

**NUMBER:** 21-033-15

**GROUP:** Transmission and Transfer Case

DATE: May 20, 2015

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## THIS BULLETIN SUPERSEDES SERVICE BULLETIN 21-027-14 REV A, DATED NOVEMBER 12, 2014, WHICH SHOULD BE REMOVED FROM YOUR FILES. THIS IS A COMPLETE REVISION AND NO ASTERISKS HAVE BEEN USED TO HIGHLIGHT REVISIONS.

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 15.04 OR HIGHER TO PERFORM THIS PROCEDURE.

## SUBJECT:

Flash: Transmission Shift And Drivability Enhancements

## **OVERVIEW:**

This bulletin involves reprogramming the Transmission Control Module (TCM) with the latest available software followed by a drive validation.

## MODELS:

2014 (KL) Jeep Cherokee (International only)

#### NOTE: This bulletin applies to vehicles equipped with a 2.0L Turbo Diesel engine (Sales Code EBT) and a 948TE 9-speed automatic transmission (Sales Code DFH or DFJ).

## SYMPTOM/CONDITION:

The following software enhancement, for the 948TE 9-speed transmission, is being released to improve diagnostics for the following Diagnostic Trouble Codes (DTCs):

- P0711 Transmission Fluid Temperature Sensor A Circuit Range-Performance
- P0887 TCM Power Control Circuit High
- P1720 Output Speed Sensor-Wheel Speed Rationality
- P1D98 Incorrect Gear Ratio Clutch B or D Defective
- P215C Output Shaft Speed Wheel Speed Correlation
- U0401 Implausible Data Received From ECM-PCM

The software also enables DTC P07A7 - Transmission Friction Element C Stuck On to set in the case of a dislodged C-clutch snap-ring.

# DIAGNOSIS:

Using a Scan Tool (wiTECH) with the appropriate Diagnostic Procedures available in TechCONNECT, verify all engine 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 the customer describes the symptom/condition listed above or if the technician finds the DTC, perform the Repair Procedure.

# REPAIR PROCEDURE:

CAUTION: The Engine Control Module (ECM) must be updated to the latest available software at the conclusion of this repair procedure. Refer to all applicable published service bulletins for detailed repair procedures and labor times regarding updating the ECM software.

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.

- Reprogram the TCM with the latest available software. Detailed instructions for flashing control modules using the wiTECH Diagnostic Application are available by selecting the "HELP" tab on the upper portion of the wiTECH window, then "HELP CONTENTS." This will open the Welcome to wiTECH Help screen where help topics can be selected.
- 2. Using wiTECH, perform the TCM "VIN Verification" routine located in the TCM "Misc Functions" menu and follow the on-screen prompts.
- 3. Using wiTECH, perform a "PROXI Configuration Alignment" routine located in the "Vehicle Preparations" tab on the main vehicle view screen.
- 4. Clear any DTCs that may have been set in any modules due to reprogramming. The wiTECH application will automatically present all DTCs after the flash and allow the them to be cleared.
- 5. Turn the ignition off, disconnect the wiTECH, open and close the door and let vehicle sit for 1 minute.
- NOTE: Before proceeding to the next step, verify the ECM is programmed with the latest available software. Refer to all applicable published service bulletins for detailed repair procedures and labor times regarding updating the ECM software.
- NOTE: Verify that the Clutch Filling Counters and Fast Filling Counters were not reset to 0 (zero) after flashing using Wi-Tech. If they have reset then 9 Speed Adaptation Drive Learn will have to be performed at the conclusion of this service bulletin.

- 6. Perform a Transmission Drive Verification Test by performing the following steps:
  - a. Start the vehicle and allow the coolant temperature to reach between 35°C and 105°C (95°F and 221°F).
  - b. Allow the transmission temperature to reach between 50°C and 115°C (122°F and 239°F).
  - c. Ensure the vehicle is below an attitude of 2.4 km (8000 ft.).
  - d. With the vehicle located in a suitable area and traveling in a straight line, bring the vehicle to a minimum of 48 kph (30 mph) (5th gear) and perform a 0 throttle coasting deceleration until the transmission downshifts from 5th gear to 4th gear.
  - e. Repeat this coasting downshift 10 times.
- 7. Did the TCM set DTC P07A7 as active?
  - a. Yes>>> Refer to all current, normal diagnostics published in DealerCONNECT/TechCONNECT regarding the DTC P07A7 and repair as necessary following normal warranty repair guidelines.
  - b. No>>> If all of the Clutch Filling Counters and Fast Filling Counters were reset to 0 (zero) after flashing, the 9 Speed Adaptation Drive Learn must be performed. Refer to all applicable published service bulletins regarding the 9 Speed Adaptation Drive Learn for detailed repair procedures and labor times. If they have not reset, then no further action is required.

## POLICY:

Reimbursable within the provisions of the warranty.

## TIME ALLOWANCE:

Labor Operation No:	Description	Skill Category	Amount
18-19-05-BC	Module, Transmission Control (TCM) - Reprogram (1 - Semi-Skilled)	21 - Automatic Transmission	1.1 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.

## 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, than 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