



LIONENERGY™

# LION SAFARI ME™

Lithium Iron Phosphate Solar Generator



## User Manual

WARRANTY INFO:

Serial number \_\_\_\_\_

Purchase date \_\_\_\_\_



**CUSTOMER SERVICE: 385.375.8191**

Available Monday-Friday, 9:00 AM - 5:00 PM Mountain Standard Time.  
Please call the customer service department before returning this product.



## **READ THIS MANUAL IN ITS ENTIRETY BEFORE OPERATING THE UNIT.**

This portable unit provides safe, silent, and renewable electric power. This power unit can be used in emergencies, for work, play and wherever you need power. It is very important to carefully read this user manual before using the product.

The Safari ME includes excess-voltage, low-voltage, overload, short-circuit, and excess-temperature protections. It also has built-in visual and audio alarms that are meant to alert you to potential problems that may cause damage to the unit. The overload circuitry will protect against damage to the unit and serve as a safety measure for anyone operating the unit.

Carefully read and strictly comply with all safety directives.

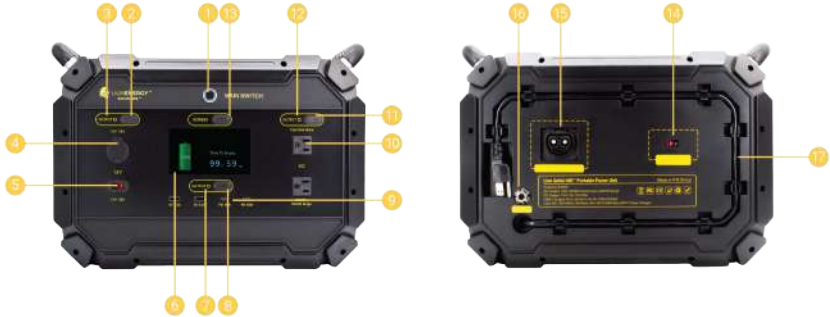
Follow these directives for safe use:

- For better performance, fully charge the unit before using it.
- Do not use the unit as a toy.
- Do not insert fingers or hands into any of the units outlets.
- Only use recommended accessories.
- Do not operate the unit with cables or charging adapters that exhibit any damage.
- Never attempt to modify or alter the unit, cables, or accessories.
- Do not allow water to contact this unit or immerse it in water.
- Do not operate this unit in the presence of flammable liquids, gases, or dust.
- Do not permit the internal battery of this unit to freeze. Never charge a frozen battery.
- Do not expose or store this unit to excessive heat (>115 ° F).
- Only store the unit at temperatures ranging from 14° to 115° F.
- Charge only at temperatures ranging from 32° to 115° F.

## **Package Contents**

- Lion Safari ME solar generator with built in AC wall charger (668W).

# Part Identification



	Part
1	Main switch to turn unit display on
2	12V output ON/OFF button
3	12V output indicator light ON/OFF LCD
4	12V "Cigarette Lighter" output
5	12V Anderson™ output
6	LCD Display
7	USB output indicator light
8	USB output ON/OFF button
9	USB 3.0, QC, and PD outputs
10	AC output socket
11	AC output ON/OFF button
12	AC output indicator light
13	Screen ON/OFF
14	Solar panel charge connection
15	Safari ME-XP Connection (sold separately)
16	Circuit breaker reset button
17	Built in power cord for AC charging

# How to use the power unit

The Safari ME is an energy storage solution that features 668 watts (W) charging, 600W solar charging and a 2,000W pure sine wave inverter with a 4,000W surge. It supports 12V, 25A DC output, two USB 2.4 A outputs, an external battery (sold separately), and TFT screen display. It is able to power a range of devices, virtually anything you can plug into a standard 15A wall outlet. Refer to the **Parts Identification** section above and follow the operating instructions below.

## Turn the power unit on or off

Follow these steps to turn the power unit on or off:

1. Press the main switch, and then turn on 12V, USB, and/or AC power outputs. Press the main switch again to turn OFF power to the entire unit.
2. Press and hold the main power button for approximately 5 seconds to allow the main display to toggle on and off (so the light doesn't stay on continually). Press and hold for another 5 seconds to have the main display stay illuminated.

## Supply DC power to a device

Follow these steps to supply electric power to the 12V and 25V Anderson devices:

1. Press the main switch. The LCD display will illuminate.
2. Insert the DC cable into either the DC 12V output port or the 25V Anderson output port.
3. With the main unit ON, press the DC output button to turn ON the DC output.

## Supply power to an AC device

Follow these steps to supply electric power to an AC device:

1. Press the main switch. The LCD display will illuminate.
2. Connect an AC cable to either of the AC output ports.
3. With the main unit ON, press the AC output button to turn ON the AC output.

## Supply power to USB-A or USB-C devices

Follow these steps to supply electric power to USB-A or USB-C devices:

1. Press the main switch. The LCD display will illuminate.
2. Connect a USB cable to any of the appropriate USB outputs.
3. With the main unit ON, press the USB output button to turn ON the USB output.



