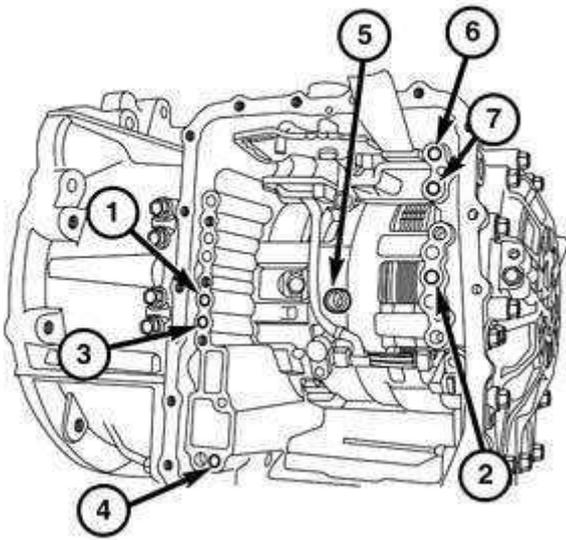


2014 AUTOMATIC TRANSMISSION

6F24 - Service Information - Compass & Patriot

DIAGNOSIS AND TESTING

AIR TEST



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Fig. 1: Air Test Port Locations
 Courtesy of CHRYSLER GROUP, LLC

- 1= 3-5-Reverse Clutch
- 2= Overdrive Clutch
- 3= 2-6 Brake
- 4= Underdrive Brake
- 5= Low-reverse Brake
- 6= To Cooler
- 7= From Cooler

Before the completion of the transaxle assembly procedure and before installing the valve body, an air test should be performed to determine the condition of the seals in the clutch and brake pistons. Using a rubber tip air nozzle, apply regulated 482 kPa (70 psi) shop air into the ports shown for each clutch or brake.

ROAD TEST

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

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 "Elements in Use" 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.

1.4 Liter And 2.0 Liter Engines

		CLUTCH	CLUTCH	BRAKE	BRAKE	BRAKE	
		OD	35R	26	LR	UD	ON WA CL
GEAR 1					X	X	X
GEAR 2				X		X	
GEAR 3			X			X	
GEAR 4	X					X	
GEAR 5	X	X					
GEAR 6	X			X			
GEAR NEUTRAL/PARK					X		
GEAR R			X		X		

2.4 Liter Engine

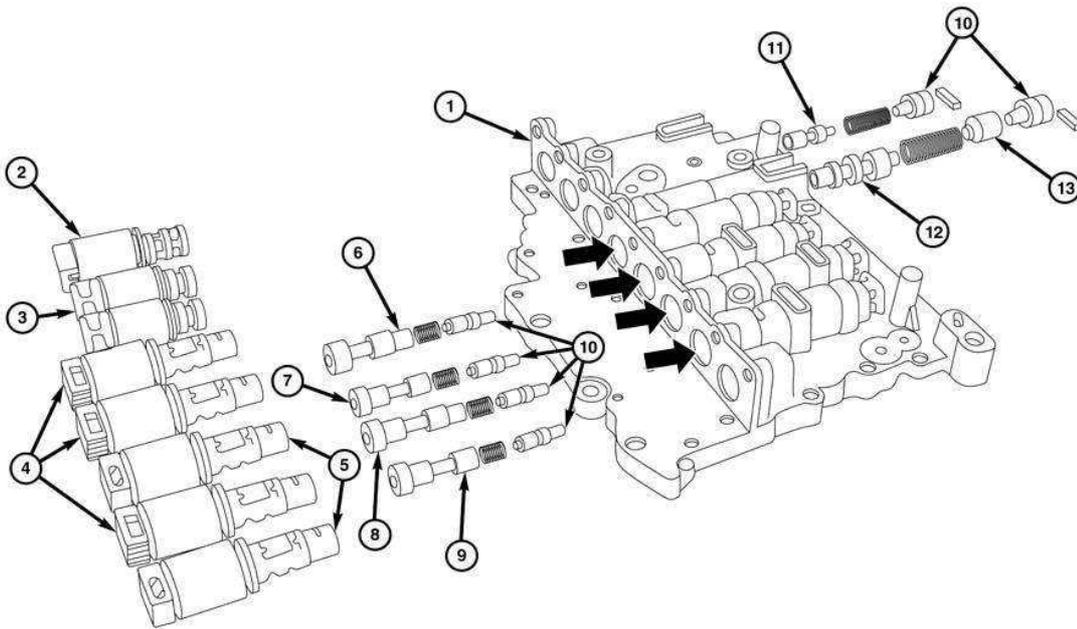
		CLUTCH	CLUTCH	BRAKE	BRAKE	BRAKE	
		OD	35R	26	LR	UD	ON WA CL

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GEAR 1				X	X	X
GEAR 2			X		X	
GEAR 3		X			X	
GEAR 4	X				X	
GEAR 5	X	X				
GEAR 6	X		X			
GEAR NEUTRAL/PARK				X		
GEAR R		X		X		

6F24 POWER FLOW

Hydraulic power flow is controlled by the TCM and the solenoids attached to the valve body. The TCM toggles control voltage or ground on and off in a duty cycle to regulate the line pressure flowing through the valve body. The lower the duty cycle percentage is the higher the line pressure. The pressure can be measured with (special tool #10424, Adapter, Transmission Pressure) and (special tool #C-3293-SP, Gauge, Pressure 0-300 P.S.I.).



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Fig. 2: Valve Body Solenoids
 Courtesy of CHRYSLER GROUP, LLC

1= Outer Valve Body

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- 2= VFS Solenoid Valve NH
- 3= On-Off Solenoid Valve
- 4= VFS Solenoid Valve NH
- 5= VFS Solenoid Valve NL
- 6= Over Drive Pressure Control Valve
- 7= Under Drive Pressure Control Valve
- 8= 2-6 Brake Pressure Control Valve
- 9= 3-5-R Pressure Control Valve
- 10= Adjust Screws
- 11= Reducing Valve
- 12= Regulator Valve
- 13= Regulator Sleeve

Gear	Solenoid								Clutch/		
	OD (LR with SS-A)	UD	2/6	3/5/R (with SS-B)	TCC	LPS	SS-A	SS-B	OD	3/5/R	2/6
	Normal Open	Normal Open	Normal Closed	Normal Open	Normal Closed	Normal Open	Normal Closed	Normal Closed			
P	7%	42%	7%	41%	7%	45%	82%	OL (13.6V)			
R	7%	42%	7%	6.80%	7%	8%	82%	82% (3V)		230 psi	
N	7%	42%	7%	42%		45%	82%	OL			
D1	7%	7%	13%	42%		45% @ idle (min pres.) 8% @ max pres. 36% @ 90 psi	82%	OL			
AS1	40%	7%	13%	42%			82%	82%			

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AS2	40%	7%	39%	42%			OL	OL			50 psi
AS3	40%	7%	7%	6.70%			OL	OL		50 psi	
AS4	7%	7%	7%	40%			OL	OL	51 psi		
AS5	7%	42%	7.60%	6.70%			OL	82%	51 psi	50 psi	
AS6	7%	42%	39%	41%			OL	OL	51 psi		50 psi

General Line Pressure Readings

LPS Duty Cycle (%)	Pressure
8%	230 psi
34%	97 psi
36%	90 psi
45%	47-50 psi

Solenoid Reduced Circuit Feeds

RED 1 (SS-A/SS-B)	73-75 psi max.
RED 2 (all other solenoids)	79-81 psi max.

CLUTCHES/BRAKES

Gear Range	OWC	Holding Brake			Driving Clutch	
		Low/Rev	Underdrive	2/6	3/5/R	Overdrive
P/N		O				
1st	O	X	O			
2nd			O	O		
3rd			O		O	
4th			O			O
5th					O	O
6th				O		O
Low		O	O			
Rev		O			O	

O = Applied

X = Applied under certain conditions

Gear	ON/OFF		Variable Force Solenoids					
	SS/A-NC	SS/B-NC	UD-NO	OD-NO	3/5/R-NO	2/6-NC	LPS-NO	TCC-NC
P/N	O		O		O		X	
1st	X			X	O		X	
2nd				O	O	O	X	X
3rd		O		O			X	X
4th					O		X	X
5th		O	O				X	X
6th			O		O	O	X	X
Low	O				O		X	X
Rev	O	O	O				X	X
O = Electric signal applied					X = Electric signal may be applied for certain conditions			
NO = Normally hydraulically open					NC = Normally hydraulically closed			

TRANS RANGE SENSOR (TRS)

The Trans Range Sensor (TRS) provides data to the Transmission Control Module (TCM) and other ECUs about the gear range that has been selected by the operator. The TRS also indicates from which direction the range selector was moved to obtain the current gear position. The accompanying table provides an overview of how the sensor sends Closed (1) or Open (0) signals to indicate the range the gear selector just left and the current position the gear selector is in. The TRS also functions as a neutral safety switch to inhibit the starter if the transaxle is not in Park or Neutral. The TRS also functions as a reverse lamp switch and will signal the Body Control Module (BCM) to turn on the back-up lamps when the transaxle is shifted into reverse.

	S4	S3	S2	S1
P	0	0	0	1
pr	0	0	1	1
R	0	0	1	0

rn	0	1	1	0
N	0	1	0	0
nd	1	1	0	0
D	1	0	0	0
d3	1	1	1	1

Continuity Test

Using a suitable continuity tester or OHM meter test for continuity from pin 3 to each of the signal Pins as the sensor is cycled to each shift position.

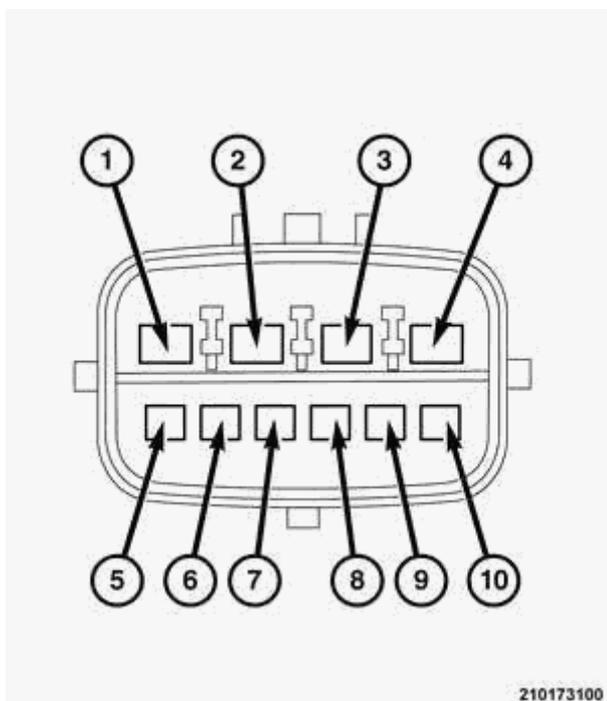


Fig. 3: Transmission Range Sensor Connector Terminal Identification
 Courtesy of CHRYSLER GROUP, LLC

- 1 = S5 (Signal, Pst, Nst)
- 2 = Power (12v, Pst, Nst)
- 3 = Power (12v)
- 4 = S2 (Signal R)
- 5 = NC
- 6 = NC
- 7 = S3 (Signal N)
- 8 = S1 (Signal P)
- 9 = S4 (Signal D)

REMOVAL

FWD

1. Position vehicle on a suitable hoist with transaxle in neutral.
2. Release the hood latch and open the hood. Support the hood on the prop-rod
3. Release the fasteners holding the engine air-box to the front crossmember.
4. Separate the engine air-box from the vehicle.
5. Remove the battery from the vehicle. Refer to **BATTERY, REMOVAL** .
6. Remove the battery tray from the vehicle. Refer to **TRAY, BATTERY, REMOVAL** .
7. Remove the air box lid and position it out of the way.
8. Loosen the engine inlet air tube clamp.
9. Remove the lower air cleaner body. Refer to **2.0L BODY, AIR CLEANER, REMOVAL** , **2.2L BODY, AIR CLEANER, REMOVAL** or **2.4L BODY, AIR CLEANER, REMOVAL** .



Fig. 4: Air Cleaner Bracket Nuts & Bolts
Courtesy of CHRYSLER GROUP, LLC

10. Remove bolts and nuts (1) holding the lower air cleaner bracket to the left frame rail.



Fig. 5: Lower Air Cleaner Bracket
Courtesy of CHRYSLER GROUP, LLC

11. Separate the lower air cleaner bracket (1) from the vehicle.

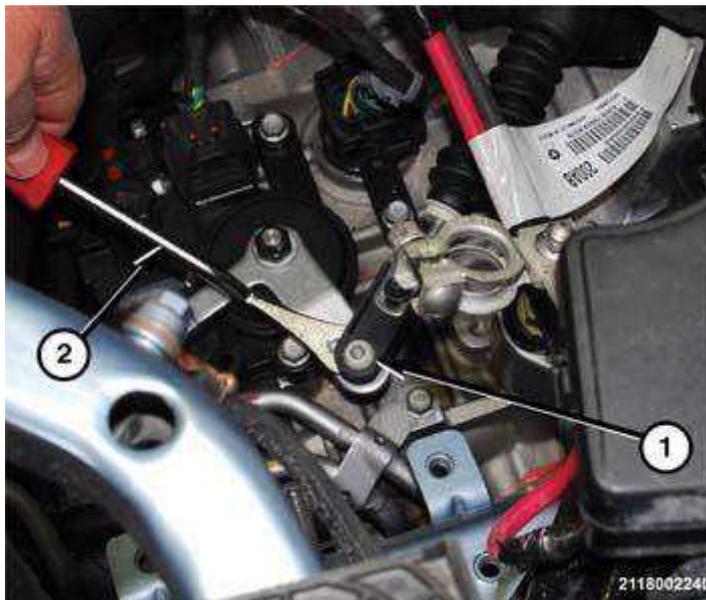


Fig. 6: Shift Cable End & Manual Lever
Courtesy of CHRYSLER GROUP, LLC

12. Using a suitable prying tool (2), lift upward on the shift cable end (1) at the transaxle manual lever.
13. Separate the shift cable (1) from the manual lever.
14. Release the clips holding the shift cable to the bracket on the top of the transaxle.

15. Position the shaft cable (1) out of the way.
16. Release the lock on the transaxle solenoid connector (1).

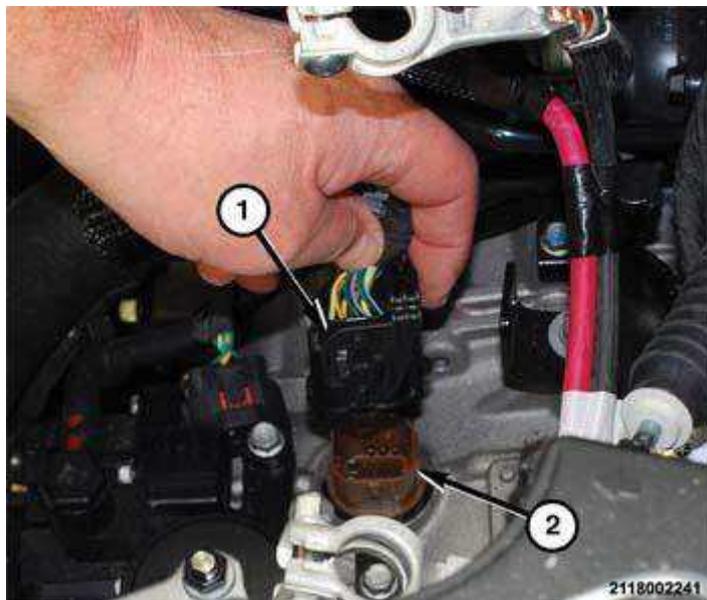


Fig. 7: Transaxle Wire Harness Connector
Courtesy of CHRYSLER GROUP, LLC

17. Separate the wire harness connector (1) from the transaxle.

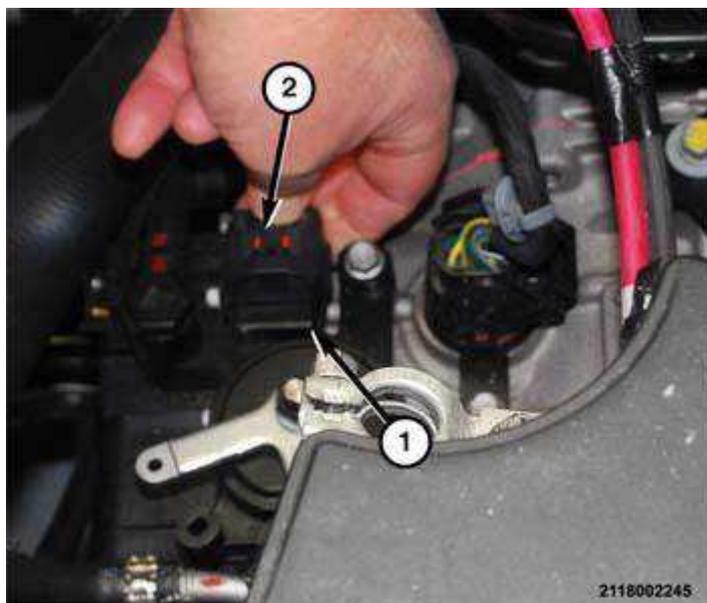


Fig. 8: Transaxle TRS Connector
Courtesy of CHRYSLER GROUP, LLC

18. Release the lock (2) on the transaxle TRS connector.
19. Separate the wire harness connector from the transaxle (1).

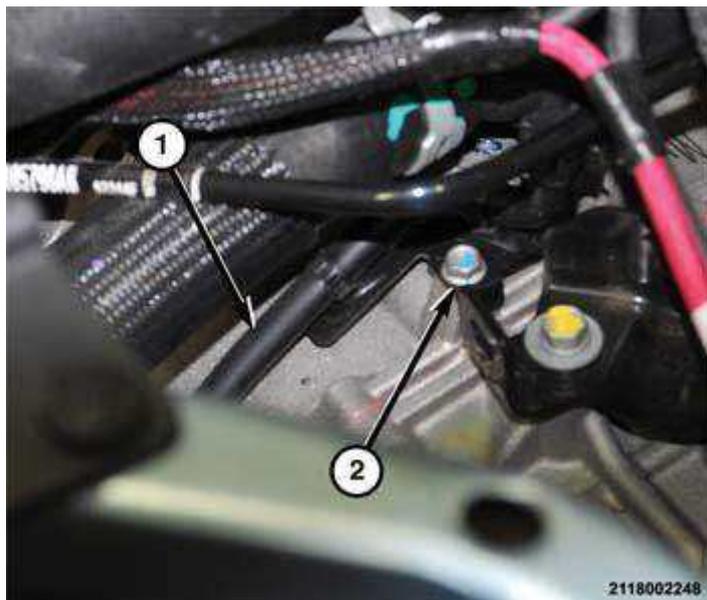


Fig. 9: Vent Tube & Bolt
Courtesy of CHRYSLER GROUP, LLC

20. Remove the bolt (2) holding the vent tube (1) to the transaxle.
21. Position the vent tube (1) out of the way.

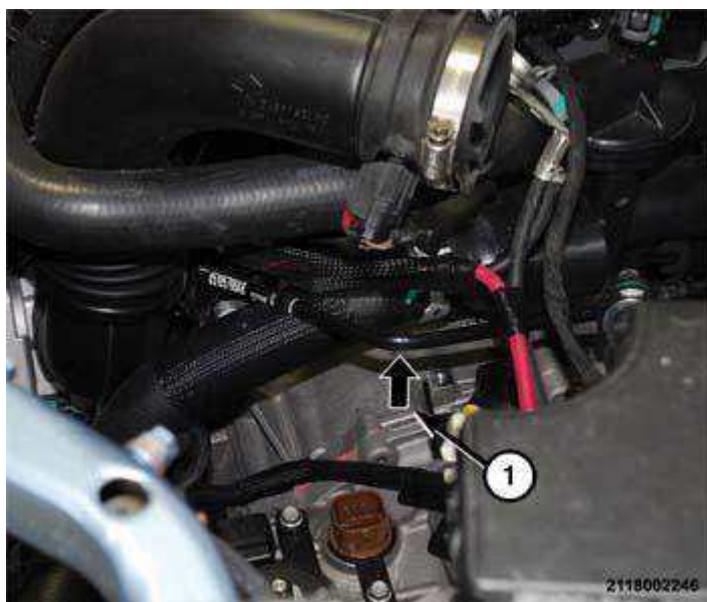


Fig. 10: Ground Cable & Transaxle Bellhousing Bolt
Courtesy of CHRYSLER GROUP, LLC

22. Remove the hidden bolt (1) holding the ground cable and transaxle bellhousing to the engine block from under the engine coolant tubes.



Fig. 11: Starter Motor Bolts
 Courtesy of CHRYSLER GROUP, LLC

23. Remove the hidden bolts (1, 2) holding the starter motor to the engine block and bellhousing.

NOTE: The starter will stay in place after the transaxle is removed.

24. Position a suitable floor jack under the left (driver) side of the transaxle to add support.
25. Lift jack enough the support the transaxle but not raise it.

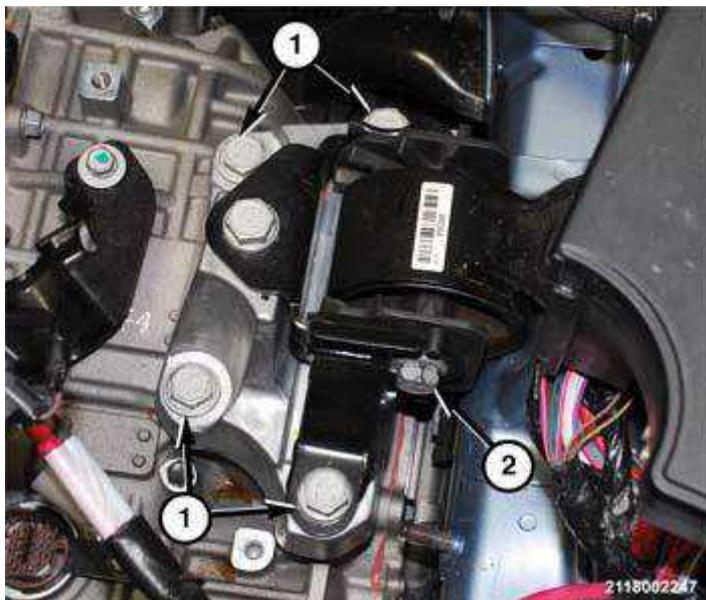
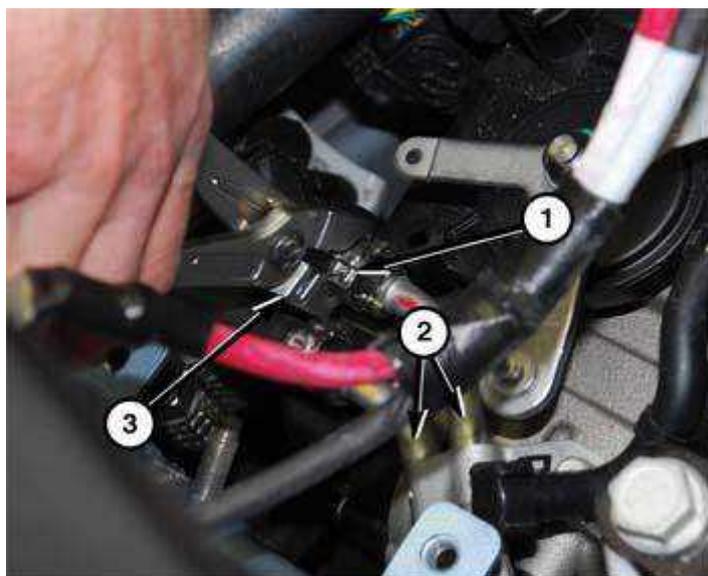


Fig. 12: Transaxle Mount Bolts
Courtesy of CHRYSLER GROUP, LLC

26. Remove the through bolt (2) holding the transaxle mount rubber isolator to the frame rail bracket.
27. Remove the bolts (1) holding the transaxle mount to the transaxle.
28. Lower the transaxle to gain clearance for the transaxle mount.
29. Separate the transaxle mount from the vehicle.



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Fig. 13: Transaxle Cooler Hose Clamps
Courtesy of CHRYSLER GROUP, LLC

30. Using a suitable clamp pliers (3), release the clamps (1) holding the transaxle cooler hoses to the tubes (2) on the transaxle.

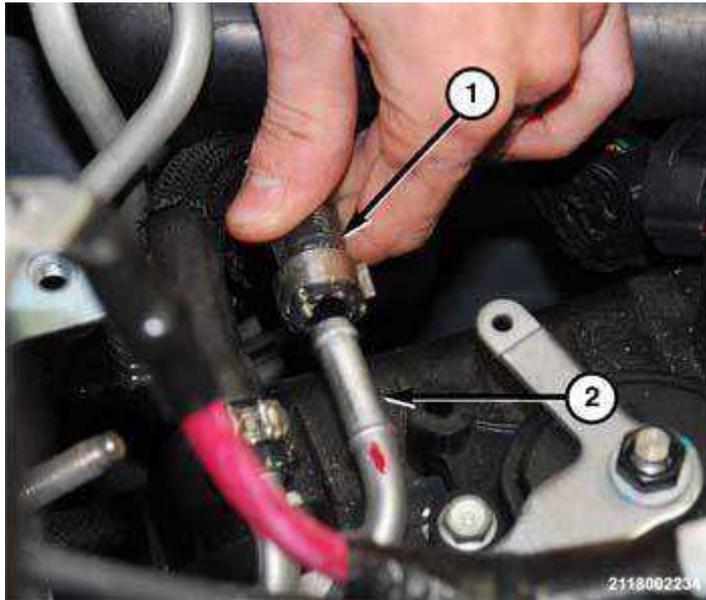


Fig. 14: Cooler Tubes & Hoses
Courtesy of CHRYSLER GROUP, LLC

CAUTION: Do not bend or crush the transaxle cooler tubes when removing the cooler hoses. If the tubes become damaged, they must be replaced.

