## FLUID LEAKAGE

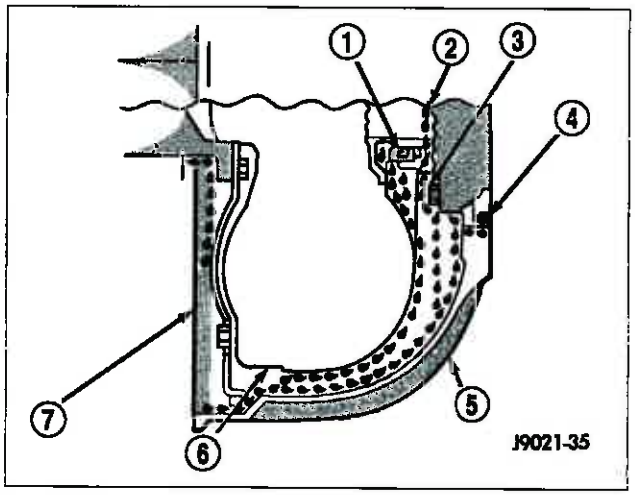
### FLUID LEAKAGE - TORQUE CONVERTER HOUSING AREA

When diagnosing converter housing (5) fluid leaks, three actions must be taken before repair:

1. Verify proper transmission fluid level.
2. Verify that the leak originates from the converter housing area and is transmission fluid.
3. Determine the true source of the leak.

Fluid leakage at or around the torque converter area may originate from an engine oil leak (7). The area should be examined closely. Factory fill fluid is red and, therefore, can be distinguished from engine oil.

Some suspected converter housing fluid leaks may not be leaks at all. They may only be the result of residual fluid in the converter housing, or excess fluid spilled during factory fill, or fill after repair. Converter housing leaks have several potential sources. Through careful observation, a leak source can be identified before removing the transmission for repair.

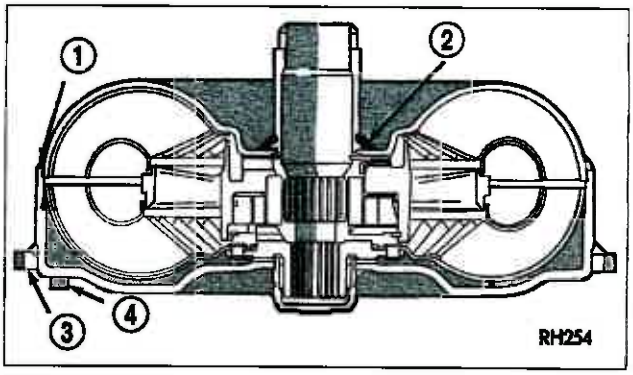



Pump seal (1) leaks tend to move along the drive hub and onto the rear of the converter. Pump o-ring or pump body leaks follow the same path as a seal leak. Pump attaching bolt (3) leaks are generally deposited on the inside of the converter housing (5) and not on the converter itself. Pump seal (1) or gasket (4) leaks usually travel down the inside of the converter housing.

### TORQUE CONVERTER LEAKAGE

Possible sources of torque converter leakage are:

- Torque converter weld leaks at the outside diameter weld (1).
- Torque converter hub weld (2).



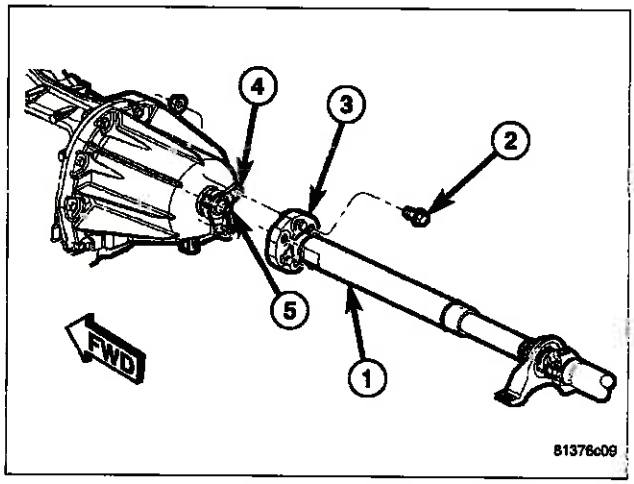

## STANDARD PROCEDURE - ALUMINUM THREAD REPAIR

Damaged or worn threads in the aluminum transmission case and valve body can be repaired by the use of Heli-Coils®, or equivalent. This repair consists of drilling out the worn-out damaged threads. Then tap the hole with a special Heli-Coil® tap, or equivalent, and installing a Heli-Coil® insert, or equivalent, into the hole. This brings the hole back to its original thread size.

