3.2.3 Install the Positive (+) terminal cable first, then Negative(-) Connecting the battery in reverse polarity could damage your bike's electrical system. Two terminals of each charge (+) and (-) are provided on our battery to provide maximum installation flexibility for you.

3.2.4 Max torque for the terminal screw is 25kg/cm or 21.7in/lb or 1.8ft/lb. Do not over-tighten. We recommend a #3 Phillips screwdriver. Be sure the battery fits well in the battery box and allows the battery cables to reach the battery terminals with some slack.

3.2.5 Re-install the vehicle's protective battery caps and cover the unused terminals with the supplied caps to ensure the battery won't short against any part of the vehicle.

4. CHARGING

CS-BATTERIES LiFePO4 motorcycle battery is capable of holding a charge for up to a year. In a properly designed electrical system, the battery will be kept in a state of charge from the vehicle's charging system. Please follow the charging instructions below if you need to charge it separately:

4.1 Do not use a trickle charger or regular lead-acid charger.

4.2 Do not charge the battery in temperatures below 0°C (32F). LiFePO4 batteries can safely charge between 0°C to 45°C (32°F to 113°F).

4.3 Use the CS-BATTERIES LiFePO4 battery charger (available at www.CS-batteries.com).

4.4 Only use a charger that is compatible with 12V Lithium Iron Phosphate batteries. Charging voltage must not exceed 14.6V. The charge current should not exceed the maximum charge rating of the battery.

4.5 Over-charging of the battery — this usually happens on older vehicles (1970s) when a voltage regulator goes bad, or if the battery is charged using the wrong type of charger. Both of these issues will quickly damage your battery whether it is Lead-acid or Lithium.

CS-BATTERIES batteries have a built-in full functional Battery Management System that will protect our battery from being over-charged or over-discharged.

5. STORAGE

A fully charged battery can usually be stored for over a year without charging. We recommend to store battery at temperatures between $15\sim35^{\circ}C(59\sim95^{\circ}F)$.

6. WARRANTY INFORMATION

CS-BATTERIES Batteries come with a 2-year Limited Warranty to be free of defects in material and workmanship. All batteries must be registered within the first 30 days from the original purchase date or the original purchaser must provide an original receipt to be eligible for a warranty claim. Returns will only be accepted from the original purchaser.

What Does CS-BATTERIES's Warranty Cover?

If the battery failed within the free replacement period due to defects in materials and/or construction, we will replace it with the same model battery free of charge.

What Doesn't CS-BATTERIES's Warranty Cover?

- Any physical damage caused by abuse or improper installations.
- Any modification to any part of the battery or its parts.
- Use of charger NOT intended specifically for LiFePO4 batteries or charging above 14.6 volts.
- Overcharge due to a defect with the vehicle's voltage regulator or defective charging system (usually found in older bikes pre-1980s).
- Excessive over cranking or using the incorrect size battery for your vehicle (too small a battery where a larger battery is needed).



ZA-Anl-HDX-E

CS-BATTERIES

I THIUM EXPERTS

Re-Start

USER MANUAL

1. SAFETY

Lithium Iron Phosphate (LiFePO4 or LFP) batteries are safe to use indoors and outdoors. However, as with any battery, safety measures must always be taken. Please follow the instructions within this user manual for the safe handling and operation of CS-BATTERIES batteries.

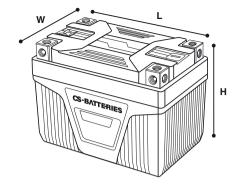
M IMPORTANT SAFETY WARNINGS

- Always wear protective gear when handling batteries.
- Never attempt to open or disassemble a battery. If accidental contact with internal battery contents occurs, wash the affected skin area and contact a doctor for further medical assistance.
- Do not expose the battery to water or saltwater, or allow the battery to get wet.
- Keep sparks, flames, heat sources (> 50°C/122°F), and metal objects away from batteries.
- · Make sure all cable connections are properly tightened.
- Battery cables should have some slack and not be tightly stretched.
- Install and remove batteries using the tools provided.
- The battery MUST be securely mounted into the vehicle.
- If the battery emits a peculiar smell, heating, distortion, or appears to have any abnormality during operation or storage, please remove the battery and move it to a safe location. Contact CS-BATTERIES for further details.
- If the battery leaks and any chemicals get into the eyes or on the skin, do not rub or wipe. Rinse with dean water and seek medical attention immediately.

2. PRODUCT INTRODUCTION

2.1 Overview

Our groundbreaking Lithium Motorcycle Battery is the world's FIRST RE-START motorcycle battery, it incorporates CS-Batteries patent Battery Management System & Control technology to provide every motorcycle enthusiast a unique experience, the Battery Management System (BMS) automatically shuts off the battery to prevent permanent damage from over-charge, over-discharge, short circuit, etc.



2.2 Spec

Model	Voltage	Energy	Lead-acid equivalent	Cranking amps	Dimensions L/W/H	Weight
HDX-14	12.8V	64Wh	PbEq 5-14Ah	400A	113/70/83mm	0.75kg
HDX-20	12.8V	76.8Wh	PbEq 14-20Ah	600A	149/65/92mm	0.95kg
HDX-30	12.8V	102.4Wh	PbEq 20-30Ah	800A	135/75/139mm	1.35kg
HDX-40	12.8V	153.6Wh	PbEq 26-40Ah	1000A	175/87/142.5mm	1.94kg

2.3 RE-START Function

CS-BATTERIES RE-START battery is a high-power, lightweight Lithium-lon power-sports battery built with our groundbreaking patented RE-START technology, so you will never be troubled with a dead battery anymore! The revolutionary RE-START battery with Battery Management System, can intelligently monitor battery status, the battery will enter into sleep mode before going completely dead so it can have enough energy to RESTART your vehicle again. No matter what model or what brand of motorcycles, it is very easy to RE-START. You only need to SHAKE the motorcycle 3 times or more, then you can successfully RESTART and ride off. You don't need to take out the battery from the motorcycle or press any buttons.

3. INSTALLATION

Before Installation, please make sure the location of the CS-BATTE-RIES Battery is free from potential short-circuiting of the cables, terminals, and other electrical connections. Be aware of other potential dangerous situations including moving parts or extremely hot parts such as exhaust pipes.

3.1 Installation Tool: Use the tools provided.

3.2 Installation Guide

3.2.1 Replacing an old battery – Before disconnecting the battery cable, please mark the cable connected to the (+) terminal of the old battery. Always remove the negative (-) cable connector before removing the positive (+) cable for safety reasons. Clean the cable connectors to remove any corrosion or grease. If a voltmeter or multi-meter is available, double-check the battery polarity to make certain the old battery's (+) terminal is actually the (+) charge side.

3.2.2 LiFePO4 battery is 2-3 times higher in energy density than lead-acid batteries,therefore, our battery will be smaller than the lead-acid battery. You can use the foam shims to fill up any extra space in your battery tray/box if needed. Trim the foam shims with scissors or a knife for a firm fit to ensure a secure installation.

