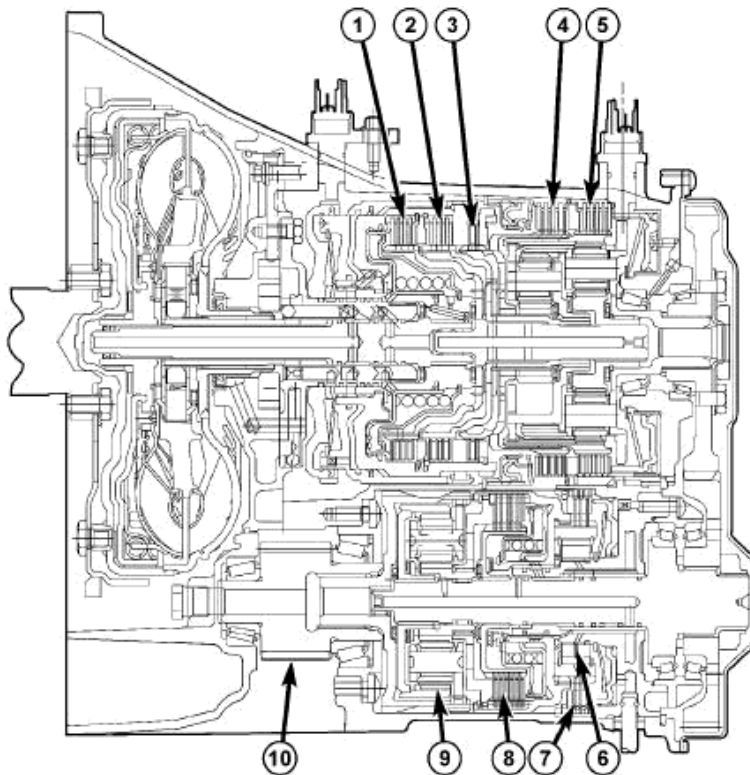


2009 AUTOMATIC TRANSMISSION

62TE - Service Information - Journey

DESCRIPTION

DESCRIPTION



818d53c1

Fig. 1: 62TE Transmission
 Courtesy of CHRYSLER LLC

- | | |
|----------------------------|------------------------------|
| 1 - Underdrive Clutch (UD) | 6 - Overrunning Clutch (ORC) |
| 2 - Overdrive Clutch (OD) | 7 - Low Clutch (LC) |
| 3 - Reverse Clutch (R) | 8 - Direct Clutch (DC) |
| 4 - 2/4 Clutch | 9 - Planetary Gear Set |
| 5 - L/R | 10 - Remote Pinion Gear |

Clutch

The planetary gear train for the 62TE transaxle provides six forward gear ratios, including two fourth gear ratios. One reverse gear ratio is also provided.

Underdrive (UD) Compounder Assembly

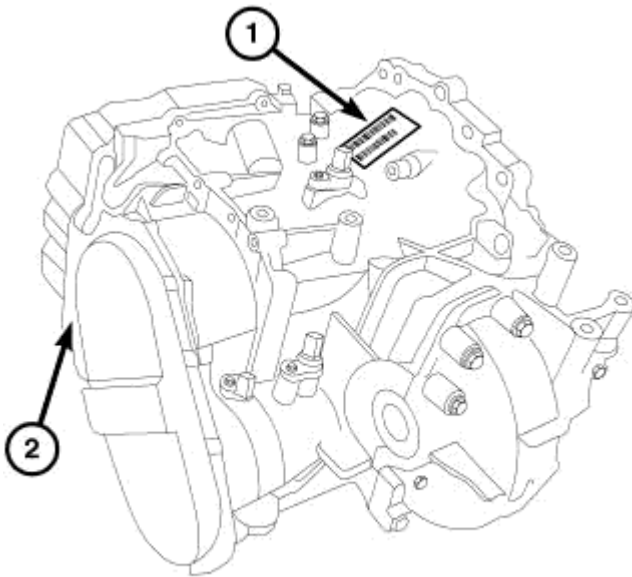
- Low Clutch (LC)
- Direct Clutch (DC)
- Overrunning Clutch (ORC)
- Planetary gear set

Fore-Mounted Valve Body/Solenoid/Pressure Switch Assembly

- DC solenoid
- LC solenoid
- DC pressure switch
- LC pressure switch
- Torque Converter Clutch (TC) and pressure control Solenoids
- Line Pressure Sensor (LPS)
- An additional (third) speed sensor
- A "squashed," or flatter, torque converter
- A flatter oil pump
- A new cover for valve body access
- 23-way connector for the Solenoid/Pressure Switch Assembly
- Redesigned transfer gears with an oil scavenger
- A remote pinion gear
- A 2-piece, closed differential case with structural clamshell housing.

The addition of the underdrive compounder assembly components improves low-end torque multiplication, enhancing low-end power capability.

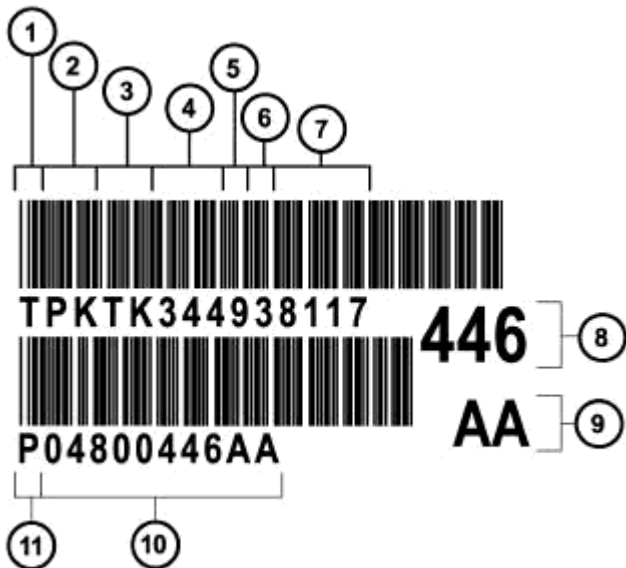
TRANSAXLE IDENTIFICATION



818d63d7

Fig. 2: Case Stamp And Bar Code Label Location
Courtesy of CHRYSLER LLC

The 62TE transaxle is identified by a barcode label (1) that is fixed to the transaxle or the "PK" number (2).



80d9c76c

Fig. 3: Identification Label Breakdown
Courtesy of CHRYSLER LLC

1 - T=TRACEABILITY

2009 Dodge Journey R/T

2009 AUTOMATIC TRANSMISSION 62TE - Service Information - Journey

- 2 - SUPPLIER CODE (PK=KOKOMO)
- 3 - COMPONENT CODE (TK=KOKOMO TRANSMISSION)
- 4 - BUILD DAY (344=DEC. 9)
- 5 - BUILD YEAR (9=1999)
- 6 - LINE/SHIFT CODE (3=3RD SHIFT)
- 7 - BUILD SEQUENCE NUMBER
- 8 - LAST THREE OF P/N
- 9 - ALPHA
- 10 - TRANSAXLE PART NUMBER
- 11 - P=PART NUMBER

The label contains a series of digits that can be translated into useful information such as transaxle part number, date of manufacture, manufacturing origin, plant shift number, build sequence number, etc. Refer to for identification label breakdown.

If the tag is not legible or missing, the "PK" number, which is stamped into the transaxle case behind the transfer gear cover, can be referred to for identification. This number differs slightly in that it contains the entire transaxle part number, rather than the last three digits.

OPERATION

OPERATION

ELEMENTS IN USE AT EACH POSITION OF SELECTOR LEVER

62TE		ELEMENTS APPLIED							
GEAR	RATIO	UD	OD	R	2-4	L-R	LC	DC	ORC
1	4.127	A	-	-	-	A	A ^	-	H
2	2.842	A	-	-	-	A	-	A	-
3 *	2.284	A	-	-	A	-	A ^	-	H
4	1.573	A	-	-	A	-	-	A	-
4	1.452	A	A	-	-	-	A ^	-	H
5	1.000	A	A	-	-	-	-	A	-
6	0.689	-	A	-	A	-	-	A	-
R	3.215	-	-	A	-	A	A	-	-

- A = Applied
- H = Holding
- * = Limp-in Mode
- ^ = Applied in coast only

In total, the 62TE provides seven forward ratios and one reverse.

The underdrive compounder assembly has two modes of operation: direct and reduction.

Notice in the "What's On When" chart, the 2-3, 3-2, and 4-2 shifts require a "double swap" shift. This occurs when two elements are turned off while two different elements are engaged.

This clutch-to-clutch synchronization takes place within 40 - 70 milliseconds, producing a smooth shift. If the underdrive compounder assembly shifts too early (in relation to the shifts taking place in the main centerline), a shudder or harsh shift results. If the underdrive assembly shifts too late, the driver experiences a "double bump" sensation.

To avoid a double swap shift in a 6-4 downshift, the transaxle shifts into 4th prime, which requires the deactivation of the OD clutch and the simultaneous application of the UD clutch.

REVERSE GEAR

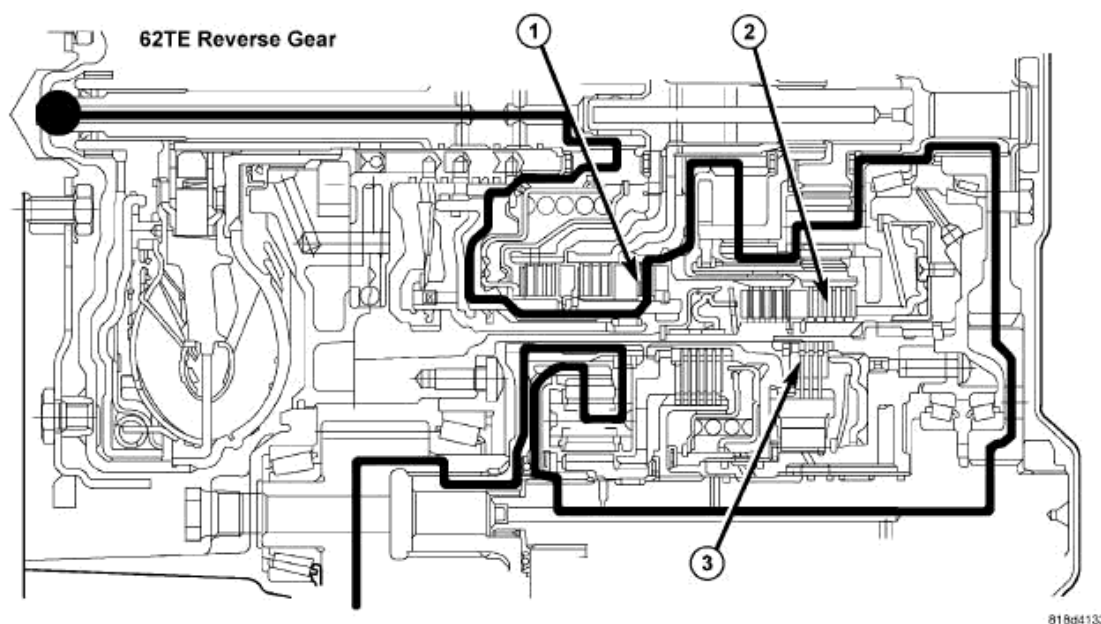


Fig. 4: Reverse Gear Power Flow
Courtesy of CHRYSLER LLC

In Reverse, the Reverse Clutch (R) (1) is applied to provide input torque. The reverse clutch drives the front sun gear. The L/R clutch (2) is applied to hold the front carrier/ rear annulus assembly. The rear carrier/front annulus assembly rotates as an output member in reverse with a reduction gear ratio of 2.21:1.

Power from the main centerline transfers to the underdrive compounder annulus by way of the transfer gears and the underdrive shaft. The Low Clutch (LC) (3) is applied to hold the underdrive compounder sun gear. With the sun gear held, the annulus drives the underdrive compounder carrier, and a reduction gear ratio of 1.45:1 is achieved.

The main centerline ratio of 2.21:1 is multiplied by the underdrive compounder centerline ratio of 1.45:1. As a result, the ratio through the entire gear train to the final drive in Reverse is 3.215:1.

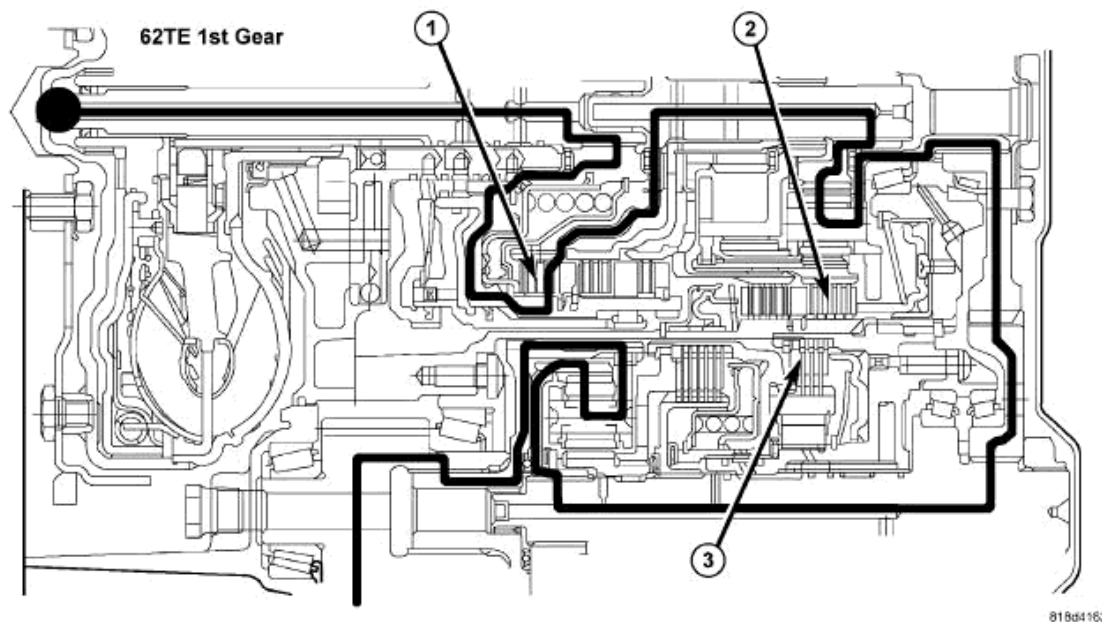
FIRST GEAR

Fig. 5: 1st Gear Power Flow
 Courtesy of CHRYSLER LLC

In First gear, the UD clutch (1) is applied to provide input torque. The UD hub is splined to the rear sun gear. When the UD clutch is applied, the UD hub and rear sun gear are driven. The L/R clutch (2) is applied to hold the front carrier/rear annulus assembly. By doing so, the rear planet gears are forced to rotate around the inside of the stationary rear annulus. The rear carrier/front annulus assembly rotates as an output member with a reduction gear ratio of 2.84:1.

Power from the main centerline transfers to the underdrive compounder annulus by way of the transfer gears and the underdrive shaft. The Overrunning Clutch (ORC) holds the underdrive sun gear. The LC (3) is also applied during coast in first gear. With the sun gear held, the annulus drives the underdrive compounder carrier, and a reduction gear ratio of 1.45:1 is achieved by the underdrive compounder gear set.

The main centerline ratio of 2.84:1 is multiplied by the underdrive compounder centerline ratio of 1.45:1. As a result, the ratio through the entire gear train to the final drive in First gear is 4.127:1.

SECOND GEAR

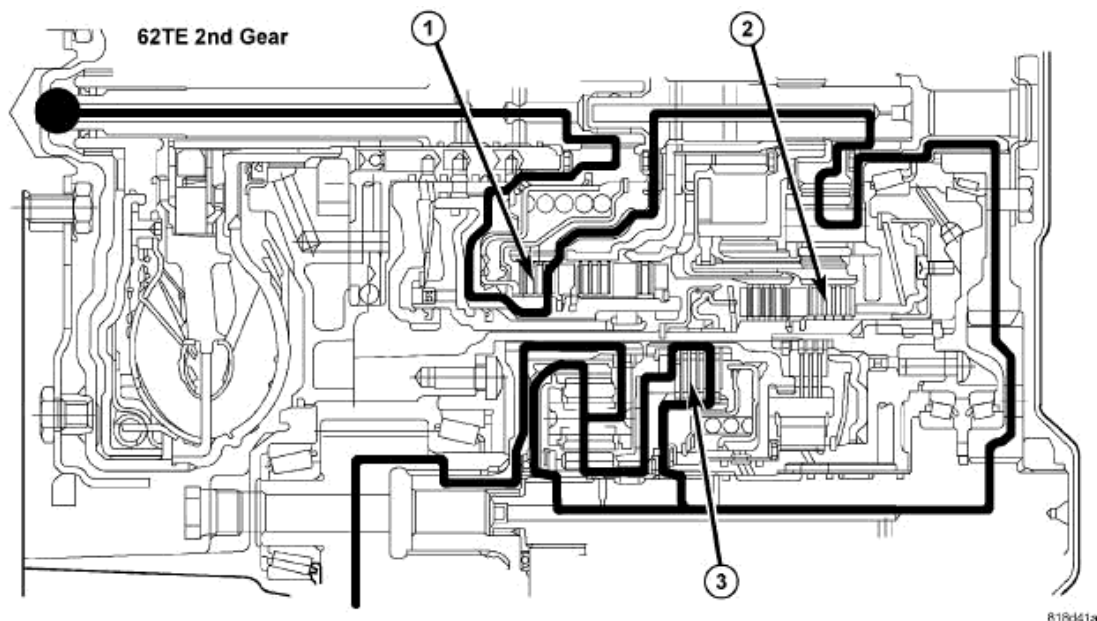


Fig. 6: 2nd Gear Power Flow
Courtesy of CHRYSLER LLC

In Second gear, the UD clutch (1) is applied to provide input torque. The UD hub is splined to the rear sun gear. When the UD clutch is applied, the UD hub and rear sun gear are driven. The L/R clutch (2) is applied to hold the front carrier/rear annulus assembly. By doing so, the rear planet gears are forced to rotate around the inside of the stationary rear annulus. The rear carrier/front annulus assembly rotates as an output member with a reduction gear ratio of 2.84:1.

Power from the main centerline transfers to the underdrive compounder gear set annulus by way of the transfer gears and the underdrive shaft. The direct clutch (3) is applied to drive the underdrive compounder sun gear at the same speed as the underdrive annulus. With two members driven, the underdrive compounder gear set operates in direct, or 1:1.

The main centerline ratio of 2.84:1 is multiplied by the underdrive compounder centerline ratio of 1:1. As a result, the ratio through the entire gear train to the final drive in Second gear is 2.84:1.

THIRD GEAR

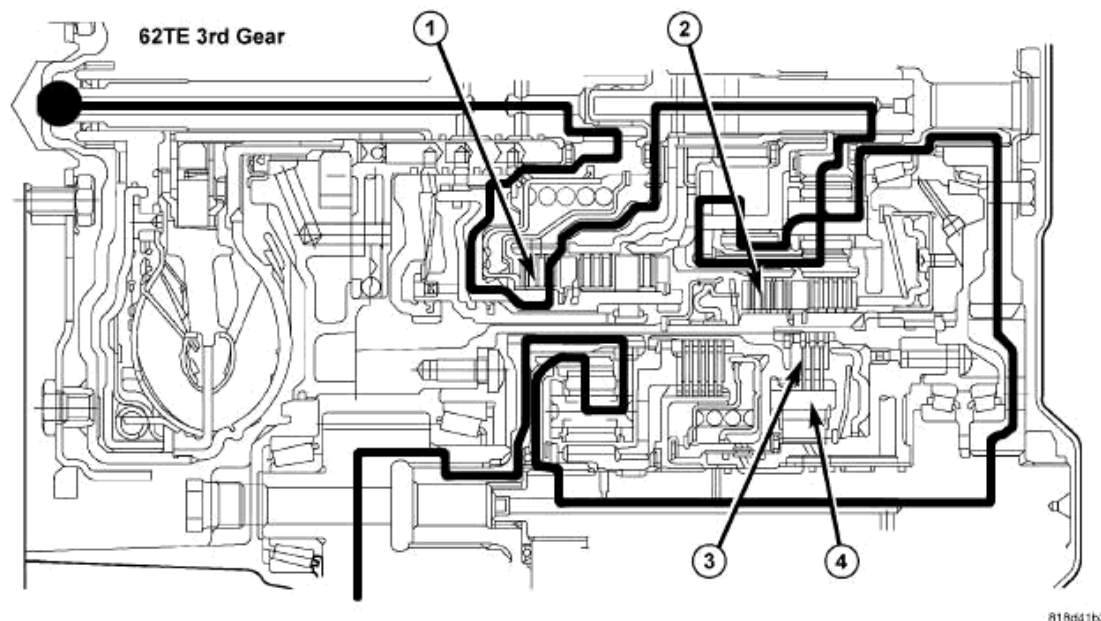


Fig. 7: 3rd Gear Power Flow
Courtesy of CHRYSLER LLC

In Third gear, the UD clutch (1) is applied to drive the rear sun gear. The UD hub is splined to the rear sun gear. When the UD clutch is applied, the UD hub and rear sun gear are driven. The 2/4 clutch (2) is applied to hold the front sun gear. The rear carrier/front annulus rotates as an output member with a reduction gear ratio of 1.573:1.

Power from the main centerline transfers to the underdrive compounder annulus by way of the transfer gears and the underdrive shaft. The Overrunning Clutch (ORC) holds (4) the underdrive sun gear. The LC (3) is also applied during coast in first gear. With the sun gear held, the annulus drives the underdrive compounder carrier, and a reduction gear ratio of 1.45:1 is achieved by the underdrive compounder gear set.

The main centerline ratio of 1.57:1 is multiplied by the underdrive compounder centerline ratio of 1.45:1. As a result, the ratio through the entire gear train to the final drive in Third gear is 2.28:1.

Third gear is also the default (limp-in) gear position.

FOURTH GEAR PRIME

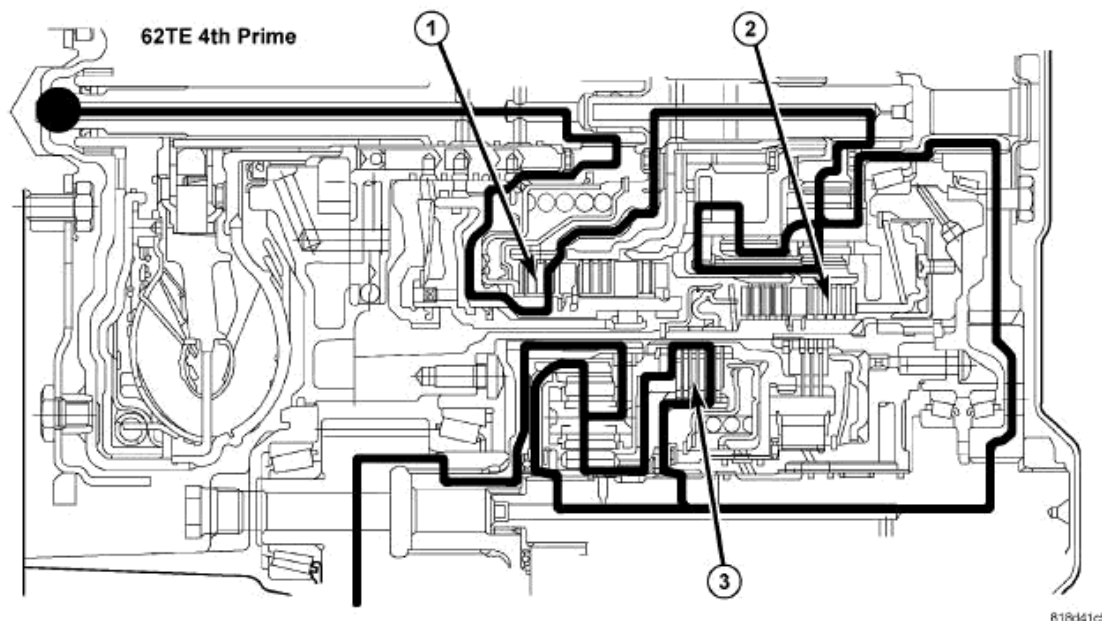


Fig. 8: 4th Gear Prime Power Flow
Courtesy of CHRYSLER LLC

In Fourth Prime, the UD clutch (1) is applied to drive the rear sun gear. The UD hub is splined to the rear sun gear. When the UD clutch is applied, the UD hub and rear sun gear are driven. The 2/4 clutch (2) is applied to hold the front sun gear. The rear carrier/front annulus rotates as an output member with a reduction gear ratio of 1.57:1.

Power from the main centerline transfers to the underdrive compounder gear set annulus by way of the transfer gears and the underdrive shaft. The direct clutch (3) is applied to drive the underdrive compounder sun gear at the same speed as the underdrive annulus. With two members driven, the underdrive compounder gear set operates in direct, or 1:1.

The main centerline ratio of 1.57:1 is multiplied by the underdrive compounder centerline ratio of 1:1. As a result, the ratio through the entire gear train to the final drive in Fourth Prime is 1.573:1.

FOURTH GEAR

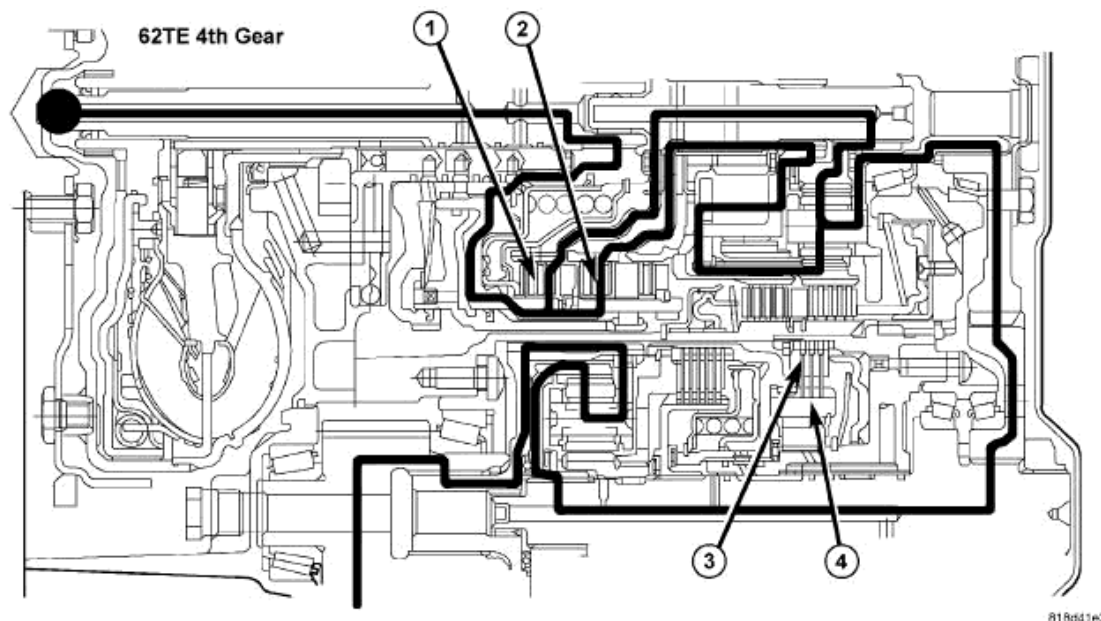


Fig. 9: 4th Gear Power Flow
 Courtesy of CHRYSLER LLC

In Fourth gear, the UD (1) and OD clutches (2) are applied to provide input torque. The UD hub is splined to the rear sun gear. When the UD clutch is applied, the UD hub and rear sun gear are driven. The OD hub assembly is splined to the front carrier/rear annulus assembly. When the OD clutch is applied, the OD hub and front carrier/ rear annulus assembly are also driven. With the rear sun gear and the rear annulus driven at the same speed and in the same direction, the entire front/rear planetary gear train is locked and rotating as one unit. The rear carrier/front annulus rotates as an output member in direct, or 1:1.

Power from the main centerline transfers to the underdrive compounder annulus by way of the transfer gears and the underdrive shaft. The Overrunning Clutch (ORC) (4) holds the underdrive sun gear. The LC (3) is also applied during coast in first gear. With the sun gear held, the annulus drives the underdrive compounder carrier, and a reduction gear ratio of 1.45:1 is achieved by the underdrive compounder gear set.

The main centerline ratio of 1:1 is multiplied by the underdrive compounder centerline ratio of 1:45. As a result, the ratio through the entire gear train to the final drive in Fourth gear is 1.45:1.

FIFTH GEAR

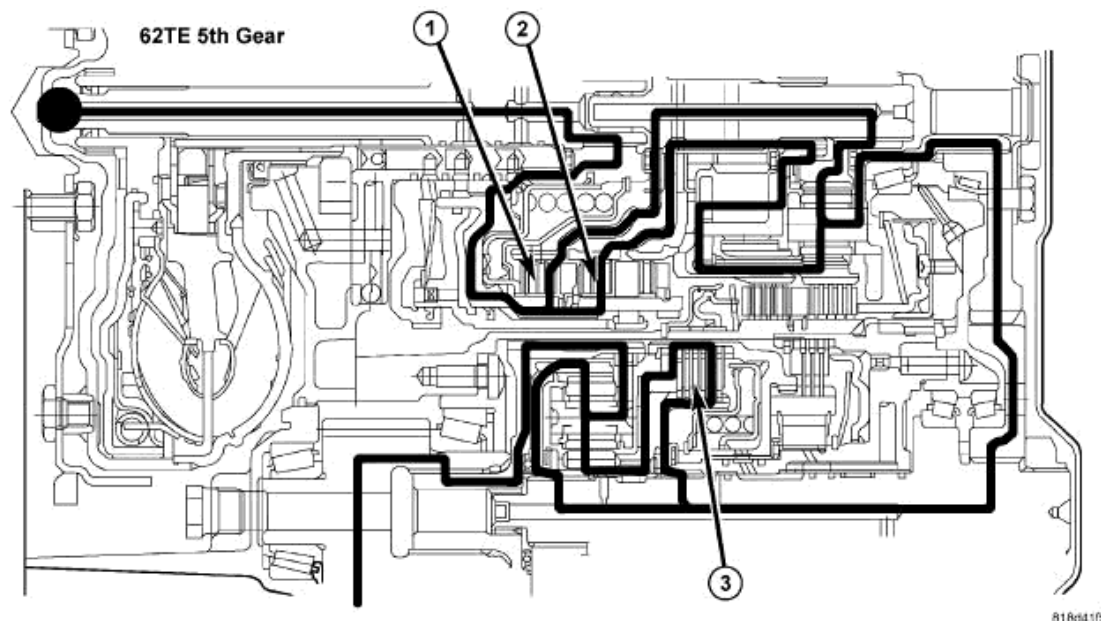


Fig. 10: 5th Gear Power Flow
Courtesy of CHRYSLER LLC

In Fifth gear, the UD (1) and OD clutches (2) are applied to provide input torque. The UD hub is splined to the rear sun gear. When the UD clutch is applied, the UD hub and rear sun gear are driven. The OD hub assembly is splined to the front carrier/rear annulus assembly. When the OD clutch is applied, the OD hub and front carrier/rear annulus assembly are also driven. With the rear sun gear and the rear annulus driven at the same speed and in the same direction, the entire planetary gear set is locked and rotating as one unit. The rear carrier/front annulus assembly rotates as an output member in direct drive, or 1:1.

Power from the main centerline transfers to the underdrive compounder gear set annulus by way of the transfer gears and the underdrive shaft. The direct clutch (3) is applied to drive the underdrive compounder sun gear at the same speed as the underdrive annulus. With two members driven, the underdrive compounder gear set operates in direct, or 1:1.

The main centerline ratio of 1:1 is multiplied by the underdrive compounder centerline ratio of 1:1. As a result, the ratio through the entire gear train to the final drive in Fifth gear is 1.00:1.

SIXTH GEAR

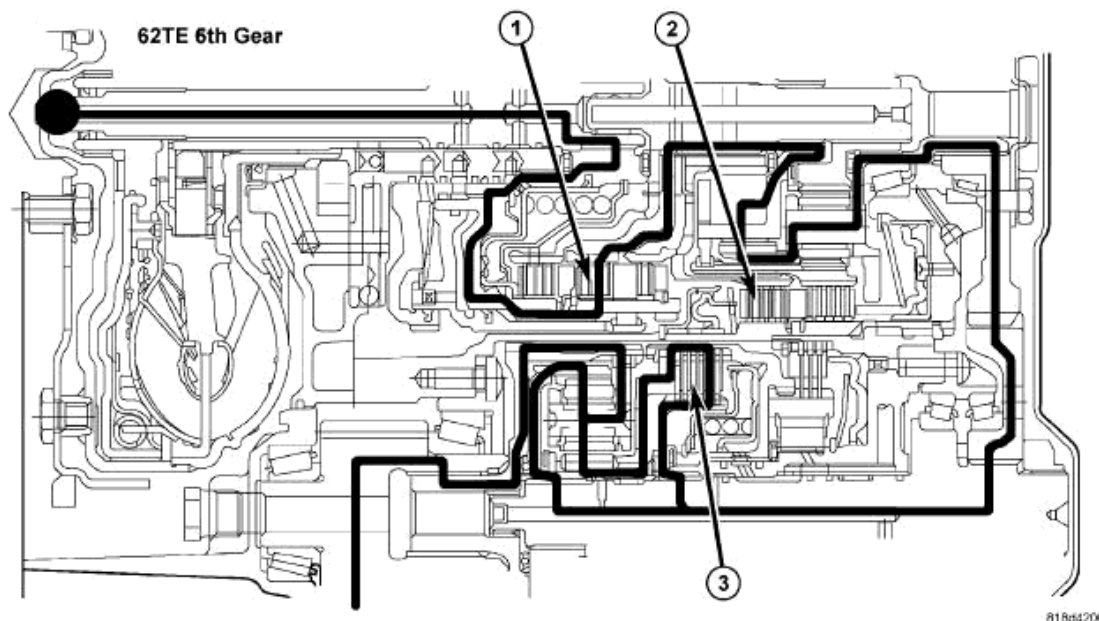


Fig. 11: 6th Gear Power Flow
Courtesy of CHRYSLER LLC

In Sixth gear, the OD clutch (1) is applied to drive the front carrier/rear annulus assembly. The OD hub is splined to the front carrier/rear annulus assembly. When the OD clutch is applied, the OD hub and front carrier/rear annulus assembly are driven. The 2/4 clutch (2) is applied to hold the front sun gear. Overdrive can be achieved using the front gear set. The rear carrier/front ring gear/annulus rotates as an output member with an overdrive gear ratio of 0.69:1.

Power from the main centerline transfers to the underdrive compounder annulus by way of the transfer gears and the underdrive shaft. The direct clutch (3) is applied to drive the underdrive compounder sun gear at the same speed as the underdrive annulus. With two members driven, the underdrive compounder carrier rotates with a direct drive.

The main centerline ratio of 0.69:1 is multiplied by the underdrive compounder centerline ratio of 1:1. As a result, the ratio through the entire gear train to the final drive in Sixth gear is 0.69:1.

DIAGNOSIS AND TESTING

TORQUE CONVERTER HOUSING FLUID LEAKAGE

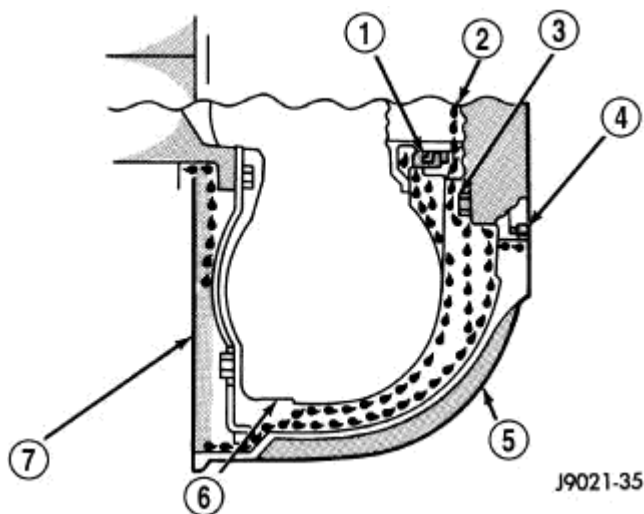


Fig. 12: Converter Housing Leak Paths
 Courtesy of CHRYSLER LLC

1 - PUMP SEAL
2 - PUMP VENT
3 - PUMP BOLT
4 - PUMP GASKET
5 - CONVERTER HOUSING
6 - CONVERTER
7 - REAR MAIN SEAL LEAK

When diagnosing converter housing 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. 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 inspect pump seal (1), pump vent (2), pump bolts (3), pump gasket (4), converter housing (5), converter (6) and a rear main seal leak (7). Through careful observation, a leak source can be identified before removing the transmission for repair.

Pump seal 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 leaks are generally deposited on the inside of the converter housing and not on the converter itself. Pump seal or gasket leaks usually travel down the inside of the converter housing.

TORQUE CONVERTER LEAKAGE

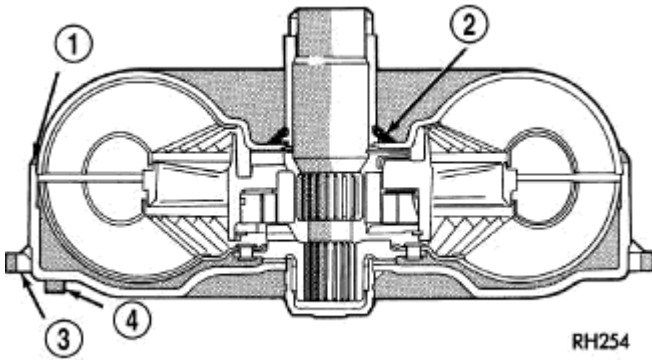


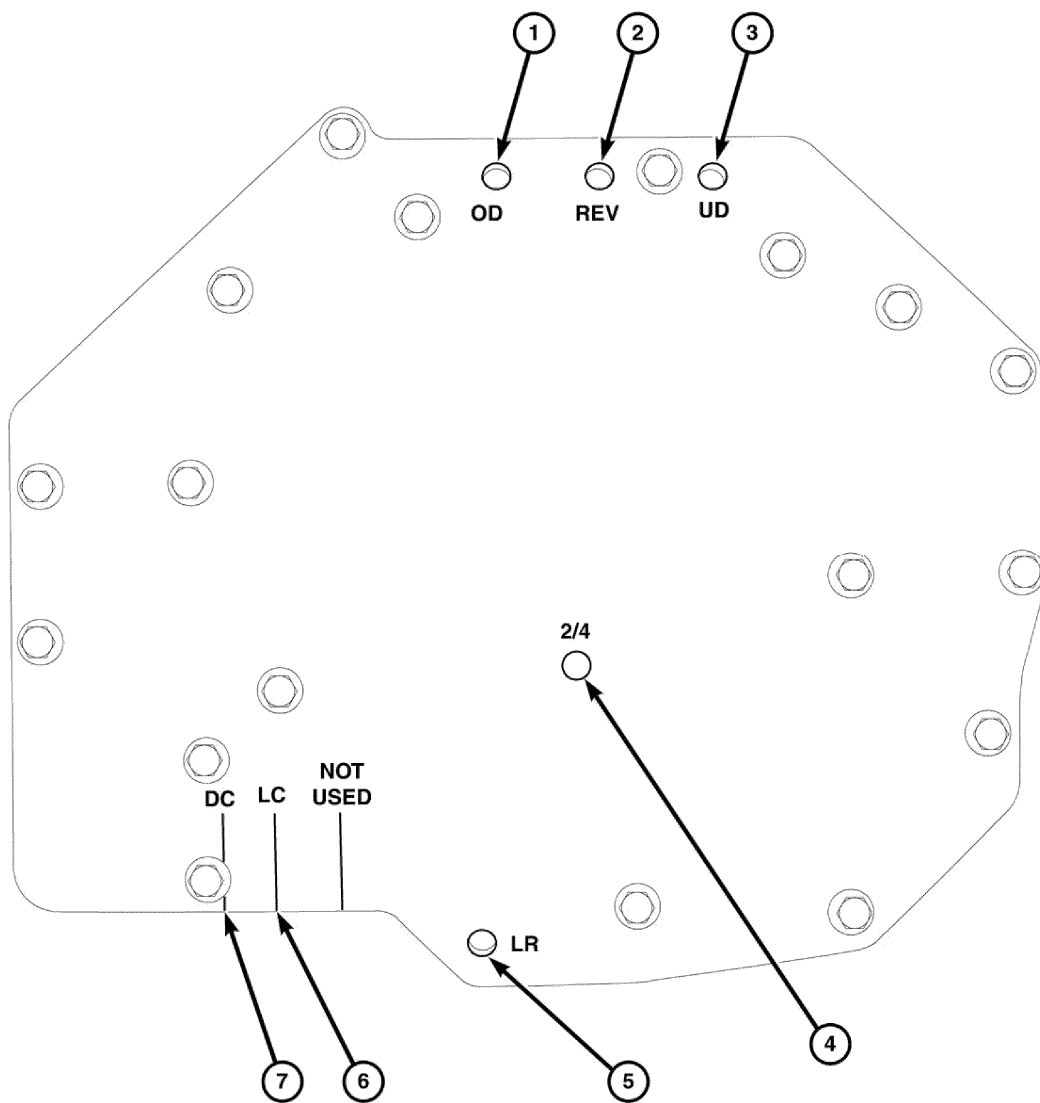
Fig. 13: Converter Leak Points - Typical
Courtesy of CHRYSLER LLC

1 - OUTSIDE DIAMETER WELD
2 - TORQUE CONVERTER HUB WELD
3 - STARTER RING GEAR
4 - LUG

Possible sources of torque converter leakage are:

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

CLUTCH AIR PRESSURE TESTS



8195dob3

Fig. 14: Air Pressure Test Plate 9741
Courtesy of CHRYSLER LLC

1 - OVERDRIVE CLUTCH	5 - LOW/REVERSE CLUTCH
2 - REVERSE CLUTCH	6 - LOW CLUTCH
3 - UNDERDRIVE CLUTCH	7 - DIRECT CLUTCH
4 - 2/4 CLUTCH	

Inoperative clutches can be located using a series of tests by substituting air pressure for fluid pressure using Air Pressure Test Plate 9741.

The clutches may be tested by applying air pressure to their respective passages. The valve body and oil filter must be removed and Air Pressure Test Plate 9741 installed. To make air pressure tests, proceed as follows:

NOTE: **The compressed air supply must be free of all dirt and moisture. Use a pressure of 30 psi.**

Remove oil pan and valve body, Install Test Plate 9741 and tighten bolts to 6 N.m (50 in. lbs.). When testing is finished install valve body and tighten bolts to 6 N.m (50 in. lbs.), Install the oil pan bolts and tighten to 6 N.m (50 in. lbs.) and fill transmission. See **Standard Procedure** .

OVERDRIVE CLUTCH

Apply air pressure to the overdrive clutch feed hole located on the test plate marked OD, listen for an audible thud. The piston should return to its starting position when the air pressure is removed.

REVERSE CLUTCH

Apply air pressure to the reverse clutch feed hole located on the test plate marked REV , listen for an audible thud. The piston should return to its starting position when the air pressure is removed.

2/4 CLUTCH

Apply air pressure to the feed hole located on the test plate marked 2/4 clutch. listen for an audible thud. The piston should return to its original position after the air pressure is removed.

LOW/REVERSE CLUTCH

Apply air pressure to the low/reverse clutch feed hole located on the test plate marked LR. Then, listen for an audible thud. The piston should return to its original position after the air pressure is removed.

UNDERDRIVE CLUTCH

Because this clutch piston cannot be seen, its operation is checked by function. Air pressure is applied to the feed hole located on the test plate marked UD. This locks the output shaft. Use a piece of rubber hose wrapped around the input shaft and a pair of clamp-on pliers to turn the input shaft. Next apply air pressure to the underdrive clutch. The input shaft should not rotate with hand torque. Release the air pressure and confirm that the input shaft will rotate.

DIRECT CLUTCH

Apply air pressure to the feed hole located on the test plate marked DC, listen for an audible thud.

LOW CLUTCH

Apply air pressure to the feed hole located on the test plate marked LC, listen for an audible thud.

ROAD TEST

2009 Dodge Journey R/T

2009 AUTOMATIC TRANSMISSION 62TE - Service Information - Journey

Prior to performing a road test, verify that the fluid level, fluid condition, and linkage adjustment have been approved.

During the road test, the transaxle should be operated in each position to check for slipping and any variation in shifting.

If the vehicle operates properly at highway speeds, but has poor acceleration, the converter stator overrunning clutch may be slipping. If acceleration is normal, but high throttle opening is needed to maintain highway speeds, the converter stator clutch may have seized. Both of these stator defects require replacement of the torque converter and thorough transaxle cleaning.

Slipping clutches can be isolated by comparing the clutch application chart with clutch operation encountered on a road test. This chart identifies which clutches are applied at each position of the selector lever.

A slipping clutch may also set a DTC and can be determined by operating the transaxle in all selector positions.

CLUTCH APPLICATION

62TE		ELEMENTS APPLIED							
GEAR	RATIO	UD	OD	R	2-4	L-R	LC	DC	ORC
1	4.127	A	-	-	-	A	A ^	-	H
2	2.842	A	-	-	-	A	-	A	-
3 *	2.284	A	-	-	A	-	A ^	-	H
4	1.573	A	-	-	A	-	-	A	-
4	1.452	A	A	-	-	-	A ^	-	H
5	1.000	A	A	-	-	-	-	A	-
6	0.689	-	A	-	A	-	-	A	-
R	3.215	-	-	A	-	A	A	-	-

- A = Applied
- H = Holding
- * = Limp-in Mode
- ^ = Applied in coast only

The process of elimination can be used to detect any unit which slips and to confirm proper operation of good units. Road test analysis can diagnose slipping units, but the cause of the malfunction cannot be determined. Practically any condition can be caused by leaking hydraulic circuits or sticking valves.

REMOVAL

REMOVAL

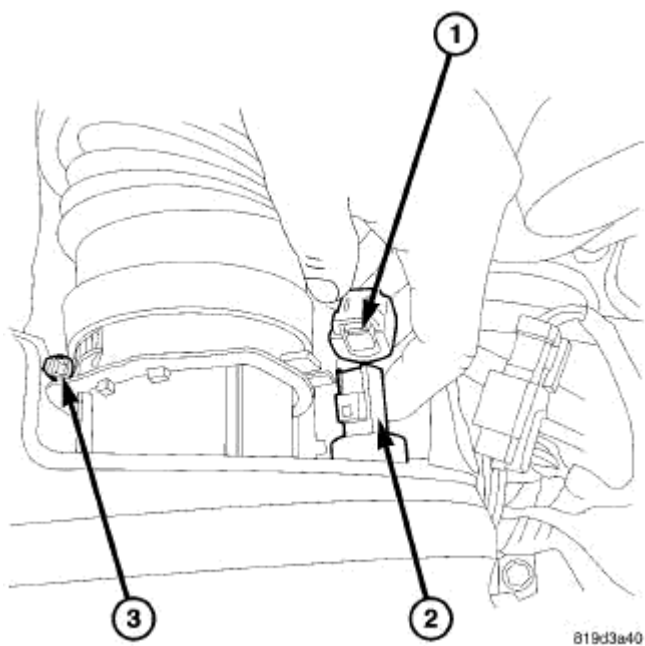


Fig. 15: IAT Sensor Connector
Courtesy of CHRYSLER LLC

1. Open hood.
2. Disconnect negative battery cable.
3. Unplug the electrical connector (1) to the intake air temperature sensor (2) at the air box.

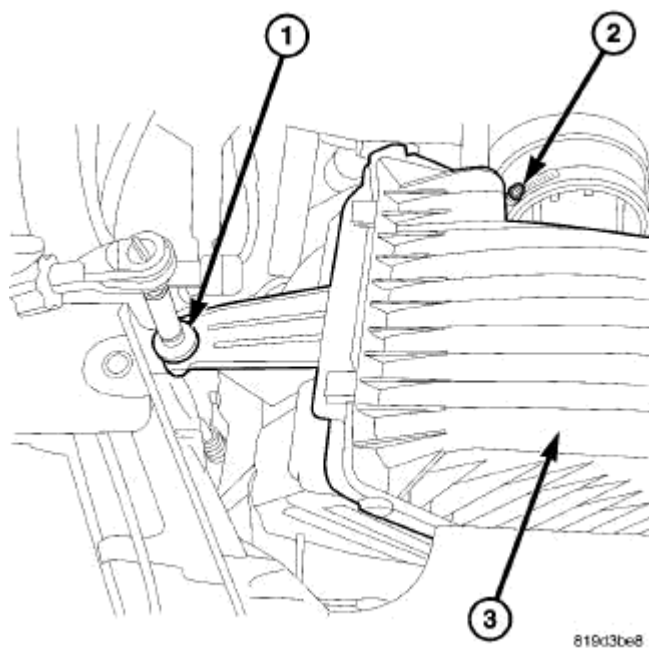


Fig. 16: Air Box

Courtesy of CHRYSLER LLC

4. Remove the hold down bolt (1) and hose clamp (2) at the air box.
5. Remove the air box.

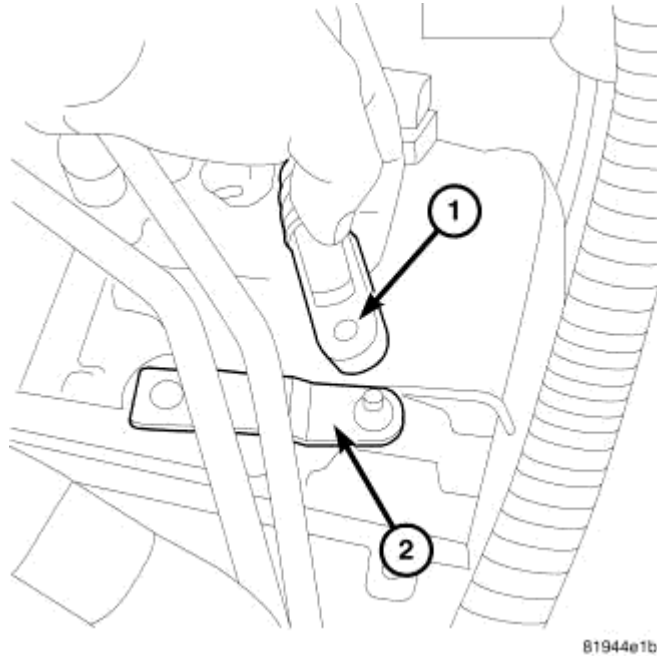


Fig. 17: Shift Cable From/To Manual Lever

Courtesy of CHRYSLER LLC

6. Disconnect gearshift cable (1) from transaxle manual valve lever (2).
7. Disconnect gearshift cable from the bracket.

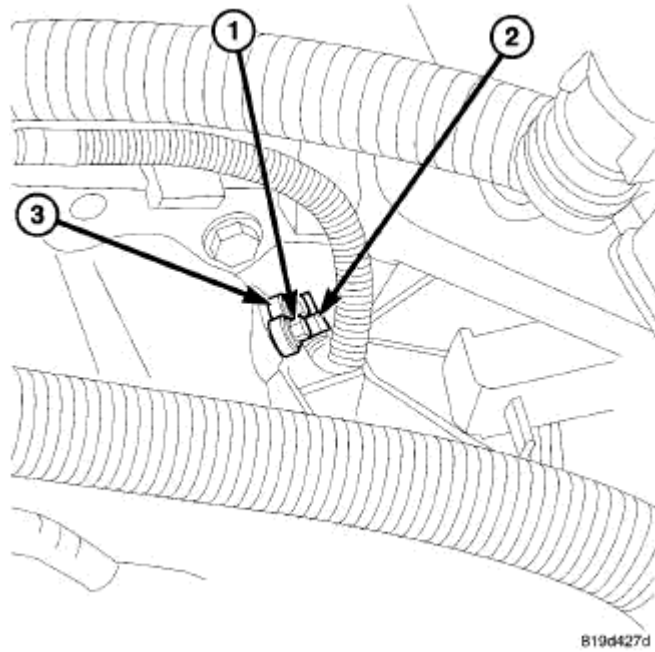


Fig. 18: Crankshaft Position Sensor
Courtesy of CHRYSLER LLC

8. Disconnect the electrical connector (2) at the crankshaft position sensor (3).
9. Remove hold down bolt (1) at the crankshaft position sensor (3).
10. Remove the crankshaft position sensor (3).

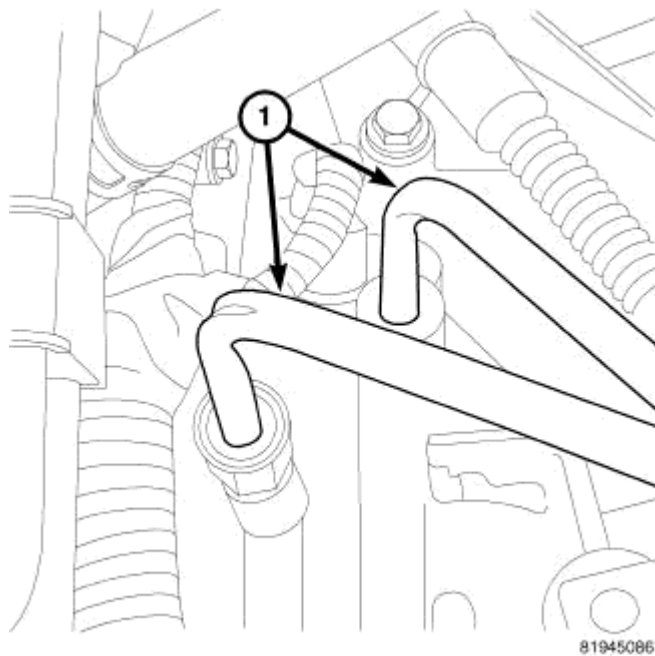


Fig. 19: Cooler Lines At Transaxle

Courtesy of CHRYSLER LLC

11. Disconnect oil cooler lines from transaxle using Disconnect Tool 8875A. Refer to **Cooling - Standard Procedure** .

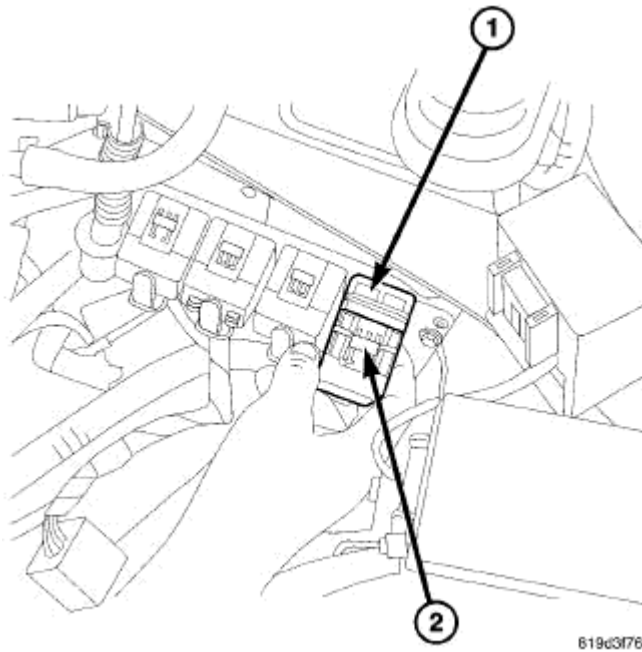


Fig. 20: Transmission Harness Connector

Courtesy of CHRYSLER LLC

NOTE: The transmission harness will be removed with the transaxle.

12. Unplug the transaxle electrical connector at the powertrain control module.

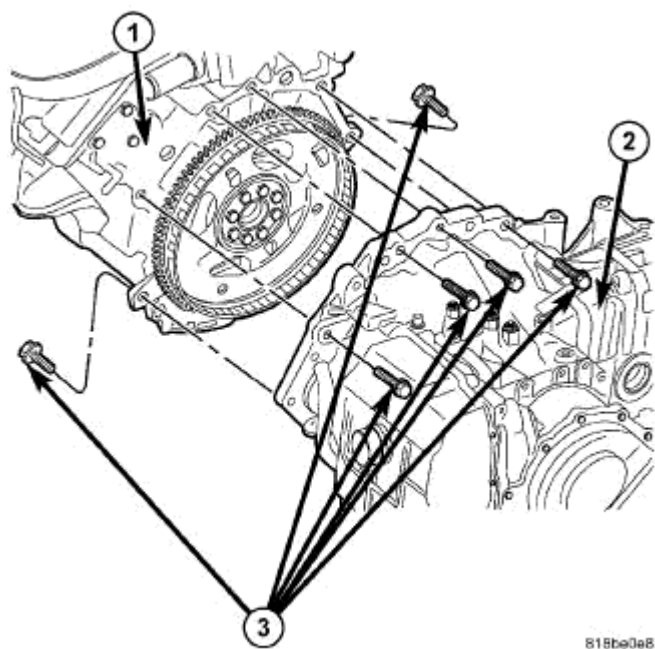


Fig. 21: Upper Transmission Bolts
Courtesy of CHRYSLER LLC

13. Remove the transaxle upper bellhousing-to-block bolts (3).

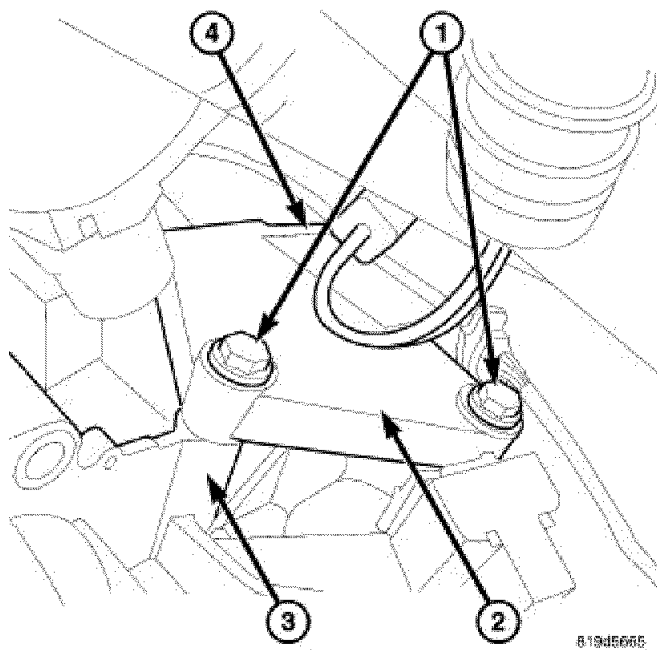


Fig. 22: Rear Mount Top Bolts
Courtesy of CHRYSLER LLC

14. Remove rear transaxle mount bracket bolts (1).

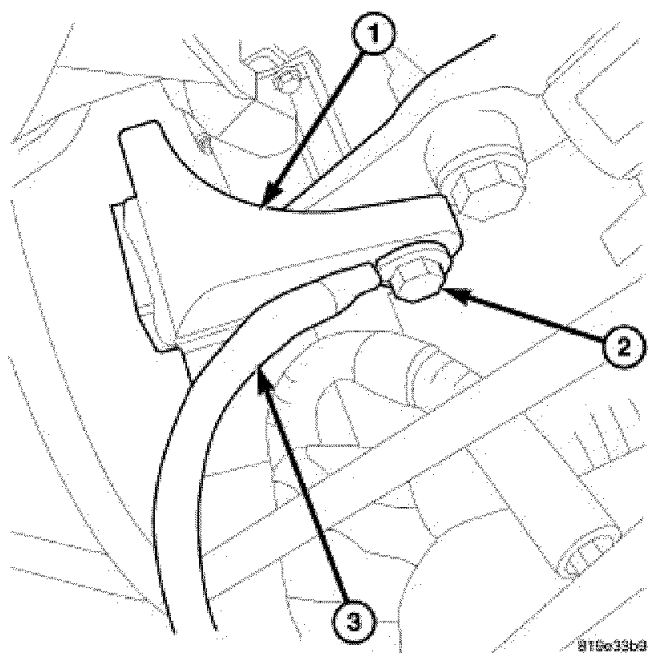


Fig. 23: Ground Cable At Front Mount
Courtesy of CHRYSLER LLC

15. Remove the bolt (2) holding the ground cable (3) to the front mount bracket (1).
16. Raise the vehicle on the hoist.
17. Remove both halfshafts. Refer to **Differential and Driveline/Half Shaft - Removal** .
18. Remove the front and both side splash shields. Refer to **Body/Exterior/SHIELD, Splash - Removal** .
19. Remove the PTU, if equipped.

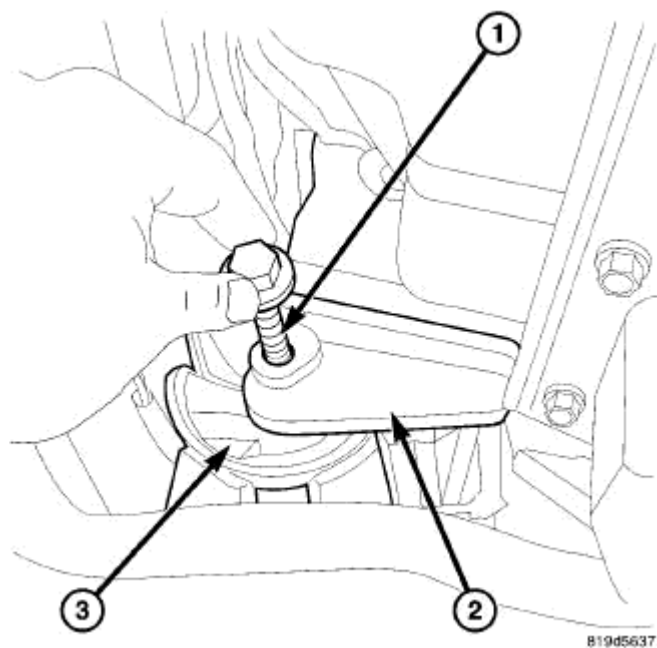


Fig. 24: Crossmember Through Bolt
Courtesy of CHRYSLER LLC

20. Remove the mount through bolt (1).

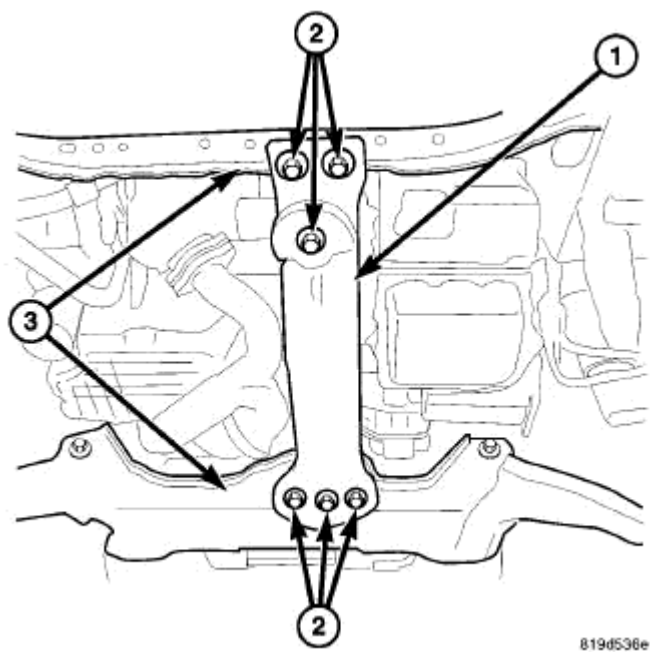


Fig. 25: Transmission Crossmember
Courtesy of CHRYSLER LLC

21. Remove the transmission crossmember bolts (2).
22. Remove the transmission crossmember.

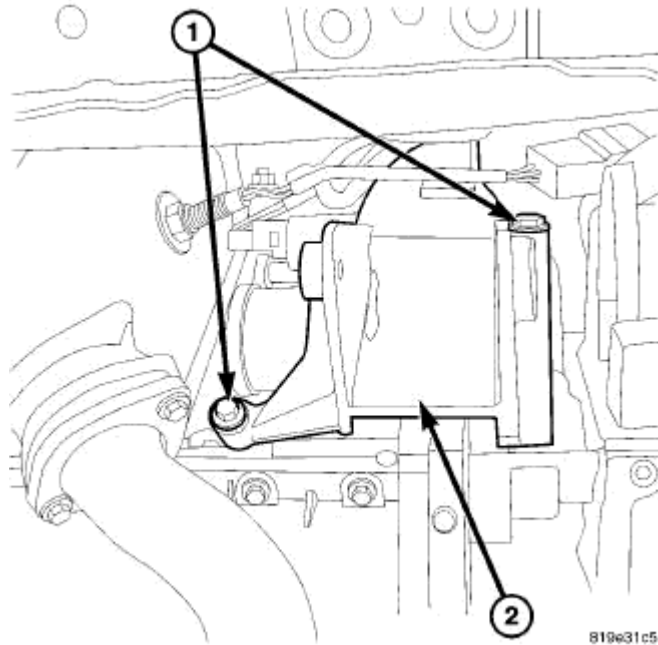


Fig. 26: Front Mount Bracket
Courtesy of CHRYSLER LLC

23. Remove the front mount bracket bolts (1).
24. Remove the front mount bracket (2).

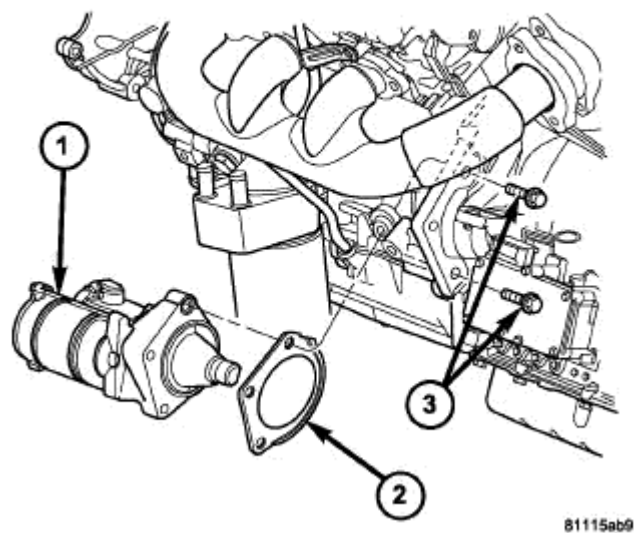


Fig. 27: Starter Motor And Shim
Courtesy of CHRYSLER LLC

25. Disconnect starter motor electrical connectors and remove the retaining bolts (3), starter motor (1) and shim (2).

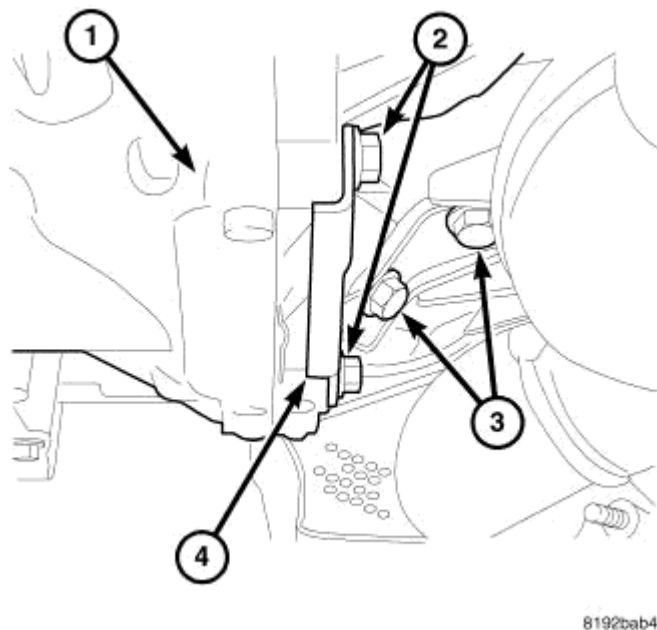


Fig. 28: Exhaust Bracket Bolts
Courtesy of CHRYSLER LLC

26. Remove bolts (3) to exhaust bracket.
27. Remove cross under pipe. Refer to **Exhaust System/PIPE, Exhaust Crossunder - Removal** .
28. Remove bolts (2) to stand off bracket (4).
29. Remove bracket (4).

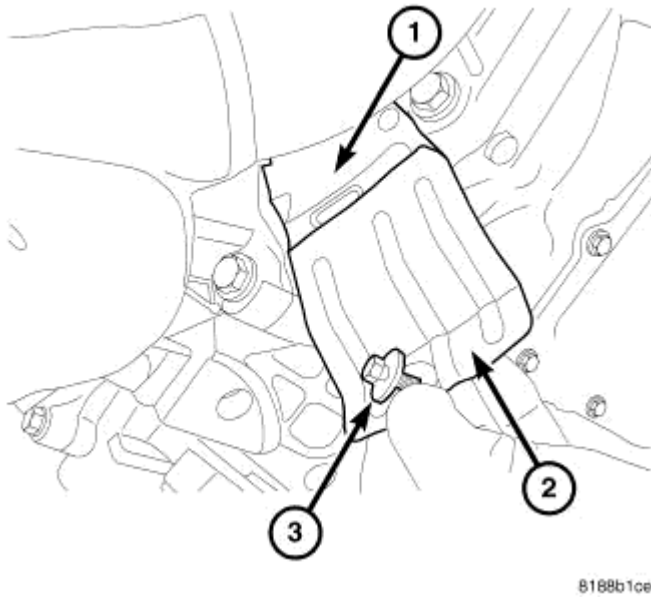


Fig. 29: Dust Shield
Courtesy of CHRYSLER LLC

30. Remove torque converter dust shield bolt (3).
31. Remove torque converter dust shield (2).

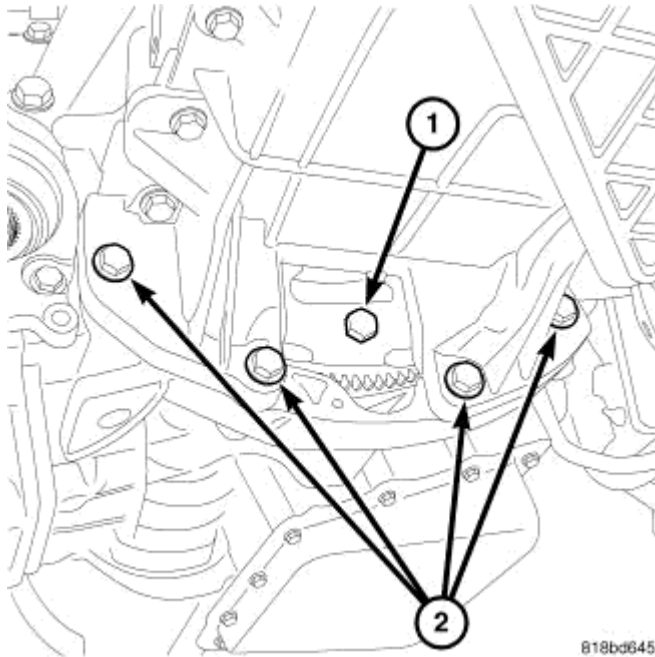


Fig. 30: Torque Converter Bolts
Courtesy of CHRYSLER LLC

32. Remove the torque converter-to-driveplate bolts (1). Upon removing bolts, a tight-tolerance (slotted) bolt will be encountered. Mark this location (driveplate and converter) with paint for assembly reference.

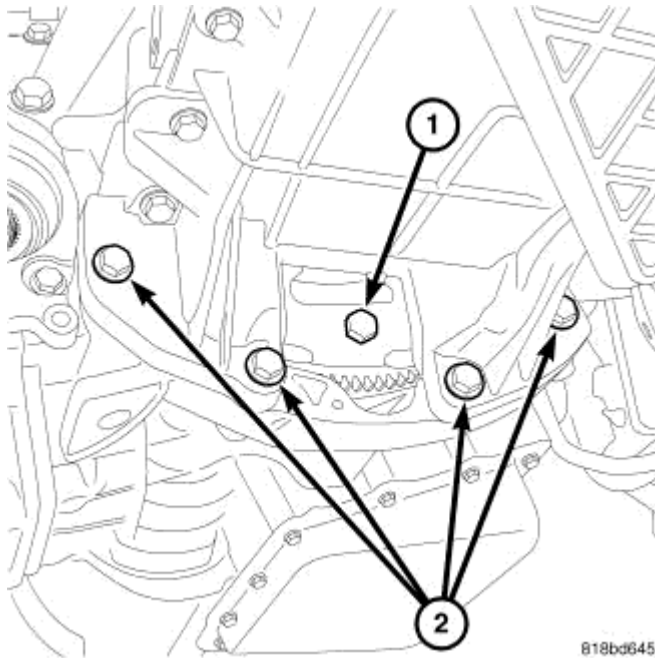


Fig. 31: Torque Converter Bolts
Courtesy of CHRYSLER LLC

33. Install a transmission jack and support the engine. Secure transaxle to jack.

NOTE: The bolts on each side of the inspection opening were removed with the exhaust bracket.

34. Remove the transaxle-to-engine lower bolts (2).

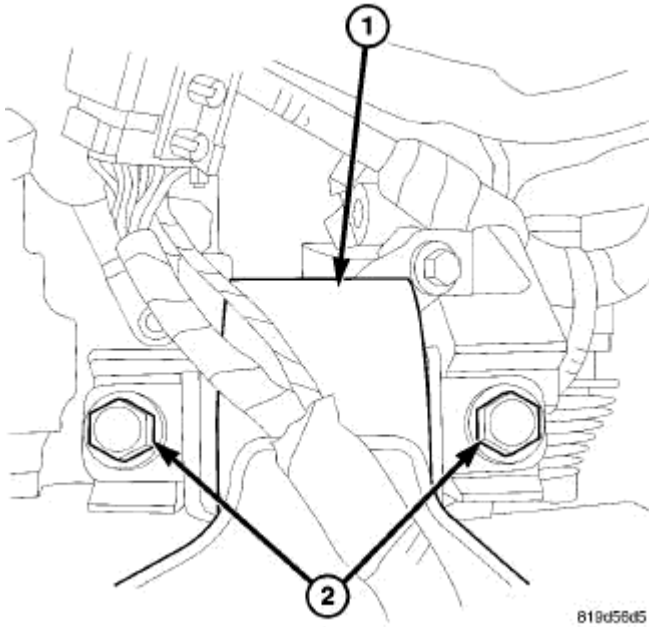
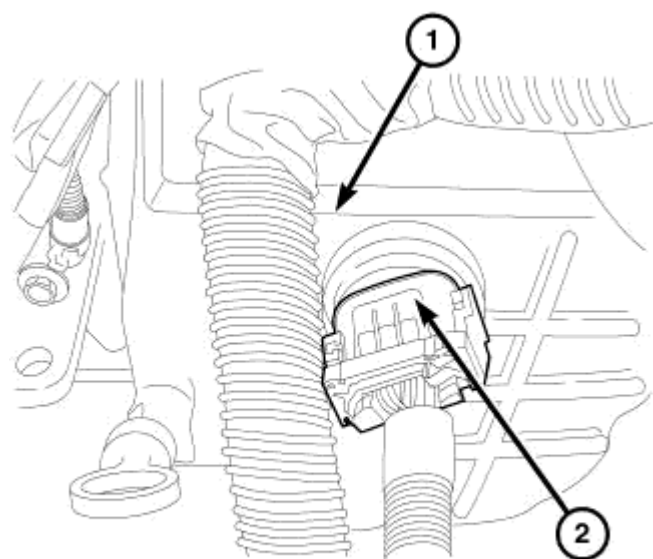


Fig. 32: Left Mount Bolts
Courtesy of CHRYSLER LLC

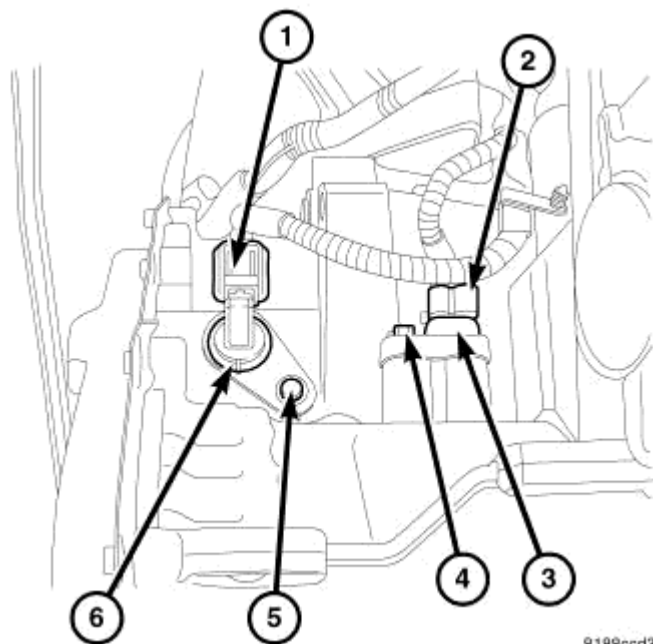
35. Remove left side transmission mount bolts (2) and remove the mount (1).
36. Lower transaxle from engine compartment.



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Fig. 33: Solenoid Connector At Transmission
Courtesy of CHRYSLER LLC

37. Disconnect solenoid/pressure switch assembly connector (2).



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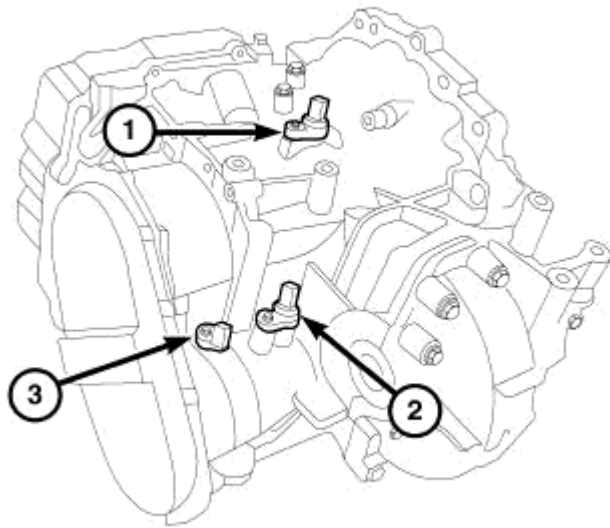
Fig. 34: Output Speed Sensors
Courtesy of CHRYSLER LLC

38. Disconnect both output speed sensor connectors (1, 2).
39. Disconnect input speed sensor connector.

40. Remove the harness from transaxle.

DISASSEMBLY

DISASSEMBLY



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Fig. 35: Speed Sensors

Courtesy of CHRYSLER LLC

1. Remove the speed sensors (1, 2 and 3).

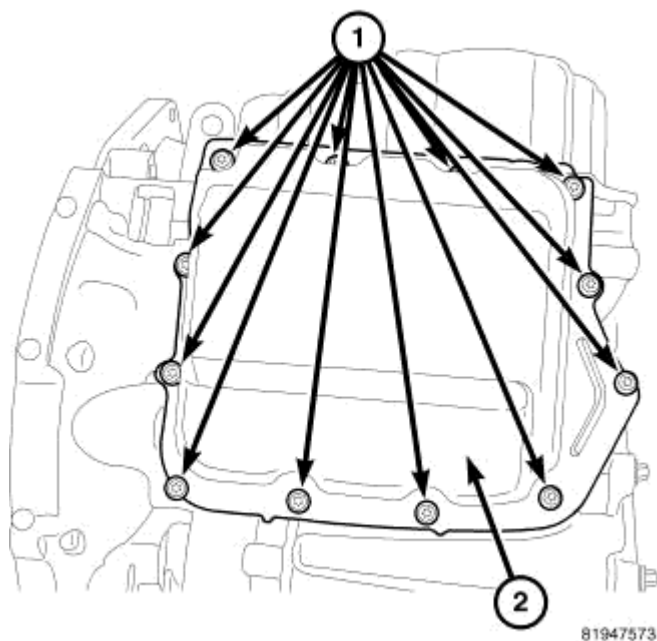


Fig. 36: Filter Oil Pan

Courtesy of CHRYSLER LLC

2. Remove bolts (1) at the oil filter pan (2).
3. Remove the oil filter pan (2).

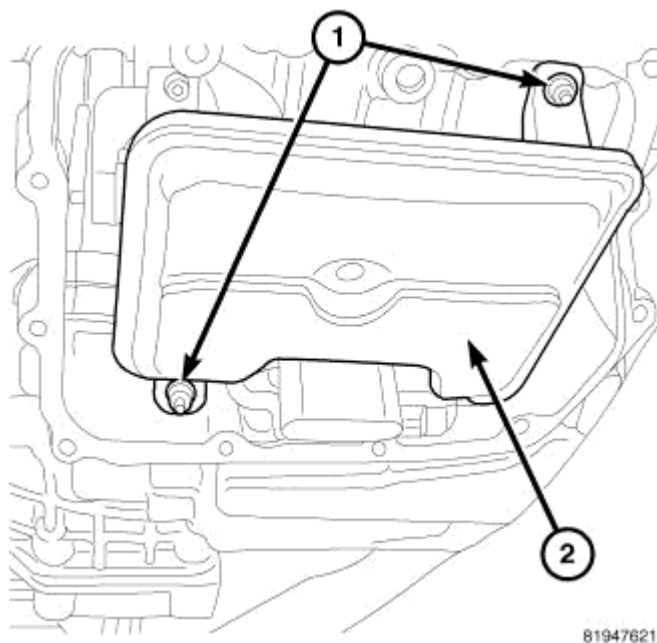


Fig. 37: Fluid Filter

Courtesy of CHRYSLER LLC

4. Remove the bolts (1) at the oil filter (2).

5. Remove the oil filter (2).

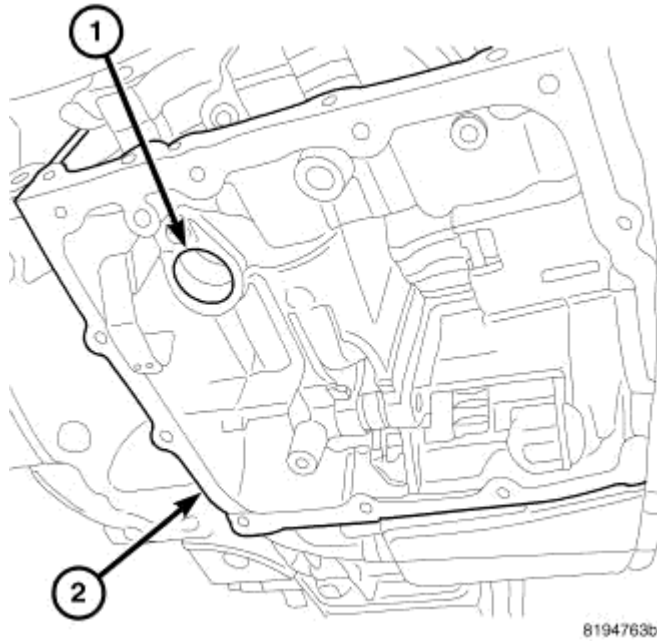


Fig. 38: Oil Filter Seal At Case
Courtesy of CHRYSLER LLC

6. Remove the oil filter seal (1) at the case.

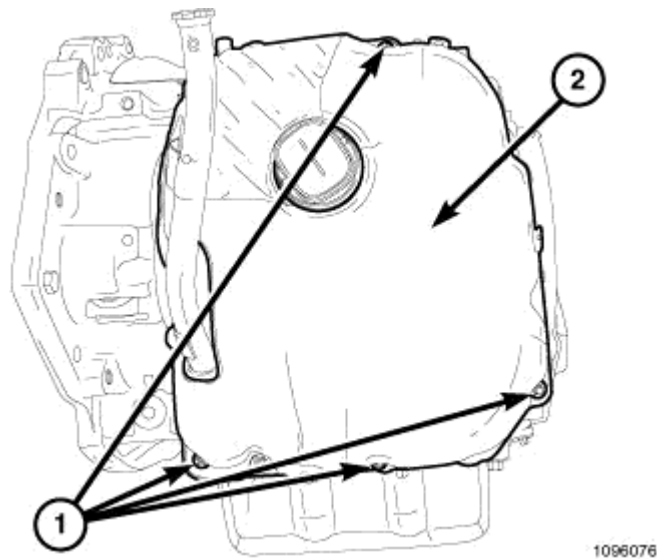


Fig. 39: Fasteners And Front Sound Dampener Cover
Courtesy of CHRYSLER LLC

NOTE: Keep the Front Sound Dampener Cover if replacing the unit

7. If equipped remove the fasteners (1) and the Front Sound Dampener Cover (2).

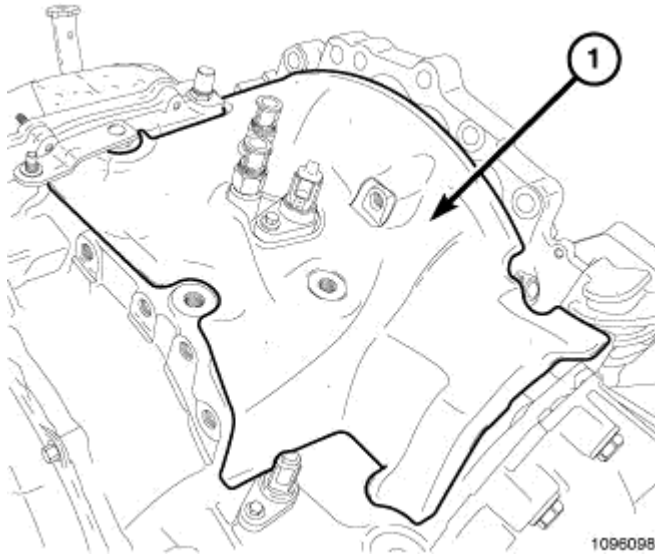


Fig. 40: Top Sound Damper Cover
Courtesy of CHRYSLER LLC

NOTE: Keep the Top Sound Dampener Cover if replacing the unit

8. If equipped remove the Top Sound Damper Cover (1).

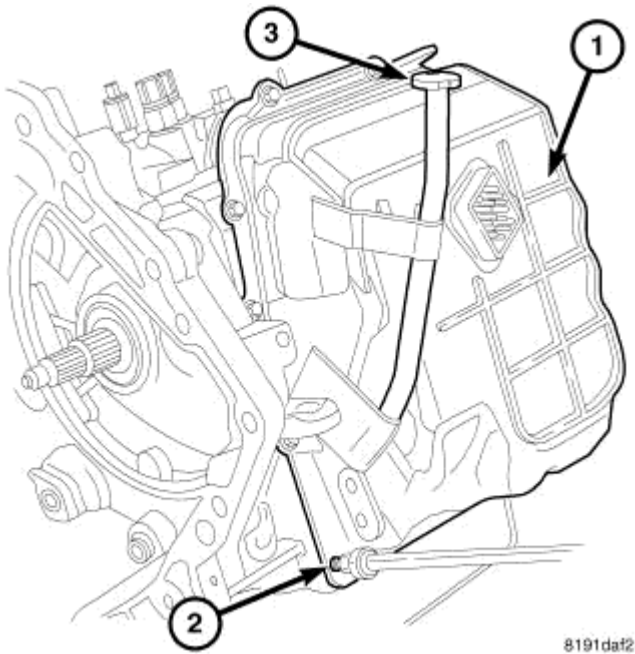
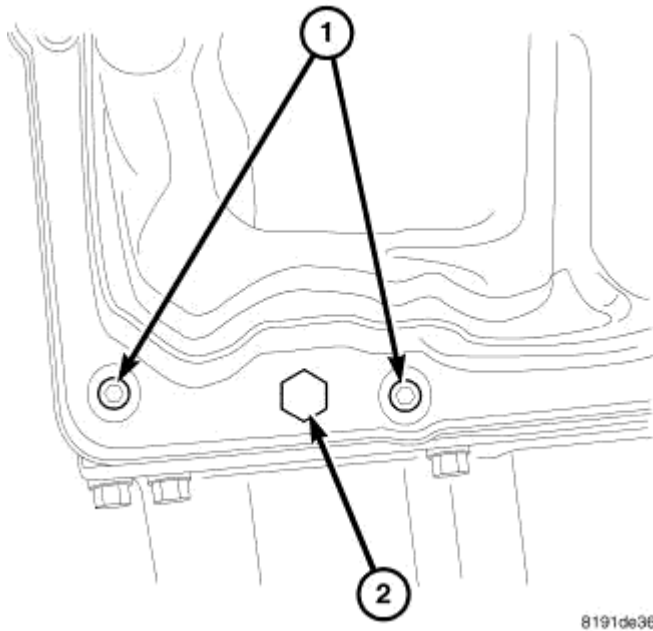


Fig. 41: Valve Body Pan
Courtesy of CHRYSLER LLC

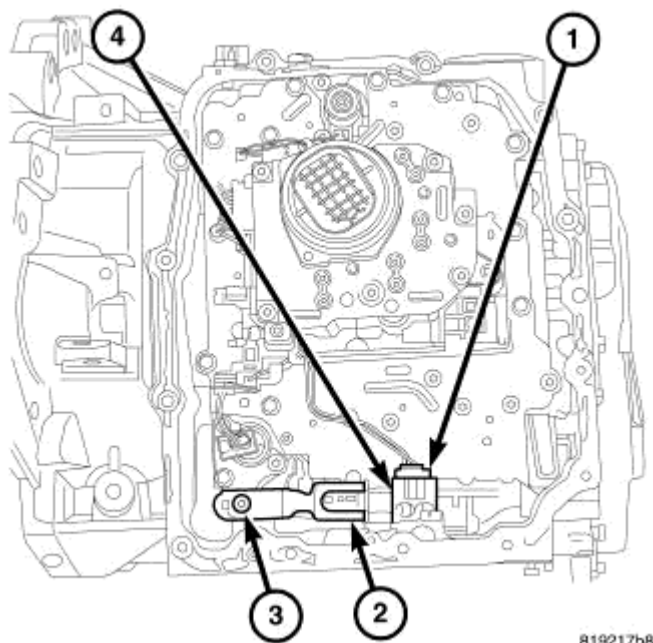
9. Remove bolts (2) at the valve body oil pan (1).



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Fig. 42: Pressure Tap Plug
Courtesy of CHRYSLER LLC

10. Remove the pressure tap plug (2) at valve body pan.
11. Remove the valve body pan.



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Fig. 43: Connector At Transmission
Courtesy of CHRYSLER LLC

12. Remove the electrical connector (1) at the range sensor (4).
13. Remove the bolt (3) holding the detent spring.
14. Remove the detent spring (2).

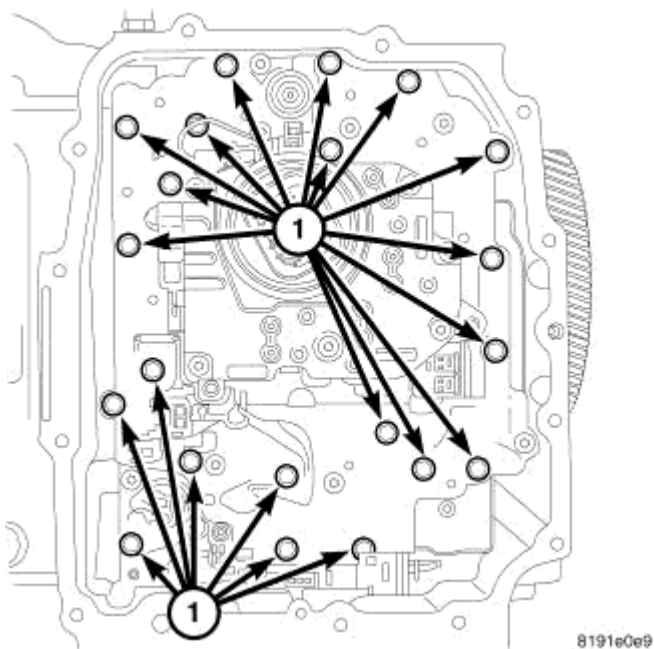


Fig. 44: Valve Body Bolts
Courtesy of CHRYSLER LLC

15. Remove valve body bolts (1).

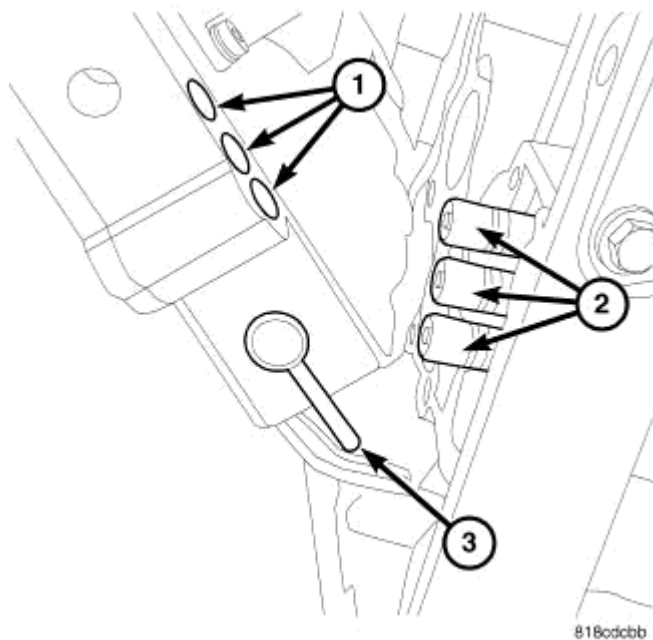
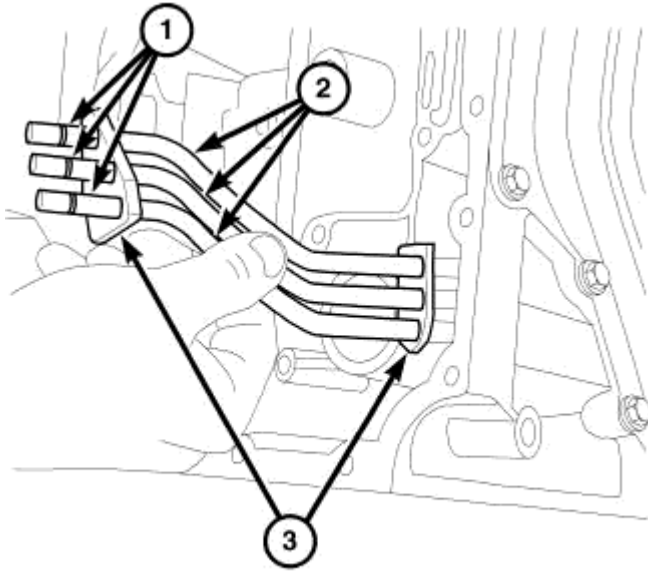


Fig. 45: Oil Transfer Tubes

Courtesy of CHRYSLER LLC

16. Remove valve body (1) from oil transfer tubes and manual valve (3) from rooster comb.

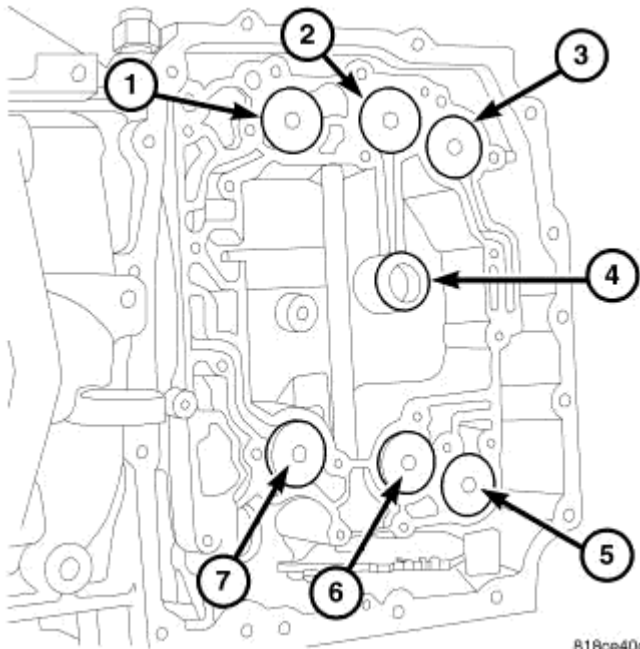


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Fig. 46: Transfer Tube O-Rings

Courtesy of CHRYSLER LLC

17. Remove oil transfer tubes (2) from the case.



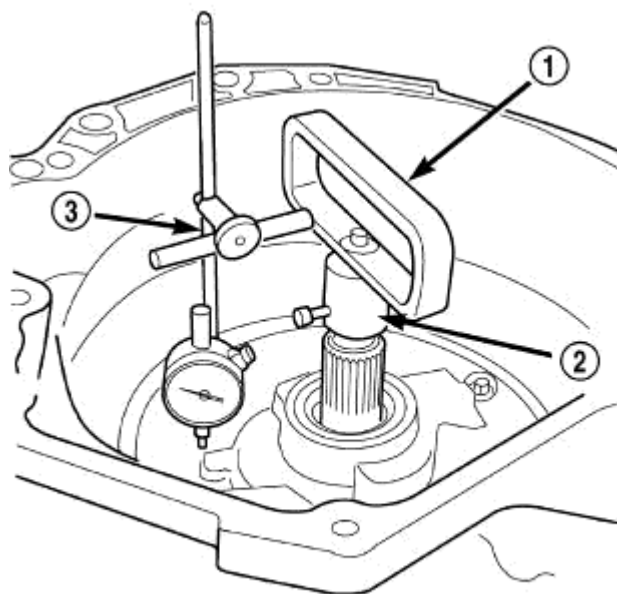
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Fig. 47: Accumulators

Courtesy of CHRYSLER LLC

1 - UD ACCUMULATOR	5 - LC ACCUMULATOR
2 - 2/4 ACCUMULATOR	6 - DC ACCUMULATOR
3 - LR ACCUMULATOR	7 - OD ACCUMULATOR
4 - 2/4 CLUTCH OIL SUPPLY SEAL -	

18. Remove all six accumulators (1, 2, 3, 5, 6 and 7) from case along with the accumulator return springs.
19. Remove the 2/4 clutch oil supply seal (4) from the case.
20. Remove the manual lever, TRS and seal. See **Removal** .



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Fig. 48: Measure Input Shaft End Play Using End Play Set 8266

Courtesy of CHRYSLER LLC

1 - END PLAY FIXTURES 8266A
2 - DIAL INDICATOR C-3339A

21. Measure input shaft end play. Place transaxle so input shaft is vertical. Set up end play fixtures 8266A (1,2) and dial indicator (3). **Input shaft end play should be within 0.13-0.64 mm (0.005-0.025 in.)** Record indicator reading for reference upon reassembly.

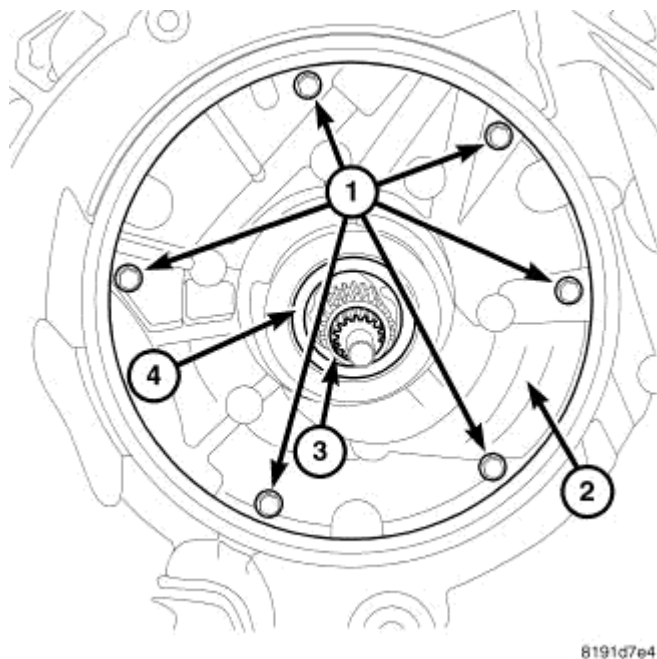


Fig. 49: Front Pump 62TE
Courtesy of CHRYSLER LLC

22. Remove the front pump bolts (1).

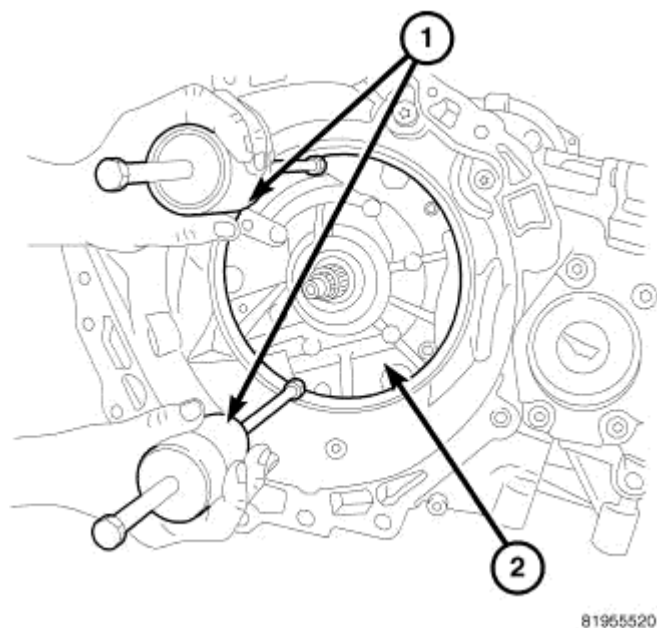


Fig. 50: Pullers C-3752
Courtesy of CHRYSLER LLC

CAUTION: Be sure input speed sensor is removed before removing oil pump.

23. Install slide hammers C-3752 (1) on oil pump.

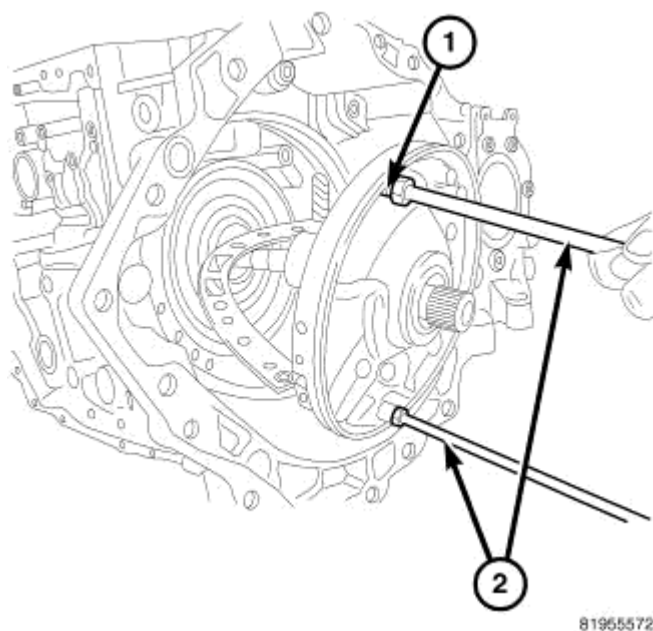


Fig. 51: Remove Oil Pump
Courtesy of CHRYSLER LLC

24. Remove oil pump assembly (1).

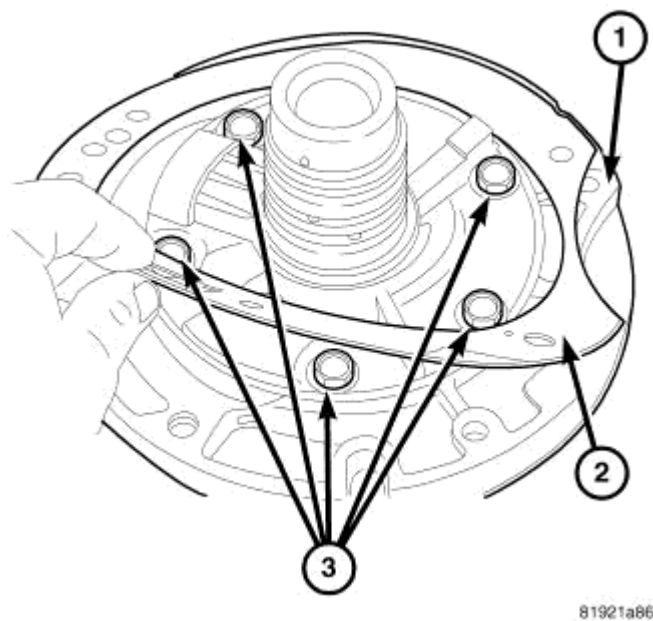


Fig. 52: Oil Pump Gasket
Courtesy of CHRYSLER LLC

25. Remove oil pump gasket (2).

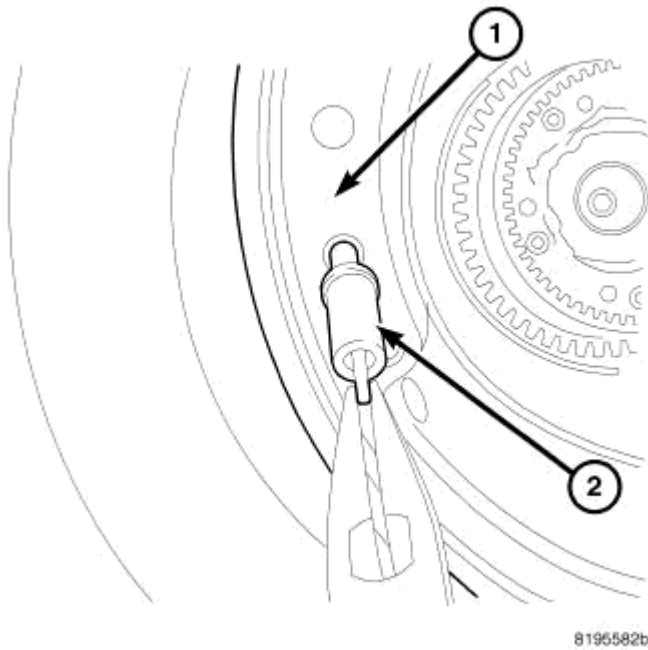


Fig. 53: Bypass Valve 62TE
Courtesy of CHRYSLER LLC

CAUTION: If transaxle failure has occurred, the cooler bypass valve must be replaced. Do not re-use or attempt to clean valve.

26. Remove cooler bypass valve (2).

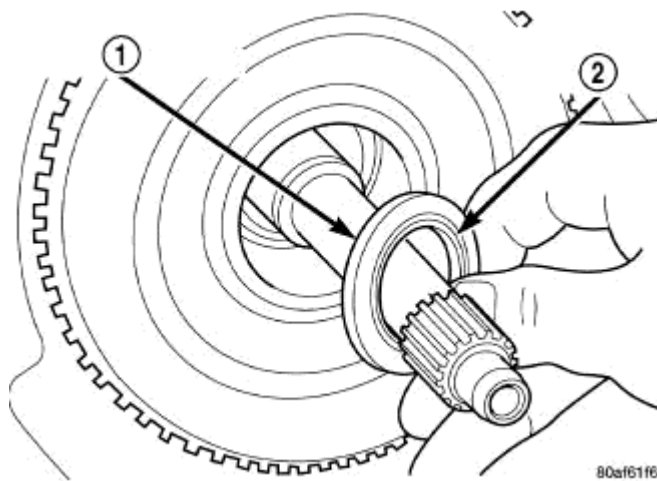


Fig. 54: Remove/Install Caged Needle Bearing
Courtesy of CHRYSLER LLC

1 - #1 CAGED NEEDLE BEARING

2 - NOTE: TANGED SIDE OUT

27. Remove number one needle bearing (1).

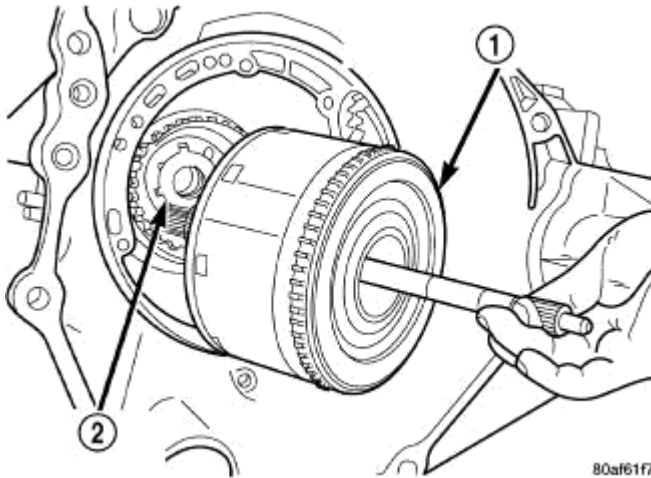


Fig. 55: Remove Input Clutch Assembly
Courtesy of CHRYSLER LLC

1 - INPUT CLUTCH ASSEMBLY

2 - #4 THRUST WASHER

28. Remove input clutch assembly (1).

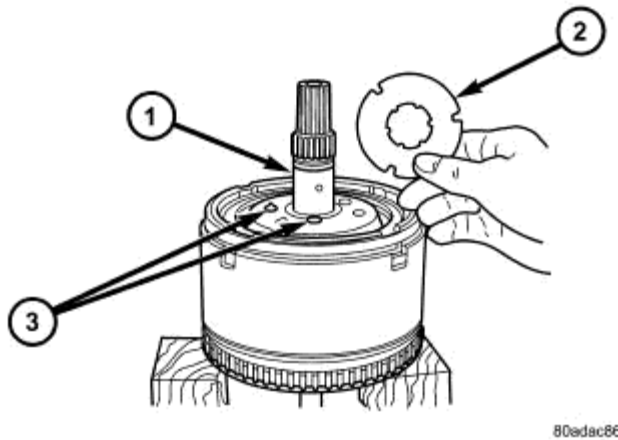


Fig. 56: No. 4 Thrust Plate
Courtesy of CHRYSLER LLC

1 - OVERDRIVE SHAFT ASSEMBLY

- | |
|--|
| 2 - #4 THRUST PLATE (SELECT) |
| 3 - 3 DABS OF PETROLATUM FOR RETENTION |

29. Remove number four thrust plate (2).

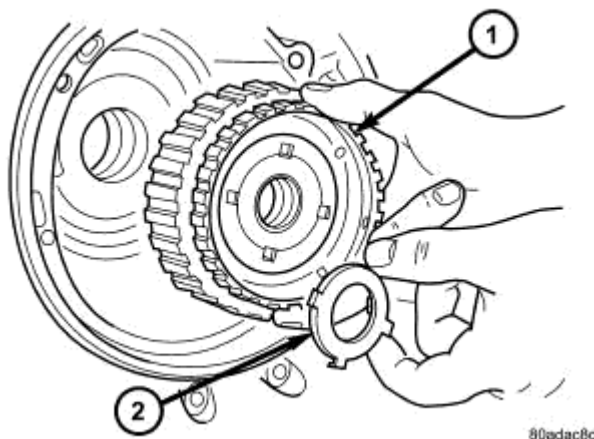


Fig. 57: Remove/Install Front Sun Gear Assembly
Courtesy of CHRYSLER LLC

- | |
|----------------------------------|
| 1 - FRONT SUN GEAR ASSEMBLY |
| 2 - #4 THRUST WASHER (FOUR TABS) |

30. Remove front sun gear assembly (1) and number four thrust washer (2).

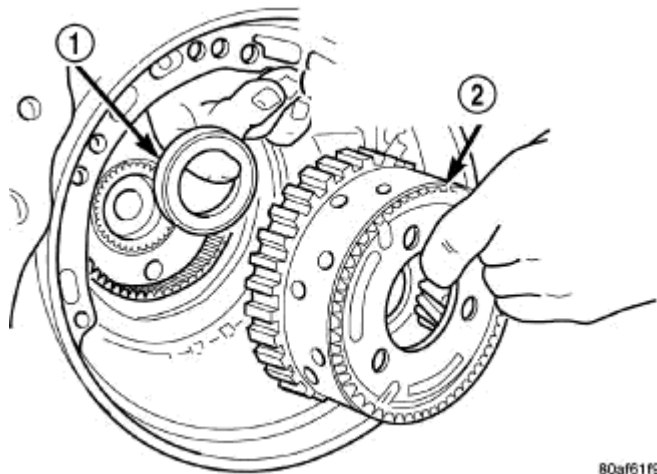


Fig. 58: Remove/Install Front Carrier And Rear Annulus Assembly
Courtesy of CHRYSLER LLC

- | |
|-----------------------|
| 1 - #6 NEEDLE BEARING |
|-----------------------|

2 - FRONT CARRIER AND REAR ANNULUS ASSEMBLY (TWIST AND PULL OR PUSH TO REMOVE OR INSTALL).

