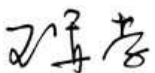




Thanks for your purchasing the intelligent BMS8

Read the ENTIRE instruction manual to become familiar with the features/functions of the device before operating.

Feel free to send an email to jasonwang3a@163.com or call at 86 755 2643 6165 should you have any questions and suggestions.



Jason Wang

Features

BMS8 is a high efficiency wide input voltage BMS, the device can detect and monitor 3S to 8S LiPo and LiFePO4 cells voltage and charge or discharge current, battery temperature in a smaller size. The following are some new features:

- Detect and display pack voltage, difference of cell voltage and temperature, each cell voltage by microprocessor, 100% calibration before delivery make sure the high accuracy.
- Over Voltage protection during charge, BMS8 will cut off charge and sound warning by beeper
- Under Voltage protection during discharge, BMS8 will cut off discharge and sound warning by beeper
- Over temperature protection during charge or discharge, BMS8 will cut off charge or discharge and sound warning by beeper
- Over current and short circuit protection,
 - Cut off discharge when 25A to 100A discharge current for different continuous time. It means the e-scooter don't lose power under 100A, such as the e-Scooter can be powered at 40A for 1 second at least, and cut off, then resume automatically.
 - 100A or more when short circuit, cut off discharge automatically and resume 10 seconds later.
 - Dual protection by program and hardware, more reliable.
- Low Quiescent current design, BMS8 draw current from all cells to keep the cell voltage balanced and minimize the power consumption in stand-by.
- AL alloy case
- Approved by CE
- 12 months warranty

Application

- E-Bike, E-Scooter
- Device and machine powered by battery

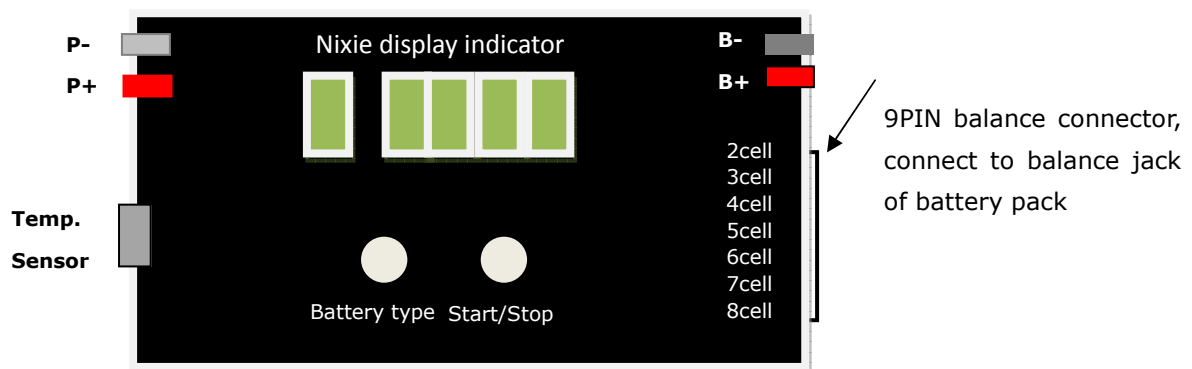
Specification:

- Battery Types: LiPo and LiFe cells
- Cells Count : 3S - 8S
- Maximal Voltage on P+ and P-: 35V
- Maximal Voltage on B+ and B-: max. 35V
- Charge Current: up to **25A**
- Discharge current: **0~25A** continue, **100A** burst
- Current drain for balancing: 300mA/cell.
- Balance accuracy: <10mV
- Over Charge Protection Voltage: 4.20V/cell (LiPo), 3.75V/cell(LiFe)
- Over Charge Release Voltage: 4.15V/cell (LiPo), 3.45V/cell(LiFe)

- Over Discharge Protection Voltage: 3.0V/cell (LiPo), 2.0V/cell(LiFe)
- Over Discharge Release Voltage: 3.3V/cell (LiPo), 2.30V/cell(LiFe)
- Over temperature Protection: 85°C, 50°C resume automatically
- Voltage display resolution: 0.001V
- Voltage Detection precision: 0.005V
- Compact size: 115 x 68 x 15mm, or 4.52" x 2.67" x 0.59"
- Weight:150g
- Case : Aluminum Alloy

Operation

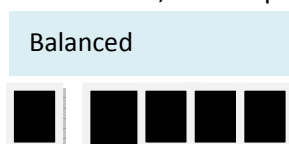
1. Connect the battery pack positive and negative to the **B+** and **B-** port on the BMS8
2. Connect BMS8 to battery balance wire by adapter board
3. Connect the Charger (when charge) or MOTOR (when discharge) to the **P+** and **P-** port on the BMS8
4. Mount the temperature sensor on the middle of battery pack where the temperature is the highest
5. Press **TYPE** button confirm battery type.
6. Press **START** button power on the BMS8
7. 2 seconds later, the device display pack voltage, difference of cell voltage and each cell voltage, all data will be displayed in turn and cycle, press **START** button turn on or turn off the display.



Chargery BMS8 can balance any 3S to 8S LiPo and LiFe battery pack while charging or discharging. 3 cycle display later, the device will turn off the display automatically to save the battery energy, press **START** resume display.

