



NUMBER: 21-015-16

GROUP: Transmission and Transfer Case

DATE: April 05, 2016

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THIS BULLETIN SUPERSEDES SERVICE BULLETIN 21-021-15 REV. E DATED OCTOBER 01, 2015. WHICH SHOULD BE REMOVED FROM YOUR FILES. ALL REVISIONS ARE MARKED WITH **ASTERISKS**** AND INCLUDES ADDITIONAL SYSTEM ENHANCEMENTS, MARKET INFO, AND NEW LABOR OPS.**

THIS SERVICE BULLETIN IS ALSO BEING RELEASED AS RAPID RESPONSE TRANSMITTAL (RRT) 14-094. 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.

FOR HELP WITH USING wiTECH FOR ECU FLASH REPROGRAMMING, CLICK ON THE APPLICATION'S "HELP" TAB.

THE wiTECH SOFTWARE IS REQUIRED TO BE AT THE LATEST RELEASE BEFORE PERFORMING THIS PROCEDURE.

SUBJECT:

Flash: Transmission Diagnostic And Shift Enhancements

OVERVIEW:

This bulletin involves reprogramming the Transmission Control Module (TCM) with the latest available software.

MODELS:

2015	(KL)	Jeep Cherokee
2015	(UF)	Chrysler 200

NOTE: This bulletin applies to vehicles within the following markets/countries: NAFTA, APAC and **EMEA****.**

NOTE: This bulletin applies to the following vehicles:

****KL vehicles equipped with a 2.4L Engine (Sales Codes ED6/ED8) and a 948TE 9 speed automatic transmission (Sales Codes DFH or DFJ).**

KL vehicles built after March 02, 2015 (MDH 0302XX) equipped with a 3.2L Engine (Sales Code EHB) and a 948TE 9 speed automatic transmission (Sales Codes DFH or DFJ).

UF vehicles equipped with a 2.4L Engine (Sales Codes ED6, ED8, EDD, or EDE) and a 948TE 9 speed automatic transmission (sales code DFH).

UF vehicles equipped with 3.6L Engine (Sales Code ERB) and a 9HP48 9 speed automatic transmission (Sales Code DF5).**

SYMPTOM/CONDITION:

A small number of customers may experience a Malfunction Indicator Lamp (MIL) illumination and/or one of the following conditions. Upon further investigation, a technician may find one or more of the following Diagnostic Trouble Codes (DTCs) stored in the TCM memory.

2015 KL Vehicles

- ****P0887-00 - TCM Power Control Circuit High.**
- **P061B-00 - Internal Control Module Torque Calculation Performance.****
- **U0401-00 - Implausible Data Received From ECM/PCM.**
- **P1DAD- 00 - Input Shaft-Output Shaft Direction Correlation.**
- **P0711-00 - Transmission Fluid Temperature Sensor A Circuit Range-Performance (ED6/ED8).**

Other enhancements included in this update:

- ****Garage shift improvements.**
- **Shift improvements for 2-1 shift quality when using Electronic Range Sensor (ERS) function for 2-1 downshift and 3-1 shift quality (bump) when coasting to a stop (ED6/ED8).****
- **When driving on grades, the 3-2 downshift is hard to achieve or not available.**

2015 UF Vehicles

- ****P0887-00 - TCM Power Control Circuit High.**
- **P072F-00 - Stuck In Gear 4**
- **P061B-00 - Internal Control Module Torque Calculation Performance.****
- **P0711-00 - Transmission Fluid Temperature Sensor A Circuit Range-Performance (ED6,ED8,EDD or EDE).**
- **P0885-00 - TCM Power Control Circuit (ED6,ED8,EDD or EDE).**
- **P0975-00 - Shift Solenoid B Control Circuit Performance (ED6,ED8,EDD or EDE).**
- **P0887-00 - TCM Power Control Circuit High (ED6,ED8,EDD or EDE).**
- **P0978-00 - Shift Solenoid 3 Control Circuit Performance (ED6,ED8,EDD or EDE).**
- **P0981-00 - Shift Solenoid 4 Control Circuit Performance (ED6,ED8,EDD or EDE).**
- **P0984-00 - Shift Solenoid 5 Control Circuit Performance (ED6,ED8,EDD or EDE).**
- **P1634-00 - TCM Internal Watchdog Performance (ERB).**
- **U0401-00 - Implausible Data Received From ECM/PCM.**
- **P1DAD- 00 - Input Shaft-Output Shaft Direction Correlation.**

Other enhancements included in this update:

- **Garage shift improvements (ED6,ED8,EDD or EDE).
- 2-1 downshift and 3-1 shift quality (bump) when coasting to a stop (ED6,ED8,EDD or EDE).**
- When driving on grades, the 3-2 downshift is hard to achieve or not available (ED6,ED8,EDD or EDE).
- Up shift improvements, 2-3, 3-4 or 4-5 (ERB).