31. Remove front carrier/rear annulus assembly (2) and number six needle bearing (1).

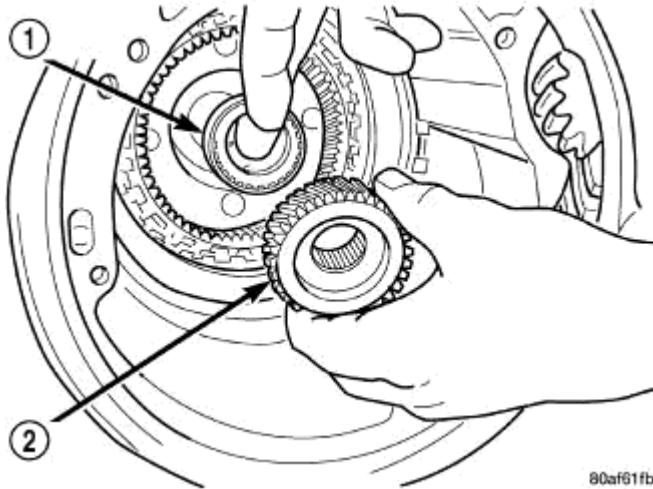


Fig. 59: Remove Rear Sun Gear
Courtesy of CHRYSLER LLC

1 - #7 NEEDLE BEARING
2 - REAR SUN GEAR

NOTE: The number seven needle bearing (1) has three anti-reversal tabs and is common with the number five and number two position. The orientation should allow the bearing to seat flat against the rear sun gear (1) when put together.

32. Remove rear sun gear (2) and number seven needle bearing (1).

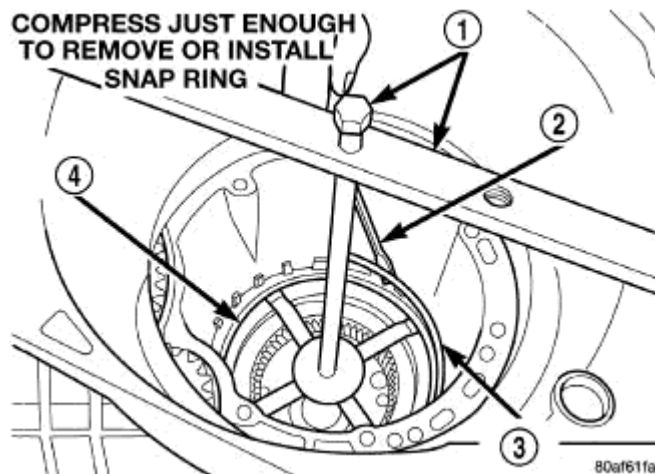


Fig. 60: Remove/Install 2/4 Clutch Retainer Snap Ring
Courtesy of CHRYSLER LLC

1 - SPRING COMPRESSING 5058A
2 - SCREWDRIVER
3 - SNAP RING
4 - 2/4 CLUTCH RETAINER

NOTE: Verify that Compressor 5058A is centered properly over the 2/4 clutch retainer before compressing. If necessary, fasten the 5058A bar to the bellhousing flange with any combination of locking pliers and bolts to center the tool properly.

33. Setup the Spring Compressor 5058A (1), Compress 2/4 clutch return spring (4) (just enough to remove snap ring) and remove snap ring (3).

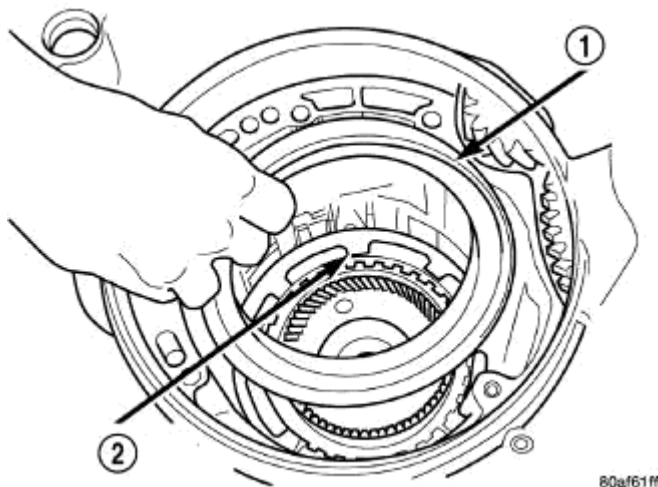


Fig. 61: 2/4 Clutch Retainer
Courtesy of CHRYSLER LLC

1 - 2/4 CLUTCH RETAINER

2 - 2/4 CLUTCH RETURN SPRING

NOTE: The 2/4 Clutch Piston has bonded seals which are not individually serviceable. Seal replacement requires replacement of the piston assembly.

34. Remove 2/4 clutch retainer (1).

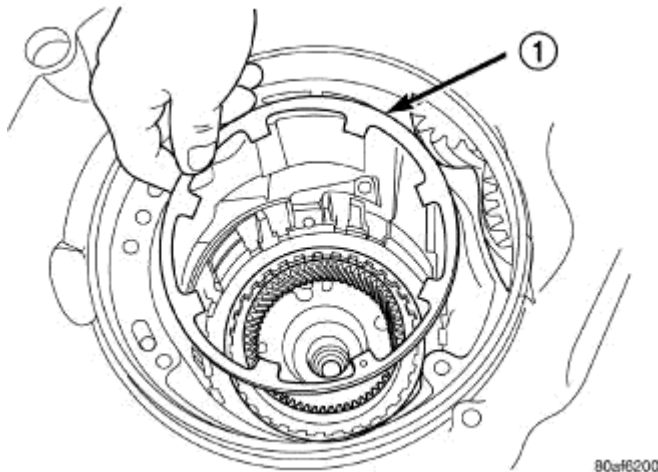


Fig. 62: Remove 2/4 Clutch Return Spring
Courtesy of CHRYSLER LLC

1 - 2/4 CLUTCH RETURN SPRING

35. Remove 2/4 clutch return spring (1).

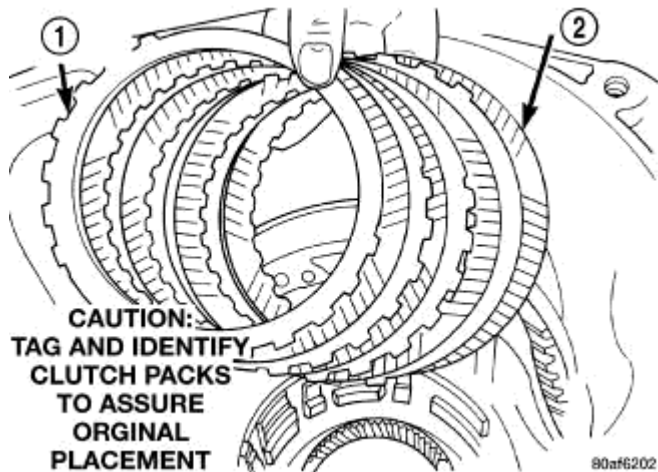


Fig. 63: Remove 2/4 Clutch Pack
Courtesy of CHRYSLER LLC

1 - CLUTCH PLATE (4)

2 - CLUTCH DISC (4)

36. Remove 2/4 clutch pack (1,2). Tag 2/4 clutch pack for reassembly identification.

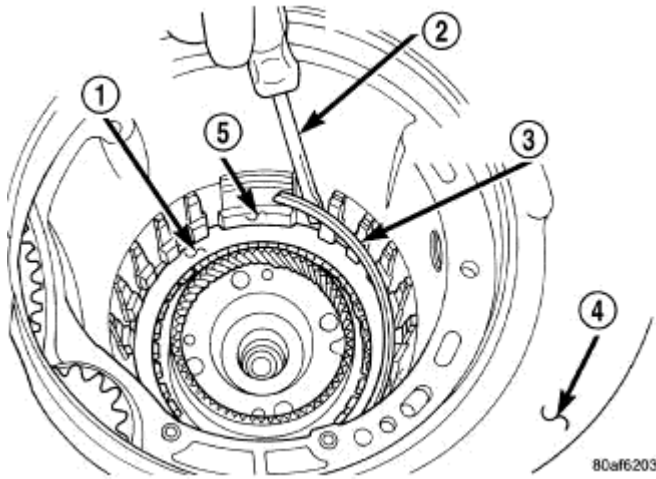


Fig. 64: Remove Tapered Snap Ring
Courtesy of CHRYSLER LLC

1 - LOW/REVERSE CLUTCH REACTION PLATE

2 - SCREWDRIVER

3 - LOW/REVERSE TAPERED SNAP RING (TAPERED SIDE UP)

4 - OIL PAN FACE

5 - LONG TAB

37. Remove tapered snap ring (3).

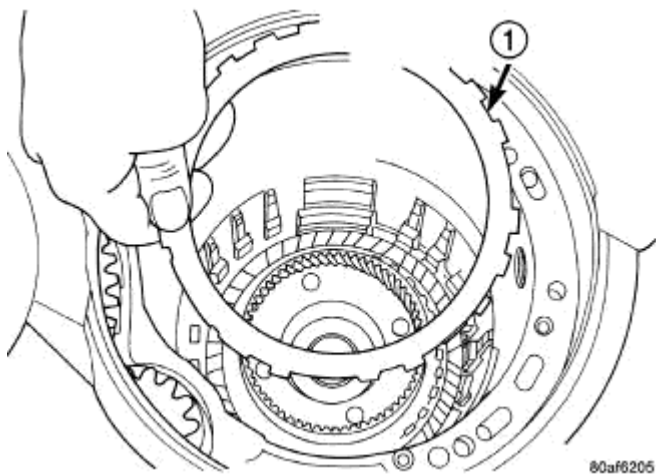


Fig. 65: Remove/Install Low/Reverse Reaction Plate
Courtesy of CHRYSLER LLC

1 - LOW/REVERSE REACTION PLATE (FLAT SIDE UP)

38. Remove low/reverse reaction plate (1).

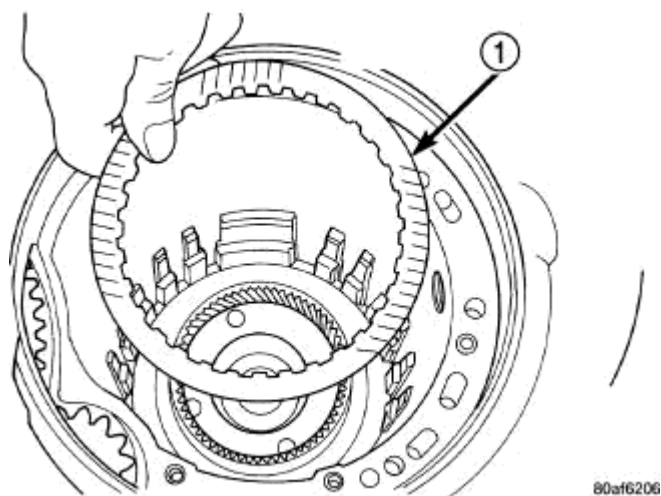


Fig. 66: Remove/Install One Low/Reverse Clutch Disc
Courtesy of CHRYSLER LLC

1 - ONE DISC FROM LOW/REVERSE CLUTCH

39. Remove one low/reverse clutch disc (1).

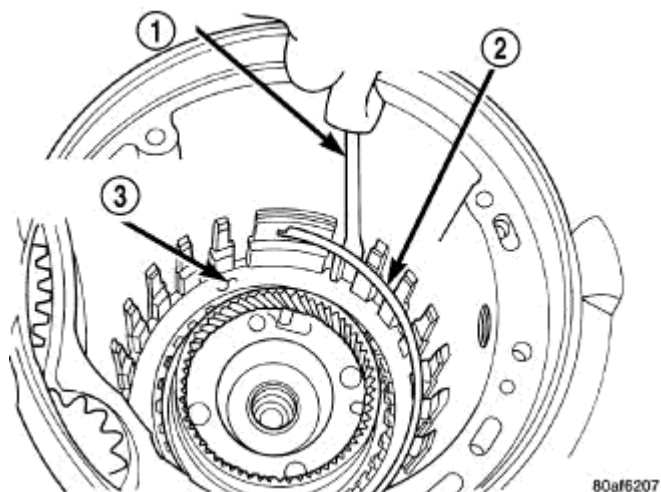


Fig. 67: Remove/Install Low/Reverse Reaction Plate Snap Ring
Courtesy of CHRYSLER LLC

1 - SCREWDRIVER

2 - LOW/REVERSE REACTION PLATE FLAT SNAP RING

3 - DO NOT SCRATCH CLUTCH PLATE

40. Remove low/reverse reaction plate snap ring (2).

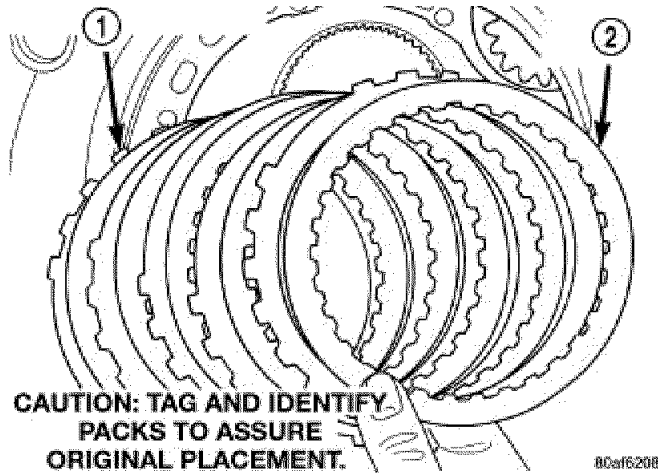


Fig. 68: Remove/Install Low/Reverse Clutch Pack
Courtesy of CHRYSLER LLC

1 - CLUTCH PLATES (5)

2 - CLUTCH DISCS (5)

41. Remove low/reverse clutch pack (1,2).

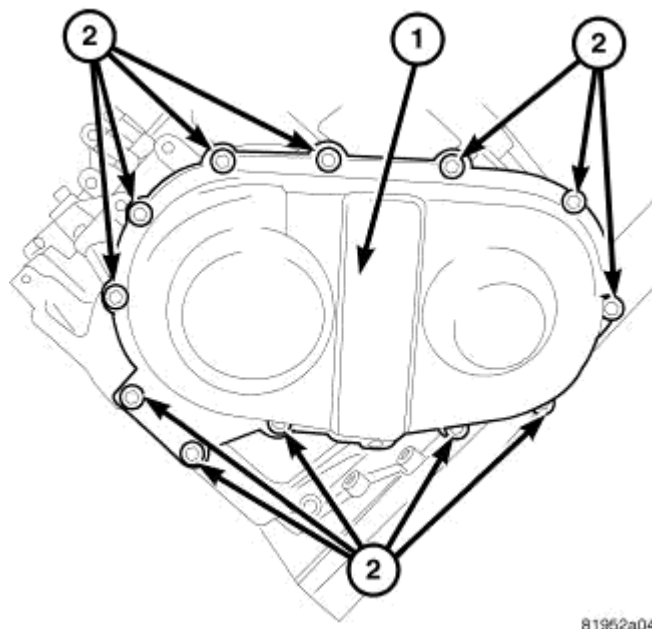
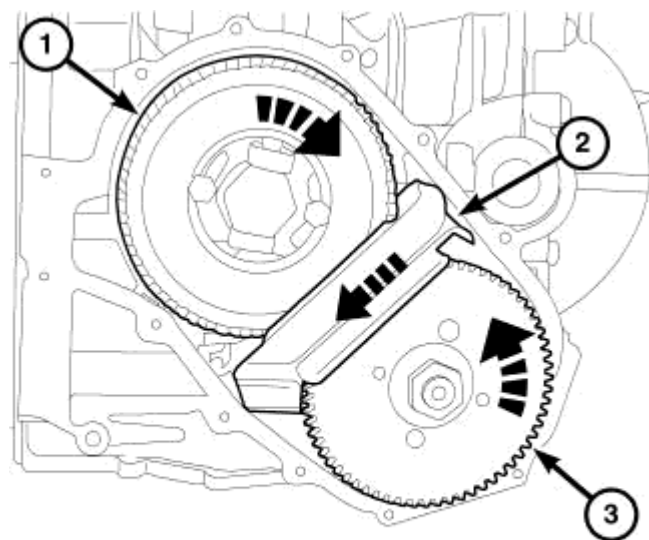


Fig. 69: Transfer Gear Cover
Courtesy of CHRYSLER LLC

42. Remove transfer gear cover-to-case bolts (2).
43. Remove transfer gear cover (1).



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Fig. 70: Oil Scavenger
Courtesy of CHRYSLER LLC

44. Remove the oil scavenger (2).

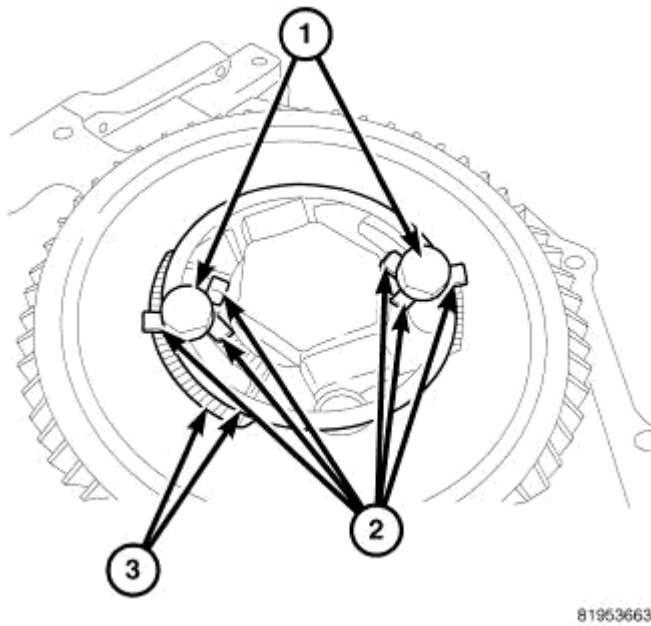


Fig. 71: Output Nut Retaining Strap
Courtesy of CHRYSLER LLC

45. Bend back the locking tabs (2) at the output transfer gear retaining strap (3).
46. Remove the bolts (1) at the output transfer gear retaining strap (3).
47. Remove the output transfer gear retaining strap (3).

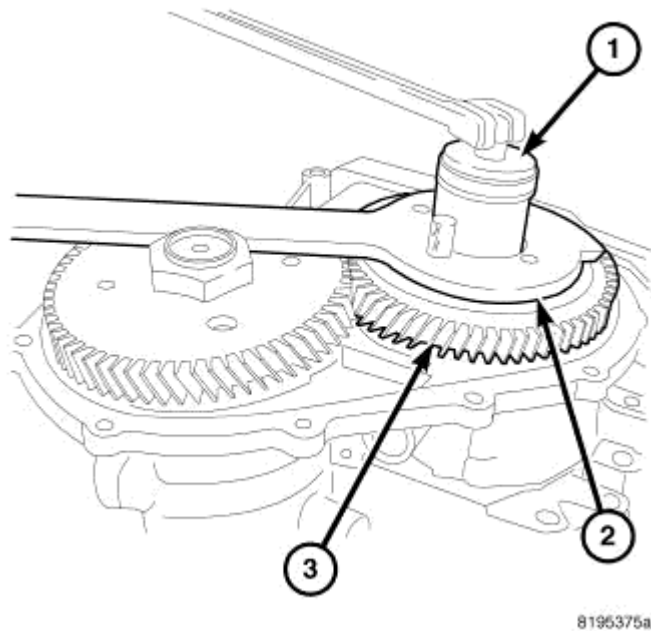
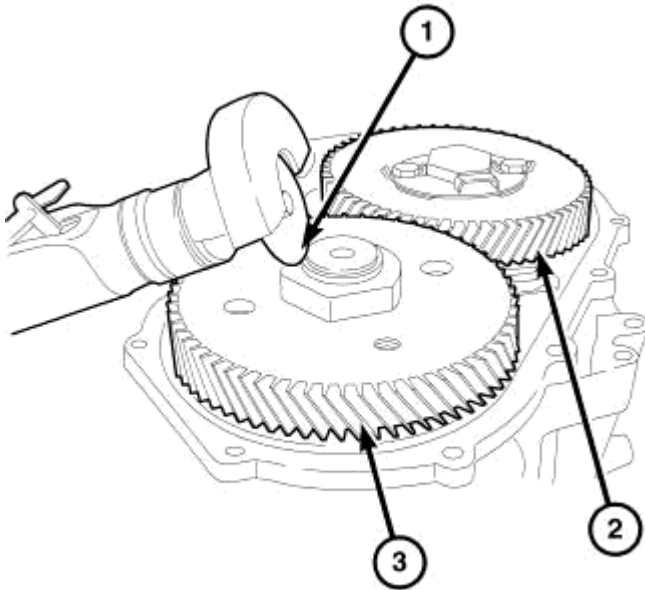


Fig. 72: Holder 9739
Courtesy of CHRYSLER LLC

48. Install the Gear Holder 9739 (2) onto the output transfer gear (3).
49. Remove the output transfer gear bolt (1).



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Fig. 73: Nut At Transfer Gear
Courtesy of CHRYSLER LLC

50. Grind the staked tabs (1) from the transfer gear (underdrive compounder side).
51. Install the Gear Holder 9739 (1) onto the transfer gear (underdrive compounder side) and remove the nut.
52. Lift the transfer gear from the underdrive compounder shaft.

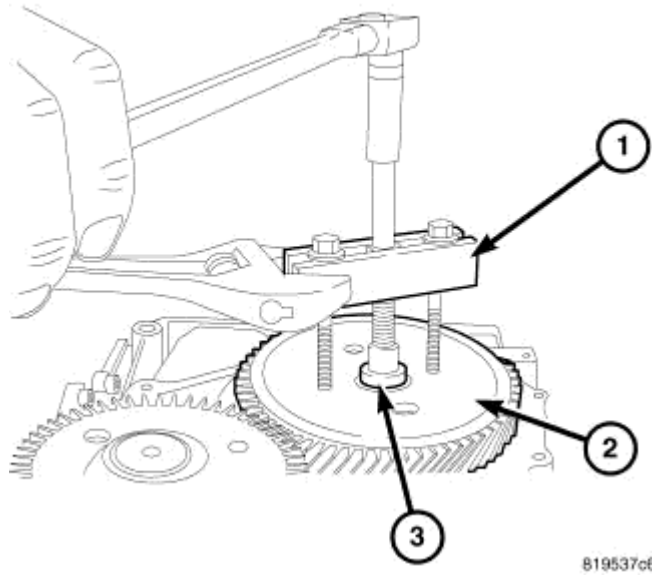


Fig. 74: Gear Puller L- 4407 A
Courtesy of CHRYSLER LLC

53. Using Gear Puller L-4407A (1) and Thrust Button 6055 (3) remove output shaft transfer gear (2) and select shim.

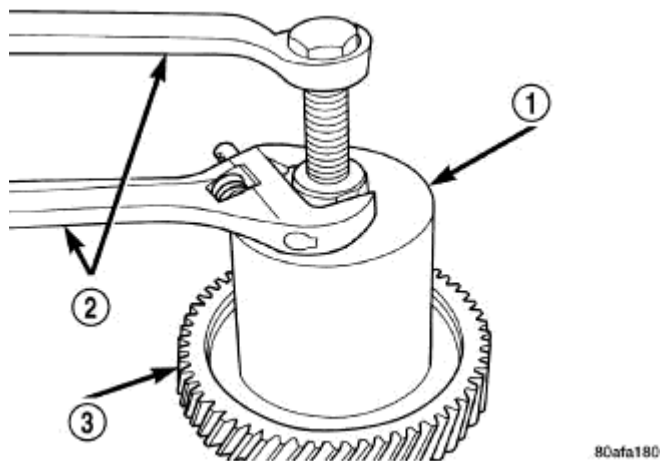


Fig. 75: Remove Bearing Cone
Courtesy of CHRYSLER LLC

1 - BEARING PULLER 5048 WITH JAWS 5048-5 AND THRUST PAD L-4539-2
2 - WRENCHES
3 - OUTPUT GEAR

54. Using Bearing Puller 5048 with Jaws 5048-5 and Thrust Pad L-4539-2 (1) remove output gear bearing cone.

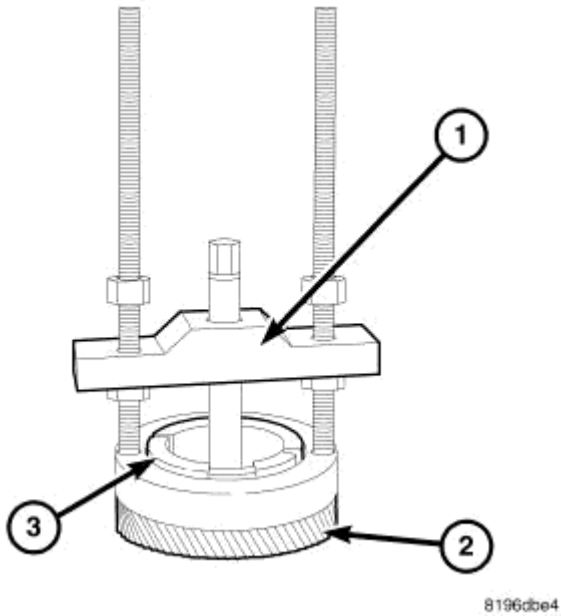


Fig. 76: Compound Transfer Gear Bearing
Courtesy of CHRYSLER LLC

55. Using Press Puller C-293-PA (1), Adaptors 9738 (3) and Press Plug 9678 remove compound transfer gear bearing cone.

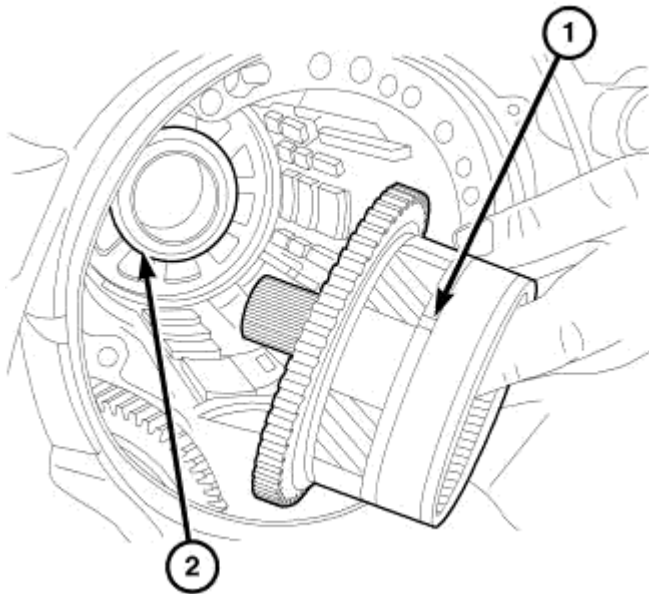


Fig. 77: Rear Carrier

Courtesy of CHRYSLER LLC

56. Remove rear carrier assembly (1) from transaxle (2).

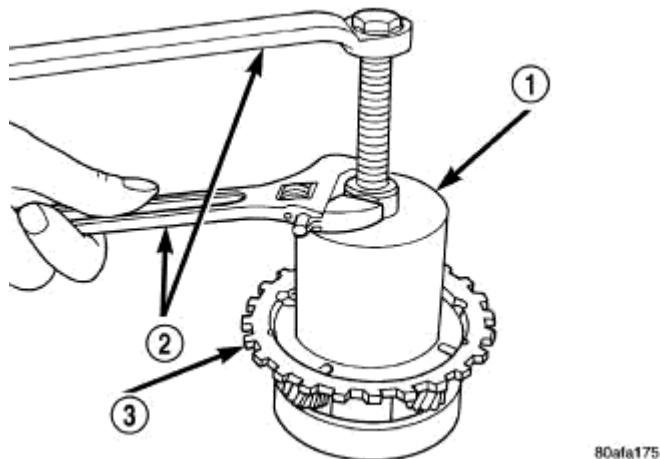


Fig. 78: Remove Rear Carrier Bearing Cone

Courtesy of CHRYSLER LLC

1 - BEARING PULLER 5048 WITH JAWS 5048-3 AND THRUST BUTTON 6055

2 - WRENCHES

3 - REAR CARRIER ASSEMBLY

57. Remove rear carrier assembly (3) bearing cone using bearing puller 5048 with Jaws 5048-3 and thrust button 6055.

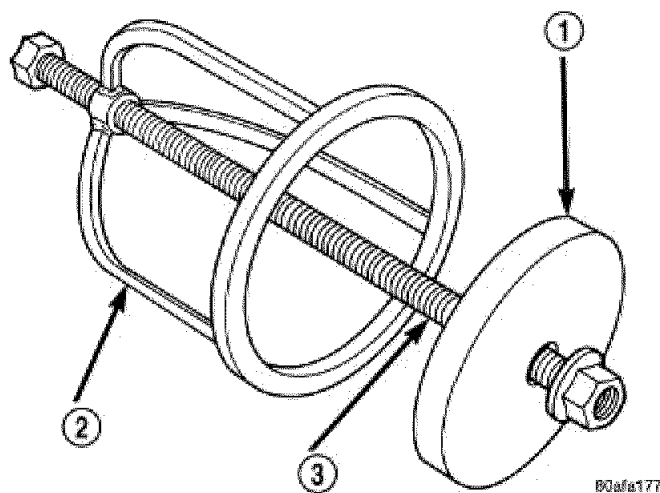


Fig. 79: Low/Reverse Spring Compressor Tool

Courtesy of CHRYSLER LLC

- | |
|---------------------------------|
| 1 - SPRING COMPRESSOR DISC 6057 |
| 2 - SPRING COMPRESSOR 5059-A |
| 3 - FORCING SCREW 5058A-3 |

58. Install spring compressor disk 6057 (1), spring compressor 5059-A (2) and forcing screw 5058A-3 (3).

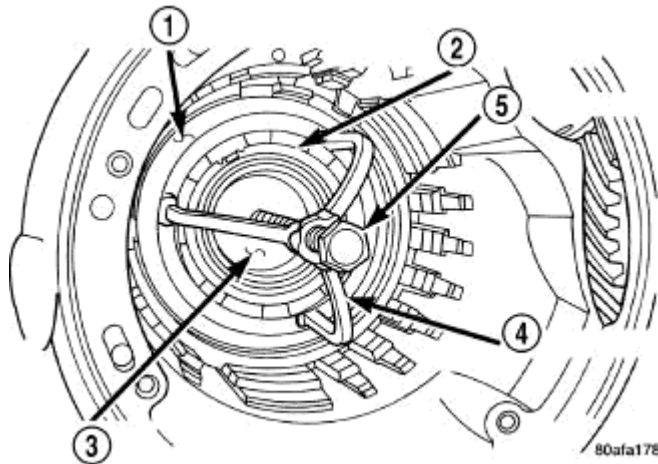


Fig. 80: Spring Compressor 5059-A
Courtesy of CHRYSLER LLC

- | |
|--|
| 1 - LOW/REVERSE CLUTCH RETURN SPRING |
| 2 - SNAP RING (INSTALL AS SHOWN IN ILLUSTRATION) |
| 3 - SPRING COMPRESSOR DISC 6057 |
| 4 - SPRING COMPRESSOR 5059-A |
| 5 - FORCING SCREW 5058A-3 |

59. Compress low/reverse spring using spring compressor 5059-A (4).

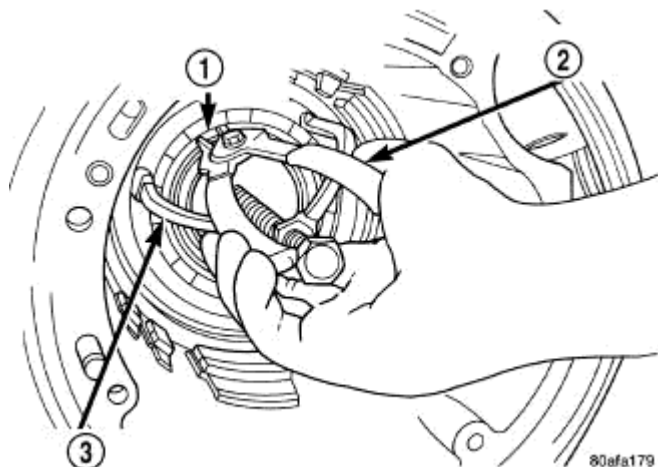


Fig. 81: Remove/Install Snap Ring
Courtesy of CHRYSLER LLC

1 - SNAP RING OPENING MUST BE BETWEEN SPRING LEVERS (AS SHOWN IN ILLUSTRATION)
2 - SNAP RING PLIERS
3 - SPRING COMPRESSOR DISC 6057

60. Remove snap ring (1) at low/reverse piston return spring.

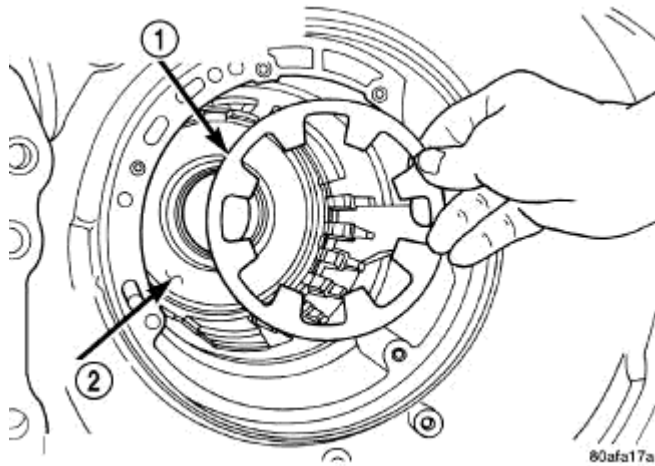


Fig. 82: Low/Reverse Piston Return Spring
Courtesy of CHRYSLER LLC

1 - LOW/REVERSE PISTON RETURN SPRING
2 - PISTON

61. Remove low/reverse spring compressor tool and low reverse piston return spring (1).

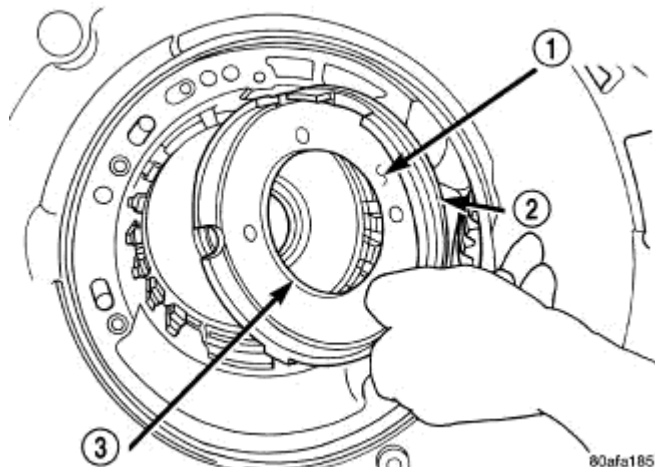


Fig. 83: Remove/Install Low/Reverse Clutch Piston
Courtesy of CHRYSLER LLC

1 - LOW/REVERSE CLUTCH PISTON
2 - BONDED SEAL
3 - BONDED SEAL

NOTE: The Low/Reverse Clutch Piston has bonded seals which are not individually serviceable. Seal replacement requires replacement of the piston assembly.

62. Remove low/reverse clutch piston (1).

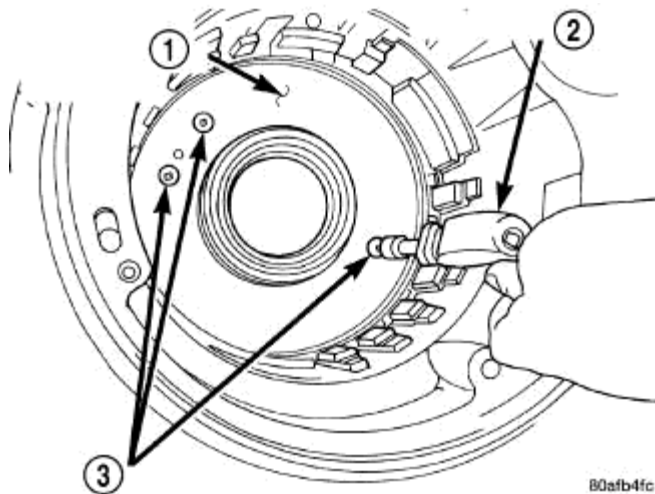


Fig. 84: Remove/Install Piston Retainer Attaching Screws
Courtesy of CHRYSLER LLC

1 - LOW/REVERSE CLUTCH PISTON RETAINER
2 - SCREWDRIVER
3 - TORX-LOC SCREWS

63. Remove low/reverse piston retainer-to-case screws (3).

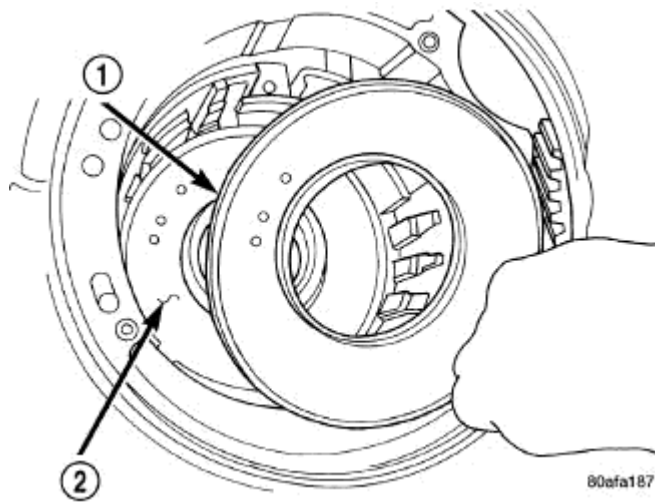


Fig. 85: Remove/Install Piston Retainer
Courtesy of CHRYSLER LLC

1 - LOW/REVERSE CLUTCH PISTON RETAINER
2 - GASKET

64. Remove low/reverse piston retainer (1).

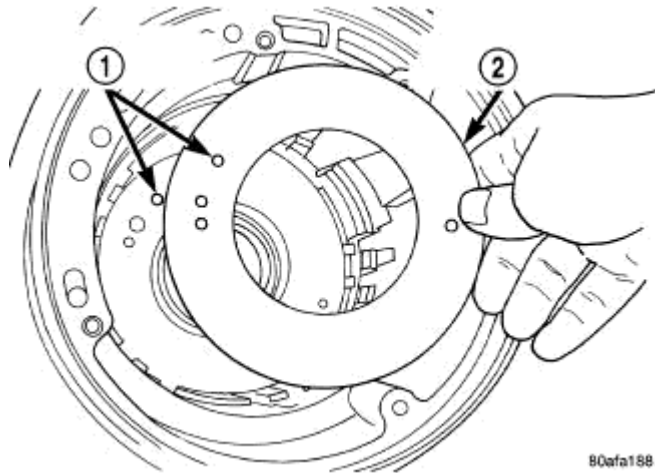


Fig. 86: Remove Piston Retainer Gasket
Courtesy of CHRYSLER LLC

1 - GASKET HOLES MUST LINE UP
2 - LOW/REVERSE CLUTCH PISTON RETAINER GASKET

65. Remove low/reverse piston retainer-to-case gasket (2), gasket holes must line up (1).

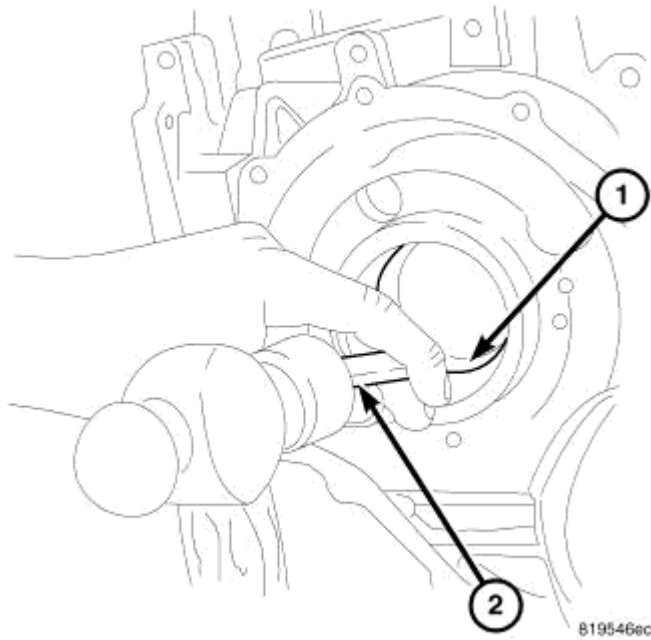


Fig. 87: Inner Carrier Cup Out
Courtesy of CHRYSLER LLC

66. Using a hammer and suitable drift (2), drive out inner output bearing cup (1).

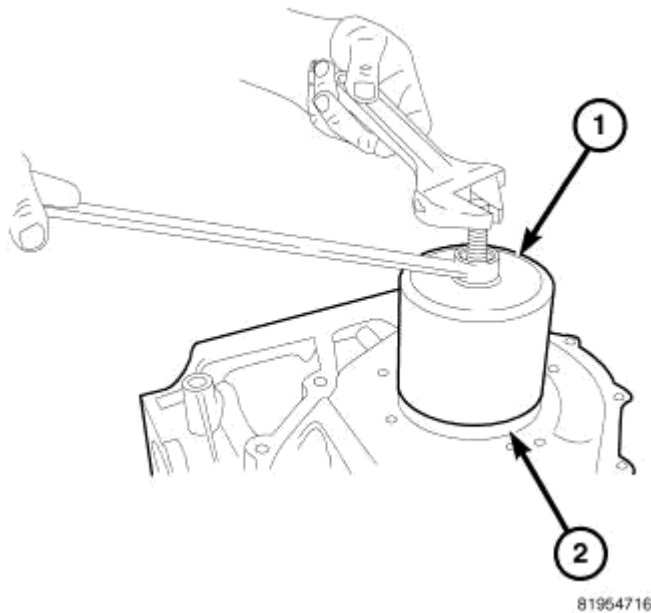
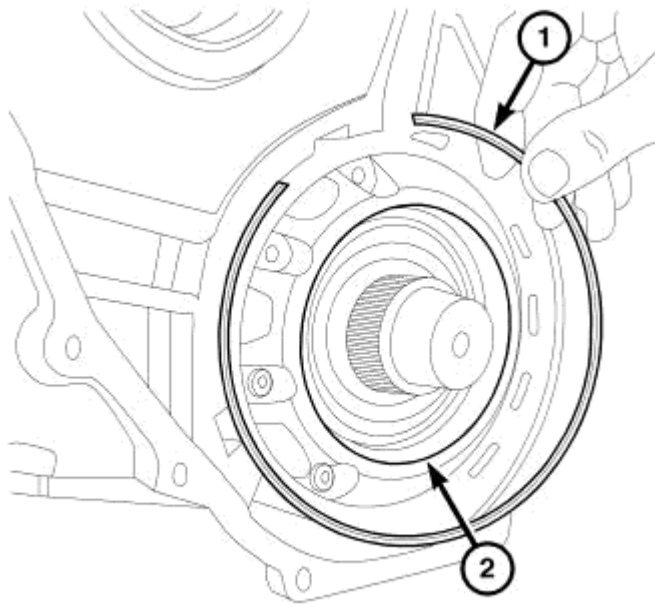


Fig. 88: Outer Carrier Cup Out
Courtesy of CHRYSLER LLC

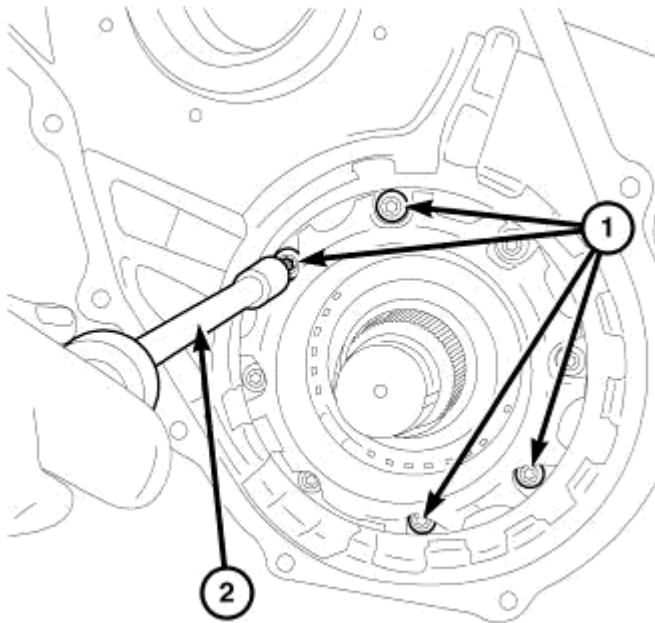
67. Using bearing cup puller 6062A (1), remove outer output bearing cup (2).



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Fig. 89: Remove/Install Snap Ring Underdrive Compounder
Courtesy of CHRYSLER LLC

68. Remove the snap ring (1) at the underdrive compounder assembly (2).



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Fig. 90: Remove/Install Bolts At Compounder
Courtesy of CHRYSLER LLC

69. Remove four bolts (1) at the compounder bearing retainer.

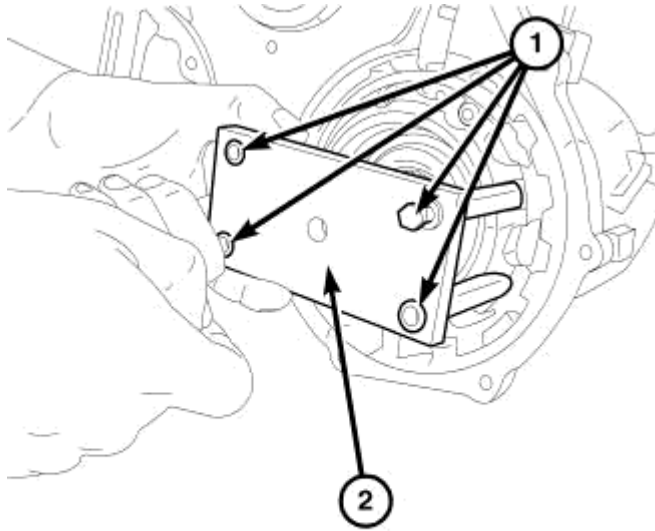


Fig. 91: Tool 9908 Bearing Retainer Assembly
Courtesy of CHRYSLER LLC

70. Install puller adapter 9908 (2) to the compounder bearing retainer.

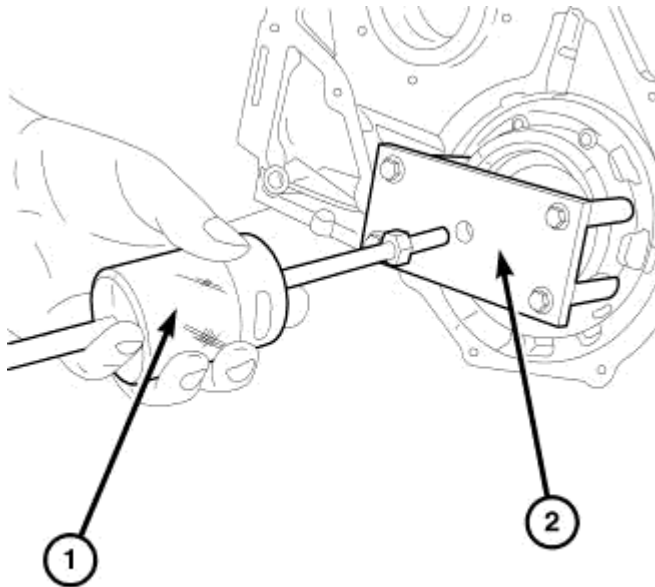
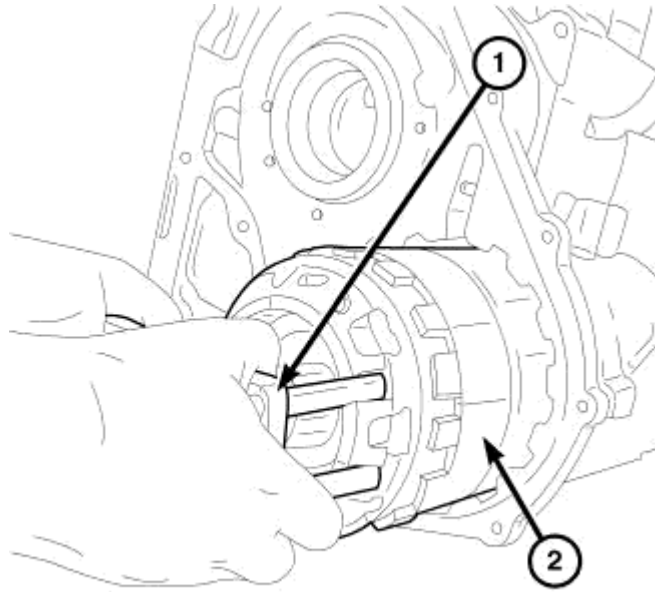


Fig. 92: Slide Hammer To 9908
Courtesy of CHRYSLER LLC

71. Install Slide Hammer C-3752 (1) to puller adapter 9908 (2) and pull the underdrive compounder assembly from the case.

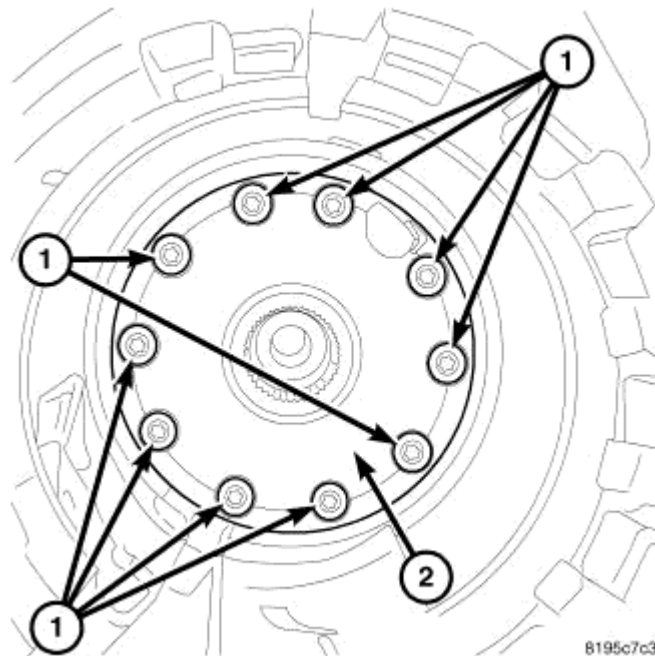


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Fig. 93: Underdrive Compounder Assembly
Courtesy of CHRYSLER LLC

NOTE: Insure that the planetary gear set / output hub is removed as part of the underdrive compounder assembly.

72. Remove the underdrive compounder assembly (2).



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Fig. 94: Bolts At Remote Pinion Cover
Courtesy of CHRYSLER LLC

73. Remove the bolts (1) at the remote pinion cover (2).

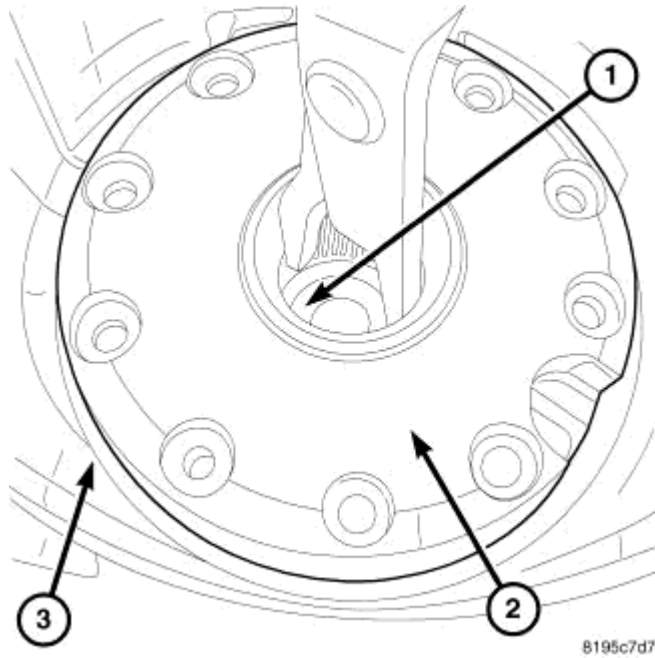


Fig. 95: Remove/Install Remote Pinion Cover
Courtesy of CHRYSLER LLC

74. Remove the remote pinion (1) and the remote pinion cover (2) from the case.

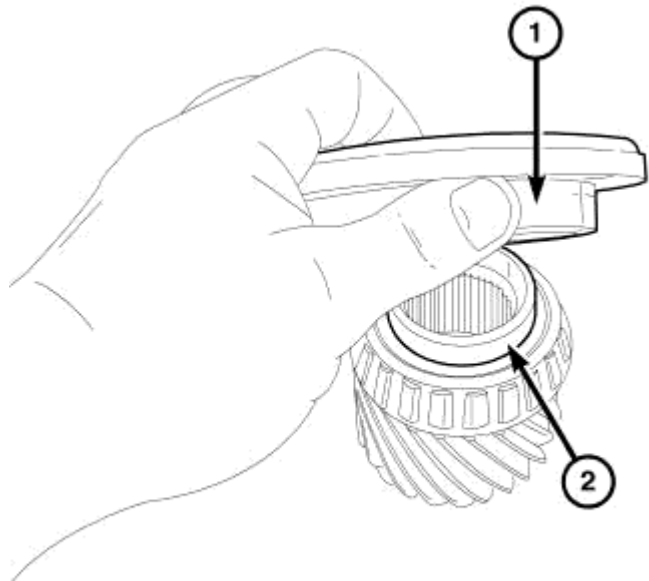


Fig. 96: Cover At Remote Pinion
Courtesy of CHRYSLER LLC

75. Remove the remote pinion cover (1) from the remote pinion (2).

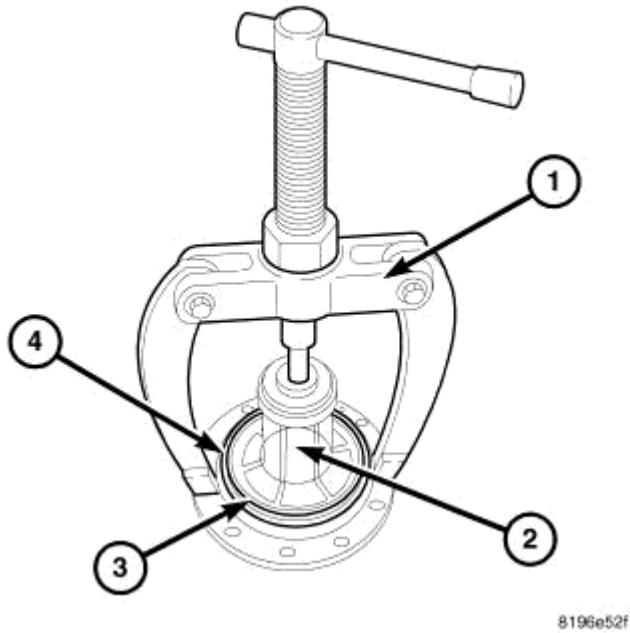


Fig. 97: Pinion Cover Cup
Courtesy of CHRYSLER LLC

76. Using Remover 8913 (2) and Brace 8915 (1) remove the remote pinion cover bearing cup (3) and selective shim.

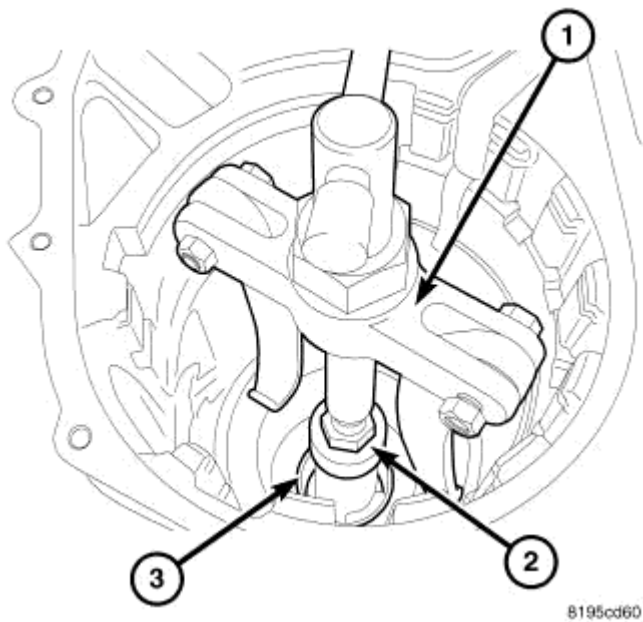


Fig. 98: Remote Pinion Small Bearing Cup
Courtesy of CHRYSLER LLC

77. Using Remover 8912 and Brace 8915 (1, 2) pull remote pinion small bearing cup (3) from the case.

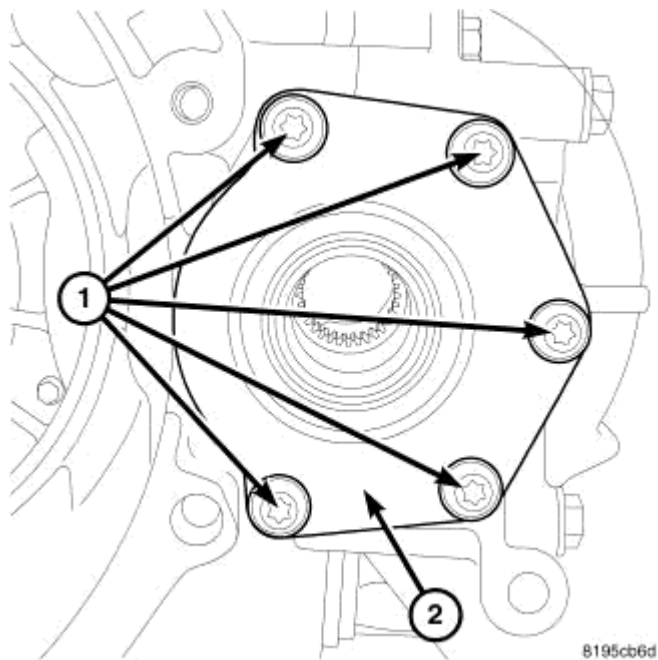


Fig. 99: Differential Bearing Cover
Courtesy of CHRYSLER LLC

78. Remove the differential output bearing cover bolts (1).
79. Remove differential output bearing cover (2).

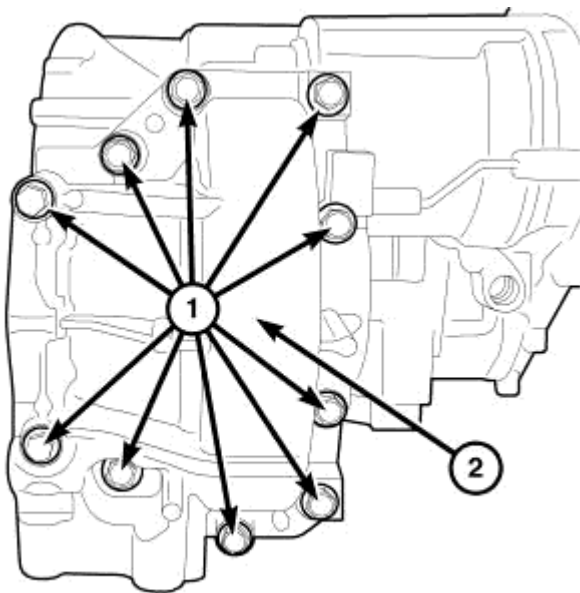


Fig. 100: Differential Cover
Courtesy of CHRYSLER LLC

80. Remove the differential cover bolts (1).

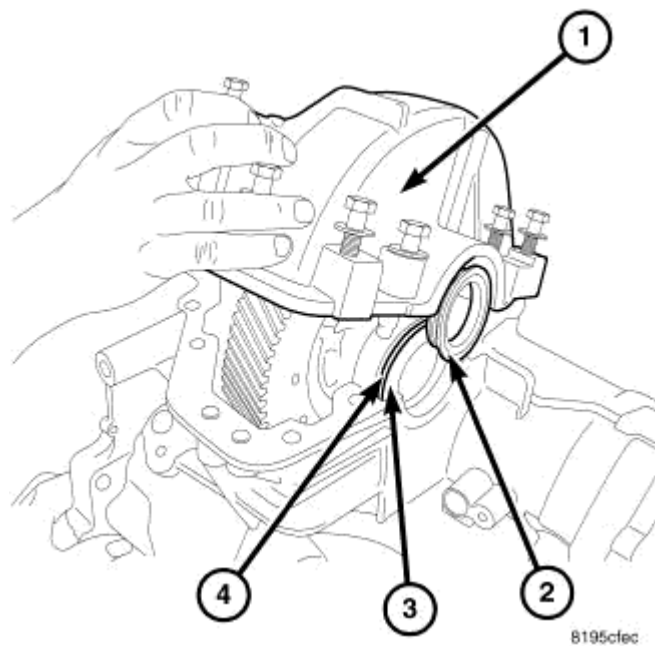


Fig. 101: Differential Cover
Courtesy of CHRYSLER LLC

81. Remove the differential cover (1).
82. Remove the out seal (2), oil singer (3) and the small bearing cup (4).
83. Remove the large bearing cup.

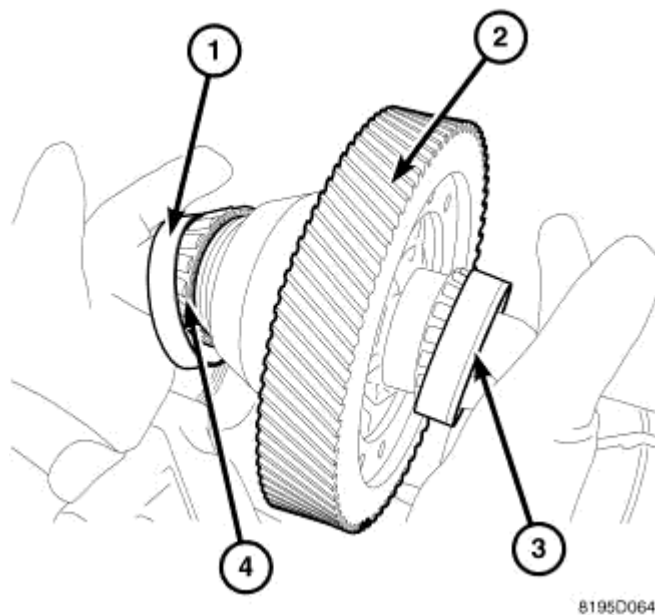


Fig. 102: Differential Out And In
Courtesy of CHRYSLER LLC

84. Remove the differential.
85. Remove the manual lever and TRS. See **Removal** .

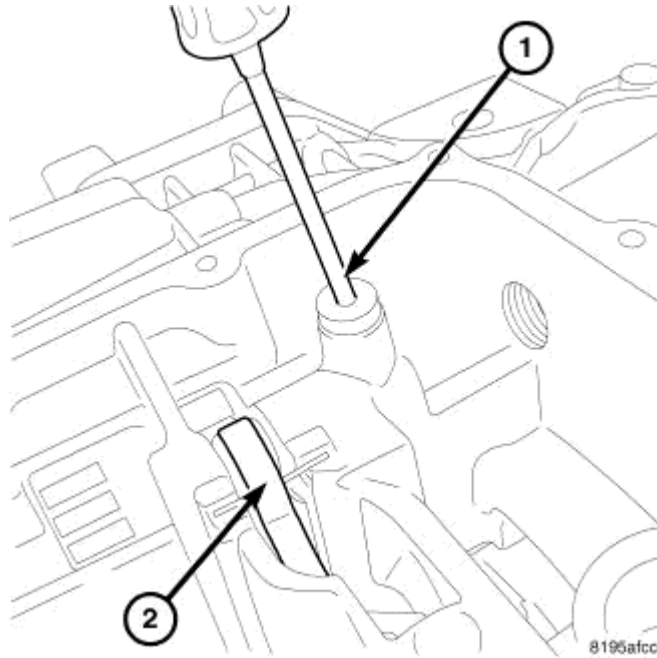


Fig. 103: Set Screw At Park Pawl Shaft
Courtesy of CHRYSLER LLC

86. Remove the set screw (1) for the park pawl shaft.

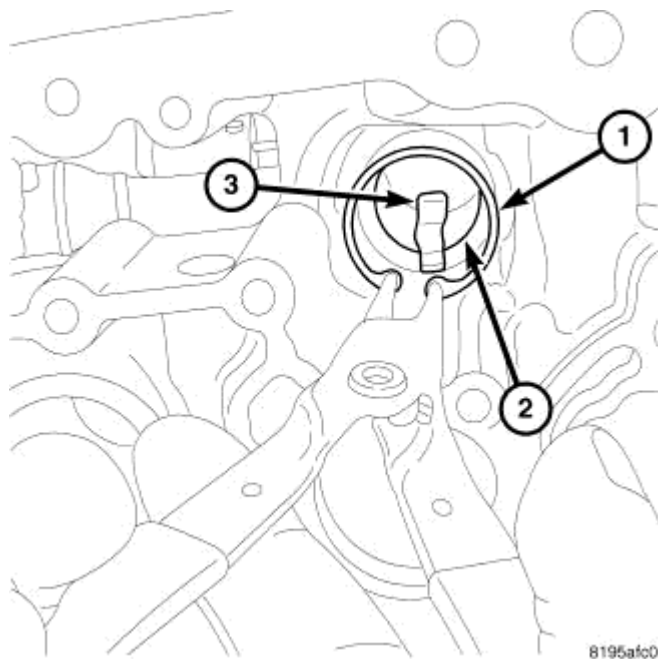


Fig. 104: Park Pawl Tube Snap Ring 2
Courtesy of CHRYSLER LLC

87. Remove the snap ring (1) for the park guide assembly (2).

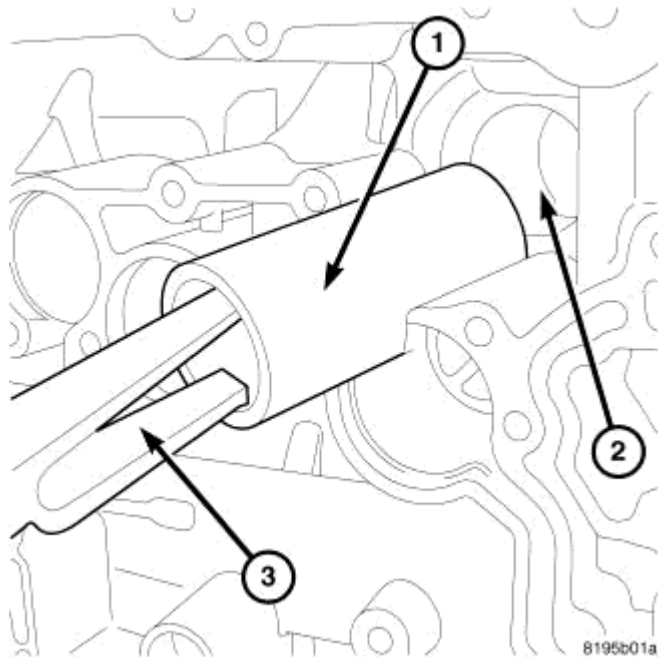
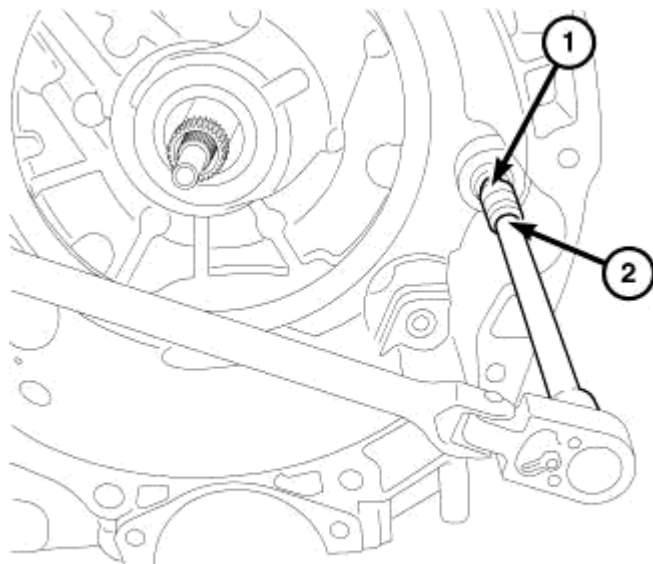


Fig. 105: Park Pawl Tube
Courtesy of CHRYSLER LLC

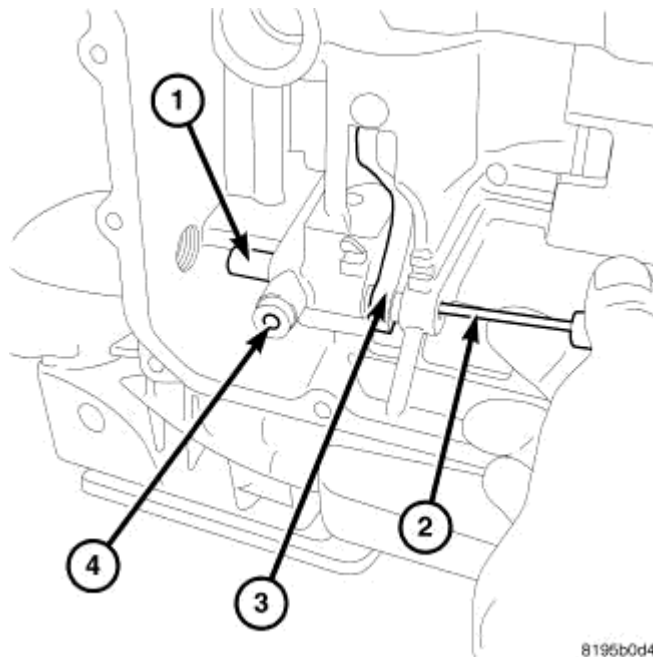
88. Remove the park guide assembly (1).



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Fig. 106: Park Pawl Shaft Plug
Courtesy of CHRYSLER LLC

89. Remove the plug (1) to allow the park pawl shaft to be removed.



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Fig. 107: Park Pawl Shaft
Courtesy of CHRYSLER LLC

90. Slide the shaft (1) out of the park pawl (3).

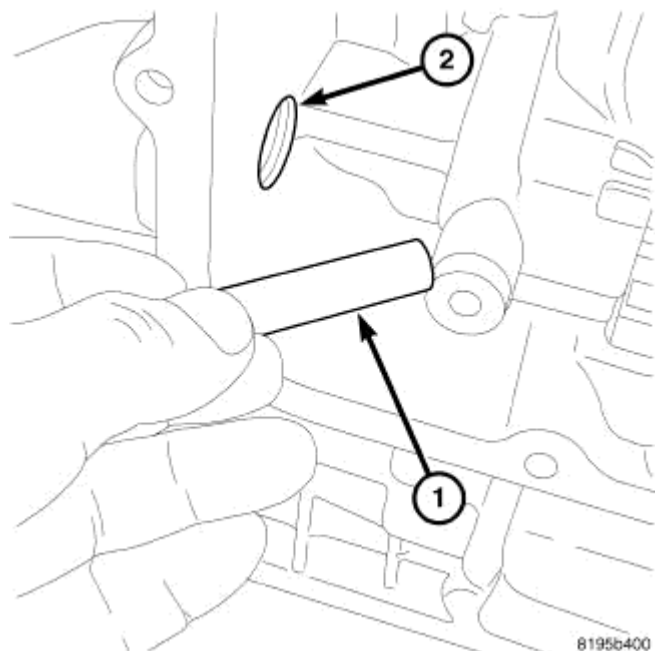


Fig. 108: Park Pawl Shaft
Courtesy of CHRYSLER LLC

91. Remove the park pawl shaft (1).

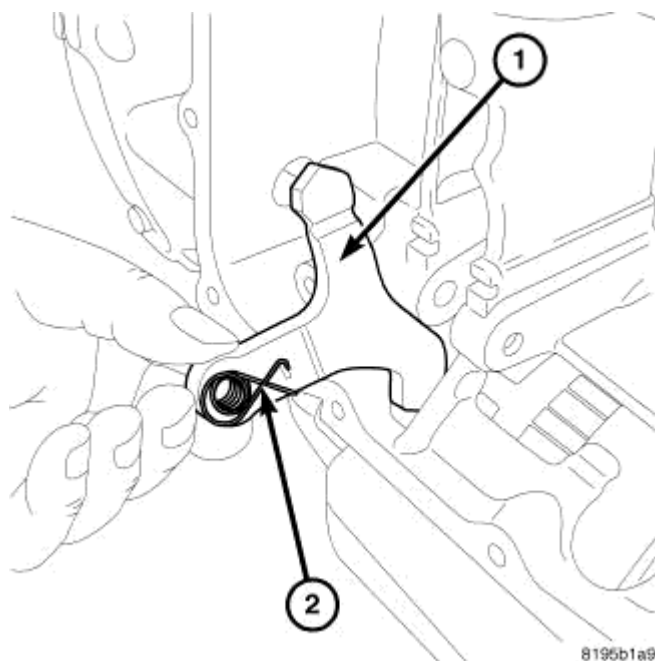


Fig. 109: Park Pawl
Courtesy of CHRYSLER LLC

92. Remove the park pawl (1) and the park pawl spring (2).

ASSEMBLY

ASSEMBLY

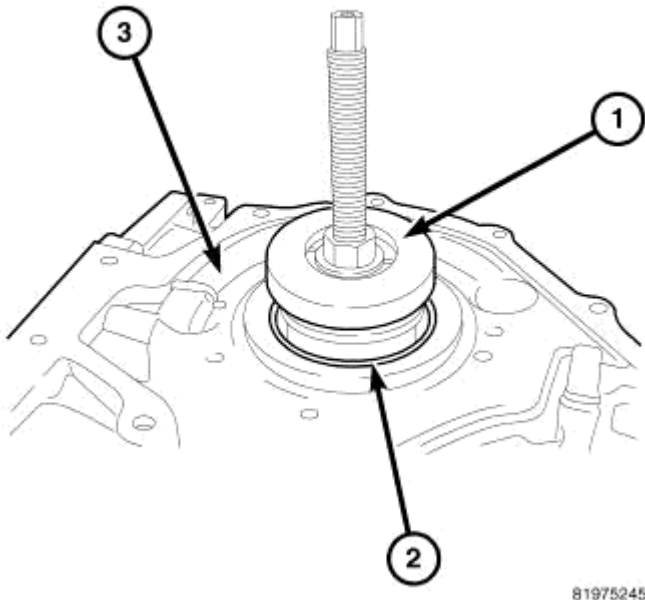


Fig. 110: Install Output Transfer Gear Cup
Courtesy of CHRYSLER LLC

CAUTION: The cooler bypass valve must be replaced if transaxle failure has occurred. Do not attempt to reuse or clean old valve.

NOTE: If transaxle is being overhauled (clutch and/or seal replacement), the TCM/PCM Quick Learn procedure must be performed. Refer to Electrical/Electronic Control Modules/MODULE, Powertrain Control - Standard Procedure .

1. Install both output bearing cups (2) using Installer 5050A (1).

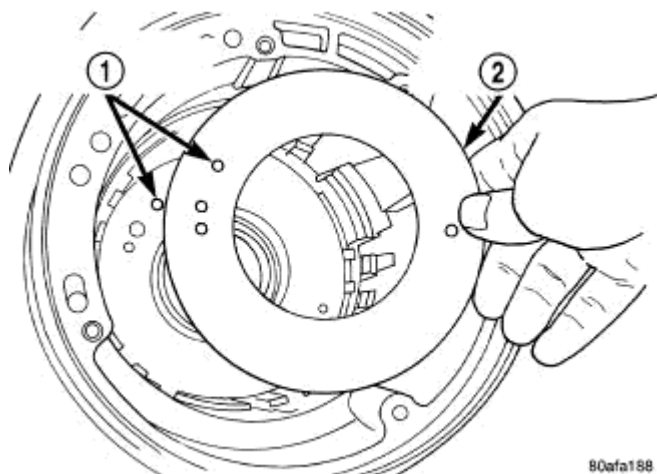


Fig. 111: Install Piston Retainer Gasket
Courtesy of CHRYSLER LLC

- | |
|---|
| 1 - GASKET HOLES MUST LINE UP |
| 2 - LOW/REVERSE CLUTCH PISTON RETAINER GASKET |

2. Install low/reverse piston retainer gasket (2) Make sure gasket holes line up with case (1).

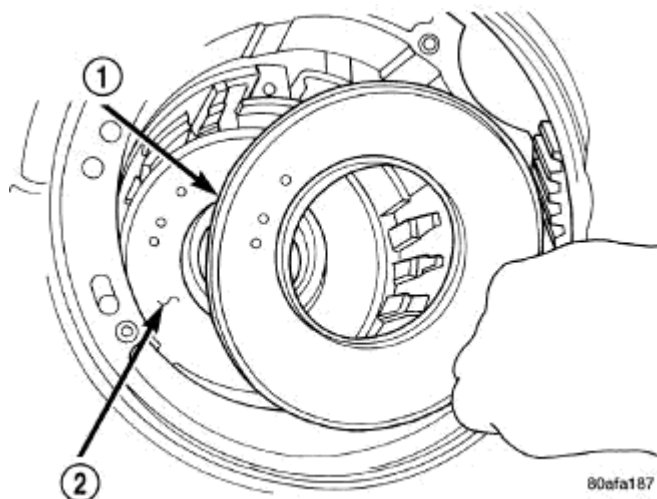


Fig. 112: Remove/Install Piston Retainer
Courtesy of CHRYSLER LLC

- | |
|--|
| 1 - LOW/REVERSE CLUTCH PISTON RETAINER |
| 2 - GASKET |

3. Install low/reverse piston retainer (1).

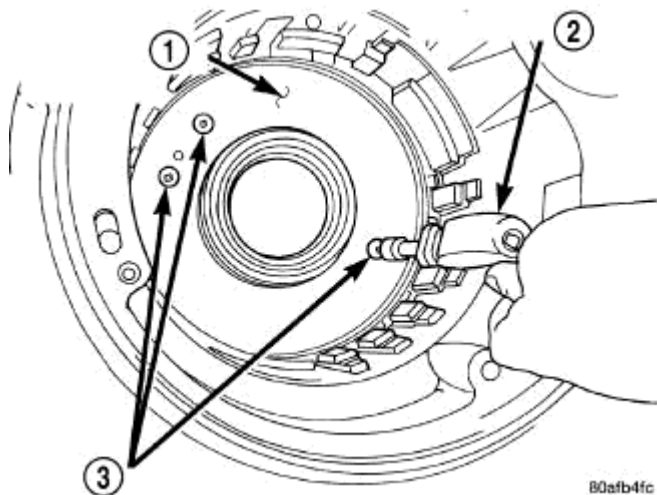


Fig. 113: Remove/Install Piston Retainer Attaching Screws
Courtesy of CHRYSLER LLC

1 - LOW/REVERSE CLUTCH PISTON RETAINER
2 - SCREWDRIVER
3 - TORX-LOC SCREWS

4. Install low/reverse piston retainer-to-case screws (3) and tighten to 5 N.m (45 in. lbs.).

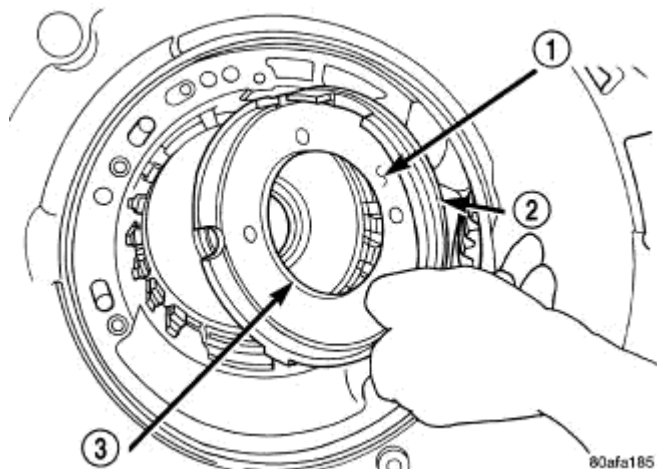


Fig. 114: Remove/Install Low/Reverse Clutch Piston
Courtesy of CHRYSLER LLC

1 - LOW/REVERSE CLUTCH PISTON
2 - BONDED SEAL
3 - BONDED SEAL

NOTE: The Low/Reverse Clutch Piston has bonded seals which are not

individually serviceable. Seal replacement requires replacement of the piston assembly.

5. Install low/reverse clutch piston (1).

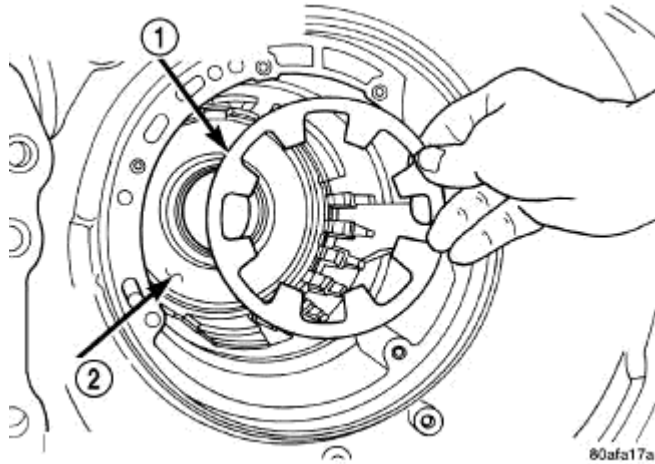


Fig. 115: Low/Reverse Piston Return Spring
Courtesy of CHRYSLER LLC

1 - LOW/REVERSE PISTON RETURN SPRING
2 - PISTON

6. Install low/reverse piston return spring (1).

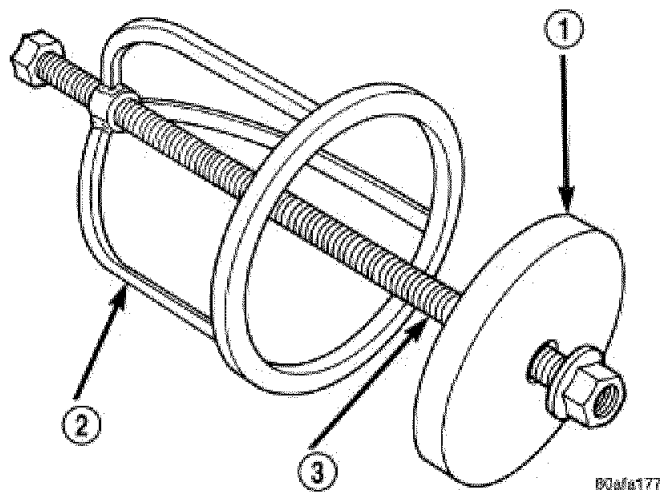


Fig. 116: Low/Reverse Spring Compressor Tool
Courtesy of CHRYSLER LLC

1 - DISC 6057
2 - COMPRESSOR 5059-A

3 - COMPRESSOR BAR 5058A-3

7. Install Disk 6057 (1) , Compressor 5059-A (2) and Compressor Bar 5058A-3 (3).

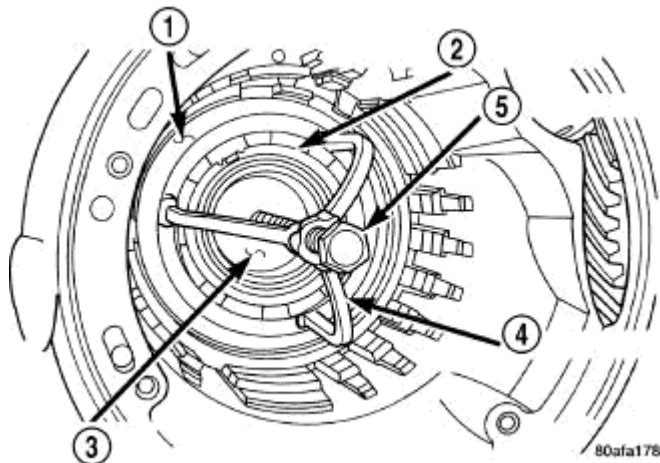


Fig. 117: Spring Compressor 5059-A
Courtesy of CHRYSLER LLC

1 - LOW/REVERSE CLUTCH RETURN SPRING
2 - SNAP RING (INSTALL AS SHOWN IN ILLUSTRATION)
3 - DISC 6057
4 - COMPRESSOR 5059
5 - COMPRESSOR BAR 5058-3

8. Install low/reverse spring compressor into position.

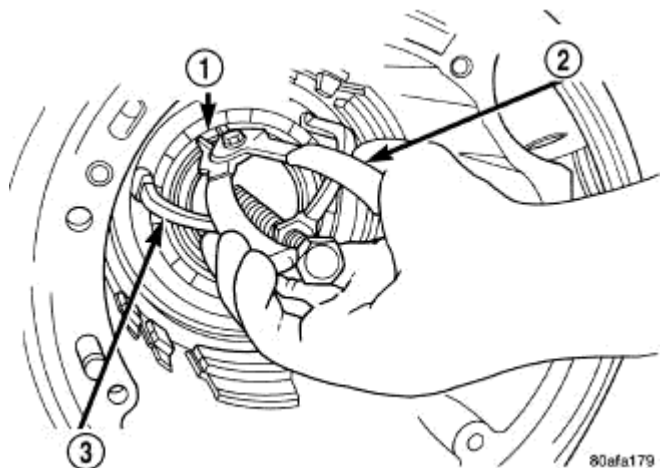


Fig. 118: Remove/Install Snap Ring
Courtesy of CHRYSLER LLC

1 - SNAP RING OPENING MUST BE BETWEEN SPRING LEVERS (AS SHOWN IN ILLUSTRATION)

2 - SNAP RING PLIERS

3 - DISC 6057

9. Compress low/reverse piston and install snap ring (1).

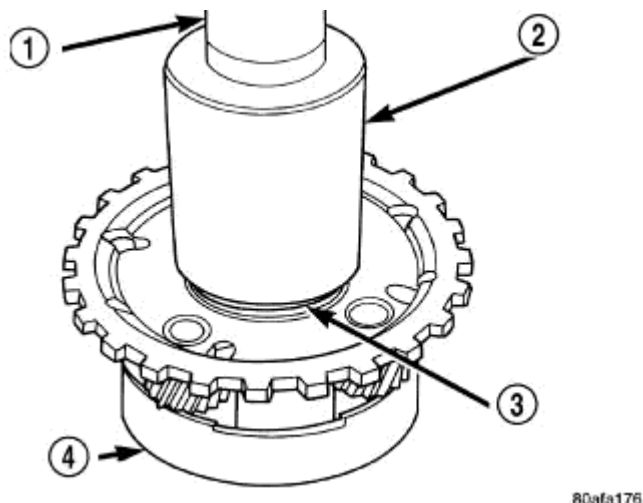


Fig. 119: Install Rear Carrier Bearing Cone

Courtesy of CHRYSLER LLC

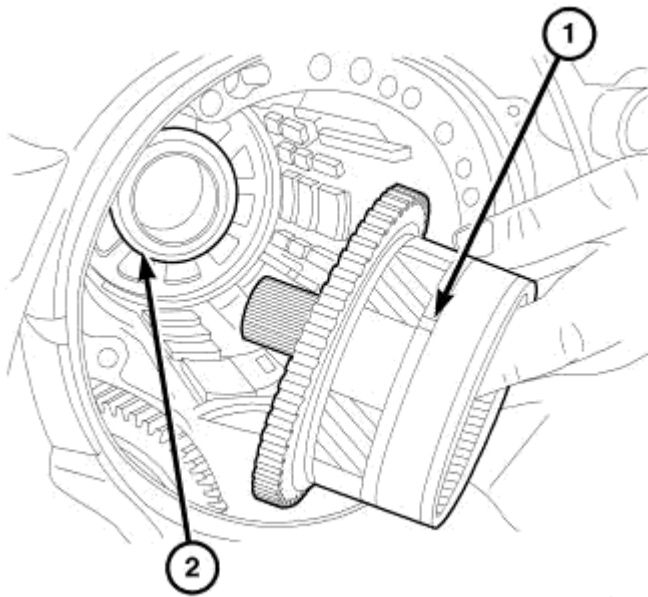
1 - ARBOR PRESS RAM

2 - INSTALLER 6053

3 - NEW BEARING CONE

4 - REAR CARRIER ASSEMBLY

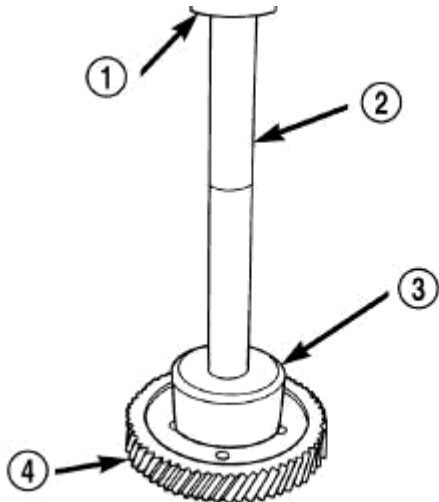
10. Install rear carrier bearing cone (3) using Installer 6053 (1).



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Fig. 120: Rear Carrier
Courtesy of CHRYSLER LLC

11. Install rear carrier assembly (1) to transaxle case.



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Fig. 121: Install Output Gear Bearing Cone
Courtesy of CHRYSLER LLC

1 - ARBOR PRESS RAM
2 - HANDLE C-4171
3 - INSTALLER 5052
4 - OUTPUT GEAR

12. Install output gear bearing cone using Installer 6758 (3).

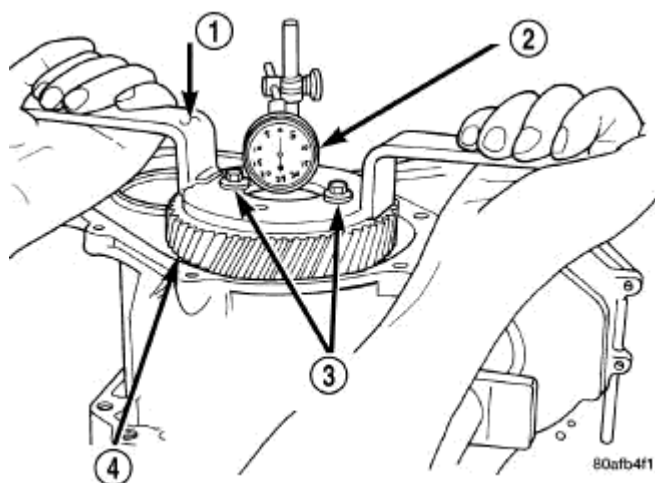


Fig. 122: Checking Output Gear Bearings End Play
Courtesy of CHRYSLER LLC

1 - GEAR CHECKING PLATE L-4432
2 - DIAL INDICATOR
3 - SPECIAL SCREWS 6260
4 - OUTPUT GEAR

13. OUTPUT GEAR BEARING ADJUSTMENT:

- With output gear removed, install a 4.50 mm (0.177 in.) gauging shim on the rear carrier assembly hub, using grease to hold the shim in place.
- Using Holder 6259, install output gear, bearing assembly and bolt. Tighten to 271 N.m (200 ft. lbs.).
- Measure bearing end play. Attach Gear Checking Plate L-4432 (1) to the gear.
- Push and pull the gear while rotating back and forth to ensure seating of bearing rollers.
- Using a dial indicator mounted to the transaxle case, measure output gear end play.
- Refer to the **OUTPUT GEAR BEARING SHIM CHART** for the required shim to obtain proper bearing setting.
- Use Holder 6259 to remove the output gear retaining bolt and washer. To remove the output gear, use Gear Puller L-4407A.
- Remove the gauging shim and install the proper shim determined by the chart. Use grease to hold the shim in place.

OUTPUT GEAR BEARING SHIM CHART

End Play	Shim Needed	Part Number
0.05mm (0.002 in.)	4.42mm (0.174 in.)	4412830AB

2009 Dodge Journey R/T

2009 AUTOMATIC TRANSMISSION 62TE - Service Information - Journey

0.08mm (0.003 in.)	4.38mm (0.172 in.)	4412829AB
0.10mm (0.004 in.)	4.38mm (0.172 in.)	4412829AB
0.13mm (0.005 in.)	4.34mm (0.171 in.)	4412828AB
0.15mm (0.006 in.)	4.30mm (0.169 in.)	4412827AB
0.18mm (0.007 in.)	4.30mm (0.169 in.)	4412827AB
0.20mm (0.008 in.)	4.26mm (0.168 in.)	4412826AB
0.23mm (0.009 in.)	4.22mm (0.166 in.)	4412825AB
0.25mm (0.010 in.)	4.22mm (0.166 in.)	4412825AB
0.28mm (0.011 in.)	4.18mm (0.165 in.)	4412824AB
0.30mm (0.012 in.)	4.14mm (0.163 in.)	4412823AB
0.33mm (0.013 in.)	4.14mm (0.163 in.)	4412823AB
0.36mm (0.014 in.)	4.10mm (0.161 in.)	4412822AB
0.38mm (0.015 in.)	4.10mm (0.161 in.)	4412822AB
0.41mm (0.016 in.)	4.06mm (0.160 in.)	4412821AB
0.43mm (0.017 in.)	4.02mm (0.158 in.)	4412820AB

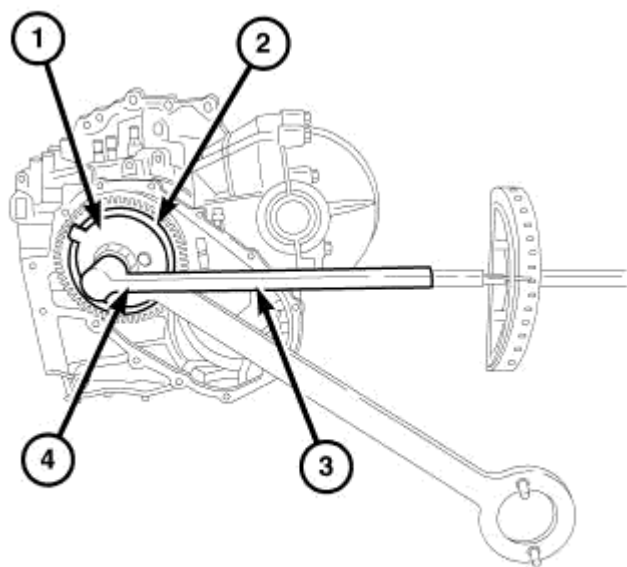
2009 Dodge Journey R/T

2009 AUTOMATIC TRANSMISSION 62TE - Service Information - Journey

0.46mm (0.018 in.)	4.02mm (0.158 in.)	4412820AB
0.48mm (0.019 in.)	3.98mm (0.157 in.)	4412819AB
0.51mm (0.020 in.)	3.94mm (0.155 in.)	4412818AB
0.53mm (0.021 in.)	3.94mm (0.155 in.)	4412818AB
0.56mm (0.022 in.)	3.90mm (0.154 in.)	4412817AB
0.58mm (0.023 in.)	3.90mm (0.154 in.)	4412817AB
0.61mm (0.024 in.)	3.86mm (0.152 in.)	4412816AB
0.64mm (0.025 in.)	3.82mm (0.150 in.)	4412815AB
0.66mm (0.026 in.)	3.82mm (0.150 in.)	4412815AB
0.69mm (0.027 in.)	3.78mm (0.149 in.)	4412814AB
0.71mm (0.028 in.)	3.74mm (0.147 in.)	4412813AB
0.74mm (0.029 in.)	3.74mm (0.147 in.)	4412813AB
0.76mm (0.030 in.)	3.70mm (0.146 in.)	4412812AB
0.79mm (0.031 in.)	3.66mm (0.144 in.)	4412811AB
0.81mm (0.032 in.)	3.66mm (0.144 in.)	4412811AB

0.84mm (0.033 in.)	3.62mm (0.143 in.)	4412810AB
0.86mm (0.034 in.)	3.62mm (0.143 in.)	4412810AB
0.89mm (0.035 in.)	3.58mm (0.141)	4412809AB
0.91mm (0.036in.)	3.54mm (0.139 in.)	4412808AB
0.94mm (0.037 in.)	3.54mm (0.139 in.)	4412808AB
0.97mm (0.038 in.)	3.50mm (0.138 in.)	4412807AB

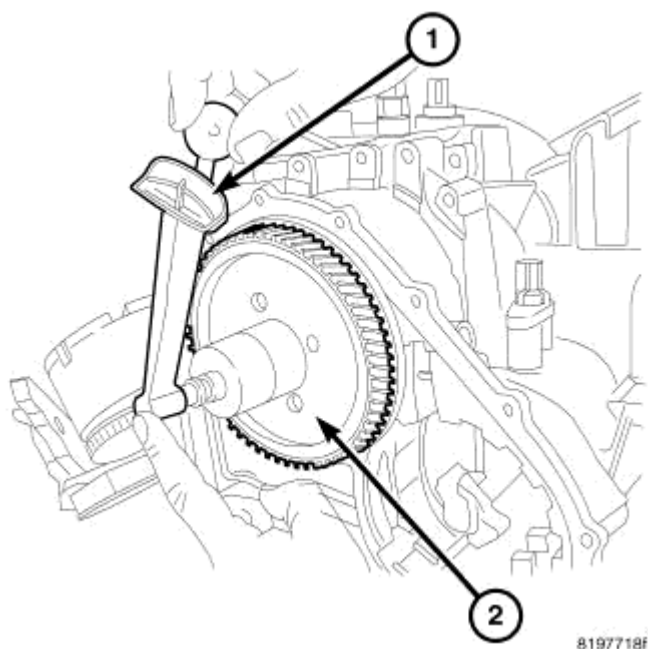
14. Install the output transfer gear (3) and bearing assembly using Installer 6261 (2).



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Fig. 123: Torque Output Transfer Gear Nut
Courtesy of CHRYSLER LLC

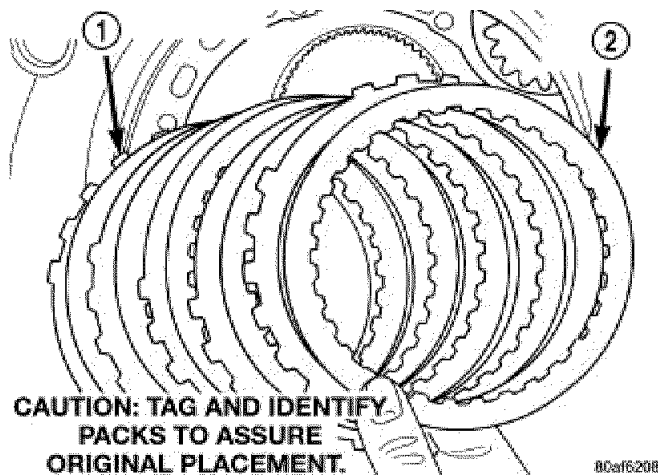
15. Install NEW output transfer gear retaining bolt and washer.
16. Install Holder 9739 (1) onto the output transfer gear (2).
17. Tighten output transfer gear retaining bolt to 271 N.m (200 ft. lbs.).



8197718f

Fig. 124: Turning Torque Out Put Gear
Courtesy of CHRYSLER LLC

18. Using an inch pound torque wrench, check output shaft turning torque. **Output shaft turning torque should be within 3-8 in. lbs.** If the turning torque is too high, install a 0.04 mm (0.0016 in.) thicker shim. If the turning torque is too low, install a 0.04 mm (0.0016 in.) thinner shim. Repeat until the proper turning torque of 3-8 in. lbs. is obtained.



**CAUTION: TAG AND IDENTIFY
PACKS TO ASSURE
ORIGINAL PLACEMENT.**

80c6f5208

Fig. 125: Remove/Install Low/Reverse Clutch Pack
Courtesy of CHRYSLER LLC

1 - CLUTCH PLATES (5)
2 - CLUTCH DISCS (5)

19. Install low/reverse clutch pack (1,2). Leave uppermost disc out until snap ring is installed.

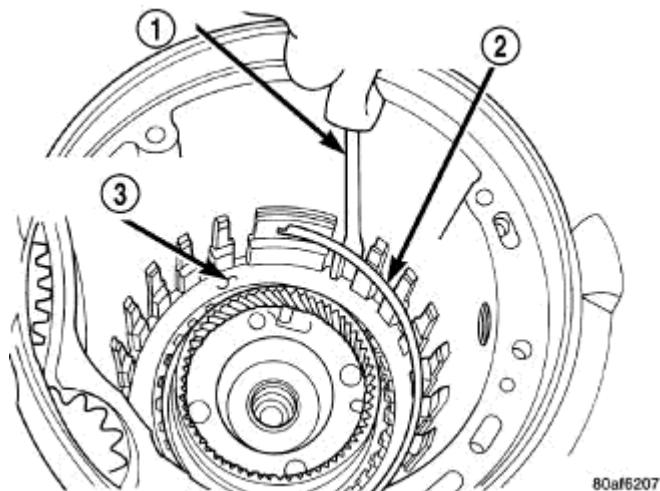


Fig. 126: Remove/Install Low/Reverse Reaction Plate Snap Ring
Courtesy of CHRYSLER LLC

- | |
|---|
| 1 - SCREWDRIVER |
| 2 - LOW/REVERSE REACTION PLATE FLAT SNAP RING |
| 3 - DO NOT SCRATCH CLUTCH PLATE |

20. Install low/reverse reaction plate flat snap ring (2), insure you do not scratch clutch plate (3).

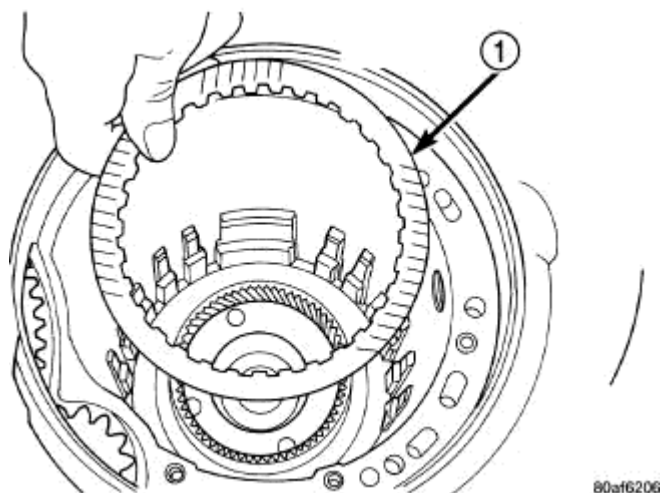


Fig. 127: Remove/Install One Low/Reverse Clutch Disc
Courtesy of CHRYSLER LLC

- | |
|--------------------------------------|
| 1 - ONE DISC FROM LOW/REVERSE CLUTCH |
|--------------------------------------|

21. Install remaining low/reverse clutch disc (1).

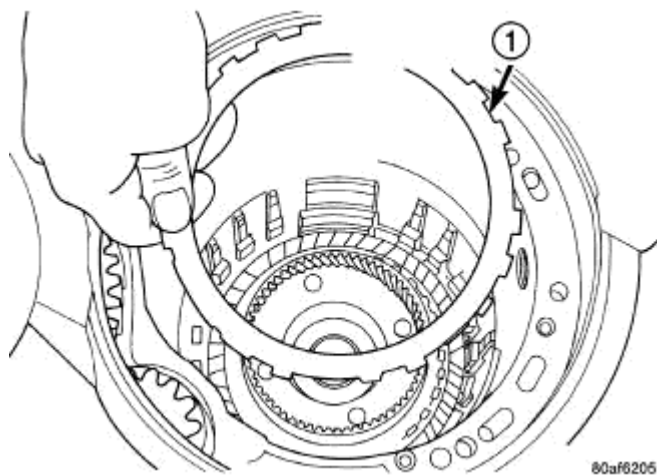


Fig. 128: Remove/Install Low/Reverse Reaction Plate
Courtesy of CHRYSLER LLC

1 - LOW/REVERSE REACTION PLATE (FLAT SIDE UP)

22. Install low/reverse reaction plate with flat side up (1).

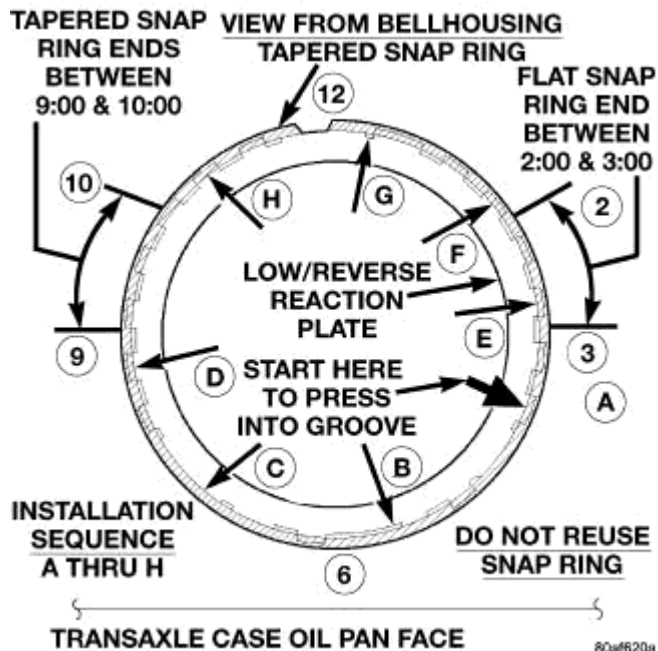


Fig. 129: Tapered Snap Ring Instructions
Courtesy of CHRYSLER LLC

23. Use as a reference while installing tapered snap ring.

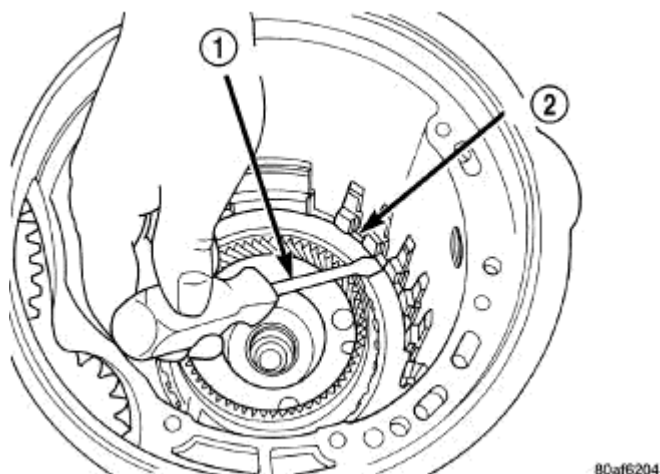


Fig. 130: Snap Ring Installed
Courtesy of CHRYSLER LLC

- | |
|--|
| 1 - SCREWDRIVER |
| 2 - TAPERED SNAP RING (INSTALL AS SHOWN IN ILLUSTRATION) |

24. Install tapered snap ring (with tapered side up) (2).

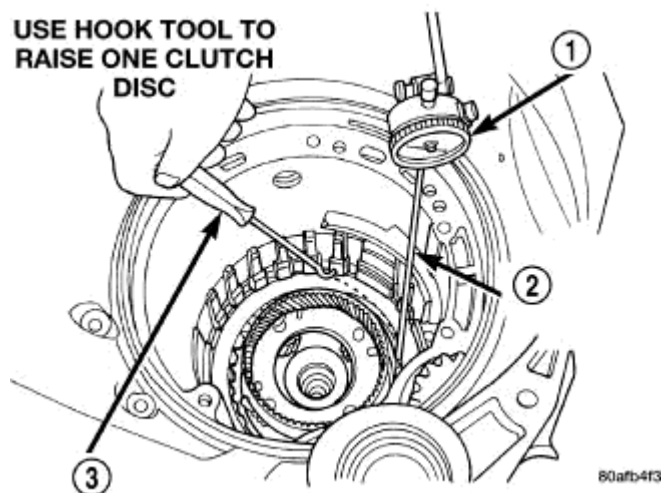


Fig. 131: Check Low/Reverse Clutch Clearance
Courtesy of CHRYSLER LLC

- | |
|----------------------------------|
| 1 - DIAL INDICATOR |
| 2 - DIAL INDICATOR TIP TOOL 6268 |
| 3 - HOOK TOOL |

25. Set up dial indicator (1) to measure low/reverse clutch clearance. Press down on clutch pack with finger

and zero dial indicator. **Low/Reverse clutch pack clearance is 0.89-1.47 mm (0.035-0.058 in.)** . Set up indicator and record measurement in four places. Take average of readings and select the proper low/reverse reaction plate to achieve specifications.

LOW/REVERSE REACTION PLATE CHART

PART NUMBER	THICKNESS
4799846AA	5.88 mm (0.232 in.)
4799847AA	6.14 mm (0.242 in.)
4799848AA	6.40 mm (0.252 in.)
4799849AA	6.66 mm (0.262 in.)
4799855AA	6.92 mm (0.273 in.)

26. Install 2/4 clutch pack (1, 2).

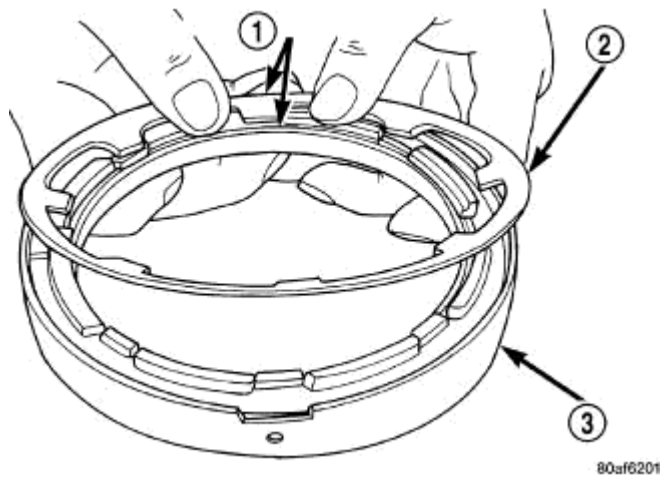


Fig. 132: Proper Orientation of 2/4 Clutch Retainer And Spring
Courtesy of CHRYSLER LLC

1 - NOTE POSITION
2 - RETURN SPRING
3 - 2/4 CLUTCH RETAINER

NOTE: The 2/4 Clutch Piston has bonded seals which are not individually serviceable. Seal replacement requires replacement of the piston assembly.

27. Orient 2/4 clutch return spring to retainer (3).

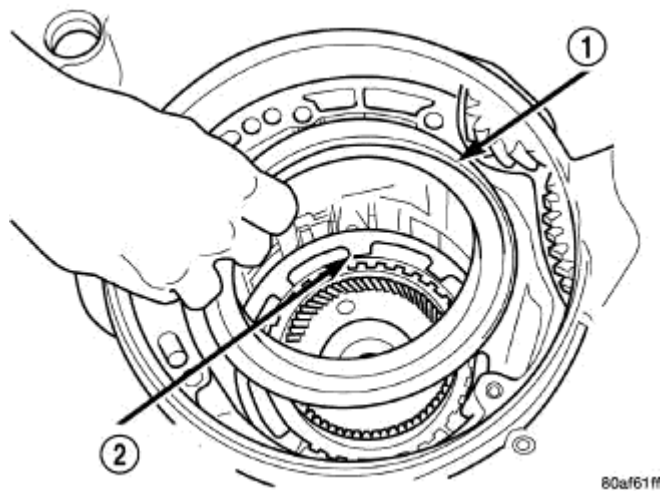


Fig. 133: 2/4 Clutch Retainer
Courtesy of CHRYSLER LLC

1 - 2/4 CLUTCH RETAINER
2 - 2/4 CLUTCH RETURN SPRING

28. Install 2/4 clutch retainer to transaxle (1, 2).

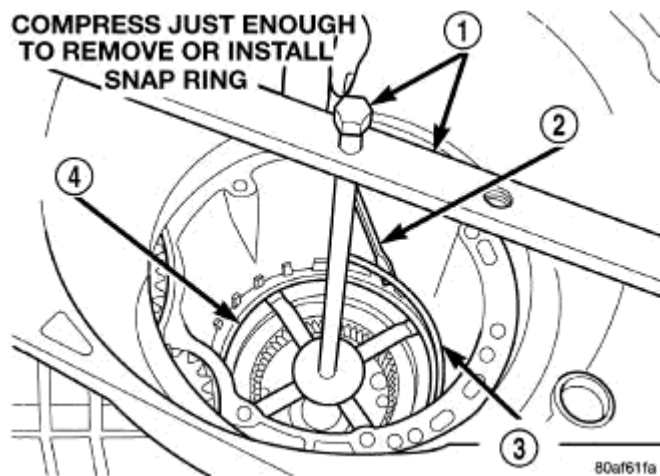


Fig. 134: Remove/Install 2/4 Clutch Retainer Snap Ring
Courtesy of CHRYSLER LLC

1 - COMPRESSING TOOL 5058A
2 - SCREWDRIVER
3 - SNAP RING
4 - 2/4 CLUTCH RETAINER

29. Using Compressing Tool 5058A (1), compress 2/4 clutch return spring just enough to install snap ring (3).

30. Install snap ring.

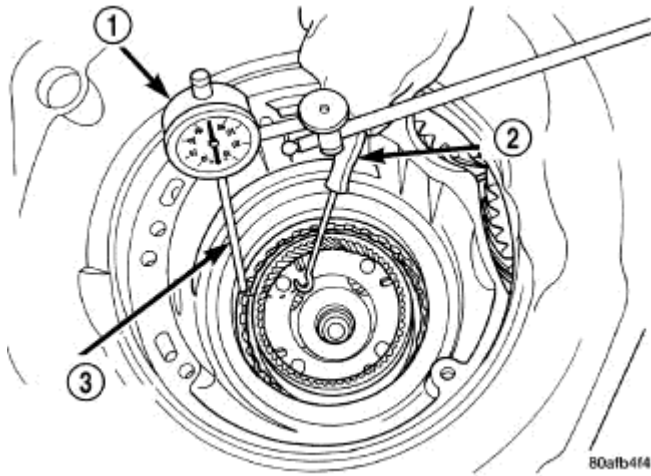


Fig. 135: Check 2/4 Clutch Clearance
Courtesy of CHRYSLER LLC

1 - DIAL INDICATOR
2 - HOOK TOOL
3 - DIAL INDICATOR TIP 6268

31. Set up dial indicator (1) and measure 2/4 clutch clearance. Press down on clutch pack with finger and zero dial indicator. **2/4 clutch pack clearance is 0.76-2.64 mm (0.030-0.104 in.).** Set up indicator and record measurement in four places. Take average of readings. If clearance is outside this range, the clutch is assembled improperly. **There is no adjustment for 2/4 clutch clearance.**

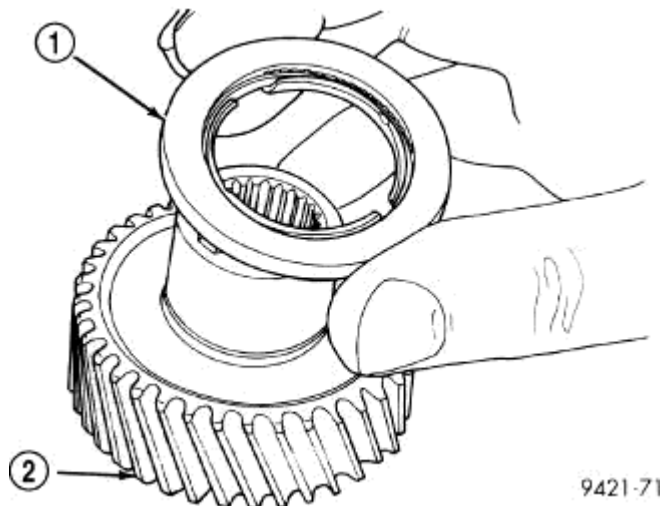


Fig. 136: Number 7 Bearing
Courtesy of CHRYSLER LLC

- 1 - #7 NEEDLE BEARING
- 2 - REAR SUN GEAR

NOTE: The number seven needle (1) bearing has three anti-reversal tabs and is common with the number five position. The orientation should allow the bearing to seat flat against the rear sun gear. A small amount of petrolatum can be used to hold the bearing to the rear sun gear (2).

