

# NEEY SMART ACTIVE BALANCER

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Balance Current:4A/8A/10A/15A

Accuracy:1mv

String suit for:2S~24S

Battery:Li-ion /LiFePo4/LTO/Sodium-ion battery



NEEY<sup>®</sup>

SMART ACTIVE BALANCER

Balance Current:4A

Accuracy1mv

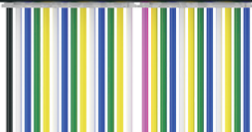
String suit for:8S-24S

Battery:Li-ion /LiFePo4/LTO/LACID

[www.neevelec.com](http://www.neevelec.com)

NEEY Electronic Technology Co, Ltd

FC CE RoHS  MADE IN CHINA



# Use Manual

1. Download app and manual
2. Hardware connection
3. Startup
4. Open the app and connect the device
5. Set the number of strings and battery type
6. Check the battery status

Download App-IOS/Andriod

Search In the App Store / Google Store

①Before powering on the Balancer , please refer to the wiring diagram to connect the battery, repeatedly confirm whether the equalizing wire is connected correctly, use a multimeter to check whether the terminal voltage is normal, whether the welding is firm, and confirm that there are no errors before powering on the Balancer. To avoid unnecessary trouble, it is recommended to first insert the cable at pin B0 and then insert the cable at pin B24, otherwise it may cause abnormal operation or even serious consequences such as burns.

②After installing the app, click the secondary menu in the upper left corner ( there is no need to search the device on the Bluetooth interface of the mobile phone, and there is no need to enter the pairing password.

③Equipment status: displays the working condition of the current equipment. If there is an error message, operate according to the error message prompt.

④Main data display column of equipment, Battery string number, battery type and battery voltage display column; Fill in the actual number of battery strings.

⑤The maximum differential voltage of the battery triggers the equalizing voltage value.

⑥Stop the equalization voltage. When it is detected below the preset value and lasts for 2 minutes, it

enters the stop equalization state.

⑦ Turn on the equalization voltage, and enter the on Equalization state when it is detected above the preset value and lasts for 2 minutes.

⑧ Fill in the nominal capacity of the current battery so that the system can better match the small current balance at the end.

⑨ Select the currently used battery type. If parameters are disordered, you can return to the default value by setting the battery type parameters.

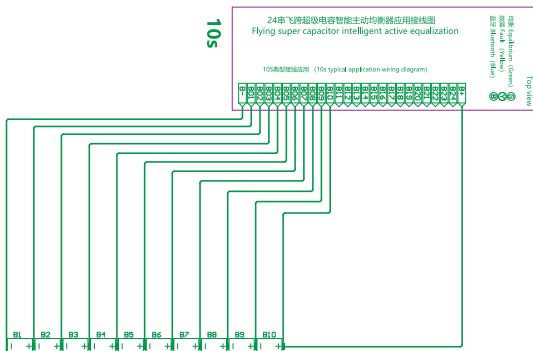
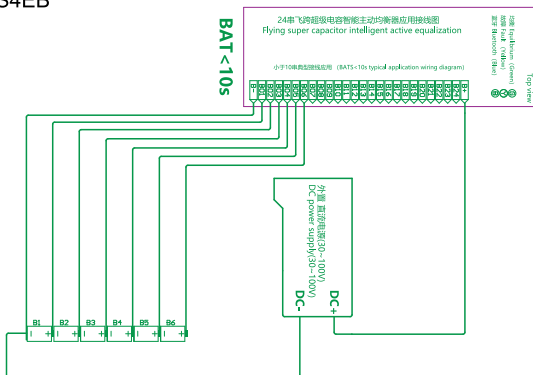
⑩ Set equalization completion buzzer sound mode.

