



# Lion Adventure

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## User Manual

12.8V / 100Ah Lithium Iron Phosphate Battery



# WELCOME TO THE PRIDE



The Lion Energy journey began in 2001. We wanted to help people prepare for potential emergencies and become energy independent. We offered resources in food, water, lights, and power. Then, in 2014, our passion for portable power ignited. We wanted to offer the safest, most reliable, silent portable power products that could be powered with clean, renewable energy - products that are good for people and good for the environment!

Our products are high quality lithium battery-based solutions for everyday living. They range from hand-held power banks and portable solar generators to auxiliary power batteries for RVs, trailers, and trolling motors all the way up to residential and commercial energy storage. We want to help you become energy independent with the power to live life on your terms.

As we forge ahead, the foundations of customer service, safety, reliability, and innovative renewability remain central to our company. We are committed to a continued focus on providing the best emergency preparedness power, portable solar power, residential, and commercial storage power.

The Lion Adventure is the latest in our lithium battery technology, powered by the safest lithium chemical composition – lithium iron phosphate (LiFePO<sub>4</sub>). It replaces traditional deep cycle lead acid batteries with batteries that are safe, powerful, longer lasting, and maintenance free!

*For the latest information go to [www.lionenergy.com](http://www.lionenergy.com)*



# READ THIS MANUAL COMPLETELY BEFORE OPERATING THE LION ADVENTURE

## Safety Guidelines / Warnings

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

### Carefully read and follow these safety guidelines:

1. For better performance, fully charge the Lion Adventure before using it.
2. Do not put foreign objects into any of the Lion Adventure's outlets.
3. We recommended Lion Energy™ accessories for best performance.
4. Do not use the Lion Adventure if the cables or charging adapters show signs of damage.
5. Never alter the Lion Adventure, cables, or accessories.
6. Do not allow water to contact the Lion Adventure or immerse it in water.
7. Do not use the Lion Adventure in the presence of flammable liquids, gases, or excessive dust.
8. Do not expose or store the Lion Adventure in excessive heat (above 115° F).
9. Do not leave the Lion Adventure out in direct sunlight in higher temperatures.
10. Store the Lion Adventure at temperatures from 14°-115° F (ideally, 32°-86°).
11. Charge the Lion Adventure at temperatures from 32°-114° F.
12. Never charge a frozen Lion Adventure. Let it warm up to above freezing before charging it.
13. Do not leave the Lion Adventure unattended while charging.

## Package Contents

Lion Adventure: 1 piece  
User Manual: 1 piece

# Technical Specifications

#	Item	Parameter
1	Nominal Voltage (Works with 12V Systems)	12.8 (12V)
2	Technical Rated Capacity	100Ah
3	Internal Resistance	≤5mΩ
4	Standard Charging Current	45A
5	Max Charging Current	95A
6	Max Charging Volt	14.6V
7	Max Continuous Discharge Current	100A
8	Discharge Over Current Protection	>100A @> 50sec
9	Battery Low Voltage Cut-Off	10V
10	Operating Temperature	Charge: 32~113°F 45 ~ 85% RH Discharge: -4 ~ 131°F 45 ~ 85% RH
11	Storage Temperature	14 ~ 95°F 45 ~ 85% RH
12	Product Size	10.2" L x 6.6" W x 8.8" H
13	Product Weight	23 pounds

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### Lion Adventure LED Lights

When the Lion Adventure is ON and not charging, briefly press the button, the correspondence between LED and capacity is as follows:

- Under 10% compacity: 1 LED Flashing
- Up to 20%: 1 LED illuminated
- Up to 40%: 2 LED illuminated
- Up to 60%: 3 LED illuminated
- Up to 80%: 4 LED illuminated
- Up to 100%: 5 LED illuminated

### Lion Adventure Reset

- Low Voltage Cutoff: Quickly press and release the power button when the Lion Adventure is unresponsive and disconnected from everything. The first LED light will blink, showing that the battery has been reset and needs to be charged.
- Short Circuit and Hight Temperature Cutoff: Disconnect the Lion Adventure from the cause of the short circuit/high temperature issue. (In the case of high temperature issues, let the Lion Adventure cool down before trying to reset it.) Quickly press and release the power button which should illuminate the LED lights on the Lion Adventure. Then, press and hold the power button for 4-5 seconds, until the LED lights shut off. This means the Lion Adventure has been reset and is ready to be used/charged.
- The Lion Adventure can also be connected to a 12V lithium (LiFeP04) charger. This automatically resets the battery.

### Winter Usage Tips

The Lion Adventure lithium battery performs better than lead acid batteries in most weather conditions. It can charge between temps of 32° and 113°F and can discharge between -4° and 131°F at a 100% rate.

ALL types of batteries need to be above freezing in order to charge them. As a result, we recommend using the batteries in a climate-controlled location (not on the tongue of a trailer or using a ventilated lead acid battery compartment, which allows freezing air to circulate around the Lion Adventure).

