



NUMBER: 21-002-07 REV. B

GROUP: Transmission

DATE: July 17, 2007

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THIS BULLETIN SUPERSEDES TECHNICAL SERVICE BULLETIN 21-002-07 REV. A, DATED FEBRUARY 10, 2007, WHICH SHOULD BE REMOVED FROM YOUR FILES. ALL REVISIONS ARE HIGHLIGHTED WITH **ASTERISKS**** AND INCLUDE A ADDITIONAL MODEL, UPDATED SOFTWARE, NEW LABOR OPERATION NUMBER AND A UPDATED REPAIR PROCEDURE.**

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

StarSCAN® SOFTWARE LEVEL MUST BE AT RELEASE 8.01 OR HIGHER.

SUBJECT:

Flash: Torque Converter Shudder / Shift Quality Improvements / DTC P0732

OVERVIEW:

This bulletin involves reprogramming the Powertrain Control Module (PCM) with new software and replacing the torque converter as required.

MODELS:

2007	(CS)	Pacifica
2007	(DR)	Ram 1500
2007	(HB)	Durango
2007	(JK)	Wrangler
2007	(JS)	Sebring
2007	(KA)	Nitro
2007	(KJ)	Liberty
2007	(LE)	300C/300 Touring (International Markets)
2007	(LX)	300/Magnum/Charger
2007	(L2)	300 (China)
2007	(ND)	Dakota

NOTE: This bulletin applies to CS/DR/HB/JK/JS/KA/KJ/LE/LX models built with a 41TE, 42RLE, or 62TE automatic transmission (Sales Codes DFF, DGV, or DG2). built on or before December 15, 2006 (MDH1215XX) and ND models with 42RLE built on or before January 2, 2007 (MDH0102XX).



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NOTE: This bulletin DOES NOT apply to JS models with a 2.4L engine.

SYMPTOM/CONDITION:

The vehicle operator may experience one or more of the following symptoms:

1. Transmission Shudder - 42RLE All, 41TE CS/JS, 62TE CS/JS
 - a. This condition can only occur after the vehicle has been driven and the torque converter is past the break in period. Torque Converter break in can be confirmed with the StarSCAN®.
 - b. If experienced, the shudder may occur when the transmission temperature is between 38° C and 54° C (100° F and 130° F) during steady state driving with the torque converter in partial lock (EMCC) operation. The shudder feels like the vehicle is being driven over rumble strips.
2. Torque Converter Pull In Bump - 41TE JS, 62TE CS/JS
 - a. This condition can occur due to abrupt torque converter clutch engagement during EMCC initialization.
3. DTC P0732 - Gear Ratio Error in 2nd Gear - 62TE CS
 - a. The MIL may or may not be lit (2 trip fault).
 - b. Limp In will occur when this fault is set.
 - c. This is an intermittent condition and cannot be duplicated. If the fault can be duplicated, other conditions exist and further investigation will be required.
4. Shift Quality Improvements - 62TE CS
 - a. Rapid Decel Coastdown Stumble.
 - b. Low Speed 3-2 Kickdown Harshness.
 - c. 4-5 and/or 5-6 upshift flare bump.

DIAGNOSIS:

Using a Scan Tool (StarSCAN®) with the appropriate Diagnostic Procedures available in TechCONNECT, verify all engine/transmission 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 vehicle operator describes the Symptom/Conditions and they can be verified, perform the appropriate Repair Procedure.

PARTS REQUIRED:

Qty.	Part No.	Description
1	04275086AB	Label, Authorized Modification
AR(1)	05175001AA	Torque Converter, (42RLE) 2.7L LX/LE - 3.7L Truck - 3.7/3.8L Jeep
AR(1)	68006834AA	Torque Converter, (41TE) 3.8L CS
AR(1)	68103527AB	Torque Converter, (41TE) 2.7L JS
AR(1)	68003520AB	Torque Converter, (62TE) 4.0L CS - 3.5L JS

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 PROCEDURES BY SYMPTOM/CONDITION:**SYMPTOM/CONDITION 1 - Transmission Shudder - 42RLE All, 41TE CS/JS, 62TE CS/JS:**

1. **Is the vehicle an LX/LE/L2 that has had Service Bulletin 21-002-07 or 21-002-07 REV. A performed already?
 - a. Yes >>> Proceed to [Step #3](#).
 - b. No >>> Proceed to [Step #2](#) **.
2. Replace the Torque Converter - Use the appropriate part number listed in the parts table above - Follow detailed service procedures listed in DealerCONNECT>TechCONNECT for Torque Converter replacement.
3. Reprogram the PCM with the latest software using the flash procedure listed in the flash procedure below. After PCM reprogramming, the following must be performed:
 - a. Clear the Variable Line Pressure (VLP) Counters, found in the StarSCAN® Misc Function Menu. VLP Clear Counters must be completed on all models with a 62TE transmission or if DTC P1745 appears on other transmission applications.
 - b. Clear any DTC's that may have been set in other modules due to reprogramming.
 - c. Perform the Quick Learn function, found in the StarSCAN® Misc Function Menu.
 - d. Select the TCC Break In, found in the StarSCAN® Misc Function Menu and select "Start TCC Break In".

