



NUMBER: 21-010-12

GROUP: Transmission and Transfer Case

DATE: July 14, 2012

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SUBJECT:

Noise Heard When Shifting the Transmission From Drive to Neutral

OVERVIEW:

This bulletin involves installing a revised separator plate into the transmission valve body.

MODELS:

2011 - 2012	DD	Ram 3500 Cab Chassis
2011 - 2012	DJ	Ram 2500 Pickup
2011 - 2012	DS	Ram 1500 Pickup
2011 - 2012	WD	Durango
2011 - 2012	WK	Grand Cherokee
2011 - 2012	W2	Grand Cherokee (International)

NOTE: This bulletin applies to vehicles equipped with RFE transmissions only (Sales Codes DFP, DG7, DGQ, or DG1).

SYMPTOM/CONDITION:

Harsh/audible shift from Drive to Neutral predominately with elevated ambient and transmission and driveline temperatures.

DIAGNOSIS:

If the customer describes the symptom, perform the Repair Procedure.

PARTS REQUIRED:

Qty.	Part No.	Description
1	52120004AB	Plate, Separator
AR (1)	05010884AA	RTV
AR (7)	05013457AA	Fluid, ATF+4 (Quart Container)
AR (2)	05013458AA	Fluid, ATF+4 (Gallon Container)
1	05013470AD	Kit, Sump Filter

REPAIR PROCEDURE:

1. Shift transmission into PARK and remove the key FOB.
2. Raise vehicle on a lift.
3. Disconnect wires at the solenoid and pressure switch assembly (23 pin electrical connector).
4. Position drain pan under transmission oil pan.
5. Remove transmission oil pan.
6. Remove the primary sump oil filter from the valve body (Fig. 1).

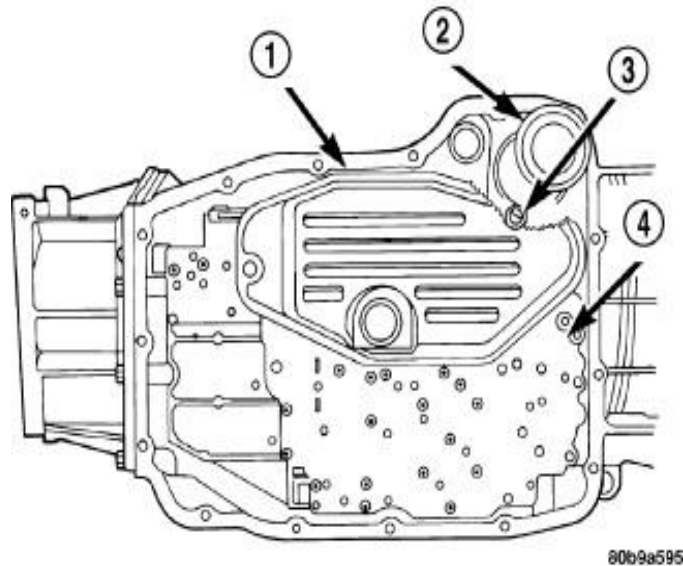


Fig. 1 Primary Sump Oil Filter

- 1 - Primary Sump Oil Filter
- 2 - Cooler Return Filter
- 3 - Cooler Return Filter Bypass Valve
- 4 - Valve Body

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7. Remove bolts attaching valve body to transmission case (Fig. 2).

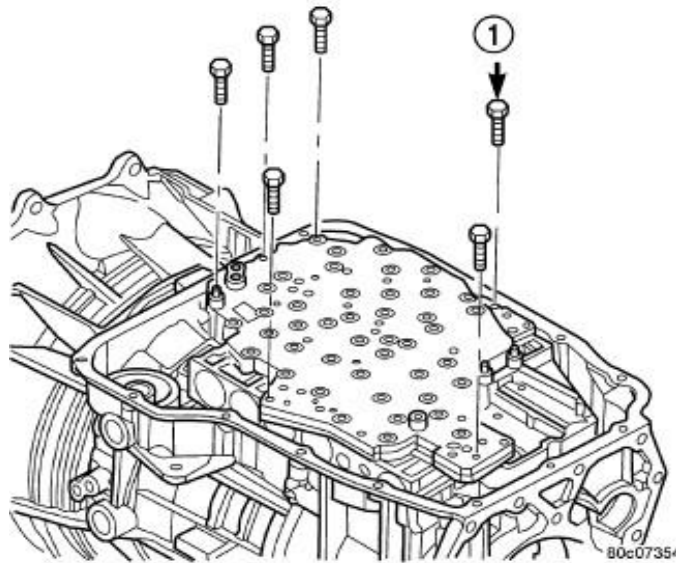


Fig. 2 Transmission Valve Body

1 - Valve Body Attaching Screws

8. Lower the valve body and work the electrical connector out of transmission case.
9. Separate the valve body from the transmission.
10. Remove the bolts holding the solenoid and pressure switch assembly to the valve body (Fig. 3). Do not remove the screws on the top of the solenoid and pressure switch assembly.

