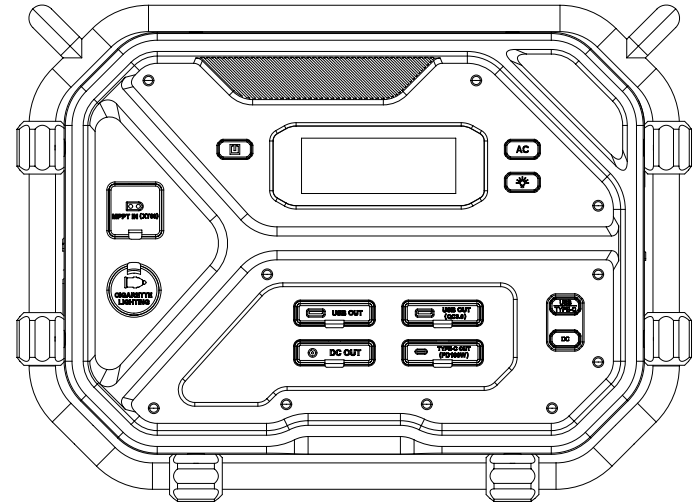


# USER MANUAL

## Portable Power Station

**2400W**



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E-mail: [Tursan@tursan-energy.com](mailto:Tursan@tursan-energy.com)

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9/F, Block E, No.22,Xianghe 3rd Road, Dalang Town,Dongguan City, Guangdong Province, China

## Thank you for purchasing our product. This manual is intended to guide you in the safe and effective use of this product.

This manual describes the safety instructions, proper operation, precautions, warranty regulations and disclaimers for this product. After reading this manual, please keep it in a safe place so that you can refer to it at any time. Subject to the laws and regulations, we have the final right to interpret this manual and all documents related to this product. If necessary, its contents will be updated, modified or terminated without prior notice.

### SAFETY INSTRUCTIONS

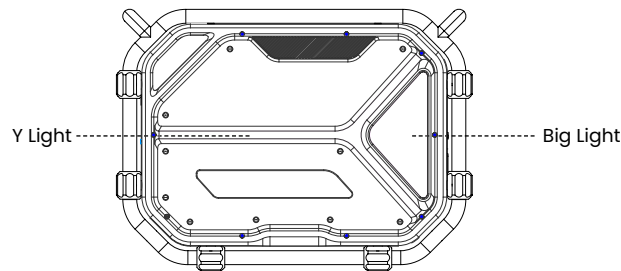
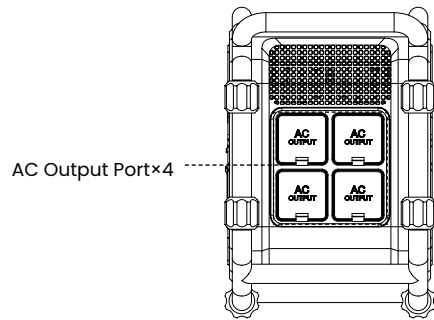
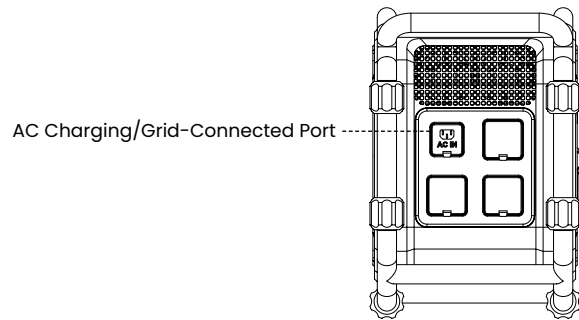
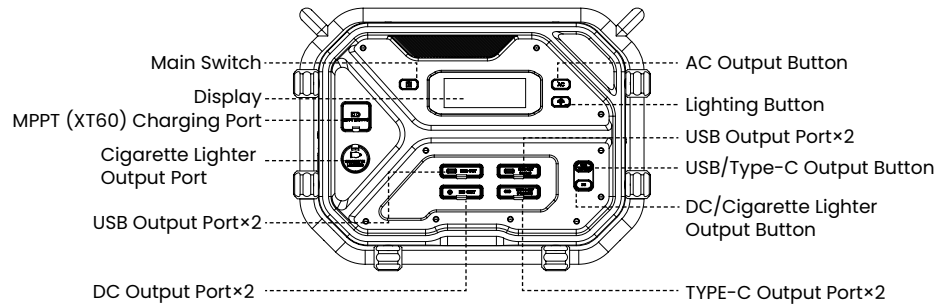
1. This product generates electromagnetic waves during use and charging, so if you wish to power an implantable pacemaker or similar device, be sure to check with your doctor or medical institution and the device manufacturer before using it.
2. Do not attempt to disassemble or modify the product, as this may cause the product to overheat and cause a fire or electric shock. If the product is deformed or damaged due to dropping or impact, do not continue to use the product to avoid safety accidents.
3. When the charger, charging cable and plug are damaged, please replace them in time to avoid safety accidents.
4. Please use the product under the ambient temperature of  $-10^{\circ}\text{C} \sim 45^{\circ}\text{C}$  as specified in the instruction manual. Do not place the product in liquids or corrosive gases to avoid safety accidents. Do not use the product in environments with large amounts of vapors, dust, fumes or flammable gases to avoid safety accidents.
5. Please do not operate the product with wet hands or charge the product to avoid electric shock accidents; when used outdoors, please note that the product should not be touched by liquids such as rain, seawater, drinks, etc., so as to avoid safety accidents caused by short circuit due to the liquid flowing into the product.
6. Do not connect the AC output to any power company wires or indoor wires, which may cause electric shock or fire. When charging the product, be sure to use the charging cable configured by our company, if you need to use other chargers to charge the product in case of emergency, you must use a charger that meets the charging voltage and charging current requirements in the instruction manual to charge the product to avoid safety accidents. Please use household power supply, DC car power supply and solar panel to charge the product battery. This product is set according to the voltage standard of different countries before delivery, before purchase and use, please consult the dealer or use the product against the instruction manual.
7. If you notice any abnormal odor, overheating, discoloration or deformation during charging, please unplug the charger from the outlet promptly, otherwise it may cause overheating and fire. When connecting the power plug of electrical equipment to this product, please insert the plug firmly into the root, otherwise it may lead to electric shock or fire.
8. Please keep it out of the reach of children to avoid electric shock or injury caused by improper operation.