31. Using suitable hose/spark plug wire pliers, separate the hoses (1) from the cooler tubes (2) on the transaxle.
32. Raise the vehicle.
33. Remove the belly pan. Refer to **BELLY PAN, REMOVAL** .
34. Place a suitable drain pan under the transaxle to catch fluid that may leak when the halfshafts are removed.
35. Remove the left and right halfshafts. Refer to **REMOVAL** .

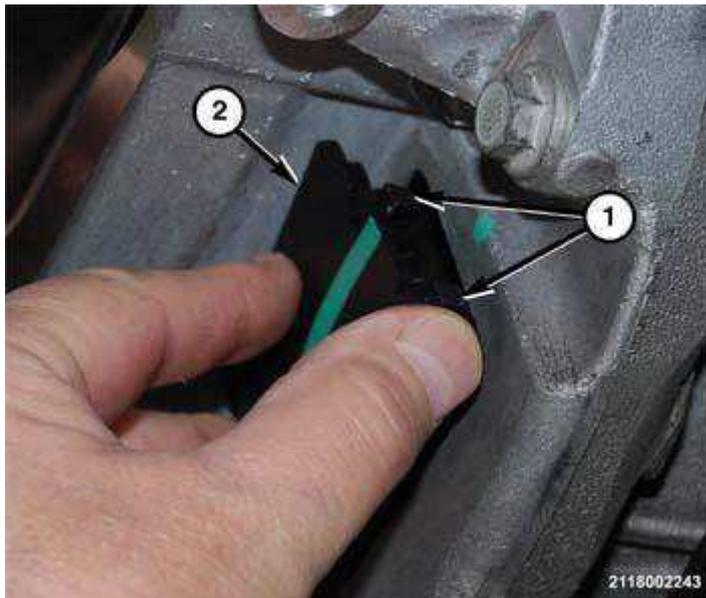


Fig. 15: Torque Converter Bolt Access Plug
Courtesy of CHRYSLER GROUP, LLC

36. Using a flat blade screw driver to release the locks (1), remove the torque converter bolt access plug (2) from the bellhousing cover.



Fig. 16: Torque Converter Bolt
Courtesy of CHRYSLER GROUP, LLC

37. Remove the bolts (2) holding the flex plate to the torque converter.



Fig. 17: Bellhousing Bolt
Courtesy of CHRYSLER GROUP, LLC

38. Remove the hidden bolt (2) holding the engine block to the bellhousing from behind the heat-shield (1) at the back of the engine.

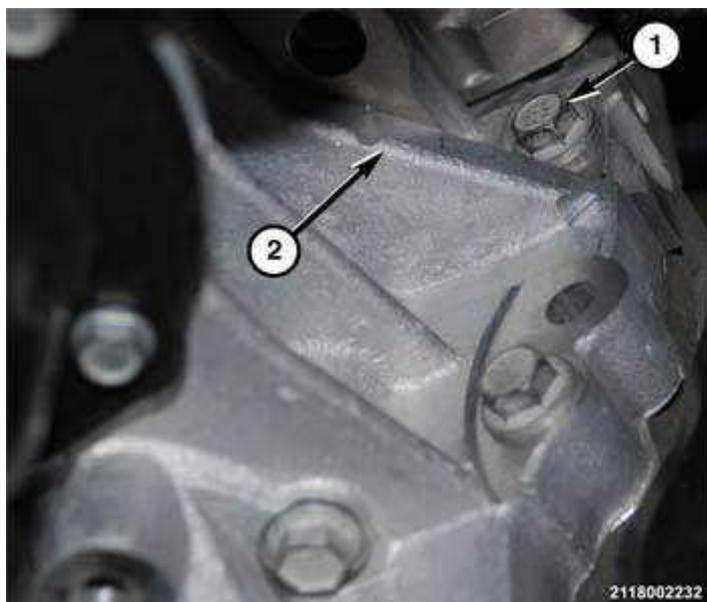


Fig. 18: Bellhousing Bolt
Courtesy of CHRYSLER GROUP, LLC

39. Remove the bolt (1) holding the engine block (2) to the bellhousing next to the starter motor.

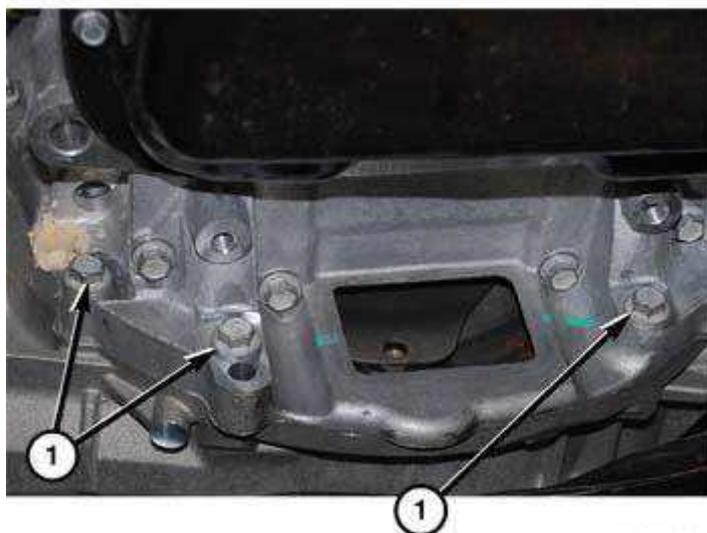


Fig. 19: Bellhousing Bolts
Courtesy of CHRYSLER GROUP, LLC

40. Remove the bolts (1) holding the lower engine adapter to the bellhousing.

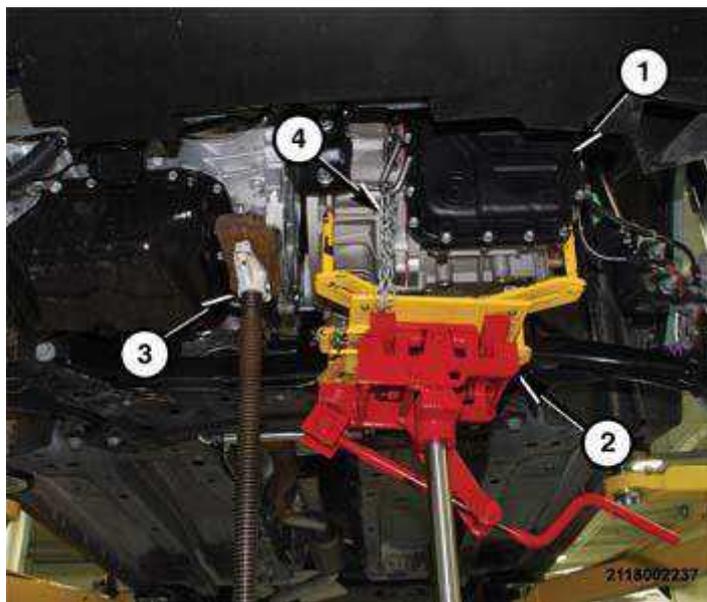


Fig. 20: Supporting Engine
Courtesy of CHRYSLER GROUP, LLC

41. Position a suitable high-stand (3) under the engine for support when the front-to-rear support member is removed.

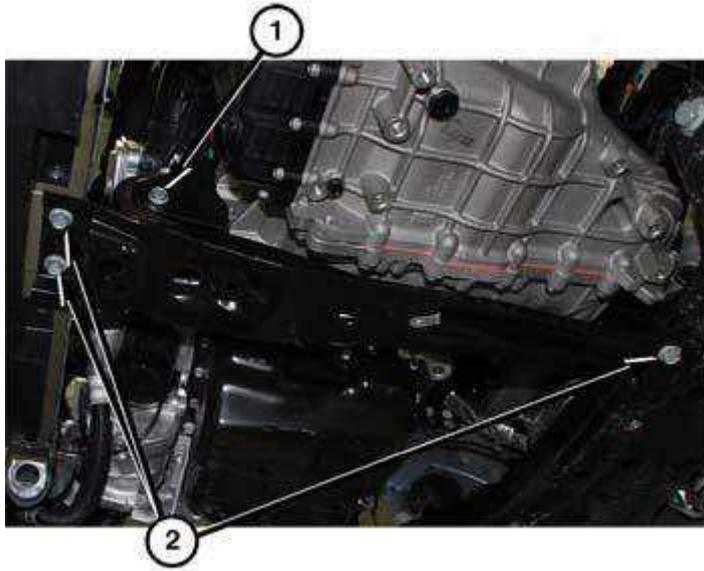


Fig. 21: Front-To-Rear Support
Courtesy of CHRYSLER GROUP, LLC

42. Remove the trough bolt (1) holding the front-to-rear support rubber isolator to the front crossmember.
43. Remove the bolts (2) holding the front-to-rear support to the front and rear crossmembers.
44. Separate the front-to-rear support from the vehicle.

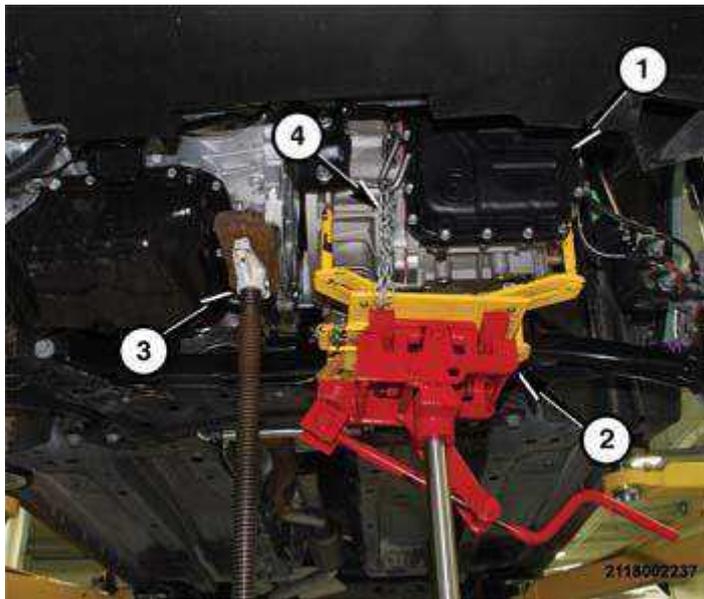


Fig. 22: Supporting Engine
Courtesy of CHRYSLER GROUP, LLC

45. Position a suitable transmission jack (2) under the transaxle so the weight is

evenly distributed across the jack cradle (2).

46. Install a safety chine (4) to hold the transaxle (1) to the jack cradle.
47. Lift the transaxle (1) so not all of the weight is bearing on the high-stand (3).

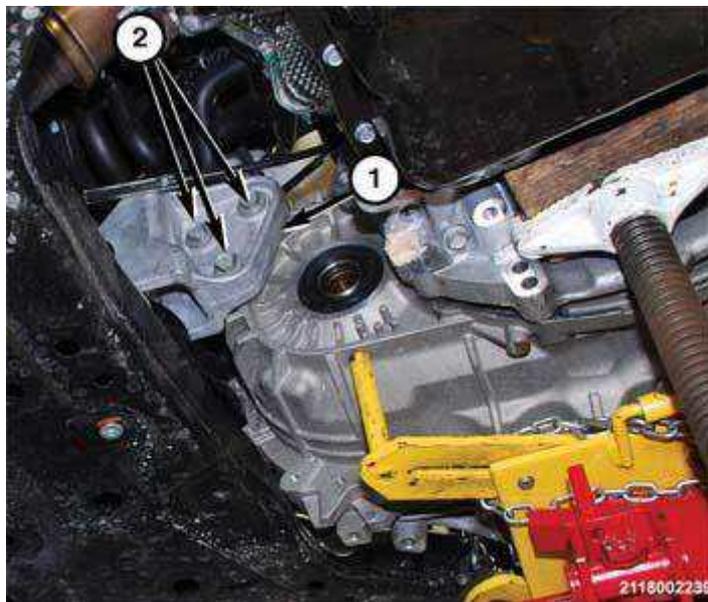
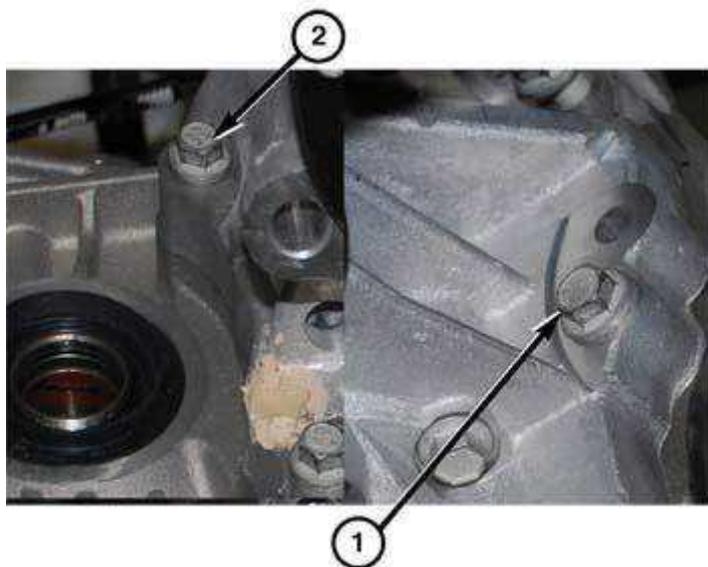


Fig. 23: Rear Transaxle Mount
 Courtesy of CHRYSLER GROUP, LLC

48. Remove the bolts (2) holding the rear transaxle mount (1) to the back of the transaxle.

NOTE: The rear mount will flex out of the way during transaxle removal.



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Fig. 24: Bellhousing Bolts
 Courtesy of CHRYSLER GROUP, LLC

49. Remove the remaining bolts (1, 2) holding the engine block to the bellhousing.



Fig. 25: Bellhousing & Engine Block
 Courtesy of CHRYSLER GROUP, LLC

Separate the bellhousing (1) from the engine block (2).

While guiding the transaxle past obstacles, lower the transaxle downward until the transaxle is clear of the vehicle.

AWD

1. Position vehicle on a suitable hoist with transaxle in neutral.
2. Release the hood latch and open the hood. Support the hood on the prop-rod
3. Remove the engine cover. Refer to **COVER, ENGINE, REMOVAL** .
4. Release the fasteners holding the engine air-box to the front crossmember.
5. Separate the engine air-box from the vehicle.
6. Remove the battery form the vehicle. Refer to **BATTERY, REMOVAL** .
7. Remove the battery tray from the vehicle. Refer to **TRAY, BATTERY, REMOVAL** .
8. Remove the air box lid and position it out of the way.

9. Loosen the engine inlet air tube clamp.
10. Remove the lower air cleaner body. Refer to **2.0L BODY, AIR CLEANER, REMOVAL** , **2.2L BODY, AIR CLEANER, REMOVAL** or **2.4L BODY, AIR CLEANER, REMOVAL** .

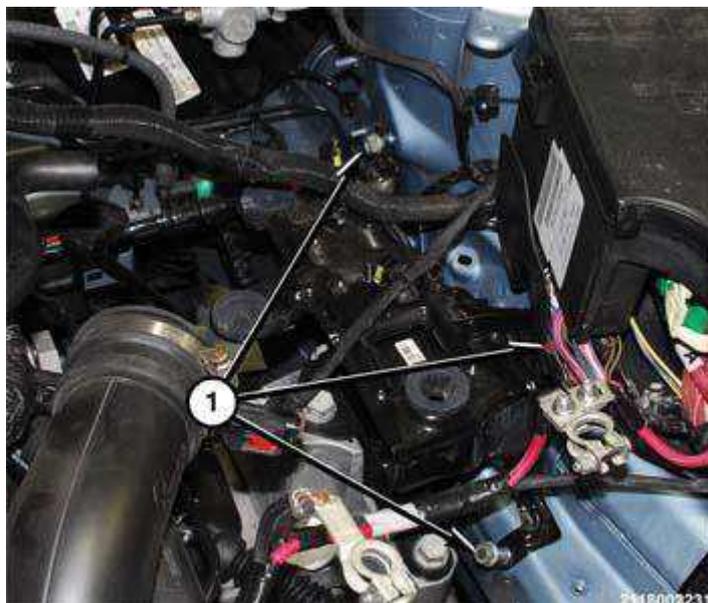


Fig. 26: Air Cleaner Bracket Nuts & Bolts
Courtesy of CHRYSLER GROUP, LLC

11. Remove bolts and nuts (1) holding the lower air cleaner bracket to the left frame rail.

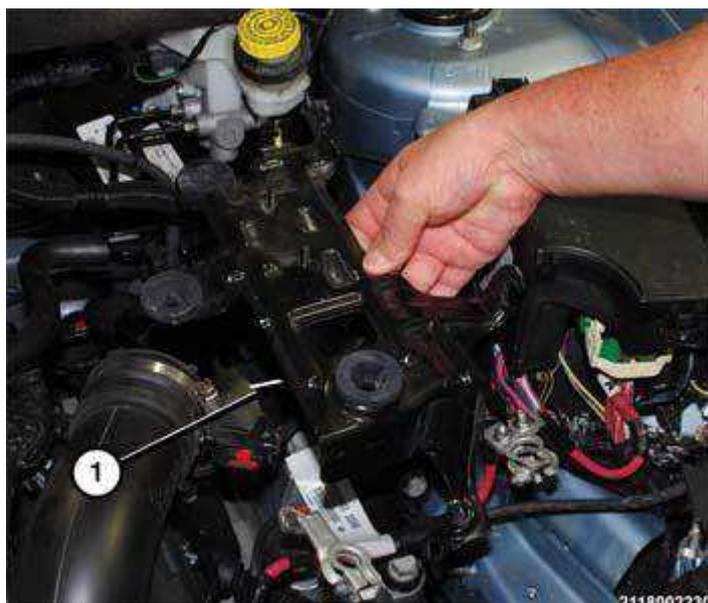


Fig. 27: Lower Air Cleaner Bracket
Courtesy of CHRYSLER GROUP, LLC

12. Separate the lower air cleaner bracket (1) from the vehicle.



Fig. 28: Shift Cable End & Manual Lever
Courtesy of CHRYSLER GROUP, LLC

13. Using a suitable prying tool (2), lift upward on the shift cable end (1) at the transaxle manual lever.
14. Separate the shift cable (1) from the manual lever.
15. Release the clips holding the shift cable to the bracket on the top of the transaxle.
16. Position the shaft cable (1) out of the way.
17. Release the lock on the transaxle solenoid connector (1).

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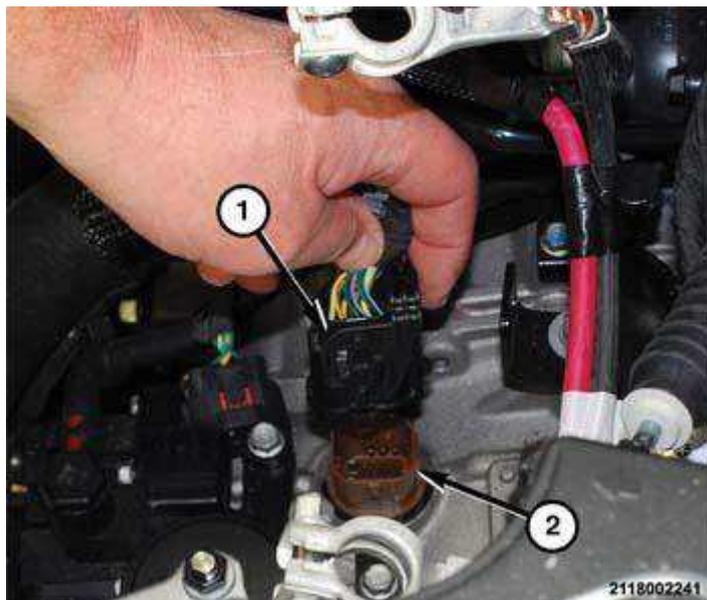


Fig. 29: Transaxle Wire Harness Connector
Courtesy of CHRYSLER GROUP, LLC

18. Separate the wire harness connector (1) from the transaxle.

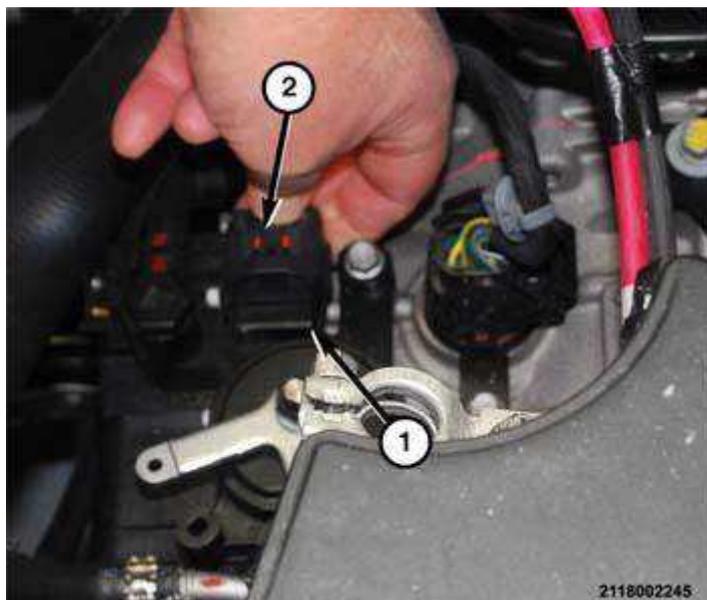


Fig. 30: Transaxle TRS Connector
Courtesy of CHRYSLER GROUP, LLC

19. Release the lock (2) on the transaxle TRS connector.
20. Separate the wire harness connector from the transaxle (1).

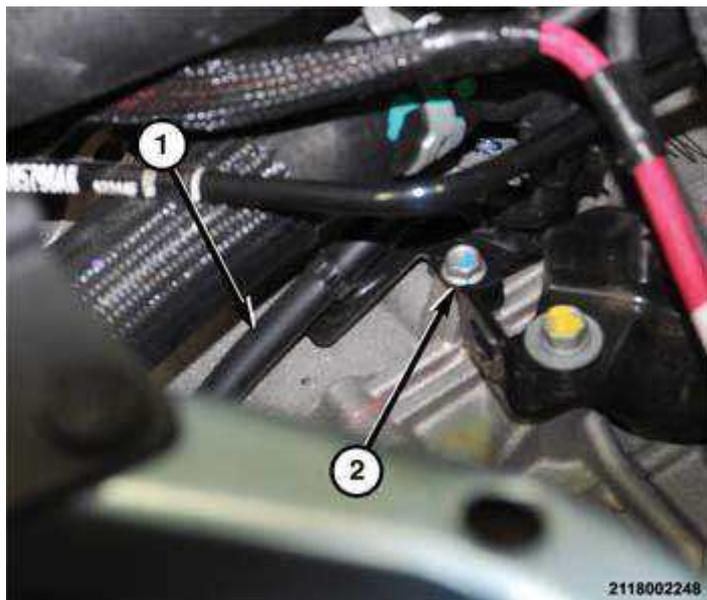


Fig. 31: Vent Tube & Bolt
Courtesy of CHRYSLER GROUP, LLC

21. Remove the bolt (2) holding the vent tube (1) to the transaxle.
22. Position the vent tube (1) out of the way.

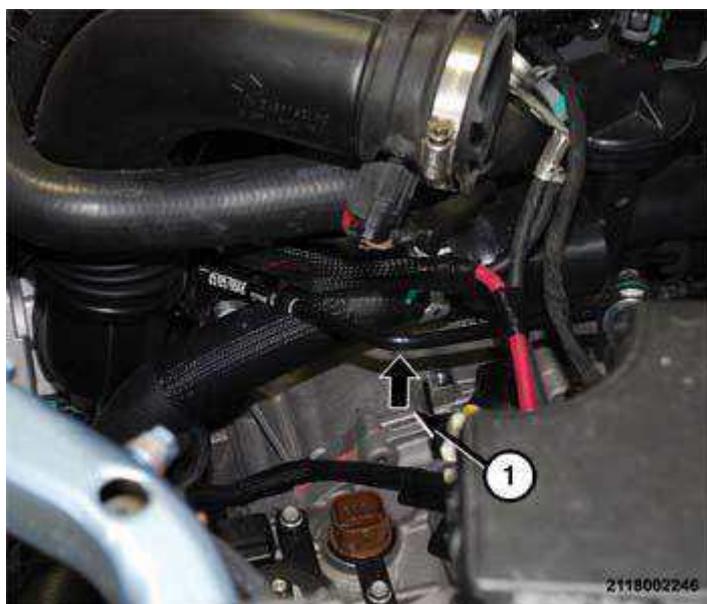


Fig. 32: Ground Cable & Transaxle Bellhousing Bolt
Courtesy of CHRYSLER GROUP, LLC

23. Remove the hidden bolt (1) holding the ground cable and transaxle bellhousing to the engine block from under the engine coolant tubes.



Fig. 33: Starter Motor Bolts
Courtesy of CHRYSLER GROUP, LLC

24. Remove the hidden bolts (1, 2) holding the starter motor to the engine block and bellhousing.

NOTE: The starter will stay in place after the transaxle is removed.

25. Remove the Maniverter. Refer to 2.0L MANIFOLD, EXHAUST, REMOVAL , 2.2L MANIFOLD, EXHAUST, REMOVAL or 2.4L MANIFOLD, EXHAUST, REMOVAL .
26. Position a suitable floor jack under the left (driver) side of the transaxle to add support.
27. Lift jack enough the support the transaxle but not raise it.

