

## Ultra High Capacity 1000A 12/24V Lithium Jump Starter

## User Manual

## MAIN FEATURES

1. Intelligently detect voltage of your car battery.
2. Ultra high capacity jump starter
3. $12 \mathrm{~V} / 24 \mathrm{~V}$ compatible starting with automatic detection
4. USB charging outlet and light

## PRODUCT OVERVIEW


A. USB Output Port
B. Power Indicator Light
C. Master Button
D. 12V Indicator Light
E. 12V Forced Start Button
F. Charging Port
G. LED Flahslight
H. 24V Forced Start Button
J. 24 V Indicator Light

## NOTICE

1. DO NOT use this product to start a car when the product is still hot or when there is not enough charge left in the product. More than $75 \%$ of remaining battery is needed to start a 24 V vehicle and more than $50 \%$ is needed to start a 12 V vehicle.
2. Disconnect the battery clamp from the vehicle immediately after every starting attempt.
3. DO NOT use the jump starter to start the car in high frequency. Allow at least 30 seconds of resting time before jump starting a car again.
4. DO NOT charge the product immediately after use or while it is still hot. Make sure the temperature is between $0^{\circ} \mathrm{C}$ and $40^{\circ} \mathrm{C}$ when charging.
5. Please charge the jump starter at least once a month to maintain battery life.
6. DO NOT allow the metal teeth of the red clamp to touch the metal teeth of the black clamp.
7. Please keep this product away from children.
8. Please DO NOT disassemble this product.
9. Please store and charge the jump starter in a dry and well-ventilated place. Keep it away from corrosive, flammable and explosive materials.
10. DO NOT expose this product to extreme environment conditions where the temperature and humidity is high.
11. Never burn or incinerate this product because it may explode and generate toxic fumes and other potentially harmful chemicals.
12. Never insert foreign objects into any input or output ports, because it may cause a short circuit which will damage the battery and even cause fire and personal injury.

## INSTRUCTION

How to read the power indicator light:

1. Check the remaining power level. Press the master button to activate the lights.
There are 4 indicator lights in total to display the amount of battery power left. See the chart below to understand how the Number of lights and battery level corresponds.

| No. of <br> lights | 1 Light | 2 Lights | 3 Lights | 4 Lights |
| :---: | :---: | :---: | :---: | :---: |
| Battery | $25 \%$ | $50 \%$ | $75 \%$ | $100 \%$ |

2. Check the current charging status. The indicator light will flash one by one when the jump starter is being charged. A solid light means a fully charged battery level. For example, when 2 lights are illuminated and a third is blinking, that means the unit is between $50 \%-75 \%$ charged. Once the third light stops blinking the unit is $75 \%$ charged. The 4 indicator lights will be off when the jump starter is fully charged.

## How to read the voltage indicator light:

When the 12 V or 24 V indicator light is on, you could start the engine. When the 12 V and/or 24 V light(s) flash(es), you need to decide the voltage of your car battery manually and force start the engine. For more details, please refer to the following chart.

| Voltage | Voltage <br> Indicator Light | Output | Meaning |
| :---: | :---: | :---: | :---: |
| $\mathrm{Vb} \leq 4.5 \mathrm{~V}$ | 122 V indicator <br> light flashes | No | The voltage of <br> 12 V battery is <br> too low |
| $4.5 \mathrm{~V} \leq \mathrm{Vb} \leq \mathrm{V}$ | 12 V indicator <br> light is on | 12 V | You can start <br> the engine now |
| $\mathrm{V} \leq \mathrm{Vb} \leq 13.5 \mathrm{~V}$ | 12 V indicator <br> light is on | No | The 12V vehicle <br> can start by <br> itself |
| $13.5 \mathrm{~V} \leq \mathrm{Vb} \leq 14.5 \mathrm{~V}$ | 12 V and 24 V <br> indicator light <br> flash alternately | No | Blind area-It <br> cannot identify <br> the voltage of <br> vehicle's battery |
| $14.5 \mathrm{~V} \leq \mathrm{Vb} \leq 16 \mathrm{~V}$ | 24 V indicator <br> light flashes | No | The voltage of <br> 24 V battery is <br> too low |
| $16 \mathrm{~V} \leq \mathrm{Vb} \leq \mathrm{V} * 2$ | 24 V indicator <br> light is on | 24 V | You can start <br> the engine <br> now |
| $\mathrm{V} * 2 \leq \mathrm{Vb}$ | 24 V indicator <br> light is on | No | The 24 V <br> vehicle can <br> start by itself |