9. Do not store this product in a humid, dusty, or hot environment as this may degrade the insulating properties of the product and cause overheating or fire. Storage at high temperatures may also shorten battery life.
10. This product should not be disposed of with household garbage; please recycle according to local laws and regulations.

### SPECIFICATIONS

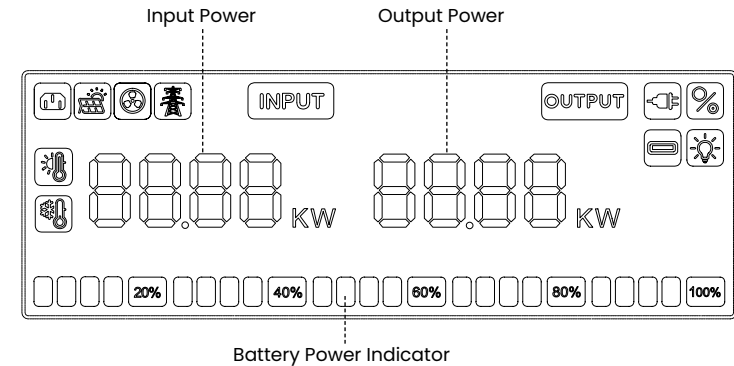
GENERAL INFO	
Rated Power	2400W Pure Sine Wave (Peak Power 4800W)
Rated Capacity	2621Wh (51.2V/51200mAh)
Battery Type	LiFePO4 Battery
Grid Connection Power	800W Max (customizable)
Cycle Life	6000 Cycles @80% EOL
Weight	About 58.3 lbs/ About 26.5 kg
Dimensions	20.2 × 10.2 × 14.8 in/ 512 × 259 × 377 mm
OUTPUT PORTS	
TYPE-C1	5V = 3A 9/12/15/20V = 2A (40W Max)
TYPE-C2	5/9/12/15/20V = 3A 20/28V = 5A (140W Max)
USB-QC3.0 × 4	5V = 3A 9V = 2A / 12V = 1.5A (18W Max)
Cigarette Lighter	13V = 10A (130W Max)
DC5521	13V = 5A (65W Max)
Cigarette Lighter + DC5521	130W Max
DC5525	24V = 4.5A (108W Max)
AC Output × 4	110V/220V, 60Hz/50Hz (2400W Max)
INPUT PORTS	
AC Charging	110V/220V, 60Hz/50Hz (1500W Max)
XT60 Charging	25V-100V (1200W Max) (Support MPPT Charging)
ENVIRONMENTAL OPERATING TEMPERATURE	
Operating Temperature	$-10^{\circ}\text{C} \sim 45^{\circ}\text{C}$
Storage Temperature	$-10^{\circ}\text{C} \sim 60^{\circ}\text{C}$

