

## YNITJH CJ-5000Q

# YNITJH CJ-5000Q 5000W Pure Sine Wave Inverter User Manual

Model: CJ-5000Q

## 1. INTRODUCTION

Thank you for choosing the YNITJH CJ-5000Q 5000W Pure Sine Wave Inverter. This device is designed to convert direct current (DC) from a battery source into alternating current (AC) suitable for powering various electronic devices. 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. This specific model converts 24V DC input to 220V AC output.

## 2. SAFETY INSTRUCTIONS

Adhering to these safety guidelines is crucial to prevent personal injury and damage to the inverter or connected equipment.

- **Ventilation:** Ensure the inverter is installed in a well-ventilated area. Do not block the ventilation openings.
- **Environment:** Avoid exposing the inverter to water, rain, snow, spray, or bilge water. Do not operate it in areas with flammable fumes or gases, such as gasoline engines or propane tanks.
- **Electrical Connections:** All electrical connections must be tight and secure. Loose connections can cause overheating and fire.
- **Grounding:** The inverter must be properly grounded.
- **Power Source:** Connect the inverter only to a DC power source with the correct voltage (24V for this model). Connecting to an incorrect voltage can damage the unit.
- **Load Capacity:** Do not exceed the inverter's rated output power (5000W). Overloading can cause the inverter to shut down or be damaged.
- **Qualified Personnel:** Only qualified personnel should perform maintenance or repairs.
- **Children:** Keep the inverter out of reach of children.

## 3. PRODUCT OVERVIEW

The YNITJH CJ-5000Q Pure Sine Wave Inverter is designed for reliability and efficiency. Key features include:

- **Pure Sine Wave Output:** Provides clean and stable power, suitable for sensitive electronics.

- **Multiple Protections:** Built-in safeguards against overload, overheating, low voltage, high voltage, short circuit, and reverse polarity.
- **LCD Display:** Real-time monitoring of input voltage, output voltage, frequency, load power, and temperature.
- **Cooling System:** Equipped with dual cooling fans for efficient heat dissipation.
- **Output Ports:** Features two universal AC outlets and one USB charging port.



Figure 1: Front view of the YNITJH CJ-5000Q 5000W Pure Sine Wave Inverter, showing the LCD display, power switch, USB port, and two AC outlets.

## 4. SETUP AND INSTALLATION

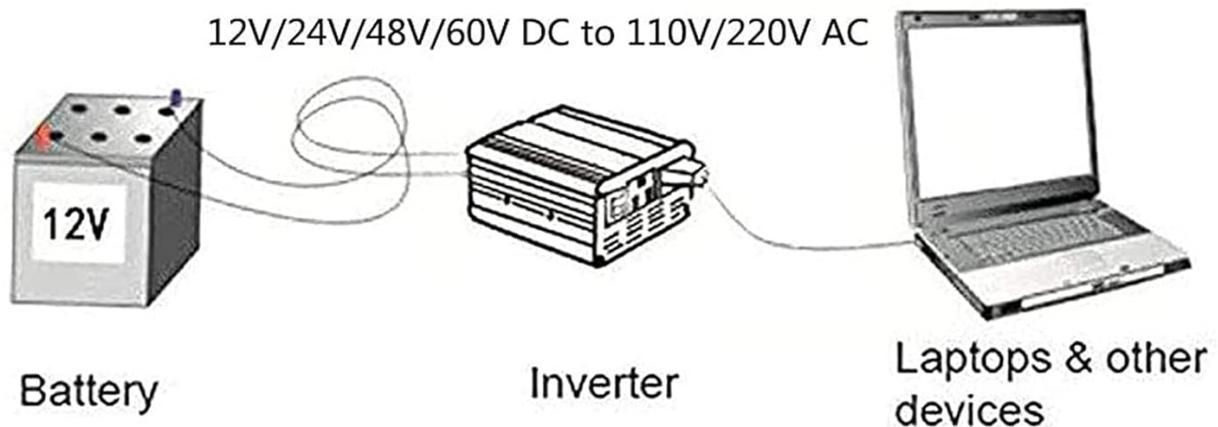
Proper installation ensures optimal performance and safety.

### 4.1 Connecting to a Battery

1. Ensure the inverter's power switch is in the "OFF" position.
2. Connect the red (positive) cable from the inverter to the positive terminal of your 24V battery.
3. Connect the black (negative) cable from the inverter to the negative terminal of your 24V battery.
4. Ensure all connections are tight and secure to prevent arcing or overheating.
5. Verify the battery voltage matches the inverter's input voltage requirement (24V).

