



NUMBER: 18-047-18

GROUP: 18 - Vehicle Performance

DATE: June 8, 2018

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THIS BULLETIN SUPERSEDES SERVICE BULLETIN 18-022-16 REV. A, DATED SEPTEMBER 01, 2016, WHICH SHOULD BE REMOVED FROM YOUR FILES. ALL REVISIONS ARE HIGHLIGHTED WITH **ASTERISKS**** AND INCLUDE ADDITIONAL DIAGNOSTIC TROUBLE CODES (DTCS), SOFTWARE ENHANCEMENTS, UPDATED LOPS AND FAILURE CODE STATEMENT.**

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 | (DD) | RAM 3500 Chassis Cab |
| 2013 | (DP) | RAM 4500/5500 Chassis Cab |

NOTE: This bulletin applies to vehicles within the following markets/countries: NAFTA.

NOTE: This bulletin applies to vehicles equipped with a 6.7L I6 Cummins Turbo Diesel Engine (Sales Code ETK).

SYMPTOM/CONDITION:

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

- ****P218F - Reductant No Flow Detected.**
- P1C55 - NOx Sensor Intermittent - Bank 1 Sensor 1.
- P24A5 - EGR Cooler Bypass Bank 1 Control Stuck.
- P202E - (Diesel Exhaust Fluid) Reductant Injector Performance.
- U0001 - CAN C Bus.**
- P1477 - Intake Air Diverter Valve Position Sensor Circuit Shorted To Ground.
- P242F - Diesel Particulate Filter Restriction - Ash Accumulation.
- P2459 - Diesel Particulate Filter Regeneration Too Frequent.
- P20EE - SCR NOx Catalyst Efficiency Below Threshold - Bank 1 (**For ammonia sensor equipped vehicles**).
- P205E - (Diesel Exhaust Fluid) Reductant Tank Temperature Sensor Circuit Intermittent (setting when the block heater is plugged in).

- U110E - Lost Ambient Temperature Message.
- P20E8 - (Diesel Exhaust Fluid) Reductant Pressure Too Low.
- P2281 - Air Leak Between MAF and Throttle Body.
- U3017 - Control Module Timer/Clock Performance.
- U1421 - Implausible Ignition Key Off Time Received.
- P0128 - Thermostat Rationality. In cold ambient temperatures.
- P0087 - Fuel Rail Pressure Too Low.
- P0544 - Exhaust Gas Temperature Sensor Circuit - Bank 1 Sensor 1.
- P2002 - Diesel Particulate Filter Efficiency Below Threshold.
- P061A - Level 2 Torque Performance.
- P0234 - Turbocharger Overboost Condition.
- P026A - Charge Air Cooler Efficiency Below Threshold.
- P0299 - Manifold Pressure Sensor Out of Range Low.
- P0544 - Exhaust Gas Temperature (EGT) Sensor Circuit - Bank 1 Sensor 1.
- P0562 - Battery Voltage Low.
- P2201 - After-treatment NOx Sensor Circuit Performance - Bank 1 Sensor 1.
- P249E - Closed Loop SCR Reductant Injection Control At Limit - Flow Too High.

The following DTCs have been changed from a one trip fault to a two trip fault:

- P0201 – P0206 - Fuel Injector X Circuit/Open.
- P049D - EGR Control Position Exceeded Learning Limit.

This DTC has been changed from a two trip fault to a one trip fault:

- U12A4 - Lost Communication With Ammonia Sensor.

The following software enhancements are also available:

- **AC pressure sensor error threshold change.
- Ambient Air Temperature (AAT) timer change from one second to three seconds.**
- On Board Diagnostic (OBD) test results block fix.
- Cap urea dosing at low temperatures.
- Selective Catalytic Reduction Catalyst (SCR) heating time strategy change.
- Nitrous Oxide (NOx) gases sensor dew point delay (**For ammonia sensor delete systems only**).
- SCR efficiency scan tool test improvement.
- Various urea system calibration changes, cold weather system improvements and dosing heater thaw times.
- Cruise control system improvements.
- System enhancements to starter lockout feature.
- Fuel filter minder system calibration enhancements.
- Exhaust brake switch operation improvements.
- Charging system improvements for dual alternator applications.
- Erroneous “Service Exhaust System - see dealer” message setting with the ignition in the “Run” position, with engine not running.
- Remove MIL for DTC P1C70 - SCR Error Detected - Engine Disabled.
- Wait To Start (WTS) bulb check timing improvements (One second).
- Set Power Take Off (PTO) maximum speed to 2,000 RPM.
- Allow mobile PTO operation in neutral.
- Frozen Charge Air Cooler (CAC) diagnostic improvement.
- WiTECH - Reset fix (PTO request on pickup).
- WiTECH - Road governor speed upper limit adjustment.
- SCR performance test fix.

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 or if the technician finds the DTC, perform the Repair Procedure.

REPAIR PROCEDURE:

CAUTION! There will be a choice between two calibrations. One for three sensor configuration that utilizes an ammonia sensor and one for two sensor configuration for vehicles that have had the ammonia sensor removed.

Be sure to select the correct software based on your configuration.

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 available software. Detailed instructions for flashing control modules using the wiTECH Diagnostic Application are available by selecting the application's "HELP" tab.
2. After reprogramming, turn the ignition off to power down the ECM. **The key must remain off for a minimum of 75 seconds.**

NOTE: If DTC U05A5 - Implausible Data Received From Ammonia Sensor or U12A4 - Lost Communication With Ammonia Sensor is set after the reprogram then the PCM has the incorrect calibration installed. Reprogram the PCM with the correct calibration.

3. 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.

NOTE: If DTC U1601 is present, the ECM P/N did not update, or the engine did not start after the flash, then the flash may have been unsuccessful. Restart the flash update.

4. Perform the PCM Configuration routine in wiTECH located in the PCM "Misc. Functions" menu tab.
5. Verify the Dosing Control Unit (DCU) software is up to date in accordance with the service procedures and labor times outlined in all applicable published service bulletins.

POLICY:

Reimbursable within the provisions of the warranty.

TIME ALLOWANCE:

| Labor Operation No: | Description | Skill Category | Amount |
|----------------------------|--|-----------------------|---------------|
| **18-19-04-HM | Module, Engine Control (ECM) - Reprogram, (Without Ammonia Sensor) 1 - Semi-Skilled | 10 - Diesel | 0.4 Hrs. |
| 18-19-04-HN | Module, Engine Control (ECM) - Reprogram, (With Ammonia Sensor) 1 - Semi-Skilled | 10 - Diesel | 0.4 Hrs.** |

NOTE: The expected completion time for the flash download portion of this procedure is approximately 14 minutes. Actual flash download times may be affected by vehicle connection and network capabilities.

FAILURE CODE:

****The dealer must use failure code CC with this 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 (customer's concern, cause and correction) must be provided for processing Service Bulletin flash/reprogramming conditions.**

| | |
|----|------------------|
| CC | Customer Concern |
|----|------------------|