XWJNE 25IVBTK-2KW-12V-120

XWJNE 2000W Pure Sine Wave Power Inverter User Manual

Model: 25IVBTK-2KW-12V-120 | Brand: XWJNE

1. Introduction

This manual provides essential information for the safe and efficient operation of your XWJNE 2000W Pure Sine Wave Power Inverter. This device converts 12V DC battery power to 120V AC household power, suitable for various applications including off-grid systems, RVs, trucks, and home backup. Please read all instructions carefully before installation and use.

2. Safety Instructions

Always prioritize safety when operating electrical equipment. This inverter is equipped with multiple protection features to ensure safe usage. Adhere to the following precautions:

- **Ventilation:** Ensure the inverter is installed in a well-ventilated area to prevent overheating.
- **Grounding:** The GFCI (Ground Fault Circuit Interrupter) outlets require a proper ground connection to function correctly. Use the provided ground wire to connect the inverter to an appropriate grounding point.
- **Battery Connection:** Connect the battery cables securely to the correct terminals (red to positive, black to negative). Incorrect polarity can cause damage.
- **Load Capacity:** Do not exceed the inverter's rated continuous power output (2000W) or peak power (4000W).
- **Environmental Conditions:** Avoid exposing the inverter to rain, moisture, snow, liquid, or dust.

Figure 1: Basic Safety Protection with GFCI. This image illustrates the inverter's built-in safety features, including overtemperature, low-voltage, overpower, output short circuit, load shock, and overvoltage protection, along with the GFCI outlet for enhanced electrical safety.

3. Package Contents

Verify that all items are present in the box:

- XWJNE 2000W Pure Sine Wave Power Inverter
- 2 x 2.62ft 3AWG Positive and Negative Battery Cable Clips
- 1 x 1.64ft Ground Wire
- Remote Controller with Cable
- Instruction Manual
- Wrench
- 2 x 40A 32V Fuses

Figure 2: Box Including. This image displays all components included in the product package, such as the inverter, battery cables, remote control, manual, fuses, wrench, and ground wire.

4. Product Overview and Features

The XWJNE 2000W Pure Sine Wave Power Inverter is designed for robust performance and versatility. Its pure sine wave output ensures compatibility with sensitive electronics, providing clean and stable power comparable to grid electricity.

