

VEVOR SGM-1500W

VEVOR SGM-1500W Modified Sine Wave Power Inverter User Manual

Model: SGM-1500W | Brand: VEVOR

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INTRODUCTION

This manual provides essential information for the safe and efficient operation of your VEVOR SGM-1500W Modified Sine Wave Power Inverter. Please read these instructions carefully before use and retain for future reference.



Figure 1: VEVOR SGM-1500W Modified Sine Wave Power Inverter.

SETUP

Proper installation is crucial for the safe and optimal performance of your inverter. Ensure the inverter is placed in a well-ventilated area, away from direct sunlight, heat sources, and flammable materials.

1. Connecting to a DC Power Source

The VEVOR SGM-1500W inverter is designed to operate with a 12V DC power source, such as a car battery or a solar battery bank. Use the provided 100% pure copper cables for connection to minimize power conversion loss.

- Connect the red cable to the positive (+) terminal of the inverter and the positive (+) terminal of your 12V DC battery.
- Connect the black cable to the negative (-) terminal of the inverter and the negative (-) terminal of your 12V DC battery.

- Ensure all connections are tight and secure to prevent arcing and ensure efficient power transfer.



Figure 2: Inverter connected to a DC power source.

Note: For higher wattage models (e.g., 5000W), the inverter may feature multiple positive and negative terminals to accommodate connections to multiple batteries or thicker gauge cables for increased current. The SGM-1500W model typically uses a single set of terminals for standard 12V battery connection.

2. Initial Power On

After securing the battery connections, switch the inverter's power button to the "ON" position. The indicator light should illuminate, indicating the inverter is operational.

3. Video: Connecting the Inverter to a Battery System

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Video 1: This video demonstrates the connection of a VEVOR power inverter (5000W model shown for illustration) to a battery system, including its use in an alternative energy setup. It highlights the multiple AC outlets and USB ports.

OPERATING INSTRUCTIONS

The VEVOR SGM-1500W inverter converts 12V DC power to 120V AC power, suitable for various small home devices.

1. Connecting Devices

The inverter features 2 AC outlets, 2 USB charging ports (combined max 18W), and 1 Type-C port (max 30W). Ensure the total power consumption of connected devices does not exceed the inverter's rated continuous power of 1500W.

- Plug AC devices into the 120V AC outlets.
- Connect USB-powered devices to the USB-A or Type-C ports.



Figure 3: Front panel of the inverter with multiple outlets and ports.

2. Intelligent Temperature-Controlled Fan

The inverter is equipped with an intelligent temperature-controlled fan for efficient heat dissipation. The fan automatically activates when the internal temperature exceeds 40°C (104°F) and stops when the temperature falls below this threshold, ensuring optimal performance and quiet operation.



Figure 4: Intelligent cooling fan for heat management.

3. Video: VEVOR 1500W Power Inverter in Use

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Video 2: This video demonstrates the VEVOR 1500W power inverter's features, including its multiple outlets and USB ports, and shows it powering various devices.

4. Video: General Overview of VEVOR Power Inverter Features

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Video 3: A general overview of VEVOR Modified/Pure Sine Wave Power Inverters, showcasing their design, features, and applications.

SAFETY & PROTECTION

The VEVOR SGM-1500W inverter is CE/FCC certified and incorporates multiple safety features to protect the inverter and your connected devices:

- **Over Voltage Protection:** Shuts down if input voltage exceeds safe limits.
- **Under Voltage Protection:** Automatically turns off if battery voltage drops too low, preventing deep discharge.
- **Over Load Protection:** Protects against damage from excessive power draw.
- **Over Temperature Protection:** Activates the fan or shuts down if the inverter overheats.
- **Short Circuit Protection:** Prevents damage from short circuits in the output.
- **Reverse Polarity Protection:** Guards against incorrect battery connections.



The advertisement features a man in a green jacket sitting in a wooden chair outdoors, using a laptop. A red tent is visible in the background. In the foreground, a black VEVOR 1500W Modified Sine Wave Power Inverter is shown on a wooden surface. The inverter has a red power button, a red LED indicator, and a red label with '1500W' and 'CORRECTION WAVE'. A black cable is plugged into the AC output.

