



Spartan Motors Chassis, Inc.

SERVICE BULLETIN

RSB13-810-003

NHTSA Id: 13V-266

7/3/2013

Transport Canada Id: TC13-223

SUBJECT: Spartan Motors Chassis, Inc. has determined a defect involving the Restraints Control Module (RCM), of the Spartan Advanced Protection System (APS) may exist in certain Metro Star and Gladiator model Emergency Response chassis cabs.

CONDITION: The RCM for the APS in the subject vehicles is manufactured with firing loop integrated circuits that are susceptible to damage when exposed to high and fast electrical noise.

APPLIES TO: This bulletin applies to Emergency Response chassis cab manufactured between Aug. 7, 2012 and June 6, 2013 and equipped with Spartan APS supplied by Takata Protection Systems, Inc.

CORRECTION: Install a transient suppression device in the harness supplied for the RCM.

LABOR ALLOCATION: 1.0 hrs.

PARTS NEEDED:

<u>QTY</u>	<u>Part Number</u>	<u>Description</u>
1	S-2400-001	Kit – TVS

Kit # S-2400-001 Contains:

<u>QTY</u>	<u>Part Number</u>	<u>Description</u>
1	3794-GG5A-001	TVS Harness
1	0788-LL1-001	Decal-Anti-Tamper APS Connection
1	0411-240-2005	Deutsch Removal Tool
1	2442-GG5-1234	DTM06-3S Plug Series
1	2442-GG5-1233	Sec. Locking Wedge 3 Way
2	0636-GG5-1064	Sealing Plug
2	157-00400	Cable Tie-1/4” Stud Mount, 9.7” Length, 0.5 width
1	RSB13-810-003	Document Information

GENERAL INSTRUCTIONS:

Please thoroughly review entire work procedure before starting work. If there are questions and/or concerns with steps defined in this procedure, contact Spartan Motors Chassis, Inc. Customer & Product Support Group.

All applicable industry safety standards must be followed when performing work identified in this procedure.

Technical Service Bulletins are intended for use by Professional Technicians only. They are written to guide Professional Technicians in performing service to vehicles of product specific nature in conjunction with industry standards. Professional Technicians are appropriately trained on industry standards and have the tools and equipment to perform procedures safely and properly.

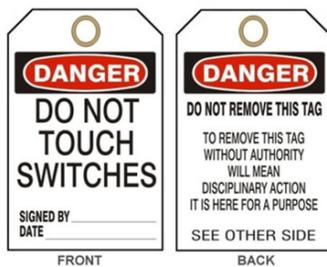


STEP-BY-STEP INSTRUCTIONS:



Unit must be unpowered when maintenance/service is conducted. Failure to do so could result in an inadvertent airbag deployment which could result in personal injury or death.

1. Ensure both vehicle power and ignition switch are in the “off” position; attach appropriate lock out tag on each switch shown below.



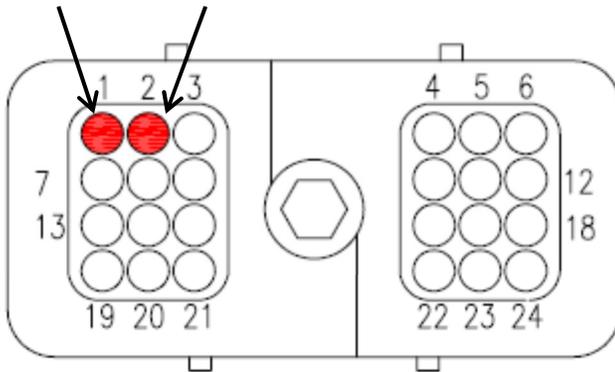
2. Remove all items from the glove box.
3. Remove all equipment located on the officer’s side dash near the glove box.
4. To access the RCM, remove the officer’s side dash.
 - a. The dash, which contains the glove box, is fastened by screws. In a typical installation, 3 screws are used but may vary based on the dash. Retain dash and screws for reuse.
5. Other components may need to be relocated/removed to gain access to the RCM. Remove as needed and disconnect RCM. There is 1 connection that must be disconnected. Refer to FIG. 3-1.

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Connection #1 24-way
FIG. 3-1

6. De-pin the following cavities on the 24-way connector.



7. Plug in the two wires (from the main harness that were depinned above) into the three pin Deutsch connection. Refer to FIG. 3-2.

- a. Pink in Cavity 1
- b. Black in Cavity 2



FIG. 3-2

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8. Insert the terminal position assurance into the connection. Refer to FIG. 4-1.

