

EFFORTWAY F-3000P

EFFORTWAY 3000W Pure Sine Wave Inverter F-3000P User Manual

Model: F-3000P

1. INTRODUCTION

Thank you for choosing the EFFORTWAY 3000W Pure Sine Wave Inverter. This device is designed to convert 12V DC battery power into 110V/120V AC household power, providing a stable and reliable energy source for various applications. This manual provides essential information for the safe and efficient operation, installation, and maintenance of your inverter. Please read it thoroughly before use and retain it for future reference.

2. SAFETY INSTRUCTIONS

To ensure safe operation and prevent damage to the inverter or connected devices, observe the following safety precautions:

- **Ventilation:** Ensure the inverter is installed in a well-ventilated area. Do not block the cooling fan or air vents.
- **Environment:** Avoid exposing the inverter to water, rain, snow, spray, or excessive dust. Do not operate in areas with flammable fumes or gases.
- **Connections:** Always connect the inverter to a 12V DC power source. Ensure all connections are tight and correct polarity is observed (red to positive, black to negative). Loose connections can cause overheating.
- **Load Capacity:** Do not exceed the inverter's continuous power rating of 3000W or peak power rating of 6000W. Overloading can cause damage and trigger safety protections.
- **Grounding:** The inverter must be properly grounded.
- **Internal Components:** Do not attempt to open or modify the inverter. There are no user-serviceable parts inside. Refer all servicing to qualified personnel.
- **Children:** Keep the inverter out of reach of children.
- **Emergency:** In case of smoke, strange odors, or unusual noise, immediately disconnect the inverter from the power source and connected devices.

The inverter features multiple built-in safety protections including over-current, short circuit, low load, overload, overheat, and overvoltage protection to safeguard the unit and your appliances.

ATTENTION:

The inverter has three control methods
When using one of the three control methods, you must ensure that the other two are off.



Image: Inverter with labels for 6 safety protection features.

3. PACKAGE CONTENTS

Verify that all items are present in your package:

- EFFORTWAY 3000W Pure Sine Wave Inverter
- Wireless Remote Control
- Wired Remote Control with LCD Display
- Instruction Manual (this document)
- 2 Battery Cables (1 red, 1 black)



Image: EFFORTWAY 3000W Inverter and its accessories.

4. PRODUCT OVERVIEW

The EFFORTWAY 3000W Pure Sine Wave Inverter is designed for high efficiency and stable power output, suitable for sensitive electronics. It features multiple AC outlets, USB ports, and convenient remote control options.

