USER MANUAL

PORTABLE POWER STATION

PS2400



DAKOTALITHIUM.COM

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PLAY HARDER.

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1 GENERAL SAFETY RULES

WARNING

1. Read this manual before using this product. Failure to follow the instructions and safety precautions in this manual can result in damage to the product or personal property, or serious injury or death. DO NOT use the product with incompatible components or alter the product in any way.

2. Improper use may result in fire, property damage, or personal injury. Make sure to use the product according to the following safety rules and guidelines.

3. Do not expose the product to any liquid or submerge in water. If the battery comes into contact with water, it may cause chemical decomposition of the battery. This may cause the battery to catch fire or explode.

- DO NOT disassemble, repair or modify the unit or the battery by yourself.
- DO NOT place the unit close to or in a fire or expose it to heat. Keep out of direct sunlight.
- DO NOT charge, use or store the unit in a bathroom or in an area exposed to rain or moisture.
- Only use the output socket to power external devices. Never connect the output to mains power under any circumstances.
- DO NOT touch the unit or the plug- in points if your hands are wet.
- DO NOT connect any metallic objects to the AC input or output.
- DO NOT rub your eyes if fluid from inside the unit should get in your eyes.
- DO NOT dispose of the unit together with household waste.
- DO NOT use any inappropriate power cords.
- If rust peculiar odors, overheating or other abnormal circumstances are observed, stop using the unit immediately and contact the dealer or our customer service center. The unit complies with all legal requirements for transport of dangerous goods.
- Only charge, use and store the unit within an ambient temperature of 0 to 40°C (32 ~104°"F).
- Switch the unit off immediately if it has accidentally fallen, was dropped or was exposed to vibrations.
- Once the unit is fully charged, unplug the adapter or charger. We are not liable for any damage caused by using different brand charging cables.
- Use of different cables will void the product's warranty and may cause damage or serious bodily injury.
- Use and store the unit only in a clean and dry environment. DO NOT use and store in a dusty and wet environment.
- Check the unit prior to every use. DO NOT use the unit if it is damaged or broken.
- DO NOT use the unit if the power cord is damaged or broken.
- Keep the unit away from children. DO NOT let children use the power supply unit.
- Keep this product away from pets.
- DO NOT use or store the unit in an area or environment with high temperature.
- Should fluid from inside of the unit come in contact with your skin or clothing, wash the affected areas with tap water.
- In a storm, unplug the power cord from the socket.
- DO NOT place the unit on its side or upside down while in use or storage.

2 PRODUCT SPECIFICATIONS

GENERAL PARAMETER

Battery Type	Lithium Iron Phosphate
Rated Capacity	51.2V, 40Ah / 2048Wh
Net Weight	About 25Kg
Product Size	430x300x280mm
Operating Temp.	-10 to 40°C
Charging Temp.	0 to 40°C
Storage Temp.	-20 to 45°C

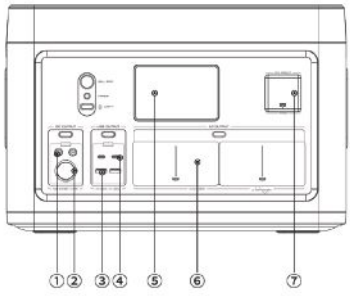
INPUT

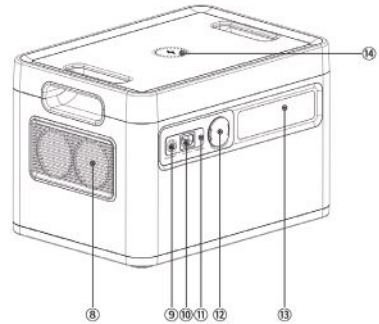
AC Charge Input Voltage	AC 100-130V
AC Charge Input Power	AC 1500W
Solar Charge Input	12-75V, 800W Max.
Car Charger DC	12V/24V, 192W Max.

OUTPUT

AC Output Voltage*4	120V/60Hz
Rated AC Power Output	2400W(4800W Peak)
Power Output after 2-in-Parallel	4800W
Output Waveform	Pure Sine Wave
UPS Switching Time	10 ms
Cigarette Lighter Socket Output	12V/10A
DC Output*2	12V/5A
USB-A Output*2	5V/3A,9V/2A,12V/1.5A 18W Max.
USB-C Output*2	5V/9V/12V/15V,3A ; 20V/5A 100W Max.
Wireless Charger	10W
LED Light	5W

