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› WZRELB 2500W Pure Sine Wave Inverter 24V DC to 110V/120V AC Instruction Manual

WZRELB SEVC2500W24VRC

WZRELB 2500W Pure Sine Wave Inverter Instruction Manual

Model: SEVC2500W24VRC

1. INTRODUCTION

This manual provides essential information for the safe and efficient operation of your WZRELB 2500W Pure Sine Wave Inverter. This device converts 24V DC battery power into 110V/120V AC household electricity, suitable for various applications including home backup, RVs, trucks, and camping. Please read this manual thoroughly before installation and use.



Figure 1: Front view of the WZRELB 2500W Pure Sine Wave Inverter.

2. SAFETY INSTRUCTIONS

Always observe the following safety precautions to prevent injury or damage to the inverter and connected devices:

- **Ventilation:** Ensure adequate ventilation around the inverter. Do not block cooling vents.
- **Environment:** Install the inverter in a dry, cool, and dust-free environment. Avoid direct sunlight, heat sources, and flammable materials.
- **Grounding:** The inverter must be properly grounded. Connect the grounding terminal to a suitable earth ground.
- **DC Input:** Connect the inverter only to a 24V DC power source. Ensure correct polarity (+ to + and - to -). Reverse polarity can cause severe damage.
- **AC Output:** Do not overload the inverter. Ensure the total wattage of connected AC appliances does not exceed the inverter's continuous power rating (2500W).
- **Water Exposure:** Do not expose the inverter to water or moisture.

- **Servicing:** Do not attempt to open or service the inverter yourself. Refer all servicing to qualified personnel.
- **Children:** Keep the inverter out of reach of children.

3. PRODUCT FEATURES

The WZRELB 2500W Pure Sine Wave Inverter is designed with several key features for reliable performance:

- **Pure Sine Wave Output:** Provides clean and stable AC power, suitable for sensitive electronics like TVs, laptops, and CPAP machines. Conversion efficiency is greater than 90%.
- **Powerful Output:** Delivers 2500W continuous power and 5000W peak surge power. Features two 120VAC outlets and a hardwire terminal with 20.8Amp maximum capacity.
- **LED Display:** Real-time monitoring of DC input voltage for clear power usage status.
- **Remote Controller:** Allows for convenient remote operation, ideal for off-grid systems, RVs, or trucks.
- **Multi-Protection:** Includes protection against overheating, overloading, under-voltage, over-voltage, short circuit, and reverse polarity.
- **Soft Start Technology:** Reduces instantaneous impact of surge current, extending the lifespan of connected appliances.
- **Advanced Cooling System:** All-aluminum housing with three continuously operating cooling fans ensures efficient heat dissipation.

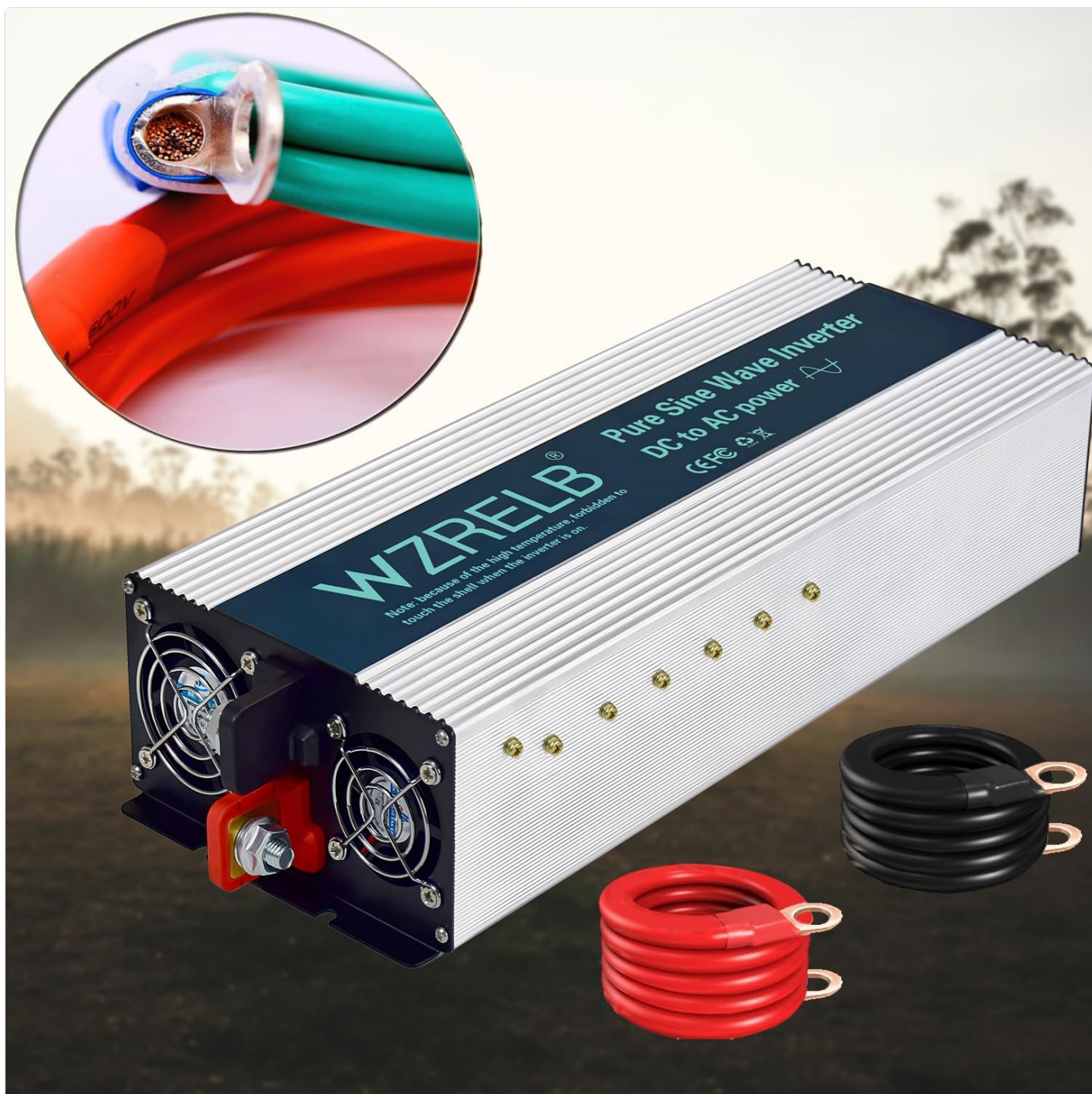
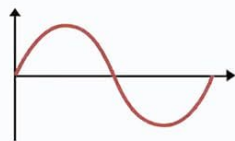


