



NUMBER: 18-020-10

GROUP: Vehicle Performance

DATE: June 10, 2010

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THIS BULLETIN SUPERSEDES SERVICE BULLETIN 18-038-06, DATED DECEMBER 05, 2006 AND 18-001-09, DATED JANUARY 21, 2009, WHICH SHOULD BE REMOVED FROM YOUR FILES. THIS IS A COMPLETE REVISION AND NO ASTERISKS HAVE BEEN USED TO HIGHLIGHT REVISIONS.

Either wiTECH OR StarMOBILE DESKTOP CLIENT can be used to perform this bulletin. FLASH FILES FOR THIS BULLETIN ARE AVAILABLE VIA THE INTERNET.

WiTECH® SOFTWARE LEVEL MUST BE AT RELEASE 10.04 OR HIGHER.

StarMOBILE® SOFTWARE LEVEL MUST BE AT RELEASE 10.02 OR HIGHER.

SUBJECT:

FLASH: Engine Systems And Exhaust Aftertreatment Systems Enhancements

OVERVIEW:

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

It is recommended to discuss with the customer any **required necessary maintenance** as suggested in the owners manual. Inform the customer the importance of properly maintaining their vehicle. Possible required maintenance items may include (not limited to) lube, oil change and filter service, air filter replacement, fuel filter replacement, and crankcase ventilation filter replacement based on customer use and mileage accumulation.

This bulletin involves:

- Selectively erasing and reprogramming the **Engine Control Module (PCM)**, 2007 - 2010 MY.
- Selectively erasing and reprogramming the **Cab Compartment Node (CCN)**, 2007 & 2008 MY.
- If CCN is updated; provide a **Customer Information Sheet** explaining the overhead display messages.
- One of several software changes allows for “Net Zero” and “Net Reduction” which will cause noticeable changes in idle speeds. **Customers should be informed of these changes.** They are explained in DISCUSSION, [Step #3](#).
- Improvements that address erroneous MIL illumination for DTC P0106, P0191, P2262 and P2299 DTC's, (spelled out in DISCUSSION below).



Stick with the Specialists™

CUSTOMER INFORMATION SHEET INCLUDED:

Please print the last page of this bulletin for customer reference.

MODELS:

2007 - 2010 (DC)	Ram Truck (3500 Cab Chassis)
2008 - 2010 (DM)	Ram Truck (4500/5500 Cab Chassis)

NOTE: This bulletin applies to vehicles equipped with a Cummins 6.7L engine (sales code ETJ).

NOTE: For some 2007 MY vehicles, the ECM flash is addressed in Recall K01, Dated May, 2010. Where applicable, please use the Recall to update the ECM and this bulletin to update the CCN software.

DISCUSSION:

Cab chassis trucks equipped with a 6.7L Cummins diesel have a number of software improvements available. This latest Service Bulletin (SB) will include improvements to prevent erroneous Malfunction Indicator Lamp (MIL) illumination:

- P000F - Fuel System Over Pressure Relief Valve Activated
- P0087 - Fuel Rail Pressure Too Low
- P0106 - Manifold Absolute Pressure Sensor Performance
- P0191 - Fuel Rail Pressure Sensor Circuit Performance
- P1011 - Fuel Pump Delivery Pressure Too Low
- P2299 - Brake Pedal Position / Accelerator Pedal Position Incompatible
- P2262 - Turbocharger Boost Pressure Not Detected - Mechanical

Other updates will include the following operational and diagnostic improvements:

1. Stationary DeSoot is now available with this software. This feature works similar to pick up truck (DH/D1) models.
2. New DTC added for P2563 - Turbocharger Boost Control Position Sensor Performance. This DTC indicates diminished variable geometry turbocharger travel, which is resolved by **replacing** the turbocharger. Diagnosis and repair procedures for the DTC have been published in DTC-Based Diagnostics in TechConnect.
3. The latest PCM software includes a new extended idle feature to accommodate the extended idle times present in some duty cycles. This feature may help to reduce the accumulation of soot in the exhaust aftertreatment system when the engine is idling for an extended period of time. Briefly how this feature works:
 - a. As needed, the engine enters an idling mode which dramatically reduces the rate of soot accumulation in the diesel particulate filter (called "Net Zero"). Further, under extended idle periods of 5 minutes or longer, the engine enters a mode which reduces the amount of soot accumulated in the diesel particulate filter (called "Net Reduction"). While in these modes, the idle speed increases to 900 RPM for a period of time. The idle speed may return to normal idle speed and then return to 900 RPM to repeat this cycle during very long idle periods.
 - b. These modes occur automatically depending on the need to regenerate the DPF as long as the vehicle is not driven over 20 MPH or operated at high load. If the vehicle is driven over 20 MPH normal mobile desoot will occur automatically.

- 4. New scan tool driven fuel system diagnostic tests (same as previously released in the pick up) now available for cab chassis.

