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› Mighty Max Battery ML-1000PSW17 12V 1000W Pure Sine Wave Inverter User Manual

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Model: ML-1000PSW17

1. PRODUCT OVERVIEW

The Mighty Max Battery ML-1000PSW17 is a 12V 1000 Watt Pure Sine Wave Inverter designed to convert 12V DC power from a battery into 120V AC power. It provides 1000 watts of continuous power with a 2000W peak surge capability, suitable for various applications including home, RV, truck, and off-grid solar power systems. This inverter features a high conversion efficiency of 91% and includes a wired remote control for convenient operation.



Image: The Mighty Max Battery 12V 1000W Pure Sine Wave Inverter, showcasing its compact design and output ports.

2. SAFETY INFORMATION

This inverter is equipped with multiple protection features to ensure safe operation and protect connected equipment. Always adhere to safety guidelines during installation and use.

- **Low Voltage Protection:** Prevents battery over-discharge.
- **Over Voltage Protection:** Safeguards against excessive input voltage.
- **Inverter Overheat Prevention:** Intelligent temperature-controlled cooling fans activate to prevent overheating.
- **Output Overload Protection:** Shuts down if the connected load exceeds the inverter's capacity.
- **Output Short Circuit Protection:** Protects against short circuits at the AC output.
- **Over-temperature protection:** Automatically shuts down if internal temperature exceeds safe limits.
- **AC output abnormal protection:** Detects and protects against irregular AC output.
- **Abnormal battery voltage protection:** Monitors and protects against unusual battery voltage levels.