Figure 2: Key components of the WZRELB Pure Sine Wave Inverter.

Ideal For Sensitive Loads



PURE SINE WAVE



Type

Conversion
Efficiency

$>90\%$

THD

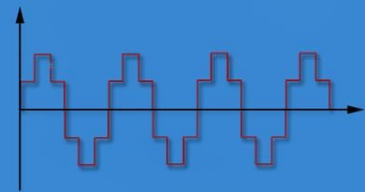
$<3\%$

Compatibility
Device

$>99\%$



Modified sine wave inverter



$<80\%$

20%

Very few electrical appliances

Figure 3: Overview of the inverter's comprehensive protection features.

4. SETUP

4.1 Unpacking and Inspection

Carefully remove the inverter from its packaging. Inspect for any signs of damage during transit. Ensure all accessories, including the remote controller and battery cables, are present.

Compact & Ultra-light Weight

Easily move to different vehicles with quick connect

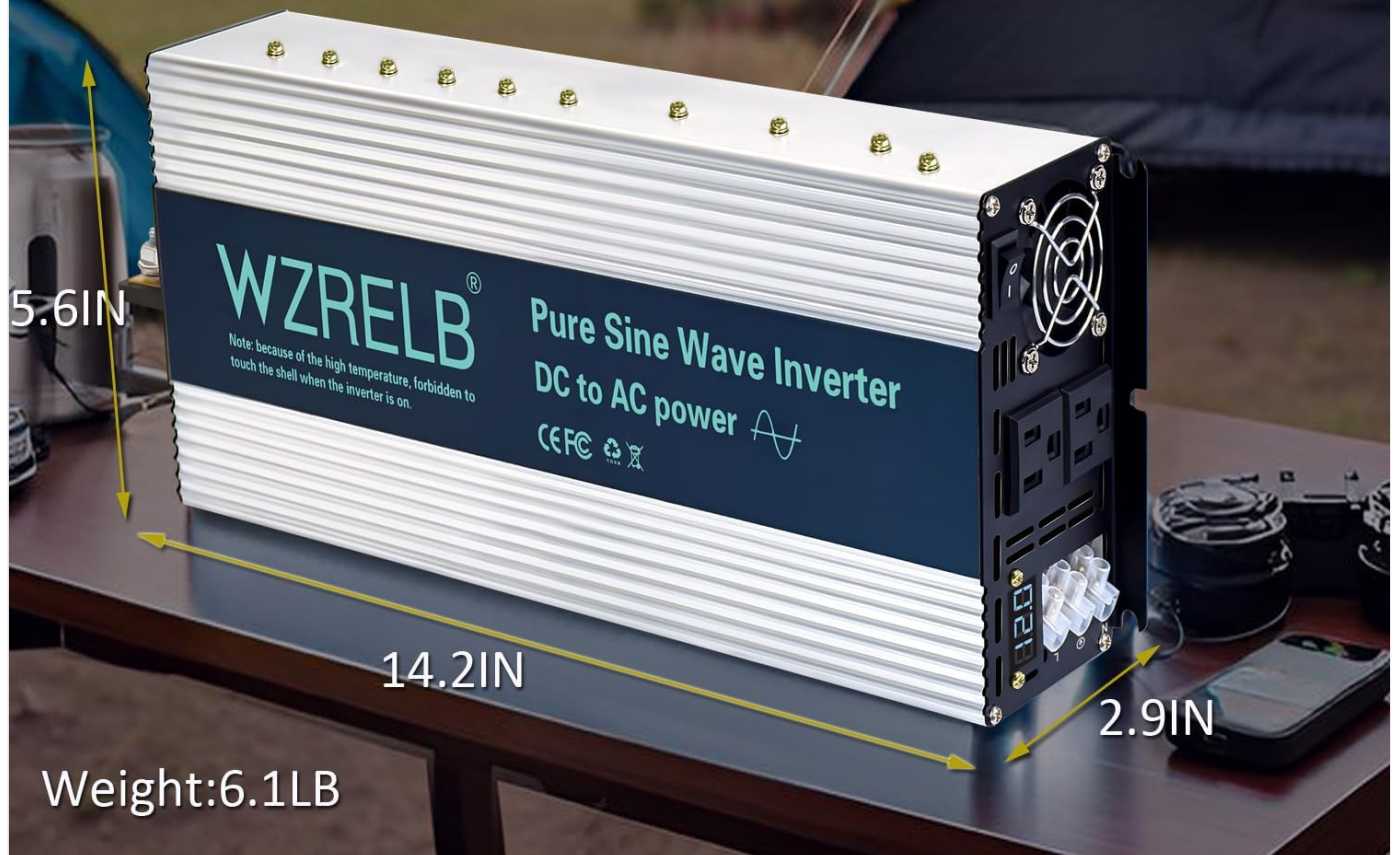


Figure 4: Inverter with included battery cables.

4.2 Mounting the Inverter

Mount the inverter in a secure, well-ventilated location. Ensure there is sufficient space around the unit for airflow, especially around the cooling fans. The inverter can be mounted horizontally or vertically. Use appropriate fasteners for the mounting surface.

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Video 1: Demonstration of mounting the WZRELB Pure Sine Wave Inverter.

4.3 DC Input Connection

Connect the inverter to a 24V DC battery bank. Use the provided heavy-gauge cables. Connect the positive (+) terminal of the inverter to the positive (+) terminal of the battery, and the negative (-) terminal of the inverter to the negative (-) terminal of the battery. Ensure connections are tight to prevent voltage drop and overheating.

4.4 Grounding

