

DROK FBA200692

DROK 12V Lithium Iron Phosphate Battery Tester and Monitor User Manual

Model: FBA200692

1. INTRODUCTION

This manual provides essential information for the proper installation, operation, and maintenance of your DROK 12V Lithium Iron Phosphate Battery Tester and Monitor. Please read these instructions carefully before using the device to ensure safe and efficient performance. This device is designed to accurately measure and display the voltage and remaining capacity (State of Charge - SOC) of 12V Lithium Iron Phosphate (LiFePO₄) batteries.

2. SAFETY INFORMATION

- Always ensure the power is disconnected before making any wiring connections.
- Connect the device only to 12V Lithium Iron Phosphate batteries as specified. Connecting to other battery types or voltages may cause damage to the device or battery.
- Observe correct polarity (positive to positive, negative to negative) when wiring. Incorrect polarity can damage the device.
- Do not expose the device to extreme temperatures, moisture, or corrosive environments.
- Do not attempt to disassemble or modify the device. Refer all servicing to qualified personnel.
- Keep out of reach of children.

3. PACKAGE CONTENTS

Please check the package for the following items:

- 1x DROK 12V Battery SOC Meter

4. PRODUCT OVERVIEW

The DROK 12V Lithium Iron Phosphate Battery Tester and Monitor features a color LCD display that shows battery voltage, remaining capacity (SOC) as a percentage, and a five-cell battery symbol. It includes an integrated ON/OFF switch for convenient daily use and is designed with splash-proof functionality.

4.1 Key Features

- **Multifunction Display:** Color LCD shows battery voltage, remaining capacity (SOC), and a five-cell battery symbol.
- **Integrated ON/OFF Switch:** For easy power control.
- **Splash-Proof Design:** Provides protection against splashing water.
- **Compact Size:** Product dimensions are 61.8 x 33.6 x 16 mm.
- **Easy Installation:** Designed for straightforward setup.

4.2 Component Identification



Figure 1: Front and back view of the DROK Battery SOC Meter with key components labeled, including the lead wire connector, power button, and side mounts.

