

# Technical Service Bulletin

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**GROUP:** Transmission

**DATE:** Feb. 4, 2000

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**SUBJECT:**

Intermittent Harsh Engagement Into Reverse Gear On Certain RE Model Transmissions

**OVERVIEW:**

This bulletin involves the replacement of the transmission valve body upper housing separator plate and a valve body check ball. In addition, for 2000 M.Y. vehicles equipped with a 46RE transmission this bulletin involves selectively erasing and reprogramming the JTEC Powertrain Control Module (PCM) with new software (calibration change 00Cal13/13A).

**MODELS:**

2000	(AB)	Ram Van
1999 – 2000	(AN)	Dakota
1999 – 2000	(BR/BE)	Ram Truck
2000	(DN)	Durango
1999 – 2000	(WJ)	Grand Cherokee

**NOTE: THIS INFORMATION APPLIES TO 1999 AND 2000 MODEL YEAR VEHICLES EQUIPPED WITH EITHER A 42RE AUTOMATIC TRANSMISSION BUILT BEFORE SEPTEMBER 1, 1999 (MDH 0901XX) OR 2000 MODEL YEAR VEHICLES EQUIPPED WITH A 46RE AUTOMATIC TRANSMISSION BUILT BEFORE DECEMBER 1, 1999 (MDH 1201XX).**

**SYMPTOM/CONDITION:**

The customer may experience a harsh engagement into gear when reverse is selected. This condition may be intermittent, and may occur more frequently as the transmission fluid warms to normal operating temperatures.

**DIAGNOSIS:**

1. Verify that the transmission fluid level is correct.
2. Verify that the valve body throttle valve and transmission shift linkage is adjusted properly.

Using the Mopar Diagnostic System (MDS2) and or the Diagnostic Scan Tool (DRB III<sup>7</sup>) with the appropriate Diagnostic Procedures Manual, verify all engine/transmission systems are functioning as designed. If Diagnostic Trouble Codes (DTC's) are present, record them on the repair order and repair as necessary before proceeding further with this bulletin. If no DTC's are present, and the above symptoms have been experienced, perform the Repair Procedure.

**NOTE: WHENEVER A POWERTRAIN CONTROL MODULE (PCM) IS REPLACED DUE TO FAILURE, THE SOFTWARE OF THE REPLACEMENT CONTROLLER MUST BE VERIFIED FOR THE LATEST REVISION LEVEL. USE THE FLASH PROCEDURE TO UPDATE REPLACED CONTROLLERS AS NECESSARY.**

**EQUIPMENT REQUIRED:**

1	CH6000	Scan Tool (DRB III <sup>7</sup> )
1	CH7035	General Purpose Interface Bus Cable (GPIB)
1	CH7000/7001	J1962 Cable
1		MDS2

**NOTE: THE MDS2 AND DRB III<sup>7</sup> ARE REQUIRED TO PERFORM PART OF THIS REPAIR. WHEN USING THE MDS2 AND THE DRB III<sup>7</sup>, THE SYSTEM MUST BE OPERATING AT CIS CD 2051 OR HIGHER.**

**PARTS REQUIRED:**

1	52118261	Ball, Rear Servo Check ("Torlon" – plastic for 42RE and 46RE)
1	52118272	Plate, Valve Body Separator (42RE trans.)
1	04295875	Gasket, Transmission Pan (42RE trans.)
1	04617196AB	Plate, Valve Body Separator (46RE trans.)
1	05012978AA	Gasket, Transmission Pan (46RE trans.)
10	05010124AA	Fluid, Transmission ATF +3
1(AR)	04669020	Label, Authorized Software Update (if a 46RE trans.)
1(AR)	04275086	Label, Authorized Modification (if a 46RE trans.)

**REPAIR PROCEDURE:**For both the 1999 and 2000 M.Y. 42RE and 46RE Transmission:

1. Refer to the appropriate year Service Manual, Section 21 – Transmission and Transfer Case for removal and installation instructions of the transmission valve body, check ball, upper housing separator plate, and pan gasket.
2. Replace the original steel rear servo check ball with the plastic "Torlon" check ball (p/n 52118261).
3. Clean the new separator plate to remove any dirt or rust inhibitor prior to installation.
4. Install the new transmission valve body upper housing separator plate (p/n 52118272 or p/n 04617196AB).
5. Reassemble the transmission.
6. Install a new transmission pan gasket (p/n 04295875 or p/n 05012978AA).
7. Lower vehicle and install transmission fluid (p/n 05010124AA).
8. Verify fluid level after warming up the transmission and cycling the shift lever several times.
9. Verify, and if required, adjust the transmission shift linkage and the transmission throttle valve cable per the appropriate Service Manual procedures.

