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› LNEX 500A Shunt Battery Monitor User Manual

LNEX 500A

LNEX 500A Shunt Battery Monitor User Manual

Model: 500A

1. INTRODUCTION

The LNEX 500A Shunt Battery Monitor provides real-time, accurate monitoring of your battery system. Designed for a wide range of battery types including Lead Acid, LiFePO4, Lithium-ion, Nickel-metal hybrid, and compatible with 8V-100V systems, this monitor is ideal for RVs, cars, electric motorcycles, golf carts, and boats. Its 2.4-inch color screen offers clear visibility of essential battery parameters, ensuring you stay informed about your power status.

2. WHAT'S IN THE BOX

Verify that all components are present in the package:

- Battery Monitor (Display Unit)
- Shielded Wire (16ft / 3m)
- 500A Shunt/Sampler
- B+ Wire (10ft / 3m)
- Hand Wrench
- Battery Terminals (250A)

What's In The Box?



LCD Interface



500A Shunt/Sampler



250A Battery Terminals



Hand wrench



10ft (3m) Shielded Wire



10ft (3m) 20 AWG B+ Wire

Image: All components included in the LNEX 500A Shunt Battery Monitor package.

3. PRODUCT FEATURES

- **Accurate Real-time Measurement:** Equipped with a high-precision current detector for accurate voltage and current readings. The monitor automatically stores the latest testing data to prevent loss during power failures.

Monitor Your Battery More Accurate

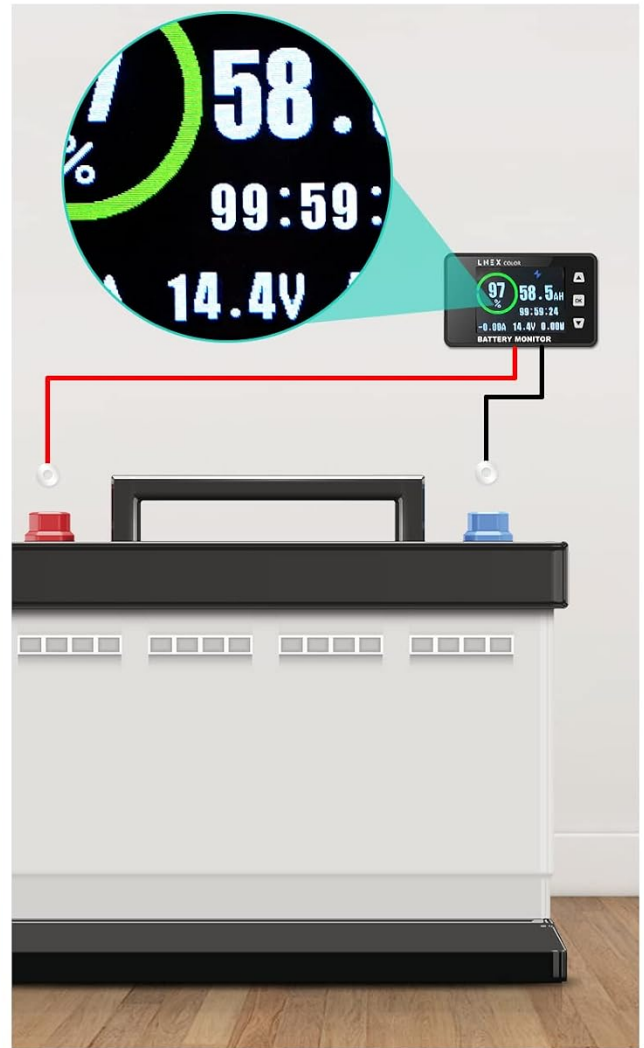
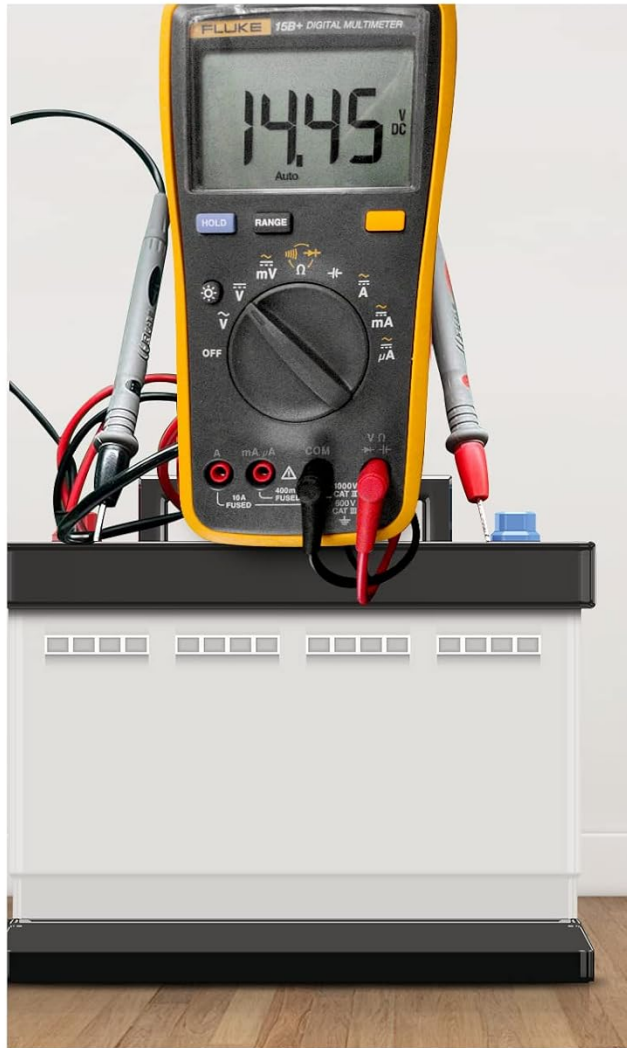


