XWJNE 25IVBTK-12HW-12V-120

XWJNE 1200W Pure Sine Wave Power Inverter Instruction Manual

Model: 25IVBTK-12HW-12V-120

Brand: XWJNE

1. Introduction

This manual provides essential information for the safe and efficient operation of your XWJNE 1200W Pure Sine Wave Power Inverter. This device converts 12V DC battery power to 120V AC household power, suitable for various applications including home, RV, truck, and off-grid solar systems. Please read all instructions carefully before use.

The inverter delivers high-quality pure sine wave output, comparable to commercial power, ensuring compatibility with sensitive electronics. It features a robust metal casing for durability and efficient heat dissipation, along with multiple protection mechanisms for safe operation.

2. Safety Precautions

- Always ensure proper ventilation around the inverter to prevent overheating.
- Do not expose the inverter to rain, moisture, snow, liquid, or dust.
- Ensure all connections are secure and correct polarity is observed (red for positive, black for negative).
- The power source should be a deep-cycle battery with a discharge level of 80% or more.
- Avoid connecting the inverter to a power source that exceeds its rated voltage.
- Do not open or attempt to repair the inverter yourself. Refer to qualified personnel for service.
- Utilize the GFCI (Ground Fault Circuit Interrupter) outlets for enhanced electrical safety.

3. What's in the Box

Upon unboxing your XWJNE 1200W Pure Sine Wave Power Inverter, please verify that all the following items are included:

- Inverter Unit

- Car Battery Cables (2.62ft 7AWG positive and negative)
- Instruction Manual
- Fuses (2 x 40A 32V)
- Ground Wire (1.64ft)
- Screwdriver

Figure 1: Included accessories with the XWJNE 1200W Power Inverter.

4. Product Overview

Front Panel

The front panel of the inverter features the main AC output ports, USB charging ports, and the power switch. The integrated LCD display provides real-time operational status and fault indications.

- **Power Switch:** Toggles the inverter's main power.
- **GFCI AC Output Ports:** Two 120V AC outlets with Ground Fault Circuit Interrupter for safety.

- **USB Ports:** Includes 1 USB-A port (5V 2.4A) and 1 Type-C port for charging devices.
- **LCD Display:** Shows input voltage, output voltage, load power, battery level, frequency, and temperature.

Rear Panel

The rear panel is equipped with the DC input terminals for battery connection and cooling fans.

- **Positive (+) Terminal:** Red terminal for positive battery connection.
- **Negative (-) Terminal:** Black terminal for negative battery connection.
- **Cooling Fans:** Two high-efficiency fans for heat dissipation.

Figure 2: Front and Rear Panel Layout.

5. Setup

5.1 Connecting to a Battery

1. Ensure the inverter's power switch is in the OFF position.

2. Connect the red battery cable to the inverter's positive (+) terminal and then to the positive terminal of your 12V DC battery.
3. Connect the black battery cable to the inverter's negative (-) terminal and then to the negative terminal of your 12V DC battery.
4. Tighten all connections securely to prevent loose contacts and arcing.

5.2 Grounding the Inverter

For safety, connect the included green/yellow ground wire to the inverter's grounding screw and to a proper earth ground point (e.g., vehicle chassis, building ground rod).

5.3 Remote Control Connection

If your inverter model includes a remote control, connect the remote cable to the designated remote port on the inverter's front panel. This allows for convenient monitoring and control of the inverter from a distance.

Figure 3: Inverter connected to a 12V battery.

Video 1: Detailed unboxing and setup guide for the XWJNE 1200W Pure Sine Wave Inverter, demonstrating cable connections and initial power-up.

6. Operating the Inverter

6.1 Powering On/Off

1. After connecting the battery, switch the main power button on the inverter to the ON position.
2. The LCD display will illuminate, showing current status.
3. To turn off the inverter, switch the main power button to the OFF position.

6.2 LCD Display

The intelligent LCD screen provides comprehensive information about the inverter's operation:

- **Input Voltage:** Displays the DC voltage from the battery.
- **Output Voltage:** Shows the AC voltage being supplied.
- **Load Power:** Indicates the current wattage being drawn by connected devices.
- **Battery Power:** Visual representation of the battery's charge level.
- **Frequency:** Displays the output frequency (60Hz).
- **Temperature:** Shows the internal temperature of the inverter.
- **Status Icons:** Indicators for normal operation, low voltage protection, over voltage protection, overload protection, over temperature protection, short circuit protection, and reverse polarity protection.