4.1 Front and Rear Panels

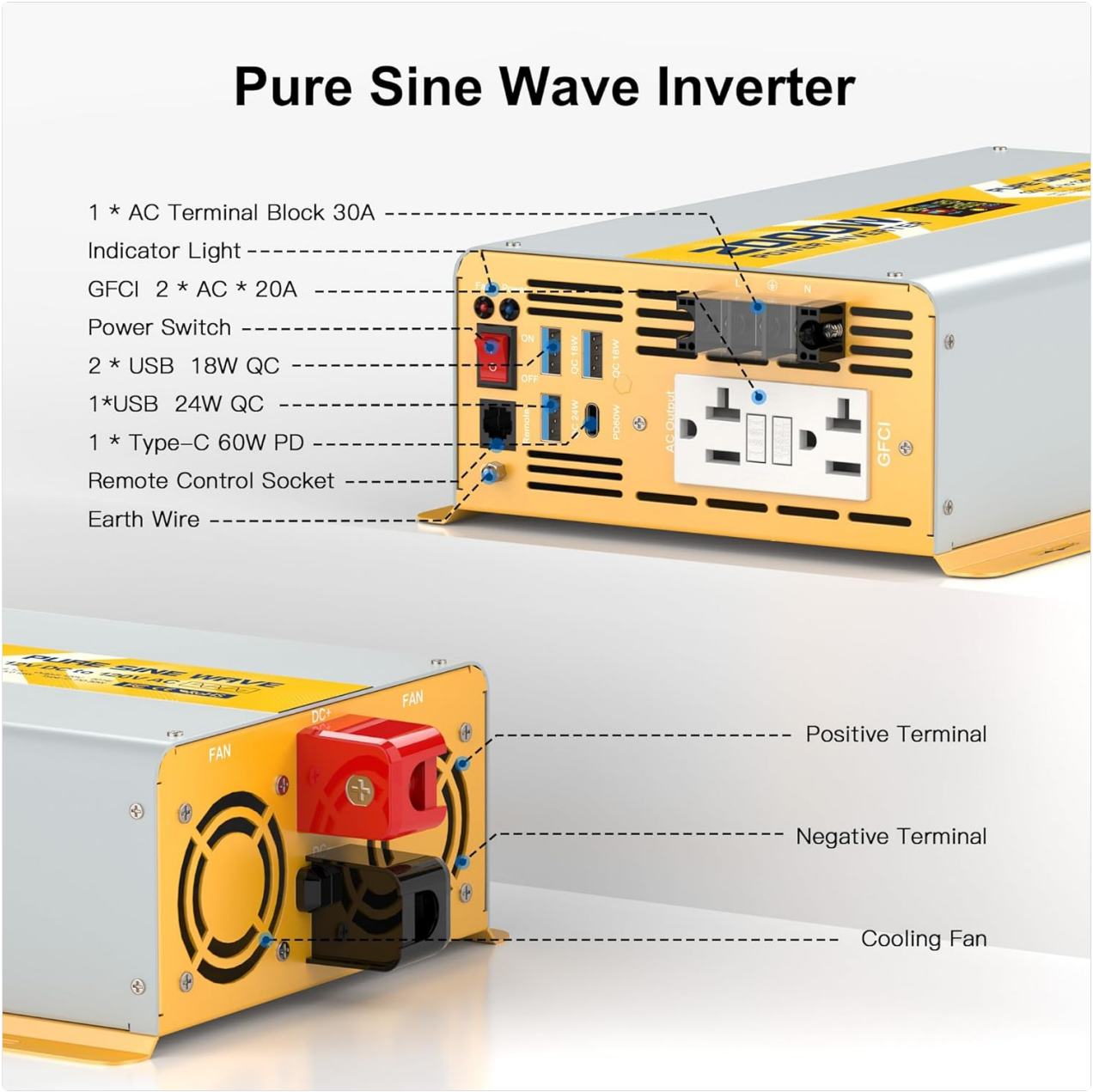

Figure 3: Pure Sine Wave Inverter Labeled Ports. This image provides a detailed diagram of the inverter's various ports and features, including AC terminal block, GFCI outlets, indicator light, power switch, USB ports, Type-C port, remote control socket, earth wire, positive terminal, negative terminal, and cooling fans.

The front panel features:

- 2 x 120V GFCI AC Output Ports
- 1 x AC Terminal Board (30A)
- 3 x USB Ports (5V 2.4A, including 2 x QC 18W, 1 x QC 24W)
- 1 x Type-C Port (PD 60W)
- Power Switch (ON/OFF)
- Indicator Lights (Fault, Power)
- Remote Control Socket
- Earth Wire Connection Point

The rear panel includes:

- Positive (+) DC Input Terminal
- Negative (-) DC Input Terminal
- 2 x High-Efficiency Cooling Fans

4.2 Key Features

- **Pure Sine Wave Output:** Produces high-quality power suitable for sensitive electronics, ensuring quiet and smooth operation without humming sounds.
- **High Efficiency:** Energy conversion efficiency is over 90%, minimizing power loss.
- **Comprehensive Protection:** Includes under-voltage, over-voltage, overload, over-temperature, short-circuit, and reverse polarity protection.
- **GFCI Outlets:** Ground Fault Circuit Interrupter outlets provide enhanced safety for connected appliances.
- **Smart Cooling Fans:** Fans automatically activate when internal temperature exceeds 45°C (113°F) or load is over 50%, ensuring optimal operating conditions.
- **LCD Display & Remote Control:** Provides real-time monitoring of input/output voltage, wattage, battery level, and temperature. The wired remote control allows convenient operation from a distance.

Figure 4: Pure Sine Wave Output. This image illustrates the smooth, consistent waveform of pure sine wave power, ensuring sensitive appliances can be used with confidence, similar to mains electricity.

Figure 5: Strong Compatibility and Performance. This image highlights the inverter's compatibility with various battery types and its ability to power a range of common household and outdoor appliances.

Figure 6: Two High-Efficiency Cooling Fans. This image shows the inverter's dual cooling fans, which automatically activate when necessary to maintain optimal operating temperature and run at a low decibel level.

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Video 1: XWJNE 2000W Pure Sine Wave Inverter Overview. This video provides a general overview of the XWJNE 2000W Pure Sine Wave Inverter, demonstrating its features and capabilities.

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Video 2: XWJNE 2000W Pure Sine Wave 12V DC to 120V AC Power Inverter Demonstration. This video demonstrates the XWJNE 2000W Pure Sine Wave Inverter in action, showcasing its performance with various loads.

