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› GIANDEL 2000 Watt Pure Sine Wave Power Inverter User Manual

Giandel GS-2000SAR-GFCI

GIANDEL 2000 Watt Pure Sine Wave Power Inverter User Manual

Model: GS-2000SAR-GFCI | Brand: Giandel

1. INTRODUCTION

This manual provides essential information for the safe and efficient operation of your GIANDEL 2000 Watt Pure Sine Wave Power Inverter. Please read it thoroughly before installation and use to ensure optimal performance and longevity of your device.



GIANDEL 2000W Pure Sine Wave Power Inverter, showcasing the main unit, remote control, and included battery cables.

2. IMPORTANT SAFETY INSTRUCTIONS

Adhering to these safety guidelines is crucial for preventing personal injury and damage to the inverter or connected devices.

- Always ensure proper ventilation around the inverter to prevent overheating.
- Do not expose the inverter to water, rain, snow, or excessive moisture.
- Connect the inverter only to a 12V DC battery system.
- Ensure correct polarity when connecting battery cables: positive (+) to positive (+), and negative (-) to negative (-). Reverse polarity can cause severe damage.
- Avoid overloading the inverter beyond its rated continuous power of 2000W.
- The UL458 approved GFCI outlets provide ground fault protection. Test them regularly as per electrical

safety standards.

- Main internal components, including the PCB, Fuses, and transformers, are UL approved for enhanced safety.

GFCI Safety Protection

UL Listed GFCI outlets provide **Neutral and Ground bonded circuit and Power Leakage Protection**

Protect people from electrical shock

GFCI Safety Protection: UL Listed GFCI outlets provide neutral and ground bonded circuit and power leakage protection, safeguarding against electrical shock.

Safe and Reliable

9 electronic protections for your delicate appliances.



Short circuit
protection



Overload
protection



Over heat
protection



Reverse Polarity
protection



Low voltage
protection



Isolated Input &
Output design



Over-voltage
protection



20 Amps
GFCI power leakage protection



FCC low EMI

Safe and Reliable: Diagram illustrating the inverter's 9 electronic protections, including short circuit, overload, over heat, reverse polarity, low voltage, isolated input & output, and over-voltage protection.

3. WHAT'S IN THE BOX

Your GIANDEL 2000 Watt Pure Sine Wave Power Inverter package includes the following items:

- 1 x GIANDEL 2000 Watt Pure Sine Wave Power Inverter
- 1 x 15Ft Wired Remote with Battery Monitor
- 1 Set of DC Battery Cables (Red and Black)
- 4 x Shockproof Pads

Powerful Display & Setup Functions

Input voltage and Working time can be adjusted in a small range using tools

▼ Display											
OVER VOLTAGE	UNDER VOLTAGE	OVERLOAD	OVERHEAT	F1	F2	F3	H1	H2	H3	F4	F5
Overvoltage protection	Low Input Voltage protection	Output overload or short-circuit protection	Over heat protection	Fahrenheit temperature	Celsius temperature	Input battery type settings (9.5~11.5VDC)	ACID indicates lead-acid battery	NCM indicates Ternary lithium battery	LFP (LiFePO4) indicates lithium iron phosphate battery (4 series)	Input battery low voltage protection value setting (9.5~11.5VDC)	Countdown to turn off setting

▲ Working status of display

The complete package contents for the GIANDEL 2000W inverter, including the main unit, remote controller, battery cables, and shockproof pads.

4. SETUP

4.1. Connecting the Inverter

Connect the inverter directly to your 12V DC battery bank using the provided heavy-gauge cables. Ensure the battery bank capacity is sufficient for your power needs (e.g., a 200Ah battery is recommended for a 2000W inverter). Observe correct polarity: connect the red cable to the positive (+) terminal of the inverter and battery, and the black cable to the negative (-) terminal of the inverter and battery. Secure all connections tightly to prevent arcing and overheating. For optimal performance and safety, especially under heavy loads, consider upgrading to thicker cables if the provided ones feel warm during operation, as suggested by user experiences.