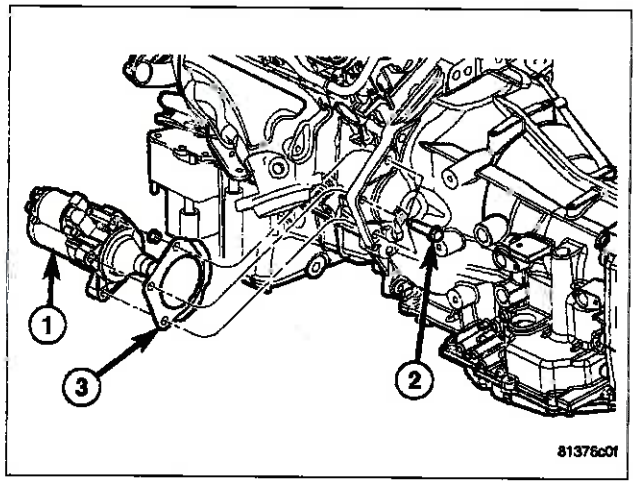
Heli-Coil®, or equivalent, tools, and inserts are readily available from most automotive parts suppliers.

## REMOVAL

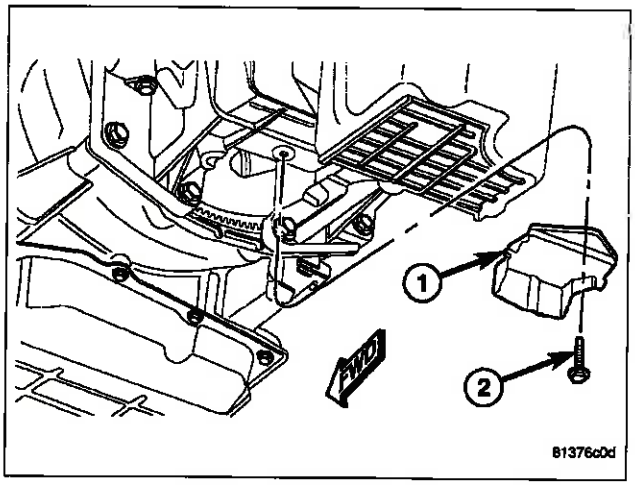
1. Disconnect the negative battery cable.
2. Raise and support the vehicle.
3. Mark propeller shaft (1) and the transmission flange (4) for assembly alignment.
4. Remove the bolts (2) holding the rear propeller shaft coupler (3) to the transmission flange (4).
5. Slide the propeller shaft (1) rearward until the coupler clears the propeller shaft pilot (5) on the transmission output shaft.



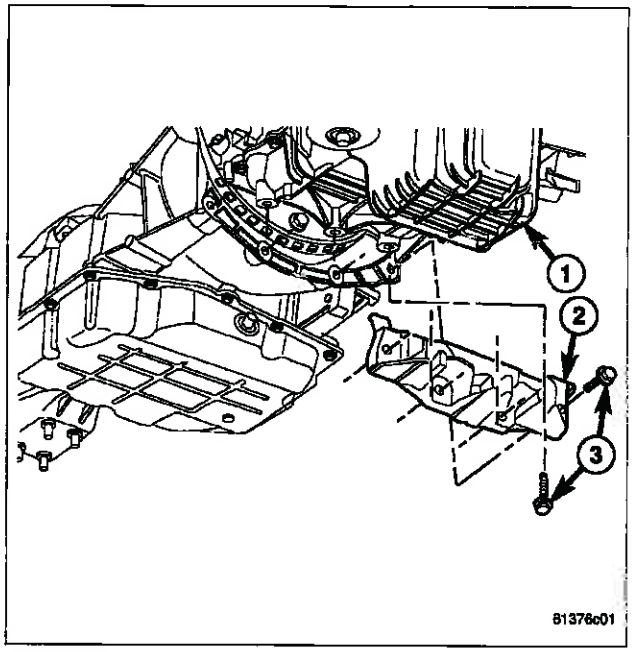

6. Remove the bolts (2) holding the starter motor (1) to the transmission. (Refer to 8 - ELECTRICAL/ STARTING/STARTER MOTOR - REMOVAL)
7. Remove the starter (1) from the transmission starter pocket and safely relocate.



