

NUMBER: 21-009-05

GROUP: Transmission

DATE: March 22, 2005

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SUBJECT:

MIL Illumination For DTC's P0750, P0755, P0760, P0765, P0846, P0871 or P0841

OVERVIEW:

This bulletin involves replacing the transmission solenoid/pressure switch assembly and 10-way wiring pigtail harness.

MODELS:

2004	(AN)	Dakota
2004 - 2005	(HB)	Durango
2003 - 2005	(KJ)	Liberty
2003 - 2005	(KJ)	Cherokee (International Markets)
2005	(LX)	300/Magnum
2005	(ND)	Dakota
2003 - 2005	(TJ)	Wrangler

NOTE: This bulletin applies to vehicles equipped with a 42 RLE automatic transmission (sales code DG6).

SYMPTOM/CONDITION:

The vehicle operator may experience a MIL for one or more of the following DTC's:

- P0750 LR Solenoid Circuit
- P0755 2-4 or 2C Solenoid Circuit
- P0760 OD Solenoid Circuit
- P0765 UD Solenoid Circuit
- P0846 2-4 or 2C Pressure Switch Rationality
- P0871 OD Pressure Switch Rationality
- P0841 LR Pressure Switch Rationality

DIAGNOSIS:

Disconnect the transmission solenoid/pressure switch assembly connector and inspect the harness connector and assembly connector for any signs of moisture or corrosion. If there are signs of moisture in the connectors or the presence of corrosion, perform the appropriate Repair Procedure.

If no moisture or corrosion is visable at the harness or assembly connector, further diagnosis is necessary, this service bulletin does not apply.



PARTS REQUIRED:

Qty.	Part No.	Description
1	05102405AA	Wiring 10-way Pigtail Harness
1	05143151AA	Solenoid/Pressure Switch Assembly

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SPECIAL TOOLS/EQUIPMENT REQUIRED:

NPN	Battery Charger
05019912AA	Crimping Tool
CH9401	StarSCAN® Tool
CH9404	StarSCAN® Vehicle Cable
CH9409	StarSCAN® Documentation Kit
	StarSCAN® Software Update CD
CH2002	General Purpose Interface Bus Cable Assembly
CH6000A	Scan Tool (DRBIII®)
CH7000A/7001A	J1962 Cable with red DRBIII® connector

AN/HB/ND REPAIR PROCEDURE:

- 1. Open the hood.
- 2. Disconnect and isolate the negative battery cable.
- 3. Raise the vehicle on a suitable hoist.
- 4. Remove the transfer case skid plate, if equipped. Refer to the detailed removal procedures available in TechCONNECT, under: Service Info,13 Frames & Bumpers/Frame/Transfer Case Skid Plate Removal.
- 5. Place a suitable service jack under the transmission crossmember.
- 6. Remove the bolts securing the transmission crossmember to the frame and lower transmission assembly approximately 51 102 mm (2 4 in.)
- 7. Disconnect the rear oxygen sensor.
- 8. Disconnect the transmission solenoid/pressure switch connector (Fig. 1).

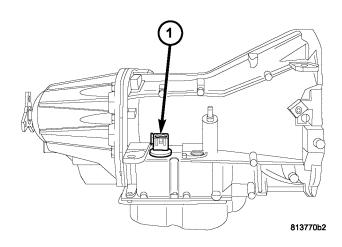


Fig. 1 SOLENOID/PRESSURE SWITCH ASSEMBLY

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- 9. Disconnect the wiring harness routing clip(s) at the top of the transmission. Pull the wiring harness down on the right side of the transmission.
- 10. Proceed to the WIRING HARNESS REPAIR PROCEDURE: Step #1
- 11. Reconnect the transmission solenoid/pressure switch assembly connector.
- 12. Connect the rear oxygen sensor connector.
- 13. Secure the wiring harness routing clip(s) at the top of the transmission.
- 14. Install the four bolts securing the transmission crossmember to the vehicle. Tighten the crossmember to frame bolts to 68 N·m (50 ft.lbs.).
- 15. Install the transfer case skid plate, if equipped. Refer to the detailed installation procedures available in TechCONNECT, under: Service Info,13 Frames & Bumpers/Frame/Transfer Case Skid Plate Installation.
- 16. Lower the vehicle.
- 17. Connect the negative battery cable and reset the clock.
- 18. Close the hood.
- 19. Using the DRB III® or StarSCAN® perform the Quick Learn Procedure and verify the solenoid is operating properly.

