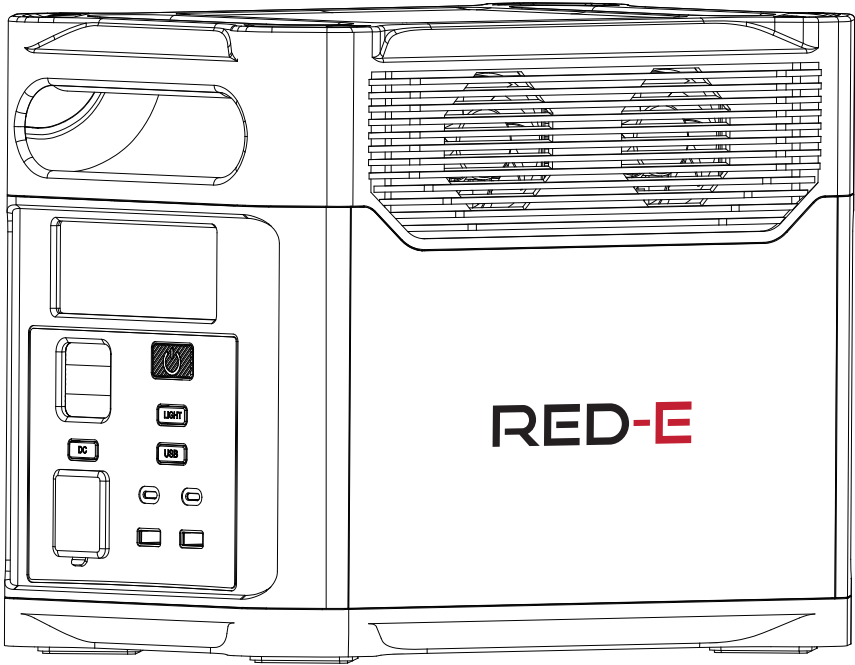


RED-E
PORTABLE 1024
POWER STATION

USER MANUAL



Thank you for purchasing the Red-E 1024 Power station.

This Power Station is built with special emphasis on safety and reliability. It uses LiFePO4 batteries, has built-in BMS (Battery Management System) and provides protection against power surges, overheating and short circuits.

The Red-E 1024 supports a pass-through UPS function and has a LiFePO4 battery that is guaranteed to have 80%+ capacity (819wh) after 3000 cycles, (which is recharging the powerstation once a day for 8 years).

USAGE

Will power up to max of 1200w. Devices include:



LED LIGHT
10Watts
25+ HOURS



CPAP MACHINE
40Watts
14-18 HOURS



TVS
110Watts
6-8 HOURS



PROJECTOR
300Watts
2-2.5 HOURS



LAPTOPS
60Watts
10-12 HOURS



MOBILE PHONE
80 CHARGES



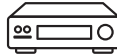
WIFI ROUTER
15Watts
25+ HOURS



DESK FAN
45Watts
13-15 HOURS



DSTV DECODER
20Watts
25+ HOURS



DVD PLAYER
15Watts
25+ HOURS



CCTV
55Watts
10-13 HOURS



GOPRO
95 CHARGES



DIGITAL CAMERA
50 CHARGES



DRONES
10-14 CHARGES



DRILL
1000Watts
1 HOUR



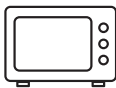
Fridge
150Watts
5.5-8 hours



Car/Camping Fridge
45Watts
20-25 hours



Bar Fridge
65Watts
13-18 hours



Microwave
1000Watts
45 min -1.2 hours



Washing Machine
600Watts
1.5 hours



Coffee maker
600Watts
40-48 cups



Blender
400Watts
2 hours



Juicer
600Watts
1 hour

PRECAUTIONS FOR USE

- To avoid shortened the battery life and other failures, please avoid long-term storage and the use of this power station in environments with high temperatures, humidity or direct sunlight
- Keep product away from fire or heat source.
- Do not disassemble or modify the product in any way.
- Store or use this product out of the reach of children.
- Only use original accessories. Failure to do this may affect the guarantee.
- Please plug the charge cable directly into the wall socket when charging and do not use extension cords.
- Turn off and unplug the power cable when the product is not in use.
- If the product needs to be stored for a long period of time, please:
 1. Charge the battery fully and then completely discharge the product by using it.
 2. Recharge the product to about 50% and store it.
 3. Please repeat this process every 6 months to prolong the battery life.