Figure 4: LCD Display Details.

6.3 Remote Control Function

The wired remote control allows you to monitor and operate the inverter from a convenient location. It mirrors the main LCD display, providing real-time data and control over the inverter's ON/OFF state.

6.4 Usage Examples

The XWJNE 1200W inverter is versatile for various applications:

- **Home Backup:** Power essential appliances during outages.
- **RV & Truck:** Provides AC power for mobile living and travel.
- **Off-Grid Solar Systems:** Integrates with solar setups for independent power.
- **Outdoor Activities:** Powers tools and devices for camping, work sites, etc.

Figure 5: Diverse applications of the inverter.

7. Maintenance

7.1 Cooling System

The inverter is equipped with intelligent cooling fans that automatically activate when the internal temperature exceeds 45°C (113°F) or when the load exceeds 50% of its rated capacity. This ensures optimal operating conditions and extends the lifespan of the device. Keep the fan vents clear of obstructions.

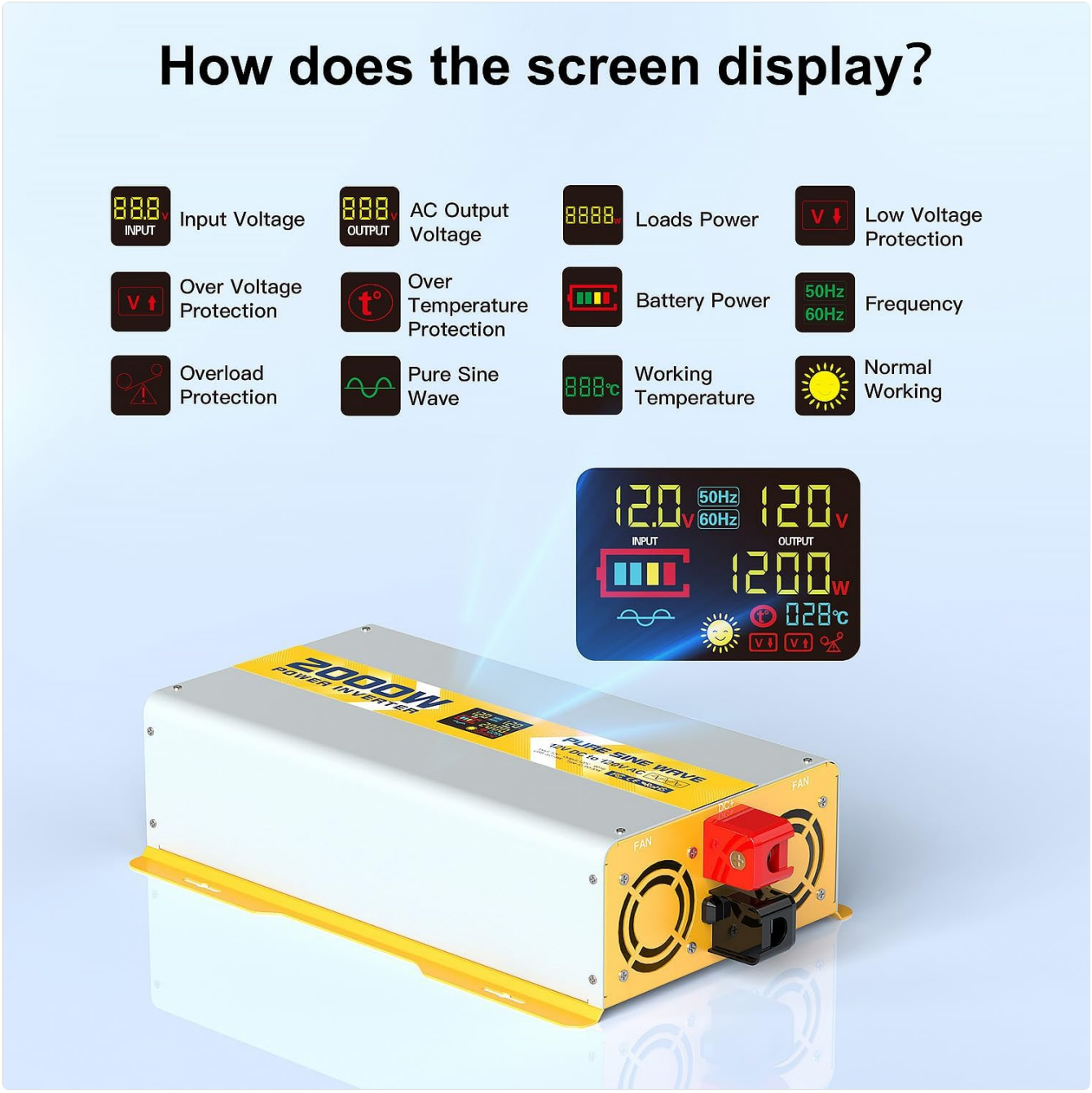

Figure 6: Inverter cooling fans.