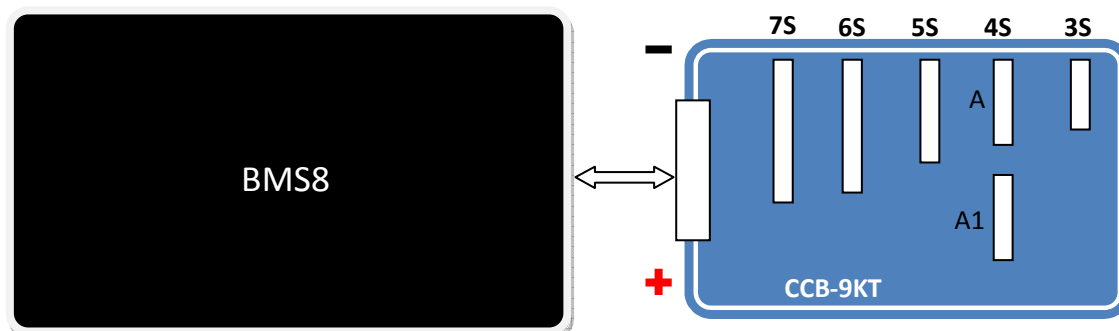
No.	Cell voltage/V	Battery voltage/V	Cell voltage difference/V	Balancing
6	4.125	U 22.55	d 0.005	.

During balancing, when any cell voltage under 3.0V (LiPo) or 2.0V (LiFe), BMS8 will alarm and stop balancing. When the battery resumed the balanced status, the beeper will sound for 10times, and display as below.



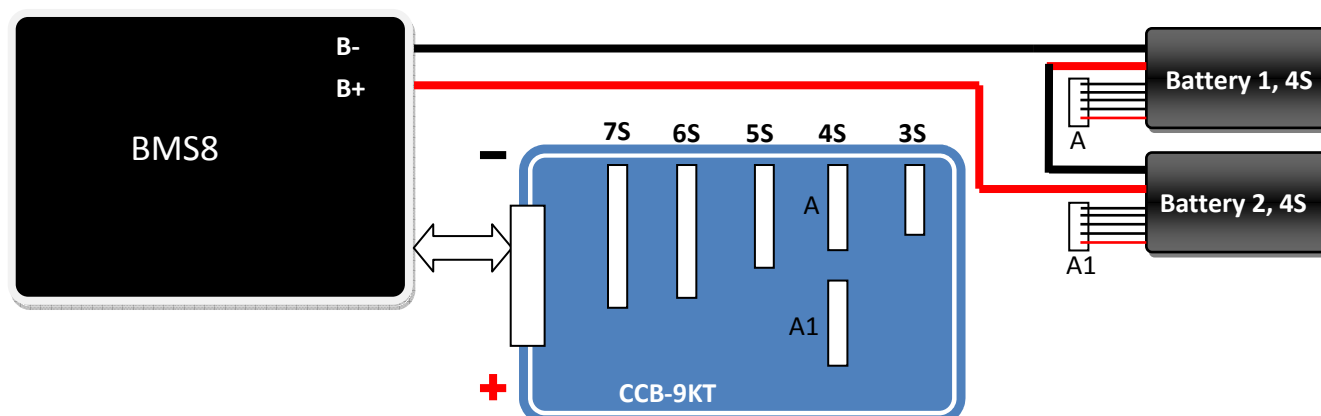
After balanced, BMS8 will continue to detect and keep the battery balanced.

Adapter board connection diagram



NOTES:

- If only one battery pack in your system, please connect the battery to one of the socket 7S, 6S, 5S, 4S, 3S separately, one 8S battery can plug into the BMS8 directly.
- For two 4S battery packs, please connect the battery1 to socket A first, and then plug the battery2 to socket A1. It is as the following diagram.
- Each SOCKET has the positive and negative, please make sure the battery polarity is accordance with the socket.
- The adapter board and wire is optional accessory. If need, please contact your dealer or Chargery directly.



During the charge, the BMS8 detect and balance each cell.

The charging current varied depending on the charger.

During the charging process, when any cell voltage under 3.0V (LiPo) or 2.0V (LiFe), BMS8 will alarm and keep charging. When any cell voltage over 4.20V (LiPo) or 3.75V (LiFe), the unit will alarm and cut-off charging, the balancing will go on.

Environment Requirements

- Ambient Temperature : -10--45°C
- Ambient Humidity : 5%--95%
- Storage Temp. : -20°C--70°C
- Storage Humidity : 30%--90%



Packaging Information

- BMS8 base unit: 1pcs
- Temperature sensor: 1pcs
- Manual:1pcs

Optional accessory

- Adapter wire :CEH-9, 1pcs
- Adapter board:CCB-9KT, 1pcs
- Power cable: 2 pairs



Error Information

When the following error events triggered, the beeper will sound for 10 seconds and error information will be displayed.

Display and alarm	Description	Solution
Buzzer beeps for 10 times and the dot OFF	Balance process is done	
Err and beeps quickly	Discharge current over 100A or Short circuit	Disconnect the BMS8, and check with connection.

Warnings

- Lithium polymer batteries can be a fire hazard if charged or discharged improperly.
- Never Charge/Discharge Lithium Batteries unattended
- Keep Lithium batteries, Charger, and BMS8 AWAY FROM CHILDREN and PETS!
- Never attempt to connect an impact-damaged (crashed) battery pack
- Packs which are chronically far out of balance may be damaged and should be discarded

Warranty and Service

Chargery Power Co., Ltd. as manufacture of BMS, charger and power supply warrants BMS8 to be free of defects in material and workmanship. This warranty is effective for **12** months from date of purchase. If within the warranty period the customer is not satisfied with the products performance resulting from a manufacturing defect, the accessory will be replaced or repaired. This warranty does not cover the damage due to wear, misuse, incompetent handling or using of incorrect accessories.

Related parts

MODEL	DESCRIPTION	COMMENTS
BMS8-150	BMS for 3-8S lipo/LiFe cells.	80A charge, 150A discharge continuous, and 600A burst
BMS8-75	BMS for 3-8S lipo/LiFe cells.	50A charge, 75A discharge continuous, and 300A burst

