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GROUP: Vehicle Performance

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THIS BULLETIN SUPERSEDES SERVICE BULLETIN 18-022-17, DATED FEBRUARY 23, 2017, WHICH SHOULD BE REMOVED FROM YOUR FILES. ALL REVISIONS ARE HIGHLIGHTED WITH **ASTERISKS**** AND INCLUDES ADDITIONAL DIAGNOSTIC TROUBLE CODE (DTC), ADDED IMPROVEMENT FOR 13 MY PF VEHICLES, LOP AND UPDATED FAILURE CODE STATEMENT.**

THIS SERVICE BULLETIN IS ALSO BEING RELEASED AS RAPID RESPONSE TRANSMITTAL (RRT) 15-012. ALL APPLICABLE SOLD AND UN-SOLD RRT VIN'S HAVE BEEN LOADED. TO VERIFY THAT THIS RRT SERVICE ACTION IS APPLICABLE TO THE VEHICLE, USE VIP OR PERFORM A VIN SEARCH IN TECHCONNECT. ALL REPAIRS ARE REIMBURSABLE WITHIN THE PROVISIONS OF WARRANTY.

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 reprogramming the Powertrain Control Module (PCM) with the latest available software.

MODELS:

2013 - 2015	(PF)	Dodge Dart
2015	(UF)	Chrysler 200

NOTE: This bulletin applies to vehicles equipped with a 2.4L Engine (Sales Codes ED6 or ED8).

SYMPTOM/CONDITION:

A small number of customers may experience a Malfunction Indicator Lamp (MIL) illumination. Upon further investigation the technician may find one or more of the following DTCs set in the PCM memory:

2015 UF Vehicles with (Sales Codes ED6, ED8)

- U1504 - Implausible Message Data Length Received From Steering Angle Sensor.
- P0128 - Thermostat Rationality.
- P0335 - Crankshaft Position Sensor Circuit.
- P0340 - Camshaft Position Sensor Circuit Bank 1 Sensor 1.
- U1424-00 - Implausible Engine Torque Signal Received.
- P1066 - Cylinder 1 Oil Supply Solenoid Valve Switch Off Time Out Of Range.
- P1068 - Cylinder 2 Oil Supply Solenoid Valve Switch Off Time Out Of Range.
- P106A - Cylinder 3 Oil Supply Solenoid Valve Switch Off Time Out Of Range.
- P106C - Cylinder 4 Oil Supply Solenoid Valve Switch Off Time Out Of Range.
- P050D - Cold Start Rough Idle.
- P0335 - Crankshaft Position Sensor Circuit.
- P1607 - PCM Internal Shutdown Timer Rationality.
- P0133 - O2 Sensor 1/1 Slow Response.
- P0456 - EVAP System Small Leak.
- P0480 - Cooling Fan 1 Control Circuit/Open.
- U0402 - Implausible Data Received From TCM.
- P2172 - High Airflow/Vacuum Leak Detected.
- P1D73 - AGS Performance.
- U0140 - Lost Communication With Body Control Module.
- P0441 - Evap Purge System Performance.
- P0116 - Engine Coolant Temperature Sensor 1 Performance.

In addition to the DTCs above the following improvements have been made:

- Min spark changes to prevent catalytic converter overheating.
- Engine Startup Flare and Idle Surge.
- Improved vehicle acceleration.

2015 PF Vehicles with (Sales Codes ED6, ED8)

- P1066 - Cylinder 1 Oil Supply Solenoid Valve Switch Off Time Out Of Range.
- P1068 - Cylinder 2 Oil Supply Solenoid Valve Switch Off Time Out Of Range.
- P106A - Cylinder 3 Oil Supply Solenoid Valve Switch Off Time Out Of Range.
- P106C - Cylinder 4 Oil Supply Solenoid Valve Switch Off Time Out Of Range.
- U0401 - Implausible Data Received From ECM/PCM - Signal Invalid.
- P1185 - General Pressure Sensor Correlation.
- P050D - Cold Start Rough Idle.
- P0133 - O2 Sensor 1/1 Slow Response.
- P0456 - Evap System Small Leak.
- P219A - Bank 1 Air-Fuel Ratio Imbalance.
- P2172 - High Airflow/Vacuum Leak Detected.
- P1D73 - AGS Performance.
- U0140 - Lost Communication With Body Control Module.
- P0116 - Engine Coolant Temperature Sensor 1 Performance.
- P050B - Cold Start Ignition Timing Performance.
- P061A - Level 2 Torque Performance.
- P2172 - High Airflow/Vacuum Leak Detected (Instantaneous Accumulation).

