

**NUMBER:** 18-001-13

**GROUP:** Vehicle Performance

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\*\*THIS BULLETIN SUPERSEDES SERVICE BULLETIN 18-013-12 REV. A, DATED OCTOBER 30, 2012, WHICH SHOULD BE REMOVED FROM YOUR FILES. THIS REVISION IS TO CHANGE THE LABOR OPERATION CODES (LOP'S)\*\*.

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 RELEASE 13.01 OR HIGHER TO PERFORM THIS PROCEDURE.

## SUBJECT:

Flash: Diagnostic and System Improvements

## **OVERVIEW**:

This bulletin involves selectively erasing and reprogramming the Engine Control Module (ECM) with new software.

#### **MODELS**:

2012(DJ)Ram Pick Up (2500)2012(D2)Ram Pick Up (3500)

# NOTE: This bulletin applies to D2/DJ vehicles equipped with a 6.7L Cummins engine (Sales code ETJ).

#### SYMPTOM/CONDITION:

Pickup trucks equipped with a 6.7L Cummins diesel have software improvements/enhancements available for the following DTC's:

- P049D EGR CONTROL POSITION EXCEEDED LEARNING LIMIT
- P0101 MASS AIR FLOW SENSOR "A" CIRCUIT PERFORMANCE

- P0191 FUEL RAIL PRESSURE SENSOR CIRCUIT PERFORMANCE
- P2000 NOx ABSORBER EFFICIENCY BELOW THRESHOLD (Diagnostic improvements)
- P2002 DIESEL PARTICULATE FILTER EFFICIENCY BELOW THRESHOLD (for high altitude failures)
- P2195 O2 SENSOR 1/1 OUT OF RANGE HIGH
- P2196 O2 SENSOR 1/1 OUT OF RANGE LOW
- P2270 O2 SENSOR 1/2 OUT OF RANGE HIGH
- P2271 O2 SENSOR 1/2 OUT OF RANGE LOW
- P241A O2 SENSOR 1/1 AND 1/2 OXYGEN CONCENTRATION MISMATCH
- P242F DIESEL PARTICULATE FILTER RESTRICTION ASH ACCUMULATION
- P2453 DIESEL PARTICULATE FILTER PRESSURE SENSOR A CIRCUIT PERFORMANCE
- P2609 INTAKE AIR HEATER SYSTEM PERFORMANCE

NOTE: Vehicles flashed to address the above codes should be driven and repair validated. If code(s) return, follow diagnostic procedures available in DealerCONNECT/TechCONNECT.

# Improvements other than DTC robustness or enhancements:

- Improve cruise control functionality
- Display correct EGR position on WiTech
- Corrected CAC Outlet temperature voltage reading
- Display Correct alternator voltage in WiTech
- Correct for OBD II Readiness for frequent regeneration monitor
- Correct water in fuel (WIF) parameter to wiTECH
- ScanTool may report a code as stored, even though the fault has been cleared by completing a significant number of drive cycles without a repeat occurrence
- Active codes not always displayed correctly
- Engine derate with IOD removed. This will help prevent turbo damage due to oil thickening in cold climate start up on new vehicles in transit
- Scan tool readiness reporting issues
- Other driveability enhancements
- EGR Valve cleaning and monitoring enhancements to help reduce occurrences of P049D
- Erroneous, brief brake lamp flash at key on
- Improve EVIC message regarding idle shut down
- Ability to read EGR valve gap on wiTECH (version 12.02)

# 68RFE Transmission Enhancements:

- 1. Power-on 4-3 downshift enhancement
- 2. Power-on 3-2 downshift enhancement
- **3.** Coast down 4-3 downshift enhancement
- 4. Coast down 3-2 downshift enhancement
- 5. Wide Open Throttle 5-6 upshift control enhancement

# Secure Bootloader software

If the Engine Control Module (ECM) does not have a calibration installed, or has an unapproved calibration installed then the ECM will be in a Read Only Memory (ROM) boot state. The ECM will have power but the lack of approved software will not allow the vehicle

to be started and driven. No further diagnostics of the ECM will be available at this time. This code will be cleared and issue resolved when the ECM is updated with the correct approved calibration. Refer to the DealerCONNECT > TechCONNECT > Service Information for more detail.

DTC U1601 set outside of the dealership with a no crank (towed in), no start condition caused by unauthorized (up-rate) software will **NOT** be covered under the terms of the warranty.

DTC U1601 code may also be set when a legitimate flash is interrupted for any reason.

## DIAGNOSIS:

Using a Scan Tool with the appropriate Diagnostic Procedures available in TechCONNECT, verify all engine systems are functioning as designed. If DTC's are present, (other than the ones listed above), record them on the repair order and repair as necessary before proceeding further with this bulletin.

If the above condition is present, perform the Repair Procedure.

## PARTS REQUIRED:

Qty.	Part No.	Description
1	04275086AD	Label, Authorized Modification

#### **REPAIR PROCEDURE:**

- NOTE: The wiTECH diagnostic application is the only method for flashing ECU's. 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.
- NOTE: wiTECH may erroneously give an error message at the conclusion of the download stating the that the flash was not successful. If there is an error message after the flash has completed, first confirm that the DTC U1601 is not present and that the P/N has been updated. If so, start the engine to confirm the flash was successful. If DTC U1601 is present, OR the P/N did not update, OR the engine did not start, the flash may have been unsuccessful. Restart the flash update.
- Reprogram the ECM with the latest software. Follow the detailed service procedures available in DealerCONNECT/TechCONNECT, Refer To Group 8 - Electrical > 8E -Electronic Control Modules > MODULE, Engine Control, Diesel > Standard Procedure > PCM/ECM Programming - DIESEL. After PCM reprogramming has completed successfully, the following must be performed:
  - a. Power down the PCM (key off) after flash. Automatic Transmission equipped trucks must have key off for 10 minutes. Manual Transmission trucks must have key off for 75 seconds.
  - b. Perform a Quicklearn procedure on Automatic Transmission equipped trucks. Follow the detailed service procedures available in DealerCONNECT/TechCONNECT, Refer To Group 08 - Electrical > 8E - Electronic Control Modules > MODULE, Transmission Control > Standard Procedure > Quicklearn.

- c. Clear any DTC's that may have been set in other modules due to reprogramming. The wiTECH application will automatically present all DTC's after the flash and allow the tech to clear them.
- 2. Type the necessary information on the "Authorized Modification Label" and attach it near the VECI label.

## POLICY:

Reimbursable within the provisions of the warranty.

## TIME ALLOWANCE:

Labor Operation No:	Description	Amount
**18-19-04-D9**	Module, Engine Control (ECM) - Reprogram, Quicklearn Transmission (A/T) (Skill Level = Semi-Skilled, Training Level = 2)	0.7 Hrs.
**18-19-04-E9**	Module, Engine Control (ECM) - Reprogram, (M/T) (Skill Level = Semi-Skilled, Training Level = 2)	0.6 Hrs.

## FAILURE CODE:

FM Flash Module
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