Proper grounding is crucial for safety. Connect the grounding terminal on the inverter to a reliable earth ground. This could be the chassis of a vehicle, a dedicated ground rod, or the grounding system of a building, depending on your application.



Figure 5: Illustration of the ground line connection point on the inverter.

5. OPERATING INSTRUCTIONS

5.1 Powering On/Off

After all connections are secure, switch the inverter's main power button to the 'ON' position. The LED display will illuminate, showing the DC input voltage. To turn off, switch the main power button to 'OFF'.

5.2 Using the Remote Controller

The remote controller allows you to turn the inverter on or off from a distance. Ensure the main power switch on the inverter is in the 'ON' position for the remote to function. The remote requires a 23A 12V alkaline battery (not included).

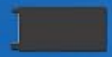
Ideal For Sensitive Loads		
		
	PURE SINE WAVE	Modified sine wave inverter
Type		
Conversion Efficiency	>90%	<80%
THD	<3%	20%
Compatibility Devices	>99%	Very few electrical appliances

Figure 6: The remote controller for the inverter.

5.3 Connecting AC Appliances

Plug your AC appliances into the inverter's outlets or connect them to the hardwire terminal. Always ensure the total continuous power draw of all connected appliances does not exceed 2500W. For appliances with high startup surge, the inverter can handle up to 5000W peak surge.

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Video 2: Demonstration of the inverter powering an electric drill.

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Video 3: Demonstration of the inverter powering a battery charger and laptop.

