Operating Instructions

CHARGERY DB8

Smart Digital Balancer

Charge rate up to 10A, for 2 to 8 LiPo & LiFe batteries

Display each cell voltage, pack voltage and difference of cell voltage

Chargery Power Co., Ltd.

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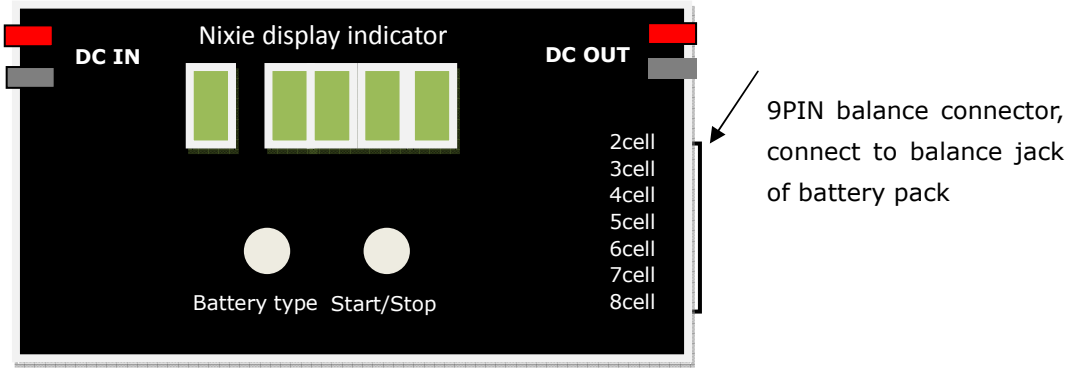
Thank you for purchasing CY- DB8, the unit is designed special for 2 to 8 LiPo & LiFe cells in series; it can detect and balance each cell in a pack while the battery pack is charged or discharged. Please read the instructions before using the balancer.

Main Specification:

- Battery Types: LiPo and LiFe cells
- Cells Count : 2S - 8S
- Input Voltage: max. 35V
- Output Voltage: max. 35V
- Charge rate: up to **10A**
- Current drain for balancing: 300mA/cell.
- Balance accuracy: <10mv
- Over Charge Protection : 4.22V/cell (LiPo), 3.75V/cell(LiFe)
- Low voltage alarm: 3.00V/cell (LiPo), 2.80V/cell(LiFe)
- 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

Special Features:

- Stand-Alone Mode and Balance while charge or discharge
- Automatically cut-off charging circuit while detecting the voltage of cell is over 4.22V (LiPo) or 3.75V (LiFe).
- Automatically detect and display cell voltage, battery voltage and difference of cell voltage.
- Audio alarm for over voltage or under voltage
- **Balance 2*4S, 2*3S or 4*2S battery packs simultaneously**
- **Reverse polarity and short circuit protection (input and output and Balance connector)**
- With Special Connector Conversion Board (**CCB-9KT-XH)** to fit all kinds of battery connectors



There is a standard 4mm banana socket (DC IN) on the left of CY-DB8 for connecting LiPo or LiFe charger; right banana socket (DC out) goes for 2S-8S LiPo or LiFe battery pack. **LiPo /LiFe** button for choosing the battery type to be balanced, **Start/Stop** button for starting balance or stopping display.

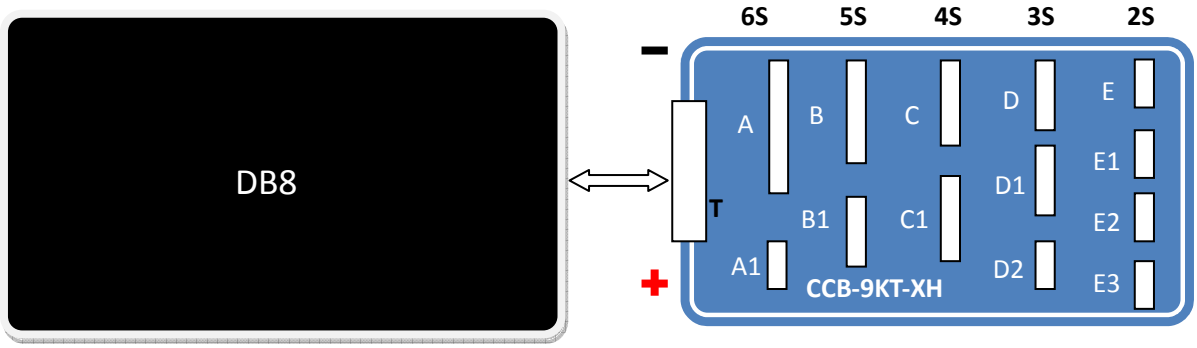
Chargery Balancer is an extremely smart device. It can balance any 2S to 8S LiPo and LiFe battery pack while charging or discharging. During charge it will automatically cut off the charging process while any cell voltage is over 4.22V (for LiPo) or 3.75V (for LiFe).