5. Setup

Proper setup is crucial for optimal performance and safety. Follow these steps to connect your inverter:

1. **Prepare the Battery:** Ensure your 12V deep-cycle battery is fully charged and in good condition. The inverter requires a battery with a discharge level of 80% or more.
2. **Connect Battery Cables:** Attach the red battery cable to the positive (+) terminal of the inverter and the positive (+)

terminal of the battery. Attach the black battery cable to the negative (-) terminal of the inverter and the negative (-) terminal of the battery. Ensure connections are tight and secure.

3. **Grounding:** Connect the provided ground wire from the inverter's earth wire connection point to a reliable ground source.
4. **Remote Control (Optional):** Plug the remote control cable into the remote control socket on the inverter.

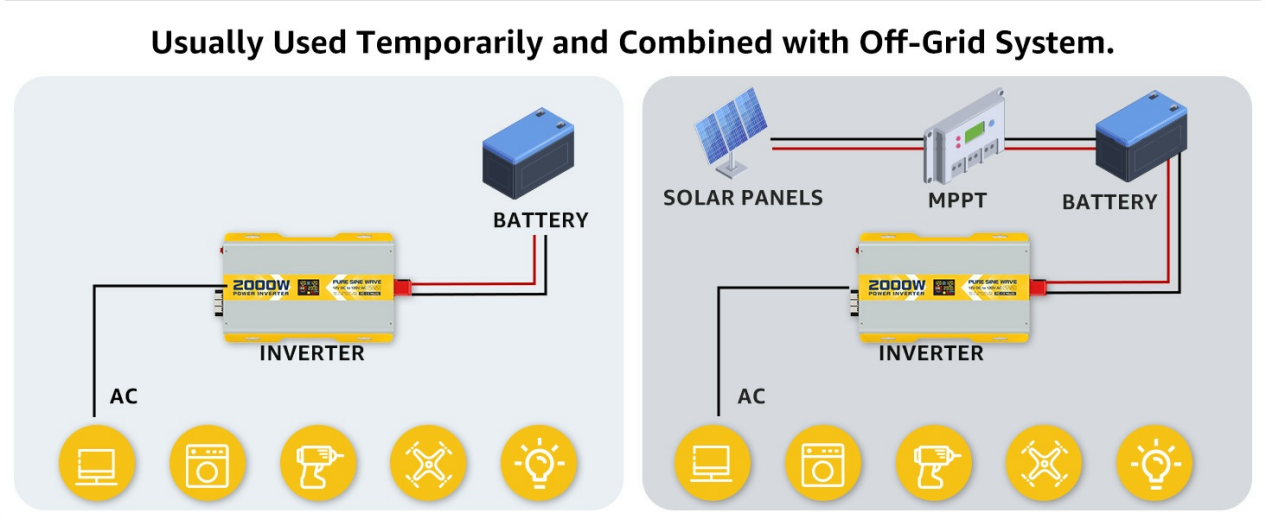
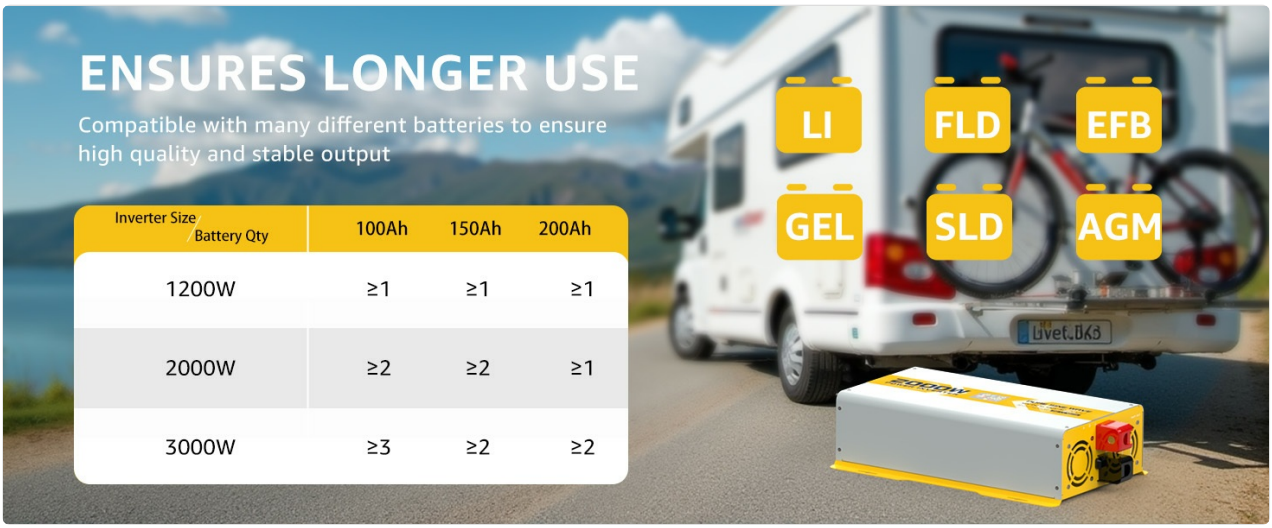


