

## LCRHLCNC HE200-5500

# LCRHLCNC HE200-5500 Hybrid Solar Inverter User Manual

Model: HE200-5500 | Brand: LCRHLCNC

## 1. INTRODUCTION

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This manual provides detailed instructions for the installation, operation, and maintenance of your LCRHLCNC HE200-5500 Hybrid Solar Inverter. The HE200-5500 is a multifunctional power solution designed for diverse energy needs, offering a 5500W pure sine wave output for safe and efficient operation of various electrical devices.

Key features include:

- **High Efficiency Pure Sine Wave Output:** Ensures stable power for sensitive electronics.
- **Integrated MPPT Charge Controller:** Maximizes solar energy harvest and supports grid power input for continuous supply.
- **WiFi/GPRS Monitoring:** Allows remote monitoring and control via a smartphone app or web portal.
- **Versatile Application:** Suitable for home backup, RV use, and off-grid systems.
- **Scalable Power:** Supports parallel operation of up to 9 units.
- **Battery Compatibility:** Works with both lead-acid and lithium batteries.



Figure 1: LCRHLCNC HE200-5500 Hybrid Solar Inverter. This image displays the front view of the inverter, highlighting its compact design and integrated display panel.

## 2. SAFETY INSTRUCTIONS

**Please read all instructions and warnings carefully before installation and operation. Failure to follow these instructions may result in electric shock, fire, or severe injury.**

- Ensure all wiring is performed by qualified personnel.
- Do not attempt to disassemble or repair the inverter yourself. Contact qualified service personnel.
- Install the inverter in a well-ventilated area, away from flammable materials and direct sunlight.
- Ensure proper grounding of the inverter.
- Keep children away from the inverter and its connections.
- Verify battery voltage and polarity before connecting to the inverter.
- Always disconnect all power sources (solar, battery, AC grid) before performing any maintenance or wiring.

### 3. PACKAGE CONTENTS

Upon unpacking, please verify that all items listed below are included and undamaged:

- Hybrid Inverter (HE200-5500)
- Instruction Manual (this document)
- Mounting bracket and screws
- Communication cables (if applicable, for parallel operation or monitoring)



Figure 2: Mounting accessories included with the inverter. This image shows various screws, wall plugs, and a mounting bracket necessary for installation.

### 4. PRODUCT OVERVIEW

The LCRHLCNC HE200-5500 Hybrid Solar Inverter features a user-friendly interface and clearly labeled connection ports for easy installation and operation.

## 4.1. Front Panel and Display

The front panel includes an LED display screen and control buttons for monitoring system status and adjusting settings.