### Maximum AC power output

The maximum continuous power output is 2,000W. If device power requirements exceed 2,000W, do not connect the device to this power unit.



## Voltage specifications vary by country

This unit supplies power at 110V/60Hz. Consider this when connecting any devices to this power unit.

## Charging the power unit from a wall outlet or 24V solar panel

1. To charge from a standard 120V wall outlet, plug the AC charging cord on the back of the unit into a standard wall outlet.
2. To charge from a 24V solar panel (sold separately), connect the solar panel with Anderson connection cable to the solar Anderson connection input on the back of the Safari ME unit. You can connect up to six (6) 24V solar panels.
3. On the LCD display, you can see the charging status. When you are done charging, disconnect the AC cord from the wall or disconnect the solar panel(s).

## Power outputs supply power when charging

All power outlets will supply power to devices when the power unit is charging.

## Circuit breaker

The circuit breaker will activate if power limits are exceeded. To restore power to the entire unit, simply press the circuit breaker button on the back of the unit.

## Change the display mode

By default, the display is always on. To conserve power and place the display into "always-off" mode, press-and-hold the **Screen** button for five seconds. Press the **Screen** button again for five seconds to return to "always-on" mode.

## Charge many types of devices

The power unit can power many types of devices, such as lights, mobile phones, laptops, and radios. The total number of devices that the power unit can charge depends on the energy consumption of each device. Energy consumption is measured in watts (W). The unit can supply electric power to multiple devices that require a total of up to 2,000W of energy.

## Power supply duration

The duration of power supply depends on the energy consumption or watt usage of all connected devices. Lower total energy consumption will permit the power unit to supply power for more time. Here is a guideline for estimating the run time of a device:  $\text{Watt Hours} / \text{Watts} = \text{Estimated Run Time}$ . For example, if the device you want to power uses 36W and the power unit has 832Wh then the estimated run time would be  $832 / 36 = 23.1$  hours.

## Automatic shutoff

When all connected devices are no longer drawing power, the power unit will automatically turn off to conserve energy.

# Tips for improving performance of your power unit

These tips will help you get better service from your power unit:

- This power unit contains a durable, high-quality, high-capacity lithium iron phosphate battery. It has no memory effect. To achieve the optimal charging capacity, charge the unit within a temperature range of 50 - 86 F.
- The LCD display provides charging status and current power. When done charge the unit from the wall outlet or solar panel, unplug it.
- To avoid interference when charging, keep the unit away from TV, radio, and other equipment.
- To extend battery lifebattery life of the Safari ME, use it and charge it at least every 3-4 months. We recommend using it more often than that.

## Troubleshooting

**If none of your devices are charging after turning on the power to the Safari ME** —press the main switch to ensure that the power unit is on. Make sure you also have the output power turned on. Also, remember that any device that requires more than 2,000W cannot be charged by this unit.

**If the power unit won't turn on** — You may need to press the circuit reset button on the back of the unit. If it has not been in use for awhile, it may be necessary to recharge the power unit before trying to charge other devices with the Safari ME.

## Battery information

Before trying to charge other devices with the Safari ME, please note:

- The Safari ME contains a lithium iron phosphate battery inside.
- Do not attempt to remove the battery, since this may damage the unit.
- The battery can be charged and discharged over 2,500 times (main unit) 3,500 times (expansion pack or Safari ME-XP, sold separately), but it will eventually lose capacity with heavy use.

# Technical Specifications

AC parameters	Rated Power	2,000 VA
	Main input voltage	102-140 VAC
	Main input frequency range	45-65 Hz
	Inverter voltage	120 VAC $\pm$ 10%,
	Pulse power	4,000 VA
	Efficiency	typically > 88% , 90% maximum
	Switching time gap	10ms standard, 20ms maximum
	Output wave	Pure sine wave
Battery parameters	Rated battery voltage	25.6 VDC
	Battery working range	21-28.8 VDC
	Battery type	Lithium Iron Phosphate (LiFePO4)
	Maximum capacity	922Wh
	Expansion unit capacity (sold separately)	2,048Wh
PV charge parameters	Maximum charge power	500W for standard, 600W maximum
	PV charge range	30-60 VDC; Solar panel must be >36 VMP <60 VOC
	Maximum charge current	20A
	Efficiency	93% standard, 95% maximum
AC charge parameters	Maximum charge power	750W
	Charge voltage range	90-264 VAC
	Charge frequency range	47-53 Hz
	Charge current	25A for standard
	Efficiency	90% nominal, 95% maximum
DC output parameters	DC output voltage	12 VDC
	Maximum DC output current	25A
	12V or "Cigarette Lighter"	10A standard, 10-15A turn off in 3 minutes, >15A will turn off immediately
	USB	2 x 2.4A
	QC 3.0	12V, 1.5A / 9V, 2A / 5V, 3A
	PD	20V 3A

# Recycling

Properly dispose of your unwanted electronic products, batteries, and packaging materials at a local collection facility.

