



NUMBER: 18-013-04

GROUP: Vehicle
Performance

DATE: March 30, 2004

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THIS BULLETIN SUPERSEDES TECHNICAL SERVICE BULLETIN 18-005-03 REV. C, DATED AUG. 1, 2003, WHICH SHOULD BE REMOVED FROM YOUR FILES. ALL REVISIONS ARE HIGHLIGHTED WITH **ASTERISKS**** AND INCLUDES ADDITIONAL REPAIR PROCEDURES REQUIRING THE TECHNICIAN TO DISCONNECT THE CONTROLLER ANTILOCK BRAKES (CAB) BEFORE PERFORMING THE FLASH PROCEDURE ON AN/DN/DR VEHICLES.**

SUBJECT:

Flash: Transmission Shift/Speed Control Improvements/Possible MIL Illumination

OVERVIEW:

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

MODELS:

2003	(AN)	Dakota
2003	(DN)	Durango
2003	(DR)	Ram Pickup
2003	(KJ)	Liberty
2003	(KJ)	Cherokee (International Markets)
2003	(WG)	Grand Cherokee (International Markets)
2003	(WJ)	Grand Cherokee

NOTE: This bulletin applies to KJ vehicles equipped with a 2.8L turbo diesel engine (sales code ENR), DR/KJ vehicles equipped with a 3.7L engine (sales code EKG), AN/DN/DR/WG/WJ vehicles equipped with a 4.7L engine (sales codes EVA, or EVC) and DR vehicles equipped with a 5.7L engine (sales code EZA).

SYMPTOM/CONDITION:

Vehicle operator may experience:

- MIL illumination - 4.7L AN/DN/DR vehicles.
- While operating in speed control, a loss of vehicle speed may be experienced prior to transmission down shift. The up shift may then be noticeably delayed - 4.7L AN/DN/DR vehicles.
- Selecting "OD-Off" may produce high engine speeds while operating with the transfer case in low range - AN/DN/DR/KJ/WG/WJ vehicles.
- Selecting "Resume" or "OD Off" at highway speeds may produce high engine speeds - KJ 2.8L Turbo Diesel vehicles.

- Multiple shift maneuvers, such as repeated reverse to drive shifts, as in snow plow applications, may cause a rough idle and/or throttle tip-in sag. No MIL illumination or stored DTC's. Restarting the engine will clear the condition - 5.7L DR vehicles.

Technician may find the following Diagnostic Trouble Codes (DTC) on

4.7L AN/DN/DR vehicles:

- P0335 - Crankshaft Position Lost.
- P0340 - Camshaft Position Lost.
- P0499 - NVLD Canister Vent Valve Solenoid Circuit High.
- P0622 - Generator Field Not Switching Properly.
- P1604 - PCM Internal Dual-Port RAM Read/Write Integrity Failure.

This transmission software raises the maximum 4'-4 and 4-3 kick down speeds - KJ 2.8L Turbo Diesel vehicles.

DIAGNOSIS:

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

Service technicians are not required to duplicate these concerns. If the vehicle operator's description matches the Symptom/Conditions or the vehicle exhibits any of the Symptom/Conditions, perform Repair Procedure.

PARTS REQUIRED:

Qty.	Part No.	Description
1	05011058AA	Label, Authorized Software Update (International Markets)
1	04275086AB	Label, Authorized Modification (North American Markets)

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

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 PCM/TCM is replaced or reprogrammed, the software in the controller and DRBIII® must be verified as having the latest revision

level. If a controller software update flash is available, complete the flash and labeling requirement as directed in the appropriate service bulletin identified on TechCONNECT.

1. ****KJ/WG/WJ vehicles proceed to (STEP #2). AN/DN/DR vehicles, place the ignition switch in the “LOCK” position and unplug the CAB C1 (14 way) electrical connector. The CAB C1 connector is located in the engine compartment near the left fender/cowl area.****
2. Connect a battery charger and set as close to 14 volts charge as possible.
3. Flash the controller using TechCONNECT and the DRBIII®.
4. ****KJ/WG/WJ vehicles proceed to (STEP #5). AN/DN/DR vehicles, place the ignition switch in the “LOCK” position and plug the CAB C1 electrical connector into the CAB.****

NOTE: Due to the PCM reprogramming 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. All DTC’s relate to a loss of communications with the module that is being reprogrammed. 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.

5. Type the necessary information on the “Authorized Modification Label” p/n 04275086AB and attach near the VECI label (Fig. 1).

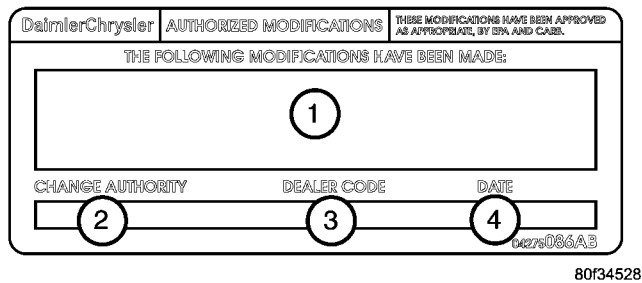


Fig. 1 AUTHORIZED MODIFICATION LABEL

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

6. Perform Powertrain Verification Test VER-5 as outlined in the information available in TechCONNECT or the appropriate Powertrain Diagnostic Procedures Manual.

POLICY:

Reimbursable within the provisions of the warranty.

TIME ALLOWANCE:

Labor Operation No:	Description	Amount
08-19-41-91	Reprogram Powertrain Control Module	0.8 Hrs.

FAILURE CODE:

FM	Flash Module
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