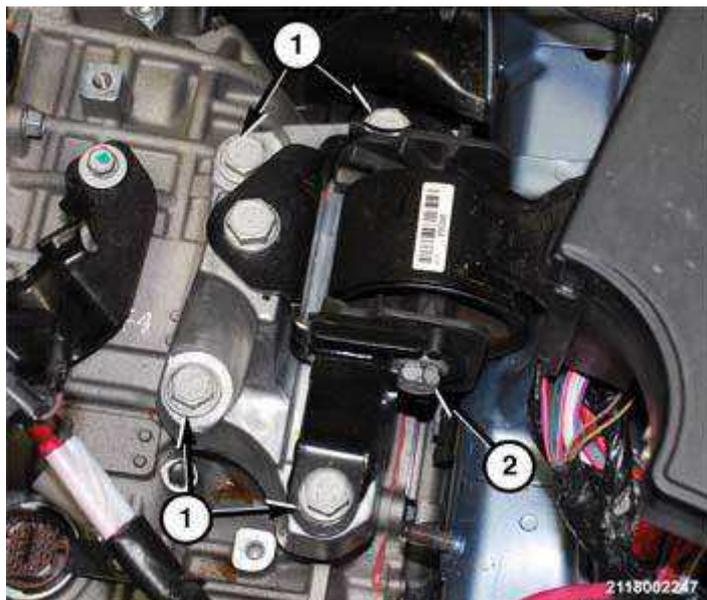


Fig. 34: Transaxle Mount Bolts
 Courtesy of CHRYSLER GROUP, LLC

28. Remove the through bolt (2) holding the transaxle mount rubber isolator to the frame rail bracket.
29. Remove the bolts (1) holding the transaxle mount to the transaxle.
30. Lower the transaxle to gain clearance for the transaxle mount.
31. Separate the transaxle mount from the vehicle.

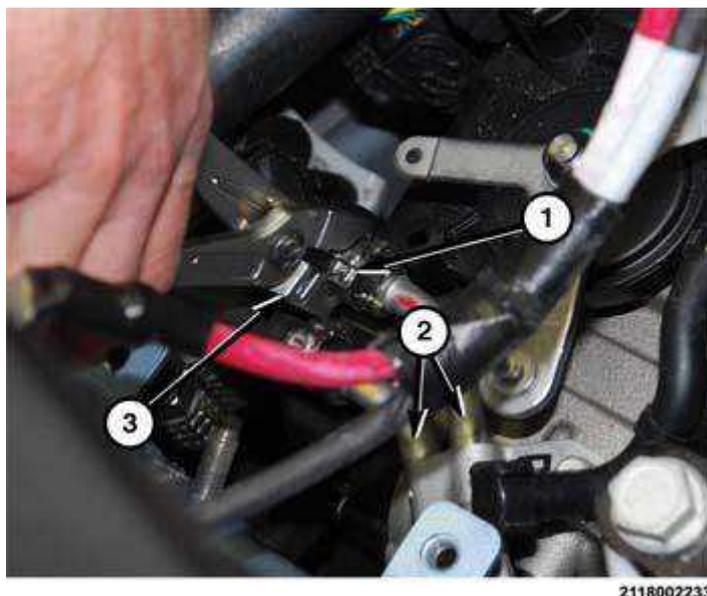


Fig. 35: Transaxle Cooler Hose Clamps
 Courtesy of CHRYSLER GROUP, LLC

32. Using a suitable clamp pliers (3), release the clamps (1) holding the

transaxle cooler hoses to the tubes (2) on the transaxle.

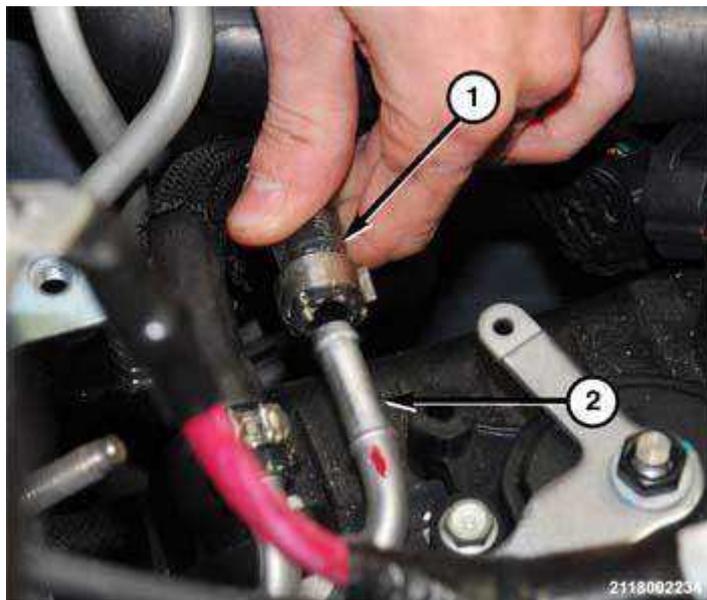


Fig. 36: Cooler Tubes & Hoses
Courtesy of CHRYSLER GROUP, LLC

CAUTION: Do not bend or crush the transaxle cooler tubes when removing the cooler hoses. If the tubes become damaged, they must be replaced.

33. Using suitable hose/spark plug wire pliers, separate the hoses (1) from the cooler tubes (2) on the transaxle.
34. Raise the vehicle.
35. Remove the belly pan. Refer to **BELLY PAN, REMOVAL** .
36. Place a suitable drain pan under the transaxle to catch fluid that may leak when the halfshafts are removed.
37. Remove the left and right halfshafts. Refer to **REMOVAL** .

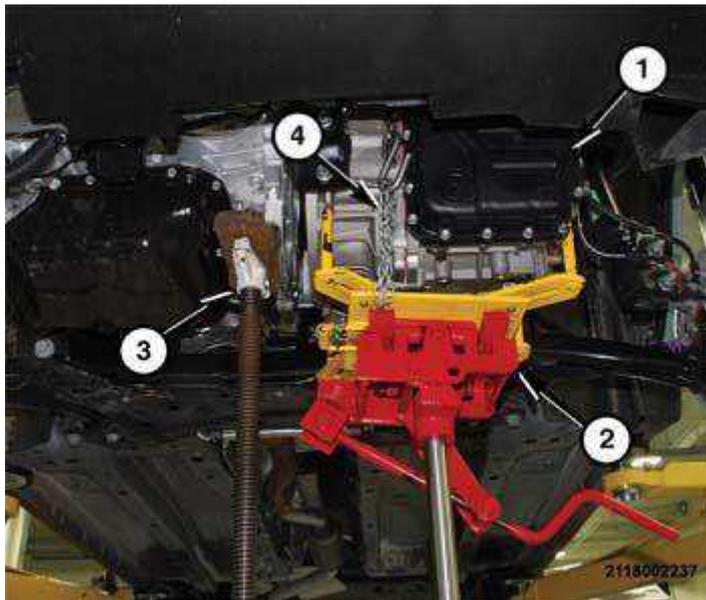


Fig. 37: Supporting Engine
 Courtesy of CHRYSLER GROUP, LLC

38. Position a suitable high-stand (3) under the engine for support when the front-to-rear support member is removed.

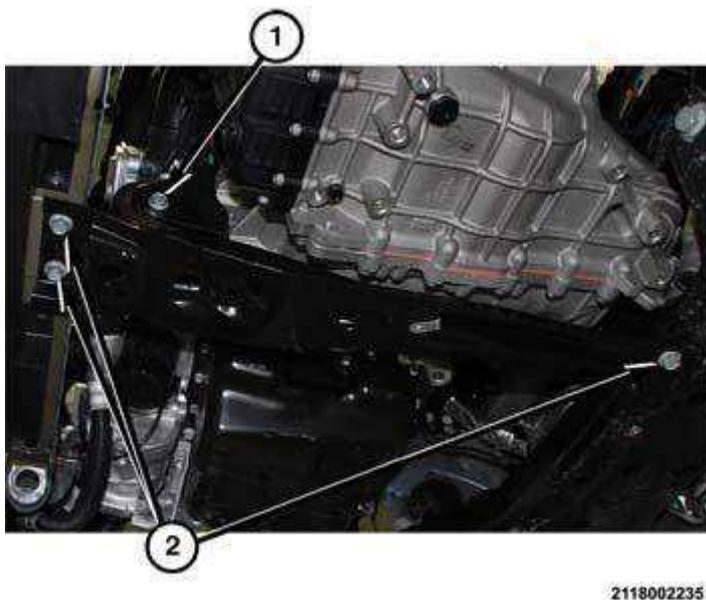


Fig. 38: Front-To-Rear Support
 Courtesy of CHRYSLER GROUP, LLC

39. Remove the trough bolt (1) holding the front-to-rear support rubber isolator to the front crossmember.
40. Remove the bolts (2) holding the front-to-rear support to the front and rear crossmembers.

41. Separate the front-to-rear support from the vehicle.
42. Remove the power transfer unit (PTU). Refer to **REMOVAL** .

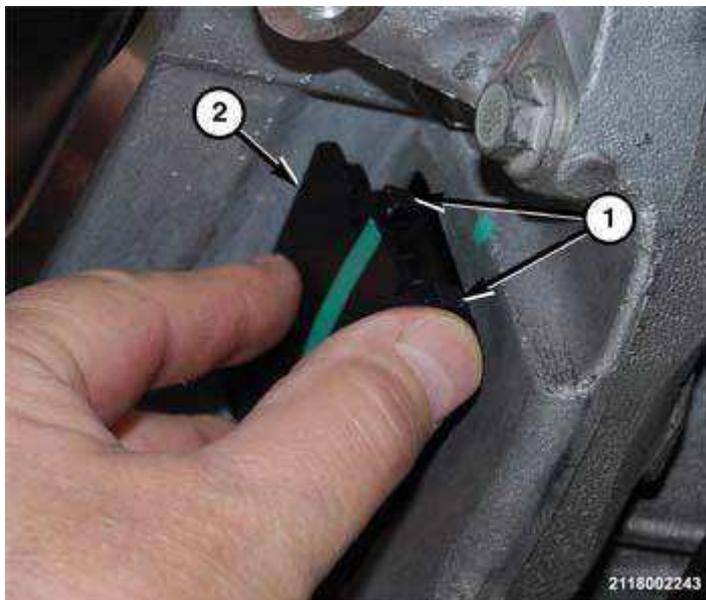


Fig. 39: Torque Converter Bolt Access Plug
 Courtesy of CHRYSLER GROUP, LLC

43. Using a flat blade screw driver to release the locks (1), remove the torque converter bolt access plug (2) from the bellhousing cover.



Fig. 40: Torque Converter Bolt
 Courtesy of CHRYSLER GROUP, LLC

44. Remove the bolts (2) holding the flex plate to the torque converter.

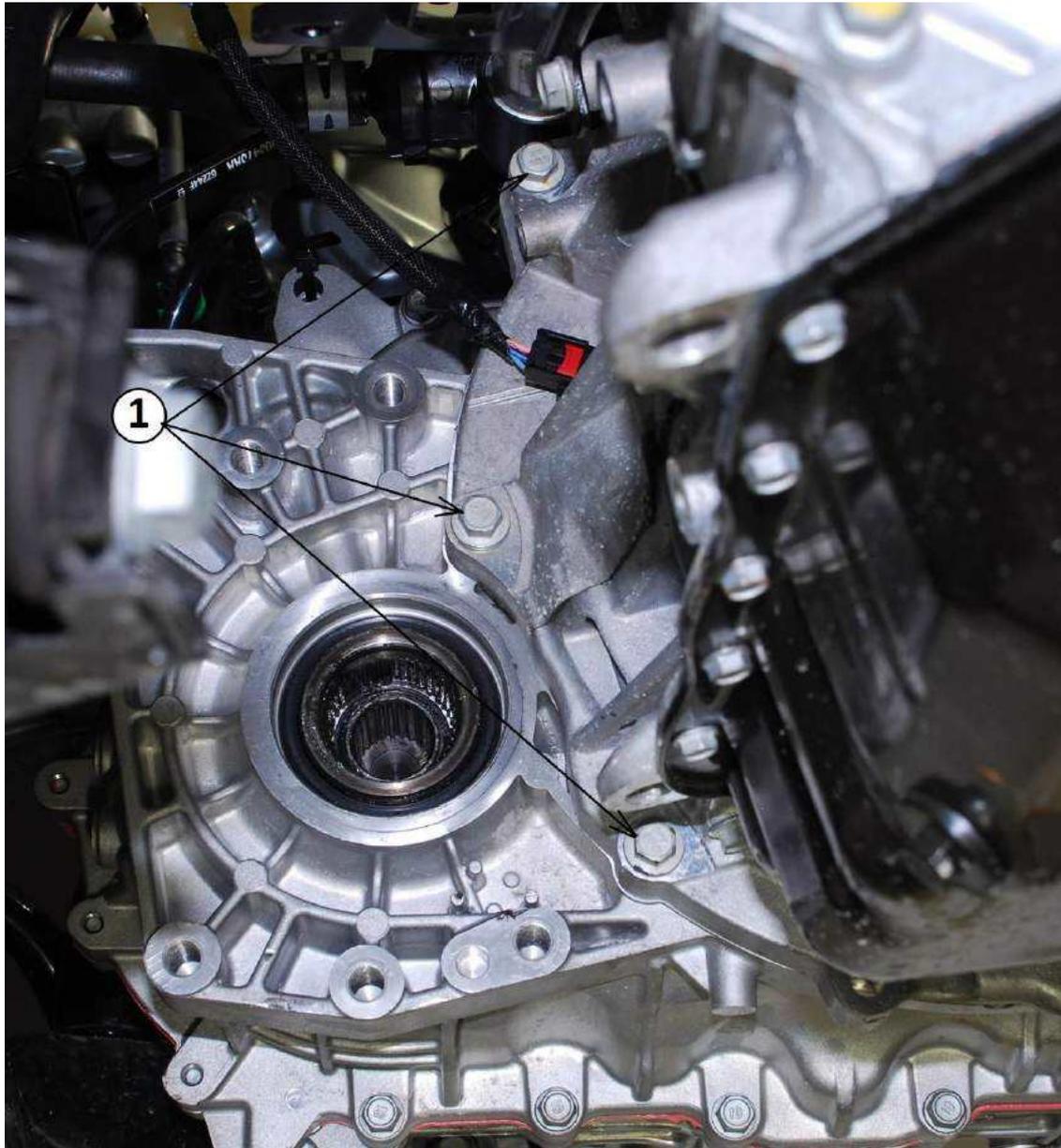


Fig. 41: Bellhousing Bolts
Courtesy of CHRYSLER GROUP, LLC

45. Remove the bolts (1) holding the engine block to the bellhousing at the back of the engine.

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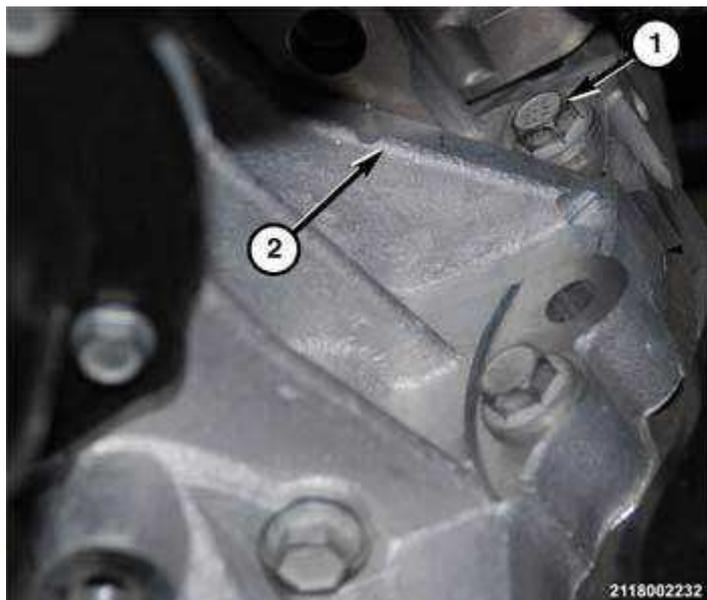


Fig. 42: Bellhousing Bolt
Courtesy of CHRYSLER GROUP, LLC

46. Remove the bolt (1) holding the engine block (2) to the bellhousing next to the starter motor.

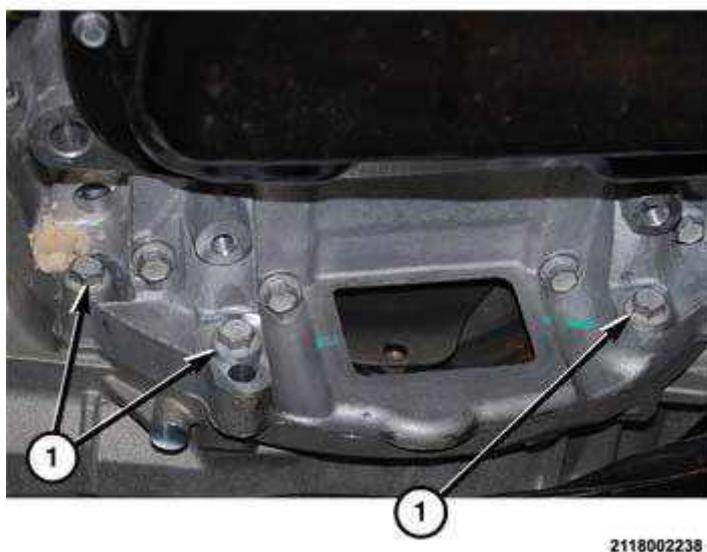


Fig. 43: Bellhousing Bolts
Courtesy of CHRYSLER GROUP, LLC

47. Remove the bolts (1) holding the lower engine adapter to the bellhousing.

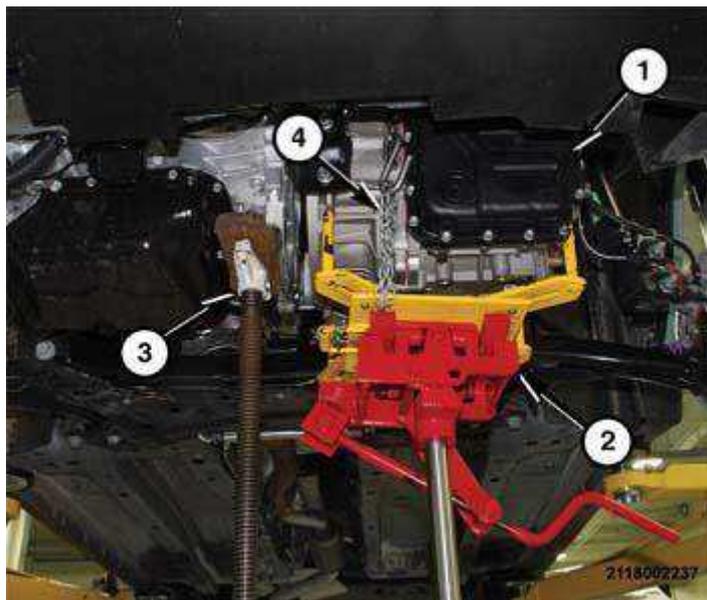


Fig. 44: Supporting Engine
 Courtesy of CHRYSLER GROUP, LLC

48. Position a suitable transmission jack (2) under the transaxle so the weight is evenly distributed across the jack cradle (2).
49. Install a safety chine (4) to hold the transaxle (1) to the jack cradle.
50. Lift the transaxle (1) so not all of the weight is bearing on the high-stand (3).

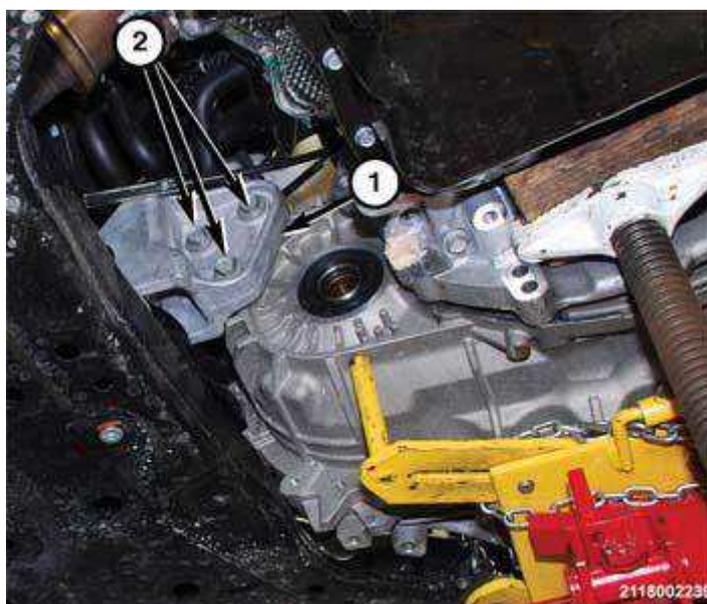


Fig. 45: Rear Transaxle Mount
 Courtesy of CHRYSLER GROUP, LLC

51. Remove the bolts (2) holding the rear transaxle mount (1) to the back of the transaxle (typical).

52. Remove the remaining bolts (1) holding the engine block to the bellhousing.



Fig. 46: Bellhousing & Engine Block
Courtesy of CHRYSLER GROUP, LLC

53. Separate the bellhousing (1) from the engine block (2).
54. While guiding the transaxle past obstacles, lower the transaxle downward until the transaxle is clear of the vehicle.

DISASSEMBLY

FWD

NOTE: If the transaxle has not been drained before removal, fluid will spill from the valve body pan as it is removed.

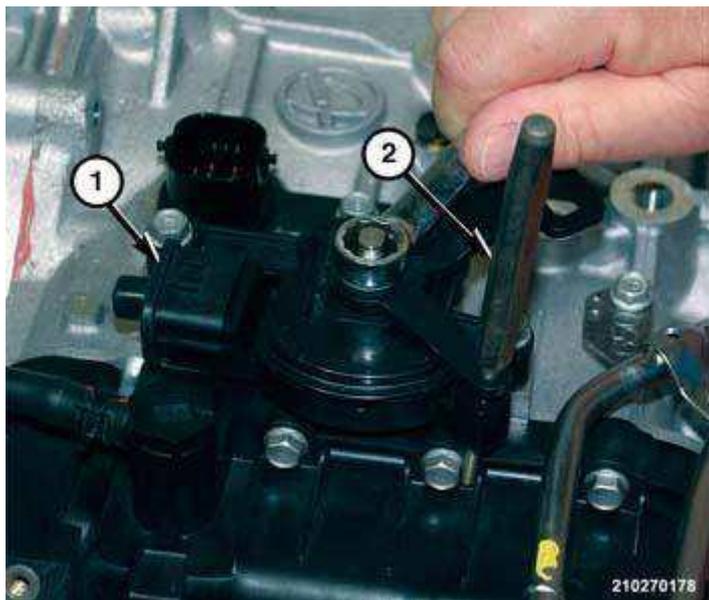


Fig. 47: Pin Punch, Manual Lever & Transmission Range Sensor
Courtesy of CHRYSLER GROUP, LLC

1. Insert a suitable pin punch (2) or equivalent through the manual lever into the TRS switch (1) to hold lever in place.
2. Remove nut holding the manual lever to the manual shaft.



Fig. 48: Manual Lever & Manual Shaft
Courtesy of CHRYSLER GROUP, LLC

3. Separate the manual level (1) from the manual shaft.



Fig. 49: Transmission Range Sensor
Courtesy of CHRYSLER GROUP, LLC

4. Remove bolts holding the TRS (1) to the transaxle housing.

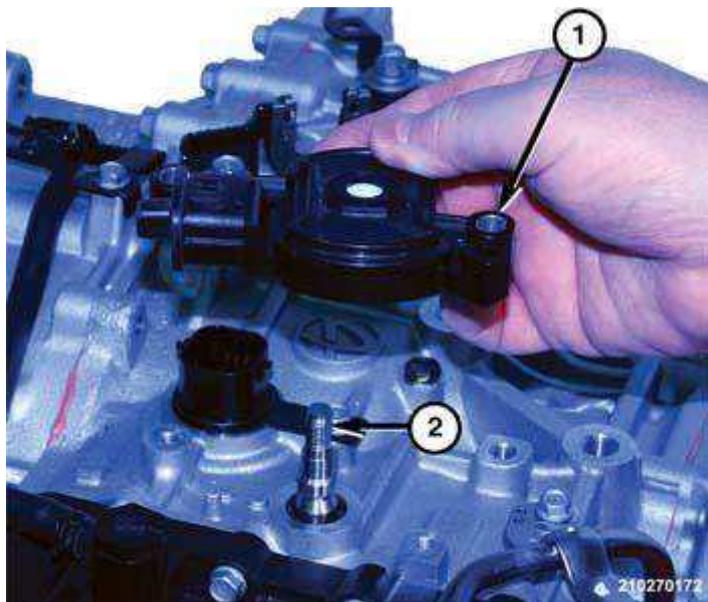


Fig. 50: Transmission Range Sensor Separated From Transaxle
Courtesy of CHRYSLER GROUP, LLC

5. Separate the TRS (1) from the transaxle.



Fig. 51: Vent Hose, Spring Clamp & Pliers
Courtesy of CHRYSLER GROUP, LLC

6. Using common pliers (3), compress the hose spring clamp (2) and slide it down the vent hose (1) away from the nipple adaptor.

