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GROUP: Vehicle Performance

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THIS BULLETIN SUPERSEDES SERVICE BULLETIN 18-047-16, DATED APRIL 21, 2016, WHICH SHOULD BE REMOVED FROM YOUR FILES. ALL REVISIONS ARE HIGHLIGHTED WITH **ASTERISKS**** AND INCLUDE ADDITIONAL DIAGNOSTIC TROUBLE CODES (DTCs), A SOFTWARE ENHANCEMENT AND REVISED LOPs.**

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 Enhancements

OVERVIEW:

This bulletin involves reprogramming the Powertrain Control Module (PCM) and Transmission Control Module (TCM) the latest available software.

NOTE: Both the PCM and TCM must be up to date for these changes to be effective.

MODELS:

2015	(LD)	Dodge Charger
	(LA)	Dodge Challenger

NOTE: This bulletin applies to vehicles equipped with a 6.2L V8 Supercharged Engine (Sales Code ESD).

SYMPTOM/CONDITION:

Customers may experience a Malfunction Indicator Lamp (MIL) Illumination. Upon further investigation, the technician may find one or more of the following Diagnostic Trouble Codes (DTCs) stored in the PCM memory:

- **P0456 - EVAP System Small Leak.
- U1424 - Implausible Engine Torque Signal Received.
- P0335 - Crankshaft Position Sensor Circuit.
- P0339 - Crankshaft Position Sensor Intermittent.
- P2299 - Brake Pedal Position/Accelerator Pedal Position Incompatible.
- P2227 - Barometric Pressure Circuit Performance.**
- P1611 - Supercharger Bypass Valve Position Sensor 1 Circuit High.
- P0513 - Invalid Skim Key.
- P0300 - Multiple Cylinder Misfire (**manual transmission applications only**).
- P1613 - Turbocharger/Supercharger Boost Pressure Sensor/Mass Air Flow Sensor Correlation.
- P1217 - Active Exhaust Valve 1 Performance.
- P121B - Active Exhaust Valve 2 Performance.

NOTE: The P0513 DTC is set during remote starting the vehicle and nearly simultaneously pressing the key fob button against the Keyless Ignition Node (KIN) causing an engine stall.

The PCM software also enables freeze frame/failure records to be stored for the following diagnostic trouble codes:

- P0102 - MAF sensor circuit shorted to ground.
- P0103 - MAF Sensor Circuit shorted High.
- P0607 - ECU Internal Performance.
- P060E - Level 2 TPS Sensor Coherency Check Has Failed.
- P1610 - Supercharger Bypass Valve Position Sensor 1 Circuit Low.
- P1611 - Supercharger Bypass Valve Position Sensor 1 Circuit High.
- P1616 - Supercharger Bypass Valve Position Sensor 2 Circuit Low.
- P1617 - Supercharger Bypass Valve Position Sensor 2 Circuit High.
- P1620 - Supercharger Bypass Valve Control Open Circuit.
- P1627 - Supercharger Bypass Valve Position Sensor 1/2 Correlation.
- P162A - Supercharger Bypass Valve Actuator Control System - Max PWM Exceeded.
- P162C - Supercharger Bypass Valve Control Circuit.

In addition, customers may also comment on the following:

- Slight spark knock condition during aggressive high speed driving which may slightly inhibit vehicle performance.
- With the cluster set on metric units, they are unable to accurately increase or decrease the cruise control set speed using the resume or set buttons. Instead of changing vehicle speed by 1 KPH when pressing the buttons, the vehicle speed will increase approximately 1.6 KPH.

**The following software enhancement is available:

- EAOI (Electronic Automatic Oil Change Indicator) calibration change to notify driver of need to change oil sooner if vehicle is being driven aggressively and later if vehicle is being driven more gently.**

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 or if the technician finds any of the DTCs, perform the Repair Procedure.

REPAIR PROCEDURE:

NOTE: NOTE: Both the PCM and TCM must be up to date for these changes to be effective. The flash files for both PCM and TCM are combined into one flash file and are initiated by flashing the PCM. If the user attempts to start the flash process at the TCM, the wiTECH Diagnostic Scan Tool will instruct the user to start the flash process through the PCM.

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 both the PCM and 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.

POLICY:

Reimbursable within the provisions of the warranty.

TIME ALLOWANCE:

Labor Operation No:	Description	Skill Category	Amount
**18-19-06-LK	Modules, Powertrain Control (PCM) & Transmission Control (TCM) - Reprogram (Automatic Transmission) (0 - Introduction)	1 - Engine Repair and Performance	0.3 Hrs.
18-19-06-LM	Module, Powertrain Control (PCM) - Reprogram (Manual Transmission) (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 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, 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