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## How to charge the jump starter:

Both the power charger adapter and the car charger can charge the jump starter.

Charge with Adapter:

1. Insert the adapter into the household socket.
2. Insert the other end into the input port of the jump starter.

Charge with the Car Charger:

1. Plug the car charger into the 12 V cigarette lighter on your vehicle.
2. Insert the other end into the input port of the jump starter.

## NOTE:

DO NOT use the car charger with a 24 V system. It can start a 24 V system but cannot charge from one.
Failure to fully charge this product may be caused by prolonged storage. Battery capacity could be restored by fully discharging this product using the USB output port and then fully charging it. Repeat this discharge/charge cycle several times.


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## How to charge an electronic device:

1. Use the USB cable to connect the jump starter and your device.
Turn on the jump starter by pressing the master button. Power indicator lights will show the battery level of the jump starter. The Power indicator lights will turn off by themselves after 5 seconds of inactivity. To check the indicator lights again, you need to press the master button.

## How to use the LED flashlight:

1. Double-click the master button to turn on the flashlight.
2. Single-click the button to change the flashlight mode in sequence: Strong $>$ Strobe $>$ SOS $>$ Off.

How to start a $\mathbf{1 2 V} / \mathbf{2 4 V}$ vehicle:

1. Check the remaining power. Make sure that the residual capacity of the jump starter is more than $75 \%$ when you are going to start a 24 V vehicle, or more than $50 \%$ when you are going to start a 12 V vehicle.
2. Connect the red clamp to the positive polarity(+) of the car battery and black clamp to the negative one(-). If 12 V or 24 V indicator light is solidly on, you can move on to step 3 . If 12 V and/or 24 V light(s) flash(es), follow the guidance in the 'Manual Force Start' section.
3. Start the engine.
4. Remove the clamps from the car battery immediately after use.


## (3) <br>  <br> START



## Manual Force Start

NOTE: There is no short circuit protection under manual force start mode. Please make sure that the battery clamps are connected correctly.

1. Disconnect the clamps from the battery of your vehicle.
2. Confirm the voltage of your vehicle.
1) If the voltage of your vehicle is 12 V , you need to hold the FORCED START 12V button for 5 seconds. The 12 V indicator light will be on. The jump starter would now supply 12 V output.
2) If the voltage of your vehicle is 24 V , you need to hold the FORCED START 24 V button for 5 seconds. The 24 V indicator light will be on. The jump starter would now supply 24 V output.
Move on to the next step within 45 seconds. Otherwise, the jump starter will cut off the output automatically.

3. Connect the red clamp to the positive polarity (+) of the car battery and the black clamp to the negative one (-).
4. Start the engine.
5. Remove the clamps from the battery of your vehicle. The 12 V and 24 V indicator lights will keep flashing until the clamps are removed.
6. $12 \mathrm{~V} / 24 \mathrm{~V}$ Short Circuit Protection

| Short-circuit situations | Effects | Short <br> circuit <br> protection |
| :--- | :---: | :---: |
| Short-circuit the red and black <br> clamps when the jump starter <br> is off. |  |  |
| Short-circuit the red and <br> black clamps when the power <br> indicator light is on. |  |  |
| Short-circuit the red and black <br> clamps when LED flashlight <br> is on. | No Effects |  |
| Short-circuit the red and <br> black clamps when you are <br> using the USB port to charge <br> electronic devices. | Yes |  |
| Short-circuit the red and black <br> clamps before holding FORCE <br> START 12V/24V button. <br> 12V/24V indicator lights flash <br> alternatively. | After several <br> seconds, <br> the jump starter <br> would turn off <br> by itself. |  |
| Short-circuit the red and black <br> clamps after you have pressed <br> the FORCE START 12V/24V <br> button. | Warning! |  |

## When would short circuit happen:

- When the teeth of the red clamp are connected to the teeth of the black clamp.
- When the red and black clamps are reversely connected to the polarities of the car battery.
- When the clamps are loosely connected to the car battery.


