

LNEX 749965100300

LNEX Portable Battery Monitor with Shunt

Model: 749965100300

1. INTRODUCTION

The LNEX Portable Battery Monitor with Shunt is a high-precision device designed to provide accurate real-time monitoring of various battery parameters. It is compatible with a wide range of battery types, including Lead Acid, Lithium Iron Phosphate, Lithium-ion, and Nickel-metal hybrid batteries, operating within a voltage range of 10V-120V and up to 500A.

This manual provides detailed instructions for the installation, operation, maintenance, and troubleshooting of your LNEX Battery Monitor to ensure optimal performance and longevity.

2. SAFETY INFORMATION

- Always disconnect the battery's negative terminal before performing any installation or maintenance.
- Ensure all connections are secure and properly insulated to prevent short circuits.
- Do not expose the monitor to extreme temperatures, moisture, or corrosive environments.
- Only use the provided cables and accessories.
- If you are unsure about any installation steps, consult a qualified professional.

3. PACKAGE CONTENTS

Please verify that all items are present in your package:

- LNEX Battery Monitor Display
- 500A Shunt
- Shielded Cable (26ft)
- Power Lead Cable
- User Manual

4. PRODUCT OVERVIEW

The LNEX Battery Monitor features a large, backlit LCD display that provides clear and comprehensive information about your battery's status. It includes intuitive buttons for navigation and settings adjustment.



Figure 4.1: LNEX Portable Battery Monitor Display

The monitor displays multiple electronic parameters, including voltage, current, consumed power, and battery capacity. It also shows the remaining time on current dissipation, all on a single screen for easy readability.

Large Backlight LCD Display

Displays multiple electronic parameters (Voltage, Current, Consumed Power and Battery Capacity)

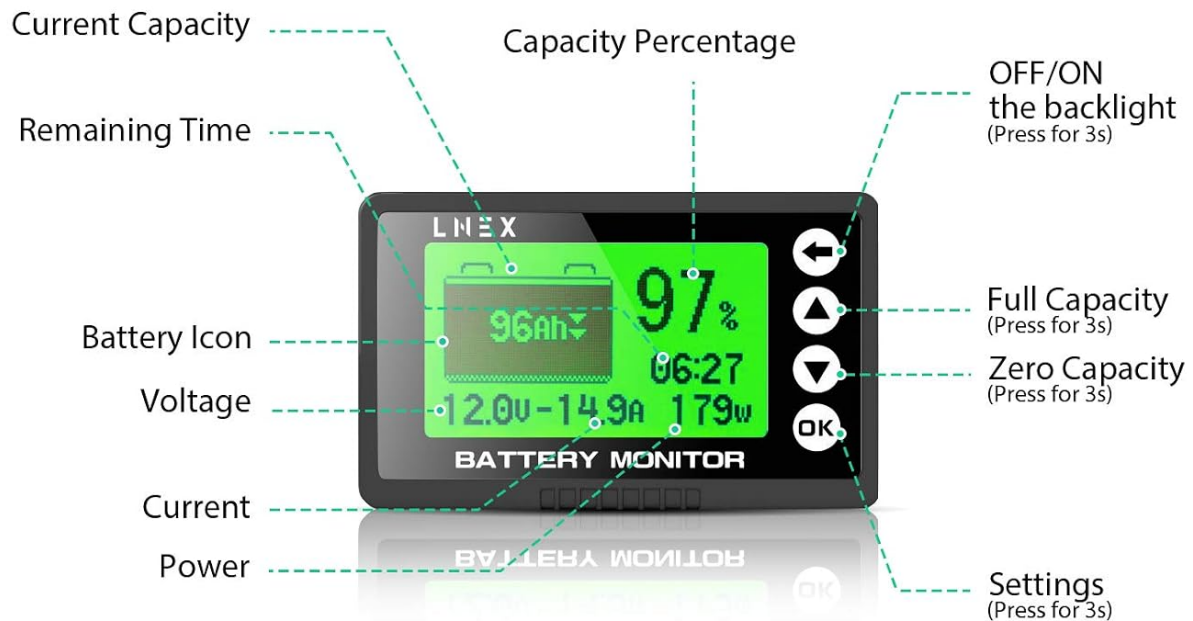


Figure 4.2: Detailed View of LCD Display and Controls

5. SETUP AND INSTALLATION

Proper installation is crucial for accurate readings and safe operation. The shunt must be installed on the negative side of your battery system.

