

## USER MANUAL

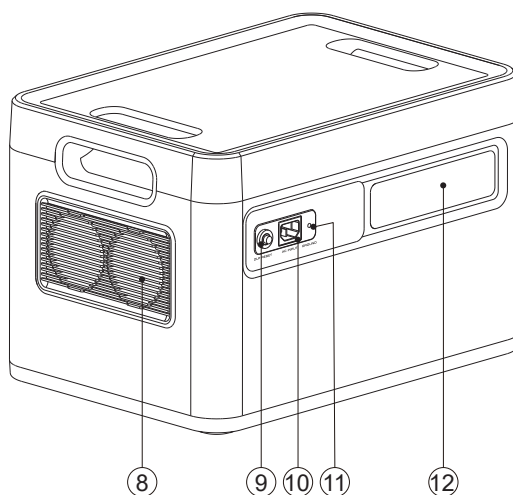
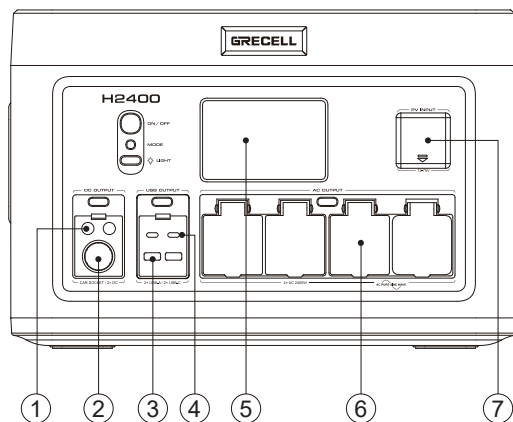
**Thanks for your purchase from GRECELL.**

For the best performance and safety purposes, please read this manual carefully before use. Please keep this manual for further reference.

### **⚠ CHARGE FIRST!**

Please fully charge your new 2400W Power Station before first use.  
Highly recommend charging 2400W Power Station when battery indicates less than 20%.

## ■ PRODUCT OVERVIEW

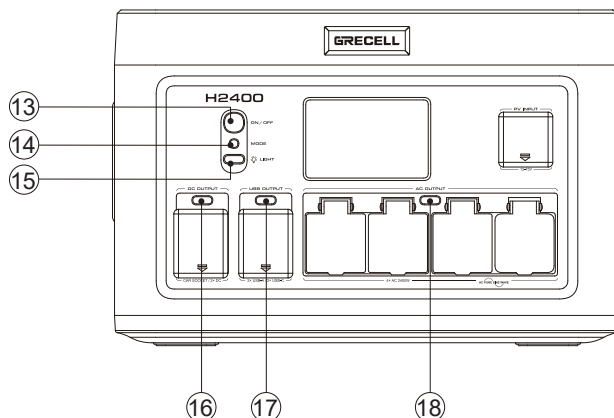


- |                                   |                                    |
|-----------------------------------|------------------------------------|
| ① DC Output                       | ⑦ PV Input                         |
| ② Cigarette Lighter Socket Output | ⑧ Air Intake Vent with Cooling Fan |
| ③ USB-A Output                    | ⑨ OLP Reset                        |
| ④ USB-C Output                    | ⑩ AC Input                         |
| ⑤ LCD Screen Display              | ⑪ Earth Terminal                   |
| ⑥ AC Output 2400Wx4               | ⑫ LED Light                        |



Reminder: If the battery with low power, please charge it before use.

## ■ BUTTONS FUNCTION



### Button ⑬ Power ON/OFF

Press button ⑬ to turn on or turn off the equipment.

### Button ⑭ MODE

The default fast charge mode is switched on, and the button is pressed to switch to the slow charge mode. The slow charge is charged at one quarter of the maximum allowable power.

### Button ⑮ LED Light

Function is available no matter the button "Power ON/OFF" is activated or not as the following steps: press button B to turn on the LED light into the LED light mode. Thirdly, press button B back to LED light mode, then press it again, the light will be turn off.

### Button ⑯ DC Output

Before press button ⑯ to turn on, please make sure the "Power ON/OFF" is ON first. To stop Output, press ⑯ again.

