

KiloVault® BE24 Battery Balancer Instructions

APPLICATION

The battery balancer BE24 is intended for use with a connected series of 12V lead-acid batteries to maintain battery voltage balance. This includes Gel, Flood, Lithium Iron Phosphate batteries (LFP), and AGM lead-acid batteries.

When two or more in-series connected batteries develop a voltage difference of 20mV or more, the battery balancer will shunt current from the higher voltage battery to the lower voltage battery until the voltage in the system is balanced. This improves performance and extends battery life.

The battery balancer BE24 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

| TECHNICAL DATA | |
|-------------------------|-----------------------------|
| Battery Nominal Voltage | 2*12 |
| Optimizing Current | 0-5A |
| Quiescent Current | <3mA |
| Dimensions | 70 x 70 x 27 mm |
| Protection | Reverse polarity protection |
| Low Voltage Disconnect | 10V |

LED INDICATOR

| LED Indicator | | |
|---------------|---------|---------|
| | LED (A) | LED (B) |
| $V(A)=V(B)$ | Off | Off |
| $V(A)>V(B)$ | Flash | Off |
| $V(A)<V(B)$ | Off | Flash |
| $V(A)<10V$ | On | Off |
| $V(B)<10V$ | Off | On |
| $V(A\&B)<10V$ | On | On |

- The LED indicators work using the working voltage of the batteries

INSTALLATION

Simply connect the red cables to the positive (+) terminals and the black cables to the negative (-) terminals. Be sure to connect all positive (+) connections before the negative (-) connections to avoid short circuits. Batteries may be connected in series or in parallel.

CAUTION

Before you connect the BE24 to your battery bank, charge the batteries to the same voltage. The BE24 works best when the batteries start at the same voltage. Batteries with large voltage differences will cause the BE24 to overheat.

Notes:

- If there are unused cables, leave the protective terminal tubes in place to avoid short circuits.
- Do not allow any of the terminals touch each other.
- To make the connections shown in the following diagrams, you will need to add a t-splice with 14 AWG wire (not included) to the end of the white wire.
- Please make sure that the connections in your splices are tight, secure, and solid. Loose connections will cause equipment damage through heat.

CONNECTION EXAMPLES

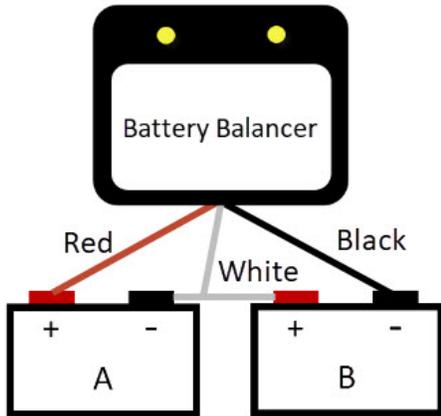


Figure 1: 24V battery bank of two

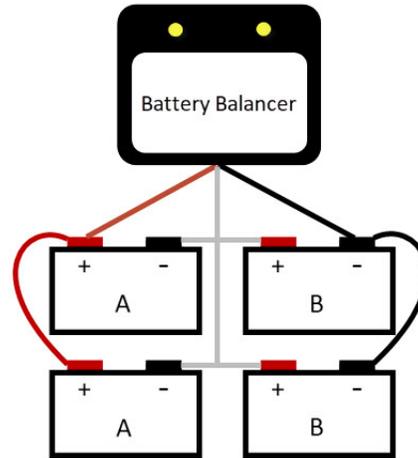


Figure 2: 24V battery bank of four

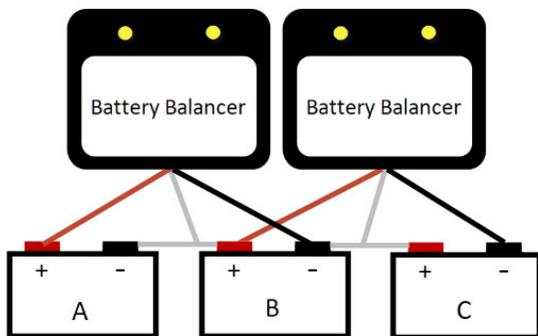


Figure 3: 36V battery bank

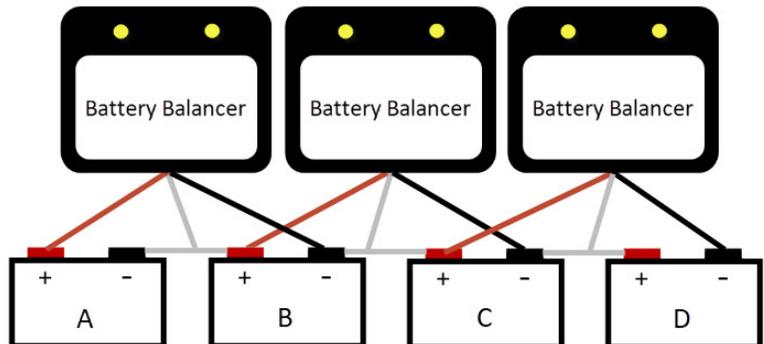


Figure 4: 48V battery bank

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