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› OUBOTEK 5000W Pure Sine Wave Power Inverter User Manual

OUBOTEK TP5000W

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Model: TP5000W

For Home, RV, and Camping Applications

1. INTRODUCTION

The OUBOTEK 5000W Pure Sine Wave Power Inverter is designed to convert 12V DC power from a battery source to 110V/120V AC power, suitable for a wide range of electronic devices and appliances. This high-frequency inverter provides 5000 watts of continuous power and a 10000-watt surge capacity, ensuring stable and clean power output for sensitive electronics. It is ideal for use in vehicles, during travel, power outages, and as part of off-grid solar systems.

Key features include an upgraded remote control with both wireless and wired capabilities, an LCD digital display for real-time monitoring, and multiple built-in safety protections to safeguard your devices and the inverter itself.



Figure 1: OUBOTEK 5000W Pure Sine Wave Power Inverter with all included accessories.

2. WHAT'S IN THE BOX

Upon opening the package, please verify that all components are present and undamaged:

- 1 x OUBOTEK 5000W Pure Sine Wave Power Inverter (12V to 120V)
- 1 x Wireless Remote Control
- 1 x Wireless Remote Module
- 1 x 9.8ft Remote Wire (for wired remote control)
- 1 x White Charging Wire for Remote Controller
- 1 x Adhesive Pad for Remote Controller Mounting
- 2 x 4AWG Battery Cable Set 1.64ft (Red & Black)
- 1 x Grounding Wire
- 16 x 40A Spare Fuses
- 1 x Wrench
- 1 x User Manual (this document)

3. SETUP AND INSTALLATION

Proper setup is crucial for safe and efficient operation. Please follow these steps carefully:

3.1 Connecting to a 12V Battery

Ensure the inverter switch is in the OFF position before making any connections. Connect the battery cables as follows:

1. Connect the **RED** (positive) battery cable to the positive (+) terminal on the inverter.
2. Connect the other end of the **RED** (positive) battery cable to the positive (+) terminal of your 12V battery.
3. Connect the **BLACK** (negative) battery cable to the negative (-) terminal on the inverter.
4. Connect the other end of the **BLACK** (negative) battery cable to the negative (-) terminal of your 12V battery.

WARNING: Reverse connection is prohibited and will cause damage to the inverter and potentially the battery. Always ensure correct polarity.

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Video 1: Demonstrates the correct procedure for connecting the 5000W inverter to a 12V battery, highlighting positive (red) and negative (black) connections.

3.2 Remote Control Setup

The inverter supports both wireless and wired remote control options.

- **Wireless Remote Control:** Plug the wireless remote module into the inverter's remote port. The remote controller can then be used to turn the inverter ON/OFF and monitor its status from a distance (164ft-328ft range).
- **Wired Remote Control:** Connect the 9.8ft remote wire from the remote controller to the inverter's remote port. This allows for direct control and monitoring via the LCD display on the remote.

Ensure the inverter's main switch is OFF when using either remote control method to prevent conflicts.

Long Distance Remote Control



Figure 2: Illustration of the wireless remote control setup, showing the remote module and LCD display.

Wired Remote Controller



Figure 3: Illustration of the wired remote control setup, showing the remote controller connected via cable.

4. OPERATING INSTRUCTIONS

Once properly connected, the inverter is ready for operation. The LCD digital display provides comprehensive information about the inverter's status.

4.1 Powering On/Off

To power on the inverter, press the ON/OFF button on the inverter unit or the remote controller. The LCD display will illuminate, indicating the inverter is active. To power off, press the ON/OFF button again.

4.2 Understanding the LCD Display

The LCD display provides real-time data to help you monitor the inverter's performance and identify any issues:

- **Battery Voltage:** Displays the current voltage of the connected 12V battery.
- **Battery Level:** Visual indicator of the battery's charge status.
- **AC Output Voltage:** Shows the output voltage (110V/120V).

- **Output Frequency:** Displays the output frequency (50Hz/60Hz).
- **Output Waveform:** Confirms pure sine wave output.
- **AC Loading Power:** Indicates the current power consumption of connected devices.
- **Protection Error Codes:** Displays codes for Over Voltage (OV), Low Voltage (LV), Over Temperature (OT), Over Load (OL), and Short Circuit (SC).



Figure 4: Detailed view of the Smart LCD display and its indicators.

