



NUMBER: 18-042-20

GROUP: 18 - Vehicle Performance

DATE: May 27, 2020

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This bulletin supersedes Service Bulletin 18-057-18, dated July 26, 2018, which should be removed from your files. All revisions are highlighted with **asterisks**** and include additional Diagnostic Trouble Codes (DTCs) and LOPS.**

This Service Bulletin is also being released as Rapid Response Transmittal (RRT) 13-083. All applicable Sold and Un-Sold RRT VINs have been loaded. To verify this RRT service action is applicable to the vehicle, use VIP or perform a VIN search in DealerCONNECT/Service Library. All repairs are reimbursable within the provisions of warranty.

SUBJECT:

Flash: Powertrain Control Module (PCM) Updates

OVERVIEW:

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

MODELS:

2014	(DD)	RAM 3500 Cab Chassis
2014	(DP)	RAM 4500/5500 Cab Chassis

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

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:

NOTE: There will be a choice between two calibrations. One for vehicles that utilize an ammonia sensor and one for vehicles that have had the ammonia sensor removed. Be sure to select the correct software based on vehicle configuration.

Improvements to prevent or reduce MIL illumination when no defect is present for:

- ****P2201 - Aftertreatment Nox Sensor Circuit Performance - Bank 1 Sensor 1 (Ammonia delete systems only).**
- P229F - Aftertreatment NOx Sensor Circuit Performance - Bank 1 Sensor 2.
- P20EE - SCR NOx Catalyst Efficiency Below Threshold - Bank 1 **(New Improvements for ammonia delete systems only).**
- P202E - Diesel Exhaust Fluid (DEF) Reductant Injector Performance **(New Improvements for ammonia delete systems only).****
- P218F - Reductant No Flow Detected.

- P1C55 - NOx Sensor Intermittent - Bank 1 Sensor 1.
- U0001 - CAN C Bus.
- P229E - NOx Sensor Circuit - Bank 1 Sensor 2 (**Non-ammonia delete systems only**).
- U059F - Invalid Data Received From NOx Sensor "B" (**Non-ammonia delete systems only**).
- P22A7 - NOx Sensor Heater Circuit Performance - Bank 1 Sensor 2 (**Non-ammonia delete systems only**).
- P2459 - Diesel Particulate Filter Regeneration Too Frequent.
- P242F - Diesel Particulate Filter Restriction - Ash Accumulation.
- P205E - (Diesel Exhaust Fluid) Reductant Tank Temperature Sensor Circuit Intermittent (setting when the block heater is plugged in).
- P20E8 - (Diesel Exhaust Fluid) Reductant Pressure Too Low.
- U110E - Lost Ambient Temperature Message.
- U3017 - Control Module Timer/Clock Performance.
- P0087 - Fuel Rail Pressure Too Low.
- P0544 - Exhaust Gas Temperature Sensor Circuit - Sensor 1/1.
- P2281 - Air Leak Between MAF And Throttle Body.
- P0128 - Thermostat Rationality In low ambient temperatures.
- U1421 - Implausible Ignition Key Off Time Received.
- P2002 - Diesel Particulate Filter Efficiency Below Threshold.
- P0604 - Internal Control Module RAM Error.

NOTE: DTC P0604 may be caused by enabling the remote throttle feature via the Electronic Vehicle Information Center (EVIC) and it will be accompanied by a "service electronic throttle control" message in the EVIC.

The following software improvements are also included in this update:

- ****Improvements to enable DTC P208B - Reductant Pump 1 Control Performance (Ammonia delete systems only) to set.****
- AC pressure sensor error threshold change.
- Ambient Air Temperature (AAT) timer change from one second to three seconds.
- Cold Start Emissions Reduction System (CSERS) improvement for DTC P24A5.
- DEF dosing improvements in cold ambient temperatures.
- Selective Catalytic Reduction (SCR) efficiency scan tool test improvement.
- Urea system calibration changes.
- Fuel filter minder calibration changes.
- Cruise control system improvements.
- Improvements in exhaust brake switch operation.
- Charging system improvements for dual alternator applications.
- Various wiTECH 2 data and system test additions and improvements.
- OBD template changes for DTC P2453.
- Dual fuel tank component update.
- Inducement timer reset (Feature enable in wiTECH 2).
- Power Take Off (PTO) denied status message update.
- PTO horn request sent to Body Control Unit (BCU).
- Wait To Start (WTS) bulb check timing improvements (One second).
- Frozen Charge Air Cooler (CAC) diagnostic improvement.

Prevent or reduce MIL illumination when no defect is present for the following DTCs. These faults have been changed from a one trip fault to a two trip fault:

- P0201- P0206 - Fuel Injector X Circuit/Open Fault Codes.
- P049D - Exhaust Gas Recirculation (EGR) Control Position Exceeding Learning Limit.

DIAGNOSIS:

Using a Scan Tool (wiTECH 2) with the appropriate Diagnostic Procedures available in DealerCONNECT/Service Library, 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:

NOTE: There will be a choice between two calibrations. One for vehicles that utilize an ammonia sensor and one for vehicles that have had the ammonia sensor removed. Be sure to select the correct software based on vehicle configuration.

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.

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 ECM with the latest software. Detailed instructions for flashing control modules using the wiTECH 2 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.
3. Clear all DTCs that may have been set in any module due to reprogramming. The wiTECH 2 application will automatically present all DTCs after the flash and allows them to be cleared.

CAUTION! If DTCs U05A5 - Implausible Data Received From Ammonia Sensor or DTC U12A4 - Lost Communication With Ammonia Sensor, are set after the repair then the PCM has the incorrect calibration installed. Reprogram the PCM with the correct calibration.

4. Perform the PCM Configuration routine in wiTECH 2 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-KQ	Module, Engine Control (ECM) - Reprogram, With Ammonia Sensor , (M/T and Aisin) (1 - Semi-Skilled)	10 - Diesel	0.4 Hrs.
18-19-04-KR	Module, Engine Control (ECM) - Reprogram, Without Ammonia Sensor , (M/T and Aisin) (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
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