3 INPUTS AND OUTLETS

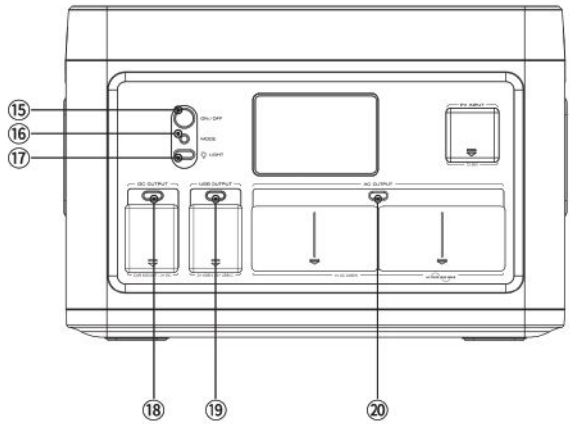




1. DC Output
2. Cigarette Lighter Socket Output
3. USB-A Output
4. USB-B Output
5. LCD Screen Display
6. AC Output 2400W X4
7. PV Input
8. Air Intake Vent with Cooling Fan
9. OLP Reset
10. AC Input
11. Earth Terminal
12. AC Parallel Interface
13. LED Light
14. Wireless Charger

Note: No User-serviceable Parts Inside.
Recommended to fully charge the PS2400 before use.

4 BUTTON FEATURES



14. Wireless Charger
Press "Power ON/OFF" Button to turn on the wireless charger. Press"Power ON/OFF" Button to shut down the output(s) when not in use.

15. Power ON/OFF
Press the button (15) to turn on or turn off the equipment.

16. Mode
Fast charge mode is on by default. Press the "Mode" button to switch to slow charge mode. The slow charge outputs one quarter of the maximum allowable power.

17. LED Light
The LED light will function whether or not that "Power ON/OFF" button has been activated. Press the button (17) to turn on the LED light. Then press it again, to turn the light off.

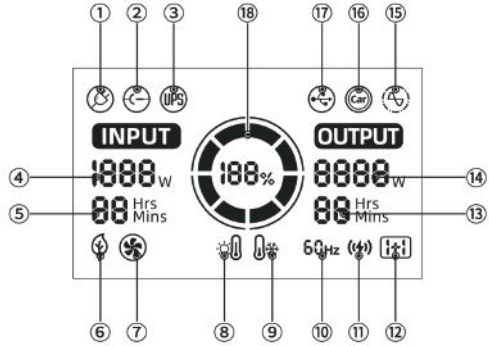
18. DC Output
Before pressing DC Output button (18) to turn on, please make sure the "Power ON/OFF" is ON first. To stop DC output, press (18) again.

19. USB Output
Before pressing the USB Output button (19) to turn-on, please make sure the "Power ON/OFF" is ON first. To stop USB output, press (19) again.

⚠ **Note:** All USB-C cables are different. If the USB-C port is not working, please try to use the AC adapter to charge.

20. AC Output
Before pressing the AC Output button (20) to turn on, please make sure the "Power ON/OFF" is ON first. To stop AC output, press (20) again.

5 LCD DISPLAY



1. **AC Input:** When the AC charging cable is inserted, this icon will be displayed on the LCD.

2. **DC Input:** When the DC/SOLAR charging cable is inserted, this icon will be 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 icon will be displayed on the LCD.

4. **Input Power:** When charging, the display shows "INPUT" and charging power in Watts.

5. **Input Time:** When charging, the display shows full remaining charge time.

6. **Quick Charge Switching:** When the AC charging mode is used, the icon will be displayed when the charging mode is switched to slow charge.

7. **Fan Start Cooling Status:** When the fan is running,this icon is displayed on the LCD.

8. **High Temperature Alarm:** When the inverter or battery pack temperature is too high, this icon will be displayed on the LCD.

9. **Low Temperature Alarm:** When the temperature of the inverter or battery pack is too low, this icon will be displayed on the LCD.

10. **AC Output Frequency:** When the AC switch is turned on, the display shows "output" and the icon.

11. **Wireless Charger:** When the wireless charge outputs, this icon will be displayed on the LCD.

12. **AC Parallel State:** When the AC output is synchronized, this icon will be displayed on the LCD.

13. **Output Time:** In the output state, the LCD screen displays the estimated remaining output time.

14. **Output Power**: Displays the total used power of DC output, USB-A, USB-C and AC output.

Note that this value will 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.

15. **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.

16. **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.

17. **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.

18. **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 updated dynamically.