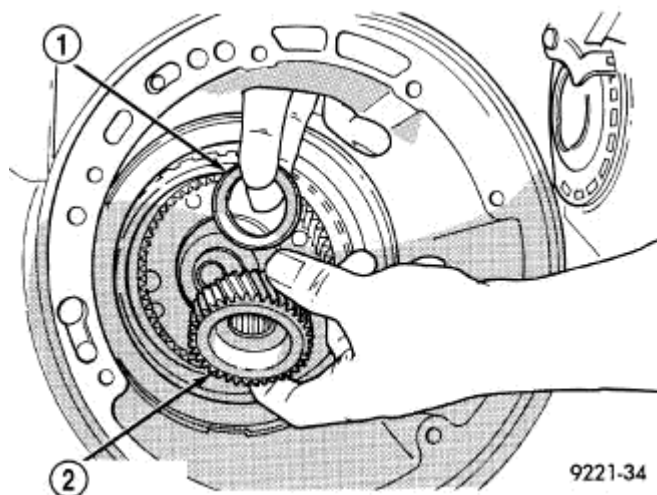


Fig. 137: Install Rear Sun Gear and #7 Needle Bearing
Courtesy of CHRYSLER LLC

- 1 - #7 NEEDLE BEARING
- 2 - REAR SUN GEAR

32. Install rear sun gear (2) and number seven needle bearing (1).

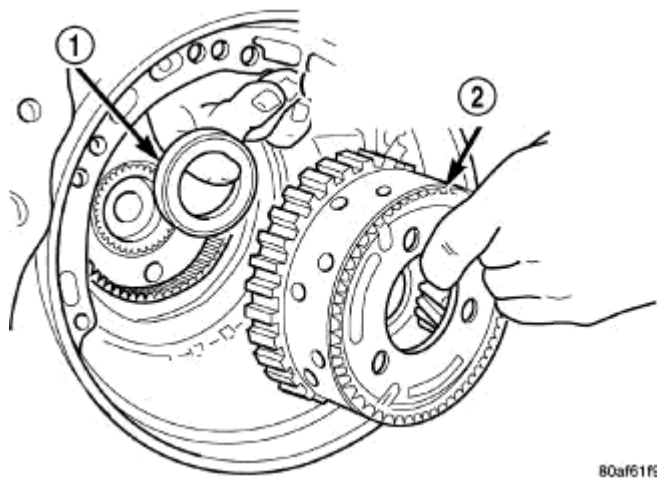


Fig. 138: Remove/Install Front Carrier And Rear Annulus Assembly

Courtesy of CHRYSLER LLC

- | |
|--|
| 1 - #6 NEEDLE BEARING |
| 2 - FRONT CARRIER AND REAR ANNULUS ASSEMBLY (TWIST AND PULL OR PUSH TO REMOVE OR INSTALL). |

33. Install front carrier/rear annulus assembly (2) and number six needle bearing (1).

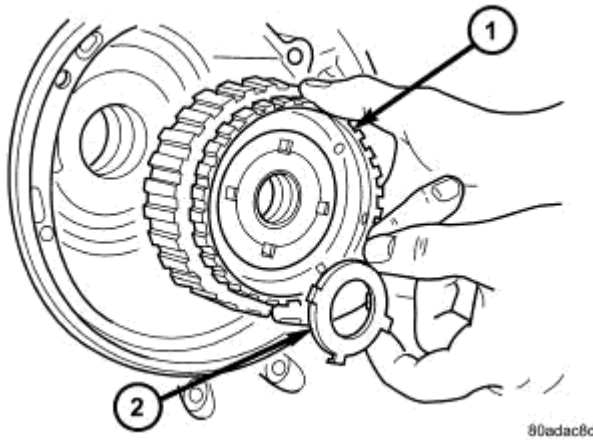


Fig. 139: Remove/Install Front Sun Gear Assembly
Courtesy of CHRYSLER LLC

- | |
|----------------------------------|
| 1 - FRONT SUN GEAR ASSEMBLY |
| 2 - #4 THRUST WASHER (FOUR TABS) |

34. Install front sun gear assembly (1) and number four thrust washer (2).

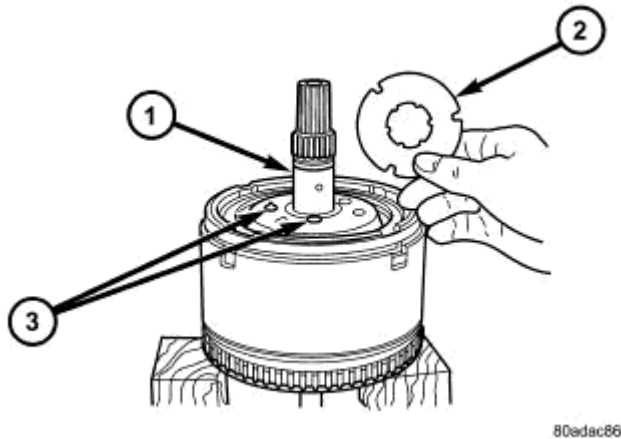
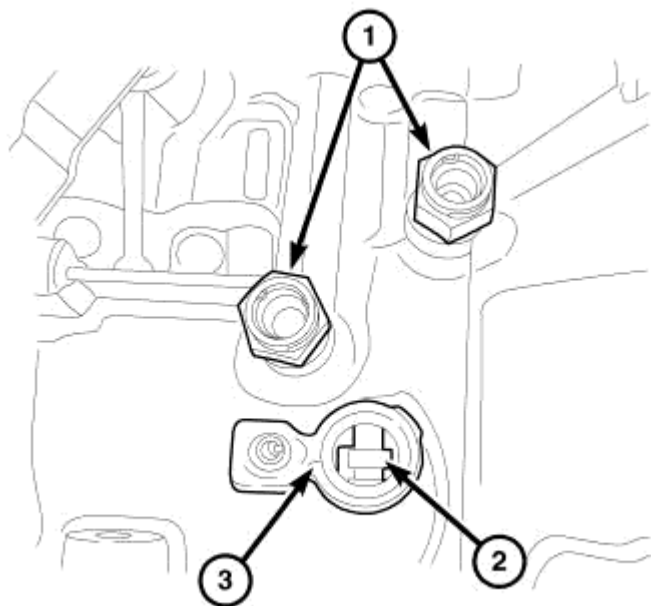


Fig. 140: Select Thinnest No. 4 Thrust Plate

Courtesy of CHRYSLER LLC

- | |
|--|
| 1 - OVERDRIVE SHAFT ASSEMBLY |
| 2 - #4 THRUST PLATE (SELECT) |
| 3 - 3 DABS OF PETROLATUM FOR RETENTION |

35. Select the thinnest number four thrust plate thickness (2) and install to input clutch assembly. Use petrolatum to retain (3).



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Fig. 141: 62TE View Through Input Speed Sensor Hole
Courtesy of CHRYSLER LLC

36. Install input clutch assembly into position and verify that it is completely seated by viewing through input speed sensor hole (3). If view through input speed sensor hole is not as shown in illustration, the input clutch assembly (2) is not seated properly.

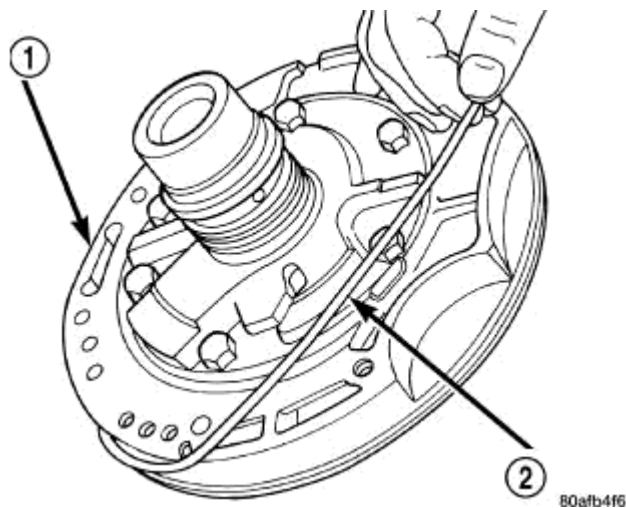


Fig. 142: Oil Pump O-Ring
Courtesy of CHRYSLER LLC

- | |
|-----------------------|
| 1 - OIL PUMP ASSEMBLY |
| 2 - O-RING |

37. Remove oil pump O-ring (2). **Be sure to reinstall oil pump O-ring after selecting the proper number four thrust plate.**
38. Install pump and gasket to transmission. Install and torque bolts.

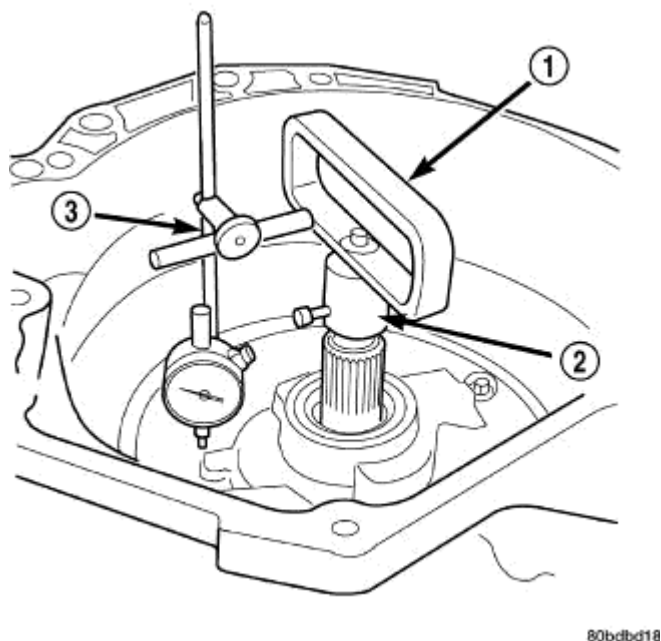


Fig. 143: Measure Input Shaft End Play Using End Play Set 8266A
Courtesy of CHRYSLER LLC

- | |
|-------------------------------|
| 1 - END PLAY SOCKET SET 8266A |
|-------------------------------|

2 - DIAL INDICATOR C-3339A

-

39. Set up input shaft for measurement with Indicator Set C-3339A (3) and End Play Set 8266A (1,2).
40. Measure the input shaft end play with the transaxle in the vertical position. **Input shaft end play must be within 0.13-0.64 mm (0.005 to 0.025 in.)** For example, if end play reading is 0.055 in. select number four Thrust Plate which is 0.071-0.074 in. thick. This should provide an input shaft end play reading of 0.020 in. which is within specifications.
41. Refer to the number four thrust plate chart **NO. 4 THRUST PLATE CHART** to select the proper number four thrust plate.

NO. 4 THRUST PLATE CHART

PART NUMBER	THICKNESS
4431665AB	1.60mm (0.063 in.)
3836237AB	1.73mm (0.068 in.)
4431666AB	1.80mm (0.071 in.)
3836238AB	1.96mm (0.077 in.)
4431667AB	2.03mm (0.080 in.)
3836239AB	2.16mm (0.085 in.)
4431668AB	2.24mm (0.088 in.)
3836240AB	2.39mm (0.094 in.)
4431669AB	2.46mm (0.097 in.)
3836241AB	2.62mm (0.103 in.)
4446670AB	2.67mm (0.105 in.)
4446671AB	2.90mm (0.114 in.)

42. Install input clutch assembly (1).

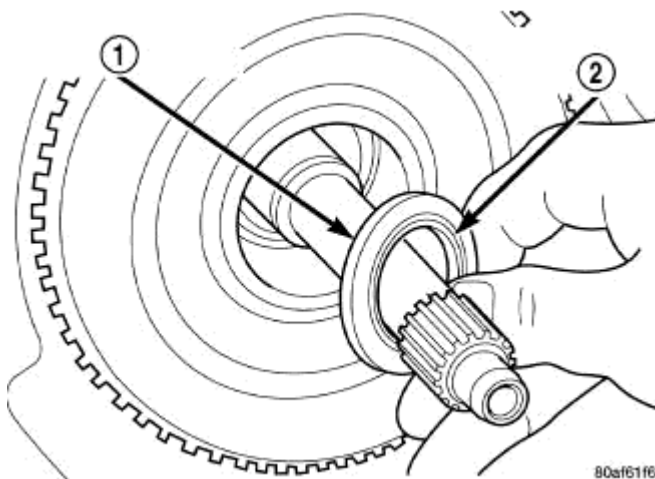


Fig. 144: Remove/Install Caged Needle Bearing
 Courtesy of CHRYSLER LLC

1 - #1 CAGED NEEDLE BEARING

2 - NOTE: TANGED SIDE OUT

43. Install number one caged needle bearing (1) note: tanged side out (2).

CAUTION: The cooler bypass valve must be replaced if transaxle failure has occurred. Do not attempt to reuse or clean old valve.

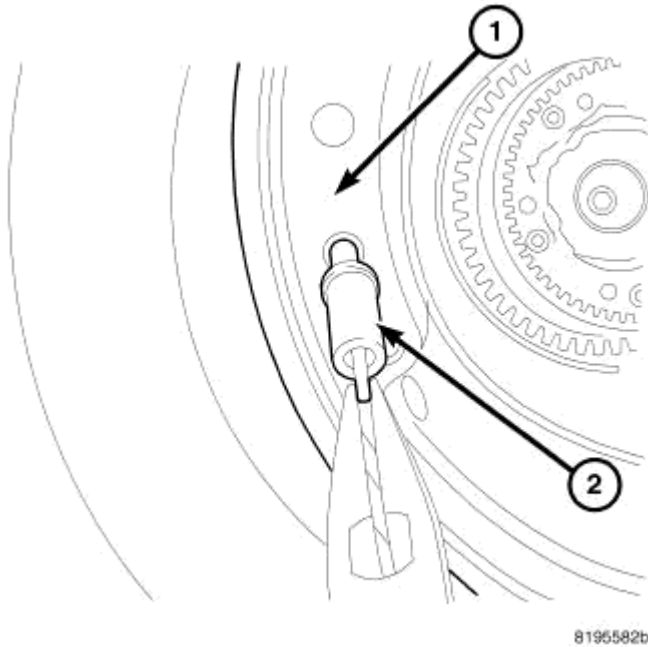


Fig. 145: Bypass Valve 62TE
Courtesy of CHRYSLER LLC

44. Install cooler bypass valve (1) with O-ring end towards rear of case.

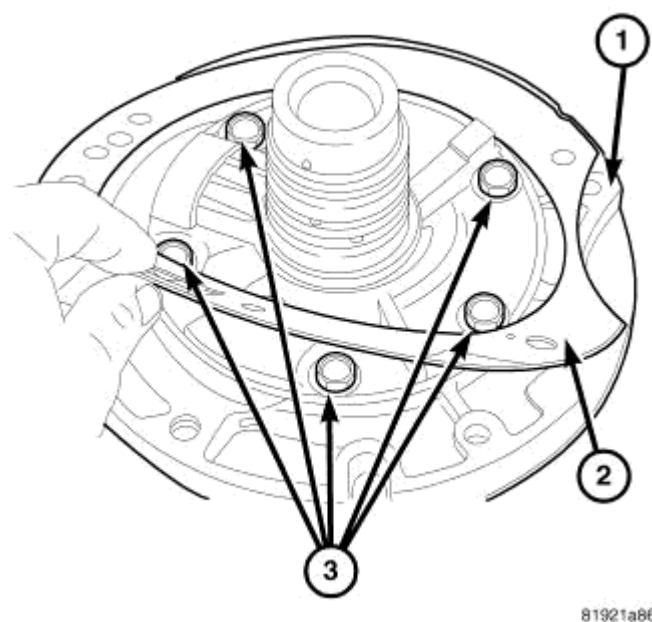


Fig. 146: Oil Pump Gasket
Courtesy of CHRYSLER LLC

45. Install oil pump gasket (1).

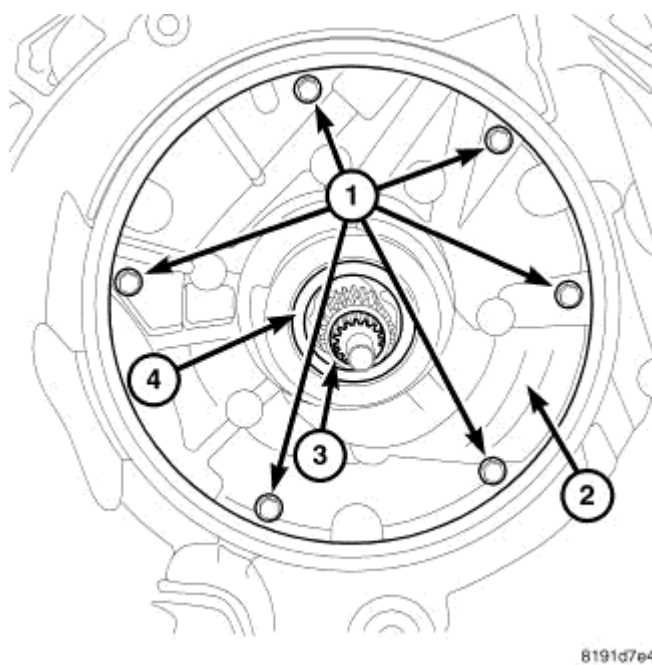


Fig. 147: Front Pump 62TE
Courtesy of CHRYSLER LLC

46. Install oil pump (2).
47. Install oil pump-to-case bolts (1) and tighten 30 N.m (265 in. lbs.).

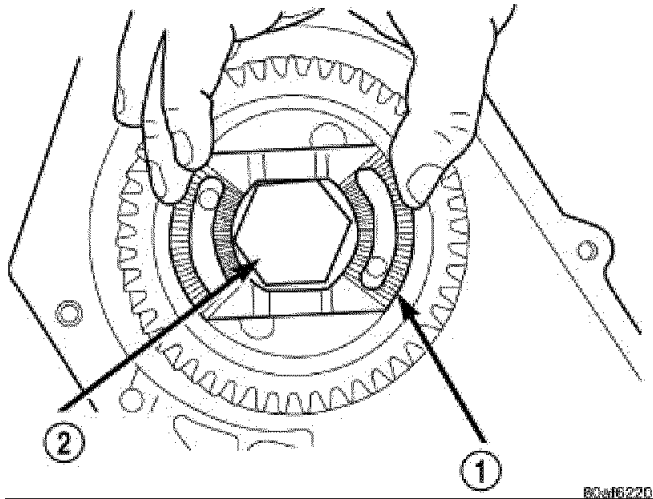


Fig. 148: Install Stirrup
Courtesy of CHRYSLER LLC

1 - STIRRUP
2 - OUTPUT GEAR RETAINING BOLT

48. Install output gear stirrup (1) with serrated side out.

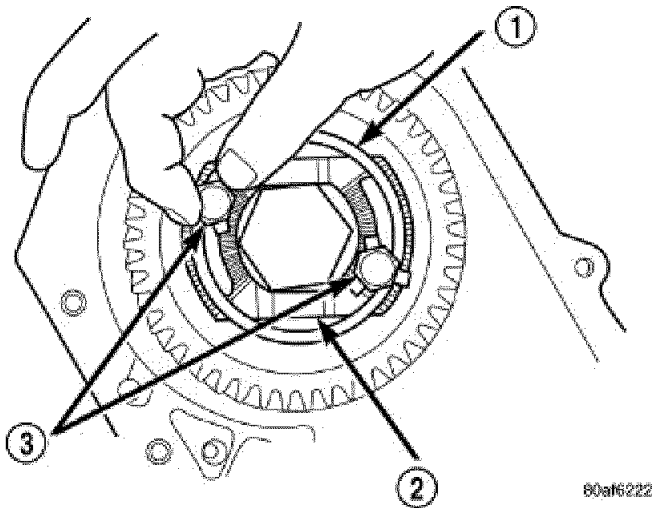


Fig. 149: Install Strap Bolts
Courtesy of CHRYSLER LLC

1 - RETAINING STRAP
2 - STIRRUP
3 - RETAINING STRAP BOLTS

49. Install retaining strap (1).
50. Install strap bolts (3) but do not tighten at this time.

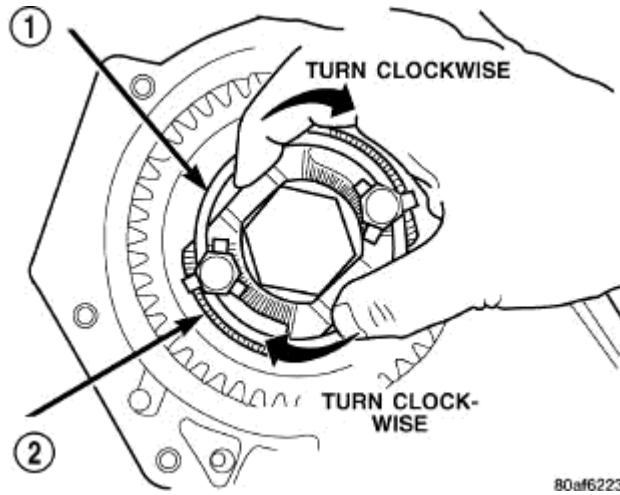


Fig. 150: Turn Stirrup Clockwise Against Bolt Flats
Courtesy of CHRYSLER LLC

1 - RETAINING STRAP
2 - STIRRUP

51. Rotate stirrup (2) clockwise against flats of retaining bolt.

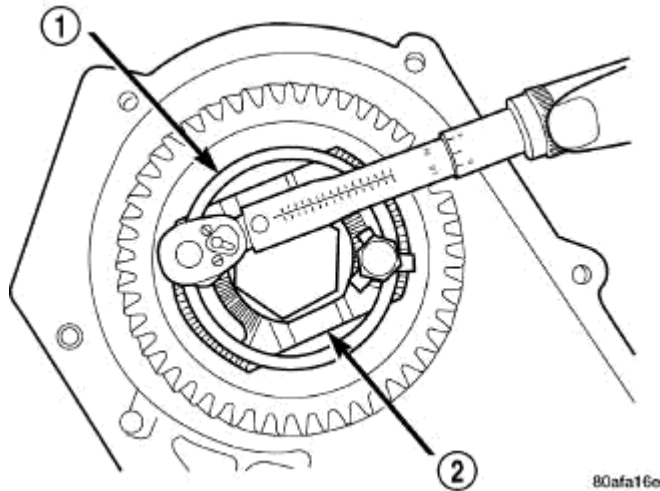


Fig. 151: Torque Stirrup Strap Bolts
Courtesy of CHRYSLER LLC

1 - RETAINING STRAP
2 - STIRRUP

52. Tighten stirrup strap bolts to 23 N.m (200 in. lbs.).

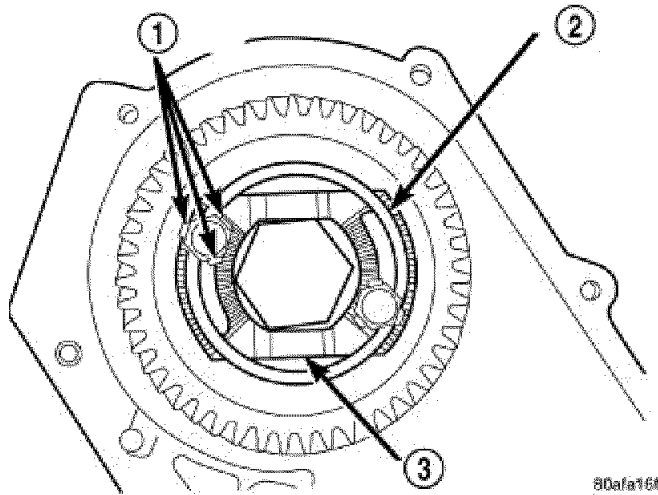


Fig. 152: Bend Tabs On Strap Up Against Flats Of Bolts
Courtesy of CHRYSLER LLC

1 - RETAINING STRAP TABS
2 - RETAINING STRAP
3 - STIRRUP

53. Bend tabs (1) on strap up against flats of bolts.

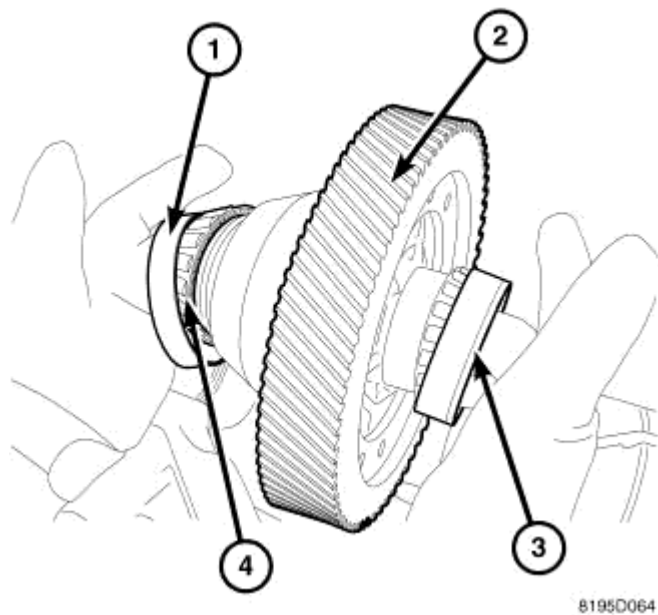


Fig. 153: Differential Out And In
Courtesy of CHRYSLER LLC

54. Install the differential, bearing cups, shim, seals and oil slinger into case.

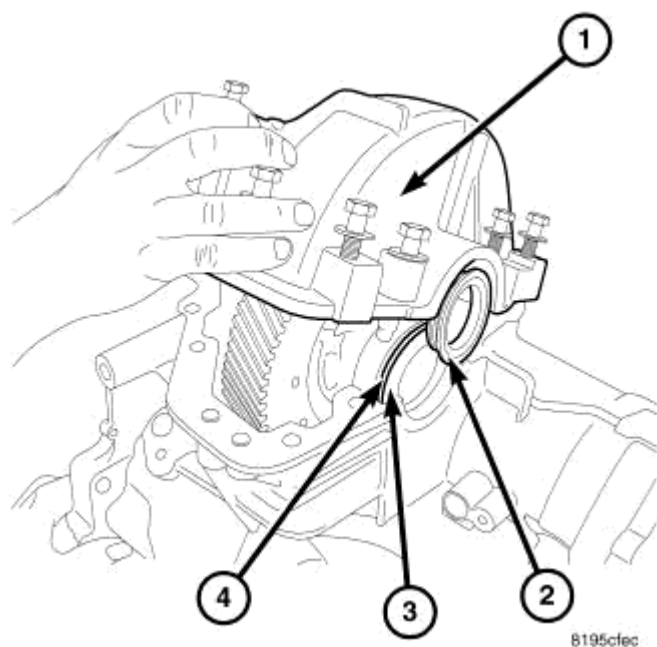


Fig. 154: Differential Cover
Courtesy of CHRYSLER LLC

55. Install the differential cover.

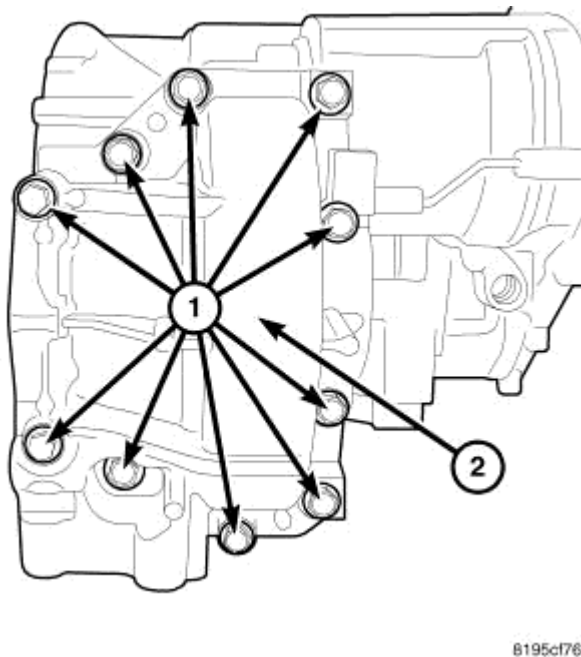


Fig. 155: Differential Cover
Courtesy of CHRYSLER LLC

56. Install the differential cover bolts (1) and tighten to 61 N.m (45 ft. lbs.).

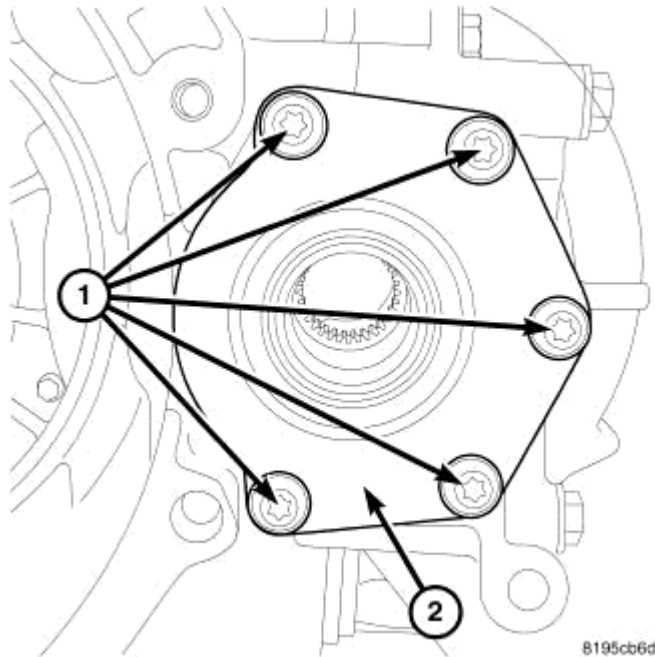


Fig. 156: Differential Bearing Cover
Courtesy of CHRYSLER LLC

57. Install the differential output bearing cover (2).
58. Install the differential output bearing cover bolts (1) and tighten to 12 N.m (105 in. lbs.).

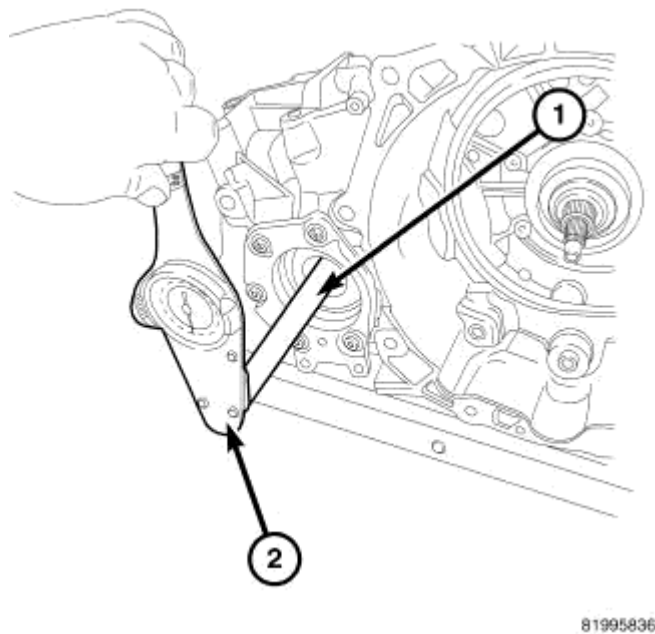
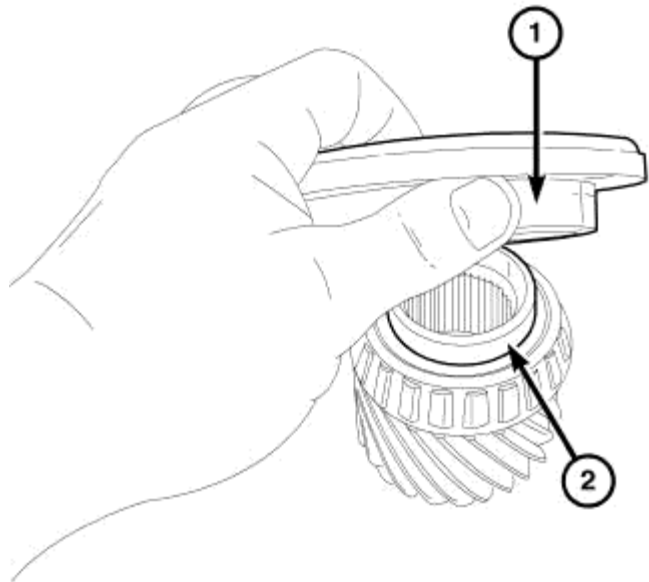


Fig. 157: Differential Turning Torque
Courtesy of CHRYSLER LLC

NOTE: Remote pinion gear must NOT be installed while checking turning torque.

59. Using the Turning Torque Tool 9735 (1) and an inch pound torque wrench (2) check the differential turning torque, it should be 10 to 22 in-lbs (drag). If turning torque is more than 22 in-lbs (drag) decrease shim size behind the end cover and recheck. If turning torque is less than 10 in-lbs (drag) increase shim size.
60. After proper turning torque is achieved for the differential remove the differential from the case and set aside keeping the correct shim with the differential.



8196caca

Fig. 158: Cover At Remote Pinion
Courtesy of CHRYSLER LLC

61. Install the remote pinion bearing cup in the case (small cup) using Installer 9730 and Handle C-4171.
62. Install the remote pinion bearing cup in the cover using Installer 9729 and Handle C-4171.
63. Install the remote pinion (2) into the transaxle case.

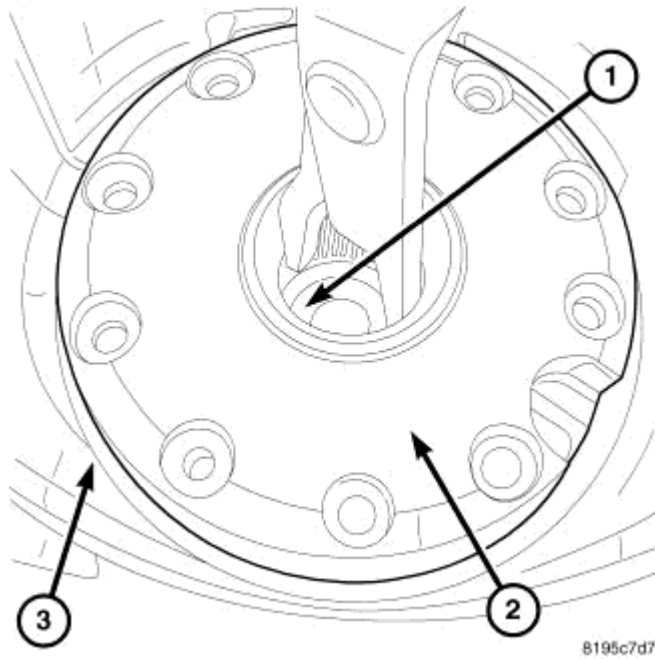


Fig. 159: Remove/Install Remote Pinion Cover
Courtesy of CHRYSLER LLC

64. Install the remote pinion cover (2) into transaxle case.

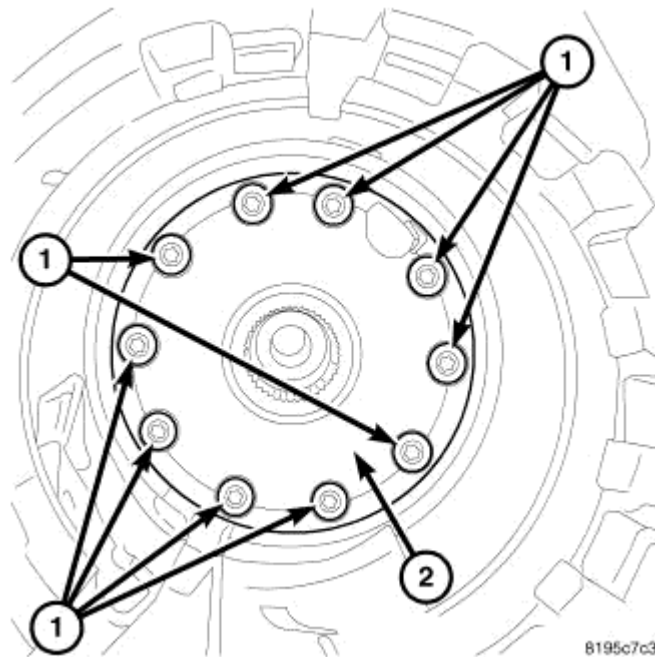


Fig. 160: Bolts At Remote Pinion Cover
Courtesy of CHRYSLER LLC

65. Install the bolts (1) at the remote pinion cover (2) and tighten to 12 N.m (105 in. lbs.).

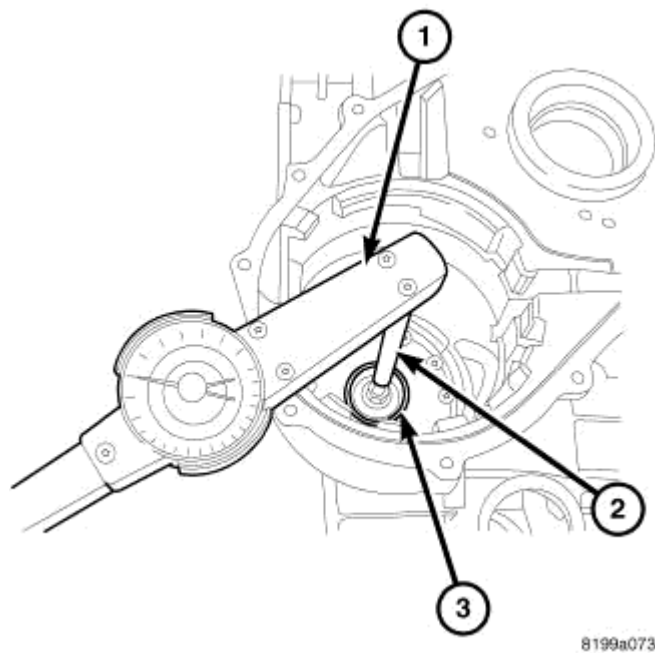
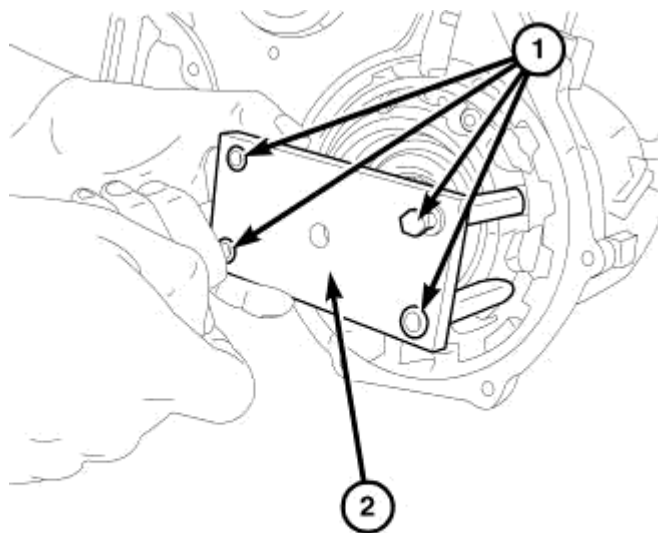


Fig. 161: Pinion Turning Torque
Courtesy of CHRYSLER LLC

NOTE: Differential assembly must not be installed when checking for pinion drag torque.

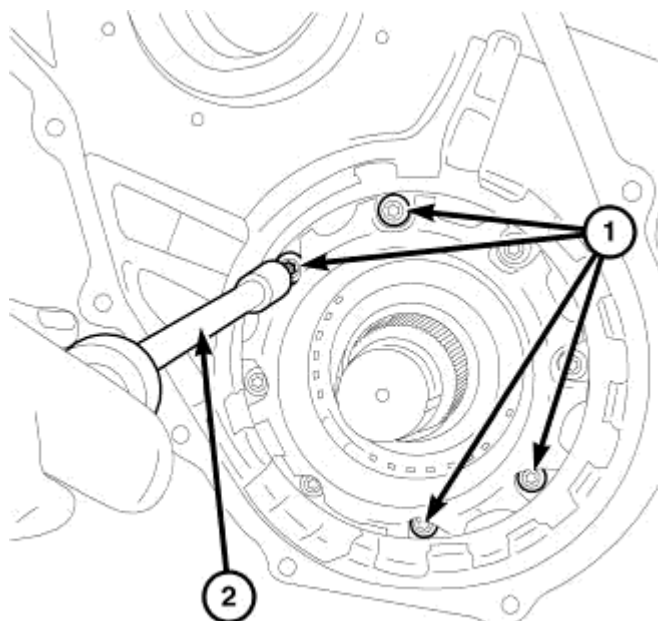
66. Check turning torque using Differential Bearing Torque Tool C-4995A (2) and an inch pound torque wrench (1). Turning torque for the remote pinion gear should be 2 to 8 in-lbs (drag). If more than 8 in-lbs (drag) decrease shim size under the remote pinion bearing cover cup. If turning torque is less than 2 in-lbs (drag) increase the shim size under the remote pinion bearing cover cup.



8195bf1d

Fig. 162: Tool 9908 Bearing Retainer Assembly
Courtesy of CHRYSLER LLC

67. Install Holder 9908 (2) onto the compounder bearing retainer to help in installation.
68. Install the compounder bearing retainer into the transaxle case.

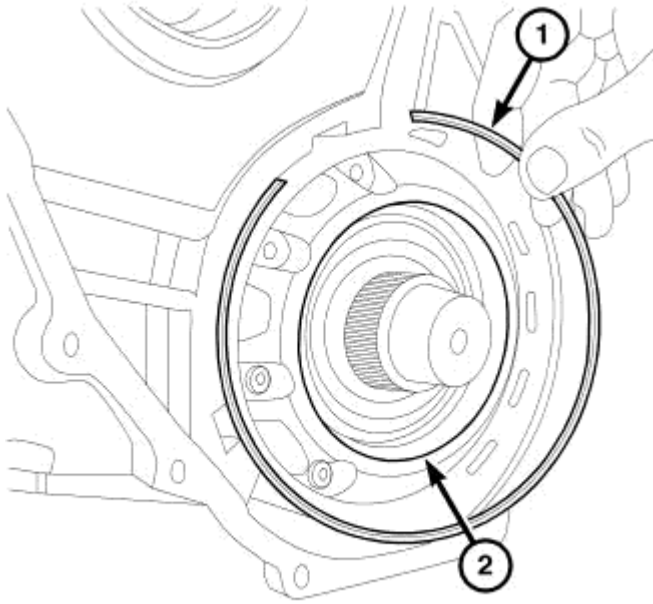


8195bb0c

Fig. 163: Remove/Install Bolts At Compounder
Courtesy of CHRYSLER LLC

69. Remove Holder 9908 from the compounder bearing retainer.

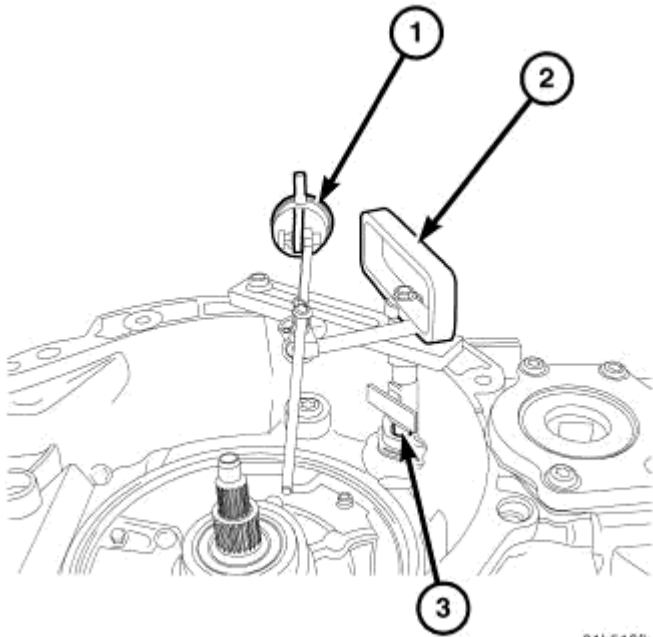
70. Install all the bolts at the compounder bearing retainer and tighten to 12 N.m (105 in. lbs.).



818cae7c

Fig. 164: Remove/Install Snap Ring Underdrive Compounder
Courtesy of CHRYSLER LLC

71. Install snap ring (1) at top of the compounder bearing retainer.



81b518fb

Fig. 165: End Play Tool 9951
Courtesy of CHRYSLER LLC

NOTE: Insure End Play Tool 9951 is not binding in support plate that is bolted to the case.

NOTE: Always use original shim to determine end play.

72. Remove plug at case (3).
73. Install compounder End Play Tool 9951 (2) through the hole in the front case.
74. Install Dial Indicator C-3339A (1) onto End Play Tool 9951.
75. Use moderate downward pressure on End Play Tool 9951 and zero Dial Indicator C-3339A.
76. Use moderate upward pressure on End Play Tool 9951 and take reading from Dial Indicator C-3339A.
77. Remove End Play Tool 9951 and zero Dial Indicator C-3339A.
78. Adjust shim thickness in the underdrive unit to 0.010 to 0.020".
79. Install the correct (select) helical shim and assemble the underdrive compounder. See **Assembly** and retest.
80. Using Mopar lock AND seal adhesive install plug back into case and tighten to 24 N.m (18 ft. lbs.).

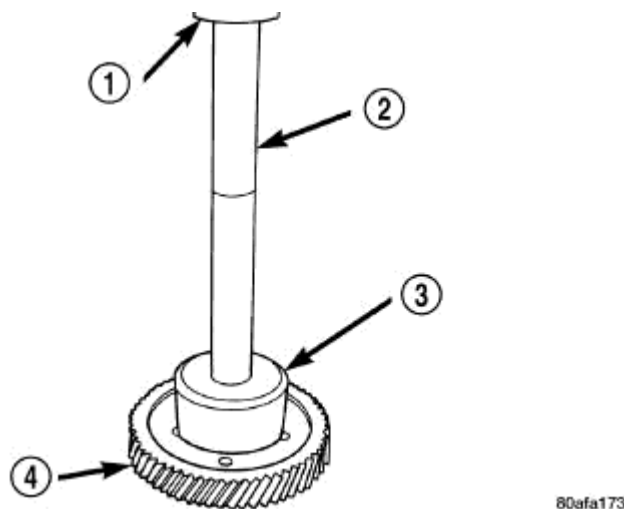


Fig. 166: Install Output Gear Bearing Cone
Courtesy of CHRYSLER LLC

1 - ARBOR PRESS RAM
2 - HANDLE C-4171
3 - INSTALLER 5052
4 - OUTPUT GEAR

81. Install the transfer gear (underdrive compounder side) cone using Installer 6756 (3).

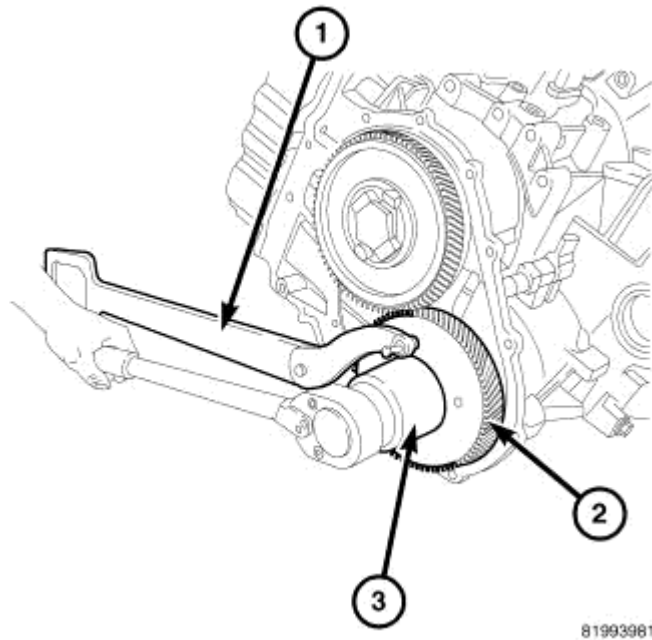


Fig. 167: Holder 9739

Courtesy of CHRYSLER LLC

82. Install Holder 9739 (1) onto the transfer gear (underdrive compounder side) (2).
83. Install a **new** transfer gear (underdrive compounder side) nut and tighten to 271 N.m (200 ft. lbs.).
84. Use Staking Tool 9721 and stake the new nut.

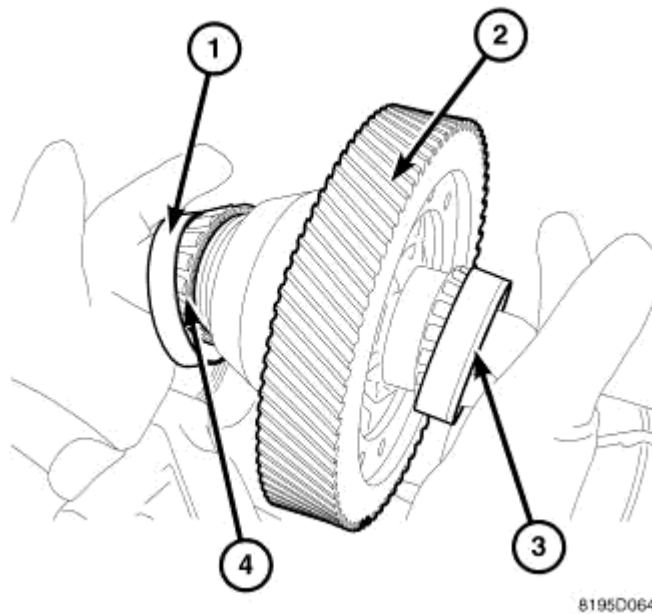


Fig. 168: Differential Out And In

Courtesy of CHRYSLER LLC

85. Install the differential, bearing cups, shim and oil slinger into case.

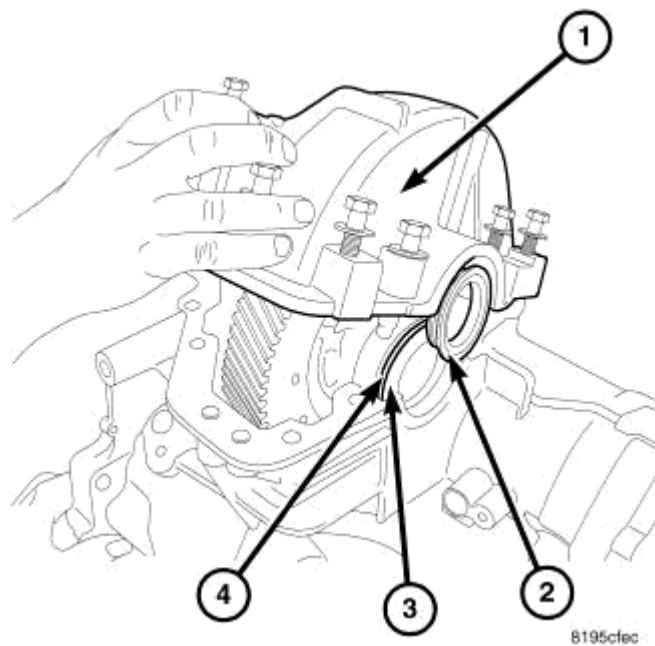


Fig. 169: Differential Cover
Courtesy of CHRYSLER LLC

86. Use a bead of MOPAR® ATF RTV (MS-GF41).
87. Install the differential cover.

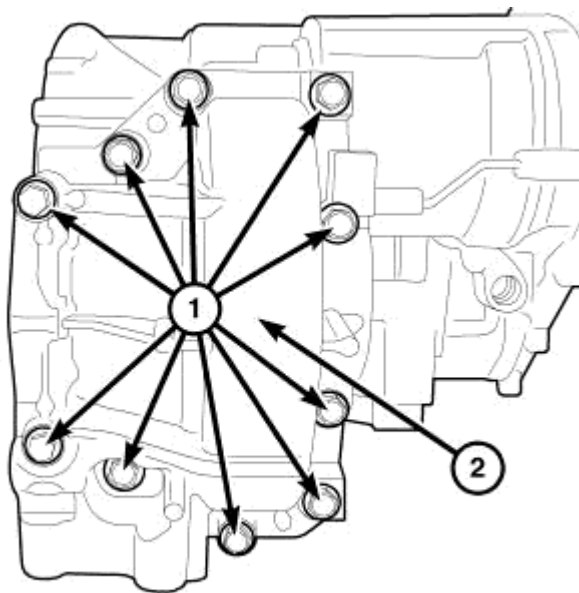


Fig. 170: Differential Cover
Courtesy of CHRYSLER LLC

88. Install the differential cover bolts (1) and tighten to 61 N.m (45 ft. lbs.).

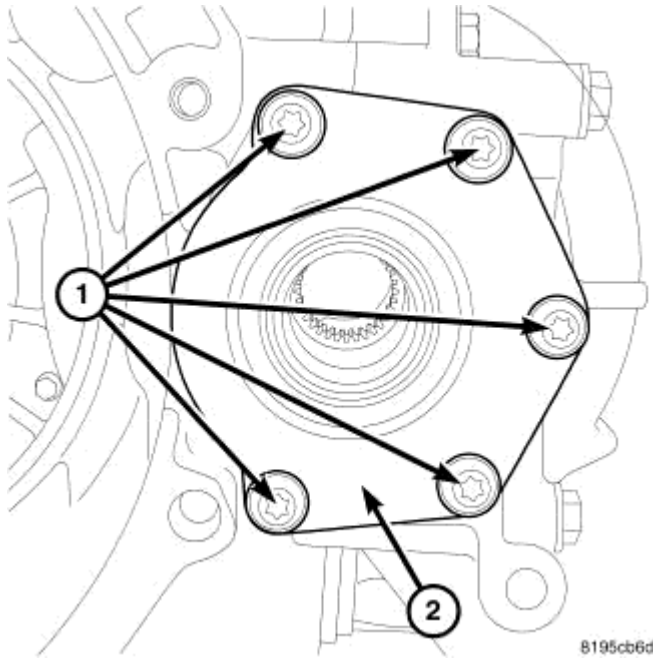


Fig. 171: Differential Bearing Cover
Courtesy of CHRYSLER LLC

89. Use a bead of MOPAR® ATF RTV (MS-GF41).
90. Install the differential output bearing cover (2) and tighten bolts to 12 N.m (105 in. lbs.).
91. Install differential oil seals into the case using installer MD998334-01.

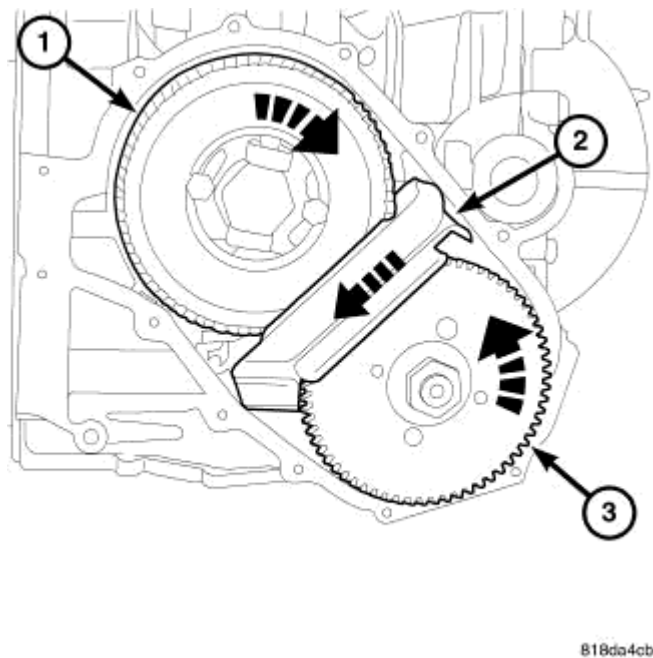


Fig. 172: Oil Scavenger

Courtesy of CHRYSLER LLC

92. Install the oil scavenger (2).

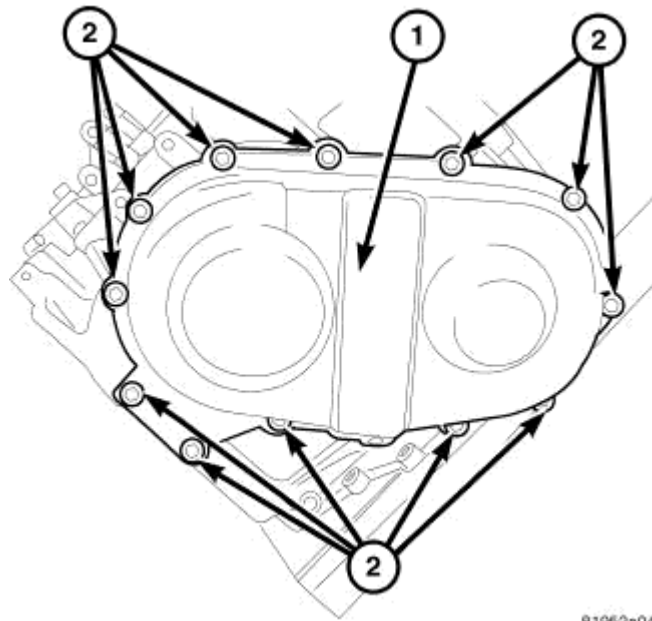


Fig. 173: Transfer Gear Cover

Courtesy of CHRYSLER LLC

93. Install the transfer gear cover (1), use a bead of MOPAR® ATF RTV (MS-GF41).
94. Install transfer gear cover-to-case bolts (2) and tighten to 12 N.m (105 in. lbs.).

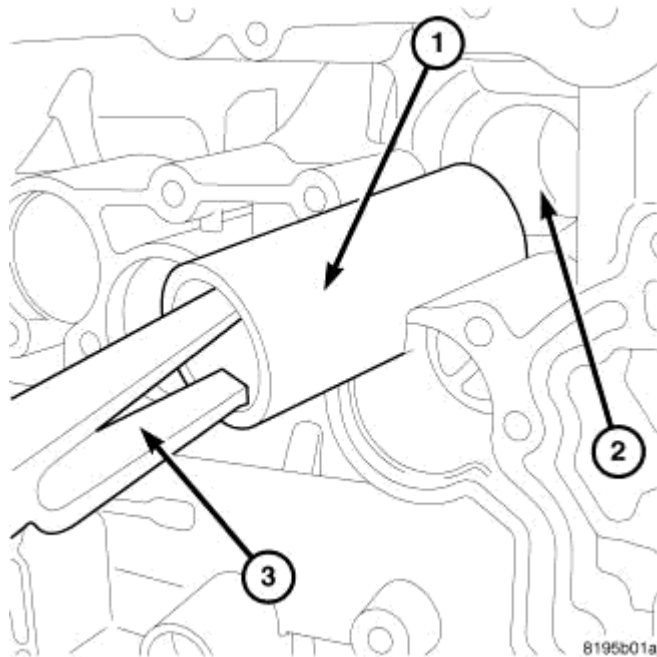


Fig. 174: Park Pawl Tube
Courtesy of CHRYSLER LLC

95. Install the park pawl tube (1) into case (2) making sure guide pin aligns with hole in case.

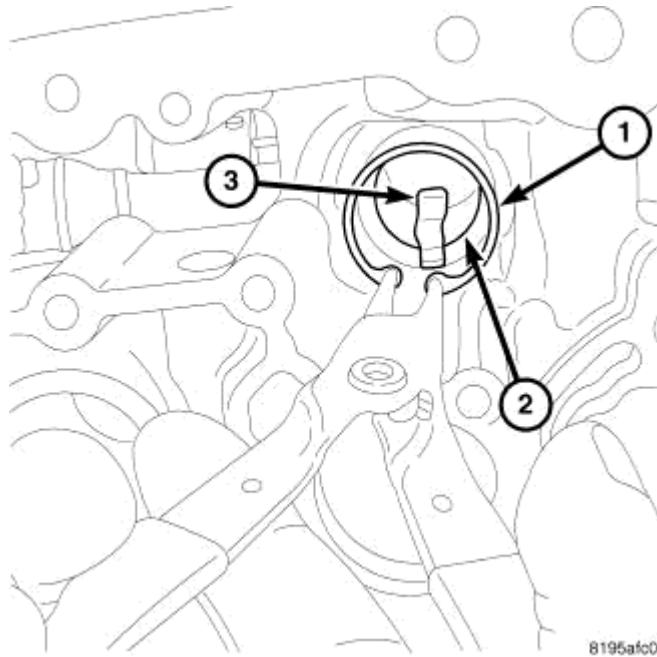


Fig. 175: Park Pawl Tube Snap Ring 2
Courtesy of CHRYSLER LLC

96. Install the snap ring (1) for the park pawl tube.

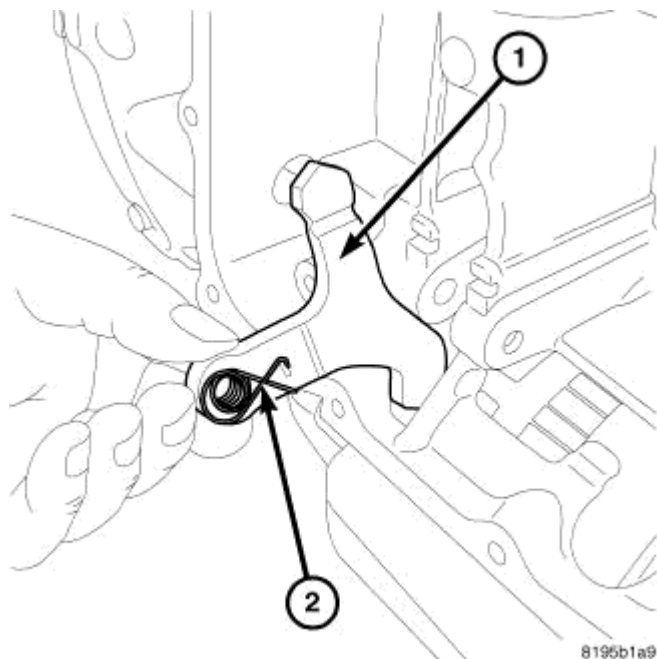


Fig. 176: Park Pawl

Courtesy of CHRYSLER LLC

97. Install the park pawl (1) and the park pawl spring (2).

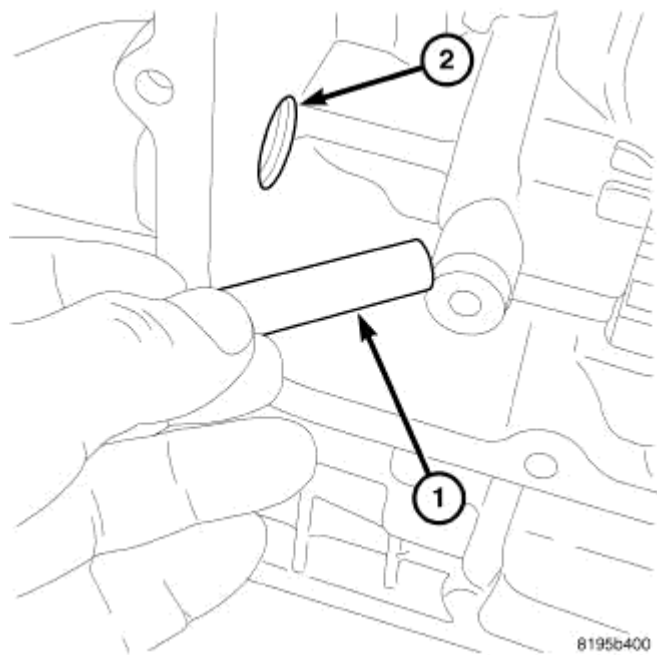
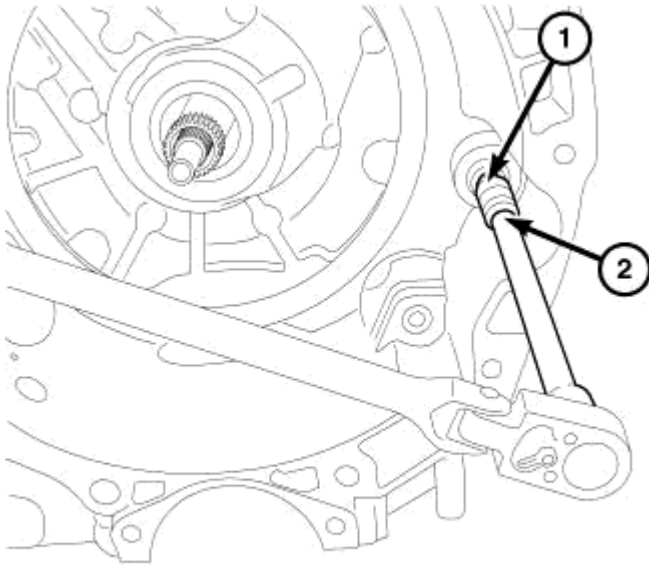


Fig. 177: Park Pawl Shaft

Courtesy of CHRYSLER LLC

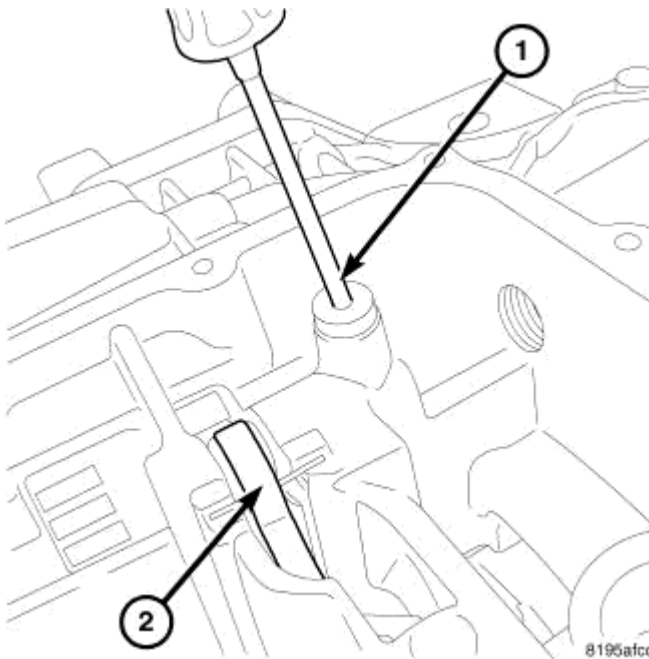
98. Install the park pawl shaft (1).



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Fig. 178: Park Pawl Shaft Plug
Courtesy of CHRYSLER LLC

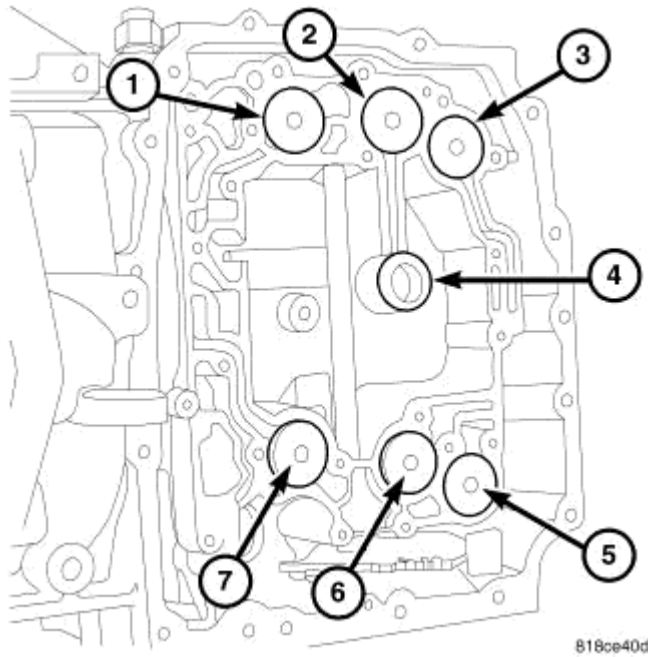
99. Install the park pawl shaft and park pawl pipe plug tighten to 27 N.m (20 ft. lbs.).



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Fig. 179: Set Screw At Park Pawl Shaft
Courtesy of CHRYSLER LLC

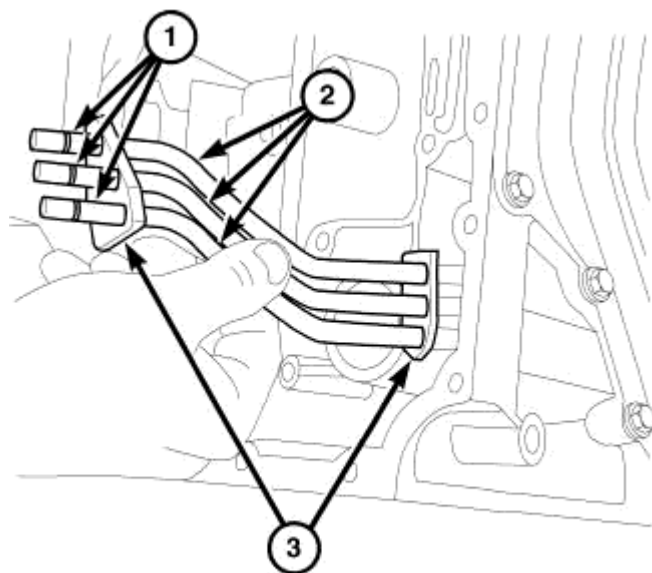
100. Install the set screw (1) for the park pawl shaft and tighten to 1 N.m (10 in. lbs.).
101. Install the manual lever, TRS and seal. See **Installation** .

**Fig. 180: Accumulators**

Courtesy of CHRYSLER LLC

1 - UD ACCUMULATOR	5 - LC ACCUMULATOR
2 - 2/4 ACCUMULATOR	6 - DC ACCUMULATOR
3 - LR ACCUMULATOR	7 - OD ACCUMULATOR
4 - 2/4 CLUTCH OIL SUPPLY SEAL	-

102. Install all six accumulators (1, 2, 3, 5, 6 and 7) into case along with the accumulator return springs.
103. Install a **new** 2/4 clutch oil supply seal (4) into the case.

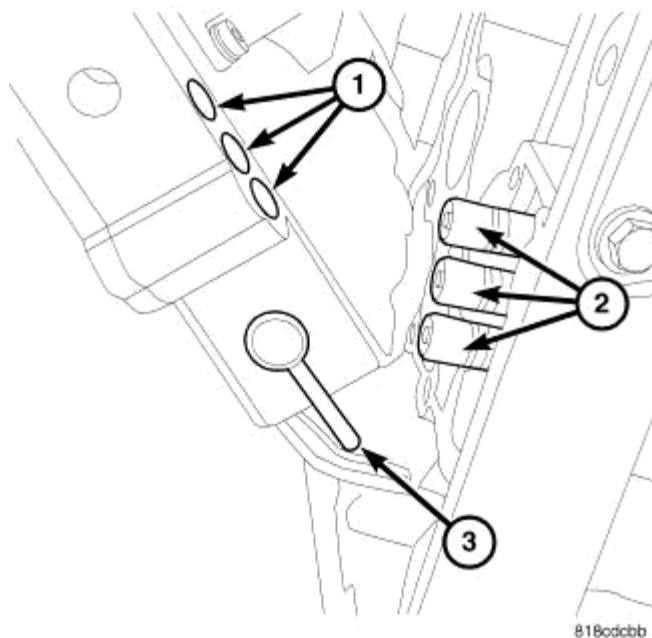


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Fig. 181: Transfer Tube O-Rings
Courtesy of CHRYSLER LLC

NOTE: Install transmission oil on the oil transfer tubes O-rings.

104. Install the oil transfer tubes (2) into the case/compounder.



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Fig. 182: Oil Transfer Tubes
Courtesy of CHRYSLER LLC

105. Install valve body (1) onto the oil transfer tubes and manual valve (3) at the rooster comb.

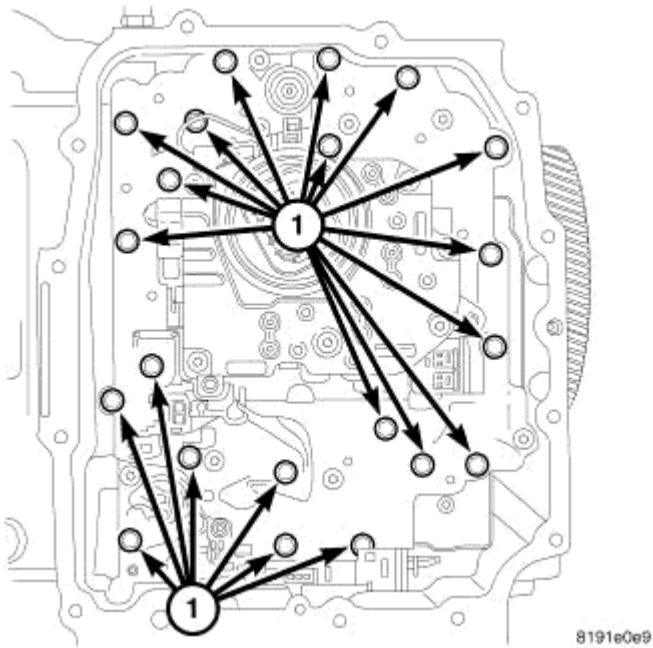


Fig. 183: Valve Body Bolts
Courtesy of CHRYSLER LLC

106. Install the valve body bolts (1) and tighten to 7 N.m (50 in. lbs.).

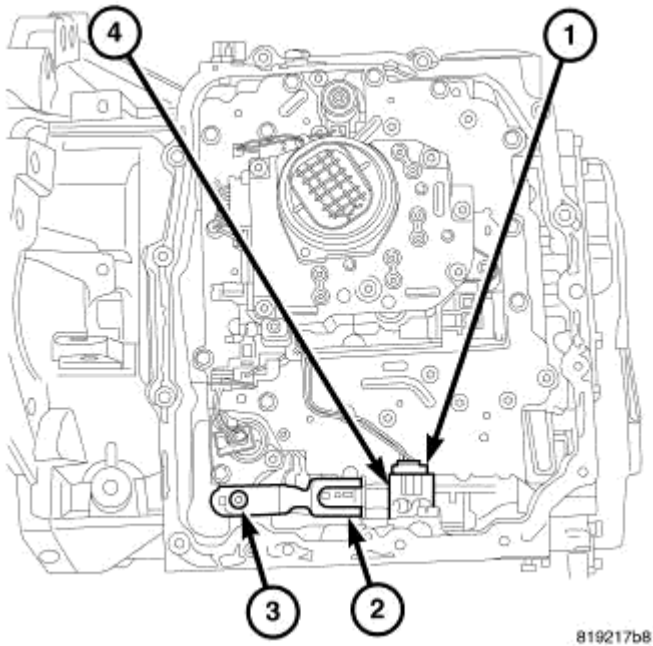


Fig. 184: Connector At Transmission
Courtesy of CHRYSLER LLC

107. Install the detent spring (2).
108. Install the bolt (3) holding the detent spring and tighten to 7 N.m (50 in. lbs.).
109. Install the electrical connector (1) at the range sensor (4).

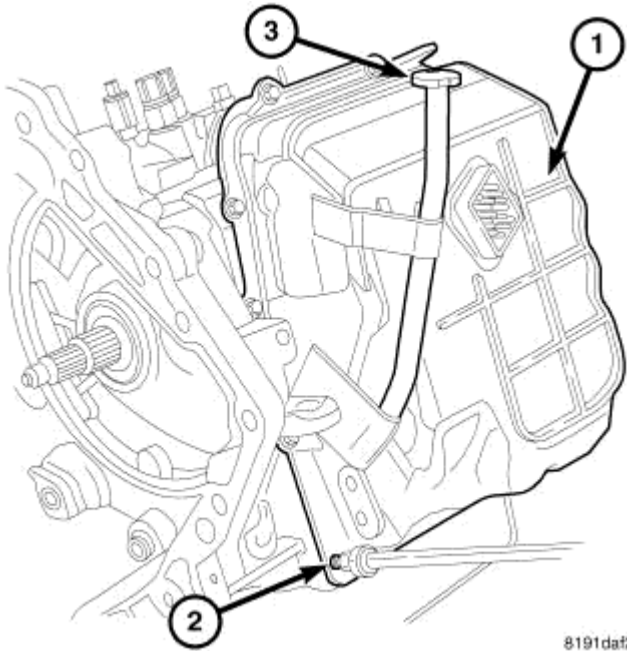
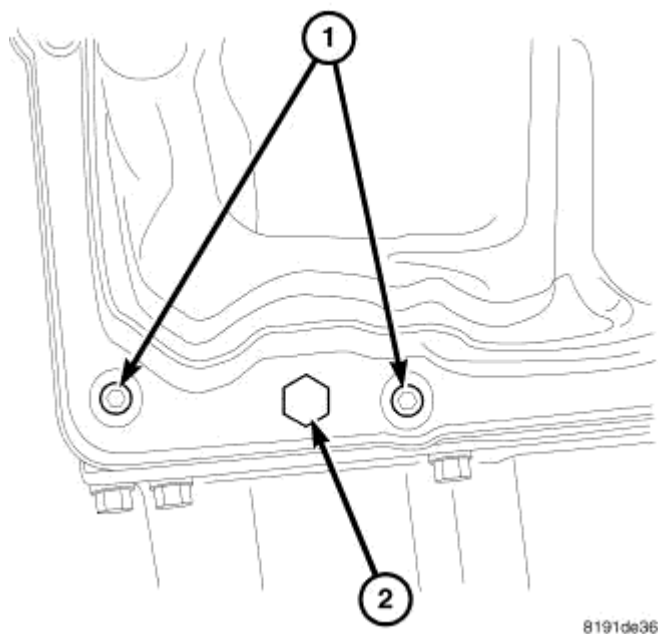


Fig. 185: Valve Body Pan
Courtesy of CHRYSLER LLC

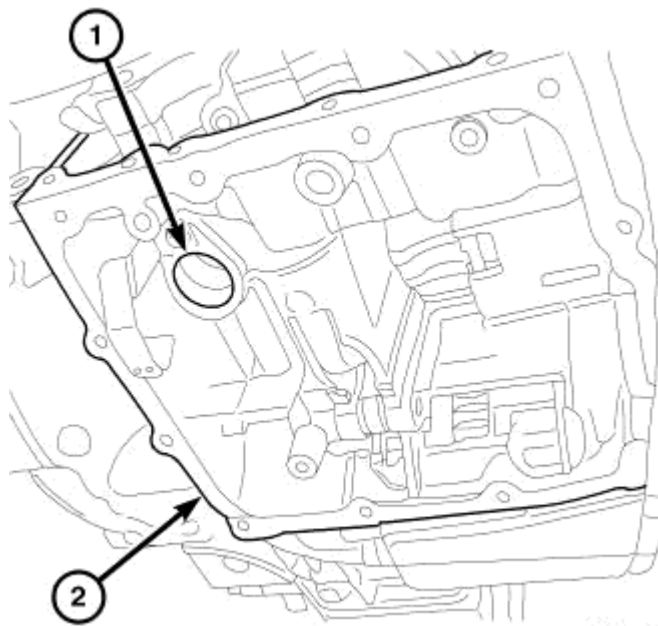
110. Install the valve body oil pan, use a bead of MOPAR® ATF RTV (MS-GF41).
111. Install the valve body oil pan bolts and tighten to 6 N.m (53in. lbs.).



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Fig. 186: Pressure Tap Plug
Courtesy of CHRYSLER LLC

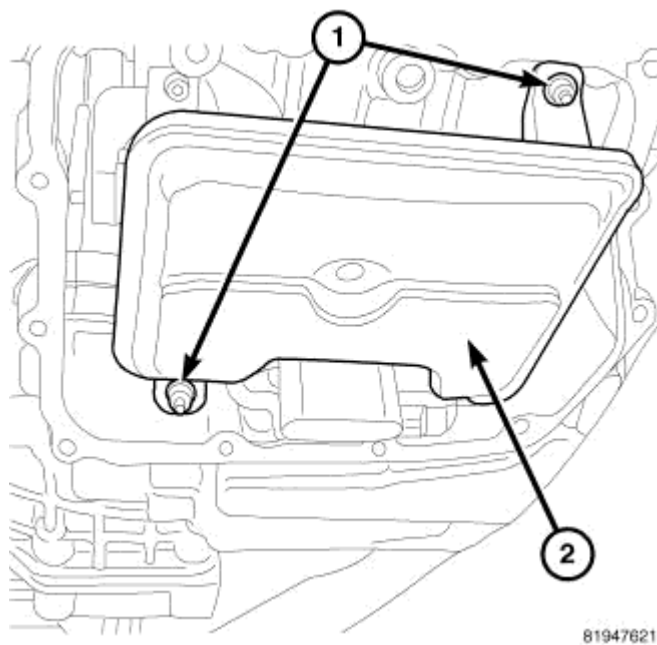
112. Install the pressure tap plug (2) at valve body pan and tighten to 9 N.m (45 in. lbs.).



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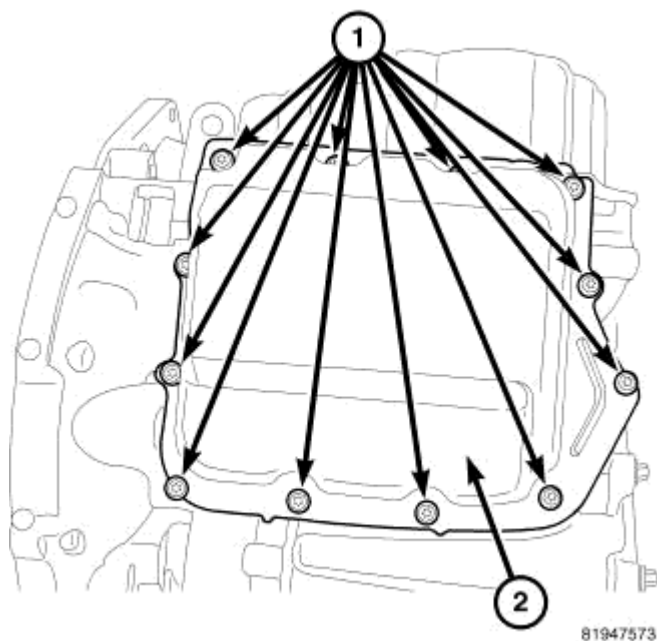
Fig. 187: Oil Filter Seal At Case
Courtesy of CHRYSLER LLC

113. Install the fluid filter seal (1) at the case.

**Fig. 188: Fluid Filter**

Courtesy of CHRYSLER LLC

114. Install the fluid filter (2).
115. Install the fluid filter mounting nuts and tighten to 5 N.m (40 in. lbs.).

**Fig. 189: Filter Oil Pan**

Courtesy of CHRYSLER LLC

116. Install the fluid filter oil pan, use a bead of MOPAR® ATF RTV (MS-GF41).

117. Install the fluid filter oil pan bolts and tighten to 6 N.m (53 in. lbs.).

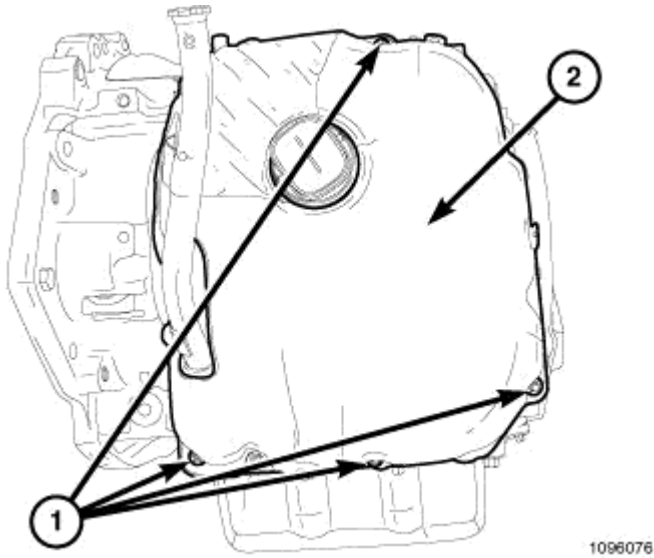


Fig. 190: Fasteners And Front Sound Dampener Cover
Courtesy of CHRYSLER LLC

118. If equipped install the Front Sound Dampener Cover (2) and the fasteners (1).

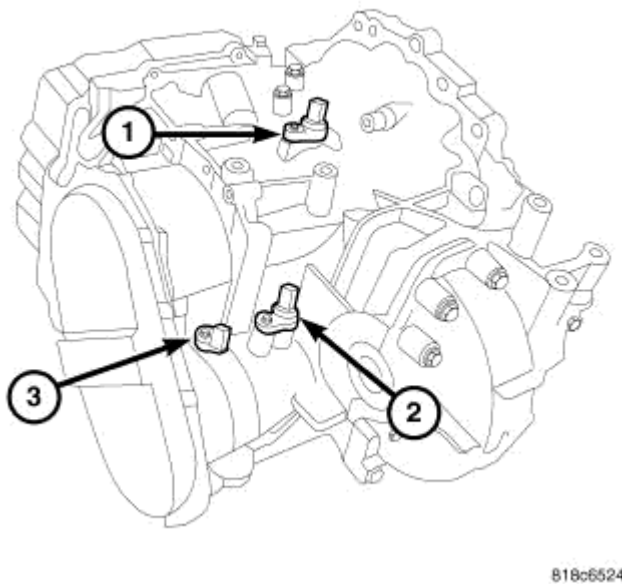


Fig. 191: Speed Sensors
Courtesy of CHRYSLER LLC

119. Install the speed sensors (1, 2 and 3) and tighten bolts to 12 N.m (105 in. lbs.).

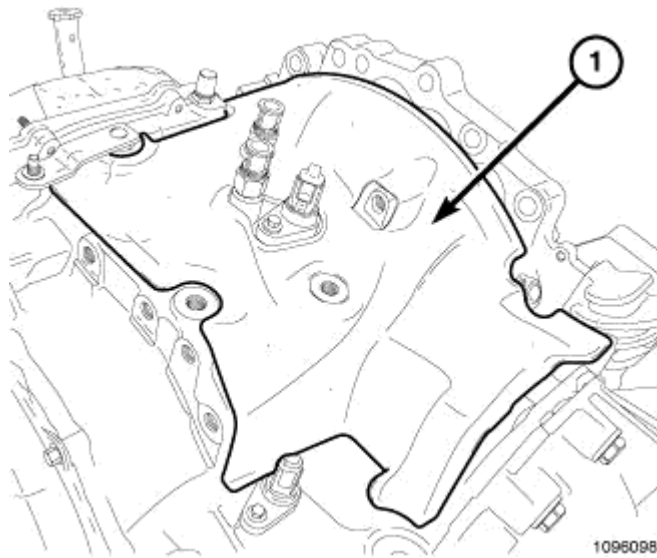


Fig. 192: Top Sound Damper Cover
Courtesy of CHRYSLER LLC

120. If equipped install the Top Sound Dampener Cover (1).

INSTALLATION

INSTALLATION

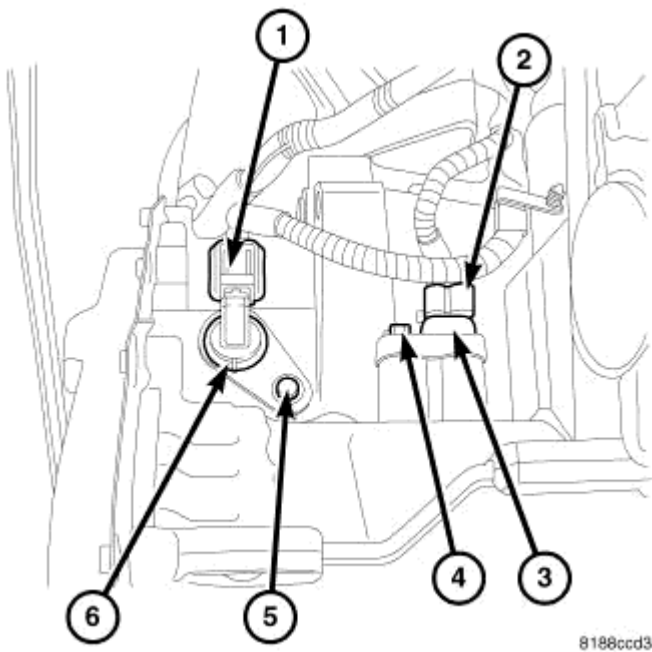
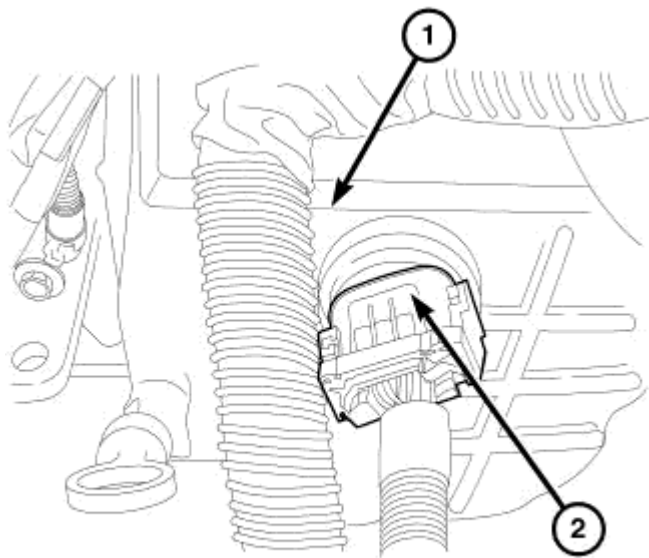


Fig. 193: Output Speed Sensors
Courtesy of CHRYSLER LLC

1. Install the wiring harness onto the transaxle.

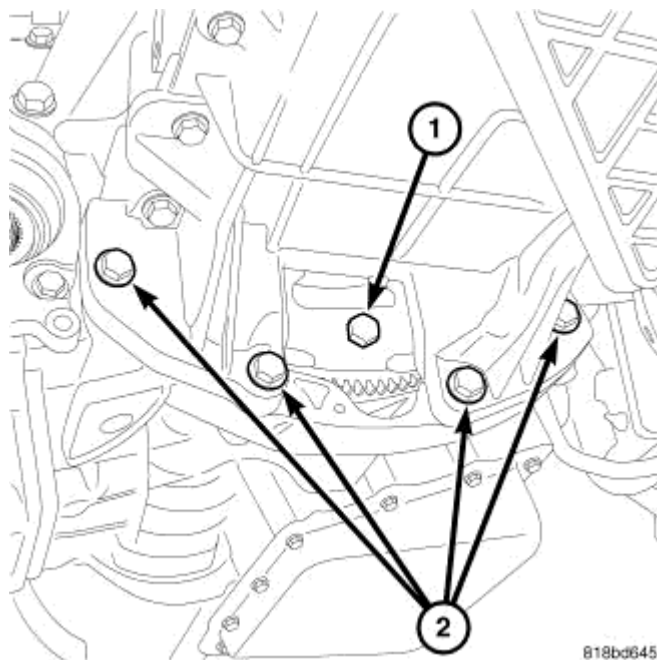
2. Connect input speed sensor connector.
3. Connect both output speed sensor connectors (1, 2).



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Fig. 194: Solenoid Connector At Transmission
Courtesy of CHRYSLER LLC

4. Connect solenoid/pressure switch assembly connector (2).

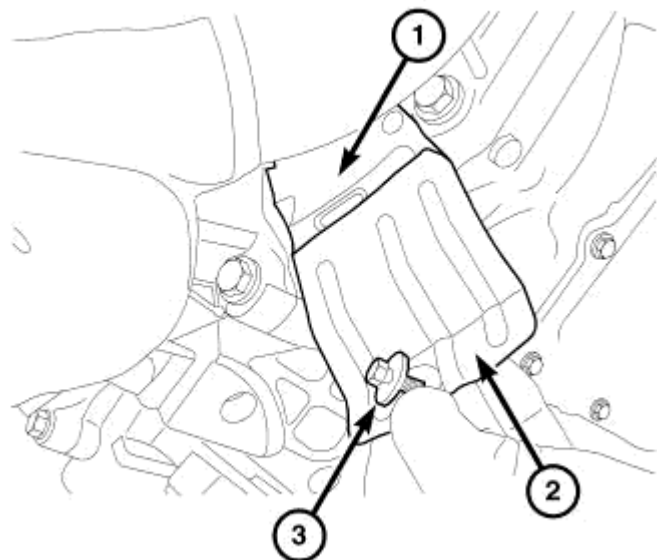


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Fig. 195: Torque Converter Bolts
Courtesy of CHRYSLER LLC

NOTE: The two transaxle-to-engine bolts next to the inspection cover will have a exhaust bracket under them.

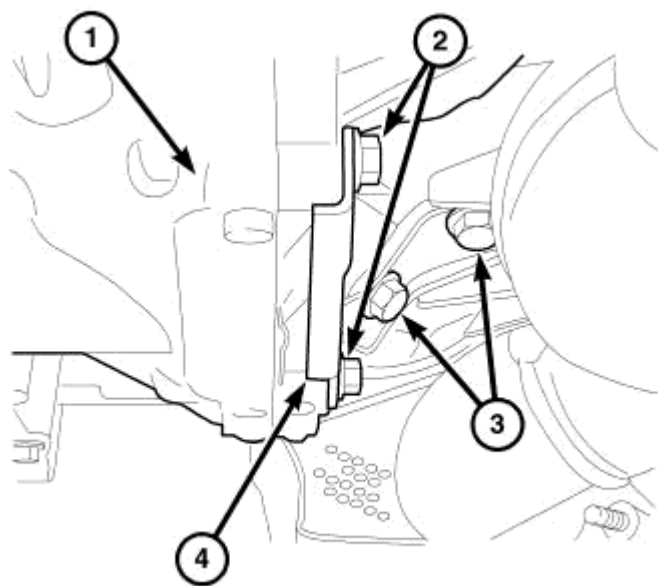
5. Install transaxle into position. Install the transaxle-to-engine two outer lower bolts and torque to 70 N.m (52 ft. lbs.).
6. Install torque converter-to-driveplate bolts (1) and tighten to 88 N.m (65 ft. lbs.).



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Fig. 196: Dust Shield
Courtesy of CHRYSLER LLC

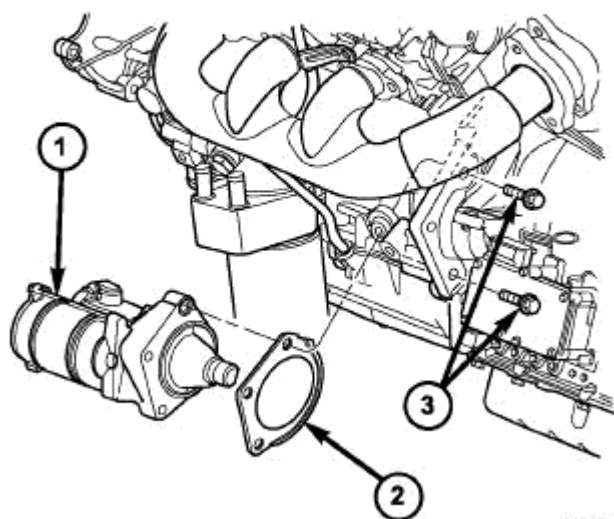
7. Install torque converter dust shield and bolt tighten to 6 N.m (53 in. lbs.).



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Fig. 197: Exhaust Bracket Bolts
Courtesy of CHRYSLER LLC

8. Install bolts (2) to stand off bracket (4) and tighten to 95 N.m (70 ft. lbs.).
9. Install bolts (3) to exhaust bracket.
10. Install the cross under pipe. Refer to **Exhaust System/PIPE, Exhaust Crossunder - Installation** .



81115ab9

Fig. 198: Starter Motor And Shim
Courtesy of CHRYSLER LLC

- 1 - STARTER MOTOR
- 2 - SHIM
- 3 - BOLTS

11. Install the starter motor. Refer to **Electrical - Engine Systems/Starting/STARTER - Installation** .
12. Install the PTU if equipped.

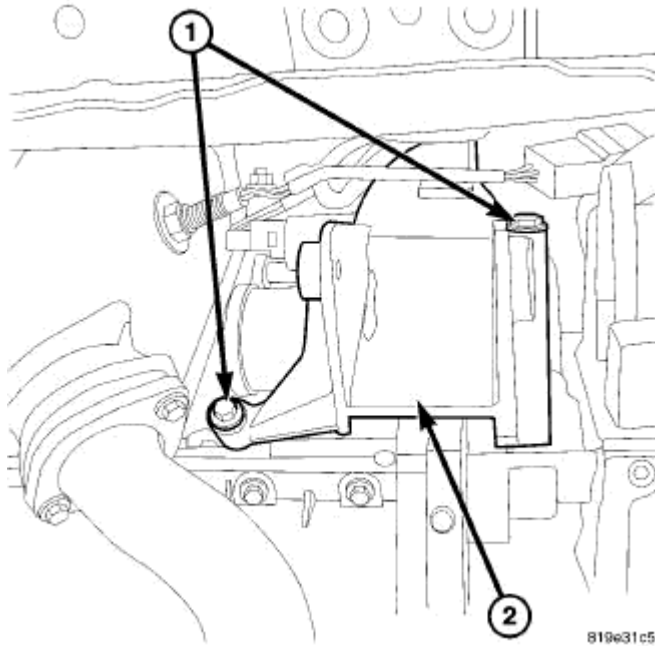


Fig. 199: Front Mount Bracket
Courtesy of CHRYSLER LLC

13. Install the front mount bracket (2).
14. Install the front mount bracket bolts (1) and tighten to 100 N.m (74 ft. lbs.).

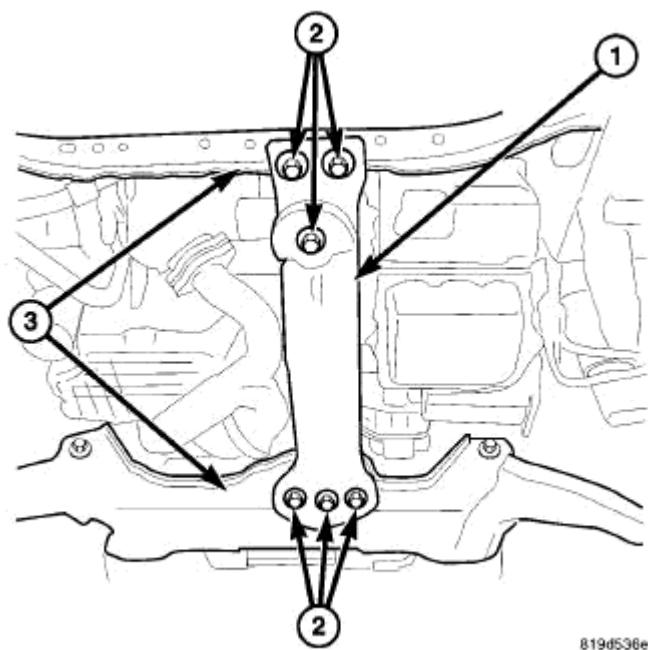


Fig. 200: Transmission Crossmember
Courtesy of CHRYSLER LLC

15. Install the transmission crossmember and tighten to 50 N.m (37 ft. lbs.).

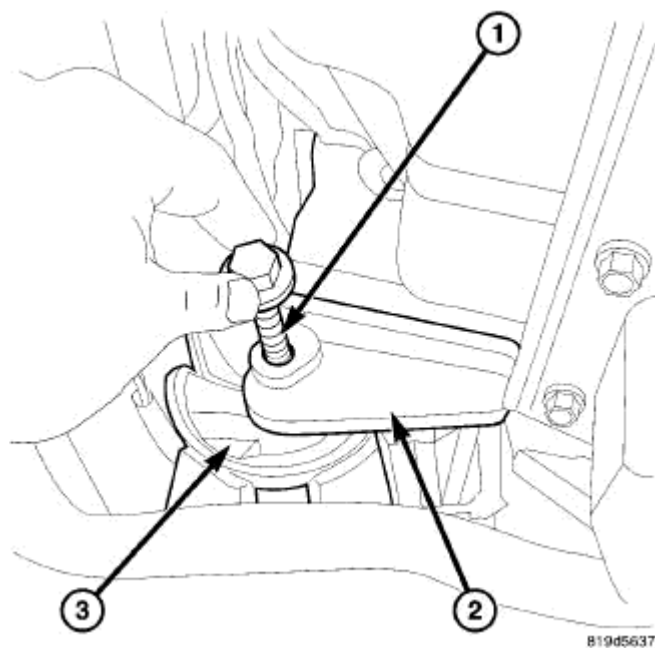


Fig. 201: Crossmember Through Bolt
Courtesy of CHRYSLER LLC

16. Install front mount through bolt and tighten to 50 N.m (37 ft. lbs.)
17. The front and both side splash shields. Refer to **Body/Exterior/SHIELD, Splash - Installation**

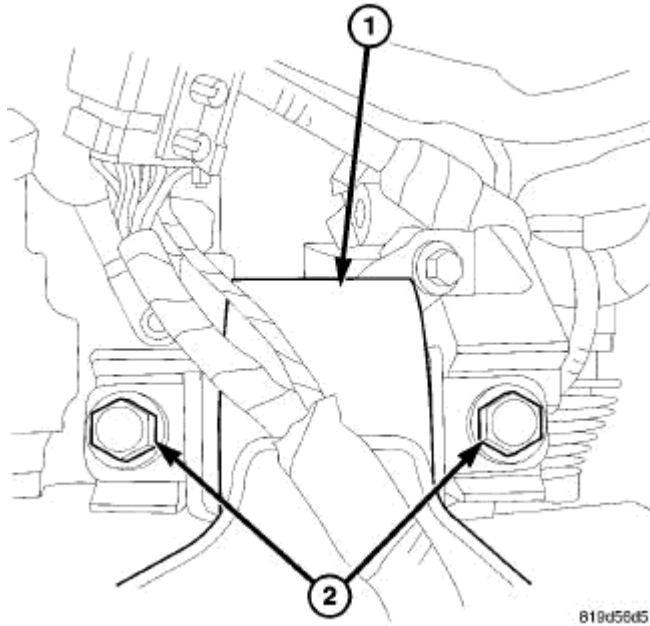


Fig. 202: Left Mount Bolts
Courtesy of CHRYSLER LLC

18. Lower the vehicle.
19. Install the left side mount bolts and tighten to 100 N.m (74 ft. lbs.)

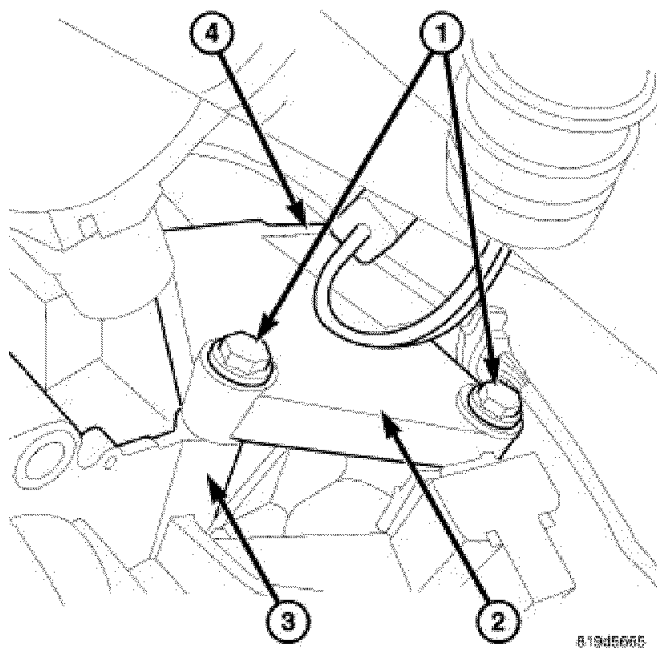


Fig. 203: Rear Mount Top Bolts
Courtesy of CHRYSLER LLC

20. Install the rear mount and bolts, tighten to 100 N.m (74 ft. lbs.).

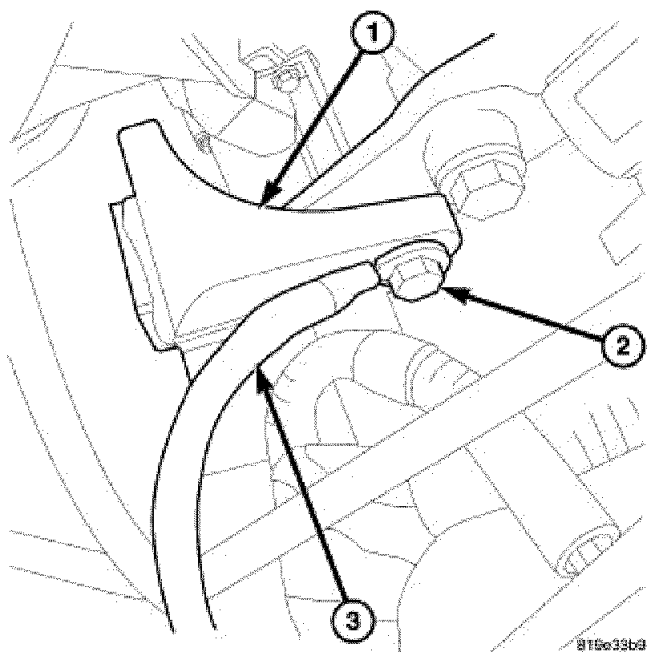


Fig. 204: Ground Cable At Front Mount
Courtesy of CHRYSLER LLC

21. Install the bolt (2) holding the ground cable (3) to the front mount bracket (1) and tighten to 50 N.m (37 ft. lbs.).

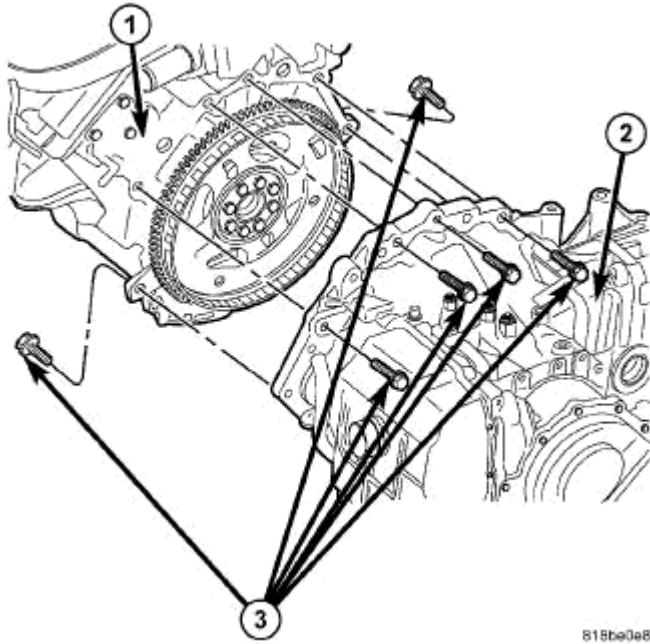


Fig. 205: Upper Transmission Bolts
Courtesy of CHRYSLER LLC

22. Install the transaxle-to-engine upper bolts and tighten to 70 N.m (52 ft. lbs.).
23. Install halfshaft assemblies. Refer to **Differential and Driveline/Half Shaft - Installation** .

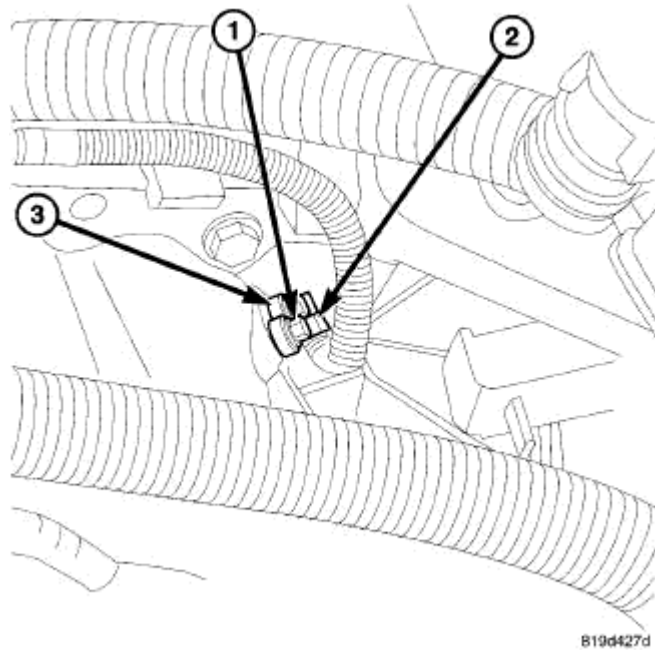


Fig. 206: Crankshaft Position Sensor
Courtesy of CHRYSLER LLC

24. Install and connect crankshaft position sensor (1) and tighten to 12 N.m (105 in. lbs.).
25. Connect oil cooler lines to transaxle. An audible 'click' should be heard. Verify connection by pulling outward. Refer to **STANDARD PROCEDURE** .

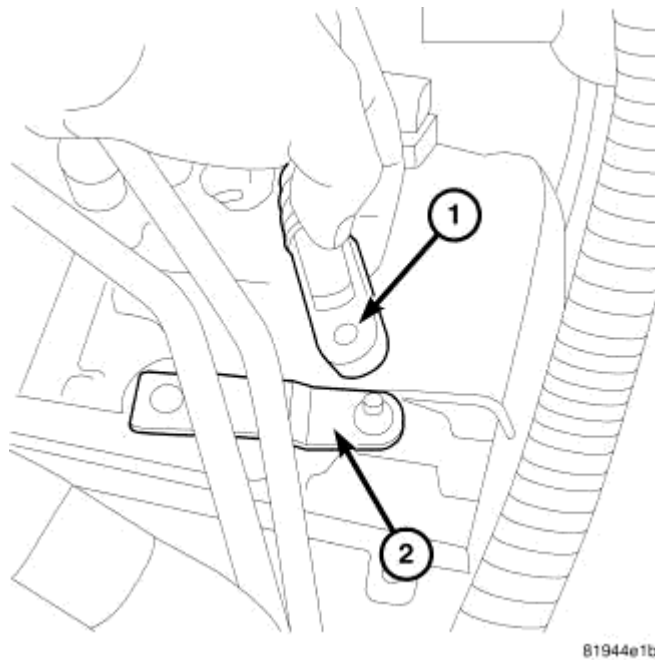


Fig. 207: Shift Cable From/To Manual Lever
Courtesy of CHRYSLER LLC

26. Connect gearshift cable to the bracket
27. Connect gearshift cable to transaxle manual valve lever. Verify adjustment.

