



Lion Summit™

User Manual

665 Watt Hours (Wh) / 530 Watts (W)
Lithium Iron Phosphate Solar Generator





READ THIS MANUAL IN ITS ENTIRETY BEFORE OPERATING THE LION SUMMIT.

The Lion Summit provides safe, silent, and renewable electric power. The Lion Summit is useful in emergencies, and for work and play. It is very important to read the entire user manual before using the product.

Carefully read and strictly follow these safety rules:

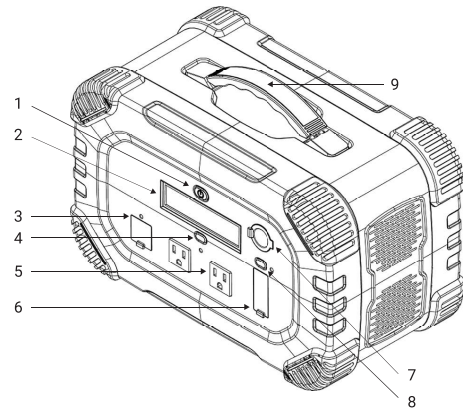
- For better performance, fully charge the Lion Summit before using it.
- Do not insert fingers or hands into any of the Lion Summit's outlets.
- Only use the recommended Lion Energy™ accessories.
- Do not use the Lion Summit if the cables or charging adapters show signs of damage.
- Never try to alter the Lion Summit, cables, or accessories.
- Do not allow water to contact the Lion Summit or immerse it in water.
- Do not run the Lion Summit in the presence of flammable liquids, gases, or excess dust.
- Do not expose or store the Lion Summit to excessive heat (above 115° F).
- Do not leave the Lion Summit out in direct sunlight in higher temperatures.
- Store the Lion Summit at temperatures from 14° to 115° F (ideally, 32°-86° F)
- Charge at temperatures ranging from 32° to 115° F.
- Never charge a frozen Lion Summit. Let it warm up above freezing before charging.
- Never leave the Lion Summit unattended while charging.

Package Contents

Lion Summit: 1 pc
DC Charging Cable: 1 pc
Wall Charger Adapter (150W): 1 pc

Parts Identification

ENGLISH



Part	Description
1	Main Power Switch Turns the Lion Summit display on or off by pressing and holding for several seconds
2	LCD Screen Displays charge / discharge time at the interval of 0.1 hours. 10 bars = fully charged
3	Input Charging Port Where the solar, auto, and wall charger are plugged in to charge the Lion Summit
4	AC Output ON / OFF Button Turns the AC ports on or off
5	AC Output Outlet Supplies AC output from the outlet
6	USB-A, USB-C and USB-PD Output Charges USB Device
7	12V Output Socket Supplies DC power from the socket
8	DC Output ON / OFF Button Turns the DC ports on or off
9	Carry Handle Used to carry the Lion Summit

How to Use the Lion Summit

Follow these steps to turn the Lion Summit on or off:

1. Press and hold the Main Power Switch for 1-2 seconds to turn the Lion Summit on. The display will light up.
2. Press the DC or AC power button to turn the ports / outlets on and the Lion Summit will supply power to the DC or AC outlet.

When you stop using energy from any port, outlet or socket, turn off the corresponding on / off button to conserve energy in the Lion Summit.

How to charge the Lion Summit

There are several ways to charge the Lion Summit:

- **Charge from a wall outlet:** Insert the Anderson™ compatible connector* into the input port of the Lion Summit (red to red and black to black connection). Plug the other end of the wall charger into a wall outlet.
- **Charge from our 12V 100W solar panel:** Insert the Anderson™ compatible end of the longer cord from the back of the solar panel to the input port on the front of the Lion Summit (red to red and black to black connection). The solar panel needs to be outside in direct sunlight.
- **Charge from our 12V 50W foldable solar panel:** (The 50W panel has a barrel cord connection, but it includes an Anderson™ compatible adapter.) Attach the adapter to the barrel connector on the solar panel cord and then place the Anderson™ compatible end into the input port on the front of the Lion Summit (red to red and black to black). The solar panel needs to be outside in direct sunlight.
- **Optional – You can also attach one (or more) of our Anderson™ compatible 25' extension cables between the solar panel and the Lion Summit.** The end of the cable with the attached warning / white label needs to connect to the solar panel / solar panel cord. The other end goes into the input port on the Lion Summit.
- **Charge from a vehicle's 12V socket:** Insert the Anderson™ compatible connector (red / black) end of the 12V cable into the Input port on the Lion Summit. Plug the 12V end of the cable into the 12V socket in the vehicle. The vehicle must be running for the 12V to charge the Lion Summit.

*Anderson™ is a registered trademark of Anderson Power Products.

Frequently Asked Questions

Q: What devices can the Lion Summit power?