### 4.2 Connection Diagram

## Connect with battery



## Connect with car

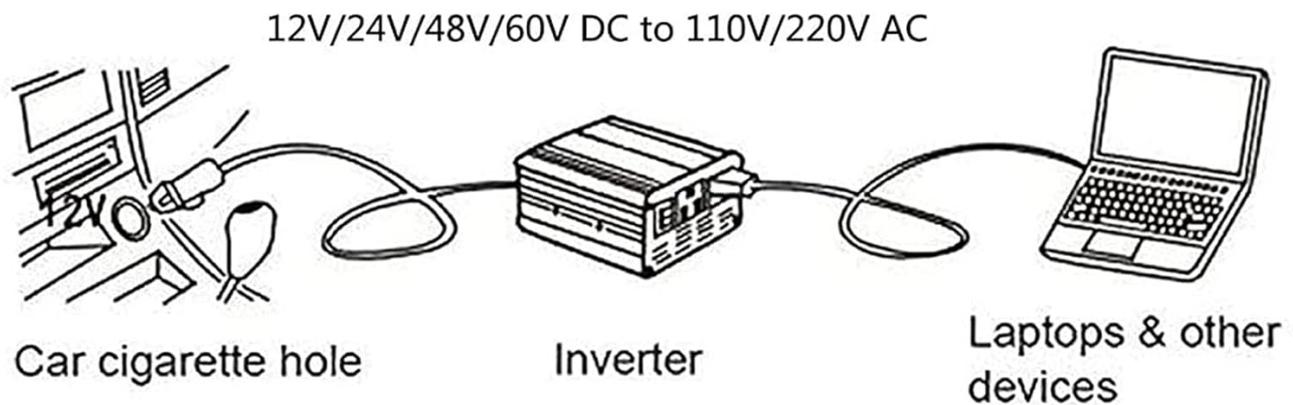


Figure 2: Diagrams illustrating how to connect the inverter to a 12V battery system for powering laptops and other devices, and how to connect it via a car cigarette lighter (for lower wattage models, direct battery connection is recommended for 5000W units).

## 5. OPERATION

### 5.1 Powering On/Off

1. After ensuring all connections are secure, switch the inverter's power button to the "ON" position.
2. The LCD display will illuminate, showing operational parameters.
3. To turn off, switch the power button to the "OFF" position.

### 5.2 Understanding the LCD Display

The integrated LCD provides real-time feedback on the inverter's status:

- **Input Voltage (V):** Displays the DC voltage from the battery.
- **Output Voltage (V):** Shows the AC output voltage (e.g., 220V).
- **Frequency (Hz):** Indicates the AC output frequency (e.g., 50Hz or 60Hz, depending on model).
- **Load Power (W):** Displays the current power consumption of connected devices.
- **Temperature (°C):** Shows the internal operating temperature of the inverter.



Figure 3: Detailed view of the inverter's LCD display, showing input voltage, output voltage, frequency, load power, and internal temperature.

### 5.3 Connecting AC and USB Devices

Once the inverter is powered on, you can connect your devices:

- Plug AC appliances into the 220V AC outlets. Ensure the total wattage does not exceed 5000W.
- Connect USB-powered devices to the USB charging port.

## 6. MAINTENANCE

Regular maintenance helps prolong the life of your inverter.

- **Cleaning:** Periodically clean the exterior of the inverter with a dry, soft cloth. Ensure ventilation openings are free from dust and debris. Do not use liquid cleaners.
- **Connection Check:** Regularly inspect all electrical connections (battery terminals, inverter cables) to ensure they remain tight and free from corrosion.
- **Storage:** If storing the inverter for an extended period, disconnect it from the battery and store it in a cool, dry place.

## 7. TROUBLESHOOTING

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The inverter is equipped with multiple protection features that may cause it to shut down or display an error. Refer to the LCD display for specific indicators.

Problem	Possible Cause	Solution
Inverter not turning on	Loose battery connections, low battery voltage, faulty fuse.	Check battery connections, charge battery, check inverter fuses.
Overload Protection (Inverter shuts down)	Total power draw of connected devices exceeds 5000W.	Reduce the load by disconnecting some appliances. Restart the inverter.
Overheating Protection (High temperature on LCD)	Poor ventilation, blocked fans, excessive ambient temperature.	Ensure adequate ventilation, clear fan vents, allow inverter to cool down.
Low Voltage Protection	Battery voltage is too low (below 24V threshold).	Recharge or replace the battery.
High Voltage Protection	Battery voltage is too high (above 24V threshold).	Check battery charging system. Disconnect inverter until voltage stabilizes.
Short Circuit Protection	Short circuit in connected appliance or wiring.	Disconnect all appliances and check for faults. Restart inverter.

# Core technologies

Multiple protections are safe and reliable



Overload protection



Overheating protection



High and low voltage protection



Impact protection



Short circuit protection



Overcurrent Protection



Smart Protection



Power-off protection

Figure 4: Icons representing the various protection features of the inverter, including overload, overheating, high/low voltage, impact, short circuit, overcurrent, smart protection, and power-off protection.

