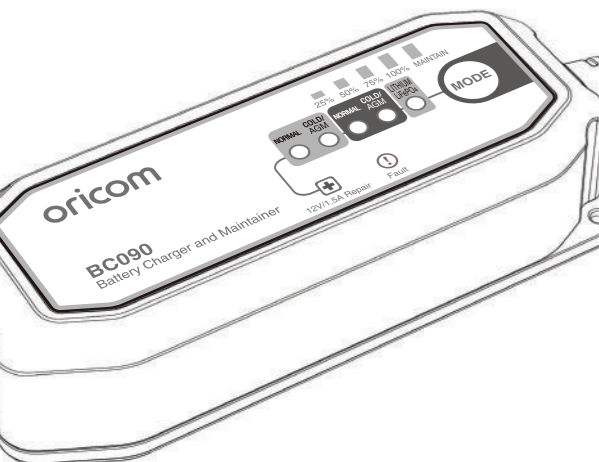


Oricom BC090

12V Battery Charger

SUITS 12V LEAD-ACID/LITHIUM BATTERIES

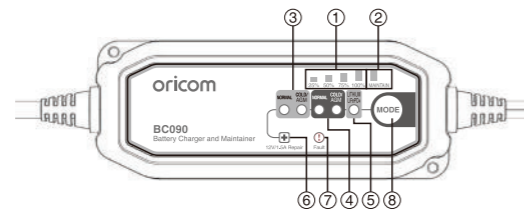
User Manual V1.0



Introduction

The Oricom BC090 is a smart automotive 12V battery charger and maintainer, making charging simple and easy for ordinary lead-acid batteries, AGM batteries, and Lithium Iron Phosphate (LiFePO4) batteries in 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.

Product Overview



- 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 Fault LED
- ⑧ Mode Button

Specifications

Input Voltage	AC 100-240V 50Hz/60Hz
Output Voltage	Up to 14.7V
Charging Current	Motorcycle Battery: 1.5A
	Car Battery/LiFePO4: 4.3A
Power	65W
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.
	Fault LED will light up when the voltage drops below 12V, indicating a faulty battery.
Compliance	Tested to meet *AS/NZS 60335.2.29: 2017

If battery voltage is below 6V, Fault LED will illuminate and the BC090 will not charge the battery.

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)
IP Rating	IP65

Note: LiFePO4 mode does not support desulfation, soft start, test, repair, float status.

Features

- Charging batteries of 2-110AH
- 7 Stages of charging
- Low-temperature charging
- Battery repair feature
- Compliant cables for safer charging*
- Seven precautions and safety measures
- Splash and dust proof: Rated IP65
- Supplied with O-ring terminal lead designed to be left connected to battery for easy convenient charging, alternatively the alligator clip lead can be used.

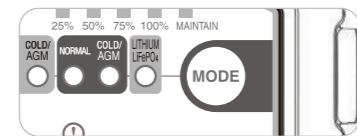
How to charge

1. Connect the BC090 to AC power source.

Note: Do not disconnect / reconnect clamps from battery while charging.

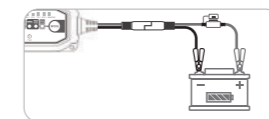


2. Push MODE button to select your desired battery type.

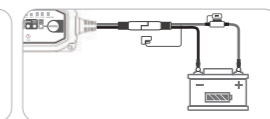


3. Connect the positive and negative clamps to the battery terminals, ensuring the clamps are making good contact with the battery terminals and that you observe correct polarity.

Charging initiates automatically after five seconds.



Example with Alligator Clamps



Example with O-Rings

4. When charging is complete, disconnect the battery from the charger as per "How to Store" section of this User Guide.
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%, due to individual manufacturers having unique BMS with different peak sensitivity.

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

Troubleshooting

Fault prompts immediately when the battery is connected

- a: Reverse polarity, check the positive and negative clamps are connected correctly.
- b: Wrong type battery is connected.

Fault prompts during 25% indicator

- a: Battery capacity reduced, may be due to age.
- b: A fully charged motorcycle battery is being charged in car mode.

Fault prompts during 50% indicator

The charger is over temperature.

Fault prompts during 75% indicator

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

Fault prompts during Float

Charging motorcycle battery in car mode.

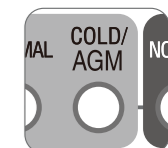
How to Store

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

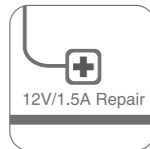
AGM Charging Mode

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

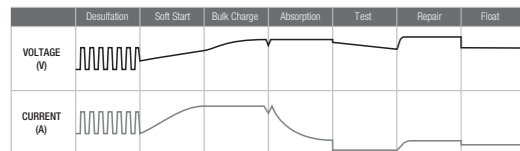


Repair Mode

After selecting the battery type, long-press the MODE button to activate the charging process. The BC090 provides a high voltage of 15V to charge with a strictly controlled current. (Not available on LiFePo4 batteries.)



Multi Stage Automatic Charging



1. Desulfation

Pulse-charged to remove the sulfide on the battery plate and to restore the battery, the 25% LED will light up.

2. Soft Start

The power is slowly transferred to the battery, and the charging effect is being detected, the 25% LED will light up. Fault LED will light up if the voltage exceeds 15.8V.

3. Bulk Charge

The battery is being charged with a constant current of 1.5A/4.3A to 14.4V/14.7V, 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. Fault LED will light up if the voltage drops below 12V, indicating a faulty battery.

