



The packaging of the product is recyclable. Do not dispose of electrical appliances or batteries in household waste, but follow current regulations. Supercapacitors are part of the RoHS directive for electrical equipment.




### TROUBLESHOOTING

PROBLEM	SOLUTION
The charger is connected to power outlet and jump starter's 12V socket, but the charger's red LED blinks slowly (Error: battery not connected).	Verify that the jump starter's 12V socket is working, by connecting whatever 12V device (for example, a 12V lamp).
The battery charger cannot complete the charge.	One of the jump starter's batteries or the supercapacitors might be defective or the battery charger might be damaged. Please try recharging another 12V battery with the battery charger to verify whether the same problem occurs.
The battery charger works perfectly and it completes the charge, but the jump starter's digital voltmeter doesn't turn on.	The voltmeter button might be damaged. Please verify with a voltmeter on the jump starter's clamps the battery voltage / state of charge..
The device is fully charged but it doesn't work.	Make sure the cables and clamps of the jump starters are intact and that they are well connected to the poles of the vehicle battery. Check there is voltage on the clamps, otherwise check that the safety fuse is not broken. The vehicle's battery might be defective.
When a 12V accessory gets connected to the 12V socket, a strange noise is heard.	The 12V adapter of the connected device could be defective, causing the switch to interrupt. The 12V device could require too much current.

### F.A.Q.

QUESTION	ANSWER
How many jumpstarts can be done before to recharge the jump starter?	1 to 30 jumpstarts, according to the temperature, the vehicle's conditions, the engine type and capacity.
Is it possible to replace the battery or the jump starter's supercapacitors?	Please ask your Dealer for information.
Which is the best storing temperature and operating temperature?	Ambient temperature. The jump starter works between -25°C and +40°C, but it can lose power below 0°C. High temperatures bring to a faster discharge.
Can I use another battery charger to recharge the device?	No, use only the provided battery charger BC SMART 4000.
The jump starter is a fragile product?	Yes, it is necessary to follow all instructions carefully.

### TECHNICAL DATA & CONTACTS

Voltage	12/24 Volt	 <p><b>BC BATTERY CONTROLLER</b> CISLIANO (MI) – ITALY info@batterycontroller.it</p>
Peak Current (PA)	13000A 12V / 6800A 24V	
Cranking Current (CA)	2300A 12V / 1800A 24V	
Battery Capacity	2 x 12V 15Ah	
Cables Section	50 mm <sup>2</sup>	
Cables Length	150 cm	
Operating Temperature	-20°C - +30°C	
Dimensions	350 x 300 x 600 mm	
Weight	17,5 Kg	

## BC JUMPSTARTER SUPERCAP HYBRID 12-24V – USER'S MANUAL



- 12V/24V/OFF Switch (keep it on OFF when the jump starter is not used)
- 12V socket for recharging jump starter
- Voltmeter button
- Digital voltmeter
- Alarm for short circuit / reverse polarity
- Trolley handle
- Rails for cable winding
- Supports for clamps

Thank you for purchasing the jump starter BC JUMPSTARTER SUPERCAP HYBRID 12/24V, provided with two sealed AGM batteries and supercapacitor technology. Please always follow the basic principles and precautions necessary when working near a 12V or 24V battery, read all the instructions carefully and keep this user manual for reference. The device is designed exclusively for starting vehicles with 12V or 24V lead-acid batteries.

**IMPORTANT NOTE: BEFORE FIRST USE, RECHARGE THE STARTER COMPLETELY WITH THE CHARGER BC SMART 4000 SUPPLIED.**

### 1 - SAFETY INSTRUCTIONS

- Keep out of reach of children or persons with reduced physical/mental abilities or lack of experience, unless under the supervision of a responsible person. The product is not a toy.
- Wear protective goggles, gloves, ear muffs and appropriate clothing (never vinyl) during use. Do not wear metal objects. Keep fire extinguisher and water handy. Make sure there is someone who can provide assistance.
- Use only original accessories provided and recommended by the manufacturer.
- Any modification or alteration to the device is prohibited.
- Never pull the charger cables, even when disconnecting the plug from the socket.
- Do not charge the appliance with damaged accessories. In the event of damage or failure of the supplied charger, request repair or replacement from the dealer.
- The starter can be used in any weather conditions (rain, snow, hot or cold weather). Do not recharge in a damp environment. Do not attempt to start a frozen battery. Do not immerse the booster in water or liquids, do not expose to splashes.
- Never put the red clamp in contact with the black clamp and do not place the two clamps in contact with the same metal object, to avoid any risk of a short circuit.
- To avoid any risk of short circuit and to protect the positive (red) and negative (black) clamps, always hook the clamps to their supports when not in use. The appliance is equipped with lateral rails for winding the cables.
- Do not expose the device to flames or sources of heat. Do not smoke when using it nor use in presence of flammable/explosive liquid/gas/dust. Use in ventilated environment.
- In the event of faults or failures, do not attempt to repair the jump starter, but always contact your dealer. Any tampering or attempted repair in autonomy will result in the invalidity of the warranty.
- Never allow the jump starter to discharge completely and charge it periodically. Damages caused by a deep discharge may be irreversible.

