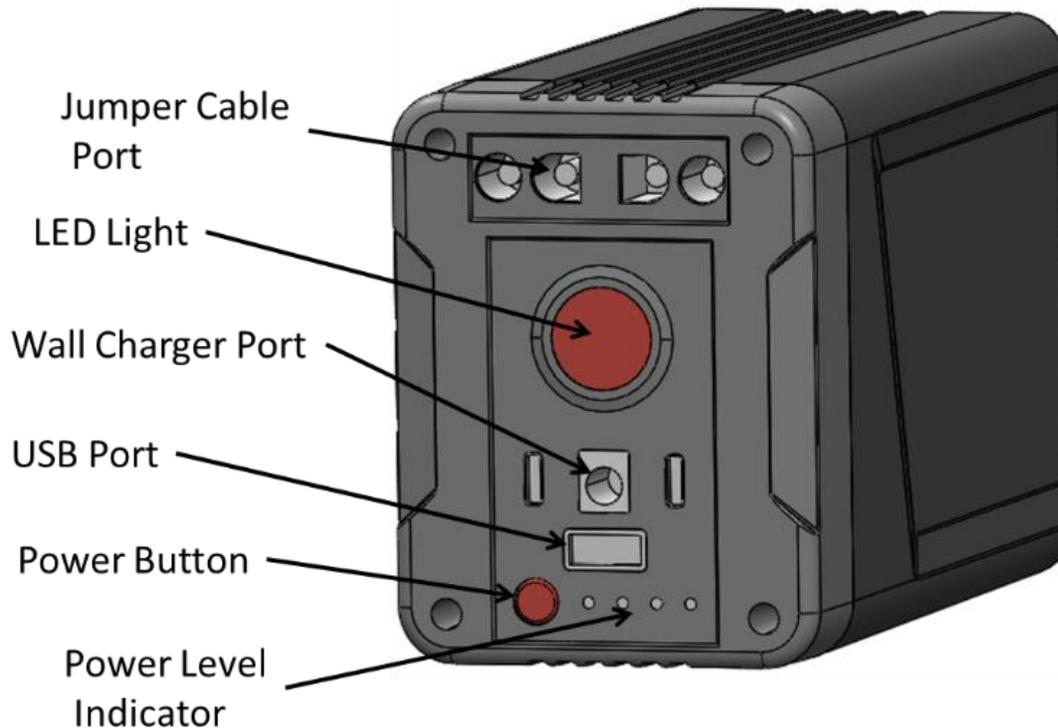# Jump Pack User's Manual

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Overview

Thank you for purchasing the EarthX Jump Pack. Please follow all the use and safety instructions.
Fully charge the unit prior to its first use. Press the power button to check the state of charge (power level).
One LED (red) indicates low charge, 2 indicates 50%, 3 indicates 75% and four LEDs indicates 100%).

Other features include:
- (1) USB 5V/2.1A & (2) USB-C Ports
- High intensity LED flashlight
- Charge level indicator LEDs
- Once charged, will hold charge level for up to a year
- Unique rubber coating on the outside for ease of holding
- Built in electronics to protect the battery
- Short circuit protection
- 2-year warranty

What's included:
- Power pack
- (1) 12V & (1) 24V adapter cables
- (1) Jumper cables
- Wall charger (100-240VAC 50/60Hz)
- Carrying case

Operating Instructions

⚠️ **Failure to follow these instructions may result in damage to the device!**

JUMP STARTING
1. Select the appropriate adapter cable (12 volt or 24 volt)
2. Connect the adapter cable to the Jump Pack. Both blue (EC5) connectors must be plugged into the EC5 sockets on the Jump Pack. Note: either connector can be plugged into either socket.
3. Connect the red jumper cable clamp to the positive post of the vehicle battery.
4. Connect the black jumper cable clamp to the negative post of the vehicle battery or chassis ground (if battery negative is connected to chassis ground).
5. Plug the jumper cable into the adapter cables (connector only fits one way)
6. Start the vehicle (engine cranking should be limited to 10 seconds of cranking in any 1-minute period)
7. Disconnect negative clamp, then positive clamp after vehicle starts (recharge the Jump Pack after use)

USB Port for Charging/Powering Electronic Devices
Press the On/Off button for 1< second, the charge level indicator should light-up which is an indication the USB port is on. The unit will automatically shut-off after a few minutes of non-use.

