

PORTABLE POWER STATION

Where you are, where power is

USER MANUAL

(UA300&UA550&UA1100)



- ※ This product is a portable energy storage power station, please pay attention to safety when children play around.
- ※ Please read the product instructions carefully before using.
- ※ For long time storage over 1 month, please charge the power station up to 70% SOC.
- ※ When first time use, please use the battery until fully out of power, and then recharge the battery.
- ※ Do not charge, use or place the battery near the source of fire or heat.

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1. Packing List



NO.	Name	Accessories description
1	Mainframe	UA300, UA550 or UA1100. There are differences in appearance, in the figure is UA550 as shown.
2	Adapter	Charging products with municipal electricity
3	Power Cable	Adapter to connect to city power
4	Car Charger Cable	12V car charging cable
5	Instructions	Operational Guidance and Warranty Card

2. Product introduction

This product is a portable multi-functional power source that can store energy, and it is equipped with high-efficiency power lithium-ion battery cell, safe lithium battery management system (BMS), high-efficiency energy conversion circuit, and it is casing by high-strength aluminum alloy. After being repeatedly tested and verified for a long time by R&D team of our company, the product has obtained international certifications such as CE\FCC\ROHS\PSE\UN38.3. The top design and mature production control, the products are safe and reliable, which can be powered by solar power, vehicle power generation, and electric supply charging. The product features light weight, small volume and high power, which can provide customers with convenient mobile energy.

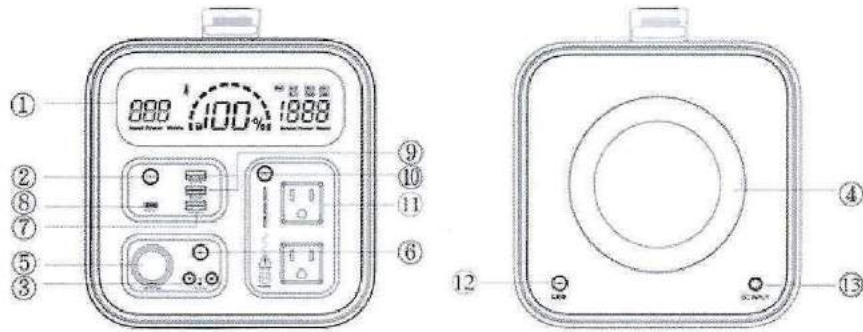
The main features of the product are:

- ◆ Solar energy MPPT Charging system (Maximum Power Point Tracking)
- ◆ AC/Wall charge, Automatic Adaptive Adapter for Electric Charging
- ◆ Car charging
- ◆ Super inverter output, best compatibility
- ◆ USB-C TYPE-C PD60W charging
- ◆ USB-A 2.4A Intelligent recognition output
- ◆ LED High-brightness Display Screen (Real-time input/output power, Remaining SOC, etc.)
- ◆ BMS Multilevel protection system
- ◆ Ultra-long cycle life, 800 + cycles

Products can meet the demand of power supply for most household appliances, such as rice cookers, mini - refrigerators, speakers, televisions, mobile phones, computers, digital cameras, Laptop, LED lights, emergency lights, outdoor lighting, outdoor construction, electric tools, pumps, medical equipment, etc. It includes a wide range of applications, such as rescue and relief work, emergency rescue, first aid, excavation, decoration, construction, tourism, camping, solar power generation and other fields.