Image: The LNEX battery monitor provides accurate real-time voltage and current measurements, comparable to a professional multimeter.

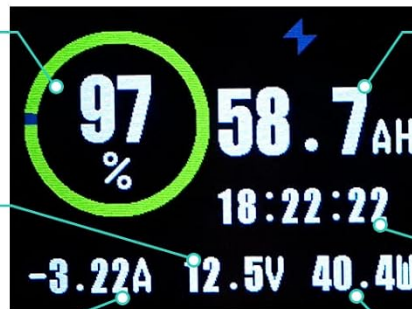
- **Clear 2.4" Color Screen:** Features a backlit LCD display with a user-friendly interface, making readings easy to check at a glance.

Monitor Your Battery More Simple

Capacity Percentage

Present Voltage

Present Current



Present Capacity

Remaining Time

Present Power



Image: The 2.4-inch color screen clearly displays key battery metrics including capacity percentage, current, voltage, and power.

- **Programmable High/Low Capacity Alarm:** Alerts you with a flashing backlight and voltage value when battery capacity is too low or high, protecting against over-discharge or over-charge.

Monitor Your Battery More Safe



Image: The monitor's alarm function activates when battery capacity reaches user-defined high or low thresholds, preventing damage.

- **Simple Installation:** Transparent shunt holder with clearly marked positive and negative terminals simplifies mounting. The 16ft shielded wire allows flexible placement of the display unit.
- **Wide Compatibility & Adjustable Brightness:** Monitors 8V-100V batteries, compatible with various types. Adjustable brightness ensures comfortable viewing at night and helps conserve battery power.

4. SETUP AND INSTALLATION

Proper installation is crucial for accurate readings and safe operation. Follow these steps carefully:

1. **Shunt Connection:** The 500A shunt must be installed on the negative side of your battery bank. All negative loads and charging sources must pass through the shunt for accurate current measurement. Connect the main negative battery terminal to one side of the shunt, and all other negative system connections to the other side of the shunt.
2. **B+ Wire Connection:** Connect the provided B+ wire from the positive terminal of your battery to the B+ terminal on the shunt. This provides the voltage reference for the monitor.

3. **Display Unit Connection:** Connect the shielded wire from the shunt to the display unit. The 16ft length allows you to mount the display in a convenient location away from the battery compartment.
4. **Mounting:** Securely mount the shunt and the display unit in appropriate locations. Ensure the display is easily accessible for monitoring and adjustments.

