



NUMBER: 18-031-07

GROUP: Vehicle Performance

DATE: April 28, 2007

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THE StarSCAN® FLASH FILES FOR THIS BULLETIN MUST BE RETRIEVED FROM THE INTERNET.

StarSCAN® SOFTWARE LEVEL MUST BE AT RELEASE 7.04 OR HIGHER FOR THIS BULLETIN.

SUBJECT:

Flash: Launch Performance / Driveability Enhancements

OVERVIEW:

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

CAUTION: VEHICLES EQUIPPED WITH A CVT TRANSMISSION MUST HAVE THE TRANSMISSION CONTROL MODULE (TCM) CHECKED FOR THE LATEST SOFTWARE LEVEL WHENEVER THE PCM SOFTWARE IS UPGRADED. IF NEWER TCM SOFTWARE IS AVAILABLE, IT MUST BE INSTALLED.

MODELS:

2007	(MK49)	Compass
2007	(MK74)	Patriot
2007	(PM)	Caliber

NOTE: This bulletin applies to models equipped with a 1.8L, 2.0L or 2.4L gasoline engine (Sales Code EBA, ECN or ED3) on PM/MK models built before April 21, 2007 (MDH 0421XX).

SYMPTOM/CONDITION:

Some customers may experience the following:

- Automatic CVT models - Perceived lack of performance under light to moderate acceleration from a stop.
- All Models - Ticking Sound intermittently heard from the engine compartment.

Software changes have been made to improve the above bullet points. In addition, changes to maximum RPM in neutral have been made to assist A/C compressor function during cold ambient temperatures to prevent A/C compressor slugging.



Stick with the Specialists™

DIAGNOSIS:

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

If the above symptoms are described by the customer, perform the Repair Procedure.

PARTS REQUIRED:

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

SPECIAL TOOLS / EQUIPMENT REQUIRED:

NPN	Battery Charger
CH9401	StarSCAN® Tool
CH9404	StarSCAN® Vehicle Cable
CH9409	StarSCAN® Documentation Kit
CH9410	StarSCAN® Ethernet Cable, 12 ft.
CH9412	StarSCAN® Software Update Device Kit
	TechCONNECT PC or equivalent

FLASH REPAIR PROCEDURE - USING THE INTERNET TO RETRIEVE THE FLASH FILE:

CAUTION: DO NOT START THE ENGINE PRIOR TO COMPLETING STEP 5n and/or 8h. IF THE PROCEDURE IS NOT ADHERED TO THE CONTROLLERS MAY NOT COMPLETE THE PROGRAMMING PROCESS.

NOTE: When performing this Repair Procedure, the software release level in the StarSCAN®; must be programmed with 7.04 software or higher. The software release level is visible in the blue header at the top of the StarSCAN® screen.

NOTE: The StarSCAN® diagnostic scan tool fully supports Internet connectivity. However, to take advantage of this feature you must first configure the StarSCAN® for your dealership's network. Make sure the StarSCAN® is configured to the dealership's network before proceeding. For instruction on setting up your StarSCAN® for the dealer's network refer to either: "DealerCONNECT > Service > StarSCAN and StarMOBILE tools > Online Documentation", or refer to the StarSCAN® Quick Start Networking Guide. The StarSCAN® Quick Start Networking Guide is also available on the www.dcctools.com website under the "Download Center".

NOTE: If this flash process is interrupted/aborted, the flash should be restarted.

1. Install a battery charger and verify that the charging rate provides approximately 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.
2. Connect the CH9410 StarSCAN® ethernet cable to the StarSCAN® and the dealer's network drop.
3. Connect the CH9404 StarSCAN® vehicle cable to the StarSCAN® and the vehicle.
4. Power ON the StarSCAN®.
5. Using the StarSCAN® at the "Home" screen:
 - a. Select "ECU View"
 - b. Touch the screen to highlight the PCM in the list of modules.
 - c. Select "More Options"
 - d. Select "ECU Flash"
 - e. Record the part number at the top of the "Flash PCM" screen for later reference.
 - f. Select "Browse for New File". Follow the on screen instructions.
 - g. Select "Download to Scantool".
 - h. Select "Close" after the download is complete, then select "Back".
 - i. Highlight the listed calibration.
 - j. Select "Update Controller". Follow on screen instructions.
 - k. When the update is complete, select "OK".
 - l. Verify the part number at the top of the "Flash PCM" screen has updated to the new part number.
 - m. **Turn the ignition switch to the OFF position for no less than 15 seconds.**
 - n. **Turn the ignition switch to the RUN position (DO NOT CRANK THE ENGINE) for no less than 20 seconds.**