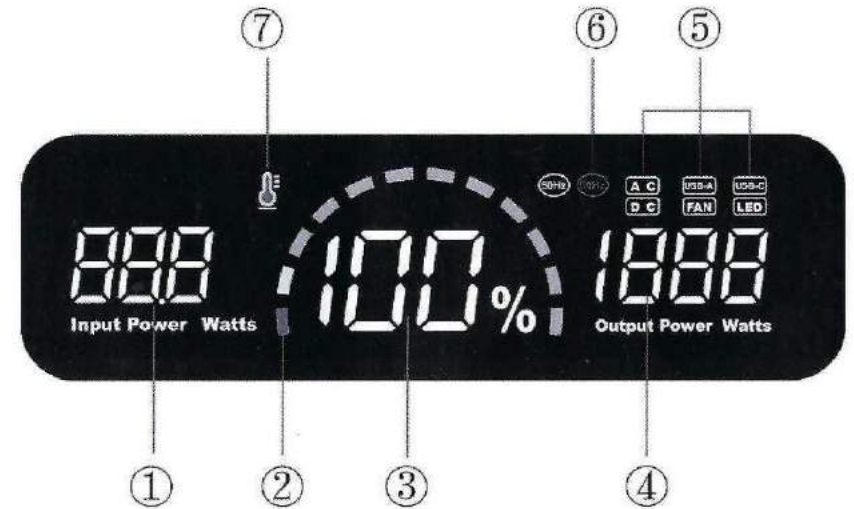
3. Product diagram

3.1 Product Function Description



No.	Function Description	
1	Display screen	7 QC 3.0 Output
2	USB ON/OFF Switch	8 USB-C PD3.0 60W Output
3	DC Input/output port.	9 USB 5V 2.4A Output
4	LED Lighting	10 AC ON/OFF Switch
5	Cigarette Lighter Port	11 AC Output, Socket can be customize accordingly.
6	DC ON/OFF Switch	12 LED ON/OFF Switch
13	DC Input port.	

3.2 Display Screen Description.



No.	Item	Description
1	Charging Power	Real time charging wattage
2	SOC Display	Remaining SOC, flash when charging.
3	SOC Percentage	Accurate remaining power percentage.
4	Output wattage	Real time output wattage.
5	Function Indicator	Function indicator turn on when certain function activate.
6	Frequency Indicator	Indicate real time frequency model of AC output.
7	Temperature Indicator	Temperature sign flash when temperature is too high.

4 . Product parameters

Project	Parameter	UA300	UA550	UA1100
Battery	Battery Cell Type	LiFePO4 26800	Lithium ion 18650	Lithium ion 18650
	Battery Power	299.98Wh	500.24Wh	1038.96Wh
	Total Capacity	98400mAh	135200mAh	280800mAh
	Voltage	12.8V	14.8V	14.8V
	Ampere-hour	23.4Ah	33.80Ah	70.2Ah
	Cycle Life	800 cycles	800 cycles	800 cycles
	BMS Protection	- Over voltage protection, - Low voltage protection, - High temperature protection, - Low temperature protection, - Three-stage over current protection, - Short circuit protection		
AC	Output Voltage	100-120V or 220V-240V		
	Output Frequency	50Hz/60Hz(Can be Switch)		
	Output Time	AC300W about 50 mins	AC500W about 50 mins	AC1000W about 50 mins
		AC200W about 70 mins	AC400W about 65 mins	AC800W about 65 mins
		AC100W about 150 mins	AC300W about 83 mins	AC500W about 100 mins
		AC50W about 330 mins	AC200W about 125 mins	AC300W about 170 mins
			AC100W about 250 mins	AC100W about 500 mins
Waveform	Pure sine wave			
Efficiency	> 90% under 70% load			
DC	DC 5.5 Port	DC12V 5A		
	Cigarette Lighter	DC12V 10A		
USB	USB ₁	5V2.4A		
	USB ₂	5V2.4A		
	USB ₃	QC 3.0, 5-12V, 18W		
USB-C	TYPE-C ₁	PD3.0, 5-20V, 60W		
LED Light	5W			
Adapter Input	DC 5.5	18-24V/ Max120W	18-24V/ Max120W	18-24V/ Max120W
	USB-C	PD 60W Max	PD 60W Max	PD 60W Max
	DC	12-24V/ Max120W	12-24V/ Max120W	12-24V/Max120W
Charge	Adapter	22V5A about 4h	22V5A about 6h	22V5A about 13h
	Car	About 13V8A about 4h	About 13V8A about 6h	About 13V8A about 13h
	PV	18V5A about 4h	18V5A about 7h	18V5A about 14h
	TYPE-C	PD 60W about 6h	PD 60W about 10h	PD 60W about 20h
Static power	Quiescent current	< 100uA	< 100uA	< 100uA