## FUNCTION INTRODUCTION



- 1. Power Button:** Press and hold the "☰" button for 3S to turn on the power, the LCD display will light up and the battery icon will light up. Press and hold the "☰" button for 3S to turn off the power.
- 2. AC Output Button:** When using the AC output, first turn on the power of the product, then press the "AC" button, the AC output will be turned on, when the "AC" button is pressed again, the output will be turned off.
- 3. DC Output Button:** When using the DC cigarette lighter output, please turn on the power of the product first, and then press the "DC" button briefly, DC12V and 24V will be turned on at the same time.
- 4. USB/Type-C Output Button:** When using the USB/Type-C outputs, please turn on the power of the product and press the "USB-C" button briefly.
- 5. Lighting Button:** Short press "☀️" button lighting on, the first gear headlights bright 50%, the second gear headlights (all bright white lights), the third gear headlights SOS, and then press into the ambient light mode of the Y lights, the fourth gear running lights, the fifth gear flash (in any gear, long press 2-3S to turn off the lights).

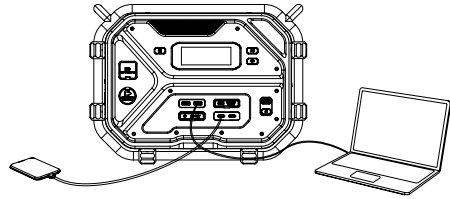
## DISPLAY DESCRIPTION



- |                 |                   |                          |
|-----------------|-------------------|--------------------------|
| AC Charging     | AC Output         | High Temperature Warning |
| Solar Charging  | DC Output         | Low Temperature Warning  |
| Fan             | USB/Type-C Output |                          |
| Grid Connection | Light Icon        |                          |

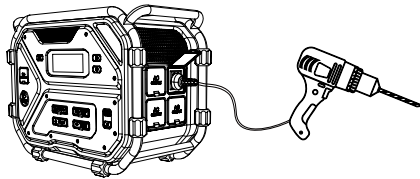
## OUTPUT PORT DESCRIPTION

### A: How To Use USB/TYPER-C Port Output



- Press and hold the "⏻" for 2-3S to turn on the power.
- Short press the "USB/TYPE-C" switch, the "🔌" icon on the display lights up and the USB/TYPER-C output function is on.
- Short press the "USB/TYPE-C" switch again, the USB/TYPER-C output function is turned off.

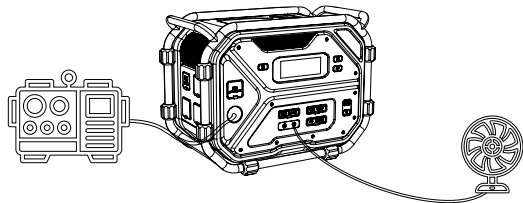
### B: How To Use AC Port Output



- Press and hold the "⏻" for 2-3S to turn on the power.
- Short press the "AC" switch, the "🔌" icon on the display lights up and the AC output function is on.
- Short press the "AC" switch again, the AC output function is turned off.
- Supports UPS output up to 1500W.

