



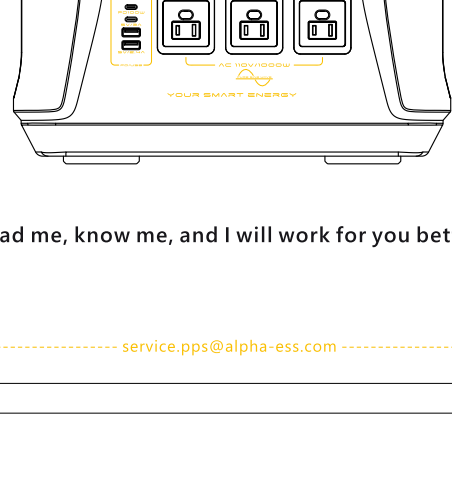
If in need of service, feel free to contact us.

• www.alphaess-pps.com
• service.pps@alpha-ess.com
• @AlphaEnergyStorageSystem

service.pps@alpha-ess.com

USER MANUAL

AP1000



Read me, know me, and I will work for you better.

service.pps@alpha-ess.com

CONTENTS

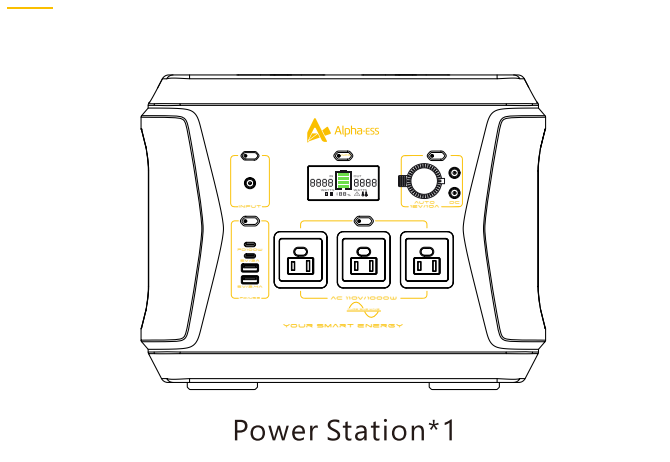
I	WARNING & ATTENTION	01
II	PACKAGE LIST	02
III	SPECIFICATION	03
IV	PRODUCT TOUR & FUNCTION	05
V	CHARGE & RECHARGE	06
VI	USE TIPS	14
VII	TROUBLESHOOTING	15
VIII	FAQ	16
IX	WARRANTY	18
X	WARRANTY CARD	19
XI	PHYSICS TECHNICAL TERM REFERENCE	20

service.pps@alpha-ess.com

ABOUT ALPHA-ESS

Thank you for purchasing an AlphaESS AP1000 portable power station. Hope you have a great time.

AlphaESS is one of the leading energy storage solution and service providers in the globe. The company specializes in the residential and commercial market, aiming to deliver the most cost-effective and fit-for-purpose solutions. AlphaESS has 10+ subsidiaries providing local services and 60,000+ systems actively running in over 60 countries, enabling millions of people to live with reliable, accessible and clean energy.



service.pps@alpha-ess.com

I WARNING & ATTENTION

WARNING

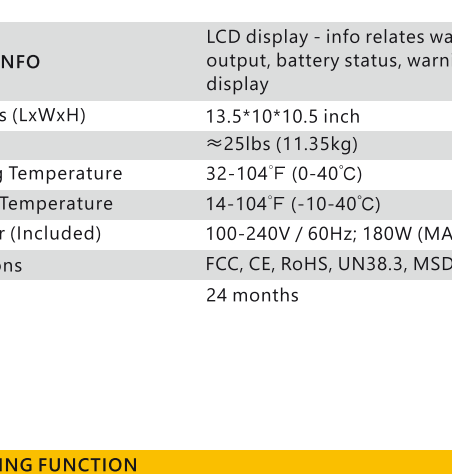
- Do not put the unit in a high temperature environment, or explode in the sun.
- Do not place the unit in water or rain outdoors.
- Do not place the unit on its side or upside down when in use or storage.
- Do not use the unit in an environment outside the scope of the use environment.
- Do not use the unit if the power cord is damaged or broken.
- Do not let children use the unit. Keep the unit away from children and pets.
- Do not recharge the unit via power supply systems that operate outside of 100~240V.