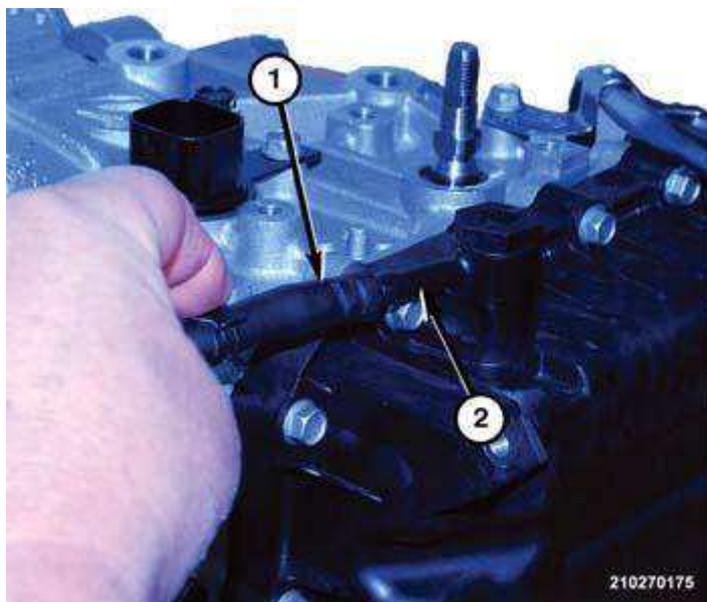


Fig. 52: Vent Hose End & Nipple Adapter
Courtesy of CHRYSLER GROUP, LLC

7. Pull the vent hose end (1) off of the nipple adaptor (2).

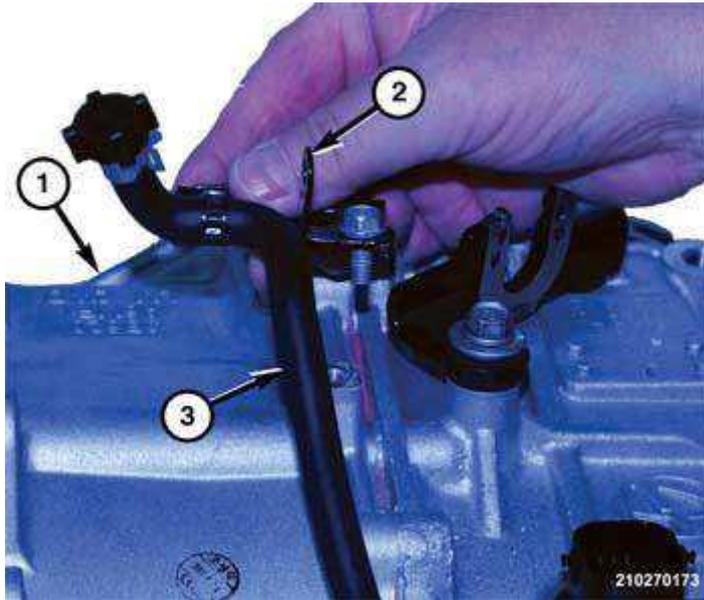


Fig. 53: Vent Tube Bracket & Bolt
Courtesy of CHRYSLER GROUP, LLC

8. Remove bolt holding the vent tube bracket (2) to the transaxle housing.
9. Separate the vent tube (3) from the transaxle (1).

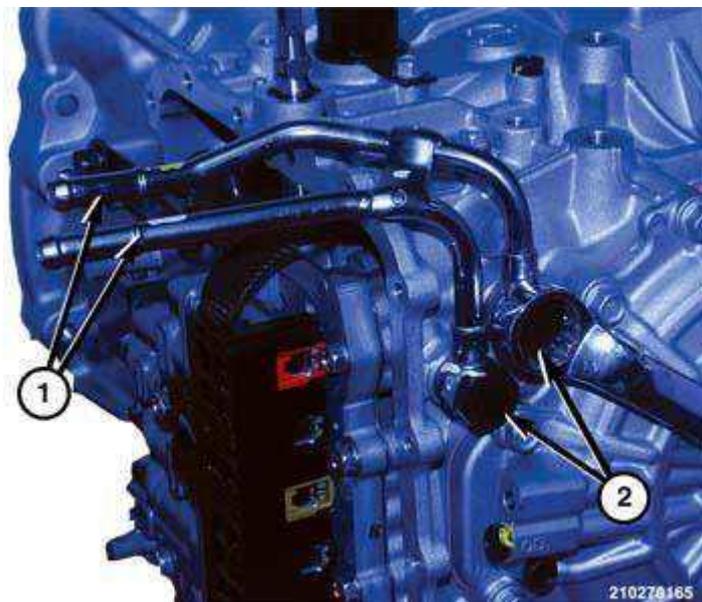


Fig. 54: Cooler Tubes & Banjo Bolts
Courtesy of CHRYSLER GROUP, LLC

10. Remove banjo bolts (2) holding the cooler tubes (1) to the transaxle.

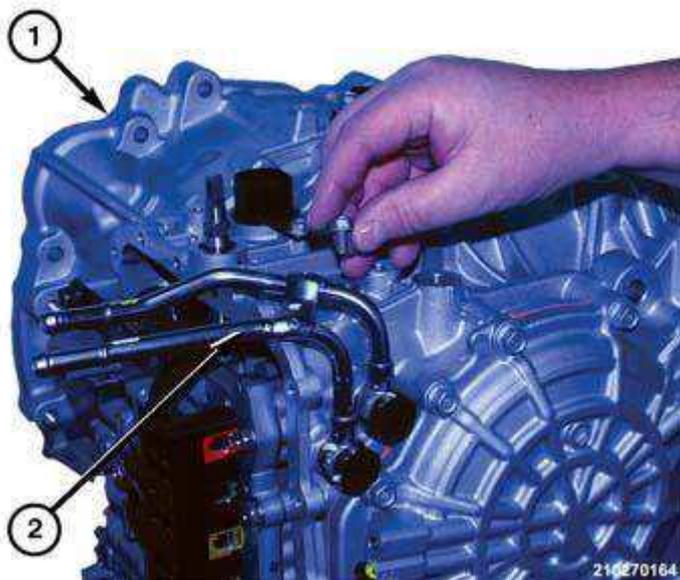


Fig. 55: Cooler Tubes & Transaxle
Courtesy of CHRYSLER GROUP, LLC

11. Remove bolt holding the cooler tube (2) bracket to the transaxle (1).
12. Separate the cooler tubes from the transaxle.

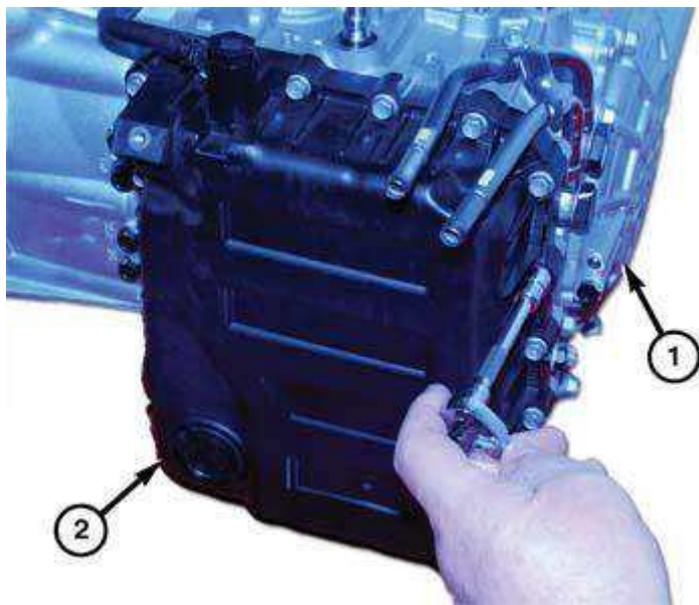


Fig. 56: Valve Body Cover
Courtesy of CHRYSLER GROUP, LLC

13. Position the transaxle over a suitable drain pan.
14. Remove bolts holding the valve body cover (2) to the transaxle (1).



Fig. 57: Valve Body Cover Separated From Transaxle
Courtesy of CHRYSLER GROUP, LLC

15. Separate the cover (1) from the transaxle (2).

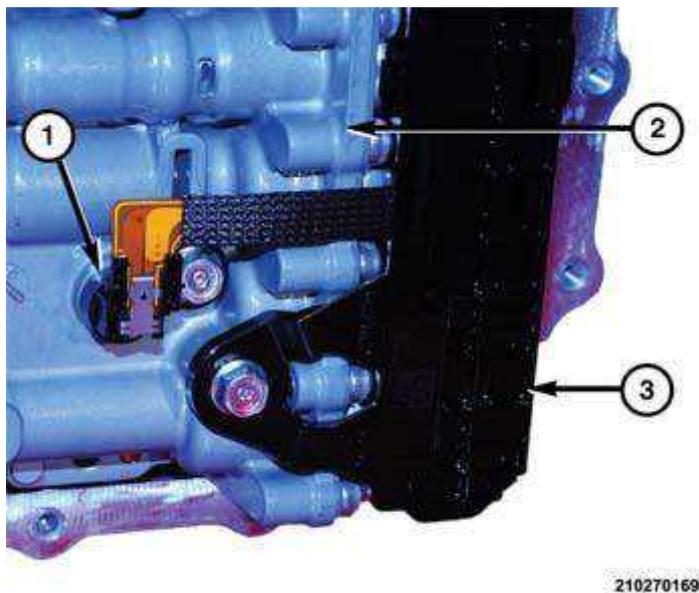


Fig. 58: Fluid Temperature Sensor, Valve Body & Bolt
Courtesy of CHRYSLER GROUP, LLC

16. Remove bolt holding fluid temperature sensor (1) to the valve body (2).
17. Pull temperature sensor (1) straight out of the port in the valve body (2).

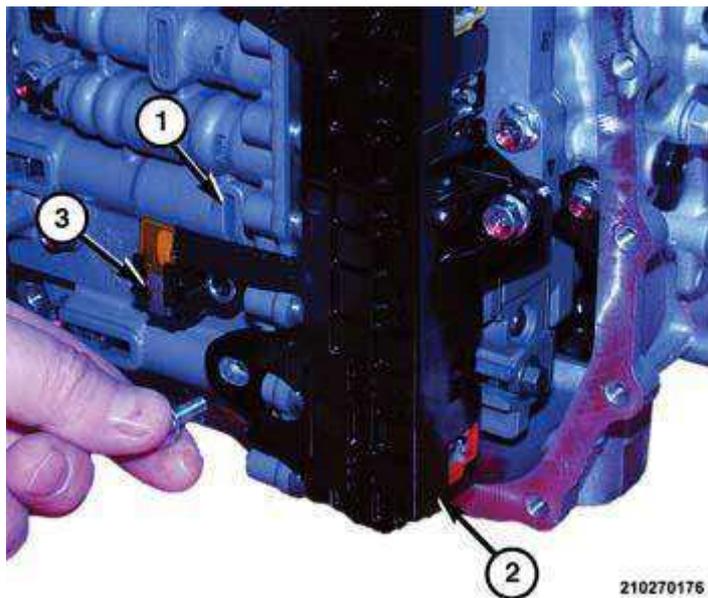


Fig. 59: Solenoid Valve Connector, Valve Body & Bolts
 Courtesy of CHRYSLER GROUP, LLC

18. Remove bolts holding the solenoid valve connector (2) to the valve body (1).

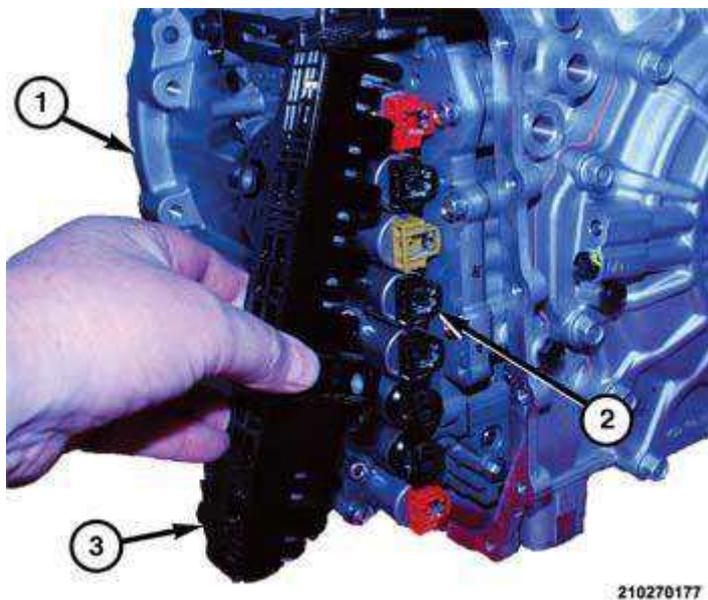


Fig. 60: Solenoids & Connector
 Courtesy of CHRYSLER GROUP, LLC

19. Starting at the bottom solenoid valve, using a suitable prying tool, pry outward at each solenoid (2) until the connector (3) is disengaged.

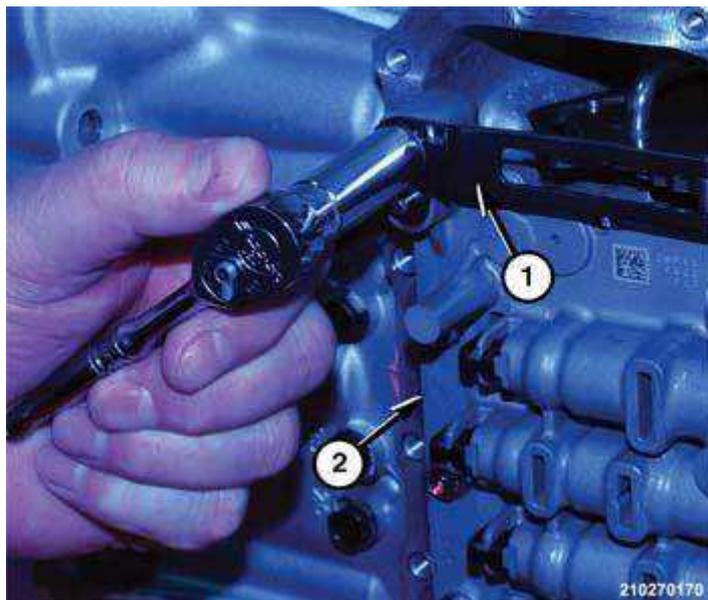


Fig. 61: Manual Shaft Detent Spring & Valve Body
Courtesy of CHRYSLER GROUP, LLC

20. Remove the screw holding the manual shaft detent spring (1) to the valve body (2).

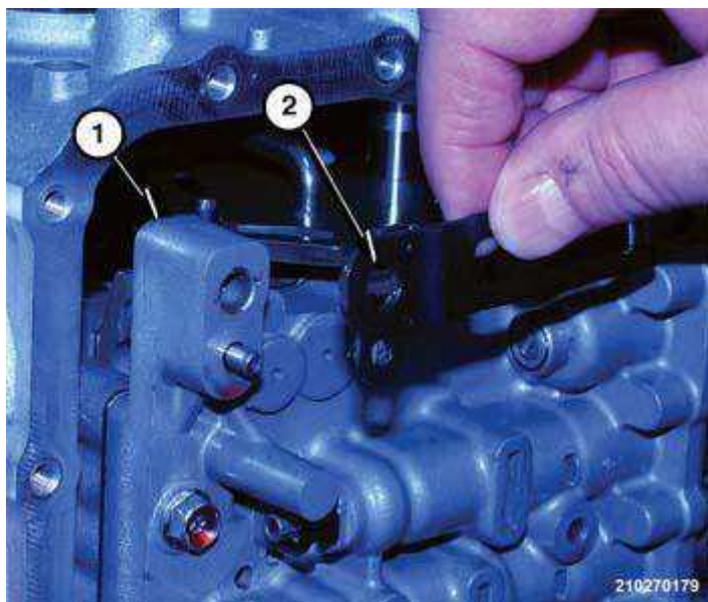


Fig. 62: Detent Spring Separated From Valve Body
Courtesy of CHRYSLER GROUP, LLC

21. Separate the detent spring (2) from the valve body (1).

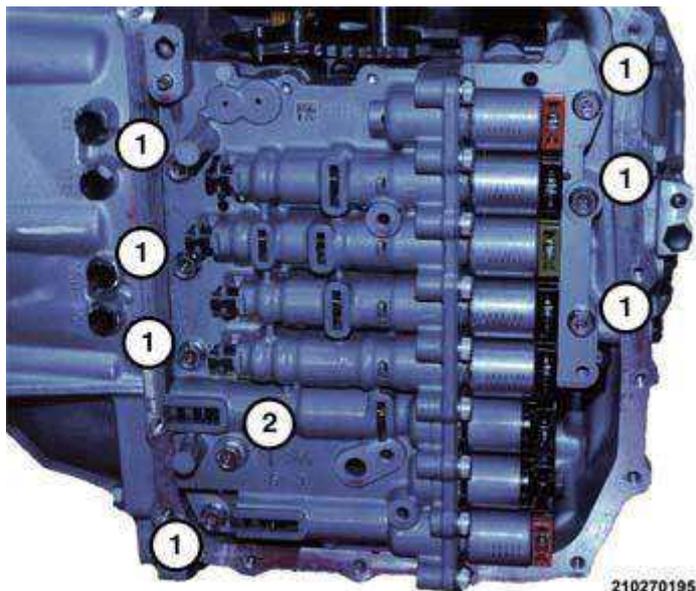


Fig. 63: Valve Body Bolts
 Courtesy of CHRYSLER GROUP, LLC

22. Remove bolts, 7 short (1) and 1 long (2) bolts, holding the valve body to the transaxle.

The manual valve is loose after the valve body is removed and may fall out during removal.

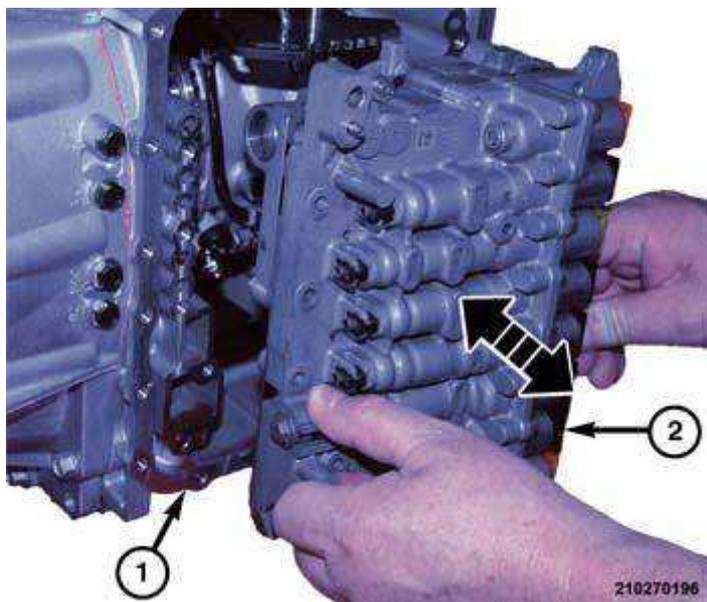


Fig. 64: Valve Body Separated From Transaxle
 Courtesy of CHRYSLER GROUP, LLC

23. Separate the valve body (2) from the transaxle (1).

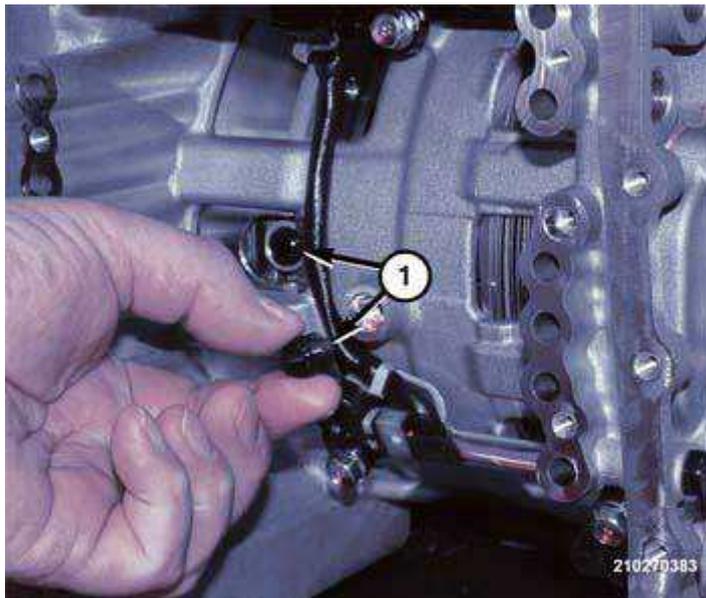


Fig. 65: Transfer Port Seals
Courtesy of CHRYSLER GROUP, LLC

24. Remove the two seals from the transfer ports in transaxle housing.

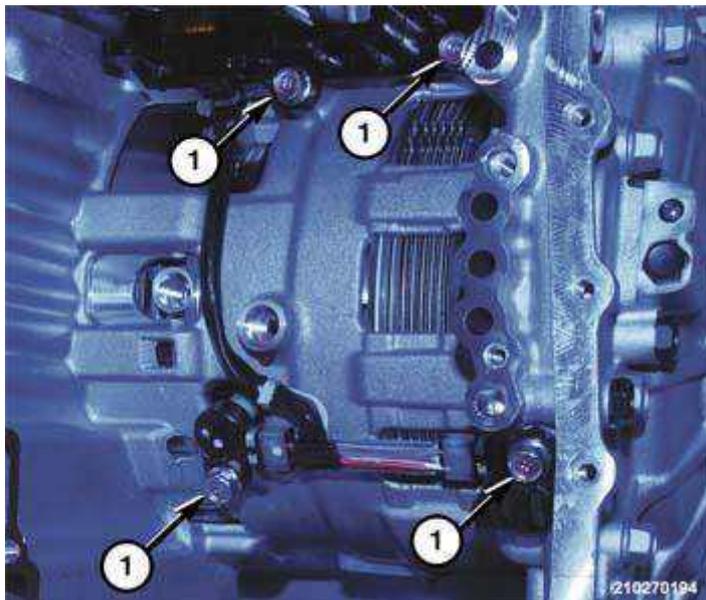


Fig. 66: Speed Sensors, Main Wire Harness & Bolts
Courtesy of CHRYSLER GROUP, LLC

25. Remove bolts (1) holding the speed sensors and main wire harness to transaxle.
26. Separate the speed sensors and main wire harness from the transaxle.

