



INSTALLATION INSTRUCTIONS



THIS BATTERY MONITOR IS INTENDED TO BE USED ON TRUCK BATTERIES WITH 4/0 MAXIMUM DIAMETER CABLE (MAX TEMP 90 °C, 194 °F), 500 AMP MAX CURRENT DRAW

- 1) Remove the ½ amp fuse from the holder on the positive (red) lead, to prevent damage to the fuse during assembly.
- 2) Carefully remove the positive (red) cable tip from the battery connector. **HOLD THE CABLE FIRMLY – DO NOT ALLOW THE CABLE END TO TOUCH ANY PART OF THE BATTERY.**

NOTE: If the BBWC cannot be mounted for easy viewing on the positive cable, it can also be mounted on the negative (black) cable. The procedure to mount the BBWC to the negative cable is the same as the positive cable.

- 3) Slide the cable through the current sensor on the BatteryBoss WC (BBWC). **PUT THE BBWC ON THE CABLE SO THE BBWC WIRES FACE TOWARD THE BATTERY POST AND THE BBWC LED'S FACE AWAY FROM THE BATTERY POST.** (see fig 4)
- 4) Reinstall the connector tip in the battery connector.
- 5) Using the supplied wire ties secure the BBWC device to the cable. Mount in a position that will allow all connections to be made easily and allows viewing the end of the device where the LEDs are located.
- 6) Using a #29 or 1/8" drill bit, drill a hole about 1/4" deep in the positive and negative battery posts. Additionally, drill a hole in the negative inter-cell connector closest to the middle of the battery. This should be a cell where the most heat buildup and water usage will normally occur. Depending on the battery layout this may or may not coincide with the numerical center of the battery. For example on an 18 cell battery with a 3 x 6 layout, the middle inter-cell would be the negative post on the 9th cell from the negative battery terminal. (See fig. 3). **CAUTION: DO NOT EXCEED 20 CELLS FROM THE NEGATIVE TERMINAL OF THE BATTERY.**
- 7) Route the red wire from the BBWC device to the positive terminal of the battery. Trim the wire as required, strip 1/4", and crimp on the supplied ring terminal. Connect the ring terminal to the positive battery post with the supplied #8 sheet metal screw.
- 8) Route the black wire from the BBWC device to the negative terminal of the battery. Trim the wire as required, strip 1/4", and crimp on the supplied ring terminal. Connect the ring terminal to the negative battery post with the supplied #8 sheet metal screw.
- 9) Route the battery balance wire, the gray (see fig. 4) wire next to the Pos. and Neg. wires on the BBWC to the negative terminal of the battery's middle inter-cell connector, where the hole was drilled in step 6 above. Trim the wire as required, strip 1/4", and crimp on the supplied ring terminal. Connect the ring terminal with the supplied #8 sheet metal screw.

NOTE: Coating the screws and ring lugs with No-Ox grease will deter corrosion to these parts. 1 oz containers can be purchased from the National Parts Center (NPC) as P/N 92634.



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- 10) Secure the red, black, and gray wires with supplied wire ties. Making sure that any excess wire is positioned so that it will not be pulled loose from terminals or intercells.
- 11) Insert the temperature sensor probe (the larger Gray wire with the metallic rod on the end (See Fig. 4) at a cell intersection close to the middle of the battery. The probe should be inserted all the way to the black heat shrink. **DO NOT CUT THE TEMPERATURE PROBE, DOING SO WILL PERMANENTLY DAMAGE THE PROBE AND THE ENTIRE BBWC WILL HAVE TO BE REPLACED.**
- NOTE: The temperature probe can be inserted at a 45 degree angle to lower the profile of the probe.**
- 12) Install the ½ amp fuse in the holder. The BBWC Green LED should start blinking on and off.

CAUTION!: THE DEVICE WILL DRAW 60 mA OF CURRENT FROM THE BATTERY. DO NOT ALLOW THE BBWC TO BE INSTALLED ON AN IDLE BATTERY FOR LONG PERIODS OF TIME WITHOUT PROVIDING A PERIODIC BOOST CHARGE.

NOTE: THE FOLLOWING STEPS ARE PERFORMED ONLY IF THE OPTIONAL ELECTROLYTE LEVEL SENSOR IS PRESENT.