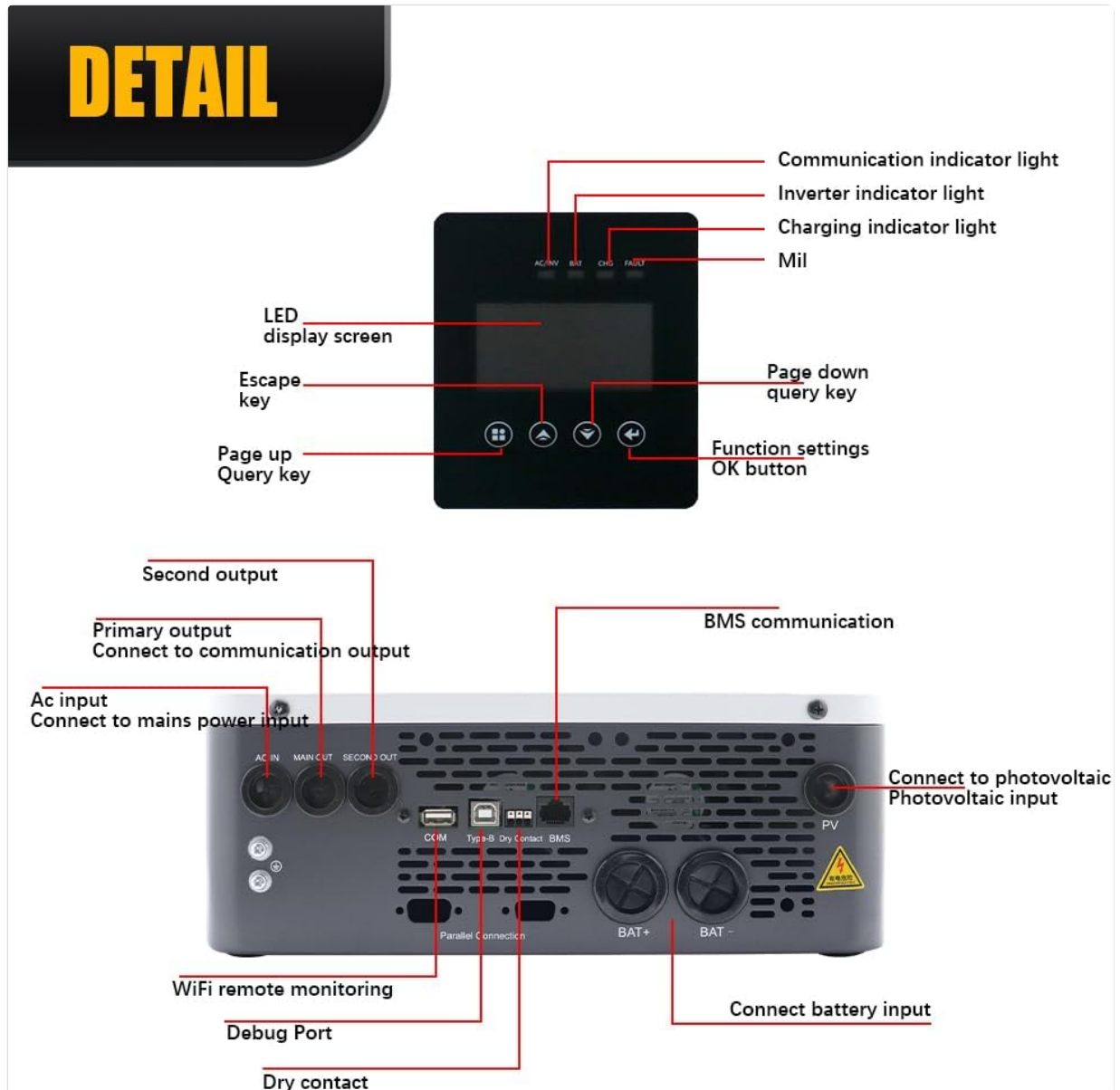


Figure 3: Detailed view of the inverter's front panel and bottom connection ports. The image labels the LED display, control keys (Escape, Page Up, Page Down, Function Settings, OK), and indicator lights (Communication, Inverter, Charging, Mil).

The bottom section shows AC input, primary and secondary AC outputs, BMS communication, WiFi remote monitoring, debug port, dry contact, battery input (BAT+ / BAT-), and photovoltaic input (PV).

## 4.2. Connection Ports

Refer to Figure 3 for the location of the following ports:

- **AC Input:** Connects to mains power input.
- **Primary Output (AC OUT):** Main AC load connection.
- **Secondary Output (AC OUT 2):** Additional AC load connection.
- **Photovoltaic Input (PV):** Connects to solar panels.
- **Battery Input (BAT+ / BAT-):** Connects to battery bank.

- **BMS Communication:** For battery management system communication.
- **WiFi Remote Monitoring:** Port for WiFi module connection.
- **Dry Contact:** For external control or signaling.

## 5. SETUP AND INSTALLATION

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Proper installation is crucial for the safe and efficient operation of the inverter. Ensure all safety precautions are followed.

### 5.1. Mounting the Inverter

1. Select a suitable mounting location that is well-ventilated, dry, and protected from direct sunlight and moisture.
2. Use the provided mounting bracket and screws (refer to Figure 2) to securely attach the inverter to a solid wall or surface.
3. Ensure adequate clearance around the inverter for proper airflow and heat dissipation.

### 5.2. Wiring Connections

Refer to the wiring diagram (Figure 4) for correct connections.