In addition to the DTCs above the following improvements have been made:

- Low Idle Speed After Cold Start between -10°C to 0°C (14°F to 32°F).
- Cold Idle Surge With AC Engaged.
- Improve cabin warm up in cold weather, when the vehicle is in park or neutral and the temperature is between -12°C to 4.5°C (10°F to 40°F).

2014 PF Vehicles with (Sales Codes ED6)

- P1066 - Cylinder 1 Oil Supply Solenoid Valve Switch Off Time Out Of Range.
- P1068 - Cylinder 2 Oil Supply Solenoid Valve Switch Off Time Out Of Range.
- P106A - Cylinder 3 Oil Supply Solenoid Valve Switch Off Time Out Of Range.
- P106C - Cylinder 4 Oil Supply Solenoid Valve Switch Off Time Out Of Range.
- P0335 - Crankshaft Position Sensor Circuit.
- P2610 - PCM Internal Engine Off Timer Performance.
- P0456 - EVAP System Small Leak.
- P1185 - General Pressure Sensor Correlation.
- P219A - Bank 1 Air-Fuel Ratio Imbalance.
- P2251 - O2 Sensor 1/1 Negative Current Control Circuit Open.
- P2172 - High Airflow/Vacuum Leak Detected.
- P1D73 - AGS Performance.
- U0140 - Lost Communication With Body Control Module.
- P0116 - Engine Coolant Temperature Sensor 1 Performance.
- P0441 - EVAP Purge System Performance.

2013 PF Vehicles with (Sales Code ED6)

- **P0128 - Thermostat Rationality.**
- P1066 - Cylinder 1 Oil Supply Solenoid Valve Switch Off Time Out Of Range.
- P1068 - Cylinder 2 Oil Supply Solenoid Valve Switch Off Time Out Of Range.
- P106A - Cylinder 3 Oil Supply Solenoid Valve Switch Off Time Out Of Range.
- P106C - Cylinder 4 Oil Supply Solenoid Valve Switch Off Time Out Of Range.
- P2610 - PCM Internal Engine Off Timer Performance.
- P0456 - Evap System Small Leak.
- P1185 - General Pressure Sensor Correlation.
- P219A - Bank 1 Air-Fuel Ratio Imbalance.
- P2251 - O2 Sensor 1/1 Negative Current Control Circuit Open.
- P2172 - High Airflow/Vacuum Leak Detected.
- P1D73 - AGS Performance.
- U0140 - Lost Communication With Body Control Module.

**In addition to the DTCs above the following improvements have been made:

- Min spark changes to prevent catalytic converter overheating.**

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 a customer's VIN is listed in VIP or your RRT VIN list, perform the repair. For all other customers that describe the symptom/condition, or if the technician finds any of the DTCs listed above perform the Repair Procedure.

REPAIR PROCEDURE:

NOTE: The Transmission Control Module (TCM) 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 TCM 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. 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.

NOTE: If the PCM already has the latest software, use inspection LOP 18-19-06-FA to close the active RRT.

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 allows them to be cleared.
3. Verify the TCM is programmed with the latest available software. Refer to all applicable published service bulletins for detailed repair procedures and labor times regarding updating the TCM software.

POLICY:

Reimbursable within the provisions of the warranty.

TIME ALLOWANCE:

Labor Operation No:	Description	Skill Category	Amount
18-19-06-FA	Module, Powertrain Control (PCM) - Inspection Only (0 - Introduction)	1 - Engine Repair And Performance	0.2 Hrs
18-19-06-QT	Module, Powertrain Control (PCM) - Inspect and 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 6 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.**

- 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.
- The failure code "RF" (Required Flash) can no longer be used on Service Bulletin flashes. The "RF" failure code can only be used on RRT.
- 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.**

CC	Customer Concern
RF	Required Flash