### Button ⑰ USB Output

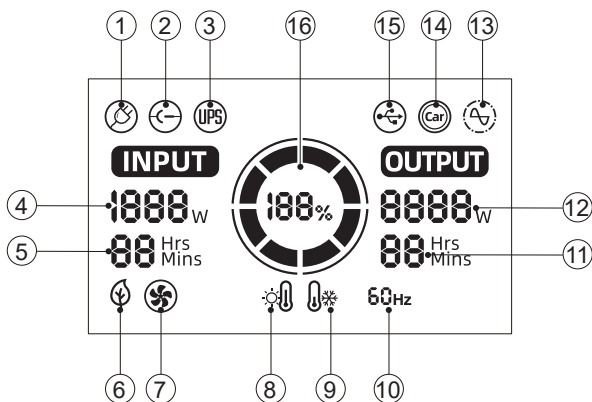
Before press button ⑰ to turn on, please make sure the "Power ON/OFF" is ON first. To stop Output, press ⑰ again.

**⚠ Note: Different Devices with different USB-C cable agreement.**  
**If USB-C port working, please try to use the AC adapter to charging.**

### Button ⑱ AC Output

Before press button ⑱ to turn on, please make sure the "Power ON/OFF" is ON first. To stop Output, press ⑱ again.

## ■ LCD DISPLAY



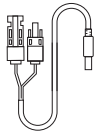
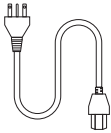
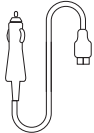
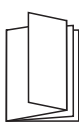

- ① **AC Input:** When the AC charging cable is inserted, this label is displayed on the LCD.
- ② **DC Input:** When the DC DC/SOLAR PV charging cable is inserted, this label is displayed on the LCD.
- ③ **UPS Mode:** When the device is in the AC charging state and the AC output is turned on, the UPS mode automatically starts and this label is displayed on the LCD.
- ④ **Input Power:** When charging, the display displays "INPUT" and charging power.
- ⑤ **Input Time:** When charging, the display shows full remaining time.
- ⑥ **Quick Charge Switching:** When the AC charging mode is used, the label is displayed when the charging mode is switched to slow charge.
- ⑦ **Fan Start Cooling Status:** When the fan is running, this label is displayed on the LCD.
- ⑧ **High Temperature Alarm:** When the inverter or battery pack temperature is too high, this label is displayed on the LCD.
- ⑨ **Low Temperature Alarm:** When the temperature of the inverter or battery pack is too low, this label is displayed on the LCD.
- ⑩ **AC Output Frequency:** When the AC switch is turned on, the display displays "OUTPUT" and the icon.
- ⑪ **Output Time:** In the output state, the screen displays the remaining output time.
- ⑫ **Output Power:** Displays the total used power of DC output, USB-A, USB-C, and AC output.

Please note that this value can be adjusted multiple times as the energy consumption of the connected device changes. This is evident when the port is initially activated using a connected device.

- ⑬ **AC Outputs:** After the AC output switch is turned on, the icon lights up and displays the total ac output power, current remaining time, and current frequency.
- ⑭ **Cigarette Lighter Socket Output:** When the Cigarette Lighter Socket Output is turned on, the icon lights up and shows the total power used by the DC output, the current remaining time and frequency.
- ⑮ **USB Output:** When the USB output is turned on, the icon lights up and shows the total power used by the DC output, the current remaining time and frequency.
- ⑯ **Battery Level Indicator:** Displays the current battery level in the form of energy circle + percentage. The main switch is turned on and the battery quantity is displayed. During the charging process, the energy circle is displayed dynamically.

**⚠ Note: The LCD Screen will enter Sleep Mode after the 3mins of inactivity and will wake up when inputting a charging cord or when any button is pressed.**

## ■ ACCESSORY LIST

 <p>Anderson to MC4 Cable</p>	 <p>AC Charger</p>	 <p>Car Charger</p>	 <p>User Manual</p>	 <p>Cable Storage Bag</p>
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It is recommended to use 120W/200W/300W/400W/600W/800W Solar Panels (not included).