CAUTION: DO NOT START THE ENGINE PRIOR TO COMPLETING 5n OR 8h. IF THE PROCEDURE IS NOT ADHERED TO THE CONTROLLER MAY NOT COMPLETE THE PROGRAMMING PROCESS.

NOTE: Due to the PCM programming procedure, a DTC may be set in other modules within the vehicle. Some DTC's may cause the MIL to illuminate. From the "Home" screen select "System View". Then select "All DTCs". Press "Clear All Stored DTCs" if there are any DTCs shown on the list.

PM/MK Models equipped with a CVT must have the TCM reprogrammed as follows:

6. Using the StarSCAN® at the "Home" screen:
 - a. Select "ECU View"
 - b. Touch the screen to highlight the TCM in the list of modules.
 - c. Select "More Options"
 - d. Select "ECU Flash"
 - e. Record the part number at the top of the "Flash TCM" screen for later reference.
 - f. Select "Browse for New File". Follow the on screen instructions.
7. **Is the TCM part number recorded in step 6e above, the same as the new p/n shown on the "Flash File List" screen?**
 - a. Yes >> No further action is necessary. Proceed to Step 9.
 - b. No >> the TCM will require flash reprogramming, proceed to Step 8.
8. Flash reprogram the TCM as follows:
 - a. From the "Flash File List" screen, select "Download to Scantool".
 - b. Select "Close" after the download is complete, then select "Back".
 - c. Highlight the listed calibration.

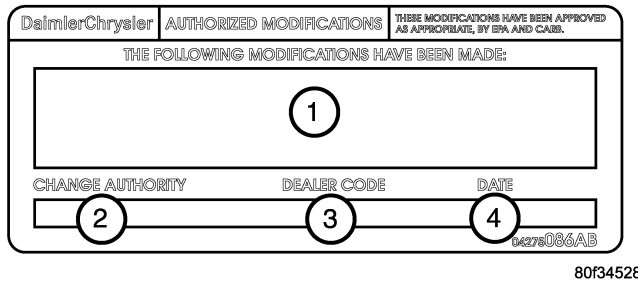
- d. Select "Update Controller". Follow on screen instructions.
- e. When the update is complete, select "OK".
- f. Verify the part number at the top of the "Flash TCM" screen has updated to the new part number.
- g. Turn the ignition switch to the OFF position for no less than 15 seconds.
- h. Turn the ignition switch to the RUN position (DO NOT CRANK THE ENGINE) for no less than 20 seconds.

CAUTION: DO NOT START THE ENGINE PRIOR TO COMPLETING STEP 5n and 8h. IF THE PROCEDURE IS NOT ADHERED TO THE CONTROLLER MAY NOT COMPLETE THE PROGRAMMING PROCESS.

NOTE: Due to the TCM programming procedure, a DTC may be set in other modules within the vehicle. Some DTC's may cause the MIL to illuminate. From the "Home" screen select "System View". Then select "All DTCs". Press "Clear All Stored DTCs" if there are any DTCs shown on the list.**

NOTE: The following step is required by law when reprogramming a PCM and/or TCM.

- 9. 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 / TRANSMISSION CONTROL MODULE P/N's (INSERT P/N's) 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
18-19-03-27	Module, Powertrain Control (GPEC) - Reprogram (B) & (Check TCM if CVT Equipped - No Update)	0.4 Hrs.

18-19-03-28	Module, Powertrain Control (GPEC) & Transmission Control (TCM) - Reprogram (B)	0.5 Hrs.
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FAILURE CODE:

ZZ	Service Action
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