Safety and Protections



Over-temperature
protection



AC output
abnormal protection



AC output short
circuit protection



Abnormal battery
voltage protection



Output overload
protection

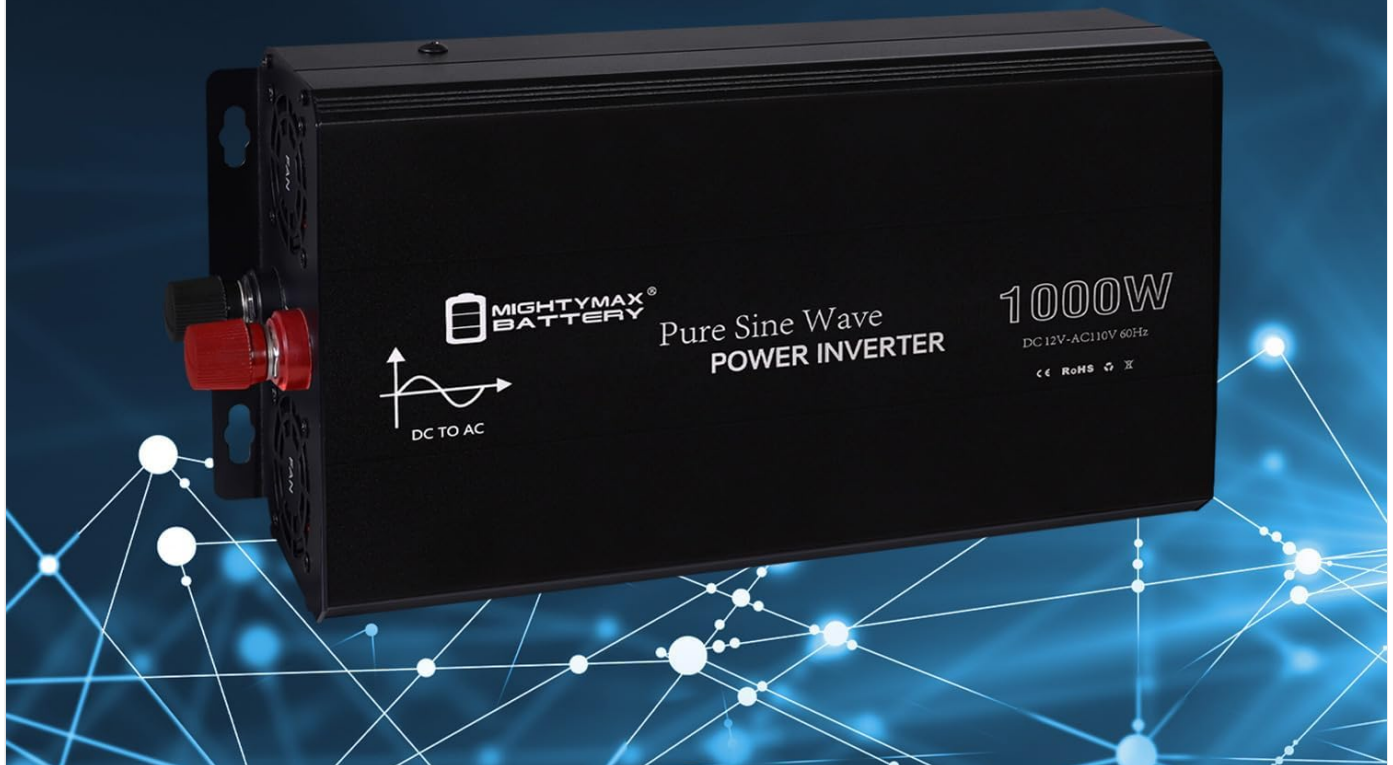


Image: Visual representation of the inverter's safety features, including over-temperature, AC output abnormal, AC output short circuit, abnormal battery voltage, and output overload protection.

3. PRODUCT COMPONENTS

Familiarize yourself with the various components of your inverter for proper setup and operation.

12V/1000W PURE SINE WAVE INVERTER

- 1 Positive Terminal
- 2 Negative Terminal
- 3 2 Cooling Fans
- 4 Power Switch
- 5 Indicator Lights
Power and Fault lights
- 6 2x0~2.1A USB
- 7 2 AC Outlets



Image: Detailed view of the inverter with numbered components: 1. Positive Terminal, 2. Negative Terminal, 3. Cooling Fans, 4. Power Switch, 5. Indicator Lights (Power and Fault), 6. 2x 2.1A USB Ports, 7. 2 AC Outlets.

- 1. **Positive Terminal:** Connects to the positive (+) terminal of your 12V battery.
- 2. **Negative Terminal:** Connects to the negative (-) terminal of your 12V battery.
- 3. **Cooling Fans:** Two intelligent temperature-controlled fans for heat dissipation.
- 4. **Power Switch:** Turns the inverter ON or OFF.
- 5. **Indicator Lights:** Displays power status and fault conditions.
- 6. **USB Ports (2.1A each):** For charging USB-powered devices.
- 7. **AC Outlets:** Two standard AC outlets for connecting 120V AC appliances.

4. SETUP INSTRUCTIONS

4.1 Unpacking and Inspection

Upon receiving your inverter, carefully unpack all components and inspect for any damage. Ensure the following items are present:

- Mighty Max Battery ML-1000PSW17 Inverter

- 23-inch Battery Cables (Red and Black)
- 20-foot Wired Remote Control
- Spare Fuses (4 included)