ATTENTION

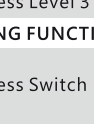
- Keep the power vents open.
- Do not cover this product with objects, such as towels, clothing during use.
- Turn off any output ports (AC/DC) that are not being used in order to conserve power.
- Use the original or certified charger and cables.
- Non-technical professionals should not disassemble the unit.
- Not permitted on aircrafts.
- To preserve the battery lifetime, please use and recharge at least every 3 months.

01

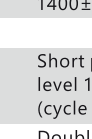
II PACKAGE LIST



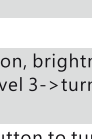
Power Station*1



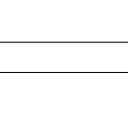
USB-C cable (1M)*1



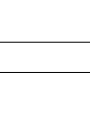
AC adapter with power cable*1



Car charger cable 12V*1



Warranty card*1



User manual*1

02

III SPECIFICATION

BATTERY	
Cell Chemistry	Lithium Ion
Energy Storage Capacity	1036.BWh
Single Cell Equivalent Capacity	288,000 mAh @ 3.6V
Lifecycles	> 1000 cycles to 80% with full charge/discharge
Shelf-life	Up to 6 months after full charge; re-charge every 3 months
Wattage Compatibility	1000W Continuous, 2000W Peak Surge
Battery Management System (BMS)	Input undervoltage protection, output over voltage protection, overload protection, short circuit protection, overtemperature protection
INPUT PORTS	
DC Charging Port (5525)	12V-24V, 180W MAX, AC adapter, Car charger(included)
USB-C PD Port	One (1) USB-C port, PD 100W
OUTPUT PORTS	
USB Ports (4)	One (1) USB-C port, PD 100W (5V/3A; 9V/3A; 12V/3A; 15V/3A; 20V/5A) One (1) USB-C port (5V/3A) Two (2) USB-A port (5V/2.4A each)
DC Port (5525) (2)	12V/10A
Car Port (1)	12V/10A
AC Inverter (3)	110VAC, 60Hz, Pure Sine Wave 1000W Continuous, 2000W Surge Peak
Wireless Charging (2)	10W*2
Note	Try to keep the receiver in the best position during charging

GENERAL INFO	LCD display - info relates watt input/output, battery status, warning symbol display
Dimensions (LxWxH)	13.5"10"10.5 inch
Weight	≈25lbs (11.35kg)
Recharging Temperature	32~104 F (-10~40°C)
Operating Temperature	14~104 F (-10~40°C)
AC Adapter (Included)	100~240V / 60Hz; 180W (MAX)
Certifications	FCC, CE, RoHS, UN38.3, MSDS
Warranty	24 months

LED LIGHTING FUNCTION

Output Current	200±50mA
Output Power	≈3W
Color Temperature	5700~6700K
Brightness Level 1	200±100LUX
Brightness Level 2	800±150LUX
Brightness Level 3	1400±200LUX

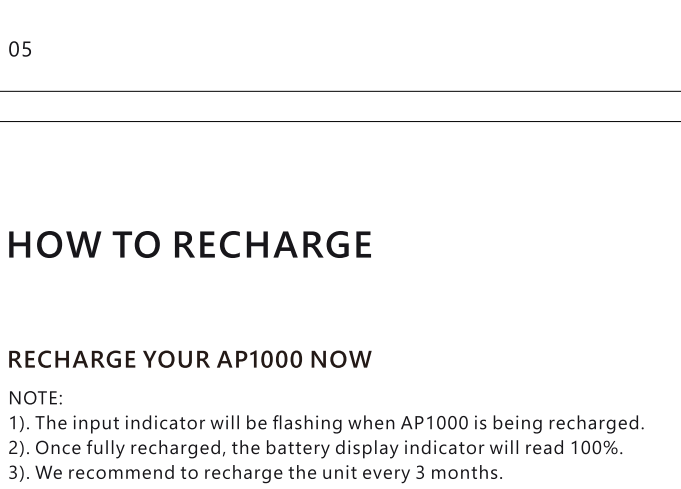
DIMMING FUNCTION

Brightness Switch	Short press the button, brightness level 1->level 2->level 3->turn off (cycle in turn)
-------------------	--

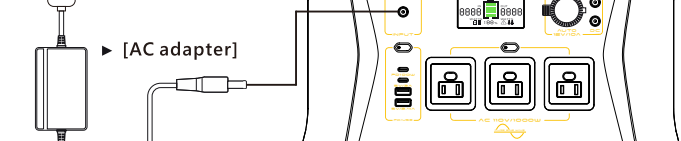
SOS MODE

Double-press the button to turn on. Short-press the button to turn off.