\* The frequency of the product is adaptive

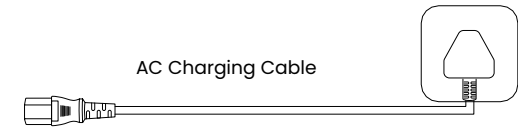
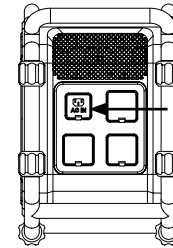
### C: How To Use DC Port Output



- Press and hold the "⏻" for 2-3S to turn on the power.
- Short press the "DC" switch, the "🔌" icon on the display lights up and the DC12V/cigarette lighter and DC24V output functions is on.
- Short press the "DC" switch again, the DC output function is turned off.

## CHARGING PORT DESCRIPTION

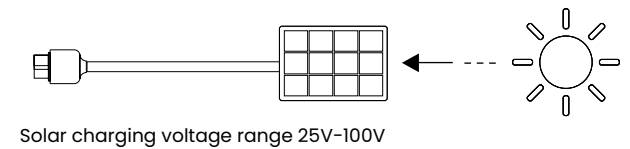
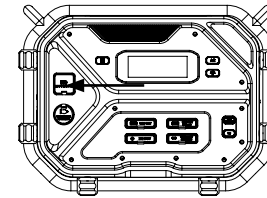
### AC Wall Charging



The charging power of this product can be manually switched according to the demand 800W-1500W

- Connect the utility power to the product charging socket through the charging cable, when the AC charging icon on the display lights up and the power icon blinks in a running light, it indicates normal charging; charging is full in about 3 hours.
- Long press AC key for about 3S to enter the switching mode, the display charging icon flashes, short press AC key to select 800W\1200W\1500W charging power. Long press 3S to select exit or wait 10S to force exit charging power switching mode
- If the internal temperature of the product becomes too high during charging, the product stops charging and discharging.
- When the battery is fully charged, the screen power display bar shows 100% power, indicating that the charging is complete, the overcharging protection function is activated, and the charging will stop automatically. Please disconnect the charging cable from the device and unplug it from the power outlet in time.

### Solar Charging

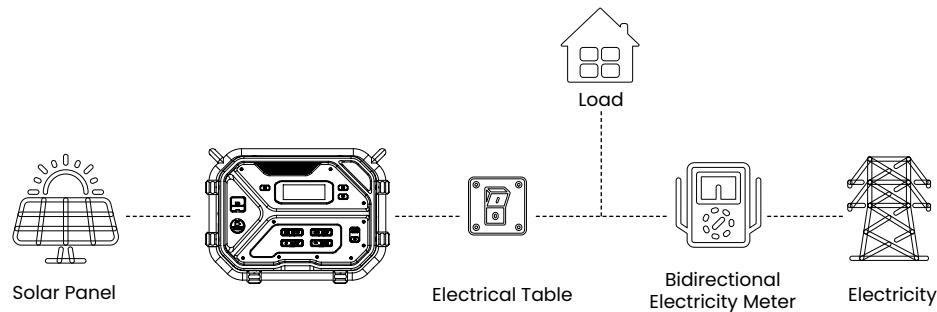


Solar charging voltage range 25V-100V

- Place the solar panel in direct sunlight (no shade).
- This product supports MPPT charging mode, when the output port of the solar panel is connected to the MPPT charging port of the product, the DC charging icon will be shown on the display, which means charging is normal.
- During the charging process, if the internal temperature of the product rises, the fan will start to cool down the device by the fan.
- When the battery is full, the screen power display bar shows 100% power, indicating that the charging is complete, the overcharging protection function is activated and the charging stops automatically. Please remove the charging cable from the product and the solar panel, and turn off the solar panel output function.

## GRID CONNECTION FUNCTION

**Delivering spare surplus power to the national grid.  
Self-generation and self-consumption, with surplus power fed into  
the grid.**



### How The Product Turns On The Grid-Connected Mode?

1. After the product is turned on, connect one end of the AC charging cable to the AC charging port of the product, and the other end to the utility outlet (at this time, the charging status can be seen); then press the "AC" button to turn on the AC output function (at this time, it is the no-load status); and then simultaneously press the "AC" button and "⏻" button, at this time, a buzzer will be heard and the "⚡" icon will appear on the screen, indicating that the grid-connected mode has been activated (again long press the "AC" button and "⏻" button can turn off the grid-connected mode).
2. When the product is connected to both PV power and utility power, the product will be forced to enter the grid-connected mode.