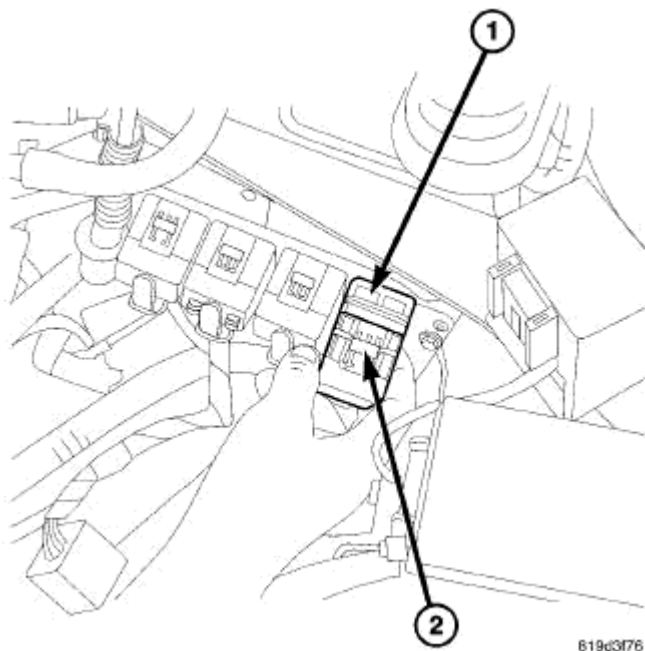


Fig. 208: Transmission Harness Connector
Courtesy of CHRYSLER LLC

28. Connect the powertrain control module electrical connector.

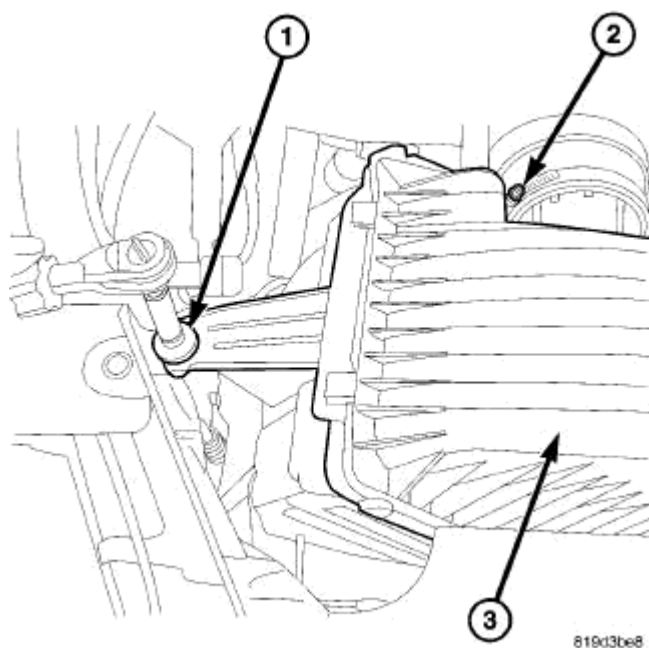


Fig. 209: Air Box
Courtesy of CHRYSLER LLC

29. Install the air box (3) and the engine cover.

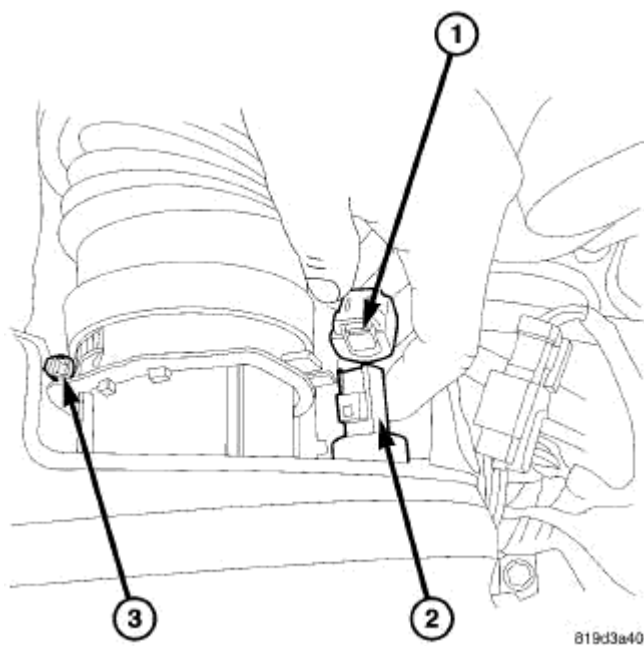
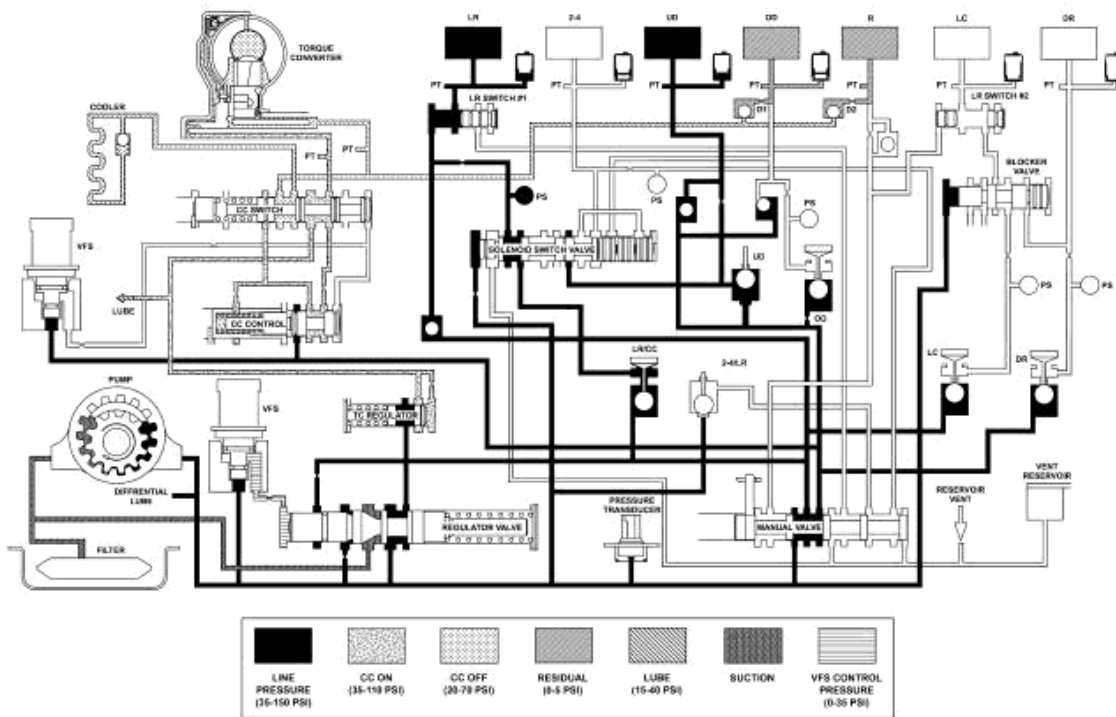


Fig. 210: IAT Sensor Connector
Courtesy of CHRYSLER LLC

30. Connect the intake air temp sensor electrical connector (1).
31. Connect negative battery cable.

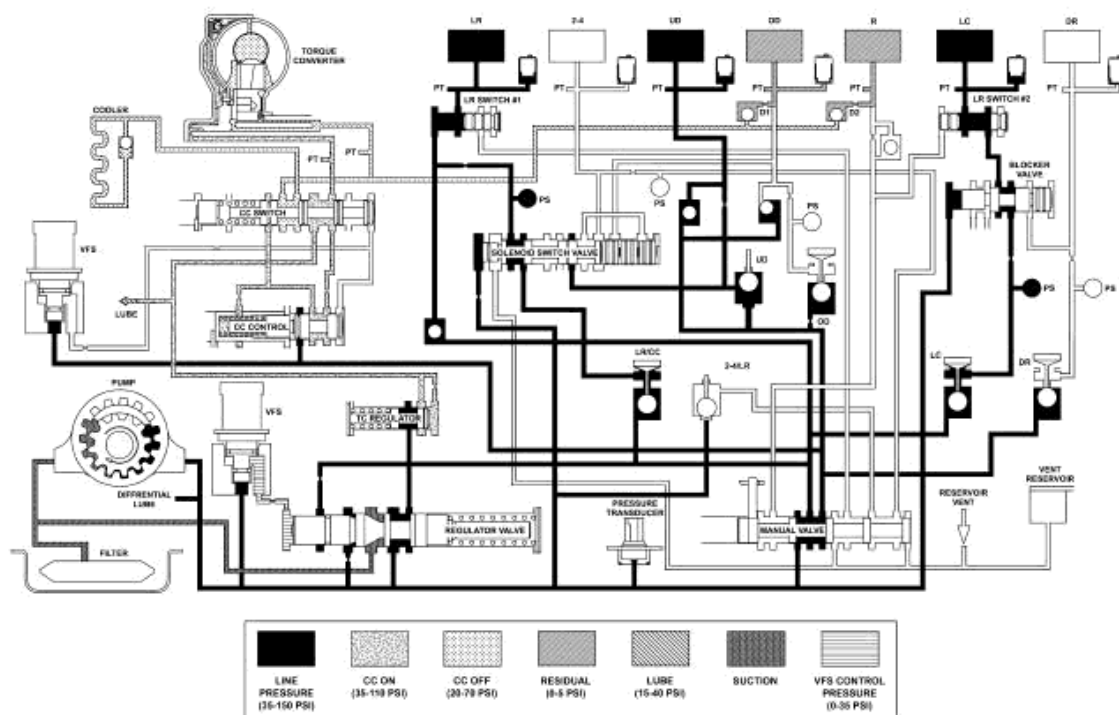
SCHEMATICS AND DIAGRAMS

SCHEMATICS AND DIAGRAMS



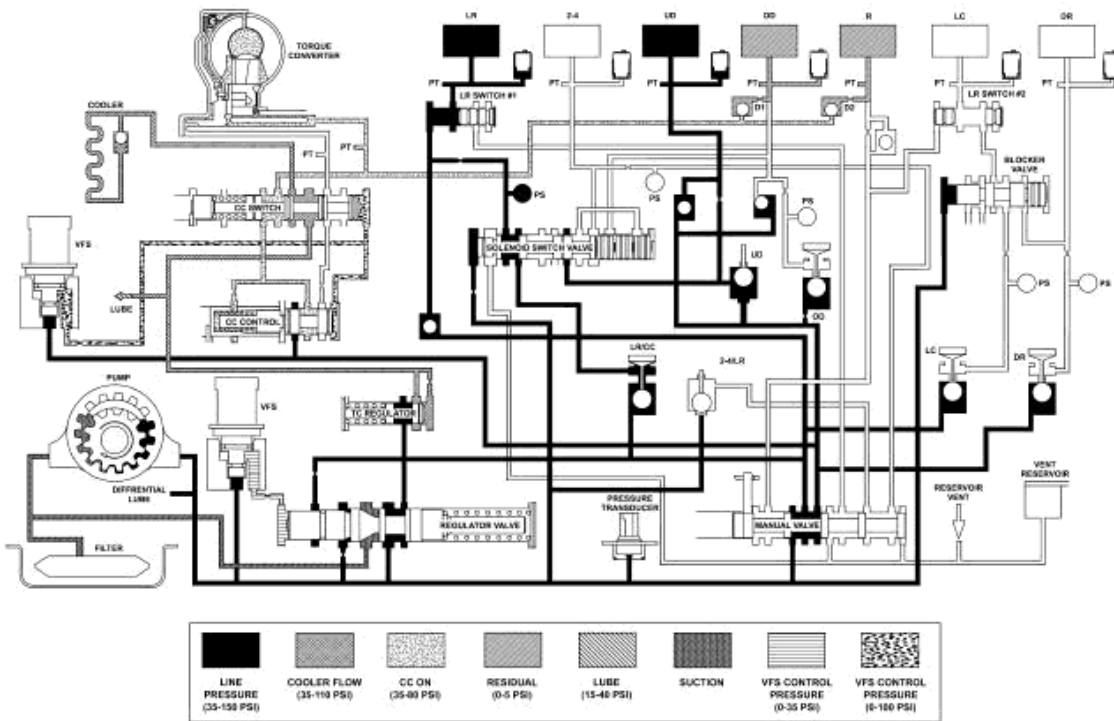
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Fig. 211: Drive First
Courtesy of CHRYSLER LLC



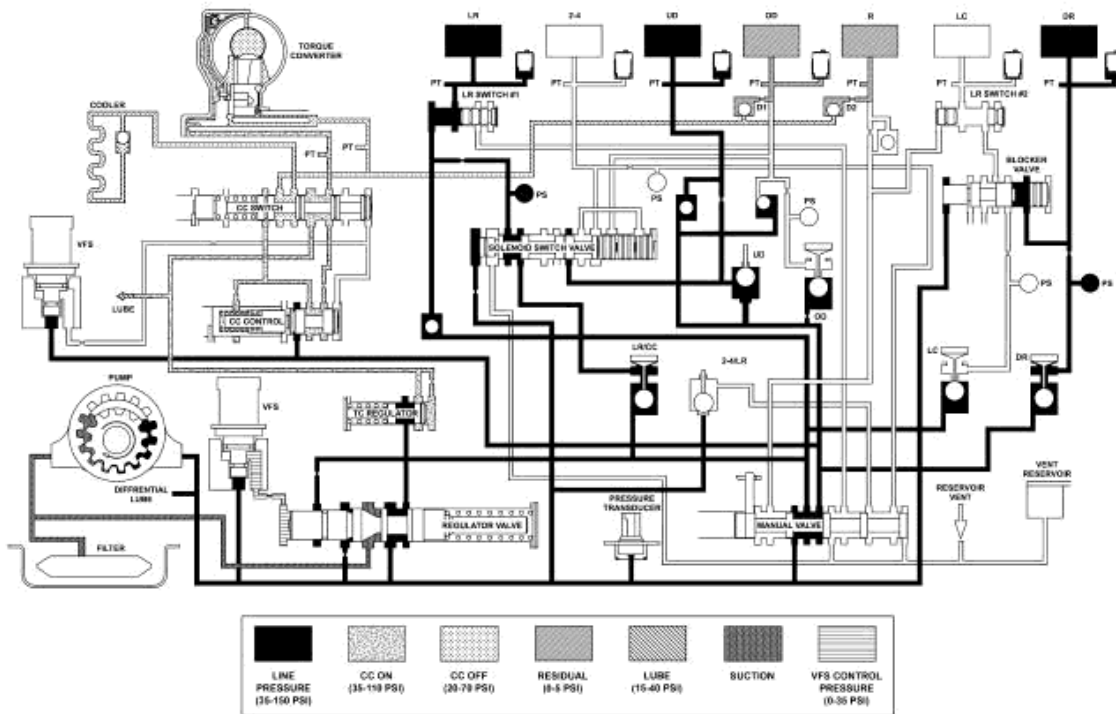
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Fig. 212: Drive First Coast
Courtesy of CHRYSLER LLC



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Fig. 213: Drive First EMCC
Courtesy of CHRYSLER LLC



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Fig. 214: Drive Second
Courtesy of CHRYSLER LLC

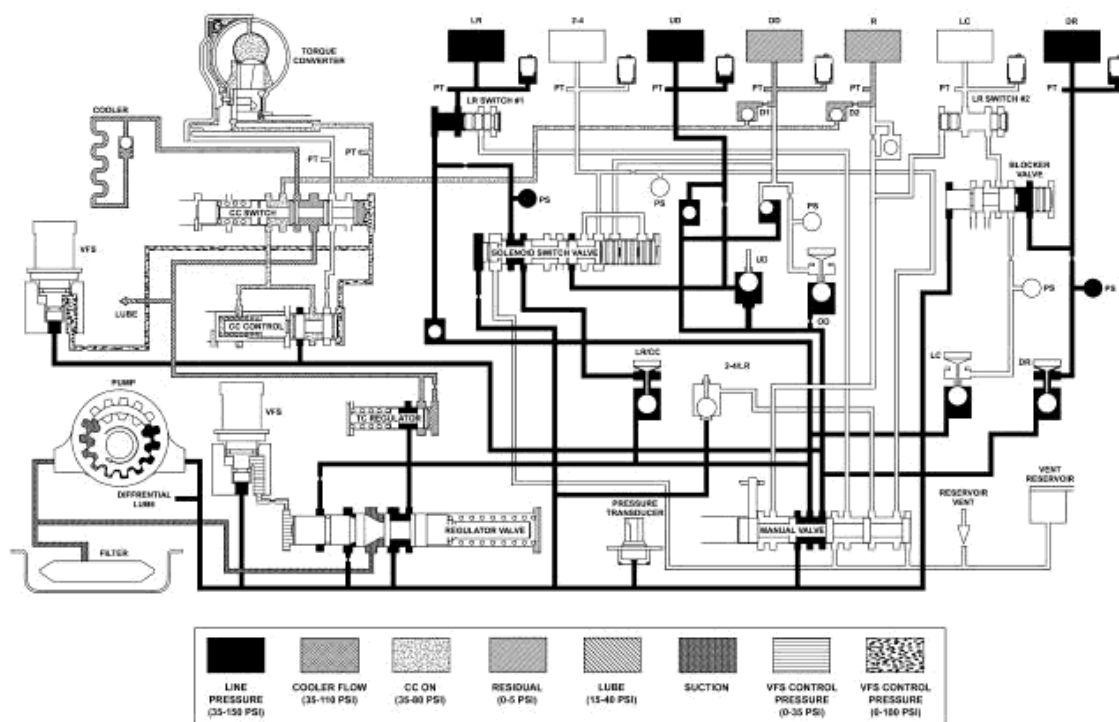
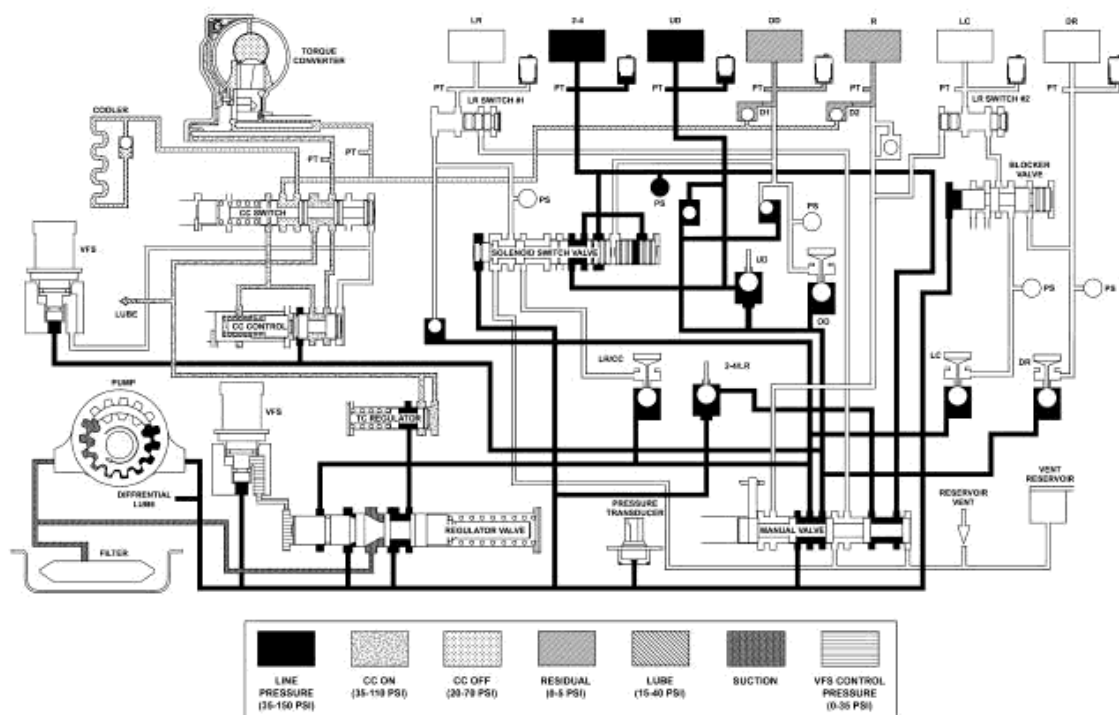
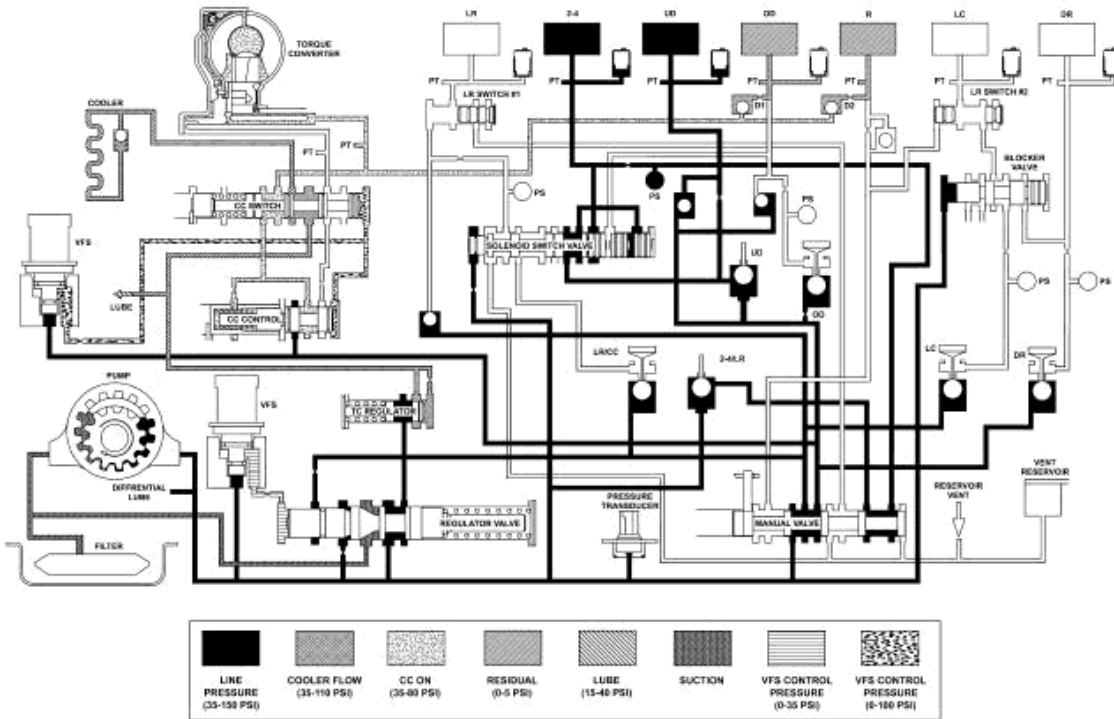


Fig. 215: Drive Second EMCC
 Courtesy of CHRYSLER LLC



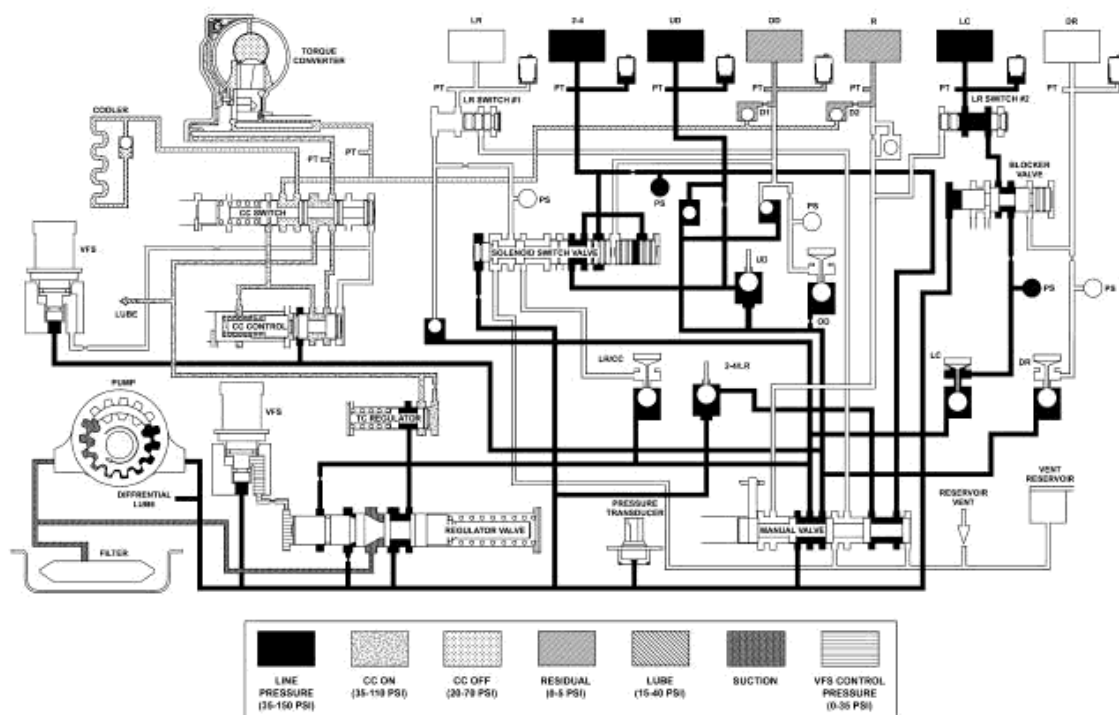
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Fig. 216: Drive Third
Courtesy of CHRYSLER LLC



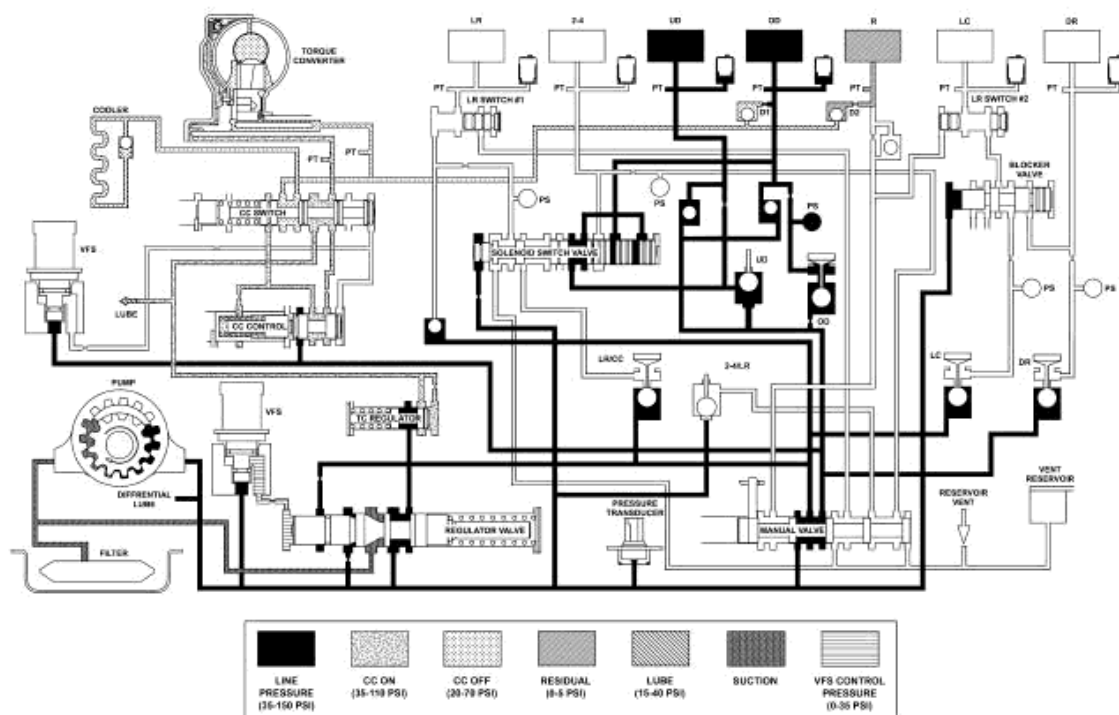
010a850a

Fig. 217: Drive Third EMCC
Courtesy of CHRYSLER LLC



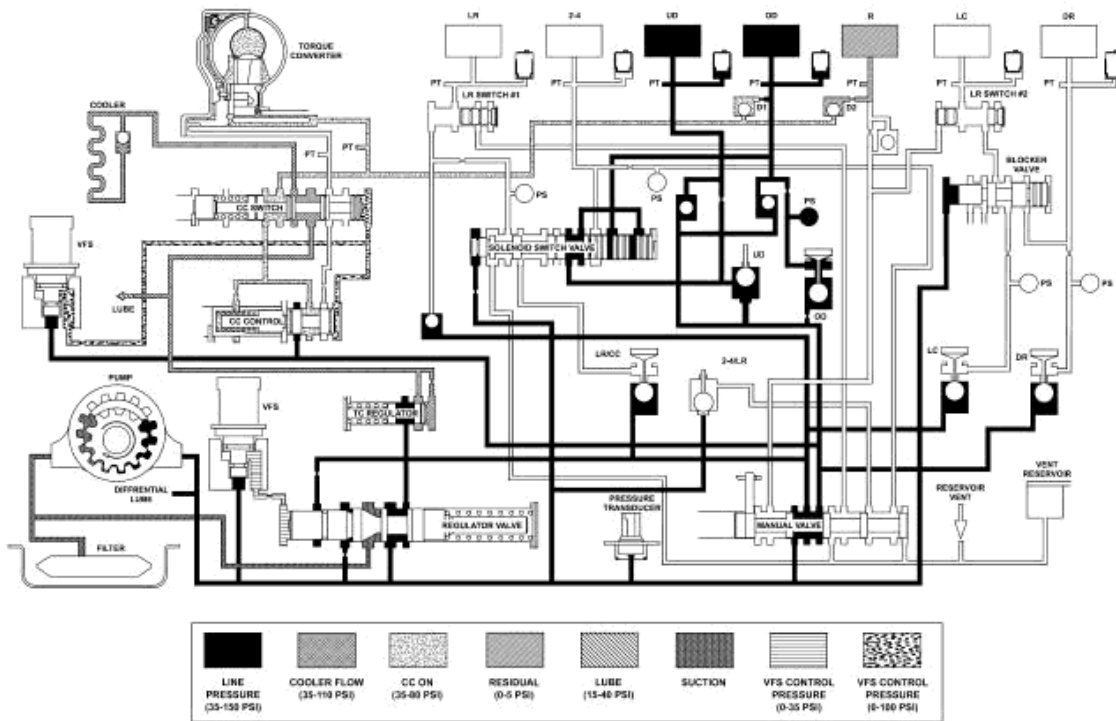
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Fig. 218: Drive Third Coast
Courtesy of CHRYSLER LLC



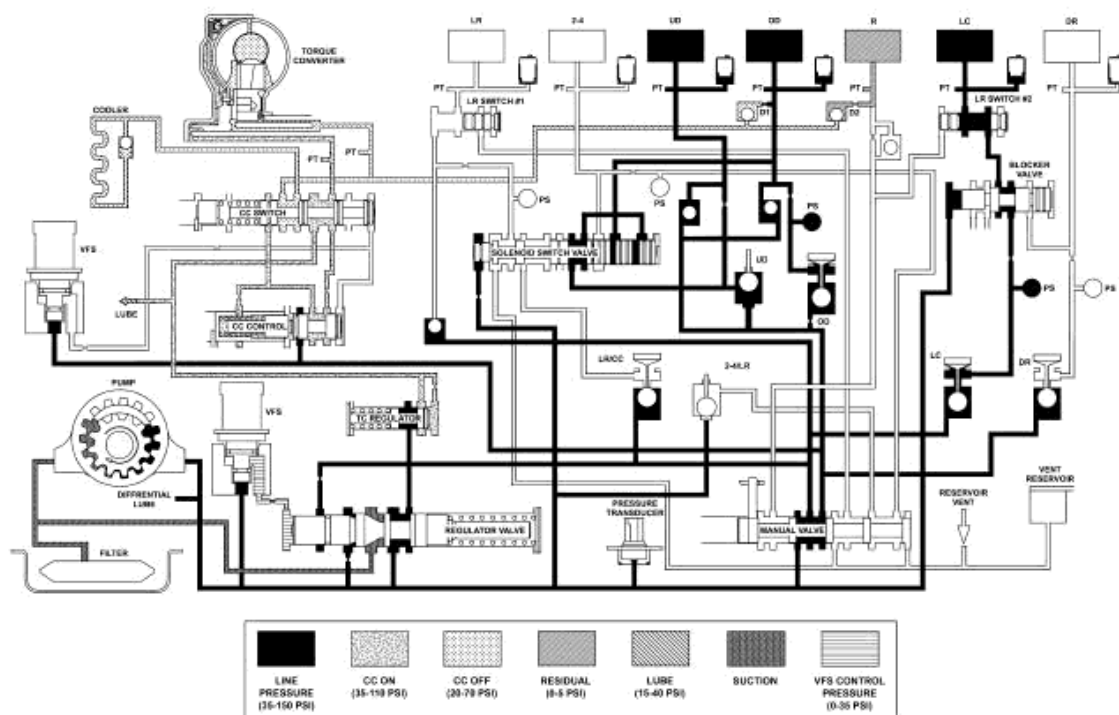
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Fig. 219: Drive Fourth
Courtesy of CHRYSLER LLC



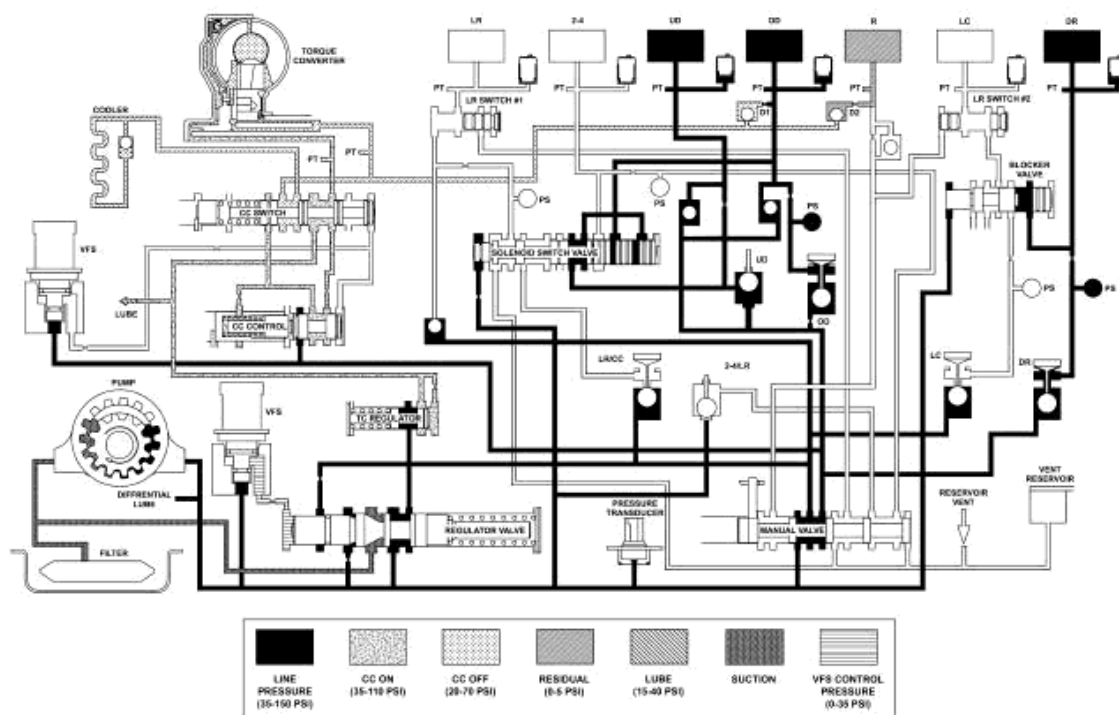
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Fig. 220: Drive Fourth EMCC
Courtesy of CHRYSLER LLC



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Fig. 221: Fourth Coast
Courtesy of CHRYSLER LLC



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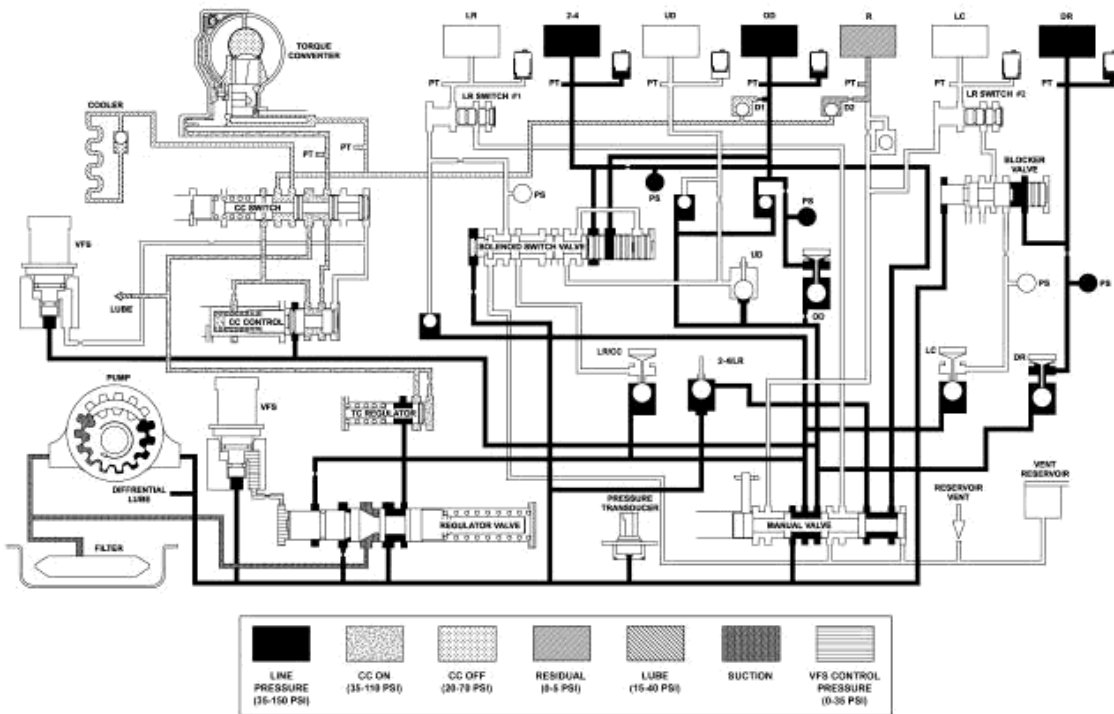
Fig. 222: Drive Fifth
Courtesy of CHRYSLER LLC



satelettronica

2009 Dodge Journey R/T

2009 AUTOMATIC TRANSMISSION 62TE - Service Information - Journey

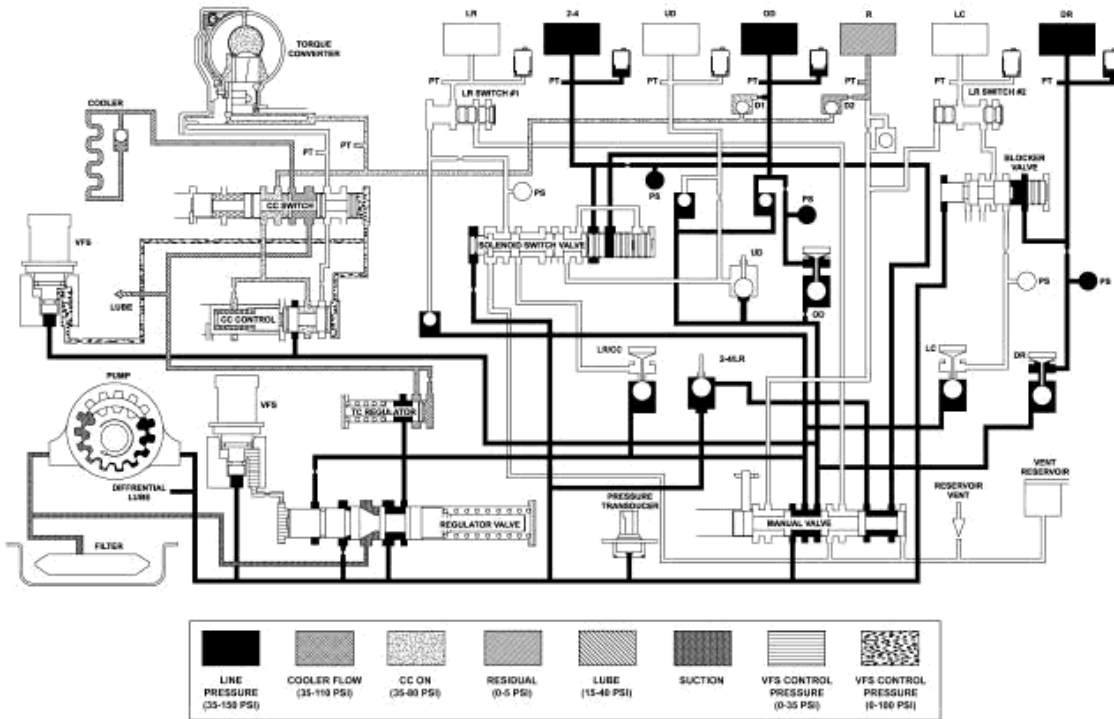


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Fig. 224: Drive Sixth
Courtesy of CHRYSLER LLC

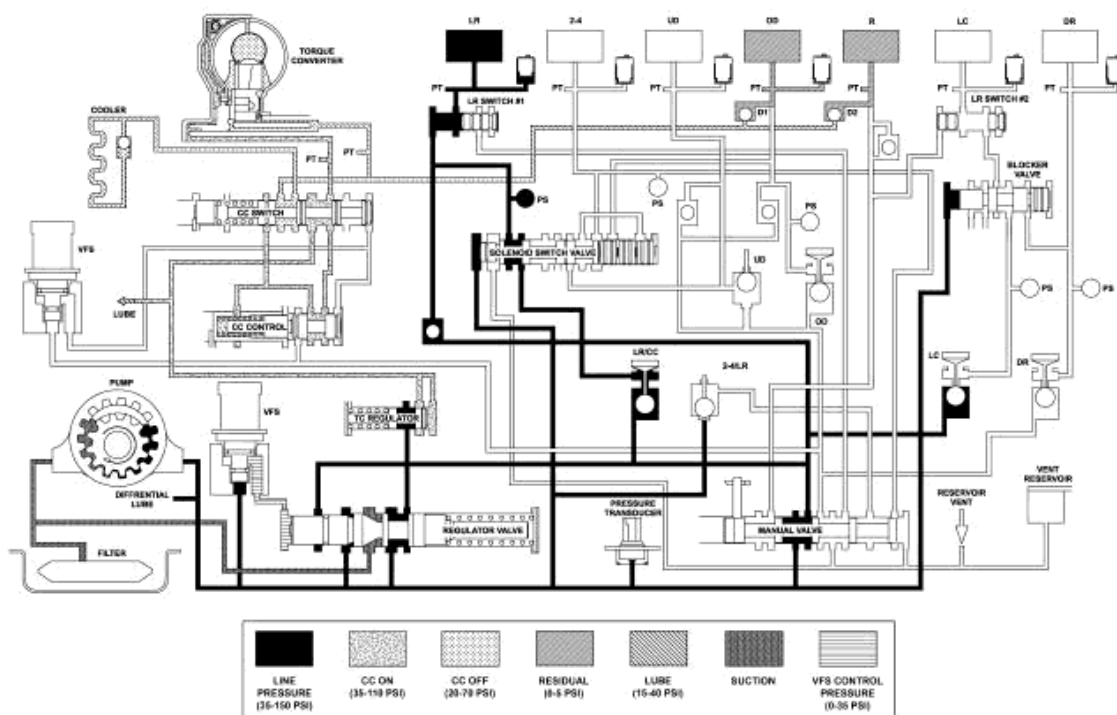
2009 Dodge Journey R/T

2009 AUTOMATIC TRANSMISSION 62TE - Service Information - Journey



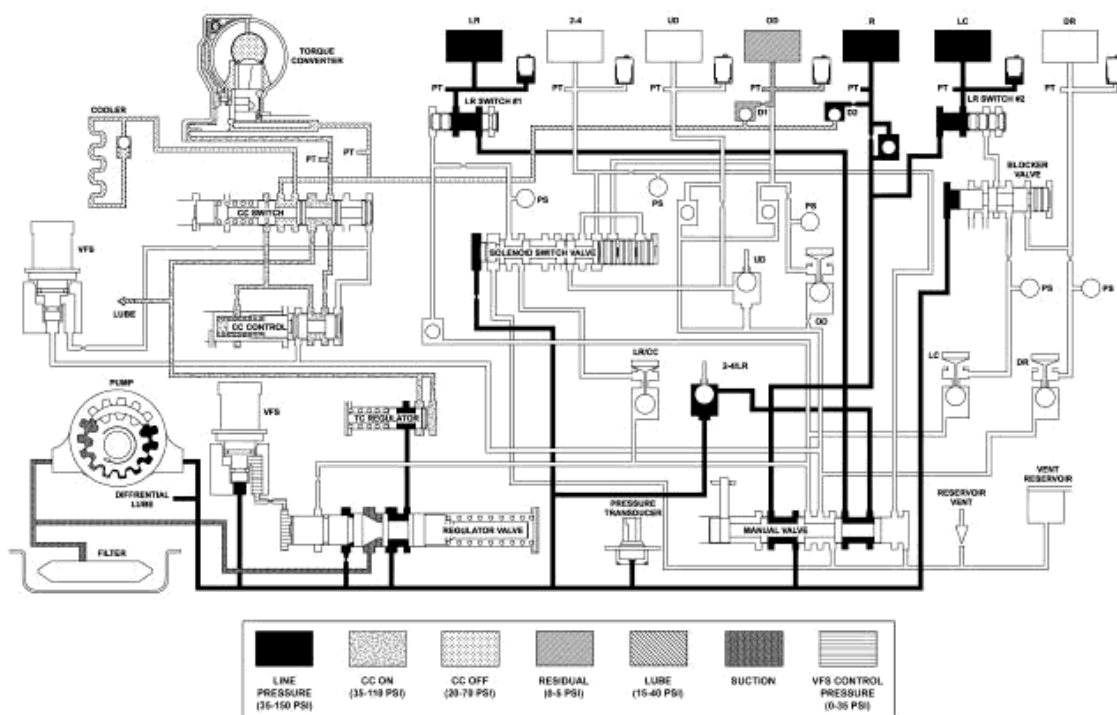
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Fig. 225: Drive Sixth EMCC
Courtesy of CHRYSLER LLC



81caa94

Fig. 226: Park Neutral
Courtesy of CHRYSLER LLC

**Fig. 227: REVERSE**

Courtesy of CHRYSLER LLC

SPECIFICATIONS

SPECIFICATIONS

SPECIFICATIONS

DESCRIPTION	SPECIFICATION
Output Shaft Gear Drag Torque	3 to 8 in. lbs.
Low/Reverse Clutch Pack Clearance	0.89 -1.47 mm (0.035 -0.058 in.)
Reverse Clutch (Select Snap Ring)	0.76 - 1.245 mm 0.030 - 0.049 in.
Overdrive Clutch (No Selection)	0.491 - 2.345 mm 0.019 - .092 in.
Underdrive Clutch (Select Pressure Plate)	0.91 - 1.47 mm 0.036 - 0.058 in.
2/4 Clutch Clearance	0.76 - 2.64 mm (0.030 - 0.104 in.)
Input Shaft End Play	0.005 to 0.025 inch
Final Drive Remote Pinion Drag Torque	2 to 8 in-lbs (drag)
Differential Turning Torque	10 to 20 in-lbs (drag)
Low Clutch Clearance	0.48 - 0.76 mm (.019 -.030 in.)
Direct Clutch Pack Clearance	0.95 - 1.41 (0.037 - 0.056 in)

2009 Dodge Journey R/T

2009 AUTOMATIC TRANSMISSION 62TE - Service Information - Journey

GEAR TRAIN MEASUREMENTS

Description	Metric	Standard
Front Sun Gear Bushings	29.55 - 29.60 mm	1.163 - 1.165 in.
Rear Carrier Bushing	29.75 - 30.00 mm	1.171 - 1.181 in.
Overdrive Hub / Shaft Bushing	21.52 - 21.58 mm	0.847 - 0.850 in.
Oil Pump Reaction Support Sleeve	45.27 - 45.31 mm	1.782 - 1.784 in.
Oil Pump Outer Gear to Pump Pocket	0.089-0.202 mm	0.0035-0.0079 in.
Oil Pump Outer Gear to Crescent	0.060-0.298 mm	0.0023 - 0.0117 in.
Oil Pump Inner Gear to Crescent	0.093 - 0.385 mm	0.0036 - 0.0151 in.
Oil Pump Between Both Gear end Faces and the Reaction Shaft Support	0.020-0.046 mm	0.0008-0.0018 in.
Front / Rear Carrier Pinion end Play	0.15 - 0.61 mm	0.006 - 0.024 in.
Torque Converter Hub Bushing	38.019 - 38.11	1.499 - 1.501 in.
Output Carrier Pinion End Play	0.15 - 0.76	0.006 - 0.030
Direct Clutch Retainer Bushing	39.71 - 39.75	1.563 - 1.565
Low Clutch Retainer Bushing (Steel)	28.22 - 28.26	1.111 - 1.113
Low Clutch Retainer Bushing (Brass)	30.01 - 30.03	1.181 - 1.182

TORQUE SPECIFICATIONS

DESCRIPTION	N.m	Ft. Lbs.	In. Lbs.
Bolt, Output Transfer Gear	271	200	-
Screws, Low/reverse Piston Retainer-to-Case	5	-	45
Bolts, Oil Pump-to-Case	30	-	265
Bolts, Reaction Shaft-to-Pump Housing	27	20	-
Bolts, Stirrup Strap	23	-	200
Bolts, Differential Cover	61	45	-
Bolts, Differential Output Bearing Cover	12	-	105
Bolts, Remote Pinion Cover	12	-	105
Bolts, Compounder Bearing Retainer	12	-	105
Nut, Transfer Gear (underdrive compounder	271	200	-

2009 Dodge Journey R/T

2009 AUTOMATIC TRANSMISSION 62TE - Service Information - Journey

side)			
Bolts, Transfer Gear Cover-to-Case	12	-	105
Pipe Plug, Park Pawl	27	20	-
Set Screw, Park Pawl Shaft	1	-	10
Set Screw, Manual Lever	1	-	10
Bolts, Valve Body	7	-	50
Bolt, Detente Spring	7	-	50
Bolts, Valve Body Oil Pan	6	-	53
Plug, Pressure Tap	9	-	45
Nuts, Fluid Filter Mounting	5	-	40
Bolts, Fluid Filter Oil Pan	6	-	50
Bolts, Speed Sensors	12	-	105
Bolts, Transaxle-to-Engine	70	52	-
Bolts, Torque Converter-to-Driveplate	60	44	-
Bolt, Torque Converter Dust Shield	10	-	88
Bolts, Exhaust Stand Off Bracket	95	70	-
Bolts, Engine Front Mount/Bracket	67	50	-
Fitting, Power Steering Hoses to Steering Gear	31	23	-
Bolts, Torque Strut	54	40	-
Nuts, Link-to-Strut	88	65	-
Bolt, Crankshaft Position Sensor	12	-	105
Bolts, Valve Body Transfer Plate	6	-	50
Bolt, Line Pressure Solenoid (VSF)	6	-	50
Bolt, Line Pressure Solenoid	6	-	50
Bolts, Line Pressure Sensor	6	-	50
Bolts, Clamp Plate	6	-	50
Bolts, Ring Gear-to-Case	95	70	-
Bolts, Cradle-to-body	162	120	-

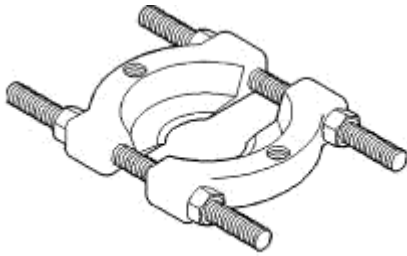
2009 Dodge Journey R/T

2009 AUTOMATIC TRANSMISSION 62TE - Service Information - Journey

Nuts, Rear Mount-to-Cradle	54	40	-
Bolt, Ground cable	10	-	90
Bolt, Power Steering Line	10	-	90

SPECIAL TOOLS

62TE AUTOMATIC TRANSAXLE



1130-90103ac3

Fig. 228: Splitter, Bearing/Gear - 1130
Courtesy of CHRYSLER LLC

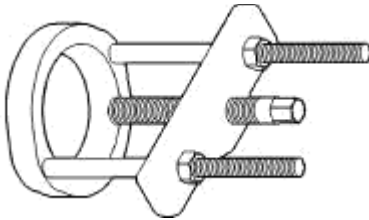


Fig. 229: Press Puller - C-293-Pa
Courtesy of CHRYSLER LLC

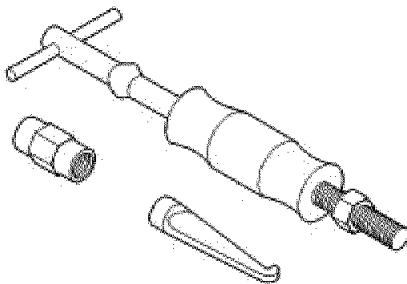


Fig. 230: Slide Hammer, Universal - C-637
Courtesy of CHRYSLER LLC

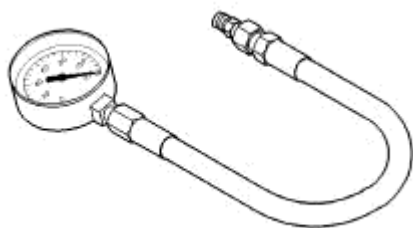


Fig. 231: Gauge, Pressure - C-3292A
Courtesy of CHRYSLER LLC

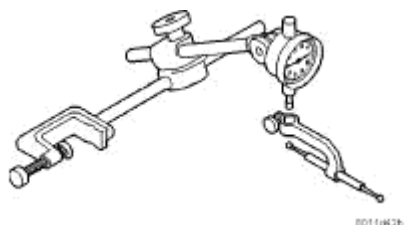


Fig. 232: Set, Dial Indicator - C-3339A
Courtesy of CHRYSLER LLC

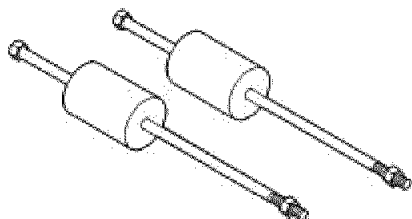


Fig. 233: Slide Hammers - C-3752
Courtesy of CHRYSLER LLC

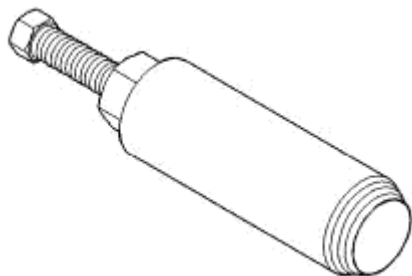


Fig. 234: Remover, Pump Seal - C-3981B
Courtesy of CHRYSLER LLC

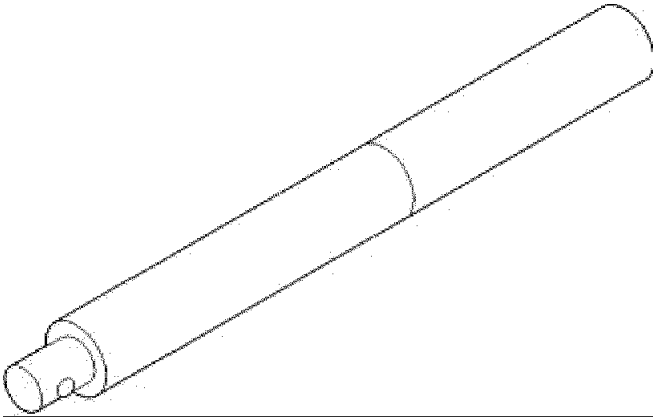


Fig. 235: Driver Handle, Universal - C-4171
Courtesy of CHRYSLER LLC

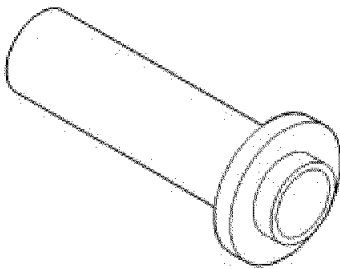


Fig. 236: Installer, Seal - C-4193A
Courtesy of CHRYSLER LLC



Fig. 237: Installer, Bearing - C-4213
Courtesy of CHRYSLER LLC

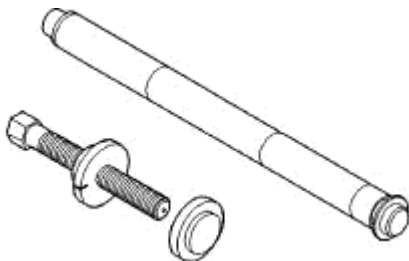


Fig. 238: Trak-Lok Axle Tool - C-4487
Courtesy of CHRYSLER LLC

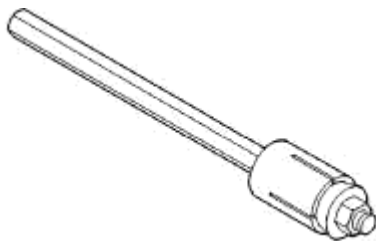


Fig. 239: Tool, Differential Bearing Torque - C-4995A
Courtesy of CHRYSLER LLC

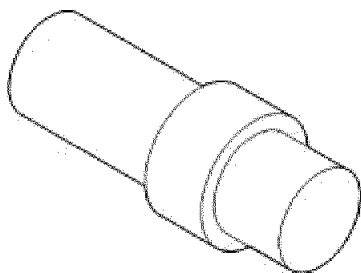


Fig. 240: Adapter, Plug - C-4996
Courtesy of CHRYSLER LLC

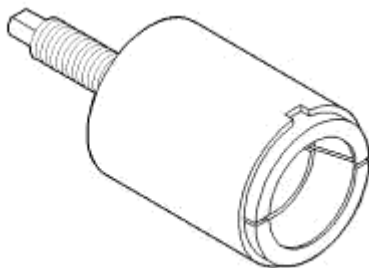


Fig. 241: Remover, Bearing/Gear - L-4406
Courtesy of CHRYSLER LLC

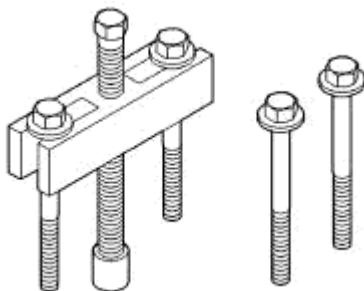


Fig. 242: Puller, Gear - L-4407A
Courtesy of CHRYSLER LLC

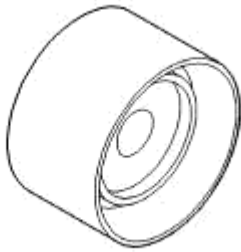


Fig. 243: Installer, Bearing - L-4410
Courtesy of CHRYSLER LLC

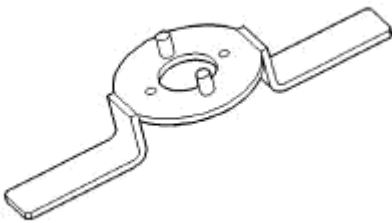


Fig. 244: Fixture - L-4432
Courtesy of CHRYSLER LLC

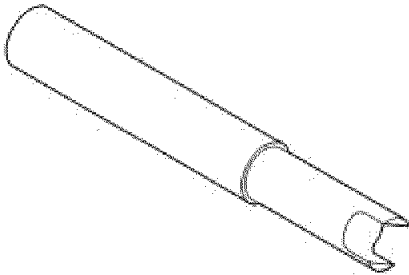


Fig. 245: Tool, Torque Measuring - L-4436-A
Courtesy of CHRYSLER LLC



Fig. 246: Remover, Cup - L-4518
Courtesy of CHRYSLER LLC

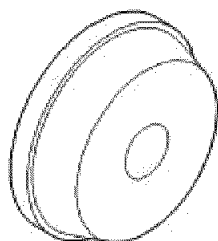


Fig. 247: Installer, Seal/Cup - L-4520
Courtesy of CHRYSLER LLC

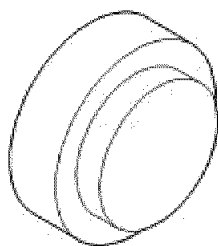


Fig. 248: Pad, Thrust - L-4539-2
Courtesy of CHRYSLER LLC

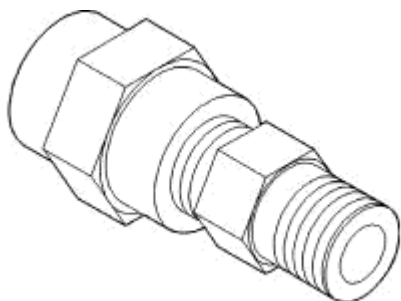


Fig. 249: Adapter, Pressure - L-4559-2
Courtesy of CHRYSLER LLC

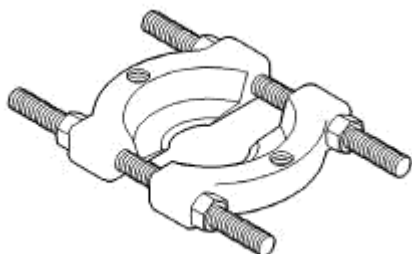


Fig. 250: Splitter, Bearing - P-334
Courtesy of CHRYSLER LLC

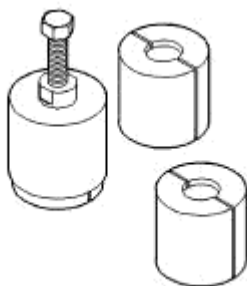


Fig. 251: Puller, Bearing - 5048
Courtesy of CHRYSLER LLC

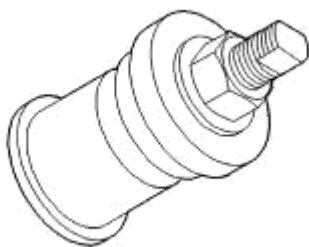


Fig. 252: Installer, Bearing Cup - 5050A
Courtesy of CHRYSLER LLC



Fig. 253: Installer, Bearing - 5052
Courtesy of CHRYSLER LLC

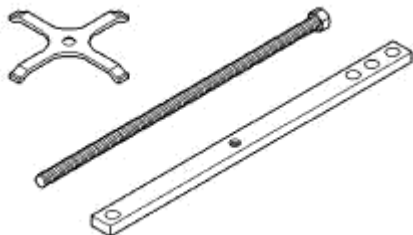


Fig. 254: Compressor, Spring - 5058A
Courtesy of CHRYSLER LLC



Fig. 255: Compressor, Spring - 5059-A
Courtesy of CHRYSLER LLC

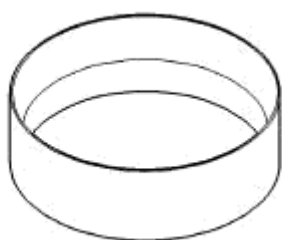


Fig. 256: INSTALLER, SEAL - 5067
Courtesy of CHRYSLER LLC

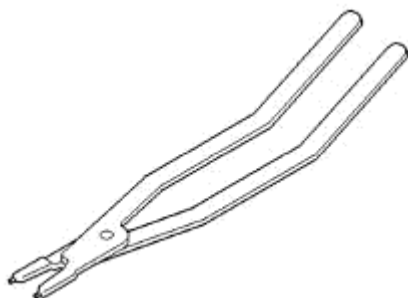


Fig. 257: Plier, Snap Ring - 6051A
Courtesy of CHRYSLER LLC

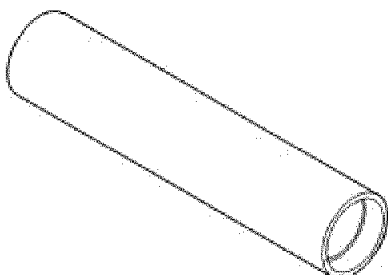


Fig. 258: Installer, Bearing/Seal - 6052
Courtesy of CHRYSLER LLC



Fig. 259: Installer, Bearing - 6053
Courtesy of CHRYSLER LLC

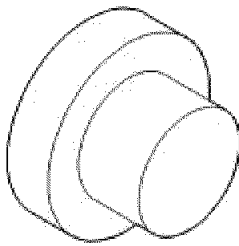


Fig. 260: Thrust Button - 6055
Courtesy of CHRYSLER LLC

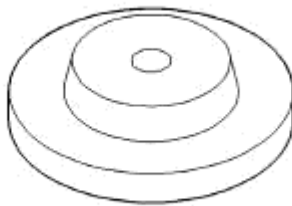


Fig. 261: Disc, Spring Compressor - 6057
Courtesy of CHRYSLER LLC

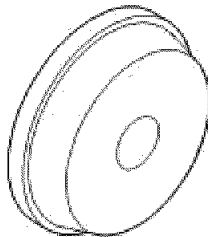


Fig. 262: Installer, Cup - 6061
Courtesy of CHRYSLER LLC

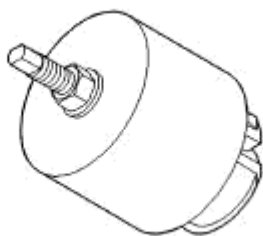


Fig. 263: Puller, Bearing Cup - 6062A
Courtesy of CHRYSLER LLC

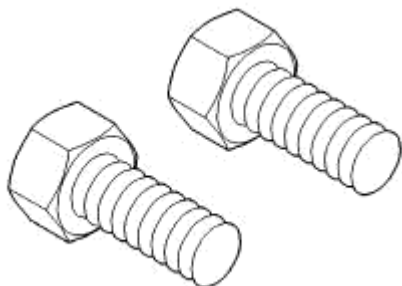


Fig. 264: Special Bolts - 6260
Courtesy of CHRYSLER LLC

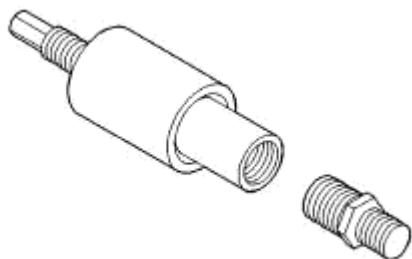


Fig. 265: Installer, Gear - 6261
Courtesy of CHRYSLER LLC

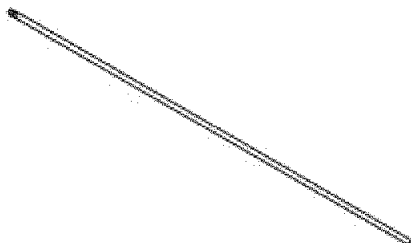


Fig. 266: Tip, Dial Indicator - 6268
Courtesy of CHRYSLER LLC

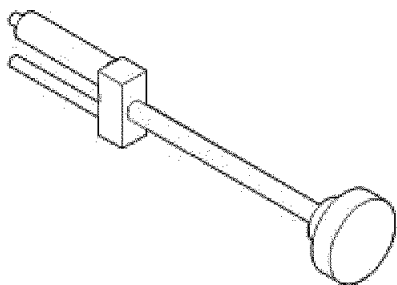


Fig. 267: Remover/Installer - 6301
Courtesy of CHRYSLER LLC

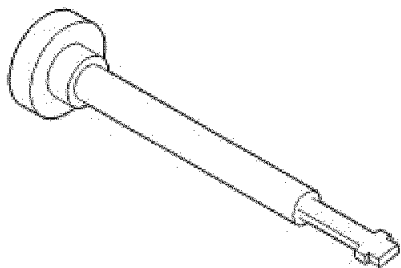


Fig. 268: Remover/Installer - 6302
Courtesy of CHRYSLER LLC

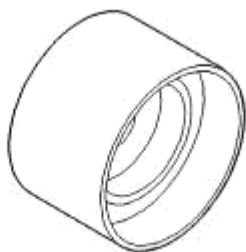


Fig. 269: Installer, Bearing/Seal - 6536-A
Courtesy of CHRYSLER LLC

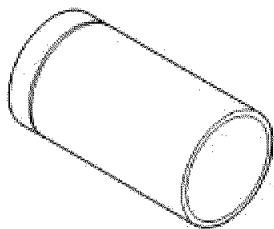


Fig. 270: Installer, Ball Joint - 6758
Courtesy of CHRYSLER LLC

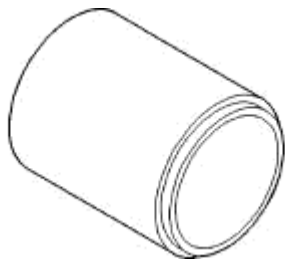


Fig. 271: Installer, Seal - 6888
Courtesy of CHRYSLER LLC

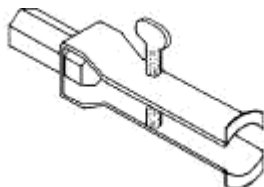


Fig. 272: Remover, Seal - 7794-A
Courtesy of CHRYSLER LLC

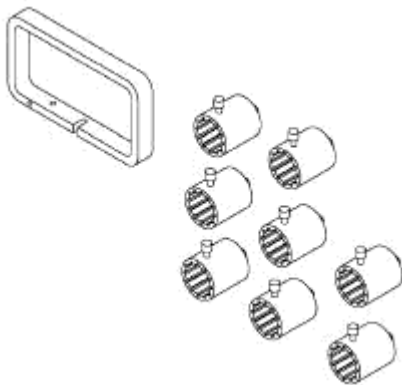


Fig. 273: Fixtures, End Play - 8266A
Courtesy of CHRYSLER LLC

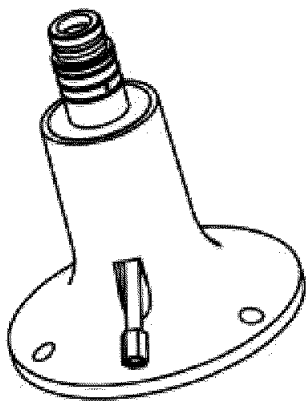


Fig. 274: Fixture, Pressure Test - 8391
Courtesy of CHRYSLER LLC



Fig. 275: Compressor, Spring - 8250
Courtesy of CHRYSLER LLC

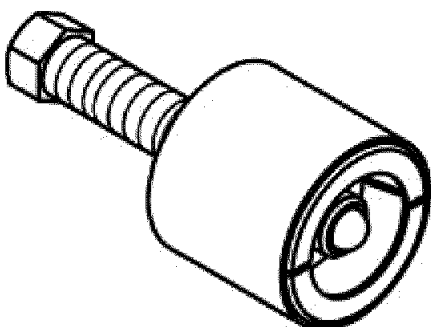


Fig. 276: Remover, Bearing - 8356
Courtesy of CHRYSLER LLC

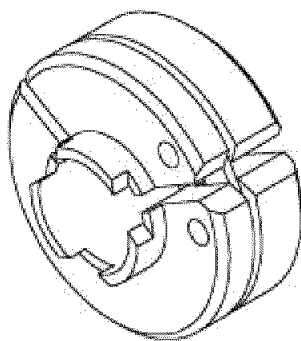


Fig. 277: Disconnect, Trans Cooler Line - 8875A
Courtesy of CHRYSLER LLC

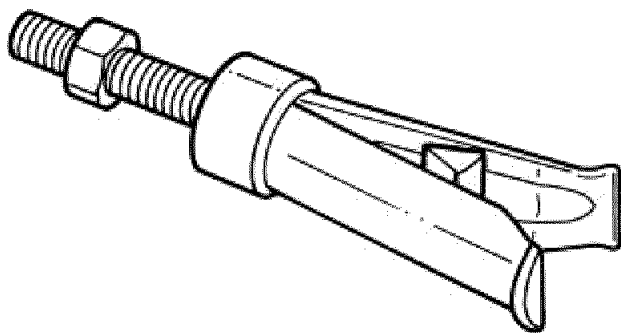


Fig. 278: Remover, Bearing - 8912
Courtesy of CHRYSLER LLC

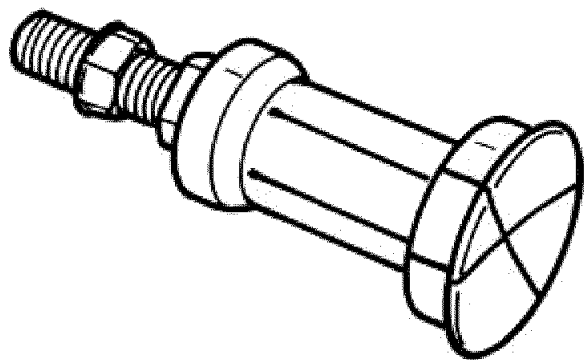


Fig. 279: Remover, Bearing Cup - 8913
Courtesy of CHRYSLER LLC

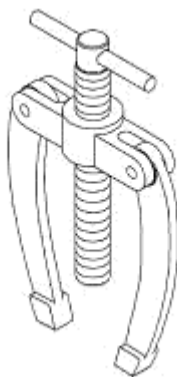


Fig. 280: Brace - 8915
Courtesy of CHRYSLER LLC

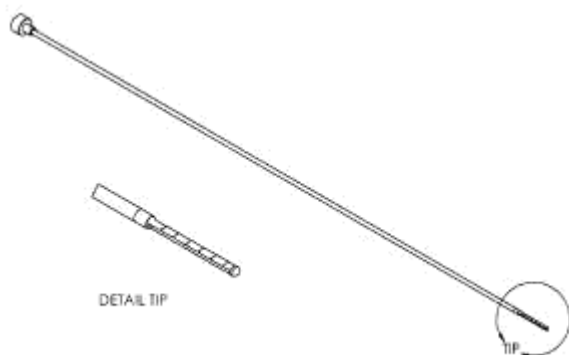


Fig. 281: Dipstick - 9336

Courtesy of CHRYSLER LLC

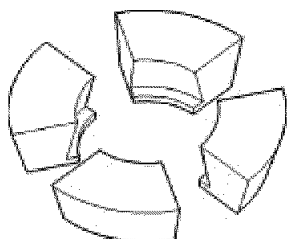


Fig. 282: Adapters 9613

Courtesy of CHRYSLER LLC

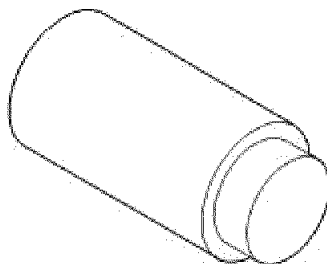


Fig. 283: Plug - 9678

Courtesy of CHRYSLER LLC

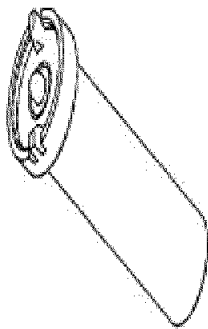


Fig. 284: Staking Tool - 9721
Courtesy of CHRYSLER LLC

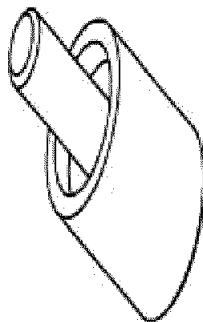


Fig. 285: Installer, Bearing - 9723
Courtesy of CHRYSLER LLC

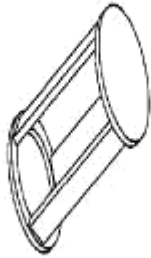


Fig. 286: Compressor, Spring - 9725
Courtesy of CHRYSLER LLC

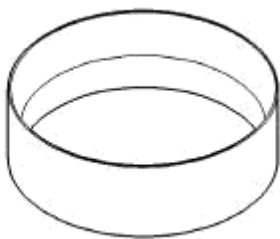


Fig. 287: Installer, Piston - 9727
Courtesy of CHRYSLER LLC



Fig. 288: Blocks, Adapter - 9738
Courtesy of CHRYSLER LLC

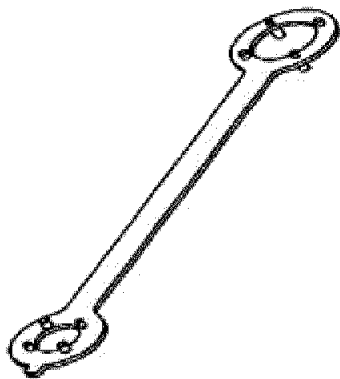


Fig. 289: Holder, Gear - 9739

Courtesy of CHRYSLER LLC



Fig. 290: Air Pressure Testing Plate - 9741

Courtesy of CHRYSLER LLC

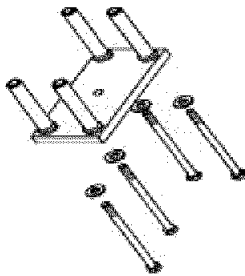


Fig. 291: Adapter, Puller - 9908
Courtesy of CHRYSLER LLC



Fig. 292: Installer, Bearing - Md998911
Courtesy of CHRYSLER LLC

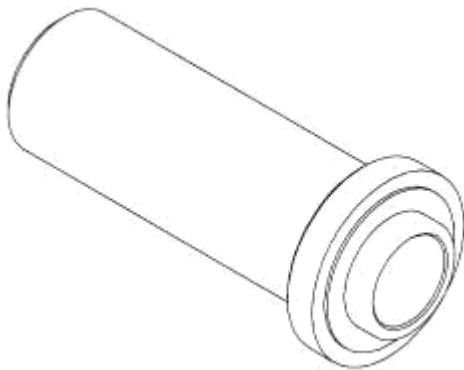


Fig. 293: Installer, Seal - MD 998334
Courtesy of CHRYSLER LLC



Fig. 294: Tool, Compounder Shim - 9951
Courtesy of CHRYSLER LLC

ACCUMULATOR

DESCRIPTION

DESCRIPTION

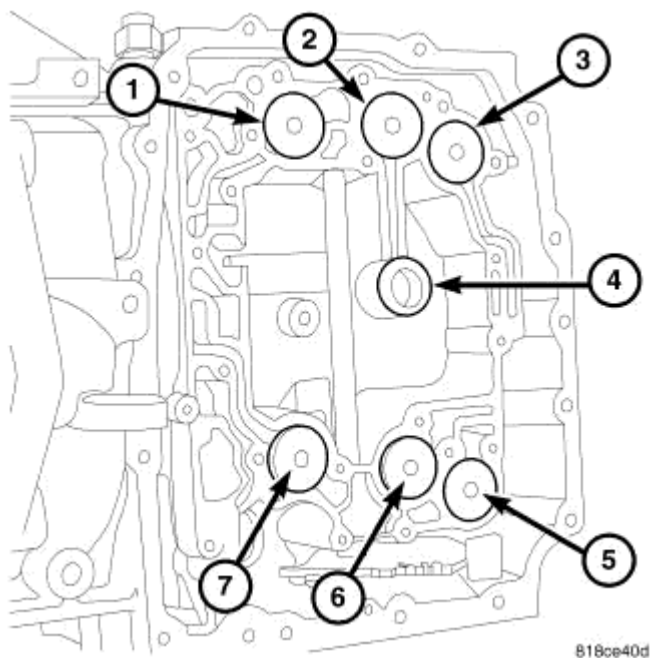


Fig. 295: Accumulators
Courtesy of CHRYSLER LLC

1 - UD ACCUMULATOR	5 - LC ACCUMULATOR
2 - 2/4 ACCUMULATOR	6 - DC ACCUMULATOR
3 - LR ACCUMULATOR	7 - OD ACCUMULATOR
4 - 2/4 CLUTCH OIL SUPPLY SEAL	-

The 62TE has six accumulators and are all located in the case under the valve body.

OPERATION

OPERATION

The function of an accumulator is to cushion the application of a frictional clutch element. When pressurized fluid is applied to a clutch circuit, the application force is dampened by fluid collecting in the respective accumulator chamber against the piston and spring(s). The intended result is a smooth, firm clutch application.

REMOVAL

REMOVAL

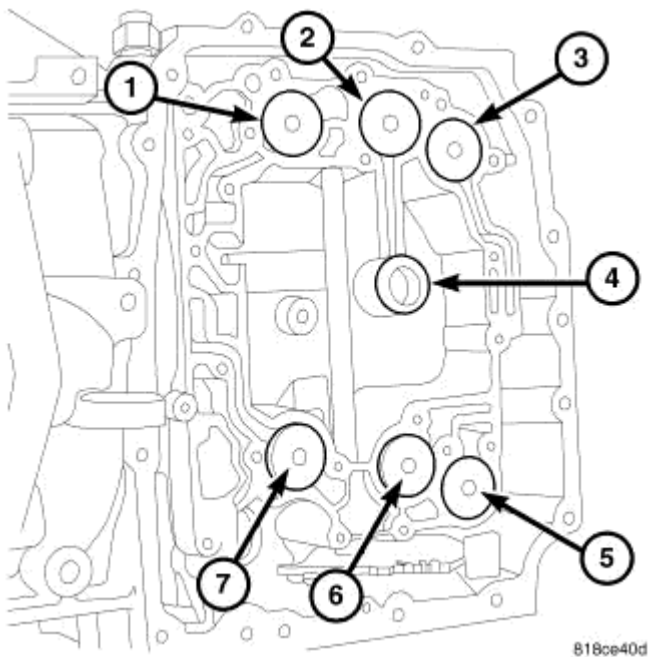
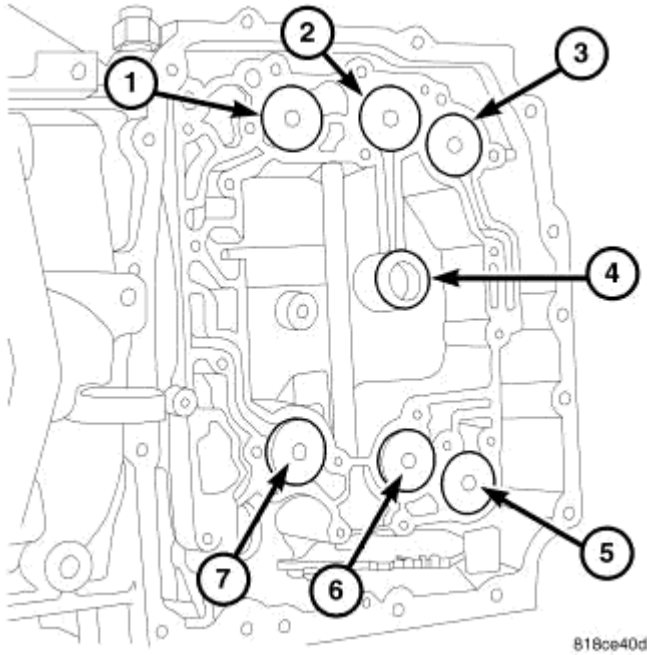


Fig. 296: Accumulators

Courtesy of CHRYSLER LLC

1 - UD ACCUMULATOR	5 - LC ACCUMULATOR
2 - 2/4 ACCUMULATOR	6 - DC ACCUMULATOR
3 - LR ACCUMULATOR	7 - OD ACCUMULATOR
4 - 2/4 CLUTCH OIL SUPPLY SEAL	-

1. Remove the valve body. See **Removal**.
2. Remove the accumulator as needed.

INSTALLATION**INSTALLATION****Fig. 297: Accumulators**

Courtesy of CHRYSLER LLC

1 - UD ACCUMULATOR	5 - LC ACCUMULATOR
2 - 2/4 ACCUMULATOR	6 - DC ACCUMULATOR
3 - LR ACCUMULATOR	7 - OD ACCUMULATOR
4 - 2/4 CLUTCH OIL SUPPLY SEAL	-

1. Install the accumulator as needed.
2. Install the valve body. See **Installation** .

ASSEMBLY, INPUT CLUTCH**DISASSEMBLY****DISASSEMBLY**

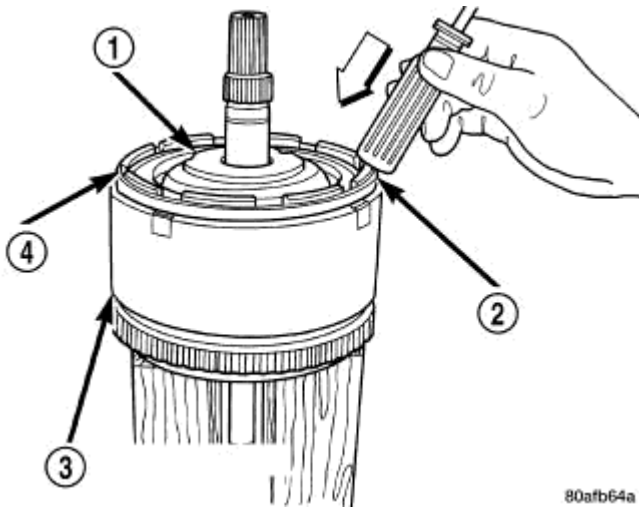


Fig. 298: Tapping Reaction Plate
Courtesy of CHRYSLER LLC

1 - #4 THRUST PLATE (SELECT)
2 - TAP DOWN REVERSE CLUTCH REACTION PLATE TO REMOVE OR INSTALL SNAP RING
3 - INPUT SHAFT CLUTCHES RETAINER ASSEMBLY
4 - REVERSE CLUTCH REACTION PLATE

1. Mount input clutch assembly (3) to Input Clutch Pressure Fixture Tool 8391.
2. Tap down reverse clutch reaction plate (4) to release pressure from snap ring (2).

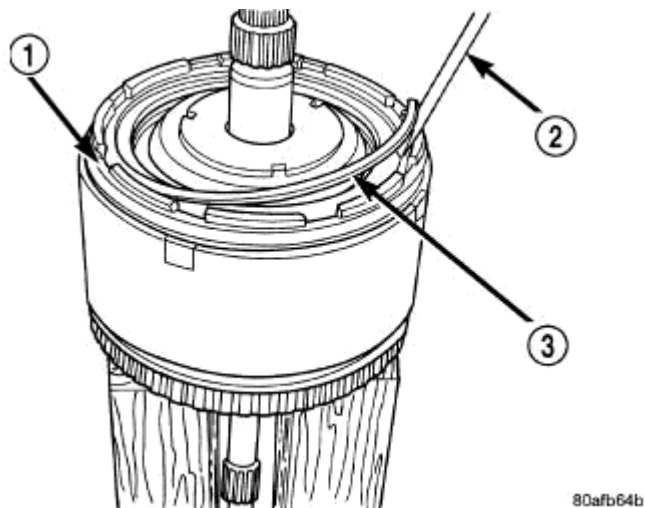
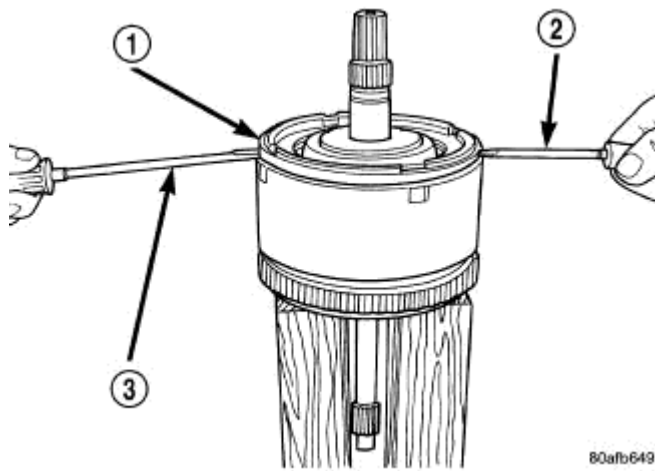


Fig. 299: Reverse Clutch Snap Ring
Courtesy of CHRYSLER LLC

1 - REACTION PLATE
2 - SCREWDRIVER
3 - REVERSE CLUTCH SNAP RING (SELECT)

3. Remove reverse clutch snap ring (3) .

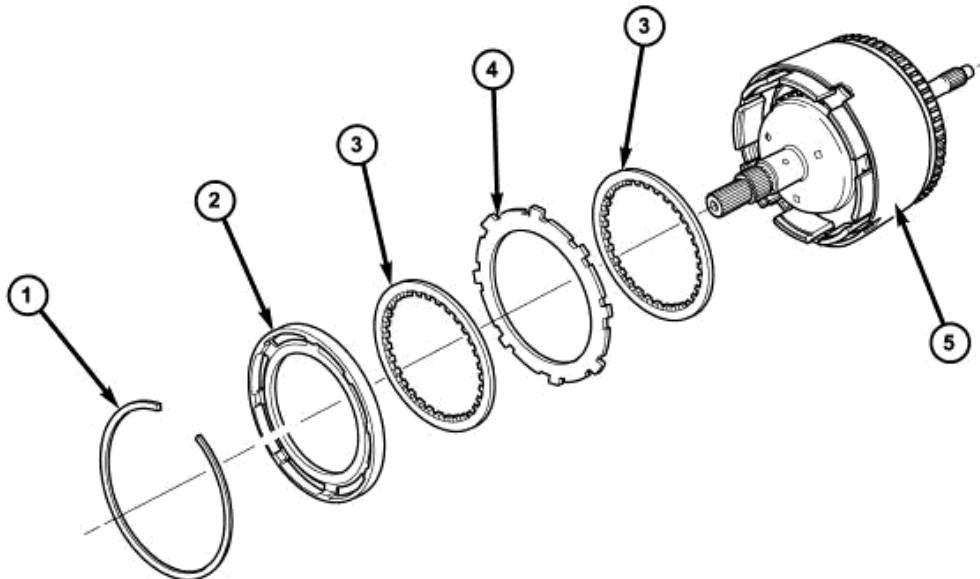


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Fig. 300: Pry Reverse Clutch Reaction Plate
Courtesy of CHRYSLER LLC

1 - REVERSE CLUTCH REACTION PLATE
2 - SCREWDRIVER
3 - SCREWDRIVER

4. Pry up and remove reverse clutch reaction plate (1) .

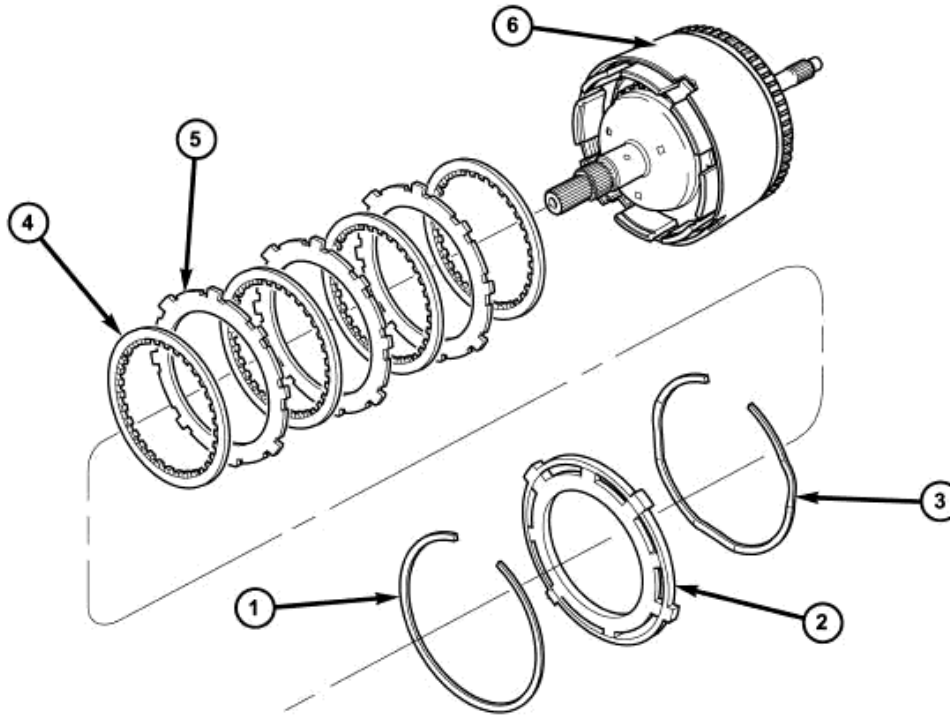


80f4f02

Fig. 301: Reverse Clutch Assembly
Courtesy of CHRYSLER LLC

- 1 - SNAP RING
- 2 - REACTION PLATE
- 3 - CLUTCH DISC (2)
- 4 - CLUTCH PLATE (1)
- 5 - INPUT CLUTCH ASSEMBLY

5. Remove reverse clutch pack (3,4) . **Tag components for assembly identification.**

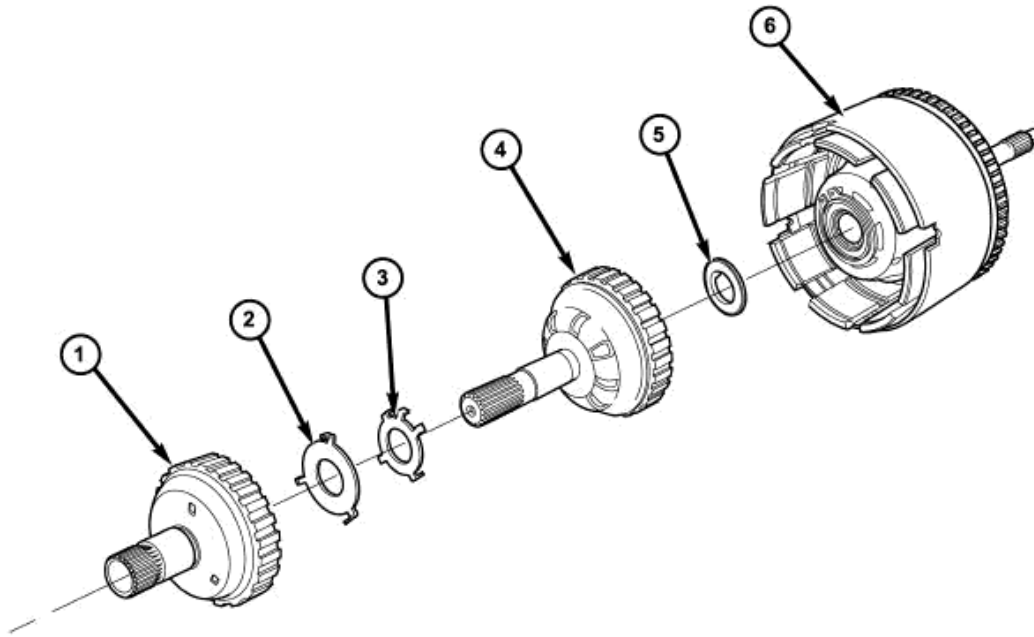


8014173b

Fig. 302: Overdrive Clutch Assembly
Courtesy of CHRYSLER LLC

- 1 - SNAP RING
- 2 - OD/REVERSE PRESSURE PLATE
- 3 - SNAP RING (WAVE)
- 4 - CLUTCH DISC (4)
- 5 - CLUTCH STEEL (3)
- 6 - INPUT CLUTCH ASSEMBLY

- 6. Remove the OD/Reverse pressure plate snap ring (1) .
- 7. Remove OD/Reverse pressure plate (2).
- 8. Remove OD/Reverse pressure plate wave snap ring (3).
- 9. Remove OD clutch pack (4,5). **Tag components for assembly identification.**

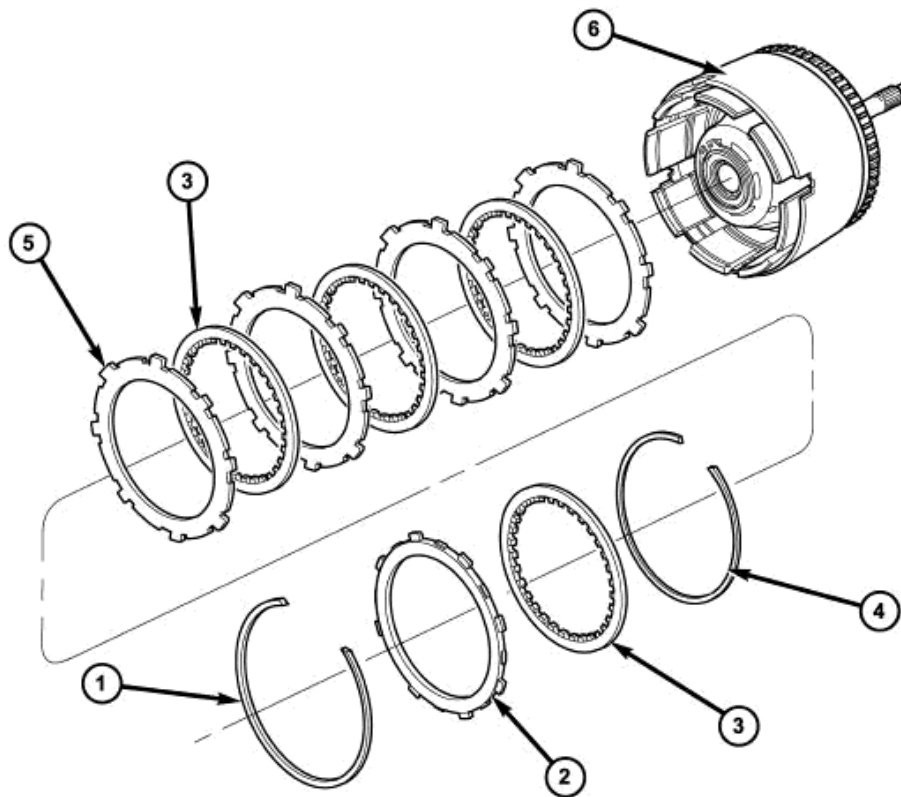


80F501a3

Fig. 303: Overdrive/Underdrive Shafts
Courtesy of CHRYSLER LLC

- | |
|--|
| <ul style="list-style-type: none">1 - OVERDRIVE SHAFT2 - #3 THRUST PLATE (3 TABS)3 - #3 THRUST WASHER (5 TABS)4 - UNDERDRIVE SHAFT5 - #2 NEEDLE BEARING (3 TABS)6 - INPUT CLUTCH ASSEMBLY |
|--|

10. Remove and inspect OD (1) and UD Shafts (4), as well as number three thrust washer and plate (2, 3), and number two needle bearing (5).



8064ffc8

Fig. 304: Underdrive Clutch Assembly
Courtesy of CHRYSLER LLC

- | |
|--|
| <p>1 - SNAP RING (TAPERED)
 2 - OD/UD REACTION PLATE
 3 - CLUTCH DISC
 4 - SNAP RING (FLAT)
 5 - CLUTCH PLATE
 6 - INPUT CLUTCH ASSEMBLY</p> |
|--|

11. Remove the OD/UD reaction plate tapered snap ring (1) , clutch plate (5), and first clutch disc (3).
12. Remove the UD clutch flat snap ring (4) and rest of the input clutch assembly (6). **Tag clutch pack for assembly identification.**

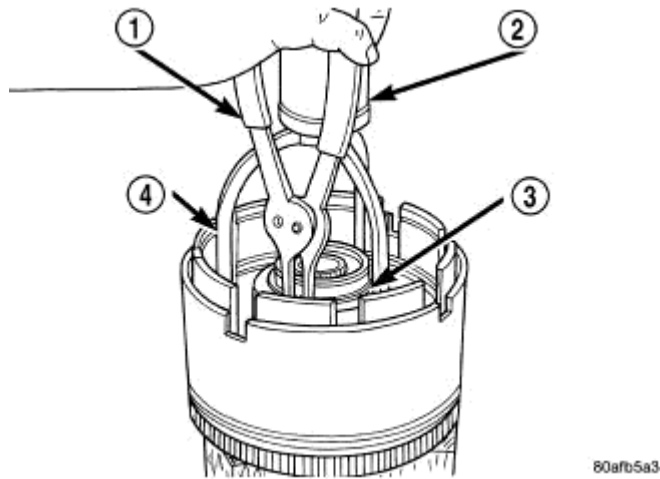
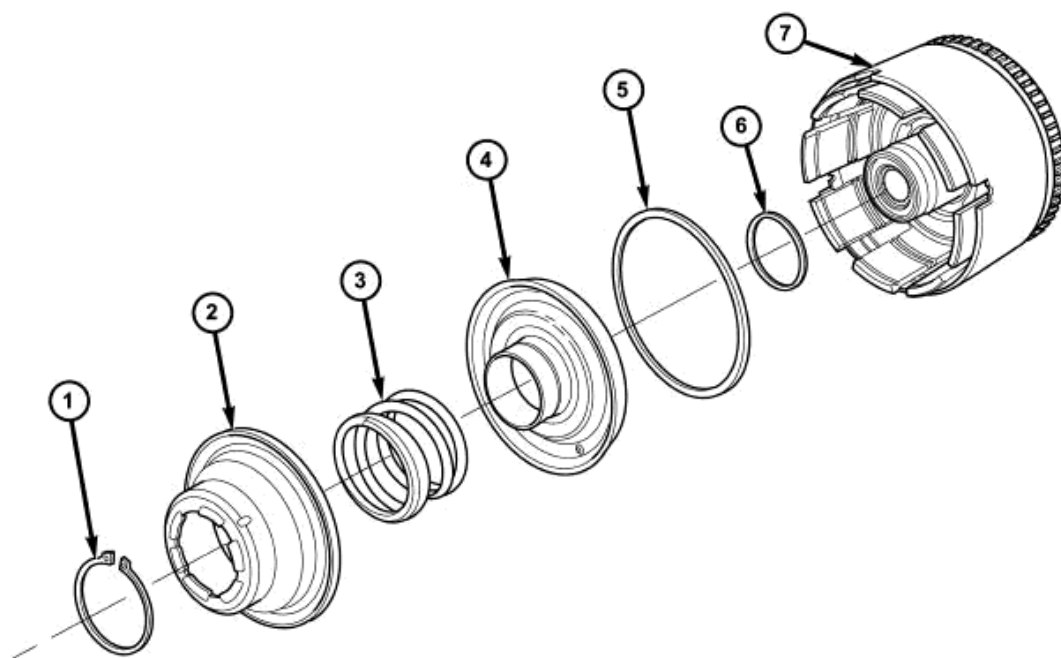


Fig. 305: UD Spring Retainer Snap Ring
Courtesy of CHRYSLER LLC

1 - SNAP RING PLIERS
2 - ARBOR PRESS RAM
3 - SNAP RING
4 - COMPRESSOR 5059-A

CAUTION: Compress return spring just enough to remove or install snap ring.

13. Using Compressor 5059-A (4) and an arbor press (2), compress UD clutch piston/spring enough to remove snap ring (3).



80f503e2

Fig. 306: Underdrive Clutch Piston, Spring and Retainer
Courtesy of CHRYSLER LLC

- | |
|---------------------------|
| 1 - SNAP RING |
| 2 - SPRING RETAINER |
| 3 - SPRING |
| 4 - UD CLUTCH PISTON |
| 5 - SEAL, OUTER |
| 6 - SEAL, INNER |
| 7 - INPUT CLUTCH ASSEMBLY |

14. Refer to the illustration view as necessary when performing the following steps
15. Remove spring retainer (2) , spring (3), and UD clutch piston (4).

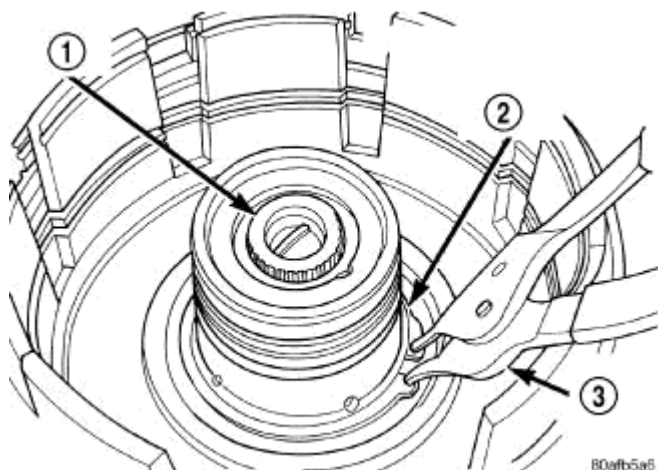


Fig. 307: Input Hub Tapered Snap Ring
Courtesy of CHRYSLER LLC

1 - INPUT SHAFT
2 - INPUT HUB SNAP RING (TAPERED SIDE UP WITH TABS IN CAVITY)
3 - SNAP RING PLIERS

16. Remove input hub tapered snap ring (2) .

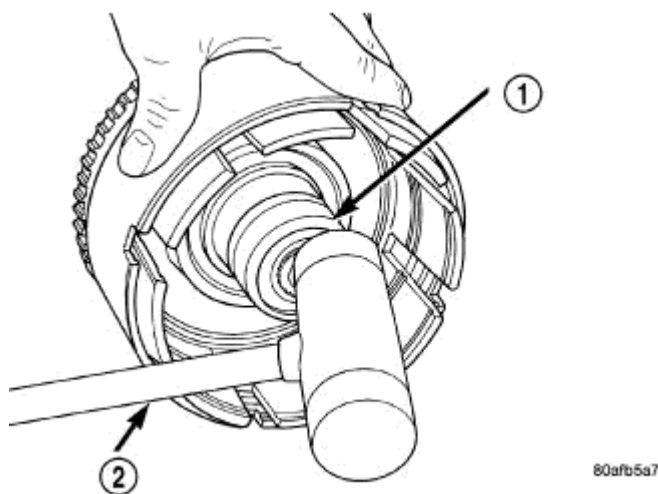


Fig. 308: Tap on Input Hub
Courtesy of CHRYSLER LLC

1 - INPUT SHAFT AND HUB ASSEMBLY
2 - SOFT FACED HAMMER

17. Tap on input hub with soft faced hammer (2) and separate input hub from OD/Reverse piston and clutch

retainer.

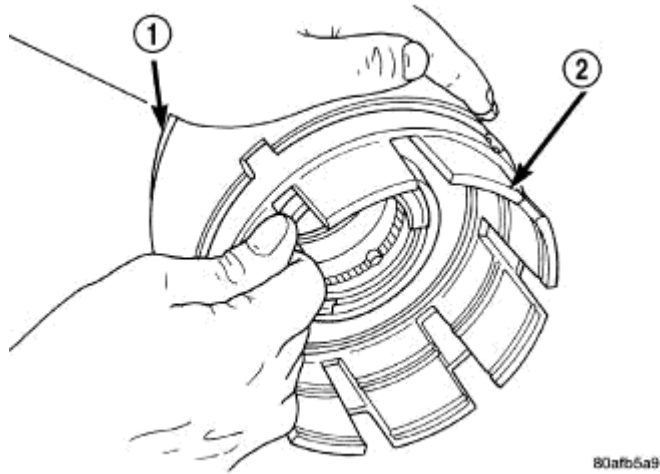


Fig. 309: Pull Retainer From Piston
Courtesy of CHRYSLER LLC

1 - OVERDRIVE/REVERSE PISTON
2 - INPUT CLUTCHES RETAINER

18. Separate clutch retainer (2) from OD/Reverse piston (1).

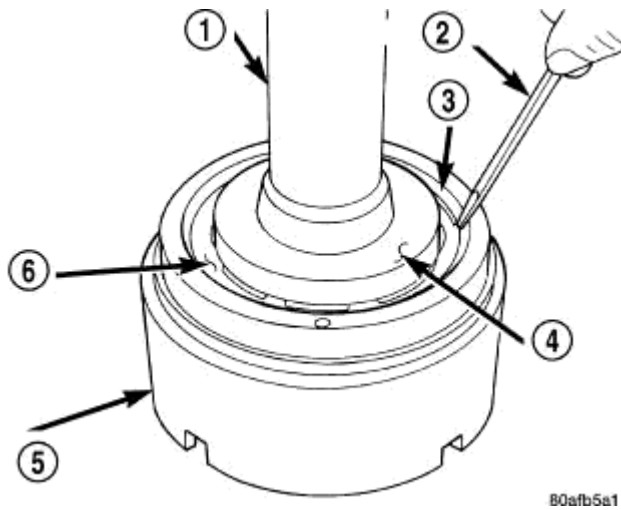


Fig. 310: Install Snap Ring
Courtesy of CHRYSLER LLC

1 - ARBOR PRESS RAM (COMPRESS RETURN SPRING JUST ENOUGH TO REMOVE OR INSTALL SNAP RING)
2 - SCREWDRIVER
3 - SNAP RING
4 - Disk 6057

5 - OD/REVERSE PISTON

6 - RETURN SPRING

19. Using Disk 6057 (4) and an arbor press (1), compress return OD/Reverse piston return spring just enough to remove snap ring (3).

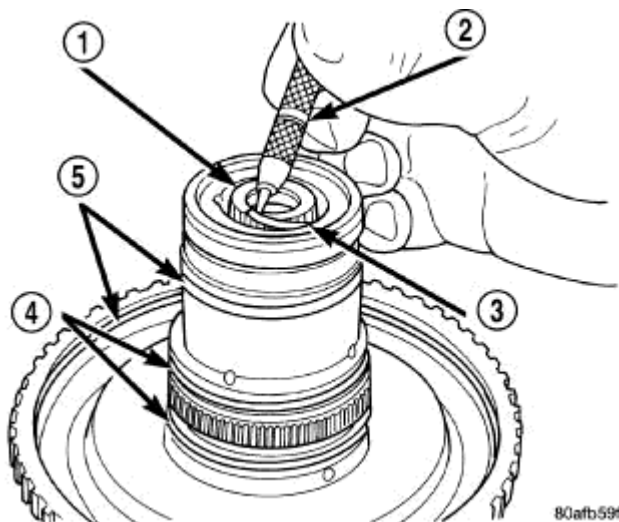


Fig. 311: Remove Input Shaft Snap Ring
Courtesy of CHRYSLER LLC

1 - INPUT SHAFT

2 - SHARP-POINTED TOOL

3 - SNAP RING

4 - O-RINGS

5 - SEALS

20. Remove input shaft to input clutch hub snap ring (3) .

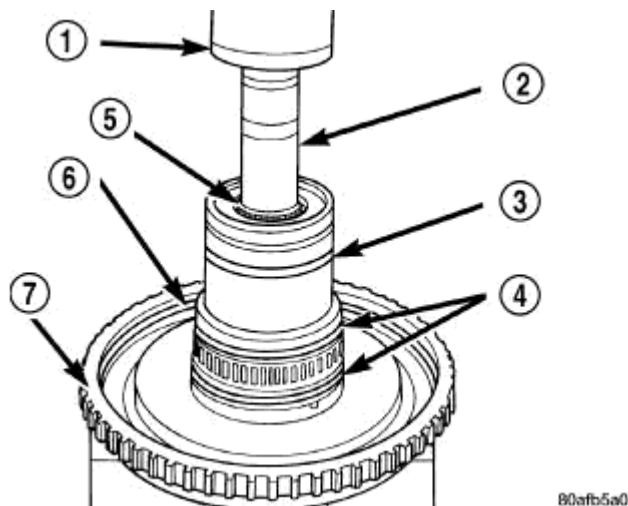
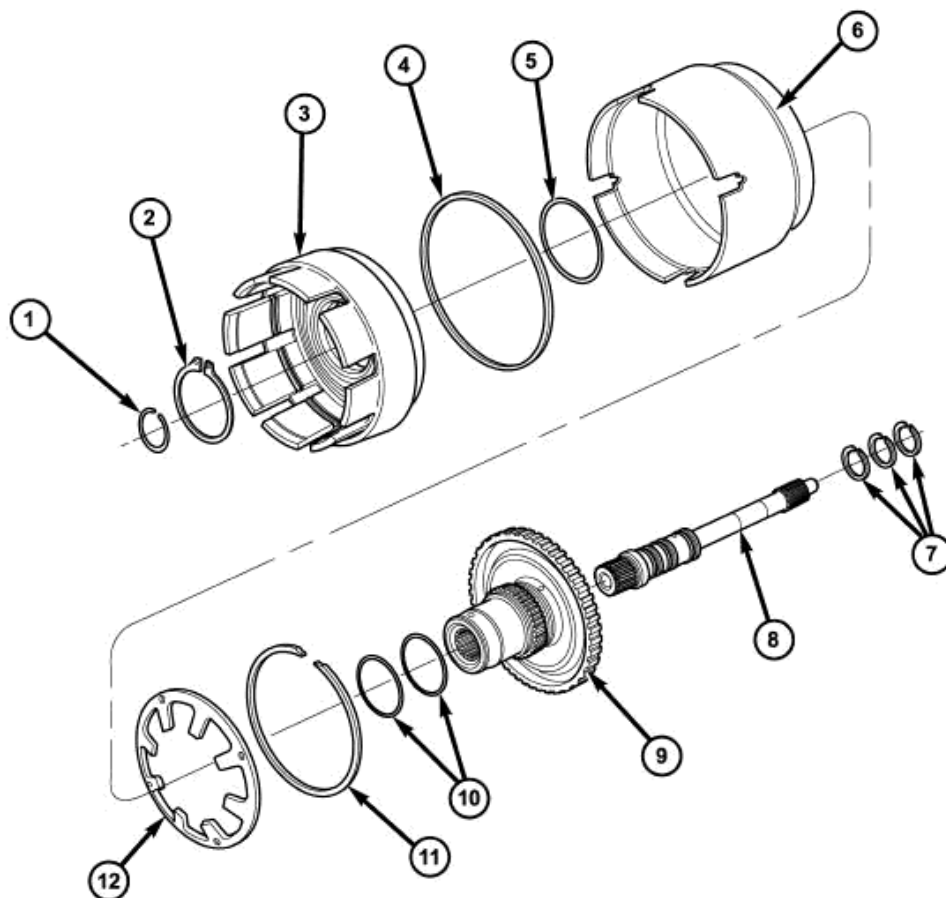


Fig. 312: Remove Input Shaft
Courtesy of CHRYSLER LLC

1 - ARBOR PRESS RAM
2 - SOCKET
3 - SEAL
4 - O-RINGS
5 - INPUT SHAFT
6 - SEAL
7 - INPUT SHAFT HUB ASSEMBLY

21. Using a suitably sized socket (2) and an arbor press (1), remove input shaft (5) from input shaft hub (7).



8015059a

Fig. 313: Input Clutch Hub, Retainer, and OD/Reverse Piston
Courtesy of CHRYSLER LLC

1 - SNAP RING (INPUT SHAFT)
2 - SNAP RING
3 - CLUTCH RETAINER

- 4 - SEAL, OUTER
- 5 - SEAL, INNER
- 6 - OD/REVERSE PISTON
- 7 - SEAL, INPUT SHAFT
- 8 - SHAFT, INPUT
- 9 - HUB
- 10 - SEAL
- 11 - SNAP RING
- 12 - BELLEVILLE SPRING

22. Refer to the illustration view as necessary when performing the above steps

ASSEMBLY

ASSEMBLY

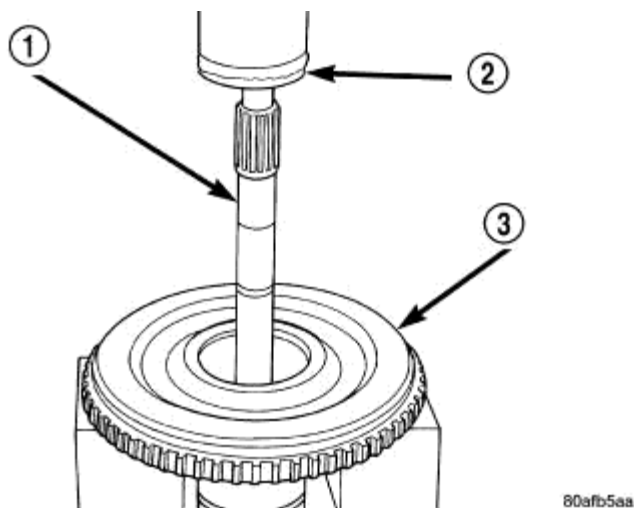


Fig. 314: Install Input Shaft
Courtesy of CHRYSLER LLC

- | |
|------------------------------|
| 1 - INPUT SHAFT |
| 2 - ARBOR PRESS |
| 3 - INPUT SHAFT HUB ASSEMBLY |

Use petrolatum on all seals to ease assembly of components.