Weight	Net weight	6.1KG	6.3KG	12.0KG
	Gross weight	8.1KG	8.2KG	12.6KG
Dimension	Host	192*219*192mm	192*219*192mm	192*303*192mm
	Packing	287*310*317mm	287*310*317mm	405*300*325mm
Temperature	Charge	0-40°C(32-104°F)		
	Discharge	-10-50°C(-4-112°F)		
	Storage	-20-45°C(-4-113°F)		

5 . Protection Details

No.		UA300	UA550	UA1100
1.	Over Voltage protection	14.4V±0.2V	16.8V±0.2V	16.8V±0.2V
2.	Low Voltage protection	12V±0.2V	12V±0.5V	12V±0.5V
3.	Low Temp. protection	Charge 0°C, Discharge -10°C	Charge 0°C, Discharge -10°C	Charge 0°C, Discharge -10°C
4.	High Temp. ₁ protection	Charge 45°C	Charge 45°C	Charge 45°C
5.	High Temp. ₂ protection	Discharge 60°C	Discharge 60°C	Discharge 60°C
6.	Over Current. ₁ protection	50A, 2S	60A, 2S	100A, 2S
7.	Over Current. ₂ protection	80A, 30ms	100A, 30ms	150A, 30ms
8.	Short Circuit protection	<1ms	<1ms	<1ms
9.	AC Short Circuit protection	<50ms	<50ms	<50ms
10.	AC Power Protection	300W, 5-10S	500W, 5-10S	1000W, 5-10S
11.	USB-C Over-current Protection	3.3±0.2A	3.3±0.2A	3.3±0.2A
12.	USB-A Over-current Protection	2.6±0.15A	2.6±0.15A	2.6±0.15A
13.	Car charger Over-current Protection	12A±1A	12A±1A	12A±1A
14.	DC5.5 Over-current Protection	6A±0.5A	6A±0.5A	6A±0.5A

6 . Operating Instruction

6.1 How to Charge

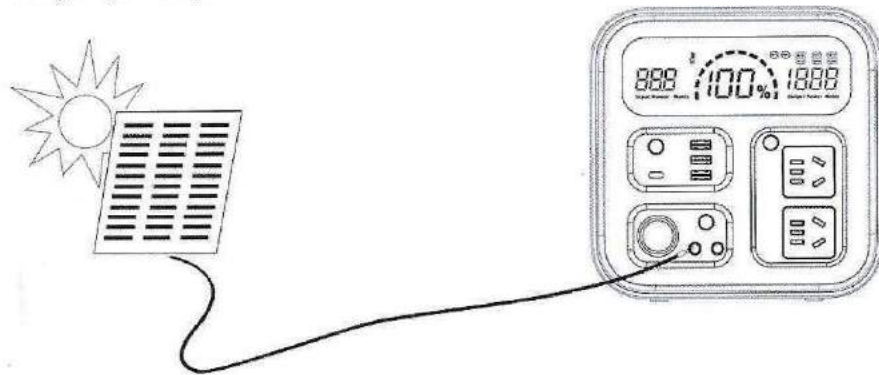
The product has a charging protection function. According to the normal charging operation, it will automatically stop charging after the product is fully charged. In order to avoid other emergencies, it is recommended to disconnect the charging connection in time after the screen shows the power is full.

The product contains multiple charging methods and different interfaces, compatible with 12V car, solar panels, municipal electricity. after charging mode is activated, the last grid of the battery indicator Arc will flash.

6.1.1 Solar Power Charging

Insert the plug of solar panel into the "DC5521 input" interface. When charging mode is activated, the screen will shows the "Arc" sign flash to indicate and display the remaining charging time.

The solar panel power generation will be affected by sun light, which means the actual generated power will change timely, so it will be normal situation if the remaining charging time changes dynamically.



Notice:

A. Built-in MPPT charging management, the maximum input power of any interface is 120W, support two interfaces charging at the same time, the maximum input power is 200W.

B. If it is plugged into the front DC5521 for charging, the system forbade the cigarette lighter to output 12V, because the voltage of the cigarette lighter is the same as the input voltage. If you need to use the cigarette lighter output function, please plug in the charging port of DC5521 on the verse side (UA300 only has the front charging port, the maximum input power is 120W).