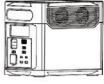
IMPORTANT POINTS ON CHARGING

1. If in continuous UPS mode, the % charge will be reduced to 90% before recharging to 100% again (or when UPS interrupted). This is to prolong the battery life.
2. When charging both by Solar and AC simultaneously, AC takes preference.
3. If the battery runs down to 0% , while there is no power input , the unit switches off. Ensure you manually turn on the Power Station to start charging connected devices.

CONTENTS

- What's included
- Product Introduction
- Button Function Introduction
- Introduction of Display Interface
- Troubleshooting table
- UPS Mode
- Connection of Solar Panels
- Car Charging
- Product Parameter
- Battery Specifications
- Disclaimer

WHAT'S INCLUDED



Portable Power Station



AC Charging Cable



User Manual



Solar Charging Cable

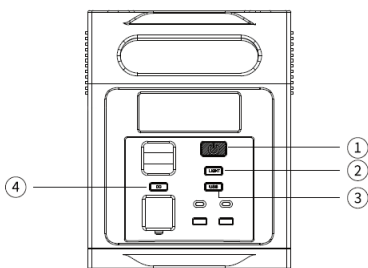
PRODUCT INTRODUCTION

This product is a portable power device with a built-in battery pack with charge/discharge function.

Features:

- Outputs: two AC outputs
- DC outputs such as USB output, cigarette lighter output, DC output, etc.
- Variety of output connection points such as two three-prong plugs, USB-A, Type-C PD3,0, cigarette lighter output, etc. This will meet most usage application scenarios.
- It also features a display, interface control, protection, and alarm.
- This product can be charged by mains AC, solar panels and vehicle charging.
- Equipped with safe EVE LiFePo4 battery
- Large battery capacity of 1024Wh
- 1200W pure sine wave AC output that can run most electronic equipment and small household appliances.
- Two-way fast charging technology to fully charge the product within 1.5 hours.
- Seamless switching in UPS mode with 10ms switchover time.
- Multiple safety features such as battery protection, circuit protection, over voltage and over heating.

BUTTON FUNCTIONS



- ① Power ON/OFF Button
- ② LED Light Button
(switch to different mode)
- ③ USB ON/OFF Button
- ④ DC ON/OFF Button

1. Power ON/OFF Button

- Press and hold the power button for 3 seconds to activate the system and turn on the LCD display.
- Press and hold again for 3 seconds to turn it off.




2. LED Light Button

The light has 3 functions.

1. Short-press the **Light button** to turn the LED light on.
2. Short-press again to enter SOS mode.
3. Short-press again to enter strobe mode.
4. Short-press again to switch off the LED light.
5. During any mode, press the LED button for more than 1 second to switch the light off.

3. USB On/OFF Button

Short press the USB button to turn on the USB output port, and short press again to turn it off.

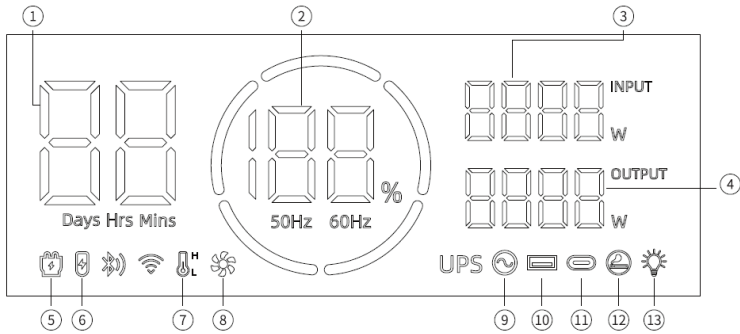
 USB-A X2 ----- 18W max	 TYPE-C X1 ----- PD-100W	 TYPE-C X1 ----- PD-20W
-------------------------------------------------------------------------------------------------------------------	--------------------------------------------------------------------------------------------------------------------	-------------------------------------------------------------------------------------------------------------------

4. DC ON/OFF Button

Short-press the DC button to turn on the DC output port, and short press again to turn it off.

