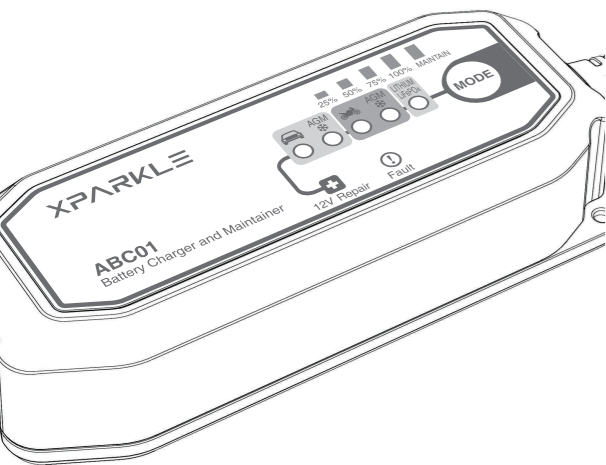


XPARKLE ABC01

Battery Charger and Maintainer

User Manual V1.0

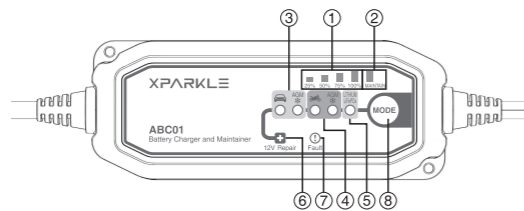


XPARKLE

Introduction

The Xparkle ABC01 is a smart automotive charger and maintainer, making charging simple and easy for ordinary lead-acid batteries, AGM batteries, and Lithium Iron Phosphate (LiFePO4) batteries on cars and motorcycles. The charger implements intelligent multi-stage charging modes, with the ability to rejuvenate batteries that have been idle for a long time or cannot be charged.

Meet the Xparkle ABC01



- ① 4 Charge Level Indicators: 25%, 50%, 75% and 100%
- ② Float(Maintain)
- ③ Car Normal/AGM Battery
- ④ Motorcycle Normal/AGM Battery
- ⑤ LiFePO4 Battery
- ⑥ Repair
- ⑦ Error LED
- ⑧ Mode Button

Packing content

- Battery Charger x1
- Power cord x1
- Manual x1

Specifications

Input Voltage	AC 100-240V 50Hz/60Hz
Output Voltage	Up to 15V
Charging Current	Motorcycle Battery: 1.5A Car Battery/LiFePO4: 4.3A
Power	60W
Battery Type	All types of 12V lead-acid batteries (WET, MF, Ca/Ca, AGM and GEL) and LiFePo4
Charging Mode	Normal / AGM / LiFePO4 / 12V Repair
Charging Voltage	Normal: 14.4V AGM: 14.7V LiFePO4: 14.4V Float: 13.4V-14.0V 12V Repair: 15.0V
Battery Capacity	12V 2-110Ah
Status	Desulfation: 25% LED lights up Soft Start: 25% LED lights up Bulk Charge: 50% LED lights up Absorption: 75% LED lights up Test: 100% LED lights up. Error LED will light up when the voltage drops below 12V, indicating a faulty battery.

Note:

LiFePO4 Charging Mode does not support Desulfation, Soft Start, Test, Repair, Float

Insulation Class	Rated IP65
Product Dimension	17x6.5x3.75CM
Product Weight	0.6KG

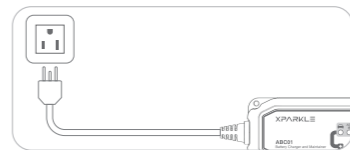
Features

- Charging batteries of 2-110AH
- Seven charging stages
- Low-temperature charging
- Battery repair feature
- Compliant cables for safer charging
- Seven precautions and safety measures
- Splash and dust proof: Rated IP65

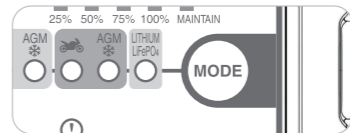
- Repair: 12V Repair LED lights up. The current is restricted at 1.5A for vehicle and 0.5A for motorcycle. (Maximum duration time: 30 mins, LiFePO4 does not have this function.)
- Float: LED pulses in GREEN (LiFePO4 does not have Float mode)

How to charge

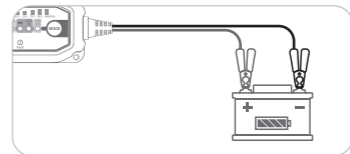
1. Connect ABC01 to AC power source



2. Push MODE button to select your desired battery type



3. Make sure the contact is good and the positive and negative clamps are connected to the terminals of the battery correctly. Charging initiates automatically after five seconds.



4. Push MODE button to terminate the current process. Select the desired battery type, charging starts after five seconds.

5. The 100% LED lights up in green when the charging completes, then the battery will enter into FLOAT, and the MAINTAIN LED will pulse.

