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› DC HOUSE 48V 100Ah Lithium Golf Cart Battery User Manual

## DC HOUSE ECO-LFP4810003

# DC HOUSE 48V 100Ah Lithium Golf Cart Battery User Manual

Model: ECO-LFP4810003

## 1. INTRODUCTION

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This manual provides essential information for the safe and efficient use of your DC HOUSE 48V 100Ah Pro Lithium Golf Cart Battery. This battery is designed to replace traditional lead-acid batteries in 48V golf carts, offering significant weight reduction, compact size, and extended cycle life. It features a 200A Battery Management System (BMS) and includes a 48V 18A charger, a Bluetooth mobile application, and an LCD monitor for comprehensive battery management.

The battery is constructed with a durable metal case for enhanced safety and includes advanced protection features. Please read this manual thoroughly before installation and operation.



Figure 1: DC HOUSE 48V 100Ah Lithium Golf Cart Battery

## 2. SETUP AND INSTALLATION

### 2.1 Unpacking and Initial Inspection

Upon receiving your product, verify that all components are present and undamaged. The 48V 100Ah battery and 48V 18A charger are shipped in two separate packages. If one package arrives before the other, please wait patiently for the second delivery.

### 2.2 Package Contents

# What's in the set?



Bluetooth LCD Monitor



LiFePO4 Battery Charger



Terminal M8



Install Mounting M8



Intall Maunting M5



Note: Due to the battery's excessive weight, the battery and charger will be shipped in 2 separate packages.

Figure 2: Included components in the kit

- 1x 48V 100Ah LiFePO4 Battery
- 1x Bluetooth LCD Monitor
- 1x 48V 18A LiFePO4 Battery Charger
- 2x M8 Terminals
- Protective Caps
- User Manuals

- Mounting Hardware (M8 and M5)

## 2.3 Battery Installation

The 48V lithium battery is designed for direct replacement of 6-8V 100Ah lead-acid batteries. Ensure your golf cart's battery compartment can accommodate the dimensions of the new battery (19.9"D x 11.1"W x 9.2"H). Modifications may be required for some golf cart models.

**Safety Note:** Always turn off the battery using the one-touch safety switch before installation or maintenance to prevent electrical sparks and ensure safe operation.

# One Touch Switch

## Safe Power Cut Off & Lower Self-discharge

### Cuts Output



- Off When Unused Long: cuts output, prevents over-discharge, extends life
- Off During Installation / Maintenance: prevents electric sparks, safer operation



Figure 3: Battery with one-touch safety switch

## 2.4 Bluetooth LCD Monitor Connection

The wireless Bluetooth LCD Monitor is included. Connect its positive and negative terminals to the corresponding terminals of your golf cart's switch key. This allows you to monitor the battery status via Bluetooth. A reserved communication port on the battery is available for wired communication monitors, which must be purchased separately if desired.

## 3. OPERATION

### 3.1 Battery Monitoring

Monitor your battery status using two methods:

- **Bluetooth LCD Monitor:** Provides real-time data on battery capacity, voltage, and fault codes. Effective up to 49.2 feet away.
- **Mobile APP:** Connects via Bluetooth to your smartphone, displaying key battery information. Effective up to 32.8 feet away.

**Note:** Both the APP and LCD Monitor connect via Bluetooth and cannot be used online simultaneously.

## 4 Advantages to Enhance Your Using Experience



Figure 4: Battery monitoring options

### 3.2 Charging

The included 48V 18A charger provides efficient charging. Connect the charger to the battery and a power outlet. The charger features a built-in auto-stop function when the battery is fully charged, working in conjunction with the battery's BMS overcharge protection for dual safety. A full charge typically takes approximately 5.5 hours.

## Auto Cut-Off & Resume Charging

Smart sensors stop charging below safe temps and auto-restart when warmed up—shields against cold damage with zero effort required.



Figure 5: Charging the battery with the dedicated charger

## 4. MAINTENANCE AND SAFETY

## 4.1 Safety Features

The DC HOUSE lithium battery incorporates several safety features:

- **Metal Case:** The sturdy, fireproof, and anti-collision sheet metal case provides superior protection compared to ABS-cased batteries, especially against high-current fires if misused.
- **Internal Fixtures:** Metal fixtures secure Grade A internal cells, reducing the risk of swelling and extending lifespan.
- **BMS Protection:** The integrated Battery Management System (BMS) offers 6 key protections: overvoltage, undervoltage, overcurrent, short circuit, high temperature, and low-temperature cutoff.