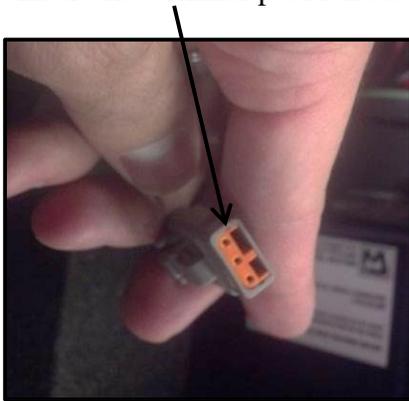


FIG. 4-1

9. Plug in the supplied harness and the newly pinned connection. Ensure the wires match up on either side of the connection, pink to pink and black to black. Refer to FIG. 4-2.



FIG. 4-2

10. Insert the new wires on the supplied two wire harness into the 24-way connector. Refer to FIG. 4-3.
- Pink in Cavity 1
 - Black in Cavity 2



FIG. 4-3

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11. Secure newly added harness with transient suppression device to main harness of APS system to prevent any unwanted vibration and strain on the component as shown with zip tie to secure connection. Refer to FIG. 5-1.



FIG. 5-1

12. Secure diode/heat shrunk section to preexisting bolts for airbag using supplied zip ties. Refer to FIG. 5-2.



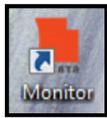
FIG. 5-2

13. Reconnect the RCM; ensure all connections have been made. Torque connections to 27 lbs. in.
14. Remove lockout tags. **The APS system will be enabled.**

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15. Complete a diagnostic verification test prior to releasing the vehicle for use. Ensure the RCM is firmly mounted in its location and all connections are firmly seated and connected before continuing with this portion of the installation.
16. Connect to the vehicle diagnostic plug using a typical transceiver (i.e. Dearborn 4 Plus adapter, NexIQ, etc...) while connected to the laptop with the Takata Monitor tool installed.
17. Turn on master, then ignition and connect by double clicking the monitor tool icon (i.e. shown below).



18. If configured previously the diagnostics will automatically connect, otherwise you will have to change your settings. All troubleshooting steps may be reviewed via the Takata Monitor User Guide which is installed in the software.
19. Once connected to the vehicle, the screen in FIG. 6-1 below will be shown, though the software will be a different version. If the screen does not look like the picture in FIG. 6-1 there may be faults. Select the appropriate item and follow the troubleshooting steps provided in the software.

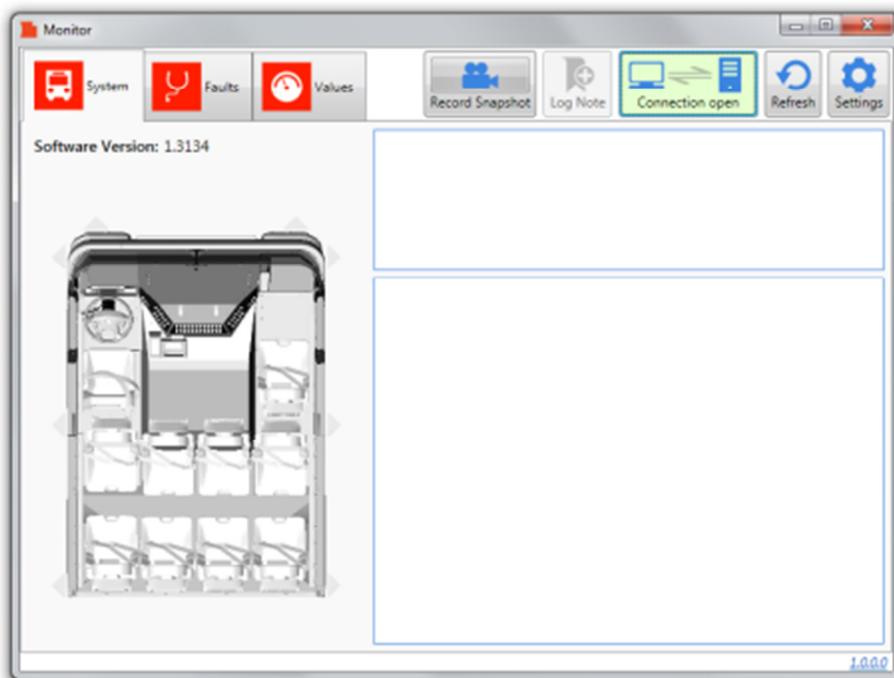


FIG. 6-1

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20. An example of a unit with a fault can be seen in FIG. 7-1; which will require troubleshooting.

