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GROUP: Electrical

DATE: May 31, 2014

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THIS BULLETIN SUPERSEDES TECHNICAL SERVICE BULLETIN 08-048-14, DATED MAY 15, 2014, WHICH SHOULD BE REMOVED FROM YOUR FILES. ALL REVISIONS ARE HIGHLIGHTED WITH **ASTERISKS**** AND INCLUDES ADDING 2013 VEHICLES.**

THIS SERVICE BULLETIN IS ALSO BEING RELEASED AS RAPID RESPONSE TRANSMITTAL (RRT) 14-039 ALL APPLICABLE SOLD AND UN-SOLD RRT VIN's HAVE BEEN LOADED. TO VERIFY THAT THIS RRT SERVICE ACTION IS APPLICABLE TO THE VEHICLE, USE VIP OR PERFORM A VIN SEARCH IN TECHCONNECT. ALL REPAIRS ARE REIMBURSABLE WITHIN THE PROVISIONS OF WARRANTY.

HELP USING THE wiTECH DIAGNOSTIC APPLICATION FOR FLASHING AN ECU IS AVAILABLE BY SELECTING "HELP" THEN "HELP CONTENTS" AT THE TOP OF THE wiTECH DIAGNOSTIC APPLICATION WINDOW.

THE wiTECH SOFTWARE LEVEL MUST BE AT 14.03 OR HIGHER TO PERFORM THIS PROCEDURE.

SUBJECT:

Flash: Vehicle Enhancements

OVERVIEW:

This bulletin involves updating the software in multiple modules, Vehicle Tracking Module (VTM), Body Control Module (BCM), On-Board Charging Module (OBCM), Power Inverter Module (PIM), Battery Pack Control Module (BPCM) and Electric Vehicle Control Unit (EVCU) if required.

MODELS:

****2013** - 2014 (FF) 500e**

NOTE: This bulletin applies to vehicles built on or before March 12, 2014 (MDH 0312XX) and equipped with 83 KW electric motor (sales code E99).

SYMPTOM/CONDITION:

Several software improvements are available for vehicles equipped with a 83 KW electric motor.

- Improve Air Conditioning operation.
- ****Improvements to help reduce 12 volt battery drain when charging the vehicle with incompatible charging station**.**
- Improvements to DTC diagnostics.
- Enhancements to the central door lock feature.
- Improvements to locate the vehicle, using the smartphone app.
- Increase cabin preconditioning time from 2 to 10 minutes.
- Update information that is displayed by the cluster.
- Enhancements to the high voltage charging system.
- ****Improves the accuracy of the vehicle estimated range**.**
- Improve the total Lifetime energy consumed information that is display on a smartphone app.

DIAGNOSIS:

Using a Scan Tool (wiTECH) with the appropriate Diagnostic Procedures available in TechCONNECT, If Diagnostic Trouble Codes (DTCs) are present, record them on the repair order and repair as necessary before proceeding further with this bulletin.

If a customer's VIN is listed in VIP or your RRT VIN list, perform the repair. For all other customers that describe the symptom/condition, perform the Repair Procedure.

REPAIR PROCEDURE:

1. Every vehicle will not need to update all six modules. Using the wiTECH tool, only update the modules that show updates are available.
2. When updating the modules, have the vehicle in "Not Ready" mode.

NOTE: Install the battery charger to maintain proper battery voltage, when updating the modules.

3. Update the software on the OBCM, EVCU and PIM, if available.

NOTE: **It is common for these vehicles to have voltage readings at 14.7 when updating modules. A pop-up message may be displayed, indicating that the voltage is to high. Select OK to continue with the flash procedure**.****

4. Using the wiTECH Diagnostic Application for flashing modules is made available through the wiTECH Diagnostic Application. For instructions select the "HELP" tab on upper portion of the wiTECH window, then "HELP CONTENTS." This will open the Welcome to wiTECH Help screen were help topics can now selected.

NOTE: If this flash process is interrupted/aborted, the flash should be restarted.

NOTE: On this RRT, the updated software for the BCM only pertains to 2014 vehicles.