 Cigarette port X1 ----- 12V/10A

INTRODUCTION OF DISPLAY INTERFACE






- | | | | |
|---------------------------------|----------------------------|-----------------------------------|------------------------------|
| ① Remaining Use/Recharging Time | ② Battery Level Percentage | ③ Input Power in Total | ④ Output Power in Total |
| ⑤ Connected to the AC Mains | ⑥ XT60 Input | ⑦ High/Low Temperature Protection | ⑧ Fan Status |
| ⑨ AC Output | ⑩ USB Output | ⑪ PD3.0 Output | ⑫ Cigar Lighter (12V) Output |
| ⑬ LED Light | | | |

Screen Display Description

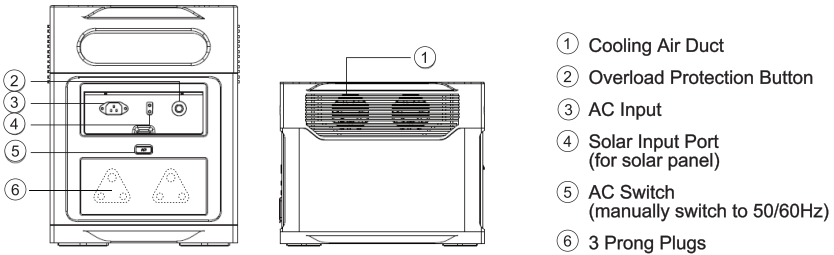
Power display:

- When the product is in the charging state, the battery progress bar rotates clockwise and the battery level percentage gradually increases.
- When the product battery level is 0, the battery level percentage icon flashes.
- Input and output status: When the product is in-use, the total input power, total output power and the cursor corresponding to the working area will be displayed on the screen.

Troubleshooting Table

	<u>Cause</u>	<u>How to fix</u>
 The above output icon flashes and beeps.	The output exceeds the standard or has short-circuited.	Remove the load, and then short press the switch in the area that corresponds to the icon to turn off the alarm.
 The temperature warning icon flashes and beeps.	The temperature of the product is too high or too low.	Take the product out of the charging state and remove anything plugged into the device. Turn the power off and wait for the device to reach a suitable working temperature. The alarm will then switch off.
 AC input connection icon flashes and the product cannot be charged.	The overload protection function is enabled.	Disconnect all the loads and make sure everything is connected properly. Press the overload button to reset the unit.

CHARGING THE POWERSTATION



3. AC Input

If being charged from a household plug socket, the Power Station can reach a super-fast charging speed of 1000W. This will enable the product to be fully charge from 0-100% in 1.5 Hours. When charging in this way, please pay attention to the following points:

- Plug the power station directly in the wall socket to charge the product. Do not use extension cords as this can be a fire hazard.
- If you have to use an extension cable to charge the power station ensure that NO other appliances are plugged into the same extension cable plug at the time of use to avoid tripping the household plug socket.

4. XT60 Port (Solar Input Port)

This interface supports solar panel input or car charger input. It can support a wide range of input voltages ranging from 11.5v to 50v. For details, please refer to "Solar Panel Connection" and "Car Charging" instructions in this manual.

POWERING DEVICES VIA AC

5. AC Button (AC output port, the sum of electrical load power should be <1200W)

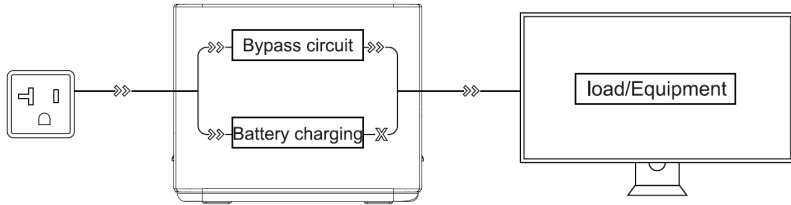
- To activate the AC Output function press the AC button (the unit will not function unless you've turned it on; and also pressed the AC button); To turn off, press and hold.
- This unit operates at 50 Hz.
- Should you wish to change the frequency, press and hold the AC button for 2 seconds to enter the frequency switching mode, the 50Hz or 60Hz icon will flash on the display.
- Short-press the AC button again to select 50Hz or 60Hz.
- When the icon stops flashing it will displays 50Hz or 60Hz. This will be the frequency the unit will run at.