CAUTION!: DO NOT ALLOW THE ELECTROLYTE LEVEL SENSOR TO BE IN CONTACT WITH THE BATTERY ELECTROLYTE WHILE THE DEVICE IS DEENERGIZED (FUSE OPEN OR REMOVED, RED AND/OR BLACK WIRE DISCONNECTED). THIS COULD POTENTIALLY CAUSE SEVERE DAMAGE TO THE BATTERY CELL AND BBWC ELECTROLYTE SENSOR.

- 13) The electrolyte level sensor is installed in the same cell as the battery balance gray wire. Using the example from step 6, it would be the 9th cell from the negative terminal in an 18 cell battery. Carefully drill a 9/16" hole in the cell cover toward the center line of the cell cover (see fig. 1). The hole should be located to provide the probe with access to the electrolyte inside and about 3/4" from the edge of the cover. **DO NOT DRILL THE HOLE IN AN AREA OF THE COVER WHERE THE BUS BARS FOR THE BATTERY PLATES ARE LOCATED.** (see fig. 1)



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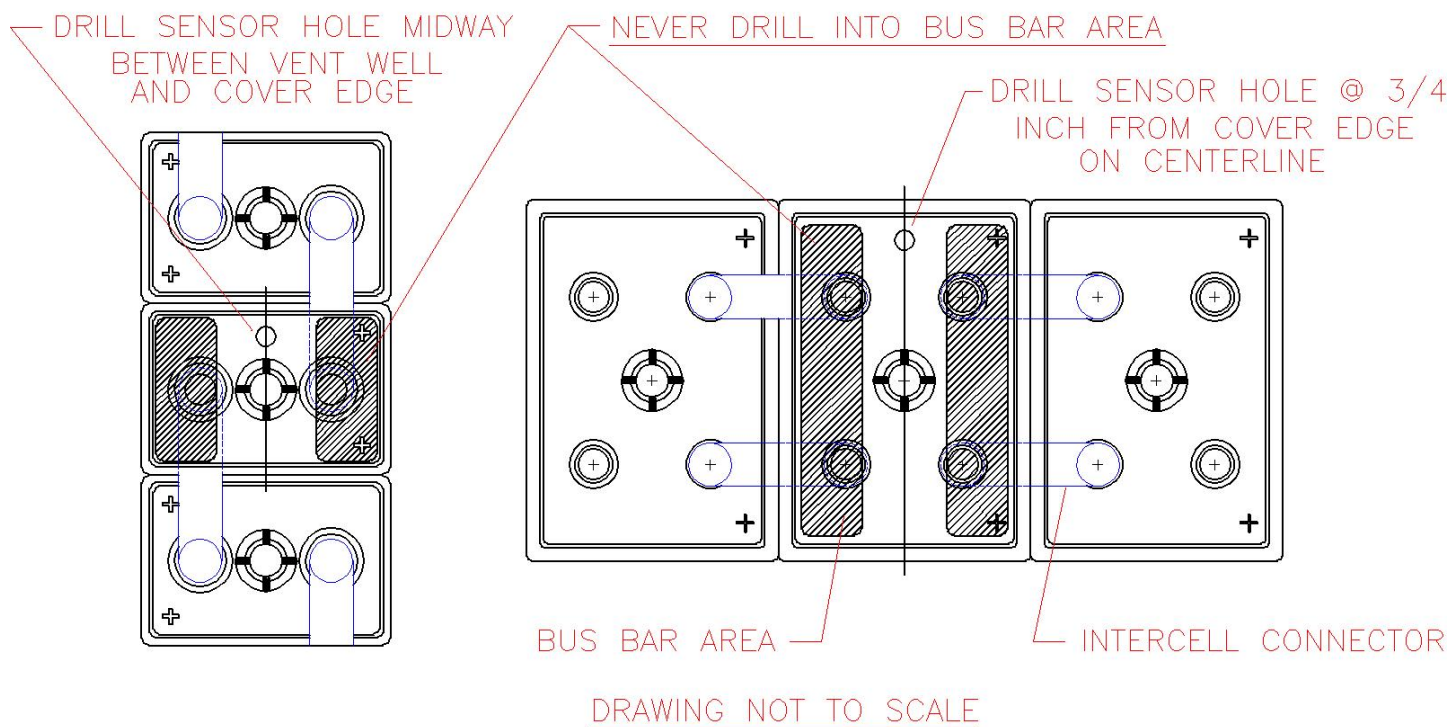