Monitor Your Battery More Easier

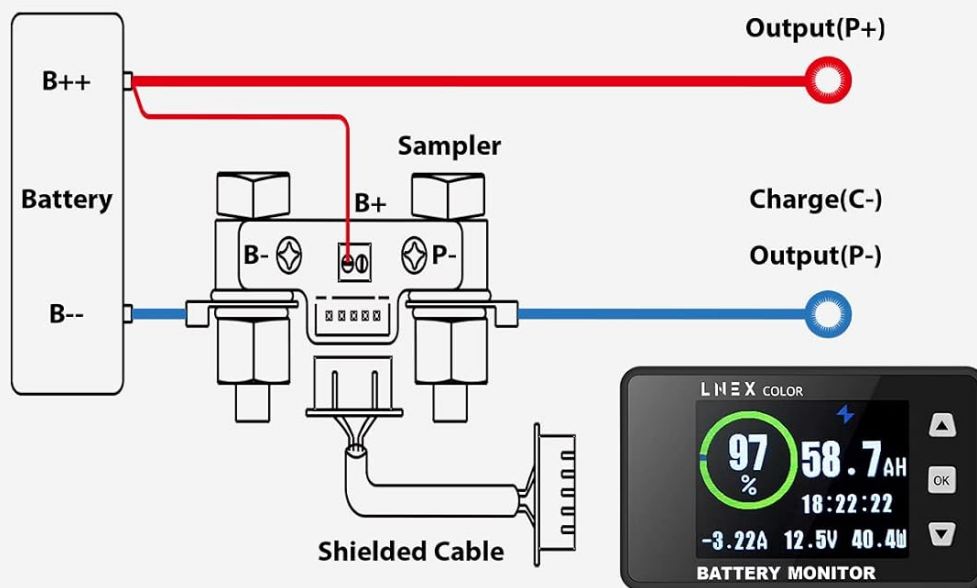
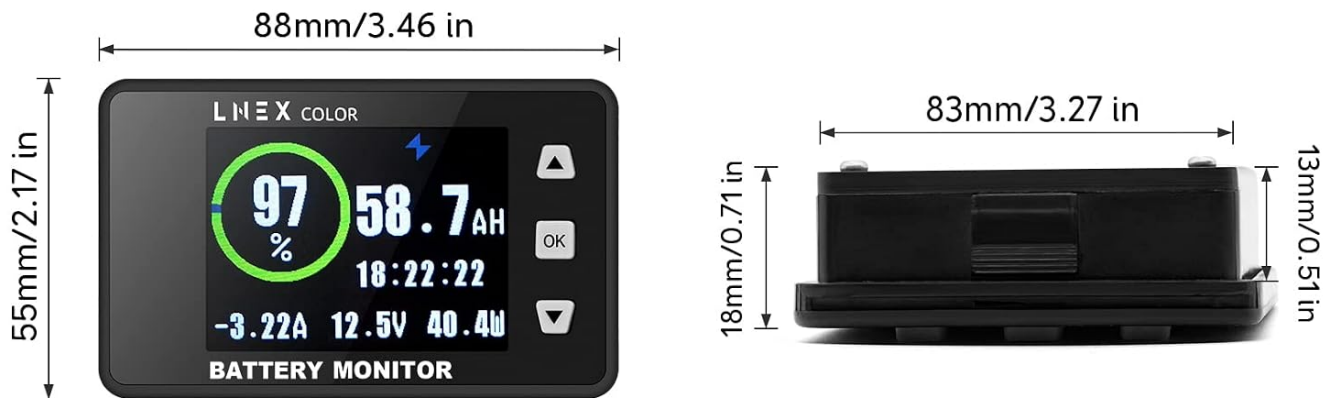


Image: Detailed wiring diagram for the LNE X 500A Shunt Battery Monitor, illustrating connections to the battery and system loads.

Installation Overview Video

Video: An overview of the LNE X Color Battery Monitor with Shunt, demonstrating its components and basic setup.

5. OPERATING INSTRUCTIONS

Display Information

The 2.4-inch color screen displays the following information:

- **Capacity Percentage (%)**: Current state of charge.
- **Present Capacity (AH)**: Remaining amp-hours.
- **Present Voltage (V)**: Real-time battery voltage.
- **Present Current (A)**: Real-time current flow (positive for charging, negative for discharging).
- **Remaining Time**: Estimated time until battery is depleted or fully charged.
- **Present Power (W)**: Real-time power consumption or generation.