Compatible with All 12V Batteries

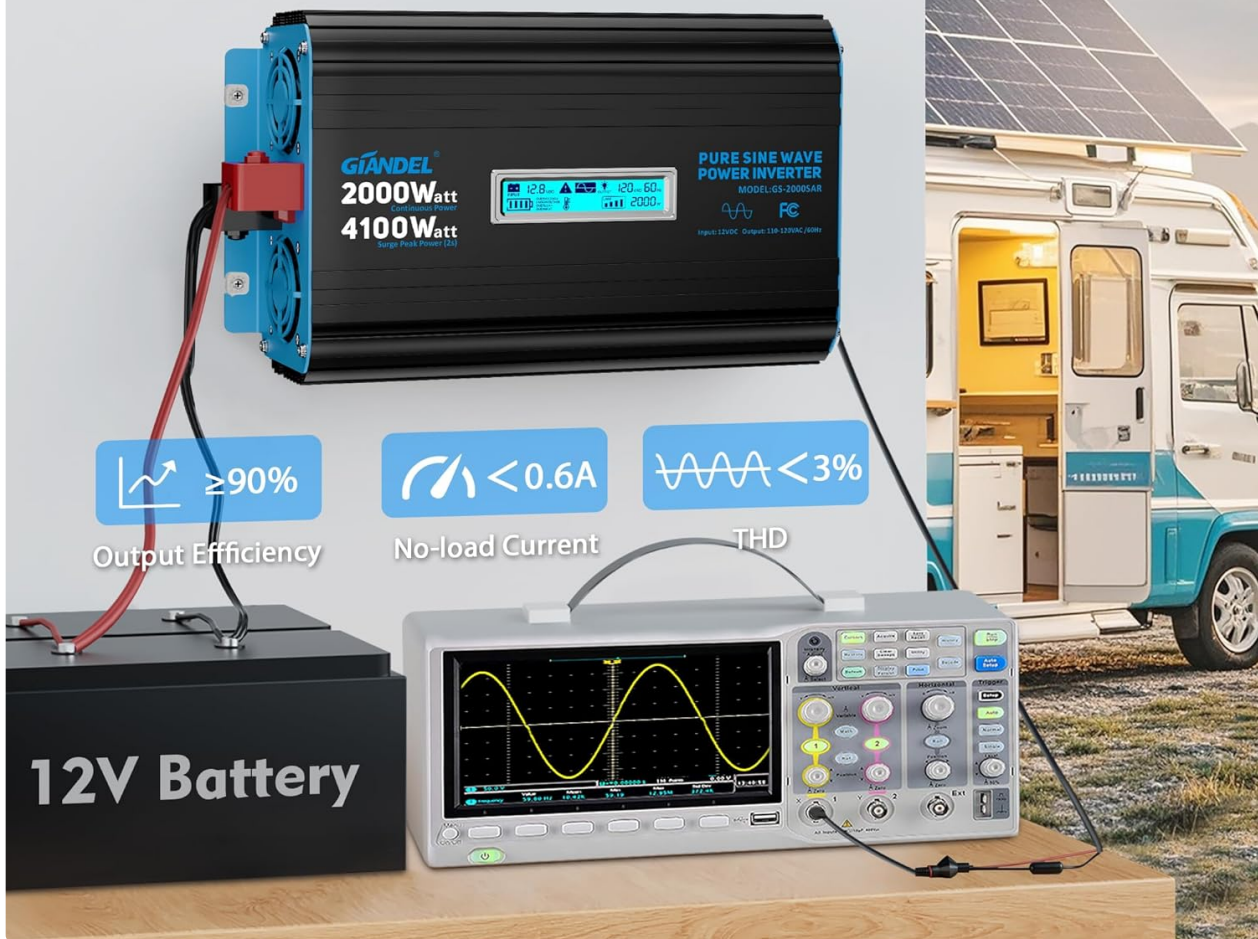


Battery Types			Battery Type selectable	Low voltage Shutdown (Can be set between 9.5~11.5V)
GEL	LI	LifePo4	H1:ACID(LeadAcid battery)	default 9.5V
NCM	AGM	CLA	H2:NCM(Ternary lithium battery)	default 11.2V
			H3:LFP(LiFeP04 battery)	default 10.4V

Diagram illustrating the connection of the GIANDEL inverter to a 12V battery system, solar controller, and loads within an RV setup, compatible with various 12V battery types.

Pure Sine Wave

2000 Watt Pure Sine Wave Inverter Provides
Clean & Smooth power same as Mains power



GIANDEL Pure Sine Wave Inverter connected to a 12V battery, demonstrating its clean and smooth power output, similar to mains power, as shown on an oscilloscope.

5. OPERATING INSTRUCTIONS

5.1. Powering On/Off

The inverter can be turned on or off using the main power button on the unit itself or the included 15ft wired remote control. The remote also features a battery level monitor for convenient monitoring from a distance, allowing you to control the inverter without being directly next to it.