Unpack Inspection:

The following items are included in the package; contact your supplier if any items are missing.

- One pair of input power Leads: silicon wire 200mm long ending in 4.0mm Banana male connector, Connect DB8 to Charger
- One pair of output power Leads: silicon wire 150mm long ending in Banana male connector and DEANs male connector. Connect DB8 to battery
- Adapt Board CCB-9KT-XH
- Adapt Wire CEH-9
- Black Bag

Operation instructions



T	Socket	A	A1	B	B1	C	C1	D	D1	D2	E	E1	E2	E3
Connect to DB8	Cell Count	6S	2S	5S	3S	4S	4S	3S	3S	2S	2S	2S	2S	2S

NOTES:

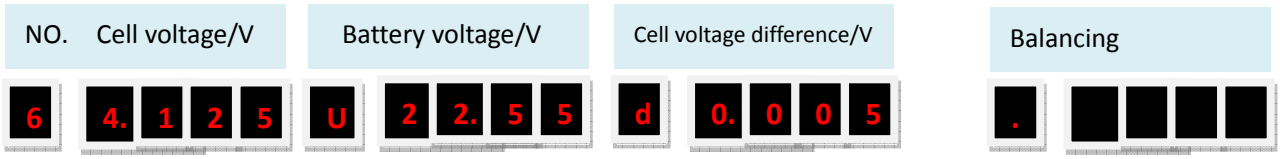
- If only one battery pack to be balanced, please connect the battery to one of the socket A(6S), B(5S), C(4S), D(3S) or E(2S).
- For 2 battery packs to be balanced, please connect the battery to one of the A(6S), B(5S), C(4S), D(3S) and E(2S) first, and then plug the second battery to one of the A1(2S), B1(3S), C1(4S), D1(3S) and E1(2S). such as one 6s and one 2s to be balanced, connect the 6S battery to the socket A first, and then plug the second 2s battery into A1
- If 3 packs to be balanced, please connect 3S battery to the D first, and then second 3s battery to the D1, and then third 2s battery to the D2. for 3*2s battery, please connect the E, E1, E2 in turn.
- For 4*2s battery to be balanced, please connect the battery to the E, E1, E2, and E3
- Each SOCKET has the positive and negative, please make sure the battery polarity is accordance with the socket.

Stand-Alone Balance

1. Connect Li-Poly Battery Pack to the CCB-9KT-XH. **If multiply battery packs to be balanced simultaneously, please connect the battery to the adapter board from Negative (such as socket D or E) and then (D1, or E1, E2)**.

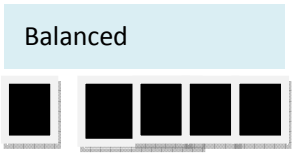
2. Connect CY-DB8 to the CCB-9KT-XH through the special wire CEH-9
3. Choose the battery type by pressing **LIPO/LIFE** button
4. Press the **Start/Stop** button to confirm the battery type and start to balance.

The nixie display indicator will display each cell voltage, sum of voltage, difference of cell voltage and cell balance status. During the balancing, press **Start/Stop** button stop displaying, press again to resume display. **IF WANT TO STOP BALANCING, PLEASE DISCONNECT the BATTERY PACK to DB8.**



During balancing, when any cell voltage under 3.0V (LiPo) or 2.8V (LiFe), CY-DB8 will alarm and STOP balancing. When any cell voltage over 4.22V (LiPo) or 3.75V (LiFe), the unit will alarm and CONTINUE to balance until the cell voltage resume under 4.22V (LiPo) or 3.75V (LiFe).

5. When the battery resumed the balanced status, the beeper will sound for 10times, and display as below.



After balanced, DB8 will continue to detect and keep the battery balanced.

Balance while charge

If connect the DB8 to Charger and battery, the battery pack will be charged and balanced simultaneously. So when the battery is fully charged, the battery will be also balanced.

The operating steps are as below:

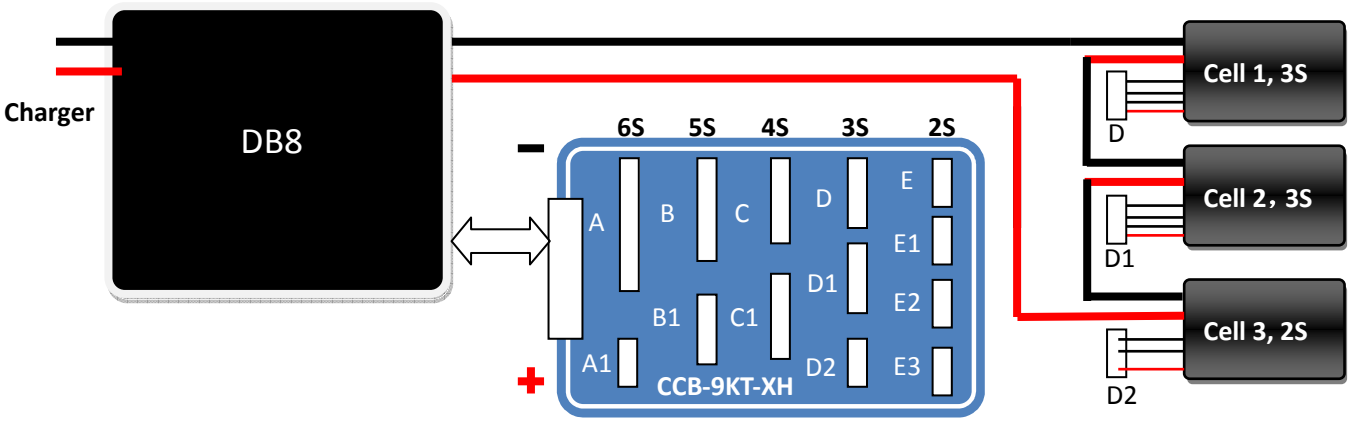
1. Connect the DC power supply to the charger
2. Connect Li-Poly Battery Pack to the CCB-9KT-XH.
3. Connect CY-DB8 to the CCB-9KT-XH through the special wire CEH-9
4. Connect the DC OUT of the DB8 to the battery discharge leads
5. Connect the DC IN of the DB8 to the DC OUT of charger
6. Choose the battery type by pressing **BATTERY TYPE** button
7. Press the **Start/Stop** button to confirm the battery type and start to balance.
8. The nixie display indicator will display each cell voltage, sum of voltage, difference of cell

voltage and balance status, press **Start/Stop** button stop displaying, press again to resume display.

9. If need, please press the Start/Stop button on the charger to start charge, press again stop charging.
10. When the battery packs resume balanced status, the CY-DB8 will beeps for 10 times and continue detects and keep the battery balanced.

If multiply battery packs to be charged or balanced simultaneously, please connect the battery to the adapter board fist from Negative (such as socket D or E) and then (D1 or E1, E2). And connect the battery pack discharge wire in series through the special wire, battery Positive and Negative must be accordance with the connection of CCB and battery.

The following draw is a sample of one 3S (D), one 3S (D1) and one 2S (D2) being charged and balanced simultaneously.



During the charge, the balancer continues to detect and balance each cell as Stand-Alone mode.

The charging current and the charging voltage will vary depending on the charger.

During the charging process, when any cell voltage under 3.0V (LiPo) or 2.8V (LiFe), CY-DB8 will alarm and keep charging. When any cell voltage over 4.22V (LiPo) or 3.75V (LiFe), the unit will alarm and cut-off charging, the balancing will goes on.

Error Alarm and possible reasons:

Display and alarm	Possible reasons
Buzzer beeps for 10 times	Balance process is done
Display failure cell number and voltage such as **2 2.70L** and beeps quickly	any cell voltage under 3.0V(LiPo) or 2.8V(LiFe), such as number 2 cell voltage is 2.70V
Display failure cell number and voltage such as **8 4.23H** and beeps quickly, cut-off the charging.	Any cell voltage over 4.22V (LiPo) or 3.75V (LiFe), such as number 8 cell voltage is 4.23V.

Warnings:

- Lithium polymer batteries can be a fire hazard if charged or discharged improperly.
- Never Charge/Discharge Lithium Batteries unattended
- Charge in an area free of flammable materials, on non-flammable brick, concrete, etc
- Keep Lithium batteries, Charger, and Balancer AWAY FROM CHILDREN and PETS!
- Never attempt to charge an impact-damaged (crashed) battery pack
- Packs which are chronically far out of balance may be damaged and should be discarded
- Do not use when ambient temperature is extremely high
- Use and store in a dry environment
- Un-plug balancer from the Li-poly pack when not in use

Warranty and Service

Chargery Power Co., Ltd. as manufacture of R/C model power warrants its CHARGERY charger and battery pack 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.

Your selling dealer is your first point of contact for warranty issues. Return postage costs are the responsibility of the user in all cases. Please submit copy of original receipt with the return.

Damage due to physical shock (dropping on the floor, etc.), inappropriate power supply (unstable output voltage and insufficient power, etc.), water, moisture, and humidity are specifically NOT covered by warranty. It is best to carefully check your charger before considering returning it as problems in setup, cabling, or power supply are much more common than defects in the charger. If there is damage stemming from these causes within the stated warranty period, the company will, at its option, repair or replace the charger for a service charge not greater than 50% of its then current retail list price.

Dealer:

NOTE:

CHARGERY hope customers notify any change or modification made to this device.

Welcome any suggestions at jasonwang3a@163.com

Thanks and enjoy the power!

CHARGERY power

Charging Expert