### How To Set The Grid-Connected Power?

1. Long press the "⏻" button, the screen "⚡" icon flashes, indicating that the grid-connected power switching function has been turned on, and the customer can switch the grid-connected power according to the actual demand; at this time, short press the "⏻" button, enter the grid power adjustment mode, the input power in the display shows '800W', you can short press the "⏻" button again to select 100W/200W/300W/ 400W/600W/700W/800W (the maximum power is 800W).
2. In any mode, you can long press "Confirm" to exit the mode, or wait for 10 seconds to automatically exit switching charging power mode.

## PRODUCT CHARACTERISTICS

1. When the battery pack voltage is too low, the product will enter the over-discharge protection state and must be re-charged.
2. When the temperature is around  $-10^{\circ}\text{C}$ , only the UsB and LED illumination functions can be used; when the ambient temperature is above  $-5^{\circ}\text{C}$ , AC power can be turned on and the UsB/Type-C and cigarette lighter plugs can be turned on normally (within  $+2^{\circ}\text{C}$ ).
3. Due to the low-temperature characteristics of lithium iron phosphate batteries, it is recommended that this product be used in an environment of  $-3^{\circ}\text{C}$  or higher.
4. Charge and Discharge Limit: The product limits the charge and discharge function when the battery is at low temperature ( $-20^{\circ}\text{C}$ ) or high temperature ( $60^{\circ}\text{C}$ ).
5. Energy Saving Mode.
  - When the product is not operated for 5-15 minutes, the product will be forced to shut down.
  - When the product is turned on or there is no load or the total load power is less than 8W, the product enters the energy saving mode and will be forced to turn off after 10 hours.

## COMMON TROUBLESHOOTING TIPS

When the product is abnormal, the corresponding function will be forced to shut down, at this time, the connection load can be lifted first, you can press the corresponding function key to lift the abnormal error icon, and restart the corresponding function. (Note: If the hardware triggers the protection first, the screen will not display the error icon).

1. The port shuts down the output when USB overcurrent or short-circuit protection is applied.  
Note: The USB output port is purely hardware protected, so the screen will not display an error message when the USB output is overloaded or short-circuited.
2. When TYPE-C overcurrent or short-circuit protection, the port output is closed.  
Note: The TYPE-C output port is purely protected by hardware, so the screen will not display an error message after the TYPE-C output is overloaded or short-circuited.
3. When the cigarette lighter output is overcurrent or short-circuit protected, the port output is turned off and the DC icon flashes as a warning.  
Note: The DC5521 output port is purely protected by hardware, so the screen will not display an error message after the DC5521 output is overloaded or short-circuited.
4. When AC output triggers over-temperature, overload, short-circuit protection, AC automatically shuts down the output, the AC icon on the screen flashes to report an error + shows that there is an error code, when the temperature is  $\leq 70^{\circ}\text{C}$  to restore the output.
5. When the discharge high temperature protection  $\geq 65^{\circ}\text{C}$  shut down all outputs, at this time the icon "⚡" flashes (1 second 1 flash) and there is an error code; until the battery over-temperature is lifted ( $\leq 55^{\circ}\text{C}$ ) and then restart the corresponding function.
6. When the charging over-temperature protection is  $\geq 55^{\circ}\text{C}$ , the charging function is turned off;

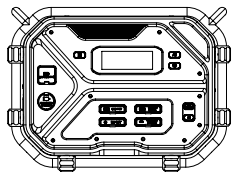
at this time, the icon "🔌" flashes (1 second 1 flash) and there is an error code; until the battery over-temperature is lifted ( $\leq 45^{\circ}\text{C}$ ) and then restart the corresponding function.

7. When the discharge temperature is lower than the protection  $\leq -20$  degrees, the low temperature protection shuts down all the outputs, at this time, the low temperature icon "🔌" flashes (1 second 1 flash) and there is an error code; until the low temperature of the battery is lifted ( $\geq -5$  degrees) and then restart the corresponding function.
8. When the charging temperature is lower than the protection  $\leq 0$  degrees, it will force to close the charging function, at this time, the low temperature icon "🔌" flashes (1 second 1 flash) and there is an error code; until the low temperature of the battery is lifted ( $\geq 5$  degrees), it can be charged normally.
9. When the battery is in low voltage state, and turn off all function output with error code; if not charging then the product will shut down within 1 minute.