## 2. USB Output Short Circuit Protection

If the USB output port is shorted, all four power indicator lights will flash. The jump starter will cut off the output and built-in buzzer will beep. After 3 seconds, buzzer will stop beeping and the jump starter will turn off by itself. This may be caused by abnormal/damaged cables or charging devices. Identify where the problem comes from and rectify it before turning on the jump starter again.

## 3. USB Over-current Protection

If USB port supplies excessive current, all four power indicator lights will flash. The jump starter will cut off the output and built-in buzzer will beep. After 3 seconds, buzzer will stop beeping and the jump starter will turn off by itself. This may be caused by abnormal/damaged cables or charging devices. Identify where the problem comes from and rectify it before turning on the jump starter again.

## 4. Over Temperature Protection

A. If the temperature of the jump starter's battery exceeds $55^{\circ} \mathrm{C}$ while it is being charged, over temperature protection will be activated. The charging will stop, however, the power indicator light will be on, indicating the jump starter is being charged.
B. If the temperature of the jump starter's battery exceeds $55^{\circ} \mathrm{C}$ when it is being used, over temperature protection will be activated. The red power indicator light will flash and the built-in buzzer will beep. 3 seconds later, buzzer would stop beeping.

## 5. Built-in Software Under-Voltage and Over-Voltage Protection

A. Built-in software under-voltage protection: If the voltage of the battery cell is less than 3.1 V , the output will be cut off. Please recharge the jump starter.
B. Built-in software over-voltage protection: If the voltage of the battery cell exceeds 4.17 V while charging, the charging will be stopped. Please disconnect the adapter from the jump starter.

## 6. Other protections/problems \& corresponding indicator lights

A. Low voltage protection: Red power indicator light flashes.
B. Reverse charging protection: $12 \mathrm{~V} / 24 \mathrm{~V}$ indicator light flashes after starting a vehicle.
C. Poor contact while charging: $12 \mathrm{~V} / 24 \mathrm{~V}$ indicator lights flashes when the adapter is plugged into a socket. You may need to adjust the tip inside DC plug and re-connect the adapter with the socket.
D. Reverse Polarity Protection: $12 \mathrm{~V} / 24 \mathrm{~V}$ indicator lights flash alternatively. The built-in buzzer would keep beeping until the clamps are connected correctly.

## SPECIFICATIONS

| Power Input: | 15V @ 2A |
| :--- | :--- |
| Battery Type: | Lithium Polymer |
| Battery Capacity: | $22,200 \mathrm{mAh} / 88.8 \mathrm{~Wh}$ |
| USB Output: | 5 V @ 2.4 A |
| Start Current: | $12 \mathrm{~V} 500 \mathrm{~A} / 24 \mathrm{~V} 250 \mathrm{~A}$ |
| Peak Current: | $12 \mathrm{~V} \mathrm{1000A/24V500A}$ |
| Operating Temperature: 0 to $60^{\circ} \mathrm{C}$ |  |
| Battery Lifespan: | $>1000$ charge and discharge |
|  | cycles |
| Dimensions: | $269(\mathrm{~W}) \times 241$ (H) $\times 129$ (D)mm |
| Weight: | 2.7 kg |

## BOX CONTENTS

1 x Ultra High Capacity Jump Starter
$1 \times$ Mains Charger
$1 \times$ Car Charger
$1 \times$ Hang-Hook
1 x User Manual


[^0]:    V - the voltage of jump starter; Vb - the voltage of vehicle's battery