Figure 7: Typical Inverter Setup. This image illustrates how the inverter can be used temporarily with a battery or integrated into a more complex off-grid solar energy system.



Inverter Size / Battery Qty	100Ah	150Ah	200Ah
1200W	≥1	≥1	≥1
2000W	≥2	≥2	≥1
3000W	≥3	≥2	≥2

Figure 8: Battery Compatibility and Quantity. This image provides a table detailing the recommended battery quantities and capacities for different inverter sizes to ensure high-quality and stable power output.

6. Operating Instructions

6.1 Powering On/Off

To power on the inverter, switch the main power switch on the inverter unit to the 'ON' position. If using the remote control, ensure the main switch is 'ON', then use the ON/OFF button on the remote. To power off, reverse the process.

6.2 LCD Display and Remote Control

The integrated LCD display and the remote control provide real-time operational data:

- **Input Voltage:** Displays the current DC voltage from the battery.
- **Output Voltage:** Shows the AC voltage being supplied to loads.
- **Loads Power (Wattage):** Indicates the current power consumption of connected devices.

- **Battery Power:** Visual representation of the battery's charge level.
- **Working Temperature:** Displays the internal temperature of the inverter.
- **Frequency:** Shows the output AC frequency (60Hz).
- **Protection Status:** Icons indicate active protection modes (e.g., low voltage, overload, over-temperature).