UPS MODE

This product has a UPS (Uninterrupted Power Supply) function. This allows you use the device to power items while the unit charges.

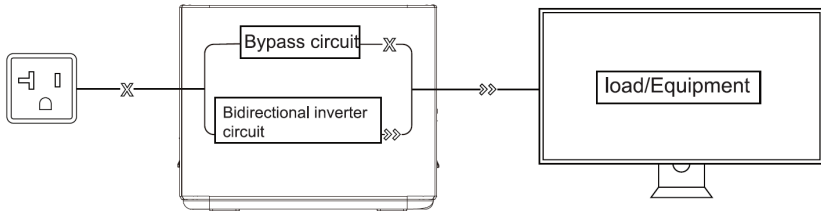
The usage and operation precautions are as follows:

See pic 1 below: when connected to the AC Mains power supply, via the AC input, the Power Station will enter UPS working mode. This means that the unit will power the AC electrical appliances in bypass mode and recharge the unit at 1000w of power. In this working state, the rated power of the electrical appliance must be lower than 1100w otherwise overload protection may be triggered.



(Pic 1)

See Pic 2 below: When the AC mains is off, the bypass stops working and the product switches over to the inverter circuit within 10 milliseconds (1/5th of a second). This will enable the UPS mode and will continued to supply power to the electrical appliances uninterrupted and will work as normal within the specs of the power station.



(Pic 2)

As soon as AC power is restored, it will enable the UPS working mode again.

CONNECTION OF SOLAR PANELS

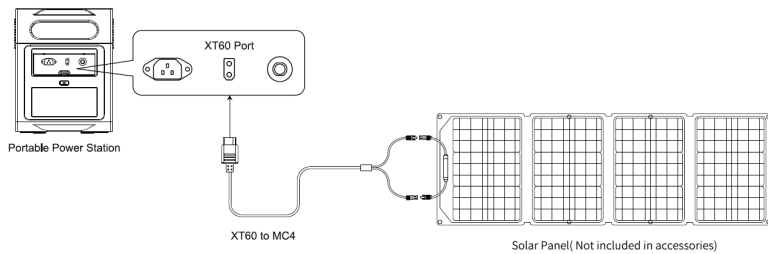
Under the correct light conditions, this product can be recharge via solar panels. The recharge power is determined by the equipment (solar panels) and weather conditions.

In this charging mode, the power station can be recharge at a speed of up to 200w. The maximum input voltage is 49v.

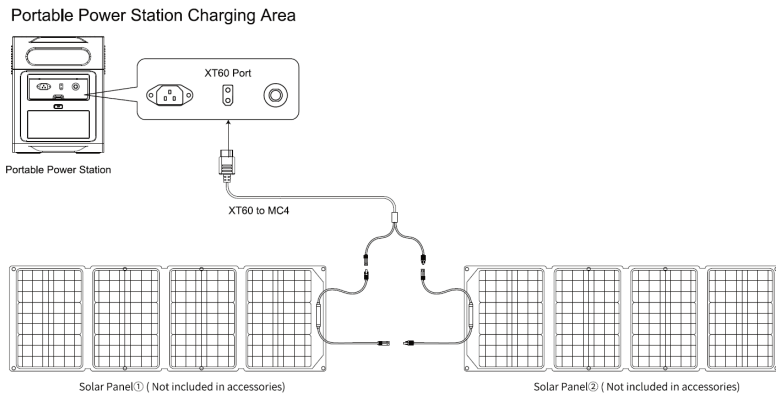
Please make sure you are using the correct solar panels and solar panel configuration. The input voltage cannot exceed 49v as this will damage the device and will render the warranty void.