5. Is this a 2014 vehicle?
 - a. Yes >>> Proceed to [Step #6](#).
 - b. No >>> Proceed to [Step #7](#).
6. Update the software for the BCM.

7. Update the software for the BPCM.

NOTE: Follow on screen pop-up to cycle the key before proceeding to the next step.

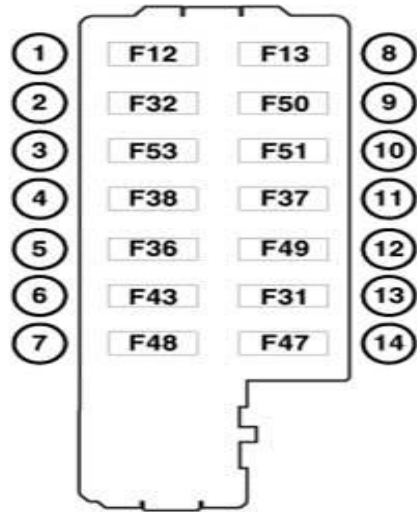
8. Is the vehicle a 2013 MY?
 - a. Yes >>> Proceed to [Step #9](#).
 - b. No >>> Proceed to [Step #13](#).
9. Clear all DTC that were set during the software update. All DTC should be in a stored state, so the fault codes can be properly cleared.
10. After the DTC were cleared, did any fault codes stay in an active state and would not clear.
 - a. Yes >>> Proceed to [Step #11](#).
 - b. No >>> Proceed to [Step #14](#).
11. Turn off the vehicle, open the drivers door and disconnect the scan tool. Close the drivers door let the vehicle go to sleep. **Do Not** open the doors for 7 minutes.
12. Connect the scan tool and clear all DTC.
13. After updating the BPCM on 2014 vehicle, if any DTC stay active, another key cycle will be needed. Another key cycle will change the active code to store, so it can be cleared.
14. Update the software for the VTM module.
15. Use the wiTECH to calibrate the lifetime energy values.

NOTE: Normally you should NOT run the lifetime energy routine. This should only be done when instructed by an RRT or TSB.

16. On the topology screen of the scan tool, click on the VTM module.
17. Now go to the Misc Functions and chose the routine labeled, Calibrate Lifetime Energy Value.

NOTE: Sometimes when updating the software on these modules, the CTM may stop communicating and/or U11F6-00 is set as an active fault. Pulling the fuse for the CTM will regain communication with that module and change U11F6-00 to a stored DTC.

18. **Is U11F6-00 set as an active fault?
 - a. Yes >>> Proceed to [Step #19](#).
 - b. No >>> Proceed to [Step #21](#)**.
19. Turn off the ignition and pull fuse F36 for 10 seconds. It is located in the interior fuse panel, which is part of the BCM, see ([Fig. 1](#)).



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Fig. 1 Interior fuse panel located by the left kick panel.

Remove fuse F36 .

20. Turn the ignition back on and check if U11F6-00 is now set as a stored fault?
 - a. Yes >>> Proceed to [Step #21](#).
 - b. No >>> This bulletin has been completed. Perform normal diagnostic, Follow TechConnect > U11F6-00-LOST COMMUNICATION WITH CONVERGENCE TELEMATICS MODULE.
21. Clear any DTC's that may have been set in other modules due to reprogramming. The wiTECH application will automatically present all DTCs after the flash and allow the tech to clear them.

POLICY:

Reimbursable within the provisions of the warranty.

TIME ALLOWANCE:

Labor Operation No:	Description	Skill Category	Amount
18-19-02-L9	Module, EVCU / BPCM / OBCM / PIM / BCM / VTM 2014 - Reprogram (1 - Semi-Skilled)	6 - Electrical and Body Systems	0.7 Hrs.
18-19-02-L9	Module, EVCU / BPCM / OBCM / PIM / BCM / VTM 2013 - Reprogram (1 - Semi-Skilled)	6 - Electrical and Body Systems	0.9 Hrs.

NOTE: The expected completion time for the flash download portion of this procedure is approximately 34 minutes on 2014 MY or 43 minutes on 2013 MY. Actual flash download times may be affected by vehicle connection and network capabilities.

FAILURE CODE:

FM	Flash Module
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