BC K900 EVO+

LEAD-ACID/LITHIUM + CAN-BUS

BC K900 EVO+ is the only battery charger compatible with CAN-BUS for lead-acid and lithium batteries: in fact, "Lead-Acid CAN-Bus" and "Lithium CAN-Bus" programs allow to charge the battery directly from the DIN 4165 socket installed on BMW motorcycles with any kind of 12V battery.
Not only is BC K900 EVO+ ideal for recovery, charging and maintenance of all motorcycle, scooter and ATV batteries, but it can be also used for the maintenance of car batteries, and it is designed to be always connected to the battery, without any risks or needs to disconnect the battery from the vehicle, even for months, when bikes or cars are not used.
Selecting the program is extremely easy, and the operating mode appears on the LED bar and it is kept in memory for the next use.
The internal microprocessor automatically executes a multi-cycle charging algorithm (8 cycles for lead-acid batteries, 7 cycles for lithium batteries). The algorithm for lead-acid batteries allows to recover deeply discharged batteries (from 1.25V) and to charge, desulfate and maintain all 12V batteries (wet, gel, sealed…) from 1.2 to 100 Ah. The Lithium charging program executes a fast and efficient charge, balancing the charge of each cell and allowing a perfect maintenance for long periods. Safety is guaranteed in each step: in case of low temperatures, detected by the integrated sensor, the POLAR Mode turns on.
BC K900 EVO+ supplies a maximum current of 1 Amp. Two LEDs indicate the charging cycle and any operating anomalies. The device does not produce sparks and it is protected against short circuit, polarity inversion, overcharge and overheating. The package includes a waterproof cable with eyelets, to be left always installed onboard of the vehicle, a cable with insulated clamps and a 12/18 mm universal adapter for 12V sockets, compatible with DIN BMW standard. Warranty extended to 3 years.

TECHNICAL DATA	BC K900 EVO+
Input Voltage	220÷240 Vac, 50÷60 Hz
Charging Voltage	13.8 V / 14.4 V - nominal 12 V (mode 12 Volt)
Charging Current	1 A max
Battery type	12 V Lead Acid (sealed, gel, MF, VRLA, AGM, EFB, Ca/Ca, etc.) & 12V Lithium / LiFePO4
Charging Algorithm - Lead/Acid	8 cycles, automatic (Inizialization, Recovery, Soft Charge, Bulk Charge, Desulfation, Battery Analysis, Maintenance and Equalization)
Battery Capacity - Lead/Acid	From 1.2 Ah to 100 Ah (Maintenance)
Charging Algorithm - LiFePO4	7 cycles, automatic (Inizialization, Recovery, Soft Charge, Bulk Charge, Equalization, Battery Analysis and Maintenance)
Battery Capacity - LiFePO4	From 1 Ah to 100 Ah
Operating temperature	from -20° to +50°C
IP Class	IP44 - Weatherproof - Protection against water splash, suitable for outdoor use

Wall mounting system with fast dismounting

HOW IT WORKS - PROGRAM SELECTION

1. Charging program selection
Once you connected the battery charger to the power outlet, a LED bar will show you the active charging mode. 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 LEDs: "Lead-Acid" for lead-acid batteries, "Lithium/LiFePO4" for lithium batteries, and the "CAN-Bus" LED on when the modes "Lead-Acid CAN-Bus" or "Lithium CAN-Bus" are activated.
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 Mantenance- 100% automatic and complete
Once selected the right programme for your battery, you have just to connect BC K900 EVO+ to the battery to start the charging procedure, that is completely automatic. BC K900 EVO+ 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.

LEAD/ACID BATTERIES - 8 CYCLE CHARGING TECHNOLOGY

BC K900 EVO+ is a battery charger and charge maintainer with digital technology: it is run by a **latest-generation microprocessor**, which is in charge of monitoring the battery parameters in real time and of executing a **new charging algorithm with 8 pulsing cycles**:
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 1.25 V), 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 of the lead-acid cells (for low or medium sulfation).
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. 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.

LiFePO4 LITHIUM BATTERIES - 7 CYCLE CHARGING TECHNOLOGY

BC K900 EVO+ is a battery charger and charge maintainer with digital technology: it is run by a **latest-generation microprocessor**, which is in charge of monitoring the battery parameters in real time and of executing a **new charging algorithm with 7 pulsing cycles**:

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 1.25 V), 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**: in this phase the remaining 10-15% of the battery capacity is recovered and the level of charge of the 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. This test is periodically repeated during the Maintenance.
7. **Maintenance**: thanks to an electronic circuit especially designed, the battery charger executes a pulsing maintenance of the charge when the battery is not used, in a very safe way, without any risk of overheating or overcharge.

SAFETY AND PROTECTIONS

BC K900 EVO+ 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 K900 EVO+ is specifically designed for charging and maintaining **all 12V lead-acid batteries** (traditional, VRLA, MF, AGM, EFB, GEL, Ca/Ca, etc) **and 12V Lithium/LiFePO4 batteries**.
BC K900 EVO+ is addressed to recharge **lead/acid batteries with a capacity from 1.2 to 100 Ah and LiFePO4 batteries from 1 to 100 Ah**.

ACCESSORIES

The package includes:
- the battery charger and maintainer **BC K900 EVO+** for long term battery maintenance, provided with a power cable (2 meters long) and a battery output cable;
- waterproof battery cable with eyelets, which can be left always installed on board;
- battery cable with clamps;
- universal cigar socket adapter 18 mm / 12 mm (DIN 4165 - BMW);
- copy of the User Manual.