



**NUMBER:** 21-007-13 REV. C

**GROUP:** Transmission and Transfer Case

**DATE:** December 18, 2013

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**THIS BULLETIN SUPERSEDES SERVICE BULLETIN 21-007-13 REV. B, DATED OCTOBER 12, 2013, WHICH SHOULD BE REMOVED FROM YOUR FILES. ALL REVISIONS ARE HIGHLIGHTED WITH \*\*ASTERISKS\*\* AND INCLUDE ADDITIONAL SPECIFIC TRANSMISSION SHIFT QUALITY ENHANCEMENTS.**

**THE wiTECH SOFTWARE LEVEL MUST BE AT RELEASE 14.01 OR HIGHER TO PERFORM THIS PROCEDURE.**

**SUBJECT:**

Flash: Transmission and Transfer Case Shift Enhancements

**OVERVIEW:**

This bulletin involves flash reprogramming the Transmission Control Module (TCM) with new software. In addition, verifying the software level of the Transfer Case Drive Train Control Module (DTCM) on 4X4 vehicles and updating the software if the DTCM is not at the latest level.

**NOTE: All Wheel Drive (AWD) vehicles and Two Wheel Drive vehicles do not have a Transfer Case (DTCM) and do not apply to the flash reprogramming of the DTCM however still may require the flash programming of the TCM.**

**MODELS:**

2014 WK Grand Cherokee

**NOTE: This bulletin applies to vehicles built on or before \*\*November 12, 2013 (MDH 1112XX)\*\* equipped with the 3.6L engine (Sales Code ERB) and the 845RE Automatic Transmission (Sales Codes DFL).**

**SYMPTOM/CONDITION:**

1. Harsh second gear to first gear/first gear to second gear shifts while using the paddle shifter when the vehicle is not moving.
2. Upshift Improvements
  - a. \*\* 1-2, 2-3, 3-4, 4-5 upshift quality
  - b. Lift-foot 1-2 and 2-3 upshift quality
  - c. Sport mode 1-2, 2-3, 3-4 upshift quality
  - d. ECO mode shift schedule changes for improved drivability
  - e. Normal mode shift schedule changes for improved drivability at mid-throttle
  - f. Shift schedule changes for improved Drivability on grades or at high altitude \*\*
3. Downshifting Improvements
  - a. \*\*Ratio fault detection on coasting downshifts\*\*
  - b. 6-5, 5-4, 4-3, 3-2, 2-1 coasting downshift quality
  - c. All kickdown shift quality
  - d. All interlocked kickdown shift quality
  - e. General cold-trip shift quality improvements
4. Transfer Case Shift Improvements

**DIAGNOSIS:**

Using a Scan Tool (wiTECH™) with the appropriate Diagnostic Procedures available in TechCONNECT, verify no Diagnostic Trouble Codes (DTC's) are set. If DTC's are present record them on the repair order and repair as necessary before proceeding further with this bulletin.

If the above condition is present, 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.**

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

1. Reprogram the TCM with the latest software. 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.
2. \*\*Is the vehicle equipped with a Transfer Case DTCM?
  - a. YES>>>proceed to Step #3
  - b. NO>>>The repair is complete.
3. Verify whether or not the DTCM software can be updated.
4. Is the DTCM software at the latest level?
  - a. YES>>>The repair is complete.
  - b. NO>>>proceed to Step #5\*\*
5. Reprogram the DCTM with the latest software. 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.
6. 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.

**NOTE: DO NOT CLEAR THE ADAPTATION MEMORY CELLS IN THE TCM'S MEMORY. THIS ACTION MAY CAUSE THE TRANSMISSION TO NOT SHIFT SMOOTHLY UNTIL THE ADAPTATION MEMORY CELLS ARE RE-LEARNED.**

**POLICY:**

Reimbursable within the provisions of the warranty.

**TIME ALLOWANCE:**

Labor Operation No:	Description	Skill Category	Amount
18-19-05-9F	Module, Transmission Control (TCM) - Reprogram - (Not Equipped With a Drivetrain Control Module (DTCM and/or DTCM is up to date)) - (1 - Semi-Skilled)	2- Automatic Transmission	0.2 Hrs.
18-19-05-9D	Module, Transmission Control (TCM) - Reprogram / Drive Train Control (DTCM) - Reprogram (1 - Semi-Skilled)	2- Automatic Transmission	0.2 Hrs.

**FAILURE CODE:**

FM	Flash Module
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