



**NUMBER:** 18-023-15

**GROUP:** Vehicle Performance

**DATE:** March 14, 2015

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**THIS BULLETIN SUPERSEDES SERVICE BULLETIN 18-018-14 REV. E, DATED DECEMBER 19, 2014, WHICH SHOULD BE REMOVED FROM YOUR FILES. ALL REVISIONS ARE HIGHLIGHTED WITH **\*\*ASTERISKS\*\***. REVISION INCLUDES ADDITIONAL SYSTEM ENHANCEMENTS, AND NEW LABOR OPS.**

**THIS SERVICE BULLETIN IS ALSO BEING RELEASED AS RAPID RESPONSE TRANSMITTAL (RRT) 14-107. 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.**

**HELP USING THE wiTECH DIAGNOSTIC APPLICATION FOR FLASHING AN ECU IS AVAILABLE BY SELECTING "HELP" THEN "HELP CONTENTS" AT THE TOP OF THE wiTECH DIAGNOSTIC APPLICATION WINDOW.**

**THE wiTECH SOFTWARE LEVEL MUST BE AT **\*\*15.03\*\*** OR HIGHER TO PERFORM THIS PROCEDURE.**

***SUBJECT:***

Flash: 3.0 L MIL Illumination Diagnostic and System Improvements

***OVERVIEW:***

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

***MODELS:***

2014                      (WK)                      Jeep Grand Cherokee

**NOTE: This bulletin applies to vehicles equipped with a 3.0L diesel engine (sales code EXF).**

**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 Diagnostic Trouble Code(s) may have been set:

- \*\*P20C2 - Reductant Heater 3 Control Circuit Performance.\*\*
- \*\*P204F - Reductant System Performance.\*\*
- \*\*P20E9 - Reductant Pressure Too High.\*\*
- P0087-00 - Fuel Rail Pressure Too Low.
- P20EE-00 - SCR NOX Catalyst Efficiency Below Threshold Bank 1.
- P0171-00 - System Too Lean (Bank 1).
- P0172-00 - System Too Rich (Bank 1).
- P225C-00 - NOX Sensor Performance - Signal Stuck High Bank 1 Sensor 1.
- P225D-00 - NOX Sensor 1/1 Performance - Signal Stuck Low.
- P1288-00 - NOX Sensor 1/2 Zero Offset Too High.
- P1289-00 - NOX Sensor 1/2 Zero Offset Too Low.
- P1296-00 - EGR Slow Response - Increasing Flow.
- P1297-00 - EGR Slow Response - Decreasing Flow.
- P2BA9-00 - NOX Exceedence - Insufficient Reagent Quality.
- P2080-00 - Exhaust Gas Temperature Sensor Circuit Performance.
- P2084-00 - Exhaust Gas Temperature Sensor Circuit Performance-Bank 1 Sensor 2.
- P0426-00 - Catalyst Temperature Sensor Circuit Performance Bank 1 Sensor 1.
- P242B-00 - Exhaust Gas Temperature Sensor Circuit Performance-Bank 1 Sensor 3.
- P062B-00 - Internal Control Module Fuel Injector Control Circuit Performance.
- P0088-00 - Fuel Rail Pressure Too High.
- P016F-00 - Closed Loop fuel Pressure Control At Limit - Pressure Too Low.
- P009A-00 - Intake Air Temperature / Ambient Air Temperature Correlation.
- P0234-00 - Turbocharger Overboost Condition.
- P0420-00 - Catalyst Efficiency (Bank 1).
- P050E-00 - Cold Start Engine Exhaust Temperature Too Low.
- P05F8-00 - Reductant Heater Control Module Performance.
- P061B-00 - Internal Control Module Torque Calculation Performance.
- P0128-00 - Thermostat Rationality.
- P1D30-00 - Oil Viscosity Too Low.
- P200A-00 - Intake Manifold Runner Performance - Bank 1.
- P200B-00 - Intake Manifold Runner Performance - Bank 2.
- P202E-00 - Reductant Injection Valve Circuit Performance.
- P203E-00 - Reductant Level Sensor 1 Circuit Intermittent / Erratic.
- P204F-00 - Reductant System Performance.
- P20BA-00 - Reductant Heater 1 Control Circuit Performance.
- P20BE-00 - Reductant Pressure Line Heater Control Circuit Performance.
- P20C2-00 - Reductant Heater 3 Control Circuit Performance.
- P20E9-00 - Reductant Pressure Too High.
- P225D-00 - NOX Sensor 1/1 Performance - Signal Stuck Low.
- P2463-00 - Diesel Particulate Filter - Soot Accumulation.
- P24C2-00 - Exhaust Gas Temperature Measurement System - Multiple Sensor Correlation Bank 1.
- P249C-00 - Excessive Time To Enter Closed Loop Reductant Injection Timing Control.
- P24F2-00 - EGR Temperature / Charge Air Cooler Temperature Correlation.
- U029D-00 - Lost Communication With NOX Sensor Module "A".