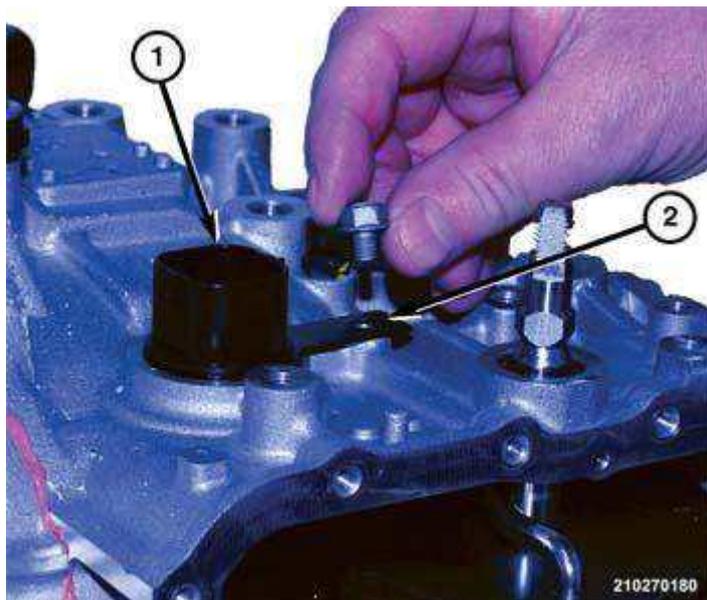


Fig. 67: Hold Down Bracket, Wire Connector & Bolts
Courtesy of CHRYSLER GROUP, LLC

27. Remove bolt holding the wire connector (1) hold down bracket (2) to the top of transaxle housing.

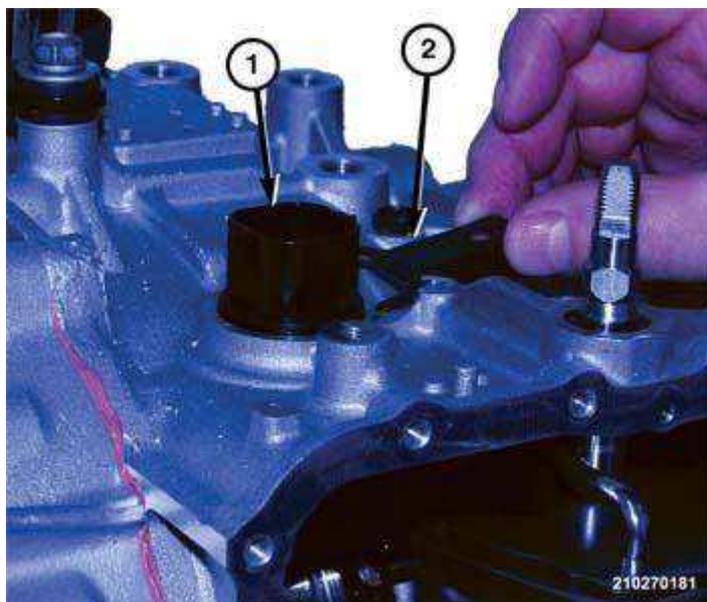


Fig. 68: Wire Connector & Hold Down Bracket Separated From Transaxle
Courtesy of CHRYSLER GROUP, LLC

28. Separate the wire connector (1) hold down bracket (2) from the transaxle.

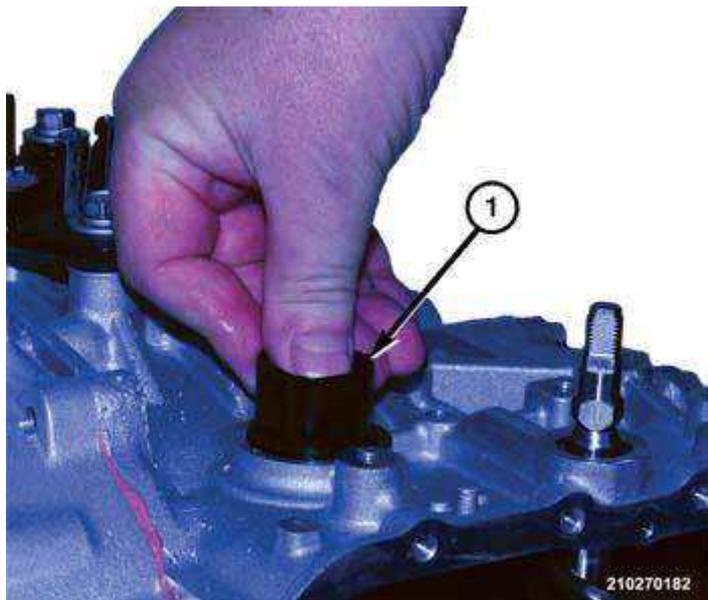


Fig. 69: Pushing Wire Connector Into Housing
Courtesy of CHRYSLER GROUP, LLC

29. Push the wire connector (1) inward to the inside of the transaxle housing.

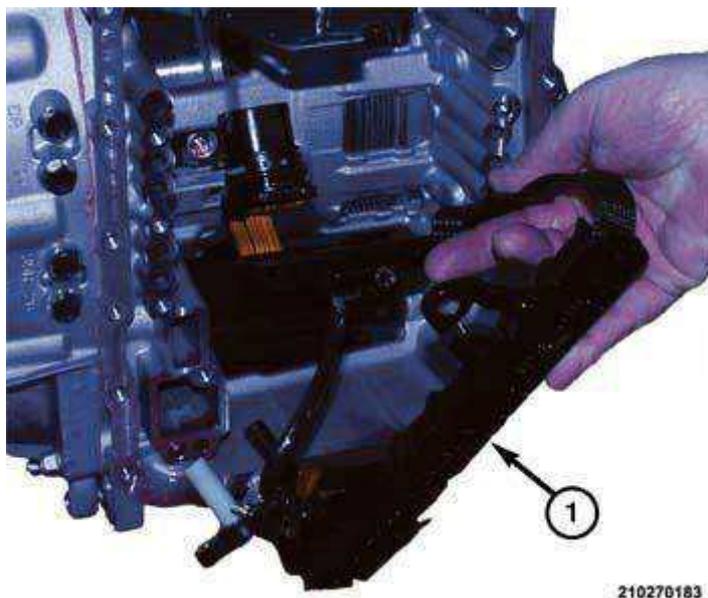


Fig. 70: Main Wire Harness & Sensors
Courtesy of CHRYSLER GROUP, LLC

30. Separate the main wire harness and sensors (1) from the transaxle.

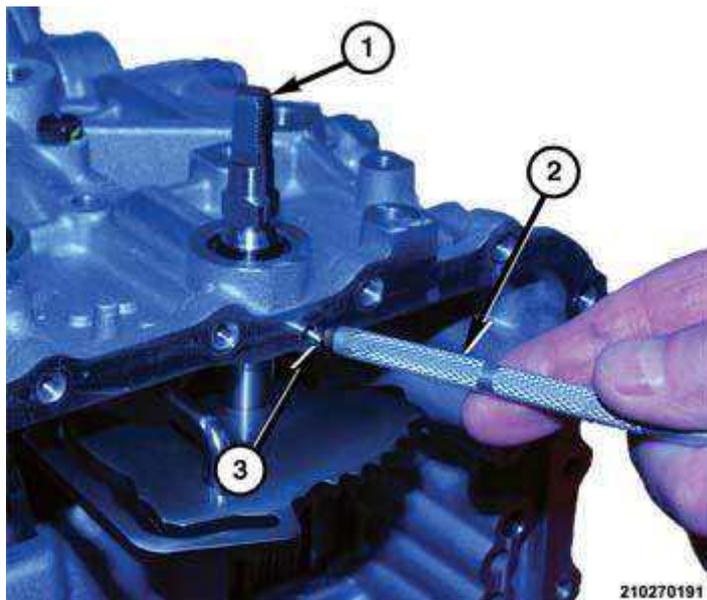


Fig. 71: Manual Shaft, Pin & Magnet
Courtesy of CHRYSLER GROUP, LLC

31. Using a suitable magnet (2), remove the pin (3) holding the manual shaft (1) in the transaxle from the hole in the pan gasket flange.

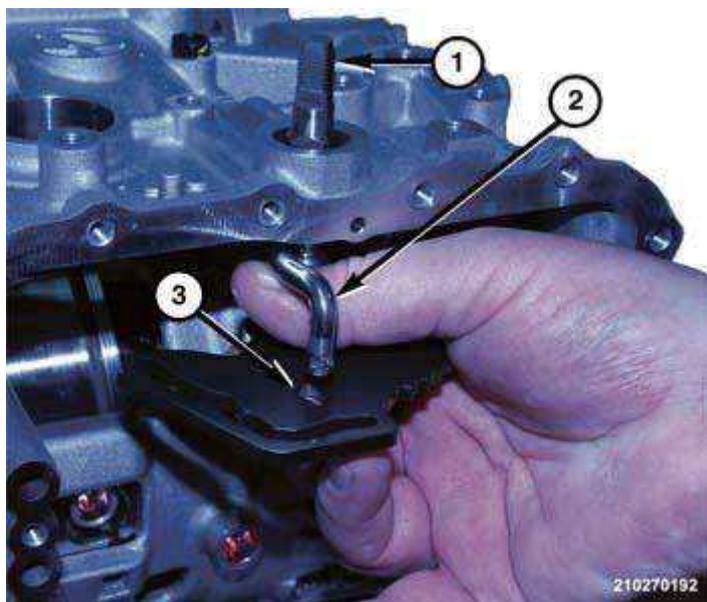


Fig. 72: Manual Shaft, Park Rod & Key Hole Slot
Courtesy of CHRYSLER GROUP, LLC

32. Rotate manual shaft (1) counterclockwise to align the staked nub on the park rod (2) with the key hole slot (3) in the manual shaft detent comb.
33. Push manual shaft (1) downward until park rod (2) disengages from the detent comb.

34. Push the manual shaft (1) inward to the inside of the transaxle.
35. Separate the manual shaft (1) from the transaxle.

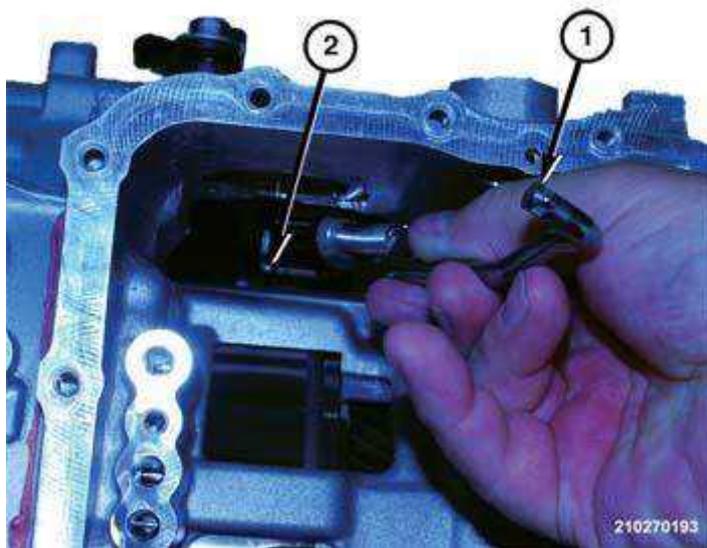
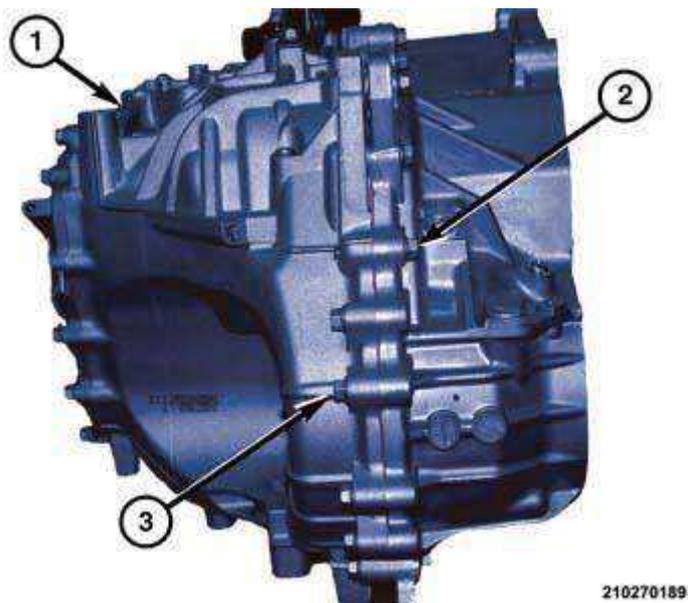


Fig. 73: Park Rod & Park Rod Guide
 Courtesy of CHRYSLER GROUP, LLC

36. Disengage the park rod (1) from the park rod guide (2) in the transaxle housing.
37. Separate the park rod (1) from the transaxle.
38. Using a suitable tool, remove the lip seal from the manual shaft hole in the transaxle housing.



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Fig. 74: Transaxle Housing & Bolts
Courtesy of CHRYSLER GROUP, LLC

39. Remove five bolts from the back (3) and five bolts from the top (2) of the transaxle housing (1).

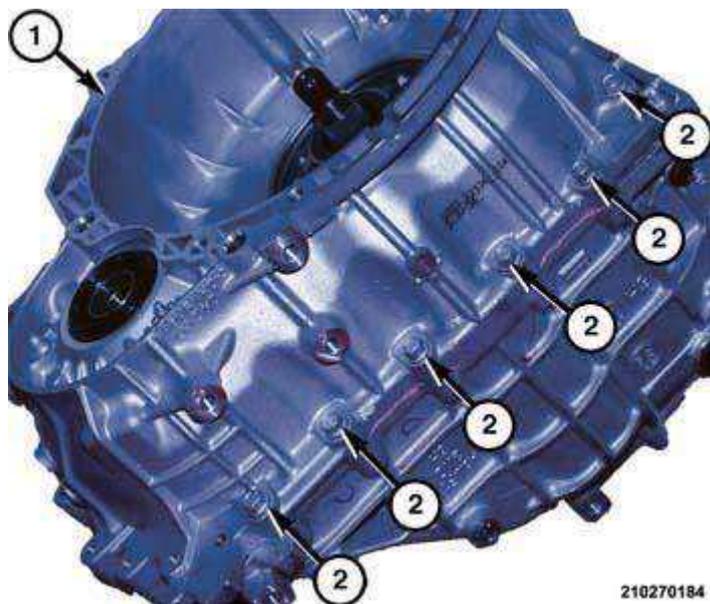


Fig. 75: Transaxle Housing & Bottom Bolts
Courtesy of CHRYSLER GROUP, LLC

40. Remove six bolts from the bottom (2) of the transaxle housing (1).



Fig. 76: Inside Bell Housing Bolts
Courtesy of CHRYSLER GROUP, LLC

41. Remove five bolts (1) from inside bell housing (2).

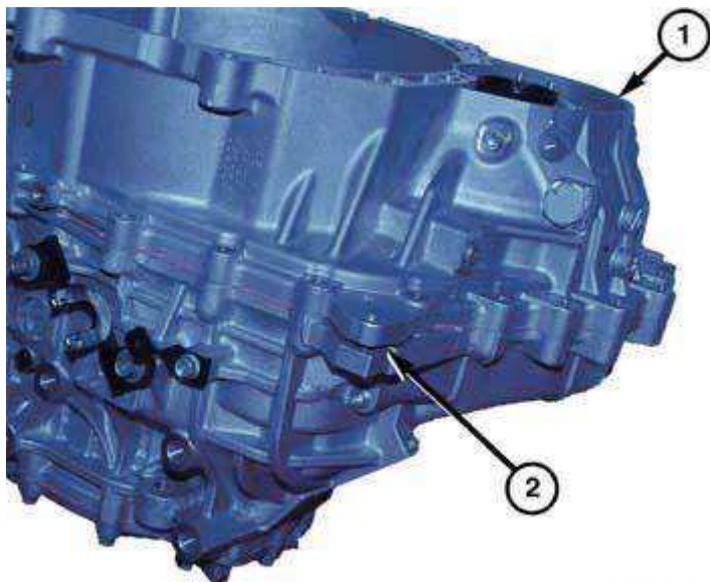


Fig. 77: Notch Locations At Top Of Case For Prying Case Halves Apart
Courtesy of CHRYSLER GROUP, LLC

42. Using a suitable pry bar, pry the case halves apart in notch (2) location on top of the housing (1).

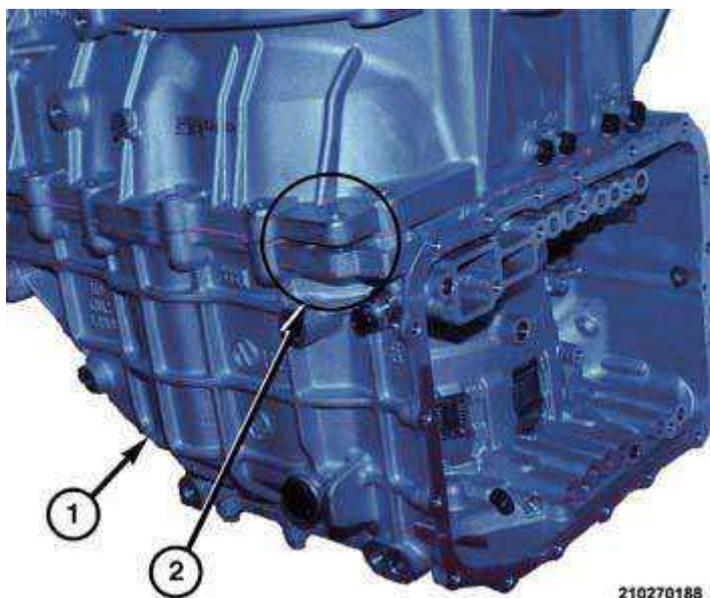


Fig. 78: Notch Locations At Bottom Of Case For Prying Case Halves Apart
Courtesy of CHRYSLER GROUP, LLC

43. Pry the case halves apart in notch location (2) on the bottom of the housing

(1).



Fig. 79: Bell Housing Separated From Transaxle
Courtesy of CHRYSLER GROUP, LLC

44. Separate the bell housing (1) from the transaxle (2).
45. Remove bolts holding the fluid guide to the transaxle housing.
46. Separate the fluid guide from the transaxle.
47. Remove bolts holding the lubrication tube to the transaxle.
48. Separate the lubrication tube from the transaxle.

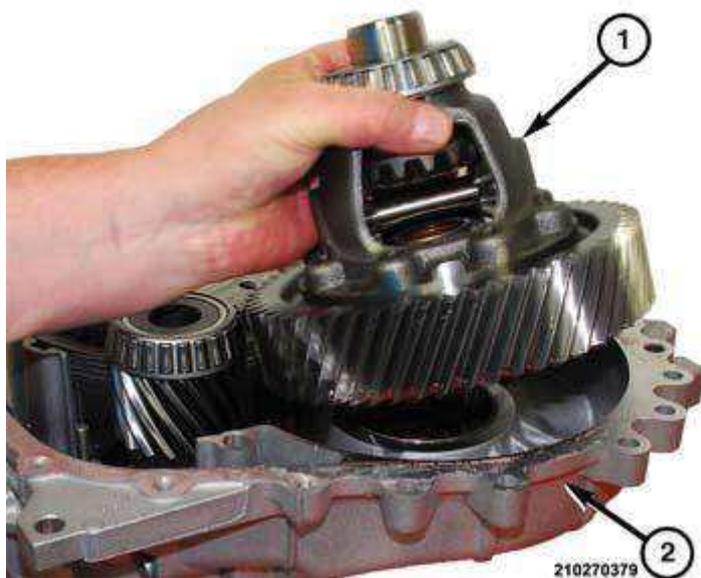


Fig. 80: Differential Assembly Separated From Transaxle Housing

Courtesy of CHRYSLER GROUP, LLC

49. Separate the differential assembly (1) from the transaxle housing (2).

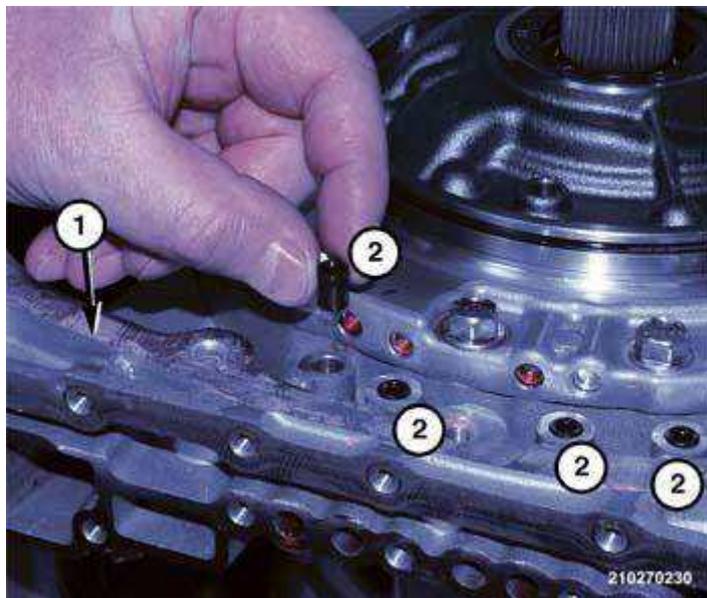


Fig. 81: Small Transfer Port Seals
Courtesy of CHRYSLER GROUP, LLC

50. Remove seals from four small transfer ports (2) in the transaxle housing (1).

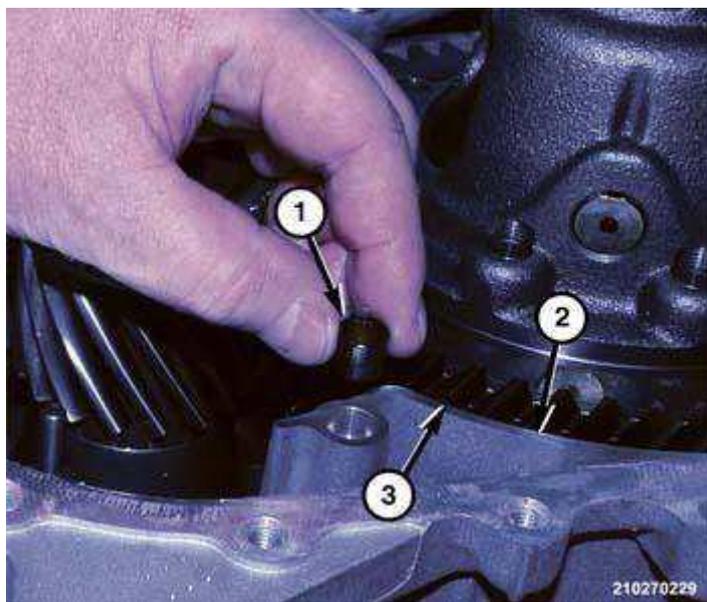


Fig. 82: Large Transfer Port Seal
Courtesy of CHRYSLER GROUP, LLC

51. Remove seal from the large transfer port (1) in the axle housing (2).

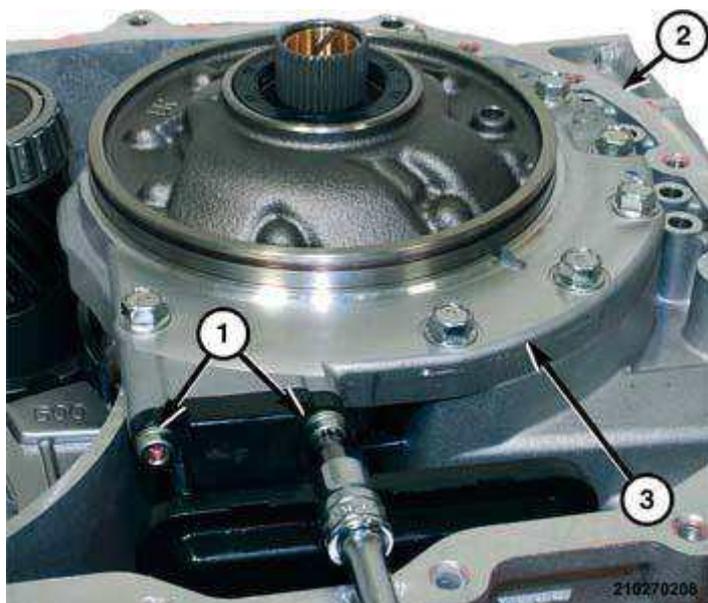


Fig. 83: Fluid Filter, Fluid Pump & Bolts
Courtesy of CHRYSLER GROUP, LLC

52. Remove bolts (1) holding the fluid filter to the fluid pump (3) housing.

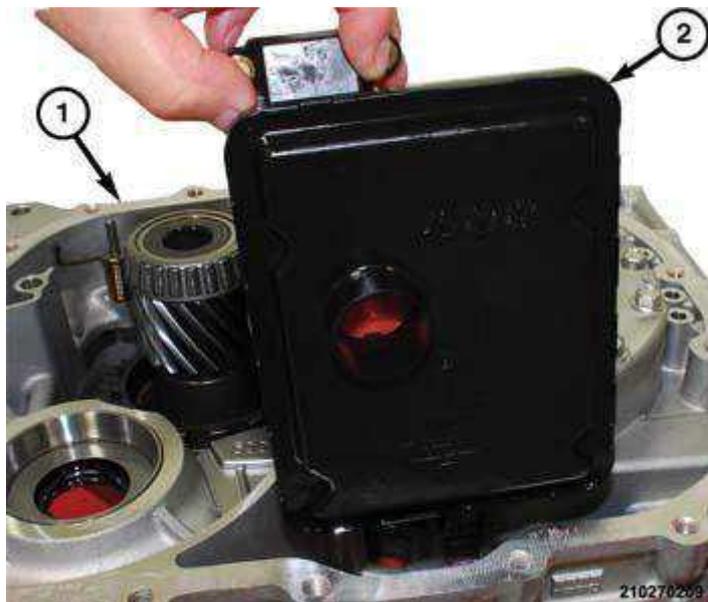


Fig. 84: Fluid Filter Separated From Transaxle Housing
Courtesy of CHRYSLER GROUP, LLC

53. Separate the fluid filter (2) from the transaxle housing (1).

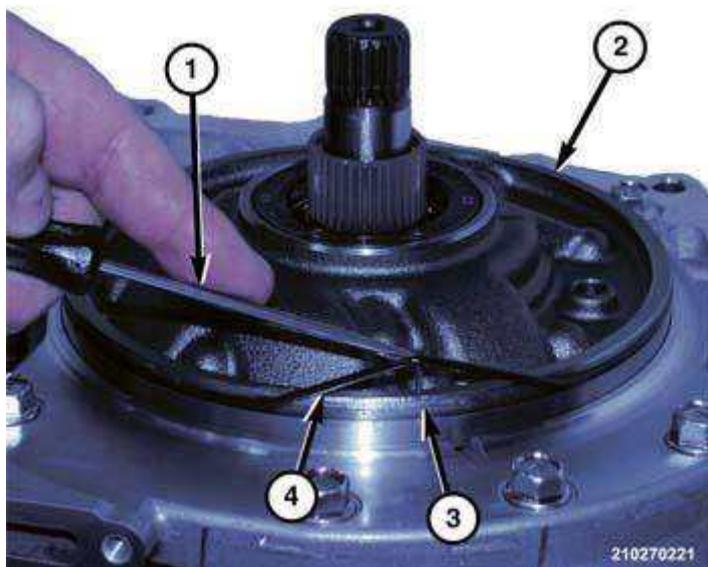


Fig. 85: Fluid Pump Housing O-Ring Seal & Hook Tool
Courtesy of CHRYSLER GROUP, LLC

54. Using a suitable hook tool (1), remove o-ring seal (4) from the groove (3) in the fluid pump housing (3).

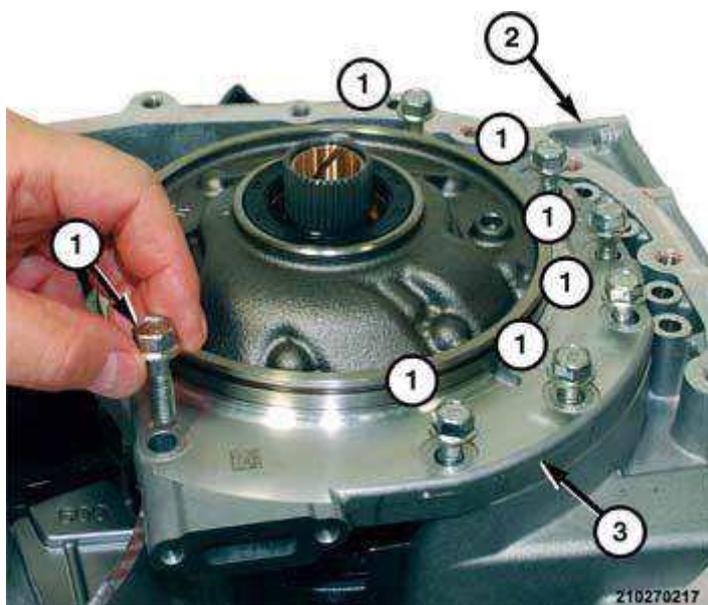


Fig. 86: Fluid Pump & Bolts
Courtesy of CHRYSLER GROUP, LLC

55. Remove bolts (1) holding fluid pump (3) to the trans axle housing (2).

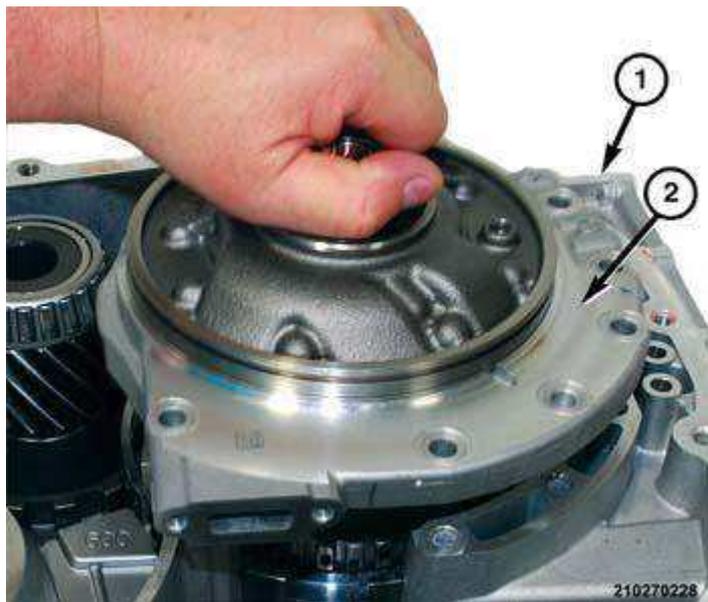


Fig. 87: Fluid Pump Separated From Transaxle Housing
Courtesy of CHRYSLER GROUP, LLC