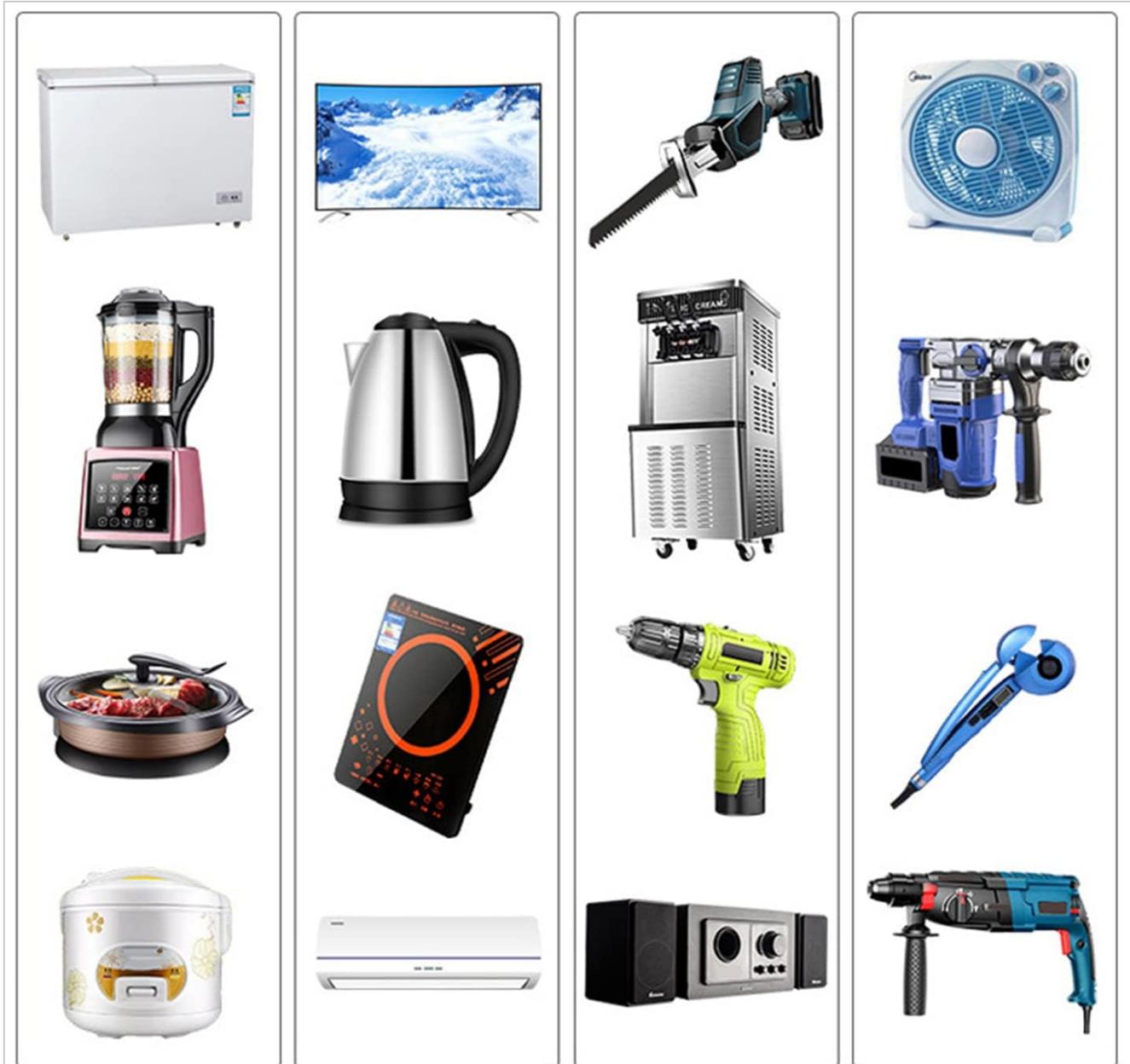
## 8. SPECIFICATIONS

Feature	Specification
Model Name	CJ-5000Q
Wattage	5000 watts
Input DC Voltage	24V (Specific to this model)
Output AC Voltage	220V (Specific to this model)
Power Source	Battery Powered, AC Adapter, DC Power Supply
Item Weight	4.4 pounds
Package Dimensions	11.81 x 9.06 x 4.33 inches

Feature	Specification
Manufacturer	YNITJH

## 9. APPLICATIONS

The YNITJH CJ-5000Q Pure Sine Wave Inverter is versatile and suitable for a wide range of applications, providing reliable AC power from a DC source.



**Note: Different power appliances need to use different power inverters**

**Figure 5:** Examples of appliances that can be powered by a suitable inverter, including refrigerators, televisions, power tools, blenders, kettles, and more. Note that different power appliances may require different inverter capacities.

# scenes to be used



ice cream machine



car refrigerator



refrigerator freezer



Mobile Air Conditioning



night market stalls



backcountry camping



outdoor work



precision instrument



Office electricity

**Figure 6:** Illustrative scenes demonstrating the utility of the inverter in various settings, such as powering ice cream machines, car refrigerators, mobile air conditioning units, for night market stalls, backcountry camping, outdoor work, precision instruments, and general office electricity needs.

## 10. WARRANTY AND SUPPORT

The YNITJH CJ-5000Q Pure Sine Wave Inverter comes with a standard manufacturer's warranty. Please refer to the product packaging or your purchase documentation for specific warranty terms and duration.

For technical support, troubleshooting assistance, or warranty claims, please contact your retailer or the manufacturer directly. Keep your purchase receipt and model number (CJ-5000Q) readily available when seeking support.