4.3 Connecting Appliances

The inverter features 4 AC outlets, 1 hardwire port, dual USB QC3.0 18W, and a Type C PD30W port for versatile use. Plug your devices directly into the appropriate outlets. The pure sine wave output is safe for sensitive electronics such as laptops, smartphones, TVs, and medical equipment, as well as power tools, coffee makers, and heaters.



EXTENSIVE USE



Figure 5: Examples of appliances and devices that can be powered by the inverter.



Figure 6: Inverter powering an induction cooker.



Figure 7: Inverter powering a coffee maker.



Figure 8: Inverter powering a microwave oven.

Wide Application



Figure 9: Inverter powering a water dispenser.



Figure 10: Inverter charging laptops and phones via USB ports.

5. SAFETY AND PROTECTION FEATURES

The OUBOTEK 5000W inverter is equipped with multiple protection functions to ensure safe operation and protect both the inverter and your connected devices:

- **Over Voltage Protection:** Shuts down if input voltage exceeds safe limits.
- **Low Voltage Protection:** Shuts down to prevent over-discharge of the battery.
- **Over Temperature Protection:** Activates smart cooling fan and shuts down if internal temperature is too high.
- **Over Load Protection:** Shuts down if connected load exceeds the inverter's capacity.
- **Short Circuit Protection:** Protects against short circuits in the output.
- Built-in 16 x 40A fuses for additional protection.



Figure 11: Overview of the inverter's multiple protection functions.

6. MAINTENANCE

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

- **Cleaning:** Periodically clean the exterior of the inverter with a soft, dry cloth. Ensure ventilation openings and cooling fans are free from dust and debris. Do not use liquid cleaners.
- **Connections:** Regularly check all electrical connections (battery cables, AC outlets) to ensure they are secure and free from corrosion. Loose connections can lead to overheating and reduced performance.
- **Storage:** When not in use for extended periods, store the inverter in a cool, dry place away from direct sunlight and moisture. Disconnect it from the battery source.
- **Battery Health:** Maintain your 12V battery according to its manufacturer's guidelines. A healthy battery is essential for the inverter's efficient operation.

7. TROUBLESHOOTING

If you encounter issues with your inverter, refer to the LCD display for error codes and consult the following common troubleshooting steps:

Problem	Possible Cause	Solution
Inverter not turning on	Loose battery connections, low battery voltage, blown fuse.	Check battery cable connections. Charge battery if voltage is too low. Inspect and replace blown fuses (use spare 40A fuses provided).
No AC output (LCD shows error code)	Overload (OL), Over Temperature (OT), Low Voltage (LV), Over Voltage (OV), Short Circuit (SC).	Reduce connected load. Allow inverter to cool down. Charge or replace battery. Check input voltage. Disconnect all loads and check for short circuits.
Fan not operating	Normal operation (fan activates under load or high temperature), fan obstruction.	The smart cooling fan only operates when needed. If the inverter is hot and fan is not running, check for obstructions in the fan vents.
Remote control not working	Inverter main switch is ON, remote module/wire not properly connected, remote battery low.	Ensure inverter main switch is OFF. Reconnect remote module/wire. Charge remote controller battery.

For persistent issues not resolved by these steps, please contact OUBOTEK customer service.

8. SPECIFICATIONS

Feature	Detail
Model Number	TP5000W
Continuous Power	5000 Watts
Peak Power	10000 Watts
Input Voltage	12V DC
Output Voltage	110V / 120V AC
Output Waveform	Pure Sine Wave
AC Outlets	4
USB Ports	Dual QC3.0 18W

Feature	Detail
Type-C Port	PD30W
Dimensions (L x W x H)	19.88 x 8.07 x 6.5 inches (505 x 205 x 165 mm)
Item Weight	24 pounds
Battery Capacity (Remote)	1200 Milliamp Hours (Lithium Polymer, included)

9. WARRANTY AND SUPPORT

OUBOTEK is committed to customer satisfaction. We provide 24-hour customer service support for any inquiries or assistance you may need.

For product support, troubleshooting, or warranty claims, please contact OUBOTEK customer service directly. Refer to your purchase documentation for specific warranty terms and contact information.

Optional protection plans may be available for extended coverage:

- 2-Year Protection Plan
- 3-Year Protection Plan
- Complete Protect (monthly billing option)

Please note that protection plan details and availability may vary and are subject to the terms and conditions of the plan provider.