SYMPTOM/CONDITION 2 - Torque Converter Pull In Bump - 41TE JS, 62TE CS/JS:

1. Replace the Torque Converter - Use the appropriate part number listed in the parts table above - Follow detailed service procedures listed in DealerCONNECT>TechCONNECT for Torque Converter replacement.
2. Reprogram the PCM with the latest software using the flash procedure listed in the flash procedure below. After PCM reprogramming:
 - a. Clear the Variable Line Pressure (VLP) Counters, found in the StarSCAN® Misc Function Menu. VLP Clear Counters must be completed on all models with a 62TE transmission or if DTC P1745 appears on other transmission applications.
 - b. Clear any DTC's that may have been set in other modules due to reprogramming.
 - c. Perform the Quick Learn function, found in the StarSCAN® Misc Function Menu.
 - d. Select the TCC Break In, found in the StarSCAN® Misc Function Menu and select "Start TCC Break In".

SYMPTOM/CONDITION 3 - DTC P0732 - 62TE CS:

1. Reprogram the PCM with the latest software using the flash procedure listed in the flash procedure below. After PCM reprogramming, the following must be performed:
 - a. Clear the Variable Line Pressure (VLP) Counters, found in the StarSCAN® Misc Function Menu. VLP Clear Counters must be completed on all models with a 62TE transmission.

- b. Clear any DTC's that may have been set in other modules due to reprogramming.
- c. Perform the Quick Learn function, found in the StarSCAN® Misc Function Menu.

SYMPTOM/CONDITION 4 - Shift Quality Improvement - 62TE CS:

1. Reprogram the PCM with the latest software using the flash procedure listed in the flash procedure below. After PCM reprogramming, the following must be performed:
 - a. Clear the Variable Line Pressure (VLP) Counters, found in the StarSCAN® Misc Function Menu. VLP Clear Counters must be completed on all models with a 62TE transmission.
 - b. Clear any DTC's that may have been set in other modules due to reprogramming.
 - c. Perform the Quick Learn function, found in the StarSCAN® Misc Function Menu.

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

NOTE: When performing this Repair Procedure, the software release level in the StarSCAN®; must be programmed with 8.01 level 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. Retrieve the old PCM part number. 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".

- I. Verify the part number at the top of the “Flash PCM” screen has updated to the new part number.
- 6. After flash reprogramming, be sure to **Perform the additional Repair Steps** associated with each procedure. These steps may include VLP clear counters, Quick Learn and/or Re-enable TCC break in. It is important to perform these additional steps in the order listed for each repair.

NOTE: Due to the PCM 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.

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

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

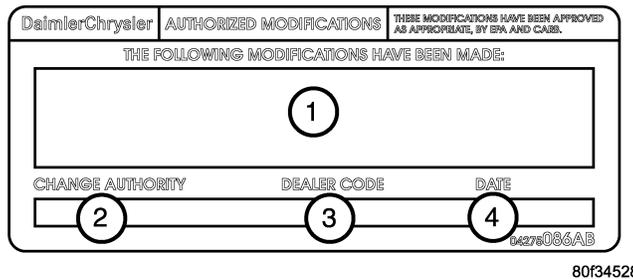


Fig. 1 AUTHORIZED MODIFICATION LABEL

- 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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POLICY:

Reimbursable within the provisions of the warranty.

TIME ALLOWANCE:

Labor Operation No:	Description	Amount
21-33-01-90	Torque Converter, Transmission - Replace, PCM - Reprogram - 41TE Equipped Vehicles (B)	CS 5.9 Hrs. JS 5.1 Hrs.
21-33-01-91	Torque Converter - Transmission - Replace & Reprogram PCM - 62TE Equipped (B)	CS 8.1 Hrs. JS 5.4 Hrs.
21-33-01-92	Torque Converter, Transmission - Replace, PCM - Reprogram - 62TE AWD Equipped Vehicles (B)	CS 8.6 Hrs.
21-33-01-93	Torque Converter, Transmission - Replace, PCM - Reprogram - 42RLE Equipped Vehicles (B)	DR 3.3 Hrs. HB 3.6 Hrs. JK 1.9 Hrs. KA 3.4 Hrs. KJ 2.7 Hrs. LE/LX 5.0 Hrs. ND 3.1 Hrs.
21-33-01-96	Torque Converter, Transmission - Replace, PCM - Reprogram - 42RLE 4X4 Equipped Vehicles (B)	JK 2.5 Hrs. KA 3.9 Hrs. KJ 3.5 Hrs. ND 4.1 Hrs.
18-19-06-96	Module, Powertrain Control Module (PCM) - Reprogram - ONLY (B)	0.4 Hrs.

FAILURE CODE:

ZZ	Service Action
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