6. Repair

After selecting the battery type, long-press the MODE button to activate the charging process, the BC090 provides a high voltage of 15V to charge with a strictly controlled current. (Not available on LiFePo4 batteries.)

7. Float

If battery voltage is below 6V, Fault LED will illuminate and the BC090 will not charge the battery.

Warning and Safety Precautions

These warnings and safety notes are particularly important. This product should not be used by children or persons with reduced physical, sensory or mental capabilities, or lack of experience and knowledge if they are not supervised or suitably trained in its operation. DO NOT allow children to play with this product. Please follow the instructions for maximum safety. Otherwise, the charger and the battery can be damaged, or catch fire.

- 1) Never leave the charger unattended when it is connected to its power supply. If any malfunction occurs, TERMINATE THE PROCESS IMMEDIATELY and refer to the user guide.
- 2) Keep away from dust, moisture, rain, heat, vibration and direct sunlight.
- 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) Do not use the charger if it or any of the cords are damaged.

6) Please ensure batteries are charged in a well ventilated area.

7) If the supply cord is damaged, it must be replaced by the manufacturer, its service agent or similarly qualified persons in order to avoid a hazard.

Liability

The charger is only suitable for the battery types listed in this user guide. Oricom will not take any responsibility if the charger is used for purposes other than those listed in this user guide. Please read the instructions carefully before use.

Oricom is not liable for any losses / damages caused by or related to improper use or operation or this product.

Express Warranty (Australia)

This Express Warranty is provided by Oricom International Pty Ltd ABN 46 086 116 369, Unit 1, 4 Sovereign Place, South Windsor NSW 2756, herein after referred to as "Oricom".

Oricom products come with guarantees that cannot be excluded under the Australian Consumer Law. You are entitled to a replacement or refund for a major failure and compensation for any other reasonably foreseeable loss or damage. You are also entitled to have the goods repaired or replaced if the goods fail to be of acceptable quality and the failure does not amount to a major failure. Oricom warrants that the product is free from defects in materials or workmanship during the Express Warranty Period. This Express Warranty does not extend to any product from which the serial number has been removed or was purchased outside of Australia.

Nothing in this Express Warranty excludes, restricts or modifies any condition, warranty, guarantee, implied term, right or remedy pursuant

to the Australian Consumer Law and which may not be so excluded, restricted or modified. For such conditions, terms, guarantees and warranties that cannot be excluded, restricted or modified, Oricom limits the remedies available to extent permitted in the relevant legislation.

The Express Warranty Period will be 3 years (excluding battery cells and rechargeable battery packs) from the date of purchase of the product evidenced by your dated sales receipt. You are required to provide proof of purchase as a condition of receiving Express Warranty services.

You are entitled to a replacement product or repair of the product at our discretion according to the terms and conditions of this document if your product is found to be faulty within the Express Warranty Period. This Express Warranty extends to the original purchaser only and is not transferable.

Products distributed by Oricom are manufactured using new materials or new and used materials equivalent to new in performance and reliability. Spare parts may be new or equivalent to new. Spare parts are warranted to be free from defects in material or workmanship for thirty (30) days or for the remainder of the Express Warranty Period of the Oricom branded product in which they are installed, whichever is longer. During the Express Warranty Period, Oricom will where possible repair and if not replace the faulty product or part thereof. All component parts removed under this Express Warranty become the property of Oricom. In the unlikely event that your Oricom product has a recurring failure, Oricom may always, subject to the Competition and Consumer Act 2010, at its discretion, elect to provide you with a replacement product of its choosing that is at least equivalent to your product in performance.

No change to the conditions of this Express Warranty is valid unless it is made in writing and signed by an authorised representative of Oricom.

Oricom will not be liable under this Express Warranty, and to the extent permitted by law will not be liable for any defect, loss, damage or injury arising out of or in connection with a:

1. Failure by you to adhere to the warnings and follow the instructions set out in this user guide for the proper installation and use of the product;
2. Wilful misconduct or deliberate misuse by you of the product;
3. Any external cause beyond our control, including but not limited to power failure, lightning or over voltage; or
4. Modification to the product or services carried out on the product by anyone other than Oricom or Oricom's authorised service provider.

How to make a claim under your Express Warranty in Australia

Oricom has a simple warranty process for you to follow:

- Please call or email our Customer Support Team, (02) 4574 8888 or support@oricom.com.au.
- A Customer Support Team member will verify after troubleshooting with you if your product qualifies under warranty. If so, they will give you a Product Return Authorisation number.
- We will then email or fax a Return Authorisation form and a Repair Notice (if necessary), together with instructions on how to return the goods for warranty service.

Please note that if a Customer Support Team member advises that your product does not qualify for return, this warranty does not apply to your product. Products that are authorised to be returned to Oricom in Australia must include all of the following:

- A completed Return Authorisation form
- A copy of your Proof of Purchase (please keep your original copy)
- The faulty product, including all accessories.

Send the approved returns to:

Oricom International Pty Ltd
Locked Bag 658
South Windsor NSW 2756 Australia

Please note that this Express Warranty excludes expenses incurred by you in returning any faulty product to us. You must arrange and pay any expenses incurred (including postage, delivery, freight, transportation or insurance of the product) to return the faulty product to us, however, we will arrange delivery of the repaired or replaced faulty product to you.

Important Information

Repair Notice

Please be aware that the repair of your goods may result in the loss of any user generated data (such as stored telephone numbers, text messages and contact information). Please ensure that you have made a copy of any data saved on your goods before sending for repair. Please also be aware that goods presented for repair may be replaced by refurbished goods or parts of the same type rather than being repaired.

oricom.
www.oricom.com.au