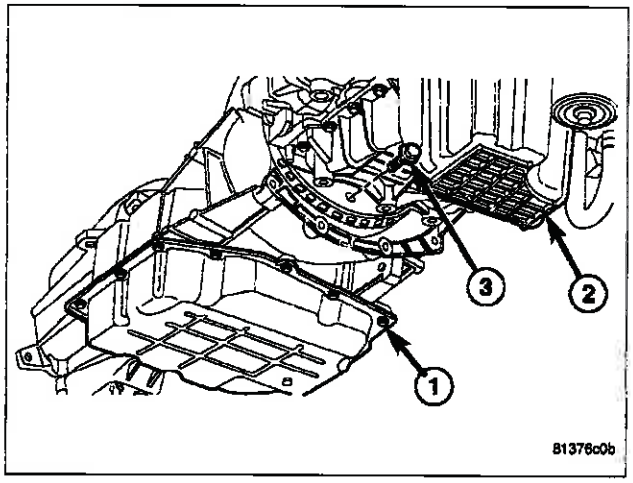

8. Remove the bolt (2) holding the torque converter access cover (1) to the transmission, 3.5L engines.
9. Remove the torque converter access cover (1) from the transmission.



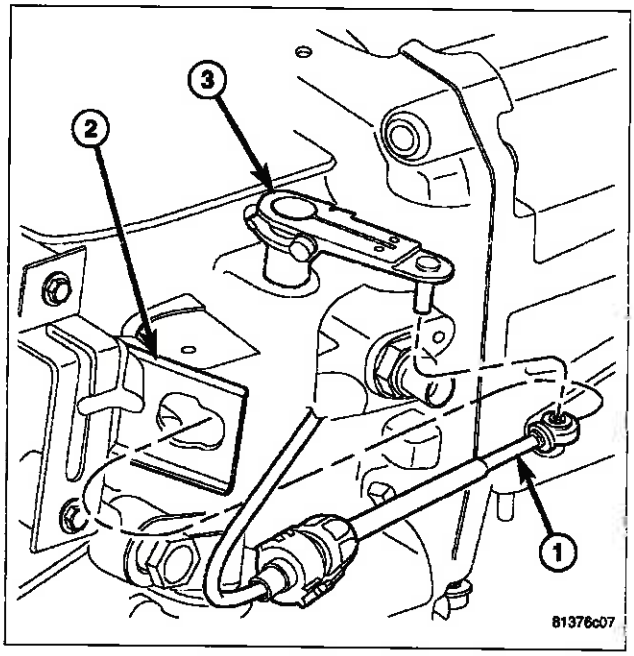
10. Remove the structural collar bolts (3, 4) and stuctural collar (2) on vehicles equipped with 2.7L engines. (Refer to 9 - ENGINE - 2.7L/ENGINE BLOCK/STRUCTURAL COVER - REMOVAL)



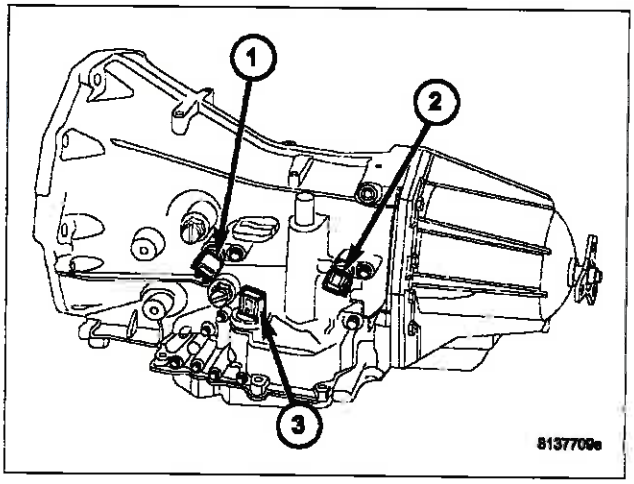

11. Rotate crankshaft in clockwise direction until converter bolts (1) are accessible. Then remove bolts (1) one at a time. Rotate crankshaft with socket wrench on dampener bolt.



12. Disconnect the gearshift cable (1) from the transmission manual valve lever (3).
13. Loosen the bolts holding the shift cable retaining strap (2) to the transmission.
14. Remove the shift cable (1) from the transmission.