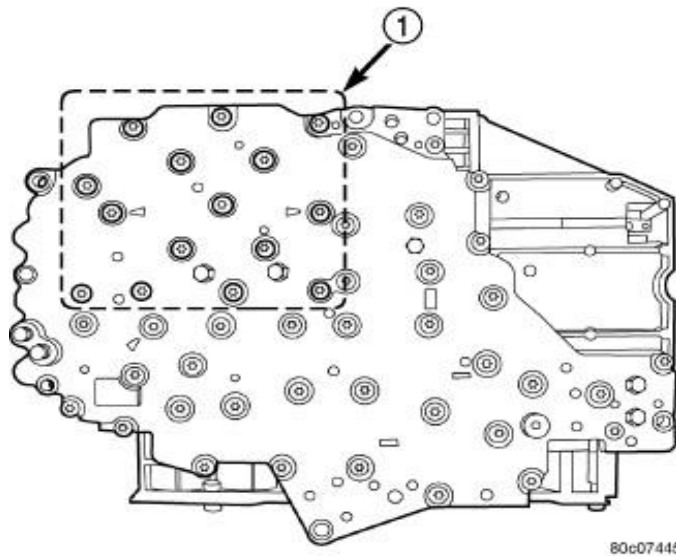
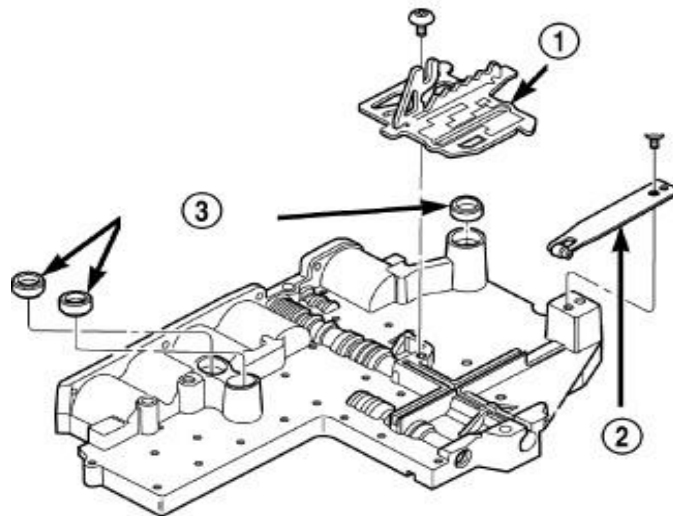


Fig. 3 Solenoid and Pressure Switch Attaching Screws

1 - Solenoid and Pressure Switch Assembly

11. Separate the solenoid and pressure switch assembly from the valve body.
12. Remove the screw holding the detent spring (Fig. 4) onto the valve body.



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Fig. 4 TRS Detent and Spring

- 1 - TRS Selector Plate
- 2 - Detent Spring
- 3 - Clutch Passage Seals

13. Remove the detent spring from the valve body.
14. Remove the TRS selector plate (Fig. 4) from the valve body and the manual valve.
15. Place the valve body upside down on the bench (with the transfer plate upward).

NOTE: The valve body contains five check balls. The transfer plate must be placed upward to prevent losing the check balls when the transfer plate is removed from the valve body.

16. Remove the screws holding the valve body to the valve body transfer plate.
17. Remove the transfer and separator plates from the valve body. Note the location of all check balls (Fig. 5).

