

Battery Equalizer HA01 User Manual

APPLICATION

Battery equalizer HA01 is used for the 12V lead-acid batteries which are connected in series to keep battery voltage balance.

When two or more in-series connected batteries are in charging/discharging/free status. The battery voltages maybe become different. One battery voltage is high and one is low.

The battery equalizer will equalize/balance the battery voltage when it detect there are 20mV between two batteries. It will shunt current from one battery (the higher voltage one) to the other battery (the lower voltage one). Until their battery voltage almost becomes same. This will improve battery's performance and extent battery's life time.

Battery equalizer can be used for 24V, 36V, 48V and any other N*12V battery system.

1. piece for 24V system;
2. pieces for 36V system;
3. pieces for 48V system;

TECHNICAL DATA

| | |
|-------------------------|-----------------------------|
| Battery nominal voltage | 2 × 12V |
| Optimizing current | 0–5A |
| Quiescent current | <3mA |
| Dimensions | 70 × 70 × 27 mm |
| Protection | Reverse polarity protection |
| Low Voltage Disconnect | 10V |

LED INDICATOR

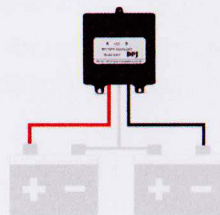
| | LED A | LED B |
|----------------|-------|-------|
| $U(A) = U(B)$ | Off | Off |
| $U(A) > U(B)$ | Off | Flash |
| $U(A) < U(B)$ | Flash | Off |
| $U(A) < 10V$ | Off | On |
| $U(B) < 10V$ | On | Off |
| $U(A/B) < 10V$ | On | On |

INSTALLATION

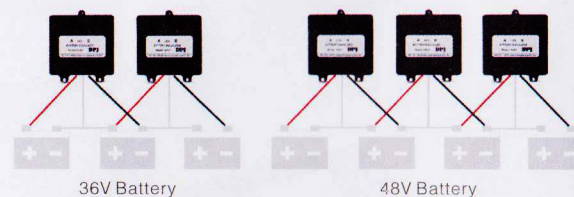
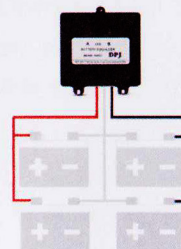
1. Black cable: negative/- pole
2. Red cable: positive/+ pole
3. White cable: Battery B negative pole or Battery A positive pole.
(The pole which connected Battery A and Battery B in series)



Please read the instruction manual before installing the device!
Before connecting the equalizer, please confirm the positive and negative poles of the battery pack to avoid the short circuit and reverse connection between the battery equalizer terminals.



24V Battery



FAQ OF HA01 BATTERY EQUALIZER

1. What is the working principle of the HA01 battery equalizer?

The HA01 battery equalizer is a capability-transferred equalizer. When the voltage difference between the batteries connected in series exceeds 10 mV, the battery equalizer starts to operate and the current flows from the higher voltage battery to the lower voltage battery. The maximum compensation current is 5A.

2. When does the battery equalizer start working?

When the difference between the two battery voltages is less than 10mV, the battery equalizer starts to work.

3. Can the HA01 battery equalizer be used when charging or Discharging?

Yes, the battery equalizer can be used during charging and discharging, and it can balance the battery voltage.

4. Can HA01 battery equalizer use lithium battery?

It could work for lead-acid batteries, lithium iron phosphate batteries, nickel-cadmium or nickel-metal hydride batteries.