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GROUP: Electrical

DATE: May 15, 2014

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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:

2014 (FF) 500e

NOTE: The bulletin will be updated to include 2013 vehicles when all of the 2013 software is available.

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.
- Correct blinking charge indicator (goal post).

- Correct 12 volt battery drain when charging the vehicle.
- Improvements to DTC diagnostic's.
- 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 informations that is displayed by the cluster.
- Enhancements to the high voltage charging system.
- 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 (DTC's) 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:

NOTE: Install a battery charger to ensure battery voltage does not drop below 13.2 volts. Do not allow the charging voltage to climb above 13.5 volts during the flash process.

1. Every vehicle will **not** need to update all 6 modules. Using the wiTECH tool, only update the modules that show updates are available.

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

- 2. 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.
- 3. Update the software on the OBCM, EVCU, BCM, BPCM and PIM, if available .

NOTE: After updating the BPCM, 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.

- 4. Update the software for the VTM module.
- 5. 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.

- 6. On the topology screen of the scan tool, click on the VTM module.
- 7. Now go to the Misc Functions and chose the routine labeled, Calibrate Lifetime Energy Value.
- In the Network Topology view of wiTECH, determine if the Convergence Telematics Module (CTM) is communicating on the CAN bus by noting the color of the CTM icon. (blue = present, red = not communicating) and/or U11F6-00 Lost Communication with Convergence Telematics Module, is **Not** set as an active DTC.
- Is the CTM present (blue) on the CAN bus and/or No active U11F6-00 is found?
 a. Yes >>> Proceed to Step #12.

b. No >>> Proceed to Step #10.

NOTE: Sometimes when updating 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.

10. 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).



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

Remove fuses F36 and F51.

- 11. Turn the ignition back on and check if the CTM is communicating. Is the module communicating?
 - a. Yes >>> Proceed to Step #12.
 - b. No >>> This bulletin has been completed. Perform normal diagnostic, for No response with the CTM. Follow 29 Non-DTC Diagnostics/Communication/Diagnosis and Testing.
- 12. 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 - Reprogram	Module, Reprogram (1 - Semi-Skilled)	0.7 Hrs.

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

FAILURE CODE:

FM Flash Module	
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