56. Separate the fluid pump (2) from the transaxle housing (1).

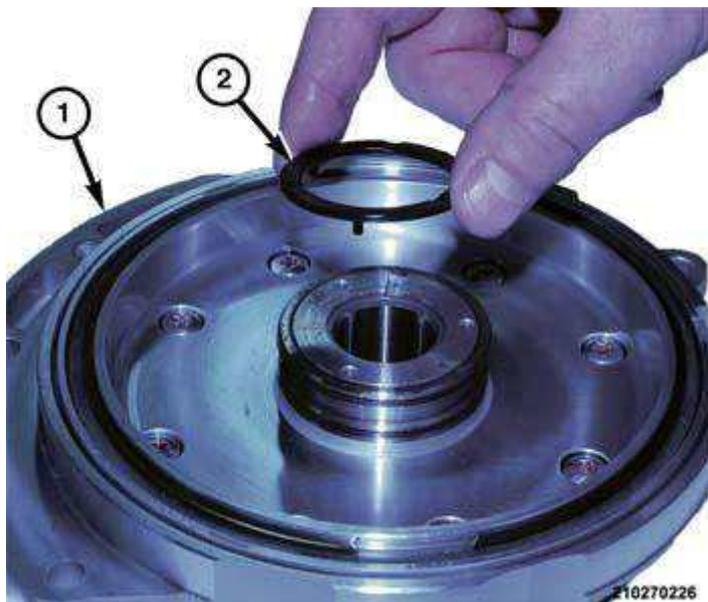


Fig. 88: Thrust Washer & Fluid Pump
Courtesy of CHRYSLER GROUP, LLC

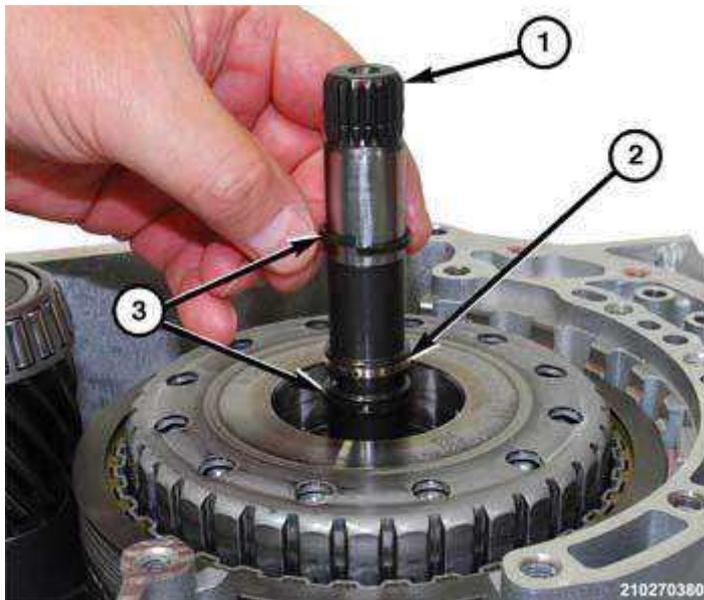
57. Remove the plastic thrust washer (2) from the underside of the fluid pump (1). There are three nubs that insert into holes in the fluid pump hub to prevent the thrust washer from rotating.



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Fig. 89: Split Seal Rings & Fluid Pump Hub
Courtesy of CHRYSLER GROUP, LLC

58. Remove two split seal rings (3) from land-grooves (2) in fluid pump (1) hub.



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Fig. 90: Split Ring Seals & Input Shaft
Courtesy of CHRYSLER GROUP, LLC

59. Remove two split ring seals (2) from the input shaft (1).

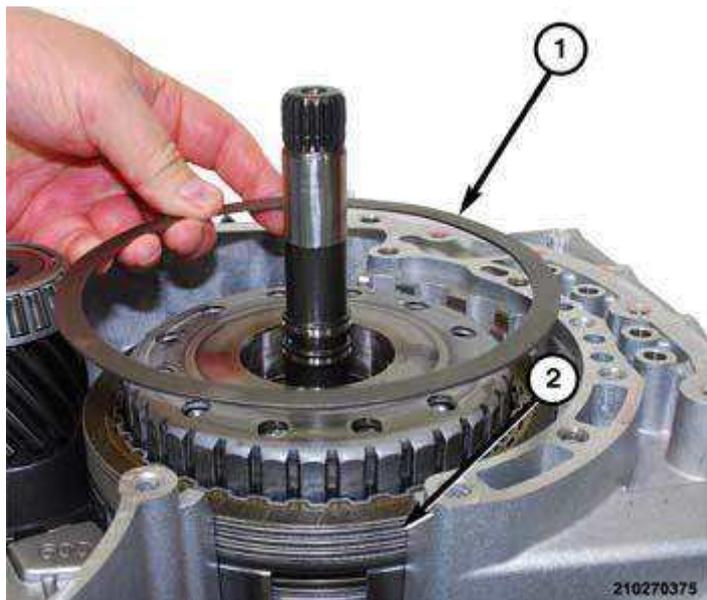


Fig. 91: 2/6 Brake Wave Plate & Hub
Courtesy of CHRYSLER GROUP, LLC

60. Remove 2/6 brake wave plate (1) from 2/6 brake hub.

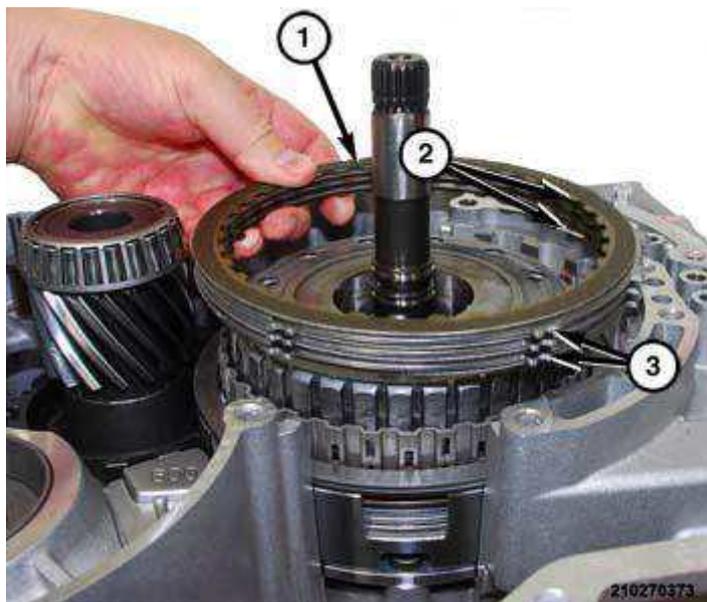


Fig. 92: 2/6 Brake Plates, Discs & Hub
Courtesy of CHRYSLER GROUP, LLC

61. Remove the 2/6 brake (1) plates (3) and discs (2) from the 2/6 brake hub.



Fig. 93: 2/6 Brake Select Thickness Reaction Plate & Hub
Courtesy of CHRYSLER GROUP, LLC

62. Remove 2/6 brake select thickness reaction plate (1) from the 2/6 brake hub.

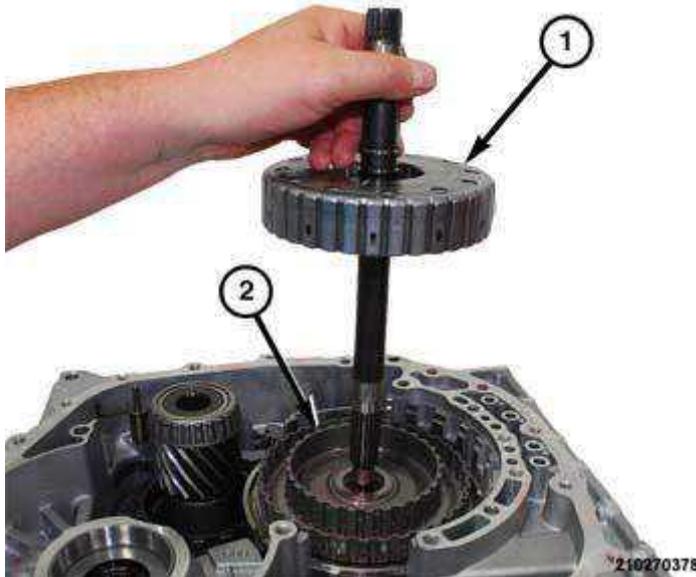


Fig. 94: 3/5/R Clutch Assembly, 3/5/R & 2/6 Brake Hub Assembly
Courtesy of CHRYSLER GROUP, LLC

63. Remove the 3/5/R clutch assembly (1) from the 3/5/R and 2/6 brake hub (2) assembly.

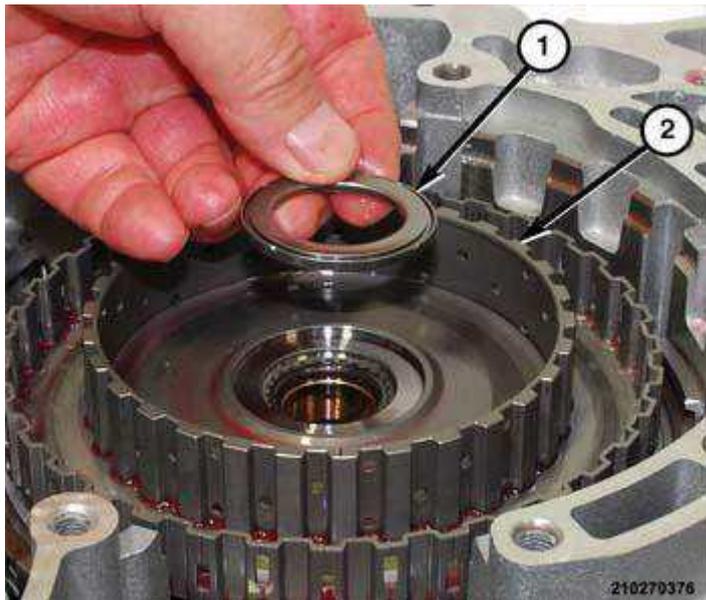


Fig. 95: 3/5/R Clutch & 2/6 Brake Hub, Thrust Bearing
Courtesy of CHRYSLER GROUP, LLC

64. Remove the thrust bearing (2) from the 3/5/R clutch and 2/6 brake hub. Mark the side toward 3/5/R clutch and 2/6 brake hub on bearing for installation orientation.

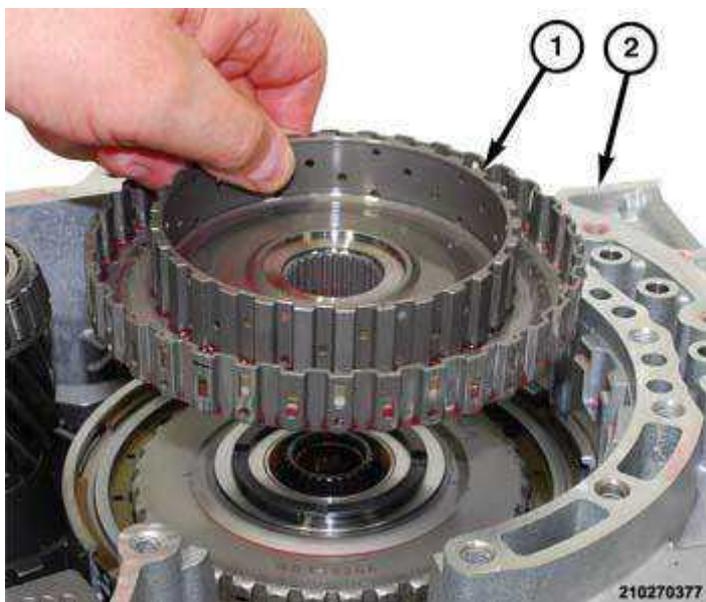


Fig. 96: 3/5/R Clutch & 2/6 Brake Hub Assembly
Courtesy of CHRYSLER GROUP, LLC

65. Remove the 3/5/R clutch and 2/6 brake hub (2) assembly from the underdrive brake.

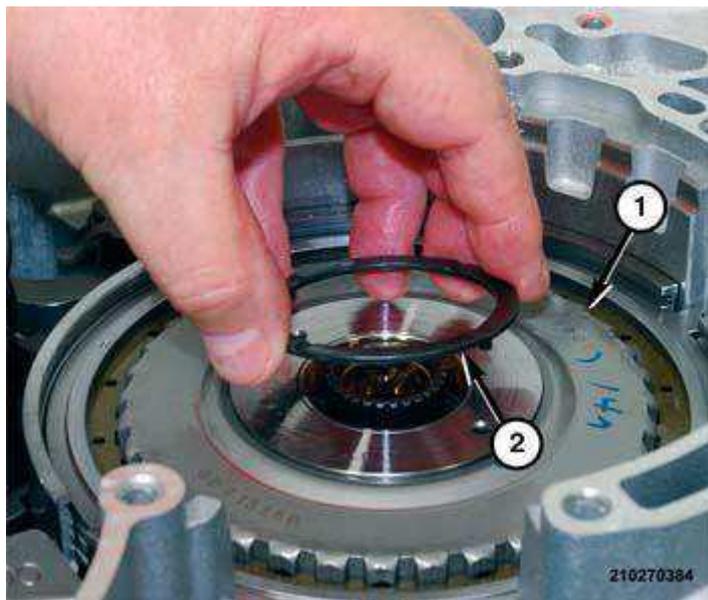


Fig. 97: Underdrive Brake Hub & Thrust Washer
Courtesy of CHRYSLER GROUP, LLC

66. Remove thrust washer (2) from underdrive brake hub.

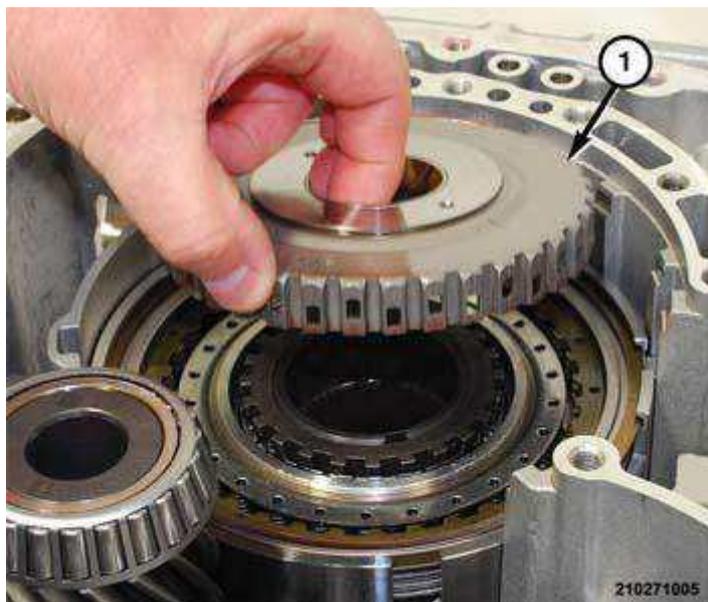


Fig. 98: Underdrive Brake Hub
Courtesy of CHRYSLER GROUP, LLC

67. Remove underdrive brake hub (1) assembly from transaxle.

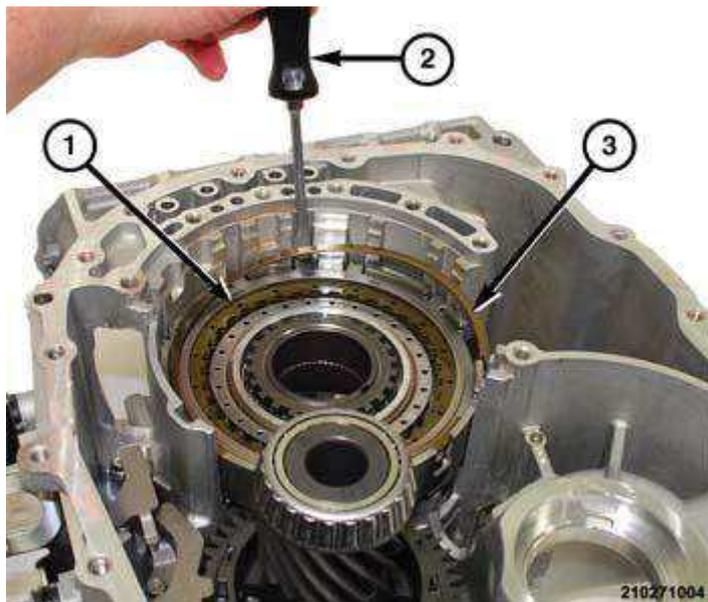


Fig. 99: Underdrive Brake, Underdrive Brake Drum, & Large Snap Ring
Courtesy of CHRYSLER GROUP, LLC

68. Remove large snap ring (3) holding underdrive brake (1) into underdrive brake drum.

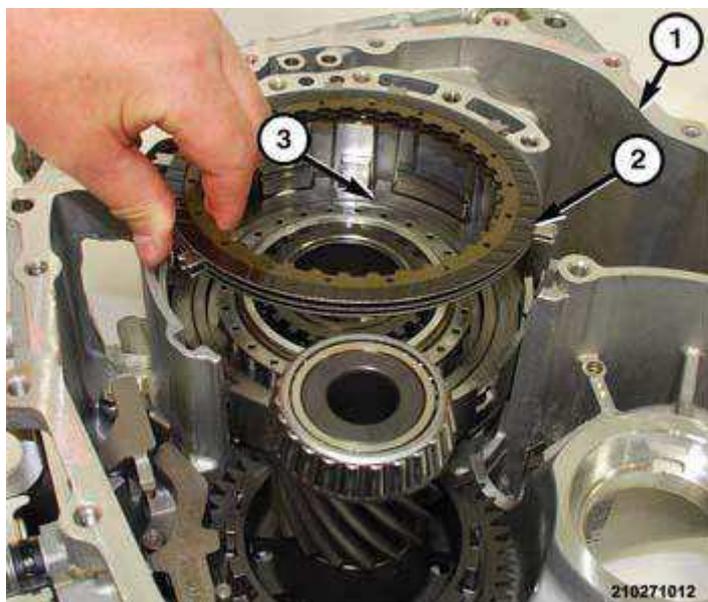


Fig. 100: Underdrive Brake Plates, Discs & Drum
Courtesy of CHRYSLER GROUP, LLC

69. Separate underdrive brake plates and discs from underdrive brake drum.
70. Turn the transaxle over to gain access to the rear cover.

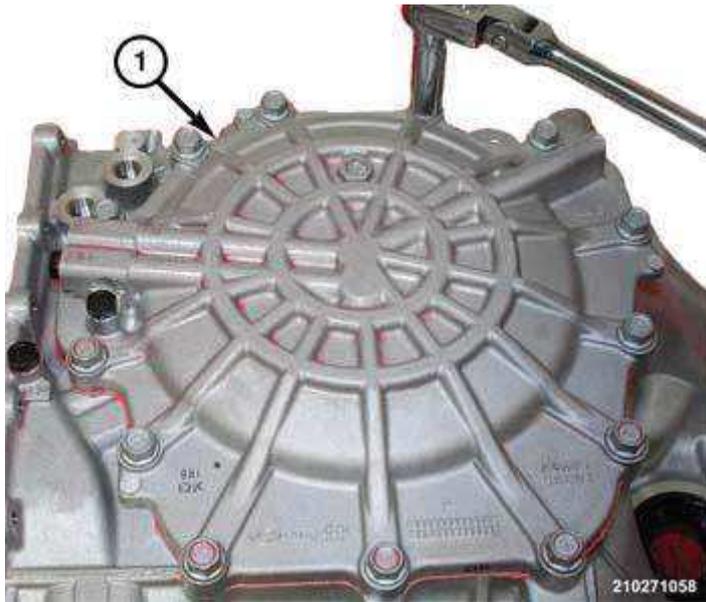


Fig. 101: Transaxle Rear Cover & Bolts
Courtesy of CHRYSLER GROUP, LLC

71. Remove bolts holding the rear cover (1) to the transaxle.

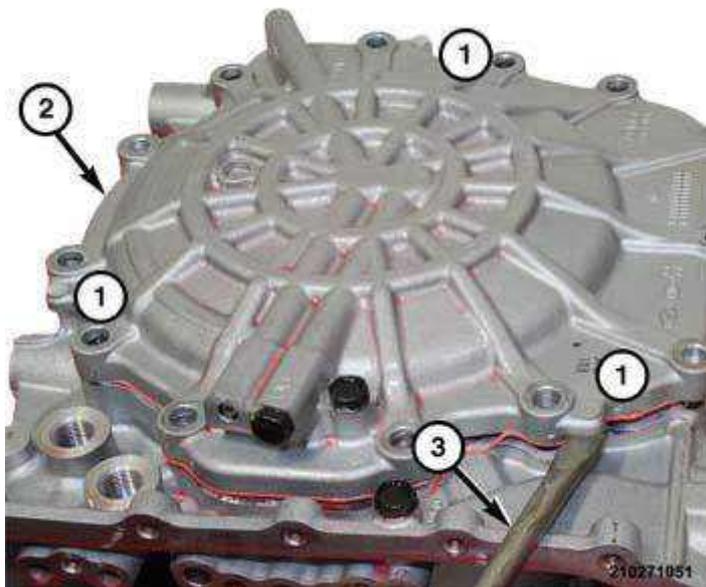


Fig. 102: Prying Locations At Rear Cover
Courtesy of CHRYSLER GROUP, LLC

72. In three locations (1) on the rear cover, pry upward using a suitable pry bar (3).



Fig. 103: Rear Cover Separated From Transaxle
Courtesy of CHRYSLER GROUP, LLC

73. Separate the rear cover (1) from the transaxle.

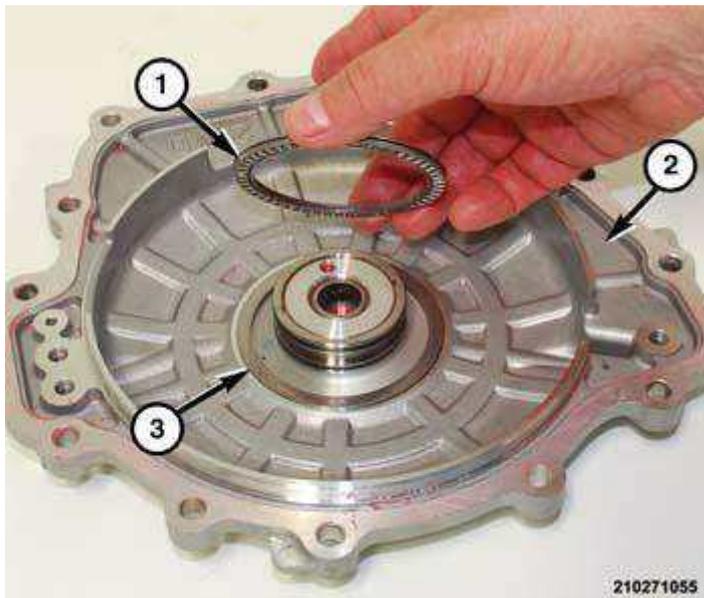


Fig. 104: Selective Spacer, Bearing & Rear Cover
Courtesy of CHRYSLER GROUP, LLC

74. Remove the selective spacer (3) and bearing (1) from under rear cover (2).

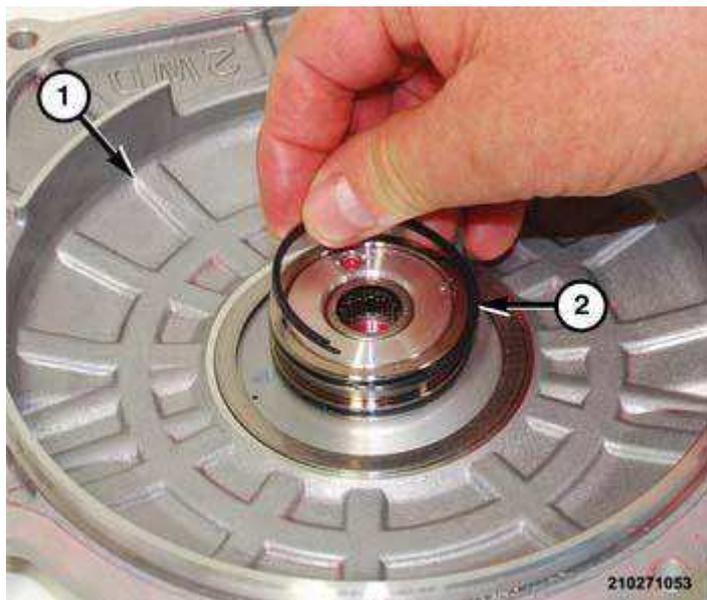


Fig. 105: Split Seal Rings & Rear Cover Hub
Courtesy of CHRYSLER GROUP, LLC

75. Remove the two split seal rings (2) from the lands in the rear cover (1) hub.

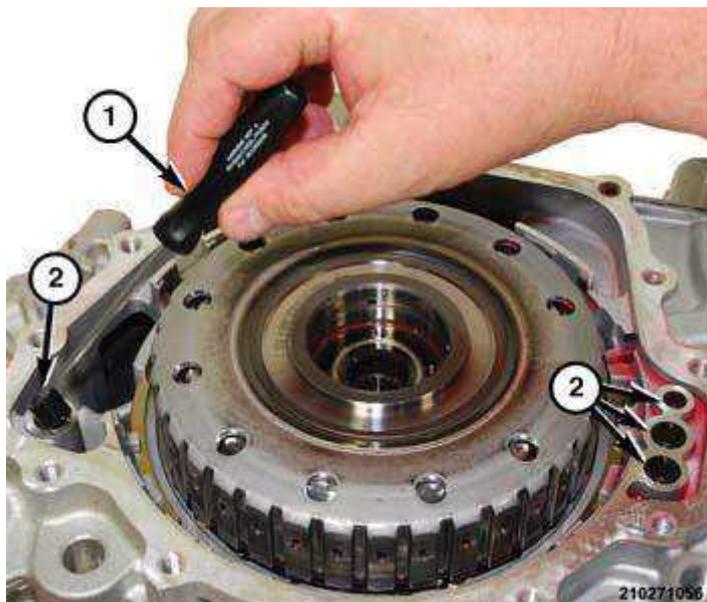


Fig. 106: Transfer Port Seals In Transaxle Housing
Courtesy of CHRYSLER GROUP, LLC