1. Using an arbor press (2), install input shaft (1) to input shaft hub (3) .

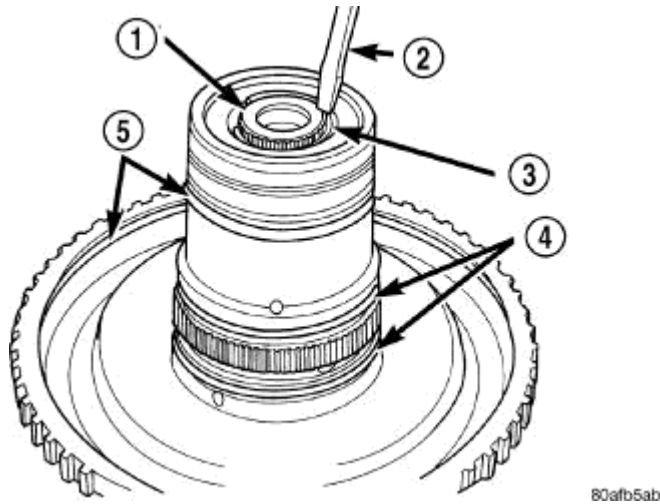


Fig. 315: Install Input Shaft Snap Ring
Courtesy of CHRYSLER LLC

1 - INPUT SHAFT
2 - SCREWDRIVER (DO NOT SCRATCH BEARING SURFACE)
3 - SNAP RING
4 - O-RINGS
5 - SEALS

2. Install input shaft snap ring (3) .

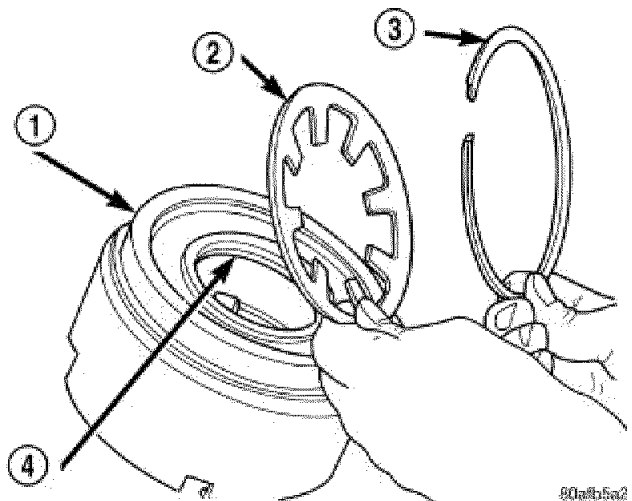


Fig. 316: Return Spring And Snap Ring
Courtesy of CHRYSLER LLC

1 - OD/REVERSE PISTON
2 - RETURN SPRING

3 - SNAP RING
4 - O-RING

3. Place OD/Reverse piston (1) return spring (2) and snap ring (3) into position.

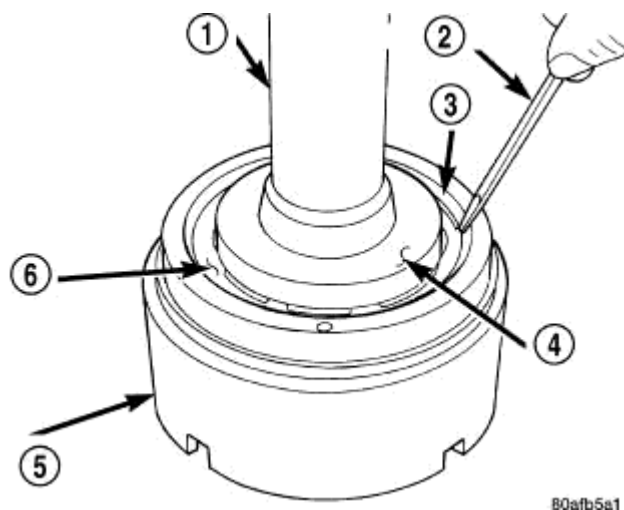


Fig. 317: Install Snap Ring

Courtesy of CHRYSLER LLC

1 - ARBOR PRESS RAM (COMPRESS RETURN SPRING JUST ENOUGH TO REMOVE OR INSTALL SNAP RING)
2 - SCREWDRIVER
3 - SNAP RING
4 - Disk 6057
5 - OD/REVERSE PISTON
6 - RETURN SPRING

4. Using an arbor press (1) and Disk 6057 (4), install OD/Reverse piston (5), return spring (6), and snap ring (3).

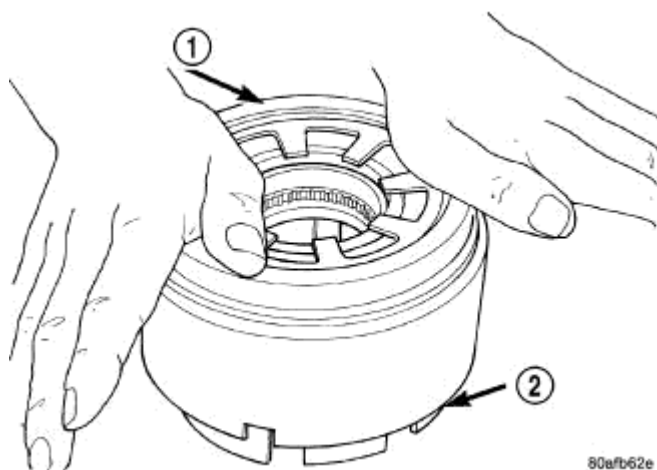


Fig. 318: Install OD/Reverse Piston
Courtesy of CHRYSLER LLC

- | |
|---|
| 1 - PUSH DOWN TO INSTALL OVERDRIVE/REVERSE PISTON |
| 2 - INPUT CLUTCHES RETAINER |

5. Install the OD/Reverse piston assembly (1) to the input clutch retainer (2).

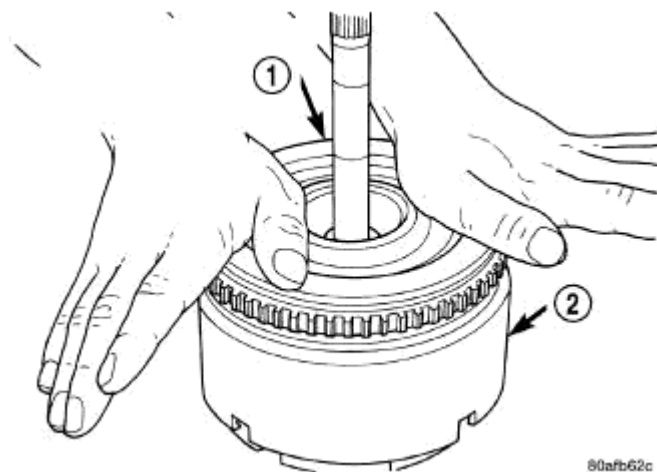
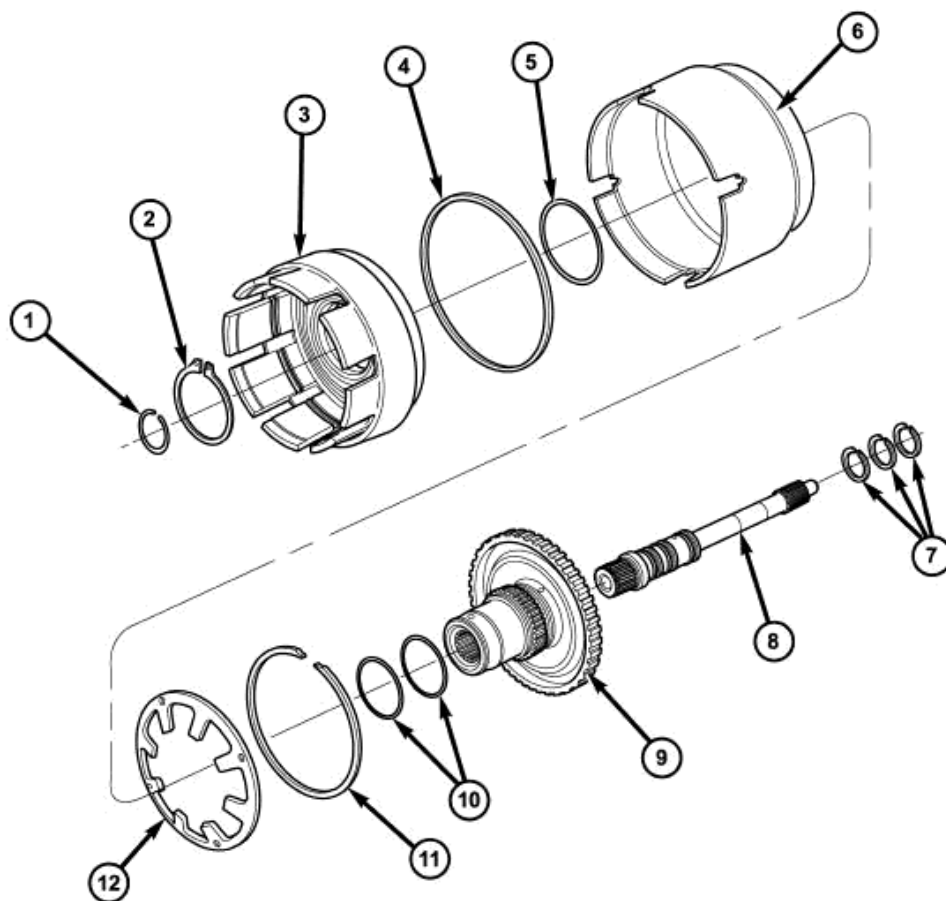


Fig. 319: Install Input Shaft Hub Assembly
Courtesy of CHRYSLER LLC

- | |
|---|
| 1 - PUSH DOWN TO INSTALL INPUT SHAFT HUB ASSEMBLY (ROTATE TO ALIGN SPLINES) |
| 2 - OD/REV. PISTON |

6. Install the input hub/shaft assembly. (rotate to align splines) (1) to the OD/Reverse piston/clutch retainer assembly (2).



8015059a

Fig. 320: Input Clutch Hub, Retainer, and OD/Reverse Piston
Courtesy of CHRYSLER LLC

- 1 - SNAP RING (INPUT SHAFT)
- 2 - SNAP RING
- 3 - CLUTCH RETAINER
- 4 - SEAL, OUTER
- 5 - SEAL, INNER
- 6 - OD/REVERSE PISTON
- 7 - SEAL, INPUT SHAFT
- 8 - SHAFT, INPUT
- 9 - HUB
- 10 - SEAL
- 11 - SNAP RING
- 12 - BELLEVILLE SPRING

7. Refer to the illustration view as necessary when performing the following steps .

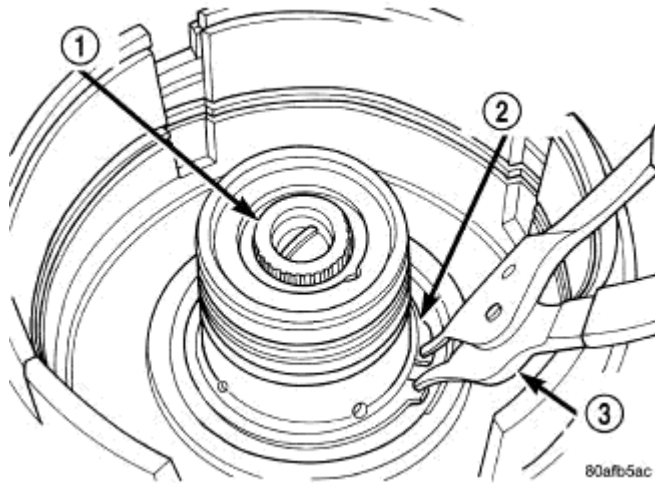


Fig. 321: Install Input Hub Tapered Snap Ring
Courtesy of CHRYSLER LLC

1 - INPUT SHAFT
2 - INPUT HUB SNAP RING (TAPERED SIDE UP WITH TABS IN CAVITY)
3 - SNAP RING PLIERS

8. Install input hub tapered snap ring (tapered side up with tabs in cavity) (2) .

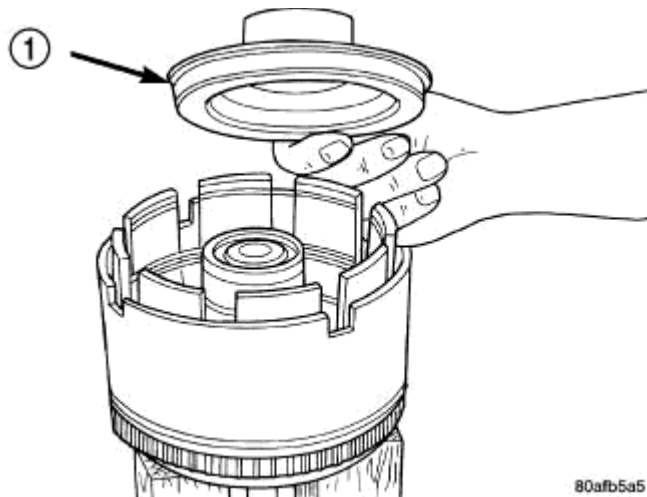
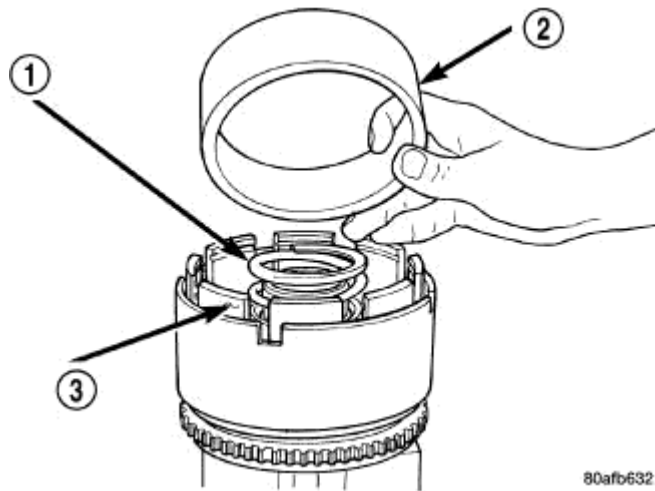


Fig. 322: Underdrive Clutch Piston
Courtesy of CHRYSLER LLC

1 - PISTON

9. Install UD clutch piston (1) .

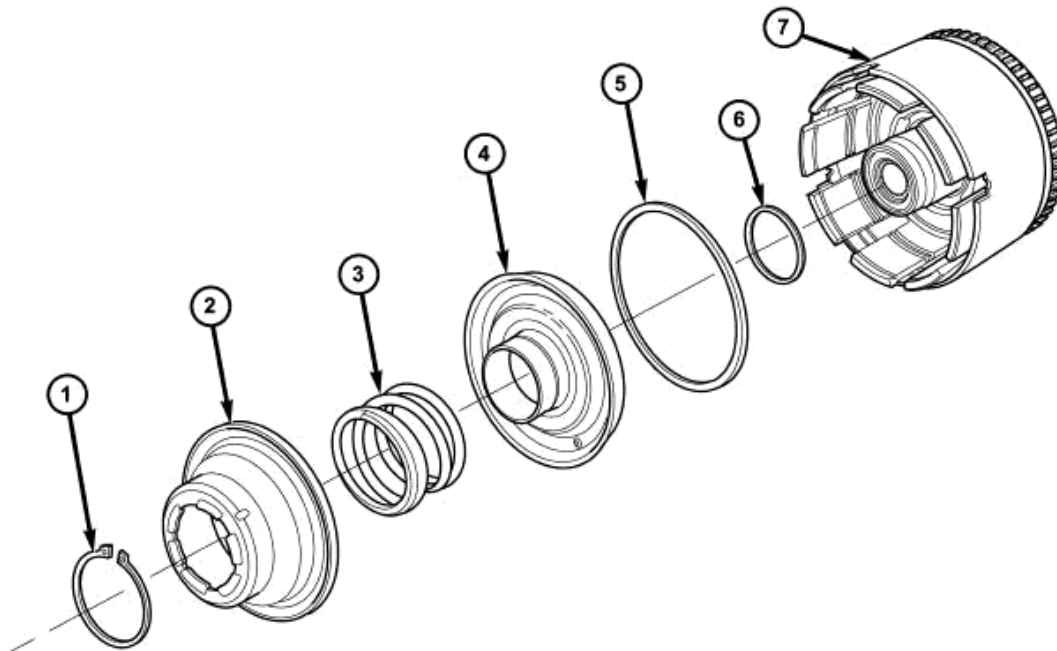


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Fig. 323: Seal Compressor Special Tool 5067
Courtesy of CHRYSLER LLC

1 - PISTON RETURN SPRING
2 - INSTALLER 5067
3 - INPUT SHAFT CLUTCHES RETAINER ASSEMBLY

10. Install UD piston return spring (1) and Installer 5067 (2).



80f503e2

Fig. 324: Underdrive Clutch Piston, Spring and Retainer
Courtesy of CHRYSLER LLC

- 1 - SNAP RING
- 2 - SPRING RETAINER
- 3 - SPRING
- 4 - UD CLUTCH PISTON
- 5 - SEAL, OUTER
- 6 - SEAL, INNER
- 7 - INPUT CLUTCH ASSEMBLY

11. Refer to the illustration view as necessary when performing the following steps.

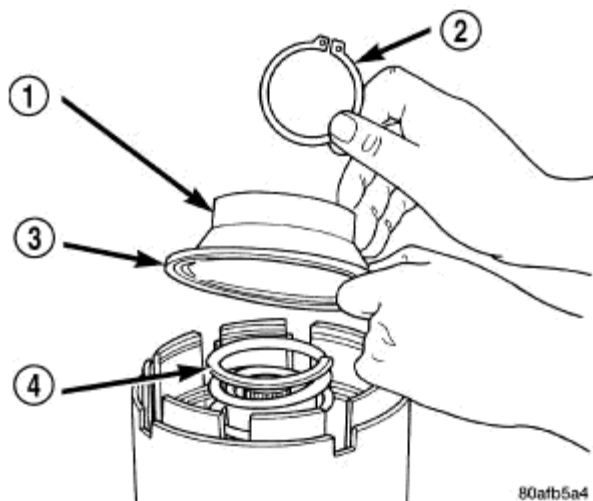
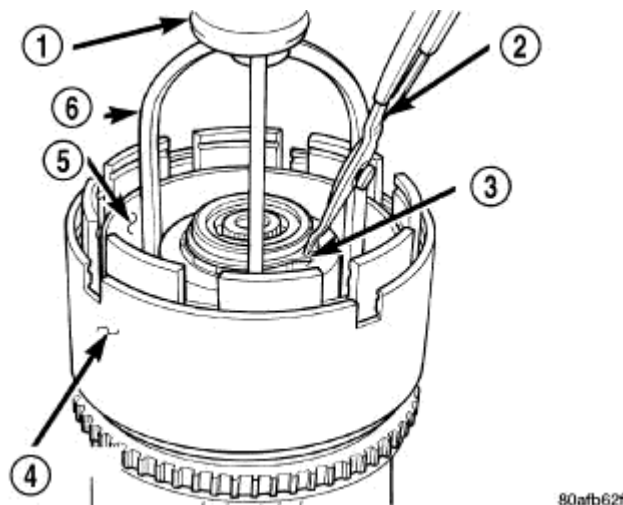


Fig. 325: UD Return Spring and Retainer
 Courtesy of CHRYSLER LLC

- | |
|--------------------------------|
| 1 - UNDERDRIVE SPRING RETAINER |
| 2 - SNAP RING |
| 3 - SEAL |
| 4 - PISTON RETURN SPRING |

12. Place the UD spring retainer (1) and snap ring (2) into position.



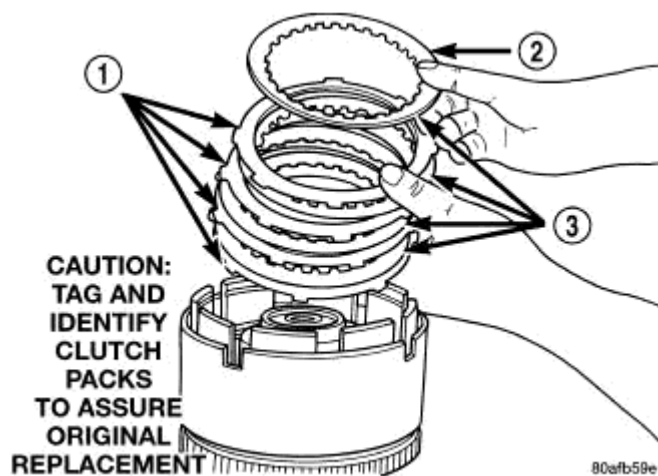
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Fig. 326: Install UD Spring Retainer and Snap Ring
Courtesy of CHRYSLER LLC

1 - ARBOR PRESS RAM
2 - SNAP RING PLIERS
3 - SNAP RING
4 - OD/REVERSE PISTON
5 - INSTALLER 5067
6 - COMPRESSOR 5059-A

- Using Compressor 5059-A (6) and an arbor press (1), Install the UD spring retainer and snap ring (3). Compress just enough to install snap ring (3).

CAUTION: Compress return spring just enough to install snap ring.



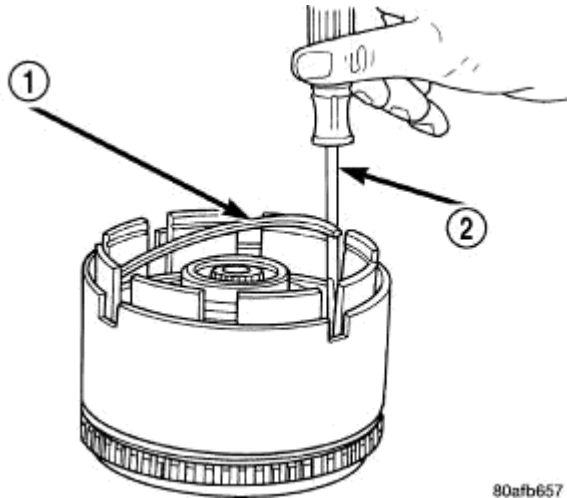
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Fig. 327: Underdrive Clutch Pack

Courtesy of CHRYSLER LLC

- | |
|------------------------|
| 1 - CLUTCH PLATE |
| 2 - ONE UD CLUTCH DISC |
| 3 - CLUTCH DISC |

14. Install the UD clutch pack (1,3) . Leave out upper disc (2), until snap ring is installed.

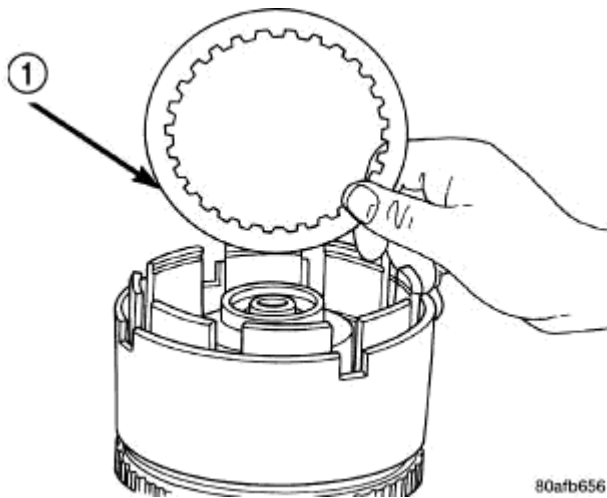


80afb657

Fig. 328: UD Clutch Flat Snap Ring
Courtesy of CHRYSLER LLC

- | |
|---|
| 1 - UNDERDRIVE CLUTCH REACTION PLATE FLAT SNAP RING |
| 2 - SCREWDRIVER |

15. Install the UD clutch flat snap ring (1) .



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Fig. 329: Install Last UD Clutch Disc

Courtesy of CHRYSLER LLC

1 - ONE UNDERDRIVE CLUTCH DISC

16. Install the last UD clutch disc (1) .

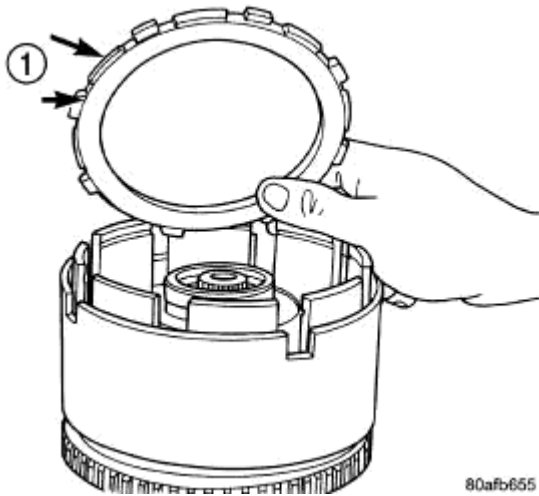


Fig. 330: OD/UD Reaction Plate
Courtesy of CHRYSLER LLC

1 - OD/UD CLUTCH REACTION PLATE (TAPERED STEP SIDE UP)

17. Place the OD/UD clutch reaction plate (1) and snap ring into position. The OD/UD clutches reaction plate has a step on both sides. Install the OD/UD clutches reaction plate tapered step side up.

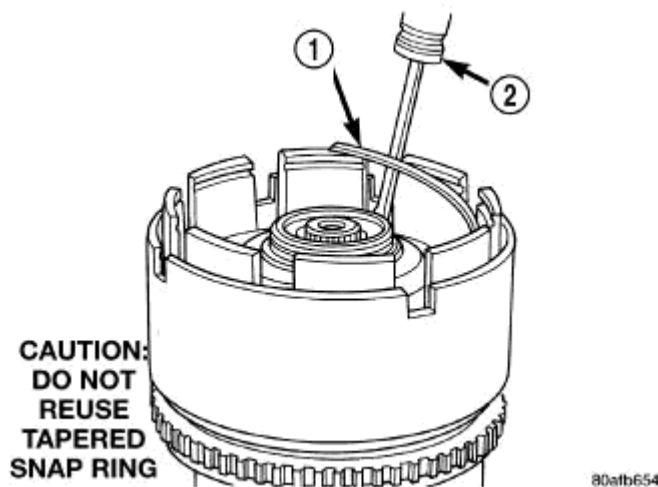


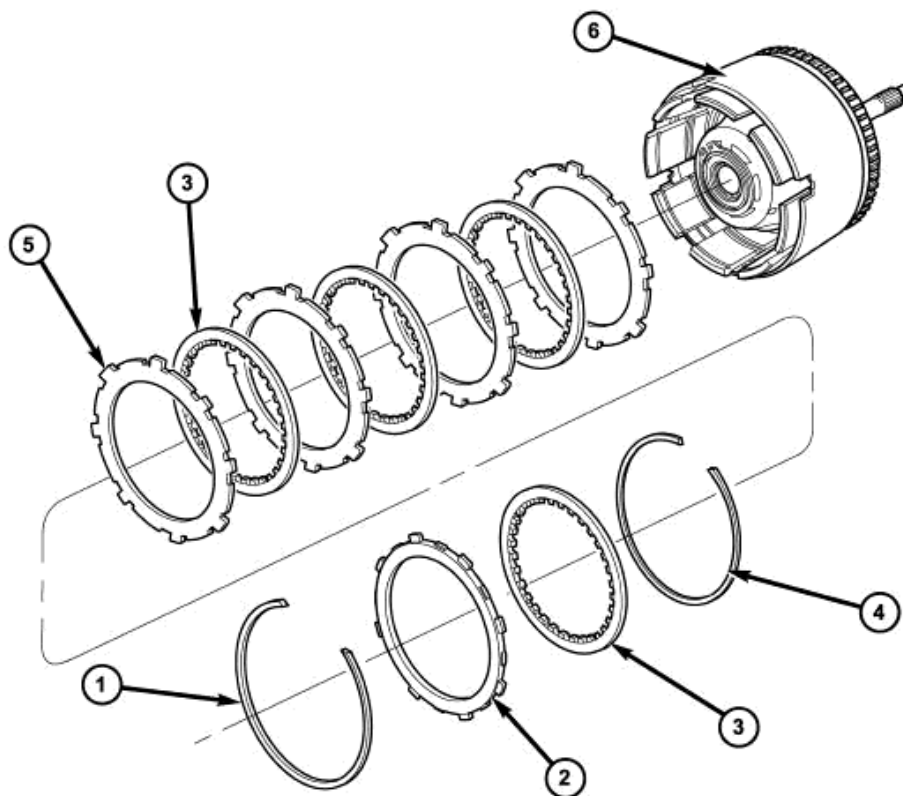
Fig. 331: Tapered Snap Ring
Courtesy of CHRYSLER LLC

- | |
|---|
| 1 - OVERDRIVE/UNDERDRIVE CLUTCHES REACTION
PLATE TAPERED SNAP RING |
| 2 - SCREWDRIVER (DO NOT SCRATCH REACTION
PLATE) |

18. Install the snap ring (1) using a screwdriver (2).

NOTE: Snap ring ends must be located within one finger of the input clutch hub. Be sure that snap ring is fully seated, by pushing with screwdriver, into snap ring groove all the way around.

NOTE: Do not reuse tapered snap ring.



9014ffc8

Fig. 332: Underdrive Clutch Assembly
Courtesy of CHRYSLER LLC

- | |
|--------------------------|
| 1 - SNAP RING (TAPERED) |
| 2 - OD/UD REACTION PLATE |
| 3 - CLUTCH DISC |
| 4 - SNAP RING (FLAT) |
| 5 - CLUTCH PLATE |

6 - INPUT CLUTCH ASSEMBLY

19. Refer to the illustration view as necessary when performing the following steps .

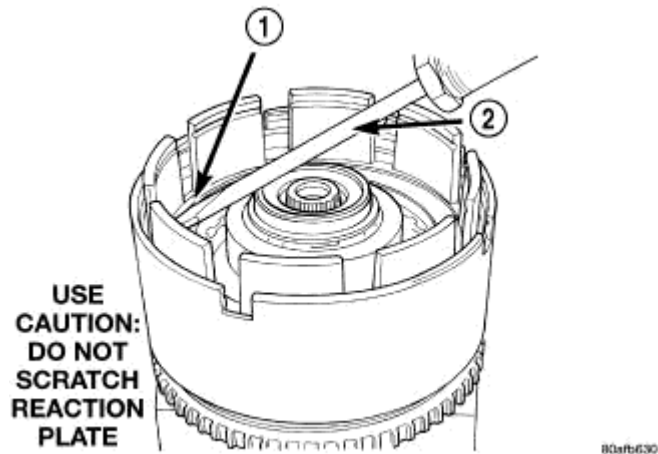
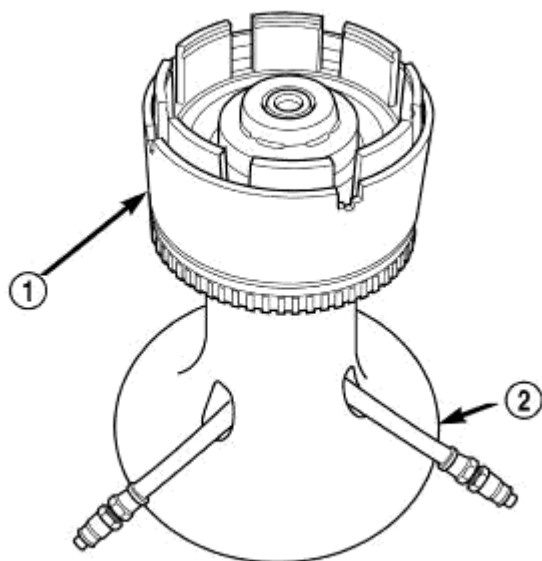


Fig. 333: Seating Tapered Snap
Courtesy of CHRYSLER LLC

- | |
|---|
| 1 - OVERDRIVE/UNDERDRIVE CLUTCHES REACTION
PLATE TAPERED SNAP RING |
| 2 - SCREWDRIVER |

NOTE: Do not reuse tapered snap ring.

20. Seat tapered snap ring (1) to ensure proper installation.



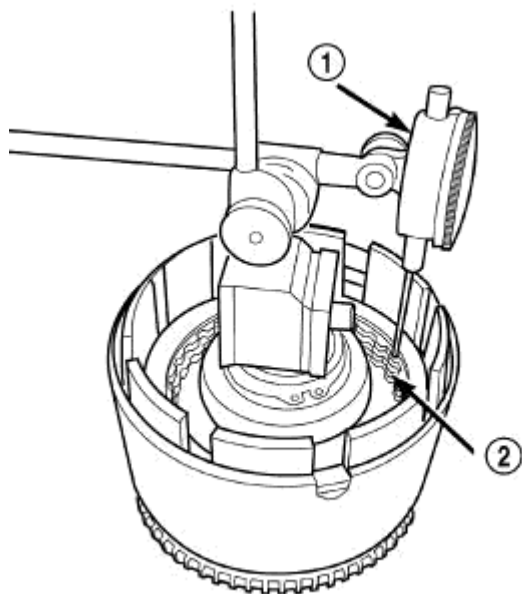
80c07260

Fig. 334: Input Clutch Assembly On Pressure Fixture Tool 8391
Courtesy of CHRYSLER LLC

1 - INPUT CLUTCH ASSEMBLY

2 - INPUT CLUTCH PRESSURE FIXTURE 8391

21. Install input clutch assembly (1) to the Input Clutch Pressure Fixture 8391 (2) .



80c07261

Fig. 335: Set Up Dial Indicator To Measure UD Clutch Clearance
Courtesy of CHRYSLER LLC

- | |
|-----------------------|
| 1 - DIAL INDICATOR |
| 2 - UNDERDRIVE CLUTCH |

22. Set up dial indicator (1) on the UD clutch pack (2) .

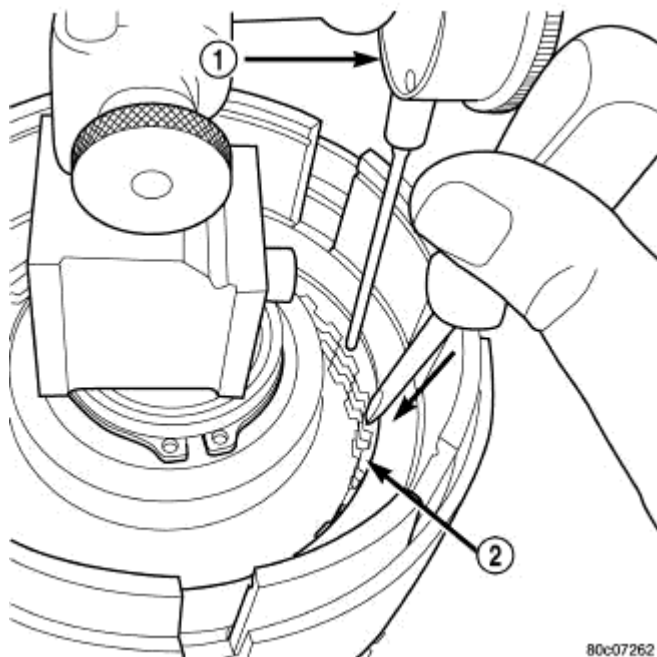


Fig. 336: Press Down On UD Clutch Pack And Zero Dial Indicator
Courtesy of CHRYSLER LLC

- | |
|-----------------------|
| 1 - DIAL INDICATOR |
| 2 - UNDERDRIVE CLUTCH |

23. Using moderate pressure, press down and hold (near indicator) the UD clutch pack (2) with screwdriver or suitable tool and zero dial the indicator. When releasing pressure on clutch pack, indicator reading should advance (0.005-0.010 in.).

CAUTION: Do not apply more than 30 psi (206 kPa) to the underdrive clutch pack.

24. Apply 30 psi (206 kPa) to the underdrive hose on Input Clutch Pressure Fixture 8391 and measure UD clutch clearance. Measure and record UD clutch pack measurement in four places, 90° apart.
25. Take average of four measurements and compare with UD clutch pack (2) clearance specification.
Underdrive clutch pack clearance must be 0.91-1.47 mm (0.036 - 0.058 in.).

26. If necessary, select the proper reaction plate to achieve specifications:

UNDERDRIVE REACTION PLATE THICKNESS	
4659939AB	5.837-5.937 mm (0.230-0.234 in.)
4659940AB	6.147-6.248 mm (0.242-0.246 in.)
4659941AB	6.457-6.557 mm (0.254-0.258 in.)

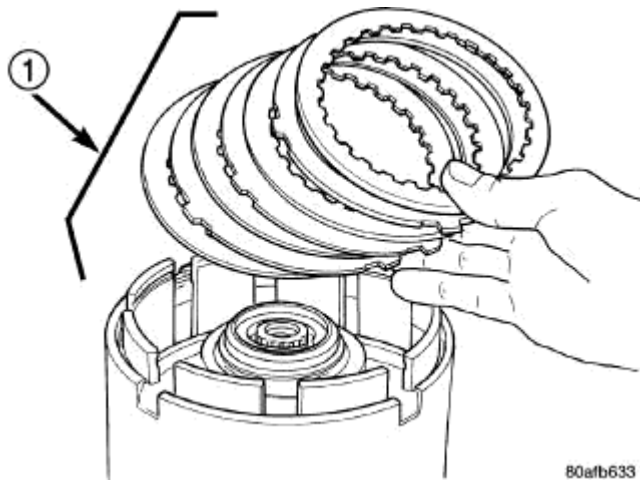


Fig. 337: Install OD Clutch Pack
Courtesy of CHRYSLER LLC

1 - OVERDRIVE CLUTCH PACK

27. Install the OD clutch pack (four frictions/three steels) (1) .

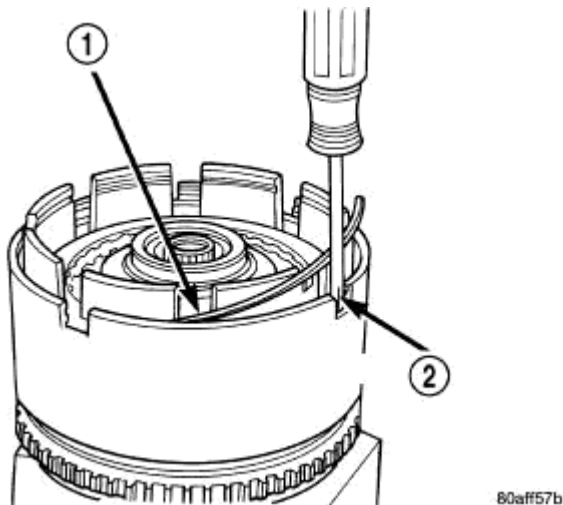


Fig. 338: Install Waved Snap Ring
Courtesy of CHRYSLER LLC

1 - OVERDRIVE PRESSURE PLATE WAVED SNAP

RING

2 - SCREWDRIVER

28. Install OD pressure plate waved snap ring (1) .

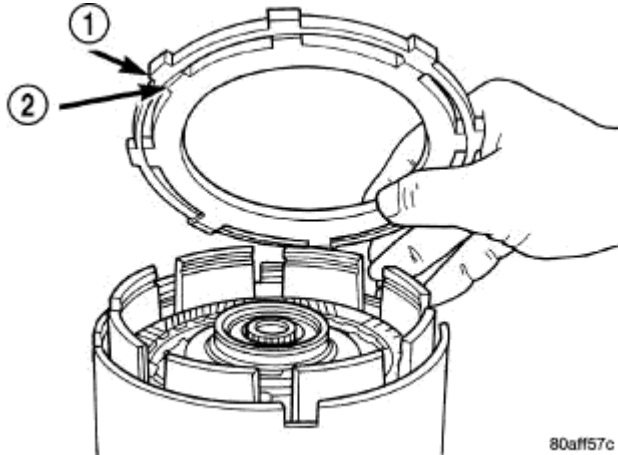
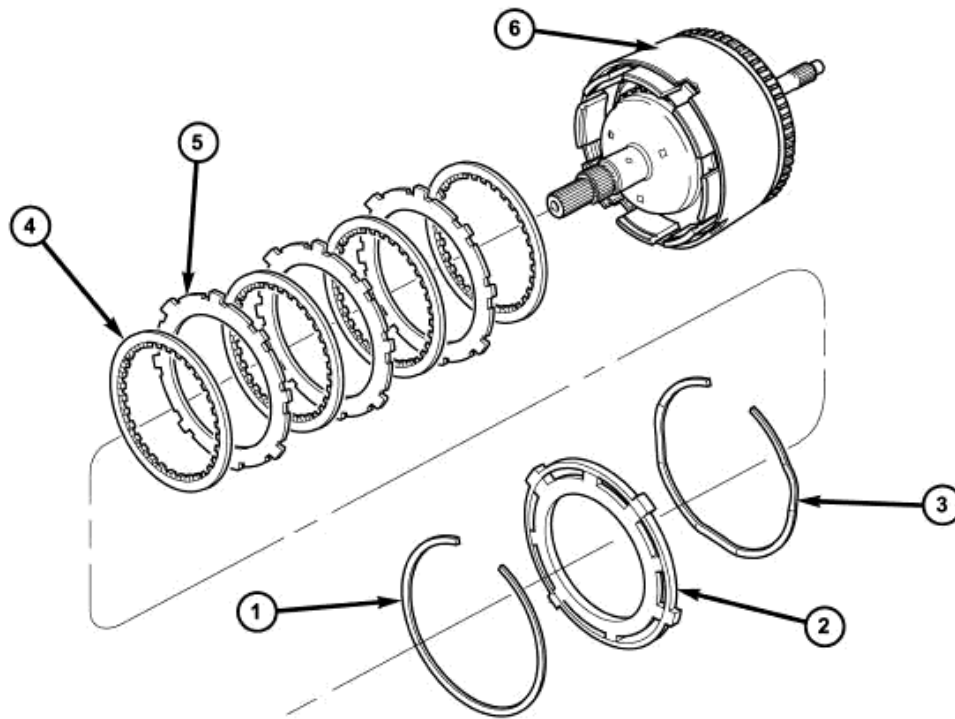


Fig. 339: OD/Reverse Reaction Plate
Courtesy of CHRYSLER LLC

1 - OVERDRIVE/REVERSE PRESSURE PLATE

2 - (STEP SIDE DOWN)

29. Install the OD/Reverse pressure plate (1) with large step down (towards OD clutch pack) (2) .



8014113b

Fig. 340: Overdrive Clutch Assembly
Courtesy of CHRYSLER LLC

- 1 - SNAP RING
- 2 - OD/REVERSE PRESSURE PLATE
- 3 - SNAP RING (WAVE)
- 4 - CLUTCH DISC (4)
- 5 - CLUTCH STEEL (3)
- 6 - INPUT CLUTCH ASSEMBLY

30. Refer to the illustration as necessary when performing the following steps .

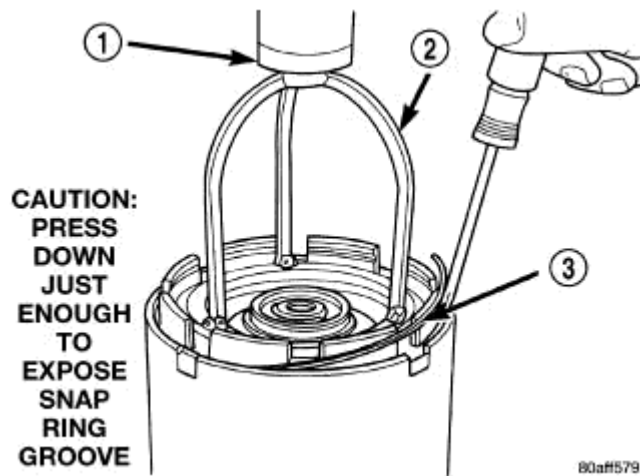


Fig. 341: Install Flat Snap Ring
Courtesy of CHRYSLER LLC

- | |
|-----------------------|
| 1 - ARBOR PRESS RAM |
| 2 - COMPRESSOR 5059-A |
| 3 - FLAT SNAP RING |

31. Install OD pressure plate flat snap ring (3) .

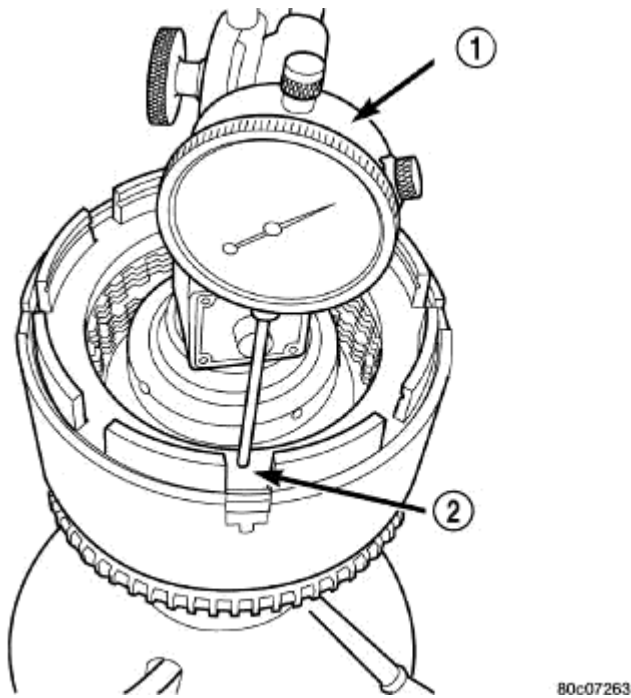


Fig. 342: Measure OD Clutch Pack Clearance
Courtesy of CHRYSLER LLC

- | |
|--------------------|
| 1 - DIAL INDICATOR |
|--------------------|

2 - OD/REVERSE REACTION PLATE

32. Measure OD clutch pack clearance. Set up dial indicator (1) on top of the OD/Reverse pressure plate.
33. Zero dial indicator and apply 30 psi (206 kPa) air pressure to the overdrive clutch hose on Tool 8391. Measure and record OD clutch pack measurement in four (4) places, 90° apart.
34. Take average of four measurements and compare with OD clutch pack clearance specification. **The overdrive (OD) clutch pack clearance is 0.491-2.345 mm 0.019-.092 in.**

If not within specifications, the clutch is not assembled properly. There is no adjustment for the OD clutch clearance.

35. Install reverse clutch pack (two frictions/one steel) (1,2) .

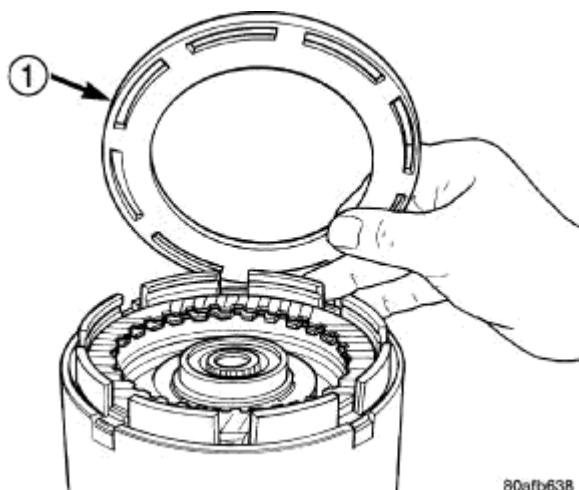
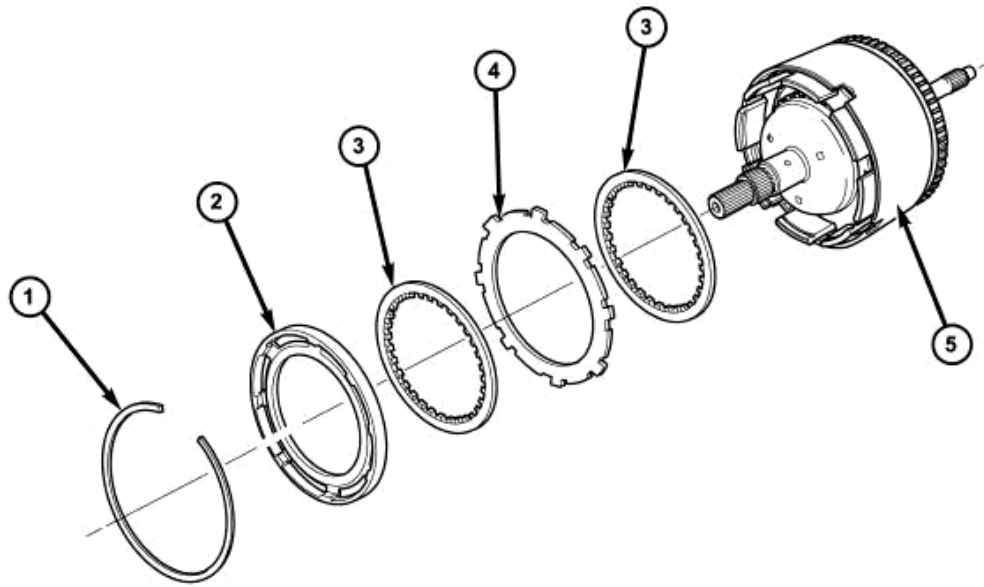


Fig. 343: Install Reaction Plate
Courtesy of CHRYSLER LLC

1 - REVERSE CLUTCH REACTION PLATE (FLAT SIDE DOWN)

36. Install reverse clutch reaction plate with the flat side down towards reverse clutch.

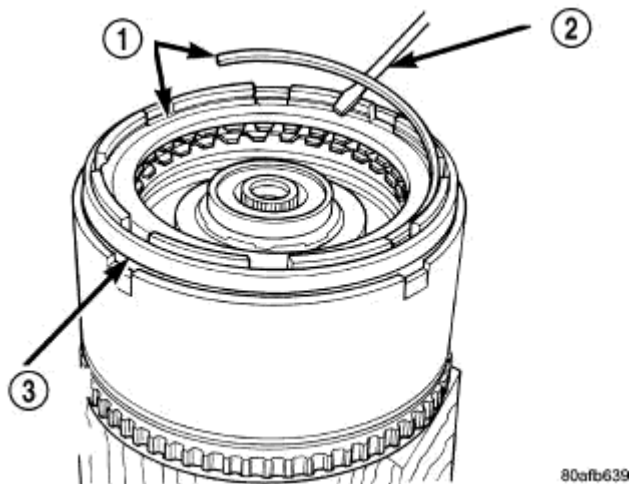


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Fig. 344: Reverse Clutch Assembly
Courtesy of CHRYSLER LLC

- 1 - SNAP RING
- 2 - REACTION PLATE
- 3 - CLUTCH DISC (2)
- 4 - CLUTCH PLATE (1)
- 5 - INPUT CLUTCH ASSEMBLY

37. Refer to the illustration view as necessary when performing the following steps .



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Fig. 345: Install Reverse Clutch Snap Ring
Courtesy of CHRYSLER LLC

- 1 - REVERSE CLUTCH SNAP RING (SELECT)

2 - SCREWDRIVER

3 - REVERSE CLUTCH REACTION PLATE

38. Tap reaction plate (3) down to allow installation of the reverse clutch snap ring (1) Install reverse clutch snap ring (1).

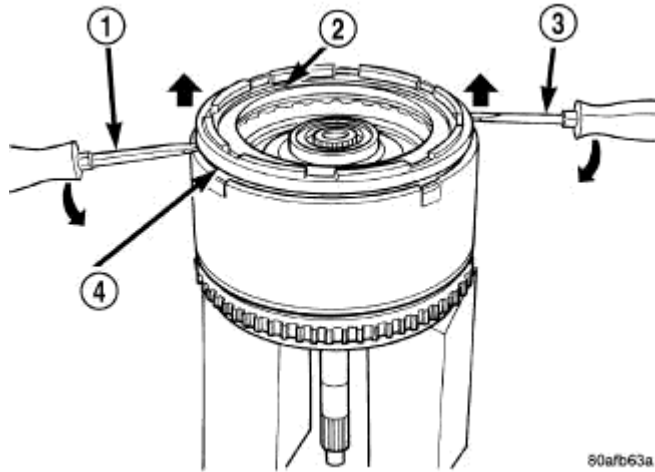


Fig. 346: Pry Up Reaction
Courtesy of CHRYSLER LLC

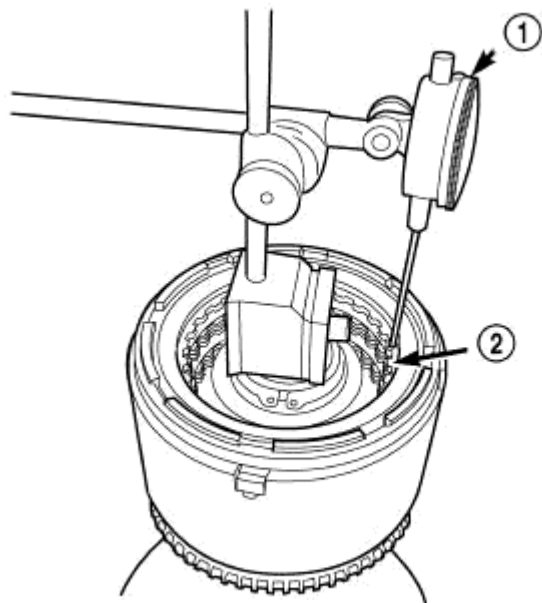
1 - SCREWDRIVER

2 - SNAP RING

3 - SCREWDRIVER

4 - MUST RAISE REVERSE REACTION PLATE TO RAISE SNAP RING

39. Pry up reverse reaction plate (4) to seat against snap ring (2).

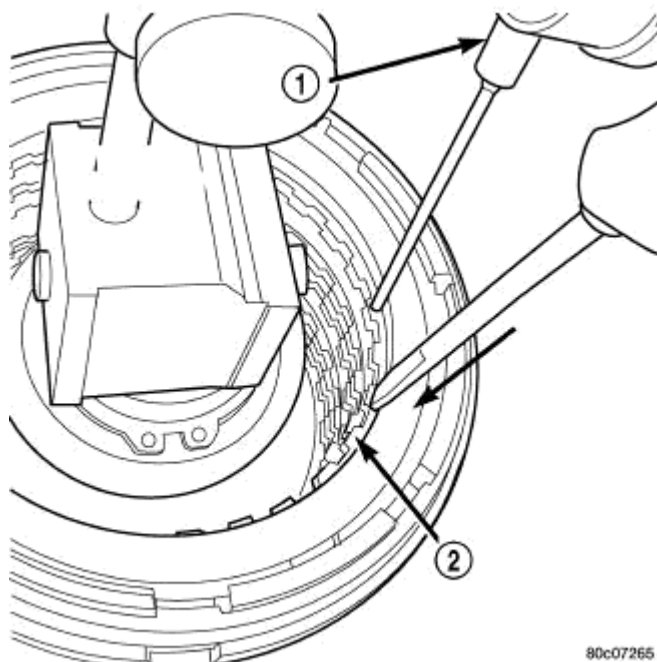


80c07264

Fig. 347: Measure Reverse Clutch Pack Clearance
Courtesy of CHRYSLER LLC

1 - DIAL INDICATOR
2 - REVERSE CLUTCH

40. Set up a dial indicator (1) on the reverse clutch pack (2).



80c07265

Fig. 348: Press Down On Reverse Clutch And Zero Indicator
 Courtesy of CHRYSLER LLC

1 - DIAL INDICATOR
2 - REVERSE CLUTCH

41. Using moderate pressure, press down and hold (near indicator) reverse clutch disc (2) with screwdriver or suitable tool and zero dial indicator (1). When releasing pressure, indicator should advance (0.005-0.010 in.) as clutch pack relaxes.
42. Apply 30 psi (206 kPa) air pressure to the reverse clutch hose on Input Clutch Pressure Fixture 8391. Measure and record reverse clutch pack measurement in four places, 90° apart.
43. Take average of four measurements and compare with reverse clutch pack clearance specification. **The reverse clutch pack clearance is 0.76-1.245 mm (0.030-0.049 in.).** Select the proper reverse clutch snap ring to achieve specifications:

REVERSE CLUTCH SNAP RING THICKNESS	
4377195	1.53-1.58 mm (0.060-0.062 in.)
4412871	1.77-1.83 mm (0.070-0.072 in.)
4412872	2.02-2.07 mm (0.080-0.082 in.)
4412873	2.27-2.32 mm (0.090-0.091 in.)

44. To complete the assembly, reverse clutch and overdrive clutch must be removed.
45. Install the number two needle bearing (1) .

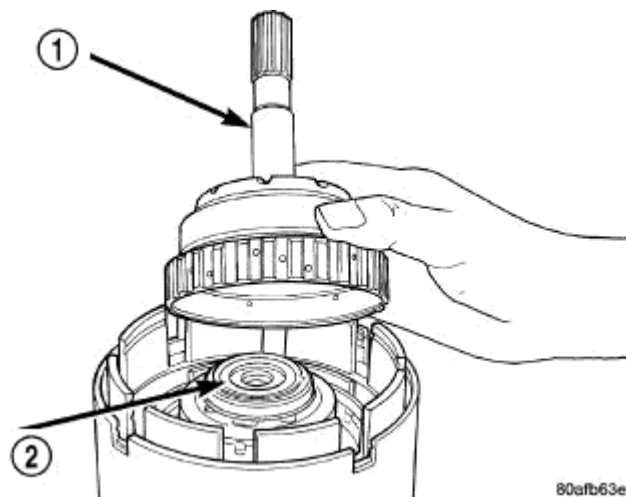


Fig. 349: Install Underdrive Shaft Assembly
Courtesy of CHRYSLER LLC

- | |
|-------------------------------|
| 1 - UNDERDRIVE SHAFT ASSEMBLY |
| 2 - #2 NEEDLE BEARING |

46. Install the underdrive shaft assembly (1) .

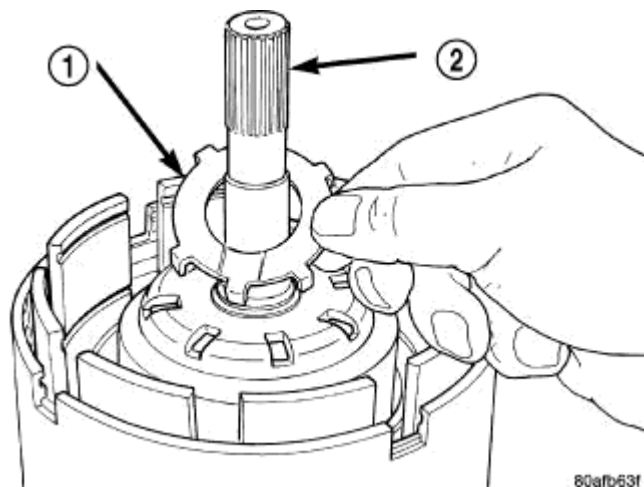


Fig. 350: Install No. 3 Thrust Washer
Courtesy of CHRYSLER LLC

- | |
|------------------------------------|
| 1 - #3 THRUST WASHER (NOTE 5 TABS) |
| 2 - UNDERDRIVE SHAFT ASSEMBLY |

47. Install the number three thrust washer (1) to the underdrive shaft assembly (2). Be sure five tabs are seated properly.

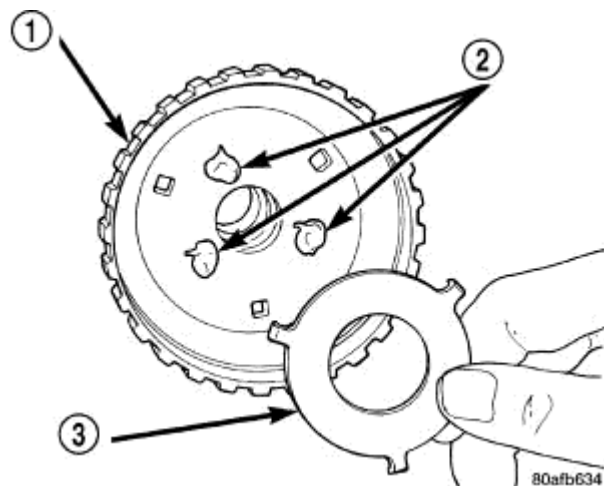


Fig. 351: Install No. 3 Thrust Plate
Courtesy of CHRYSLER LLC

1 - OVERDRIVE SHAFT ASSEMBLY
2 - DABS OF PETROLATUM (FOR RETENTION)
3 - #3 THRUST PLATE (NOTE 3 TABS)

48. Install the number three thrust plate (3) (note 3 tabs) to the bottom of the overdrive shaft assembly (1). Retain with petrolatum or transmission assembly gel (2).

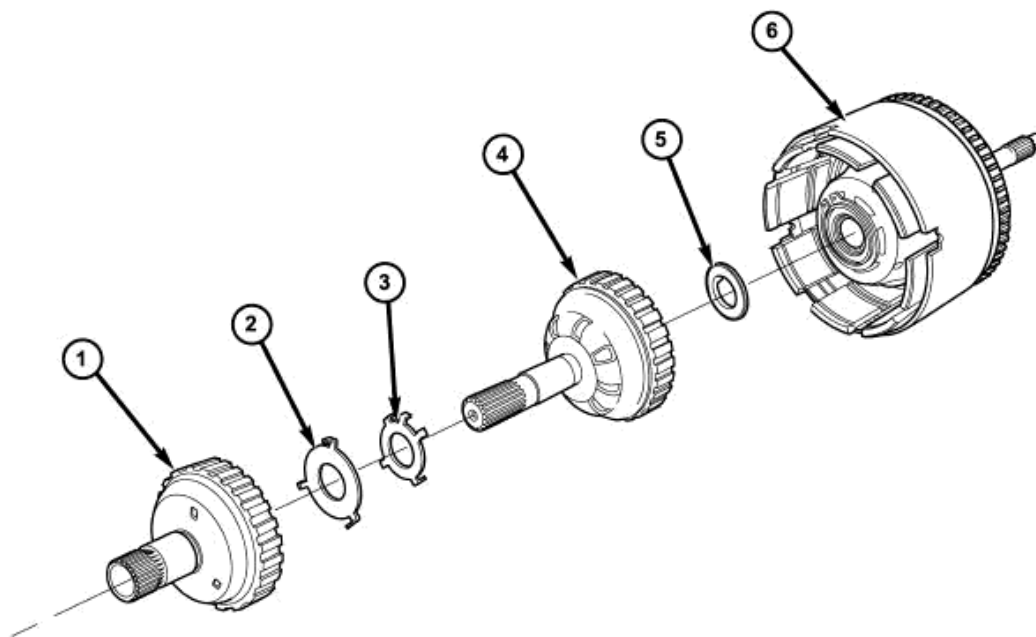


Fig. 352: Overdrive/Underdrive Shafts

Courtesy of CHRYSLER LLC

- | |
|--------------------------------|
| 1 - OVERDRIVE SHAFT |
| 2 - #3 THRUST PLATE (3 TABS) |
| 3 - #3 THRUST WASHER (5 TABS) |
| 4 - UNDERDRIVE SHAFT |
| 5 - #2 NEEDLE BEARING (3 TABS) |
| 6 - INPUT CLUTCH ASSEMBLY |

49. Refer to the illustration as necessary when performing the following steps .

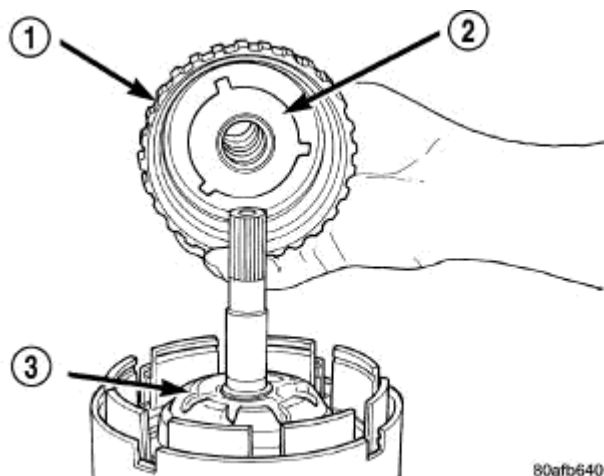


Fig. 353: Install Overdrive Shaft Assembly
Courtesy of CHRYSLER LLC

- | |
|------------------------------|
| 1 - OVERDRIVE SHAFT ASSEMBLY |
| 2 - #3 THRUST PLATE |
| 3 - #3 THRUST WASHER |

50. Install the overdrive shaft assembly (1) .

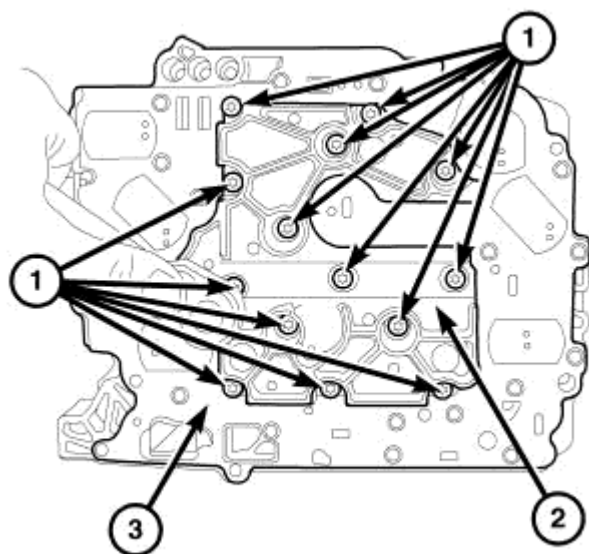
51. Reinstall overdrive and reverse clutch as shown in illustration. **Rechecking these clutch clearances is not necessary.**

ASSEMBLY, TRANSMISSION SOLENOID AND PRESSURE SWITCH

REMOVAL

REMOVAL

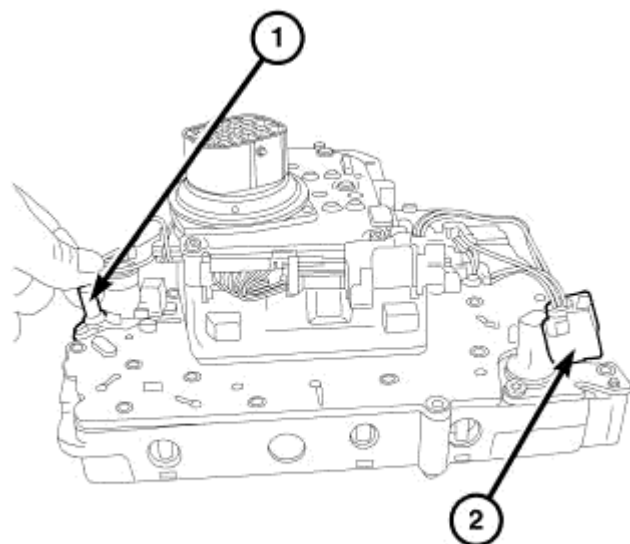
1. Remove valve body. See **Removal** .



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Fig. 354: Bolts At Clamp Plate
Courtesy of CHRYSLER LLC

2. Remove the clamp plate bolts and clamp plate.



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Fig. 355: Solenoid Pack Electrical Connect
Courtesy of CHRYSLER LLC

3. Remove the electrical connectors to the pressure control solenoid and line pressure sensors.
4. Remove the solenoid/pressure switch assembly.

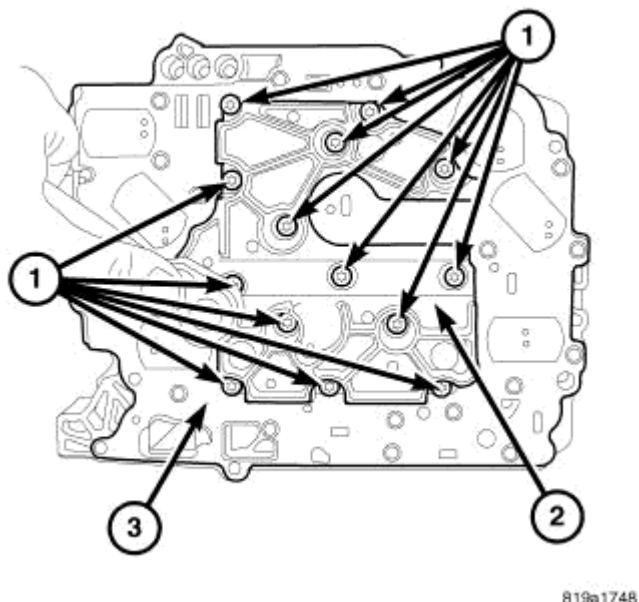
INSTALLATION**INSTALLATION**

Fig. 356: Bolts At Clamp Plate
Courtesy of CHRYSLER LLC

1. Install the solenoid/pressure switch assembly.
2. Install mounting bolts (1) at clamp plate (2) and tighten to 6 N.m (50 in. lbs.).

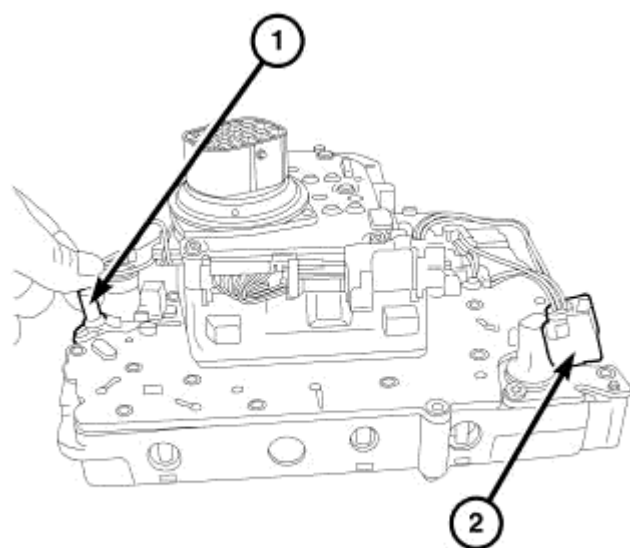


Fig. 357: Solenoid Pack Electrical Connect
Courtesy of CHRYSLER LLC

3. Connect the electrical connectors (1, 2) to the pressure control solenoid and line pressure sensors.
4. Install valve body. See **Installation** .

ASSEMBLY, UNDERDRIVE COMPOUNDER

DESCRIPTION

DESCRIPTION

The underdrive compounder assembly replaces the 41TE transfer shaft. The transaxle case is modified to accommodate the additional components. The main components of the underdrive compounder assembly are the low clutch (LC), direct clutch (DC), overrunning clutch (ORC), simple planetary gear set and bearing retainer transfer/underdrive shaft.

DISASSEMBLY

DISASSEMBLY

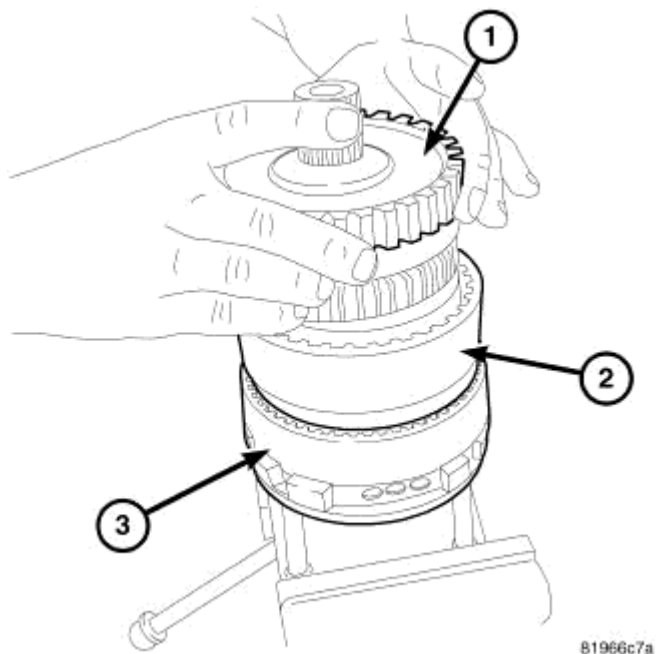


Fig. 358: Planetary Gear Set - Output Hub
Courtesy of CHRYSLER LLC

1. Remove the planetary gear set / output hub (1).

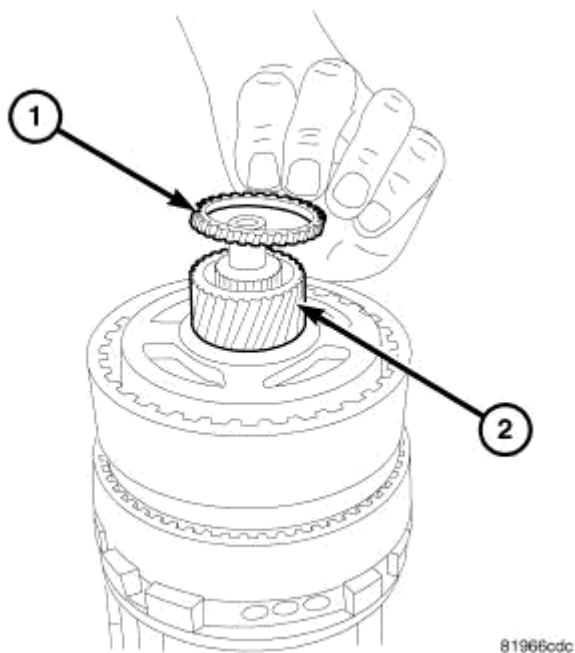


Fig. 359: Helical Shim
Courtesy of CHRYSLER LLC

2. Remove the helical shim (1).

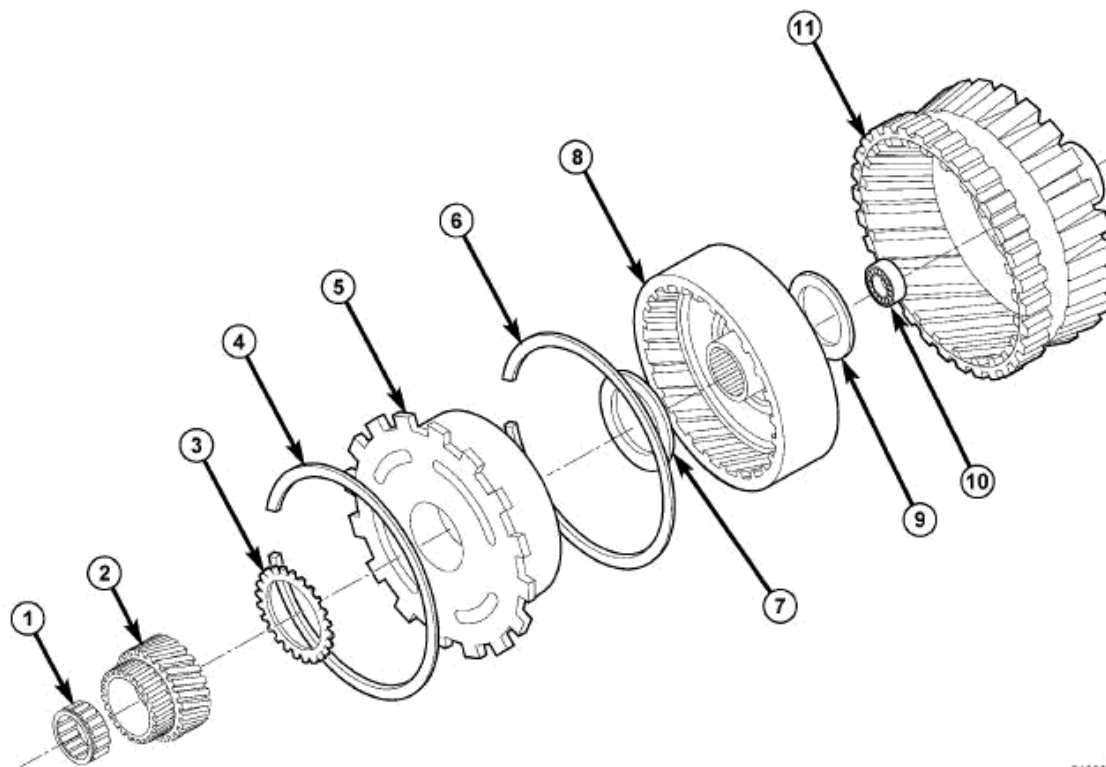


Fig. 360: Planetary Gear Set
Courtesy of CHRYSLER LLC

1 - NEEDLE BEARING	5 - PLANETARY CARRIER	9 - #2 NEEDLE BEARING
2 - SUN GEAR	6 - #2 SNAP RING	10 - NEEDLE BEARING
3 - HELICAL SHIM (SELECT)	7 - #1 NEEDLE BEARING	11 - OUTPUT HUB
4 - #1 SNAP RING	8 - ANNULUS GEAR	-

3. Remove the snap ring (4) holding the planetary carrier.
4. Remove the planetary carrier (5).
5. Remove the snap ring (6) holding the annulus gear.
6. Remove the needle bearing (7) on the front side of the annulus gear.
7. Remove the annulus gear (8).
8. Remove the needle bearing (9) on the back side of the annulus gear / on the front side of the output hub.
9. Inspect the needle bearing in the output hub for any damage.

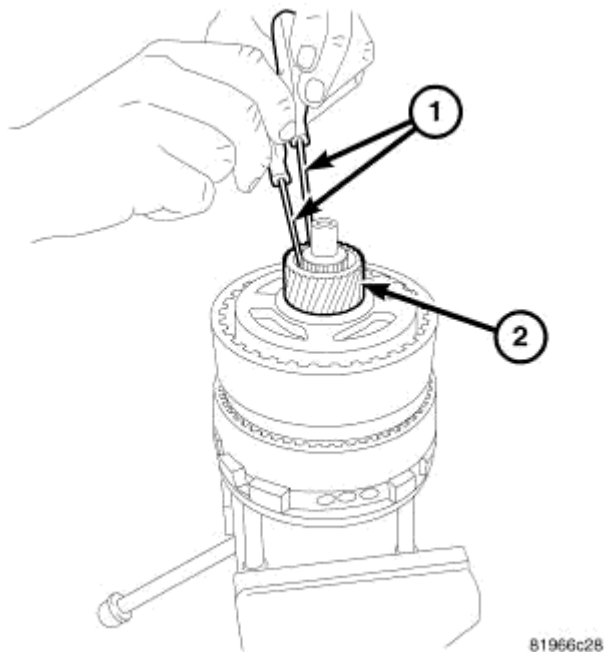


Fig. 361: Clip At Transfer Shaft -Out
Courtesy of CHRYSLER LLC

10. Using two small picks, remove retaining clip from transfer / underdrive shaft

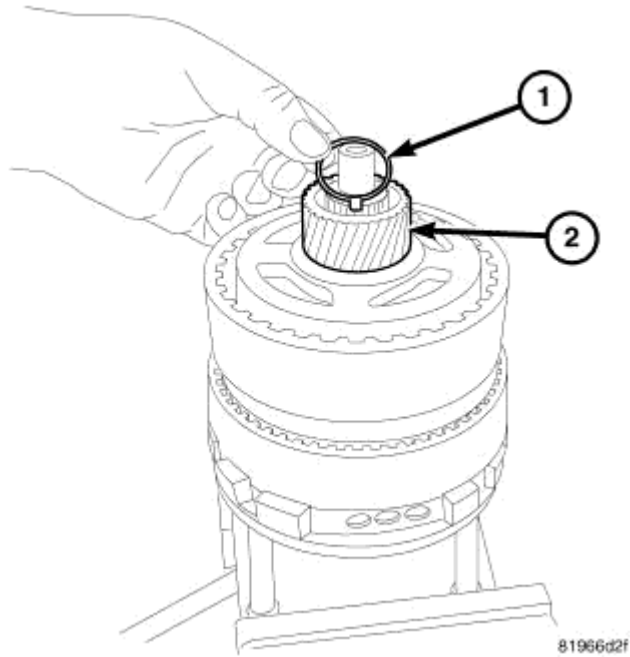


Fig. 362: Clip At Transfer Shaft
Courtesy of CHRYSLER LLC

NOTE: A new retaining clip will be used during assembly.

11. Discard the retaining clip (that was removed from the transfer / underdrive shaft).
12. Remove the sun gear (2) from the shaft.

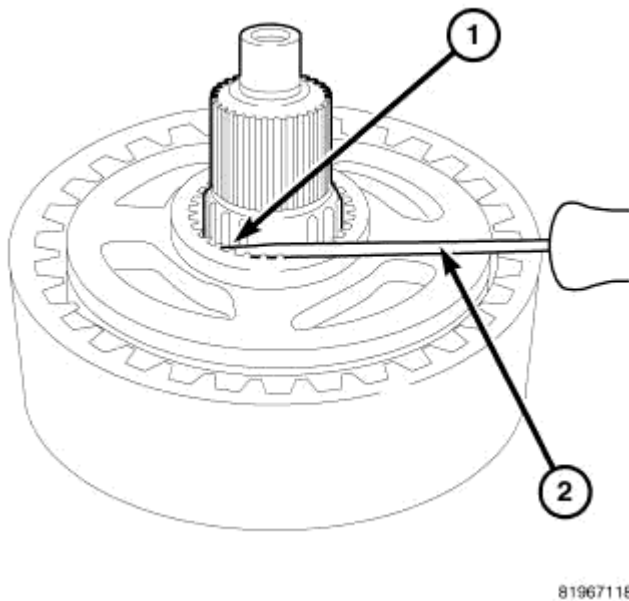
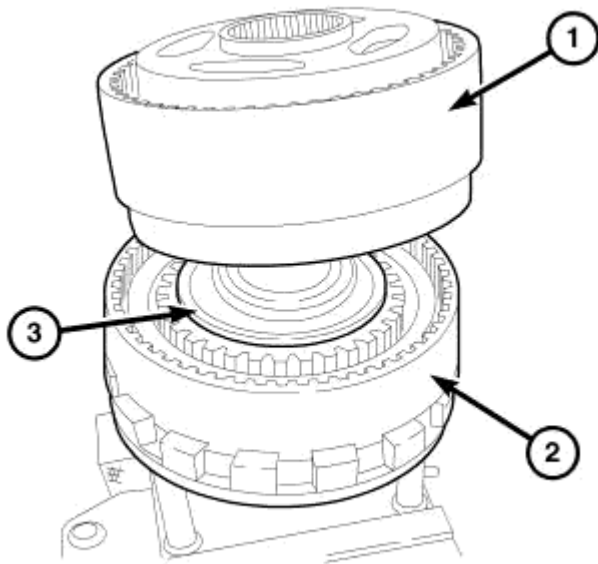


Fig. 363: Split Bearing
Courtesy of CHRYSLER LLC

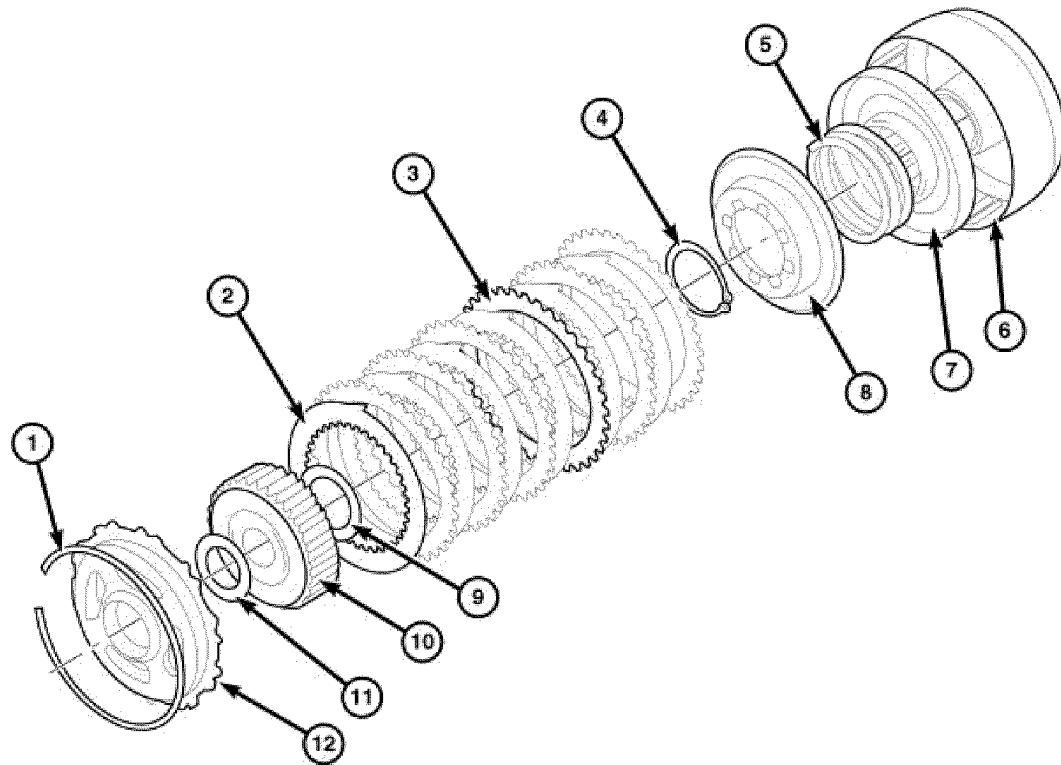
13. Remove the split bearing (1) using a small pick (2).



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Fig. 364: Direct Clutch
Courtesy of CHRYSLER LLC

14. Remove the direct clutch (1) from the low clutch.



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Fig. 365: Direct Clutch Exploded
 Courtesy of CHRYSLER LLC

1 - INTERNAL SNAP RING	5 - RETURN COIL SPRING	9 - # 2 THRUST BEARING
2 - FRICTION (INNER SPLINE)	6 - RETAINER	10 - HUB
3 - FRICTION (OUTER SPLINE)	7 - PISTON	11 - # 1 THRUST BEARING
4 - RETAINER SNAP RING	8 - BALANCE PISTON	12 - REACTION PLATE (SELECTABLE)

15. Remove the internal snap ring (1).
16. Remove the selectable reaction plate (12).
17. Remove the number one thrust bearing (11).
18. Remove the hub (10).
19. Remove the number two thrust bearing (9).

20. Remove the inner and outer spline frictions (2, 3).

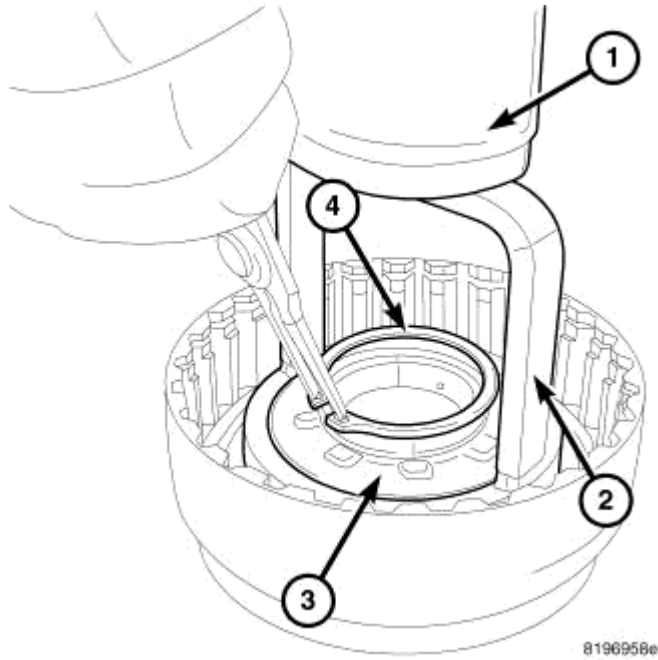
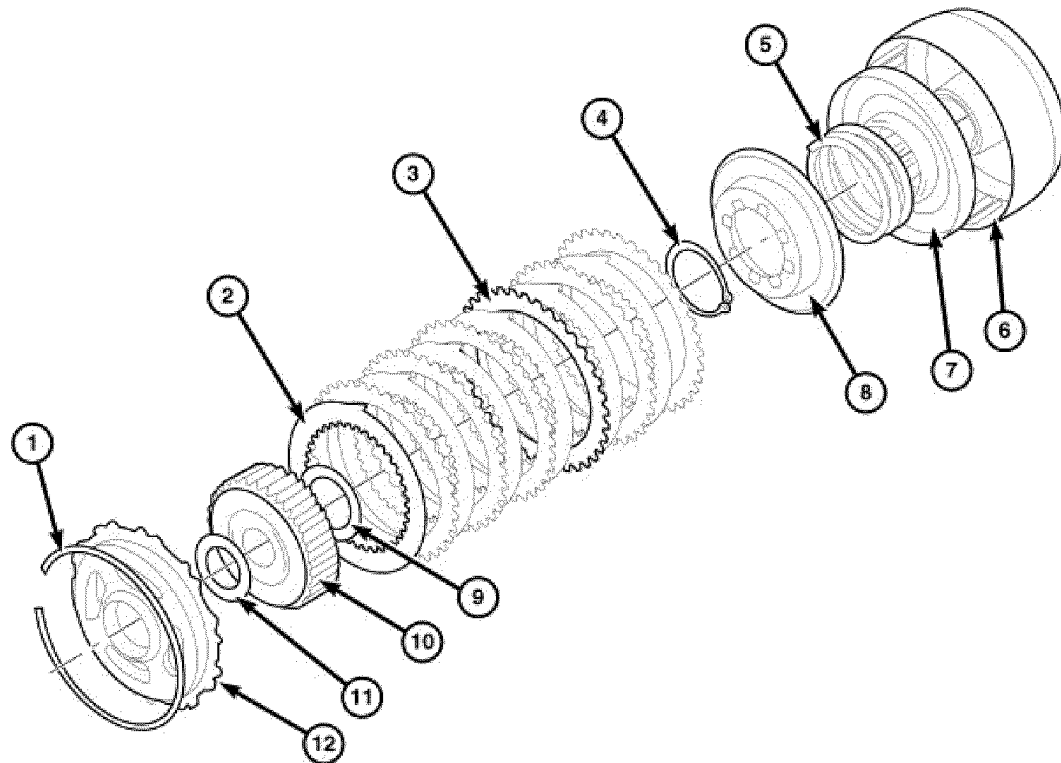


Fig. 366: Direct Clutch Compressed
Courtesy of CHRYSLER LLC

21. Install Compressor 8250 (2) over the direct clutch balance piston (3) and place onto a press (1).
22. Compress spring to remove the snap ring (4) at the direct clutch balance piston.



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Fig. 367: Direct Clutch Exploded
 Courtesy of CHRYSLER LLC

1 - INTERNAL SNAP RING	5 - RETURN COIL SPRING	9 - # 2 THRUST BEARING
2 - FRICTION (INNER SPLINE)	6 - RETAINER	10 - HUB
3 - FRICTION (OUTER SPLINE)	7 - PISTON	11 - # 1 THRUST BEARING
4 - RETAINER SNAP RING	8 - BALANCE PISTON	12 - REACTION PLATE (SELECTABLE)

23. Remove the direct clutch balance piston (8).
24. Remove the return coil spring (5).
25. Remove the direct clutch piston (7) from the retainer (6).

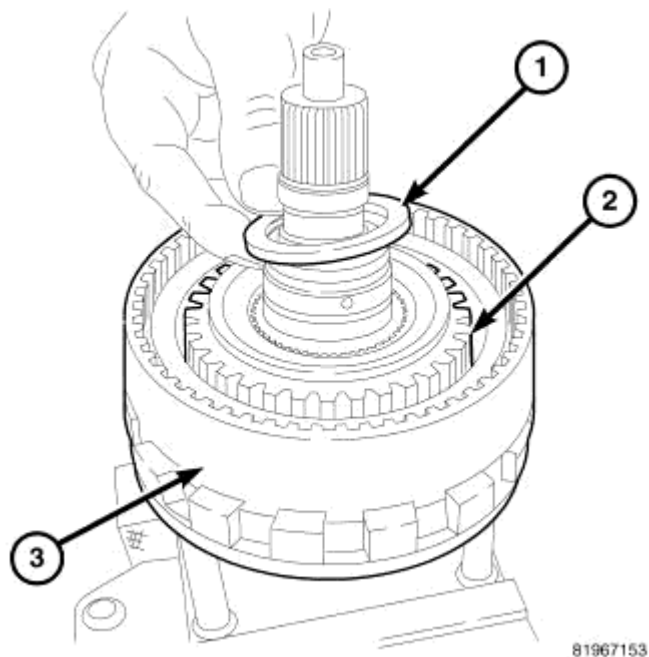


Fig. 368: Needle Bearing
Courtesy of CHRYSLER LLC

26. Remove the needle bearing (1) from the transfer shaft.

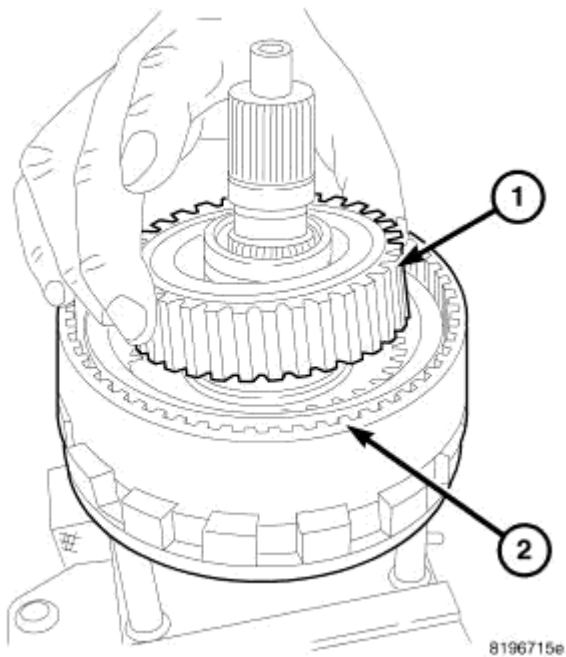


Fig. 369: Overrunning Clutch
Courtesy of CHRYSLER LLC

27. Remove the overrunning clutch from the low clutch (1).

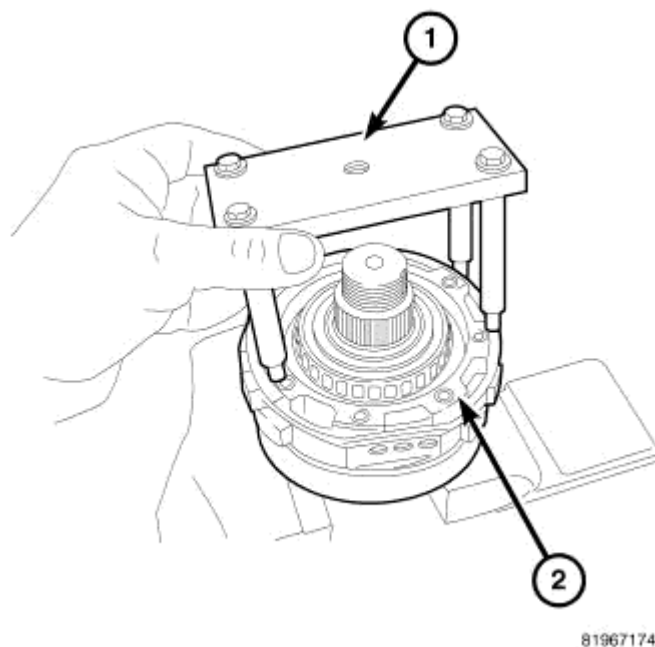


Fig. 370: Tool 9908

Courtesy of CHRYSLER LLC

28. Remove the Bearing Retainer Assembly Remover 9908 (1) from the low clutch (2).

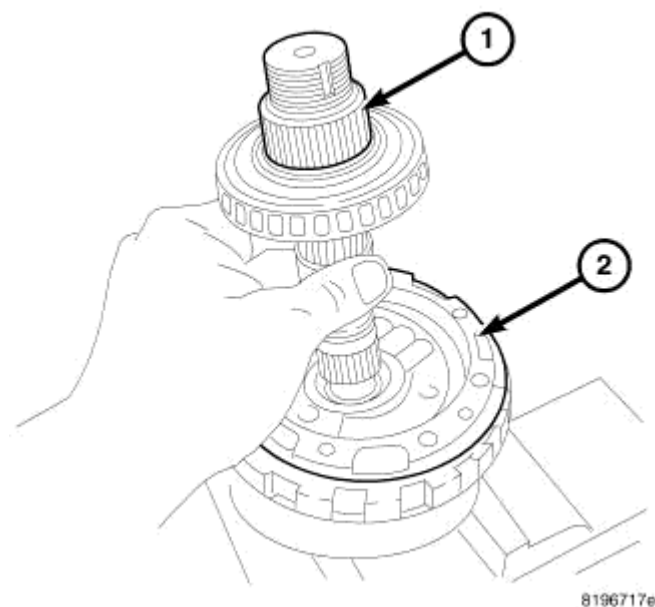
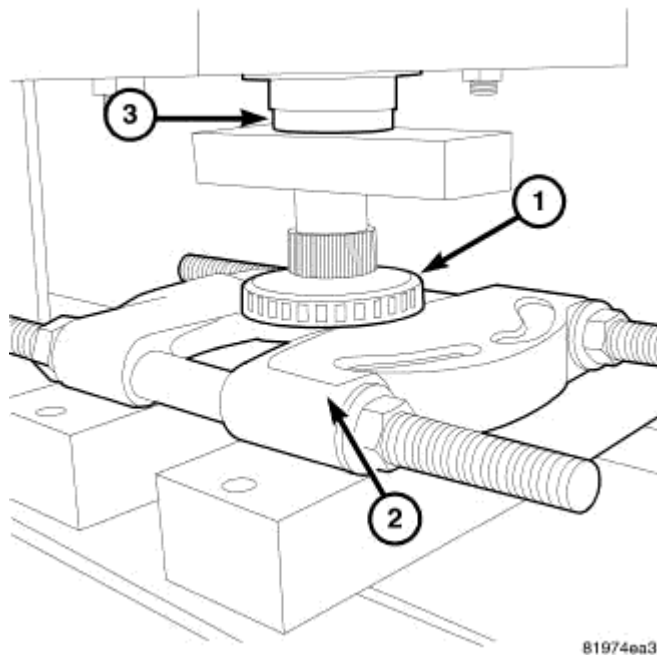


Fig. 371: Transfer Shaft

Courtesy of CHRYSLER LLC

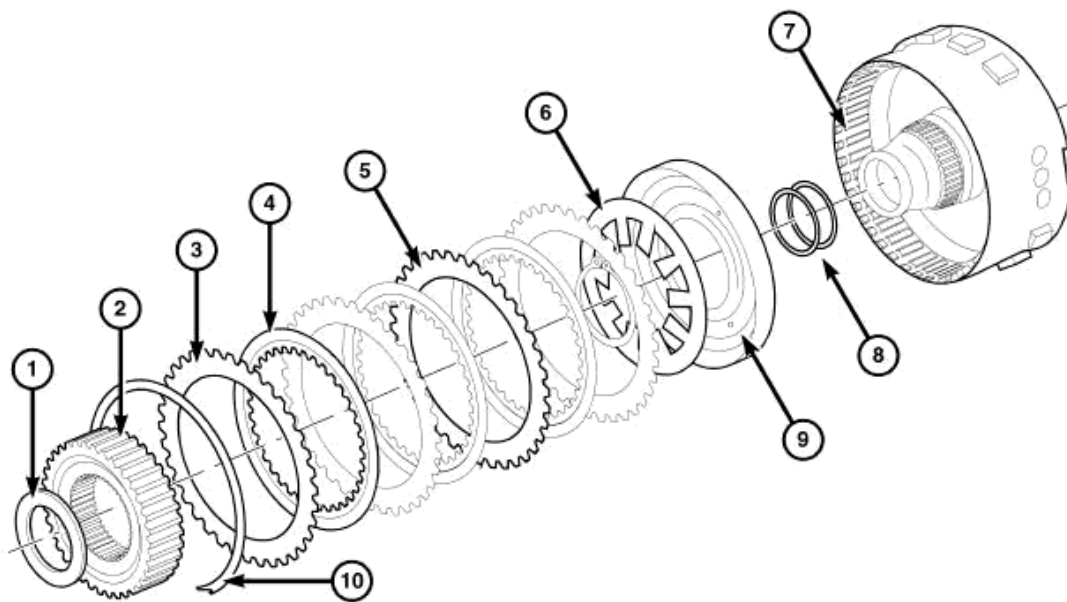
29. Remove the transfer shaft (1) from the low clutch (2).



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Fig. 372: Remove Bearing At Compounder
Courtesy of CHRYSLER LLC

30. Using Bearing Splitter 1130 (2) and a press (3) remove the underdrive compounder bearing.



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Fig. 373: Low Clutch Exploded
Courtesy of CHRYSLER LLC

1 - SNAP RING (SELECTABLE)	6 - RETURN SPRING
2 - CLUTCH HUB	7 - RETAINER
3 - REACTION PLATE	8 - SEALS
4 - FRICTION DISC	9 - PISTON
5 - SEPARATOR PLATE	10 - SNAP RING

31. Remove the snap ring (10).
32. Remove the reaction plate (3)
33. Remove the friction disc's (4) and the separator plates (5).

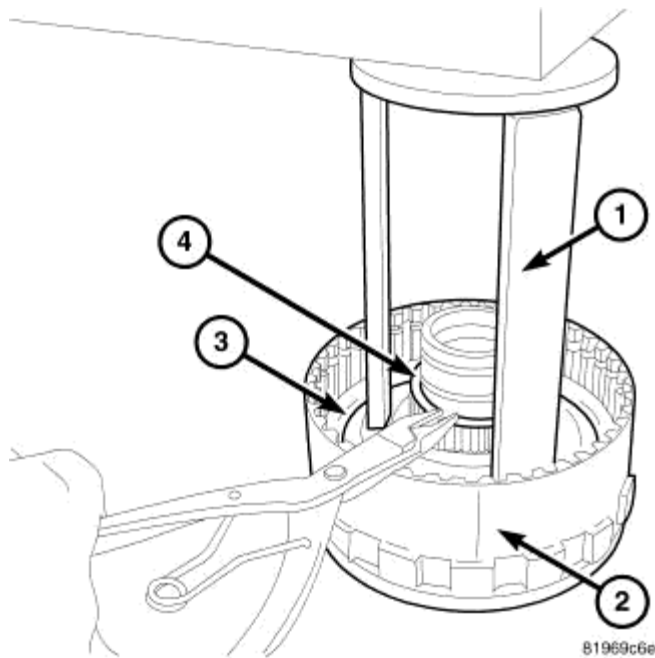


Fig. 374: Low Clutch Compressed
Courtesy of CHRYSLER LLC

34. Install compressor 9725 (1) on return spring (3) and slightly compress.
35. Remove the snap ring (4) from low clutch retainer (2).

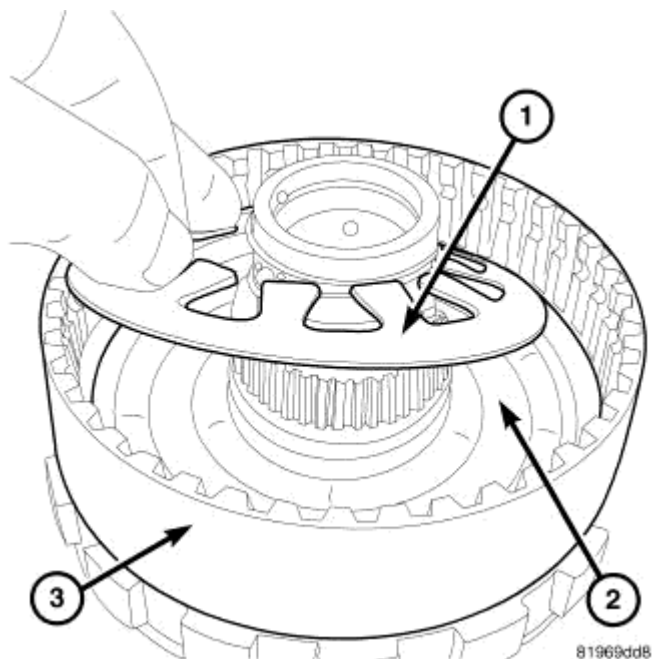


Fig. 375: Low Clutch Return Spring
Courtesy of CHRYSLER LLC

36. Release pressure on press, remove compressor 9725 and the return spring (1).

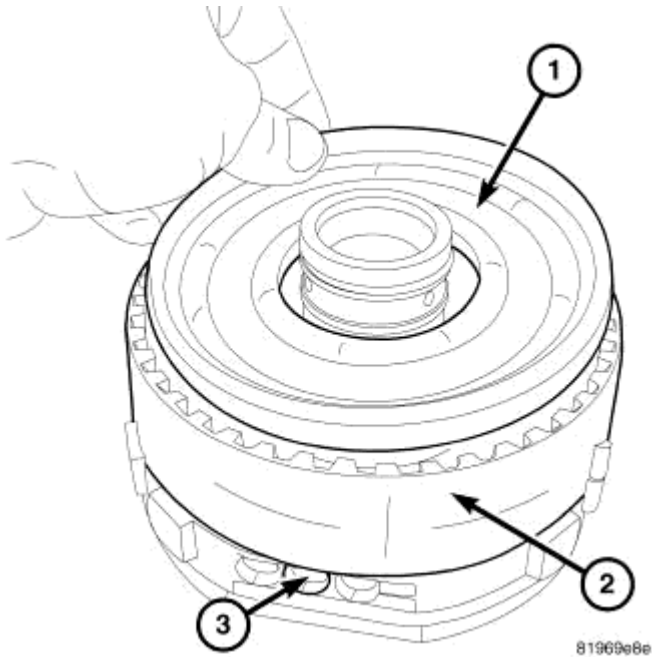


Fig. 376: Low Clutch Piston
Courtesy of CHRYSLER LLC

37. Remove the low clutch piston (1) from low clutch retainer. Low air pressure may be applied to low clutch retainer port (3) to move piston out of the bore.

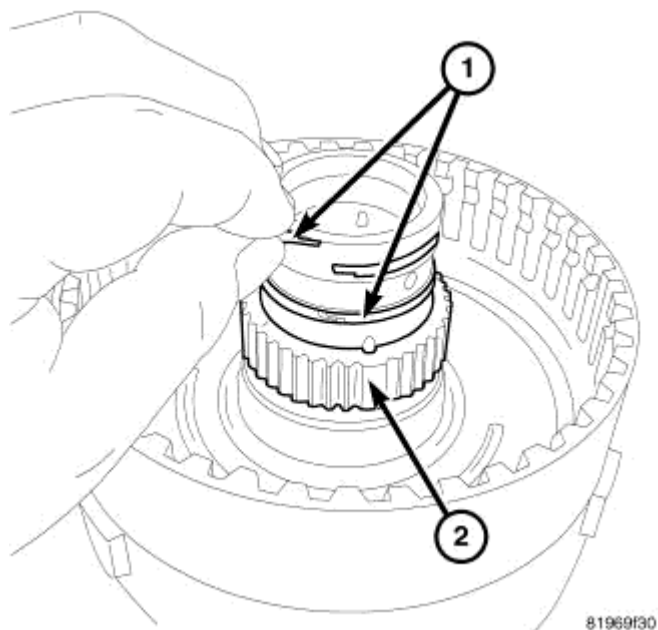


Fig. 377: Seal Rings

Courtesy of CHRYSLER LLC

38. Remove the seal rings (1) from the low clutch retainer (2).

ASSEMBLY

ASSEMBLY

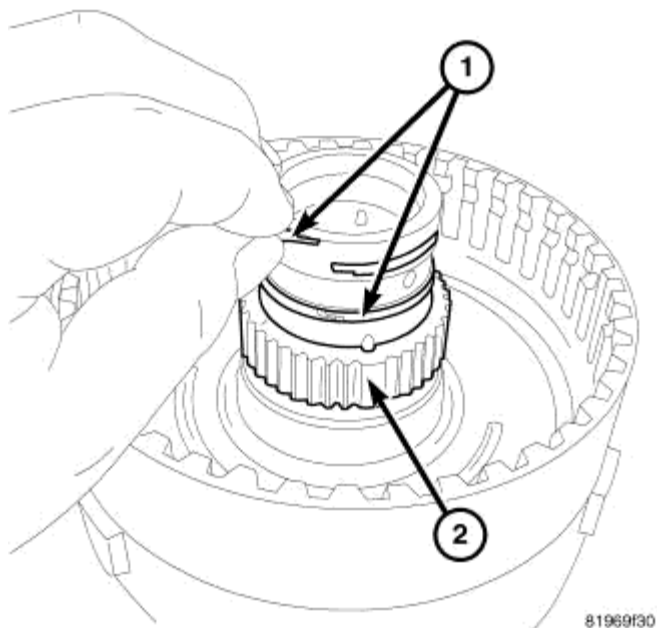


Fig. 378: Seal Rings

Courtesy of CHRYSLER LLC

CAUTION: Lube seal lips with ATF during installation, Use a twisting motion during installation to prevent seal lips from rolling over.

CAUTION: Do not over stretch. Can cause breakage.