Inverter Components

Pure Sine Wave Inverter

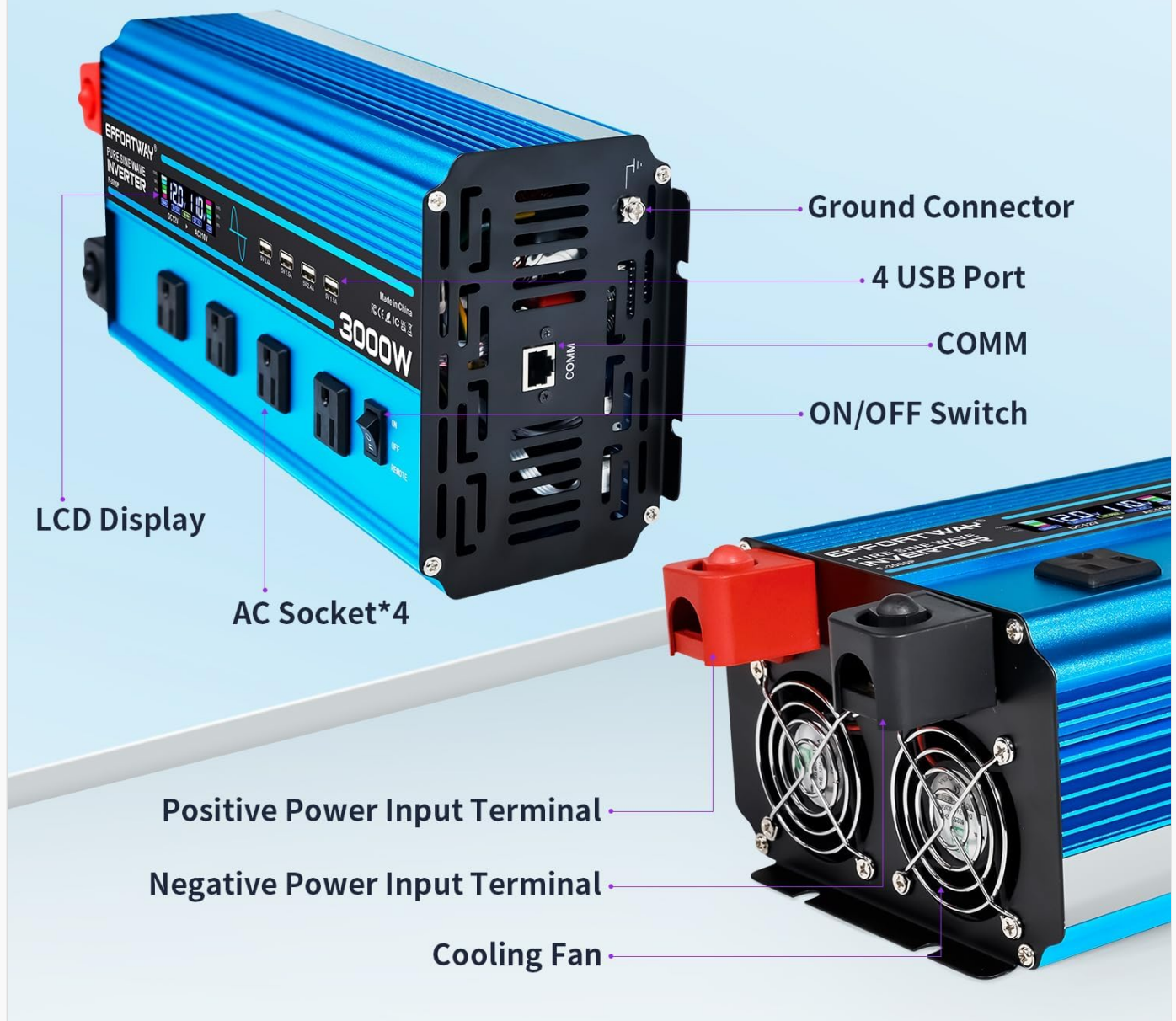


Image: Labeled diagram of the inverter's front and rear panels.

- **Positive Power Input Terminal:** Connects to the positive terminal of the 12V DC battery.
- **Negative Power Input Terminal:** Connects to the negative terminal of the 12V DC battery.
- **Cooling Fan:** Automatically activates to dissipate heat and maintain optimal operating temperature.
- **Ground Connector:** For safety grounding.
- **4 USB Ports:** For charging USB-powered devices.
- **COMM Port:** For connecting the wired remote control.
- **ON/OFF Switch:** Main power switch for the inverter.
- **LCD Display:** Shows real-time operating status, including input/output voltage, load, frequency, and error codes.
- **4 AC Sockets:** Standard 110V/120V AC outlets for connecting appliances.

Remote Control Features

Wired Remote Control Panel with 5V 3.1A USB & 20W Type C output



Image: Wired Remote Control Panel with USB and Type-C outputs.

- **Wired Remote Control Panel:** Features a dual LCD screen to track inverter status (input voltage, output wattage, battery level, load capacity, frequency, error codes). Includes a 5V 3.1A USB port and a 20W Type-C port for charging devices.
- **Wireless Remote Control:** Allows for convenient ON/OFF control from a distance of up to 164 feet (50 meters).

Smart LCD display

☑ Capacity Display	☑ Load capacity
☑ Error Code Display	☑ frequency display
☑ Input Voltage Display	☑ Output Voltage Display



Image: Smart LCD display features.

5. SETUP AND INSTALLATION

Proper installation is crucial for the inverter's performance and safety.

5.1 Mounting the Inverter

- Choose a dry, well-ventilated, and cool location. Avoid direct sunlight or heat sources.
- Mount the inverter securely on a flat, stable surface. Ensure there is adequate space around the unit for airflow.

5.2 Battery Connection

- Ensure the inverter's main ON/OFF switch is in the "OFF" position before making any connections.
- Connect the red battery cable to the positive (+) terminal of your 12V DC battery and the positive (+) input terminal

of the inverter.

- Connect the black battery cable to the negative (-) terminal of your 12V DC battery and the negative (-) input terminal of the inverter.
- Tighten all connections securely to prevent arcing and overheating.

5.3 Grounding

- Connect a grounding wire (not included) from the inverter's ground connector to a proper earth ground or vehicle chassis.

5.4 Remote Control Connection

- **Wired Remote:** Plug the provided Ethernet cable into the COMM port on the inverter and the corresponding port on the wired remote control panel.
- **Wireless Remote:** The wireless remote is pre-paired. Ensure the inverter is off before using the remote to power it on.

