SERVICE BULLETIN

THIS BULLETIN SUPERSEDES SERVICE BULLETIN 21-017-16, DATED APRIL 22, 2016, WHICH SHOULD BE REMOVED FROM YOUR FILES. ALL REVISIONS ARE HIGHLIGHTED WITH **ASTERISKS** AND INCLUDE AN ADDITIONAL SOFTWARE ENHANCEMENT, NEW MARKETS, VEHICLE BUILD DATES, ENGINES AND A NEW LOP.

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 Shift And Drivability Enhancements

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

MODELS:

2016	(DS)	RAM 1500 Pickup
2016	(DX)	RAM Truck (Mexico)

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

NOTE: This bulletin applies to vehicles:
- ****Built on or before June 24, 2016 (MDH 0624XX) equipped with a 3.0L V6 Turbo Diesel Engine (Sales Code EXF) and an 8-Speed Automatic 8HP70 Transmission (Sales Codes DFD or DFK).**
- **Built on or before June 07, 2016 (MDH 0607XX) equipped with a 3.6L V6 24V VVT Engine (Sales Codes ERB or ERT) and an 8-Speed Automatic 845RE Transmission (Sales Codes DFL or DFK).****
- **Built on or before **June 07, 2016 (MDH 0607XX)** equipped with a 5.7L V8 Hemi MDS VVT Engine (Sales Code EZH) and an 8-Speed Automatic 8HP70 Transmission (Sales Codes DFD or DFK).**

SYMPTOM/CONDITION:
Some customers may experience a Malfunction Indicator Lamp (MIL) illumination. Upon further investigation, a technician may find the following Diagnostic Trouble Code (DTC) stored in the TCM memory:

- P0731 - Gear Ratio Error In 1st.

The following enhancements are included in the software update:

- **2-1 coast down improvement **(3.0L only)**.
- 3-2 coast down improvement **(3.0L only)**.
- Improvement to 5-3 downshift with pedal to improve 5-3-2 shift **(3.0L only)**
- 6-5 coast down improvement **(3.0L only)**
- 2-3 upshift with less than 30% pedal improvement **(3.0L only)**
- Clutch C adaption stability improvement (improves shift quality for new transmissions on gear shifts that use Clutch C) **(3.0L only)**.
- Garage shift to D improvements **(3.0L only)**.
- Rolling garage shift improvements **(3.0L only)**.
- Implementation of End Of Line (EOL) adaption to improve shift quality on brand new transmission.
- Diagnostics improvements **(3.6L and 5.7L)**.
- Improve shift quality on brand new transmission **(5.7L only)**.
- Improvement to first 1-2 shift after start **(5.7L only)**.
- Improvement to 1-2 shift, especially for colder operating temperatures **(5.7L only)**.
- 2-3 shift feel improvement especially for colder operating temperatures **(5.7L only)**.
- Coastdown shift improvements (6-5, 5-4, 4-3, 3-2, 2-1) **(5.7L only)**.
- Coastdown shift feel refinement for double downshifts **(5.7L only)**.
- Kickdown improvements for the following shifts (7-6-5-4-3, 8-6-5-4, 6-3-2, 5-3-2, 4-2) **(5.7L only)**.
- Improvement to 4-2-1 **(5.7L only)**.**
- Improved 7th gear upshift timing.
- Downhill engine braking improvements.

DIAGNOSIS:
Using a Scan Tool (wiTECH) with the appropriate Diagnostic Procedures available in TechCONNECT, verify all related systems are functioning as designed. If DTCs or symptom conditions, other than the ones listed 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:

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. Detailed instructions for flashing control modules using the wiTECH Diagnostic Application are available by selecting the application's "HELP" tab.
2. 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.

NOTE: Do not clear the adaptation memory cells in the TCM's memory. Clearing the memory cells may cause the transmission to not shift smoothly until they can be fully relearned.

POLICY:
Reimbursable within the provisions of the warranty.

TIME ALLOWANCE:

Labor Operation No:	Description	Skill Category	Amount
**18-19-05-DN	Module, Transmission Control (TCM) - Reprogram (0 - Introduction)	2 - Automatic Transmission	0.2 Hrs.**

NOTE: The expected completion time for the flash download portion of this procedure is approximately 1 minute. 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 if the dealer finds a software update 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