KJ REPAIR PROCEDURE:

- 1. Open the hood.
- 2. Disconnect and isolate the negative battery cable.
- 3. Raise the vehicle on a suitable hoist.
- 4. Place a suitable service jack under the transmission crossmember.
- 5. Remove the bolts securing the transmission crossmember to the frame and lower transmission assembly approximately 51 102 mm (2 4 in.)
- 6. Disconnect the transmission solenoid/pressure switch connector (Fig. 1).
- 7. Disconnect the wiring harness routing clip at the top of the transmission.
- 8. Disconnect the right rear oxygen sensor and cut the tie strap from the wiring harness conduit leading to the transmission solenoid/pressure switch connector.
- 9. Route the wiring harness in front of the transmission dipstick tube and pull the wiring harness down as far as possible on the right side of the transmission.
- 10. Proceed to the WIRING HARNESS REPAIR PROCEDURE: Step #1
- 11. Reposition the wiring harness back around the transmission dipstick tube and install new tie strap (7 in.) so that the wiring harness is in it's original position.
- 12. Reconnect the transmission solenoid/pressure switch assembly connector.
- 13. Reconnect the right rear oxygen sensor connector.
- 14. Secure the wiring harness routing clip at the top of the transmission.
- 15. Raise the transmission and install the six bolts securing the transmission crossmember to the vehicle. Tighten the crossmember to frame bolts to 68 N·m (50 ft.lbs.).
- 16. Lower the vehicle.
- 17. Connect the negative battery cable and reset the clock.
- 18. Close the hood.
- 19. Using the DRB III® perform the Quick Learn Procedure and verify the solenoid is operating properly.

LX REPAIR PROCEDURE:

- 1. Open the hood.
- 2. Disconnect and isolate the negative battery cable.
- 3. Raise the vehicle on a suitable hoist.
- 4. Place a suitable service jack under the transmission crossmember.
- 5. Remove the bolts securing the transmission crossmember to the frame and lower transmission assembly approximately 51 102 mm (2 4 in.)
- 6. Disconnect the input speed sensor connector, output speed sensor connector, and the transmission range sensor connector (Fig. 2).

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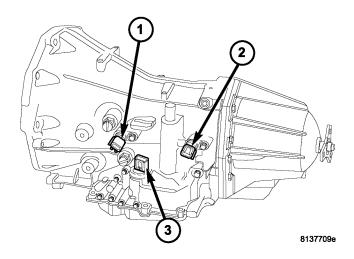


Fig. 2 INPUT AND OUTPUT SPEED SENSORS AND TRANSMISSION RANGE SENSOR

- 1 INPUT SPEED SENSOR
- 2 OUTPUT SPEED SENSOR
- 3 TRANSMISSION RANGE SENSOR
- 7. Disconnect the transmission solenoid/pressure switch connector (Fig. 1).
- 8. Disconnect the wiring harness routing clip at the top of the transmission. Pull the wiring harness to the right side of the vehicle.
- 9. Proceed to the WIRING HARNESS REPAIR PROCEDURE: Step #1
- 10. Reconnect the transmission solenoid/pressure switch assembly connector.
- 11. Connect the input speed sensor connector, output speed sensor connector, and the transmission range sensor connector.
- 12. Secure the wiring harness routing clip at the top of the transmission.
- 13. Install the four bolts securing the transmission crossmember to the vehicle. Tighten the crossmember to frame bolts to 68 N·m (50 ft.lbs.).
- 14. Lower the vehicle.
- 15. Connect the negative battery cable and reset the clock.
- 16. Close the hood.
- 17. Using the StarSCAN® perform the Quick Learn Procedure and verify the solenoid is operating properly.

TJ REPAIR PROCEDURE:

- 1. Open the hood.
- 2. Disconnect and isolate the negative battery cable.
- 3. Raise the vehicle on a suitable hoist.
- 4. Place a suitable service jack under the transmission crossmember.
- 5. Remove the transmission skid plate, if equipped. Refer to the detailed removal procedures available in TechCONNECT, under: Service Info, 13 Frame & Bumpers/Frame/Front Skid Plate Removal.
- 6. Remove the bolts securing the transfer case skid plate to the frame and lower the skid plate and transmission assembly approximately 51 102 mm (2 4 in.).
- 7. Loosen the skid plate to trans mount nuts (4).

