



NUMBER: 18-005-06 REV. B

GROUP: Vehicle Performance

DATE: May 31, 2006

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THE StarSCAN® FLASH FILES FOR THIS BULLETIN MUST BE RETRIEVED FROM THE INTERNET.

StarSCAN® UPDATE CD 6.05 WAS THE LAST CD TO CONTAIN FLASH FILES.

THIS BULLETIN SUPERSEDES TECHNICAL SERVICE BULLETIN 18-005-06 REV. A, DATED APRIL 26, 2006, WHICH SHOULD BE REMOVED FROM YOUR FILES. THIS IS A COMPLETE REVISION AND NO ASTERISKS HAVE BEEN USED TO HIGHLIGHT REVISIONS.

SUBJECT:

Flash: DTC Correction, Turbocharger Protection, And Clutch Durability Improvement

OVERVIEW:

This bulletin involves selectively erasing and reprogramming the PCM (Cummins) with new software.

MODELS:

2006 DH/D1 Ram Truck Heavy Duty

NOTE: This bulletin applies to Ram trucks equipped with the 5.9L Cummins 24-valve diesel engine (sales code ETH) built on or after June 9, 2005 through and including May 31, 2006 (MDH 0609XX and 0531XX).

SYMPTOM/CONDITIONS:

The PCM software has been revised to address the following issues:

1. A MIL may illuminate due to one or more of the following Diagnostic Trouble Codes (DTC's):
 - a. **P0071** - Inlet Air Temperature Sensor Rationality
 - b. **P0111** - Intake Air Temperature (IAT) Sensor Rationality
 - c. **P0514** - Battery Temperature Sensor Rationality
 - d. **P0191** - Fuel Pressure Rationality
2. **Turbocharger durability improvement.** Implemented a engine speed limitation when cold, to protect the turbocharger bearings.
3. **Clutch durability improvement.** Implemented a minimum engine speed limitation when launching vehicle from a stop, to protect the clutch.



Stick with the Specialists™

SPECIAL TOOLS/EQUIPMENT REQUIRED:

NPN	Battery Charger
CH9401	StarSCAN® Tool
CH9404	StarSCAN® Vehicle Cable
CH9409	StarSCAN® Documentation Kit
CH9410	StarSCAN® Ethernet Cable, 12 ft.
CH9412	StarSCAN® Software Update Device Kit
	TechCONNECT PC or equivalent

REPAIR PROCEDURE - USING THE INTERNET TO RETRIEVE THE FLASH FILE:

NOTE: Before performing this Repair Procedure, the operating software in the StarSCAN®; must be programmed with software release level 6.06 or higher. The software release level is visible in the blue header at the top of the StarSCAN® screen.


NOTE: The StarSCAN® diagnostic scan tool fully supports Internet connectivity. However, to take advantage of this feature you must first configure the StarSCAN® for your dealership's network. Make sure the StarSCAN® is configured to the dealership's network before proceeding. For instruction on setting up your StarSCAN® for the dealer's network refer to either: "DealerCONNECT > Service > StarSCAN and StarMOBILE tools > Online Documentation", or refer to the StarSCAN® Quick Start Networking Guide. The StarSCAN® Quick Start Networking Guide is also available on the www.dcctools.com website under the "Download Center".



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

1. Install a battery charger and verify that the charging rate provides approximately 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.
2. Connect the CH9410 StarSCAN® ethernet cable to the StarSCAN® and the dealer's network drop.
3. Connect the CH9404 StarSCAN® vehicle cable to the StarSCAN® and the vehicle.
4. Power ON the StarSCAN®.
5. Retrieve the old PCM (Cummins) part number. Using the StarSCAN® at the "Home" screen:
 - a. Select "ECU View"
 - b. Touch the screen to highlight the PCM (Cummins) in the list of modules.
 - c. Select "More Options"
 - d. Select "ECU Flash"
 - e. Record the part number at the top of the "Flash PCM" screen for later reference.
 - f. Select "Browse for New File". Follow the on screen instructions.
 - g. Select "Download to Scantool".
 - h. Select "Close" after the download is complete, then select "Back".

- i. Highlight the listed calibration.
- j. Select “Update Controller”. Follow on screen instructions.
- k. When the update is complete, select “OK”.
- l. Verify the part number at the top of the “Flash PCM” screen has updated to the new part number.

