



NUMBER: 18-016-07

GROUP: Vehicle Performance

DATE: February 24, 2007

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THE DRBIII® FLASH FILES FOR THIS BULLETIN ARE AVAILABLE ON DealerCONNECT.

THIS BULLETIN SUPERSEDES TECHNICAL SERVICE BULLETIN 18-028-05 REV. A, DATED JULY 20, 2005, WHICH SHOULD BE REMOVED FROM YOUR FILES. THIS IS A COMPLETE REVISION AND NO ASTERISKS HAVE BEEN USED TO HIGHLIGHT REVISIONS.

SUBJECT:

Flash: MIL Illumination Due To DTC P0430 / P0420 - Catalyst Efficiency

OVERVIEW:

This bulletin involves replacement of the downstream oxygen sensor and then selectively erasing and reprogramming the Powertrain Control Module (PCM) with new software.

MODELS:

2005 (DR) Ram Truck (1500)

NOTE: This bulletin applies to vehicles equipped with a 5.7L engine (sales code EZA).

NOTE: In previous Service Bulletin 18-028-05 Rev A., the DH (2500 / 3500) Ram Truck model was incorrectly listed. These models (2500 / 3500) do not have the same condition and root cause that this Service Bulletin addresses.

SYMPTOM/CONDITION:

The customer may experience a Malfunction Indicator Lamp (MIL) illumination due to Diagnostic Trouble Codes (DTC's): P0420 - Catalyst 1/1 Efficiency (Left Front) or P0430 - Catalyst 2/1 Efficiency (Right Front).

DIAGNOSIS:

Using a Scan Tool (DRBIII®) with the appropriate Diagnostic Procedures available in TechCONNECT, verify all engine systems are functioning as designed. If DTCs are present record them on the repair order and repair as necessary before proceeding further with this bulletin.

If the vehicle operator describes or experiences the Symptom/Condition, perform the Repair Procedure.



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PARTS REQUIRED:

Qty.	Part No.	Description
1	04275086AB	Label, Authorized Modification
1	56029049AA	Sensor, Downstream Rear Oxygen (either side)

SPECIAL TOOLS / EQUIPMENT REQUIRED:

NPN	Battery Charger
CH2002	General Purpose Interface Bus Cable Assembly
CH6000A	Scan Tool (DRBIII®)
CH7000A/7001A	J1962 Cable with red DRBIII® connector
	TechCONNECT Workstation or equivalent

NOTE: An updated J1962 cable has been released. This cable has a red colored connector at the DRBIII® connection. Use this cable whenever a flash is being performed.

REPAIR PROCEDURE:

1. **Replace the rear (downstream) oxygen sensor** for the respective affected exhaust bank per the indicated DTC:
 - a. If DTC P0420 is present, then replace the left side rear downstream (also called the 1/2) oxygen sensor.
 - b. If DTC P0430 is present, then replace the right side rear downstream (also called the 2/2) oxygen sensor.
2. Proceed to the next steps and reprogram the PCM.

REPAIR PROCEDURE USING DRBIII® AND DOWNLOADING THE FLASH FILE FROM DealerCONNECT > TechTOOLS:

NOTE: Whenever a module is reprogrammed, the software in the DRBIII®; must be programmed with the latest revision level available.

NOTE: If this flash process is interrupted/aborted, the flash process should be restarted and then follow the directions on the DRBIII®.

3. Before beginning the flash procedure, remove any old flash files from the DRBIII® memory. To clear the memory from the MAIN MENU:
 - a. Simultaneously press the "MORE" and "YES" keys.
 - b. A screen will appear requesting a "COLD BOOT".
 - c. Follow the on screen instructions by selecting the "F4" key.
 - d. When the DRBIII® reboots to the MAIN MENU, proceed to [Step #4](#)
4. With the ignition switch in the "RUN" position, determine the original part number of the PCM currently in the vehicle. Using the DRBIII® select:
 - a. "DRBIII® Standalone".
 - b. "1998 - 2007 Diagnostics".
 - c. "All (Except Below)".

- d. "Engine".
- e. "Module Display".
- f. Record the "PCM part #" on the repair order for later reference.
5. Connect the DRBIII® to TechCONNECT. Open TechTOOLS and verify that the "DRBIII® Status: Connected" message is in the upper right corner of the TechTOOLS screen.
6. Enter the "PCM part #" recorded in [Step #4](#) in the "Parts Criteria" area and select "Show Updates". TechTOOLS will populate the appropriate flash file.
7. Select the flash file.
8. Select the "DRBIII" radio button which is next to the "Download/Update" button.
9. Select the "Download/Update" button.
10. Monitor the "Flash Download/Update Progress" window on the TechCONNECT and follow the instructions on TechCONNECT. When the flash process is complete, proceed to [Step #11](#).
11. **Disconnect the DRBIII® from TechCONNECT.**
12. 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.

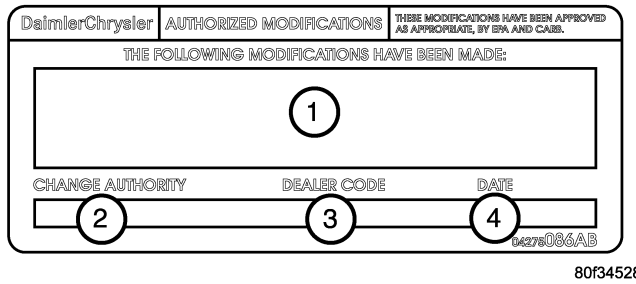
NOTE: Do not allow the charging voltage to climb above 13.5 volts during the flash process.

13. Connect the DRBIII® to the vehicle.
14. Download the flash file from the DRBIII® to the vehicle. Using the DRBIII® select:
 - a. "Vehicle Flash".
 - b. Follow the directions on the DRBIII® screen. When the flash process is complete, proceed to the next step.
15. Reset the "Pinion Factor" as necessary.
16. Perform the transmission Quick Learn Procedure as necessary.

NOTE: Due to the PCM programming procedure, a DTC may be set in other modules within the vehicle, if so equipped. Some DTC's may cause the MIL to illuminate. Check all modules using "Module Scan", record the DTC's, and erase these DTC's prior to returning the vehicle to the customer. Erase any DTC's in the PCM only after all other modules have had their DTC's erased.

NOTE: The following step is required by law.

17. Type the necessary information on the "Authorized Modification Label" p/n 04275086AB and attach near the VECI label ([Fig. 1](#)).



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Fig. 1 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
18-19-06-74	Module, Powertrain Control (PCM) - Reprogram & Replace Rear Downstream Oxygen Sensor (B)	0.7 Hrs.

FAILURE CODE:

ZZ	Service Action
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