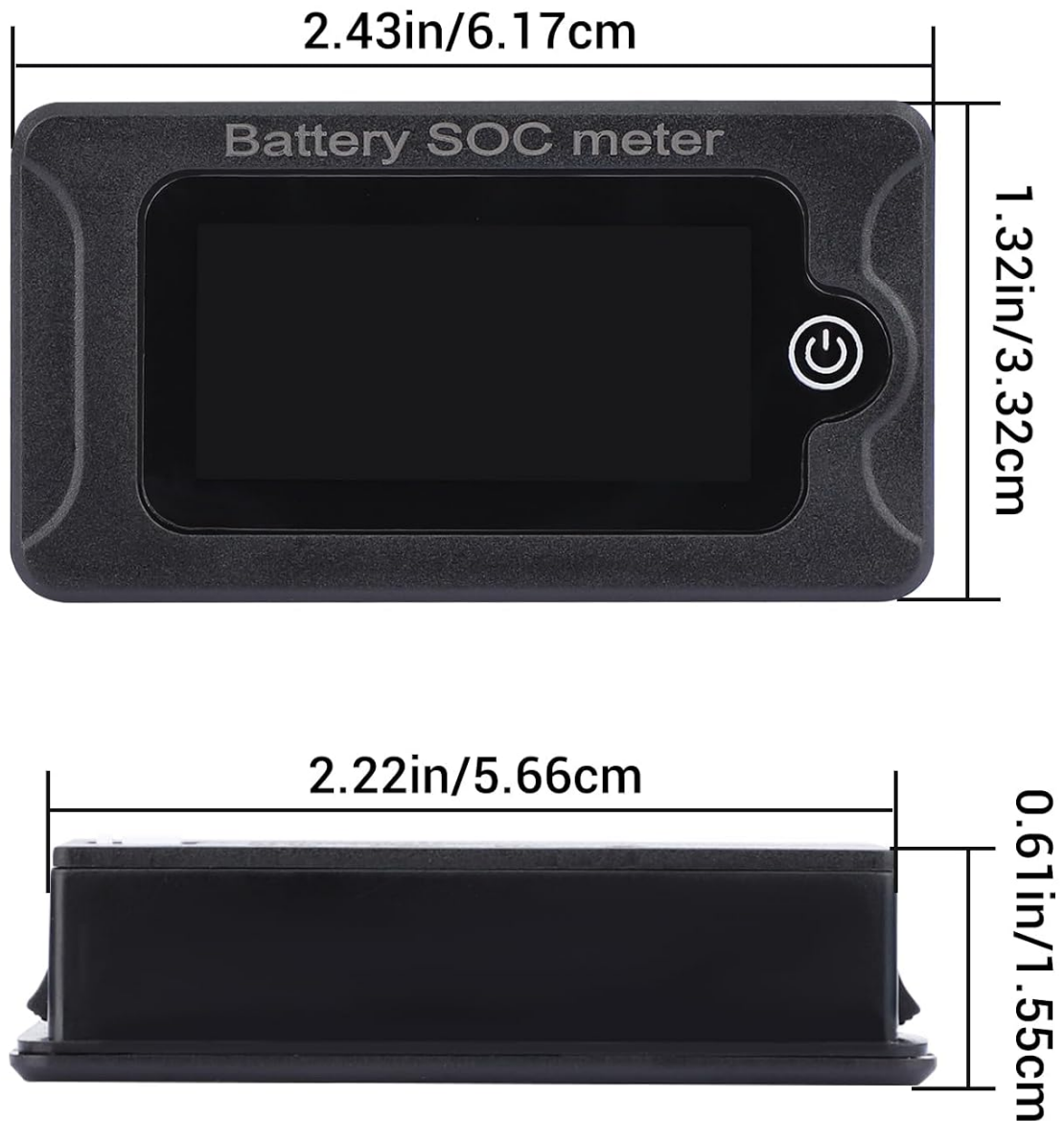


Figure 2: Dimensions of the DROK Battery SOC Meter, indicating a front width of 2.43 inches (6.17 cm), height of 1.32 inches (3.32 cm), and a side depth of 0.61 inches (1.55 cm).

5. SETUP AND INSTALLATION

5.1 Installation Dimensions

The installation dimension for mounting the device is 56.5 x 28.5 mm. Ensure adequate space and a secure fit for the meter.

5.2 Wiring Instructions

Connect the battery SOC meter to your 12V Lithium Iron Phosphate battery using the provided lead wires. Observe the correct polarity as shown in the wiring diagram below.

- Connect the **Red wire** to the **positive (+) terminal** of the battery.

- Connect the **Black wire** to the **negative (-) terminal** of the battery.



Figure 3: Wiring diagram for connecting the DROK Battery SOC Meter to a 12V battery, illustrating the correct positive (red) and negative (black) connections.



Figure 4: Rear view of the DROK Battery SOC Meter, showing the lead wire connector where the battery wires are attached.

6. OPERATING INSTRUCTIONS

6.1 Basic Operation

1. After connecting the device to the battery, press the power button (located on the front panel) to turn the display ON.
2. The color LCD will display the current battery voltage, the percentage of remaining capacity (SOC), and a graphical five-cell battery symbol.
3. To turn the display OFF, press the power button again.



Figure 5: The DROK Battery SOC Meter display showing voltage and battery percentage.

6.2 Battery Percentage Calibration (Advanced)

The default percentage settings may not be perfectly accurate for all LiFePO₄ batteries. You can calibrate the 0-100% range to match your specific battery's voltage characteristics. This procedure allows you to set custom voltage values for 100% (H) and 20% (L) charge levels.

1. **Connect to Battery:** Ensure the meter is connected to the battery for power.
2. **Turn On:** Press the power button to turn the display on.
3. **Enter Calibration Mode:** When the voltage reading appears, press and hold the power button for 1-2 seconds.
4. **Set 100% Voltage (H):** The display will show a voltage followed by "H" (e.g., "12.0v H"). Each digit will flash in sequence. Press the power button repeatedly to increment the flashing digit until you reach your desired 100% voltage value (e.g., 13.2V or higher for a fully charged LiFePO₄).
5. **Set 20% Voltage (L):** After setting the "H" value, the display will switch to show a voltage followed by "L" (e.g., "10.5v L"). Each digit will flash. Press the power button repeatedly to increment the flashing digit until you reach your desired 20% voltage value (e.g., 12.0V for a low charge LiFePO₄).

6. **Save Settings:** To save your new settings, press and hold the power button for 1-2 seconds.
7. **Discard Changes:** If you do not wish to save changes, simply wait for the display to time out (approximately 10 seconds), and the settings will revert to their previous values.

Note: Accurate calibration significantly improves the reliability of the percentage display. Consult your battery's specifications for precise voltage levels corresponding to 100% and 20% State of Charge.

7. MAINTENANCE

- **Cleaning:** Use a soft, dry cloth to clean the display and casing. Do not use abrasive cleaners or solvents.
- **Storage:** When not in use for extended periods, store the device in a cool, dry place away from direct sunlight and extreme temperatures.
- **Connections:** Periodically check all wiring connections to ensure they are secure and free from corrosion.

8. TROUBLESHOOTING

Problem: Display does not turn on.

Solution:

1. Check if the battery is connected correctly and has sufficient charge (above 10V). Ensure correct polarity.
2. Verify that the power button is pressed firmly.

Problem: Battery percentage reading is inaccurate or stays at 100% for too long.

Solution:

1. The default percentage calibration may not match your specific LiFePO4 battery. Refer to Section 6.2 "Battery Percentage Calibration" to adjust the 100% (H) and 20% (L) voltage thresholds according to your battery's specifications.

Problem: Voltage reading is incorrect.

Solution:

1. Ensure the device is connected to a 12V LiFePO4 battery. Incorrect battery types or voltages will result in inaccurate readings or damage.
2. Check for loose or corroded connections that might affect voltage sensing.

9. SPECIFICATIONS

Parameter	Value
Brand	DROK
Model Number	FBA200692
Working Voltage	10-12V
Power Consumption	8-10mA

Applicable Battery Type	12V Lithium Iron Phosphate (LiFePO4)
Display Type	Color LCD (Voltage, Percentage, Battery Symbol)
Product Size	61.8 x 33.6 x 16 mm
Installation Dimension	56.5 x 28.5 mm
Features	ON/OFF Switch, Splash-Proof
Country of Origin	USA

10. WARRANTY AND SUPPORT

For warranty information and technical support, please refer to the product packaging or contact your retailer. Keep your purchase receipt as proof of purchase.

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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

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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