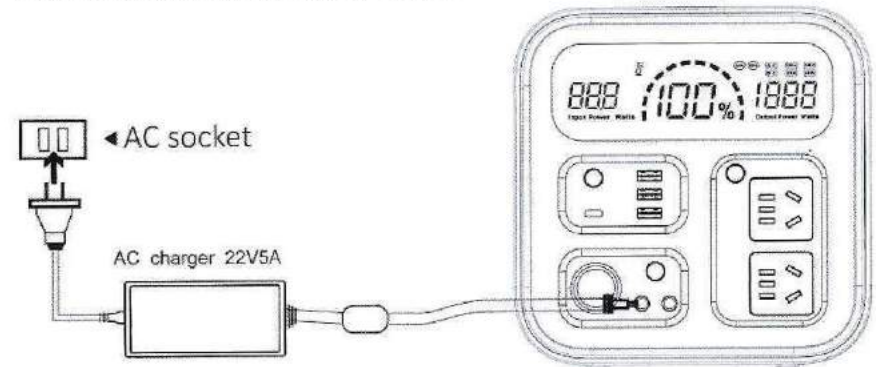
6.1.2 Adaptor Charging

STEP 1. Insert the adapter AC input plug into the electric supply.

STEP 2. Insert the adapter DC output plug into the "DC5521 input" interface, the screen will shows the "Arc" icon flash to indicate and display the remaining charging time.

When charging is started, the system will automatically detect the input power, so it will be normal situation if the remaining charging time changes dynamically.

When the battery Indicator "Arc" icon is on without flashing, and the battery percentage shows 100%, the product is being fully charged.



Notice:

A. Built-in Adaptor charging management, the maximum input power of any interface is 120W. It also supports two interfaces charging at the same time, the maximum input power is 200W (UA300 only has the front charging port, the maximum input power is 120W).

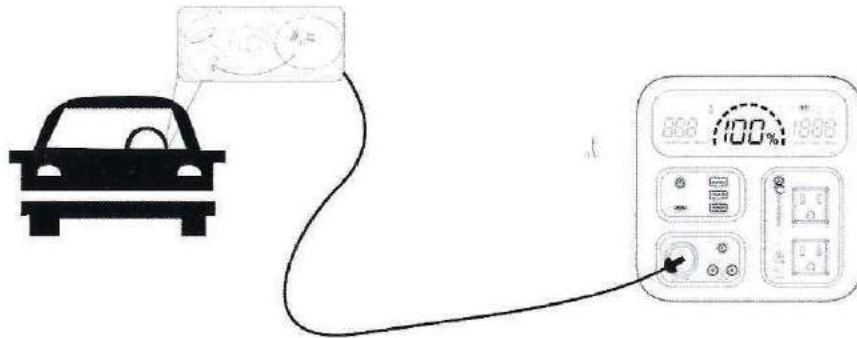
B. If it is plugged into the front DC5521 for charging, the system forbade the cigarette lighter to output 12V, because the voltage of the cigarette lighter is the same as the input voltage. If you need to use the cigarette lighter output function, please plug in the charging port of DC5521 on the verse side (UA300 does not have this charging port)

6.1.3 Vehicle Power Supply Charging

STEP 1. If you use the product to start the car, please insert one end of the accessory "car charger cable" into the car cigarette lighter interface, and the other end into the product cigarette lighter interface, the battery icon scrolls and displays the remaining time required for full charging.

Precautions:

If the product is plugged into the cigarette lighter port for charging, the system will prohibit the output of the next DC5521.



6.1.5 Overheat Protection

When product temperature charge exceeds 45°C or discharge exceeds 60°C, thermometer icon will light up. Both charging and output will be under protected and shut down until the temperature returns to normal.



6.2 Product Output (Electricity Consumption)

The product has Over/Below Voltage protection, High/Low Temperature protection, Multiple ways of Over-current protection, Short Circuit protection and other protection circuits. If the output is suddenly interrupted, first check whether the electronic appliances exceeds the maximum power output limit or if it is consider short circuit. Then restart the battery and check if it still have enough power SOC remains. When the power station is done using, for better saving the remaining SOC power, we suggest to turn it off manually to avoid no loading self-consumption. If there is any abnormal situation happens, please contact the manufacturer or dealer for further assistant.

