# LITHIUM ION STARTER BATTERY

## Product Instruction Sheet



## 1 Features

(1) Ultrahigh rate Lithium Iron Phosphate battery technology.
(2) Ultra light weight- 1/3 of normal lead-acid battery.
(3) Low self-discharge, it can be used in a vehicle after fully charged 6 months stored.
(4) Excellent Cycle life-over 1000 cycles under 1C standard
(lead acid battery only 100-200cycles)
(5) Highly Safety-Lithium Iron Phosphate material and soft pack process
to ensure the safety performance.
(6) Significant Energy Efficiency-high and stable voltage stage improve
rapidly the action efficiency of spark plug which can reach fuel-efficient.
(7) Can be installed in any directions, no need to worry about the leakage.

## 2 Warnings

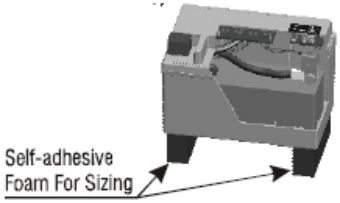
(1) Please strictly follow the instructions, Do not make the battery short
circuit, otherwise the battery may smoke, fire and even endanger
personal safety!
(2) Do not use the battery in combination with primary batteries
(such as dry cell batteries) or batteries of different capacity, type, or brand.
(3) Do not try to take apart the battery! Do not touch the battery directly if the
electrolyte leaks. The electrolyte may harm skin & eyes. If skin contact occurs,
wash skin immediately with soap and water. If eye contact occurs, flush
immediately with water and get prompt medial help

## 3 Charging

(1) When the battery indicator shows 2 or more, the battery can be used
directly, no need to recharge. When the indicator shows one or no
light, the battery needs to be recharged in time.
(2) The new battery can be used directly if the voltage is higher than 13V.
If you want fully charge the battery before using, a conventional lead-acid
battery charger with an output of constant voltage and current DC 14.0V to
14.6V charger or a specially designed LiFePO4 battery charger can be used for
charging.
(3) Both vehicle and battery charger need to limit voltage between 14.0-14.6
volts when charging. The battery can not be full charged if charging voltage
is less than 14.0 volts, and the battery would be damaged if the charging
voltage is over 14.6 volts.
(4) Always remove the battery from the vehicle before charging separately.
(5) Charge the battery with a lower current than the MAX Charging Current.
(6) After charging, leave the battery for 1 to 2 hours before checking the voltage.
If the voltage is less than 13.0 volts , additional charging is necessary.
(7) If the battery becomes hot to the touch, stop charging. Allow battery to cool
before resuming.

## 4 Installation

(1) Please check the battery voltage before installing; if the voltage is lower than
13V, charge the battery (see charging section).
(2) Make sure the charging system of your motorcycle is normal.
(3) Remove the original battery from your motorcycle.
(4) Compare the original battery with the new one; if the new battery is smaller in
any directions (length, width, height), use the self-adhesive foam to adjust the
battery size, so that the new battery fits the vehicle's battery box (reference Figs).
(5) In order to save the materials, please cut the self-adhesive foam into small pieces,
and then stick it to the battery, that makes the battery achieve better heat
dissipation effect.
(6) Connect correctly the positive and negative leads.



## 5 Usage

(1) Verify that the correct size LFP Lithium Iron battery has been chosen.
(2) Do not engage your starter for longer than 5 seconds per try. Allow adequate time between starting intervals (at least 5 seconds). Also make sure that your vehicle is in a proper state of tune, as this will drastically shorten the starting time draw on the battery.
(3) Try to avoid keeping the vehicle light on for any extended period of time while the engine is not running. This will help prevent over discharging.
(4) If the vehicle is going to be stored for an extend period (more than 7 days), we suggest removing the battery to lower the discharge rate. Vehicles installed with anti-theft device will discharge the battery faster.
(5) The performance of the battery may be influenced by the low temperature environment. For instance, When used under 0℃, Make sure the vehicle is in neutral, It is recommended that the start time should not be more than 3 seconds, leave enough interval time (at least 5 seconds), and repeat 2-3 times. Then start the vehicle. In this way, a better starting performance can be achieved and a longer battery service life will be maintained.
(6) The vehicle which used LFP battery should avoid using or storing in hot temperature environment for a long time, especially do not expose the vehicle in the sun too long (over a few hours), otherwise the battery's service life will be shortened. The battery needs no special maintenance if the vehicle with good power-supply system and working normally.

## 6 Storage

(1) The battery should be stored with 70% charge state (approx).
(2) The battery will be damaged at high temperature or humid environment for long time storage. It should be stored in dry and ventilated environment, and the storage temperature should be lower than 25℃ (77F), the suitable warehouse temperature is 0℃~25℃; this can help to maximize the battery's storage life.
(3) If the ambient temperature for long-term storage(>30days) is higher than 40℃,it may certainly shorten the battery storage life; if higher than 55℃, the battery may be damaged and will not be covered under warranty.
(4) The battery should be charged completely once every 180 days when in storage.

## 7 Transportation

(1) The battery should be packed with insulation and shockproof material to avoid damage from sudden jolts a collision.
(2) The battery should be handled with care when loading and unloading during transportation. Do not throw the batteries and avoid collision.
(3) Do not transport the batteries together with flammable, explosive objects, or sharp metal goods.

## 8 Maintenance

(1) Disconnect the battery cable is always the best choice if the vehicle is in storage or used infrequently. Or use a standard maintainer or charger to maintain the battery. Or charging the battery regular.
(2) If the battery stands by any period of time, check the voltage in case lower12.8 volts, charge the battery (see charging section).
(3) Keep the connecting poles clean and securely fastened.
(4) The battery is factory sealed and requires no topping up of any fluid. Never attempt to open the battery.

## 9 Cautions

(1) Do not make the battery terminal short circuit or reverse connected!
(2) Do not connect the battery with a power socket directly.
(3) Do not put the battery into a fire or heat it directly.
(4) Do not use more than one battery in parallel or in series.
(5) Do not press on indicator button longer than three seconds.
(6) Do not use the battery if it gives off an odor, generates heat, becomes discolored or deformed, or appears abnormal in any way. If the battery is in use or being recharged, remove it from the device or charger immediately and discontinue use.
(7) Please fix the battery terminal with original screws and nuts securely. Battery and even vehicle may be damaged by the sparks because of the loose connect.
(8) Do not open or damage the battery case.
(9) Do not drop the battery into water or moisten the battery.
(10) Avoid impacting, throwing, twisting the battery.
(11) Keep the battery away from children and pets.
(12) Do not allow discharge below 12.8V (resting voltage)
(13) Do not allow charge voltage in excess of 14.6V

## 10 Others

Manufacturer shall not be liable for any unforeseen events arising out of the operation of the foregoing instructions.