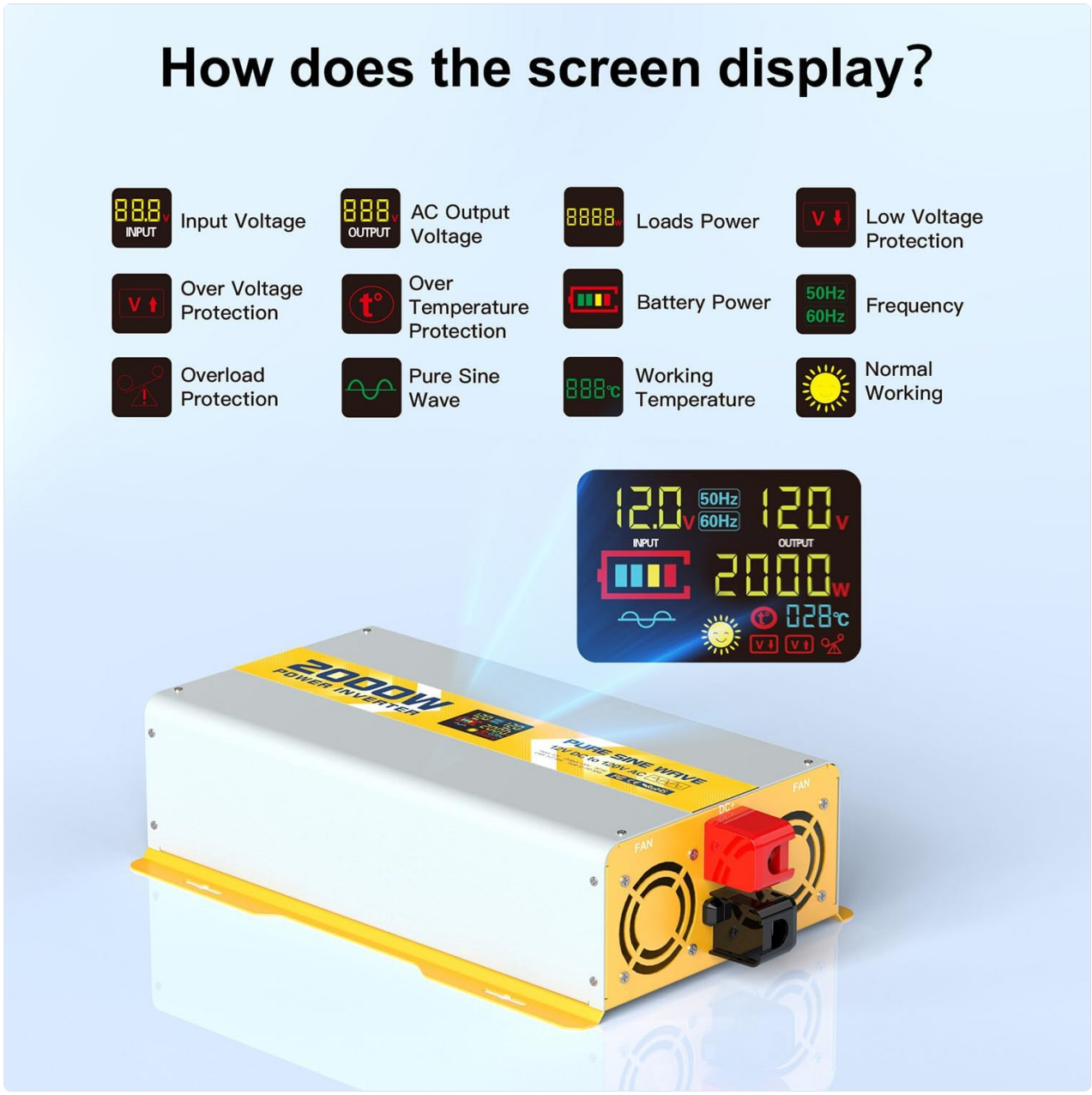


Figure 9: LCD Screen Display. This image details the various indicators and values shown on the inverter's LCD screen, providing comprehensive real-time operational information.

Figure 10: Updated Remote Control Switch. This image shows the remote control in use, highlighting its ability to display the inverter's working status and enable convenient remote operation.

7. Applications

The XWJNE 2000W Pure Sine Wave Power Inverter is versatile and can be used in numerous scenarios:

- **Home:** For emergency backup power during outages, running essential appliances.
- **RV & Camping:** Powering appliances and electronics in recreational vehicles or during outdoor activities.
- **Trucks:** Providing AC power for tools and devices in commercial or personal trucks.
- **Off-Grid Solar Power Systems:** As a reliable component for converting solar-generated DC power to usable AC power.

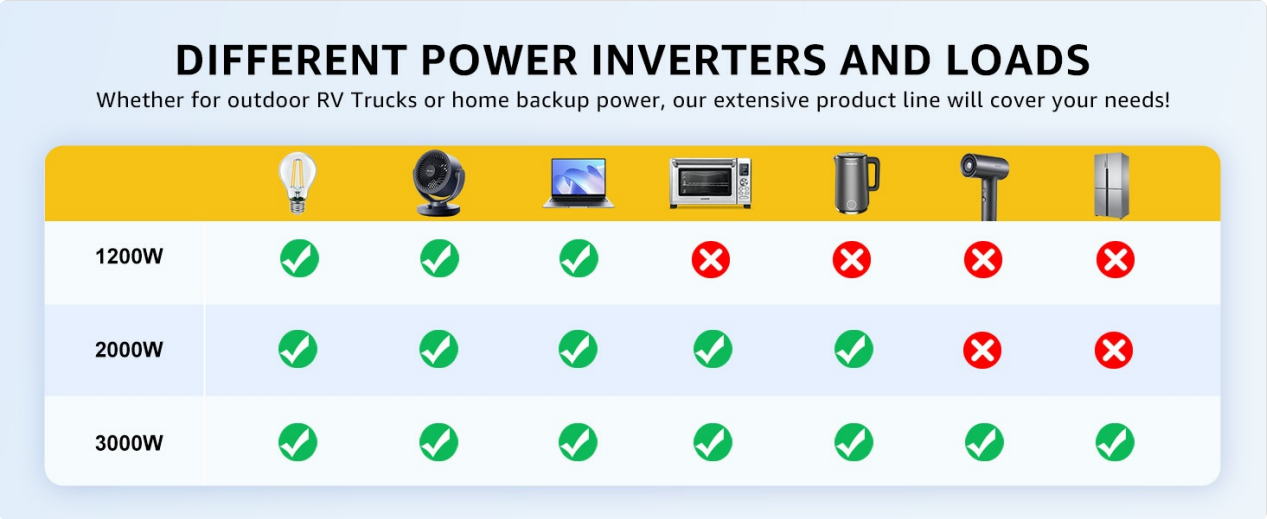


Figure 11: Different Power Inverters and Loads. This image provides a comparison of different inverter wattages and their suitability for various electrical loads, from light bulbs to refrigerators.

