

Battery Failsafe Devices

Dual Battery Monitor Calibration Instructions

www.so-bfd.com 805-683-9684 PST (Land line calls only)

From the battery set point chart below, pick the battery voltage to match your battery +12V, +24V, +36V or +48V. Review the voltage set points and pick the voltage to meet your low voltage alarm needs for each battery bank configuration. **For any battery bank configuration**

Set Points for Dual Battery Monitor Alarm

<u>+12 volt</u>	<u>+24 Volt</u>	<u>+36 Volt</u>	<u>+48 Volt</u>
12.60	25.20	37.80	50.40
12.40	24.80	37.20	49.60
12.20	24.40	36.60	48.80
12.00	24.00	36.00	48.00
11.80	23.60	35.40	47.20
11.60	23.20	34.80	46.40
11.40	22.80	34.20	45.60
11.20	22.40	33.60	44.80
11.00	22.00	33.00	44.00
10.80	21.60	32.40	43.20

Power cable wires as noted below from the monitor box:

1. Cable wire color Red to Main battery plus (+)
2. Cable wire color Black to Main and Auxiliary battery Ground (-)
3. Cable wire color Yellow to Auxiliary battery plus (+)

Note: Ground terminals of the batteries must be terminated together.

Ground wire should be your last connection.

Power pre-calibration self test:

Powering up the Dual Battery Monitor by connecting to battery posts, the Dual Battery Monitor will do a self test of 1000...1111...2222...3333...etc up to 9999 on the LCD display and then will begin monitoring the Main and Auxiliary batteries.

To calibrate the Low Battery Alarm set points: (After self test)

1. To begin the calibration press the up ^ button once, one of the LED's will turn solid yellow (M or A) and the display will show stored set points. The LED is to show which battery is ready (as noted) to set the alarm set point.

2. Using the Up ^ or Down v button to pick the desired alarm set point for the LED that is on (M or A). Note the alarm set points as you scan up or down the voltage set points. When you have reached your set point, stop at that set point. Push the other button, Main or Auxiliary, to set the next battery alarm set point. The LED will turn solid yellow. Use the Up ^ or Down v buttons to the desired alarm set point. Stop at this point, after a few seconds the buzzer will sound once "Alarm set points are programmed in". Both batteries are now set for low voltage alarm.

Programming Hint: The Dual LCD can be programmed to alarm set points at the battery terminals. The Dual LCD remembers the set points and will not change as noted in #2. Mounting can be done else where and reconnected up to battery voltage. After reconnecting, the Dual LCD will do the self test once again and will show the battery voltage. The set points you programmed in will not be changed, unless you push the buttons.

The alarm set point will lock in 15 seconds after the last button is pressed and the buzzer will sound twice. Changes to the set point can be made before it times out. If in time you wish to change the set points, undo the input ground wire at the battery source, connect it back up and the LCD will restart the set point calibration procedure once again. Changes to just one battery can be made when the yellow LED is on for that battery LED (M or A). The other battery will not change the alarm set point. The Dual Battery Monitor remembers its set points even if the batteries are disconnected.

As the Dual Battery Monitor LED switches back and forth, it will show the current battery voltage on the LCD display.

Note: If one of the batteries is disconnected from the plus side, the LED will be solid red and the LCD will read 0.00 volts for that battery. Reconnect to resume monitoring.

To check the alarm set point of each battery after lock in, press the Up ^ or the Down v button. The LED will turn yellow to show the set point of the battery being monitored at that time. Push the other button (Main or Auxiliary) to see the set point.

Reference Warnings & Display:

Prior to the LED tuning Red, the LED will flash Yellow at a preset point above the set alarm point selected. This is a warning the battery voltage is getting low. When the voltage alarm setting is reached, the LED will turn to flashing Red and the buzzer will sound to indicate what battery is low with a 4 beep tone until the battery is re-charged above alarm set point.

If need be, please call or email with any questions or issues.

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