- We recommend the following two charging schemes using RED-E solar panels:

Scheme one



Scheme two

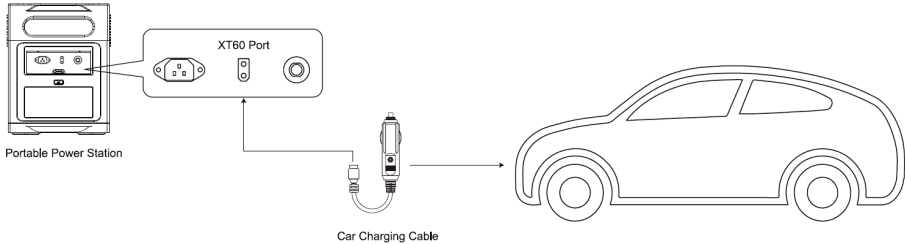


CAR CHARGING

- Connect the car charging port to the power station XT60 port.
- Connect the other end of the car charging cable to your car power source such as a cigarette lighter. The connection method is shown in the picture below.

This product supports 12V/24V car charger charging, please note the following when car charging:

- Only charge the device through your car when it is running, otherwise it may discharge your car battery.
- Vehicle charging power is usually in the range of 90W-120W, and it can take up to 12 hours to charge the power station. If fast charging is required, the AC mains charging is recommended.
- Please note, Car Charger not included



SAFETY FEATURES

1. Cooling Suction and Exhaust Port

When the product reaches the pre-set temperature threshold, the cooling fan will automatically be activated, accompanied by a fan noise (fan noise below 60dB is normal).

- Do not block the cooling import and exhaust port when the product is in use.
- Do not place any object within a range of 30cm around the power station.

2. Overload Protection Button

The overload protection function (safety circuit breaker) will be activated when the power supply current is unstable due a large current input at the AC input or lightning, etc. This is necessary to protect the product and cut off the AC input port. Please follow the sequence below to restore the AC input function:

1. Turn off the power button and unplug all ports.
2. After confirming that there is no abnormality in each port, turn on the power button.
3. Press the overload protection button and connect the AC Cable to restore the AC input.

PRODUCT SPECIFICATION

Product Name	RED-E 1024
Dimension	L*W*H=329*209*262mm
Weight	12kg
Capacity	1024Wh
AC Charging	AC Mains Input, 1000W max
MPPT Input	11.5-50V 8A below 200W max
AC Output	50/60Hz (switchable), rated 1200W, pure sine wave with overload, short circuit protection
USB-A Output	QC3.0 18W max
Type-C ① Output	(PD20W) X1
Type-C ② Output	(PD100W)*1 Included PD3.0 protocol
Car Charging Output	12V/10A
Shutdown Current	<500uA
Working Temperature	-10~40°C
Environment Humidity	≤90%RH
Cycle Times	>3500 Times

BATTERY SPECIFICATION

Cell type	40135 LiFePo4
Rated voltage of single battery	3.2V
Rated capacity of single battery	20Ah
Rated voltage of battery pack	25.6V
Output voltage range of the battery pack	21-29V
Rated capacity of battery pack	1024Wh

DISCLAIMER

Please read the user manual of this product before use to ensure full understanding and correct use and keep the user manual for future reference.

Failure to operate this product correctly could cause serious injury to yourself or others, or result in damage to the product and property. Once you use this product, you are deemed to have understood, recognized and accepted all terms and content of this document. Users undertake to be responsible for their own actions and all consequences arising therefrom. Red-E is not responsible for any loss caused by the user's failure to utilise the product in accordance with the User Manual.

RED-E

5 Year Warranty

This RED-E Product is warranty against any manufacturing defect for the duration of the warranty.

This warranty excludes normal wear and tear through regular use or if the product has been subjected to abuse by the user (including liquid damage). Please retain proof of purchase as the guarantee will only be honoured if returned with an invoice.

RED-E

www.red-e.co.za

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