



NUMBER: 18-086-16

GROUP: Vehicle Performance

DATE: July 20, 2016

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THIS BULLETIN SUPERSEDES SERVICE BULLETINS 18-069-15 REV. A, DATED NOVEMBER 21, 2015 AND 18-031-15 REV. A, DATED NOVEMBER 13, 2015, WHICH SHOULD BE REMOVED FROM YOUR FILES. ALL REVISIONS ARE HIGHLIGHTED WITH **ASTERISKS**** AND INCLUDES ADDITIONAL DIAGNOSTIC TROUBLE CODES (DTCs) AND 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: Powertrain Diagnostic and System Improvements

OVERVIEW:

This bulletin involves selectively erasing and reprogramming the Powertrain Control Module (PCM) with new software.

MODELS:

| | | |
|------|------|--|
| 2014 | (RT) | Chrysler Town & Country Dodge Grand Caravan |
| 2014 | (JC) | Dodge Journey |

NOTE: This bulletin applies to RT vehicles equipped with a 3.6L engine (Sales Code ERB).

NOTE: This bulletin applies to JC vehicles equipped with a 3.6L engine (Sales Code ERB) or 2.4L engine (Sales Code ED3 or ED7).

SYMPTOM/CONDITION:

A small number of customers may experience the following symptom or conditions or a Malfunction Indicator Lamp (MIL) illumination. Upon further investigation the technician may find the following (DTCs):

JC Vehicles equipped with a 2.4L engine (Sales Code ED3 or ED7):

- **P0335 - Crankshaft Position Sensor Circuit.
- P050B - Cold Start Ignition Timing Performance.
- P2299 - Brake Pedal Position / Accelerator Pedal Position Incompatible.**
- U0140 - Lost Communication With Body Control Module. Attempting to clear the DTC may be unsuccessful.
- P0456 - Evap purge system small leak.
- 2-1 downshift improvement.
- Charging system duty cycle enhancement to improve starting performance in low ambient temperatures.
- P219A - Bank 1 Air-Fuel Ratio Imbalance.
- Enhanced Automatic Oil Change Indicator (EAOCI) system enhancements that force the use of the severe duty cycle algorithm anytime the PCM is replaced. The vehicle duty cycle information used in the EAOCI calculation is stored in the PCM and cannot be recovered/transferred when the controller is replaced. As a result, the severe duty cycle is used in these scenarios to ensure the customer receives a timely oil change required message.
- Mode 6 data accuracy enhancement for generic scan tools.

JC Vehicles equipped with a 3.6L engine (Sales Code ERB):

- **P0335 - Crankshaft Position Sensor Circuit.
- P2610 - PCM Internal Engine Off Timer Performance.**
- U0140 - Lost Communication With Body Control Module. Attempting to clear the DTC may be unsuccessful.
- Enhanced Automatic Oil Change Indicator (EAOCI) system enhancements that force the use of the severe duty cycle algorithm anytime the PCM is replaced. The vehicle duty cycle information used in the EAOCI calculation is stored in the PCM and cannot be recovered/transferred when the controller is replaced. As a result, the severe duty cycle is used in these scenarios to ensure the customer receives a timely oil change required message.
- Accuracy improvements for the Automatic Oil Change Indicator (AOCI) system.
- Mode 6 data accuracy enhancement for generic scan tools.
- Garage shift engagements into D may be harsh at times after shutdowns of 10-30 minute duration.
- Harsh upshifts generated by backing out of the accelerator pedal.
- Harsh shifts can be felt after acceleration/deceleration driving maneuvers from a stop.
- P0606 - Internal Control Processor.

RT Vehicles equipped with a 3.6L engine (Sales Code ERB):

- **P0335 - Crankshaft Position Sensor Circuit.
- P0116 - Engine Coolant Temperature Sensor 1 Performance.**
- U0140 - Lost Communication With Body Control Module. Attempting to clear the DTC may be unsuccessful.
- Garage shift engagements into D may be harsh at times after shutdowns of 10-30 minute duration.
- Harsh upshifts generated by backing out of the accelerator pedal.
- Harsh shifts can be felt after acceleration/deceleration driving maneuvers from a stop.
- P0606 - Internal Control Processor.
- Accuracy improvements for the Automatic Oil Change Indicator (AOCI) system.

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 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, 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 PCM 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 any 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.

POLICY:

Reimbursable within the provisions of the warranty.

TIME ALLOWANCE:

| Labor Operation No: | Description | Skill Category | Amount |
|---------------------|---|-----------------------------------|------------|
| **18-19-06-LR | Module, Powertrain Control (PCM) - Reprogram (0 - Introduction) | 1 - Engine Repair And Performance | 0.2 Hrs.** |

NOTE: The expected completion time for the flash download portion of this procedure is approximately 3 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 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.

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|----|------------------|
| CC | Customer Concern |
| RF | Routine Flash |