Note: For the LiFePO4 battery, the charger will determine that it is fully charged with more than 90%; The battery can not be fully charged to 100%, because that each manufacturer has its own BMS with a different peak sensitivity.

6. Anytime the ERROR indicator lights up, disconnect the battery and troubleshoot as per below.

Troubleshooting

Error prompts immediately when the battery is connected

- a: The positives and negatives are connected reversely;
- b: A wrong battery is connected.

Error prompts during 25% indicator

- a: The battery is aging seriously with reduced capacity.
- b: A fully charged motorcycle battery is being charged in the car mode.

Error prompts during 50% indicator

The charger is over temperature.

Error prompts during 75% indicator

The battery can not be charged. It's recommended to replace the battery.

Error prompts during Float

Charge motorcycle battery in the car mode.

How to store

When charging completes, disconnect the battery from the charger in the following order:

1. Disconnect the charger from the power source
2. Remove the positive and negative clamps from the battery
3. Store the charger in a cool place

AGM Charging Mode

When the ambient temperature is lower than 5°C(41°F), charge the battery in AGM mode to better activate the performance.

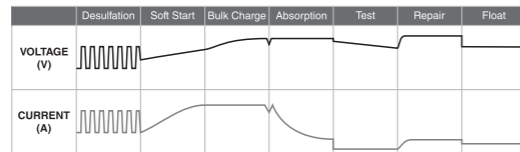


Repair Mode

After selecting the battery type, long-press the MODE button to activate the charging process that ABC01 provides a high voltage of 15V to charge with a strictly controlled current. (LiFePo4 does not have this function.)



Multi Stage Automatic Charging



1. Desulfation

It is pulse-charged to remove the sulfide on the battery plate and to restore the battery, the 25% LED will light up. (LiFePo4 does not have this function)

2. Soft Start

The power is slowly transferred to the battery, and the charging effect is being detected, and the 25% LED will light up. Error LED will light up if the voltage exceeds 15.8V. (LiFePo4 does not have this function)

3. Bulk Charge

The battery is being charged with a constant current of 1.5A/4.3A to 14.4V/14.7V, and the 50% LED will light up.

4. Absorption

The battery is being charged at a constant voltage, and the current is being intelligently adjusted. The 75% LED will light up.

5. Test

The test lasts for 3 minutes. Error LED will light up if the voltage drops below 12V, indicating a faulty battery. (LiFePo4 does not have this function)

6. Repair

After selecting the battery type, long-press the MODE button to activate the charging process that ABC01 provides a high voltage of 15V to charge with a strictly controlled current.

(LiFePo4 does not have this function)

7. Float

ABC01 pumps a constant voltage of 13.6V to maintain the battery for an extended period. The 100% and MAINTAIN LEDs will light up.

(LiFePo4 does not have this function)

Warning and Safety Precautions

These warnings and safety notes are particularly important. Please follow the instructions for maximum safety. Otherwise, the charger and the battery can be damaged, or at worst, it can catch fire.

- 1) Never leave the charger unattended when it is connected to its power supply. If any malfunction occurs, TERMINATE THE PROCESS AT ONCE and refer to the operation manual.
- 2) Keep the charger well away from dust, moist, rain, heat, direct sunshine and vibration.
- 3) When charging the battery, do not place the charger on top of the battery or cover/place anything on top of the charger.
- 4) Battery acid is corrosive; if battery acid comes into contact with your skin, please rinse immediately with water.
- 5) When the charger connects the battery, it must comply with safety standards; if the power cord is damaged, please contact the manufacturer or dealer and replace it with a new power cord.

Liability

The charger is only suitable for the battery types listed in this manual. The company shall not take any responsibility if the user uses the charger for purposes other than those listed in the manual. We cannot be sure whether you have read the instructions carefully before use, nor can we control how you use or store the product.

Based on the above, we refuse to bear any damages/ losses caused by or related to improper use or operation. Within the scope of the law, for direct or indirect losses caused by our company's products, our company's compensation will be based on the invoice amount on the purchase of the product.

Warranty and Service

We guarantee this product free of manufacturing and assembly defects for one year from the time of purchase. The warranty only applies to material or operational defects, which are present at the time of purchase. We will repair or replace free of service charge for products deemed defective during that period due to those causes.

Note:

1. This warranty is not valid for any damage or subsequent damage arising from misuse, modification, a fall or failure to observe the procedures outlined in this manual. The warranty service is valid in China only.
2. If you seek warranty service overseas, please, in the first instance, contact your dealer, who is responsible for processing guarantee claims. Due to high shipping cost, complicated custom clearance procedures to ship back to China, please understand SkyRC can't provide warranty service to the overseas end user directly.
3. If you have any questions which are not mentioned in the manual, please feel free to send an email to support@xparkle.com