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› DC HOUSE 12V 100Ah LiFePO4 Lithium Battery Instruction Manual

DC HOUSE L13090201062-1

DC HOUSE 12V 100Ah LiFePO4 Lithium Battery Instruction Manual

Brand: DC HOUSE

Model: 12V 100Ah Bluetooth & Low Temp Protection (L13090201062-1)

1. INTRODUCTION

This manual provides essential information for the safe and efficient use of your DC HOUSE 12V 100Ah LiFePO4 Lithium Battery. This high-performance battery is designed for various applications, including RVs, marine vessels, trolling motors, and solar systems, offering exceptional cycle life and advanced protection features. Please read this manual thoroughly before installation and operation to ensure optimal performance and longevity of your battery.



Figure 1: DC HOUSE 12V 100Ah LiFePO4 Lithium Battery. This image shows the compact, black battery unit with blue labeling indicating its voltage, capacity, and LiFePO4 chemistry.

2. KEY FEATURES

- **Low Temp Cut-Off:** The integrated Battery Management System (BMS) automatically cuts off charging below 32°F (0°C) and discharging below -7.6°F (-22°C) to protect the battery and extend its lifespan. Charging and discharging automatically resume when temperatures rise above these thresholds.

Low-temp Cut-off Protection



Figure 2: Illustration of the battery's low-temperature cut-off protection, showing temperature thresholds for stopping and resuming charging/discharging.

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Video 1: DC HOUSE 100AH Lithium Battery Low Temperature Test. This video demonstrates the battery's performance and protection mechanisms in cold environments, showcasing its ability to withstand low temperatures.

- **Bluetooth APP Monitoring:** Monitor battery information such as State of Charge (SOC), voltage, and current in real-time via the DC HOUSE APP. The app provides detailed data down to specific cell levels and includes a fault display page for easy troubleshooting. (Bluetooth signal range: 5-10 meters).