This TCM calibration update being released also enables the new wiTECH based “Transmission Quick Learn” procedure to be performed any time the transmission adaptation memory cells are cleared or when addressing customer concerns of poor shift quality. It is also being released to improve transmission downshift response time during normal driving.

DIAGNOSIS:

Using a Scan Tool (wiTECH) with the appropriate Diagnostic Procedures available in TechCONNECT, verify all vehicle systems are functioning as designed. If DTCs or symptom conditions, other than the ones listed above are present, record the issues 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 listed above or if the technician finds the DTC, 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 wiTECH, check the TCM calibration and see if it is up to date. Does the TCM software need to be updated?
 - a. Yes >>> Proceed to [Step #2](#).
 - b. No >>> The RRT has been completed. Use inspection LOP 18-19-05-C4 to close the active RRT.
2. Inspect/Reprogram the TCM with the latest software. Detailed instructions for flashing control modules using the wiTECH Diagnostic Application are available by selecting the application’s “HELP” tab..
3. Using wiTECH, Perform the TCM “VIN Verification” routine Located in the TCM “Misc Functions” menu and follow the on-screen prompts.
4. Using wiTECH, perform a “PROXI Configuration Alignment” routine located in the “Vehicle Preparations” tab on the main vehicle view screen.
5. Turn the ignition off and disconnect wiTECH for 1 minute.
6. Turn the ignition back on and reconnect wiTECH.
7. From the vehicle view screen, select “PROXI Configuration Alignment” routine again in the “Vehicle Preparations” tab and verify all modules are properly aligned.
8. Clear all DTCs that may have been set in any module due to reprogramming. The wiTECH application will automatically present all DTCs after the flash and allow them to be cleared. Proceed to [Step #9](#).

NOTE: The Powertrain Control Module (PCM) must be updated to the latest available software to allow the quick learn procedure to function. Refer to all applicable published service bulletins for detailed repair procedures and labor times regarding updating the PCM software.

NOTE: This flash will clear the transmission adaptive values which requires the “Transmission Quick Learn” procedure to be performed.

9. Start the engine and monitor the transmission temperature on the Electronic Vehicle Information Center (EVIC).
10. With the vehicle located in a suitable area, allow the transmission to warm up to minimum of 60°C (140°F) by performing the following steps:
 - a. Apply the service brake.
 - b. Shift transmission from Park to Reverse.
 - c. Shift transmission from Reverse to Drive.
 - d. Accelerate the vehicle to minimum of 72 kph (45 mph) to allow the transmission to cycle through each gear.
 - e. Continue to drive the vehicle until the transmission temperature reaches 60°C (140°F).

NOTE: If the vehicle is equipped with the start/stop feature (sales code XBU) it must be disabled prior to performing this procedure. To disable, press the on/off switch located on the center switch bank near the HVAC controls.

11. Connect wiTECH diagnostic scan tool to the vehicle.
12. Check for active TCM DTCs. Do not perform the Quick Learn procedure if TCM DTCs are present. Repair transmission as required.
13. Select the TCM module in wiTECH.
14. Select the “Misc Functions” tab.

NOTE: If the “Quick Learn” option does not appear on wiTECH and both the TCM and PCM were just updated, restart the wiTECH application which should now be populated with the “Quick Learn” option.

15. Select the “Quick Learn” procedure, and follow the on-screen instructions to reset and learn the clutch adaptive values.
16. Shift the transmission into Park and shut off the engine. The procedure is now complete.

POLICY:

Reimbursable within the provisions of the warranty.

TIME ALLOWANCE:

Labor Operation No:	Description	Skill Category	Amount
18-19-05-C4	Module, Transmission Control (TCM) Inspect Only. (1 - Semi Skilled)	2 - Automatic Transmission	0.2 Hrs
**18-19-05-D1	Module, Transmission Control (TCM) Reprogram and Perform Transmission Quick Learn (1 - Semi Skilled)	2 - Automatic Transmission	0.7 Hrs
18-19-05-D4	Module, Transmission Control (TCM) Reprogram and Perform Transmission Quick Learn (Sales Code EHB) (1 - Semi Skilled)	2 - Automatic Transmission	0.7 Hrs**

NOTE: The expected completion time for the flash download portion of this procedure is approximately 2 minutes. Actual flash download times may be affected by vehicle connection and network capabilities.

FAILURE CODE:

The dealer must choose which failure code to use. If the customer came in with an issue and the dealer found updated software to correct that issue, use failure code CC, for all other use failure code RF.

- If the customer’s concern matches the SYMPTOM/CONDITION identified in the Service Bulletin, failure code CC is to be used.
- If an available flash is completed while addressing a different customer concern, failure code RF is to be used.

CC	Customer Concern
RF	Routine Flash