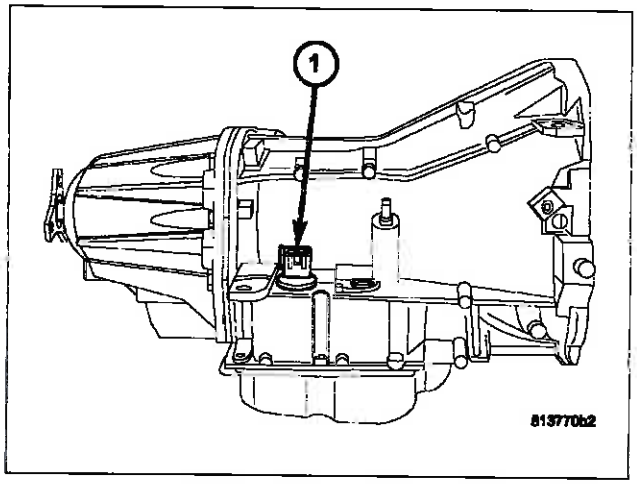



15. Disconnect wires from the input (1) and output (2) speed sensors.

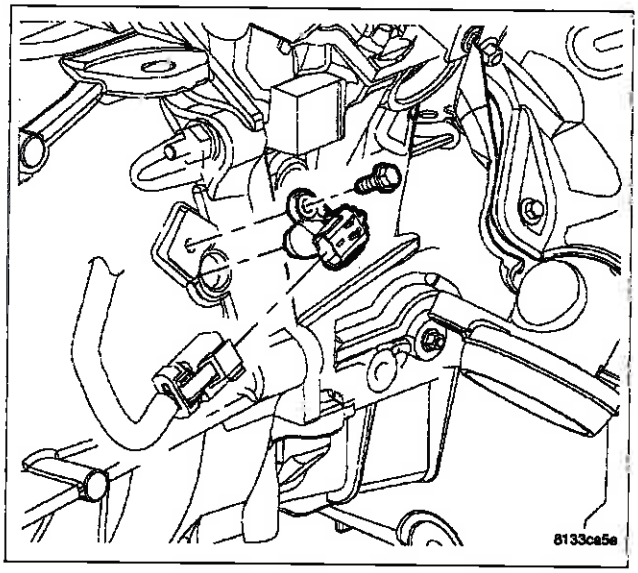


16. Disconnect wires from the transmission range sensor (3).

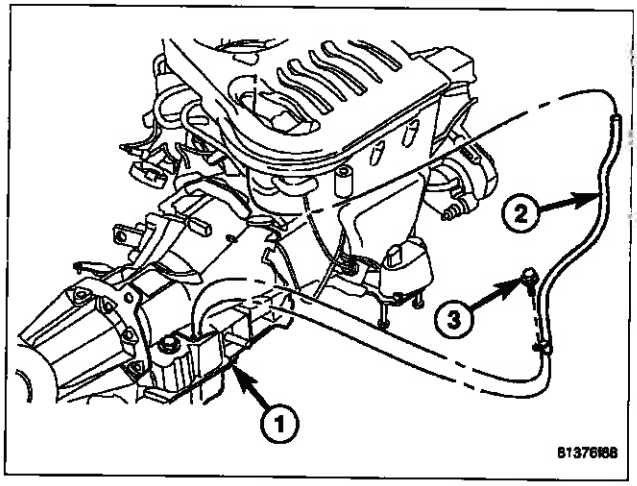
17. Disconnect wires from the solenoid/pressure switch assembly (1).




18. Remove the crankshaft position sensor. (Refer to 14 - FUEL SYSTEM/FUEL INJECTION/CRANKSHAFT POSITION SENSOR - REMOVAL)