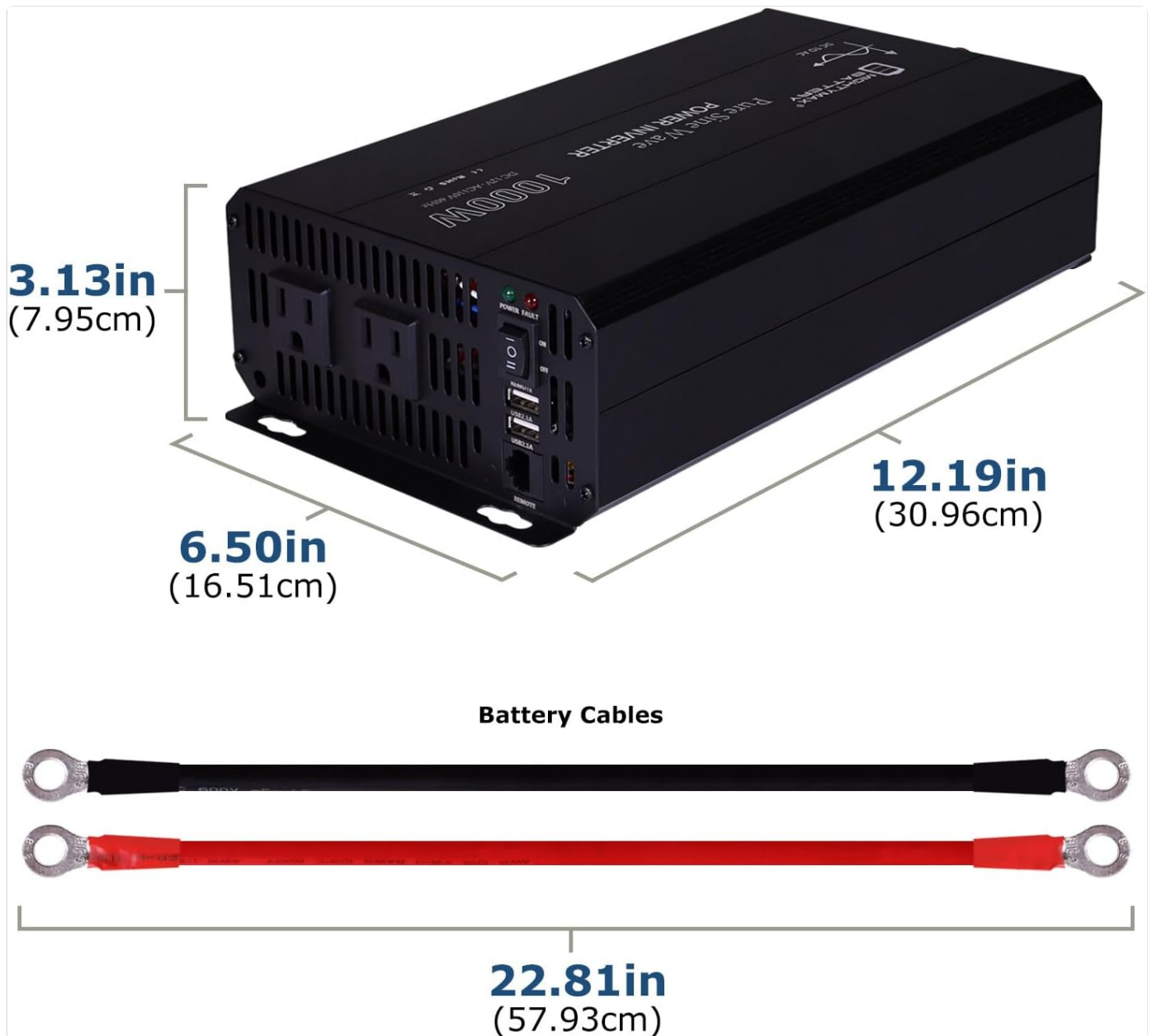


Image: The inverter showing its dimensions (12.19in length, 6.50in width, 3.13in height) and the included 22.81in battery cables.

4.2 Battery Connection

1. Ensure the inverter's power switch is in the OFF position.
2. Connect the red battery cable to the positive (+) terminal of your 12V battery.
3. Connect the other end of the red battery cable to the positive (+) terminal on the inverter.
4. Connect the black battery cable to the negative (-) terminal of your 12V battery.
5. Connect the other end of the black battery cable to the negative (-) terminal on the inverter.
6. Ensure all connections are tight and secure to prevent arcing and ensure optimal performance.

The inverter is compatible with various 12V battery types, including LiFePO4, SLA, AGM, GEL, and WET batteries.

Compatible with Various Battery Types

LiFePO4

SLA

AGM

GEL

WET

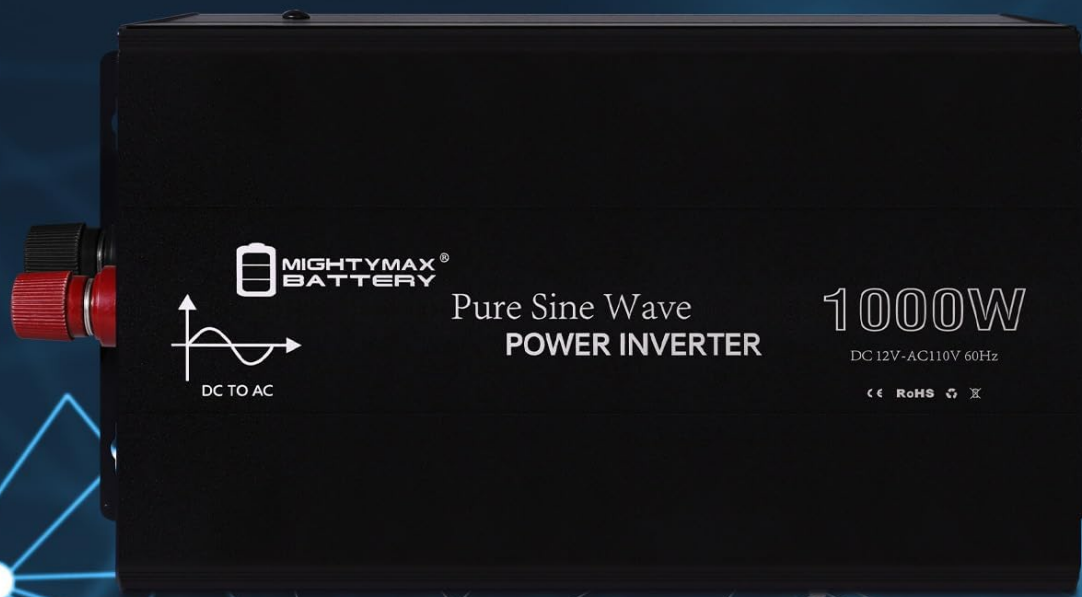


Image: Icons illustrating compatibility with LiFePO4, SLA, AGM, GEL, and WET battery types.

