



NUMBER: 21-005-06

GROUP: Transmission/Transaxle

DATE: March 9, 2006

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SUBJECT:

Driveline Noise During Moderate to High Throttle Acceleration

OVERVIEW:

FLASH: This bulletin involves selectively erasing and reprogramming the Four Wheel Drive Control Module (FDCM) with new software.

MODELS:

2006 (WK) Grand Cherokee SRT8

NOTE: This bulletin applies to vehicles equipped with a 6.1L engine (Sales Code ESF) built on or before March 6, 2006 (MDH 0306XX).

SYMPTOM/CONDITION:

A growling/grinding/low frequency whine sound is heard when accelerating with moderate to high throttle between 45 and 80 kph (30 and 50 mph).

This sound is due to a resonance in the driveline when the transfer case clutch is activated with Electronic Stability Program (ESP) in the full on position. The sound is more prominent when the vehicle is new, and also when first operated in cold weather. The sound may also be present at various throttle positions when ESP is in the partial off position, as the transfer case clutch is activated more often in this mode. The sound generally lessens with transfer case clutch and axle gear set break-in. This sound is characteristic of this vehicle, and does not indicate a defective transfer case or axles. A revision to the FDCM software is now available which eliminates the noise over much of this speed range with the ESP full on.

DIAGNOSIS:

If the vehicle operator describes or experiences the Symptom/Condition, perform the Repair Procedure.



Stick with the Specialists™

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 |
| | Latest StarSCAN® Software Update CD |

REPAIR PROCEDURE:

NOTE: There are two methods to download flash files to StarSCAN®. The first (preferred) method is to download the flash files to the StarSCAN® from the internet. The second method is to download the flash files from the StarSCAN® Software Update CD.

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

NOTE: The StarSCAN® diagnostic scan tool fully supports Internet connectivity. However, in order to take advantage of this feature you must first configure the StarSCAN® for your dealership's network. For instruction on setting up your StarSCAN® for the dealer's network; refer to the StarSCAN® Quick Start Networking Guide 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. Open the hood, install a battery charger and verify that the charging rate provides approximately 13.5 volts.
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. Retrieve the old FDCM part number. Using the StarSCAN® at the "Home" screen:
 - a. Select "ECU View"
 - b. Touch the screen to highlight the FDCM in the list of modules.
 - c. Record the "Part Number", displayed on the "ECU Overview" screen, for later reference.

6. Download the flash file from the internet to the StarSCAN®. Using the StarSCAN® at the “ECU Overview” screen:
 - a. Select “More Options”
 - b. Select “ECU Flash”.
 - c. Select “Browse for New File”. Follow the on screen instructions.
 - d. Select “Download to Scantool”.
 - e. Select “Close” after the download is complete, then select “Back”.
 - f. Highlight the listed calibration.
 - g. Select “Update Controller”.
 - h. When the update is complete, select “OK”.

NOTE: Due to the FDCM programming procedure, a DTC may be set in other modules (TCM, BCM, MIC, SKREEM, etc.) within the vehicle, if so equipped. 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.

REPAIR PROCEDURE - USING SOFTWARE UPDATE CD TO RETRIEVE THE FLASH FILE:

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

NOTE: For detailed information on the operation of the StarSCAN®, refer to the Quick Reference documentation provided in the StarSCAN® documentation kit. In addition, more recent information may also be available at the www.dcctools.com website. Look under "Training Aids" and also under "Download Center > Frequently Asked Questions" for more help.

1. Open the hood, install a battery charger and verify that the charging rate provides approximately 13.5 volts.
2. Connect the CH9404 StarSCAN® vehicle cable to the StarSCAN® and the vehicle.
3. Power ON the StarSCAN®.
4. Retrieve the old FDCM part number. Using the StarSCAN® at the “Home” screen:
 - a. Select “ECU View”
 - b. Touch the screen to highlight the FDCM in the list of modules.
 - c. Record the "Part Number", displayed on the "ECU Overview" screen, for later reference.
5. Insert the StarSCAN® Software Update CD into the TechCONNECT or equivalent PC. The StarSCAN® Software Update CD will start automatically. Select “Download Flash Updates”.
6. At the “**Select a method for looking up controller flash updates.**” screen:
 - a. Select “Enter part number”. Enter the “Part Number” recorded in [Step #4](#) when prompted to do so.
 - b. Using the mouse highlight the appropriate “Calibration”. Select “Next”.
 - c. Follow the on screen instructions.
 - d. When completed, proceed to [Step #7](#).
7. With the StarSCAN® powered OFF, connect the USB Key and Gender Changer to the StarSCAN® USB port ([Fig. 1](#)).

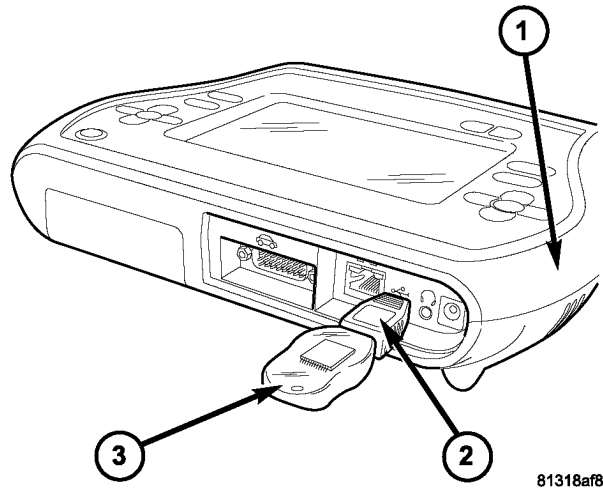


Fig. 1 USB KEY, GENDER CHANGER, AND StarSCAN® TOOL

- 1 - StarSCAN® TOOL
- 2 - GENDER CHANGER
- 3 - USB KEY

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8. Connect the StarSCAN® to the vehicle (if not already connected).
 9. Power ON the StarSCAN®.
 10. Download the flash file from the USB key to the StarSCAN®. Using the StarSCAN® at the "Home" screen:
 - a. Select "Flash Download", then select "Retrieve files from the USB storage device"
 - b. Highlight the appropriate calibration. Select "Download to Scan Tool"
 - c. When the download is complete, select "Close" and "Back".
 11. Reprogram the FDCM. Using the StarSCAN® at the "Home" screen:
 - a. Select "ECU View".
 - b. Select "More Options".
 - c. Select "ECU Flash".
 - d. Highlight the appropriate calibration.
 - e. Select "Update Controller". Follow the on screen instructions.
 - f. When the update is complete, select "OK".

NOTE: Due to the FDCM programming procedure, a DTC may be set in other modules (TCM, BCM, MIC, SKREEM, etc.) within the vehicle, if so equipped. 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.

POLICY:

Reimbursable within the provisions of the warranty.

TIME ALLOWANCE:

| Labor Operation No: | Description | Amount |
|----------------------------|--------------------|---------------|
| 18-19-13-10 | Reprogram FDCM | 0.3 Hrs. |

FAILURE CODE:

| | |
|----|----------------|
| ZZ | Service Action |
|----|----------------|