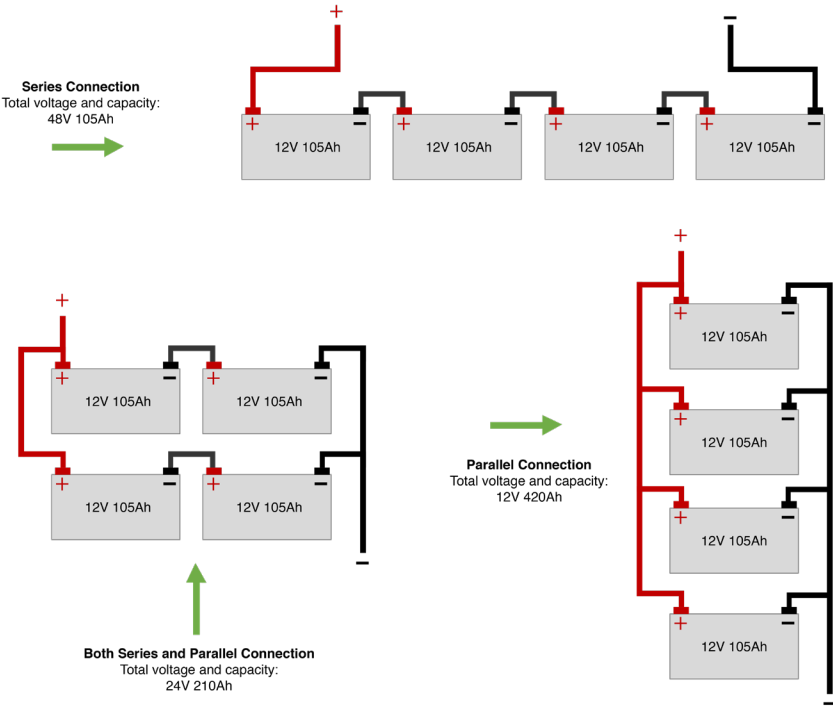
The Lion Adventure and other lithium batteries can be placed in an insulated space, inside the RV, or in other climate-controlled areas. If you want to use some type of heating element to keep the Lion Adventure above freezing, check out our Lion Heat battery warmer!

### Connecting Your Lion Adventures Together

Each single Lion Adventure can be used independently as well as be used in series. If the Lion Adventures are to be used in series, connect with professional tools and make sure the poles are connected correctly. This may lead to battery failure or safety concerns. Do not connect more than four (4) Lion Adventures in series.

*The diagram on the next page is a reference on how to connect Lion Adventures in series and parallel in a 12V (12.8V nominal) system. Before connecting, each Lion Adventure must be independently fully charged.*

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- When first connecting your batteries in series or in parallel, the batteries should be charged to 100% individually before being connected together.
- For batteries in series, all batteries must be charged and discharged at the same time for proper functionality.
- To maximize the life span of the cell, charge the battery at 45-100A and the discharge rate should not exceed 100A.
- Recommended charge rate (per battery) – when charging at 45 amps – 14.6 Volts. When charging at >45A amps (up to 100A) - 13.9 V. We recommend using a battery charger with a lithium (LiFeP04) setting or rating. Charging outside of the recommended parameters could lead to poor performance, mechanical instability, and possible safety issues.
- Never discharge at more than 100A per battery. Discharging outside of the recommended parameters could lead to poor performance, over heat, lead to battery failure, and possible safety issues.
- Optimum operating temperature ranges from 32~113°F. Temperatures that are too high or too low may affect the battery performance.

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### Maintenance Suggestions

- For storage periods over 1 month, place the Lion Adventure in a dry and ventilated room that is within the recommended storage temperatures.
- Do not store your Lion Adventure near corrosive material, fire, or other heat sources.
- Discharge and recharge to 80% (or 13.35 volts) periodically, at least once every 6 months if not being used.

### Recycling

The Lion Adventure contains a lithium iron phosphate (LiFePO<sub>4</sub>) battery. Please recycle properly.

### Warranty Claims

For warranty issues, contact Customer Service by email [info@lionenergy.com](mailto:info@lionenergy.com) or by calling 1-385-375-8191. Do not ship the Lion Adventure until you receive a return merchandise authorization (RMA) number. Lion Energy will not be responsible for any shipping or handling damage. Replacements will not be sent out until the original Lion Adventure is enroute to a Lion Energy warehouse.

### Limited Warranty

The warranty for this Lion Adventure is extended to the original purchaser or user, and it covers defects in materials or workmanship. The Lion Adventure has a 10-year warranty for the Lion Adventure cells, rated at 80% of the capacity (100Ah x .8 = 80Ah).

Under extreme use (maximum charge and discharge rates), the Lion Adventure cells expected life cycle is 3,500. If you fully charge the Lion Adventure and then drain it each day, it will take approximately 9.5 years to reach 3,500 cycles. At "normal usage" the expected life cycles would be greater.

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, over charging or loading, or normal wear.
- Extended storage without recharging or repairs done by an unauthorized person or modification.
- Opening or modifying the Lion Adventure casing.

This warranty is in lieu of all other express warranties. Lion Energy will not be liable for consequential or incidental damages.

**USER GUIDE**



**LIONENERGY™**

**Warranty Information**

Serial Number: \_\_\_\_\_

Purchase Date: \_\_\_\_\_



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