LIST OF FAULT CODES

FAULT CODE	SIGNIFICANCE	SOLUTIONS
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 output short circuit	Please disconnect the output and check the electric appliance
E08	AC output overload	Please disconnect the output
E09	Inverter fault	Please contact Support@DakotaLithium.com
E16	AC charging overload	Please disconnect the output

NOTE: When the DC load is abnormal, the system will automatically turn off the output and will not show the fault code. Please disconnect the output and check the electrical equipment then try again. When the USB load is abnormal, the corresponding output power will be zero and the system will not show the fault code. Please disconnect the outputs and check the electrical equipment then try again.

6 OPERATING INSTRUCTION

RE-CHARGING

Use the original AC line to charge, the full charge time is about 1.8-2.5 hours. When charging, the LCD screen will be lit. The LCD display will provide the battery charging status in real time 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.

POWER OUTPUT ATTENTION

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

OVERLOAD CONDITION

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

DISCHARGING

Hold the “Power on/off” button for 1 second to turn on the device. Hold the “Power on/off” button for 3 seconds to turn off the device. The device uses an advanced battery management system that allows it to charge the connected device through AC or DC output or USB output.

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, 50 Hz or 60 Hz? Then hold the “Power on/off” button for 1 second 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: Hold the ‘Power on/off’ button for 3 seconds to power off(the LCD display screen will turn off).

Step 2: Hold the “AC on/off” button down for 1 second, while holding the first button down hold the “Power On/off” button for 1 second. Release both fingers and you will see the frequency.

OPERATING INSTRUCTION

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.

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, it will enter sleep mode after 5 minutes.

(2) If any charging is connected (regardless of whether there is power) it will not sleep.

(3) If the USB port is outputting <5W, DC<5W and AC<25W, it will enter sleep mode after a delay of 8 hours.

(4) The self-consumption of the whole machine is less than 5mA after shutting down all switches and entering sleep mode.

(5) Self-consumption after switching of the equipment is less than or equal to 200μA.

STORAGE

If it will be stored for more than 1 month and the maximum storage time shall not exceed 6 months, please charge it to at least 50% capacity and keep it indoors at a normal temperature. Please keep it away from direct sunlight. 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 gasses.

After taking it out of storage, perform a visual inspection to ensure that the appearance of the equipment and all accessories are normal. Check the vents on the intake and exhaust sides to make sure they are free of foreign objects.

7 WHAT IT POWERS?



Laptops (41.4Wh)
around
44 Recharges



32" TV (60W)
around
30 Hours



CPAP without heated
Humidifier (15W)
123 Hours



Go-Pro (5.9Wh)
around
314 Recharges



Floodlight (5W)
around
370 Hours



Powertools
around
20 Recharges



Mini Fridge (40W)
around
46 Hours



Deep Freezer
around
6 Hours



Household Ref.
around
15 Hours



DJI Drone (89.2Wh)
around
20 Recharges

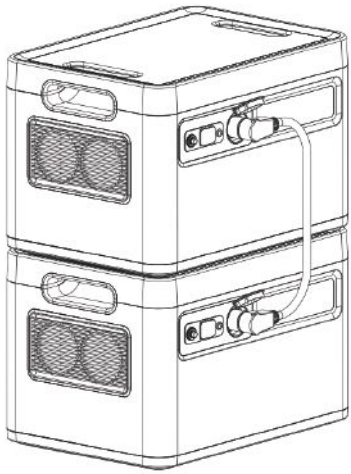


Smartphone (10Wh)
around
185 Recharges



Switch (16Wh)
around
115 Recharges

8 PARALLEL INTEGRATION USE



STEP 1: Turn off each AC output and then insert the paralleling line.

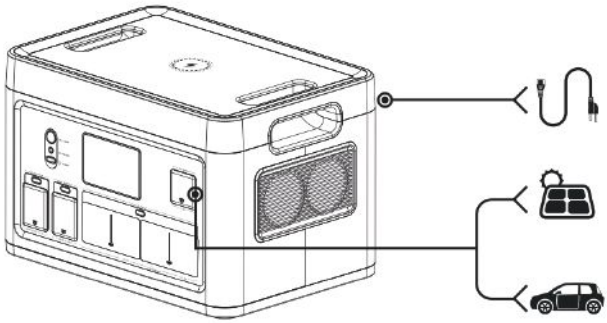
Step 2: Turn on each of the AC ON/OFF each Power Station.

Step 3: Insert and start the loaded equipment.

NOTE: This feature is only available for PS2400, which requires second PS2400 sold separately.