Figure 12: Versatile Applications. This image showcases the inverter's utility across diverse environments, including RVs, boats, semi-trucks, and home settings.

8. Maintenance

To ensure the longevity and optimal performance of your XWJNE inverter, regular maintenance is recommended:

- **Keep Clean:** Regularly clean the exterior of the inverter to prevent dust and debris buildup, which can hinder cooling.
- **Check Connections:** Periodically inspect all cable connections to ensure they are tight and free from corrosion.
- **Ventilation:** Ensure airflow around the inverter is unobstructed. The smart fans will operate as needed to maintain internal temperature.
- **Battery Health:** Monitor your battery's health and charge level, especially if it's a deep-cycle battery, to maximize its lifespan and the inverter's performance.

9. Troubleshooting

The LCD display provides fault codes and indicators to help diagnose issues. Refer to the display for immediate feedback on the inverter's status.

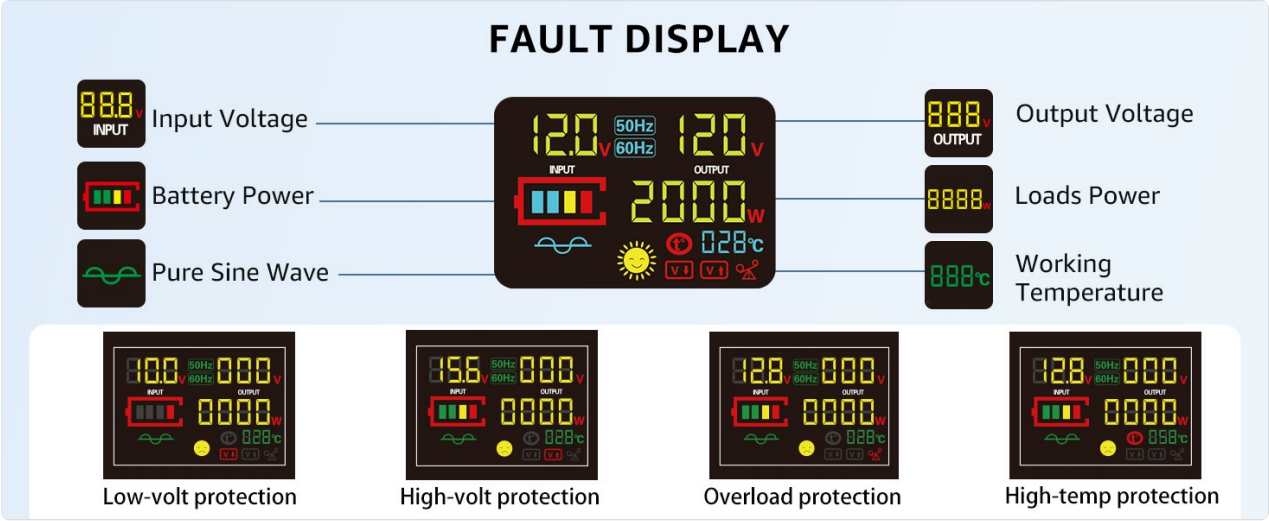


Figure 13: Fault Display. This image illustrates different fault conditions as displayed on the inverter's LCD screen, providing visual cues for common issues like low voltage, high voltage, overload, and high temperature.

Figure 14: Powerful Value Display and Fault Detection. This image presents a comprehensive list of fault codes and their meanings, enabling users to quickly identify and address problems based on the inverter's display.

10. Specifications

Specification	Value
Product Dimensions	9.06 x 8.66 x 17.72 inches
Item Weight	12 pounds
Item Model Number	25IVBTK-2KW-12V-120
Brand	XWJNE
Recommended Uses	Home, Off-Grid, RV, Truck, Vehicle
Power Source	Battery Powered
Wattage	2000 watts (4000W Peak)
Battery Capacity	200 Amp Hours (Recommended Minimum)

Specification	Value
Energy Conversion Efficiency	More than 90%
No-Load Current	Less than 1A
THD (Total Harmonic Distortion)	<3%

11. Warranty and Support

XWJNE is committed to providing reliable products and customer satisfaction. For any questions or assistance, please contact our 24-hour customer service team. Refer to the product packaging or official website for warranty details.