

BC K612 6 VOLT & 12 VOLT



BC K612 is the all-in-one battery charger, maintainer and reconditioner for all 6/12V lead-acid batteries (traditional with liquid electrolyte and removable caps, MF, GEL, AGM, VRLA).

BC K612 ensures the best battery performance and a longer battery life, thanks to a full automatic 8-cycles charging algorithm, which makes it ideal for the battery analysis, recovery (starting from 1.25V for 12V batteries, 0.63V for 6V batteries) and reconditioning, recharging, desulfation and long term maintenance: the device can be left always connected to the

battery for an indefinite time, as long as the vehicle is unused.

With BC K612, you can choose between two different programs for 6 Volt batteries or for 12 Volt batteries. The program selection is easy. 2 LEDs, one for each program, always indicate the charging mode currently active, which is held in memory for later use. BC K612 delivers a maximum current of 1 Amp and is suitable for all 6/12 Volt batteries from 1.2 to 100 Ah. A couple of LEDs indicate the charging cycle executed as well as any functioning error in real time.

BC K612 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, which can be left always installed on the vehicle, and a battery cable with insulated clamps. 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.



TECHNICAL DATA

Input Voltage
Charge Voltage

Charge Current
Charging Algorithm

Types of Batteries

Battery Capacity
Operating Temperature
IP Class

BC K612

220÷240 Vac, 50÷60 Hz
6.9 V / 7.2 V - nominal 6 V (6 Volt mode)
13.8 V / 14.4 V - nominal 12 V (12 Volt mode)
1 A max
8 cycles, automatic (Initialization, Recovery, Soft Charge, Bulk Charge, Desulfation, Battery Analysis, Maintenance and Equalization)
6/12 V Lead Acid
(Traditional/Wet, Gel, MF, VRLA, AGM, Ca/Ca, etc.)
From 1.2 Ah to 100 Ah
from -20° to +50°C



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



Featuring wall mounting system with fast dismounting

CHARGING PROGRAM SELECTION

1. Charging Program Selection

Once you connected the battery charger to the power outlet, a LED will show you the active charging mode (6V or 12V). To change the charging mode, please follow this procedure:

1. With the device disconnected from the battery and from the power outlet, connect the clamps to the device and put the red and the black clamps together (creating a permanent short circuit).
2. Connect the device to the power outlet. The active charging mode will change and it will be displayed by the correspondent LED (6V or 12V).
3. Disconnect the device from the power outlet and separate the clamps. The selected charging mode will be kept in memory until you repeat this procedure.

2. Recharging, Reconditioning and Maintenance - 100% automatic and complete

Once the right charging program for your battery is selected, just connect BC K612 to the battery to make the 8-steps full-automatic charging procedure start. BC K612 brings your battery to the maintenance phase, recovering it gently if necessary, giving it energy and power during the charging and desulfation steps and keeping it constantly under control, from the initial test to the end-cycle battery analysis.

8 CYCLES CHARGING TECHNOLOGY

BC K612 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 checks if one or more cells are shorted, in order to verify that the battery is in a proper condition to be recharged/recovered.
2. **Recovery**: if the battery is deep discharged (battery voltage starting from 1.25V for 12V batteries, 0.63V for 6V batteries), 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. **Desulfation / Absorption**: the device provides a "controlled overcharge" to recover the remaining 10-15% of the battery capacity, through the desulfation/recovery the lead-acid cells (for low or medium sulfation).
6. **Battery Analysis - End Cycle Test**: 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. This test is periodically repeated during the Maintenance.
7. **Maintenance**: the device keeps the 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, battery overheating, water and/or electrolyte loss, etc).
8. **Equalization**: every 30 days during long term maintenance, the device executes an equalization charge in order to balance the battery lead-acid cells, avoiding electrolyte stratification within the cells.

SAFETY AND PROTECTIONS

BC K612 features a series of **8 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
- Very few gas development during the charge: no need to remove the battery plugs

Laboratory Tests ensure the manufacturing of products in conformity to the regulations in force on safety and electro-magnetic compatibility. Norms and Regulations: IEC-61000-3-2 (ed.3);am1;am2, IEC-61000-3-3(ed.2), CEI-CISPR14-1(ed.5);am1;am2, CEI-CISPR14-2(ed.1);am1;am2, IEC60335-1(ed.5), IEC-60335-2-29(ed.4);am1;am2.

BATTERY TYPES AND CAPACITY

BC K612 is specifically designed for charging and maintaining **all 6/12V lead-acid batteries** currently available on the market (traditional, VRLA, MF, AGM, GEL, Ca/Ca, etc). BC K612 is addressed to **recharge and maintain batteries with a capacity from 1.2 to 100 Ah**.

EQUIPMENT & ADD-ONS

The package includes:

- the battery charger and maintainer **BC K612** for long term battery maintenance, provided with a power input cable (2 meters long) and a battery output cable;
- a waterproof battery connection cable with eyelets, which can be left always installed on board;
- a battery connection cable with insulated clamps;
- according to the selected kit, a universal 12/18mm cigar socket adapter may be included;
- a copy of the User Manual.