VEVOR®
TOUGH TOOLS, HALF PRICE

1500W MODIFIED SINE WAVE POWER INVERTER

Power your home appliances on the go!

- Coffee Machine
- Electric Grill
- Desktop Computer
- Microwave
- Fan
- Work Light

Note: The total power of connected devices must not exceed 1500W

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Made in China

Power Inverter SGM-1500W
Rating(s): AC 120V 60Hz
Battery input voltage: 12V
Use ambient temperature: -20°C--50°C

1500W
CORRECTION WAVE

AC Output 110V

Figure 5: Visual representation of the inverter's 6 security protections.

Video: Low Voltage Battery Protection Feature

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Video 4: This video explains the inverter's low voltage battery protection, demonstrating its auto-off and auto-on functionality to prevent battery damage.

MAINTENANCE

Regular maintenance ensures the longevity and reliable operation of your inverter.

- **Keep Clean:** Periodically clean the exterior of the inverter, especially the fan and ventilation openings, to ensure proper airflow and prevent overheating.
- **Check Connections:** Regularly inspect battery and output connections for tightness and corrosion.
- **Fuse Replacement:** The inverter comes with 6 spare fuses. If a fuse blows, replace it with a fuse of the same rating. Refer to the product specifications for fuse type and rating.

6 SPARE FUSES

Prepare for everything you need

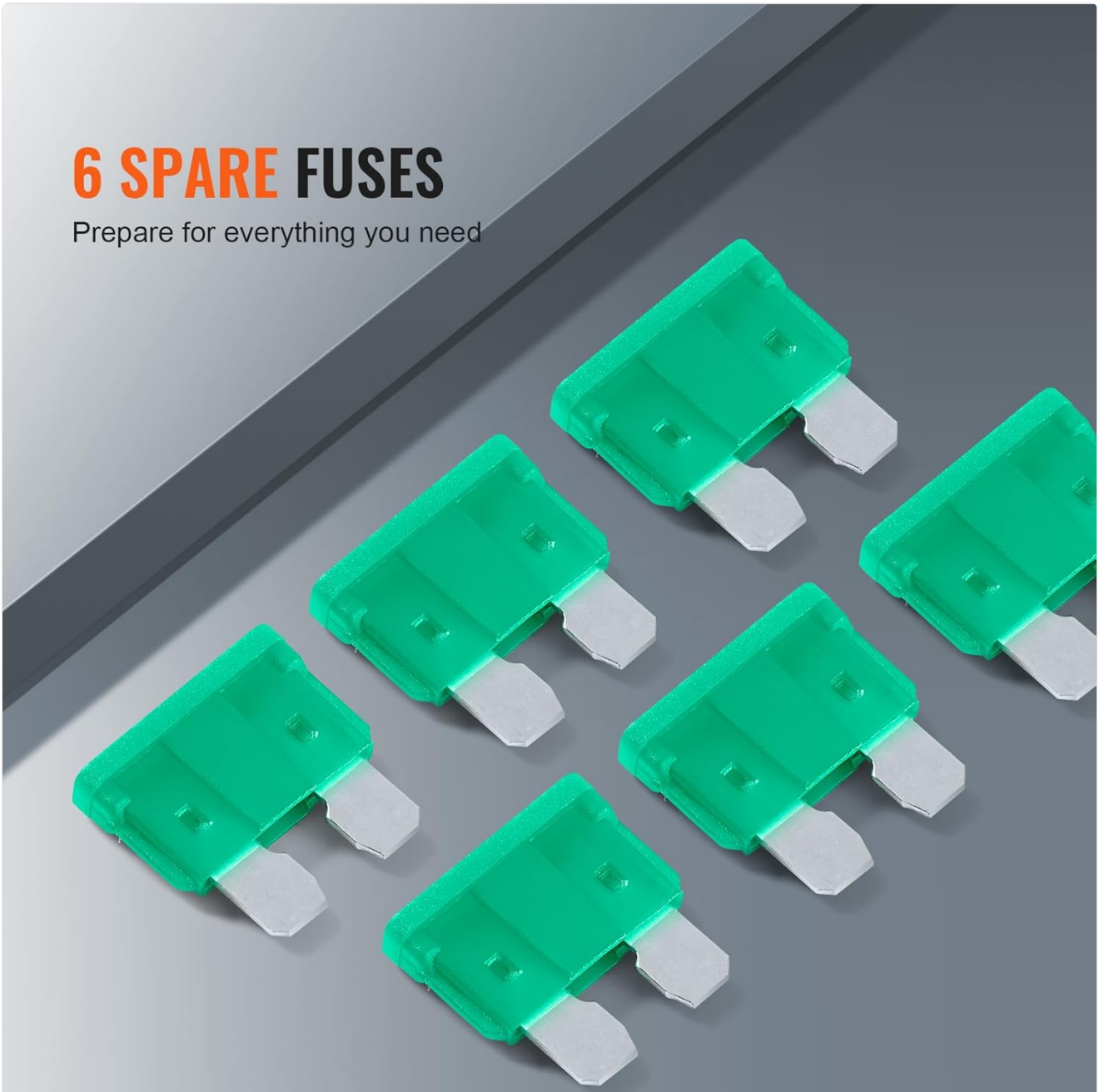


Figure 6: Spare fuses for convenient replacement.

SPECIFICATIONS

Key technical specifications for the VEVOR SGM-1500W Modified Sine Wave Power Inverter:

Feature	Specification
Item Model Number	SGM-1500W
Rated Output Power	1500W
Surge Output Power	3000W
DC Input Voltage	12V DC
AC Output Voltage	120V AC (US Standard)
Output Waveform	Modified Sine Wave
Net Weight	4.41 pounds (2.2 kg)
Product Dimensions	11 x 5.7 x 2.8 inches (280 x 144 x 72 mm)
Efficiency	Up to 88% (full load)