IV PRODUCT TOUR & FUNCTIONS



- Recharge status indicator
- Switch button
- Input power display
- Info display
- Output power display
- System temperature status display
- Input port (DC 5525)
- USB-C port
- USB-A port
- Car port
- DC 5525 port
- AC output port



- LED lights*2
- Brightness*3, SOS mode
- Light Switch button

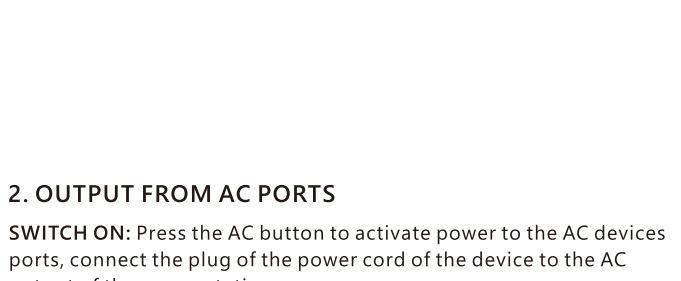
HOW TO RECHARGE

RECHARGE YOUR AP1000 NOW

- NOTE:
- The input indicator will be flashing when AP1000 is being recharged.
 - Once fully recharged, the battery display indicator will read 100%.
 - We recommend to recharge the unit every 3 months.

1. RECHARGING FROM THE WALL WITH AN AC ADAPTER

Plug the AC adapter (included) to household outlet, and connect the other end to AP1000 (input port). The AP1000 can be fully recharged from 0 in about 7-8 hours by the AC adapter.



V CHARGE & RECHARGE

WARNING SYMBOL DISPLAY

IF YOU OPERATE THE POWER STATION IN AN IMPROPER WAY, THERE WILL BE APPEARING SYMBOLS ON LCD SCREEN.

When the input voltage of recharging is too high, the symbol will display and stop charging. When the input voltage is restored to normal, the symbol will not display and normal charging will be resumed.



When the discharge output of the product appears over current short circuit, the output will be shut down immediately, and the symbol flashes 5 seconds prompt.



This symbol flashes to indicate that the product is in a low power state (less than 3%). Please kindly charge it to 100% and then use it.



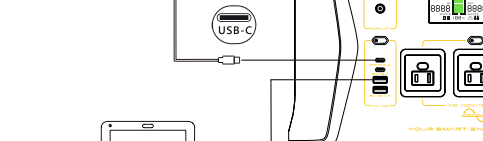
This symbol flashes to indicate the unit is in refrigerant protection and the protection will be released if the icon does not display.



This symbol flashes to indicate the unit is in overtemperature protection and the protection will be released if the icon does not display.



BATTERY SYMBOL DISPLAY



2. RECHARGING FROM A USB-C CHARGER

- Using the USB-C cable (included), plug it into the 100W USB-C Power Delivery port and attach into a compatible third-party USB-C charger (not included).
- Plug your charger into a household wall outlet.

3. RECHARGING FROM BATTERY CHARGER

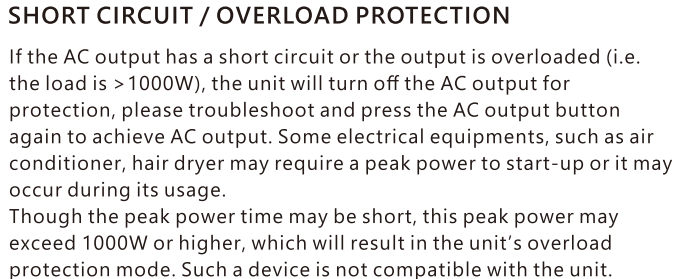
Using the car charger cable (included), plug the charger to your Auto port and connect the other end to the input port of AP1000.



4. RECHARGING FROM SOLAR PANEL

IMPORTANT NOTICE: Please notice that the AP1000 input voltage is 12~24V, and the input port is DC5525.