76. Using a suitable hook tool (1), Remove the four seals (2) from transfer ports in transaxle housing.

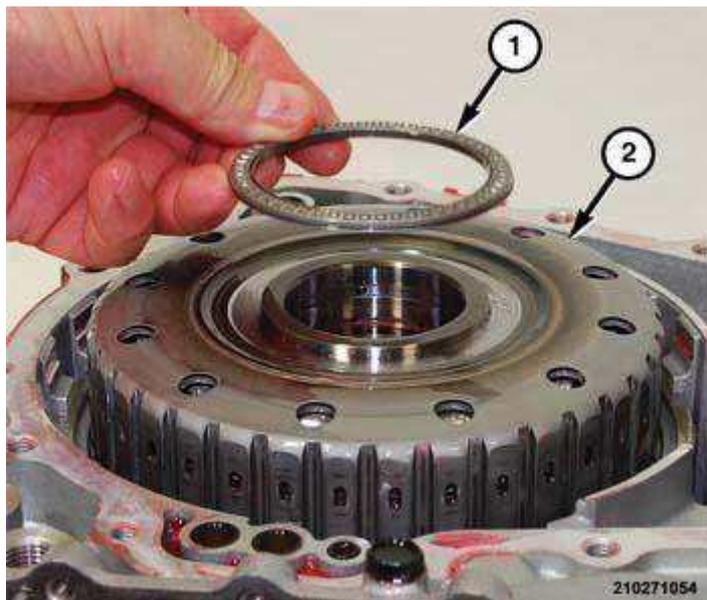


Fig. 107: Thrust Bearing & Overdrive Clutch Hub Assembly
Courtesy of CHRYSLER GROUP, LLC

77. Remove thrust bearing from the overdrive clutch hub assembly.

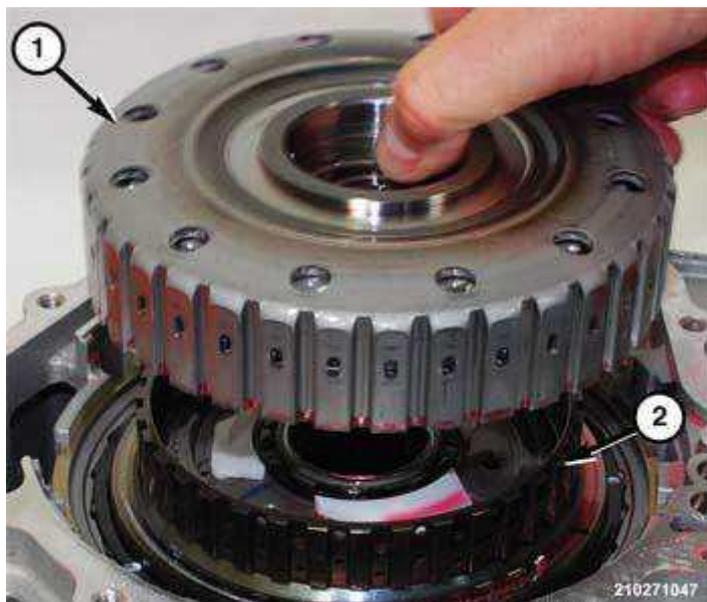


Fig. 108: Overdrive Clutch Assembly & One Way Clutch
Courtesy of CHRYSLER GROUP, LLC

78. Remove the overdrive clutch assembly (1) from the one way clutch (2).

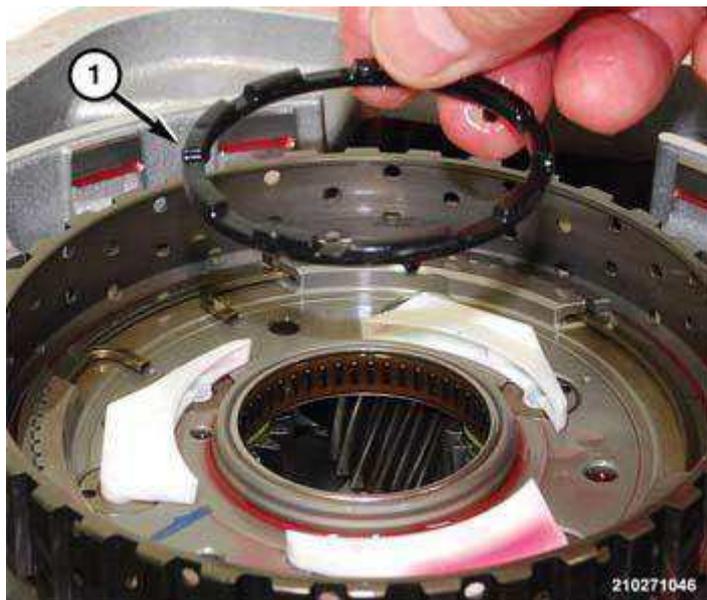


Fig. 109: Thrust Washer & Planetary Gear Assembly Hub
Courtesy of CHRYSLER GROUP, LLC

79. Remove the plastic thrust washer (1) from the planetary gear assembly hub.

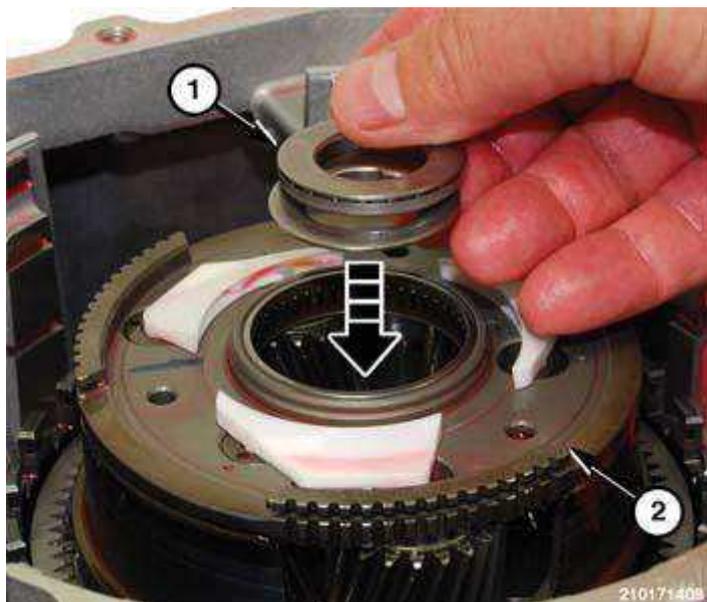


Fig. 110: Thrust Bearing, Race Set & Middle/Rear Planetary Gear Assembly
Courtesy of CHRYSLER GROUP, LLC

80. Using a suitable hook tool, lift the thrust bearing (1) and race set out of the center of the middle/rear planetary gear assembly (2).
81. Turn transaxle over to gain access to the underdrive springs.

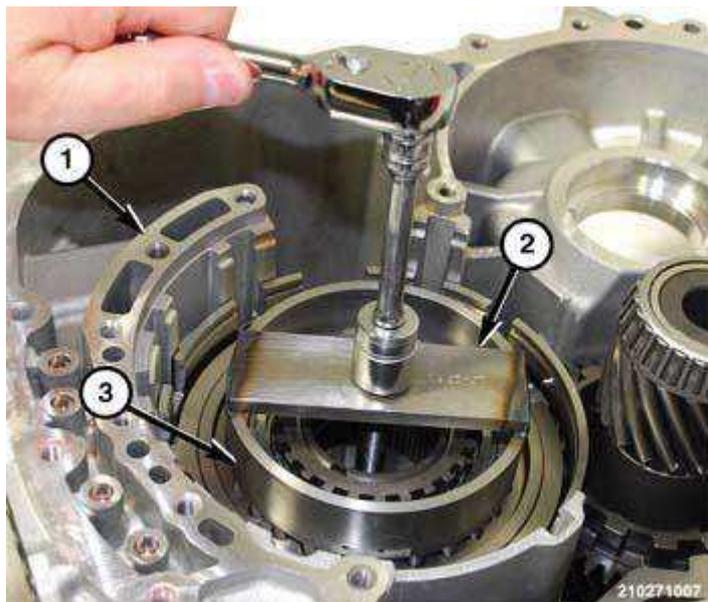


Fig. 111: Tool 5058A & Tool 10426
Courtesy of CHRYSLER GROUP, LLC

82. Insert the bolt for tool 5058A through tool 10426.

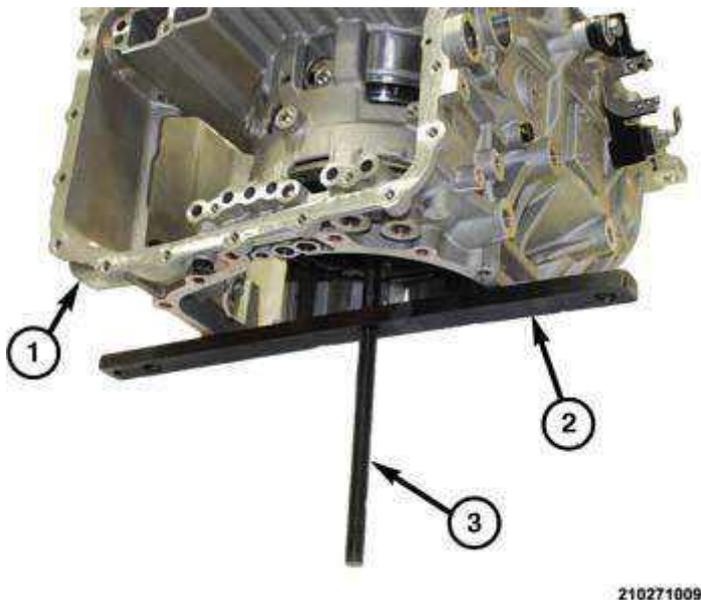


Fig. 112: Tool Bolt & Tool Cross Bar
Courtesy of CHRYSLER GROUP, LLC

83. Insert the tool bolt with the spring compressor through the center of the transaxle and out the back into the threaded center bore of the tool cross bar spanning the back of the transaxle.



Fig. 113: Special Tool #5058A-3
Courtesy of CHRYSLER GROUP, LLC

(special tool #5058A-3, Screw, Forcing)

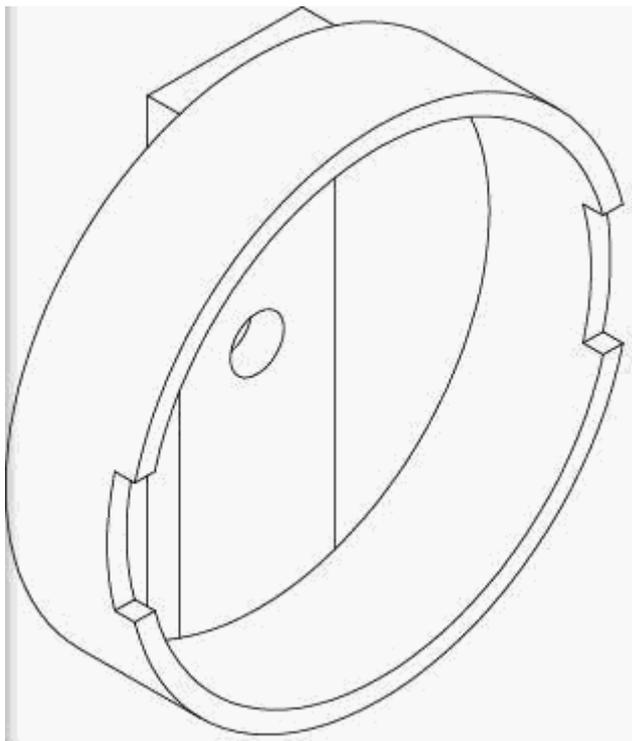


Fig. 114: Special Tool #10426
Courtesy of CHRYSLER GROUP, LLC

(special tool #10426, Compressor, Underdrive Spring)

Compress the underdrive springs (3) to gain access to the snap ring.

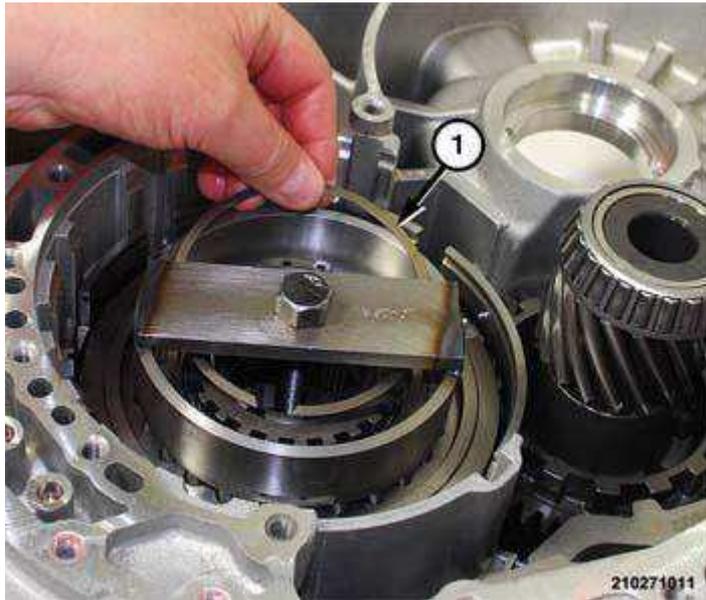


Fig. 115: Underdrive Spring Plate Snap Ring
Courtesy of CHRYSLER GROUP, LLC

84. Remove the snap ring holding the underdrive spring plate to the underdrive brake hub.

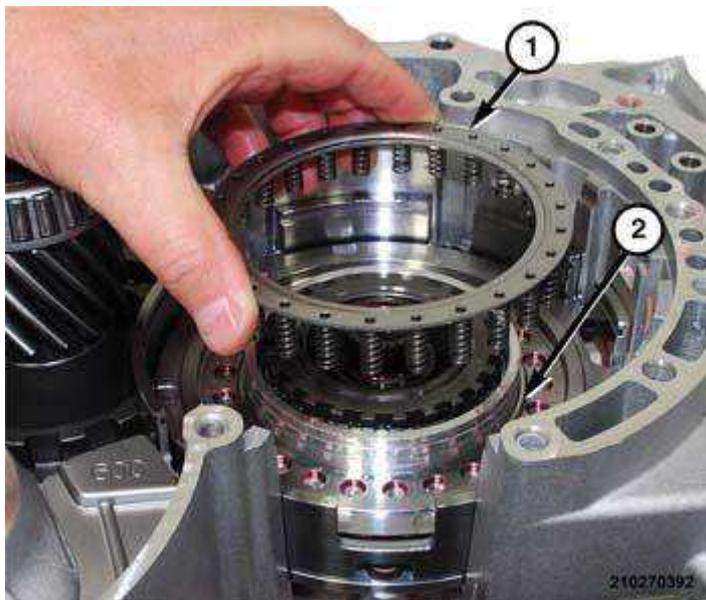


Fig. 116: Underdrive Spring Retainer & Underdrive Brake Piston
Courtesy of CHRYSLER GROUP, LLC

85. Remove the spring compressor tool from the transaxle.
86. Separate the underdrive spring retainer (1) from the underdrive brake piston (2).

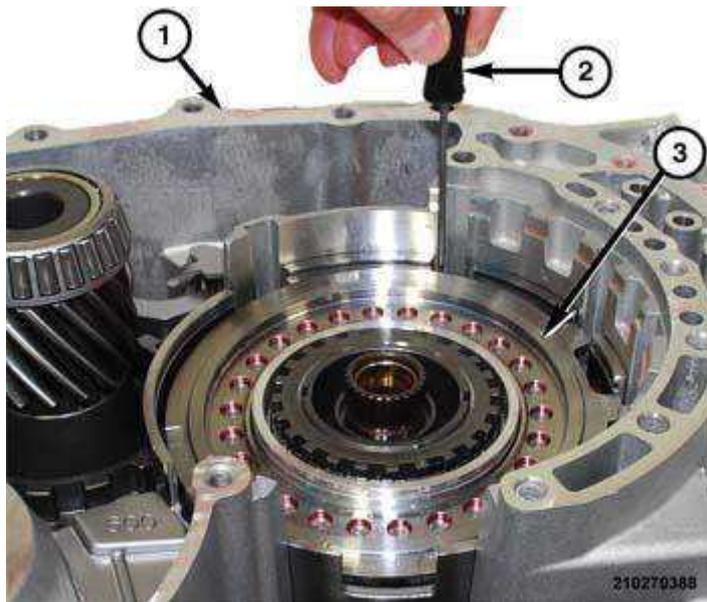


Fig. 117: Underdrive Brake Piston & Underdrive Brake Chamber
Courtesy of CHRYSLER GROUP, LLC

87. Using a suitable pick tool (2) lift the underdrive brake piston (3), in several locations, from the underdrive brake chamber.

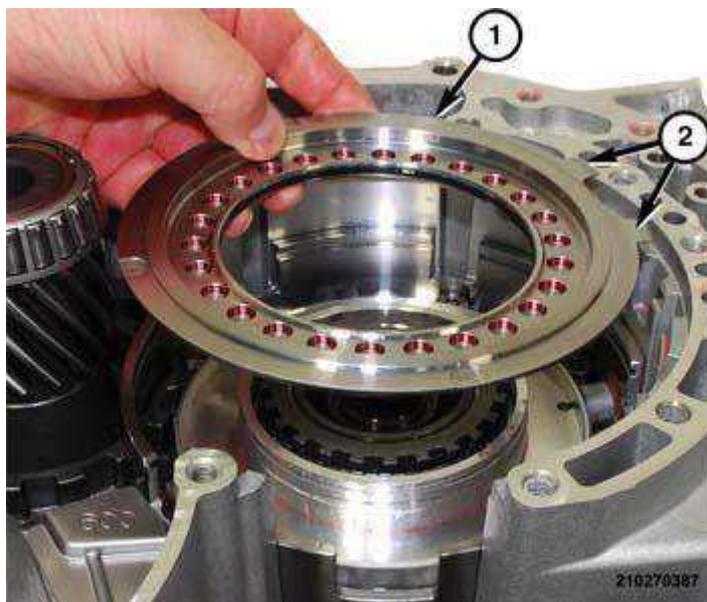


Fig. 118: Underdrive Brake Piston & Location Tabs
Courtesy of CHRYSLER GROUP, LLC

88. Remove the underdrive brake piston (1) from the underdrive brake piston chamber.

NOTE: The location tabs (2) on the underdrive brake piston

should be oriented toward the valve body opening in the transaxle.

89. Remove the D-ring outer seal and the O-ring inner seal from the underdrive piston.

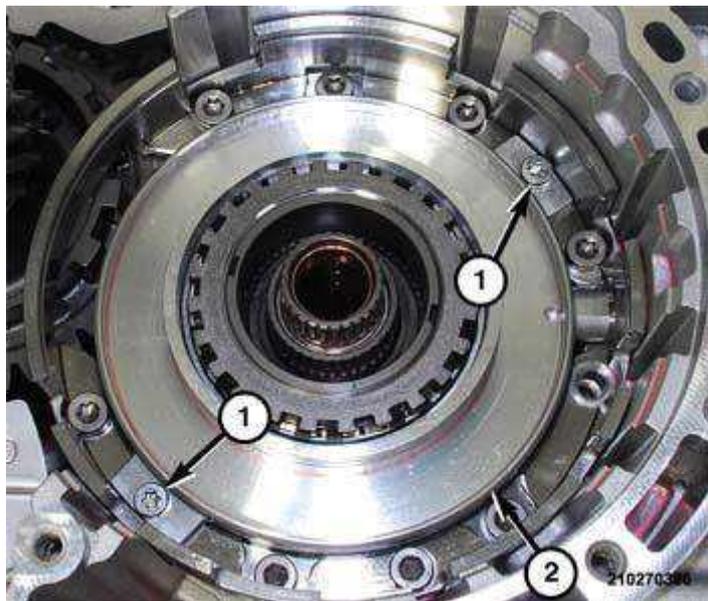


Fig. 119: Underdrive Brake Chamber & Bolts
Courtesy of CHRYSLER GROUP, LLC

90. Remove bolts (1) holding the underdrive brake chamber (2) to the transaxle housing.



Fig. 120: Underdrive Brake Chamber & Transaxle Housing

Courtesy of CHRYSLER GROUP, LLC

91. Separate the underdrive brake chamber from the transaxle housing.



Fig. 121: Underdrive Brake Retainer & Bolts
 Courtesy of CHRYSLER GROUP, LLC

92. Mark the location and direction of the underdrive brake retainer in relation to the bolt holes in the transaxle housing to ensure proper installation.
93. Using an impact driver (1), loosen the bolts holding the underdrive brake retainer (2) to the transaxle housing without damaging the Torx® drive heads.

