



**NUMBER:** 21-018-14

**GROUP:** Transmission and Transfer Case

**DATE:** May 15, 2014

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**THIS SERVICE BULLETIN IS ALSO BEING RELEASED AS RAPID RESPONSE TRANSMITTAL (RRT) 14-040. ALL APPLICABLE UN-SOLD RRT VIN'S HAVE BEEN LOADED. TO VERIFY THAT THIS RRT SERVICE ACTION IS APPLICABLE TO THE UN-SOLD VEHICLE, USE VIP OR PERFORM A VIN SEARCH IN TECHCONNECT. FOR VEHICLES NOT INCLUDED IN THE RRT VIN LIST, APPLICATION OF THIS SERVICE BULLETIN TO SOLD UNITS IS BASED UPON THE CUSTOMER EXPERIENCING THE SYMPTOM/CONDITIONS. ALL REPAIRS ARE REIMBURSABLE WITHIN THE PROVISIONS OF WARRANTY.**

**THIS BULLETIN SUPERSEDES SERVICE BULLETIN 21-014-13, DATED DECEMBER 19, 2013, WHICH SHOULD BE REMOVED FROM YOUR FILES. ALL REVISIONS ARE HIGHLIGHTED WITH **\*\*ASTERISKS\*\*** AND INCLUDE REVISED VEHICLES AFFECTED DATE AND IMPROVEMENTS TO SHIFT QUALITY.**

**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 RELEASE 14.03 OR HIGHER TO PERFORM THIS PROCEDURE.**

***SUBJECT:***

Flash: Transmission Shift and Diagnostic Enhancements

***OVERVIEW:***

This bulletin involves flash reprogramming of the Transmission Control Module (TCM) with new software.

**NOTE: **\*\*Vehicles that are being updated from TCM software p/n 682235\$\$AN or 682354\$\$AN (\$\$ are wild cards for any number) will not require the transmission Adaptation Learn Procedure as indicated in Service Bulletin 21-013-13. However, vehicles that are being updated from any other TCM software may require the transmission Adaptation Learn Procedure. Refer to Service Bulletin 21-013-13 for detailed procedures. Failure to perform the procedures outlined in Service Bulletin 21-013-13 on vehicles that were updated from any other TCM software besides p/n 682235\$\$AN or 682354\$\$AN may result in undesirable shift quality.\*\*****

**MODELS:**

2014                      KL                                      Cherokee

**NOTE:** This bulletin applies to vehicles equipped with either the 2.4L Engine (Sales Code ED6) or the 3.2L engine (Sales Code EHB) and the 948TE 9-Speed transmission (sales code DFJ or DFH) built on or before **\*\*May 5, 2014 (MDH 0505XX)\*\***.

**SYMPTOM/CONDITION:**

Diagnostic Trouble Code (DTC) robustness improvements are included in this software release. These improvements apply to the following DTC's:

- P072F- Stuck in Gear 4
- P076F- Gear 7 shift incorrect ratio
- P0810- Clutch position control error
- P1CC9- Unable to engage gear
- P0734- Gear 4 shift incorrect ratio
- P061B- Internal control module torque calculation performance

**NOTE: \*\*Diagnostic Trouble Code (DTC) robustness improvements were included in TCM software p/n 682235\$\$AN or 682354\$\$AN (\$\$ are wild cards for any number). Standard diagnostic trouble shooting procedures should be followed for any vehicle equipped with TCM software p/n 682235\$\$AN or 682354\$\$AN exhibiting any of the previous codes.\*\***

**\*\*Transmission shift improvements are included in this software release. These improvements apply to the following:**

- Garage shifts (Park to Reverse or Drive).
- Coastdown shift quality.
- Shift quality.
- Throttle response and performance feel.
- Management and prevention of busy shifting.
- Lift foot/change mind shift quality.\*\*

**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 any of the above conditions are 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. **\*\*Using the wiTECH™, record the TCM software number. Vehicles equipped with TCM software other than p/n 682235\$\$\$AN or 682354\$\$\$AN may require the transmission Adaptation Learn Procedure. Failure to perform the procedures outlined in Service Bulletin 21-013-13 on vehicles that were updated from any other TCM software besides p/n 682235\$\$\$AN or 682354\$\$\$AN may result in undesirable shift quality.\*\***
2. 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.
3. 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.
4. **\*\*Was the TCM software part number recorded in Step 1 p/n 682235\$\$\$AN or 682354\$\$\$AN (\$\$ refers to any number in these two locations)?**
  - a. YES>>>Repair is complete.
  - b. NO>>>Proceed to the next step.

**NOTE: In the event that the TCM part number was not recorded (as stated in Step 1), refer to the Clutch Filling Counter and Fast Filling Counter information in wiTECH. If all of the counters are 0 (zero), Service Bulletin 21-013-13 will need to be performed.**

5. Perform Service Bulletin 21-013-13.

**NOTE: Vehicles equipped with any other TCM software other than p/n 682235\$\$\$AN or 682354\$\$\$AN may require the transmission Adaptation Learn Procedure. Refer to Service Bulletin 21-013-13 for detailed procedures. Failure to perform the procedures outlined in Service Bulletin 21-013-13 on vehicles that were updated from any other TCM software besides p/n 682235\$\$\$AN or 682354\$\$\$AN may result in undesirable shift quality.\*\***

**POLICY:**

Reimbursable within the provisions of the warranty.

**TIME ALLOWANCE:**

Labor Operation No:	Description	Skill Category	Amount
**18-19-05-9Z**	Module, Transmission Control (TCM) - Reflash - (1 - Semi-Skilled)	2- Automatic Transmission	0.2 Hrs.

**NOTE: The expected completion time for the flash download portion of this procedure is approximately 5 minutes. Actual flash download times may be affected by vehicle connection and network capabilities.**

FM	Flash Module
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**NOTE: When performing the Adaptation Drive Learn, use LOP 08190595 OR 08190596 depending on the results of the Subjective Measurement evaluation. In addition, a porter is not required to perform the Shift Quality Subjective Measurement and is not allowed with LOP 08-19-05-95.**

<b>Related Operation No:</b>	<b>Description</b>	<b>Skill Category</b>	<b>Amount</b>
08-19-05-95	Adaptation Drive Learn - Determining Shift Quality Subjective Measurement, (2 -Skilled)	2- Automatic Transmission	0.4 Hrs.
08-19-05-96	Adaptation Drive Learn - Determining Shift Quality Subjective Measurement and Learn - B, C, and D Clutches (2 -Skilled)	2- Automatic Transmission	0.9 Hrs.
95-21-44-02	Adaptation Drive Learn - Determining Shift Quality Subjective Measurement - Porters Time Flat Fee Allowance		\$20.00
95-14-01-02	Adaptation Drive Learn -Fuel Allowance		\$8.00
<b>Optional Operation No:</b>			
08-19-05-97	Adaptation Drive Learn - E Clutch, Determining Shift Quality Subjective Measurement (2 -Skilled)	2- Automatic Transmission	0.4 Hrs.