

Smart charger

BC119

12V/24V



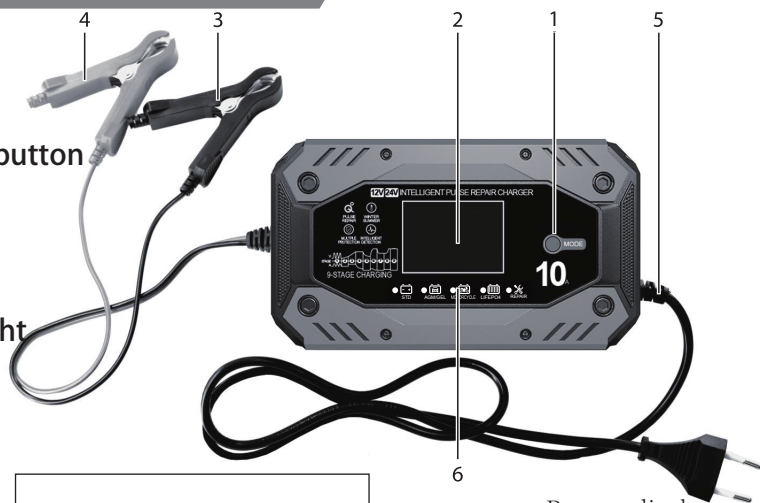
*Please read this manual carefully before use and keep it properly for future reference when necessary.

User manual

Charger components and display instructions

①

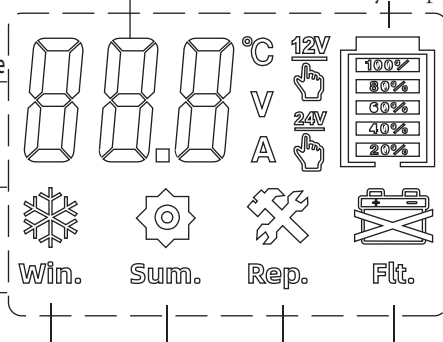
1. Mode conversion button
2. Charger display
3. Black clip (-)
4. Red clip (+)
5. Power input cable
6. Mode indicator light



②

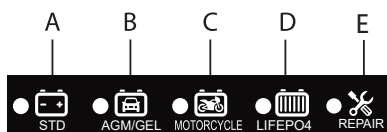
26.0 °C Charger real-time temperature	dF5 Initial "desulphurization" stage
12.8 V Charger real-time voltage	PUL pulse repair
10.0 A Charger real-time current	FUL Charging completed
E++ Charging abnormality	OFF Stop charging

Battery display



Winter icon Summer icon Repair icon Abnormal icon

- A. Lead-acid battery mode
- B. Start-stop, gel AGM/GEL/EFB
- C. Motorcycle mode
- D. Aluminum iron phosphate
- E. Repair mode



Product parameters

H-10CD

H-15CD

Input voltage: AC110~240V 50/60HZ

Output voltage: DC12V 3.3V~15.5V
DC24V 16V~29.6V

Output current: DC 12V 0~10A DC 12V 0.5~15A
DC 24V 0.5~5A DC 24V 0.5~7.5A

Product size: 222*111*65mm

Product net weight: 580g 620g

Charger operation method

1. Check whether the parameters of the battery to be charged match the charger;
2. Clamp the output terminal clamps on both ends of the battery, with the red clamp on the positive pole and the black clamp on the negative pole;
3. Connect the charger power cord to the mains;
4. Select the mode suitable for the battery (refer to "Charging Mode Selection" in this manual);
5. When the charger displays "FUL", it means it has stopped charging the battery. After confirming that the battery is fully charged, disconnect the power supply and then disconnect the terminal clamp.

Charging mode selection



lead-acid mode :

Suitable for ordinary lead-acid batteries and maintenance-free batteries. After startup the screen will show "DFS", which means desulphurization stage. After about 5 minutes, it will automatically switch to charging status. (Indicator light A)



colloid, colloid AGM/GEL :

Suitable for the operation of AGM/GEL/EFB and other batteries. After starting, the screen alternately displays current, voltage, and temperature. After charging, it displays "FUL" and stops output to prevent charging.



motorcycle mode :

It is suitable for charging all kinds of small-capacity batteries. After starting, the screen will alternately display current, voltage, and temperature. After charging is completed, the screen will display "FUL" and stop output to prevent overcharging.