4.3 Remote Control Connection

The 20-foot wired remote control allows for convenient operation, especially when the inverter is installed in an inaccessible location.

1. Locate the "REMOTE" port on the inverter.
2. Plug the remote control cable into this port.
3. Position the remote control in a convenient location for monitoring and operation.

User Friendly Remote Control:

Allows you to easily control your inverter when installed in a hard-to-reach place.



Image: The wired remote control displaying battery voltage, AC output voltage, power output, and various protection indicators. The inverter is visible in the background.

5. OPERATING INSTRUCTIONS

5.1 Powering On the Inverter

1. After ensuring all battery connections are secure, switch the inverter's main power switch to the ON position.
2. The power indicator light on the inverter (and remote control, if connected) should illuminate.
3. The remote control's LCD screen will display current battery voltage, AC output voltage, and power output.

5.2 Connecting Appliances

1. Plug your 120V AC appliances into the AC outlets on the inverter.
2. For USB-powered devices, connect them to the 2.1A USB ports.
3. Ensure the total power consumption of all connected appliances does not exceed 1000 watts continuously or 2000

watts for surge loads.



Image: The inverter connected to a battery, powering a laptop in an outdoor setting, demonstrating its application for off-grid power.

5.3 Powering Off the Inverter

1. Disconnect all appliances from the inverter.
2. Switch the inverter's main power switch to the OFF position.

6. MAINTENANCE

- **Cleaning:** Periodically clean the exterior of the inverter with a dry, soft cloth. Do not use liquid cleaners.
- **Ventilation:** Ensure the cooling fans and ventilation openings are free from dust and obstructions to maintain proper airflow and prevent overheating.
- **Connections:** Regularly check battery and output connections for tightness and corrosion.
- **Storage:** When not in use for extended periods, store the inverter in a cool, dry place, disconnected from the

battery.

7. TROUBLESHOOTING

This section addresses common issues you might encounter with your inverter.

Problem	Possible Cause	Solution
Inverter does not power on.	Loose battery connections, discharged battery, faulty fuse.	Check battery cable connections. Recharge or replace battery. Check and replace fuses if necessary.
No AC output.	Overload, short circuit, low/high battery voltage, overheat.	Reduce load. Check for short circuits in appliances/cables. Check battery voltage. Allow inverter to cool down.
Fault indicator light is on.	Indicates a protection mode has been activated (e.g., overload, overheat, low/high voltage).	Refer to the specific protection listed on the remote control or in the safety section. Address the underlying cause and restart the inverter.
Cooling fans are constantly running or very loud.	High ambient temperature, heavy load, obstructed ventilation.	Ensure adequate ventilation around the inverter. Reduce load if possible. Clean any dust from fan vents.

8. SPECIFICATIONS

Feature	Specification
Brand	Mighty Max Battery
Model Name	ML-1000PSW17
Power Source	Battery Powered
Input Voltage	12 Volts DC
Output Power (Continuous)	1000 Watts AC
Peak Surge Power	2000 Watts
Output Voltage	120 Volts AC
Waveform	Pure Sine Wave
Conversion Efficiency	91%
USB Output	2 ports, 2.1A each
Item Weight	7 Pounds
Color	Black

9. OFFICIAL PRODUCT VIDEO

Your browser does not support the video tag.

Video: An official product video from Mighty Max Battery, showcasing various features and applications of their battery products, including the inverter. This video provides a visual overview of the brand's offerings and product quality.

10. WARRANTY AND SUPPORT

10.1 Warranty Information

This Mighty Max Battery ML-1000PSW17 Inverter comes with a **1-Year Manufacturer's Warranty**. Please retain your proof of purchase for warranty claims.

10.2 Customer Support

For technical assistance, troubleshooting beyond this manual, or warranty inquiries, please contact Mighty Max Battery customer support. Refer to the product packaging or the official Mighty Max Battery website for the most current contact information.

ASK A QUESTION ABOUT THIS MANUAL

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