FIG. 1

- 14) Install the supplied rubber grommet in the 9/16" hole, make sure it is properly seated to prevent leaks (to make sure the grommet is seated give it a 1/4 turn once it is in the hole).
- 15) Cut the level indicator to 2" for all Hawker battery product lines except K-series, cut it to 1-7/8" for K-series cells. (See fig. 2) Strip 1/8" of the plastic off the end of the probe to expose the metal. Insert the probe in the rubber grommet all the way to the flange and make sure it is properly seated to prevent leaks.



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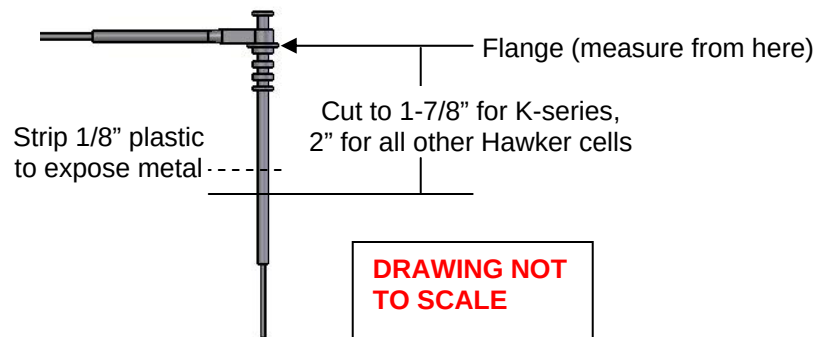