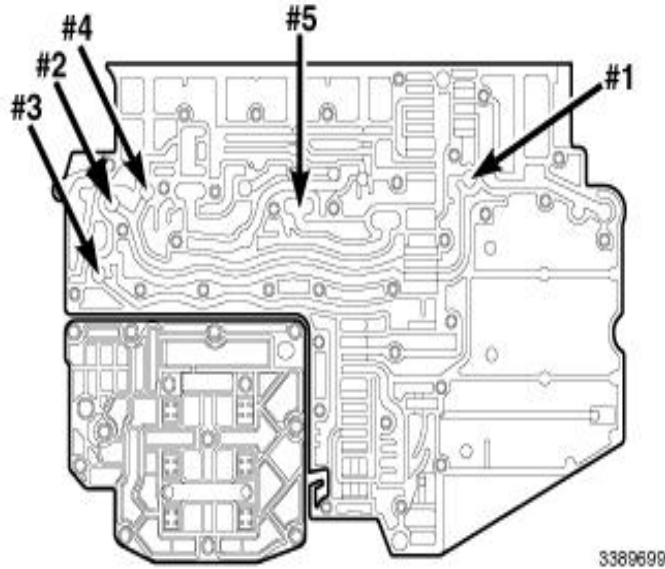


Fig. 5 Check Ball Location

18. Ensure that all five check balls are in their proper locations. Install the new separator plate (p/n 52120004AB) onto the valve body.
19. Position the transfer plate onto the valve body.
20. Install the screws that secure the transfer plate to the valve body. Tighten the screws to 7.3 N·m (65 in. lbs.).
21. Install the TRS selector plate (Fig. 4) onto the valve body and the manual valve. Tighten the manual valve code plate retaining screw to 5.6 N·m (50 in. lbs.).
22. Position the detent spring (Fig. 4) onto the valve body.
23. Install the detent spring attaching screw (Fig. 4) onto the valve body. Tighten the screw to 7.3 N·m (65 in. lbs.).
24. Install the solenoid and pressure switch assembly onto the valve body (Fig. 3).
25. Install the bolts that secure the solenoid and pressure switch assembly onto the valve body. Tighten the bolts to 7.3 N·m (65 in. lbs.). Tighten the bolts adjacent to the arrows cast into the bottom of the transfer plate first.
26. Place TRS selector plate in the PARK position (with the detent spring roller in the deep pocket next to the vertical arm).
27. Verify that the vehicle shift linkage is in the PARK position.

CAUTION: If the pin on the transmission manual lever (inside the transmission) is not properly aligned with the slot in the TRS selector plate when the valve body assembly is installed, the pin can be broken off. If the manual lever pin is broken, the transmission must be removed and completely disassembled in order to replace the lever.

28. Lubricate seal on the solenoid and pressure switch assembly connector with petroleum jelly.
29. Position valve body (Fig. 2) in transmission and align the slot on the TRS selector plate's vertical arm with the pin on the transmission manual lever.
30. Seat the valve body into the case and install one or two bolts to hold valve body in place.
31. Tighten valve body bolts alternately and evenly to 12 N·m (105 in. lbs.) torque.
32. Disconnect the shifter cable from the transmission shift lever.

33. Operate the transmission shift lever and ensure that the TRS selector plate moves correctly into all gear positions.
34. Reconnect the shifter cable.
35. Inspect the sump filter seal for cuts, gouges, or other damage and verify that the seal is tightly retained in the pump bore by ensuring that the seal cannot be removed by hand.
36. Is the sump filter seal undamaged and is tight in its bore?
 - a. YES>>> Proceed to step [Step #38](#).
 - b. NO>>> Proceed to the next step.

CAUTION: The primary oil filter seal MUST be fully installed flush against the oil pump body. DO NOT install the seal onto the filter neck and attempt to install the filter and seal as an assembly. Damage to the transmission will result.

37. Install a new primary sump oil filter seal ([Fig. 6](#)) (p/n 05013470AD) in the oil pump inlet bore and verify that the seal flange is flush against the pump casting around its entire circumference (seal should not be cocked in any way).

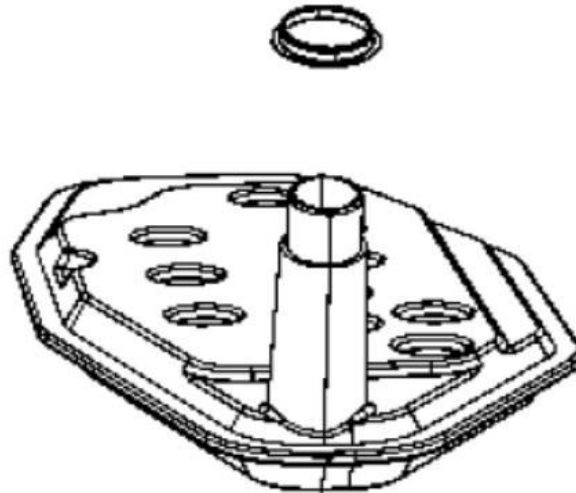


Fig. 6 Sump Oil Filter and O-ring

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38. Place replacement filter (p/n 05013470AD) in position on valve body and into the oil pump.
 39. Install screw to hold filter to valve body. Tighten screw to 7.9 N·m (70 in. lbs.) torque.
 40. Connect the solenoid and pressure switch 23 pin electrical assembly connector.
 41. Place a bead of silicone gasket sealer (p/n 05010884AA) onto the transmission oil pan sealing surface. Make sure that the bead is placed around the circumference of each oil pan fastener hole. Then, install the transmission oil pan. Tighten pan bolts to 12 N·m (105 in. lbs.) torque.
 42. Lower vehicle and fill transmission with Mopar® ATF+4 (p/n 05013457AA) or (p/n 05013458AA).

POLICY:

Reimbursable within the provisions of the warranty.

TIME ALLOWANCE:

Labor Operation No:	Description	Amount
21-95-01-93	Valve Body, Separator Plate - Replace (Skill Level = A; Training Level = 4)	1.5 hrs.

FAILURE CODE:

ZZ	Service Action
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