5.1 Wiring Diagram

Easy To Install

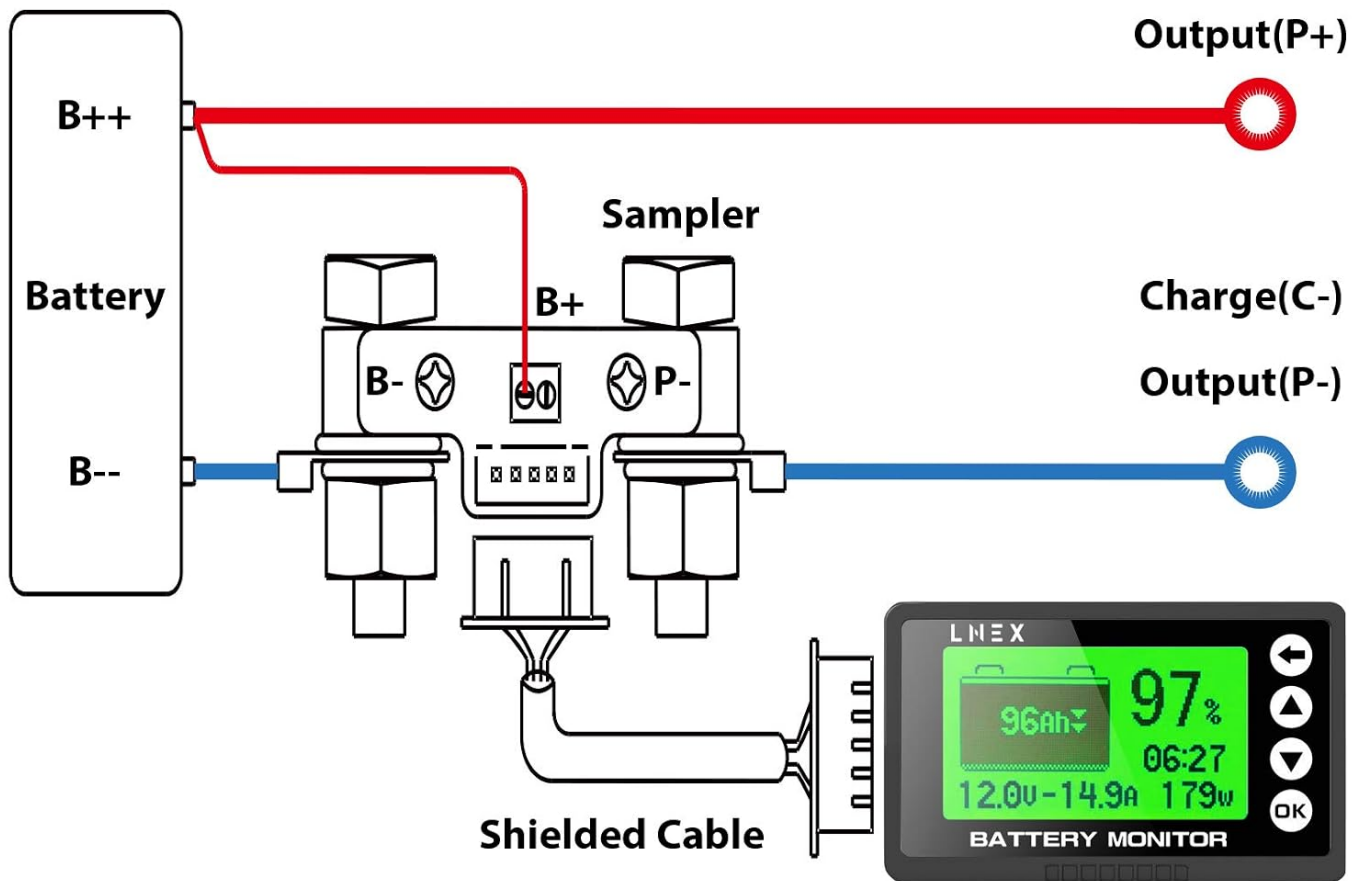


Figure 5.1: Installation Wiring Diagram

5.2 Installation Steps

1. **Prepare the Installation Area:** Ensure the battery compartment is clean and dry. Identify the negative terminal of your battery bank (B--) and the main positive terminal (B++).
2. **Install the Shunt:** Connect the negative terminal of your battery bank (B--) to the designated B-- terminal on the shunt. Connect the negative load/output (P-) from your system (e.g., inverter) to the P- terminal on the shunt.
3. **Connect the Shielded Cable:** Plug one end of the 26ft shielded cable into the shunt and the other end into the back of the LNEX Battery Monitor display unit.
4. **Connect the Power Lead:** Connect the red power lead from the battery monitor to the main positive terminal of your battery bank (B++). This provides power to the monitor.
5. **Mount the Display:** Choose a suitable location for the display unit that is easily visible and accessible. Secure the display using appropriate mounting hardware (not included, typically).
6. **Verify Connections:** Double-check all wiring connections to ensure they are tight and correct according to the diagram.