Real-time Monitoring by App

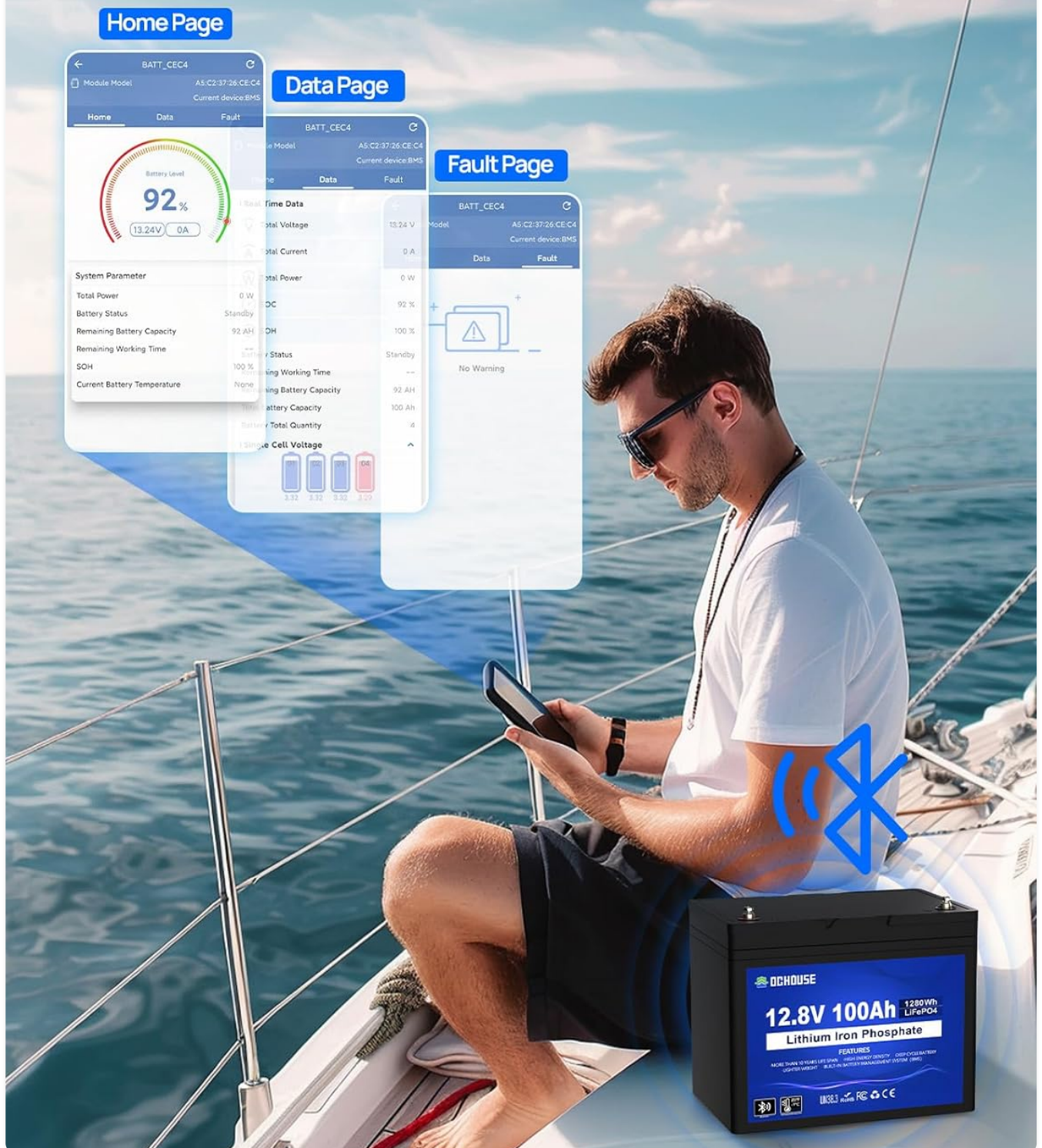


Figure 3: A person on a boat monitoring the battery's status via the DC HOUSE Bluetooth app on a tablet, highlighting the real-time data display.

Abnormality Notifications in App

Helpful for Quick Troubleshooting



Single battery monitoring



Single cell monitoring



Fault warning



Figure 4: Screenshot of the DC HOUSE app showing abnormality notifications, indicating single battery monitoring, single cell monitoring, and fault warnings.

- **10 Years Life & Up to 15000 Cycles:** Utilizes Class A LiFePO4 battery cells, certified by UL/UN38.3, ensuring high safety and a long service life of up to 10 years with 15,000 cycles. This significantly surpasses the typical 3-year lifespan and 200-500 cycles of lead-acid/SLA/AGM batteries.

Discharge 4000~15000 Times

More Than 10 Years Lifespan



Metal Fixtures Anti-bulging & Longer Life

Figure 5: An exploded view of the battery showing its internal components, emphasizing the metal fixtures designed for anti-bulging and longer life, contributing to 4000-15000 discharge cycles.

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Video 2: Why do batteries need fixtures? This video explains the importance of internal metal fixtures in batteries for stability, thermal management, and structural protection, which contributes to extended battery life.

- **Wide Multiple Applications:** Compact BCI Group 31 size, ideal for RVs, boats, trolling motors, fish finders, ice fishing, camping, solar systems, and home alarm systems.

Power Your Fishing Trip with 100AH



Figure 6: The battery shown in a boat setting, highlighting its dimensions (6.6 x 10.2 x 9.2 inches) and suitability for marine applications like trolling motors.

Boost RV's Performance

Enjoy Every Moment of Trip



Figure 7: Examples of appliance run times in an RV setting using the battery, such as a mini-fridge for 16 hours or a coffee machine for 1.2 hours.

- **Smart BMS Protection:** Equipped with a 100A BMS (Battery Management System) that provides comprehensive protection against overcharge, over-discharge, short circuit, over-current, high temperature, and low-temperature cut-off.

Expandable Up to 20480Wh Power

Max. 4P4S Battery Bank



Tip: Charge the battery pack with voltage difference below 0.1V

Figure 8: Diagram illustrating the various protections offered by the 100A BMS, including voltage self-balance, temperature protection, short circuit protection, and over-current/discharge/charge protection.

- **Expandable Power:** Can be connected in series or parallel for increased voltage or capacity, supporting up to 4 batteries in series or parallel for a maximum of 20480Wh power.

Important: Charge the battery with a dedicated LITHIUM BATTERY CHARGER. Do not connect more than 4 batteries in series or parallel. Ensure voltage difference is below 0.1V when connecting in parallel.

Smart BMS Protection

Protect Battery From Damage



Figure 9: Illustration showing multiple batteries connected in parallel and series configurations to achieve higher power output.

3. SETUP

3.1 Unboxing and Initial Inspection

Upon receiving your DC HOUSE battery, carefully open the packaging and inspect the battery for any signs of damage during transit. Ensure all included accessories are present:

- 1x DC HOUSE 12V 100Ah LiFePO4 Battery
- Instruction Manual
- Parameter Card
- Fixture Leaflet
- Screw Accessory (for terminals)

Your browser does not support the video tag.

Video 3: DC HOUSE 100AH Lithium Battery Unboxing. This video shows the unboxing process of the battery, including the contents of the package such as the instruction manual, parameter card, fixture leaflet, and screw accessories.