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- 8. Disconnect the input speed sensor connector, output speed sensor connector, and the transmission range sensor connector (Fig. 2).
- 9. Disconnect the transmission solenoid/pressure switch connector (Fig. 1).
- 10. Disconnect the wiring harness routing clip at the top of the transmission. Pull the wiring harness to the driver's (left) side of the vehicle.
- 11. Proceed to the WIRING HARNESS REPAIR PROCEDURE: Step #1
- 12. Reconnect the transmission solenoid/pressure switch assembly connector.
- 13. Connect the input speed sensor connector, output speed sensor connector, and the transmission range sensor connector.
- 14. Secure the wiring harness routing clip at the top of the transmission.
- 15. Install the four bolts securing the transfer case crossmember to the vehicle. Tighten the crossmember to frame bolts to 68 N·m (50 ft.lbs.).
- 16. Tighten the nuts attaching the transmission mount to the transfer case skid plate to 35 N⋅m (26 ft. lbs.).
- 17. Install the transmission skid plate, if equipped. Tighten the crossmember to frame bolts to 74 N·m (55 ft. lbs.).
- 18. Lower the vehicle.
- 19. Connect the negative battery cable and reset the clock.
- 20. Close the hood.
- 21. Using the DRB III® perform the Quick Learn Procedure and verify the solenoid is operating properly.

WIRING HARNESS AND SOLENOID REPAIR PROCEDURE:

- 1. Remove the tape from wiring harness conduit at the Solenoid/Pressure switch connector and pull the wiring out of the conduit about 4 inches from the connector.
- Clearly mark the cavity locations on each wire 76 mm (3 in.) up from the transmission solenoid/pressure switch connector. Refer to the detailed wiring and connector diagrams available in TechCONNECT under: Wiring, 21 - Transmission/Transaxle, Automatic - 42 RLE, Solenoid/Pressure Switch Assy, Wiring Diagrams and Connector Pinout.
- 3. Measure up from the end of the transmission solenoid/pressure switch connector 25.4 mm (1 in.) and cut it off the connector.
- 4. Cut seven 18 gauge wires from the repair kit to 76 mm (3 in.). Cut one 14 gauge wire to 76 mm (3 in.).
- 5. Solder the one 14 gauge wire to the wiring harness wire marked for cavity number 3. Refer to the detailed service information available in TechCONNECT under: Service Info, 8 Electrical/Wiring Diagram Information/Wire Standard Procedure Wire Splicing and the detailed wiring diagrams under: Wiring, 21 Transmission/Transaxle/Automatic 42RLE/Solenoid/Pressure Switch Assy/Wiring Diagrams.
- 6. Solder the seven 18 gauge wires to the wiring harness wires marked for cavities 1,2,4,5,6,7,and 10.
- 7. Place a piece of the heat shrink tubing over each wire and shrink it in place.
- 8. Insert two terminal plugs into the new connector in cavities 8 and 9.
- 9. Insert the terminals into the appropriate cavities in the new connector as marked.
- 10. Place wires back in conduit and tape up the wiring harness.
- Replace the solenoid assembly, p/n 05143151AA. Refer to the detailed removal and installation procedures available in TechCONNECT, under: Service Info, 21 -Transmission/Transaxle/Automatic - 42RLE/Solenoid Pressure Switch Assembly.
- 12. KJ vehicles, proceed to KJ REPAIR PROCEDURE: Step #11. LX vehicles, proceed to LX REPAIR PROCEDURE: Step #10. AN/HB/ND vehicles, proceed to ND REPAIR PROCEDURE: Step #10. TJ vehicles, proceed to TJ REPAIR PROCEDURE: Step #12

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POLICY:

Reimbursable within the provisions of the warranty.

TIME ALLOWANCE:

Labor Operation No:	Description	Amount
08-90-99-94	Replace 10-Way Wiring Pigtail Harness and Solenoid/Pressure Switch assembly	2.2 Hrs. LX Bodies
		2.3 Hrs. TJ Bodies
		2.4 Hrs. AN, ND, KJ, HB Bodies

FAILURE CODE:

3T Terminals Corroded	
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