- Position your solar panel where it can get as much direct sunlight as possible.
- Insert the solar panel plug into the input port. You will know the AP1000 is recharging when the indicator is flashing. The AP1000 is fully recharged when the battery display indicator reads 100%.
- Some solar panels are chainable to provide more power to your AP1000 and reduce solar recharge time.



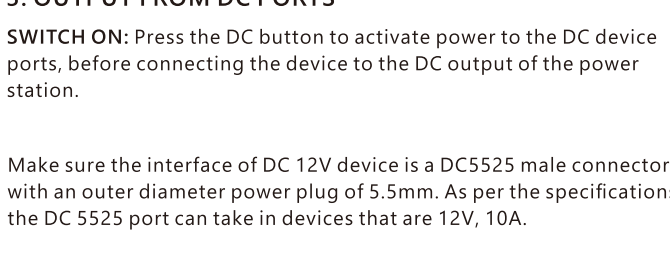
WHAT CAN IT POWER

IMPORTANT NOTICE

Press the AC or DC power button located on front to activate its power function. When not using the AC or DC ports, make sure to turn the power off to conserve power.

1. OUTPUT FROM USB-A, USB-C PORTS

SWITCH ON: Press the USB button to activate power to the USB ports, connect the standard USB cable of the device to the USB interface of this product. The USB of this unit will provide power to the device.

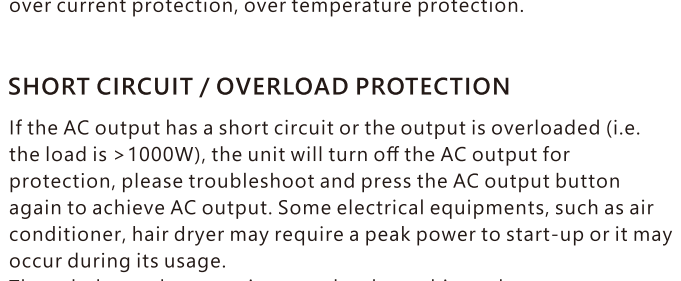


2. OUTPUT FROM AC PORTS

SWITCH ON: Press the AC button to activate power to the AC devices, connect the plug of the power cord of the device to the AC output of the power station.

IMPORTANT NOTICE

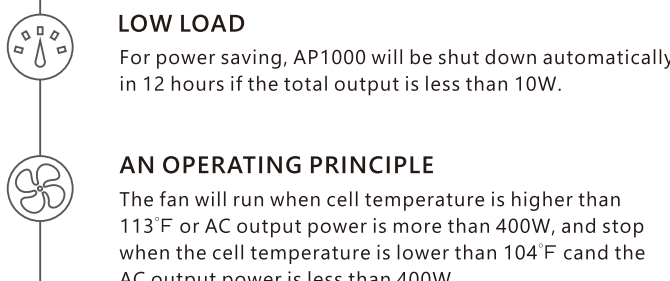
If the AC output is shorted or the load's electrical power exceeds the AC output power of the product, the power station will trigger a short circuit protection or overload protection. To eliminate the short circuit, disconnect the attached device, and then restart the power station to restore AC output.



3. OUTPUT FROM DC PORTS

SWITCH ON: Press the DC button to activate power to the DC devices, before connecting the device to the DC output of the power station.

Make sure the interface of DC 12V device is a DC5525 male connector, with an outer diameter power plug of 5.5mm. As per the specifications, the DC 5525 port can take in devices that are 12V, 10A.



VII TROUBLESHOOTING

1. PROBLEM WITH INPUT (AC/DC)

- Buyer name
- Make sure the ORIGINAL cable is connected firmly and correctly.
- Use a SOFT cloth to remove the dust or dirt on the solar panel.
- Make sure there is NO shadow cast on the panel.
- Test it under midday STRONG sunlight.
- Try to unplug and plug for several times.
- Note: If the power station can be recharged via the AC charger normally, if yes, please check if something is wrong with the solar panel.

2. PROBLEM WITH SOLAR CHARGING

- Make sure the ORIGINAL cable is connected firmly and correctly.
- Try RESETTING the power station by holding the INFO BUTTON for 15 seconds.
- Recharge the power station to 100% and test it again.