LED Flashlight
Press the On/Off button for 3 seconds to turn on/off the flashlight.

CHARGING
First, connect the 100-240VAC Plug-in Charger to outlet, then connect the 5mm round charge plug to the port on the Jump Pack, the charge level indicator light should start to cycle which is an indication the unit is charging. When all the indicator lights remain on, the unit is fully charged.

Specifications

Model: ETX-JMP12-24

12 Volt Peak "Boost Amps"	800A
24 Volt Peak "Boost Amps"	400A
Battery Capacity mAh/Wh	7800mAh/99Wh
USB Output (1 standard USB/ 2 USB-C)	5V @ 2.1A
Wall Charger Output	2A @ 15V
Max Recharge Time	2-3 hours
Weight (complete kit)	4 lb. (1.8Kg)
Weight (complete with carrying case)	2.4 lb. (1.09Kg)
Dimensions (power pack only)	6.25in (L) x 2.75in (W) x 3.75in (H) / 160 x 95mm

Dimensions (complete with carrying case)	11in (L) x 7in (W) x 3.5in (H)
Environmental Rating (with case)	IP 52 (dust and dripping water)
Operating Temperature	-30°C to +60°C
Storage Temperature	-40°C to +70°C

⚠ **Never jump start a faulty battery (a battery that will not accept a charge or hold a charge).**

⚠ **Do not short circuit; ensure positive cable clamp does not touch negative clamp or any metal part of the vehicle.**

⚠ **If the battery gets hot while charging or use, discontinue charging and use. Maximum operating range is -20 Deg C to 60 Deg C**

⚠ **Do not charge battery in temperatures above 140 degrees F (60C), or in direct sunlight.**

⚠ **When charging a battery, place it on a non-flammable surface, and remove any flammable items nearby.**

⚠ **Do not incinerate or expose to open flames!**

⚠ **Do not get wet or use in wet conditions or in presence of flammable liquids or gases!**

FAQs

Despite the simplicity of operation, you may encounter situations where the Jump Pack does not operate as expected. Here are some potential issues you may encounter with the appropriate troubleshooting procedures.

Q.
How to turn on the USB port?
A.
The Jump Pack needs to be "turned on" for the USB port to operate. To turn on the Jump Pack press the power on button for one second and verify the charge level indicator lights are lit. The Jump Pack (USB port) will shut-off automatically after a few minutes of no use.
Q.
How many times can the Jump Pack charge my phone before needing to recharge the Jump Pack (i.e. iPhone 12)?
A.
>8 times
Q.
How many times can the Jump Pack, jump start, a vehicle before needing to be recharged?
A.

This depends on many factors like the vehicle's battery condition, the vehicles' required cranking amps, and the size of the vehicle battery. For powersport vehicles it could be more than 20 times, whereas a truck with a drained 100Ah battery maybe only 5 times.

Q.
How long does the Jump Pack retain a charge when in storage?
A.
It can retain a charge for more than one year, but it is recommended that it be recharged every 6 months.

Q.
I was not able to successfully jump start my vehicle?
A.
In some cases a lead acid battery may have an internal short and it can't be jump started. In other rare cases short may blow the fuse on the jumper cable clamps. To check the fuse, use a voltmeter to verify there is voltage at the clamps (>13 volts).

Q.
Do I have to disconnect the Jump Pack immediately after starting?
A.
The EarthX Jump Pack is LiFePO4 with the same charging voltage as the main aircraft battery (charges up to 14.5V). As such, you can leave the Jump Pack connected after a start, but it is not recommended to do this as a normal practice.

Regulations

The ETX Lithium battery was tested to the following safety regulations as outlined in:

- IEC 61960:2011
- CE-EU consumer safety, health, and environmental regulations.
- UN 38.3

These standards set the level of safety required for lithium batteries. The standard addresses normal and abnormal operating conditions.

Lithium batteries have special requirements for transportation (shipping) per UN 38.3 and Title (part) 49 of the Code of Federal Regulations or CFR's. Title 49 CFR Sections 100-185 of the U.S. Hazardous Materials Regulations (HMR).

Terminology

The following table describes the terminology used in this document.

Ah	Amp-Hour is a unit of measure of charge that can be stored in a battery.
BMS	The Battery Management System refers to the electronics responsible for monitoring and controlling the cell charge level, and over charge protection.
Wh	Watt-Hour is a unit of measure of charge that can be stored in a battery.
IEC	International Electro technical Commission on safety standards.