A: The Lion Summit can power various things like lights, cell phones, laptops and more. The energy consumption of each device is measured in watts. The Lion Summit can power devices that need a total of 530W or less. It can power multiple devices at the same time if the total power usage for all the devices combined is 530W or less.

Q: How long will the Lion Summit last or run / power a device?

A: It depends on the energy consumption or watt usage of the device; the lower the device's wattage, the longer the Lion Summit can power it. To estimate how long the Lion Summit could power a specific device, use this formula: Watt Hours / Watts = Estimated Run Time. For instance, if the device you want to power uses 45W and the Lion Summit has a 665Wh capacity, then the estimated run time would be: 665Wh divided by 45W = 14.78 hours.

Q: Is the DC 12V socket regulated?

A: The Lion Summit does not have a regulated 12V DC output. However, since this model uses LiFePO4, instead of NMC, this gives a more stable and consistent 12.8V output.

Q: What if I forget to turn off the Lion Summit after I use it?

A: The Lion Summit will automatically turn itself off to conserve energy if there is nothing plugged in / drawing energy.

Q: Do I have to use Lion Energy solar panels?

A: You can use other 12V solar panels with the Lion Summit. However, if the panels do not have an Anderson™ compatible connection on the solar panel cable, you will need to find and buy an adapter with an Anderson™ connector.

Q: How many solar panels can I connect to the Lion Summit, so it charges more quickly?

A: The Lion Summit's MPPT solar charge controller is rated for 150W of solar energy. If using multiple solar panels, we recommend using 12V panels with the same wattage (100W+100W or 50W+50W+50W, not 100W+50W).

Troubleshooting

Q: What if I can't power my AC or DC devices after I turn on the Lion Summit?

A: Make sure the AC or DC on / off button is turned on. Remember, devices that require more than 530W cannot be powered by the Lion Summit.

Q: Why can't I turn my Lion Summit on?

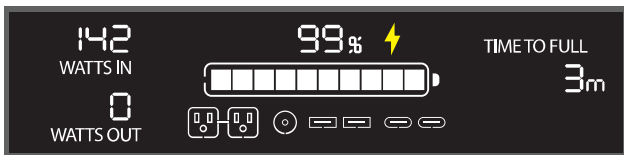
A: If you have not used the Lion Summit for some time, you may need to recharge the Lion Summit before you can use it.

Q: The wall charger gets hot while charging the Lion Summit. Is anything wrong?

A: The wall charger for the Lion Summit is safety certified. The charger may get warm, this is normal. Please have the charger in the open air and not under anything like blankets or clothes.

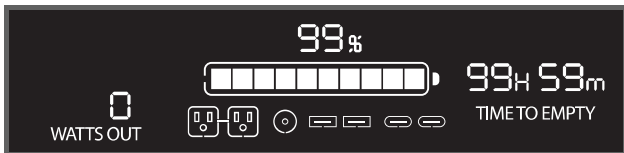
Q: What does the Lion Summit display normally show when the Lion Summit is charging?

A: When charging the Lion Summit using DC or AC or with solar panels in strong direct sunlight, the display can show the following information:



Q: What does the Lion Summit display show while being charged with little or weak sunlight?

A: When you charge the Lion Summit with a solar panel under very weak sunlight, the display may show:

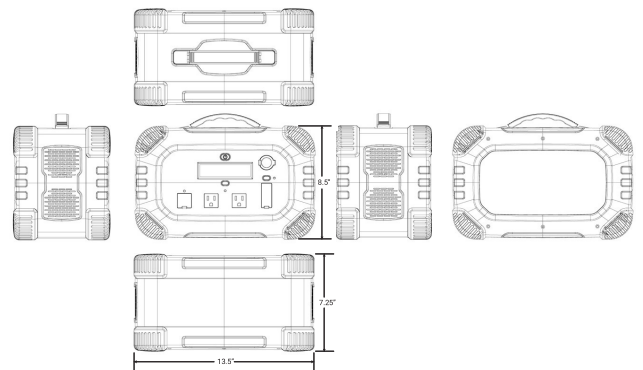


When solar power is too weak to charge the Lion Summit, the display will not show any watts in. Cloudy days, shade and sunlight through a window provides too low of input, this is normal. You may need to charge in stronger sunlight or by AC or DC power.

Battery Safety

The Lion Summit includes over-voltage, low-voltage, overload, short-circuit, and over-temperature protections. It also has built-in visual and audio alarms. For instance, the Lion Summit will chirp and have a blinking red light on the screen if a device that uses too much power, is plugged in, or if the Lion Summit becomes too hot and needs to cool down. Waiting and / or shutting the Lion Summit off and back on will resolve most errors. The overload circuitry protects against damage to the Lion Summit and also serves as a safety measure for anyone using the Lion Summit.