DIAGNOSIS:

- 1. Using the scan tool, determine current software level of the PCM and CCN. Record on the repair order, for later use, the current PCM and CCN software level part numbers. Proceed to the next step.
- 2. Compare the current PCM software level part number with software available in the scantool. Determine if the current PCM software level part number, recorded in [Step #1](#), is programmable to a higher level.
- 3. Is the part number of the current PCM level software (recorded in [Step #1](#)) at the latest level listed in the scan tool?
 - a. If YES >>> then the PCM **DOES NOT** require reprogramming as part of this repair. Record this on the repair order for later reference. Proceed to the next step.
 - b. If NO >>> then the PCM **DOES** require reprogramming as part of this repair. Record this on the repair order for later reference. Proceed to the next step.
- 4. Is the vehicle a 2007 **OR** 2008 MY?
 - a. Yes >>> Proceed to [Step #5](#).
 - b. No >>> 2009 MY proceed to the REPAIR PROCEDURE as required.
- 5. Determine if the **current CCN module level software part number**, that was recorded earlier in [Step #1](#), is one of the following (or with a higher suffix):
 - a. **05172187AH (or higher)** = 2007 DC (3500).
 - b. **05172334AG (or higher)** = 2008 DC (3500) / DM (3500/4500).
 - c. 2009 & 2010 MY vehicles came equipped with proper CCN software.
- 6. Is the part number of the current CCN level software at (or higher) than one of the software part numbers listed in [Step #5](#)?
 - a. **If YES >>>** then the CCN **DOES NOT** require reprogramming as part of this repair. Record this on the repair order for later reference. Proceed to the REPAIR PROCEDURE as required.
 - b. **If NO >>>** then the CCN **DOES** require reprogramming as part of this repair. Record this on the repair order for later reference. Proceed to the REPAIR PROCEDURE as required.

PARTS REQUIRED:

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

REPAIR PROCEDURE; ECM MODULE REPROGRAM:

NOTE: The wiTECH diagnostic application is the preferred 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: The wiTECH software level must be at release 10.04 or higher to perform this procedure.

NOTE: If this flash process is interrupted/aborted, the flash should be restarted.

1. Open the hood and install a battery charger. Using a voltmeter, verify that the charging rate provides 13.2 - 13.5 volts. Set the battery charger to continuous charge. Do not allow the charger to time out during the flash process. Remove the charger from the battery when the flash process is complete.

NOTE: Do not allow the charging voltage to climb above 13.5 volts during the flash process.

2. If required, as determined in DIAGNOSIS, above: 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 > Service Information > Standard Procedure > PCM/ECM Programming - DIESEL. **After PCM reprogramming, the following must be performed:**
 - a. 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.
3. Type the necessary information on the "Authorized Modification Label" and attach it near the VECI label.
4. If required, as determined in DIAGNOSIS, above: reprogram the CCN using one of the following procedures, (based on scan tool use).
5. Was it determined in DIAGNOSIS, [Step #6](#) above, the CCN required updating?
 - a. Yes >>> Proceed to appropriate CCN Module Reprogram Procedure Below, based on the scantool used.
 - b. No >>> Repair is complete.

NOTE: CCN software controls the Electronic Vehicle Information Center (EVIC) messages. The CCN software must be up to date (correct software level) in order for the new engine system and exhaust aftertreatment system messages to be displayed on the EVIC.

NOTE: The repairs in this Service Bulletin (SB) only address the labor associated with the reprogramming of the CCN. Any other labor associated with the performance of additional diagnostics or repairs are not addressed by this SB and must be claimed separately.

NOTE: Install a battery charger and verify that the charging rate provides 13.0 to 13.5 volts. Do not allow the charger to time out during the flash process. Set the battery charger timer (if so equipped) to continuous charge.

WITECH® SOFTWARE LEVEL MUST BE AT RELEASE 10.04 OR HIGHER.

CCN MODULE REPROGRAM - USING wiTECH®:

1. Connect the wiTECH® VCI pod to the vehicle data link connector located under the steering column.
2. Place the ignition in the "RUN" position.
3. Open the wiTECH® Diagnostic application.
4. Starting at the "Select Tool" screen, select the row/tool for the wiPOD® device you are using.
5. Enter your "User id" and "Password", then select "OK".
6. Select the "Next" tab at the bottom of the screen.