### Upgraded Metal Casing, Tough & Impact-Resistant



Figure 6: Metal case for enhanced fire safety

### Reserved Fixed Holes

Detachable Design for Easy Installation Without Wobbling

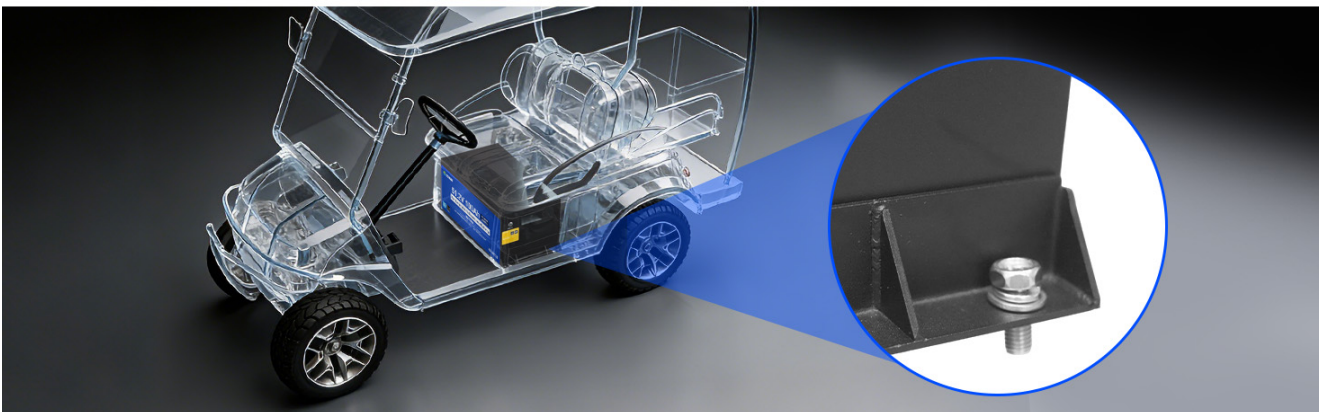


Figure 7: Internal fixture design for cell protection

## 4.2 Low-Temperature Protection

The battery features an enhanced low-temperature cutoff:

- Charging is cut off at 32°F (0°C) and below.
- Charging resumes at temperatures above 32°F (0°C).
- Discharging is cut off at -4°F (-20°C) and below.

Disabling low-temperature protection can lead to lithium plating, permanent capacity loss, dendrite growth, separator penetration, and potential thermal runaway.

# A New Golf Cart Experience

Powerful lithium, faster acceleration & steadier operation



Figure 8: Low-temperature protection thresholds

## 4.3 One-Touch Switch for Storage

Utilize the one-touch safety switch to cut off power when the battery is unused for extended periods. This prevents over-discharge and extends the battery's lifespan. Always use this switch to shut down the battery during installation, maintenance, or inspection for zero voltage safety.

## 5. TROUBLESHOOTING

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For detailed troubleshooting steps and solutions to common issues, please refer to the official Troubleshooting Guide PDF available [here](#).

Common issues may include:

- **No Power:** Check the one-touch safety switch to ensure it is in the 'ON' position. Verify all cable connections are secure.
- **Charging Issues:** Ensure the charger is properly connected and receiving power. If charging in cold conditions, the low-temperature cutoff may prevent charging until the battery warms up.
- **Bluetooth Connectivity:** Ensure only one monitoring device (APP or LCD) is attempting to connect at a time. Check the range between the monitor/phone and the battery.

## 6. SPECIFICATIONS

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### 6.1 Battery Specifications

## BMS All-Around Protection



Figure 9: Battery dimensions and key specifications

Feature	Specification
Product Name	LiFePO4 Battery
Model Number	ECO-LFP4810003
Rated Capacity	100Ah / 5120Wh (25°C 0.5C)
Rated Voltage	51.2V
End-of-Charge Voltage	58.4V
End-of-Discharge Voltage	40V
Discharge Peak Current	280A (30s) / 670A (0.5s)
Max. Continuous Charging/Discharging Current	200A (2C) / 200A (2C)
Charging Voltage	58.4V
Dimensions (L x W x H)	19.9" x 11.1" x 9.2" (505.5 x 282.0 x 233.7 mm)
Weight	99 lbs (44.9 kg)
Recommended Charging Temperature Range	32-131°F (0-55°C)
Recommended Discharging Temperature Range	-4-131°F (-20-55°C)
Battery Cell Composition	Lithium Ion (LiFePO4)
Terminal Type	M8

### 6.2 Charger Specifications

## Brand-New Grade A Cells



Figure 10: Charger dimensions and key specifications

Feature	Specification
Input Voltage	100-240VAC
Charging Voltage	58.4V
Max Charging Current	18A
Max Charging Power	900W
Working Temperature	-20°C to +45°C
Storage Temperature	-40°C to +70°C
Waterproof Rating	IP65
Battery Type Compatibility	LiFePO4 Batteries

### 6.3 Bluetooth Monitor Specifications

Same Energy, 1/4 the Weight of AGM



Figure 11: Bluetooth Monitor dimensions and key specifications

Feature	Specification
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Feature	Specification
Input Voltage	8-90V
Operating Current	<50mA
Operating Temperature	-20°C to 65°C (-4°F to 149°F)
Storage Temperature	-30°C to 75°C (-22°F to 167°F)
Protection Grade	IP54
Display Area Dimensions	50 x 30 mm
Cable Length	17.52 inches (445 mm)

## 7. WARRANTY AND SUPPORT

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DC HOUSE offers a 3-year warranty for this lithium golf cart battery. Support is provided from a local warehouse in the US. For any questions regarding installation or operation, please contact DC HOUSE customer support for assistance.

For further assistance, please visit the [DC HOUSE Store](#).