6. OPERATING INSTRUCTIONS

6.1 Display Information

The monitor's display provides real-time data:

- **Current Capacity (Ah):** Shows the remaining ampere-hours in the battery.
- **Capacity Percentage (%):** Indicates the state of charge of the battery.
- **Remaining Time:** Estimates the time left until the battery is depleted at the current discharge rate.
- **Voltage (V):** Displays the current battery voltage.
- **Current (A):** Shows the current flowing into or out of the battery (charge/discharge).
- **Power (W):** Displays the instantaneous power consumption or generation.

6.2 High/Low Capacity Alarm

The monitor features a programmable high and low capacity alarm. When the battery capacity reaches a set threshold (either too low or too high), the monitor will trigger an alarm, and the backlight and voltage value will flash simultaneously to alert you. This feature helps protect your batteries from over-discharge or over-charge.

High Low Capacity Alarm

Backlight and voltage value will flash simultaneously



Figure 6.1: High/Low Capacity Alarm Indication

6.3 Sleep Function

The monitor is designed with a sleep function to conserve power. When the battery current is low (i.e., no significant load or charge), the monitor will automatically enter sleep mode, turning off the backlight. This ensures efficient power usage, especially in RV or off-grid applications.

Long Shilded cable & Sleep Function

26ft Shilded cable allows you to monitor the battery status from distance.when the battery current is low,it will be in sleep,no backlight.



Figure 6.2: Sleep Function and Long Cable Benefit

6.4 Setting Parameters

Refer to the 'Settings' section in Figure 4.2 for button functions. Press and hold the 'OK' button for 3 seconds to enter the settings menu. Use the up/down arrows to navigate and 'OK' to confirm selections. Parameters such as battery capacity, high/low voltage alarms, and backlight brightness can be adjusted here. The device is designed to automatically store the last testing data when the system shuts off.

7. MAINTENANCE

- **Cleaning:** Wipe the display and unit with a soft, dry cloth. Do not use abrasive cleaners or solvents.
- **Connection Check:** Periodically inspect all wiring connections to ensure they remain tight and free from corrosion.
- **Environmental Protection:** Keep the unit away from direct sunlight, excessive heat, and moisture to prolong its lifespan.

8. TROUBLESHOOTING

Problem	Possible Cause	Solution
Display is blank	No power, loose connection, sleep mode	Check power lead connection to B++. Press any button to wake from sleep mode. Ensure battery has charge.
Inaccurate readings	Incorrect wiring, uncalibrated, faulty shunt	Verify wiring against diagram. Ensure shunt is correctly installed on negative line. Check calibration settings.
Alarm constantly active	Battery voltage/capacity outside set limits	Check battery health. Adjust high/low alarm thresholds in settings if necessary.
Buttons unresponsive	Temporary software glitch	Disconnect power for 10 seconds and reconnect to reset the unit.

9. SPECIFICATIONS

Feature	Detail
Brand	LNEX
Model Number	749965100300
Voltage Range	10V-120V
Current Range	Up to 500A
Compatible Battery Types	Lead Acid, Lithium Iron Phosphate, Lithium-ion, Nickel-metal hybrid
Display Type	Large Backlight LCD
Cable Length	26ft Shielded Cable
Product Dimensions	9.65 x 6.1 x 2.36 inches
Item Weight	1.46 Pounds
Power Source	Battery Powered

The LNEX Battery Monitor is designed for wide usage across various applications, including RVs, golf carts, self-balance scooters, electric motorcycles, robots, and medical devices, providing essential battery information for diverse needs.

Widely Usage

Compatible with various types of battery: Lead Acid, Lithium Iron Phosphate, Lithium-ion, Nickel-metal hybrid.



Figure 9.1: Widely Usage Applications

10. WARRANTY AND SUPPORT

For specific warranty information and technical support, please refer to the official LNEX website or contact their customer service directly. Keep your purchase receipt for warranty claims.

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