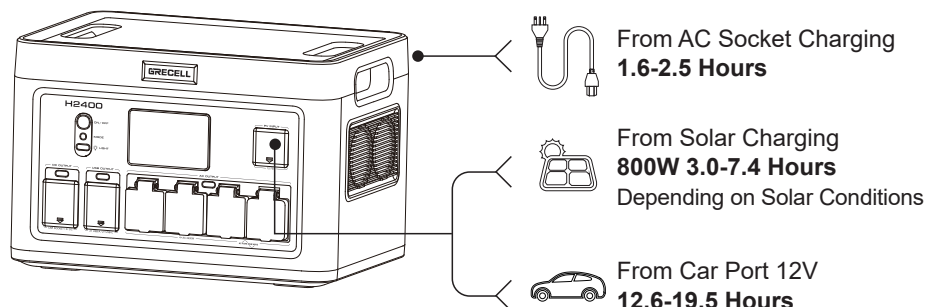
# ■ GENERAL SPECIFICATIONS

General Specs		
Rated Capacity: 1843.2Wh	Weight (Including Accessories): ≈26kg	
Net Weight: ≈25kg	Product Size: 430*300*280mm	
Input		
Recharging Input: AC 100V-130V~10A, 60Hz, 1200W	Solar Charge Input: DC 12V-75V, 800W Max	
	Car Charger: DC 12/24V	
Output		
AC Output Voltage: 120V~60Hz	Output Waveform: Pure Sine Wave	
Rated Output Power: 2400W	LED Light Output: 5W	
UPS Switching Time: 10ms	Type-C Output: PD100W Max	
USB 3.0 Output: 18W Max	DC Output: 12V=5A(Each)	Total 12V=10A
	Cigarette Lighter Socket Output:	
Battery		
Battery Type: Lithium Iron Phosphate (LiFePo4)	Operating Temp: -10-40°C	
Charging Temp: 0-40°C	Storage Temp: -20-45°C	

# ■ CHARGING FUNCTION DESCRIPTION

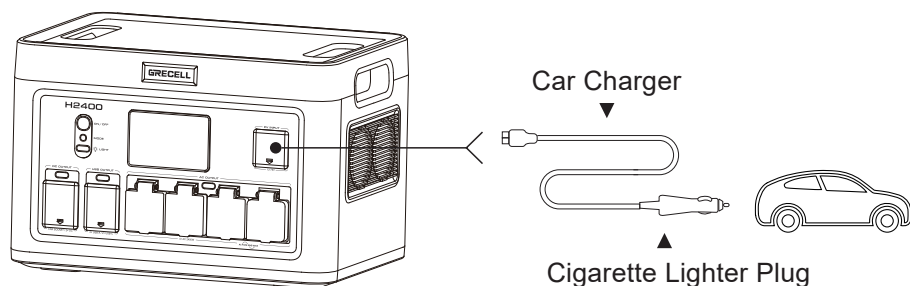
## Recharging Time

When charging, the LCD screen will be lit, the LCD display will provide real-time display data of battery charging, and the device will display 100% when it is fully charged. It is recommended to fully charge the device every 3 months to maintain the life of the device.



## 12V Car Charger

Please use the car charger that we provided to charge this unit, and car charging is usually low power of 90-120W, so the charging time will be long. If you need a quick charge, it is recommended to use the AC adapter.

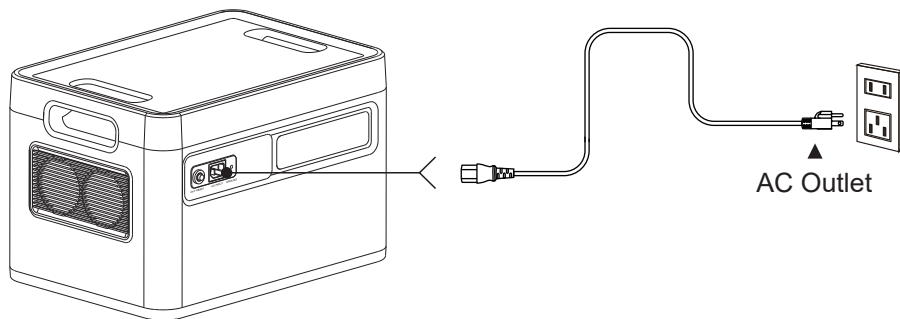


**Caution:** Do not charge the product with solar PV input and car port at the same time!

## AC Charging

Please use the AC charging cable we provided to charge the device. It takes 1.6 to 2.5 hours to full capacity.

When the device is charging, if the AC input current is more than 15A, the device will be overloaded, a fault code "E16" will be showed on the LCD, the output will be shut off after 10 seconds. Please disconnect the output load then press the AC switch once to clear it.