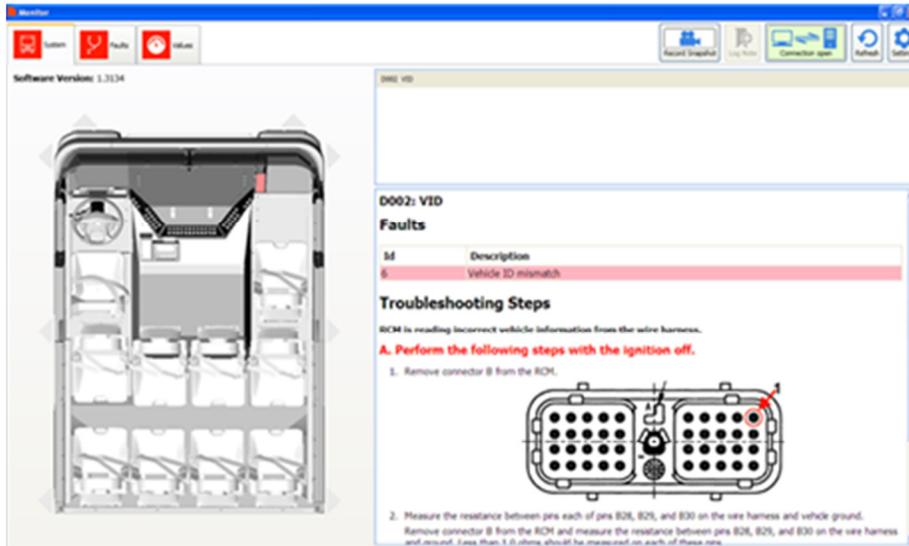
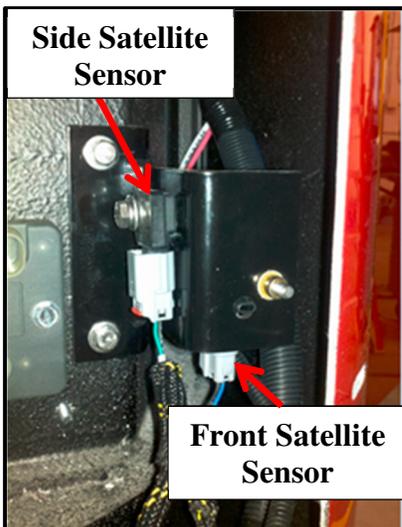


FIG. 7-1

21. Once all faults have been corrected, initiate the test procedure below:

- a. Verify each satellite sensor is connected into the appropriate connector of the APS harness. Refer to FIG. 7-2.
 - i. This may be completed by removing power from the system, disconnecting the appropriate sensor, turning power back on, and verifying on the diagnostic tool that the correct sensor has been disconnected.



Driver Side Shown –
Officer Side is a
Mirror Image
FIG. 7-2

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- b. Disconnect the front right SS2 as labeled on the harness, turn power back on, and the below fault code should appear. If it does not match FIG. 8-1 below then the sensors have been incorrectly connected and **must** be corrected. To correct, disconnect power, switch the connections, and repeat this step