Adjusting Brightness

To adjust the display brightness, briefly press the 'Up' or 'Down' arrow buttons on the side of the monitor. The brightness level will cycle through available settings.

Setting Battery Capacity (BATT CAP)

It is essential to set the correct battery capacity (AH) for accurate state-of-charge readings. Refer to your battery's specifications for its total amp-hour rating.

1. Long press the 'OK' button to enter the settings interface.
2. Press 'OK' briefly to enter the '1: BATT CAP' setting.
3. Short press the 'Down' button to switch between digits for adjustment.
4. Press the 'Up' button briefly to change the capacity value (AH) for the selected digit.
5. Press 'OK' briefly to confirm the settings.
6. Long press the 'OK' button to exit the settings interface.

Resetting Battery Percentage to 100%

For optimal accuracy, it is recommended to reset the battery percentage to 100% when your battery is fully charged. When the battery is fully charged, press and hold the 'Up' button on the monitor until the display shows 100%.

Battery Capacity Setting Video

Video: Instructions on how to set the battery capacity (BATT CAP) on the LNEX Color Battery Monitor.

6. APPLICATIONS

The LNEX 500A Shunt Battery Monitor is versatile and can be used in various applications where precise battery monitoring is essential:

- Recreational Vehicles (RVs)
- Automobiles
- Electric Motorcycles
- Golf Carts
- Boats and Marine Systems
- Off-grid Solar Systems (e.g., cabins, homes)



Image: Examples of diverse applications for the LNEX 500A Shunt Battery Monitor.

7. SPECIFICATIONS

Brand	LNEX
Model Number	500A
Power Source	Battery Powered
Color	Black
Item Weight	0.6 Kilograms (1.32 pounds)
Item Dimensions (L x W x H)	6.69 x 6.69 x 2.17 inches
Min. Operating Voltage	8 Volts
Maximum Operating Voltage	100 Volts (Note: Product description states 8-100V, specifications list 120V. Adhere to 100V for safety.)
Measurement Type	Voltmeter, Ammeter
UPC	749965100058

8. TROUBLESHOOTING

If you encounter issues with your LNEX 500A Shunt Battery Monitor, consider the following common troubleshooting steps:

- **No Display/Power:** Check all wiring connections, especially the B+ wire and the shielded wire to the shunt. Ensure the battery has sufficient voltage to power the monitor.
- **Inaccurate Readings:** Verify that the battery capacity (BATT CAP) is correctly set in the monitor's settings. Ensure all negative loads and charging sources pass through the shunt. Recalibrate the 100% charge point when the battery is fully charged.
- **Alarm Constantly Triggering:** Check your high and low voltage/capacity alarm settings. Adjust them to match your battery type and desired operating parameters.
- **Intermittent Readings:** Inspect all cable connections for looseness or corrosion. Ensure the shielded wire is not damaged or exposed to excessive electrical interference.

For persistent issues, consult the full user manual or contact LNEX customer support.

9. WARRANTY AND SUPPORT

The LNEX 500A Shunt Battery Monitor comes with a standard manufacturer's warranty. Please refer to the warranty card included in your product packaging for specific terms and conditions. For technical support, product inquiries, or warranty claims, please visit the official LNEX website or contact their customer service department through the contact information provided in your product documentation.

For additional resources and product information, you may visit the [LNEX Store on Amazon](#).

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Question

Details

Submit question

Answered questions about this manual

How do I perform a recalibration of the LNEX 500A Shunt Battery Monitor, and why is this option missing from the settings menu?

On the LNEX 500A Shunt Battery Monitor, there is no specific menu item labeled "Recalibration" because the device is calibrated manually through the physical buttons on the display unit rather than a software setting. To...

[Read full answer](#)

I am looking for a battery monitor for a system that has two 200Ah lithium batteries in parallel. Since this gives me 400Ah, but the shunt is wired on the one negative cable, do I set the capacity of the LNEX 500A Shunt Battery Monitor at 200Ah or 400Ah?

You should set the capacity of the monitor to 400Ah. When batteries are connected in parallel, their capacities (Amp-hours) are additive. Since you have two 200Ah batteries, your total system capacity is 400Ah. For the...

[Read full answer](#)