1. Install **new** seal rings (1) on the low clutch retainer (2).

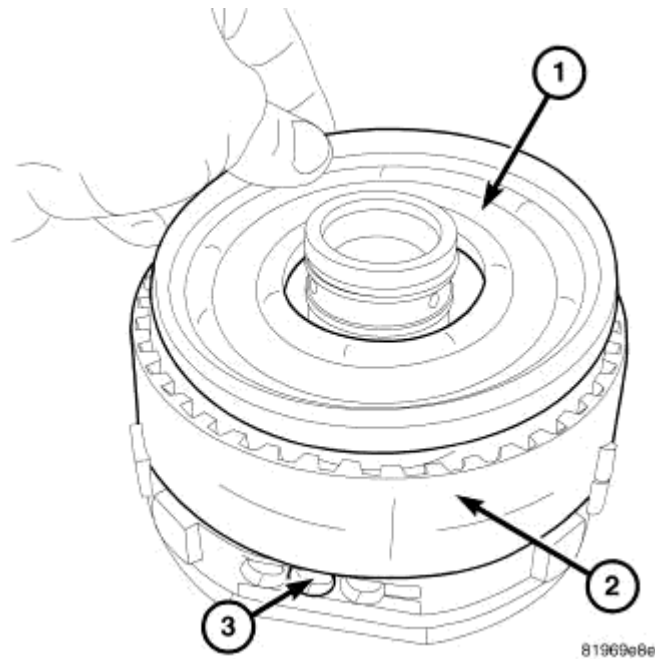


Fig. 379: Low Clutch Piston
Courtesy of CHRYSLER LLC

2. Install the low clutch piston (1) into low clutch retainer.

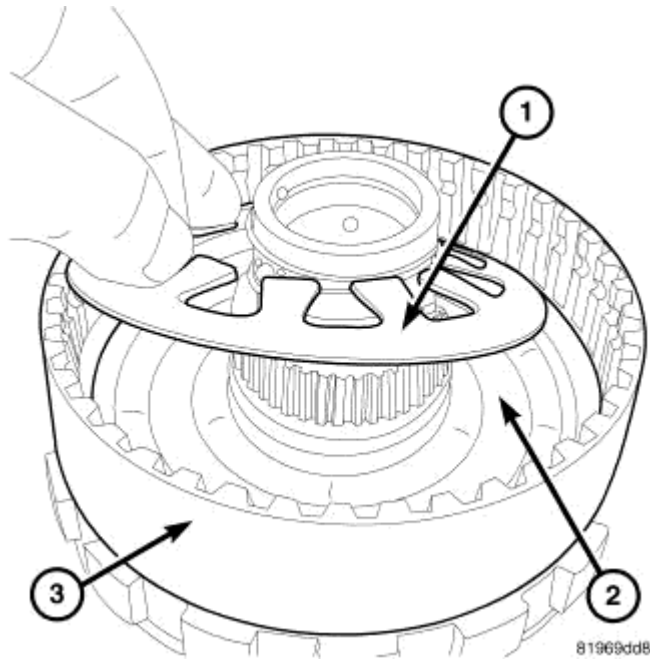


Fig. 380: Low Clutch Return Spring
Courtesy of CHRYSLER LLC

3. Install the low clutch return spring (1) over the low clutch retainer (2).

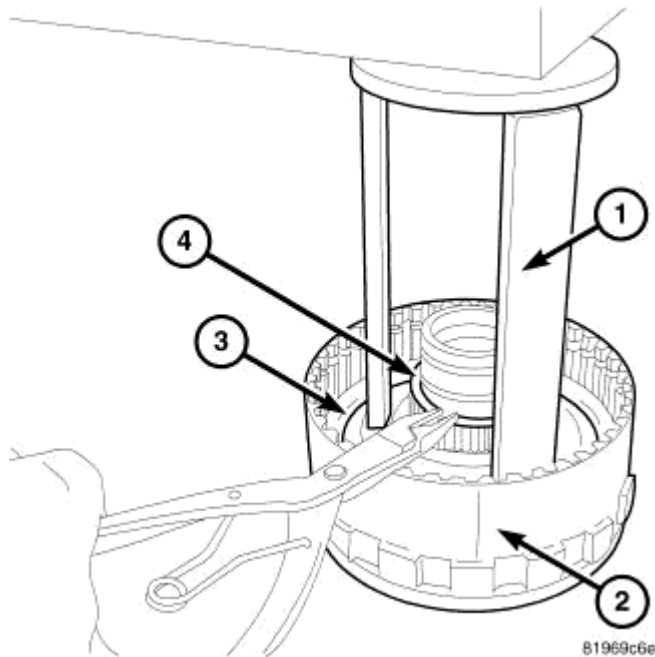
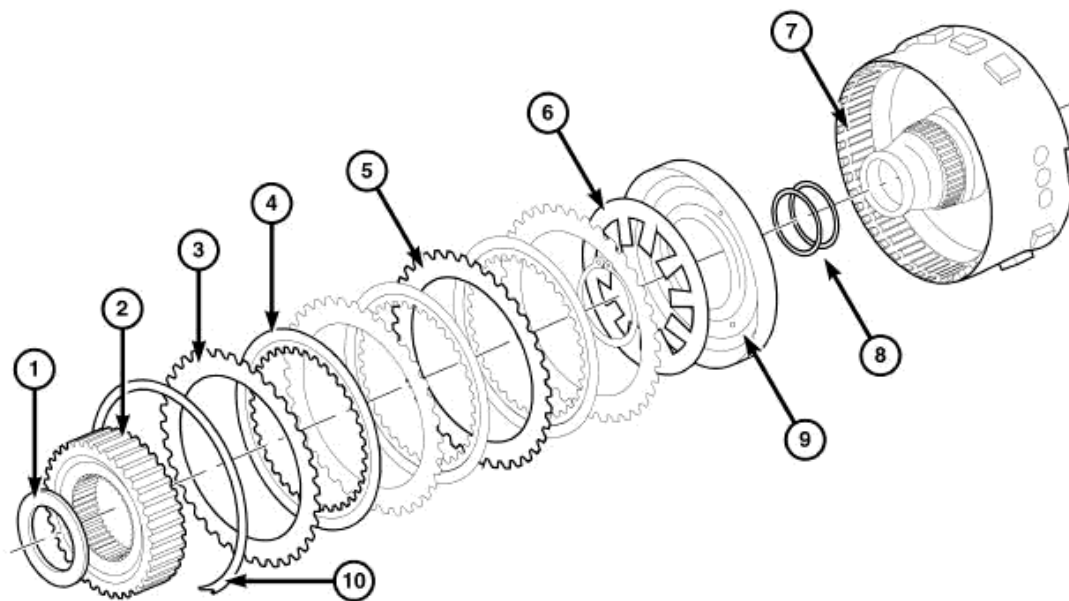


Fig. 381: Low Clutch Compressed
Courtesy of CHRYSLER LLC

4. Install compressor 9725 (1) on return spring (3) and slightly compress.
5. Install the snap ring (4) onto low clutch retainer (2).

6. Release pressure on press, remove Compressor 9725.

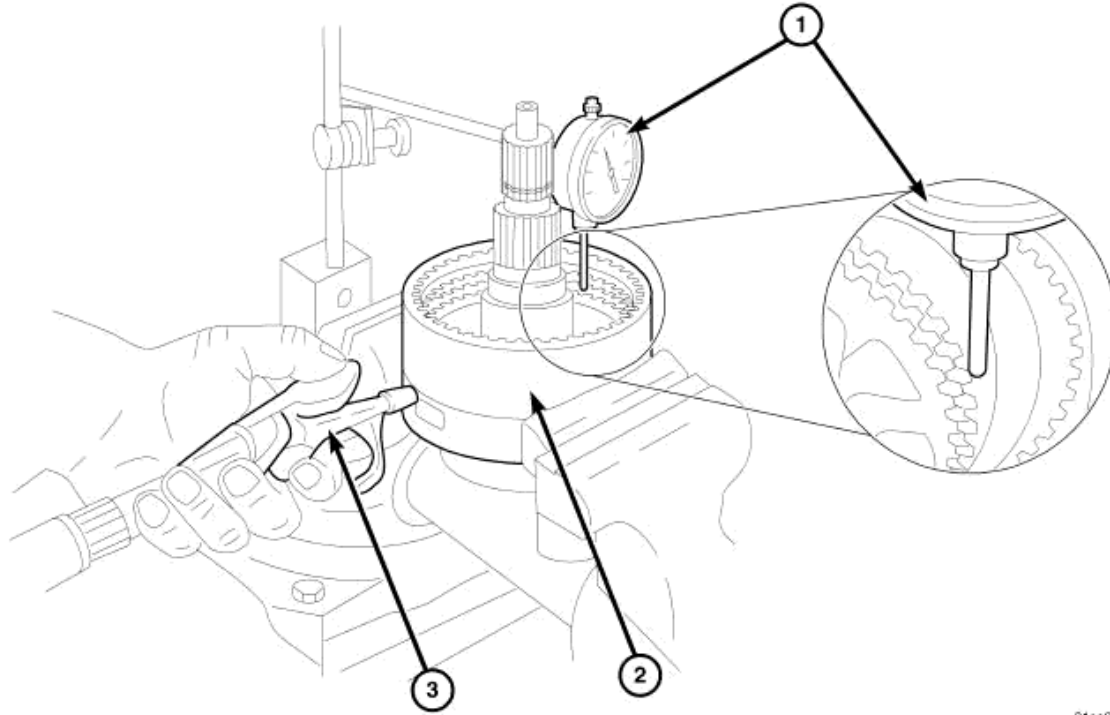


819098be

Fig. 382: Low Clutch Exploded
Courtesy of CHRYSLER LLC

1 - SNAP RING (SELECTABLE)	6 - RETURN SPRING
2 - CLUTCH HUB	7 - RETAINER
3 - REACTION PLATE	8 - SEALS
4 - FRICTION DISC	9 - PISTON
5 - SEPARATOR PLATE	10 - SNAP RING

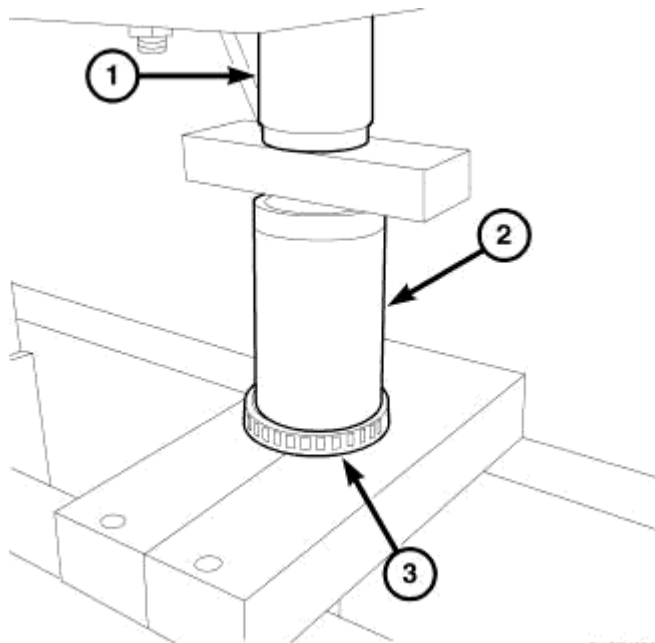
7. Install the friction disc's (4) and the separator plates (5).
8. Install the reaction plate (3).
9. Install the snap ring (10).



61aa0199

Fig. 383: Low Clutch Measurement
Courtesy of CHRYSLER LLC

10. Using a Dial Indicator and air pressure measure the low clutch clearance, the clearance should be 0.48 - 0.76 mm (.019 -.030 in.). Install desired selectable snap ring to achieve correct clearance.



81974100

Fig. 384: Install Compounder Bearing

Courtesy of CHRYSLER LLC

11. Using Installer 6756 (2) and a Press (1) install the underdrive compounder bearing (3) to transfer shaft.

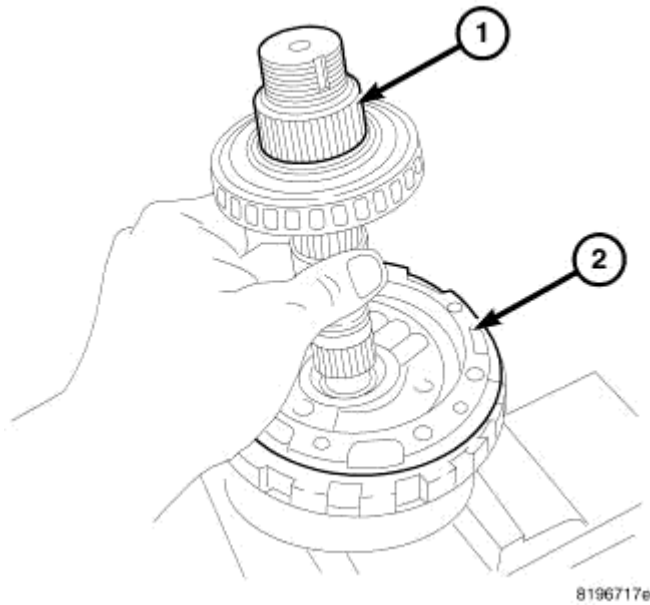


Fig. 385: Transfer Shaft

Courtesy of CHRYSLER LLC

12. Install **new** seal rings on the transfer shaft.
13. Install the transfer shaft (1) onto the low clutch (2).

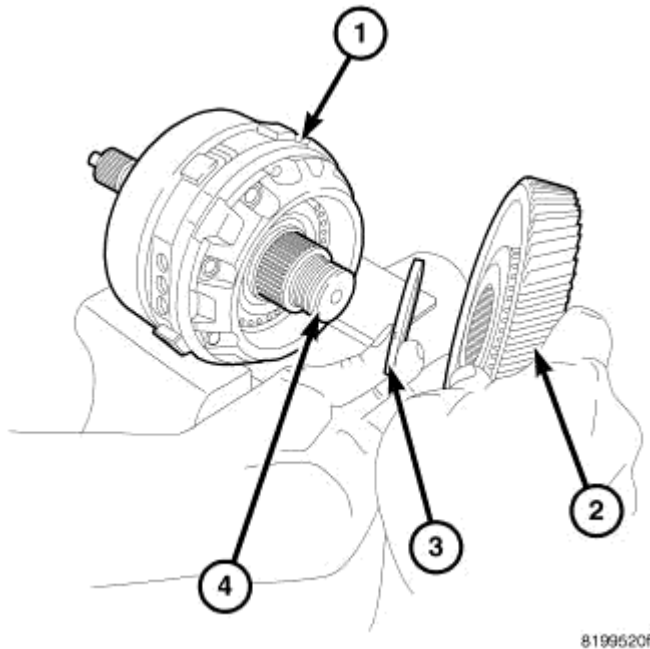


Fig. 386: Install To Measure
Courtesy of CHRYSLER LLC

NOTE: The selectable shim will determine turning torque.

14. Install the selectable shim (3), transfer gear (2) and the transfer gear nut.

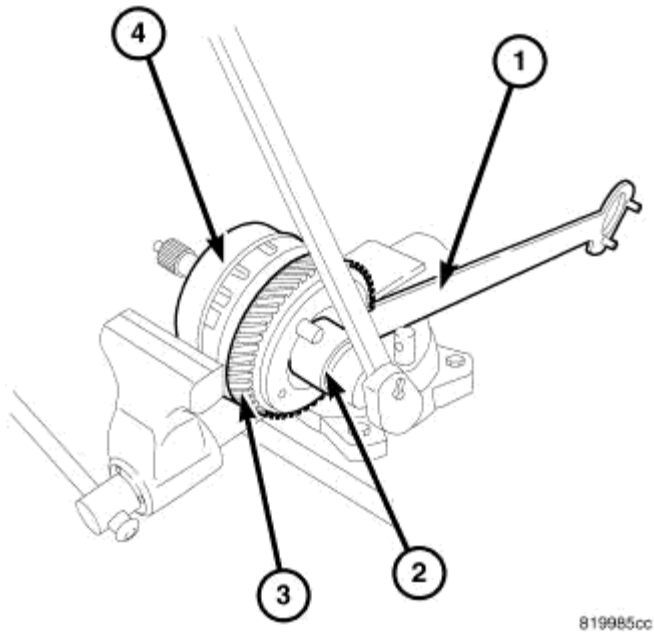


Fig. 387: Torque Transfer Gear Nut
Courtesy of CHRYSLER LLC

15. Using Holder 9739 (1) tighten transfer gear nut to 271 N.m (200 ft. lbs.).

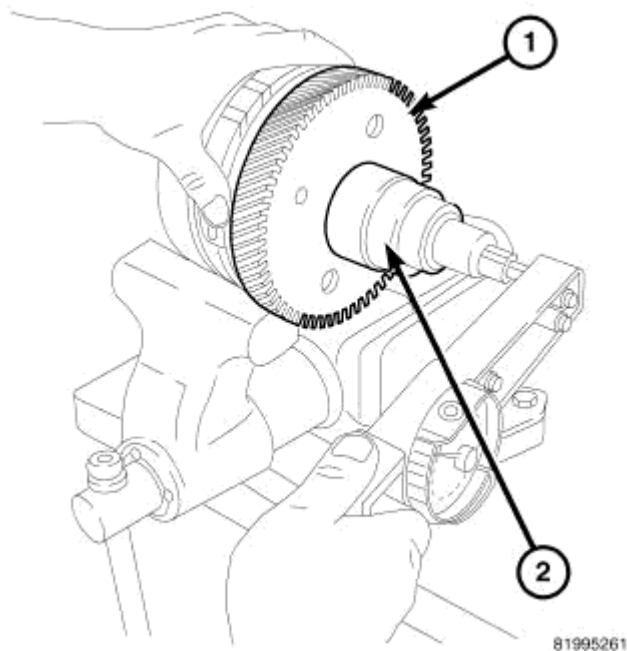


Fig. 388: LC Turning Torque
Courtesy of CHRYSLER LLC

16. Check turning torque using an inch pound torque wrench. Turning torque should be between 8.0 to 18.0 in-lbs (drag). If more than 18.0 in-lbs (drag) choose a larger shim and recheck turning torque. If less than 8.0 in-lbs (drag) choose a smaller shim and recheck turning torque.
17. Remove transfer gear nut and gear.

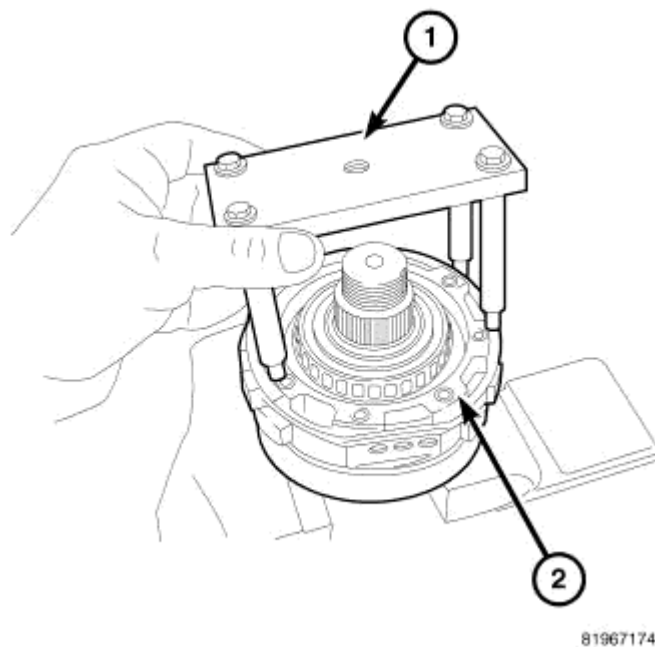


Fig. 389: Tool 9908
Courtesy of CHRYSLER LLC

18. Install the Bearing Retainer Assembly Remover 9908 (1) onto the low clutch (2).

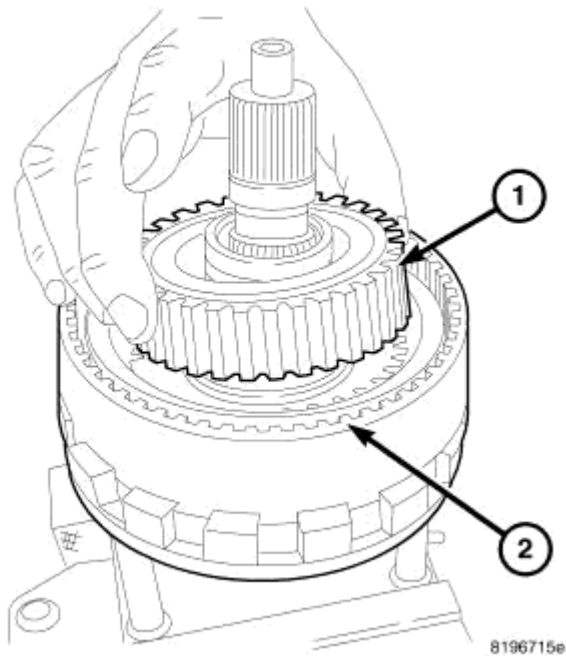


Fig. 390: Overrunning Clutch
Courtesy of CHRYSLER LLC

19. Install the overrunning clutch (1) into the low clutch (2).

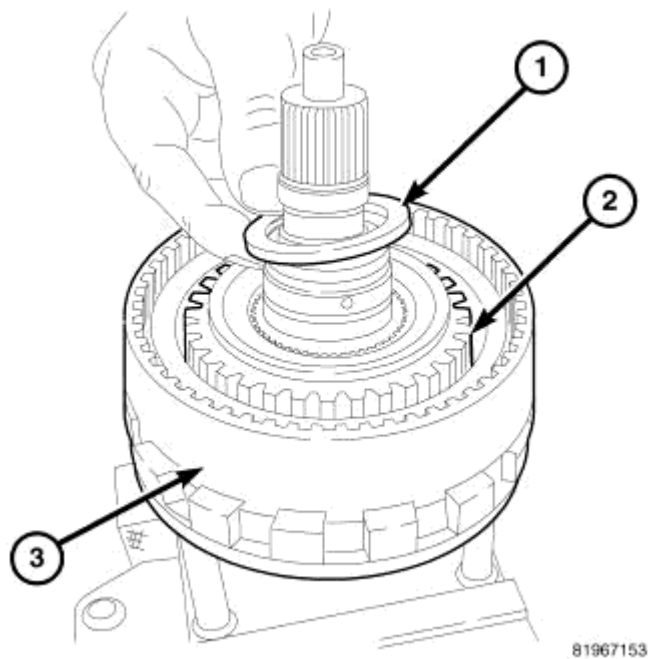
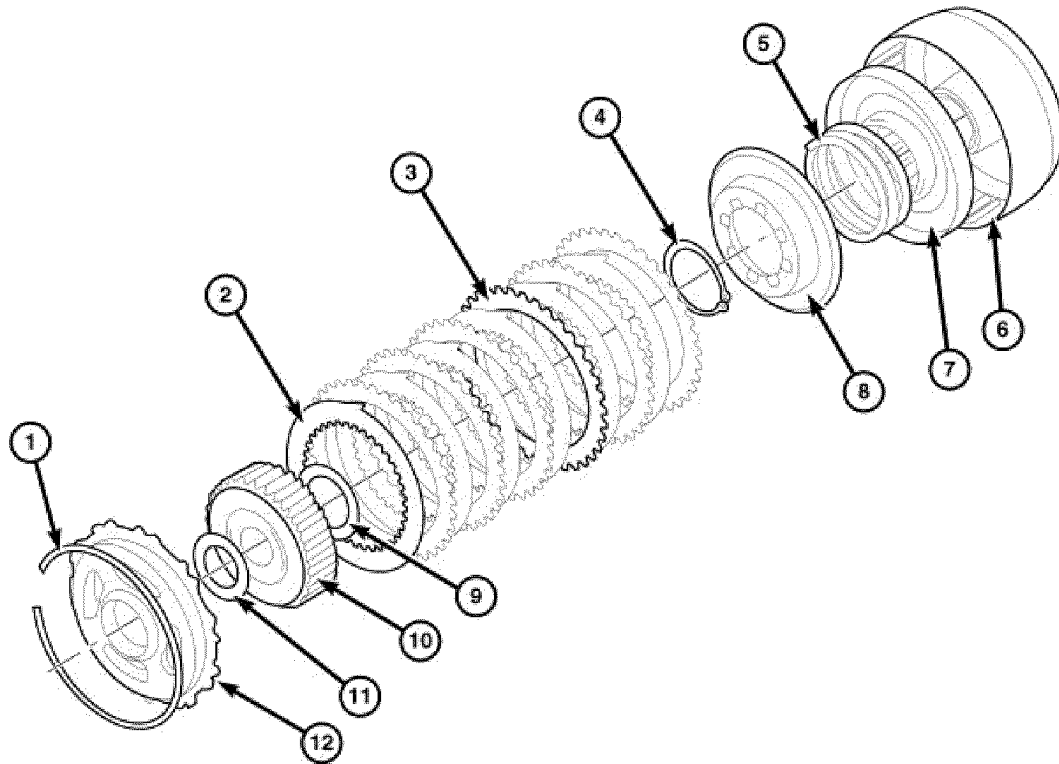


Fig. 391: Needle Bearing
Courtesy of CHRYSLER LLC

20. Install the needle bearing (1) onto the transfer shaft.



8196913a

Fig. 392: Direct Clutch Exploded
Courtesy of CHRYSLER LLC

1 - INTERNAL SNAP RING	5 - RETURN COIL SPRING	9 - # 2 THRUST BEARING
2 - FRICTION (INNER SPLINE)	6 - RETAINER	10 - HUB
3 - FRICTION (OUTER SPLINE)	7 - PISTON	11 - # 1 THRUST BEARING
4 - RETAINER SNAP RING	8 - BALANCE PISTON	12 - REACTION PLATE (SELECTABLE)

21. Install the direct clutch retainer (8) onto the retainer (7).
22. Install the return coil spring (5) onto the balance piston (8).
23. Install the direct clutch piston (7) into the balance piston (8) using the Direct Clutch Piston Guide 9727.

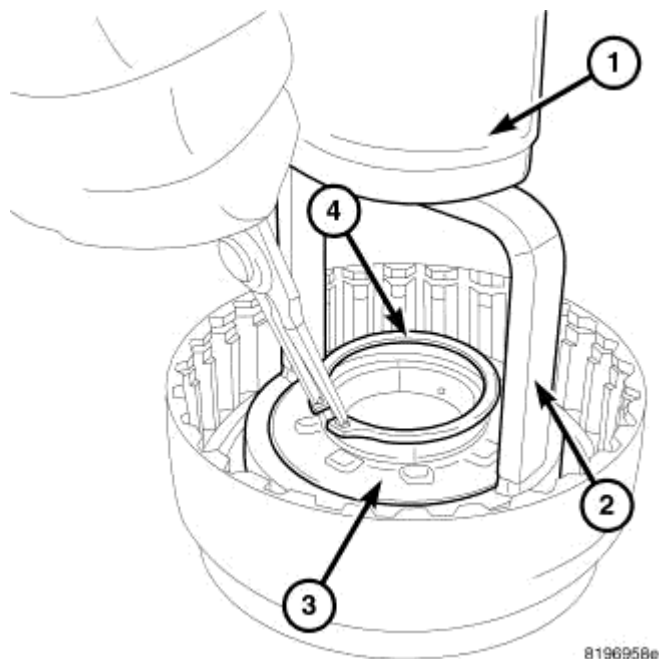


Fig. 393: Direct Clutch Compressed
Courtesy of CHRYSLER LLC

24. Install compressor 8250 (2) over the direct clutch balance piston (3) and place onto a press (1).
25. Compress spring to install the snap ring (4) at the direct clutch balance piston.
26. Install the inner and outer spline frictions (2, 3).
27. Install the number two thrust bearing (9).
28. Install the hub (10).
29. Install the number one thrust bearing (11).
30. Install the selectable reaction plate (12).
31. Install the internal snap ring (1).

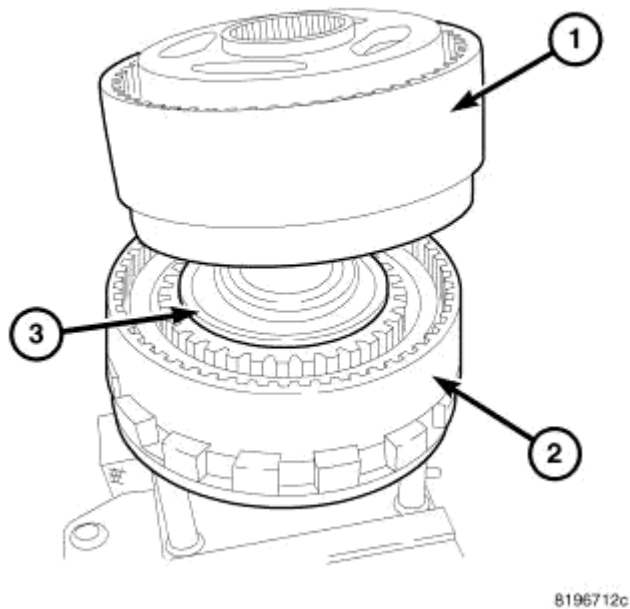


Fig. 394: Direct Clutch
Courtesy of CHRYSLER LLC

32. Install the direct clutch (1) onto the low clutch.

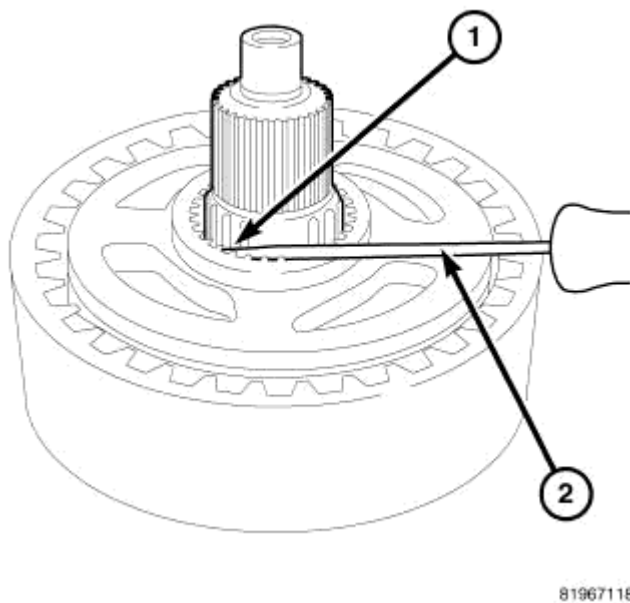
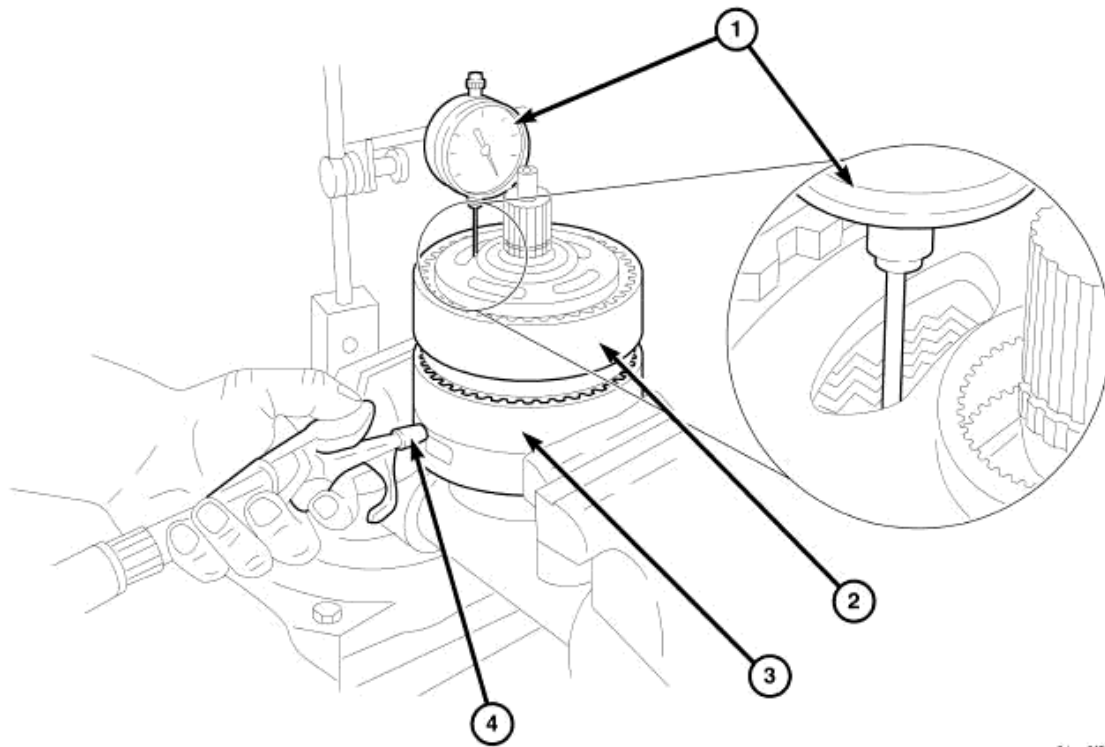


Fig. 395: Split Bearing
Courtesy of CHRYSLER LLC

33. Install the split bearing (1) using a small pick (2).



61aa0150

Fig. 396: Direct Clutch Measurement
 Courtesy of CHRYSLER LLC

34. Using a Dial Indicator and air pressure measure the direct clutch clearance, the clearance should be 0.95 - 1.41 (0.037- 0.056 in). Install desired selectable reaction plate to achieve correct clearance.

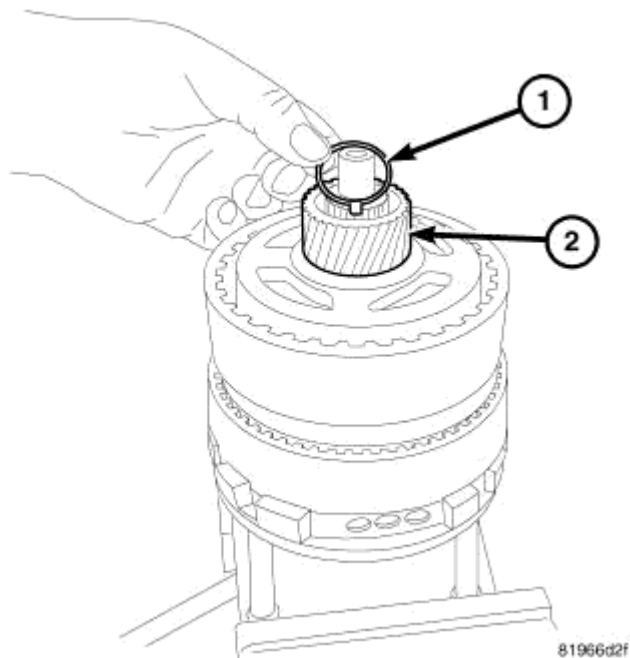
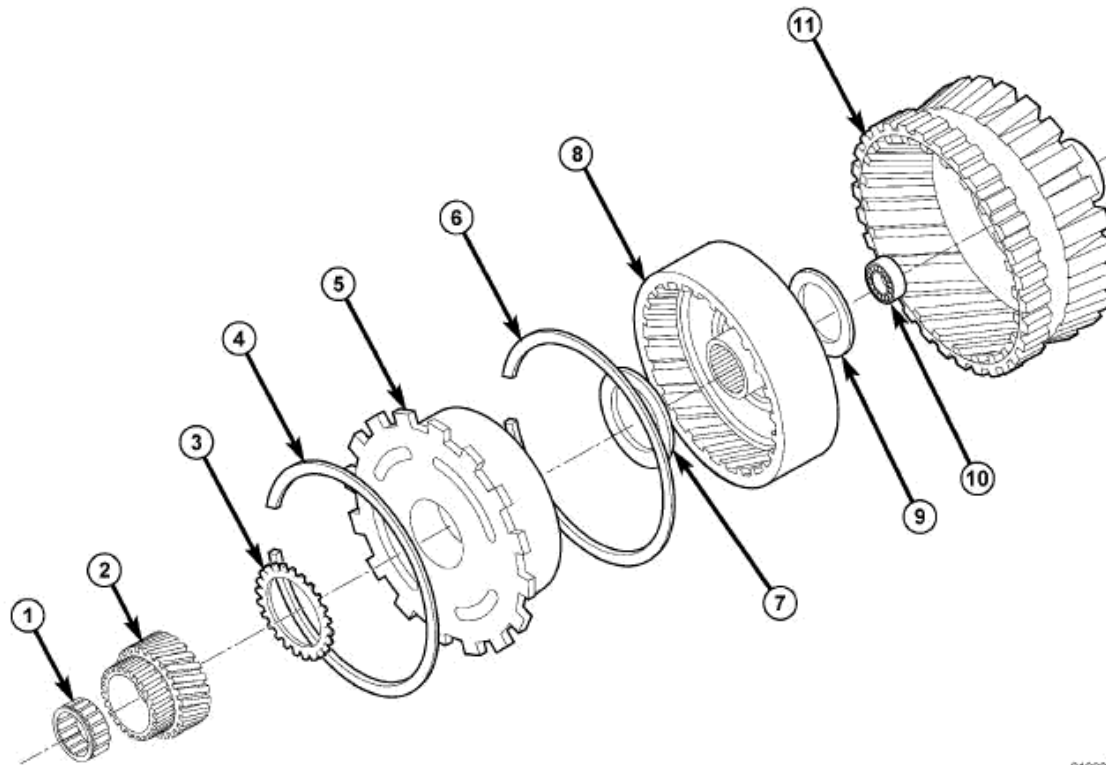


Fig. 397: Clip At Transfer Shaft

Courtesy of CHRYSLER LLC

35. Install the sun gear (2) onto the shaft.
36. Install the **new** retaining clip onto the transfer / underdrive shaft.



81968c70

Fig. 398: Planetary Gear Set
Courtesy of CHRYSLER LLC

1 - NEEDLE BEARING	5 - PLANETARY CARRIER	9 - #2 NEEDLE BEARING
2 - SUN GEAR	6 - #2 SNAP RING	10 - NEEDLE BEARING
3 - HELICAL SHIM (SELECT)	7 - #1 NEEDLE BEARING	11 - OUTPUT HUB
4 - #1 SNAP RING	8 - ANNULUS GEAR	-

37. Inspect the needle bearing in the output hub for any damage.
38. Install the thrust washer (9) on the back side of the annulus gear / on the front side of the output hub.
39. Install the annulus gear (8).

40. Install the thrust washer (7) on the front side of the annulus gear.
41. Install the snap ring (6) that holds the annulus gear.
42. Install the planetary carrier (5).
43. Install the snap ring (4) holding the planetary carrier.

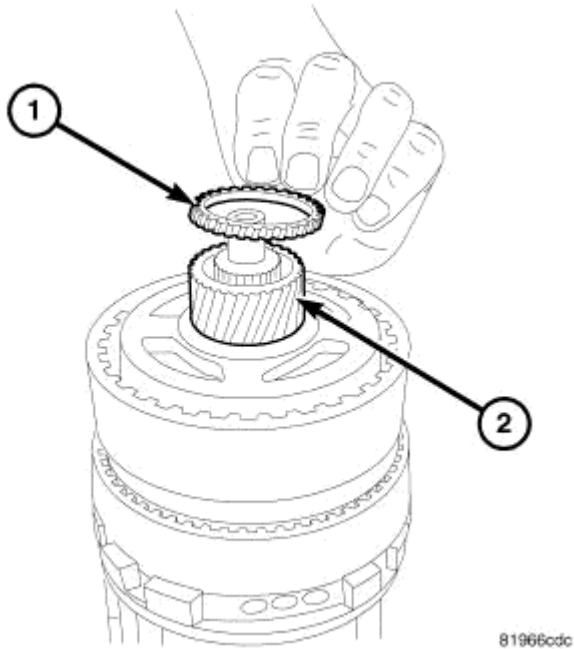


Fig. 399: Helical Shim
Courtesy of CHRYSLER LLC

44. Install the helical shim (1).

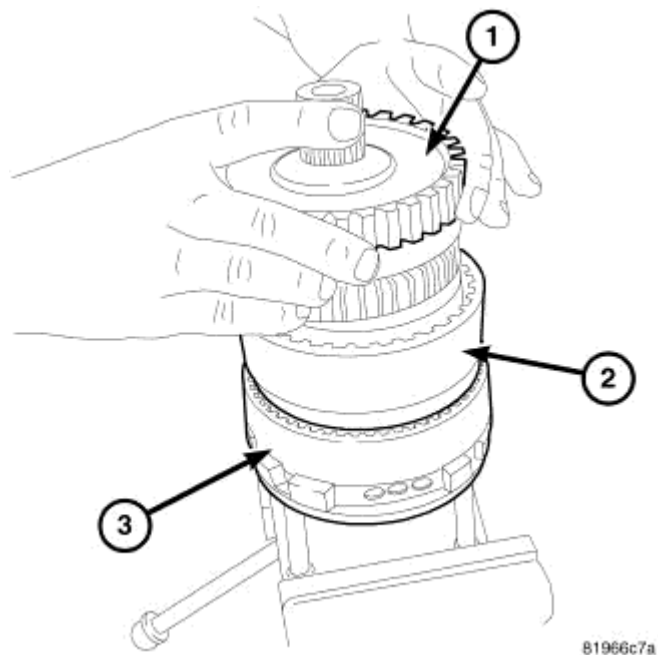


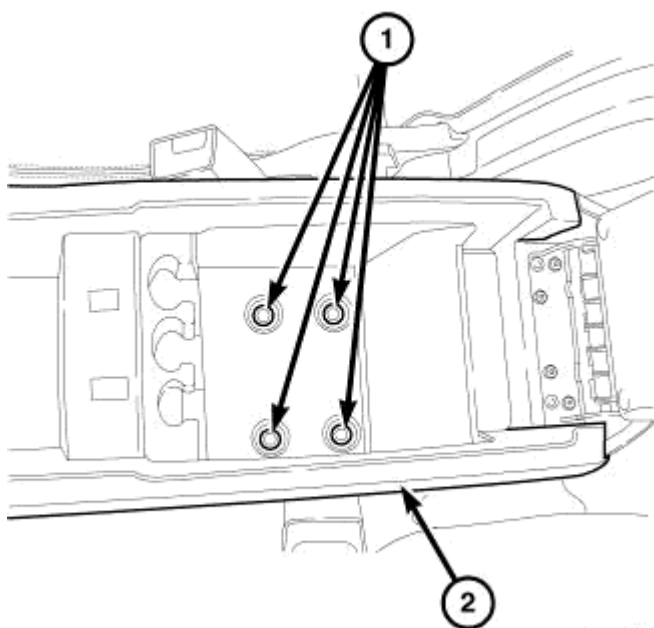
Fig. 400: Planetary Gear Set - Output Hub
Courtesy of CHRYSLER LLC

45. Install the planetary gear set / output hub (1) onto the direct clutch.

CABLE, SHIFT

REMOVAL

REMOVAL

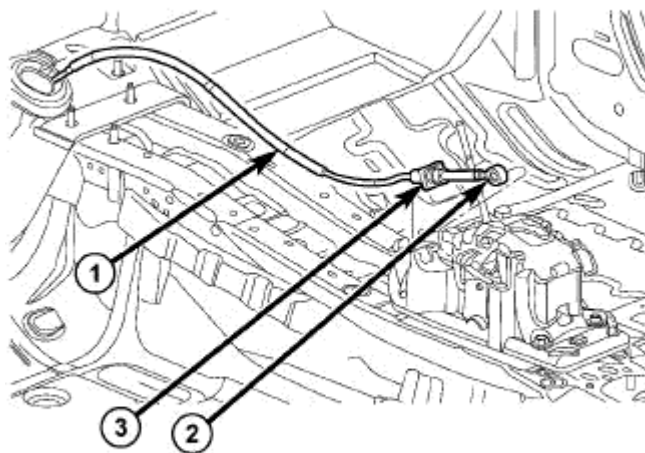


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Fig. 401: Center Console

Courtesy of CHRYSLER LLC

1. Disconnect battery negative cable.
2. Remove the center console. Refer to **Body/Interior/CONSOLE, Center - Removal**.



81a380a3

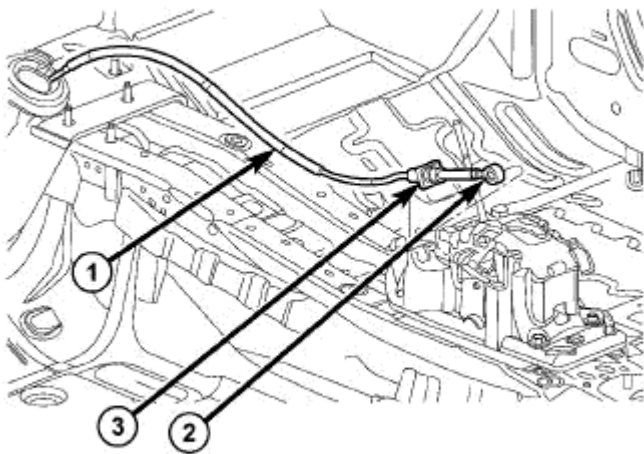
Fig. 402: Shift Cable At Shifter

Courtesy of CHRYSLER LLC

3. Disconnect and remove gearshift cable (2, 3) from shift mechanism.
4. Remove the air bag module and the dynamics sensor Refer to **Restraints/MODULE, Occupant Restraint Controller - Removal** .
5. Remove the shift cable at the transmission and pull cable through.

INSTALLATION

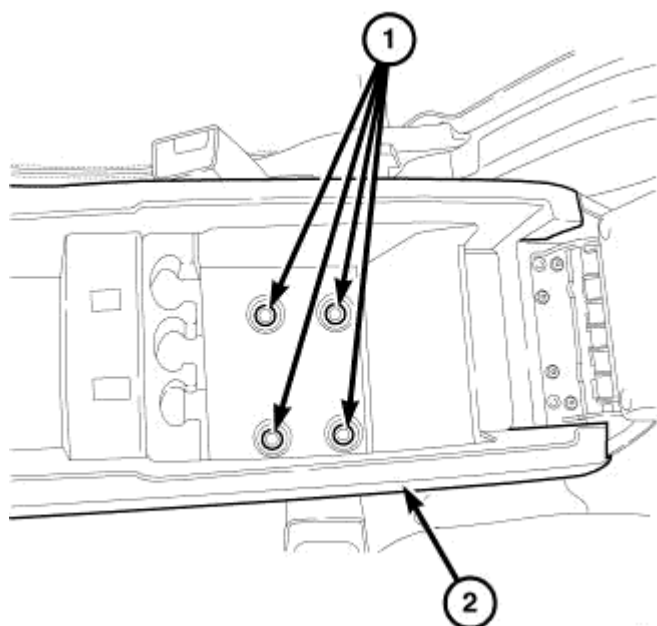
INSTALLATION



81a380a3

Fig. 403: Shift Cable At Shifter
Courtesy of CHRYSLER LLC

1. Install the shift cable through the bulkhead and ensure that the grommet is seated.
2. Install the cable at the transmission.
3. Install and connect gearshift cable (2, 3) at the shift mechanism.
4. Install the air bag module and the dynamics sensor . Refer to **Restraints/MODULE, Occupant Restraint Controller - Installation** .



81d368f0

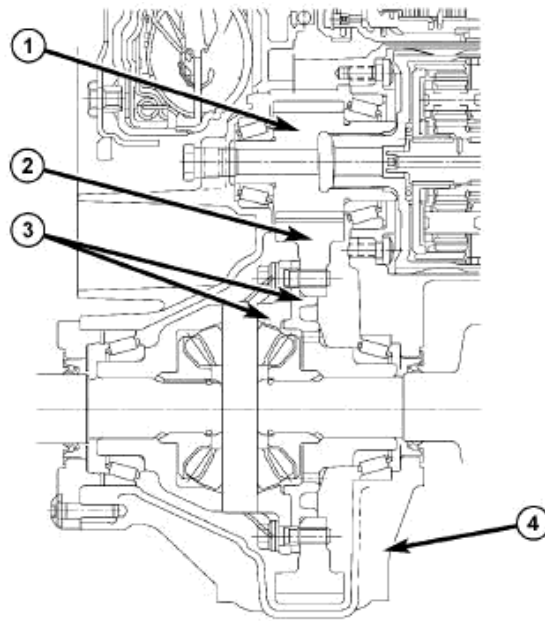
Fig. 404: Center Console
Courtesy of CHRYSLER LLC

5. Install the center console. Refer to **Body/Interior/CONSOLE, Center - Installation** .
6. Connect the battery.

DRIVE, FINAL

DESCRIPTION

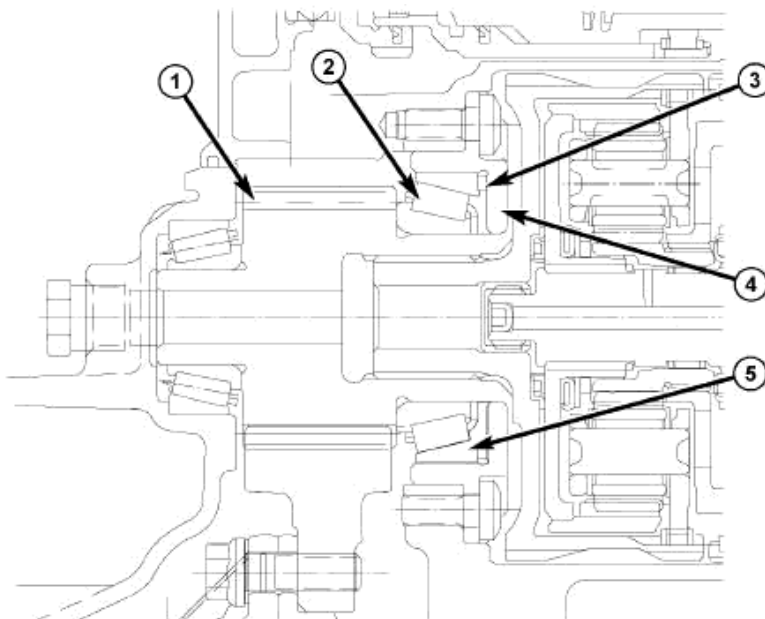
DESCRIPTION



818e1444

Fig. 405: Final Drive Assembly
Courtesy of CHRYSLER LLC

The 62TE's final drive system is driven by the underdrive compounder's output hub/ carrier assembly. The final drive consists of the remote pinion gear, a ring gear, and a conventional differential assembly. A 23-tooth pinion gear in mesh with a 79-tooth ring gear results in a final drive ratio of 3.43:1.



818e1b6f

Fig. 406: Remote Pinion
Courtesy of CHRYSLER LLC

1 - REMOTE PINION GEAR

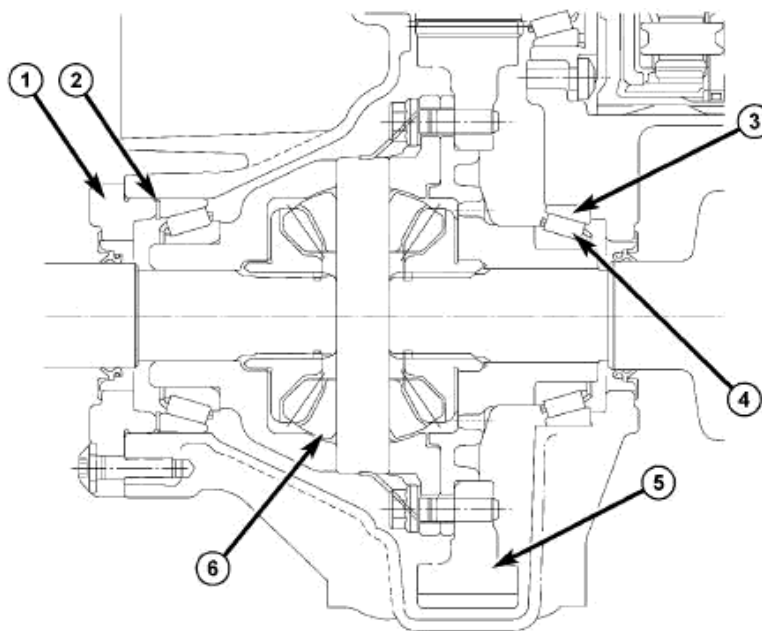
4 -
BEARING

2 - BEARING ROLLER (CONE)

3 - SELECTABLE SHIM

RETAINER
5 -
BEARING
RACE
(CUP)
-

The 23-tooth remote pinion is a helical gear driven by the output hub/carrier assembly. It is supported by a bearing retainer and two tapered roller bearings, which centers the gear on its axis. The bearing preload is adjusted with a selectable shim, located between the outer bearing race and the bearing retainer. The preload measurement and adjustment must be made with the differential assembly removed.



816a1b79

Fig. 407: Differential Assembly
Courtesy of CHRYSLER LLC

1 - BEARING RETAINER

2 - SELECTABLE SHIM

3 - BEARING ROLLER (CUP)

4 -
BEARING
ROLLER
(CONE)
5 - RING
GEAR
6 - SIDE
GEAR

The differential assembly is supported by two tapered roller bearings and contained in a structural "clamshell" housing. It is a conventional, open type (non-locking) and is contained in a two-piece, closed case. Differential bearing preload is set with a selectable shim, with the pinion gear removed. The preload for the internal/spider gears is set with shims, as well. The 224 mm (8.82 in.) ring gear is bolted to the differential case.

OPERATION**OPERATION**

The 62TE's final drive system is driven by the underdrive compounder's output hub/ carrier assembly. The final drive consists of the remote pinion gear, a ring gear, and a conventional differential assembly. A 23-tooth pinion gear in mesh with a 79-tooth ring gear results in a final drive ratio of 3.43:1.

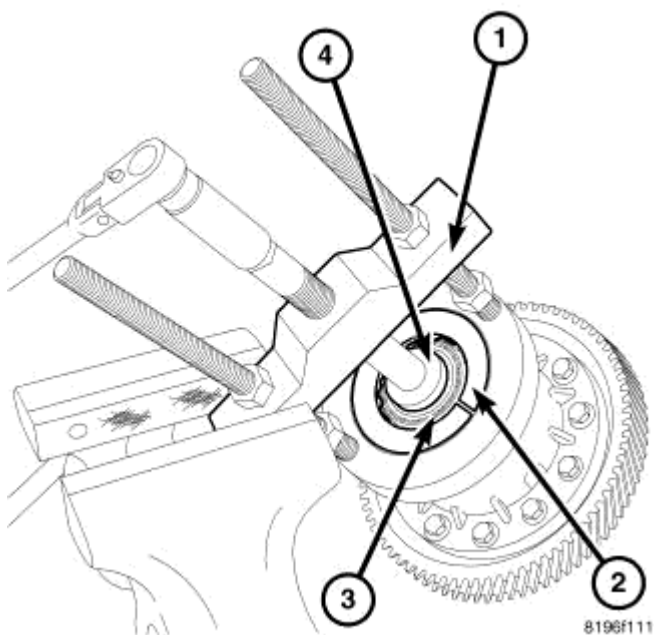
DISASSEMBLY**DISASSEMBLY**

Fig. 408: Pinion Side Bearing Cone
Courtesy of CHRYSLER LLC

1. Use Puller Set C-293-PA (1), Adaptors 9613 (2) and press plug 9678 remove the pinion side bearing cone (3).

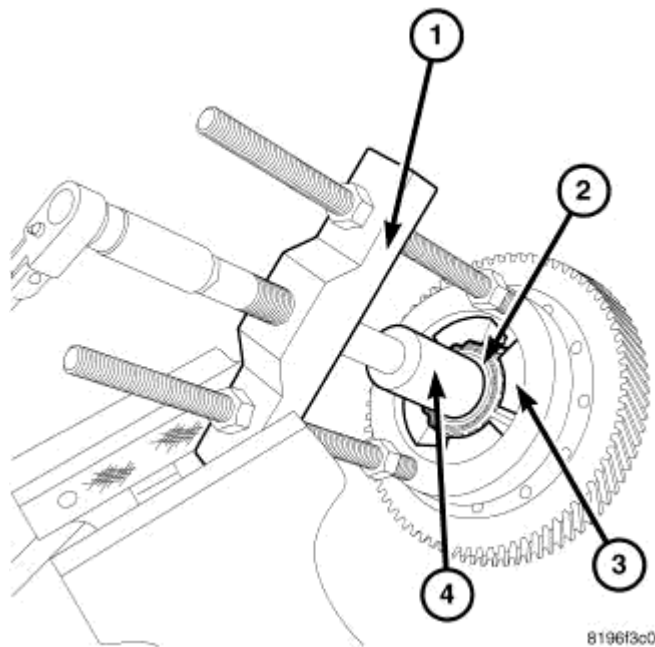


Fig. 409: Ring Gear Side Bearing Cone
Courtesy of CHRYSLER LLC

2. Install Puller Set C-293-PA (1), C-293-42 Adaptors (3), and Press Plug 9678 to remove the ring gear side bearing cone.

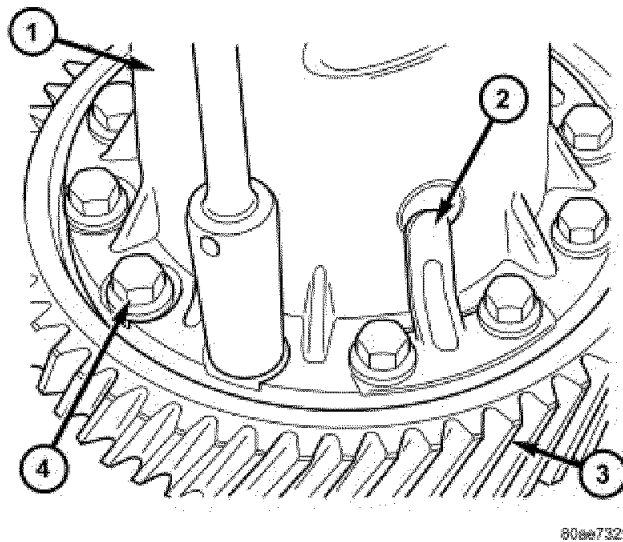


Fig. 410: Ring Gear-To-Case Bolts
Courtesy of CHRYSLER LLC

- | |
|---------------------------|
| 1 - DIFFERENTIAL CASE |
| 2 - PINION SHAFT RETAINER |

3 - RING GEAR

4 - RING GEAR-TO-CASE BOLT

3. Remove ring gear-to-differential case bolts (4) and floating pinion shaft retainers (2).

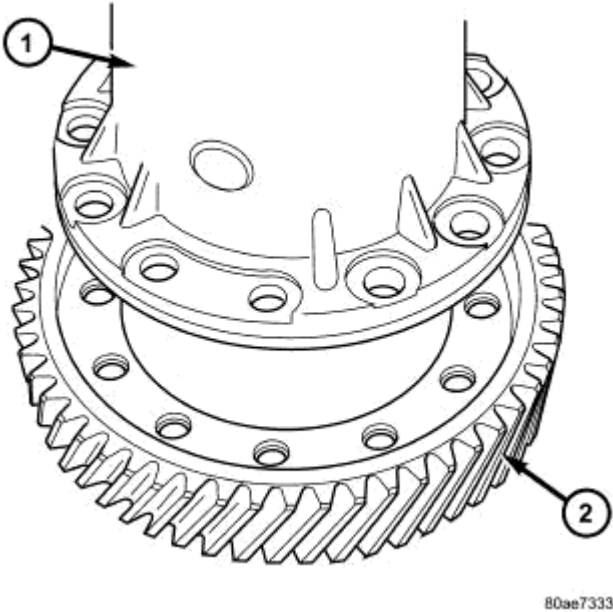


Fig. 411: Ring Gear Installation

Courtesy of CHRYSLER LLC

1 - DIFFERENTIAL CASE

2 - RING GEAR

4. Separate ring gear (2) from differential case (1).

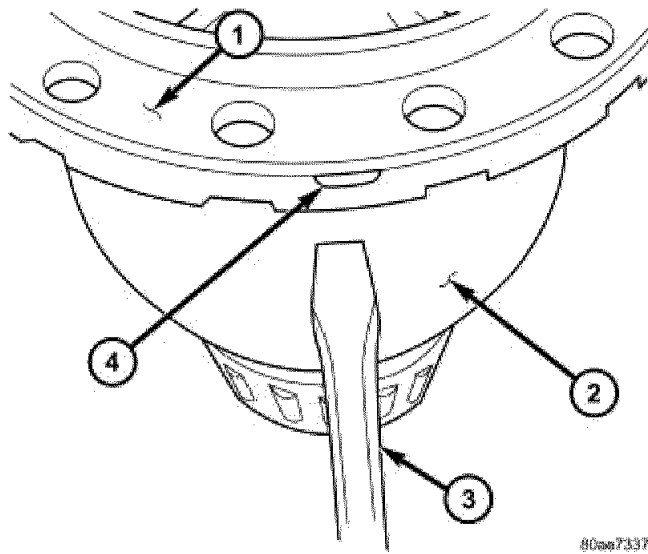


Fig. 412: Separating Diff Case Cover With Screwdrivers
Courtesy of CHRYSLER LLC

- 1 - DIFFERENTIAL SUPPORT
- 2 - DIFFERENTIAL CASE
- 3 - SCREWDRIVER
- 4 - RELIEF (2 @ 180° APART)

5. Separate differential cover (1) from case (2) using suitable screwdrivers at position.

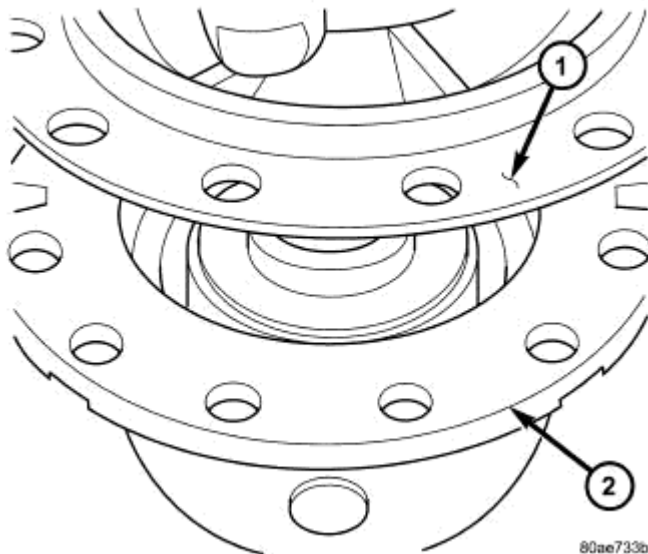


Fig. 413: Differential Support
Courtesy of CHRYSLER LLC

- 1 - DIFFERENTIAL SUPPORT
- 2 - DIFFERENTIAL CASE

6. Lift support (1) from case (2).

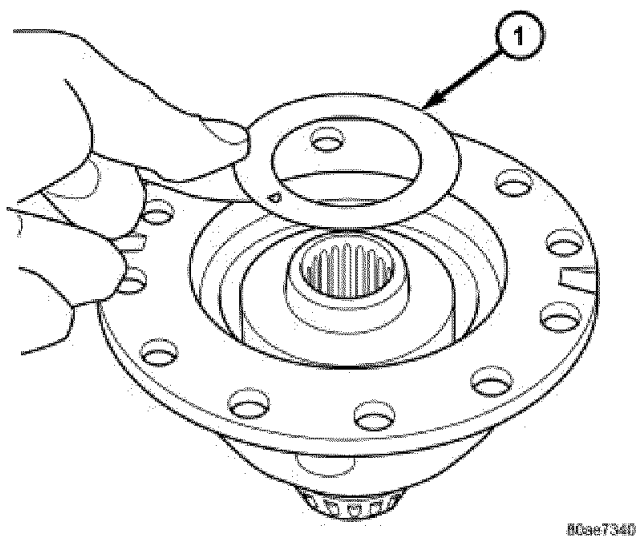


Fig. 414: Side Gear Thrust Washer
Courtesy of CHRYSLER LLC

- 1 - SIDE GEAR THRUST WASHER

7. Remove side gear thrust washer (1).

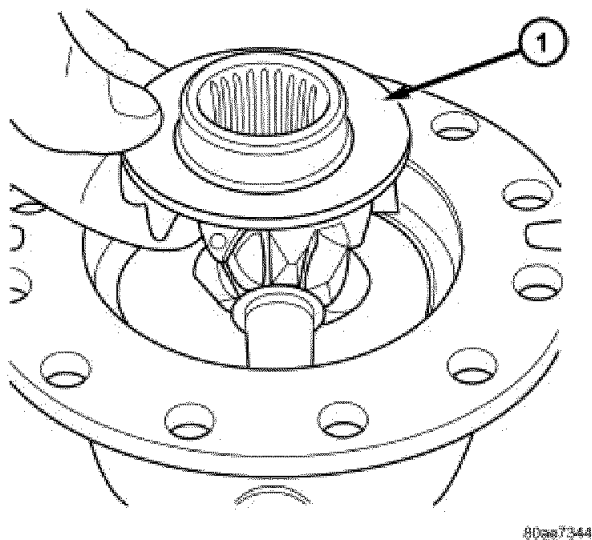


Fig. 415: Differential Side Gear
Courtesy of CHRYSLER LLC

1 - DIFFERENTIAL SIDE GEAR

8. Remove side gear (1).

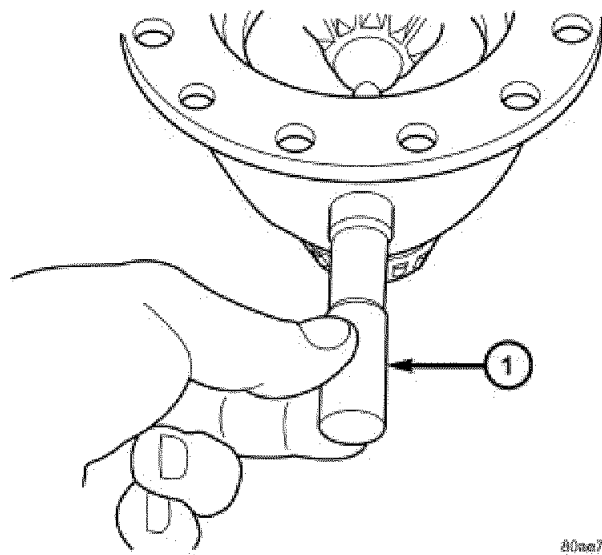


Fig. 416: Pinion Shaft
Courtesy of CHRYSLER LLC

1 - PINION SHAFT

9. Remove pinion shaft (1).

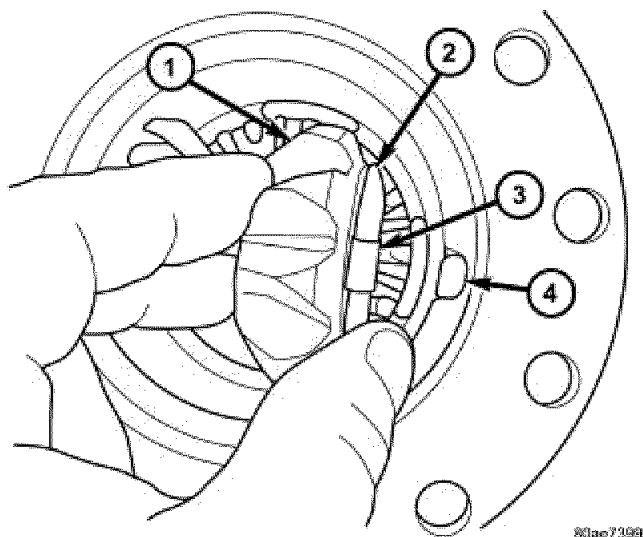


Fig. 417: Pinion Gear And Washer
Courtesy of CHRYSLER LLC

- 1 - PINION GEAR
- 2 - TABBED WASHER
- 3 - LOCATING TAB
- 4 - NOTCH

10. Remove pinion gears (1) and tabbed washers (2) .

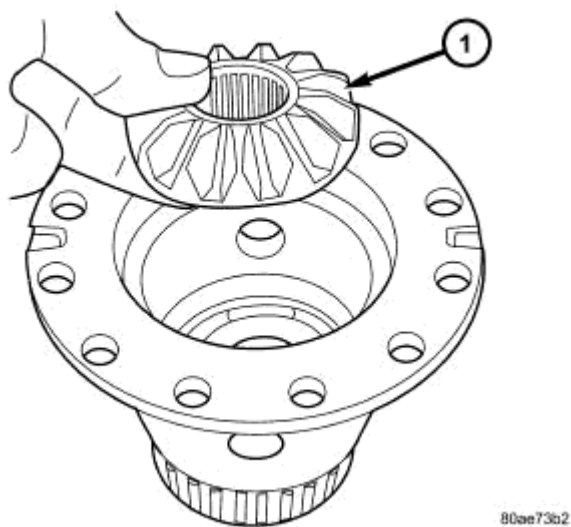


Fig. 418: Differential Side Gear
Courtesy of CHRYSLER LLC

1 - DIFFERENTIAL SIDE GEAR

11. Remove differential side gear (1).

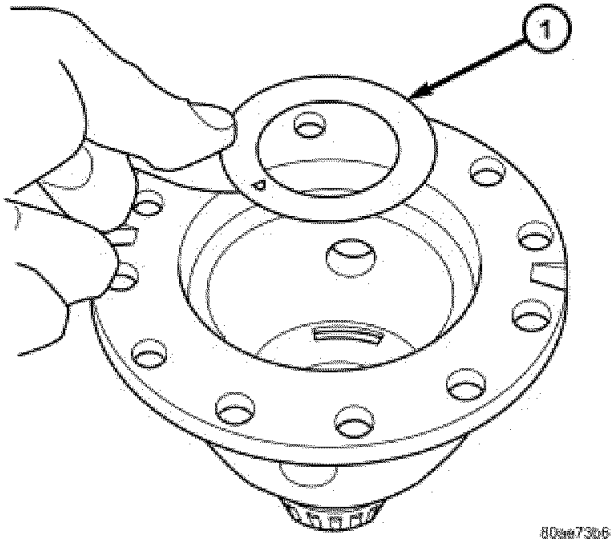


Fig. 419: Thrust Washer
Courtesy of CHRYSLER LLC

1 - THRUST WASHER

12. Remove side gear thrust washer (1).
13. Inspect all components for excessive wear.

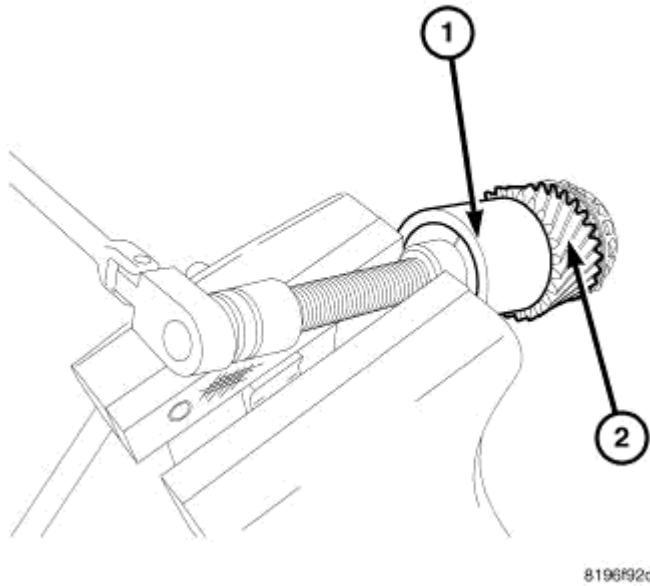


Fig. 420: Remove Small Pinion Bearing
Courtesy of CHRYSLER LLC

14. Using Remover 8356 (1) and a 12mm hex head bolt as a press plug remove the small pinion bearing.

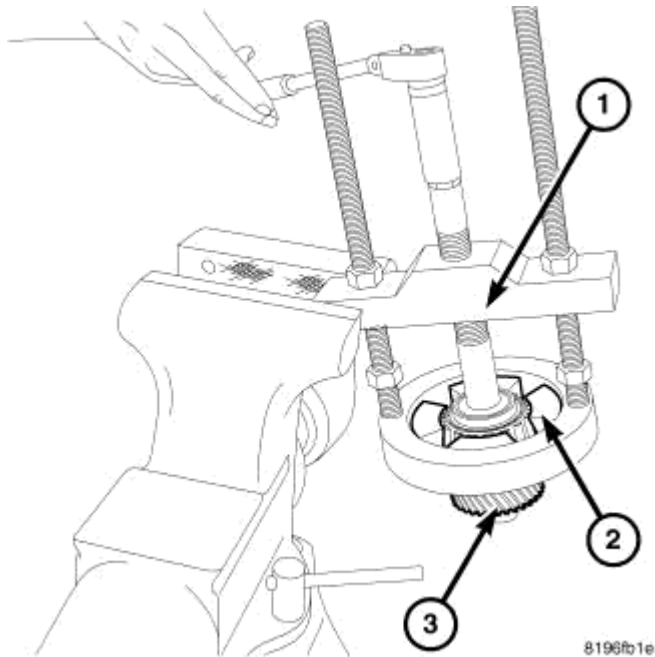


Fig. 421: Remove Large Pinion Bearing
Courtesy of CHRYSLER LLC

15. Using puller C-293-PA (1), C-293-47 Adaptors (2) and Press Plug C4487-1 to remove the large pinion bearing.

ASSEMBLY

ASSEMBLY

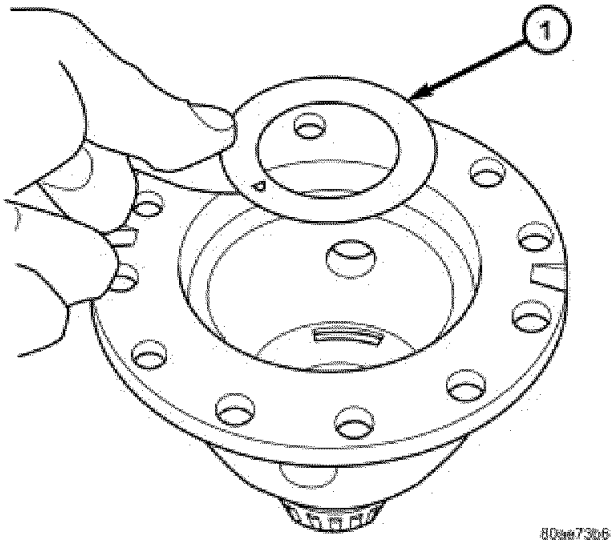


Fig. 422: Thrust Washer
Courtesy of CHRYSLER LLC

1 - THRUST WASHER

NOTE: The differential is serviced as an assembly. Differential service is limited to bearing cups and cones. Any other differential component failure must be remedied by differential assembly and transfer shaft replacement.

1. Install side gear thrust washer (1) to differential case.

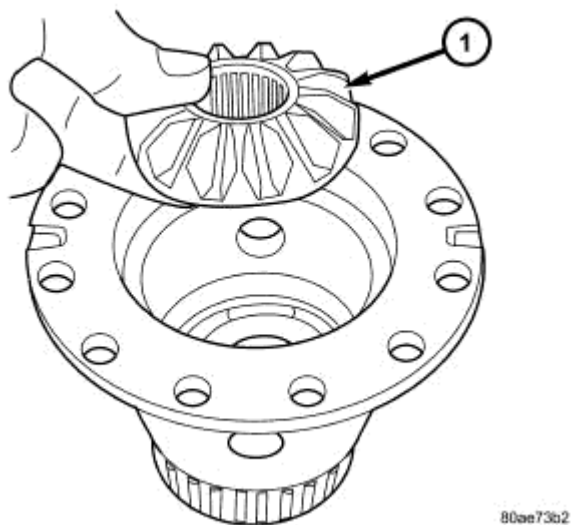


Fig. 423: Differential Side Gear
Courtesy of CHRYSLER LLC

1 - DIFFERENTIAL SIDE GEAR

2. Install side gear (1) to differential case.

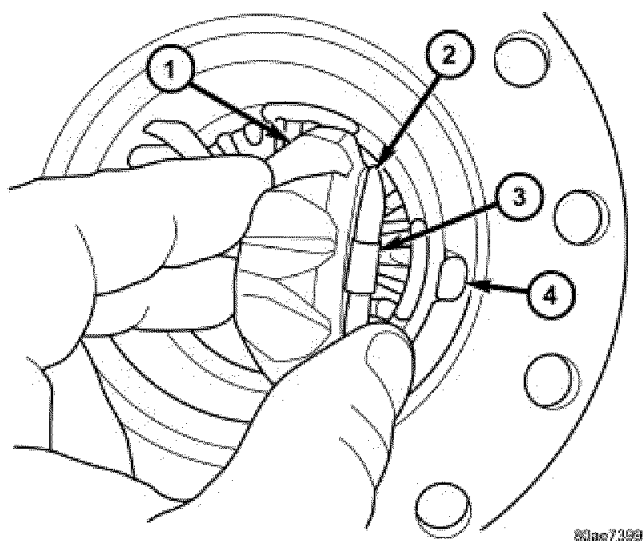


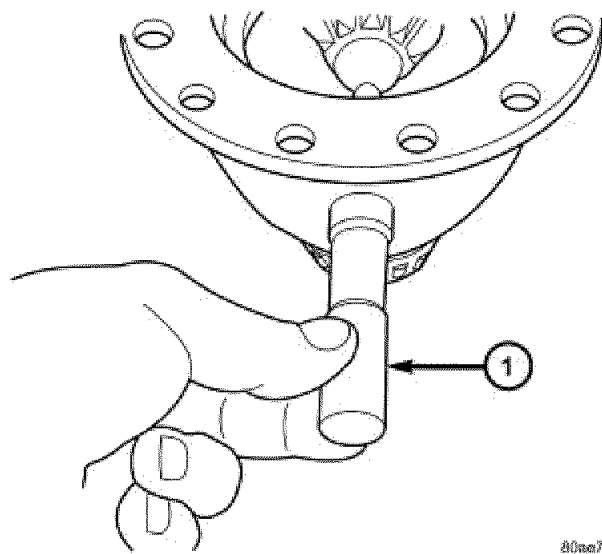
Fig. 424: Pinion Gear And Washer
Courtesy of CHRYSLER LLC

1 - PINION GEAR
2 - TABBED WASHER

3 - LOCATING TAB

4 - NOTCH

3. Install both pinion gears (1) and washers (2) to case, while orientating washer tabs to notch in case.

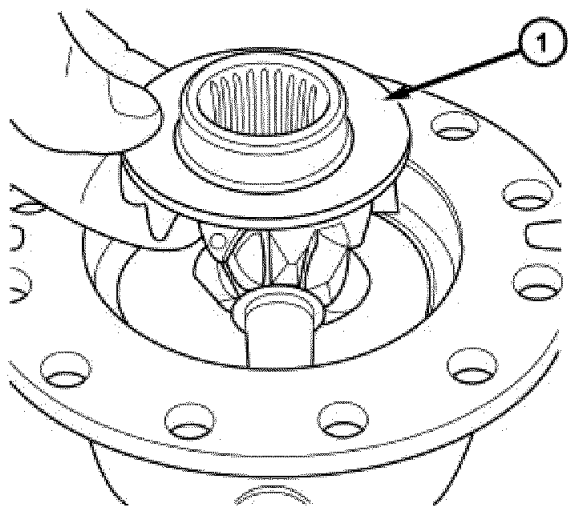


80me7349

Fig. 425: Pinion Shaft
Courtesy of CHRYSLER LLC

1 - PINION SHAFT

4. Install pinion shaft (1).



80me7344

Fig. 426: Differential Side Gear
Courtesy of CHRYSLER LLC

1 - DIFFERENTIAL SIDE GEAR

5. Install side gear (1) to case.

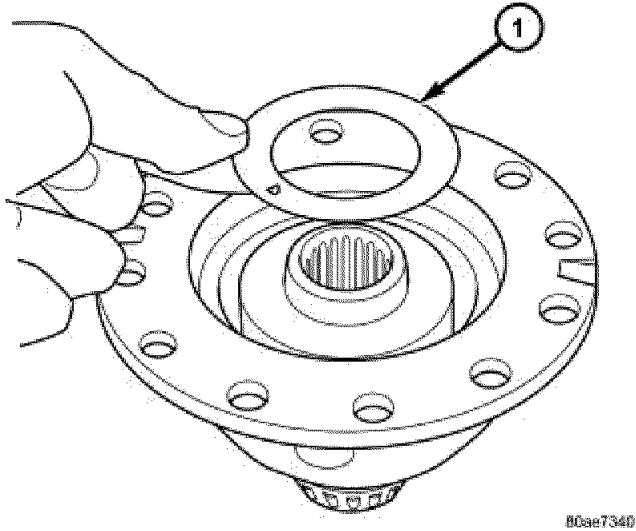


Fig. 427: Side Gear Thrust Washer
Courtesy of CHRYSLER LLC

1 - SIDE GEAR THRUST WASHER

6. Install side gear thrust washer (1) to case.

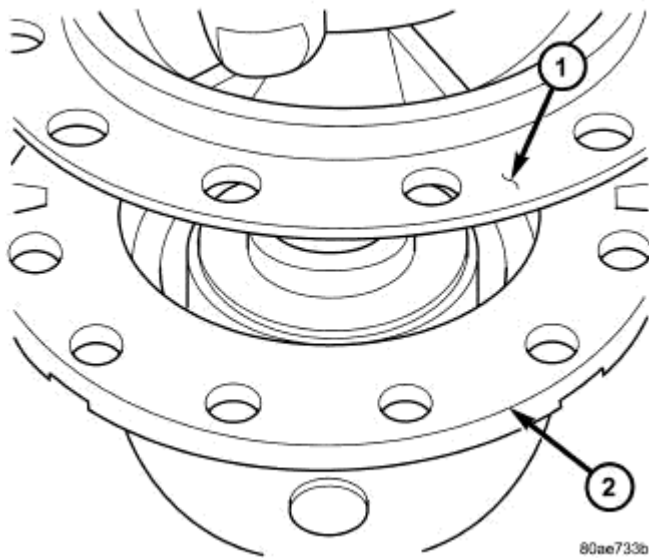


Fig. 428: Differential Support
Courtesy of CHRYSLER LLC

1 - DIFFERENTIAL SUPPORT
2 - DIFFERENTIAL CASE

7. Install differential support (1) into position, while aligning through-holes.

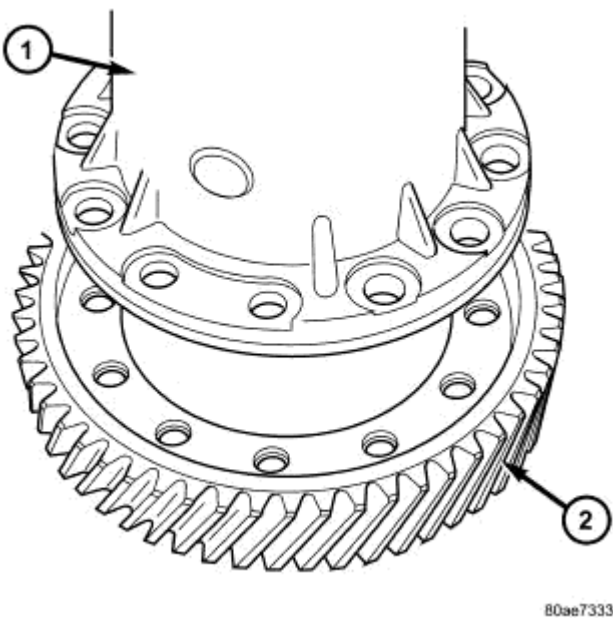


Fig. 429: Ring Gear
Courtesy of CHRYSLER LLC

- 1 - DIFFERENTIAL CASE
- 2 - RING GEAR

8. Install differential ring gear (2) to case (1).

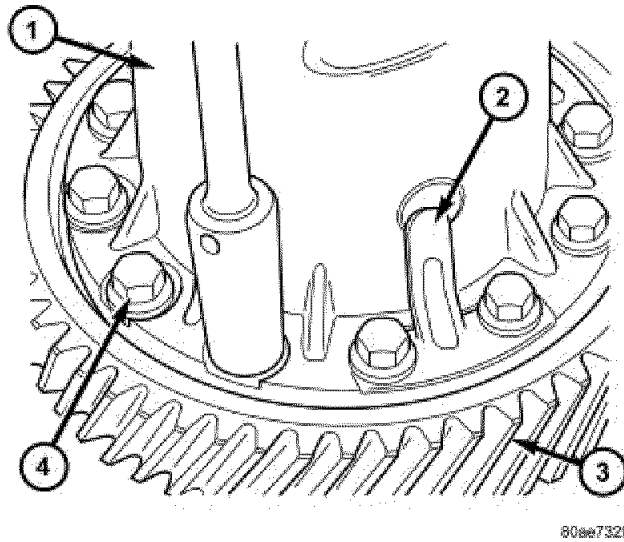


Fig. 430: Ring Gear-To-Case Bolts
Courtesy of CHRYSLER LLC

- 1 - DIFFERENTIAL CASE
- 2 - PINION SHAFT RETAINER
- 3 - RING GEAR
- 4 - RING GEAR-TO-CASE BOLT

NOTE: New bolts must be used.

9. Install ring gear-to-case bolts, with pinion shaft retainers, and tighten bolts (4) to 95 N.m (70 ft. lbs.).
10. Check differential side gear turning torque using Differential Bearing Torque Tool C- 4995-1. Turning torque should be no more than 10 to 20 in-lbs (drag). If drag exceeds 20 in-lbs decrease shim size, if the drag is less than 10 in-lbs (drag) increase shim size.

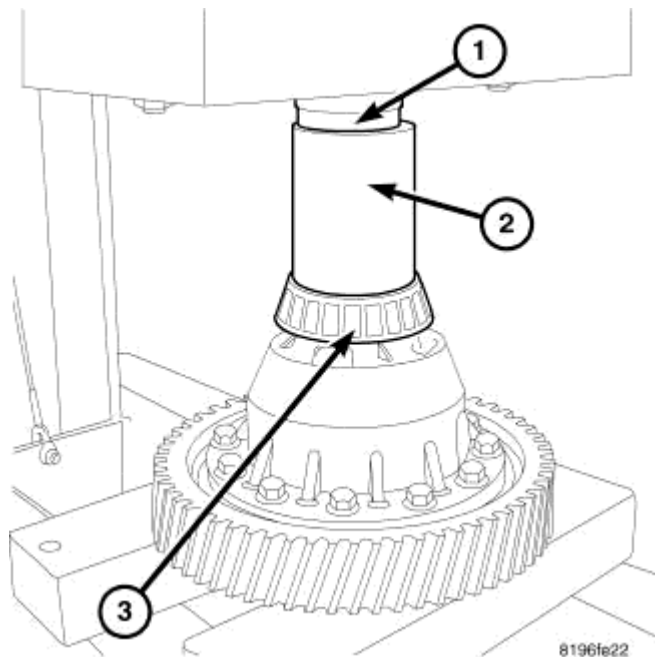


Fig. 431: Differential Pinion Side Bearing
Courtesy of CHRYSLER LLC

11. Using Installer 6888 (1) and a press (2), install differential bearing (3) to pinion side of the differential housing.

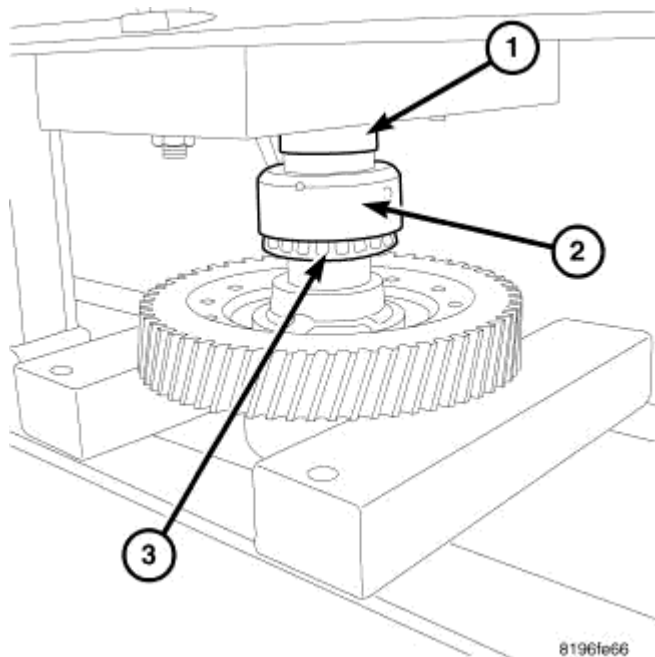


Fig. 432: Ring Gear Side Bearing
Courtesy of CHRYSLER LLC

12. Using Installer C-4213 (2) and a press (1), install differential bearing (3) to ring gear side of the

differential.

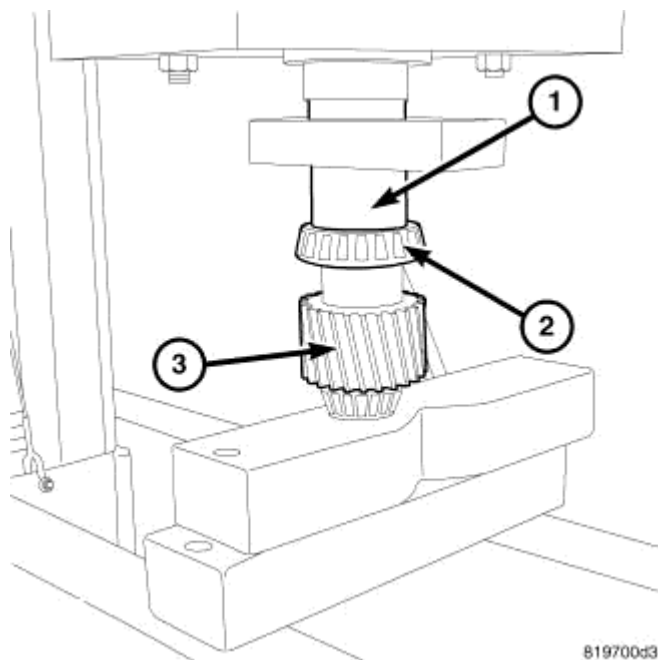


Fig. 433: Install Large Side Pinion Bearing
Courtesy of CHRYSLER LLC

13. Using Installer MD998911 (1) and a press, install the large pinion bearing to the pinion shaft.

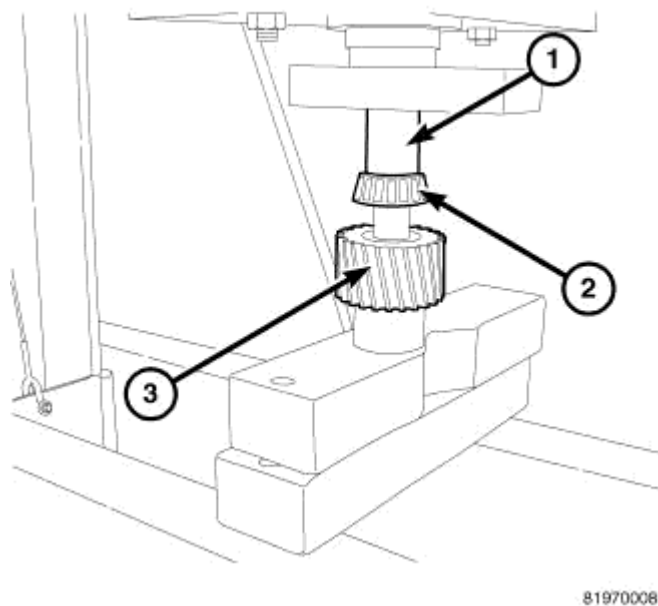


Fig. 434: Small Side Pinion Bearing
Courtesy of CHRYSLER LLC

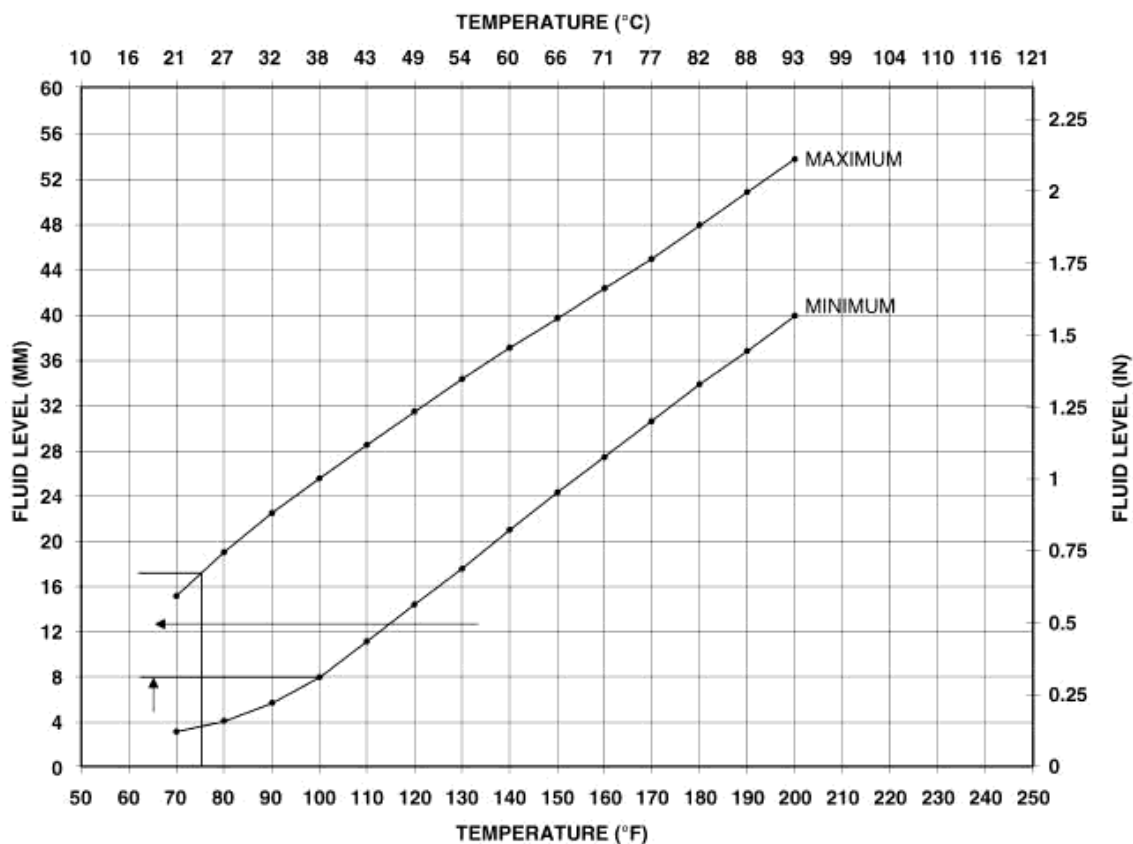
14. Using Installer 9723 (1) and a press, install the small pinion bearing to the pinion shaft.

FLUID

STANDARD PROCEDURE

FLUID LEVEL AND CONDITION CHECK

FLUID LEVEL CHECK USING THE SCAN TOOL



818bd544

Fig. 435: Fluid Level To Temperature Chart

Courtesy of CHRYSLER LLC

1. Verify that the vehicle is parked on a level surface.
2. Remove the dipstick tube cap.

WARNING: There is a risk of accident from vehicle starting off by itself when engine is running. There is a risk of injury from contusions and burns if you insert your hands into the engine when it is started or when it is running. Secure vehicle to prevent it from moving off by itself. Wear properly fastened and close-fitting work clothes. Do not touch hot or rotating parts.

3. Actuate the service brake. Start engine and let it run at idle speed in selector lever position "P".
4. Shift through the transmission modes several times with the vehicle stationary and the engine idling.

NOTE: When inserting dipstick special tool 9336A, excess insertion force may cause the dipstick to slip past the stop on the bracket in the transmission oil pan. An approximate distance that the dipstick should be inserted into the fill tube is 424 mm (16.69 in.).

5. Warm up the transmission, wait at least 2 minutes and check the oil level with the engine running. Push the Oil Dipstick 9336A into transmission fill tube until the dipstick tip contacts the oil pan and pull out again, read off oil level, repeat if necessary.

NOTE: The dipstick will protrude from the fill tube when installed.

6. Check transmission oil temperature using the appropriate scan tool.
7. The transmission Oil Dipstick 9336A has indicator marks every 10 mm. Determine the height of the oil level on the dipstick and using the height, the Transmission Fluid Temperature (TFT) as viewed with the scan tool, and the Transmission Fluid Graph, determine if the transmission oil level is correct.
8. Add or remove oil as necessary and recheck the oil level.
9. Once the oil level is correct, install the dipstick tube cap.

FLUID CONDITION

Along with fluid level, it is important to check the condition of the fluid. When the fluid smells burned, and is contaminated with metal or friction material particles, a complete transaxle recondition is probably required. Be sure to examine the fluid on the dipstick closely. If there is any doubt about its condition, drain out a sample for a double check.

MOPAR® ATF+4 (Automatic Transmission Fluid) when new is red in color. The ATF is dyed red so it can be identified from other fluids used in the vehicle such as engine oil or antifreeze. The red color is not permanent and is not an indicator of fluid condition. As the vehicle is driven, the ATF will begin to look darker in color and may eventually become brown. **This is normal.** ATF+4 also has a unique odor that may change with age. Consequently, **odor and color cannot be used to indicate the fluid condition or the need for a fluid change.**

After the fluid has been checked, seat the dipstick fully to seal out water and dirt.

FLUID AND FILTER SERVICE

FLUID/FILTER SERVICE (RECOMMENDED)

- NOTE:** Refer to the maintenance schedules in LUBRICATION and MAINTENANCE, or the vehicle owner's manual, for the recommended maintenance (fluid/filter change) intervals for this transaxle.
- NOTE:** Only fluids of the type labeled MOPAR® ATF+4 should be used. A filter change should be made at the time of the transmission oil change. The magnet (on the inside of the oil pan) should also be cleaned with a clean, dry cloth.
- NOTE:** If the transaxle is disassembled for any reason, the fluid and filter should be changed.
1. Raise vehicle on a hoist. Refer to appropriate LUBRICATION and MAINTENANCE for proper procedures. Place a drain container with a large opening, under transaxle oil pan.
 2. Loosen pan bolts and tap the pan at one corner to break it loose allowing fluid to drain, then remove the oil pan.
 3. Remove nuts at the oil filter.
 4. Install a new filter and nuts, tighten to 5 N.m (40 in. lbs.).
 5. Install the fluid filter oil pan, use a bead of MOPAR® ATF RTV (MS-GF41).
 6. Clean the oil pan and magnet. Reinstall pan using new MOPAR® Silicone Adhesive sealant. Tighten oil pan bolts to 6 N.m (50 in. lbs.).
 7. Pour four Quarts of MOPAR® ATF+4 through the dipstick opening.
 8. Start engine and allow to idle for at least one minute. Then, with parking and service brakes applied, move selector lever momentarily to each position, ending in the park or neutral position.
 9. Check the transaxle fluid level and add an appropriate amount to bring the transaxle fluid level to 3 mm (1/8 in.) below the lowest mark on the dipstick.
 10. Recheck the fluid level after the transaxle has reached normal operating temperature 82° C (180°F). Refer to Fluid Level and Condition Check for the proper fluid fill procedure. See **Standard Procedure**.
 11. To prevent dirt from entering transaxle, make certain that dipstick is fully seated into the dipstick opening.

GEARTRAIN, PLANETARY**DESCRIPTION****DESCRIPTION**

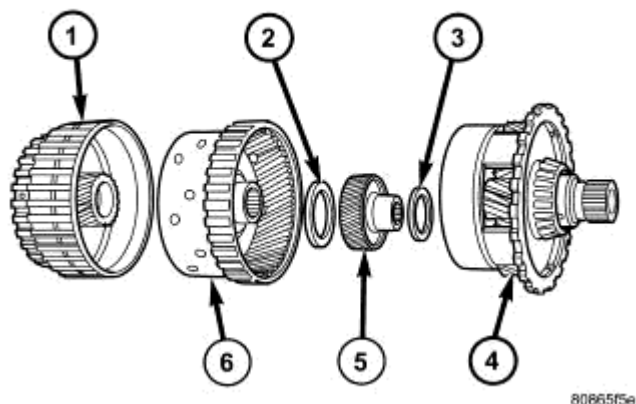


Fig. 436: Planetary Geartrain
 Courtesy of CHRYSLER LLC

1 - FRONT SUN GEAR ASSEMBLY
2 - #6 THRUST BEARING
3 - #7 THRUST BEARING
4 - REAR CARRIER/FRONT ANNULUS ASSEMBLY
5 - REAR SUN GEAR
6 - FRONT CARRIER/REAR ANNULUS ASSEMBLY

The planetary geartrain is located between the input clutch assembly and the rear of the transaxle case. The planetary geartrain consists of two sun gears (1,5), two planetary carriers, two annulus (ring) gears (4,6), and one output shaft.

OPERATION

OPERATION

The planetary geartrain utilizes two planetary gear sets that connect the transmission input shaft to the output shaft. Input and holding clutches drive or lock different planetary members to change output ratio or direction.

HOLDING CLUTCHES

DESCRIPTION

DESCRIPTION

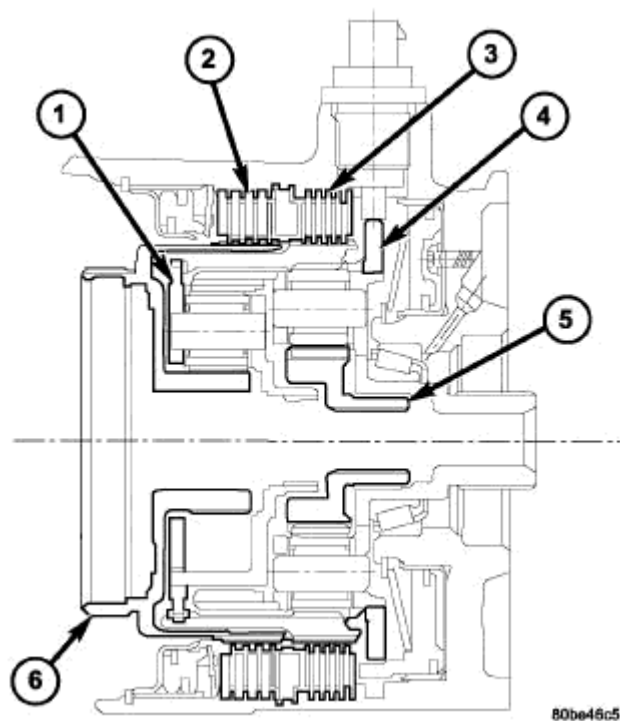


Fig. 437: 2/4 and Low/Reverse Clutches
 Courtesy of CHRYSLER LLC

1 - FRONT PLANET CARRIER/REAR ANNULUS
2 - 2/4 CLUTCH
3 - L/R CLUTCH
4 - REAR PLANET CARRIER/FRONT ANNULUS
5 - REAR SUN GEAR
6 - FRONT SUN GEAR ASSEMBLY

Two hydraulically applied multi-disc clutches are used to hold planetary geartrain components (1,4) stationary while the input clutches drive others. The 2/4 (2) and Low/Reverse (3) clutches are considered holding clutches and are contained at the rear of the transaxle case.

OPERATION

OPERATION

2/4 CLUTCH

The 2/4 clutch is hydraulically applied in second and fourth gears by pressurized fluid against the 2/4 clutch piston. When the 2/4 clutch is applied, the front sun gear assembly is held or grounded to the transaxle case.

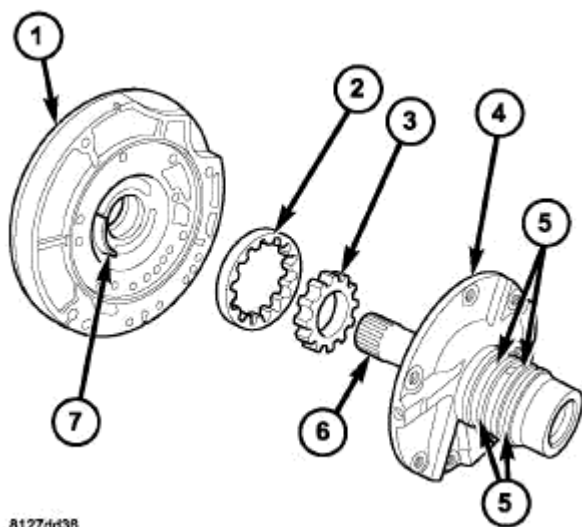
LOW/REVERSE CLUTCH

The Low/Reverse clutch is hydraulically applied in park, reverse, neutral, and first gears by pressurized fluid against the Low/Reverse clutch piston. When the Low/Reverse clutch is applied, the front planet carrier/rear annulus assembly is held or grounded to the transaxle case.

PUMP, TRANSMISSION OIL

DESCRIPTION

DESCRIPTION



8127dd38

Fig. 438: Oil Pump Assembly
Courtesy of CHRYSLER LLC

- 1 - PUMP BODY
- 2 - OUTER GEAR
- 3 - INNER GEAR
- 4 - REACTION SHAFT SUPPORT
- 5 - SEAL RINGS (4)
- 6 - REACTION SHAFT
- 7 - CRESCENT

The oil pump is located in the pump housing inside the bell housing of the transaxle case. The oil pump consists of an inner and outer gear, a housing, and a cover that also serves as the reaction shaft support.

OPERATION

OPERATION

As the torque converter rotates, the converter hub rotates the inner and outer gears. As the gears rotate, the

clearance between the gear teeth increases in the crescent area, and creates a suction at the inlet side of the pump. This suction draws fluid through the pump inlet from the oil pan. As the clearance between the gear teeth in the crescent area decreases, it forces pressurized fluid into the pump outlet and to the valve body.

DISASSEMBLY

DISASSEMBLY

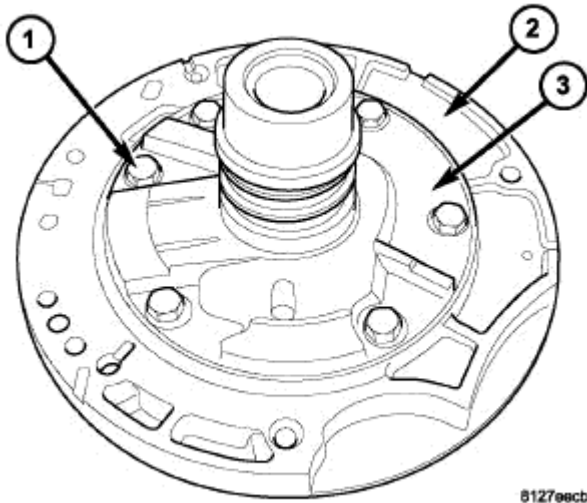
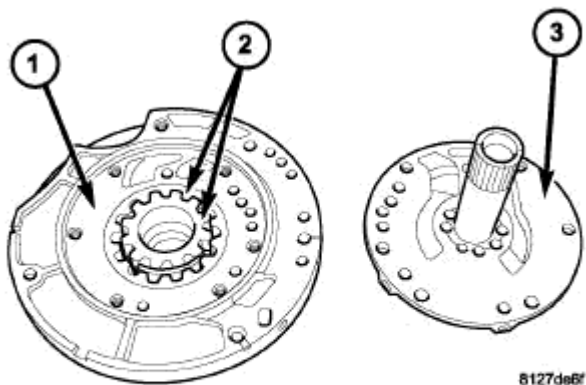


Fig. 439: Reaction Support-To-Pump Body Bolts
Courtesy of CHRYSLER LLC

- | |
|---|
| 1 - BOLT (6)
2 - PUMP BODY
3 - REACTION SHAFT SUPPORT |
|---|

When disassembling the transaxle it is necessary to inspect the oil pump for wear and damage.

1. Remove the six reaction shaft support-to-pump body bolts (1).

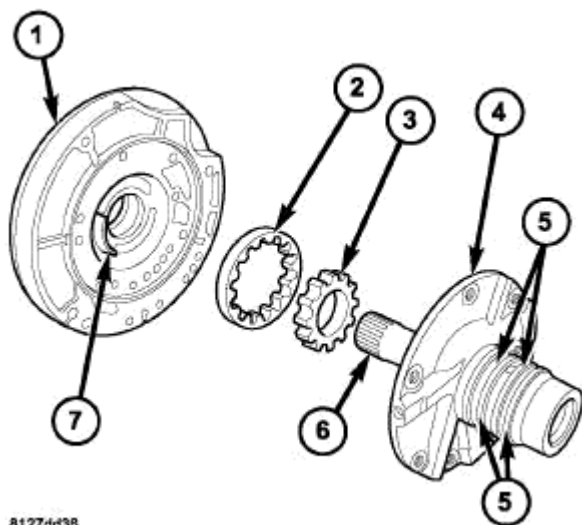


8127de6f

Fig. 440: Reaction Shaft Support
Courtesy of CHRYSLER LLC

- | |
|--|
| <p>1 - PUMP BODY
2 - PUMP GEARS
3 - REACTION SHAFT SUPPORT</p> |
|--|

2. Remove reaction shaft support (3) from pump body (1).



8127dd38

Fig. 441: Oil Pump Assembly
Courtesy of CHRYSLER LLC

- 1 - PUMP BODY
- 2 - OUTER GEAR
- 3 - INNER GEAR
- 4 - REACTION SHAFT SUPPORT
- 5 - SEAL RINGS (4)
- 6 - REACTION SHAFT
- 7 - CRESCENT

3. Remove the pump gears (2,3) and check for wear and damage on pump body (1) and gears.

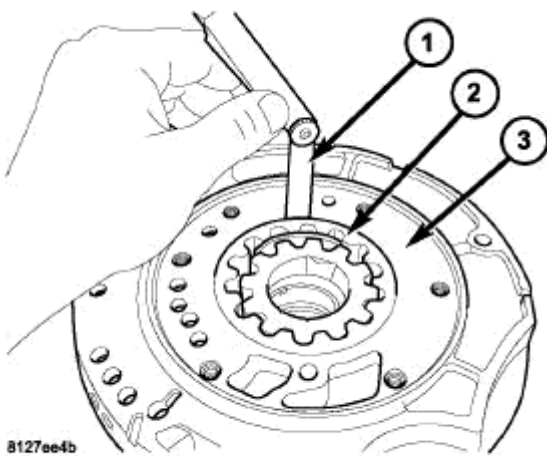


Fig. 442: Measuring Outer Gear-To-Pocket
Courtesy of CHRYSLER LLC

- 1 - FEELER GAUGE
- 2 - OUTER GEAR
- 3 - PUMP BODY

4. Re-install the gears (2) and check clearances.
5. Measure the clearance between the outer gear and the pump pocket (1). Clearance should be 0.089-0.202 mm (0.0035-0.0079 in.).

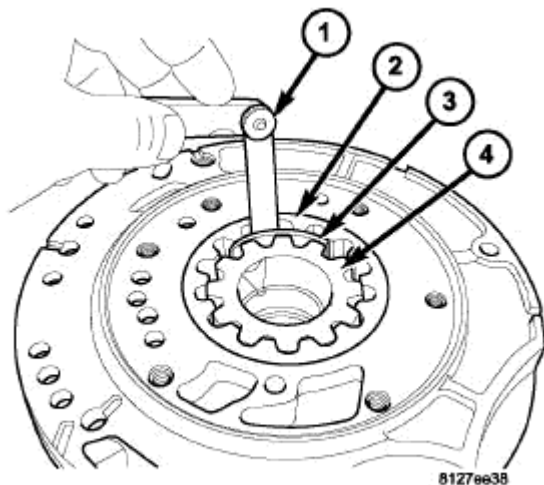


Fig. 443: Measuring Outer Gear-To-Crescent
Courtesy of CHRYSLER LLC

- 1 - FEELER GAUGE
- 2 - OUTER GEAR
- 3 - CRESCENT
- 4 - INNER GEAR

6. Measure clearance between outer gear (2) and crescent (3). Clearance should be 0.060-0.298 mm (0.0023 - 0.0117 in.).

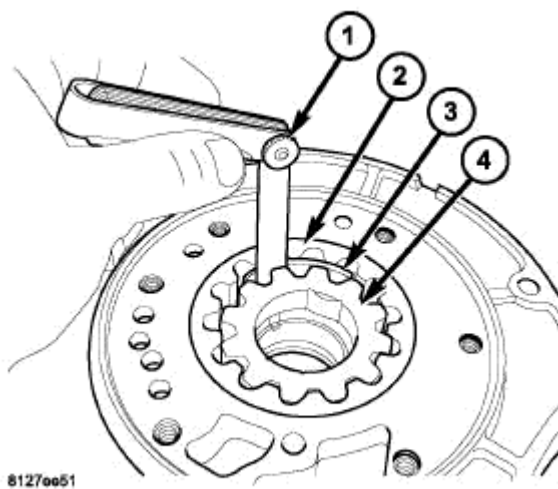


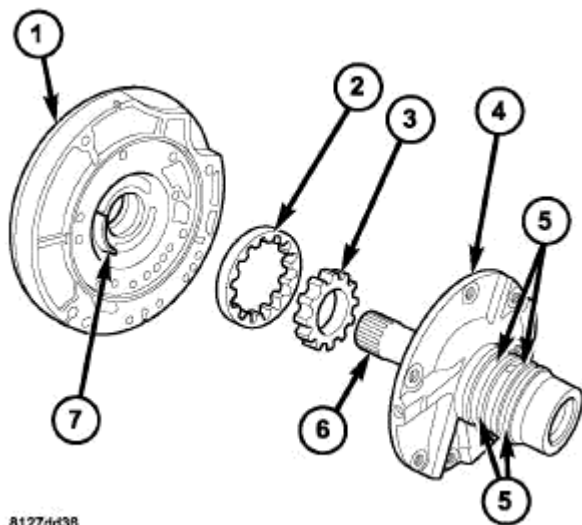
Fig. 444: Measuring Inner Gear-To-Crescent
Courtesy of CHRYSLER LLC

- 1 - FEELER GAUGE
- 2 - OUTER GEAR
- 3 - CRESCENT
- 4 - INNER GEAR

7. Measure clearance between inner gear (4) and crescent (3) . Clearance should be 0.093 - 0.385 mm (0.0036 - 0.0151 in.).
8. Position an appropriate piece of Plastigage across both pump gears.
9. Align the Plastigage to a flat area on the reaction shaft support housing.
10. Install the reaction shaft to the pump housing. Tighten the bolts to 27 N.m (20 ft. lbs.).
11. Remove bolts and carefully separate the housings. Measure the Plastigage following the instructions supplied.
12. Clearance between both gear end faces and the reaction shaft support should be 0.020-0.046 mm (0.0008-0.0018 in.).