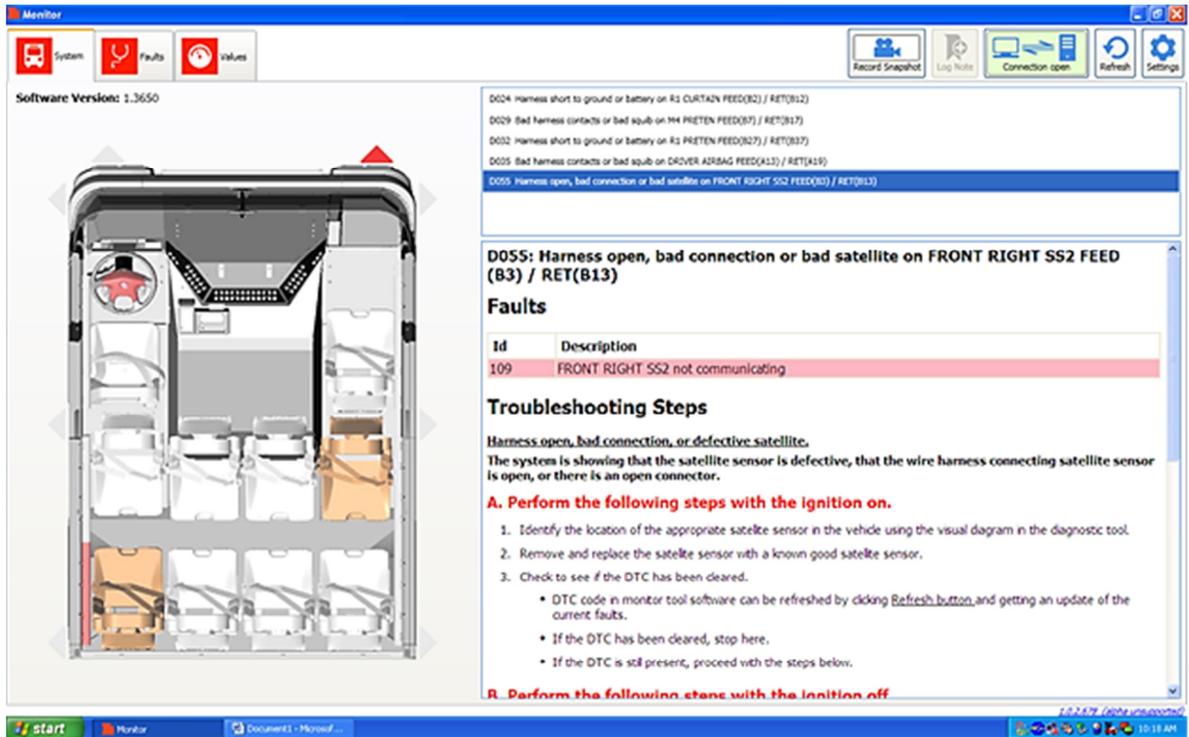


FIG. 8-1

22. Ensure power is off, disconnect the front left SS1 as labeled on the harness, turn power back on, and refer to FIG. 9-1 below fault code should appear. If it does not match as shown below then the sensors have been connected incorrectly and must be corrected. To correct, disconnect power, switch the connections, and repeat this step.

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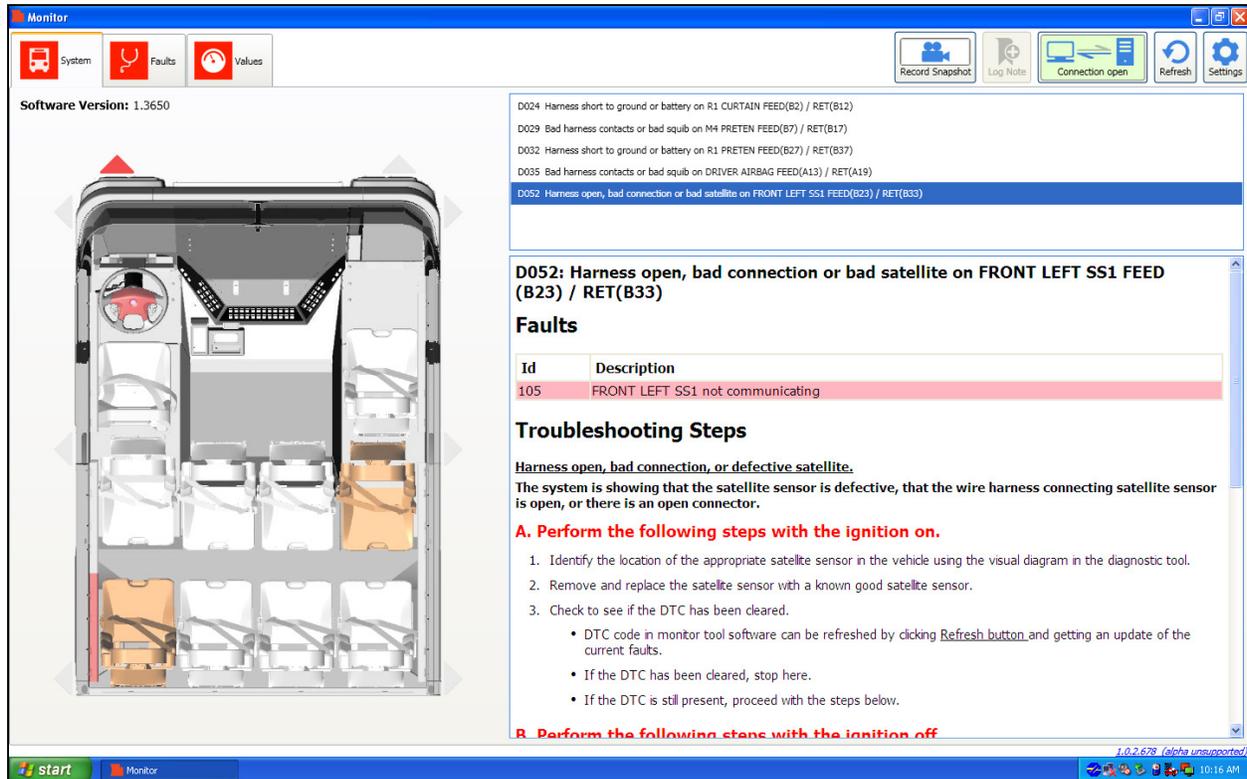


FIG. 9-1

23. Ensure this matches, if it does not, the sensors have been connected incorrectly on that side.

24. Once there are no faults in the system, disconnect the diagnostic tool from the vehicle and reinstall any portions of the dash/trim that have not been re-assembled.

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