. AC output button

Press the button for 1S to turns on/off the AC output.

13. 2* 110V(60Hz) AC output sockets

It can supply power to 110V equipment with rated output power of 500W and peak power of 1200W.

14. Ventilation and heat dissipation port

The ventilation and heat dissipation port cools the product by blowing air through the fan to prevent overheating. Please do not block this port.

15. Wireless output

10W Max.

Quick Start Guide

Let's take a minute to understand the basic operation of the 700W outdoor portable series. Suggest fully charge it before using it

1



Press the button to start the main power supply

2



Press the button to start the DC car charger port output

3



Press the button to start the USB (USB A, TYPE-C) output

4



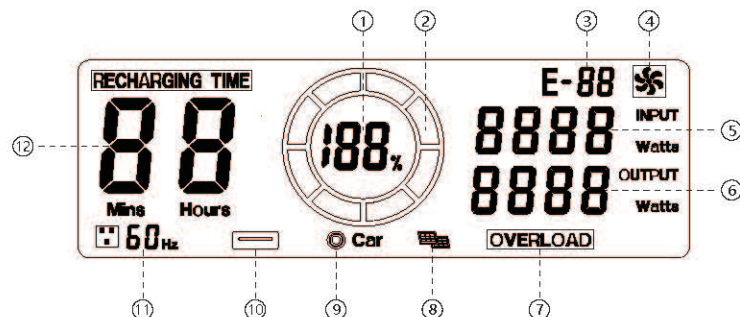
Press the button to turn on the LED light

5



Press the button to start the AC output

Product display interface



1. Display the percentage of remaining power.
2. The ring icon shows the remaining power, and the icon lights up and flashes in turn during charging.
3. When the product fails, the corresponding fault code will be displayed.
4. When the fan is turned on, the fan icon will be displayed.
5. Display the current input power of the product in watts.
6. Display the current output power of the product in watts.
7. When the product is overloaded, the screen displays the overload alarm.
8. When the solar charging port is used for charging, the solar charging icon will be displayed.
9. When the car charger output port or DC5521 output port is used, the DC output/car charger output icon will be displayed.
10. When any USB A port or Type-C port is used for discharge, the USB A/Type-C output icon will be displayed.
11. When the AC output is on, the AC output icon will be displayed.
12. Judge the remaining charging / discharging time based on the current power consumption of the product, and display it accurately to minutes.

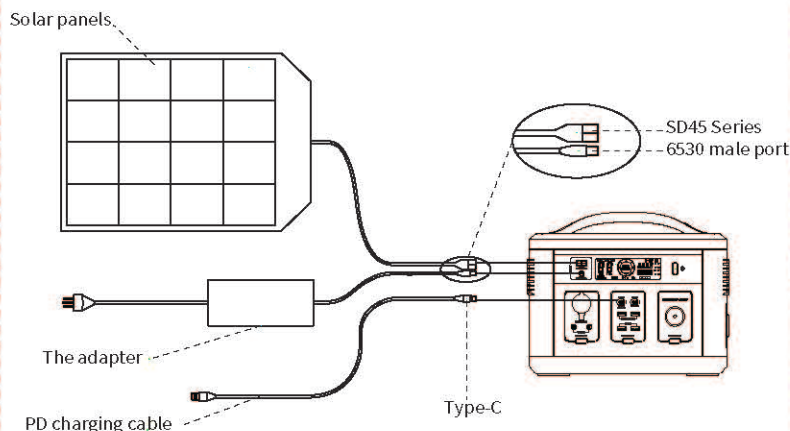
The product displays different fault codes through LCD to explain the cause of equipment protection

No	Fault description	Failure code
1	Input overcurrent protection	E01
2	Input overvoltage protection	E02
3	Input undervoltage protection	E03
4	Overload protection of the whole power station	E04
5	Inverter over temperature protection	E05

6	Inverter low temperature protection	E06
7	Inverter overload protection	E07
8	Battery low temperature protection (charge)	E08
9	Battery over temperature protection (charge)	E09
10	Battery low temperature protection (discharge)	E10
11	Battery over temperature protection (discharge)	E11
12	Battery overvoltage protection	E12
13	Battery undervoltage protection	E13
14	Cell overvoltage protection	E14
15	Cell undervoltage protection	E15
16	Battery overcurrent protection	E16
18	DC overcurrent protection	E18
19	MOS over temperature protection	E19
20	BMS over temperature protection (charge)	E20
23	BMS cell overvoltage protection	E23
24	BMS total voltage overvoltage protection	E24
29	BMS overcurrent protection (charge)	E29
35	BMS MOS failure (charge)	E35
36	BMS cell imbalance	E36
37	Abnormal inverter communication	E37
40	Abnormal BMS communication	E40

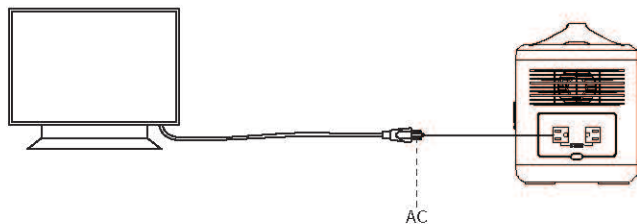
How to charge the battery

The charging port is located on the front of the product, including a DC6530 charging port, an Anderson charging port and a Type-C charging port. The product can be charged by the adapter, PD charger and car charger or solar panel. (Note: 1. DC6530 charging port and Anderson charging port cannot be charged at the same time; 2. TYPE-C charging port can only be charged by using PD 20V charger.) The charging connection diagram is as follows:



How to discharge

The AC discharge socket is located at the side of the product. It controls the opening and closing of the AC discharge function by a button. When the AC discharge is on, the discharge connection diagram is as follows.



Spec. And Parameter

Basic spec

Net weight	6.7±0.2kg
Size	312x190x248 mm (12.3x7.5x9.7 in)
Battery design capacity	499Wh

Output

AC Output *2	AC 110V 60Hz, Rated power: 500W
Type-C1 PD3.0 Output	5V-15V=3A, 20V=5A
Type-C2 PD3.0 Output	5V-9V=3A, 12V=2.5A, 15V-2A
USB A1/A2 QC3.0 Output	5V=4.5A, 9V=2A, 12V=1.5A
USB A3/A4 QC3.0 Output	5V=3A, 9V=2A, 12V=1.5A
Car charger and DC 5521 Output	12V=10A, 120W Max.
DC 5521 Output	12V=5A
Wireless Output	10W Max.
Total DC Output	330W Max.
Total Output Power	600W
LED lightning	Support four modes (low light, strong light, slow flash, SOS)

Input

DC Input	24V=4A, 96W
Solar Input	12-28V, 150W Max.
Type-C PD3.0 Input	20V=3.25A, 65W Max.

Battery

Working Environment temperature	-10°C~40°C (-4F~140F)
Charging temperature Of cells	0°C~45°C (32F~113F)
Lifespan	After 500 cycles, battery capacity ≥80%

FCC ID	2AHCL-STORM500
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Packaging list

Number	Graphical representation	Name	Quantity
1		Power station	1
2		Power adapter	1
3		Car charger cable	1
4		Specification	1

ARUN

Product warranty card

Name:

Telephone:

Address:

Date of Purchase:

Purchase channel:

S/N Serial number (at the bottom of product) :

Date	Maintenance record

Certification

Inspector:



Date of Inspection:

Dongguan Arun Industrial Co., LTD