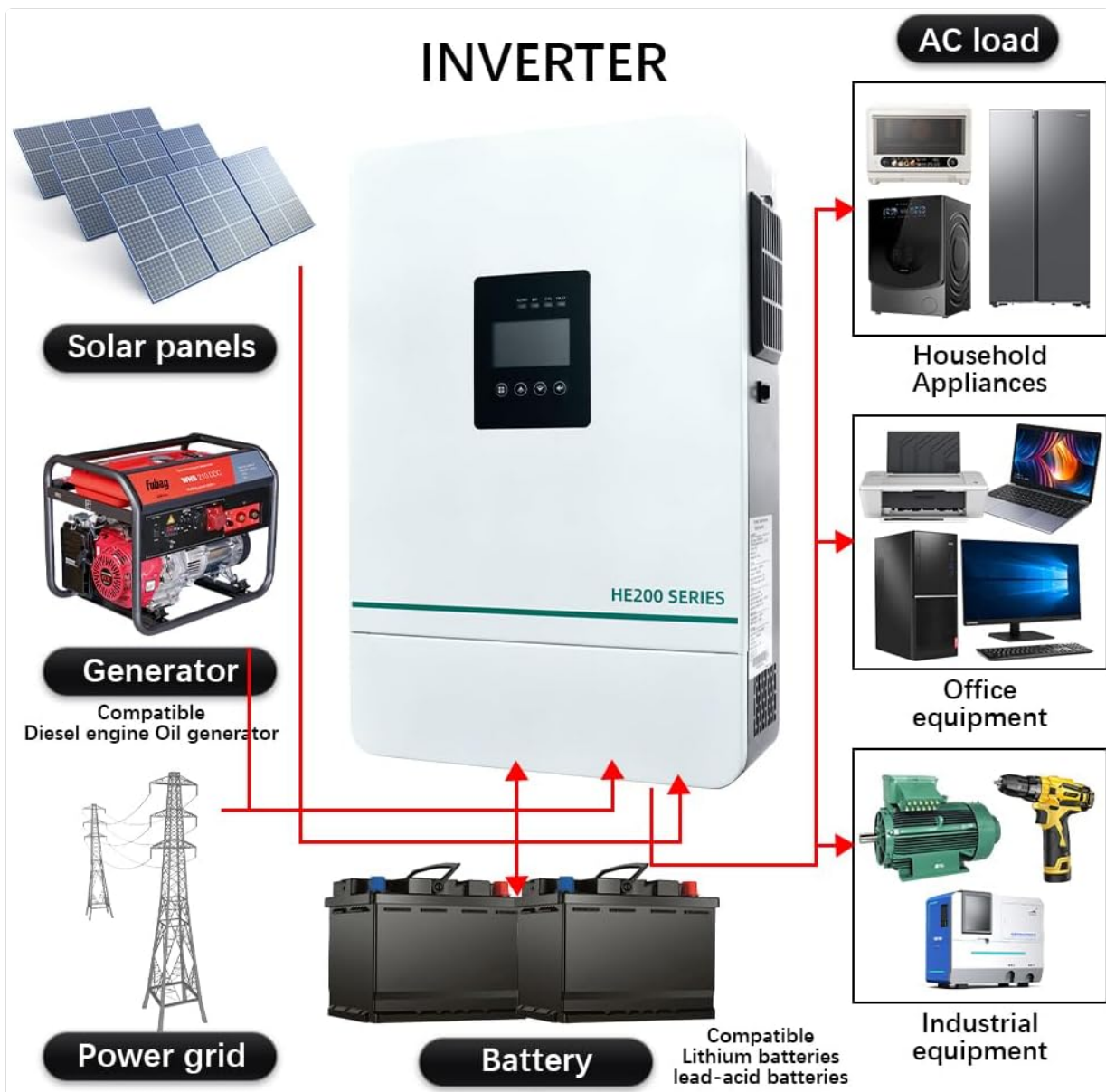


Figure 4: System connection diagram for the LCRHLCNC HE200-5500 Hybrid Solar Inverter. This diagram illustrates how solar panels, a generator, the power grid, and a battery bank connect to the inverter, which then supplies power to household appliances, office equipment, and industrial equipment.

1. **Battery Connection:** Connect the battery bank to the BAT+ and BAT- terminals, ensuring correct polarity.
2. **Solar Panel Connection:** Connect the solar panels to the PV input terminals. Verify correct voltage and current ratings.
3. **AC Input Connection:** Connect the AC mains power to the AC Input terminal.
4. **AC Output Connection:** Connect your AC loads (household appliances, office equipment, industrial equipment) to the AC OUT terminals.
5. **Grounding:** Ensure the inverter is properly grounded according to local electrical codes.
6. **Communication Connections:** If using, connect the WiFi module to the WiFi remote monitoring port and BMS communication cables as required.

