2007 AUTOMATIC TRANSMISSION 42RLE - Service Information - Nitro

INSTALLATION

AUTOMATIC TRANSMISSION

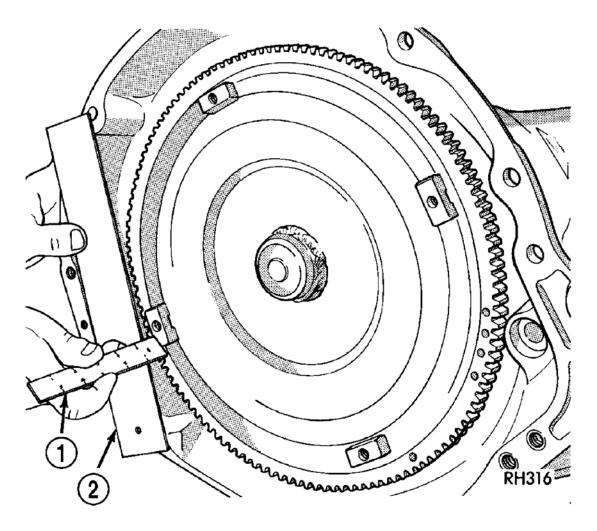


Fig. 83: Checking Torque Converter Seating Courtesy of CHRYSLER LLC

- 1 SCALE
- 2 STRAIGHTEDGE
 - 1. Check torque converter hub and hub drive flats for sharp edges burrs, scratches, or nicks. Polish the hub and flats with 320/400 grit paper and crocus cloth if necessary. Verify that the converter hub o-ring is properly installed and is free of any debris. The hub must be smooth to avoid damaging pump seal at installation.
 - 2. If a replacement transmission is being installed, transfer any components necessary, such as the manual shift lever and shift cable bracket, from the original transmission onto the replacement transmission.
 - 3. Lubricate oil pump seal lip with transmission fluid.

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- 4. Align converter and oil pump.
- 5. Carefully insert converter in oil pump. Then rotate converter back and forth until fully seated in pump gears.
- 6. Check converter seating with steel scale (1) and straightedge (2). Surface of converter lugs should be at least 13mm (1/2 in.) to rear of straightedge when converter is fully seated. See **Fig. 83**.
- 7. Temporarily secure converter with C-clamp.

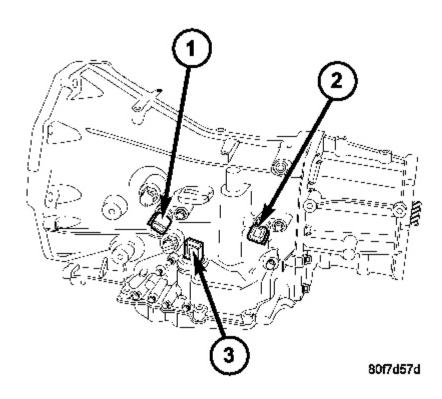


Fig. 84: Locating Input Speed, Output Speed and Transmission Range Sensors Courtesy of CHRYSLER LLC

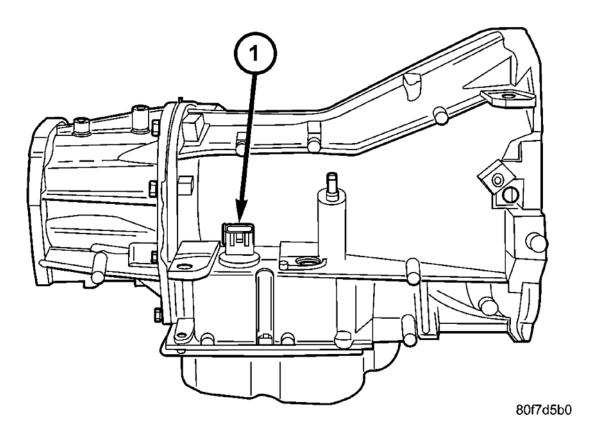
- 1 INPUT SPEED SENSOR
- 2 OUTPUT SPEED SENSOR
- 3 TRANSMISSION RANGE SENSOR
- 8. Position transmission on jack and secure it with chains.
- 9. Check condition of converter driveplate. Replace the plate if cracked, distorted or damaged. **Also be sure transmission dowel pins are seated in engine block and protrude far enough to hold transmission in**

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alignment.