Ports	2 AC Outlets, 2 USB-A (18W total), 1 Type-C (30W max)
Certifications	CE, FCC



Item Model Number: SGM-1500W	Output Waveform: Modified Sine Wave
Rated Output Power: 1500W	Net Weight: 4.9 lbs / 2.2 kg
Surge Output Power: 3000W	Product Dimensions:
DC Input Voltage: 12V DC	11 x 5.7 x 2.8 in/280 x 144 x 72 mm
AC Output Voltage: 120V AC (US Standard)	
/ 230V AC (EU & AU Standards)	

Figure 7: Detailed dimensions and specifications.

TROUBLESHOOTING

If you encounter issues with your VEVOR SGM-1500W inverter, consider the following common solutions:

- **No Power Output:**

- Check battery connections for tightness and correct polarity.
- Ensure the battery is sufficiently charged (above 10V DC).
- Verify the inverter's power switch is in the "ON" position.
- Check if any fuses are blown and replace if necessary.

- **Inverter Shuts Down:**

- **Overload:** Reduce the total wattage of connected devices. The inverter's continuous power is 1500W.

- **Low Battery Voltage:** Recharge or replace the 12V DC battery. The inverter will automatically shut off to protect the battery.
- **Overheating:** Ensure the inverter is in a well-ventilated area and the cooling fan is not obstructed. Allow it to cool down.
- **Short Circuit:** Disconnect all devices and check for any short circuits in the wiring or devices.
- **Device Not Charging/Working:**
 - Confirm the device's power requirements are within the inverter's capabilities.
 - Ensure the device is properly plugged into the correct port (AC, USB-A, or Type-C).

For persistent issues, refer to the warranty and support section for further assistance.

WARRANTY & SUPPORT

VEVOR products are designed for durability and performance. For technical support or to inquire about your e-warranty, please visit the official VEVOR support website:

www.vevor.com/support

Please have your model number (SGM-1500W) and purchase information ready when contacting support.