**Warning: Double-check all connections before powering on the system to prevent damage to the inverter or connected devices.**

## 6. OPERATING INSTRUCTIONS

## 6.1. Powering On the Inverter

1. Ensure all wiring is secure and correct.
2. Turn on the battery breaker first.
3. Turn on the solar panel breaker (if applicable).
4. Turn on the AC input breaker (if applicable).
5. Press the power button on the inverter's front panel. The display will illuminate, and the inverter will begin its startup sequence.

## 6.2. Display and Settings

Use the control buttons (Page Up, Page Down, Escape, Function Settings, OK) on the front panel to navigate through the display menus and adjust operational parameters such as output voltage, charging current, and operating mode.

## 6.3. Remote Monitoring (WiFi/GPRS)

The inverter supports remote monitoring via WiFi or GPRS. Connect the appropriate module to the designated port and follow the instructions provided with the module to set up the mobile application or web portal. This allows for real-time performance data, fault warnings, mode adjustments, and data analysis.



### Sine Wave

**5.5KW 240Vac**

**500VA MPPT**  
**Work with Battery**

**23.9A**  
Max. Charging Current

**120-450Vdc**  
Max.PV Input

**48V**  
Battery Voltage



**HE200-6500-F**

CE FC RoHS

Figure 5: Illustration of the WiFi remote monitoring system. This image shows a smartphone app interface for monitoring, fault warning, mode adjustment, and data analysis, connected wirelessly to the inverter via a WiFi module and a computer.

## 7. MAINTENANCE

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

- **Cleaning:** Periodically clean the inverter's exterior with a dry, soft cloth. Ensure ventilation openings are free from dust and debris.
- **Connections Check:** Annually inspect all electrical connections for tightness and signs of corrosion.
- **Battery Inspection:** Follow the manufacturer's guidelines for battery maintenance.
- **Firmware Updates:** Check the manufacturer's website for any available firmware updates for improved performance or new features.

**Caution: Always disconnect all power sources before performing any cleaning or inspection.**

## 8. TROUBLESHOOTING

This section provides solutions to common issues you might encounter. For problems not listed here, please contact customer support.

Problem	Possible Cause	Solution
Inverter not powering on	No battery connection, low battery voltage, power button not pressed.	Check battery connections, ensure battery voltage is within operating range, press power button firmly.
No AC output	Overload, short circuit, inverter fault, AC output breaker tripped.	Reduce load, check for short circuits, reset AC output breaker, check inverter display for error codes.
Solar panels not charging	PV input disconnected, low solar irradiance, PV voltage too low/high.	Check PV connections, ensure panels are receiving adequate sunlight, verify PV voltage on display.
WiFi monitoring not working	WiFi module not connected, network issues, incorrect app settings.	Ensure WiFi module is securely connected, check local network connectivity, reconfigure app settings.

## 9. SPECIFICATIONS

The following table outlines the key technical specifications for the LCRHLCNC HE200-5500 Hybrid Solar Inverter:

Feature	Specification
Model	HE200-5500
Wattage	5500 watts
Power Source	Solar, Utility and Battery Powered
Battery Capacity (Recommended)	100 Amp Hours (minimum)

Feature	Specification
Item Weight	21.8 pounds
Package Dimensions	16.54 x 11.73 x 4.17 inches
Recommended Uses	Farm, Garage, Home, Office, Vehicle, Workshop
Manufacturer	Lishui Hengli Automation Technology Co., Ltd



Figure 6: Visual representation of key inverter specifications, including 5.5KW 240Vac output, 500VA MPPT, 23.9A Max. Charging Current, 120-450Vdc Max. PV Input, and 48V Battery Voltage.

## 10. WARRANTY AND SUPPORT

For warranty information, please refer to the warranty card included with your product or visit the official LCRHLCNC website. For technical support, troubleshooting assistance, or service inquiries, please contact LCRHLCNC customer service through the contact information provided on their official website or your purchase platform.

Please have your model number (HE200-5500) and purchase date ready when contacting support.