NOTE: If the PCM (Cummins) is not operational, the “PCM (Cummins) part number” can be obtained from the label on the controller. If the label on the controller is not legible, record the “Reference No.” for use later. The “Reference No.” is located in the Reference No. box at the top, center of the Engine Data Plate (Fig. 1). Do not use the reference number shown in the figure. The Engine Data Plate is located on the intake side of the breather cover or affixed to the APPS bracket.



 MANUFACTURED BY CUMMINS INC. FOR DAIMLERCHRYSLER Assembled in the USA ®  3931342	Engine No. Moteur No. 56100101	Ref. No. 53040317AE	MODEL MODELE ISB 305	Fuel Rate at adv. HP Débit combust.a puiss.indiquée 114	$\frac{\text{mm}^3}{\text{stroke}}$	CPL 8228
	Idle Speed (rpm) Vitesse Ralenti 750	Advertised HP Puiss. Indiquée (ch) 305 at 2900 rpm	Family Famille 403E	FEL	EPA	CARB
WARNING: Injury may result and warranty is voided if fuel rate, rpm or altitudes exceed published maximum values for this model and application. AVERTISSEMENT: Danger de blessures et d'annulation de la garantie, si de'bit de combustible, tr/mn ou altitude, de'passent les valeurs maximum annonce'es pour ce modele et son utilisation.	Firing Order Order d'Allumage 1 5 3 6 2 4	Timing - T.D.C. Calage - P.M.H. ELECTRONIC	Catalyst No. Catalyseur No.	NOx	0.0	
	Valve lash cold Jeux Soup. 'a Froid 0.020	Int. Acrn 0.010	Exh. Ech. Date of Mfg. Date of Fab. 07-29-02	C.I.D. Pouce L. Cube/L. 359 5.9	PM	0.00 0.00
This engine conforms to California Regulations applicable to XXXX model year medium duty vehicles. This engine is certified to operate on diesel fuel. 08011 Certified.						

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Fig. 1 ENGINE DATA PLATE

1 - Reference No.

6. Is “WCM - Wireless Control Module” displayed in the “ECU Overview” screen list of modules?
 - a. Yes >> go to [Step #7](#).
 - b. No >> go to [Step #8](#).
7. Enter the Wireless Control Module (WCM) Secret Key information. Using the StarSCAN® at the “ECU Overview” screen:
 - a. Select “WCM”
 - b. Select “Misc. Functions”
 - c. Select “PCM Replacement”
 - d. Follow the on screen instructions.
 - e. When complete proceed to [Step #9](#).
8. Enter the VIN into the ECM. Using the StarSCAN® at the “ECU Overview” screen:

- a. Select "PCM"
- b. Select "Misc. Functions"
- c. Select "Check PCM VIN"
- d. Follow the on screen instructions.
- e. When complete proceed to [Step #9](#).

NOTE: Due to the PCM programming procedure, a DTC may be set in other modules (TCM, BCM, MIC, SKREEM, etc.) within the vehicle, if so equipped. Some DTC's may cause the MIL to illuminate. From the "Home" screen select "System View". Then select "All DTCs". Press "Clear All Stored DTCs" if there are any DTCs shown on the list.

NOTE: The following step is required by law when reprogramming a ECM and/or TCM.

- 9. Type the necessary information on the "Authorized Modification Label" p/n 04275086AB and attach near the VECI label ([Fig. 2](#)).

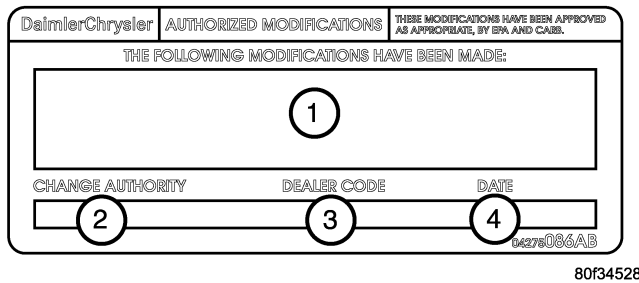


Fig. 2 AUTHORIZED MODIFICATION LABEL

- 1 - POWERTRAIN CONTROL MODULE P/N (INSERT P/N) USED
- 2 - CHANGE AUTHORITY: TSB XX-XXX-XX
- 3 - DEALER CODE: XXXXX
- 4 - DATE: XX-XX-XX

POLICY:

Reimbursable within the provisions of the warranty.

TIME ALLOWANCE:

Labor Operation No:	Description	Amount
18-19-06-15	Module, Powertrain Control - Reprogram (B)	0.4 Hrs.

FAILURE CODE:

ZZ	Service Action
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