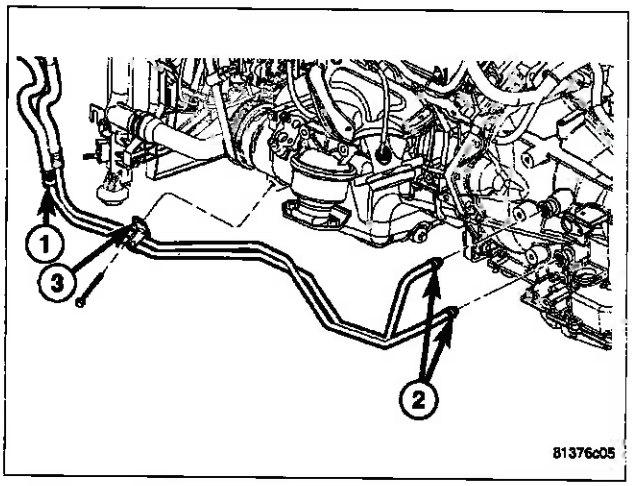



19. Remove the bolt (3) holding the transmission fill tube (2) to the transmission (1).

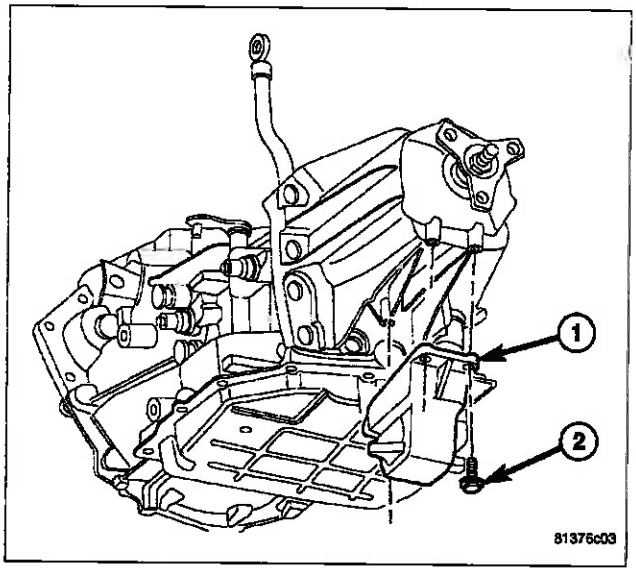


20. Remove the transmission fill tube (2).

21. Disconnect transmission fluid cooler lines (1) at transmission fittings (2) and clips (3).
22. Disconnect the transmission vent hose from the transmission.

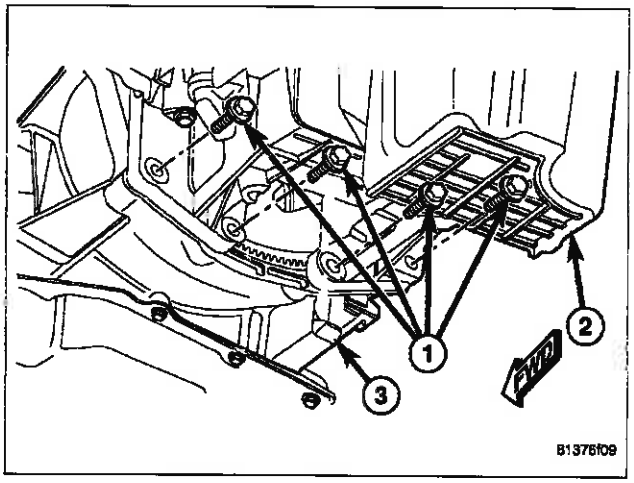



23. Support rear of engine with safety stand or jack.
24. Raise transmission slightly with service jack to relieve load on crossmember and supports.
25. Remove bolts (2) securing rear support and cushion (3) to transmission crossmember (1).

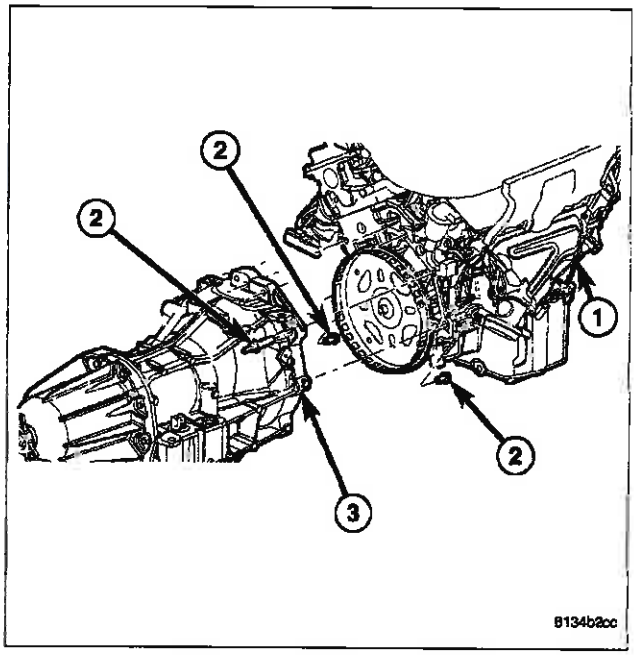


26. Remove bolts attaching crossmember (1) to frame and remove crossmember.

27. Remove the bolts (1) holding the engine oil pan (2) to the transmission (3).




28. Remove all remaining bolts (2) holding the engine (1) to the transmission (3).
29. Carefully work transmission and torque converter assembly rearward off engine block dowels.
30. Hold torque converter in place during transmission removal.
31. Lower transmission and remove assembly from under the vehicle.
32. To remove torque converter, carefully slide torque converter out of the transmission.




## DISASSEMBLY

**Note: If the transmission is being reconditioned (clutch/seal replacement) or replaced, it is necessary to perform the Quick Learn Procedure using the scan tool (Refer to 8 - ELECTRICAL/ELECTRONIC CONTROL MODULES/TRANSMISSION CONTROL MODULE - STANDARD PROCEDURE).**

**Note: Tag all clutch pack assemblies, as they are removed, for reassembly identification.**

**CAUTION: Do not intermix clutch discs or plates as the unit might then fail.**

Before disassembling transmission, move the shift lever clockwise as far as it will go and then remove the shift lever.