

NO: 18-25-99

SUBJECT: Erroneous Engine Miss While Performing Diagnostics With The DRB III®

DATE: Nov. 15, 1999

OVERVIEW:

This bulletin involves selectively erasing and reprogramming the JTEC Powertrain Control Module (PCM) with new software (calibration change 99Cal18, 99Cal17, or 99Cal16).

SYMPTOM/CONDITION:

A Powertrain Control Module (PCM) software condition exists that can cause an erroneous engine miss to occur only when in certain screens of the Diagnostic Scan Tool (DRB III®). The miss will not set a Malfunction Indicator Lamp (MIL), but may be felt and can be seen while performing diagnostics with the DRB III®.

This condition occurs only when using the DRB III® to read Diagnostic Trouble Codes (DTC's), Secondary Indicators, or 1 Trip Failures and while driving the vehicle. This is more likely to occur during hard acceleration. While in these screens, a miss may be felt by the technician, or when in the Secondary Indicators or 1 Trip Failures screen an erroneous injector circuit failure can flash on the DRB III® screen with an accompany beep from the DRB III®.

This condition may lead technicians to incorrectly diagnose a problem and may cause erroneous repairs that will not fix the vehicle.

DIAGNOSIS:

Using the Mopar Diagnostic System (MDS2) and/or the Diagnostic Scan Tool (DRB III®) with the appropriate Diagnostic Procedures Manual, verify all engine/transmission systems are functioning as designed. If Diagnostic Trouble Codes (DTC's) are present, record them on the repair order and repair as necessary before proceeding further with this bulletin. If no other DTC's are present, and the above symptoms have been experienced, perform the Repair Procedure.

NOTE: WHENEVER A POWERTRAIN CONTROL MODULE (PCM) IS REPLACED DUE TO FAILURE, THE SOFTWARE OF THE REPLACEMENT CONTROLLER MUST BE VERIFIED FOR THE LATEST REVISION LEVEL. USE THE FLASH PROCEDURE TO UPDATE REPLACED CONTROLLERS AS NECESSARY.

PARTS REQUIRED:

Qty	Part No.	Description
1	04669020	Label, Authorized Software Update
1	04275086	Label, Authorized Modification

EQUIPMENT REQUIRED:

Qty	Part No.	Description
1	CH6000	Scan Tool (DRB III®)
1	CH7035	General Purpose Interface Bus Cable (GPIB)
1	CH7000/7001	J1962 Cable
1	MDS2	MDS2

NOTE: THE MDS2 AND DRB III® ARE REQUIRED TO PERFORM PART OF THIS REPAIR. WHEN USING THE MDS2 AND THE DRB III® THE SYSTEM MUST BE OPERATING AT CIS CD 2045 OR HIGHER.

REPAIR PROCEDURE:

1. Log onto the MDS2 system.
2. Connect the MDS2 (Mopar Diagnostic System) and DRB III® (Scan Tool) to the vehicle and switch the ignition key to "ON".
3. Use the arrow keys and select #2 CONNECT TO MDS1 OR MDS2 on the DRB III® MAIN MENU SCREEN.
4. Use the arrow keys and select #2 RUN MDS2 APPLICATION on the DRB III® MAIN MENU SCREEN.

NOTE: ONCE MDS2, DRB III®, AND VEHICLE COMMUNICATION HAS BEEN ESTABLISHED, THE "CANNOT READ VIN FROM DRB III® " MESSAGE (ON THE MDS) WILL BE REPLACED BY THE VEHICLE VIN. PRESS THE "OK" BUTTON ON THE MDS2 TO REQUEST A MDS2 SESSION FOR THE VEHICLE VIN INDICATED. PRESS THE "OK" BUTTON WHEN ASKED TO BEGIN SESSION.

5. Push the FLASH tab on the MDS2.

NOTE: A MESSAGE MAY APPEAR THAT INDICATES NO UPDATES ARE AVAILABLE. IF THIS OCCURS, MAKE SURE YOUR DIAGNOSTIC EQUIPMENT IS OPERATING AT THE LATEST SOFTWARE LEVEL AS LISTED EARLIER IN THIS BULLETIN. IF THE LATEST SOFTWARE IS INSTALLED, AND NO UPDATES ARE AVAILABLE, ANOTHER VEHICLE CONDITION EXISTS THAT WILL REQUIRE FURTHER INVESTIGATION.

6. Select READ PART NUMBERS FROM VEHICLE and click SHOW UPDATES on the MDS2.

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7. Select the new software part number with the light pen and click UPDATE CONTROLLER SOFTWARE.
8. The MDS2 and DRB III® will prompt for any operator action needed during the remainder of the

reprogramming process.

NOTE: DUE TO THE PCM FLASH PROCEDURE, A DTC MAY BE SET IN OTHER MODULES (EATX, BCM, MIC, SKIM) WITHIN THE VEHICLE IF SO EQUIPPED. SOME MAY CAUSE THE MIL TO ILLUMINATE. ALL DTC'S RELATE TO A LOSS OF COMMUNICATIONS WITH THE MODULE THAT IS BEING FLASHED. CHECK ALL MODULES, RECORD THE FAULTS, AND ERASE THESE FAULTS PRIOR TO RETURNING THE VEHICLE TO THE CUSTOMER. ERASE ANY FAULTS IN THE PCM ONLY AFTER ALL OTHER MODULES HAVE HAD THEIR FAULTS ERASED.

NOTE: THE FOLLOWING STEPS ARE REQUIRED BY LAW

9. Type the necessary information on the "Authorized Software Update Label" p/n 04669020 ([Figure 1](#)). Attach the label to the CUMMINS ECM and cover the label with the clear plastic overlay. Do not attach the label to the JTEC.
10. Type the necessary information on the "Authorized Modification Label" p/n 04275086 and attach the label near the VECI label ([Figure 2](#)).

POLICY:

Reimbursable within the provisions of the warranty.

TIME ALLOWANCE:

Labor Op. No.	Time
08-19-43-96	0.5 Hrs.

FAILURE CODE:

Code	Description
FM	Flash Module