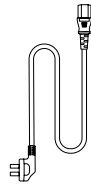
### Error code:

111 111 Inverter Communication Abnormality	555 555 Battery Low Voltage Protection
222 222 Inverter High Temperature Abnormality	666 666 Battery Low Temperature Protection
333 333 Inverter Overload Protection	777 777 Battery High Temperature Protection
444 444 Inverter Short Circuit Protection	888 888 Bms Communication Abnormality

## WHAT'S IN THE BOX

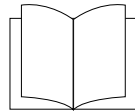


TSA009-YC2400



AC Charging Cable

\* Supports continuous 10A current



User Manual

## PRECAUTIONS FOR PRODUCT USE

1. When using this product, please pay attention to the input and output voltage range, the input voltage and power range required by your equipment is not in the range of the energy storage power supply, the correct use can extend the service life of the energy storage power supply.
2. For proper use of the storage power supply to power the device, use a guaranteed original connection cable.
3. The energy storage power supply needs to be placed in a dry environment for storage, and the correct storage method can prolong the service life of the energy storage power supply.
4. Please fully discharge this product every two months to extend the life of the product's battery.
5. Do not place this product in a place where the temperature is too high or too low.
6. High or low ambient temperatures can shorten the life of electronic products and cause serious damage to the product casing.
7. Do not wipe the product with corrosive chemical solvents. The surface can be scrubbed with a cotton swab moistened with a small amount of anhydrous alcohol.
8. When using this product, please hold it gently and do not drop it or assemble it violently.
9. This product has high voltage electricity inside, please do not disassemble it by yourself to avoid safety accidents.
10. It is recommended that the product be fully charged when first used to avoid inconvenience due to insufficient power. After the device is fully charged and the charging cable is unplugged, the fan will continue to work for about 5-10 minutes to dissipate the heat of the device (the time for the body to dissipate heat may vary with the temperature of the site).
11. When the unit fan is operating, care should be taken to prevent dust particles or foreign objects from entering the interior of the unit, as this can easily lead to damage to the internal equipment.
12. After discharging, the device fan will continue to work to reduce the temperature of the device to a reasonable temperature for about 30 minutes (the exact time may vary with the site temperature). When charging and discharging at the same time, the device temperature is too high, it will trigger the automatic power-off protection.
13. During charging and discharging, please connect the device to the charging and discharging equipment before turning on charging and discharging.
14. After discharging, please leave the product for about 30 minutes until the temperature drops before recharging to extend the life of the product's battery.

## WARRANTY REGULATIONS

**Please read the warranty carefully and keep it properly.**

1. When the product malfunctions during the warranty period with normal use of the product according to the instruction manual, our company will be responsible for the repair.
2. If replacement or warranty is required, please send this warranty card together with the product.
3. Within the warranty period, if one of the following circumstances, the company will not be free of charge repair.
  - Failure or damage caused by failure to observe the precautions recorded in the instruction manual.
  - Malfunction or damage caused by improper storage (battery failure due to long time without charging).
  - Malfunction or damage caused by using an adapter other than the specified power supply within the specified voltage range.
  - Malfunction or damage caused by disassembly or modification.
  - Surface coating and cosmetic damages are not covered by the warranty.
  - Product packaging and product accessories are not covered by the warranty
4. Failure or damage due to force majeure (force majeure refers to unforeseen, unavoidable or insurmountable objective events, including natural disasters such as floods, fires, explosions, lightning, earthquakes and storms, as well as societal events such as wars and unrest).
5. This manual is for the use of (this sales area) only, the final interpretation right belongs to the company.
6. This manual will not be distributed to users individually, so please keep it in a safe place.
7. If the name of the dealer is not written or stamped, ask the dealer from whom you purchased the product for proof of the date of purchase and the name of the dealer, and issue a receipt to the dealer.

## PRODUCT WARRANTY CARD

This card is a product warranty certificate, please be sure to keep it properly.

Product Name			
Manufacturing Number		Purchasing Date	
Dealer Name			
Dealer Address			
Customer Name			
Customer Address			
Customer Phone Number		Customer Email	