### Notice:

The product can be charged directly by the wall socket; please do not use extension cords and cable taps. When charging, do not plug other products in the same socket.

Please do not plug several devices together in an extension socket at once; the current will be too high and bring damage to the cable and fire risk.

Do not use the same socket to connect other devices when charging this product. When the same wiring in a general household exceeds 1500W, it will activate the safety circuit breaker.

## Solar Panel Charging

The total open circuit voltage of solar modules after series-parallel connection should not exceed the specified voltage!

Please place as many solar panels in direct sunlight as possible.

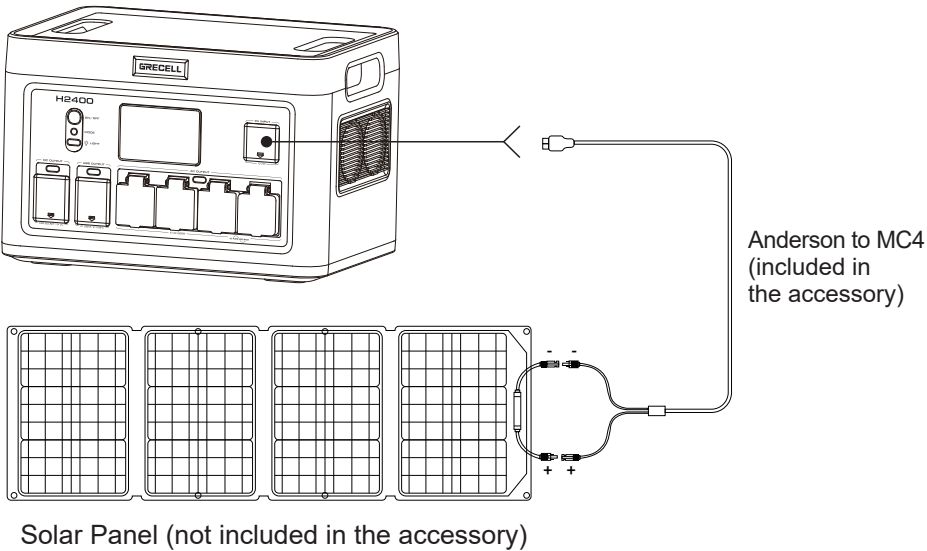
Support 100W/120W/150W/600W/800W solar panel charging, the charging time is determined by the sunlight intensity.

### Caution:

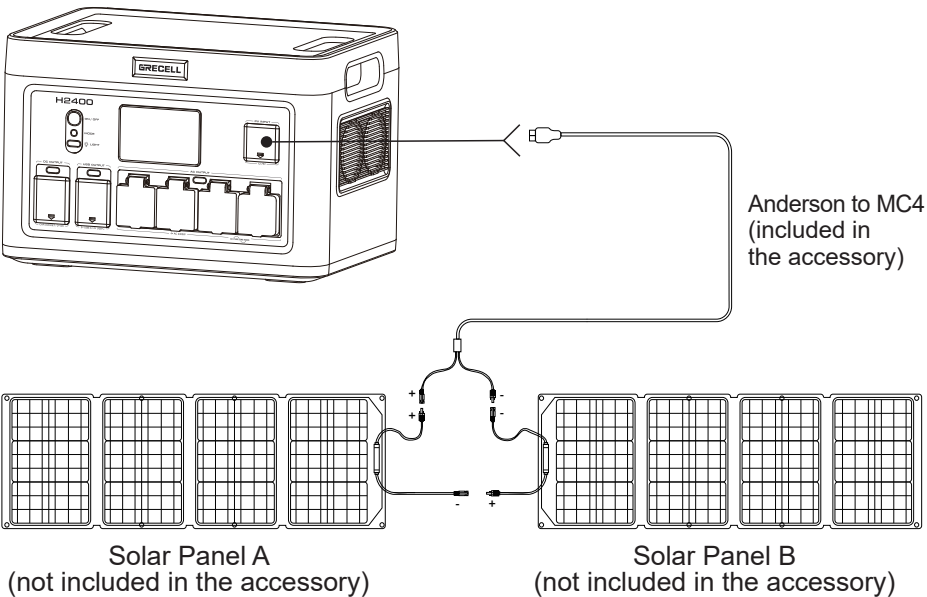
- ① Do not plug in power supplies with different voltages at the two PV input ports at the same time!
- ② It allows that two solar PV panels are paralleled to the two PV input ports, when paralleled, please confirm the same voltage specification.