3.2 Initial Charging

It is recommended to fully charge the battery before its first use. Use a dedicated LiFePO4 battery charger compatible with 12V lithium batteries. Connect the charger to the battery terminals, ensuring correct polarity (positive to positive, negative to negative). The battery's Bluetooth app can be used to monitor the charging progress.

3.3 Installation

Install the battery in a well-ventilated area, away from direct sunlight, heat sources, and flammable materials. Ensure the battery is securely mounted to prevent movement or damage during operation. Connect the battery to your system using appropriate gauge wiring and connectors, ensuring all connections are tight and secure to prevent arcing or overheating.

4. OPERATING INSTRUCTIONS

4.1 Connecting to the DC HOUSE App

Download the "DC HOUSE" app from your smartphone's app store. Enable Bluetooth on your device and open the app. The app will automatically search for nearby DC HOUSE batteries. Select your battery from the list to connect and begin monitoring its status. The app provides real-time data on voltage, current, SOC, and temperature, as well as fault notifications.

4.2 Usage Guidelines

- Always use appropriate circuit breakers or fuses to protect the battery and connected devices from overcurrent.
- Avoid fully discharging the battery regularly to maximize its lifespan. The BMS will protect against over-discharge.
- Ensure proper ventilation around the battery, especially during charging and heavy discharge, to prevent heat buildup.
- For parallel or series connections, ensure all batteries are of the same type, capacity, and voltage, and are at a similar state of charge before connecting.

5. MAINTENANCE

- **Regular Inspection:** Periodically check the battery terminals for corrosion or loose connections. Clean terminals with a wire brush if necessary and ensure they are tightened securely.
- **Cleaning:** Keep the battery clean and free of dirt, dust, and debris. Use a dry cloth to wipe down the battery casing. Do not use solvents or abrasive cleaners.

- **Storage:** If storing the battery for an extended period, ensure it is charged to approximately 50-70% SOC. Store in a cool, dry place, away from direct sunlight and extreme temperatures. Recharge the battery every 3-6 months to prevent self-discharge.
- **Temperature Management:** While the battery has built-in low-temperature protection, operating within recommended temperature ranges (typically 32°F to 113°F for charging, -4°F to 140°F for discharging) will optimize performance and lifespan.

6. TROUBLESHOOTING

If you encounter issues with your DC HOUSE battery, refer to the following common troubleshooting steps. For more detailed diagnostics, use the fault display page in the DC HOUSE app.

Problem	Possible Cause	Solution
Battery not charging	Charger not connected properly; Battery temperature too low (below 32°F/0°C); BMS protection activated.	Check charger connections; Move battery to a warmer environment; Check app for BMS fault codes.
Battery not discharging/providing power	Battery temperature too low (below -7.6°F/-22°C); Over-discharge protection activated; Short circuit.	Move battery to a warmer environment; Recharge battery; Check for short circuits in the system.
Bluetooth app not connecting	Bluetooth disabled on phone; Battery out of range; App glitch.	Ensure Bluetooth is enabled and within 5-10m range; Restart app or phone.

7. TECHNICAL SPECIFICATIONS

Specification	Value
Brand	DC HOUSE
Model	12V 100Ah Bluetooth & Low Temp Protection
Item Model Number	L13090201062-1
Item Weight	23.8 pounds
Product Dimensions	6.6 x 10.2 x 9.2 inches (D x W x H)
Number Of Cells	4
Terminal Type	M8
Battery Type	LiFePO4 (Lithium Iron Phosphate)
BMS	100A
Cycle Life	Up to 15,000 cycles
Low Temp Charge Cut-Off	32°F (0°C)
Low Temp Discharge Cut-Off	-7.6°F (-22°C)

8. WARRANTY AND SUPPORT

DC HOUSE is committed to providing excellent customer service and product reliability. Your 12V 100Ah LiFePO4 Lithium Battery comes with a **3-year reported service warranty**.

If you require assistance, have questions about battery connection, charging, discharging, or encounter any issues, please do not hesitate to contact us through Amazon or the after-sales address provided in the manual. Our professional support team is ready to provide comprehensive advice and solutions.

Your browser does not support the video tag.

Video 4: DC HOUSE Factory Tour. This video provides an overview of the DC HOUSE manufacturing facilities, including their warehouse, production lines, R&D testing center, and customer service operations, highlighting their commitment to quality and support.

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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

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

Answered questions about this manual

Why is my charger for the DC HOUSE 48V 100Ah Pro Lithium Battery not showing any power or light indicators after being plugged in?

If your charger is not showing any power indicators when connected to your DC HOUSE Lithium Battery, please check the following troubleshooting steps based on the manufacturer's guidelines:Check Temperature Cut-Off: The

integrated Battery Management...

[Read full answer](#)

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