ASSEMBLY

ASSEMBLY



8127dd38

Fig. 445: Oil Pump Assembly
Courtesy of CHRYSLER LLC

- 1 - PUMP BODY
- 2 - OUTER GEAR
- 3 - INNER GEAR
- 4 - REACTION SHAFT SUPPORT
- 5 - SEAL RINGS (4)
- 6 - REACTION SHAFT

7 - CRESCENT

1. Assemble oil pump .

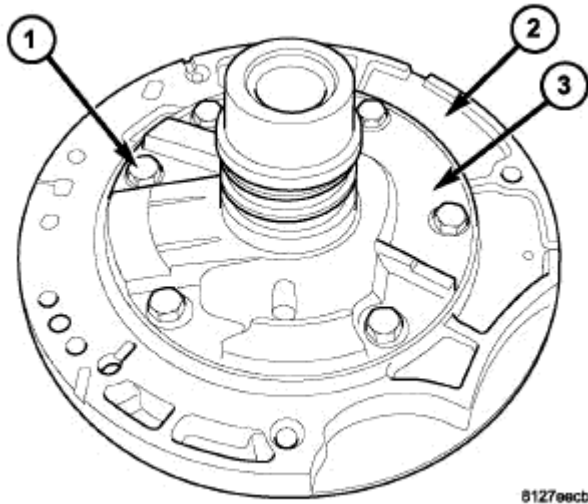


Fig. 446: Reaction Support-To-Pump Body Bolts
Courtesy of CHRYSLER LLC

- | |
|----------------------------|
| 1 - BOLT (6) |
| 2 - PUMP BODY |
| 3 - REACTION SHAFT SUPPORT |

2. Install and tighten reaction shaft support-to-oil pump housing bolts (1) to 28 N.m (20 ft. lbs.).

SENSOR, PRESSURE CONTROL

REMOVAL

REMOVAL

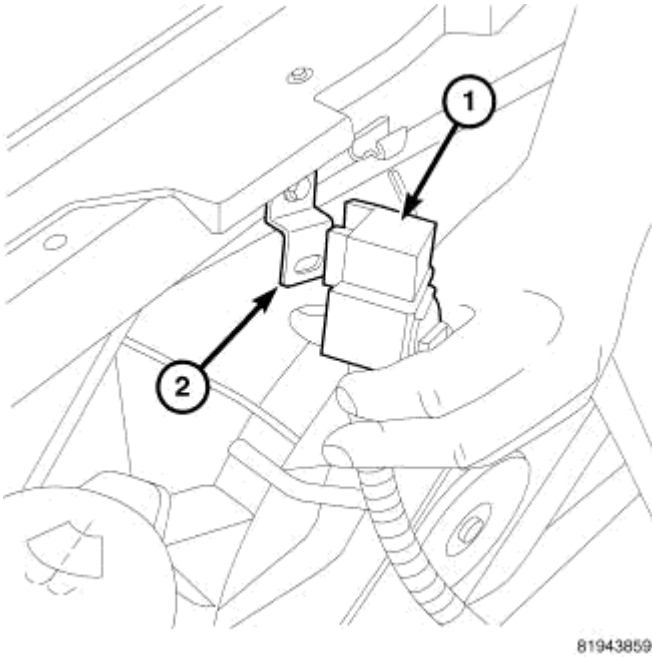


Fig. 447: Relay At Core Support
Courtesy of CHRYSLER LLC

1. Remove the engine cover.
2. Remove the battery and battery tray. Refer to **Electrical - Engine Systems/Battery System/BATTERY - Removal**.
3. Remove the relay (1) at the core support.

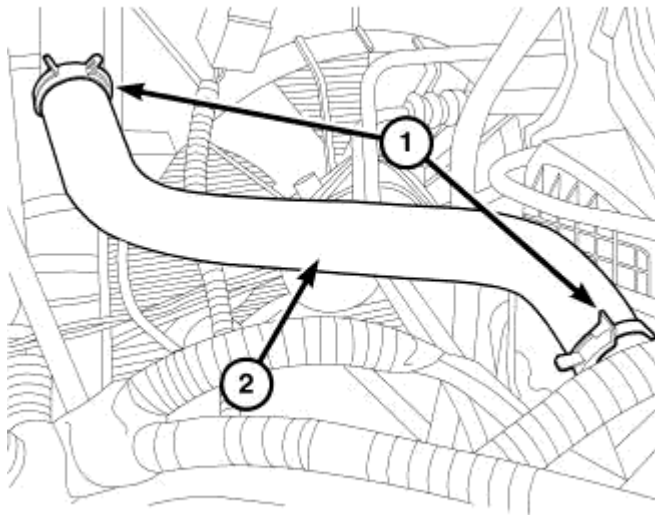
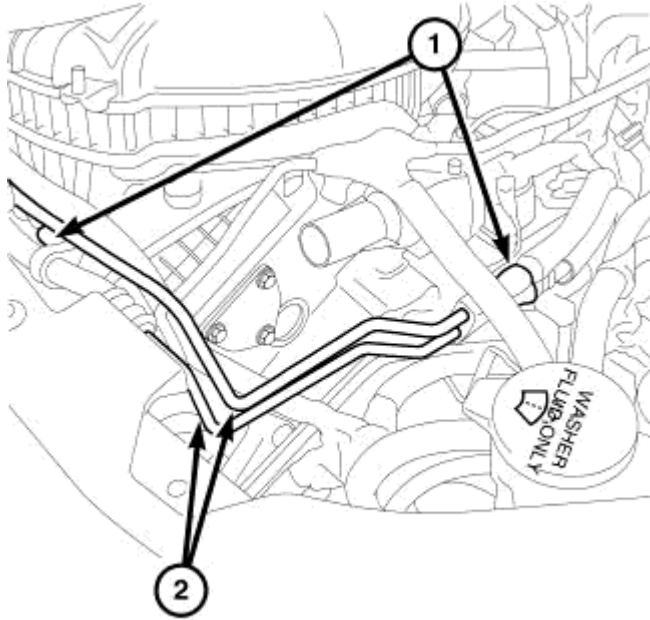


Fig. 448: Upper Radiator Hose
Courtesy of CHRYSLER LLC

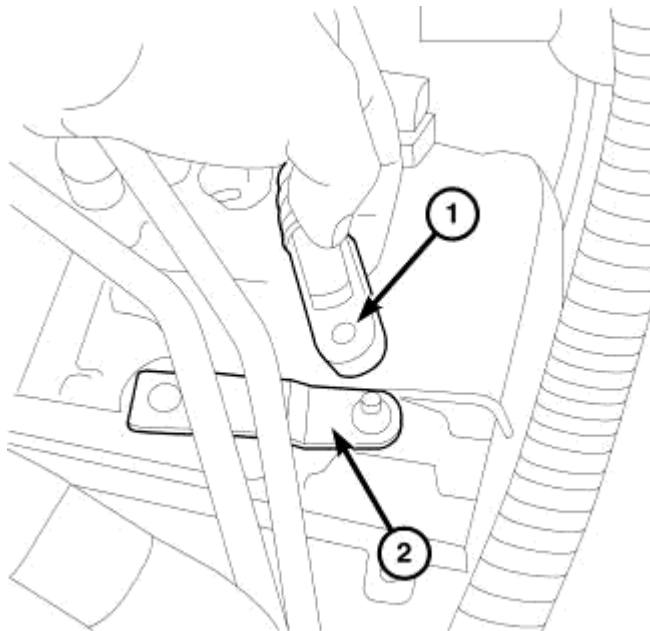
4. Drain the radiator. Refer to **Cooling - Standard Procedure**.
5. Remove clamps (1) at the upper radiator hose (2).
6. Remove the upper radiator hose. Refer to **Cooling - Standard Procedure**.



819439c1

Fig. 449: Power Steering Lines
Courtesy of CHRYSLER LLC

7. Remove the bolts (1) holding the power steering lines (2).



81944e1b

Fig. 450: Shift Cable From/To Manual Lever
Courtesy of CHRYSLER LLC

8. Remove shift cable (1) from manual lever (2).

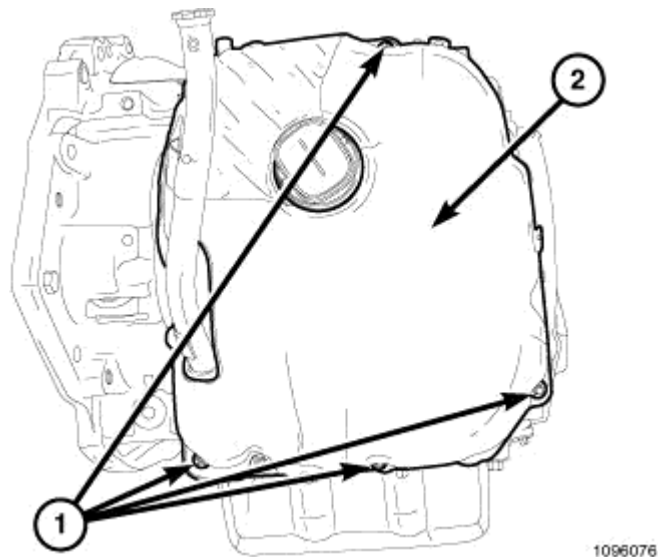


Fig. 451: Fasteners And Front Sound Dampener Cover
Courtesy of CHRYSLER LLC

NOTE: Keep the Top Sound Dampener Cover if replacing the unit

9. Remove the fasteners (1) and the Front Sound Damper Cover (2).

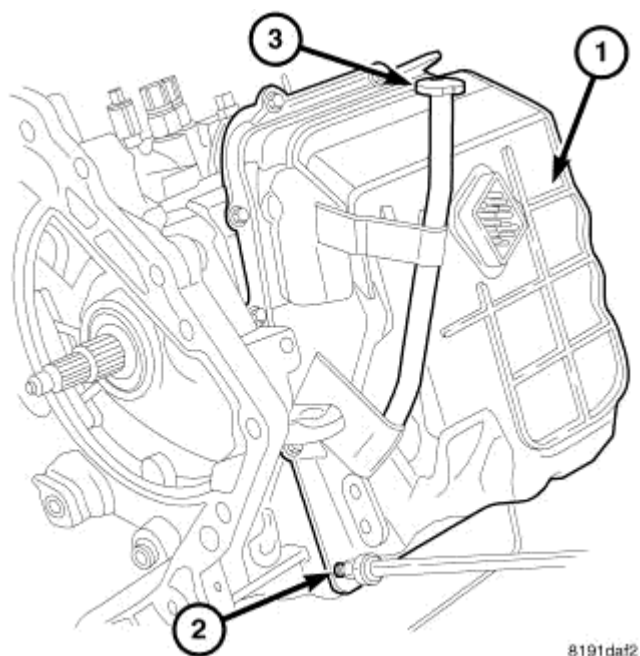
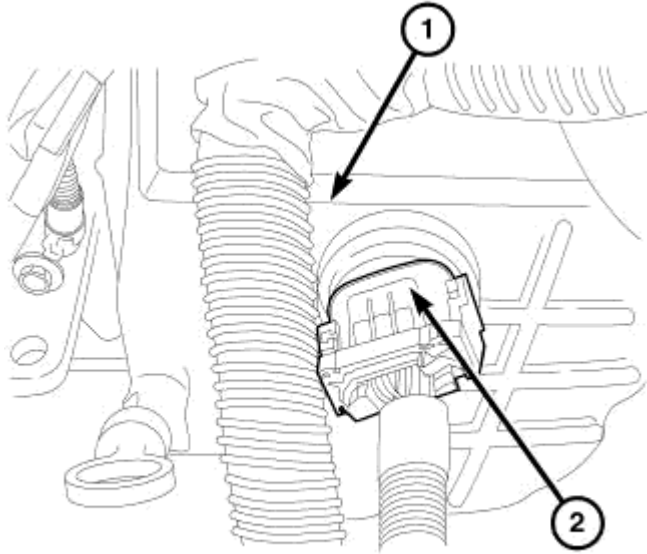


Fig. 452: Valve Body Pan

Courtesy of CHRYSLER LLC

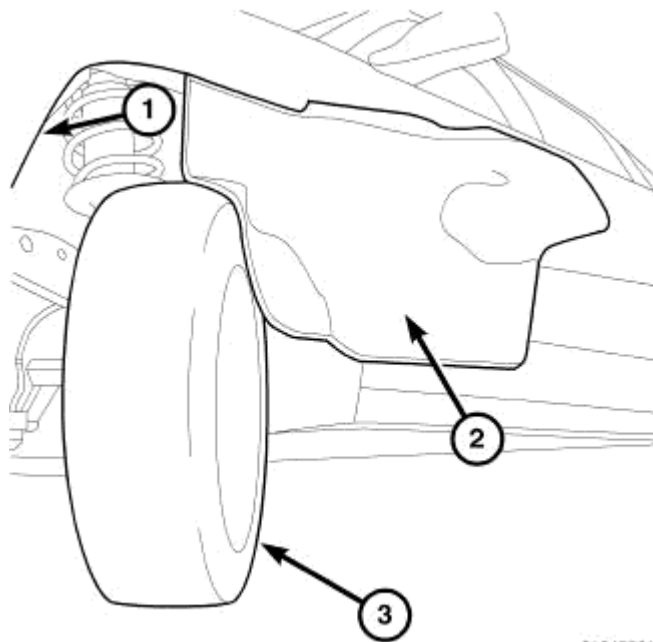
10. Remove the top valve body oil pan (1) bolts.



8188d440

Fig. 453: Solenoid Connector At Transmission
Courtesy of CHRYSLER LLC

11. Remove the solenoid pack connector (2) at valve body oil pan (1).



81945561

Fig. 454: Wheel Opening Splash Shield

Courtesy of CHRYSLER LLC

12. Raise the vehicle on a hoist.
13. Remove the front left side inner wheel splash screws from front side of wheel opening (1) and fold shield (2) back.
14. Turn the wheel (3) fully to the left.

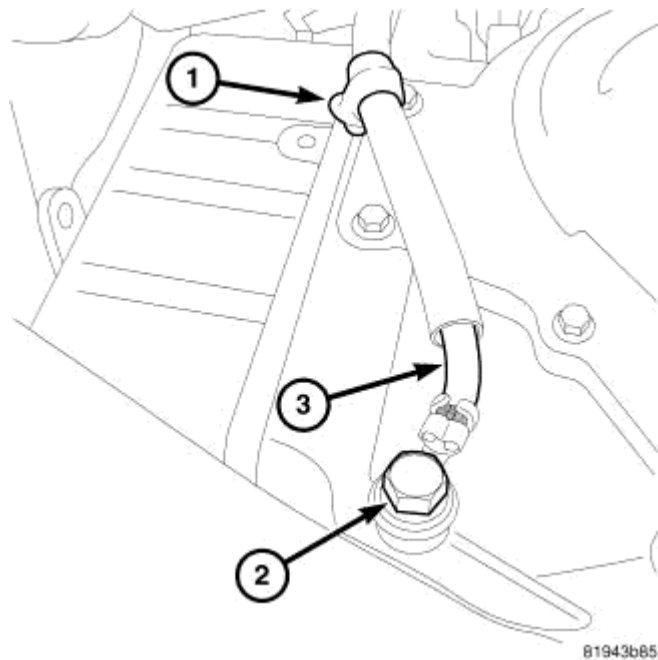
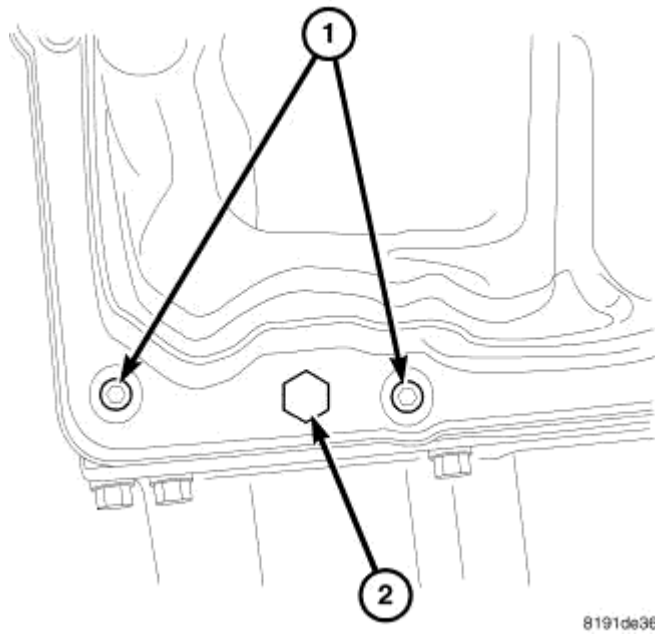


Fig. 455: Ground Cable
Courtesy of CHRYSLER LLC

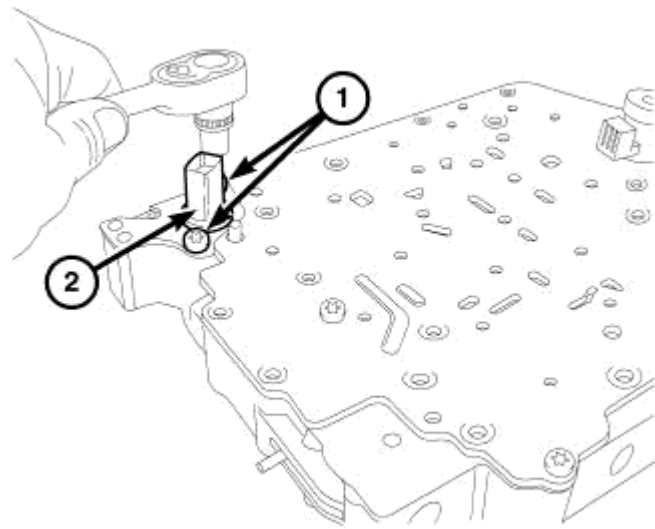
15. Remove the bolt (2) at the ground cable (3).
16. Remove the clip (1) at the valve body pan.
17. Move cable away from the valve body pan.



8191de36

Fig. 456: Pressure Tap Plug
Courtesy of CHRYSLER LLC

18. Remove the pressure tap plug (2) at valve body oil pan.
19. Remove the lower valve body oil pan bolts (1) and drain transmission fluid.
20. Remove the valve body oil pan.



819a195b

Fig. 457: Bolts At Line Pressure Sensor
Courtesy of CHRYSLER LLC

21. Remove the bolts (1) at the line pressure sensor.
22. Remove the line pressure sensor from the valve body.

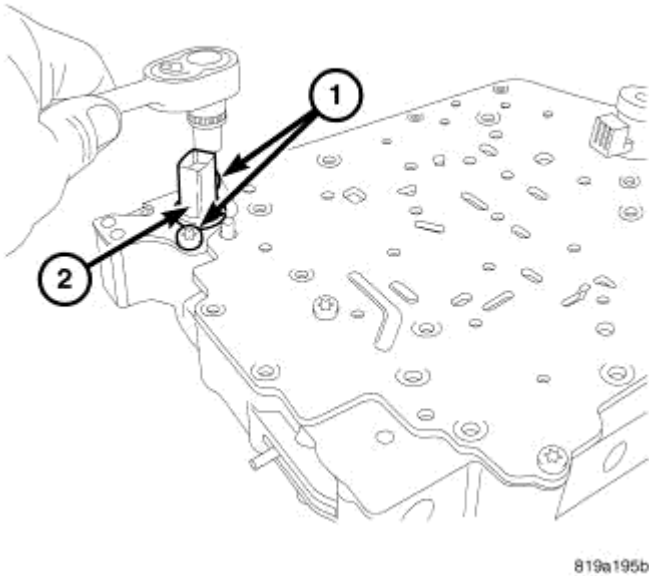
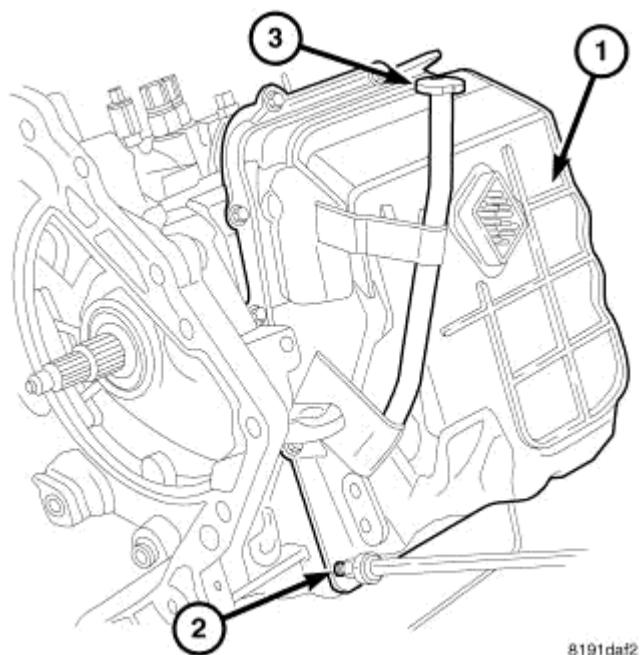
INSTALLATION**INSTALLATION**

Fig. 458: Bolts At Line Pressure Sensor
Courtesy of CHRYSLER LLC

1. Install the line pressure sensor on to the valve body.
2. Install the bolts (1) to the line pressure sensor and tighten to 6 N.m (50 in. lbs.).

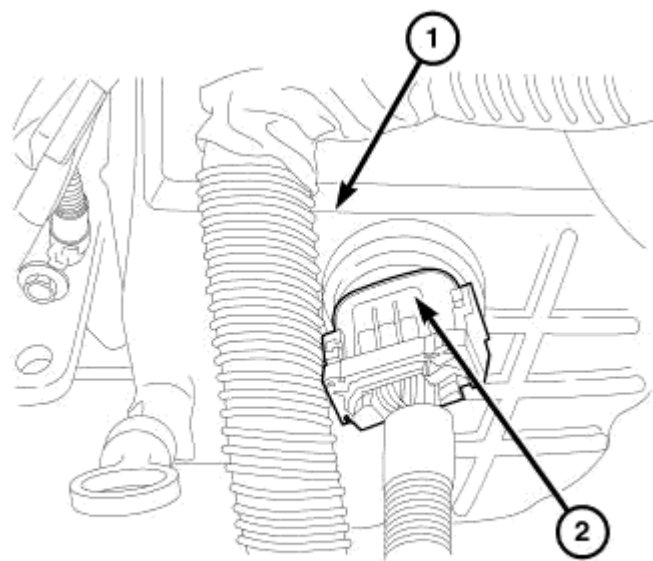


8191dat2

Fig. 459: Valve Body Pan

Courtesy of CHRYSLER LLC

3. Install the valve body oil pan, use a bead of MOPAR® ATF RTV (MS-GF41).
4. Install the upper valve body oil pan bolts and tighten to 6 N.m (50 in. lbs.).
5. Install the pressure tap at valve body oil pan and tighten to 6 N.m (50 in. lbs.).
6. Lower the vehicle on a hoist.



8188d440

Fig. 460: Solenoid Connector At Transmission

Courtesy of CHRYSLER LLC

7. Install the solenoid pack connector (2) at valve body oil pan.
8. Raise the vehicle on the hoist.

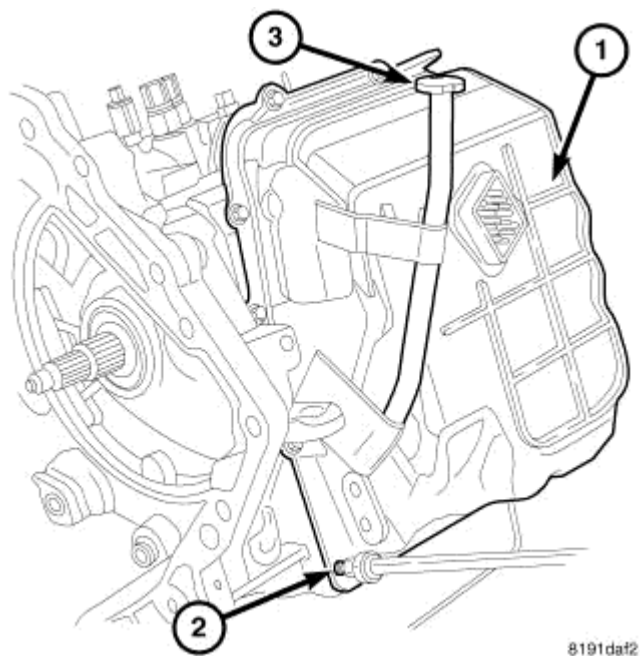


Fig. 461: Valve Body Pan
Courtesy of CHRYSLER LLC

9. Install the lower valve body oil pan bolts and tighten to 6 N.m (50 in. lbs.).

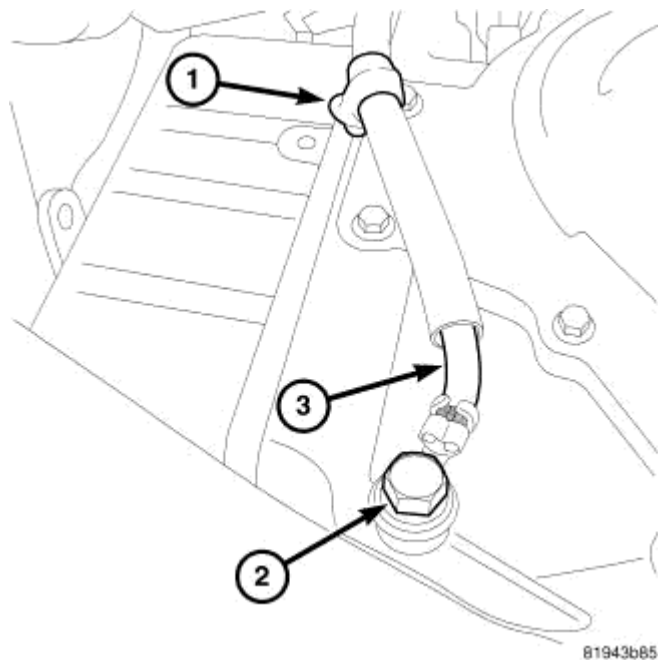


Fig. 462: Ground Cable
Courtesy of CHRYSLER LLC

10. Install the bolt at the ground cable and tighten to 10 N.m (90 in. lbs.).
11. Install the clip to the valve body oil pan

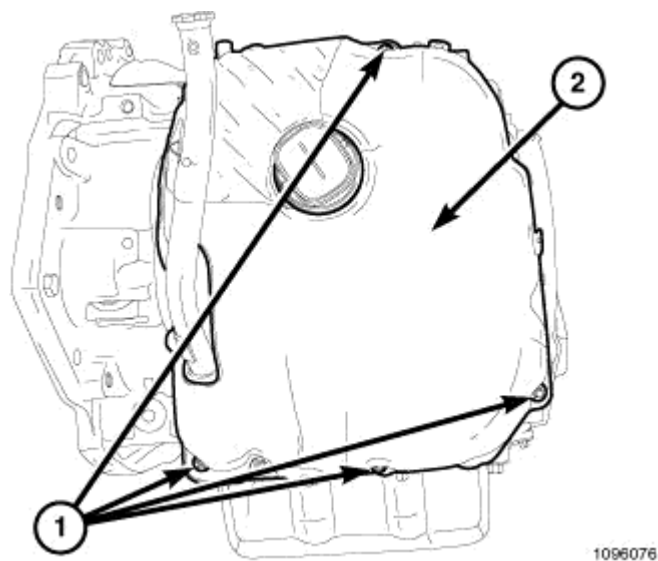


Fig. 463: Fasteners And Front Sound Dampener Cover
Courtesy of CHRYSLER LLC

12. Install the Front Sound Damper Cover (2) and install the fasteners (1).

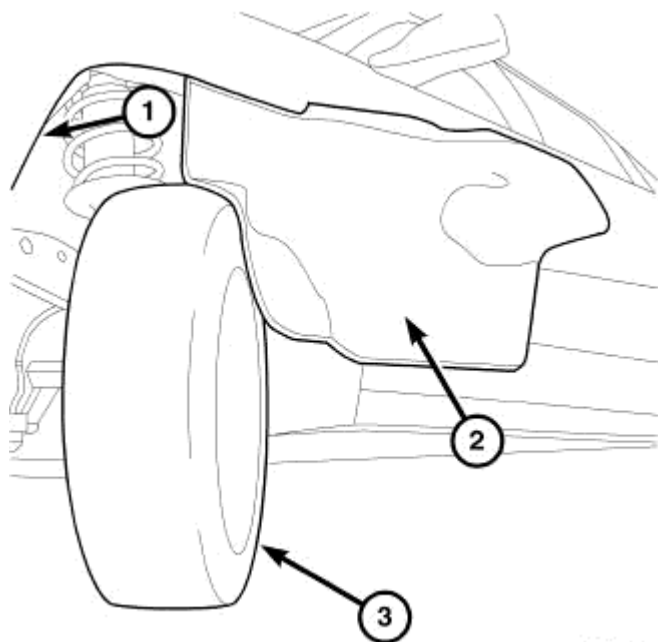
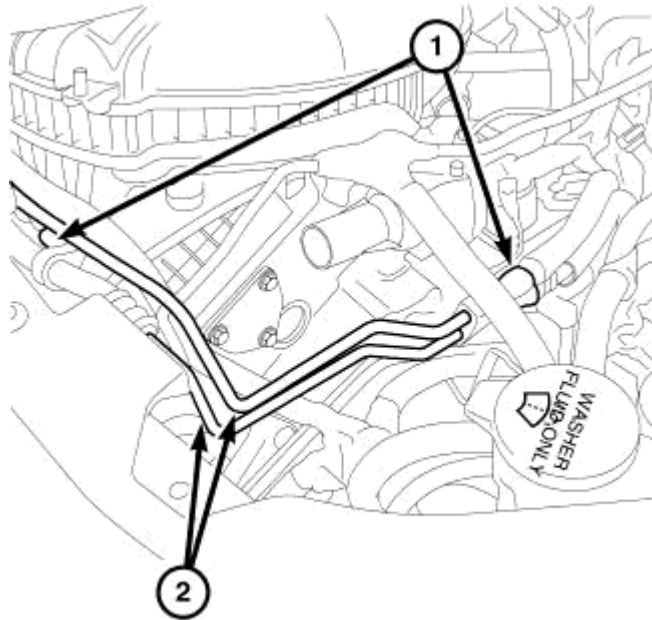


Fig. 464: Wheel Opening Splash Shield
Courtesy of CHRYSLER LLC

13. Move left side inner wheel splash shield (2) into place.

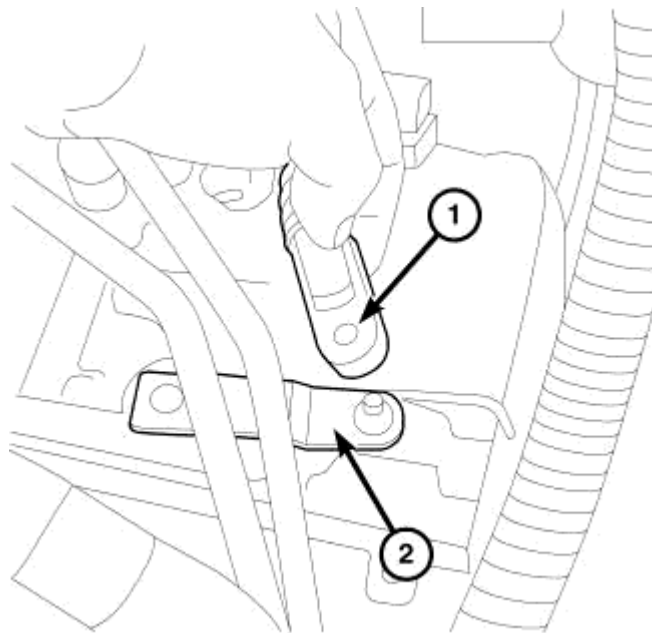
14. Install the left side inner wheel splash shield screws (1).
15. Lower the vehicle.



819439c1

Fig. 465: Power Steering Lines
Courtesy of CHRYSLER LLC

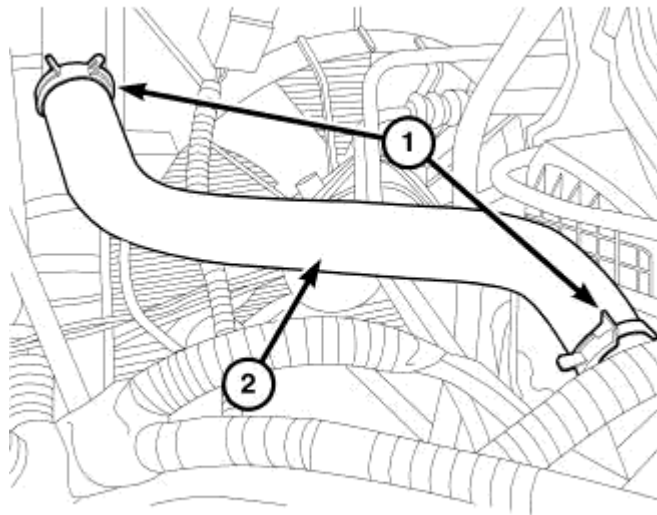
16. Install the bolts (1) holding the power steering lines (2) and tighten to 10 N.m (90 in. lbs.).



81944e1b

Fig. 466: Shift Cable From/To Manual Lever
Courtesy of CHRYSLER LLC

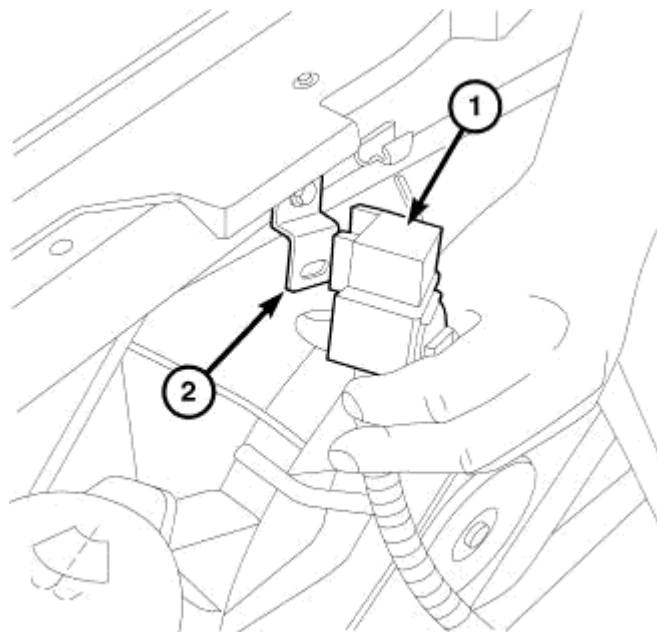
17. Install shift cable (1) to manual lever (2).



81943a71

Fig. 467: Upper Radiator Hose
Courtesy of CHRYSLER LLC

18. Install upper radiator hose (2) and clamps (1).
19. Fill the cooling system. Refer to **Cooling - Standard Procedure** .



81943859

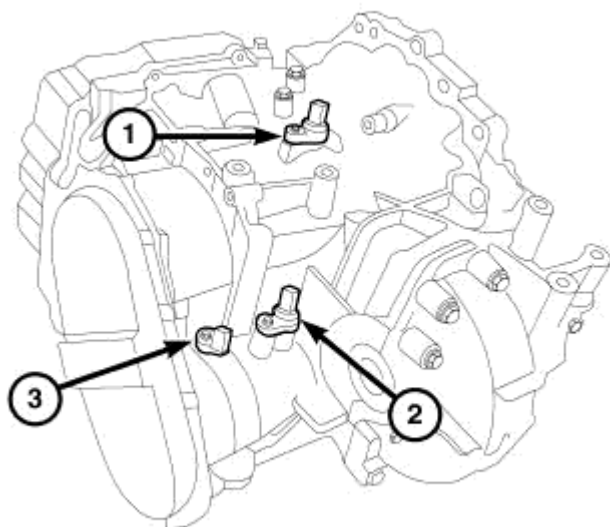
Fig. 468: Relay At Core Support
Courtesy of CHRYSLER LLC

20. Install the relay (1) at the core support.
21. Install the battery and battery tray. Refer to **Electrical - Engine Systems/Battery System/BATTERY - Installation** .
22. Install the battery cables.
23. Fill transmission and road test. See **Standard Procedure** .

SENSOR, SPEED, INPUT

DESCRIPTION

DESCRIPTION

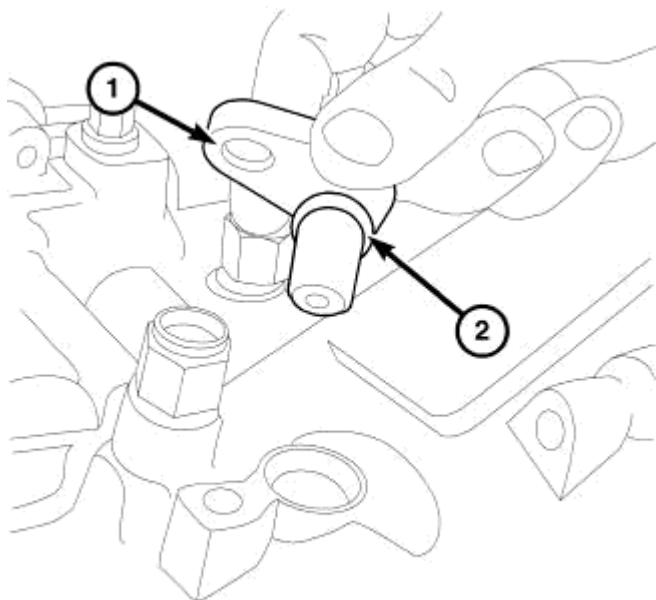


818c6524

Fig. 469: Speed Sensors

Courtesy of CHRYSLER LLC

The Input Speed Sensor (1) is a two-wire magnetic pickup device that generates AC signals as rotation occurs.



818c653a

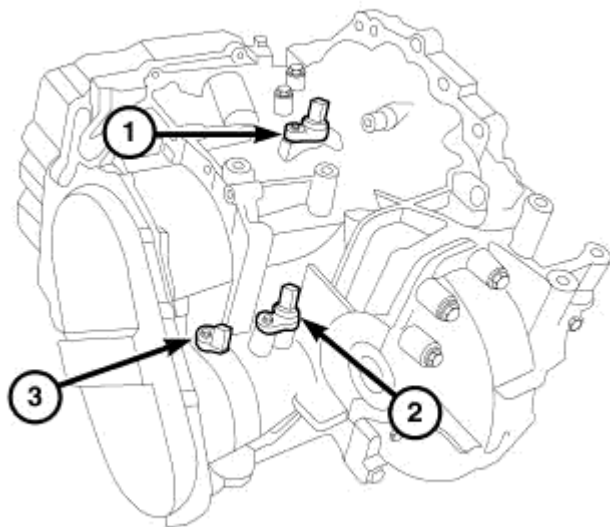
Fig. 470: Speed Sensor O-Ring
Courtesy of CHRYSLER LLC

NOTE: Always use a new O-ring

The Input Speed Sensor is bolted (1) to the transaxle case and uses a O-ring (2) to seal it to the transaxle case.

OPERATION

OPERATION

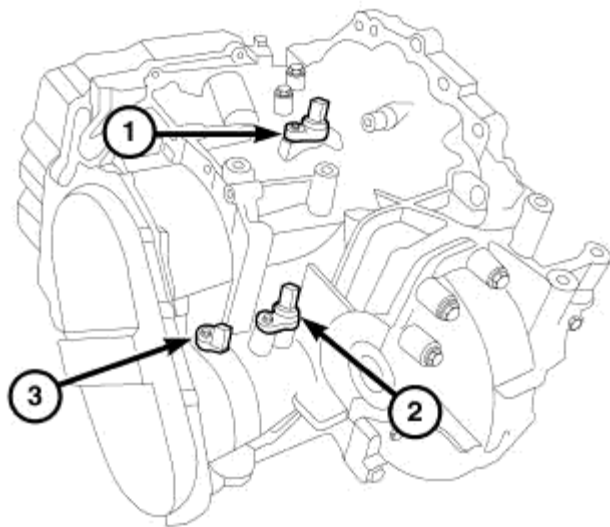


818c6524

Fig. 471: Speed Sensors

Courtesy of CHRYSLER LLC

The input speed sensor (1) is located at the top of the case, and read turbine speed from the input clutch hub.

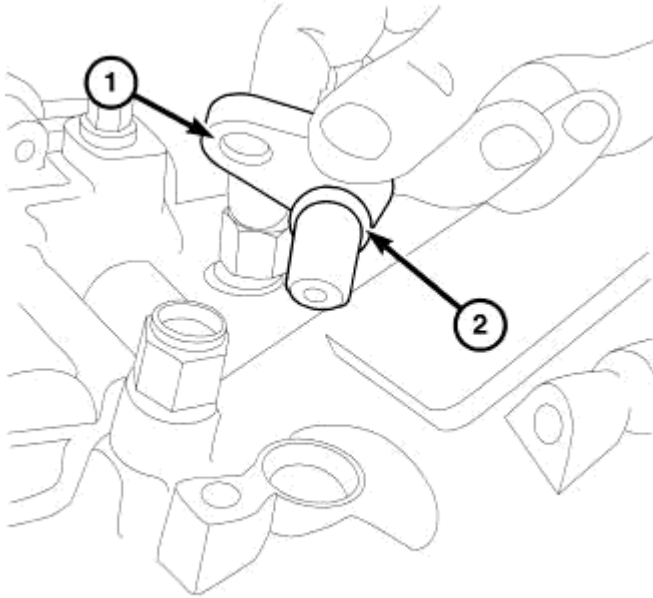
REMOVAL**REMOVAL**

818c6524

Fig. 472: Speed Sensors

Courtesy of CHRYSLER LLC

1. Unplug the electrical connector at the input speed sensor (1).



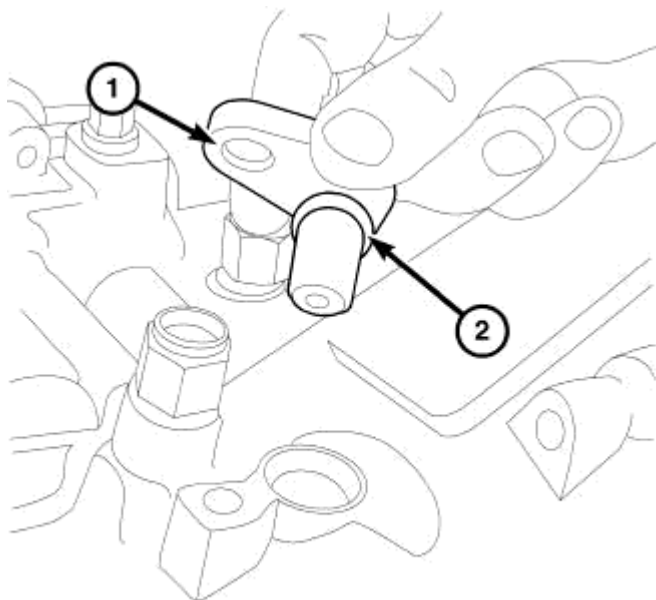
818c653a

Fig. 473: Speed Sensor O-Ring
Courtesy of CHRYSLER LLC

2. Remove the bolt at input speed sensor.
3. Pull up on input speed sensor (1) to remove.

INSTALLATION

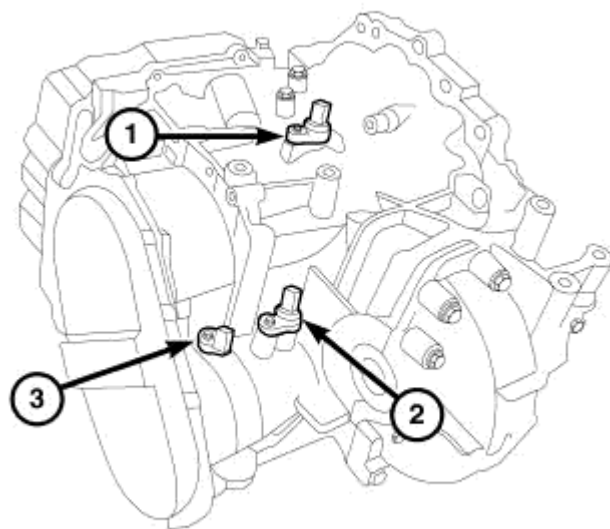
INSTALLATION



818c653a

Fig. 474: Speed Sensor O-Ring
Courtesy of CHRYSLER LLC

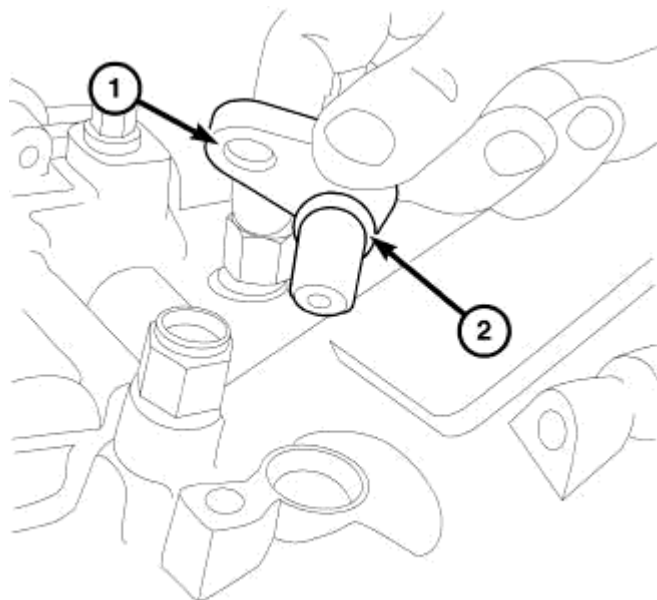
1. Install a new O-ring (2).



818c6524

Fig. 475: Speed Sensors
Courtesy of CHRYSLER LLC

2. Install input speed sensor (1) into case.



818c653a

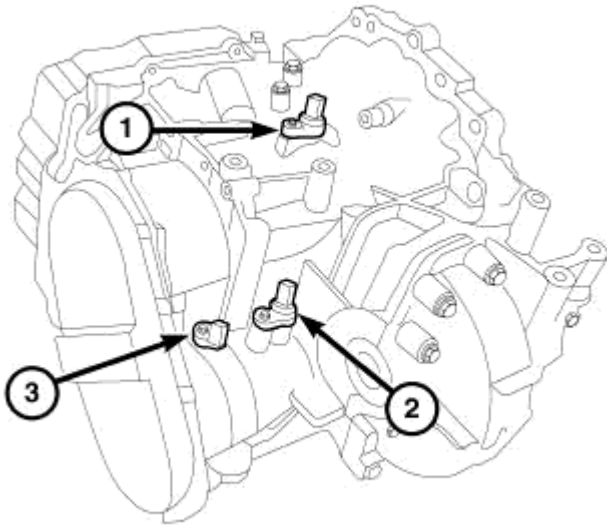
Fig. 476: Speed Sensor O-Ring
Courtesy of CHRYSLER LLC

3. Install bolt at input speed sensor and tighten to 12 N.m (105 in. lbs.).
4. Engage electrical connector.

SENSOR, SPEED, OUTPUT

DESCRIPTION

DESCRIPTION

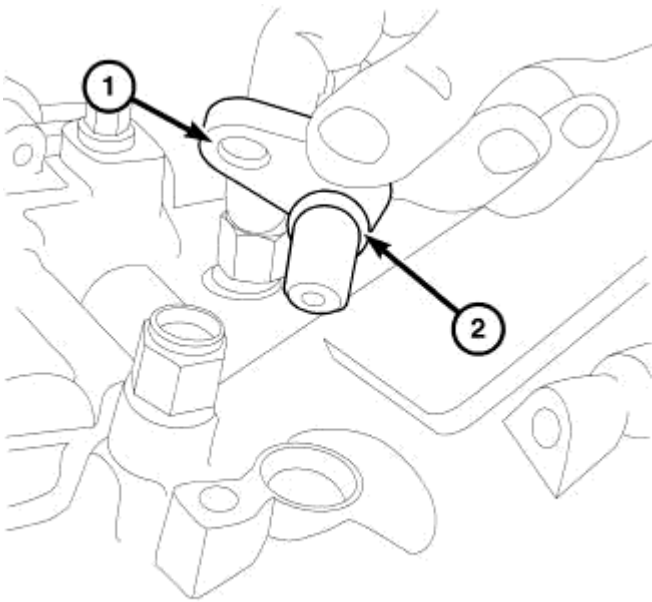


818c6524

Fig. 477: Speed Sensors

Courtesy of CHRYSLER LLC

The Output Speed Sensor (2) is a two-wire magnetic pickup device that generates AC signals as rotation occurs.

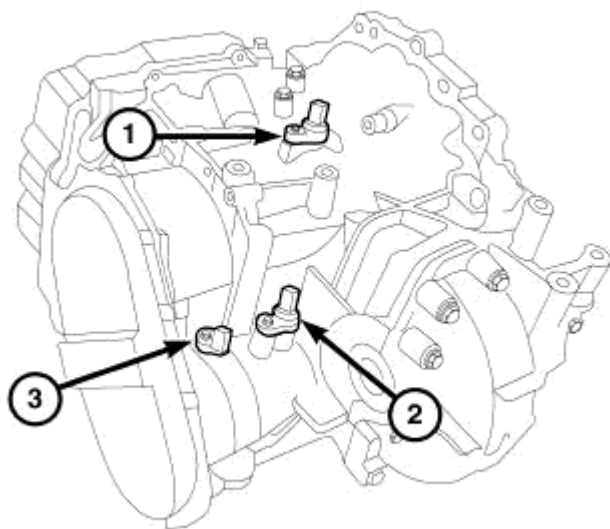


818c653a

Fig. 478: Speed Sensor O-Ring

Courtesy of CHRYSLER LLC

The Output Speed Sensor (1) is bolted to the transaxle case and uses a O-ring (2) to seal it to the transaxle case.

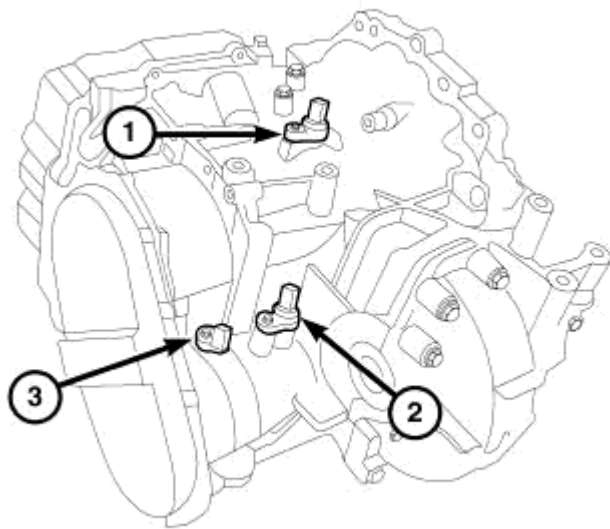
OPERATION**OPERATION**

818c6524

Fig. 479: Speed Sensors**Courtesy of CHRYSLER LLC**

The output speed sensor (2) is located at the rear of the case. It reads the rotation of the underdrive compounder output carrier.

REMOVAL**REMOVAL**

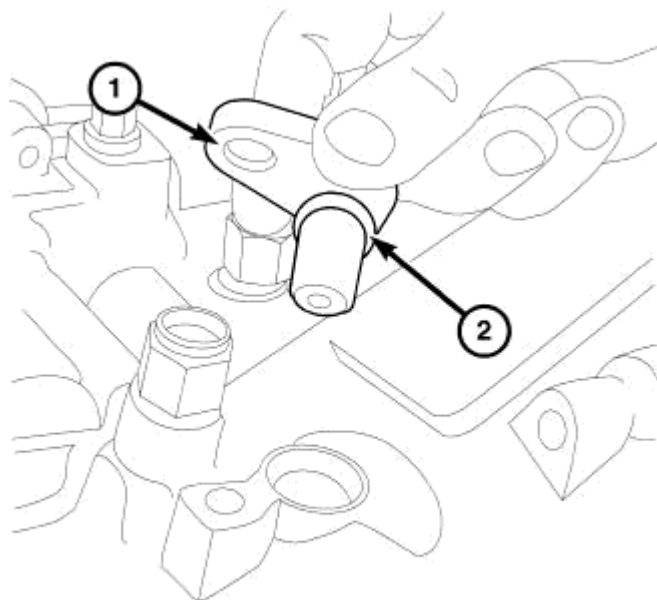


818c6524

Fig. 480: Speed Sensors

Courtesy of CHRYSLER LLC

1. Unplug the electrical connector at the output speed sensor (2).



818c653a

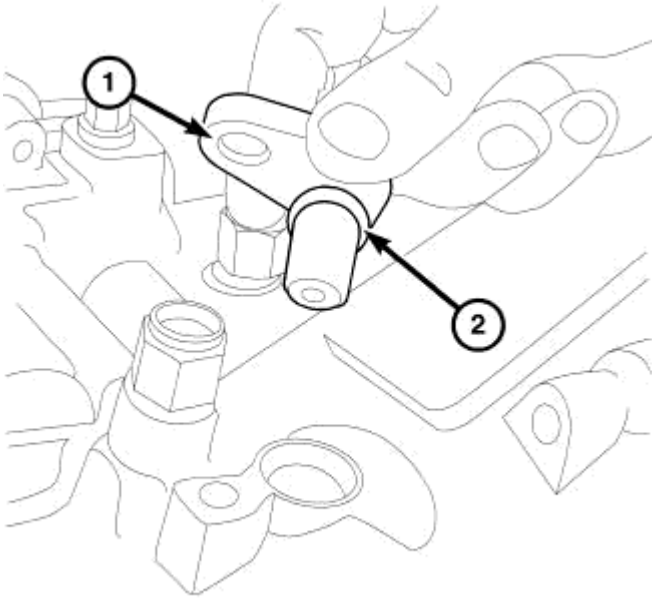
Fig. 481: Speed Sensor O-Ring

Courtesy of CHRYSLER LLC

2. Remove the bolt at output speed sensor (1).
3. Pull up on output speed sensor to remove.

INSTALLATION

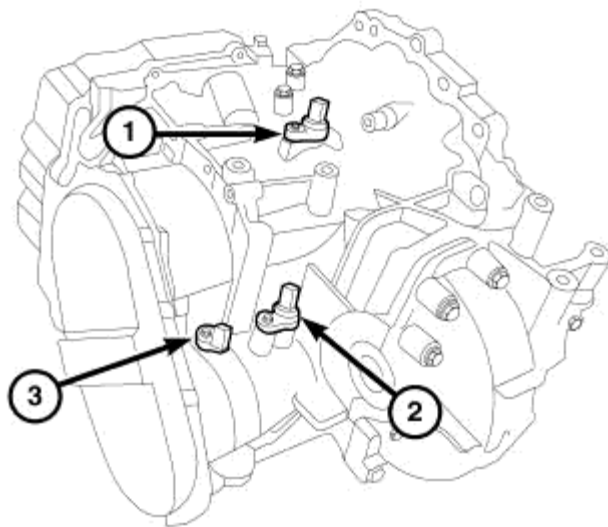
INSTALLATION



818c653a

Fig. 482: Speed Sensor O-Ring
Courtesy of CHRYSLER LLC

1. Install a new O-ring (2).

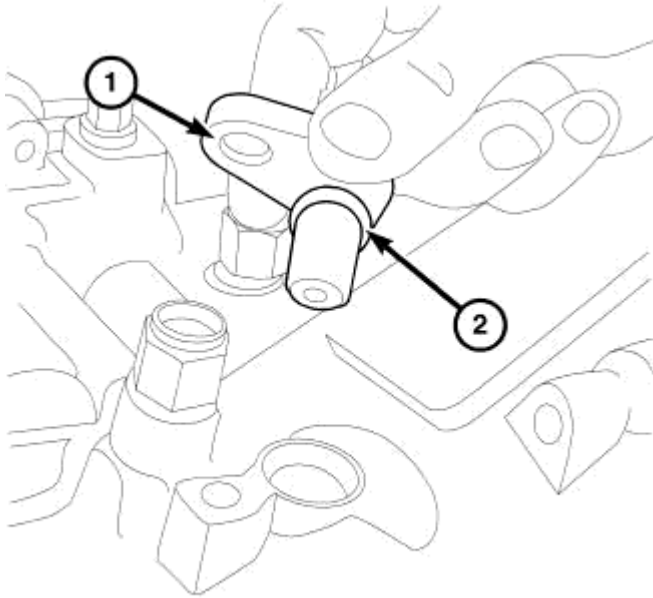


818c6524

Fig. 483: Speed Sensors

Courtesy of CHRYSLER LLC

2. Install output speed sensor (2) into case.



818c653a

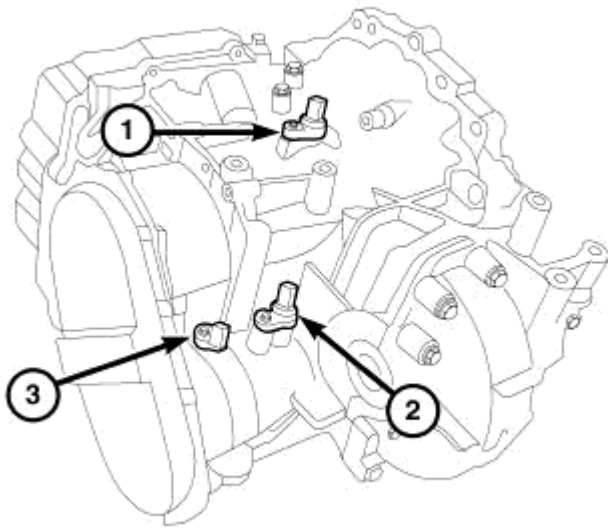
Fig. 484: Speed Sensor O-Ring
Courtesy of CHRYSLER LLC

3. Install bolt at output speed sensor and tighten to 12 N.m (105 in. lbs.).
4. Engage electrical connector.

SENSOR, SPEED, TRANSFER SHAFT

DESCRIPTION

DESCRIPTION

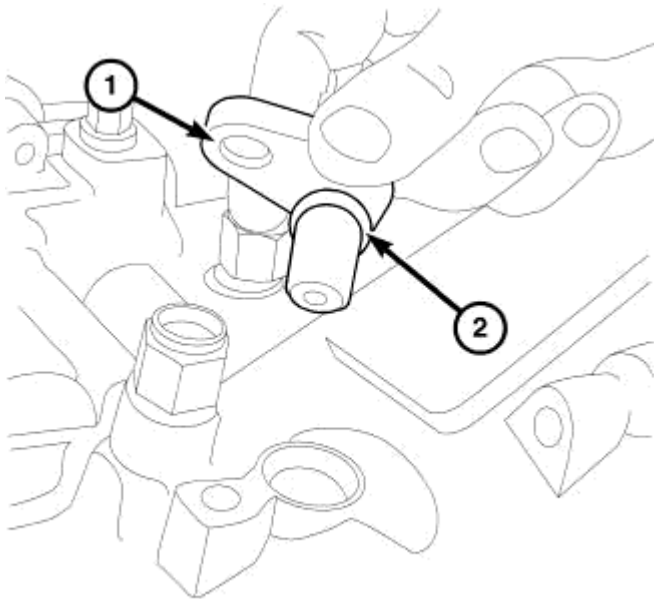


818c6524

Fig. 485: Speed Sensors

Courtesy of CHRYSLER LLC

The Transfer Shaft Speed Sensor (3) is a two-wire magnetic pickup device that generates AC signals as rotation occurs.



818c653a

Fig. 486: Speed Sensor O-Ring

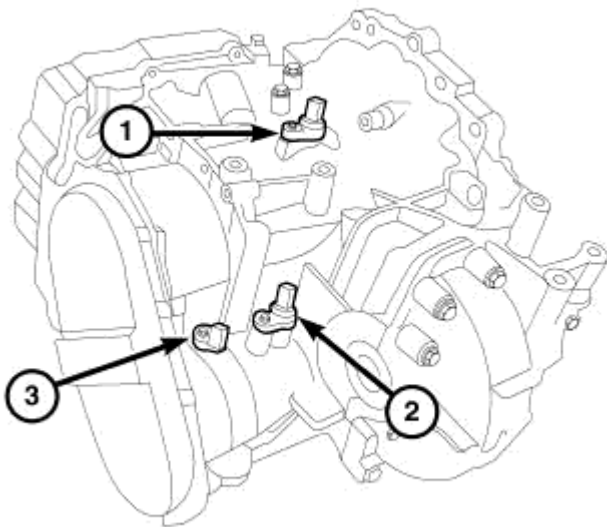
Courtesy of CHRYSLER LLC

The Transfer Shaft Speed Sensor (1) is bolted to the transaxle case and uses a O-ring (2) to seal it to the

transaxle case.

OPERATION

OPERATION



818c6524

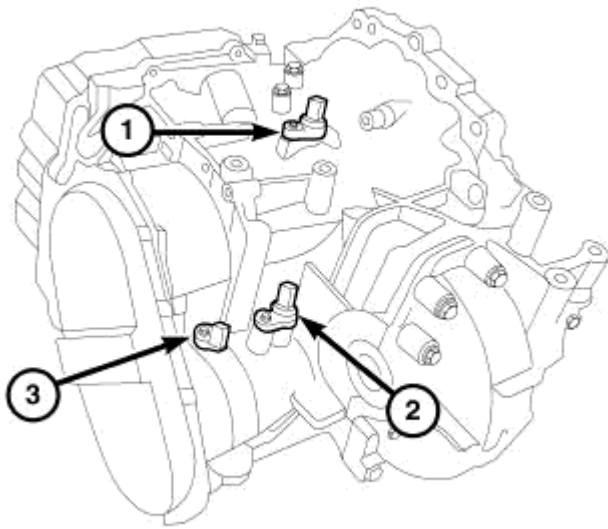
Fig. 487: Speed Sensors

Courtesy of CHRYSLER LLC

The transfer shaft speed sensor (3) is located at the rear of the case (backside). It reads rotation of the front annulus/rear carrier assembly.

REMOVAL

REMOVAL

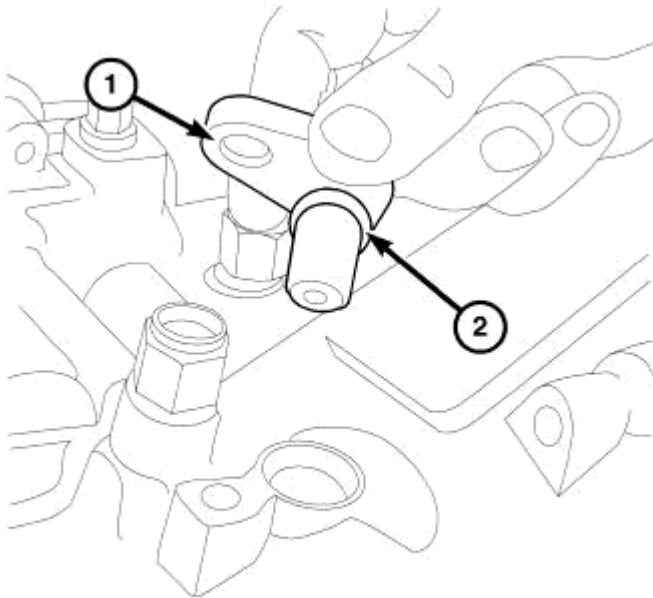


818c6524

Fig. 488: Speed Sensors

Courtesy of CHRYSLER LLC

1. Unplug the electrical connector at the transfer shaft sensor (3).



818c653a

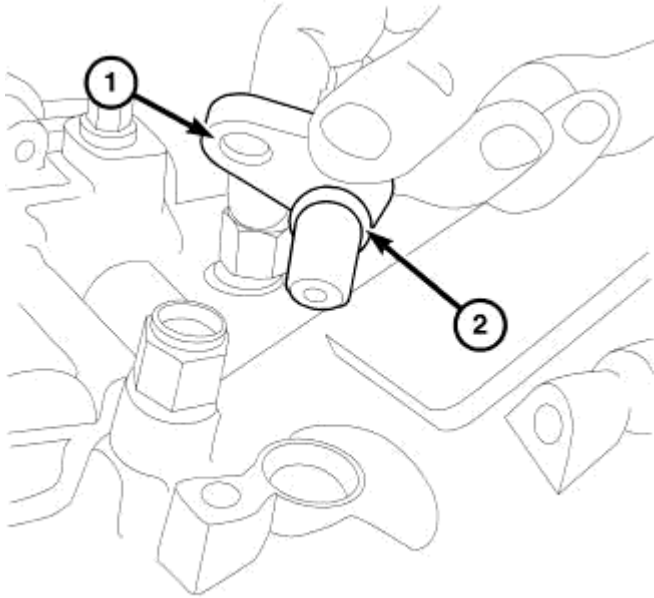
Fig. 489: Speed Sensor O-Ring

Courtesy of CHRYSLER LLC

2. Remove the bolt at transfer shaft sensor (1).
3. Pull up on transfer shaft sensor to remove.

INSTALLATION

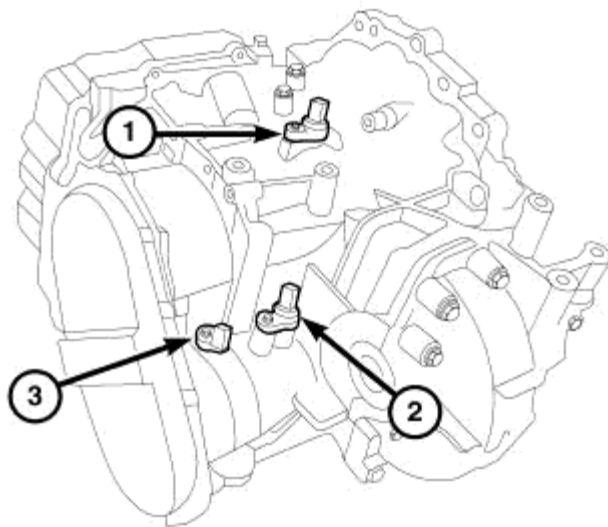
INSTALLATION



818c653a

Fig. 490: Speed Sensor O-Ring
Courtesy of CHRYSLER LLC

1. Install a new O-ring (2). on the transfer shaft speed sensor (1).

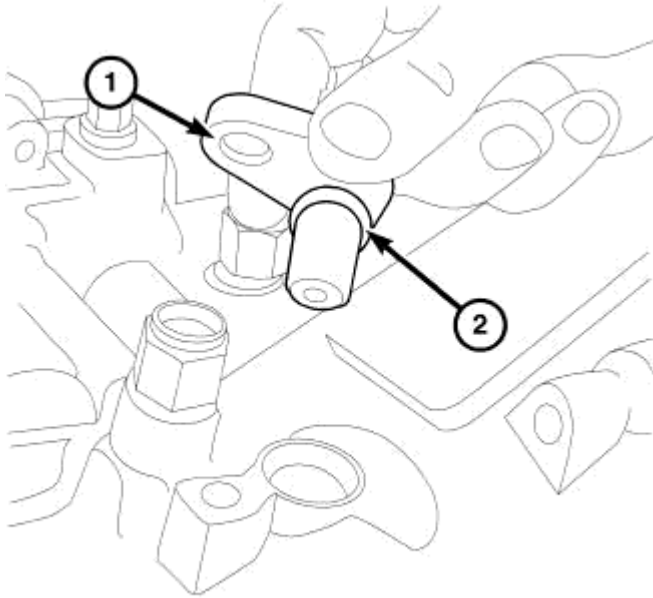


818c6524

Fig. 491: Speed Sensors

Courtesy of CHRYSLER LLC

2. Install transfer shaft speed sensor (3) into case.



818c653a

Fig. 492: Speed Sensor O-Ring
Courtesy of CHRYSLER LLC

3. Install bolt at transfer shaft speed sensor (1) and tighten to 12 N.m (105 in. lbs.).
4. Reconnect the electrical connector.

SENSOR, TRANSMISSION RANGE

REMOVAL

REMOVAL

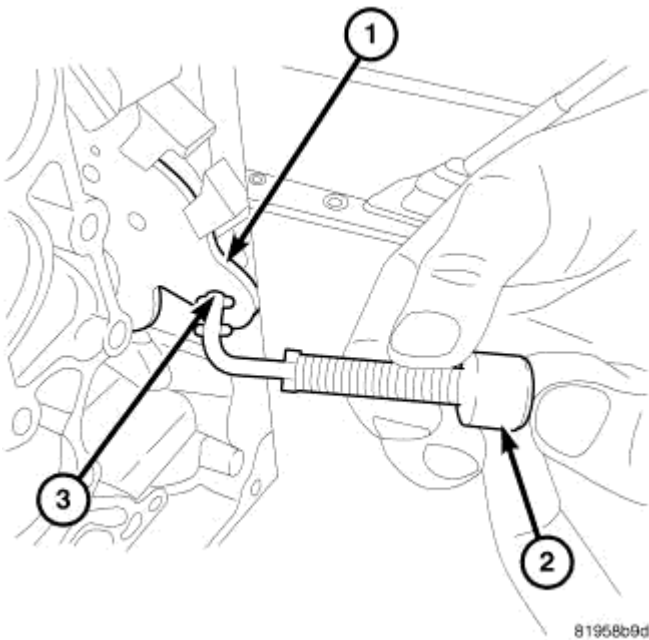


Fig. 493: TRS/Rooster Comb
Courtesy of CHRYSLER LLC

1. Remove the valve body. See **Removal**
2. Remove the park rod assembly (2) from the TRS/rooster comb (1).

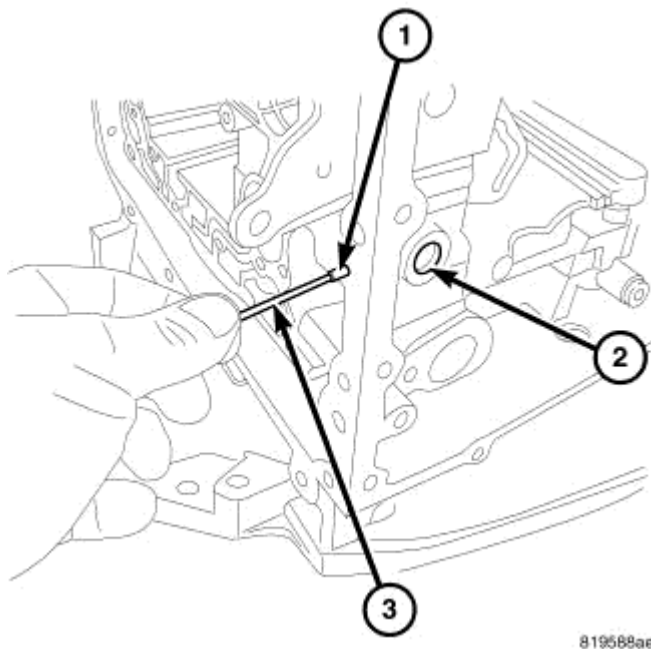


Fig. 494: Manual Lever Set Screw
Courtesy of CHRYSLER LLC

3. Remove the set screw (1) with a allen wrench (3) at manual lever (2).

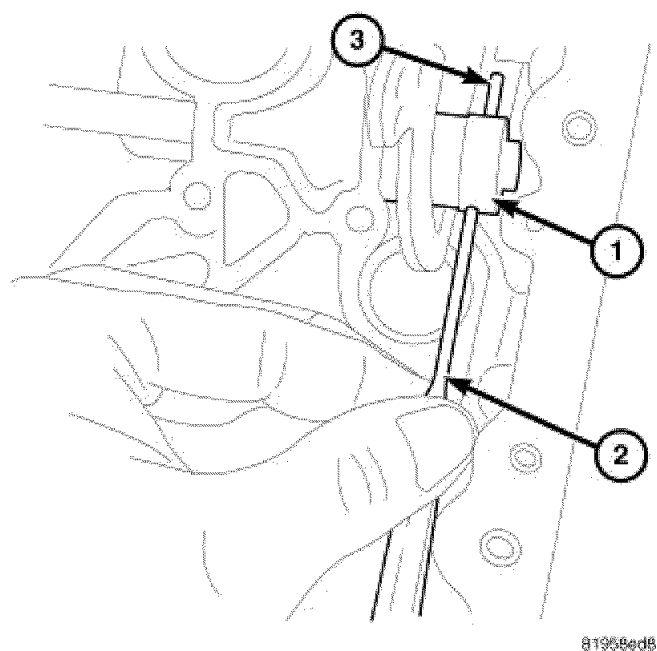


Fig. 495: Roll Pin At Manual Lever
Courtesy of CHRYSLER LLC

4. Remove the roll pin (3) at the TRS/rooster comb (1) using a pin punch (2).

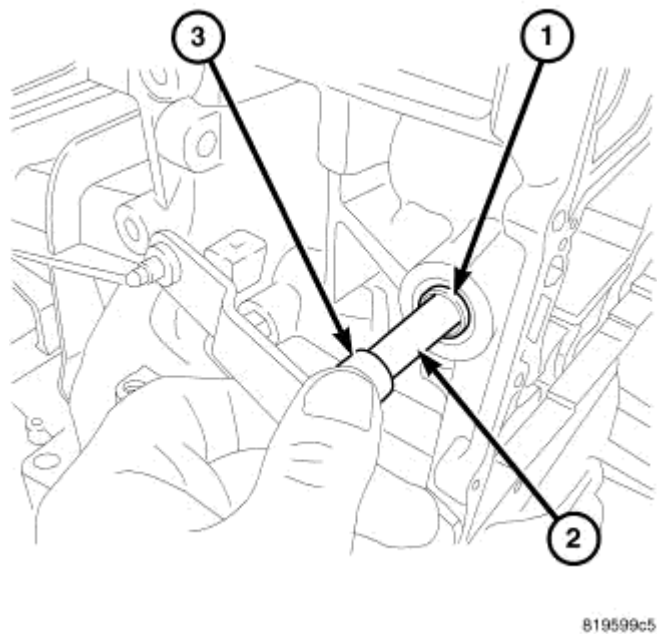
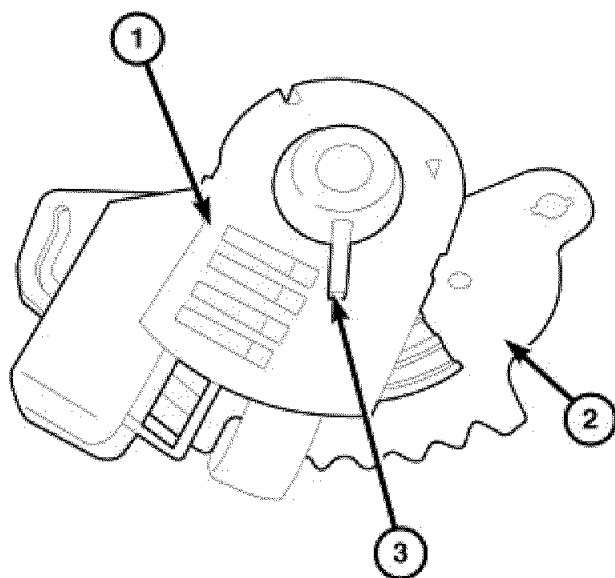


Fig. 496: Manual Lever
Courtesy of CHRYSLER LLC

5. Remove the manual lever (2) from case and inspect the bushing (3).

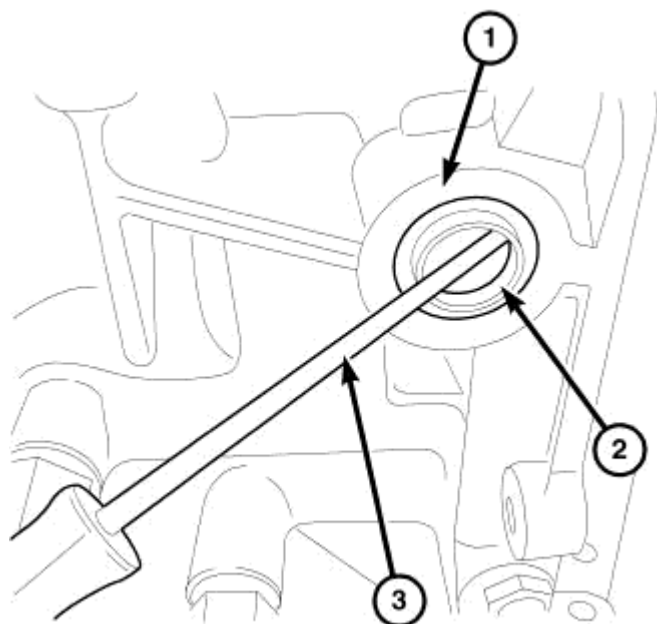


819699d2

Fig. 497: TRS 62TE

Courtesy of CHRYSLER LLC

6. Remove the TRS/rooster (1, 2) comb from the case.



819699e3

Fig. 498: Manual Lever Case Seal

Courtesy of CHRYSLER LLC

7. Remove the manual lever seal (2).

INSTALLATION

INSTALLATION

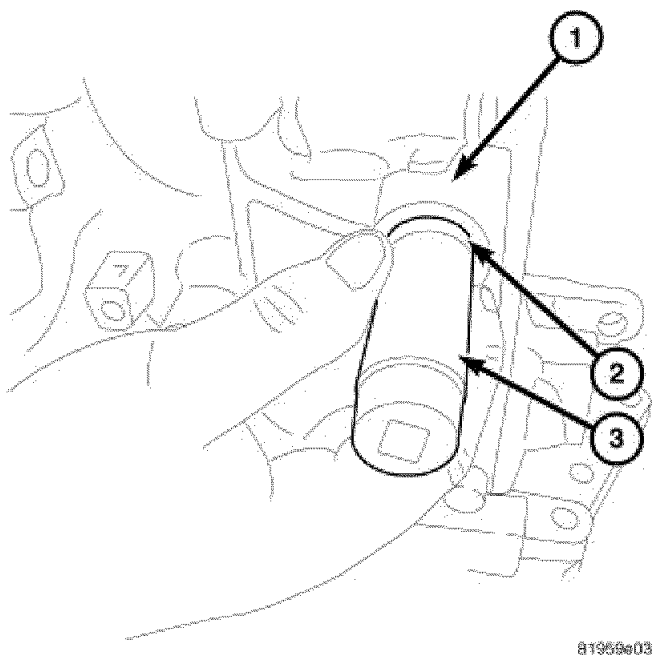


Fig. 499: Install Manual Lever Seal
Courtesy of CHRYSLER LLC

1. Install a **new** manual lever oil seal (2) using socket (3).

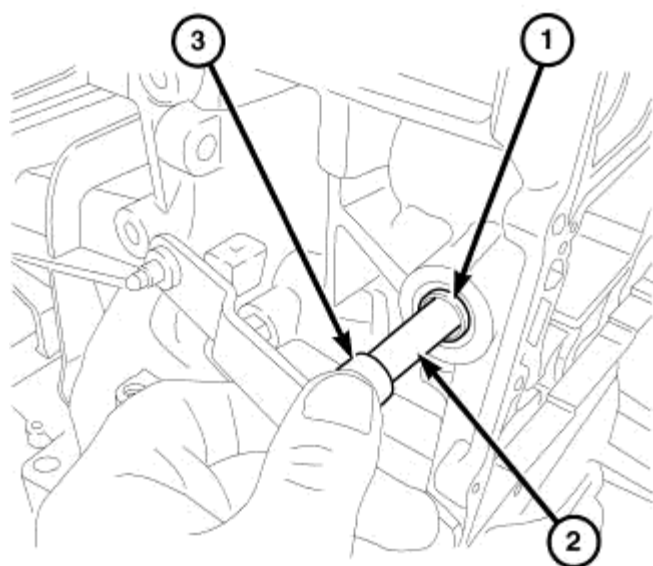
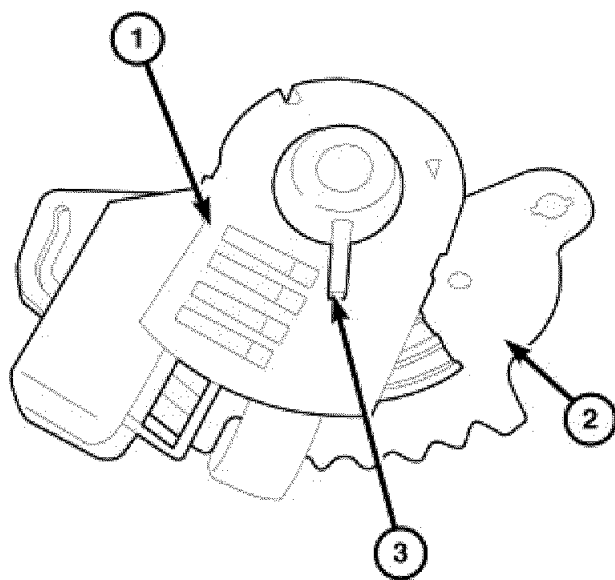


Fig. 500: Manual Lever

Courtesy of CHRYSLER LLC

2. Install the manual lever in the case up to the point of the TRS.

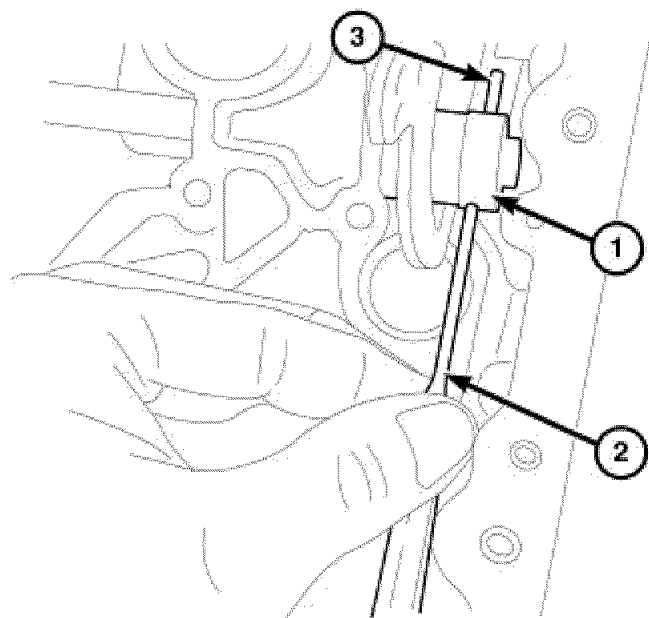


819599d2

Fig. 501: TRS 62TE

Courtesy of CHRYSLER LLC

3. Install the TRS/rooser comb onto the manual lever and fully install the manual lever into the case.



81958ed8

Fig. 502: Roll Pin At Manual Lever

Courtesy of CHRYSLER LLC

4. Install the roll pin (3) to the TRS/rooster comb (1) using a pin punch (2).

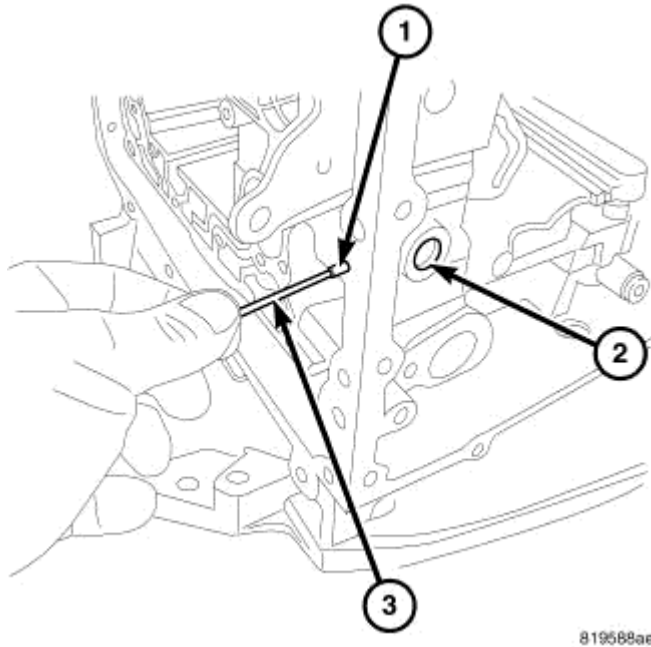


Fig. 503: Manual Lever Set Screw
Courtesy of CHRYSLER LLC

5. Install the set screw (1) at manual lever (2) and tighten to 1 N.m (10 in. lbs.).

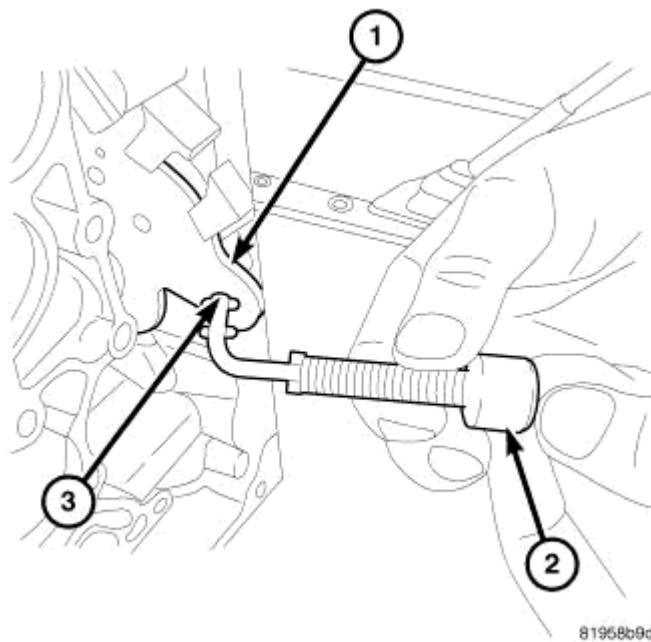


Fig. 504: TRS/Rooster Comb

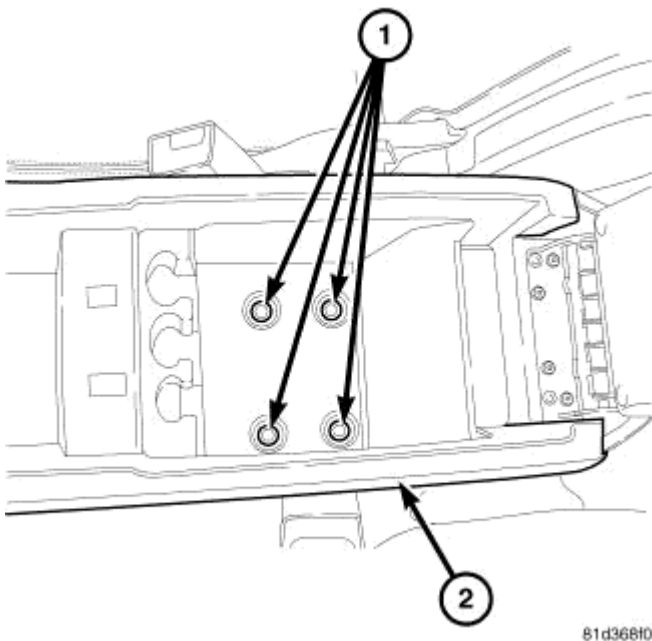
Courtesy of CHRYSLER LLC

6. Install the park rod assembly (2) to the TRS/rooster comb (1) and place the park rod assembly into the guide assembly.
7. Place the park pawl pin into the park pawl tube.
8. Install the electrical connector.
9. Install the valve body. See **Installation** .

SHIFTER, TRANSMISSION

REMOVAL

REMOVAL



81d368f0

Fig. 505: Center Console

Courtesy of CHRYSLER LLC

1. Disconnect battery negative cable.
2. Remove the center console. Refer to **Body/Interior/CONSOLE, Center - Removal** .

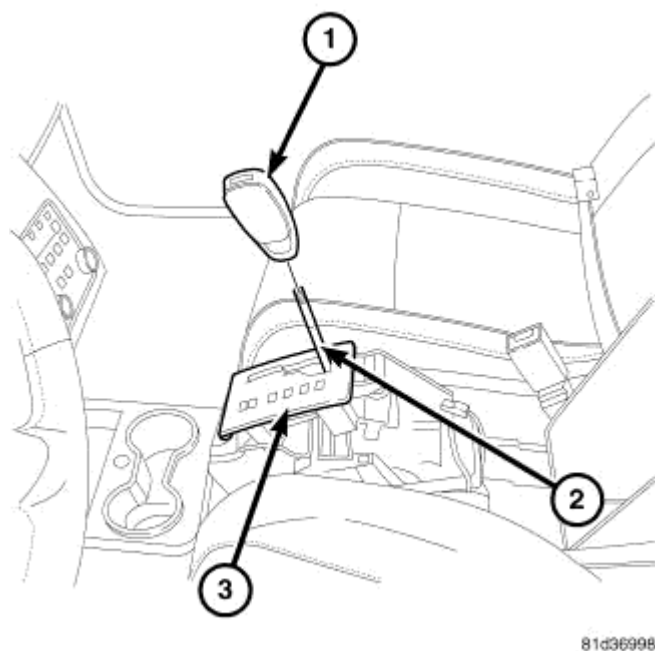


Fig. 506: Shift Knob
Courtesy of CHRYSLER LLC

3. Disconnect harness connector (1).
4. Remove the shift knob by pulling up on the knob.

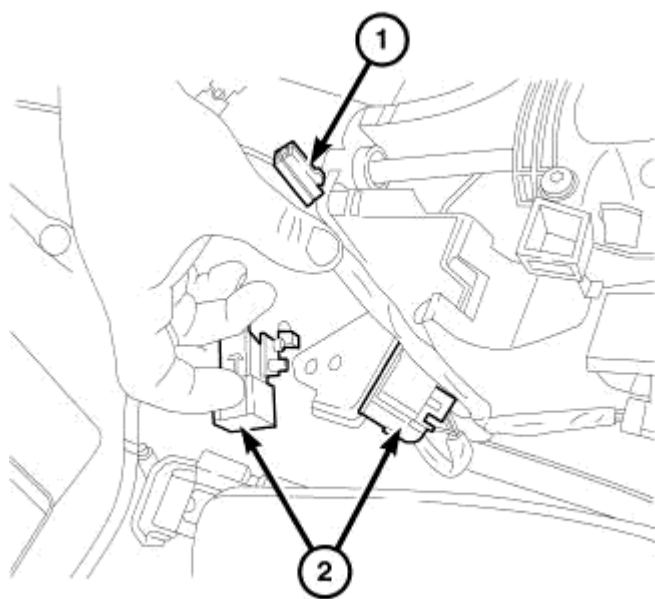
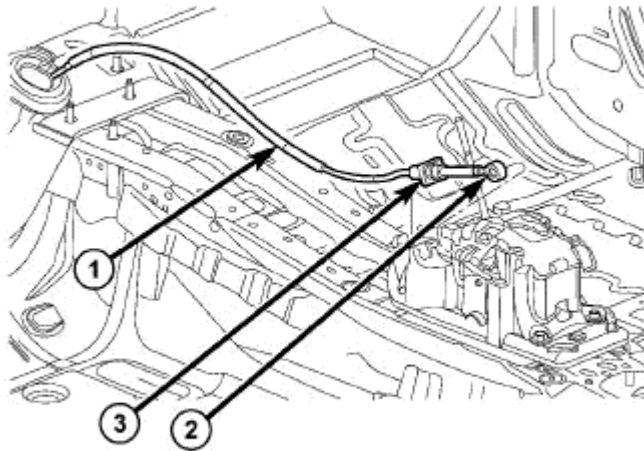


Fig. 507: Electrical Connectors
Courtesy of CHRYSLER LLC

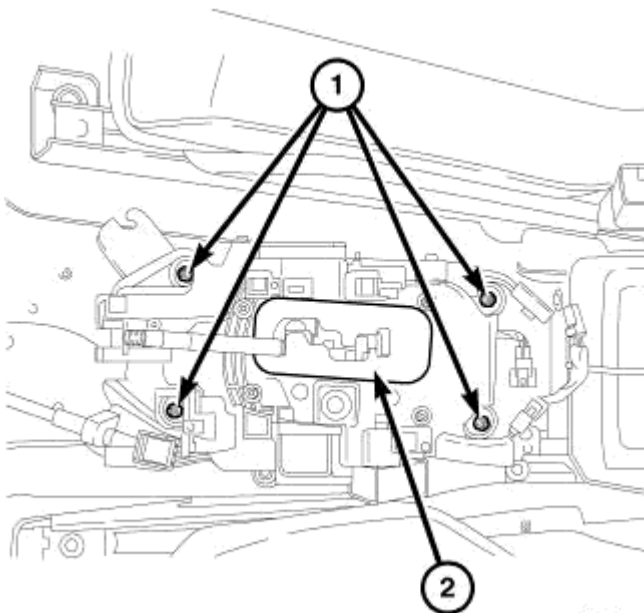
5. Remove the electrical connectors (1, 2) at the shifter.



81a380a3

Fig. 508: Shift Cable At Shifter
Courtesy of CHRYSLER LLC

6. Disconnect and remove gearshift cable (2, 3) from shift mechanism.



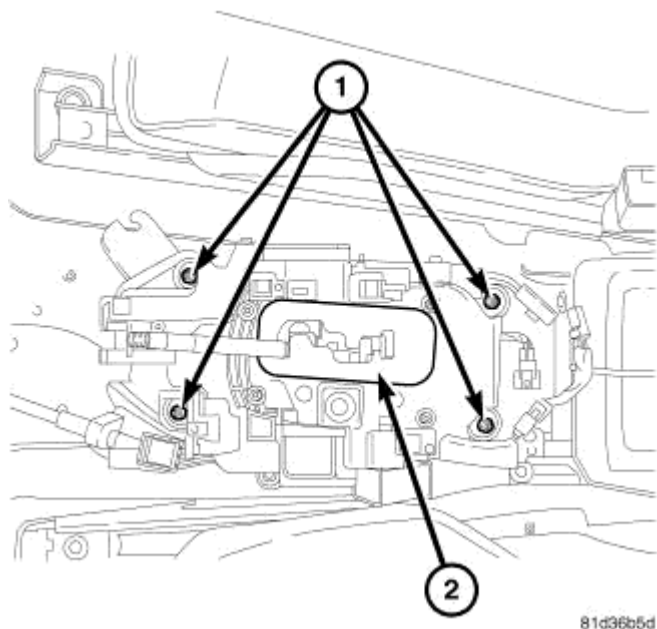
81d36b5d

Fig. 509: Shift Mechanism-To-Lower Console Nuts
Courtesy of CHRYSLER LLC

7. Remove four shift mechanism-to-lower console nuts (1). Remove shift mechanism (2).

INSTALLATION

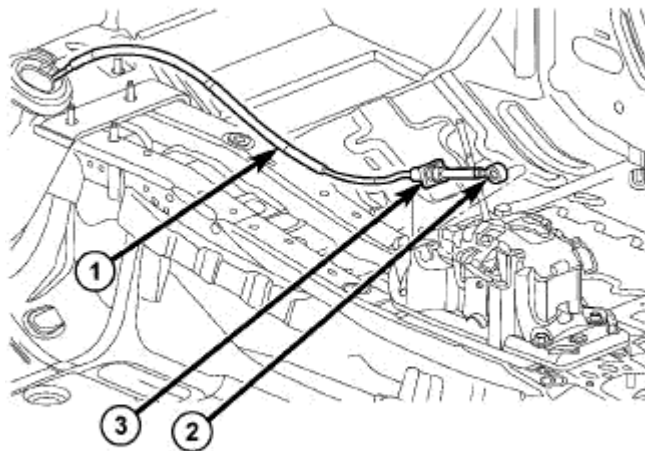
INSTALLATION



81d36b5d

Fig. 510: Shift Mechanism-To-Lower Console Nuts
Courtesy of CHRYSLER LLC

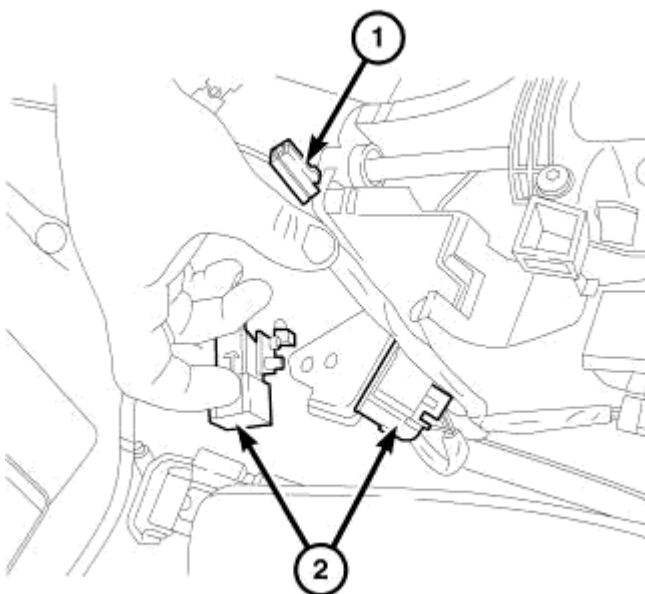
1. Install shifter to studs.
2. Install and tighten the shift mechanism-to-lower console nuts (1) to 8 N.m (71 in. lbs.).



81a380a3

Fig. 511: Shift Cable At Shifter
Courtesy of CHRYSLER LLC

3. Install gearshift cable (2, 3) to shift mechanism.



81d36a09

Fig. 512: Electrical Connectors
Courtesy of CHRYSLER LLC

4. Connect the harness connectors (1, 2).

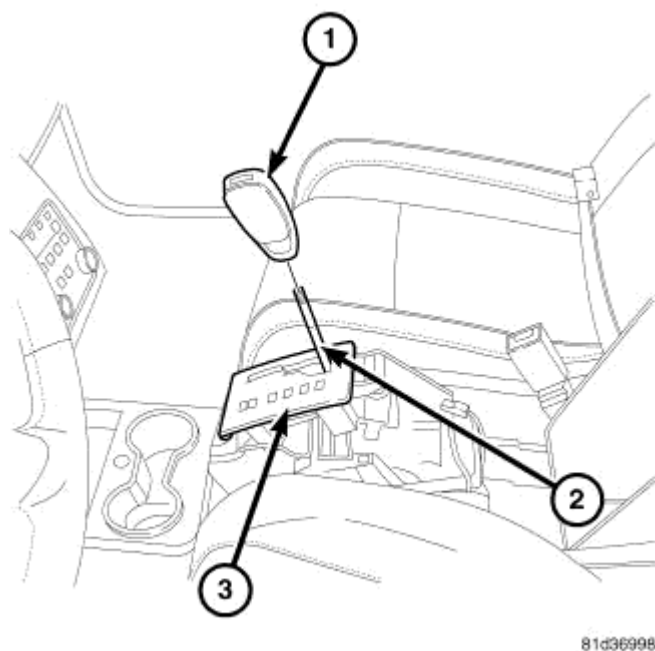


Fig. 513: Shift Knob
Courtesy of CHRYSLER LLC

5. Install the shifter knob (1).
6. Verify the shifter and transaxle are both in Park.
7. Loosen the cable adjust bolt, then tighten the bolt to 6 Nm (40 in. lb.).

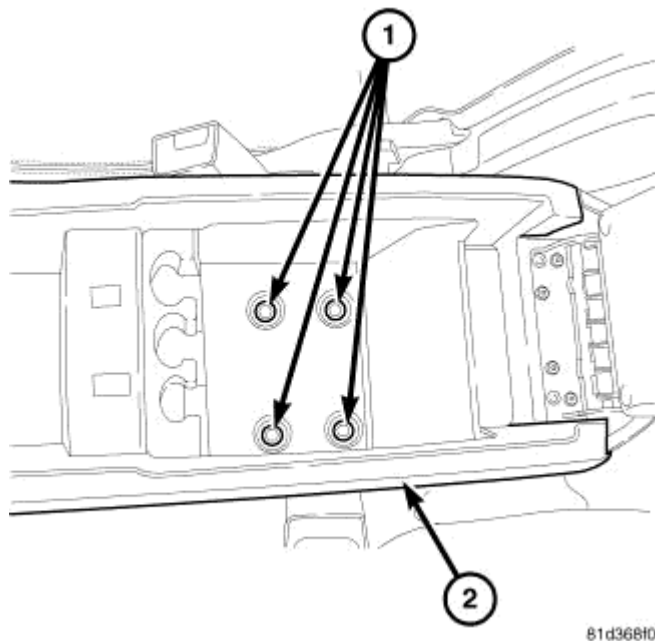


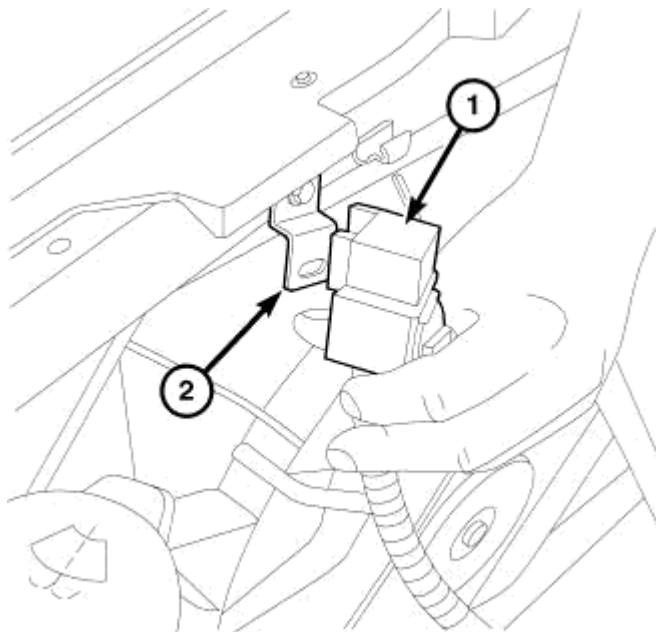
Fig. 514: Center Console
Courtesy of CHRYSLER LLC

8. Install the center console. Refer to **Body/Interior/CONSOLE, Center - Installation** .
9. Connect battery negative cable.

SOLENOID, PRESSURE CONTROL

REMOVAL

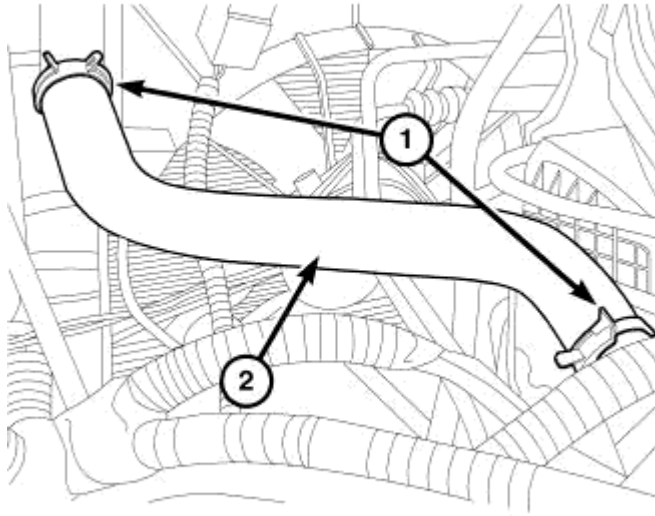
REMOVAL



81943859

Fig. 515: Relay At Core Support
Courtesy of CHRYSLER LLC

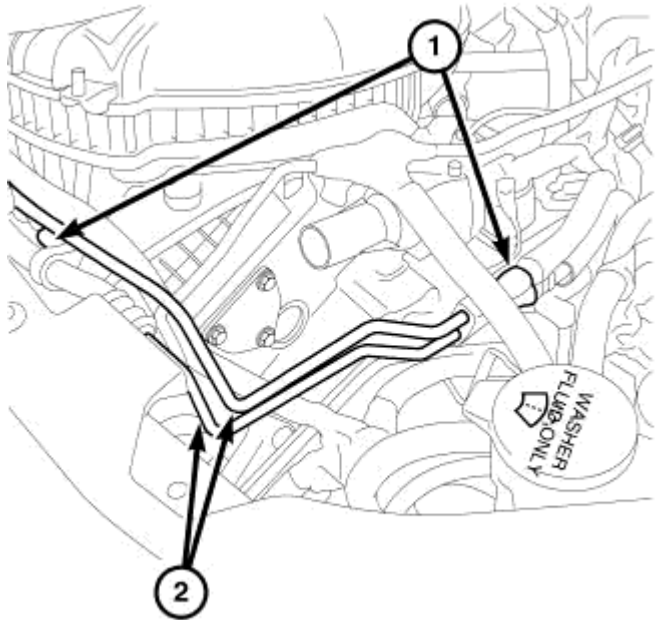
1. Remove the engine cover.
2. Remove the battery and battery tray. Refer to **Electrical - Engine Systems/Battery System/BATTERY - Removal** .
3. Remove the relay (1) at the core support.



81943a71

Fig. 516: Upper Radiator Hose
Courtesy of CHRYSLER LLC

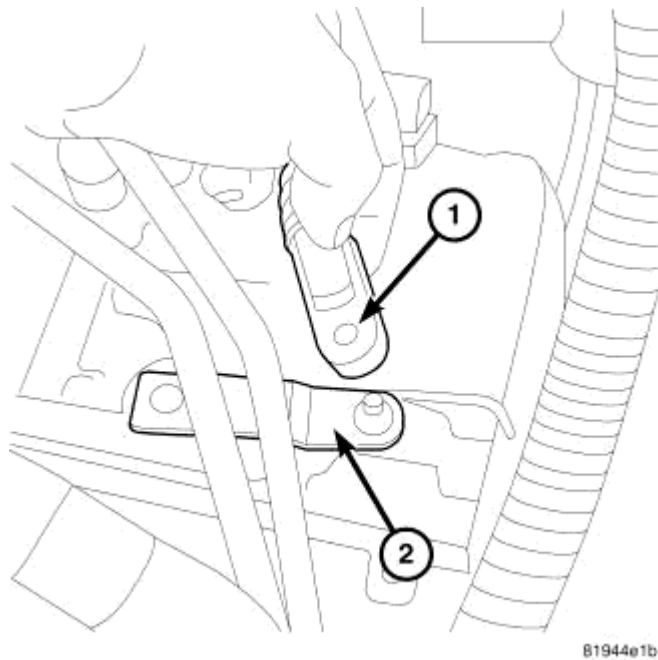
4. Drain the radiator. Refer to **Cooling - Standard Procedure** .
5. Remove clamps (1) at the upper radiator hose (2).
6. Remove the upper radiator hose. Refer to **Cooling - Standard Procedure** .



819439c1

Fig. 517: Power Steering Lines
Courtesy of CHRYSLER LLC

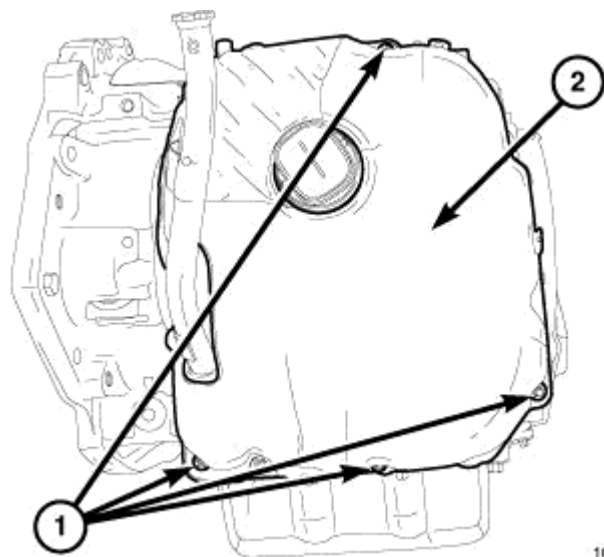
7. Remove the bolts (1) holding the power steering lines (2).



81944e1b

Fig. 518: Shift Cable From/To Manual Lever
Courtesy of CHRYSLER LLC

8. Remove the shift cable (1) from the manual lever (2).



1096076

Fig. 519: Fasteners And Front Sound Dampener Cover
Courtesy of CHRYSLER LLC

9. Remove the fasteners (1) and the Front Sound Damper Cover (2).
10. Remove shift cable (1) from manual lever (2).

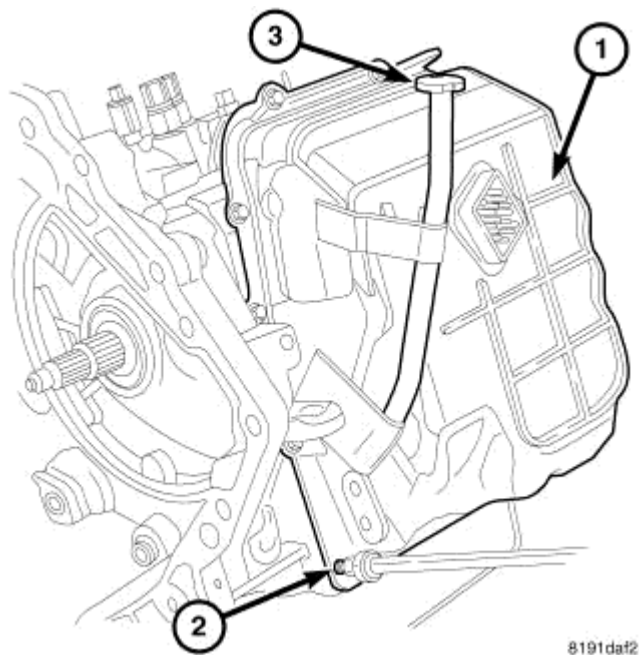


Fig. 520: Valve Body Pan
Courtesy of CHRYSLER LLC

11. Remove the top valve body oil pan (1) bolts.

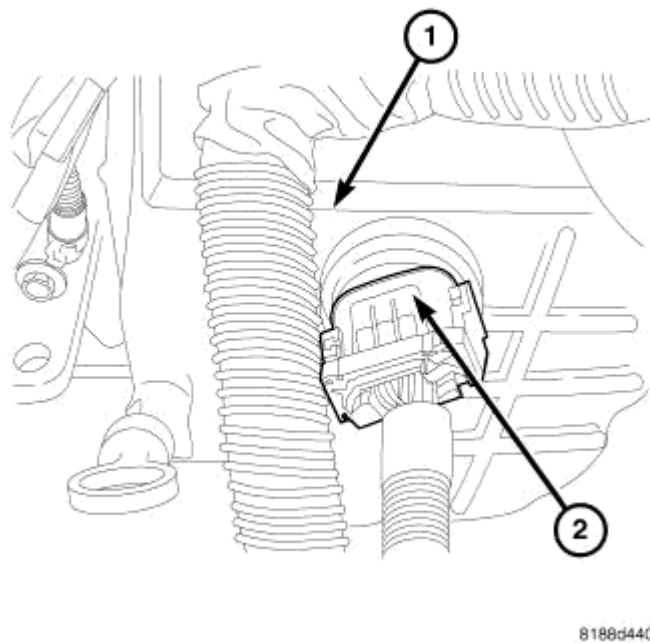


Fig. 521: Solenoid Connector At Transmission
Courtesy of CHRYSLER LLC

12. Remove the solenoid pack connector (2) at valve body oil pan (1).

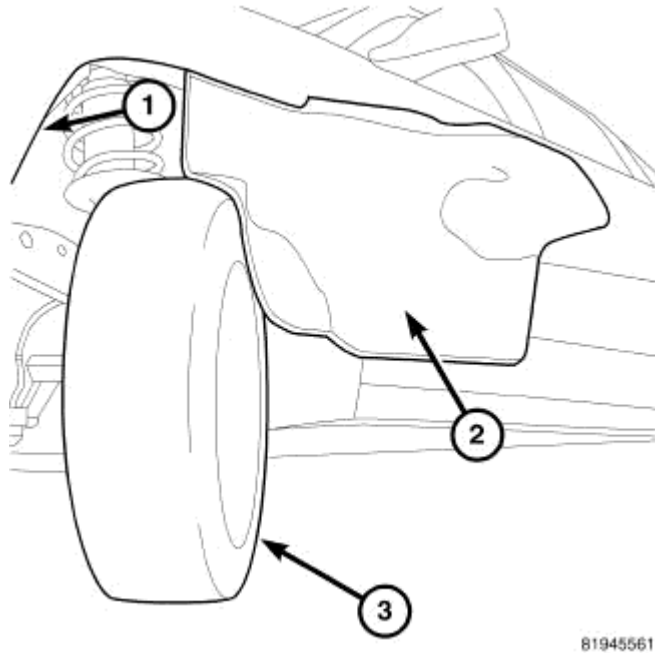


Fig. 522: Wheel Opening Splash Shield
Courtesy of CHRYSLER LLC

13. Raise the vehicle on a hoist.
14. Remove the front left side inner wheel splash screws from front side of wheel opening (1) and fold shield (2) back.
15. Turn the wheel (3) fully to the left.