Connecting Pattern ①



Connecting Pattern ②



## ■ UPS MODE

### ● UPS Function

This product has the bypass mode, does not need to pass through the battery, can directly output from the AC.

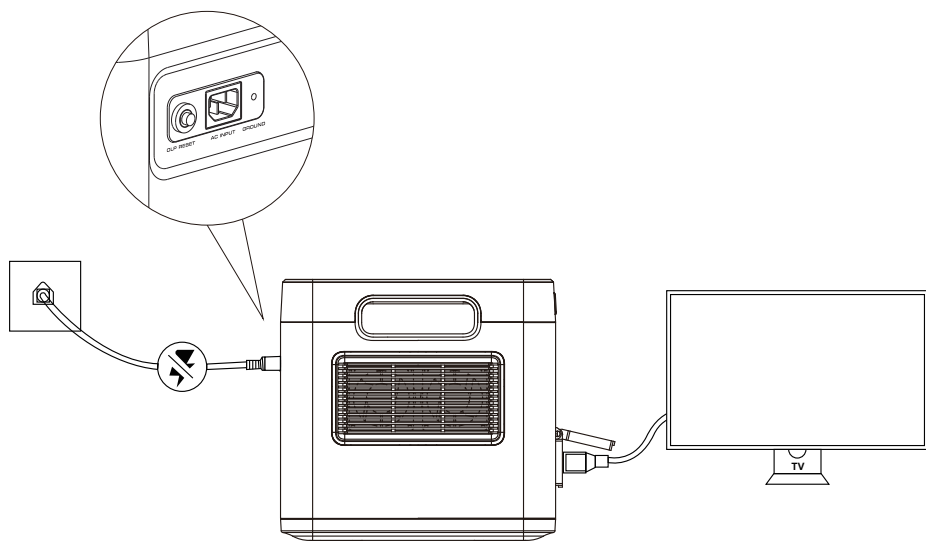
In UPS mode, when the AC input power of the mains is cut off due to a power outage, the ac input power of the mains can be used in about automatic switch to the product battery within 10 ms to ensure AC output.

### ● UPS Connections

As shown in the figure below, connect the product between the socket on the wall and the electrical appliances, and the power of the product is in the ON state. When you turn on the power of the electrical appliances, it will directly use the AC power of the power grid.

In this state, when the power grid is cut off, it will automatically switch to the product's internal battery to supply power.

※ In UPS mode, the maximum power output of AC is below 1800W.



# ■ OPERATING INSTRUCTIONS

## Power Output Attention

Press output switch to select the desired outlet type. The output port must press the corresponding button to activate the port. When activated, the LCD display will turn on and provide detailed information about the charging output. When no output is activated, the LCD screen will automatically turn off.

## Cooling Fan

The equipment is designed with an internal cooling fan to ensure that the product runs within the proper temperature range. When the device experiences a high output load, it will automatically turn on the fan. During discharging and charging, the fan may run intermittently to keep the internal temperature within the operating range. When the AC circuit is activated, the fan is likely to start to ensure normal operation.

## Overload Condition

If the output ports is overloaded, the device will automatically turn off the output power. The code "E08" will be displayed on the LCD screen.

## Constant Power Mode

1. Basically compatible with 99% load 3000W resistive equipment;
2. Does not support constant power when AC charging;
3. When AC 105%~120%\*2400W, enter constant power after 9 seconds;
4. When AC 121%~200%\*2400W, enter constant power after 500ms;
5. European Standard: When the constant power voltage drops to  $184V \pm 5\%$ , the output will be turned off.
6. American Standard: When the constant power voltage drops to  $96V \pm 5\%$ , the output will be turned off.
7. Japanese Standard: When the constant power voltage drops to  $80V \pm 10\%$ , the output will be turned off.

## How to Switch Frequency?

The device can intelligently identify the frequency of voltage when charging, and can automatically set the frequency, so please charge before using. After plugging in the charging cable, the display will show the frequency of current grid voltage if it displays "F50", it is 50Hz, if it displays "F60", it is 60Hz.

