



# SERVICE BULLETIN

**NUMBER:** 03-001-05

**GROUP:** Differential & Driveline

**DATE:** January 13, 2005

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## **SUBJECT:**

FLASH: Off-Roading In 4WD Low Range - Axle Lockers May Unlock When Ignition Key Is Cycled

## **OVERVIEW:**

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

## **MODELS:**

2005 (TJ) Wrangler

**NOTE:** This bulletin applies to Wrangler Rubicon vehicles equipped with the Tru-Lok axle differential lockers (sales code DSE) and built prior to January 31, 2005 (MDH 0131XX).

## **SYMPTOM/CONDITION:**

The front and rear axle differential locker may electrically disengage so that each locker may unlock if the ignition key (switch) is cycled from the ON to the OFF position and then cycled back to the ON position. The vehicle operator may prefer that the differential lockers remain in the "LOCKED" mode even when the ignition key is cycled. This may be a preferred feature when the vehicle is being used for off-road purposes.

The new software will now maintain the front and rear axle differential locker in the "LOCKED" mode (will not disengage electrically) if the ignition key (switch) is cycled.

## **DIAGNOSIS:**

Using a Scan Tool (DRBIII®) with 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/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 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®.**

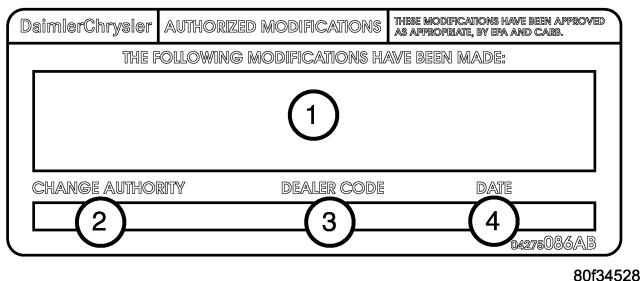
1. Before beginning the reprogramming procedure, remove any old flash reprogramming files from the DRBIII® memory. To clear the memory from the DRBIII® MAIN MENU:
  - a. Simultaneously press the "MORE" and "YES" keys.
  - b. A screen will appear requesting a "COLD BOOT".
  - c. Follow the on screen instructions by selecting the "F4" key.
  - d. When the DRBIII® reboots to the MAIN MENU, proceed to [Step #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 - 2005 Diagnostics".
  - c. "All (Except Below)".
  - d. "Engine".
  - e. "Module Display".
  - f. Record the "PCM part #" on the repair order for later reference.
3. 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.
4. Enter the "PCM part #" recorded in [Step #2](#) in the "Parts Criteria" area and select "Show Updates". TechTOOLS will populate the available updates.
5. Select the calibration.
6. Select the "DRBIII" radio button which is next to the "Download/Update" button.
7. Select the "Download/Update" button.
8. 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 #9](#).
9. **Disconnect the DRBIII® from TechCONNECT.**
10. Open the hood, install a battery charger and verify that the charging rate provides approximately 13.5 volts.

11. Connect the DRBIII® to the vehicle.
12. Turn the ignition to the “Run” position (engine not running).
13. Download the flash from the DRBIII® to the vehicle. Using the DRBIII® select:
  - a. “Vehicle Flash”.
  - b. Follow the directions on the DRBIII® screen to complete the download.

**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.**

14. 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 - 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

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**TIME ALLOWANCE:**

<b>Labor Operation No:</b>	<b>Description</b>	<b>Amount</b>
08-19-40-91	Reprogram Powertrain Control Module	0.8 Hrs.

**FAILURE CODE:**

FM	Flash Module
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