

# HA12 Battery Equalizer--Your Battery Protector



## Product Introduction

HA12 is an energy transfer battery equalizer with voltage display on mobile phone, which can be used for 2-12V batteries in series or in parallel to keep battery bank voltage balance.

When battery banks are in charging/discharging/free status, batteries voltage will have difference, which may cause one of batteries fail prematurely.

HA12 will start to work when it detect there are 10mV voltage difference between four batteries. It will transfer energy from the higher voltage battery to the lower one until same totally.

Battery equalizer will improve battery's performance and extent battery's using time.

## Product Features

- » Apply to any n\*(2.4V/3.6V/6V/9V/12V) battery banks;
- » Using aluminum shell, for better cooling;
- » Users can check battery voltage data through mobile APP;
- » Energy transfer type equalizer, fast balance speed and low consumption;
- » IP67, waterproof and moisture-proof;
- » No need of external power supply or extra maintenance;
- » Reverse polarity protection, safe and reliable.

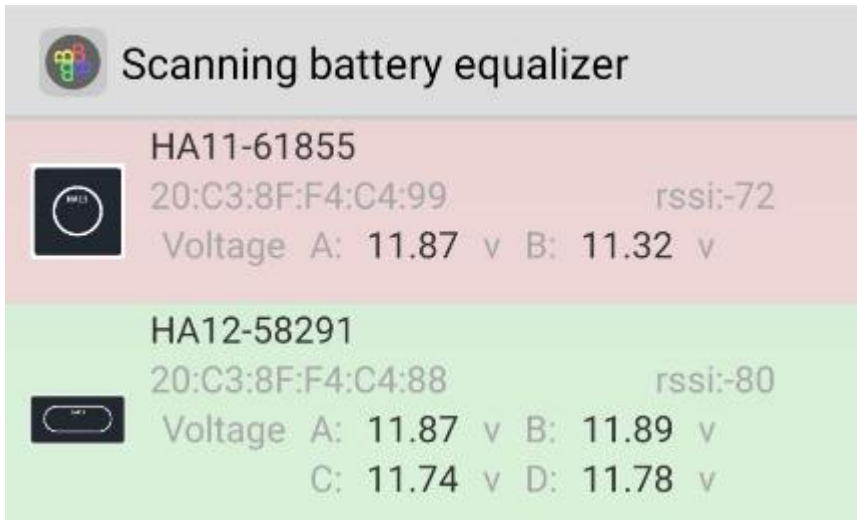
## Technical Specification

Battery nominal voltage	4* (2.4V/3.6V/6V/9V/12V)
Optimizing current	0-10A
Quiescent current	5mA(12V) 1.2mA(2.4V)
Dimensions	62*124*27 mm
Protection	Reverse polarity protection
Under voltage lock out	1.8V

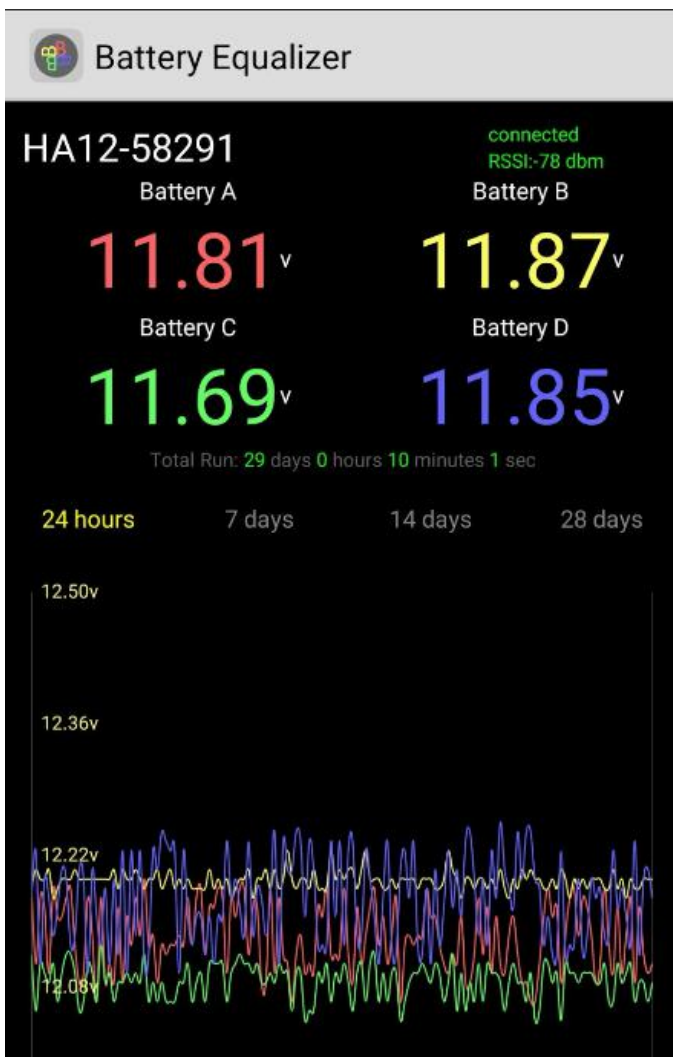
## APP Operation Instruction

Please download "Battery" APP (only for Android system now)