This product is designed with 4 areas of function outputs, they are DC area, USB area, AC area and LED Light area. Each area is provided with a independent on/off switch for turning on or off the output function and all interfaces of the corresponding area. Press and hold the button of the corresponding area for about 1 second to turn on all the interfaces of the corresponding area, the screen display will show discharge icon AC/DC/USB/LED it identified which function is working turned on, and press the button again for about 1 second to shut down the corresponding function output area.

If the button is pressed for more than 3 seconds during the shutdown process, the entire

system will be shut down.



6.2.1 AC Output Frequency Switching

After the AC output function is turned on, frequency can be switched by pressing on the AC on/off switch three times. Screen display shows recent corresponding frequency of 50Hz or 60Hz. Automatic memory to stay with last selected frequency after shut down.



6.2.2 LED lighting

Press and hold the LED button in the LED area for about 1 second to turn on the light. The first press will turn on the LED and enter to the normal brightness model. The discharging icon on the screen display will shows the LED icon on. The second press to the button will enter to the high brightness model, The third press will enter to SOS model, and the fourth press will enter to flash model. When the LED is working, press and hold the on/off switch button for about 1 second, the LED will be turned off. If the button is pressed for more than 3S during the shutdown process, the whole system will be shut down.

7. Precaution

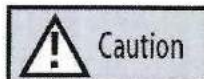
Please read the precautions that indicate "Danger", "Warning" and "Caution" levels.



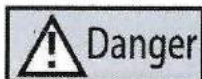
"Danger" indicates it will cause the personal injury.



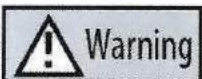
"Warning" indicates it could have the dangerous situation happen.



"Caution" indicates it could cause damage to the product or shorten the service life.



- The product outputs high-voltage AC. Please do not insert the hand or hand-held metal conductor into the AC socket.
- Non-professionals should not disassemble the product without authorization, to avoid dangerous situation such as electric shock or short circuit.
- Do not place the product in a high temperature environment (over 60 degrees Celsius) or near a fire source.
- The product is not a toy for children to play with.
- Do not use it in a humid environment.
- Do not hit or strike the product.



- Please read the specific battery charger manual before use.
- Do not disassemble the product.
- Do not use the product if it is obviously broken.
- Please use the original adapter to charge or the adaptor that meets the manufacturer's specified electrical parameters.
- Please select the solar panel according to the electrical parameters specified by the manufacturer. It is not allowed to charge with solar panels higher than 25V.
- Charge the battery cell within the temperature range of 0 to 45 °C, it could shorten the cycle life of the battery cell if under low temperature conditions.
- On the condition of long-term storage (more than 3 months), it should be stored in a low-humidity environment without corrosive gas in a half-electrical state at a temperature of -10 to 35 °C.
- If the product emits undesirable smell and heating during charging or storage, stop charging immediately and place it in an open place for long-distance observation. After confirming the safety, contact the manufacturer or dealer for further assistant.



- This product is a portable power station. Please select the corresponding model according to the power equipment. It is not allowed to use this product with over power or over load.
- Do not short circuit the power station.
- This product was set according to the voltage standards of different countries at the factory.
- Before purchasing and using, please consult with the dealer or use the product

operating guide book.

- When the power of product runs out, please charge it in time.
- Product parts are environmentally friendly and recyclable. Please recycle it according to local regulations.
- In order to save the power of the product, please turn off the power when it is done using, and turn it on again when you need to use it the next time.
- If the battery is stored for more than 6 months, please charge and discharge the product 1-2 times within the storage time, in order to extend the service life of battery.

8 . Solution for the common problems

- Q: How long can the product be stored?

A: With a more than 70% SOC, it can be generally store for 6-12 months. It is recommended to re-charge it every 3 months.

- Q: How long does it take to fully charge the product?

A: UA550 can be charge up to 80% SOC in around 5 hours with the standard adapter, and it can be fully charged in around 6 hours. The power station contains multiple

charging ports, and will be able to charge at the same time to achieve fast charging, it can be as fast as around 3h.

The UA1100 can be charged up to 80% SOC in around 11 hours with the standard adapter, and it can be fully charged in around 13 hours. The power station contains multiple charging ports, and will be able to charge at the same time to achieve fast charging, it can be as fast as around 6h.