# NEEY SMART ACTIVE BALANCER

Technical Index	Product Specifications			
	EK-24S4EB	EK-24S8EB	EK-24S10EB	EK-24S15EB
Number of Battery Strings(Li-ion)	7S~24S	3S~24S	3S~24S	3S~24S
Number of Battery Strings(LifePo4)	8S~24S	4S~24S	4S~24S	4S~24S
Number of Battery Strings(LTO)	12S~24S	7S~24S	7S~24S	7S~24S
Number of Battery Strings(Sodium-ion battery)	12S~24S	7S~24S	7S~24S	7S~24S
External power module	DC 20V~100V	DC 12V~100V	DC 12V~100V	DC 12V~100V
Balance Method	Time sharing single channel transfer, point-to-point energy transfer			
Balance Current	4A	8A	10A	15A
Other interfaces (Default)	I	TTL	TTL	TTL
Voltage balancing accuracy	Customizable settings for APP: 1mV (typical value)			
External power supply	Battery powered (accuracy $\pm 1mV$ )	Battery powered (accuracy $\pm 3mV$ ) External power supply (accuracy $\pm 1mV$ )	Battery powered (accuracy $\pm 3mV$ ) External power supply (accuracy $\pm 1mV$ )	Battery powered (accuracy $\pm 3mV$ ) External power supply (accuracy $\pm 1mV$ )
Size/mm	L140 x W128 x T22 (mm)	L156 x W144 x T20 (mm)	L156 x W144 x T20 (mm)	L313 x W193 x T43 (mm)
Power failure detection function	Support			
Connected to fault alarm function	Support			
Wrong wire protection function	Support			
Cascading Connect	Support			
Buzzer	Customizable settings for apps			
LED indicator light	<p><b>Blue light - Connection status:</b> Steady on: Connection successful; Flashes: Connection break.</p> <p><b>Green light - Running status:</b> Steady on: Balanced completion; Flashes: In balance.</p> <p><b>Red light - Fault status:</b> Steady on: The resistance of the equalizing line is too large; Flashes: The number of batteries does not match the configuration;</p> <p><b>Green - power status indicator light:</b> constantly on: power is normal; <b>Blue - Bluetooth status indicator light:</b> Always on: Successfully connected; Blinking: Connection disconnected. <b>Yellow - working status indicator light:</b> Everbright: Balanced completion; Blinking: Balanced operation in progress. <b>Red - Fault status indicator light:</b> Always on: Internal fault; Flashing: Battery detection failed.</p>			
Consumption	1W when the equalization system is turned on, 0.5W when the equalization system is turned off			
Ambient Temperature	-20°C~45°C			
Bluetooth Function	Support for Android/iOS phone			