3. PROBLEM WITH OUTPUT (AC/DC/USB/LCD SCREEN)

- Try RESETTING the power station by holding the INFO BUTTON for 15 seconds.
- Recharge the power station to 100% and test it again.

Q9: Why it takes so long to recharge the power station from 99% to 100%?

A: When the power station is charged at low power, the internal battery pack voltage is the largest. With the increase of the power, the internal battery pack voltage and then enters the trickle charging stage with a lower charging rate, which can protect the battery from high current impact to damage the internal structure, so the charging speed will slow down.

Q10: Can I find any video about recharging the AP1000?

A: Please kindly check the video in the following instructions:

- Go to www.alphaess-pps.com
- Click the "Support", and then choose "FAQ"
- Check "Product Video"

Q11: Are the output ports regulated, and if so, which ones are regulated?

A: All output ports of AlphaESS power stations are regulated. The voltage won't change when the battery power decreases.

Q12: Can the battery inside be replaceable?

A: No, the batteries inside of AlphaESS power station are not replaceable.

More questions, please kindly find the answer in the following way:

- Go to www.alphaess-pps.com
- Click the "Support", and then choose "FAQ"

VIII FAQ

Q1: What devices can AP1000 power?

A: Please note that the total output of AP1000 is 1000W, which means it can power any devices under 1000W.

Q2: Can the AP1000 be recharged while using?

A: Yes, AP1000 supports pass-through charging.

Q3: Can the AP1000 be used as UPS?

A: No, the AP1000 can't be used as UPS, need to press the power button to turn on the AC/USB/DC output, so it can't be turned on and off automatically.

Q4: How to know the working time for my device?

A: Working time = 1036Wh*0.9/operating power of your device.

Q5: Does the AP1000 include a built-in MPPT controller?

A: All AlphaESS power stations have built-in MPPT controller.

Q6: How do I know the AP1000 is recharged?

A: Check if the LCD Battery Display shows the input watts.

Q7: Can I keep this charged up by keeping it plugged in all the time in case of power outage?

A: Yes, you can keep the battery plugged in to charge.

Q8: Can I use it indoors?

A: Yes, the AP1000 is safe to use indoors.

IX WARRANTY

WARRANTY PERIOD

The warranty period is 24 months. In each case, the warranty period is measured starting on the date of purchase by the original consumer purchaser. The sales receipt from the first consumer purchase, or other reasonable documentary proof, is required in order to establish the start date of the warranty period.

AFTER-SALES SERVICE

AlphaESS will repair or replace (at AlphaESS' option) any AlphaESS product that fails to operate during the applicable warranty period due to defect in workmanship or material. If a valid claim is made during the applicable period, AlphaESS, at its option, will either (1) replace the product, or (2) exchange the product with a product that is of equal value.

NOT APPLICABLE CONDITIONS

- AlphaESS's warranty does not apply to:
 - Any product that has been misused, abused, modified, accidentally damaged or used for anything other than normal consumer use as authorized in AlphaESS's current product literature;
 - Damage caused by failure to use, maintain in accordance with the requirements of the product instruction manual;
 - Disassembly and repair by anyone other than professional service personnel of AlphaESS;
 - Damage caused by force majeure (such as lightning, fire, earthquake, flood and other natural disasters).

19

20

X WARRANTY CARD

PLEASE SEND BACK INFORMATION REQUIRED BELOW, WHICH WILL BE HELPFUL FOR US TO HAVE A FAST SOLUTION FOR YOUR ISSUE.
CUSTOMER SUPPORT: service.pps@alpha-ess.com

WARRANTY	
CONTACT INFO	
Buyer name	[Email address]
ORDER DETAILS	
Order ID	
Serial number	
Issue details	
Upload proof of purchase & photos of the device itself with AlphaESS logo showing.	

XI PHYSICS TECHNICAL TERM REFERENCE

Voltage (U)	Unit Volt (V)
Current (I)	Unit Ampere (A)
Power (P)	Unit Watt (W) --- Power = Voltage*Current (P=UI)
	Unit Ampere hour (Ah) / Milliampere hour (mAh)
	---1Ah=1000mAh
Capacity	Electric energy unit watt-hour (Wh) battery energy = nominal capacity*nominal voltage DC output (size/direction does not change with time) AC output (alternating current) (current whose size and direction change periodically)

19

20