8. Troubleshooting

The inverter is designed with multiple protection mechanisms to ensure safe and reliable operation. The intelligent LED screen will display specific fault codes to help identify and resolve issues.

8.1 Protection Mechanisms

- **Under-voltage Protection:** Shuts down the inverter if the input voltage drops too low.
- **Over-voltage Protection:** Protects against excessively high input voltage.
- **Overload Protection:** Activates if the connected load exceeds the inverter's capacity.
- **Over-temperature Protection:** Shuts down if the internal temperature becomes too high.
- **Short-circuit Protection:** Prevents damage from output short circuits.
- **Reverse Polarity Protection:** Guards against incorrect battery connections.

8.2 Fault Display Codes

Refer to the LCD screen for specific fault codes (e.g., F01 for Parameter Configuration Fault, F07 for Output Overload, F12 for Battery Undervoltage) to diagnose and address operational issues.

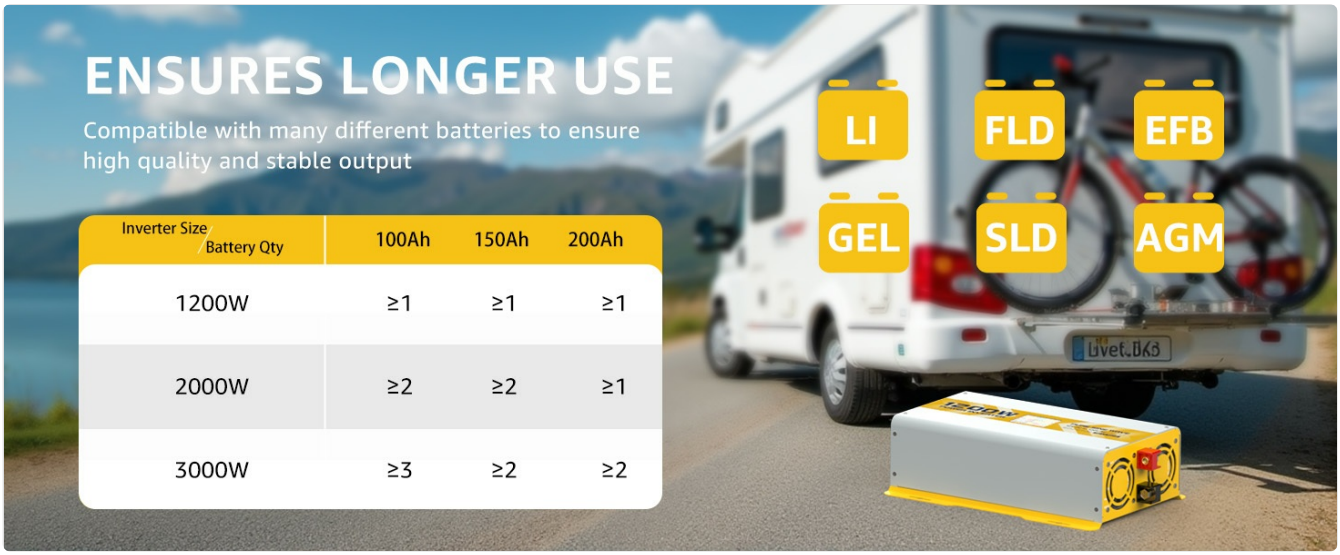

Figure 7: Fault display codes and their explanations.

9. Specifications

Feature	Value
Product Dimensions	7.48 x 3.39 x 11.81 inches
Item Weight	8 pounds
Item Model Number	25IVBTK-12HW-12V-120
Brand	XWJNE
Recommended Uses	Home, Off-Grid, RV, Truck, Vehicle
Power Source	Battery Powered
Wattage	1200 watts
Battery Capacity	100 Amp Hours (recommended minimum)
Input Voltage	12V DC
Output Voltage	120V AC
Output Frequency	60Hz
Waveform	Pure Sine Wave
Peak Power	2400W
Efficiency	>90%
No-load Current	<1A

10. Warranty & Support

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