

FGXBRY HPXC0050E

FGXBRY Pure Sine Wave Inverter HPXC0050E User Manual

Model: HPXC0050E | Brand: FGXBRY

1. INTRODUCTION

This user manual provides essential information for the safe and efficient operation of your FGXBRY Pure Sine Wave Inverter, model HPXC0050E. Please read this manual thoroughly before installation and use to ensure proper function and to prevent damage to the unit or connected devices. Keep this manual for future reference.

2. SAFETY INSTRUCTIONS

Always observe the following safety precautions to reduce the risk of electric shock, fire, or injury:

- **Read all instructions:** Before operating the inverter, read all instructions and cautionary markings on the inverter, the batteries, and all appropriate sections of this manual.
- **Ventilation:** Ensure adequate ventilation around the inverter. Do not install in a zero-clearance compartment.
- **Avoid moisture:** Do not expose the inverter to rain, snow, spray, bilge water, or excessive dust.
- **Proper battery connection:** Connect the inverter to a 24V DC battery system only. Incorrect voltage can cause damage.
- **Grounding:** The inverter must be properly grounded.
- **Qualified personnel:** All electrical work should be performed by qualified personnel.
- **Avoid flammable materials:** Do not install the inverter near flammable materials or in areas where flammable fumes or gases may accumulate.
- **Disconnect power:** Always disconnect power from the battery before performing any maintenance or troubleshooting.
- **Overload protection:** Do not exceed the inverter's rated output power. Overloading can cause

damage and fire.

3. PRODUCT OVERVIEW

The FGXBBRY Pure Sine Wave Inverter HPXC0050E is designed to convert 24V DC power into 220V 60Hz AC power, suitable for various applications. It features a robust design and multiple protection mechanisms to ensure reliable operation.

Key Features:

- **Comprehensive Safety Protection:** Equipped with multiple protection mechanisms including overvoltage, overload, overcurrent, undervoltage, overheating, and short circuit.
- **Durable Material Body:** Constructed from sturdy and wear-resistant materials for extended service life.
- **Efficient Heat Dissipation:** Optimized heat dissipation structure ensures stable, low-temperature operation even under prolonged high load.
- **Precise Frequency Output:** Delivers a stable 60Hz output for efficient operation of sensitive electronics.
- **Easy Installation:** Designed for straightforward setup and integration with your existing power system.

Component Identification:



Figure 3.1: Front and side view of the FGXBBRY Pure Sine Wave Inverter. This image shows the AC output sockets and the multi-function display panel on the front, along with the ribbed aluminum casing for heat dissipation.



Figure 3.2: Rear view of the FGXBRY Pure Sine Wave Inverter. This image highlights the DC input terminals (red for positive, black for negative) and the cooling fans, which are crucial for maintaining optimal operating temperature.

4. SETUP AND INSTALLATION

Follow these steps for proper installation of your inverter:

- 1. Choose a suitable location:** Select a dry, well-ventilated area away from direct sunlight, heat sources, and flammable materials. Ensure sufficient space for airflow around the inverter's cooling fins and fans.
- 2. Mount the inverter:** Securely mount the inverter using appropriate fasteners. Ensure it is stable and cannot be easily dislodged.
- 3. Connect to battery:**
 - Ensure the inverter is OFF.
 - Connect the positive (+) terminal of the 24V DC battery to the red (+) terminal on the inverter.
 - Connect the negative (-) terminal of the 24V DC battery to the black (-) terminal on the inverter.
 - Use heavy-gauge cables appropriate for the current draw to minimize voltage drop. Ensure connections are tight and secure.
- 4. Grounding:** Connect the inverter's chassis ground terminal to a reliable earth ground.

5. **Connect AC loads:** Plug your AC appliances into the inverter's AC output sockets. Ensure the total power consumption of all connected devices does not exceed the inverter's rated continuous output power (6000W).

Important: Always connect the battery first, then the AC loads. When disconnecting, disconnect AC loads first, then the battery.

5. OPERATING INSTRUCTIONS

1. **Power On:** After all connections are secure, press the power button on the inverter. The indicator lights should illuminate, and the display panel will show operational status.
2. **Monitor Operation:** Observe the multi-function display for real-time information such as input voltage, output voltage, and load power.
3. **Power Off:** To turn off the inverter, first disconnect all AC loads, then press and hold the power button until the unit powers down.

Note: The inverter's cooling fans will activate automatically when necessary to maintain optimal operating temperature.

6. MAINTENANCE

Regular maintenance ensures the longevity and optimal performance of your inverter:

- **Cleaning:** Periodically clean the exterior of the inverter with a dry, soft cloth. Ensure ventilation openings and cooling fans are free from dust and debris. Do not use liquid cleaners.
- **Check Connections:** Regularly inspect all DC and AC connections for tightness and corrosion. Loose connections can cause overheating and poor performance.
- **Battery Maintenance:** Follow the battery manufacturer's recommendations for maintenance. Ensure batteries are properly charged and in good condition.
- **Storage:** If storing the inverter for an extended period, ensure it is clean, dry, and disconnected from all power sources.

7. TROUBLESHOOTING

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

Problem	Possible Cause	Solution
No output power	Inverter is off; Low battery voltage; Overload; Loose connections	Turn on inverter; Charge battery; Reduce load; Check and tighten connections
Inverter shuts down	Overload; Overheating; Low/High input voltage	Reduce load; Ensure proper ventilation; Check battery voltage
Abnormal noise	Loose components; Fan obstruction	Inspect for loose parts; Clear fan obstructions
AC output voltage incorrect	Inverter malfunction	Contact customer support

If the problem persists after attempting these solutions, please contact customer support.

8. SPECIFICATIONS

The following are the technical specifications for the FGXBBRY Pure Sine Wave Inverter HPXC0050E:



Figure 8.1: Dimensions of the FGXBBRY Pure Sine Wave Inverter, showing a length of 48.0 cm, a width of 22.0 cm, and a height of 15.5 cm.

- **Model Number:** HPXC0050E
- **Type:** DC/AC Pure Sine Wave Inverter
- **Input Voltage:** 24V DC
- **Output Voltage:** 220V AC
- **Output Frequency:** 60Hz
- **Continuous Output Power:** 6000W
- **Peak Output Power:** 12000W
- **Dimensions (L x W x H):** 480 x 220 x 155 mm (18.9 x 8.7 x 6.1 inches)
- **Weight:** Approximately 9.6 kg (21.2 lbs)
- **Origin:** China

9. WARRANTY AND SUPPORT

Warranty information for the FGXBBRY Pure Sine Wave Inverter HPXC0050E is not explicitly provided in the product details. For specific warranty terms and conditions, please refer to the documentation included with your purchase or contact the manufacturer directly.

For technical support or inquiries, please contact your retailer or the FGXBBRY customer service department.