1. After connect battery equalizer, please turn on bluetooth on mobile phone;
2. Users can track all battery equalizers connected as following, users can change each equalizer's name for better management;



3. User can check battery voltage detailed curve by entering each equalizers.



Note: 1. Bluetooth connection distance is 10m;

## INSTALLATION

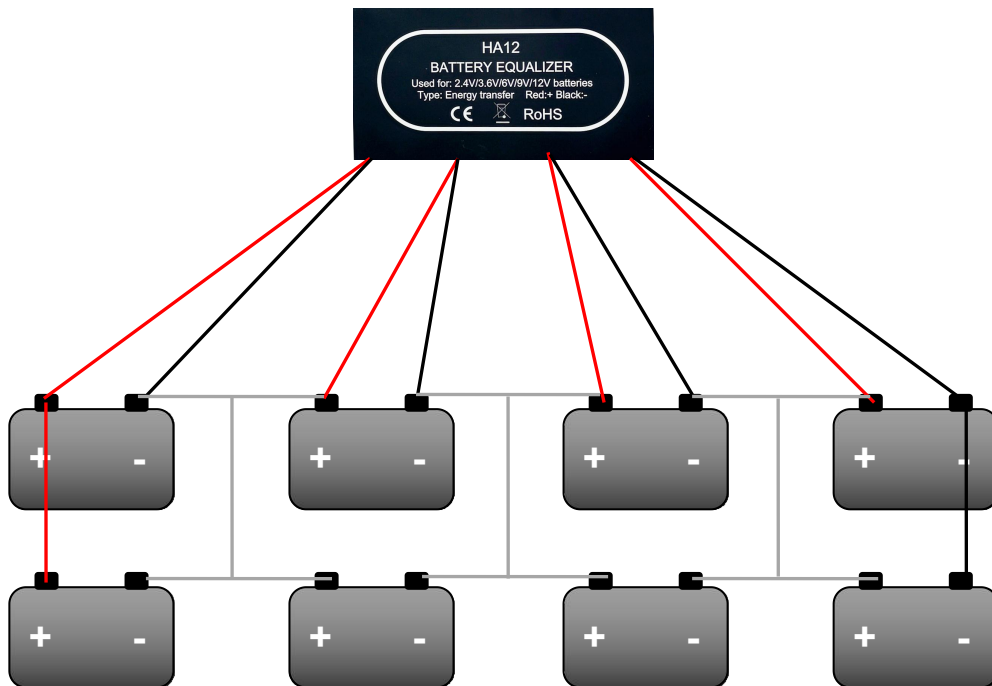
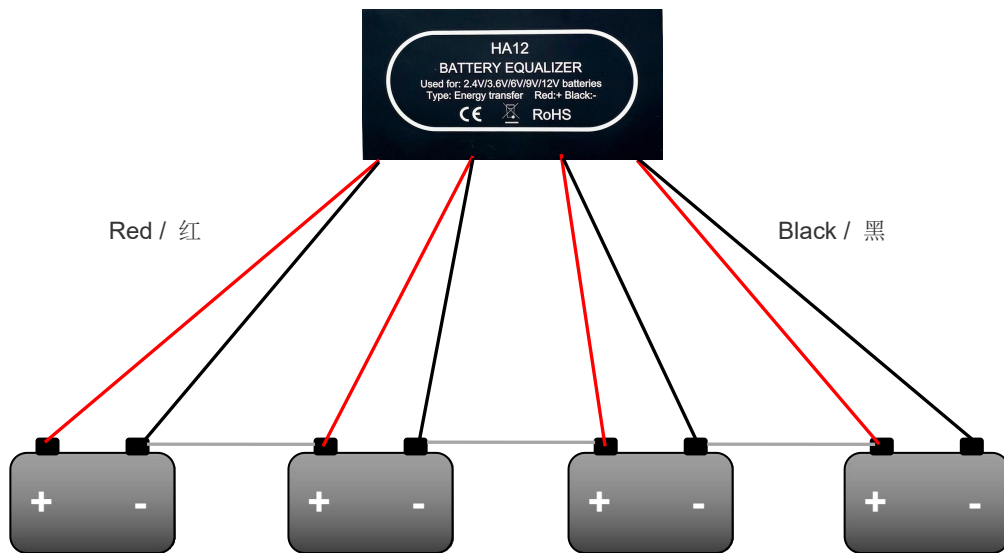
Connect it as the following order:

- 1.Red cable connect positive/+ pole. Black cable connect negative/- pole
- 2.Connect the batteries as the pictures

You can connect all + pole firstly,and then - pole to avoid short circuits.

**Note: 1.If there are extra cables, please leave the tubes of the terminals on it to avoid short circuits.**

**2.Please avoid any of the 8 terminals touching each other.**



*Made in China*