For the 2000 M.Y. 46RE Transmission Only:

1. Log onto the MDS2 system.
2. Connect the MDS2 (Mopar Diagnostic System) and DRB III<sup>7</sup> (Scan Tool) to the vehicle and switch the ignition key to "ON".
3. Use the arrow keys and select #2 CONNECT TO MDS2 on the DRB III<sup>7</sup> MAIN MENU SCREEN.

4. Use the arrow keys and select #2 RUN MDS2 APPLICATION on the DRB III<sup>7</sup> MAIN MENU SCREEN.

**NOTE: ONCE MDS2, DRB III<sup>7</sup>, AND VEHICLE COMMUNICATION HAS BEEN ESTABLISHED, THE “CANNOT READ VIN FROM DRB III<sup>7</sup> ” MESSAGE (ON THE MDS) WILL BE REPLACED BY THE VEHICLE VIN. PRESS THE “OK” BUTTON ON THE MDS2 TO REQUEST A MDS2 SESSION FOR THE VEHICLE VIN INDICATED. PRESS THE “OK” BUTTON WHEN ASKED TO BEGIN SESSION.**

5. Push the FLASH tab on the MDS2.

**NOTE: A MESSAGE MAY APPEAR THAT INDICATES NO UPDATES ARE AVAILABLE. IF THIS OCCURS, MAKE SURE YOUR DIAGNOSTIC EQUIPMENT IS OPERATING AT THE LATEST SOFTWARE LEVEL AS LISTED EARLIER IN THIS BULLETIN. IF THE LATEST SOFTWARE IS INSTALLED, AND NO UPDATES ARE AVAILABLE, ANOTHER VEHICLE CONDITION EXISTS THAT WILL REQUIRE FURTHER INVESTIGATION.**

6. Select READ PART NUMBERS FROM VEHICLE and click SHOW UPDATES on the MDS2.

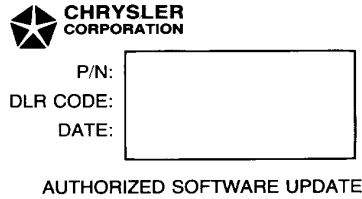
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7. Select the new software part number with the light pen and click UPDATE CONTROLLER SOFTWARE.
8. The MDS2 and DRB III<sup>7</sup> will prompt for any operator action needed during the remainder of the reprogramming process.

**NOTE: DUE TO THE PCM FLASH PROCEDURE, A DTC MAY BE SET IN OTHER MODULES (EATX, BCM, MIC, SKIM, ABS) WITHIN THE VEHICLE IF SO EQUIPPED. SOME MAY CAUSE THE MIL TO ILLUMINATE. ALL DTC'S RELATE TO A LOSS OF COMMUNICATIONS WITH THE MODULE THAT IS BEING FLASHED. CHECK ALL MODULES, RECORD THE FAULTS, AND ERASE THESE FAULTS PRIOR TO RETURNING THE VEHICLE TO THE CUSTOMER. ERASE ANY FAULTS IN THE PCM ONLY AFTER ALL OTHER MODULES HAVE HAD THEIR FAULTS ERASED.**

**NOTE: THE FOLLOWING STEPS ARE REQUIRED BY LAW**

- 9. Type the necessary information on the “Authorized Software Update Label” p/n 04669020 (Figure 1). Attach the label to the JTEC PCM and cover the label with the clear plastic overlay.



**FIGURE 1**

- 10. Type the necessary information on the “Authorized Modification Label” p/n 04275086 and attach the label near the VECI label (Figure 2).



1

	CHANGE AUTHORITY	DEALER CODE	DATE
<b>4275086</b>	2	3	4

**FIGURE 2**

1	<b>CONTROL MODULE PART NUMBER (INSERT NEW P/N HERE)</b>
2	<b>CHANGE AUTHORITY: TSB XX-XX-XX</b>
3	<b>DEALER CODE: XXXXX</b>
4	<b>DATE: XX-XX-XX</b>

**POLICY:** Reimbursable within the provisions of the warranty.

**TIME ALLOWANCE:**

Labor Operation No:

- 21-95-01-93 Valve Body, Check Ball and Plate - Replace ..... 1.7 Hrs.  
1999-2000 (AB,AN, BR, BE, DN,WJ)
- 08-19-42-94 Powertrain Control Module – Reprogram (46RE only) .....0.5 Hrs.  
2000 (AN, AB, BR, BE, DN)

**FAILURE CODE:** P8 – New Part  
FM – Flash Module