- U029E-00 - Lost Communication With NOX Sensor Module “B”.
- U12A3-00 - LOST COMMUNICATION WITH PM SENSOR

In addition to the DTCs listed above, customers may also experience one or more of the following conditions:

- Remote Start will not start the vehicle in cold 14° F (-10° C) ambient temperatures.
- Oil Life Monitor shows faster than expected oil life deterioration.

The following software enhancements are also included in this software update.

- Enhancements to improve A/C compressor relay duty cycle operation to prevent ignition off battery draw.
- Powertrain system improvements to enable EGR cleaning routine.

**DIAGNOSIS:**

Using a Scan Tool (wiTECH) with the appropriate Diagnostic Procedures available in TechCONNECT, verify all vehicle systems are functioning as designed. If DTCs other than the ones listed above are present record them 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, perform the Repair Procedure.

**REPAIR PROCEDURE:**

1. Using wiTECH, check for any codes setting in the PCM and record them on the repair order. If necessary, perform a vehicle scan report and save it for your records.
2. Using wiTECH, Check the PCM calibration and see if it is up to date. Does the PCM software need to be updated?
  - a. Yes>>> Proceed to [Step #3](#).
  - b. No>>> Proceed to [Step #7](#).

**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.**

**CAUTION: Do not interrupt the software update process in any way once it has begun. It may cause permanent damage to the PCM which will require replacement.**

3. Reprogram the PCM with the latest available software. Detailed instructions for flashing control modules using the wiTECH Diagnostic Application are available by selecting the “HELP” tab on the upper portion of the wiTECH window, then “HELP CONTENTS.” This will open the Welcome to wiTECH Help screen where help topics can be selected.

**NOTE: After PCM reprogramming, the following must be performed:**

4. 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.
5. Under the PCM “System Tests” perform the “SCR DEF Tank Fluid Level Reset” procedure.
6. Turn the ignition off for 35 seconds to complete the flash.

7. With the ignition key off, test for voltage on fuse F62 (10 amp red) located in the under hood Power Distribution Center (PDC) using a volt meter connected to ground. Was 12 volts measured at the fuse with the ignition off?
  - a. Yes>>>Further diagnosis and repair is required. Refer to all applicable published TSBs or service information in DealerCONNECT/TechCONNECT regarding ignition off battery draw. Proceed to [Step #8](#).
  - b. No>>> Proceed to [Step #8](#).
8. Refer back to the vehicle scan report recorded in [Step #1](#). Were DTCs P20EE- SCR NOX Catalyst Efficiency Below Threshold Bank 1 or P2BA9-00 NOX Exceedence - Insufficient Reductant Quality, found setting active or stored in the PCM memory?
  - a. Yes>>> Further diagnosis and repair is required. Refer to all applicable published TSBs or service information in DealerCONNECT/TechCONNECT regarding these DTCs.
  - b. No>>> The bulletin is now complete. No further action is required. If the PCM software was already up to date, use labor op 18-19-04-BV to close out the RRT portion of this service bulletin.

**POLICY:**

Reimbursable within the provisions of the warranty.

**TIME ALLOWANCE:**

Labor Operation No:	Description	Skill Category	Amount
**18-19-04-BV**	Module, Powertrain Control - Inspect Only , Software up to date. (Includes fuse voltage test) (1 - Semi-Skilled)	10 - Diesel	0.2 Hrs
**18-19-04-BW**	Module, Powertrain Control (PCM) - Reprogram. (Includes fuse voltage test) (1 - Semi-Skilled)	10 - Diesel	0.4 Hrs

**NOTE: The expected completion time for the flash download portion of this procedure is approximately 7 minutes. Actual flash download times may be affected by vehicle connection and network capabilities.**

**FAILURE CODE:**

ZZ	Service Action
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