You can also manually set and change the voltage frequency. Before using the power station, please confirm the voltage frequency of your electrical equipment, 50Hz or 60Hz?

Then press the "Power on/off" button for 1 seconds to turn on the device.

If "50" is displayed on the LCD, it means that the operating frequency of the power station is 50Hz. If "60" is displayed on the LCD screen, it means 60Hz.

If the frequency displayed on the LCD display does not match the frequency of the local power grid, you must change the frequency according to the following Steps:

Step 1: Press the button "Power on/off" for 3 seconds to power off (the LCD display screen will turn off).

Step 2: Keep pressing the button "AC on/off" with your right finger first and then press the button "Power on/off" for 1 seconds with your left finger, then release the both fingers off the buttons. You will see the frequency.

## **Power Saving Sleep Mode**

- ① No charging (AC input + PV), no discharging (DC + USB + AC).

When charging is not connected and only the main switch is turned on: sleep after 5 minutes.

- ② Any charging is connected (regardless of whether there is power), and it does not sleep.

- ③ USB <5W, DC <5W, AC <25W, three conditions are met at the same time, and sleep after a delay of 8 hours.

- ④ The self-consumption of whole machine is less than 5mA after shutting down all switch and sleeping;

- ⑤ Please open the upper cover and switch off the battery during transportation or it will not be used for a long time. Self-consumption after switching off is less than or equal to 200 $\mu$ A.

## ■ FAULT RESOLUTION

<b>Fault Code</b>	<b>Significance</b>	<b>Solutions</b>
E01	Battery Over-Voltage	Please disconnect the charging cable and stop charging
E02	Battery Under-Voltage	Please disconnect the output and charge the device
E03	Inverter Overheating	Please disconnect the output and wait 1-2 hours before operation
E04	Abnormal Input Voltage	Please disconnect the AC charging cable or Solar PV input cable
E05	Abnormal Grid Frequency	Please disconnect the charging cable
E06	Abnormal Output Voltage	Please disconnect the output and check the electric appliance
E07	AC/USB Output Short Circuit	Please disconnect the output and check the electric appliance
E08	DC Output Overload Short Circuit	Please disconnect the output
E09	Inverter Fault	Please contact customer service center
E16	AC Charging Overload	Please disconnect the output

## ■ TROUBLE SHOOTING

### The device does not discharge

- ① Check whether the connecting wire has been inserted in right place;
- ② Check whether the total output power exceeds the rated output power;
- ③ Check whether the temperature of the equipment is too high.

### The device is not charging

- ① Confirm that the AC socket on the wall and the AC charging cable are fully inserted into the AC input terminal;
- ② Confirm whether the battery pack wiring is in good condition and whether the switch of the battery pack is turned on;
- ③ The device cannot be charged immediately after it is discharged. Please put it aside for an hour and try again, because it may enter the over-temperature protection.

## ■ WARNING

Please avoid using the product near high temperatures, high humidity, direct sun environment, and fireplace. Excessive temperature will lead to reduced service life, overheating and fire. Extremely cold conditions below the specified storage range can also impair the performance and service life of the equipment. Please keep away from corrosive chemicals and gases.

Do not disassemble or modify this product; it will cause malfunction and fire.

Please discard or recycle the product according to the methods prescribed by local laws.

Be careful not to drop the product from a high place and give the product a strong impact.

Keep or use the product in a place out of the reach of children.

Please use our company's genuine accessories. The damage caused by non-genuine supplements cannot be repaired free of charge.

Please leave a space of about 30cm away from the side suction and exhaust ports not to affect the product's heat dissipation.

When not using this product, please turn off the power and unplug the power cord. Please avoid storing the product in a place exposed to direct sunlight with high temperature and humidity.

For long-term storage, please consume power from full power to no power once every three months and then recharge to about 50%. Keep it indoors, at normal temperature, and the maximum storage time shall not exceed 6 months. Please do not use this product and its accessory cables and connecting equipment when there is a defect.

Please do not store the product for a long time in highly high and low-temperature places such as in the car and the field warehouse to avoid shortening the battery life.

## ■ EQUIPMENT CLEANING

### Equipment Cleaning

Please make sure that the device is disconnected from all input power and output devices. Wipe with a clean, dry, non-soft cotton cloth. Remove all any foreign objects, dirt or other obstructions on the vents on both sides.

