



NUMBER: 18-002-04

GROUP: Vehicle Performance

DATE: February 3, 2004

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THE SOFTWARE WILL BE AVAILABLE ON TechCONNECT ON FEBRUARY 3, 2004.

SUBJECT:

Flash: Erroneous Diagnostic Trouble Codes (DTC's) P0335 or P0340 Crankshaft or Camshaft Position Lost

OVERVIEW:

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

MODELS:

2004 (DR) Ram Truck

NOTE: This bulletin applies to DR vehicles equipped with a 5.7L engine (sales code EZA) built on or before December 16, 2003 (MDH1216XX).

SYMPTOM/CONDITION:

The vehicle operator may experience a MIL illumination. Further diagnosis may determine that the MIL was caused by one or more of the following erroneous DTC's:

P0335-CRANKSHAFT POSITION (CKP) LOST

P0340-CAMSHAFT POSITION (CMP) LOST

DIAGNOSIS:

Using a Scan Tool (DRBIII®) with TechCONNECT or the appropriate Diagnostic Procedures Manual, 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.

PARTS REQUIRED:

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

SPECIAL TOOLS/EQUIPMENT REQUIRED:

NPN	Battery Charger
CH2002	General Purpose Interface Bus Cable Assembly
CH6000A	Scan Tool (DRBIII®)
CH7000A	J1962 Cable with red DRBIII® connector
	TechCONNECT PC

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:

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

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

1. Before beginning the reprogramming procedure, remove any old flash reprogramming 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 DRB III® reboots to the MAIN MENU, proceed to (STEP #2)
2. 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 - 2004 Diagnostics”
 - c. “All (Except Below)”
 - d. “Engine”
 - e. “Module Display”
 - f. Record the first ten (10) characters of the “PCM part #” on the repair order for later reference.

NOTE: If the PCM is not operational, the part number can be obtained from the label on the old controller. If the label on the controller is not legible, proceed to next step.

3. Page back to the “Main Menu”
4. Determine if the vehicle is equipped with SKIM. Using the DRBIII® select:
 - a. “DRBIII Standalone”
 - b. “1998 - 2004 Diagnostics”

- c. "All"
 - d. "System Monitor"
 - e. "J1850 Module Scan"
 - f. Look for "SKIM" in the list of modules.
5. If the vehicle is not equipped with SKIM then proceed to (STEP #6). If the vehicle is equipped with SKIM obtain the vehicle Personal Identification Number (PIN) before continuing with (STEP #6). This information is available from one of the following:
- a. The original selling invoice.
 - b. The DealerCONNECT system under the "Sales" or "Parts" tabs - select "Key Codes".

CAUTION: Failure to install the SKIM pin number into the module after flashing the PCM will cause a start and stall condition.

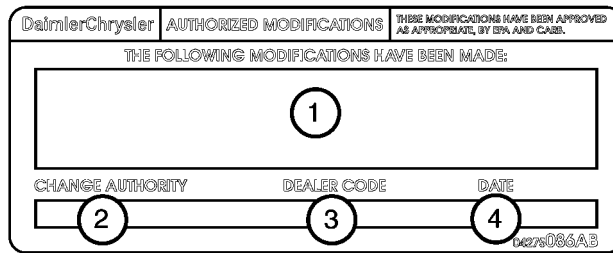
- 6. Open the hood, install a battery charger and verify battery state is above 12.5 volts.
- 7. If the old "PCM part #" is known, proceed to (STEP #13). If the old "PCM part #" is not known, proceed to (STEP #8).
- 8. On DealerCONNECT select the "Service" tab.
- 9. Select "Vehicle Information Plus".
- 10. Manually enter the VIN and mileage and select "Enter".
- 11. Select the "Vehicle Option" tab.
- 12. Under the "Vehicle Option" window, identify and record:
 - a. Engine.
 - b. Emissions (Federal or California)
 - c. Transmission (Automatic, 5-speed manual, etc.).
- 13. 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.
- 14. TechTOOLS should automatically populate the VIN in the "Vehicle Criteria" area and the available updates. If not, manually enter the VIN then TechTOOLS will populate the available updates.
- 15. Determine the proper calibration:
 - a. If the old "PCM part #" is known, enter the part number of the old controller in the "Parts Criteria" p/n window. Proceed to (STEP #16).
 - b. If the old "PCM part #" is not known, select the correct calibration based on the information that was recorded from "Vehicle Options" (STEP #12). Proceed to (STEP #17).
- 16. Select the correct calibration.
- 17. Select the "DRBIII" radio button which is next to the "Download/Update" button.
- 18. Select the "Download/Update" button.

19. 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 #20).
20. **Disconnect the DRBIII® from TechCONNECT.**
21. Connect the DRBIII® to the vehicle.
22. Download the flash 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 (STEP #23).
23. Enter the VIN in the PCM. Using the DRBIII® select:
 - a. "DRBIII Standalone"
 - b. "1998 - 2004 Diagnostics"
 - c. "All"
 - d. "Engine"
 - e. "Miscellaneous"
 - f. "Check VIN"
 - g. If the vehicle is not equipped with SKIM proceed to (STEP #h). If the vehicle is equipped with SKIM follow the directions on the DRBIII®. When the VIN and SKIM key has been programmed, proceed to (STEP #24).
 - h. Enter the VIN as requested by the DRBIII®.
24. Update the PCM mileage. Using the DRBIII® select:
 - a. "DRBIII® Standalone"
 - b. "1998 - 2004 Diagnostics"
 - c. "All (Except Below)"
 - d. "Engine"
 - e. "Miscellaneous"
 - f. "Check PCM Odometer"
 - g. "NO"
 - h. Enter the current odometer mileage and then press "Enter".
 - i. Cycle the ignition key to the OFF position and back to the ON position and then press "Enter".
25. Reset pinion factor if necessary. Refer to the service information available in TechCONNECT or the appropriate service manual, section 8E, Electronic Control Modules.

NOTE: Due to the PCM programming procedure, a DTC may be set in other modules (TCM, BCM, MIC, SKIM, etc.) 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.

26. Type the necessary information on the "Authorized Modification Label" p/n 04275086AB and attach near the VECI label (Figure 1).



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FIGURE 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
08-19-39-99	Reprogram Powertrain Control Module	0.8 Hrs.

FAILURE CODE:

FM	Flash Module
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