7. From the "Vehicle View" screen, click on the CCN icon.
8. From the "CCN View" screen, compare the "Current ECU Flash Number" with the "New Part Number" listed on the "sort table". If the "Current ECU Flash Number" is the same as the "New Part Number" continue to [Step #14](#). If the part numbers are not the same, continue to [Step #9](#).
9. With the cursor over the desired flash file, click the green arrow button on the right side of the screen.
10. From the "ECU Flash" screen follow the wiTECH® screen instructions to complete the flash.
11. Once the flash is complete click the "OK" button on the "ECU Flash" screen.
12. From the "Clear Stored DTC" screen clear all Diagnostic Trouble Codes (DTC's) by clicking the "Clear DTC's" button.
13. From the "CCN View" screen, compare the "Current ECU Flash Number" with the "New Part Number" listed on the "sort table". If the "Current ECU Flash Number" is the same as the "New Part Number" the flash is complete. If the part numbers are not the same, repeat Steps 9 through 13.
14. Turn the ignition to the "OFF" position, remove the wiPOD® and battery charger from the vehicle.

StarMOBILE® SOFTWARE LEVEL MUST BE AT RELEASE 10.02 OR HIGHER.

CCN MODULE REPROGRAM - USING StarMOBILE®:

1. Connect the StarMOBILE® to the vehicle data link connector located under the steering column and turn the ignition key to the "RUN" position.
2. Power ON the StarMOBILE® scan tool.
3. From the desktop, launch the "StarMOBILE® Desktop Client" software.
4. Establish a connection with the StarMOBILE scan tool.
5. Retrieve the old CCN part number. With the StarMOBILE on the "Home" screen, follow the procedure below:
 - a. Select "ECU View".
 - b. Select "CCN" in the list of modules.
 - c. Select "More Options".
 - d. Select "ECU Flash".
 - e. Record the "Part Number" displayed at the end of the "Resident flash file for" statement near the top of "Flash CCN" screen for later reference.
6. Download the flash file from the internet to the StarMOBILE. With the StarMOBILE on the "Flash CCN" screen, follow the procedure below:
 - a. Select "Browse for New File". Follow the on screen instructions.
 - b. Enter your "User id" and "Password", then select "OK".
 - c. If the newly downloaded flash file "Part Number" description is the same as the number recorded in Step 5e, then the CCN is up to date. Continue to [Step #7](#). If the part numbers are not the same, continue to Step 6d.
 - d. Highlight the listed calibration on the StarMOBILE screen.
 - e. Select "Download to Client".
 - f. Select "Close" after the download is complete, then select the "Back" arrow.
 - g. Highlight the listed calibration.
 - h. Select "Update Controller" and follow the on screen instructions.
 - i. When the update is completed, select "OK".
7. Disconnect the StarMOBILE vehicle cable from the vehicle.
8. Turn off the StarMOBILE scan tool and then restart the scan tool.

NOTE: The StarMOBILE scan tool must be shut down and restarted to unlock the flash.

9. Retrieve the CCN part number. With the StarMOBILE on the “Home” screen, follow the procedure below:
 - a. Select “ECU View”.
 - b. Select “CCN” in the list of modules.
 - c. Select “More Options”.
 - d. Select “ECU Flash”.
 - e. Verify the “Part Number” (displayed at the end of the “Resident flash file for” statement) has been updated to the new part number. If it has updated, then the flash has been completed successfully.
10. Clear any Diagnostic Trouble Codes (DTCs).

CUSTOMER INFORMATION SHEET INCLUDED:

Please print the last page of this bulletin for customer reference.

POLICY:

Reimbursable within the provisions of the warranty.

TIME ALLOWANCE:

Labor Operation No:	Description	Amount
18-19-04-96	Module, Powertrain Control (PCM) - Reprogram (B)	0.4 Hrs.
18-45-01-90	Module, Cab Compartment Node (CCN) - Reprogram 2007, 2008 only (B)	0.3 Hrs.

FAILURE CODE:

FM	Flash Module
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DIESEL EXHAUST AFTERTREATMENT SYSTEM

Your vehicle is equipped with a **Diesel Particulate Filter (DPF)** which is used to clean the exhaust. The DPF (exhaust filter) will self clean as part of normal vehicle operation. In some cases, your intervention may be required to allow the self-cleaning process to occur.

WHAT YOU WILL SEE IN THE OVERHEAD DISPLAY

- **“ExhaustFilter xx% Full”** - Indicates that the DPF is approaching full.
- **“Regeneration Required Now”** - Indicates **you** will need to intervene by changing your driving mode. See Owner Manual.
- **“Regeneration in Process”** - Indicates the DPF is self-cleaning. Please try to maintain you current driving condition until regeneration is complete.
- **“Regeneration Completed”** - DPF self-cleaning is complete.
- **“Service Required-See Dealer Now”** - Indicated DPF regeneration is not functioning. Your Check Engine Light (MIL) may come on. Please see dealer. IMMEDIATE SERVICE IS REQUIRED. Damage to the exhaust system could occur soon with continued operation.
- **“Exhaust Filter FULL - Power Reduced - See Dealer”** - Your DPF is full. Engine power will be reduced to decrease risk of damage. IMMEDIATE SERVICE IS REQUIRED. Please see dealer immediately. Damage to the exhaust system will occur with continued operation.

For additional assistance contact Chrysler: 1-800-992-1997