While cleaning foreign objects in the side vents, do not allow debris, dirt or other blockage to enters the equipment.

Do not use corrosive cleaners or solvents.

Do not use compressed air to clean the side cooling vents, as it will cause foreign particles to enter the interior and cause a short circuit.

Note: To avoid the risk of electric shock, do not use metal objects to clean the ports.

## ■ NOTE

A photovoltaic panel as input for charging the internal battery shall be provided with an inverter and/or a charge controller in accordance with UL 1741 or UL 62109-1; The external power supply shall be a power source in accordance with the Standard UL 60950-1 and CAN/CSA C22.2 No. 60950-1, or UL 1310 and No. 1, CAN/CSA C22.2 No. 223, or No.1, CAN/CSA C22.2 No. 223; A vehicle adapter that complies with the enclosure and input contacts requirements in the Standard for Vehicle Battery Adapters, UL 2089, and Power Supplies, CAN/CSA C22.2 No. 107.1. The connector plug shall incorporate a fuse or other protective device having a current rating not greater than 15 A.

INSTRUCTIONS PERTAINING TO RISK OF FIRE, ELECTRIC SHOCK, OR INJURY TO PERSONS.

### IMPORTANT SAFETY INSTRUCTIONS

1. WARNING – When using this product, basic precautions should always be followed, including the following:

- a) Read all the instructions before using the product.
- b) To reduce the risk of injury, close supervision is necessary when the product is used near children.
- c) Do not put fingers or hands into the product.
- d) Use of an attachment not recommended or sold by power pack manufacturer may result in a risk of fire, electric shock, or injury to persons.
- e) To reduce the risk of damage to the electric plug and cord, pull the plug rather than the cord when disconnecting the power pack.
- f) Do not use a battery pack or appliance that is damaged or modified.

Damaged or modified batteries may exhibit unpredictable behavior resulting in fire, explosion, or risk of injury.

g) Do not operate the power pack with a damaged cord or plug, or a damaged output cable.

h) Do not disassemble the power pack, take it to a qualified service person when service or repair is required. Incorrect reassembly may result in a risk of fire or electric shock.

i) To reduce the risk of electric shock, unplug the power pack from the outlet before attempting any instructed servicing.

j) **WARNING – RISK OF EXPLOSIVE GASES.**

1) To reduce the risk of battery explosion, follow these instructions and those published by the battery manufacturer and manufacturer of any equipment you intend to use in the vicinity of the battery. Review cautionary marking on these products and on engines.

k) **PERSONAL PRECAUTIONS**

1) Have plenty of fresh water and soap nearby in case battery acid contacts skin, clothing, or eyes.

2) Wear complete eye protection and clothing protection. Avoid touching eyes while working near the battery.

3) If battery acid contacts skin or clothing, wash immediately with soap and water. If acid enters the eye, immediately flood the eye with running cold water for at least 10 minutes and get medical attention immediately.

4) **NEVER** smoke or allow a spark or flame in the vicinity of the battery or engine.

5) Be extra cautious to reduce the risk of dropping a metal tool onto the battery. It might spark or short-circuit battery or other electrical parts that may cause an explosion.

l) When charging the internal battery, work in a well-ventilated area and do not restrict ventilation in any way.

m) Under abusive conditions, liquid may be ejected from the battery; avoid contact. If contact accidentally occurs, flush with water. If liquid contacts eyes, additionally seek medical help. Liquid ejected from the battery may cause irritation or burns.

n) Do not expose a power pack to fire or excessive temperature. Exposure to fire or temperature above 130°C may cause an explosion. The temperature of 130°C can be replaced by the temperature of 265°F.

o) Have servicing performed by a qualified repair person using only identical replacement parts. This will ensure that the safety of the product is maintained.

**SAVE THESE INSTRUCTIONS.**



## ■ DISPOSAL/RECYCLE

Do not place equipment and its accessories in the trash. Items must be properly disposed of following local regulations. See [www.epa.gov](http://www.epa.gov) for additional information.

## ■ WARRANTY

All GRECELL products come with a full 2-year limited warranty from the date of purchase (accessories excluded). It will be out of guarantee if damaged due to incorrect use or force majeure.

If you have any questions, please feel free to contact us:  
E-mail: [support@grecell.com](mailto:support@grecell.com)