

MULTI-FUNCTION CHARGER

12V 10A / 24V 5A

Automatic Smart Battery Charger

For Lead-Acid + LiFePO4

(AGM, GEL, SLA, WET, DEEP CYCLE, EFB... BATTERIES)

BC122410F



USER MANUAL

**THIS MANUAL CONTAINS IMPORTANT SAFETY AND
OPERATING INSTRUCTIONS**

IMPORTANT SAFETY INSTRUCTIONS

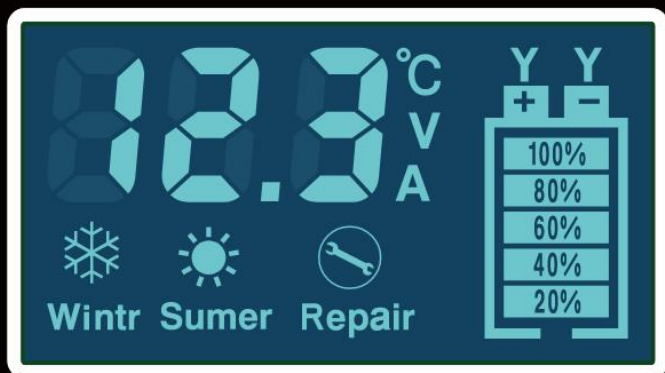
Please read this manual and follow the instructions carefully before using.

WARNING:

- The **BC122410F** charger is designed for **12V and 24V** Lead-Acid + LiFePO₄ batteries with capacity from 6AH - 200AH(12V), 6AH - 100Ah(24V).
- Check battery manufacturer specifications before using.
- Explosive gases may emitting from battery during charging. Provide ventilation to prevent flames and sparks.
- Do not expose charger to the sun, or under high temperature environment.
- Battery acid is corrosive. Rinse immediately with water if acid comes into contact with skin or eyes.
- Do not charge a frozen or damaged battery.
- Do not charge non-rechargeable batteries.
- Do not place the charger on the battery while charging.
- Be extra cautious to reduce risk of dropping a metal tool onto battery. It might spark or short-circuit battery or other electrical part that may cause explosion.
- When working with a lead-acid battery, remove personal metal items such as rings, bracelets, necklaces, watch...
- Do not smoke or allow a spark or flame while charging.
- In order to reduce risk of electric shock, unplug charger from AC outlet before doing any maintenance or cleaning.
- Not for use by children or by anyone who is unable to follow instructions of this manual, unless they are supervised by an adult to ensure the proper use of charger.

MAIN FEATURES:

- High efficiency (>85%).
- Car, Motorcycle, LiFePO₄ Battery type can selectable
- The microprocessor controlled charging process provides the best possible application and enables efficient battery charging.
- Charging voltage adapts to temperature, that can prevent over- or under-charging of battery.
- Capable of recharging severely discharged or heavily sulfated battery.
- Reverse polarity protection, short circuit protection, over-charge protections, parks free contact.
- LCD display: voltage, current, temperature etc.
- Ease of use. Clear charging status display.
- Full microprocessor controlled.
- Do not over-charge your battery even it is kept connecting in any mode.



12V



24V

LED DISPLAY:

22.2°C	Charger Inside Temperature
12.0V	Charge Voltage
1.00A	Charge Current
PUL	Repair Mode
OFF	Standby
FUL	Battery Full
 Win.	Winter Mode When the temperature is below +10°C, Raise the charge voltage

 Sum.	Summer Mode When the temperature is above +28°C, Reduce the charge voltage
	Wrong polarity, please change the connection of the clamps
	Defect battery, please let the battery be checked by a mechanic and if necessary change the battery
	Bad connection, please check the connection between the charger and the battery
12V 24V	12V Battery or 24V Battery
	Battery Capacity

CHARGER MODES:

It is important to understand the differences and purpose of each charge mode. Do not operate the charger until you confirm the appropriate charge mode for your battery. Below is a brief description:

 CAR	CAR Batteries Mode For GEL, SLA, WET, DEEP CYCLE, EFB, Calcium, AGM Batteries
 LifeP04	LiFePo4 Batteries Mode For LiFePo4 Batteries

 MOTO	Motorcycle Batteries Mode For Motorcycle Batteries
 REPAIR	Repair Mode (16 hours) An advanced battery recovery mode for repairing and storing, old, idle, damaged, stratified or sulfated. Not all batteries can be recovered, only can use on Motorcycle and Car batteries
 12V SUPPLY	12V SUPPLY Mode For charging batteries with a voltage lower than 5V, or Converts to a DC power supply for powering 12VDC device, like a DC Fan, oil changer, or as a memory retainer when replacing a battery.
	Charge mode select button

BEGIN CHARGING:

- 1.) **Verify the voltage and chemistry of the battery.**
- 2.) Confirm that you have connected the AC power plug is plugged into an electrical outlet.
- 3.) Press the mode button to toggle to the appropriate charge mode.
- 4.) Confirm that you have connected the battery clamps or eyelet terminal connectors properly
- 5.) The mode LED will illuminate the selected charge mode and the Charge Icon will illuminate (depending on the health of the battery) indicating the charging process has started.
- 6.) The charger can now be left connected to the battery at all times to provide maintenance charging.

TECHNICAL SPECIFICATIONS:

Model	BC122410F
Type	Smart & Automatic
AC Input	100 - 240V 50/60Hz
Output Voltage	12V / 24V Auto

Output Current	12V 10A & 24V 5A
Output Volt under No Load	The output voltage is a no-load voltage 17.0-17.5V (current<20mA). When the battery is connected, the charging mode is activated and the charger will use the standard charging voltage
Minimum Start Volt	>0.0V
Input Power With Load	Max. 150W
Input Power under No Load	2W
Cooling	Fan
Size (L*W*H)	192*96*72mm
Weight	620g
Approval	CE / FCC / RoHS