



**NUMBER:** 21-011-20

**GROUP:** 21 - Transmission and Transfer Case

**DATE:** February 15, 2020

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**This bulletin supersedes service bulletin 21-005-19 REV. B, dated June 13, 2019, which should be removed from your files. All revisions are highlighted with **\*\*asterisks\*\*** and include removal of the service bulletin build date, additional Diagnostic Trouble Codes (DTCs) and LOP.**

**This service bulletin is also being released as Rapid Response Transmittal (RRT) 18-131, dated December 04, 2018. All applicable Sold and Un-Sold RRT IN's have been loaded. To verify that this RRT service action is applicable to the vehicle, use VIP or perform a VIN search in DealerCONNECT/Service Library. All repairs are reimbursable within the provisions of warranty.**

***SUBJECT:***

Flash: Transmission Control Module (TCM) Updates

***OVERVIEW:***

This bulletin involves reprogramming the TCM with the latest available software.

***MODELS:***

2019 (DT) RAM 1500 Pickup

**NOTE: This bulletin applies to vehicles within the following markets/countries: North America.**

**NOTE: This bulletin applies to vehicles equipped with a 5.7L V8 HEMI MDS VVT eTorque Engine (Sales Code EZL) and a 8-SPD Auto 8HP75 transmission (Sales Codes DFR or DFV).**

**NOTE: The RRT portion of this bulletin applies to vehicles built on or before November 25, 2018 (MDH 1125XX) equipped with a 5.7L V8 HEMI MDS VVT eTorque Engine (Sales Code EZL) and a 8SPD Auto 8HP75 transmission (Sales Codes DFR or DFV).**

***SYMPTOM/CONDITION:***

Customers may experience a Malfunction Indicator Lamp (MIL) illumination. Upon further investigation the technician may find one or more of the following DTCs have been set:

- **\*\*P1DDE-00 - Ignition Run-Start Input 1-2 Correlation (Sales Code DFR Only).**
- **P1DF3-00 - ECU Not Initialized (Sales Code DFR Only).**\*\*
- P0456 - EVAP System Small Leak.
- P0733-00 - Gear 3 Shift Incorrect Ratio (while operating in 4-Lo range).
- P0716-00 - Input Shaft Speed Sensor 1 Performance.
- P0721-00 - Output Shaft Speed Sensor Circuit Performance.
- P1DB6-00 - Vehicle Speed Signal Performance.
- P1DAB-00 - Vehicle Speed Undetermined.
- P215C-00 - Output Shaft Speed Wheel Speed Correlation.

- P0607-00 - ECU Internal Performance.
- P1DAC-00 - Engine Speed Undetermined.
- P07BF-00 - Input/Turbine Shaft Speed Sensor 1 Circuit Low.
- P07C0-00 - Input/Turbine Shaft Speed Sensor 1 Circuit High.
- P077C-00 - Output Shaft Speed Sensor Circuit Low.
- P077D-00 - Output Shaft Speed Sensor Circuit High.
- P177F-00 - Output Shaft Speed Sensor Out Of Range High.
- P1778-00 - Input-Turbine Shaft Speed Sensor A Out Of Range High.

In addition, the following software enhancements are also available:

- Engine Stop/Start (ESS) Autostart improvements to adapt to Powertrain Control Module (PCM) and Hybrid Control Processor (HCP) changes.
- Coast-down downshift improvements for 4-3 on slight down hill and light braking.
- Low pedal kick-down bump improvement on 3-2 and 2-1 downshift.
- Improve 2-3 upshift at Wide Open Throttle (WOT) in tow/haul mode.
- Improve 5-6-5 gear hunt after cruise control resume acceleration.
- Cruise control improvement to help maintain speeds in tow/haul mode up hill.
- Improve 4-5 gear hunt in tow/haul up hill.
- Improve 7-8 gear hunt.
- Improve low speed upshift, stays in a lower gear to long.
- 1-2 coast-down shift improvements when coming to a stop.
- Shifter auto-position correction with ignition in RUN/ACC positions during an AutoPark event.
- Multiple Displacement System (MDS) calibration change to reduce a bump feeling.
- Coast-down downshift improvements for 6-5, 5-4, 4-3 and 2-1.
- Cold temperature downshift improvements for 6-5 and 4-3.
- Cold temperature upshift improvements for 1-2, 2-3, 3-4, 4-5 and 6-7.
- Garage shift D-R-D improvements.
- Tip in/Wide Open Throttle (WOT) downshift improvements.
- Tip in during 2-1 coast-downs refinements to address a “bump” feeling.

### **DIAGNOSIS:**

Using a Scan Tool (wiTECH) with the appropriate Diagnostic Procedures available in DealerConnect/Service Library, 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 a customer's VIN is listed in VIP or your RRT VIN list, perform the repair. If any vehicle not on the VIN list exhibits the symptom/condition or DTC, perform the repair.

**REPAIR PROCEDURE:**

**NOTE:** The PCM and HCP 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 PCM and HCP 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.

1. Does the TCM have the latest software already installed?
  - YES>>> This bulletin has been completed, use inspect LOP (18-19-05-1C) to close the active RRT.
  - NO>>> Proceed to [Step 2](#).
2. Reprogram the TCM with the latest available software. Detailed instructions for flashing control modules using the wiTECH Diagnostic Application are available by selecting the application's "HELP" tab.
3. 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 them to be cleared.
4. Verify the PCM and HCP are programmed with the latest available software. Refer to all applicable published service bulletins for detailed repair procedures and labor times regarding updating the PCM and HCP software.

**POLICY:**

Reimbursable within the provisions of the warranty.

**TIME ALLOWANCE:**

Labor Operation No:	Description	Skill Category	Amount
18-19-05-1C	Module, Transmission Control (TCM) - Inspect (0 - Introduction)	2 - Automatic Transmission	0.2 Hrs.
**18-19-05-NK	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 4 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 depending on if this is a Rapid Response Transmittal (RRT) or Service Bulletin.**

- The “RF” failure code is required for essential module flash/reprogramming and can only be used after confirmation that the VIN is included on the RRT.
- The failure code “RF” (Required Flash) can no longer be used on Service Bulletin flashes. **The “RF” failure code must be used on an RRT.**
- If the customer’s concern matches the SYMPTOM/CONDITION identified in the Service Bulletin, failure code CC is to be used. When utilizing this failure code, the 3C’s must be supplied.

RF	Required Flash - RRT
CC	Customer Concern