



NUMBER: 18-020-06 REV. A

GROUP: Vehicle Performance

DATE: September 16, 2006

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THIS BULLETIN SUPERSEDES SERVICE BULLETIN 18-020-06 DATED JUNE 13, 2006, WHICH SHOULD BE REMOVED FROM YOUR FILES. ALL REVISIONS ARE HIGHLIGHTED WITH **ASTERISKS**** AND INCLUDES AN ADDITIONAL MODEL, REVISED SOFTWARE, CLEAN DATE, AND REVISED SYMPTOM/CONDITIONS, REPAIR PROCEDURES AND LABOR OPERATION NUMBERS**

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

UPDATE CD 6.05 WAS THE LAST CD TO CONTAIN FLASH FILES FOR StarSCAN.

SUBJECT:

Flash: Warm Weather Spark Knock and/or DTC P2173 ****and/or P0452****

OVERVIEW:

This bulletin involves selectively erasing and reprogramming the Powertrain Control Module (PCM) ****and if necessary, the Transmission Control Module (TCM)**** with new software and performing a memory reset to clear the adaptive memory of the PCM.

MODELS:

2007	(PM)	Caliber
2007	(MK49)	Compass

NOTE: This bulletin applies to models equipped with a 2.0L or 2.4L gasoline engine and CVT transmission (sales code ECN or ED3 with DAV) built on or after May 11, 2006 (MDH 0511XX) through and including August 16, 2006 (MDH 0816XX).

SYMPTOM/CONDITION:

Some customers may experience Spark Knock in warm ambient conditions (16°C (60°F) or higher).

The technician may find one or more of the following DTC's.

- P2173 - High Airflow/Vacuum Leak Detected (Slow Accumulation) may be found in the PCM. This DTC may occur when a vehicle is driven from a higher altitude to a lower altitude (1372 meter (4500 foot) change).
- ****P0452-Evap Pressure Switch Stuck Closed****

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 are present record them on the repair order and repair as necessary before proceeding further with this bulletin.

If the customer describes a Spark Knock condition, or the technician finds either DTC, perform the Repair Procedure.

NOTE: If service bulletin 18-020-06 has been performed and the Symptom/Condition is still present, 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

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

CAUTION: DO NOT START THE ENGINE PRIOR TO COMPLETING **STEP 5n and 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 7.02 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 AND 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.

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 also, 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.**

9. Reset the adaptive memory of the PCM with the StarSCAN®. This function is found under Miscellaneous Functions and is called Reset Memory. Select All Adaptive Memory.

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

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

The diagram shows a rectangular label with a header section. The header contains the text 'DaimlerChrysler' on the left, 'AUTHORIZED MODIFICATIONS' in the center, and 'THESE MODIFICATIONS HAVE BEEN APPROVED AS APPROPRIATE, BY EPA AND CALIF.' on the right. Below the header is a large rectangular box labeled with a circled '1' in the center, with the text 'THE FOLLOWING MODIFICATIONS HAVE BEEN MADE:' above it. At the bottom of the label, there are three fields labeled with circled '2', '3', and '4' respectively. The field '2' is labeled 'CHANGE AUTHORITY', '3' is labeled 'DEALER CODE', and '4' is labeled 'DATE'. The part number '04275086AB' is printed at the bottom right of the label.

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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
18-19-03-12	Erase and Reprogram-Powertrain Control Module (PCM) (B)	0.4 Hrs.
18-19-03-13	Erase and Reprogram-Powertrain Control Module (PCM) and Transmission Control Module (TCM) (B)	0.5 Hrs.

FAILURE CODE:

ZZ	Service Action
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