Mechanical Design (inches)



Charging Method	Charging Time
50W Solar Panel	Charging time depends on the directness and brightness of sunlight, usually 8-12 hours
100W Solar Panel	Charging time depends on the directness and brightness of sunlight, usually 4-6 hours
Wall Charger	4-5 Hours
12V DC Socket	4.5-7 Hours

Technical Specifications

AC Charging Input Voltage

1	Input Voltage Range	100 ~ 240V
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Solar Charging Input

1	Input Voltage Range	13 ~ 22V
2	Max Input Current	10A
3	Input Wattage	150W

2x USB-A Output

1	Output Voltage	5V
2	Output Current	2.4A (Max)
3	Output Overcurrent Protection	2.7A
4	Output Short Circuit Protection and Disconnection Load Recovery	YES

2x USB-C Output (QC3.0 and PD)

1	Output Voltage Range	5V / 9V / 12V / 15V / 20V
2	Output Current	3A / 3A / 3A / 3A / 3A
3	Output Overcurrent Protection	3A
4	Output Short Circuit Protection and Disconnection Load Recovery	YES

12V Socket

1	Max Output	12V, 10A
2	DC Output Short Circuit Protection	Yes (Disconnect load recovery)
3	DC Output Overcurrent Protection	Yes (Disconnect load recovery)

Technical Specifications

ENGLISH

Battery Type

1	Lithium Iron Phosphate	LiFePO4
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Inverter Power Supply

1	Rated Output Voltage / Frequency	120V AC 60Hz
2	Rated Output Power	530W Continuous
3	Inverter Efficiency	90%
4	Output Wave	Pure Sine Wave

Environment

1	Working Temperature	32°F - 104°F
2	Storage Temperature	Room Temperature (14°F - 113°F)
3	Cooling Method	Active (Powered Fans)

Weight

1	Weight	18 LBS
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Connectivity

1	Bluetooth	Visit - myapp.LionEnergy.com
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Maintenance Instructions

- Charge the Lion Summit after each use to ensure you have power whenever needed.
- Never completely discharge the Lion Summit to help maintain battery lifespan
- Use a dry cloth to wipe away any dirt or other debris from the Lion Summit's surface and battery cords.
- Do not open the Lion Summit as there are no user-serviceable parts. Any servicing should be performed by Lion Energy personnel.

Storage Instructions

- Charge the Lion Summit to full capacity before storing it.
- Store this Lion Summit at room temperature.
- For best results, use and recharge at least once every 6 months. This helps maintain the Lion Summit's battery lifespan.

Recycling

This item contains a lithium iron phosphate battery, please recycle properly.

Copyright

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Lion Energy reserves all rights to make technical modifications without advance notice, and to improve machine and safety standards.

This manual is for the purpose of supplying information, specifications, and usage instructions. All statements, information, and suggestions within this manual do not constitute any express or implied warranty.

Warranty Claims

For warranty issues, contact Customer Service at 1-385-375-8191. Do not ship your Lion Summit until you receive a return merchandise authorization (RMA) number. Lion Energy will not be responsible for any shipping or handling damage. Often, replacements are not sent until the original Lion Summit is en-route to our warehouse.

Limited Warranty

This Lion Summit comes with a one-year limited warranty from defects in materials and workmanship. Save your proof of purchase, such as a dated receipt, to show warranty period. Without a dated receipt, we will use the manufacturing dated code. Lion Energy will repair or replace the Lion Summit at their discretion.

This warranty is invalidated if any of the following occurs, but not limited to:

- Failure to follow the instructions in the User's Manual.
- Accidental or unreasonable use, misuse or mishandling.
- Overcharging or overloading.
- Extended storage without recharging.
- Repairs by an unauthorized person or any modification.

This warranty is in lieu of other expressed warranties. Lion Energy will not be liable for consequential or incidental damages. Changes or modifications not expressly approved by Lion Energy could void the user's authority to run the Lion Summit.

NOTE: The Lion Summit has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. Operation is subject to the following two conditions:

(1) The Lion Summit may cause harmful interference, and (2) the Lion Summit must accept any interference received, including interference that may cause undesired operation. These limits are designed to supply reasonable protection against harmful interference in a residential installation. The Lion Summit generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If the Lion Summit does cause harmful interference to radio or television reception, which can be decided by turning the Lion Summit off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the Lion Summit and receiver.
- Connect the Lion Summit into an outlet on a circuit different from that of the receiver.
- Consult the dealer or an experienced radio / TV technician for help.

Service Address

Lion Energy
735 S. Auto Mall Drive Suite 200
American Fork, UT 84003

Website: www.LionEnergy.com
Email: info@lionenergy.com
Telephone: 1-385-375-8191



LIONENERGY™

Warranty Information

Serial Number: _____

Purchase Date: _____



385.375.8191
Monday - Friday
9:00 AM - 5:00 PM MST



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Suite 200
American Fork, UT 84003



info@lionenergy.com
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Energy Independence