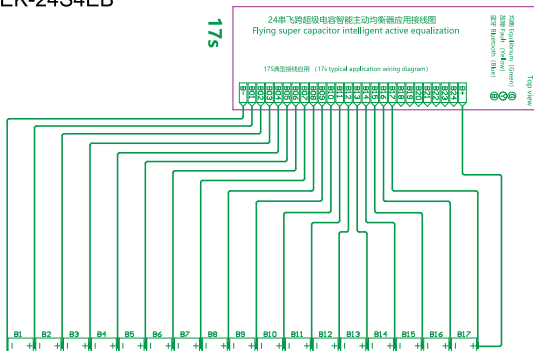
# Connection Method Sample

FOR EK-24S4EB

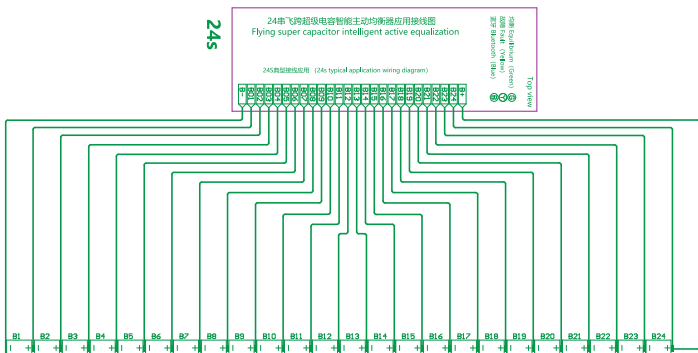


# FOR EK-24S4EB

17s

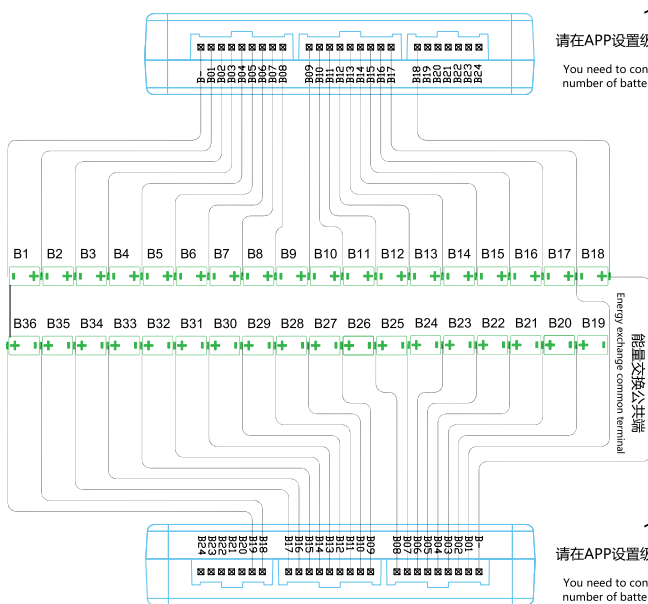


24s



FOR EK-24S8EB/EK-24S10EB

## EK-B24S10EB/8EB 36级联线图



18S(1)

请在APP设置级联模块电池串数为18S

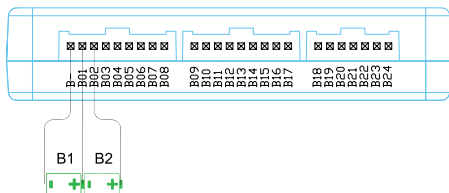
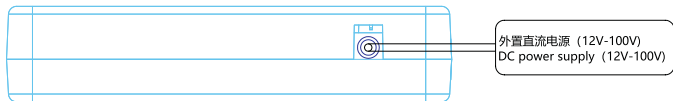
You need to connect Bluetooth and set the number of battery strings in the app to 18S

19S(2)

请在APP设置级联模块电池串数为19S

You need to connect Bluetooth and set the number of battery strings in the app to 36S

## EK-B24S10EB 2串接线图\_DC适配器供电

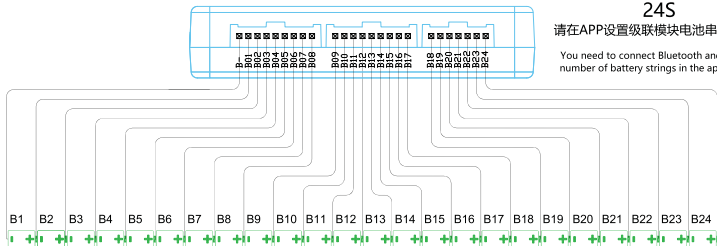


2S

请在APP设置级联模块电池串数为2S

You need to connect Bluetooth and set the number of battery strings in the app to 2S

## EK-B24S10EB 24串接线图\_电池供电

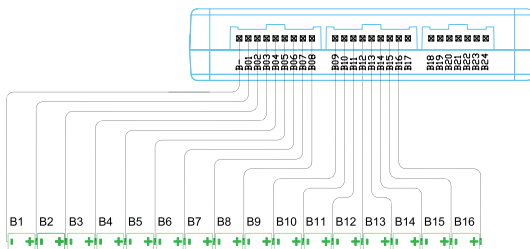


24S

请在APP设置级联模块电池串数为24S

You need to connect Bluetooth and set the number of battery strings in the app to 24S

## EK-B24S10EB 16串接线图\_电池供电

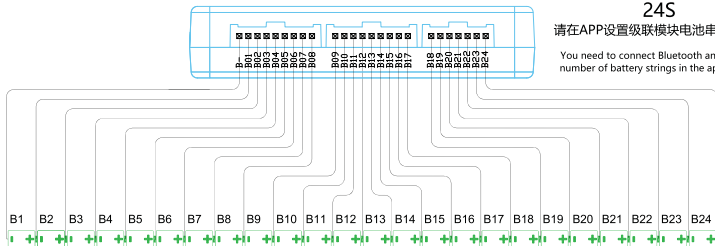


16S

请在APP设置级联模块电池串数为16S

You need to connect Bluetooth and set the number of battery strings in the app to 16S

