

Lion Safari ME™

Lithium Iron Phosphate Solar Generator



User Manual

Warranty Information:

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 is useful in emergencies, and for work and play. 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. Otherwise, personal bodily injury or death may result.

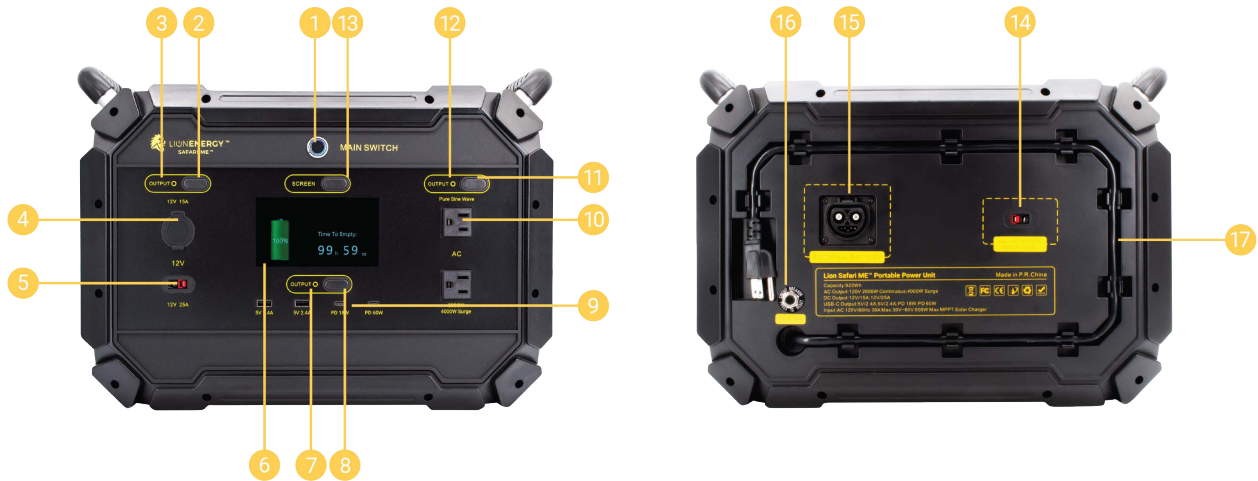
Follow these directives for safe use:

- 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 (>113 ° F).
- Only store the unit at temperatures ranging from 14° to 113° F.
- Charge only at temperatures ranging from 32° to 115° F.

Package Contents

- Lion Safari ME solar generator
- 1 - Wall charger adapter, 60W

Part Identification



	Part
1	Main switch to turn unit display on
2	12V output indicator light. ON/OFF LCD
3	12V output ON/OFF button
4	12V "Cigarette Lighter" output
5	Anderson™ 12V output
6	LCD Display
7	USB indicator light
8	USB output ON/OFF button
9	USB 3.0 an QC 3.0 and PD output
10	AC output socket
11	AC output ON/OFF button
12	AC output indicator light
13	Screen ON/OFF
14	Solar 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, 600 watts (W) solar charging and a 2,000 watts (W) pure sine wave inverter. It supports 12V, 25A DC output, two USB 2.4 A outputs, an external battery (sold separately), and TFT screen display. It is compatible with a wide range of device types.

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 or USB power. Press the main switch again to turn OFF power to the entire unit.
2. Press the AC switch to turn on AC output. Press the AC switch again to turn off AC power.

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. After pressing the main power button, press the AC ON/OFF button. The LCD display will illuminate.
2. Connect an AC cable to the AC socket.

Supply power to USB-A or USB-C devices

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

1. After pressing the main power button, press the USB ON/OFF button. The LCD display will illuminate.
2. Connect one or more cables into the USB-A or USB-C sockets.



Maximum AC power output

The maximum 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. Change this section to:
2. 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.
3. 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 6 24V solar panels.
4. 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

Remember that all power outputs 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 2,000W of energy or less.

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. However, it's important to charge the unit within a temperature range of 50-86° F to achieve the optimal charging capacity.
- The LCD display provides charging status and current power. When done charge the unit from the wall outlet, unplug the unit from the wall.
- 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. 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 — If it has not be 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

It's important to know this about the power unit before trying to charge other devices with the Safari ME.

- The power unit contains a battery inside the Safari ME
- 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)
	Main unit 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
	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 or normal wear.
- 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)

Email: Info@lionenergy.com

Tel: 1-385-375-8191

Address: 735 S. Auto Mall Drive Suite 200, American Fork UTAH 84003