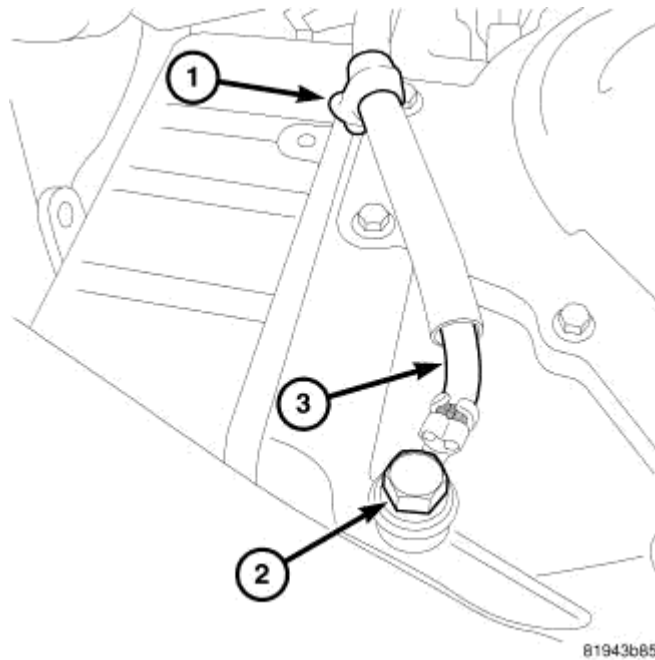
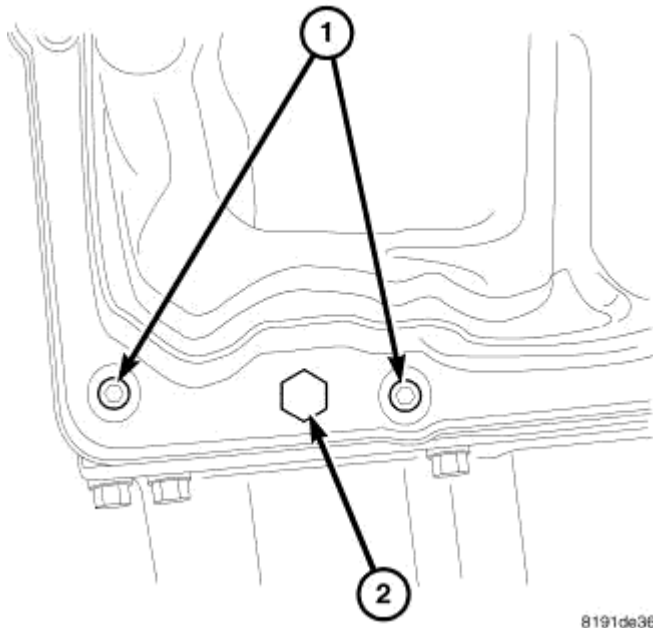


Fig. 523: Ground Cable
Courtesy of CHRYSLER LLC

16. Remove the bolt (2) at the ground cable (3).
17. Remove the clip (1) at the valve body pan.
18. Move cable away from the valve body pan.



8191de36

Fig. 524: Pressure Tap Plug
Courtesy of CHRYSLER LLC

19. Remove the pressure tap plug (2) at valve body oil pan.
20. Remove the lower valve body oil pan bolts (1) and drain transmission fluid.
21. Remove the valve body oil pan.

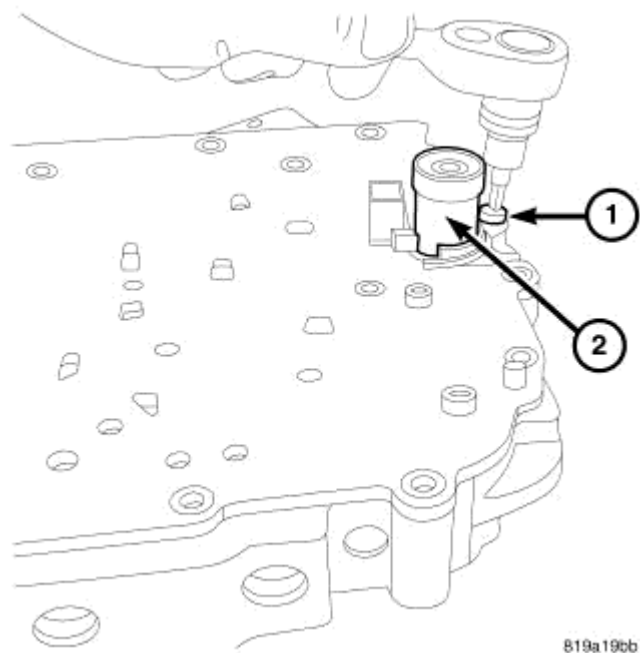


Fig. 525: Bolt At VFS 62TE
Courtesy of CHRYSLER LLC

22. Remove the bolt (1) at the pressure control solenoid.
23. Remove the pressure control sensor from the valve body.

INSTALLATION

INSTALLATION

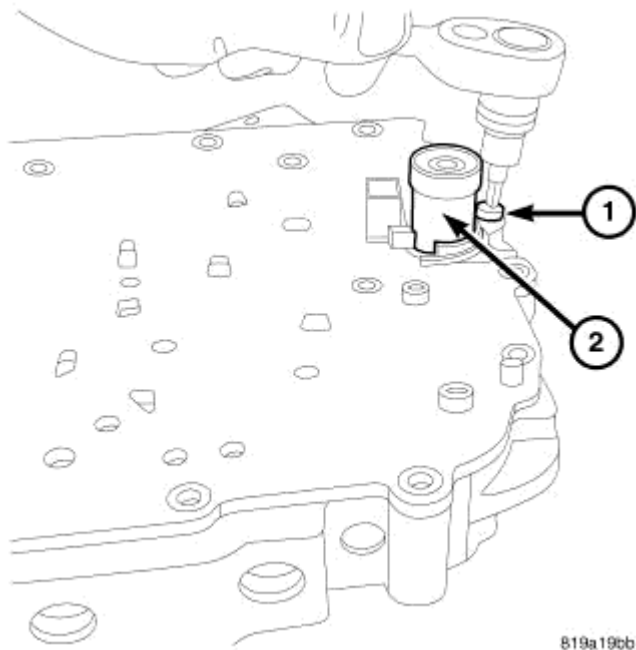
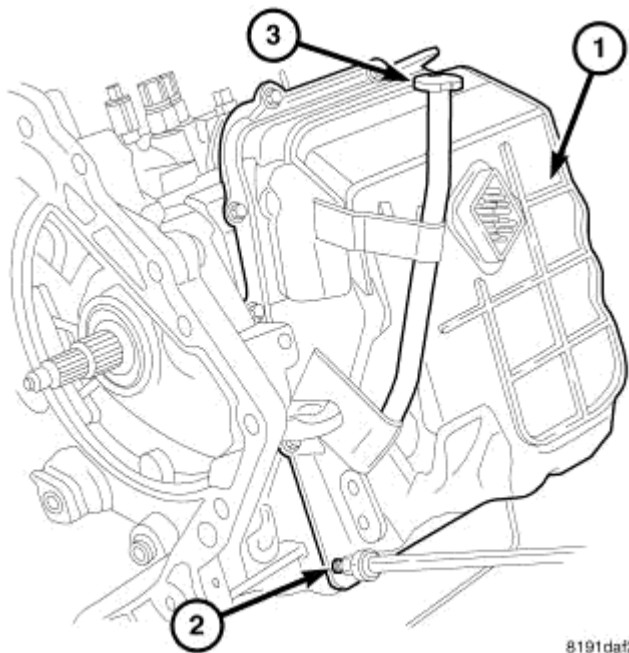
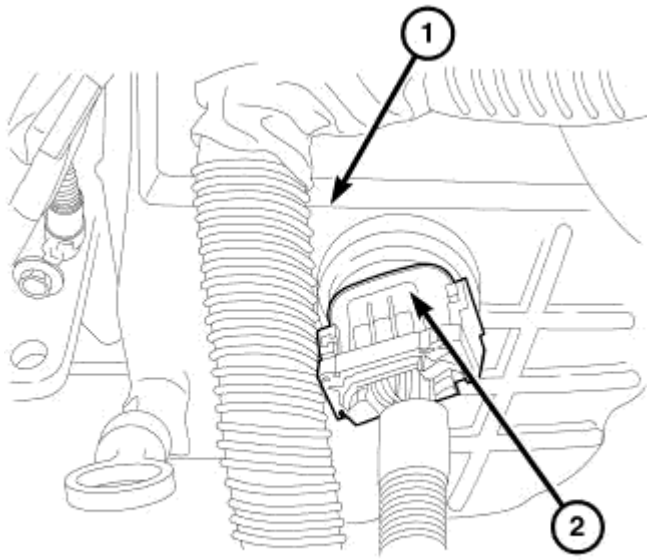


Fig. 526: Bolt At VFS 62TE**Courtesy of CHRYSLER LLC**

1. Install the pressure control solenoid on to the valve body.
2. Install the bolts (1) to the pressure control solenoid and tighten to 6 N.m (40 in. lbs.).

**Fig. 527: Valve Body Pan****Courtesy of CHRYSLER LLC**

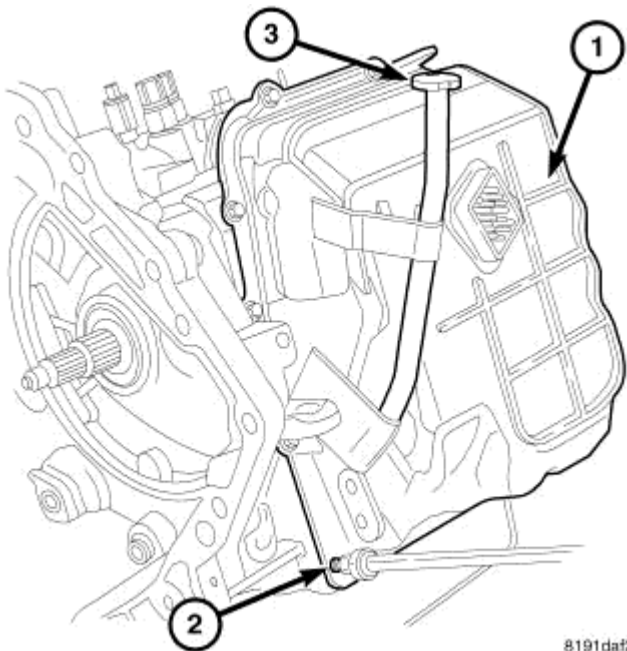
3. Install the valve body oil pan, use a bead of MOPAR® ATF RTV (MS-GF41).
4. Install the upper valve body oil pan bolts and tighten to 6 N.m (50 in. lbs.).
5. Install the pressure tap at valve body oil pan and tighten to 6 N.m (50 in. lbs.).
6. Lower the vehicle.



8188d440

Fig. 528: Solenoid Connector At Transmission
Courtesy of CHRYSLER LLC

7. Install the solenoid pack connector (2) at valve body oil pan.
8. Raise and support the vehicle.



8191dat2

Fig. 529: Valve Body Pan
Courtesy of CHRYSLER LLC

9. Install the lower valve body oil pan bolts and tighten to 6 N.m (50 in. lbs.).

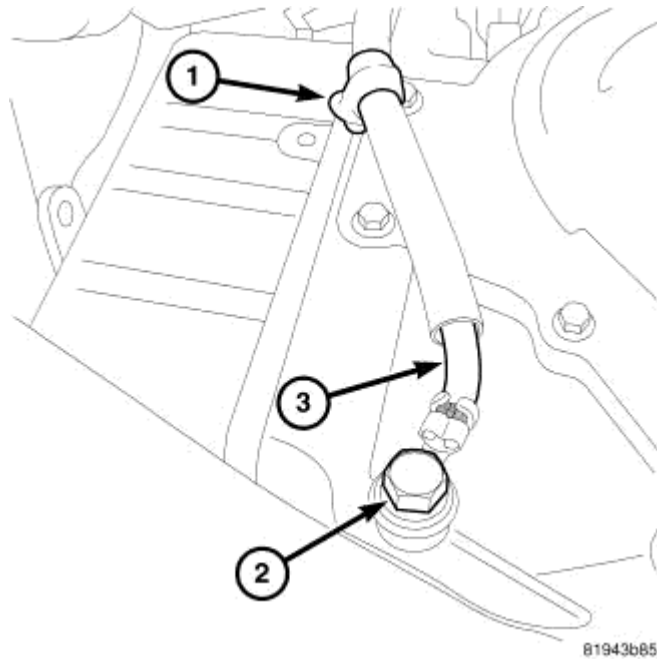


Fig. 530: Ground Cable
Courtesy of CHRYSLER LLC

10. Install the bolt at the ground cable and tighten to 10 N.m (90 in. lbs.).
11. Install the clip to the valve body oil pan.

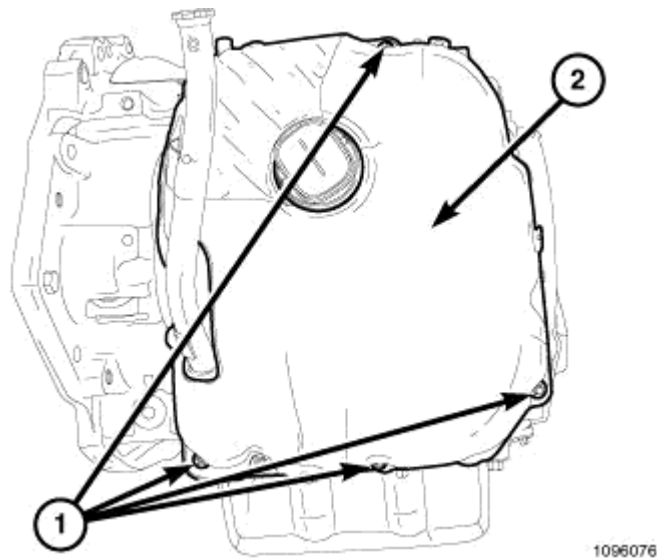
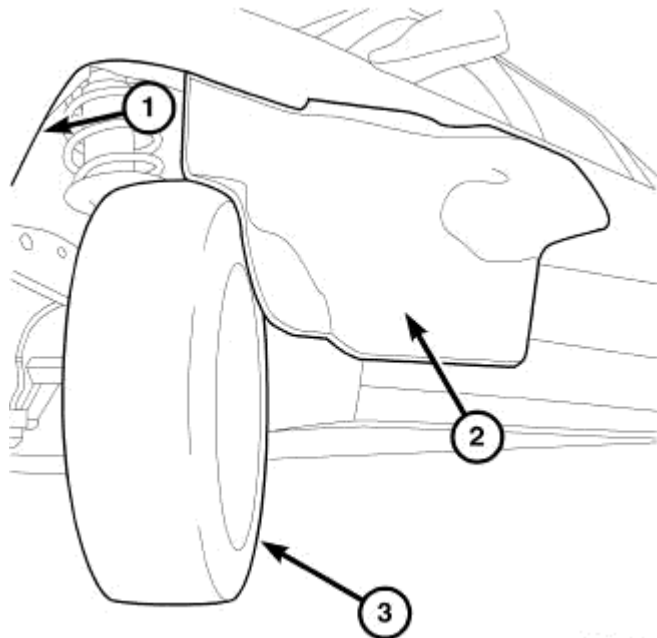


Fig. 531: Fasteners And Front Sound Dampener Cover
Courtesy of CHRYSLER LLC

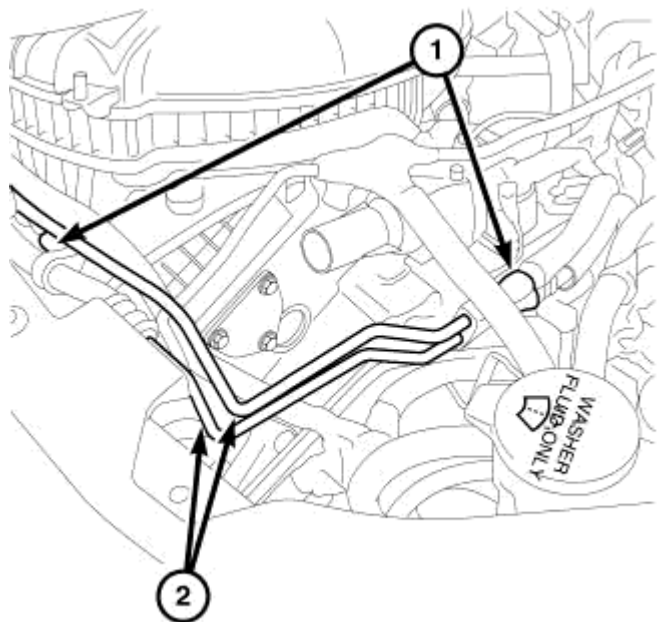
12. Install the Front Sound Damper Cover (2) and fasteners (1).



81945561

Fig. 532: Wheel Opening Splash Shield
Courtesy of CHRYSLER LLC

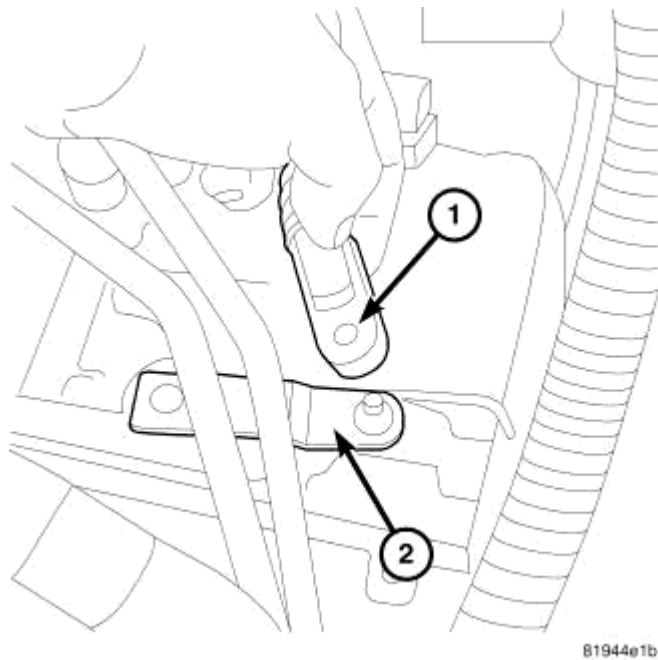
13. Move left side inner wheel splash shield (2) into place.
14. Install the left side inner wheel splash shield screws (1).
15. Lower the vehicle.



819439c1

Fig. 533: Power Steering Lines
Courtesy of CHRYSLER LLC

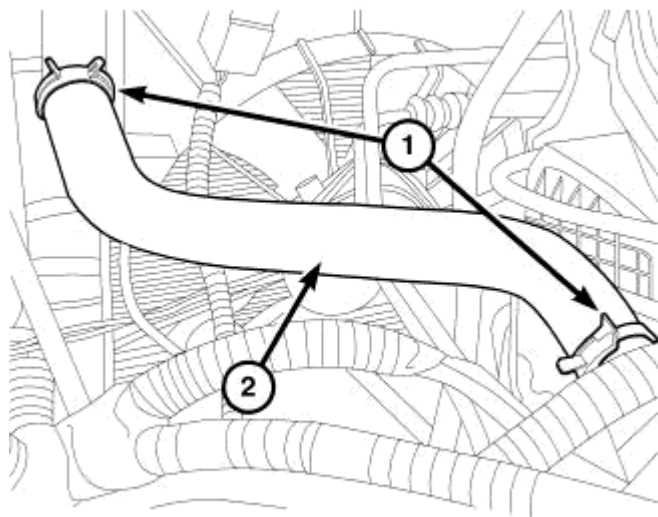
16. Install the bolts (1) holding the power steering lines (2) and tighten to 10 N.m (90 in. lbs.).



81944e1b

Fig. 534: Shift Cable From/To Manual Lever
Courtesy of CHRYSLER LLC

17. Install shift cable (1) to manual lever (2).



81943a71

Fig. 535: Upper Radiator Hose
Courtesy of CHRYSLER LLC

18. Install upper radiator hose (2) and clamps (1).
19. Fill the cooling system. Refer to **Cooling - Standard Procedure** .

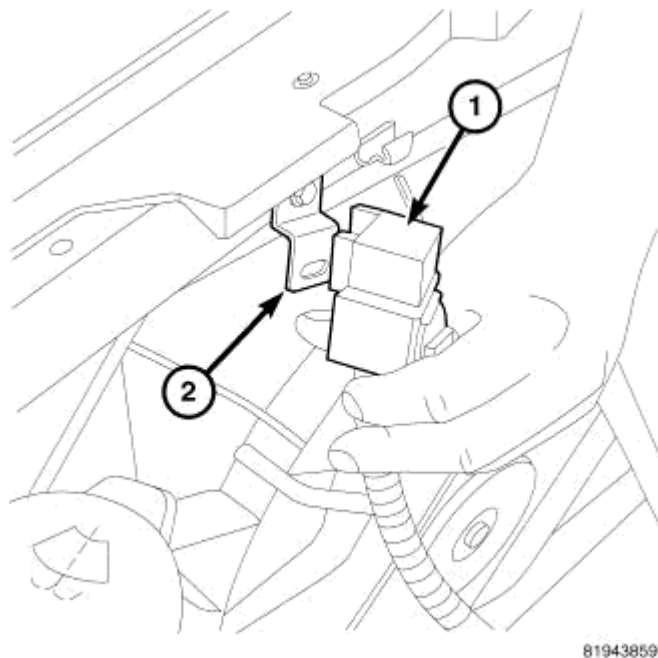


Fig. 536: Relay At Core Support
Courtesy of CHRYSLER LLC

20. Install the relay (1) at the core support.
21. Install the battery and battery tray. Refer to **Electrical - Engine Systems/Battery System/BATTERY - Installation** .
22. Install the battery cables.
23. Fill transmission and road test. See **Standard Procedure** .

SWITCH, AUTOSTICK

DESCRIPTION

DESCRIPTION

Autostick is a driver-interactive transmission feature that offers manual gear shifting capability to provide you with more control. Autostick allows you to maximize engine braking, eliminate undersirable upshifts and downshifts, and improve overall vehicle performance. This system can also provide you with more control during passing, city driving, cold slippery conditions, mountain driving, trailer towing, and many other situations.

OPERATION

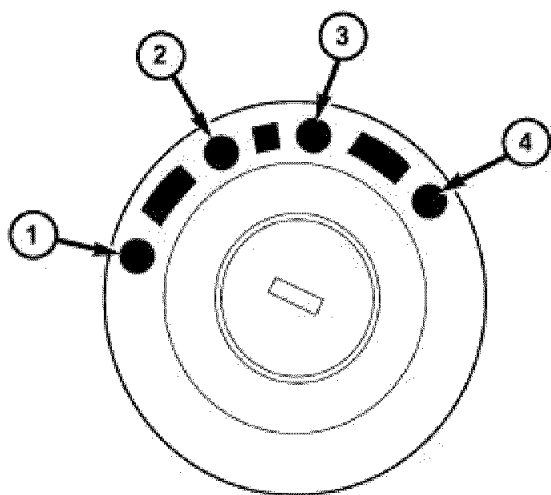
OPERATION

Autostick is a driver interactive transaxle feature that offers manual gear shifting capability. When the shifter is moved into the Autostick position, the transaxle remains in whatever gear it was using before Autostick was activated. Moving the shifter to the left (towards the driver) causes a downshift and moving to the right (towards the passenger) causes an upshift. The instrument cluster will illuminate the selected gear. The vehicle can be launched in 1st, 2nd, or 3rd gear while in the Autostick mode. The speed control is operable in 3rd and 4th gear Autostick mode. Speed control will be deactivated if the transaxle is shifted to 2nd gear. Shifting into OD position cancels the Autostick mode, and the transaxle resumes the OD shift schedule.

SYSTEM, SHIFT INTERLOCK

DESCRIPTION

DESCRIPTION



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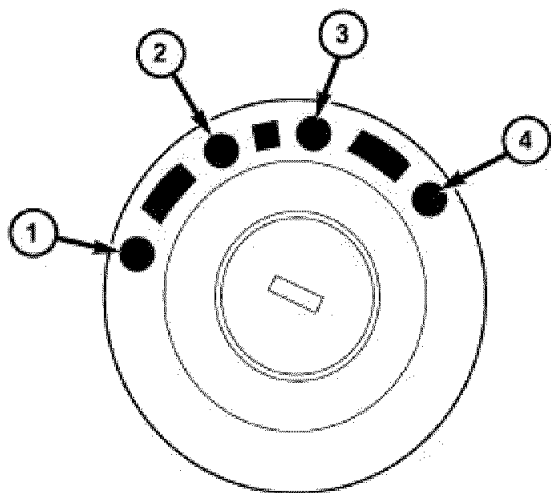
Fig. 537: Ignition Key/Switch Positions
Courtesy of CHRYSLER LLC

- 1 - LOCK
- 2 - ACC
- 3 - ON
- 4 - START

The Brake Transmission Shifter/Ignition Interlock (BTSI) is a solenoid operated system that prevents the transmission gear shifter from being moved out of PARK without a driver in place.

OPERATION

OPERATION

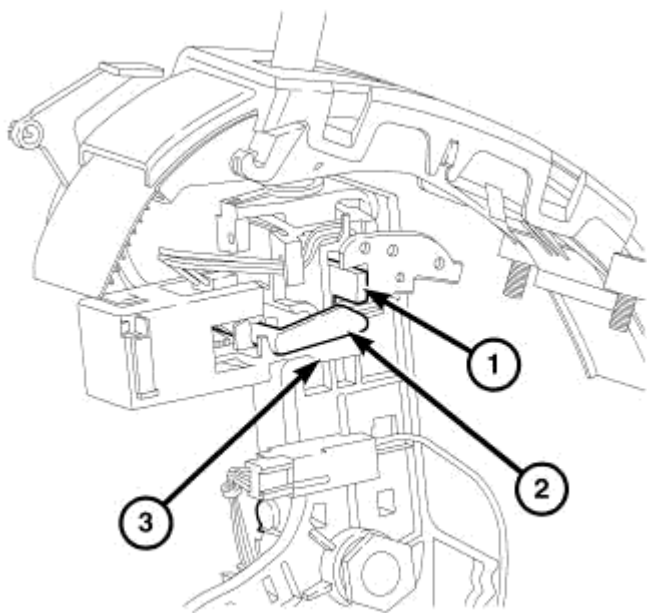


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Fig. 538: Ignition Key/Switch Positions
Courtesy of CHRYSLER LLC

- 1 - LOCK
- 2 - ACC
- 3 - ON
- 4 - START

The Brake Transmission Shifter/Ignition Interlock (BTSI) is engaged whenever the ignition switch is in the LOCK or ACC position. An additional electrically activated feature will prevent shifting out of the PARK position unless the brake pedal is depressed at least one-half inch. When the key is in the ON position and the brake pedal is depressed, the shifter is unlocked and will move into any position.



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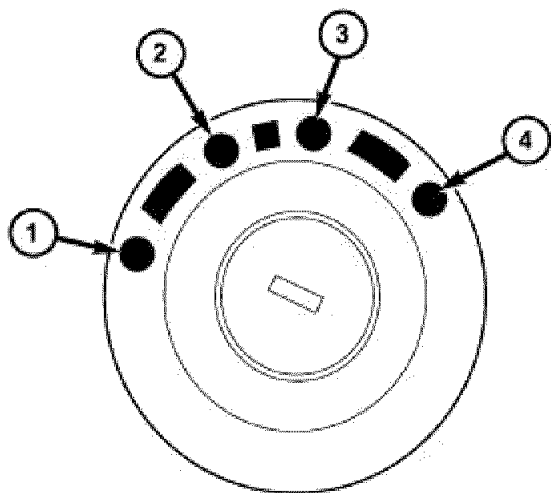
Fig. 539: Shift Interlock**Courtesy of CHRYSLER LLC**

When service brake pedal is not depressed the solenoid rotating arm (2) is free to rotate. The shifter gate pin (1) hits the blocking arm (3) and is prevented from moving from park.

When service brake is applied the rotating arm (2) is prevented from rotating by magnetic force within the solenoid. The shifter gate pin (1) pushes the rotating arm (2) and blocker arm (3) allowing the shifter to move out of park.

DIAGNOSIS AND TESTING

SHIFT INTERLOCK SYSTEM



8111a2ba

Fig. 540: Ignition Key/Switch Positions
Courtesy of CHRYSLER LLC

- | |
|--|
| 1 - LOCK
2 - ACC
3 - ON
4 - START |
|--|

The following chart describes the normal operation of the Brake Transmission Shift Interlock (BTSI) system. If the "expected response" differs from the vehicle's response, then system repair is necessary.

Refer to the following chart that expected shifter response, depending on ignition key/switch and brake pedal positions.

If the shifter cannot be moved out of the PARK position, refer to SHIFTER LOCKED IN PLACE. If the shift lever can be shifted out of PARK without the brake pedal depressed, refer to circuit test .

SHIFTER LOCKED IN PLACE

1. Gain access to the brake transmission shift interlock (BTSI) solenoid. The solenoid is part of the shifter assembly.
2. Disconnect the wire connector from the rear of the BTSI solenoid.
3. Insert the ignition key and turn it to the ON position.
4. With the brakes applied, try moving the shifter out of the PARK position.
 - If the lever now moves freely in and out of PARK, perform the circuit test.

If the shift lever now moves freely in and out of the park position, the BTSI solenoid is faulty and the shifter must be replaced. If the shift lever still does not move from the park position, the problem is in the shift lever

2009 Dodge Journey R/T

2009 AUTOMATIC TRANSMISSION 62TE - Service Information - Journey

assembly.

If the above test pass and the shifter can still be moved freely in and out of PARK without the brake pedal depressed, replace shifter assembly.

ACTION	EXPECTED RESPONSE
1. Turn key to the "ACC" position and depress brake pedal.	1. Shifter CAN be shifted out of park.
2. Turn key to the "ON" position, with foot off of brake pedal.	2. Shifter CANNOT be shifted out of park.
3. Turn key to the "ON" position and depress the brake pedal.	3. Shifter CAN be shifted out of park.
4. Leave shifter in any gear and try to return key to the "LOCK" position.	4. Key cannot be returned to the "LOCK" position.
5. Return shifter to "PARK" and try to remove the key.	5. Key can be removed (after returning to "LOCK" position).
6. With the key removed, try to shift out of "PARK".	6. Shifter cannot be shifted out of "PARK".
Insert the key into the ignition cylinder and leave it at "LOCK." Try to move the transmission out of "Park".	Shifter cannot be shifted out of "PARK".
NOTE: Any failure to meet these expected responses requires system repair.	

TORQUE CONVERTER

DESCRIPTION

DESCRIPTION

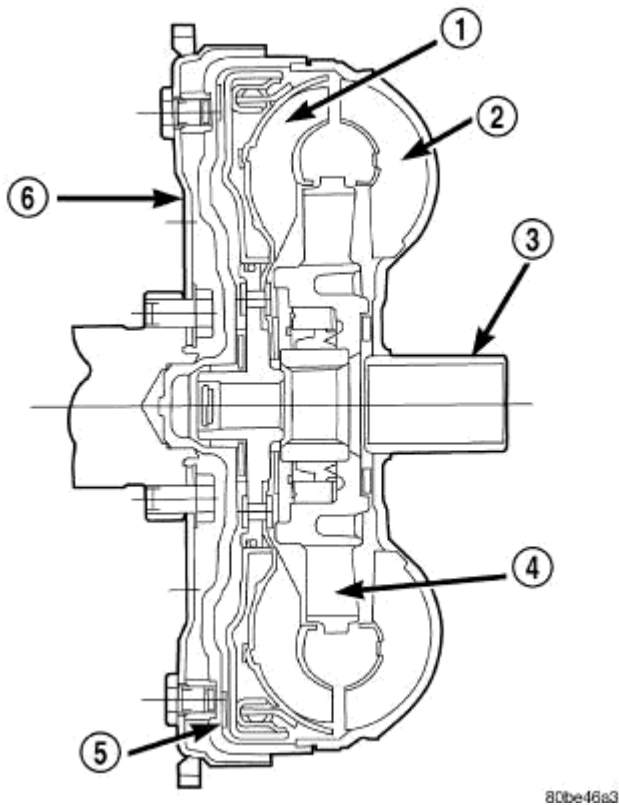


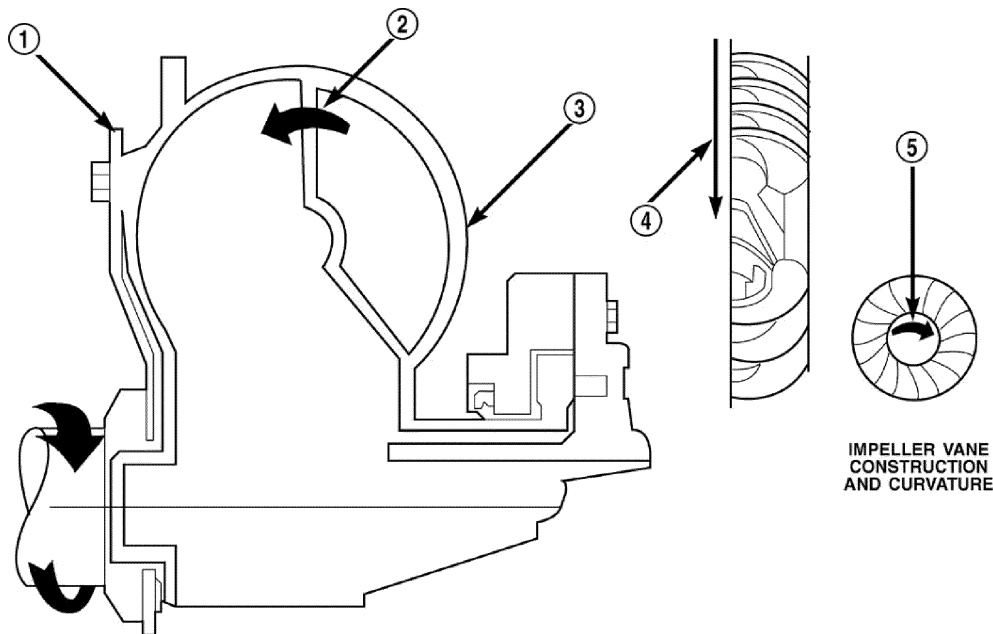
Fig. 541: Torque Converter Assembly
Courtesy of CHRYSLER LLC

- 1 - TURBINE
- 2 - IMPELLER
- 3 - HUB
- 4 - STATOR
- 5 - CONVERTER CLUTCH DISC
- 6 - DRIVE PLATE

The torque converter is a hydraulic device that couples the engine crankshaft to the transmission. The torque converter consists of an outer shell with an internal turbine (1), a stator (4), an over-running clutch, an impeller (2) and an electronically applied converter clutch (5). The converter clutch provides reduced engine speed and greater fuel economy when engaged. Clutch engagement also provides reduced transmission fluid temperatures. The converter clutch engages in third gear. The torque converter hub (3) drives the transmission oil (fluid) pump.

The torque converter is a sealed, welded unit that is not repairable and is serviced as an assembly.

IMPELLER



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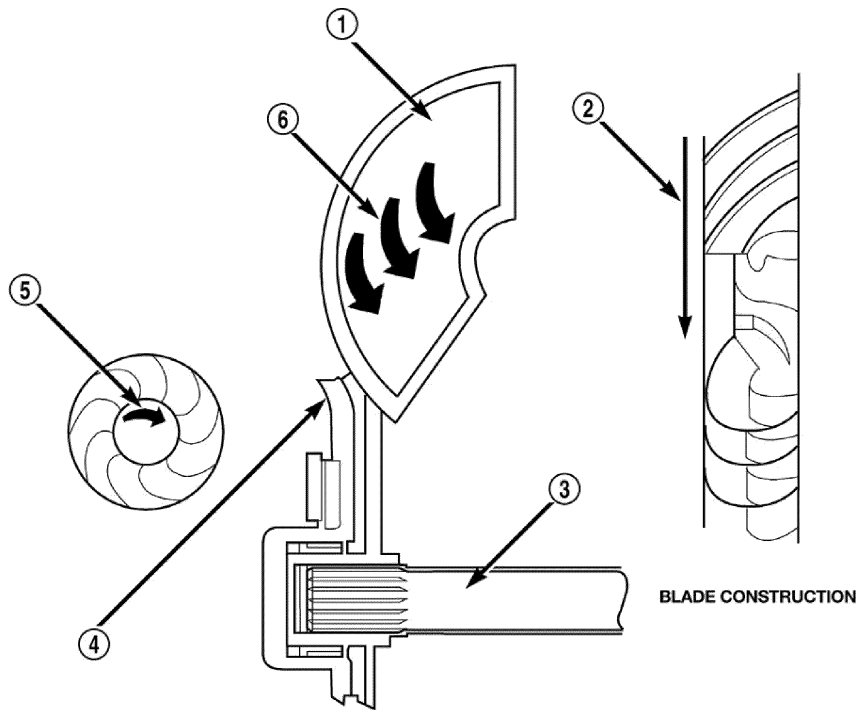
Fig. 542: Impeller

Courtesy of CHRYSLER LLC

1 - ENGINE FLEXPLATE	4 - ENGINE ROTATION
2 - OIL FLOW FROM IMPELLER SECTION INTO TURBINE SECTION	5 - ENGINE ROTATION
3 - IMPELLER VANES AND COVER ARE INTEGRAL	

The impeller (3) is an integral part of the converter housing. The impeller consists of curved blades placed radially along the inside of the housing on the transmission side of the converter. As the converter housing is rotated by the engine (4,5), so is the impeller, because they are one and the same and are the driving member of the system.

TURBINE



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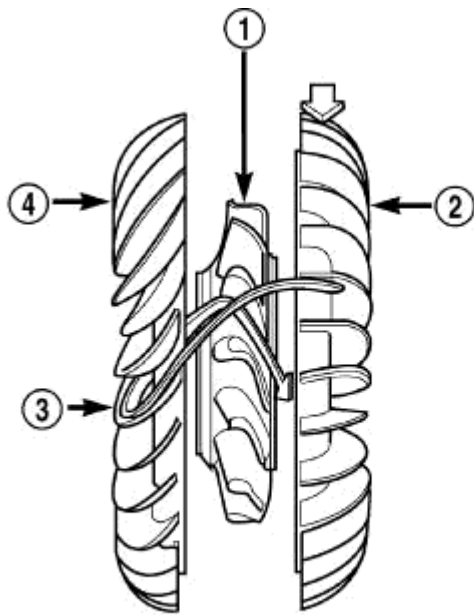
Fig. 543: Turbine

Courtesy of CHRYSLER LLC

- 1 - TURBINE VANE
- 2 - ENGINE ROTATION
- 3 - INPUT SHAFT
- 4 - PORTION OF TORQUE CONVERTER COVER
- 5 - ENGINE ROTATION
- 6 - OIL FLOW WITHIN TURBINE SECTION

The turbine (1) is the output, or driven, member of the converter. The turbine is mounted within the housing opposite the impeller, but is not attached to the housing. The input shaft (3) is inserted through the center of the impeller and splined into the turbine. The design of the turbine is similar to the impeller, except the blades of the turbine are curved in the opposite direction.

STATOR



80bfe26d

Fig. 544: Stator Location

Courtesy of CHRYSLER LLC

- 1 - STATOR
- 2 - IMPELLER
- 3 - FLUID FLOW
- 4 - TURBINE

The stator assembly (1) is mounted on a stationary shaft which is an integral part of the oil pump. The stator is located between the impeller (2) and turbine (4) within the torque converter case. The stator contains an over-running clutch, which allows the stator to rotate only in a clockwise direction. When the stator is locked against the over-running clutch, the torque multiplication feature of the torque converter is operational.

TORQUE CONVERTER CLUTCH (TCC)

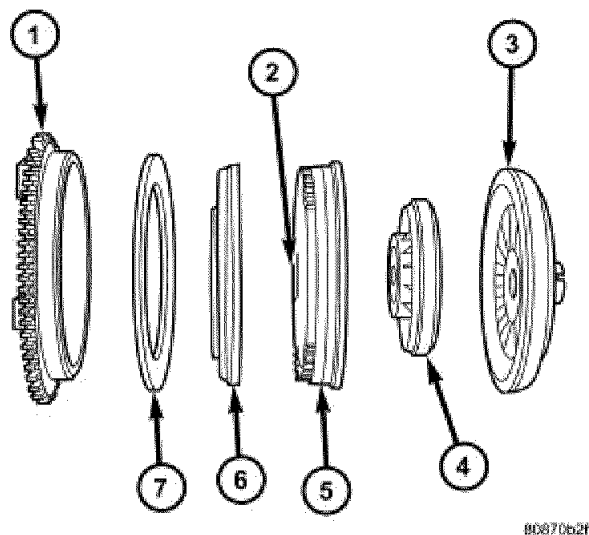


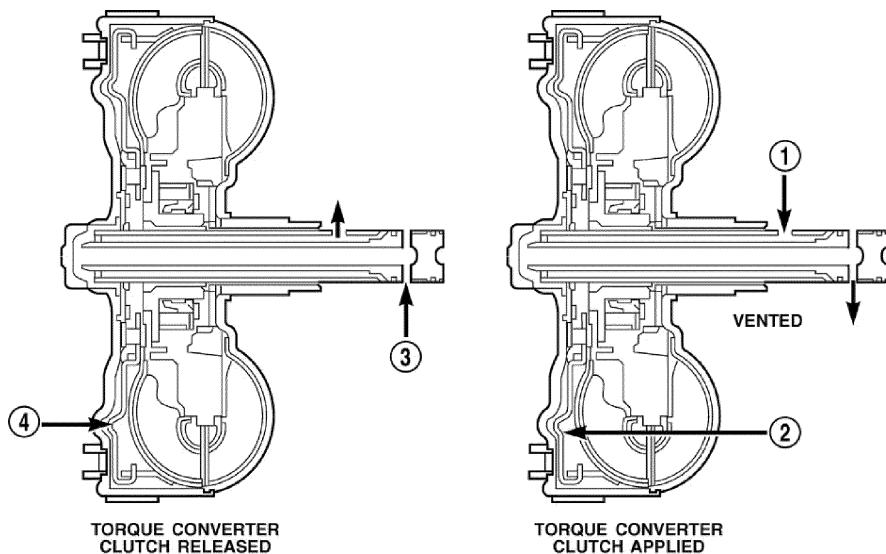
Fig. 545: Torque Converter Clutch (TCC)
Courtesy of CHRYSLER LLC

- 1 - IMPELLER FRONT COVER
- 2 - THRUST WASHER ASSEMBLY
- 3 - IMPELLER
- 4 - STATOR
- 5 - TURBINE
- 6 - PISTON
- 7 - FRICTION DISC

The TCC was installed to improve the efficiency of the torque converter that is lost to the slippage of the fluid coupling. Although the fluid coupling provides smooth, shock-free power transfer, it is natural for all fluid couplings to slip. If the impeller (3) and turbine (5) were mechanically locked together, a zero slippage condition could be obtained. A hydraulic piston (6) was added to the turbine (5), and a friction material (7) was added to the inside of the front cover (1) to provide this mechanical lock-up.

OPERATION

OPERATION



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Fig. 546: Torque Converter Fluid Operation
 Courtesy of CHRYSLER LLC

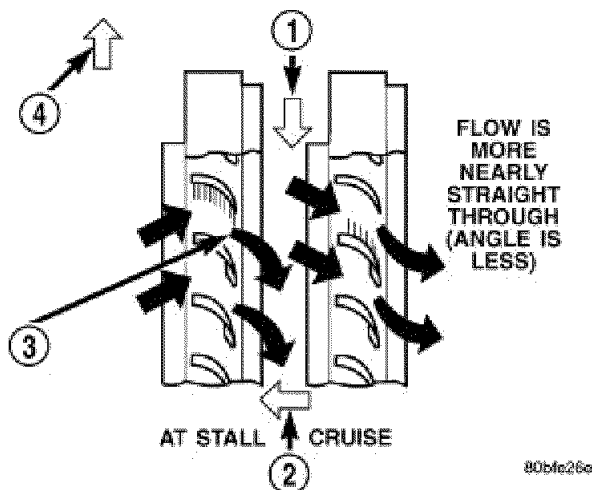
- | | |
|---------------------------------------|--|
| 1 - APPLY PRESSURE | 3 - RELEASE PRESSURE |
| 2 - THE PISTON MOVES SLIGHTLY FORWARD | 4 - THE PISTON MOVES SLIGHTLY REARWARD |

The converter impeller (driving member), which is integral to the converter housing and bolted to the engine drive plate, rotates at engine speed. The converter turbine (driven member), which reacts from fluid pressure generated by the impeller, rotates and turns the transmission input shaft .

TURBINE

As the fluid that was put into motion by the impeller blades strikes the blades of the turbine, some of the energy and rotational force is transferred into the turbine and the input shaft. This causes both of them (turbine and input shaft) to rotate in a clockwise direction following the impeller. As the fluid is leaving the trailing edges of the turbine's blades, it continues in a "hindering" direction back toward the impeller. If the fluid is not redirected before it strikes the impeller, it will strike the impeller in such a direction that it would tend to slow it down.

STATOR

**Fig. 547: Stator Operation**

Courtesy of CHRYSLER LLC

- 1 - DIRECTION STATOR WILL FREE WHEEL DUE TO OIL PUSHING ON BACKSIDE OF VANES
- 2 - FRONT OF ENGINE
- 3 - INCREASED ANGLE AS OIL STRIKES VANES
- 4 - DIRECTION STATOR IS LOCKED UP DUE TO OIL PUSHING AGAINST STATOR VANES

Torque multiplication is achieved by locking the stator's over-running clutch to its shaft. Under stall conditions (the turbine is stationary), the oil leaving the turbine blades strikes the face of the stator blades and tries to rotate them in a counterclockwise direction. When this happens the over-running clutch of the stator locks and holds the stator from rotating. With the stator locked, the oil strikes the stator blades and is redirected into a "helping" direction before it enters the impeller. This circulation of oil from impeller to turbine, turbine to stator, and stator to impeller, can produce a maximum torque multiplication of about 2.4:1. As the turbine begins to match the speed of the impeller, the fluid that was hitting the stator in such a way as to cause it to lock-up is no longer doing so. In this condition of operation, the stator begins to free wheel and the converter acts as a fluid coupling .

TORQUE CONVERTER CLUTCH (TCC)

In a standard torque converter, the impeller and turbine are rotating at about the same speed and the stator is freewheeling, providing no torque multiplication. By applying the turbine's piston to the front cover's friction material, a total converter engagement can be obtained. The result of this engagement is a direct 1:1 mechanical link between the engine and the transmission.

The engagement and disengagement of the TCC are automatic and controlled by the Powertrain Control Module (PCM). The engagement cannot be activated in the lower gears because it eliminates the torque multiplication effect of the torque converter necessary for acceleration. Inputs that determine clutch engagement are: coolant temperature, vehicle speed and throttle position. The torque converter clutch is engaged by the clutch solenoid on the valve body. The clutch will engage at approximately 56 km/h (35 mph) with light throttle, after the shift to third gear.

REMOVAL

REMOVAL

1. Remove transmission and torque converter from vehicle. See **Removal**.
2. Place a suitable drain pan under the converter housing end of the transmission.

CAUTION: Verify that transmission is secure on the lifting device or work surface, the center of gravity of the transmission will shift when the torque converter is removed creating an unstable condition.

The torque converter is a heavy unit. Use caution when separating the torque converter from the transmission.

3. Pull the torque converter forward until the center hub clears the oil pump seal.
4. Separate the torque converter from the transmission.

INSTALLATION

INSTALLATION

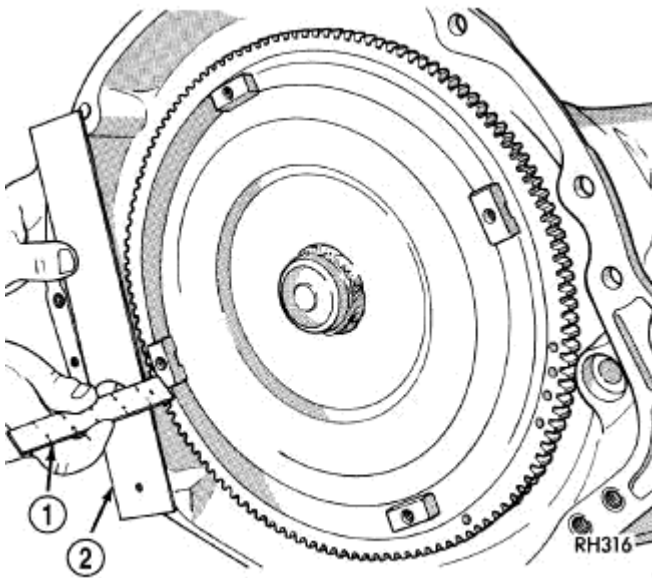


Fig. 548: Checking Torque Converter Seating
Courtesy of CHRYSLER LLC

- | |
|-------------------------------|
| 1 - SCALE
2 - STRAIGHTEDGE |
|-------------------------------|

NOTE: Check converter hub and drive notches for sharp edges, burrs, scratches, or

nicks. Polish the hub and notches with 320/400 grit paper or crocus cloth if necessary. The hub must be smooth to avoid damaging the pump seal at installation.

1. Lubricate converter hub and oil pump seal lip with transmission fluid.
2. Place torque converter in position on transmission.

CAUTION: Do not damage oil pump seal or bushing while inserting torque converter into the front of the transmission.

3. Align torque converter to oil pump seal opening.
4. Insert torque converter hub into oil pump.
5. While pushing torque converter inward, rotate converter until converter is fully seated in the oil pump gears.
6. Check converter seating with a scale (1) and straightedge (2). Surface of converter lugs should be 1/2 in. to rear of straightedge when converter is fully seated.
7. If necessary, temporarily secure converter with C-clamp attached to the converter housing.
8. Install the transmission in the vehicle. See **Installation** .
9. Fill the transmission with the recommended fluid. See **Standard Procedure** .

VALVE BODY

OPERATION

OPERATION

REGULATOR VALVE

The regulator valve controls hydraulic pressure in the transaxle. It receives unregulated pressure from the pump, which works against spring tension to maintain oil at specific pressures. A system of sleeves and ports allows the regulator valve to work at one of three predetermined pressure levels. Regulated oil pressure is also referred to as "line pressure."

SOLENOID SWITCH VALVE

The solenoid switch valve controls line pressure from the LR/CC solenoid. In one position, it allows the low/reverse clutch to be pressurized. In the other, it directs line pressure to the converter control and converter clutch valves.

MANUAL VALVE

The manual valve is operated by the mechanical shift linkage. Its primary responsibility is to send line pressure to the appropriate hydraulic circuits and solenoids. The valve has three operating ranges or positions.

CONVERTER CLUTCH SWITCH VALVE

The main responsibility of the converter clutch switch valve is to control hydraulic pressure applied to the front (off) side of the converter clutch piston. Line pressure from the regulator valve is fed to the torque converter regulator valve, where it passes through the valve, and is slightly regulated. The pressure is then directed to the converter clutch switch valve and to the front side of the converter clutch piston. This pressure pushes the piston back and disengages the converter clutch.

CONVERTER CLUTCH CONTROL VALVE

The converter clutch control valve controls the back (on) side of the torque converter clutch. When the PCM/TCM energizes or modulates the LR/CC solenoid to apply the converter clutch piston, both the converter clutch control valve and the converter control valve move, allowing pressure to be applied to the back side of the clutch.

T/C REGULATOR VALVE

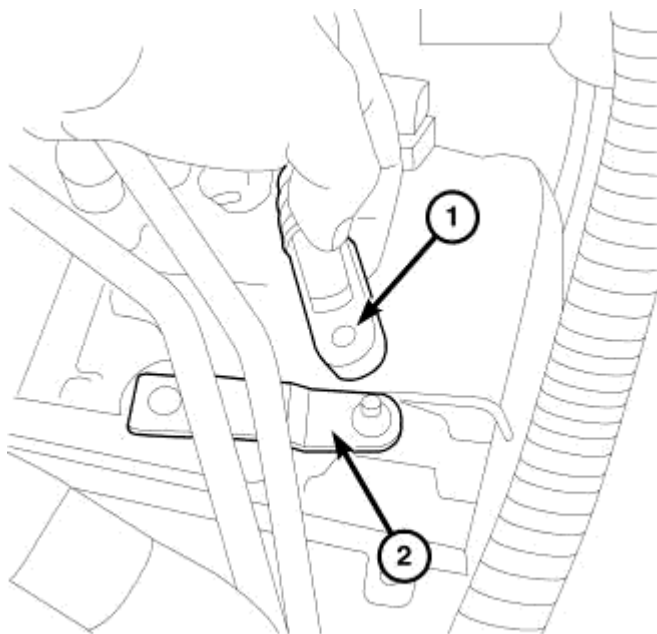
The torque converter regulator valve slightly regulates the flow of fluid to the torque converter.

LOW/REVERSE SWITCH VALVE

The low/reverse clutch is applied from different sources, depending on whether low (1st) gear or reverse is selected. The low/reverse switch valve alternates positions depending on from which direction fluid pressure is applied. By design, when the valve is shifted by fluid pressure from one channel, the opposing channel is blocked. The switch valve alienates the possibility of a sticking ball check, thus providing consistent application of the low/reverse clutch under all operating conditions.

REMOVAL

REMOVAL

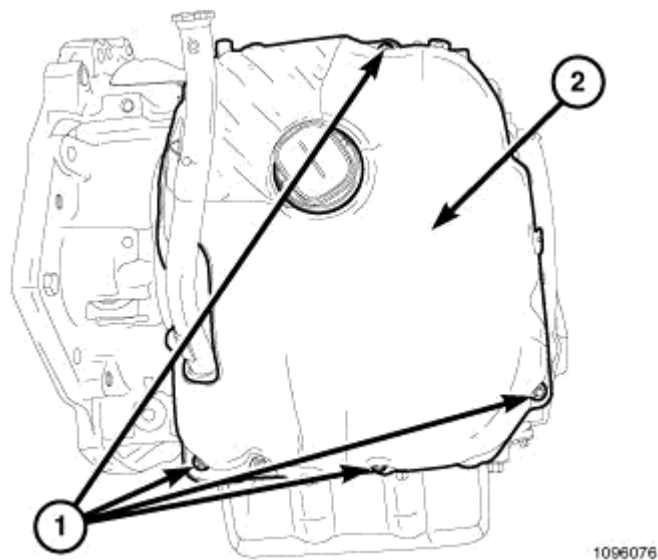


81944e1b

Fig. 549: Shift Cable From/To Manual Lever

Courtesy of CHRYSLER LLC

1. Remove the engine cover.
2. Remove the negative battery.
3. Drain the radiator. Refer to **Cooling - Standard Procedure**.
4. Remove clamps at the lower radiator hose.
5. Remove the lower radiator hose.
6. Remove shift cable (1) from manual lever (2).

**Fig. 550: Fasteners And Front Sound Dampener Cover**

Courtesy of CHRYSLER LLC

7. Remove the fasteners (1) and the Front Sound Damper Cover (2).

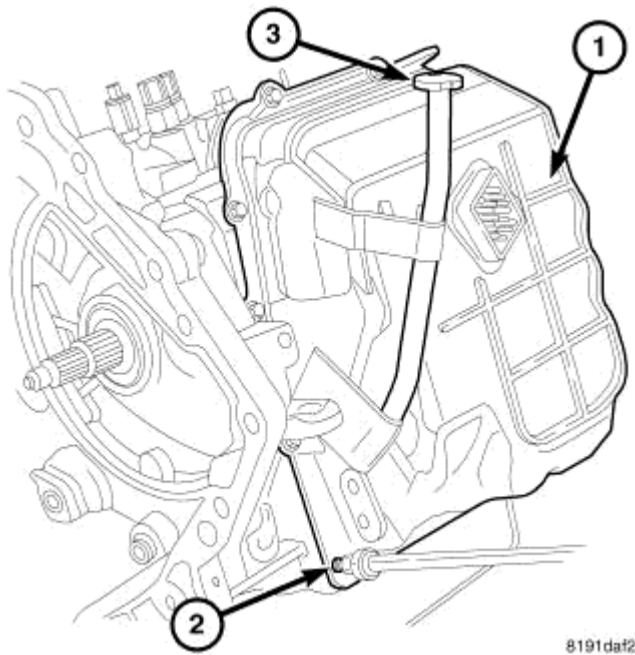


Fig. 551: Valve Body Pan
Courtesy of CHRYSLER LLC

8. Remove the top valve body oil pan (1) bolts.

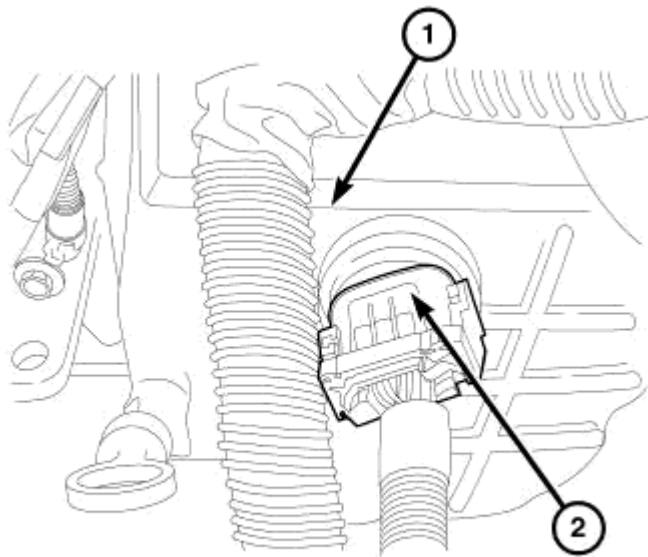


Fig. 552: Solenoid Connector At Transmission
Courtesy of CHRYSLER LLC

9. Remove the solenoid pack connector (2) at valve body oil pan (1).
10. Raise the vehicle on a hoist.

11. Remove the front left side inner wheel splash screws from front side of wheel opening.
12. Turn the wheel fully to the left.

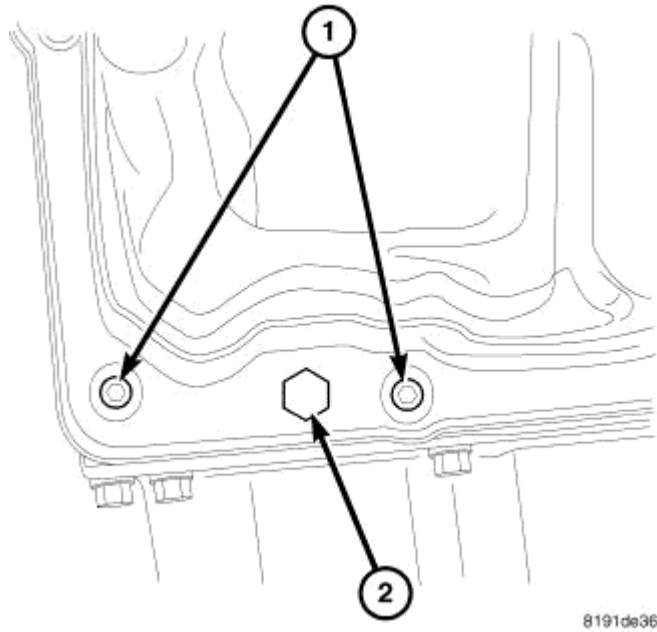


Fig. 553: Pressure Tap Plug
Courtesy of CHRYSLER LLC

13. Remove the pressure tap plug (2) at valve body oil pan.
14. Remove the lower valve body oil pan bolts (1) and drain transmission fluid.
15. Remove the valve body oil pan.

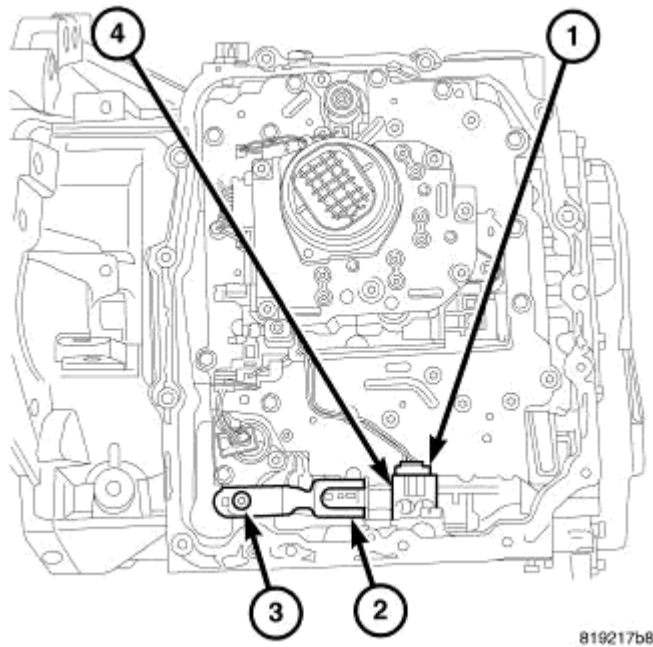


Fig. 554: Connector At Transmission
Courtesy of CHRYSLER LLC

16. Remove the electrical connector (1) at the valve body (2).

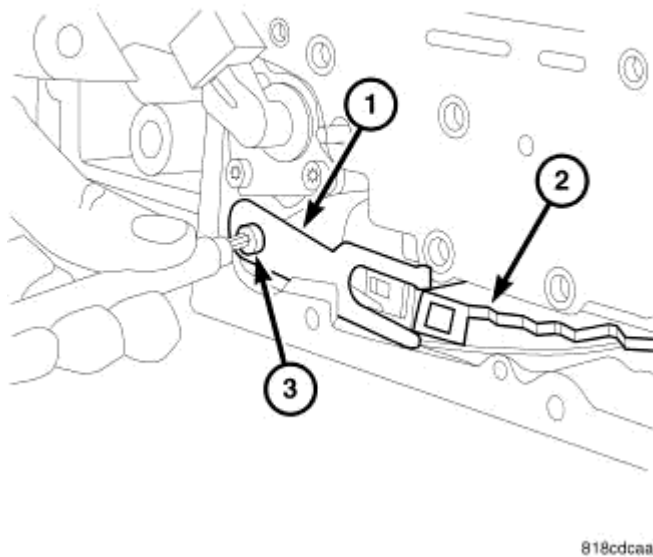


Fig. 555: Detent Spring
Courtesy of CHRYSLER LLC

17. Remove screw at detente arm (2).
18. Remove detente arm (1).

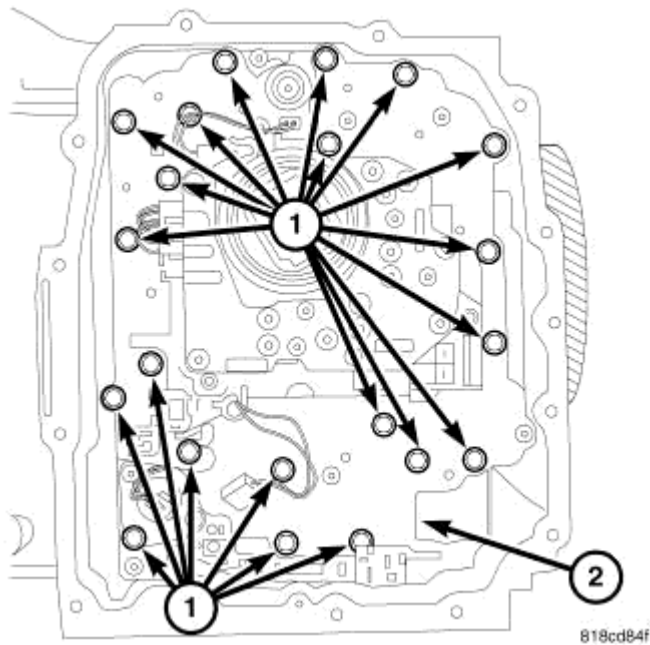


Fig. 556: Valve Body Bolts
Courtesy of CHRYSLER LLC

19. Remove the twenty one valve body to case bolts (1).

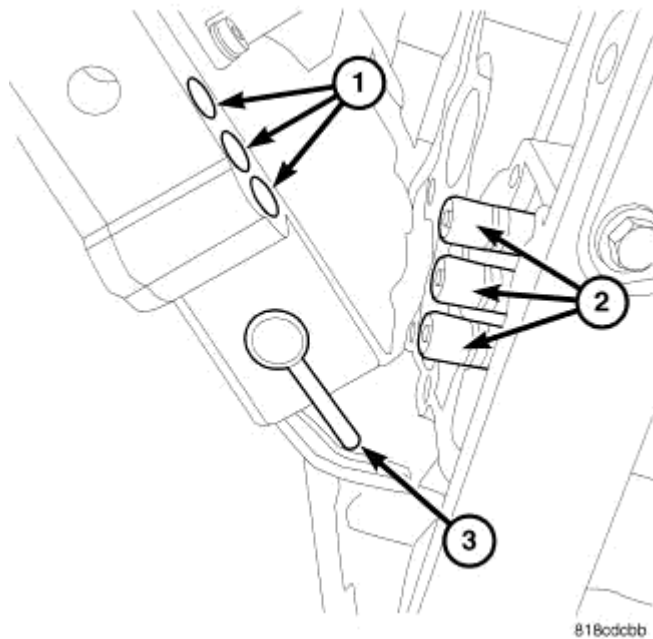


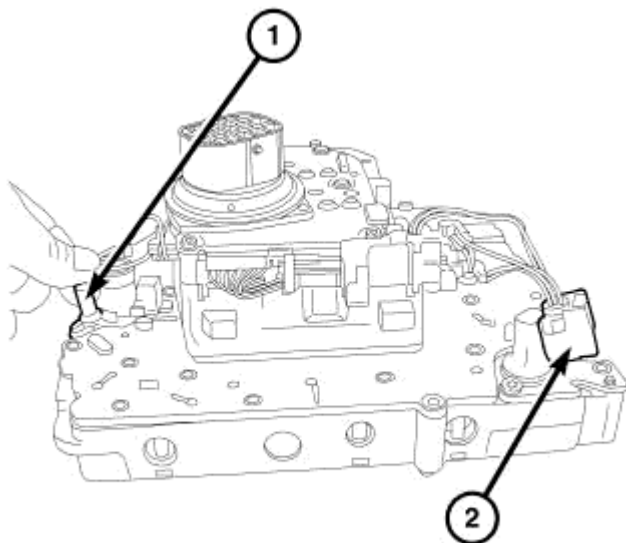
Fig. 557: Oil Transfer Tubes
Courtesy of CHRYSLER LLC

20. Insure the manual lever is fully forward to keep the manual valve pin (3) from binding.
21. Pull the valve body away from the underdrive compounder assembly oil transfer tubes (2) and lift up on

valve body to clear the manual valve pin past the slot in the rooster comb.

DISASSEMBLY

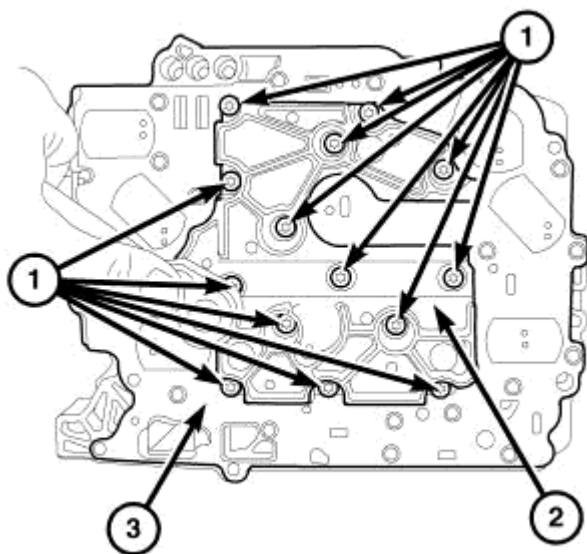
DISASSEMBLY



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Fig. 558: Solenoid Pack Electrical Connect
Courtesy of CHRYSLER LLC

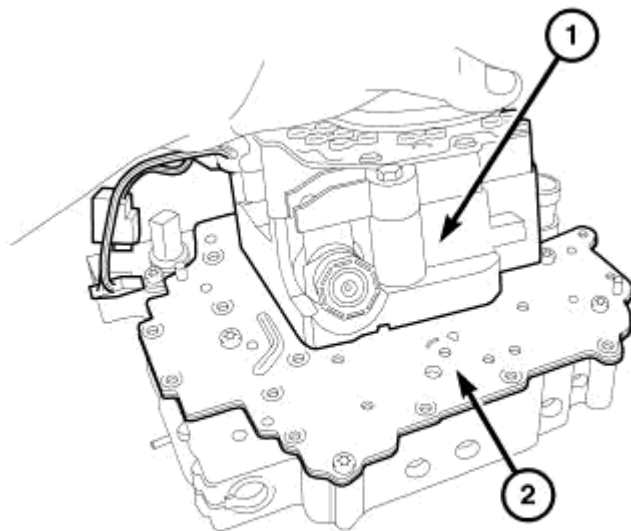
1. Unplug the electrical connectors (1, 2) at the valve body.



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Fig. 559: Bolts At Clamp Plate
Courtesy of CHRYSLER LLC

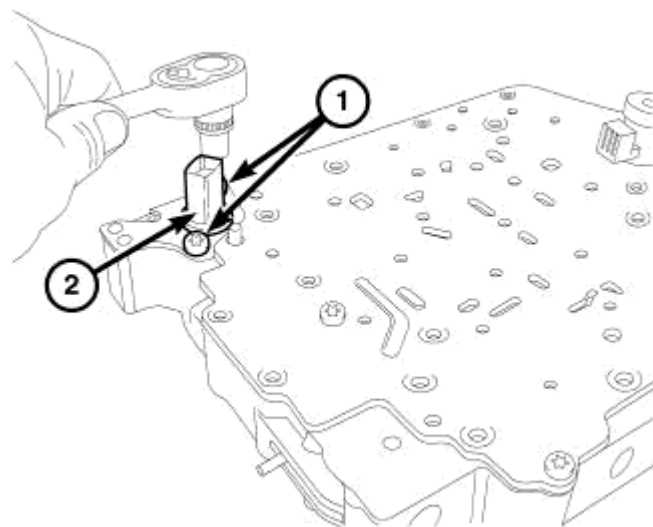
2. Remove the bolts (1) at the transfer plate (2) and remove the transfer plate.



819a1926

Fig. 560: Solenoid Pack At Valve Body
Courtesy of CHRYSLER LLC

3. Turn valve body over and remove the solenoid module (1) from the valve body (2).



819a195b

Fig. 561: Bolts At Line Pressure Sensor

Courtesy of CHRYSLER LLC

4. Remove the bolts (1) at the line pressure sensor (2).
5. Remove the line pressure sensor from the valve body.

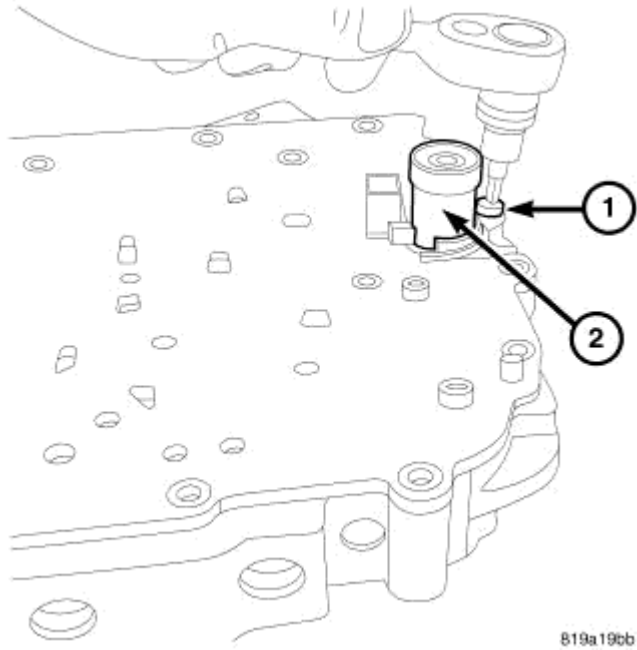
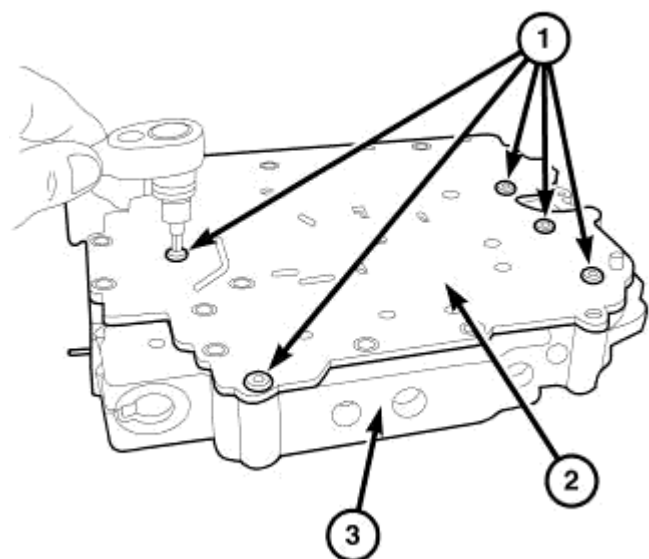


Fig. 562: Bolt At VFS 62TE

Courtesy of CHRYSLER LLC

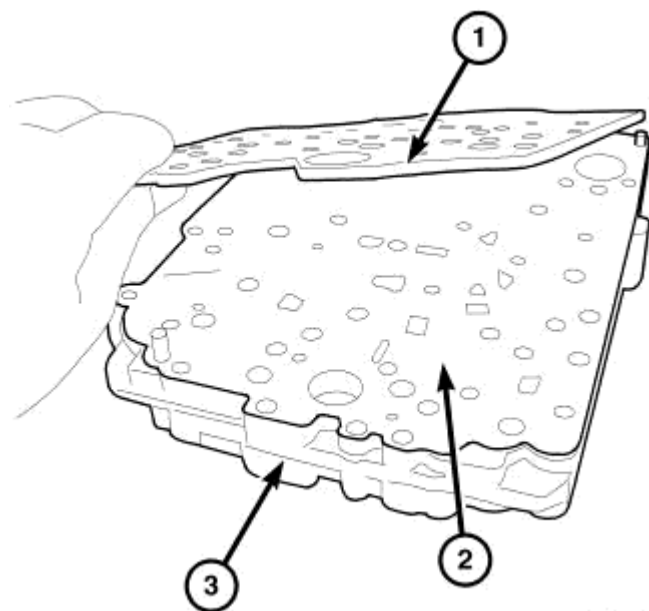
6. Remove the bolt (1) at the pressure control solenoid (2).



819a1b03

Fig. 563: Bolts At Transfer Plate
Courtesy of CHRYSLER LLC

7. Remove the bolts (1) at the clamping plate (2).



819a203b

Fig. 564: Transfer Plate
Courtesy of CHRYSLER LLC

8. Remove the clamping plate (1).

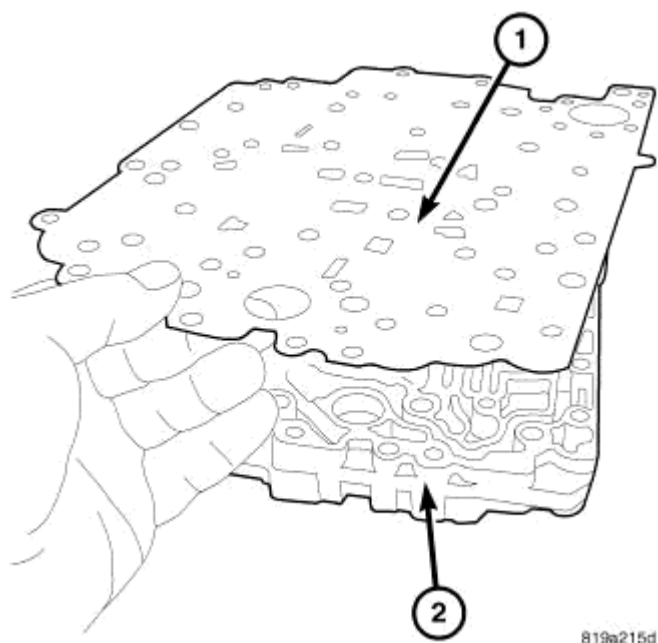


Fig. 565: Outer Separator Plate
Courtesy of CHRYSLER LLC

9. Remove the valve body cover (1).

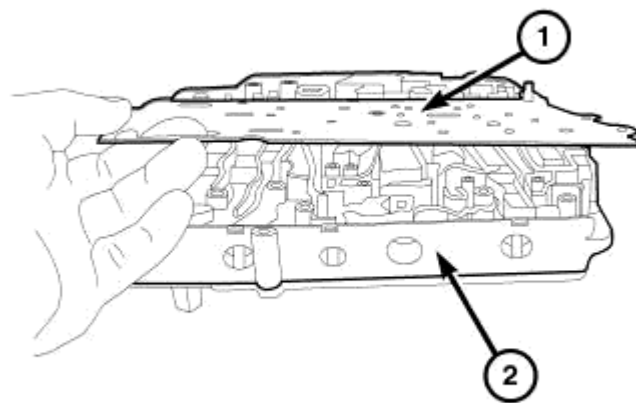


Fig. 566: Inner Separator Plate
Courtesy of CHRYSLER LLC

10. Remove the valve body inner gasket and plate (1) from the valve body.

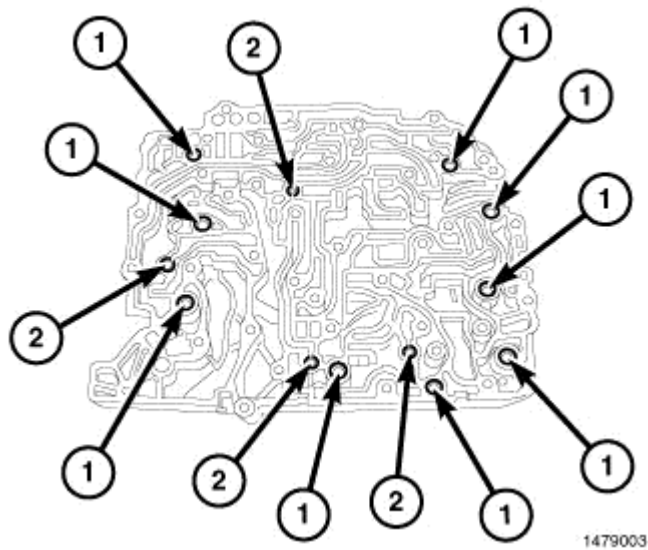
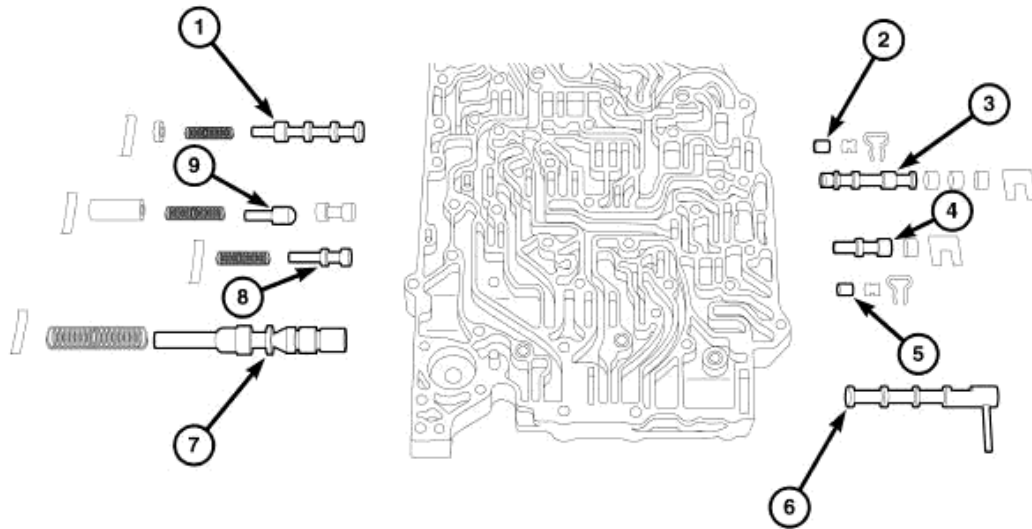


Fig. 567: Tapered Bore And Check Balls
 Courtesy of CHRYSLER LLC

NOTE: The valve body contains some check balls that are pressed into a tapered bore (1). These check balls are not removeable

11. Remove the check balls (2) if equipped.



819a0a1e

Fig. 568: 62TE Valve Body Exploded
Courtesy of CHRYSLER LLC

1 - CONVERTER CLUTCH SWITCH VALVE	6 - MANUAL VALVE
2 - L/R SWITCH VALVE	7 - PRESSURE REGULATOR VALVE
3 - SOLENOID SWITCH VALVE	8 - TORQUE CONVERTER REGULATOR VALVE
4 - DC SWITCH VALVE	9 - CONVERTER CLUTCH CONTROL VALVE
5 - LC SWITCH VALVE	-

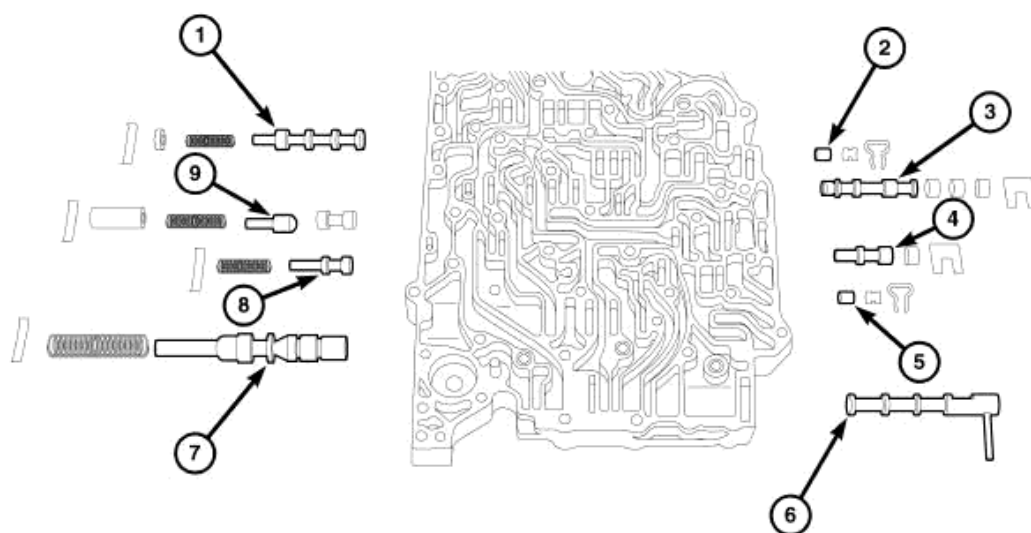
NOTE: Use illustration view for disassembly.

NOTE: Tag all valve/spring assemblies for reassembly identification.

12. Remove valves from valve body.

ASSEMBLY

ASSEMBLY



819a0a1e

Fig. 569: 62TE Valve Body Exploded
Courtesy of CHRYSLER LLC

1 - CONVERTER CLUTCH SWITCH VALVE	6 - MANUAL VALVE
2 - L/R SWITCH VALVE	7 - PRESSURE REGULATOR VALVE
3 - SOLENOID SWITCH VALVE	8 - TORQUE CONVERTER REGULATOR VALVE
	9 -

4 - DC SWITCH VALVE

CONVERTER
CLUTCH
CONTROL
VALVE

5 - LC SWITCH VALVE

-

NOTE: Use illustration view for assembly.

1. Install the valves into valve body.

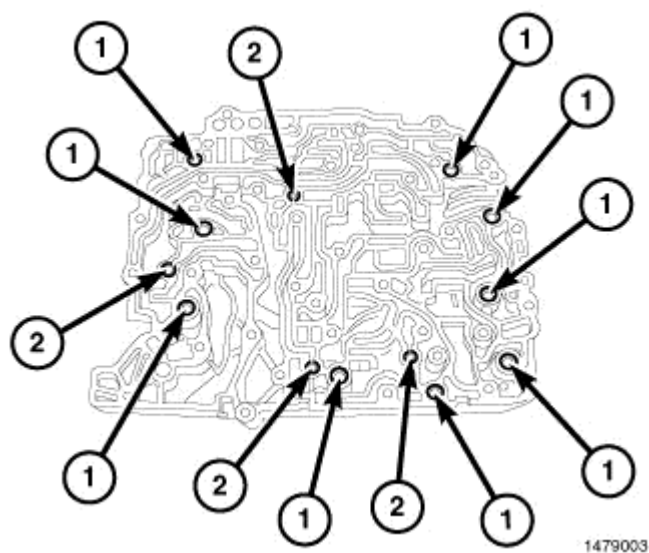
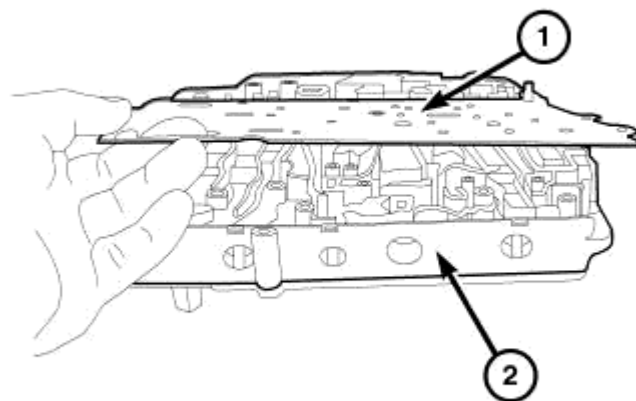


Fig. 570: Tapered Bore And Check Balls
Courtesy of CHRYSLER LLC

NOTE: The valve body contains some check balls that are pressed into a tapered bore (1). These check balls are not removeable

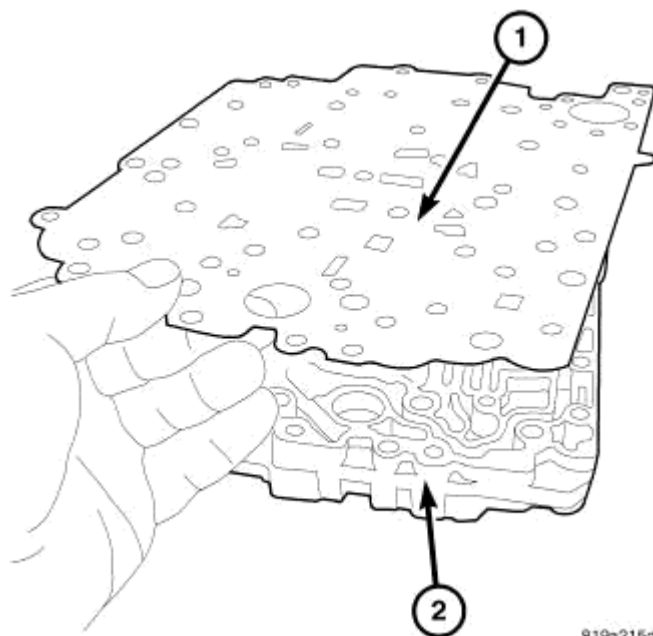
2. Install the check balls (2) if equipped.



819a19f9

Fig. 571: Inner Separator Plate
Courtesy of CHRYSLER LLC

3. Install the inner separator plate (1).



819a215d

Fig. 572: Outer Separator Plate
Courtesy of CHRYSLER LLC

4. Install the outer separator plate (1).

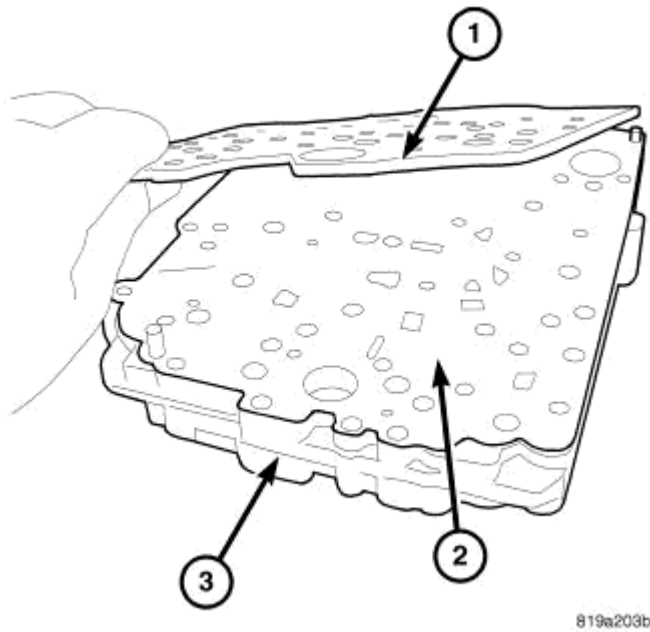


Fig. 573: Transfer Plate
Courtesy of CHRYSLER LLC

5. Install the transfer plate (1).

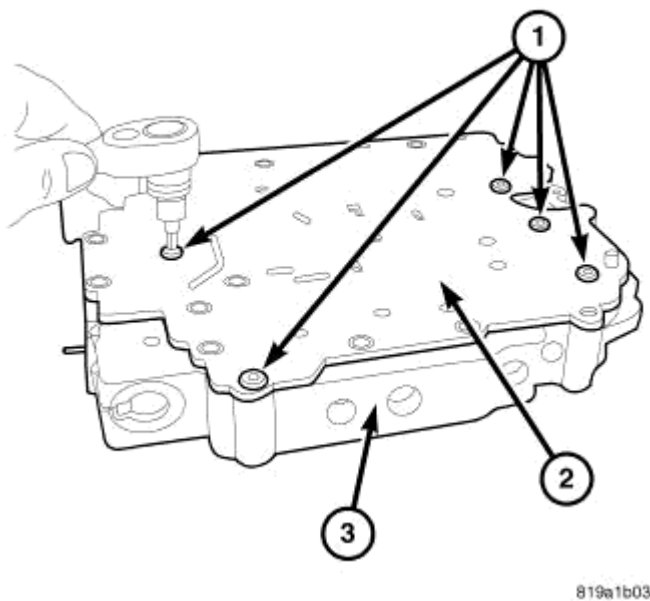


Fig. 574: Bolts At Transfer Plate
Courtesy of CHRYSLER LLC

6. Install the bolts (1) at the transfer plate (2) and tighten to 6 N.m (50 in. lbs.).

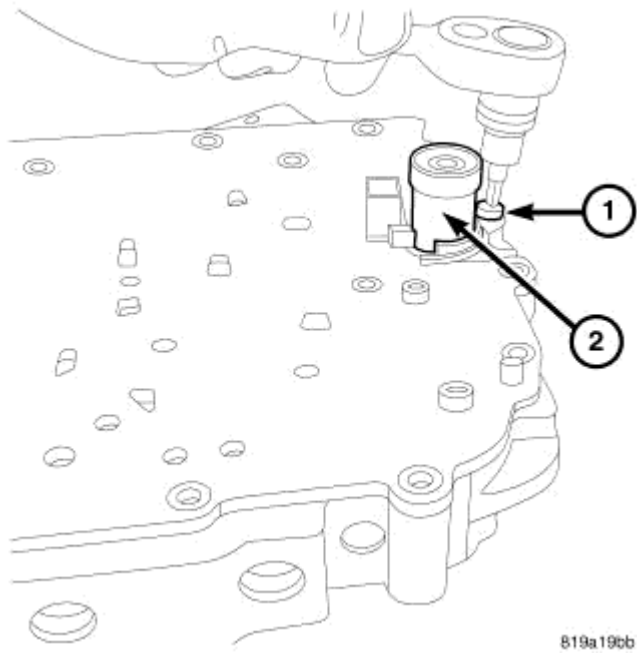


Fig. 575: Bolt At VFS 62TE
Courtesy of CHRYSLER LLC

7. Install the pressure control solenoid on to the valve body.
8. Install the bolt (1) at the pressure control solenoid (2) and tighten to 6 N.m (50 in. lbs.).

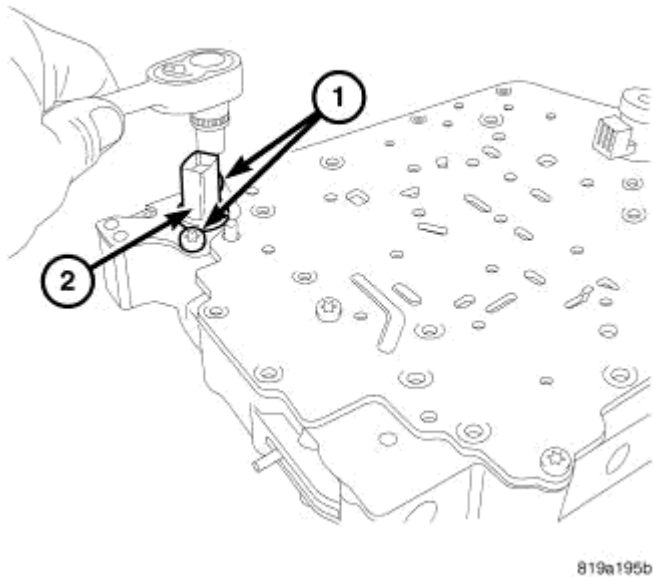
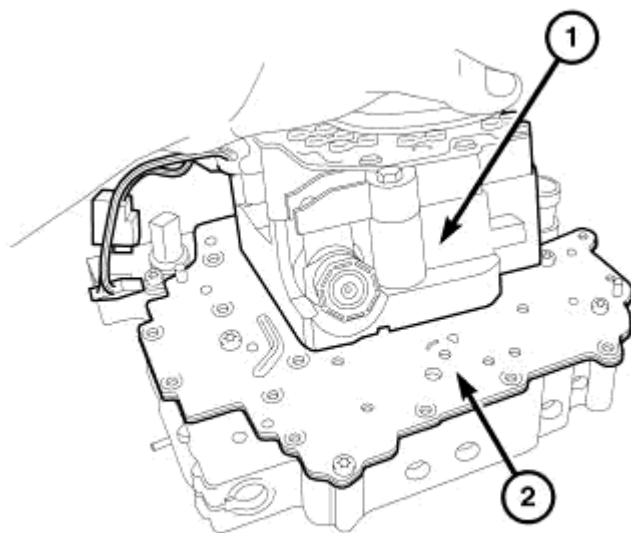


Fig. 576: Bolts At Line Pressure Sensor
Courtesy of CHRYSLER LLC

9. Install the pressure control sensor onto the valve body.

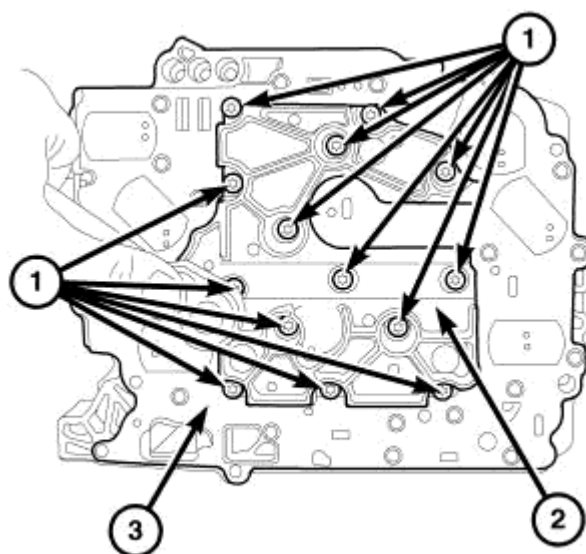
10. Install the bolts (1) to the pressure control sensor and tighten to 6 N.m (50 in. lbs.).



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Fig. 577: Solenoid Pack At Valve Body
Courtesy of CHRYSLER LLC

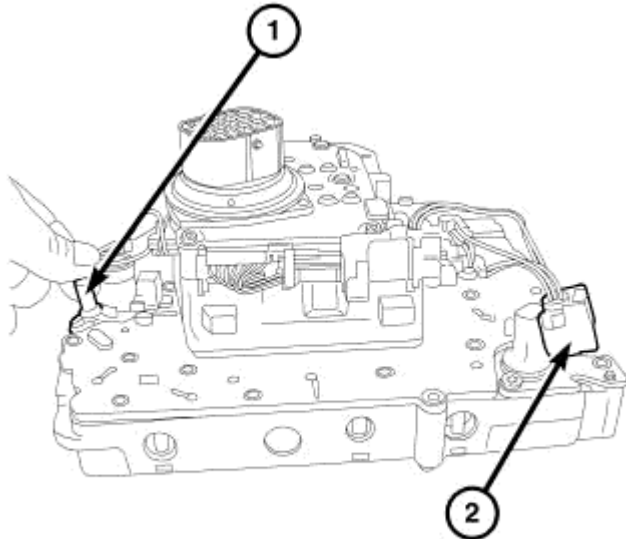
11. Install the solenoid pack (1) onto the valve body (2).



819a1748

Fig. 578: Bolts At Clamp Plate
Courtesy of CHRYSLER LLC

12. Turn valve body over and install the clamp plate (2) onto the valve body.
13. Install the clamp plate bolts and tighten to 6 N.m (50 in. lbs.).



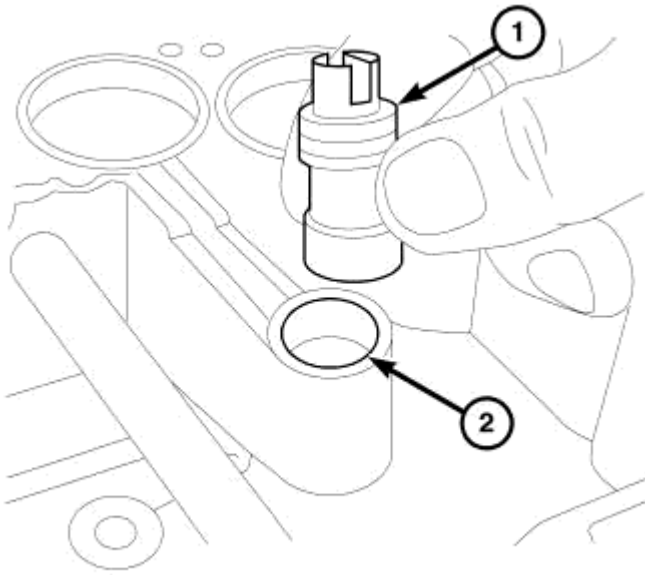
819a1491

Fig. 579: Solenoid Pack Electrical Connect
Courtesy of CHRYSLER LLC

14. Plug in the electrical connectors pressure control solenoid and pressure control sensors.

INSTALLATION

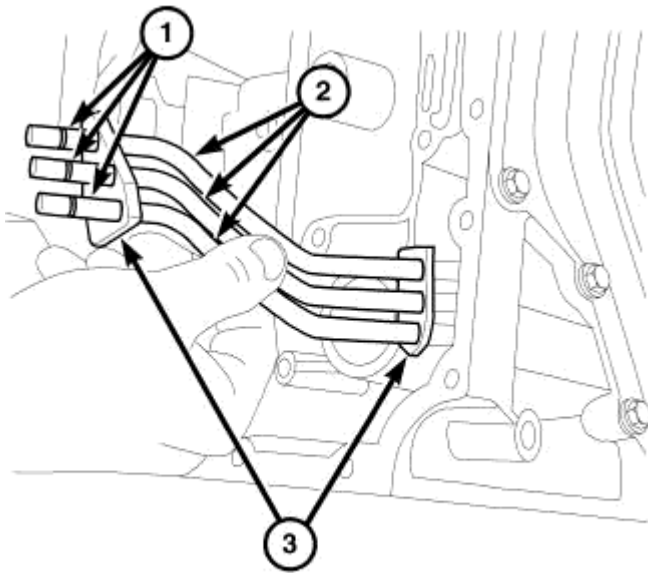
INSTALLATION



818ce979

Fig. 580: 2/4 Clutch Oil Supply Seal
Courtesy of CHRYSLER LLC

1. Raise the vehicle on the hoist.
2. Install a **NEW** 2/4 clutch oil seal (1).



818cdce8

Fig. 581: Transfer Tube O-Rings
Courtesy of CHRYSLER LLC

3. Install **new** O-rings (1) on the underdrive compounder assembly oil transfer tubes (2).

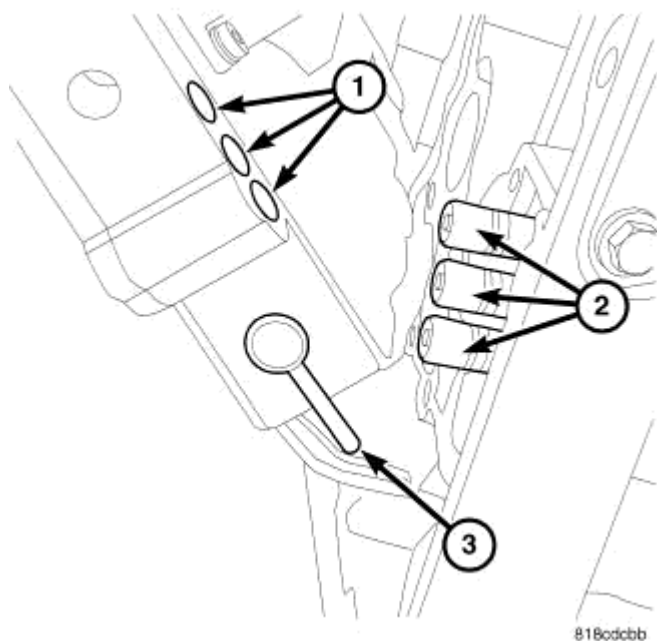


Fig. 582: Oil Transfer Tubes
Courtesy of CHRYSLER LLC

4. Insure the manual lever is fully forward to keep the manual valve pin (3) from binding.
5. Set the manual valve pin (3) into the slot in the rooster comb.
6. Set the valve body into the underdrive compounder assembly oil transfer tubes (2) and press the valve body into place.

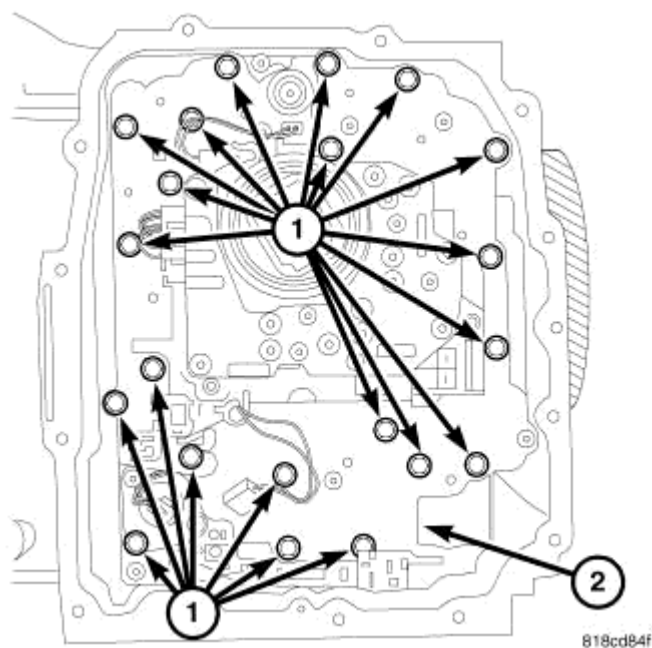
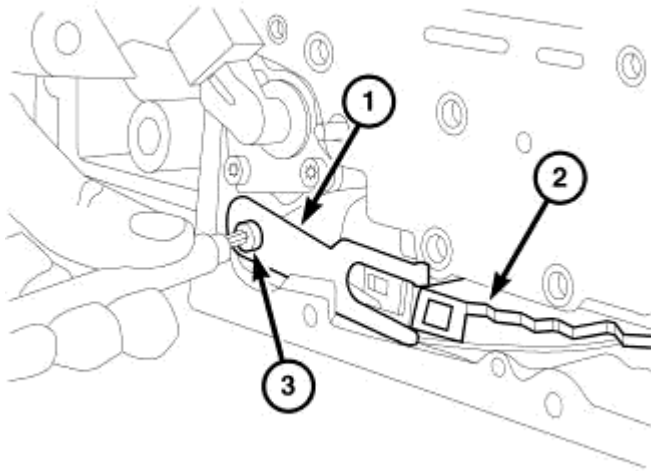


Fig. 583: Valve Body Bolts
Courtesy of CHRYSLER LLC

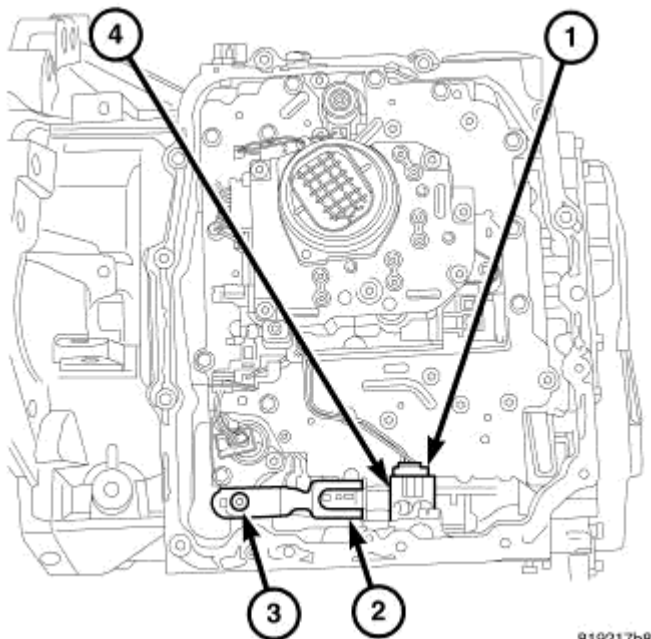
7. Install the twenty one valve body to case bolts and tighten to 6 N.m (50 in. lbs.).



818cdcaa

Fig. 584: Detent Spring
Courtesy of CHRYSLER LLC

8. Install the detente arm (1) onto the pin at the valve body.
9. Install the screw (3) at the detente arm and tighten to 6 N.m (50 in. lbs.).



819217b8

Fig. 585: Connector At Transmission
Courtesy of CHRYSLER LLC

10. Install the electrical connector (1) at the valve body.
11. Lower the hoist.

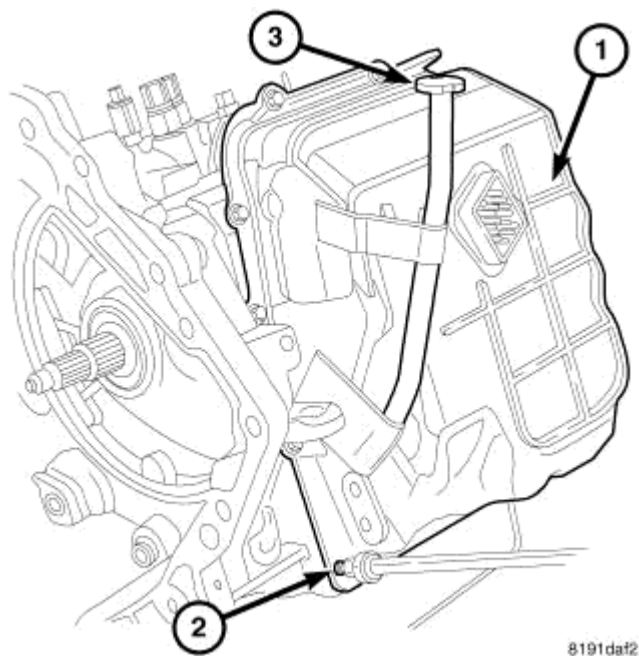
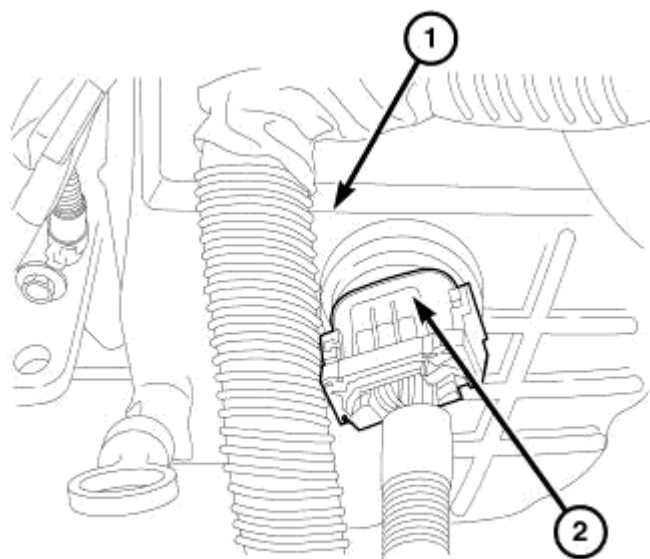


Fig. 586: Valve Body Pan
Courtesy of CHRYSLER LLC

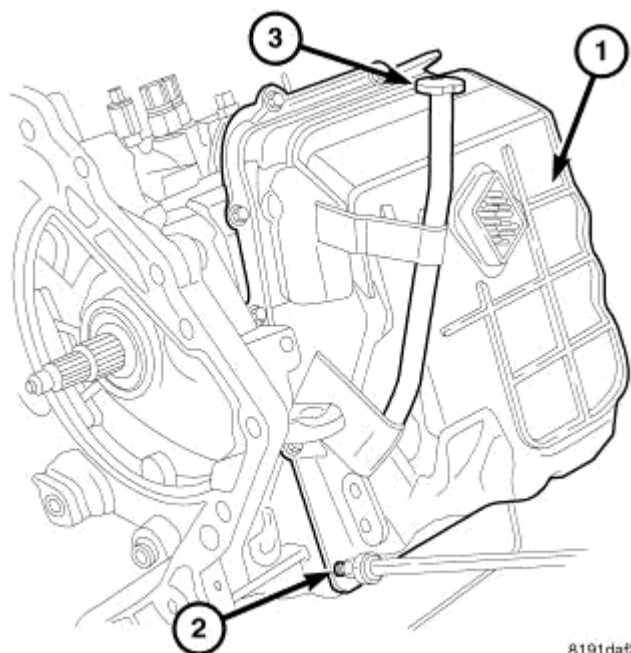
12. Install the valve body oil pan, use a bead of MOPAR® ATF RTV (MS-GF41).
13. Install the upper valve body oil pan bolts and tighten to 6 N.m (50 in. lbs.).
14. Install the pressure tap at valve body oil pan and tighten to 6 N.m (50 in. lbs.).
15. Lower the vehicle on a hoist.



8188d440

Fig. 587: Solenoid Connector At Transmission
Courtesy of CHRYSLER LLC

16. Install the solenoid pack connector (2) at valve body oil pan.
17. Raise the vehicle on the hoist.



8191dat2

Fig. 588: Valve Body Pan
Courtesy of CHRYSLER LLC

18. Install the lower valve body oil pan bolts and tighten to 6 N.m (50 in. lbs.).

19. Install the left side inner wheel splash shield screws (1).

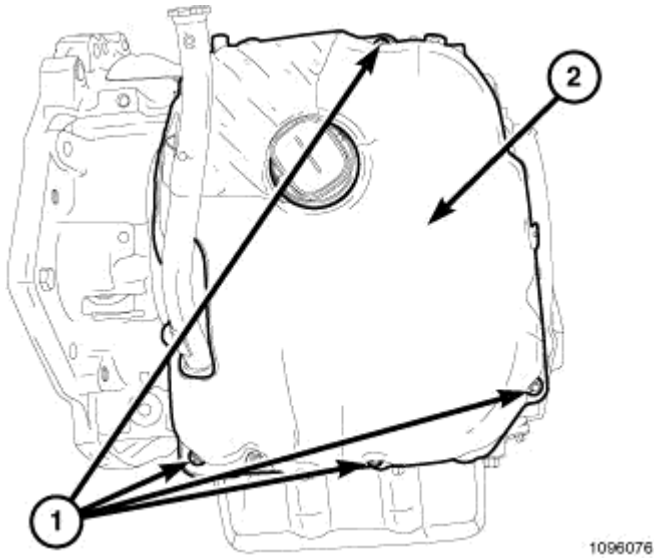


Fig. 589: Fasteners And Front Sound Dampener Cover
Courtesy of CHRYSLER LLC

20. Install the Front Sound Damper Cover (2) and the fasteners (1).
21. Lower the vehicle.

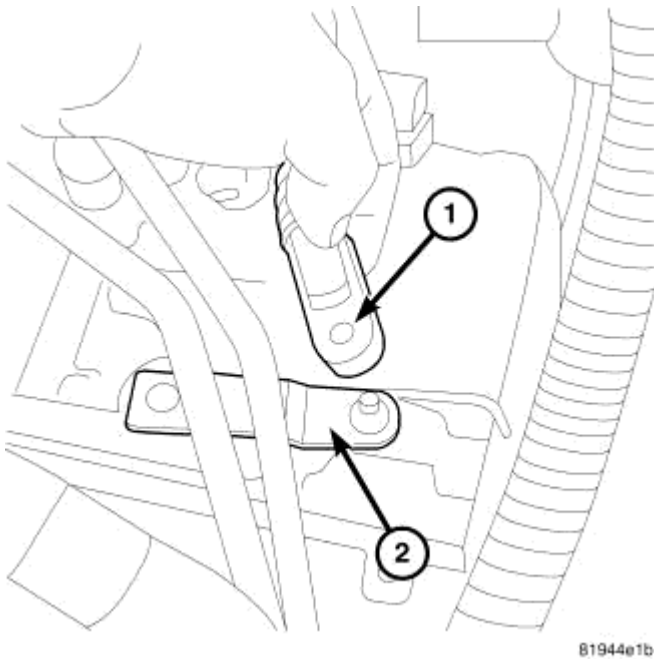


Fig. 590: Shift Cable From/To Manual Lever
Courtesy of CHRYSLER LLC

22. Install shift cable (1) to manual lever (2).

2009 Dodge Journey R/T

2009 AUTOMATIC TRANSMISSION 62TE - Service Information - Journey

23. Install lower radiator hose and clamps.
24. Fill the cooling system. Refer to **Cooling - Standard Procedure** .
25. Install the battery cable.
26. Fill transmission and road test. See **Standard Procedure** .