9 HOW TO CHARGE

RE-CHARGING TIME



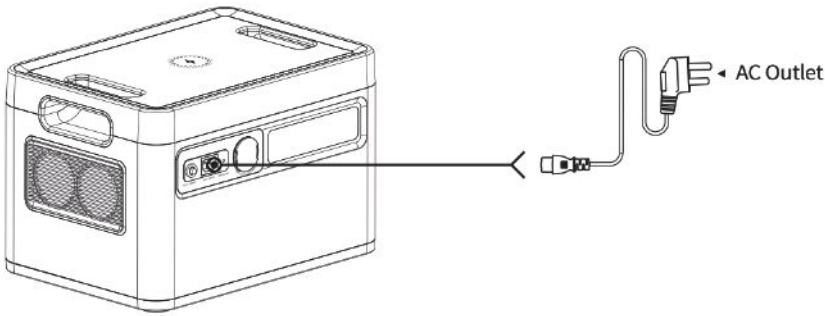
From AC socket charging
1.8-2.5 hours

From solar charging
800W 4-7 hours
Depending on solar conditions

From car port 12V
32-34hours

AC CHARGING

Use the AC charging cable we provided to charge the device. It takes 1.8 to 2.5 hours to full capacity. When the LCD shows that the battery power is 100% it means that the battery is fully charged and the input power will turn off after several minutes.

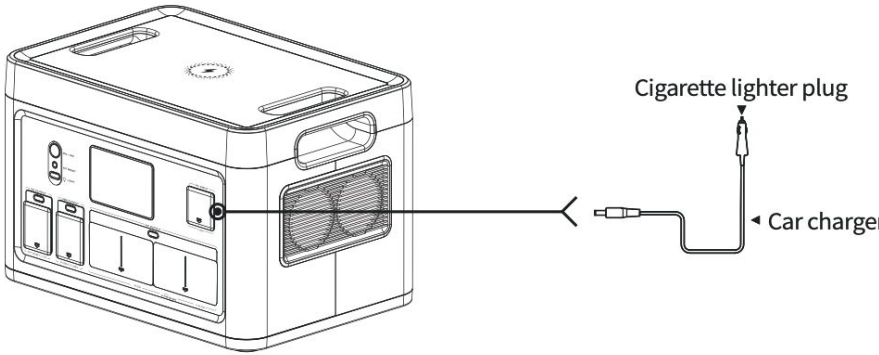


NOTE: If the AC output power is greater than 450W during charging, the charging current will decrease. When the device is charging, if the AC input current is more than 1500W, the device will be overloaded, a fault code "E016" will show on the LCD screen and, the output will be shut off after 10 seconds. Disconnect the output load then press the AC switch once to clear it

9 HOW TO CHARGE

12V CAR CHARGER

Use the provided car charger to charge. It will take 32 to 34 hours to fully charge. When the LCD shows that the battery power is 100%, it means that the battery is fully charged.

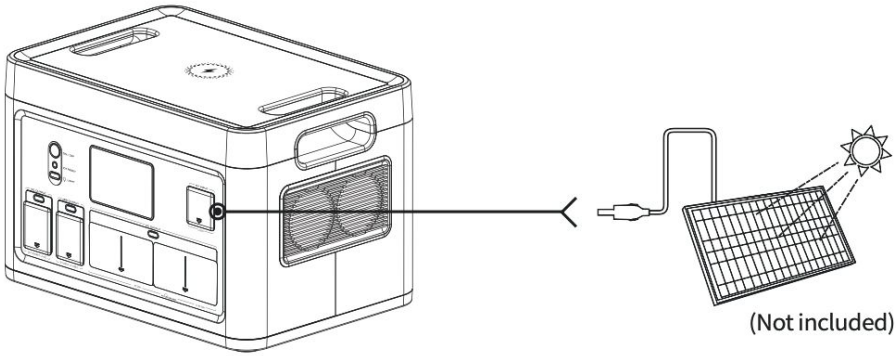


CAUTION: Do not charge the product with solar PV input and car port at the same time!

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.

Supports 100W/120W/150W/600W/800Wsolar panel charging, charging time will vary based on the sunlight intensity.



CAUTION:

1. Do not plug in power supplies with different voltages in both PV input ports at the same time!

2. You can hook up two solar panels to PV input ports when Power Stations are wired in parallel. Be sure to confirm that both solar panels have the same voltage specifications.

10 TROUBLESHOOTING

THE DEVICE DOES NOT DISCHARGE:

(1) Check whether the output buttons are activated;

(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 CANNOT BE CHARGED:

(1) Confirm that the wall plug power cord is inserted fully into the DC Input.

(2) If the device cannot be charged immediately after it is discharged, please wait for an hour and try again. It may be the over-temperature protection.

