

BC LITHIUM 7000



BC LITHIUM Series is the new generation of BC smart chargers, specific for LiFePO4 battery maintenance, develop to ensure lithium-iron-phosphate batteries a high performance and a longer life in total safety. **BC LITHIUM 7000** is a battery charger and maintainer with a maximum charging current of 7 Amp, ideal to recover, recharge and maintain the **12V LiFePO4 batteries** installed on motorcycles, scooters and ATVs, from 3 to 100 Ah.

The battery charger is designed to stay always connected to the battery, with no risk and no need to disconnect the battery from the vehicle, keeping it fully charged during long periods of inactivity (even months).

The 7-steps charging algorithm, developed expressly for lithium batteries, allows the recovery of deeply discharged batteries, a rapid and efficient charging of the battery, a charge balancing between the battery cells and a proper maintenance of optimum battery state of charge even for long periods. The battery is analyzed at the beginning and the end of the charging process.

The safety is guaranteed during every charging step: **in case of low temperatures, detected by an integrated sensor, the POLAR Mode is automatically activated**, allowing a safe battery charging in critical ambient temperatures.

BC LITHIUM 7000 is provided with LCD

display and digital voltmeter and it has the double function of battery charger and battery & alternator tester.

BC Lithium 7000 does not produce sparks and it is protected against short circuit, reverse polarity, overcharging and overheating.

The package includes a waterproof battery cable with eyelets (code STD2V), which can be left always installed on the vehicle, and a battery cable with insulated clamps (code 30AMPZ). A universal 12/18 mm adapter (code ACC612V - optional) is available to recharge the battery from the cigarette lighter. The warranty is extended to 3 years.



Automatic Test Procedure:

1. Battery SOC Test at rest
2. Battery Cranking Power Test
3. Alternator/Regulator Test



TECHNICAL DATA

Input Voltage
Charge Voltage
Charge Current
Charging Algorithm

Types of Batteries
Battery Capacity
Operating Temperature
IP Class

BC LITHIUM 7000

220÷240 Vac, 50÷60 Hz
14.2 V - nominal 12 V
7 A max
7 cycles, automatic (Initialization, Recovery, Soft Charge, Bulk Charge, Equalization, Battery Analysis and Maintenance)
12 V LFP - LiFePO4
From 3 Ah to 100 Ah
from -20° to +50°C



Weatherproof - Protection against water splash IP44. Suitable for outdoor use

BATTERY AND ALTERNATOR TESTER

BC LITHIUM 7000 executes a complete and automatic procedure to analyze the battery (at rest and cranking the engine) and the vehicle's charging system.

The test of the charging system (alternator/regulator) is particularly important for lithium LiFePO4 batteries, which have to be recharged on board with a voltage between 14 and 15 Volt.

With BC LITHIUM 7000, the user can verify that the vehicle's charging system is always properly working.



Featuring wall mounting system with fast dismounting

7 CYCLES CHARGING TECHNOLOGY

BC LITHIUM 7000 is managed by a **latest-generation microprocessor**, which is in charge of monitoring the battery parameters in real time and to execute a **new multi-cycle charging algorithm**:

1. **Initialization**: the device verifies the battery conditions and an integrated sensor measures the ambient temperature: at low temperatures, the charging current is limited and the POLAR MODE is automatically activated.
2. **Recovery**: if the battery is deep discharged, the device tries to recover it, taking it back to a higher voltage.
3. **Soft Charge**: if the battery is in a condition of significant undercharge, the device provides a light pulsing current to the battery, to overcome this critical phase.
4. **Bulk Charge**: the device provides full current to the battery, recovering about 85-90% of the battery capacity.
5. **Equalization**: during this phase the device recovers the remaining 15-20% of the battery capacity, and the state of charge of the different battery cells is rebalanced.
6. **Battery Analysis**: the device stops providing current to the battery for a short time, in order to verify whether the battery is able to retain the charge received during the previous phases. This test is periodically repeated during the maintenance.
7. **Maintenance**: the device keeps your battery in the best charge conditions for very long periods (even months) during which your vehicle is left unused, without any possible drawback (battery overcharge/overheating...).

SAFETY AND PROTECTIONS

BC LITHIUM 7000 features a series of **protections and active guard mechanisms** that make it easy to install and to use, without any risks even for users without expertise:

- **No interferences the vehicle's on board electronics** (control unit, ABS, GPS...)
- Protection from output lines short circuit, even for an indefinite time: **no sparks!**
- Protection from battery polarity inversion
- Protection from battery overcharge/overheating
- Thermal protection from overtemperature
- No need to disconnect the battery from your vehicle

Laboratory Tests ensure the manufacturing of products in conformity to the regulations in force on safety and electro-magnetic compatibility. Norms and Regulations: EN55014-1, EN55014-2, EN60335-1, EN60335-2-29, EN61000-3-2, EN61000-3-3.

BATTERY TYPES AND CAPACITY

BC LITHIUM 7000 is specifically designed for charging and maintaining **all 12V LiFePO4 batteries**. The device is addressed to recharge batteries with a capacity **from 3 to 100 Ah**.

EQUIPMENT & ADD-ONS

The package includes:

- the battery charger and maintainer **BC LITHIUM 7000**, provided with a 220V power cable (2 meters long) and a battery output cable;
- **STD2V** waterproof battery cable with eyelets, which can be left always installed on board;
- **30AMPZ** battery cable with clamps;
- according to the selected kit, the universal 12/18mm cigar socket adapter (cod. **ACC612V**) may be included;
- a copy of the User Manual.