**IMPORTANT: when the jump starter is not used, we recommend to keep it always connected to the provided charger, or at least to recharge it once every 3 months.**

## **2 - GENERAL FEATURES**

1. Battery types: 2 x 12V 15Ah AGM (Absorbed Glass Mat) sealed lead battery, according to IATA safety norms. The AGM sealed battery allows to place and use the jump starter in whatever position.
2. The **clamps** are completely **insulated** and the copper cables are super flexible. The cable section is **50 mm<sup>2</sup>** and **150 cm** long, for maximum comfort.
3. The included battery charger **BC SMART 4000** is provided with a microprocessor and an automatic 8-steps charging algorithm. It can stay always connected to the jump starter with no risk of damages and it can be used also for the care of other 12V batteries.
4. **Embedded 12V socket** for recharging the jump starter.
5. **Safety fuse** placed on the positive clamp, inside the handle (slide the red cover down). Use only recommended fuses and verify which kind of fuse is mounted on the device before ordering spare parts. The fuse replacement is very easy: just unscrew the two bolts that fix the fuse, replace it and retighten the two bolts.
6. **12V/24V/OFF Switch**: keep the switch in OFF position when the jump starter is not used or while connecting the clamps to the vehicle. Only after making sure that the connection is correct, turn the switch to 12V or 24V depending on the vehicle battery.
7. **Alarm for short circuit or reverse polarity**: the buzzer will emit a sound or a light when it detects a polarity inversion. It only works if the ON / OFF switch is set to OFF position (we always recommend to keep it in OFF position while connecting the jump starter to the vehicle).
8. **Digital voltmeter** showing the state of charge (see next point).

## **3 - INDICATION OF THE STATE OF CHARGE**

1. To check the of charge of the jump starter, turn the switch to 12V position and press the yellow button. If the voltage is below 12.7V, it is necessary to recharge the jump starter. When leaving the booster connected to the vehicle after starting (max 10 seconds), the voltmeter indicates the alternator charge voltage.
2. When the jump starter is connected to the supplied battery charger, refer to the LED bar of the battery charger to check the state of charge.

## **4 - RECHARGING THE JUMP STARTER**

1. The jump starter's kit includes the battery charger BC SMART 4000, completely automatic with 8 charging steps. To recharge the jump starter, connect the charger to a power outlet and to the 12V socket of the jump starter, then turn the jump starter's switch in 12V position. Recharge only in ventilated environments.
2. The green "CHARGE" LED of the battery charger blinks slowly during recovery and charging, it blink fast during desulfation and it is steadily on during maintenance. The device switches automatically from one step to the following one. For detailed information about the charging algorithm and the charger's operation, please refer to the manual of the charger itself.
3. When the green LED on the charger switches to fast blinking (desulfation), the jump starter is ready to use. However, it is recommended to wait for the green LED to be steadily on, Anyway, jump starter can be disconnected from charger in any moment.
4. After starting a vehicle, before disconnecting the appliance, wait max 10 seconds with the engine running, so that the alternator can recharge the jump starter's battery.

**Please keep in mind that it is recommended to keep the jump starter connected with the battery charger BC SMART 4000 when it is not used!**

## **5 - RECHARGING THE JUMP STARTER WITH AN EXTERNAL 12V BATTERY**

If the battery of the jump starter is discharged and there is no chance to recharge it, the jump starter's supercapacitors can be recharged through a 12V battery in good conditions. Just connect the jump starter's clamps to the terminals of a charged 12V battery and turn the jump starter's switch in 12V position. Charging in this mode takes a few minutes. However, a complete recharge is recommended with the supplied charger as soon as possible.

## **6 - OPERATING INSTRUCTIONS - EMERGENCY JUMP STARTING**

Before jump starting the vehicle, please check that the vehicle is in neutral with the handbrake on and the ignition key in OFF position. Read the vehicle's manual and follow all safety instructions. Make sure that all loads (lights, radio, air conditioning...) are switched off and that the jump starter's switch is in OFF position.

1. First connect the red (positive) clamp to the positive pole of the vehicle battery.
2. Next, connect the black (negative) clamp to the negative pole of the vehicle's battery or to ground to the vehicle frame, away from the battery and the fuel line. Pay attention to moving parts such as fan, straps, etc.
3. Turn the jump starter's switch in 12V or 24V position, according to the vehicle to start.
4. Move away from the battery and the jump starter when it starts running and make sure it is in a stable position so that the engine vibrations following the jumpstart do not cause it to fall. The length of cables is enough in most cases to position the starter on the ground.
5. Once the vehicle is started, do not leave jump starter connected to vehicle for more than 2 minutes. Disconnect black clamp (negative) first and then red clamp (positive).
6. Reposition both clamps immediately on their respective supports.
7. Put the device in charge with the provided battery charger BC SMART 4000.
8. **Never use for 12V vehicles when the switch is in 24V position!!!**
9. **IMPORTANT:** If the vehicle does not start within 10 seconds, do not insist. Let the jump starter's battery cool down for 3 minutes before to try again. Otherwise, the internal battery could be irreversibly damaged (jump starting attempts have to be very short). In presence of a faulty battery, this could reject the jump starter's charge. This could be the reason why the vehicle does not start

**WARNING: A too intensive use and / or failure to comply with safety regulations may increase the risk of explosion and damage to the unit and to nearby persons and objects. Every attempt to jumpstart must be short and not insisted.**

## **7 - WARRANTY**

Forelettronica Srl offers a 2-years limited warranty on the jump starter for faults or malfunctions due to materials or manufacturing. Parts whose deterioration is attributable to use are considered excluded from the guarantee. The warranty is void in case of improper use or tampering of any kind or repair carried out by an unauthorized technician. This warranty is limited to the original purchaser: it is not transferable to third parties. The warranty excludes implicit forms of warranty, including guarantees for damage caused as a result of use of the device: Forelettronica Srl is deemed exonerated from any damage to persons or property from the use of its products. The shipping costs for returning the defective device are the responsibility of the purchaser.