FIG. 2

Battery Boss WC Installation

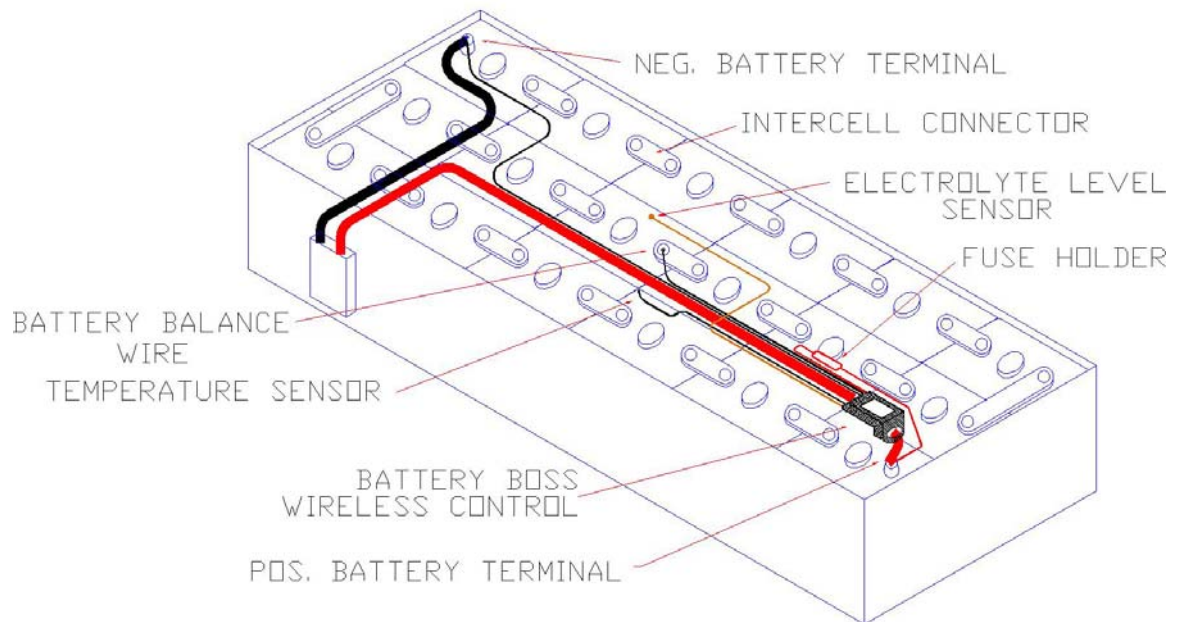


FIG. 3



Battery Boss WC Connections

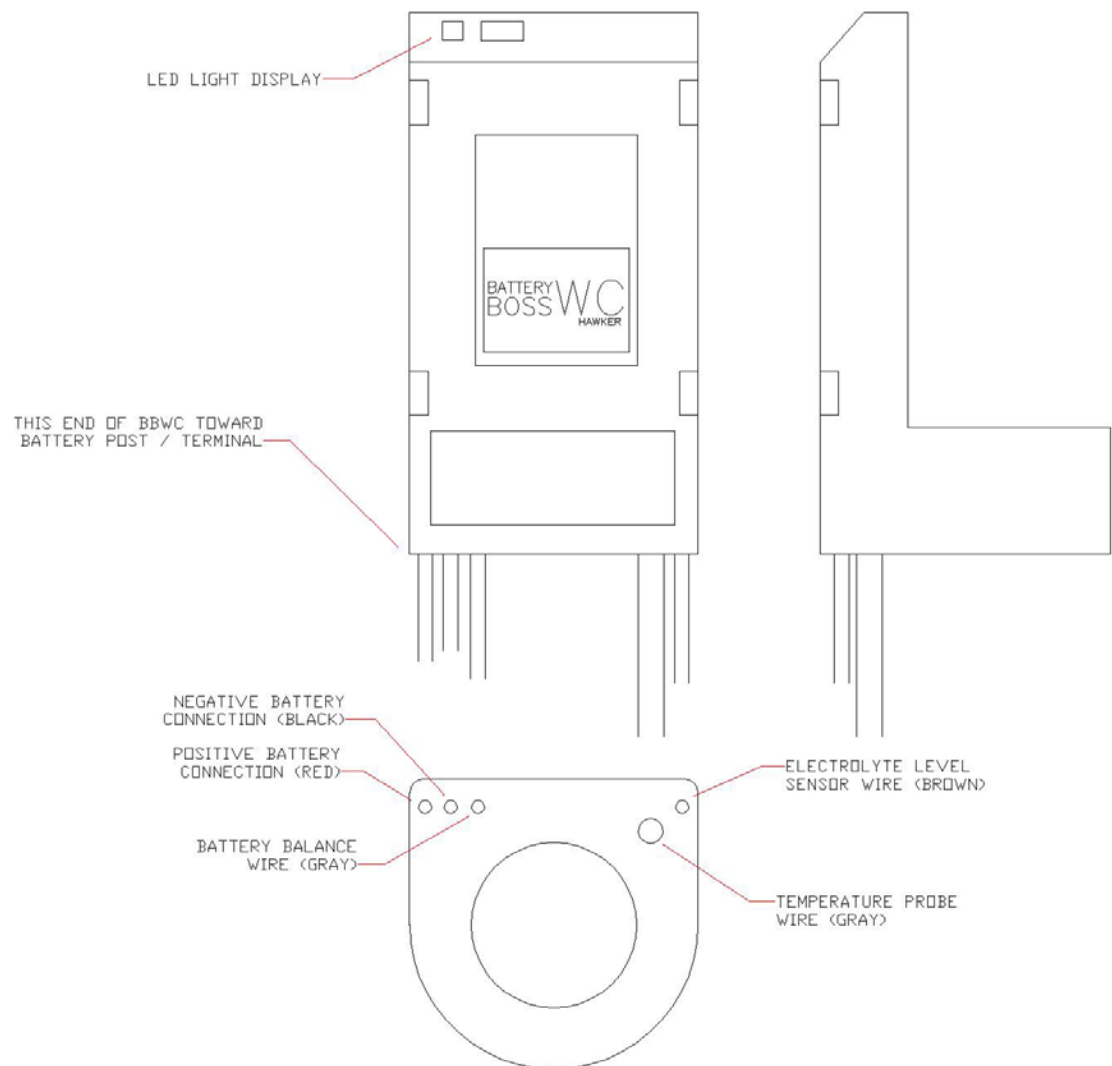


FIG.4