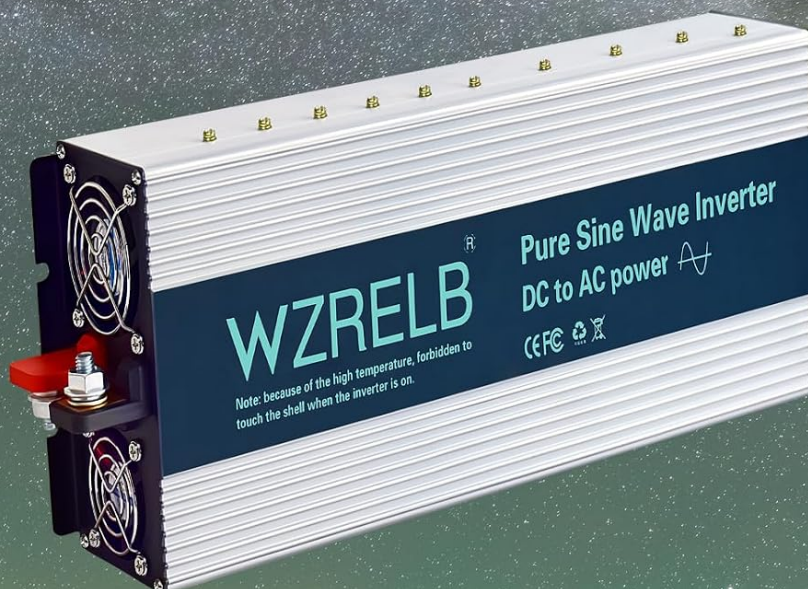
6. MAINTENANCE

Regular maintenance ensures optimal performance and longevity of your inverter:

- **Cleaning:** Periodically clean the exterior of the inverter with a dry cloth. Ensure cooling vents are free from dust and debris.
- **Connections:** Regularly check all DC and AC connections to ensure they are tight and free from corrosion.
- **Battery Maintenance:** Follow the manufacturer's guidelines for your battery type to ensure proper charging and maintenance. A healthy battery is essential for inverter performance.
- **Fan Operation:** Ensure the cooling fans are operating correctly and not obstructed.

ALL AROUND PROTECTION

Powerful Drive Capacity& Less Power Consumption



Short Circuit
Protection



Over-load
Protection



LED Display



Over Current
Protection



Under Voltage
Protection



Reverse Polarity
Protection



Over Voltage
Protection



Over-temperature
Protection



Cooling Fan

Figure 7: The inverter's cooling system design.

7. TROUBLESHOOTING

If you encounter issues with your inverter, refer to the following common problems and solutions:

Problem	Possible Cause	Solution
No AC output, LED off	No DC input power; loose connections; inverter switch off.	Check battery connections and voltage; ensure inverter switch is ON.
Inverter shuts down, alarm sounds	Overload; low battery voltage; overheating; short circuit.	Reduce load; recharge battery; ensure proper ventilation; check for short circuits.
Low AC output voltage	Low DC input voltage; excessive load.	Check battery voltage and charge level; reduce connected load.

Problem	Possible Cause	Solution
Remote controller not working	Inverter main switch off; remote battery dead; remote out of range.	Ensure inverter main switch is ON; replace remote battery; operate within range.

8. SPECIFICATIONS

Detailed technical specifications for the WZRELB 2500W Pure Sine Wave Inverter:

Specification	Detail
Brand	WZRELB
Model Name	SEVC2500W24VRC
Wattage (Continuous)	2500 watts
Peak Output Power	5000 watts
DC Input Voltage	24 Volts (DC)
AC Output Voltage	110V / 120V AC
Electrical Output Waveform	Pure Sine Wave
Conversion Efficiency	>90%
Display Type	LED
Item Dimensions (L x W x H)	14.2"L x 5.6"W x 2.9"H
Item Weight	6.1 Pounds
Color	Silvery White
Built-In Media	Cable, Power Inverter, Remote controller
Recommended Uses	Home, RV, Truck, Camping



Figure 8: Physical dimensions of the inverter.

9. WARRANTY AND SUPPORT

Your WZRELB 2500W Pure Sine Wave Inverter comes with a **1-Year Warranty** from the date of purchase. This warranty covers defects in materials and workmanship under normal use.

For technical support, warranty claims, or any questions regarding your product, please contact the manufacturer, Yueqing Reliable Electric Co., Ltd. Refer to your purchase documentation for specific contact details or visit the WZRELB brand store on Amazon.

Manufacturer: Yueqing Reliable Electric Co., Ltd.

ASK A QUESTION ABOUT THIS MANUAL

Ask about setup, troubleshooting, compatibility, parts, safety, or missing instructions. Manuals+ will review the question and use this page’s manual context to help answer it.

Name

Anonymous

Email

you@example.com

After a successful submission, we securely hash the supplied account or form email before sending it to Microsoft Advertising for conversion attribution. [Privacy details](#).

Question

Example: How do I reset this device or fix this error?

Details

Model number, symptoms, what you tried, or the section of the manual you are using.

Submit question