- Q: Can it be charged with both solar energy and vehicle power supply at the same time?

A: It can be charged at the same time, and the charging time will be greatly shortened.

- Q: Can the product be discharged while being charged (UPS)?

A: This product can support discharging while charging (UPS). When the output power is greater than the input power, the battery power will slowly reduce, and when it is reduced to the low battery state, the output is turned off.

- Q: Does the product have temperature protection?

A: When it is used in a high temperature environment, if the internal temperature is higher than 60 °C, the circuit will be turned off for battery safety.

- Q: Will the product automatically shut down?

A: After the product is deeply discharged, it will automatically shut down, but under normal circumstances, after turned on, it will not automatically sleep when continuous output working.

9. Trouble Shooting

9.1 There is no response when the product is turned on, and output is unavailable for DC, USB, AC, and Light.

Solution:

- (1) Remove the product load, then charge it for 5-10 minutes and turn it on again.
- (2) Please ensure that the product is currently used within the temperature range.

9.2 The product can be turned on, but the corresponding output interface has no output (DC, USB, AC).

Solution:

- (1) Check if the SOC power of product is too low, if so, please re-charge it in time.
- (2) Check if the equipment power is higher than the power output limit of the product, it will result in the protection, please remove the load, and turn it on again.
- (3) Confirm whether the output of this product meets the power requirements of the electric device.
- (4) Check if there is a short circuit between the output port and the electric device, and then restart the device after removing the device.
- (5) Check if the device is used normally on other power sources, if it is used abnormally, which is caused by incompatibility of certain devices.
- (6) The QC3.0 output port, in order to ensure the fast charging function, will automatically turn off when no electricity is needed. If it is turned off, it can be used normally by turning it on again.

9.3 Accidentally shutdown during using product.

Solution:

This product has a built-in real-time monitoring system, which may shutdown the battery due to the internal protection system is activated. The events that may cause the protection system activate is, it might be overcharge, over discharge, high temperature, low temperature, over current, and short circuit. In order to solve the problem, please remove all the electrical equipment, keep the temperature of product within the recommended temperature range, and charge the product for 5-10 minutes, also check if there is any problem in the electrical equipment. Then re-start the power station.

9.4 The product cannot be charged.

Solution:

- (1) Check if the electrical parameters of charger is within the required charging parameter range of the product.
- (2) Check if the power station has started temperature protection because the temperature is too high or too low.

9.5 The product hasn't fast charge output.

Solution:

QC3.0 and TYPE-C are one circuit. If they are used at the same time, there will be no fast charging function, but they can have fast charging function when used alone.

When using the following DC5521 to charge, TYPE-C and QC have no output. If you want to use it while charging, it is recommended to use the front DC5521 to charge

Notice: it is also possible that some devices are not compatible with the fast charge of this product. It is recommended to use the original charger on the AC output port.

10. After-sales Service

Warranty Guidelines:

If product failure occurs, please follow the instructions. If you still can't solve the problem, please contact our after-sales service personnel. When contacting the after-sales service personnel, please provide the following information: product model, date of purchasing, contact number, detailed address, description for product failure. Please cooperate and answer the detailed inquiries from our after-sales service engineers, including on-site conditions, fault performance status, frequent/incidental accidents, and incorrect operation procedures, so that our company's after-sales engineers can find out the reasons and then reply (or guide) the users how to solve product failures. If the problem still cannot be solved, please contact your dealer.

- The warranty period is valid for 12 months from the date of purchase;
- During the warranty period, the defects in materials and workmanship and damage caused by non-artificial reason, the company will provide repair free of charge and replacement parts, the parts are owned by our company;
- During the warranty period, the following conditions cannot be used for free maintenance services:
 - Open the product by unauthorized personnel;
 - Damage to the surface coating and appearance is not covered by the warranty.
 - The user did not follow the instructions.
- Failure or damage caused by accidents, man-made, environmental and other factors (improper operation, collision, unreasonable voltages, dampness.).
- The outer packing and accessories of product are not covered by the warranty.

After-sales Service Guarantee Card

Product model	
Date of purchase	
Buying merchant	
Customer address	
Contact number	
Brief Introduction of Fault Problems	