External Shunt Installation Instructions For Operation with BTAS

Preliminary - V1.1 - 13 June 2011



JFM Engineering Inc. 7880 NW 56thStreet Doral (Miami) Florida 33166 305-592-2272 305-599-6893 www.jfmeng.com The External Shunt is used to allow the use of any Charger-Analyzer with the BTAS16 System by providing battery current information (charge or discharge), to the control program.

- 1. See [Figure 2] for a suggested insertion point in the Battery Cable.
- 2. Cut the Negative Lead of the Battery Cable close to the connector at the Charger-Analyzer side, about 15cm to 30cm (6 to 12 inches).
- 3. Attach a ring terminal to the Charger-Analyzer end.
 - 3.1. Use the size appropriate to the cable gauge (6 or 4).
 - 3.2. Crimp/solder as per tooling availability.
- 4. Connect this cable end to the shunt. Torque to 120lb-in. This side is the "negative" side of the shunt, as identified by the black sensing lead.
- 5. Pass the shunt through the enclosure and repeat the connection on the other end.
- 6. Fasten the leads with the supplied tie-wrap.
- 7. Note: If the negative lead in the Charger-Analyzer is not connected to chassis, a chassis to negative side of the shunt connection is required for proper current measurement. Failure to do so will result in inaccurate and unstable readings, particularly in charge.
- 8. Place the end caps and secure with the supplied hardware.
- 9. Connect the Shunt Cable to the Shunt input in the C-Scan 9.1. Verify that the BTAS program recognizes the connection as Cable #1 (100A).
- 10. Test by monitoring the current in the BTAS Main Screen.
 - 10.1. Simply run the Charger-Analyzer. No need to start a recording.
 - 10.2. Check for proper polarity and value of the current.



Figure 1 - External Shunt Kit

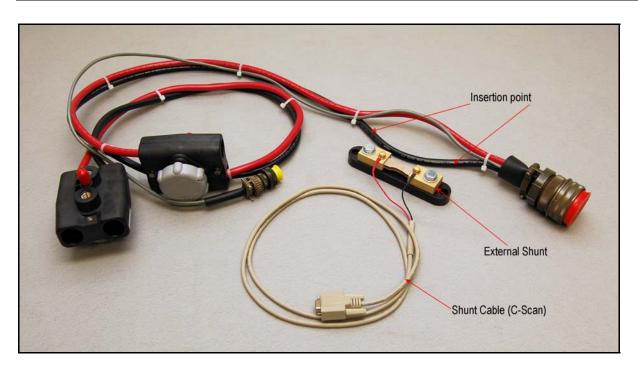


Figure 2 – Suggested External Shunt Insertion Point

Table 1 - Index of Revisions

REVISION	DATE	NOTES
V0.1	7 April 2011	Preliminary writing
V1.1	13 June 2011	Updated picture and instructions