5.2. Understanding the Display

The large LCD display on the inverter provides real-time information about its operation. It shows input voltage (VDC), output voltage (VAC), output frequency (Hz), current load in watts (W), and battery status. The display also indicates various protection modes (e.g., under-voltage, over-voltage, overload, over-temperature) with corresponding error codes, helping you diagnose issues quickly.

What's in the Box

Equipped with an Array of Accessories



Close-up of the GANDEL inverter's LCD display, detailing input voltage, output, load, and various setup functions (F1-F5) and protection indicators (H1-H3).

5.3. Load Capacity

This 2000W inverter provides 2000 watts of continuous power. It is designed to handle a surge peak power of 4100 watts for up to 2 seconds, making it suitable for appliances with high startup loads such as microwaves, refrigerators, or power tools. Ensure the total continuous wattage of your connected devices does not exceed 2000W.

Power Up 2000 Watts Devices Easily

2025 Patented Product for High Startup Loads



Coffee Maker



Microwave oven



Projector



Water Pump



Drone



STARLINK

Image showing the GIANDEL inverter powering a microwave and other common devices, highlighting its 4100W surge power capability for high startup loads like coffee makers, projectors, and water pumps.

6. MAINTENANCE

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

- **Cable Inspection:** Regularly inspect all battery cable connections for tightness and signs of corrosion. Loose or corroded connections can lead to voltage drops and overheating.
- **Ventilation:** Keep the inverter's ventilation openings clear of dust, dirt, and debris to ensure proper airflow. Blocked vents can lead to overheating and reduced performance.
- **Cleaning:** Use a dry, soft cloth to clean the exterior of the inverter. Do not use liquid cleaners or solvents.
- **Cooling Fans:** The inverter features smart cooling fans that activate automatically when needed to maintain optimal operating temperature. Ensure these fans are not obstructed.



Detail of the GIANDEL inverter's smart cooling fans, designed to maintain optimal temperature during operation.

7. TROUBLESHOOTING

This section addresses common issues you might encounter and their potential solutions.

Problem	Possible Cause	Solution
No Output Power	Battery connections are loose or incorrect; Battery voltage is too low or too high; Inverter is not turned on; Overload or short circuit protection activated.	Check and secure all battery connections. Ensure battery voltage is within 10.5V-15V DC. Press the power button on the inverter or remote. Check the LCD display for protection codes (e.g., F1-F5, H1-H3) and address accordingly.
Low Output Power / Overheating	Battery cables are too thin or too long; Excessive load on the inverter; Poor ventilation.	Ensure battery cables are of adequate gauge (e.g., 2 AWG or larger for 2000W) and as short as possible. Reduce the total wattage of connected devices. Ensure the inverter has clear space for airflow.
Inverter Shuts Down Unexpectedly	Activation of protection modes (low voltage, over-voltage, overload, over-temperature).	Check the LCD display for specific error codes. Recharge the battery if voltage is low. Reduce the load if overloaded. Allow the inverter to cool down if over-temperature is indicated.
Remote Control Not Working	Cable connection issue; Remote unit malfunction.	Ensure the remote cable is securely plugged into the inverter's remote port. Try operating the inverter directly from the unit's power button.

8. TECHNICAL SPECIFICATIONS

Feature	Specification
Model Number	GS-2000SAR-GFCI
Continuous Power	2000 Watts

Feature	Specification
Peak Surge Power	4100 Watts (for 2 seconds)
Input Voltage	12V DC
Output Voltage	110V-120V AC
Output Frequency	60 Hz
Output Waveform	Pure Sine Wave
Outlets	UL Listed GFCI Outlets
USB Ports	USB-C (PD 36W), USB 3.0 (QC 3.0)
Remote Control	15ft Wired Remote with Battery Monitor
Product Dimensions	15 x 8.1 x 4 inches
Item Weight	12.07 pounds
Recommended Battery Capacity	200 Amp Hours (for 2000W inverter)

9. WARRANTY AND CUSTOMER SUPPORT

GIANDEL stands behind the quality of its products. This 2000 Watt Pure Sine Wave Power Inverter comes with an 18-Month Hassle-Free Warranty.

For technical support, customer service, or to inquire about warranty claims, please contact GIANDEL directly. They offer online support and have service centers located in Illinois, Tennessee, and Texas to provide prompt assistance.

Visit the official Giandel Store for more information and products:[Giandel Store on Amazon](#)