6 Safety Protection

Fully Protected System Keep Your Devices Safety



Image: Inverter dimensions and remote control specifications.

6. OPERATING INSTRUCTIONS

Follow these steps to operate your EFFORTWAY inverter:

6.1 Powering On/Off

- **Main Switch:** Flip the ON/OFF switch on the inverter to the "ON" position. The LCD display will illuminate.
- **Remote Control:** If using a remote, ensure the inverter's main switch is OFF. Then, use the ON button on either the wired or wireless remote to power on the inverter.
- **Important:** When using one of the three control methods (main switch, wired remote, wireless remote), ensure the other two are in the OFF state to avoid conflicts.



Remote Control Panel



remote wire 16.4 ft

Remote Control



Remote distance 164 ft

Battery cable



19.6in

Image: Inverter control methods.

6.2 Connecting Appliances

- Once the inverter is powered on, plug your AC appliances into the 4 AC outlets.

- For USB charging, connect your devices to the 4 USB ports on the inverter or the USB/Type-C ports on the wired remote control panel.
- Ensure the total wattage of all connected appliances does not exceed 3000W.

6.3 Understanding the LCD Display

The LCD display provides real-time information about the inverter's status:

- **Input Voltage:** Displays the current DC voltage from the battery.
- **Output Voltage:** Shows the AC output voltage (110V/120V).
- **Load Capacity:** Indicates the percentage of the inverter's capacity being used.
- **Frequency:** Displays the output frequency (60Hz).
- **Error Code:** In case of a fault, an error code will be displayed (refer to Troubleshooting section).

7. MAINTENANCE

Regular maintenance helps prolong the life of your inverter:

- **Cleaning:** Keep the inverter clean and free from dust and debris. Use a dry cloth to wipe the exterior. Do not use liquid cleaners.
- **Ventilation:** Periodically check that the cooling fan and air vents are clear and unobstructed.
- **Connections:** Regularly inspect battery cables and terminals for tightness and corrosion. Clean any corrosion with a wire brush and baking soda solution.
- **Fuse Replacement:** The inverter contains internal fuses for protection. If a fuse blows, it indicates an internal fault or severe overload. Fuse replacement should only be performed by a qualified technician. Do not attempt to replace internal fuses yourself.

8. TROUBLESHOOTING

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

Problem	Possible Cause	Solution
No power output / Inverter not turning on	Loose battery connections Low battery voltage Inverter main switch OFF Remote control conflict	Check and tighten battery cables. Charge or replace battery. Ensure inverter main switch is ON or use only one remote control method. Verify correct polarity.
Low output voltage / Inverter shuts down	Overload Overheat Low battery voltage	Reduce connected load. Ensure proper ventilation, clear fan/vents. Allow to cool. Charge or replace battery.
Fan not running	Normal operation (fan activates under load/heat) Fan obstructed Fan malfunction	Observe if fan activates under load. If not, check for obstructions. If still not working, contact support.

Problem	Possible Cause	Solution
Error code on LCD	Specific fault detected (e.g., overvoltage, undervoltage, overload, short circuit)	Consult the manual for specific error code meanings (if provided by manufacturer) or contact customer support with the error code. Generally, disconnect load, check connections, and restart.

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

9. SPECIFICATIONS

Technical specifications for the EFFORTWAY 3000W Pure Sine Wave Inverter F-3000P:

Feature	Specification
Model Name	F-3000P
Continuous Power	3000 Watts
Peak Power	6000 Watts
Input Voltage	DC 12V
Output Voltage	AC 110V/120V
Output Frequency	60Hz
Waveform	Pure Sine Wave
Conversion Efficiency	>90%
AC Outlets	4
USB Output (Inverter)	4 ports
USB Output (Wired Remote)	5V 3.1A USB, 20W Type-C
Dimensions (L x W x H)	15.16 x 6.3 x 4.02 inches
Item Weight	7.72 pounds
Safety Protections	Over-current, Short Circuit, Low Load, Overload, Overheat, Overvoltage

10. WARRANTY AND SUPPORT

The EFFORTWAY 3000W Pure Sine Wave Inverter comes with a **12-month warranty** from the date of purchase. This warranty covers manufacturing defects and workmanship under normal use.

For technical assistance, troubleshooting, or warranty claims, please contact EFFORTWAY customer service. Have your model number (F-3000P) and purchase information ready when contacting support.

We are committed to providing friendly and patient customer service to ensure your satisfaction.

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