Iron-lithium mode :

It is suitable for lithium iron phosphate batteries with BMS protection board. After starting, the screen will alternately display current, voltage, and temperature. When charging is completed, it will display "FUL" and stop output to prevent overcharging.



repair mode :

It is suitable for batteries with problems that cannot be charged. In this mode, the screen only displays "PUL" *The lithium battery cannot be repaired. The lead-acid battery is being repaired. If it is seriously overheated, repair should be stopped immediately!



power mode :

It can be used to force charge batteries that cannot be charged in other modes (you need to observe the battery heating), and can also be used as a DC power supply to power any DC12V equipment, such as car refrigerators, etc., or when the car needs to replace the battery, connect the positive and negative poles of the car and use it as a data holder.

* To enter the power mode, you need to press and hold the mode switch button for 3 seconds. The screen displays SUP, which is the power mode. In power mode, click the mode switch button, or cut off the positive and negative poles to exit the power mode.

temperature compensation

Winter: ❄️
be displayed.

Summer: ☀️
displayed.

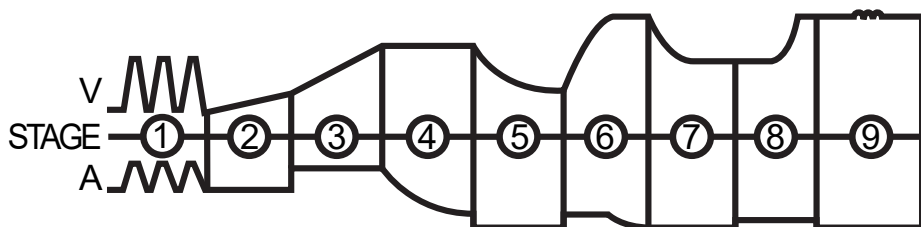
When the indoor temperature is lower than 10°C, the winter icon will

When the indoor temperature exceeds 27°C, the summer icon will be

When the indoor temperature is between 10-27°C, the icon will not be displayed. The charger can automatically detect the ambient temperature and adjust the output

9-stage charging

9 charging stages, gently and accurately charge the battery.



- | | |
|-------------------------------|----------------------------|
| 1. Battery desulfurization | 2. Soft start |
| 3. Charge in large quantities | 4. Absorb electric energy |
| 6. Battery test | 7. Repair and charge |
| 8. Float charging | 9. Low current maintenance |

Repair function

1. The recommended repair time is about 4 hours (if the battery does not heat up, the repair time can be extended accordingly).

2. It is recommended to use the repair function for new batteries, perform regular maintenance, and keep and activate used batteries.

* During the repair process, if the heating is severe, the repair should be stopped immediately! (The main cause of high temperature is that the battery is severely vulcanized or there is insufficient liquid in the battery. The battery should be replaced)

Child lock mode

During the charging stage (non-desulphurization stage), the mode button is automatically locked after 25 seconds of charging to prevent improper operation. If you need to unlock it, please turn off the power.

1. When the battery is low, the screen displays (FUL) and when charging, it displays full.

Reason: The voltage of the battery that is fed, vulcanized or idle for a long time is too low; because the internal resistance of the battery is too large or the battery capacity is reduced, the full voltage value is reached instantly during charging, resulting in the inability to charge normally, so "FUL" is displayed.

Solution: Press the "Mode" button four times after turning it on to enter repair mode and try to resume charging to activate the battery.

2. The connected battery shows voltage, but there is no charging response when plugged in.

Reason: Because the charger has no AC power input and output.

Solution: Check if the power supply is having power, or try changing the outlet.

3. AC power is connected, and the battery icon flashes after connecting the battery.

Reason: The battery is completely discharged, causing the charger to not recognize the battery.

Solution: Try charging in parallel with a charged battery, or replace the battery.

*In repair mode, if the charging time exceeds eight hours, the machine will automatically stop working. Change the charging mode in time to charge normally.

4. Not fully charged for a long time

Reason: The battery is always in a charging state due to vulcanization, power feeding, water shortage, or the grid voltage value does not reach the full voltage value. This type of battery may also get hot during charging!

Solution: If the battery is hot, please stop charging. If it is a water battery, please check whether the liquid is cooled and please replenish the liquid in time.

Safety precautions

1. Please read the user manual carefully before using the charger.
2. Ensure proper ventilation and avoid charging in enclosed spaces.
3. Only use the charger with specified compatible battery types.
4. Avoid exposure to water or extreme temperatures.
5. Keep children and pets away from the charger while working.
6. Please disconnect the charger from the power source before connecting or disconnecting from the battery.
7. If you find any abnormalities or damage, please stop using it and contact customer service.
8. If the power cord is damaged, it must be replaced by professional maintenance personnel to avoid danger.
9. If it is left unattended for a long time, the power supply should be cut off and charging for a long time is strictly prohibited.
10. Follow the vehicle manufacturer's recommendations for battery maintenance and charging.

After-sale guarantee

12-month warranty, if there are any problems with the product, please contact after-sales service.