IN THE EVENT THAT THE UNIT CATCHES FIRE:

Never attempt to extinguish a fire if it is unsafe to do so. Contact your local fire department. If it is safe to do so use an Lithium appropriate fire extinguisher. Do not touch any hot or burnt components. Dispose of the unit only when safe to do so after the unit is extinguished and fully cooled.

GETTING THE BATTERY PACK WET.

Warning: Getting your battery pack wet could cause electric shock or other bodily harm. Never attempt to power on a wet battery pack.

(1) Surface Water: If your battery pack was lightly splashed with water, wipe the unit dry and allow it to fully dry For several hours before powering on.

(2) Water got inside: If water entered the battery pack, do not touch the battery pack and place it in a safe area until fully dry. Do not attempt to power the battery pack on and dispose of the battery pack in accordance with local laws.

(3) Battery fell into water: Do not attempt to retrieve the battery back and contact your local fire department for guidance. If the unit is retrieved from the water, do not touch the battery pack and place it in a safe area until fully dry and dispose of it properly in accordance with proper battery disposal.

11 CLEANING

Be sure that the product is disconnected from all input power sources and output devices. Use a clean, dry, lint-free cloth to wipe it down. Remove any debris, dirt, or other blockages on both side vents. When cleaning debris from the side vents, do not allow the debris, dirt or other blockages to enter the body of the product.

DO NOT use abrasive cleaners or solvents.

DO NOT use compressed air to clean side cooling vents, as this will force foreign particles into the internal circuitry.

To avoid the risk of electrical shock, DO NOT use metal objects to clean ports.

12 TRANSPORTATION & STORAGE

- Battery life may be reduced if not used for an extended period of time. Discharge the Power Station to 30% battery life, then charge to 85% every 3 months to prolong battery life.
- Store indoors, in cool temperatures, mild humidity, and away from direct sunlight
- DO NOT place the product near a heat source, such as a car in direct sunlight, a fire source, or a heating stove.
- Leaving in a vehicle or other confined spaces in extreme hot temperatures can lead to decreased service life, overheating, and fire. Extreme cold conditions below specific storage range can also harm the product performance and service life.
- Store the product in a dry environment. DO NOT place the product where it may contact water or high humidity. Keep away from corrosive chemicals and gasses.
- Make sure no small metal objects can fall on or around the product while in storage.
- Never transport a product with a battery power level higher than 30%.
- Never store the product in environments below -4° (-20°C) or above 113° (45°C).
- After removing it from storage, visually inspect it to ensure the product and all accessories look satisfactory. Review the intake and exhaust side vents to ensure they are clear of debris. Allow the product to return to ambient temperatures before recharging or charging other devices.

13 NOTICE

	NOT PERMITTED ON AIRCRAFTS
	TO PRESERVE THE BATTERY LIFESPANS, PLEASE USE AND RECHARGE AT LEAST ONCE EVERY 3 MONTHS
	USE ORIGINAL OR CERIFIED CHARGER AND CABLES
	AVOID EXTREME TEMPERATURE
	AVOID DROPPING
	DO NOT DISASSEMBLE
	IT'S NOT WATERPROOF,DO NOT EXPOSE TO LIQUIDS
	PLEASE DISPOSE OF BATTERIES AND ELECTRONIC GOODS IN ACCORDANCE WITH LOCAL REGULATIONS

14 MAINTENANCE

Recharge as needed. There are no pre-designated intervals at which to recharge as long as the product is being used regularly. Avoid discharging completely on a regular basis, as this can impact overall life. Regularly inspect all ports and wall charger for any debris, dirt, damage and corrosion.

DO NOT attempt to fix.

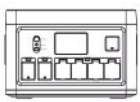
DO NOT cover the product with towels, clothing or other items. Regularly check if the side vents are collecting dirt or dust, and clean following cleaning procedures noted in manual.

15 RECYCLING

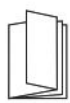
Dispose of the unit in hazardous material-specific recycling locations only after a complete discharge (if possible). Batteries contain hazardous chemicals. Strictly follow your local regulations regarding battery disposal and recycling. Dispose of the unit immediately if it cannot be powered on after over-discharging.

Always return your used electronic products, batteries and packaging materials to dedicated collection points to prevent uncontrolled waste disposal and promote the recycling of materials.

16 ACCESSORY LIST



Principal Machine



User Manual



AC Wall Plug Power Cable



MC4-Anderson Connector Cable



12V Car Anderson Cable



PS2400 Parallel Cable (optional accessory)

Recommend to use 120W/200W/300W/400W/600W/800W Solar Panels (not Included).

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LAST LONGER.
PLAY HARDER.

GO FURTHER. LAST LONGER. PLAY HARDER.



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