- 10. Apply a light coating of MOPAR® High Temp Grease to the torque converter hub pocket in the rear pocket of the engine's crankshaft.
- 11. Raise transmission and align the torque converter with the drive plate and transmission converter housing with the engine block.
- 12. Move transmission forward. Then raise, lower or tilt transmission to align the converter housing with engine block dowels.
- 13. Carefully work transmission forward and over engine block dowels until converter hub is seated in crankshaft. Verify that no wires, or the transmission vent hose, have become trapped between the engine block and the transmission.
- 14. Install two bolts to attach the transmission to the engine.
- 15. Install remaining torque converter housing to engine bolts. Tighten to 68 N.m (50 ft.lbs.).
- 16. Install transfer case, if equipped. Tighten transfer case nuts to 35 N.m (26 ft.lbs.).
- 17. Install rear transmission crossmember. Tighten crossmember to frame bolts to 68 N.m (50 ft.lbs.).
- 18. Install rear support to transmission. Tighten bolts to 47 N.m (35 ft.lbs.).
- 19. Lower transmission onto crossmember and install bolts attaching transmission mount to crossmember. Tighten clevis bracket to crossmember bolts to 47 N.m (35 ft.lbs.). Tighten the clevis bracket to rear support bolt to 68 N.m (50 ft.lbs.).
- 20. Remove engine support fixture.
- 21. Connect gearshift cable to support bracket and transmission manual lever.
- 22. Connect input (1) and output speed sensor (3) wires.
- 23. Connect wires to the transmission range sensor (3).
- 24. Connect wires to the Variable Line Pressure (VLP) electrical connector.

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<u>Fig. 85: Identifying Solenoid/Pressure Switch Assembly</u> Courtesy of CHRYSLER LLC

1 - SOLENOID/PRESSURE SWITCH ASSEMBLY CONNECTOR

25. Connect wires to the solenoid/pressure switch assembly (1). See **Fig. 85**.

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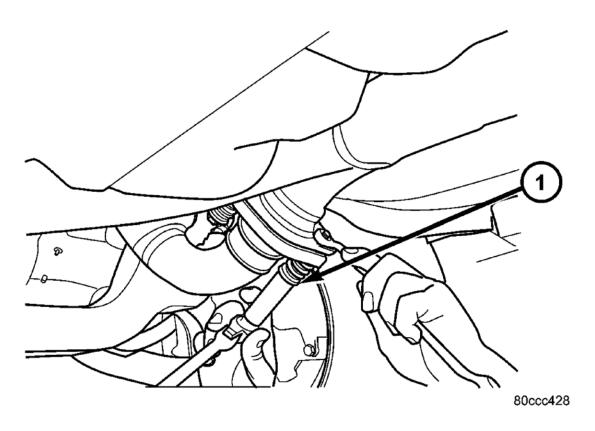


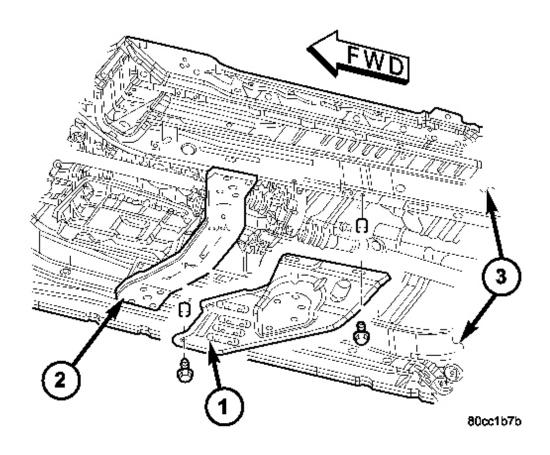
Fig. 86: Removing/Installing Exhaust Flange Bolts Courtesy of CHRYSLER LLC

1 - EXHAUST FLANGE BOLTS

CAUTION: It is essential that correct length bolts be used to attach the converter to the driveplate. Bolts that are too long will damage the clutch surface inside the converter.

- 26. Install torque converter-to-driveplate bolts. Tighten bolts to 88 N.m (65 in. lbs.).
- 27. Install starter motor and cooler line bracket.
- 28. Connect cooler lines to transmission.
- 29. Install transmission fill tube.
- 30. Install exhaust components (1). See Fig. 86.

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<u>Fig. 87: Identifying Skid plate, Transmission Crossmember & Frame Rails</u> Courtesy of CHRYSLER LLC

- 1 SKID PLATE
- 2 TRANSMISSION CROSSMEMBER
- 3 FRAME RAILS
- 31. Align and connect propeller shaft(s).
- 32. Adjust gearshift cable if necessary.
- 33. Install any skid plates removed previously (1). See Fig. 87. Refer to INSTALLATION.
- 34. Lower vehicle.
- 35. Fill transmission with Mopar® ATF +4, Automatic Transmission Fluid.