## EK-B24S10EB 24串接线图\_电池供电



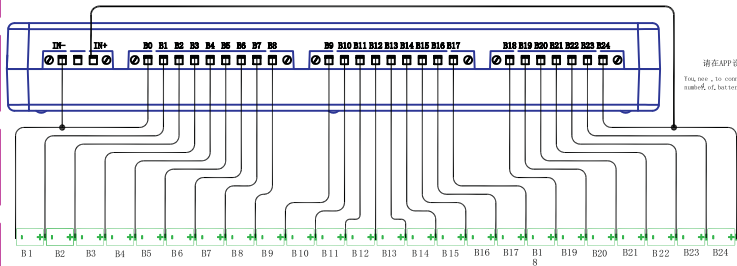
24S

请在APP设置级联模块电池串数为24S

You need to connect Bluetooth and set the number of battery strings in the app to 24S

FOR EK-24S15EB

24串接线图

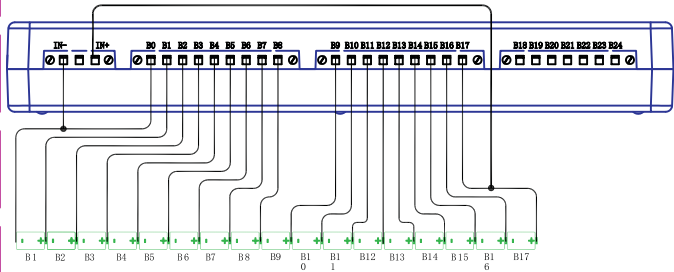


24S

请在APP设置电池数量为24S

You need to connect Bluetooth and set the number of battery strings in the app to 24S

17串接线图



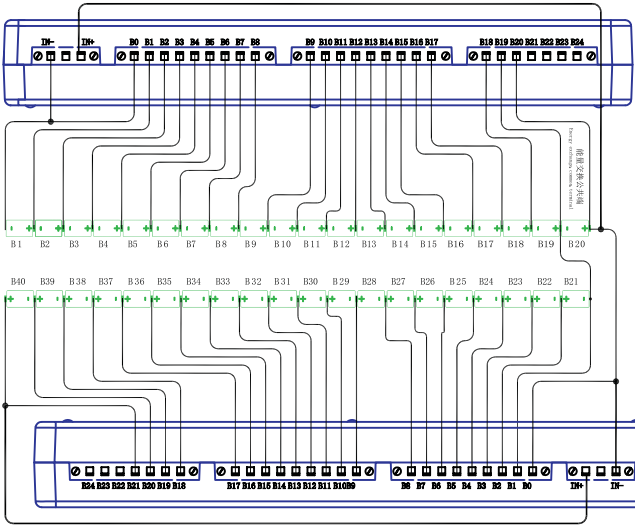
17S

请在APP设置电池数量为17S

You need to connect Bluetooth and set the number of battery strings in the app to 17S

# 40 串级接线图 Cascade diagram

40 串级接线图



20S. (1)

请在APP设置项里添加电池串数为20S  
You need to connect, B1aterio h, and set, the  
number of, battery, string in the app to, 20s

21S. (2)

请在APP设置项里添加电池串数为21S  
You need to connect, B1aterio h, and set, the  
number of, battery, string in the app to, 21s

# FAQ

## **1.The power indicator light is not on**

- ① Check if the power pins of the equalizer are connected correctly;
- ② Determine if the battery pack voltage is less than 12V/20V. If it is less than 12V/20V, use a matching power adapter to power the equalizer.

## **2.Unable to search for device**

Check if Bluetooth is turned on;

Open location and location information and allow apps to use location information

## **3.Equalizer does not turn on**

Check if the voltage of the first battery string is higher than 2.4V.

If the condition is not met, please charge the battery to 2.4V or above, and then the equalizer will automatically start.

## **4.The APP prompts that the number of individual settings does not match the set value**

Check if the number of unit settings is the same as the number of connected batteries ;

If there is no voltage in two or more strings in the middle, check whether the acquisition cable falls off

## **5.APP prompts that the resistance of the equalizing line is too high**

Check the connection between the battery cell and the connector for poor contact. If there is no poor contact, please replace the wire.

## **6.Inaccurate voltage collection**

Check the connections one by one to eliminate any wiring errors. Fine tune the voltage collection reference until the collection is accurate.





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Manufacturer : NEEY Technology Co., Ltd

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