# Copyright

**This material is copyrighted under US Federal Law.** No part of this publication is reproducible—in any form or by any means, electronic or mechanical, including photocopying—without express written permission from Lion Energy.

The power unit supplier reserves all rights to make technical modifications without advance notice, and to improve machine and safety standards.

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

## WARRANTY REPAIRS OR REPLACEMENTS

For repair or replacement, contact customer service at 1-385-375-8191. Do not ship unit until you receive a return merchandise authorization (RMA) number from Customer service at Lion Energy. Lion Energy will not be responsible for any shipping or handling damage.

## LIMITED WARRANTY

This unit comes with a one year limited warranty from defects in materials and workmanship. Save proof of purchase, such as a dated receipt, to establish warranty period. Without a dated receipt, we will use the manufacturing dated code. We will repair or replace the unit at our discretion upon inspection.

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 modification.

This warranty is in lieu of all other express 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 operate this device.



NOTE: This equipment 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) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment 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 this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment 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 equipment and receiver.
- Connect the equipment 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 ([www.lionenergy.com](http://www.lionenergy.com))  
Address: 735 S. Auto Mall Drive  
American Fork, Utah 84003  
Email: [info@lionenergy.com](mailto:info@lionenergy.com)  
Tel: 1-385-375-8191

# FREQUENTLY ASKED QUESTIONS

## BASICS

### 01. What is the Safari ME?

The Safari ME is the latest in Lithium battery technology for portable power needs. It replaces traditional noisy gas generators with the safest Lithium batteries on the market today. It is a light weight for the amount of power it has. Think of it as a safe, silent, renewable generator and without the need for gas, pollution or all that weight.

### 02. What does the Safari ME power?

You can use it to power a wide variety of devices like cell phones, laptops, tablets refrigerators, freezers, TVs, lights, hot plates or grills, power tools, and the list goes on. Virtually any device you can plug into a standard wall outlet, the Safari ME can power it.

### 03. How can you figure out how long the Safari ME will power specific devices?

The ME has a continuous 2000W of power output (watts of power output) and over 900Wh (922 watt hours) of stored energy. That means you can power devices that require up to 2000W of power for various periods of time. To calculate how long the ME can power a device, use this formula:  $Wh / W = \text{Estimated Run Time}$ . For example, if the device requires 50W of power and the ME has 922Wh then the device can be powered for approximately 18.5 hours ( $922 / 50 = 18.44$ )

### 04. Can it be used to store solar power or solar energy?

The Safari ME is a great energy storage unit for solar power from solar panels. It can store 922Wh (watt hrs) of energy.

### 05. How long can the Safari ME hold a charge?

It will maintain its charge for up to a year without having to charge it. This is known as shelf life or storage life. However, we recommend using it more frequently, so it is being charged at least every 6 months and you're getting the benefit of using it around the house, outside, on adventures and ready for emergencies.

### 06. Why should I buy the Safari ME?

The Safari ME is made from the highest quality and longest lasting battery technology – Lithium. The Safari ME is safe, silent and renewable, unlike gas-powered generators. The ME gives you power anywhere, anytime.

## 07. What are the top benefits of the Safari ME?

There is a lot to love about the Safari ME:

- **Renewable Solar Generator**  
You can use the power of the sun to fully recharge the ME in as little as 95 mins so you can use power without running out of power.
- **Environmentally Friendly**  
If you care about the environment, the ME produces zero emissions and has no carbon footprint during use.
- **Faster Charge Time**  
If you prefer to recharge it from a wall outlet, it only takes just over 80 mins to recharge... completely from empty to full!
- **Expandable for More Energy**  
If you need more stored energy, you can expand the ME capacity by adding the optional expansion pack called the Safari ME-XP and that gives you 3x the stored energy as the ME alone. That means you can use it 3x longer on a single charge with the ME and the XP combined.
- **Power Almost Anything**  
Because it has so much power and multiple output types such as AC, USB or 12V, virtually anything you can plug into a standard wall outlet, the Safari ME can power. It has an initial 4000W Surge for that extra power you may need.
- **Power Pass Through**  
It has a pass through power mode, meaning you can charge it while using it and once it's fully charged, you can leave it plugged in to its charging source (the sun or wall outlet) and the power passes through it and it doesn't have to use the energy that is stored in it.
- **Easy to Transport**  
It's easy to move from place to place because it's light weight compared to other generators in its size and it has convenient carrying handles built right in.

## 08. What is the Safari ME-XP?

The Safari ME-XP is an optional expansion battery for the Safari ME. It plugs into the back of the ME and gives you 3x the stored energy than the ME alone (922Wh for the ME + 2048Wh for the XP = 2970Wh). The XP must be used with the ME. The XP gives you more stored energy that works with the ME.



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### PRICING:

**Safari ME**  
MSRP \$2,350

**Optional ME-XP** (expansion battery)  
MSRP \$1,750



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