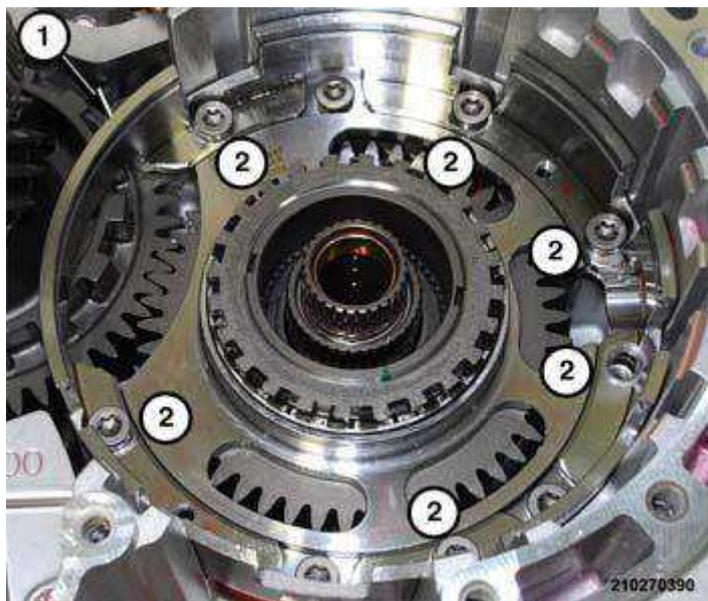


Fig. 122: Underdrive Brake Retainer & Bolts
Courtesy of CHRYSLER GROUP, LLC

94. Remove bolts (2) holding the underdrive brake retainer (1) to the transaxle housing.

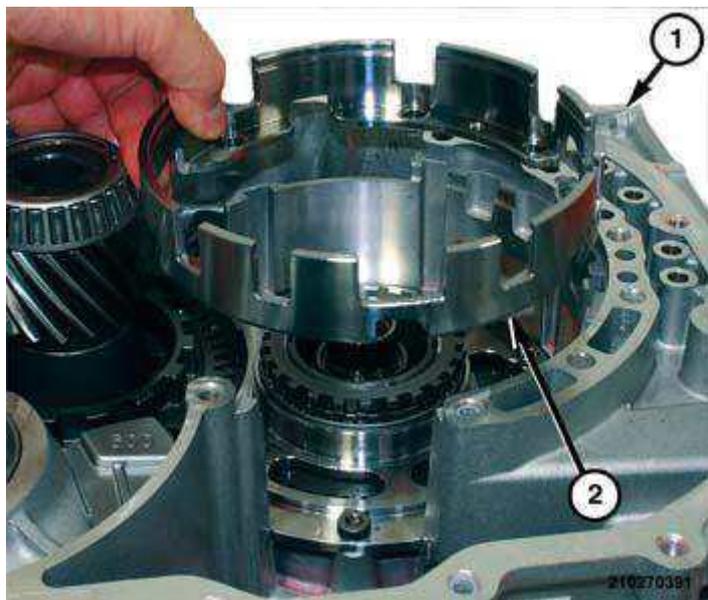


Fig. 123: Underdrive Brake Retainer & Transaxle Housing
Courtesy of CHRYSLER GROUP, LLC

95. Separate the underdrive brake retainer (2) from the transaxle housing (1).

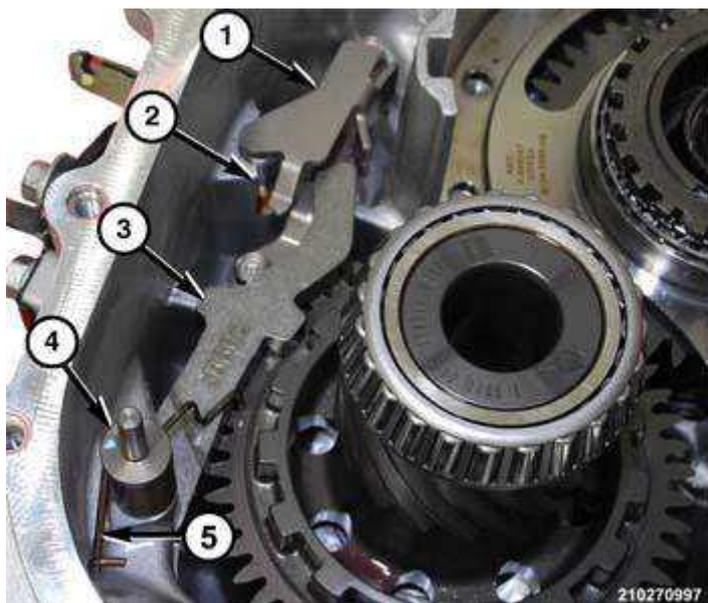


Fig. 124: Park Rod Guide & Bolts
Courtesy of CHRYSLER GROUP, LLC

96. Remove bolts holding the park rod guide (1) from the transaxle housing.

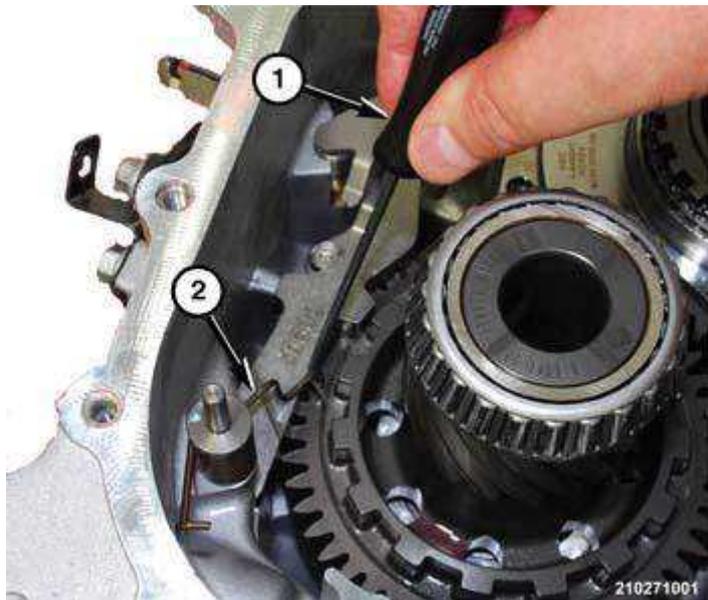


Fig. 125: Park Sprag Spring & Park Sprag
Courtesy of CHRYSLER GROUP, LLC

97. Using a suitable hook tool (1), lift the park sprag spring (2) off the park sprag.



Fig. 126: Park Sprag Spring, Shaft & Transaxle Housing
Courtesy of CHRYSLER GROUP, LLC

98. Remove the park sprag spring and shaft (1) from the transaxle housing.

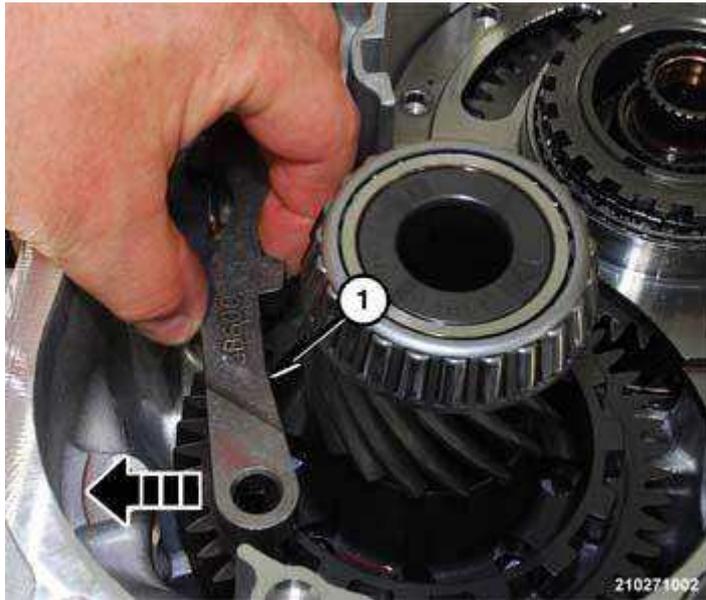


Fig. 127: Park Sprag & Transaxle Housing
Courtesy of CHRYSLER GROUP, LLC

99. Separate the park sprag (1) from the transaxle housing.

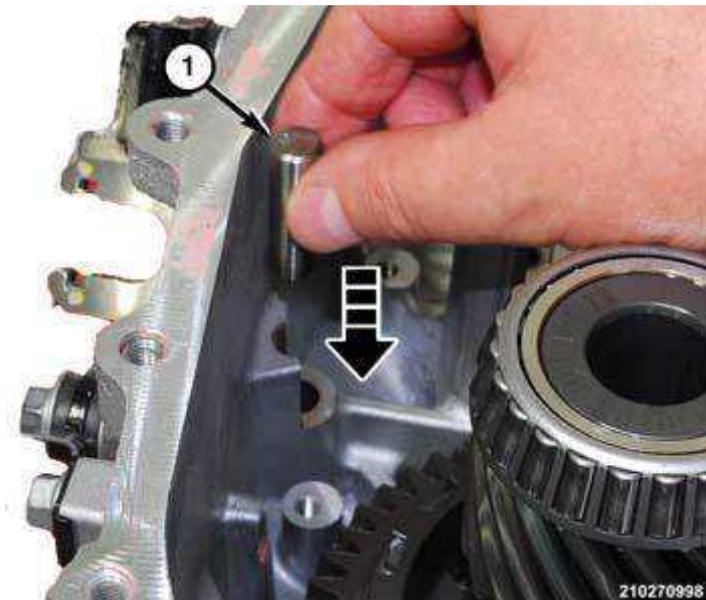


Fig. 128: Park Sprag Support Shaft & Transaxle Housing
Courtesy of CHRYSLER GROUP, LLC

00. Remove the park sprag support shaft (1) from the transaxle housing.

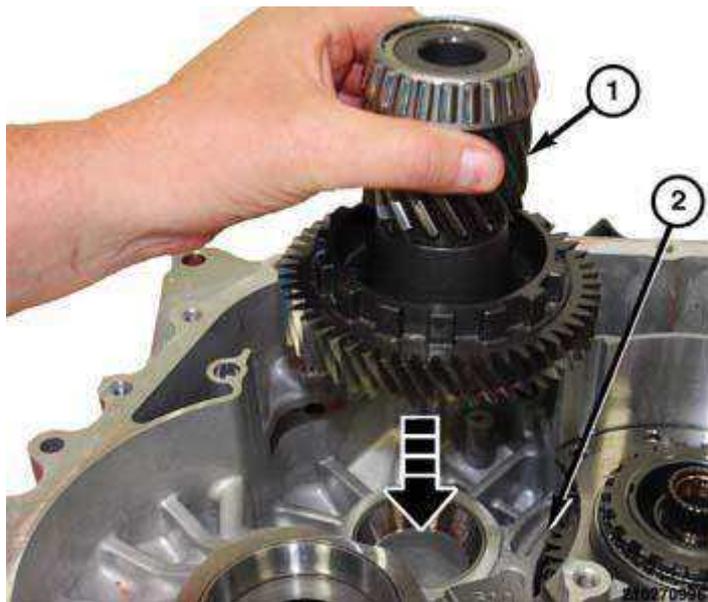


Fig. 129: Transfer Driven Gear Assembly & Transaxle
Courtesy of CHRYSLER GROUP, LLC

01. Remove the transfer driven gear (1) assembly from the transaxle (2).
02. Turn the transaxle over to gain access to the One-way-clutch.

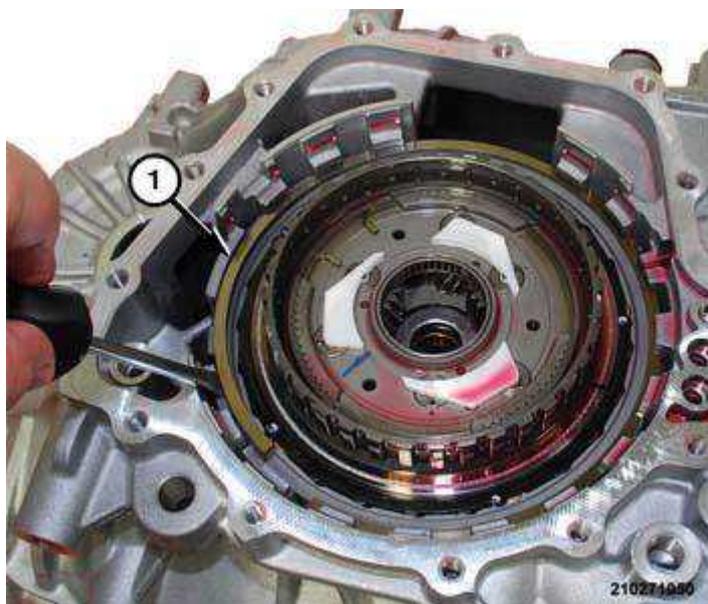


Fig. 130: One-Way-Clutch Snap Ring
Courtesy of CHRYSLER GROUP, LLC

03. Remove the snap ring (1) holding the OWC to the transaxle housing.



Fig. 131: One-Way-Clutch
Courtesy of CHRYSLER GROUP, LLC

04. Separate the OWC (1) from the transaxle. Mark the one way clutch to aid installation orientation.

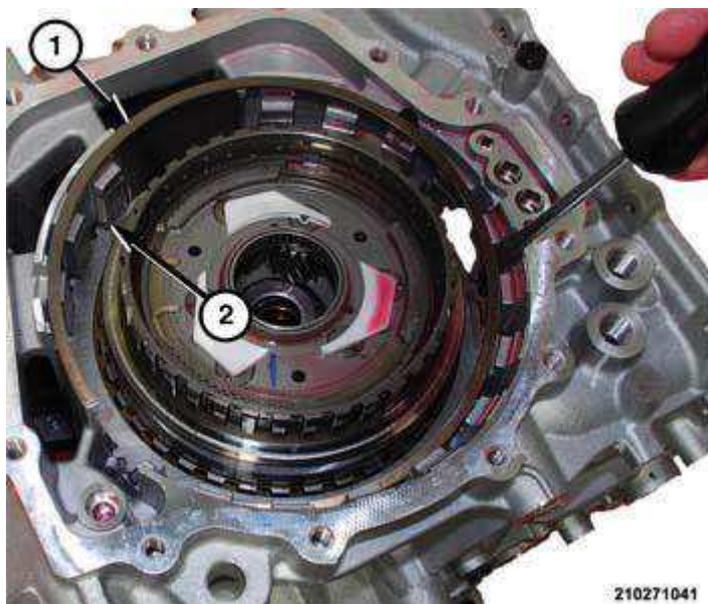


Fig. 132: Low/Reverse Brake & Snap Ring
Courtesy of CHRYSLER GROUP, LLC

05. Remove the snap ring (2) holding low/reverse brake into transaxle.

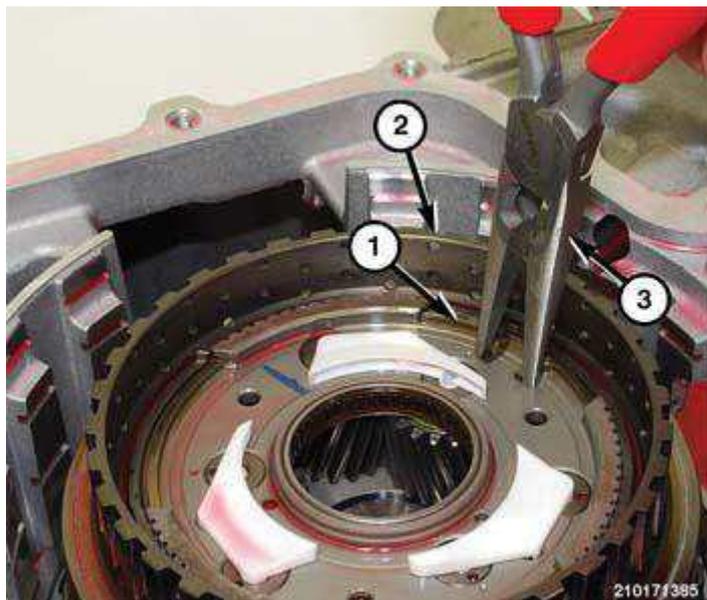


Fig. 133: One Way Clutch Race & Snap Ring
Courtesy of CHRYSLER GROUP, LLC

06. Separate the low & reverse brake pressure plate, cushion plate and discs and plates, in order, from transaxle.
07. Compress snap ring (1) holding one way clutch race (2) into transaxle.

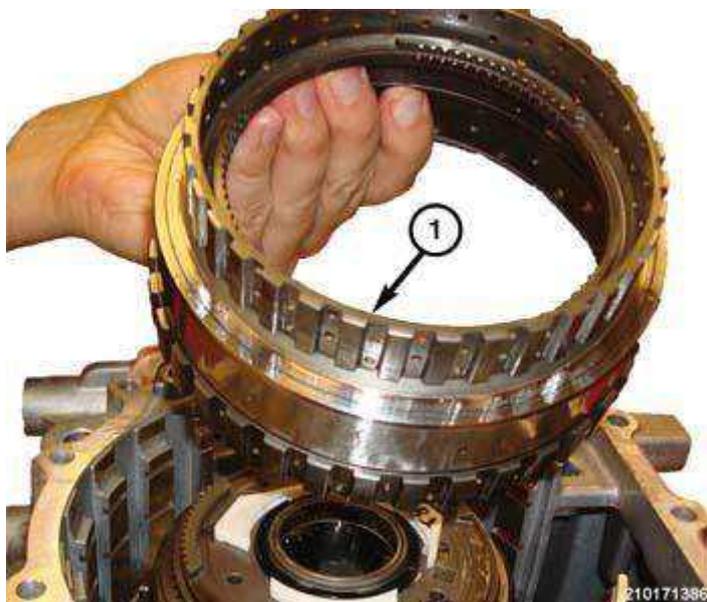


Fig. 134: One Way Clutch Inner Race
Courtesy of CHRYSLER GROUP, LLC

08. Separate the one way clutch inner race (1) from the transaxle.

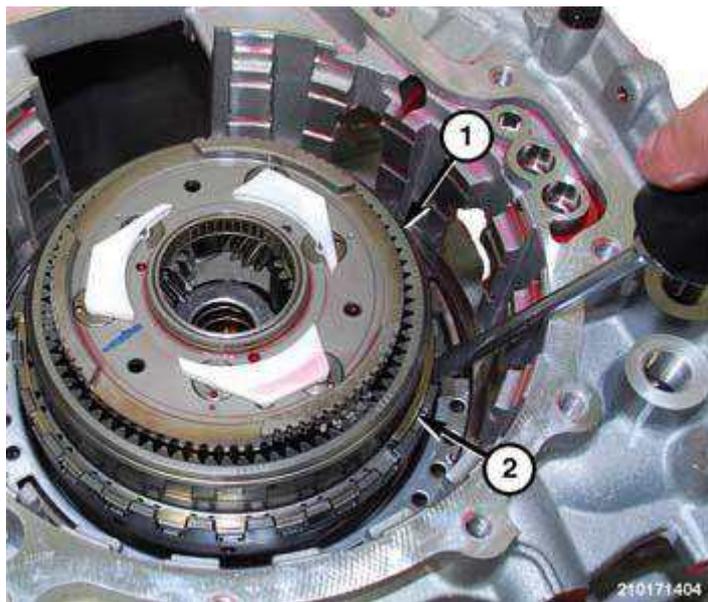


Fig. 135: Rear Annulus Gear & Snap Ring
Courtesy of CHRYSLER GROUP, LLC

09. Remove the snap ring (2) holding the rear annulus gear (1) into transaxle.

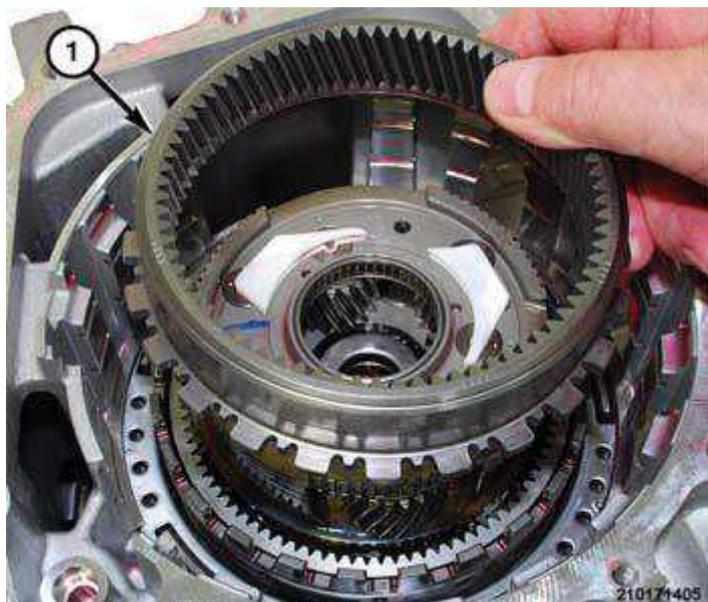


Fig. 136: Rear Annulus Gear
Courtesy of CHRYSLER GROUP, LLC

10. Separate the rear annulus gear (1) from the transaxle.

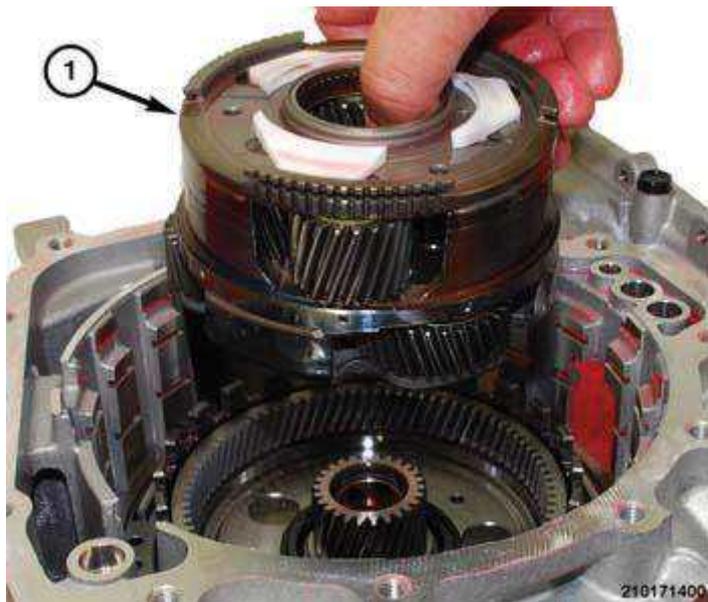


Fig. 137: Middle/Rear Planetary Gear Assembly
Courtesy of CHRYSLER GROUP, LLC

11. Separate the middle/rear planetary gear assembly (1) and from the planetary gear hub.

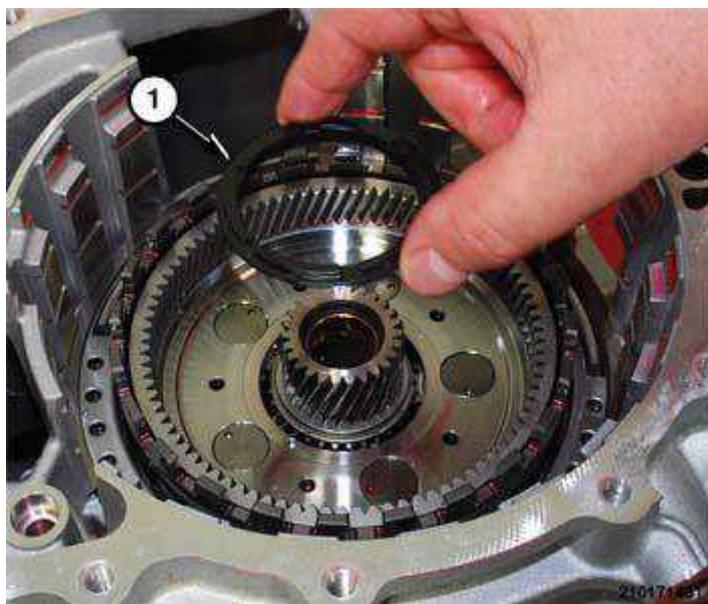


Fig. 138: Front Planetary Gear Hub Thrust Washer
Courtesy of CHRYSLER GROUP, LLC

12. Remove the thrust washer (1) from front planetary gear hub.

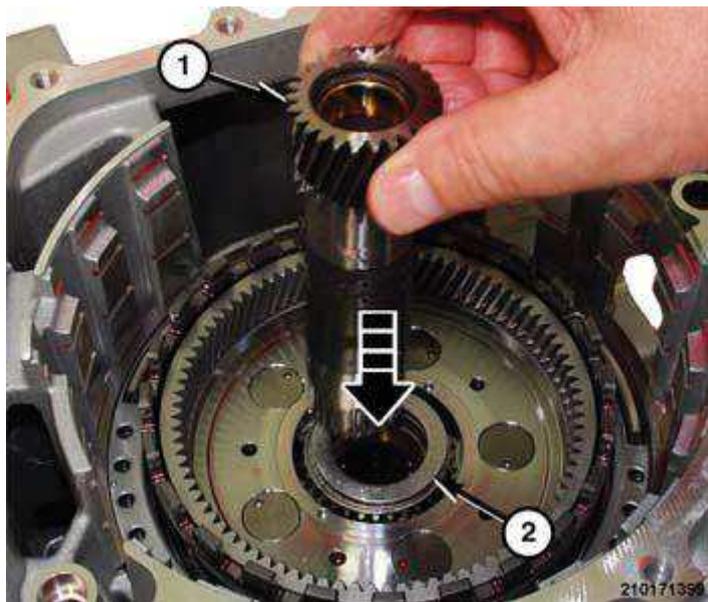


Fig. 139: Middle Sun Gear & Planetary Gear Hub
Courtesy of CHRYSLER GROUP, LLC

13. Separate the middle sun gear (1) from the planetary gear hub (2).

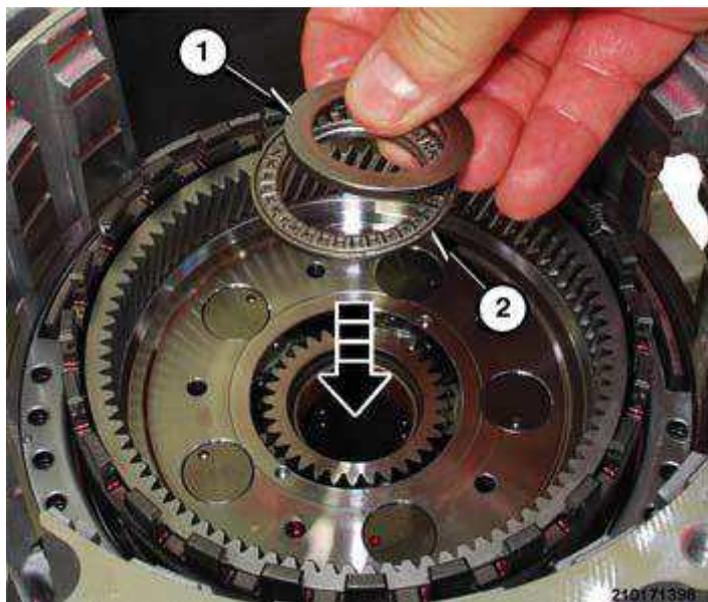


Fig. 140: Planetary Gear Hub Bearing And Race Set
Courtesy of CHRYSLER GROUP, LLC

14. Remove the bearing (2) and race (1) set from the planetary gear hub.

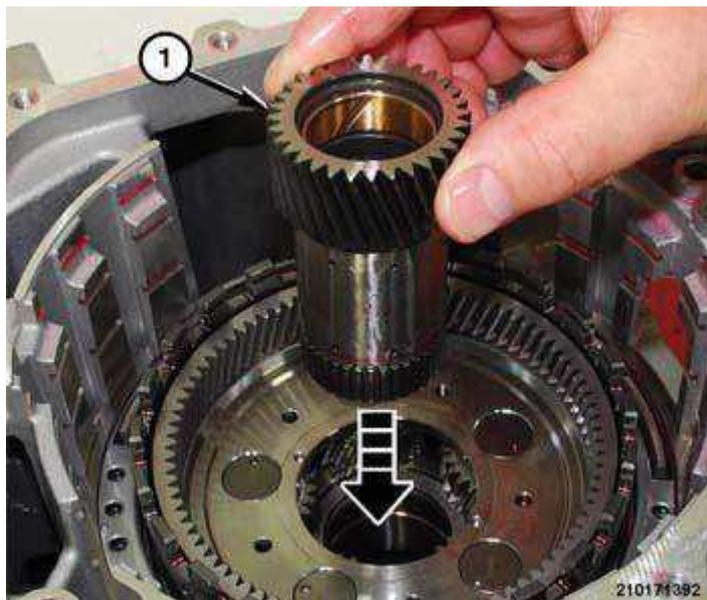


Fig. 141: Front Sun Gear
Courtesy of CHRYSLER GROUP, LLC

15. Separate the front sun gear (1) from front planetary gear assembly.



Fig. 142: Front Planetary Gear & Front Annulus Gear Assembly
Courtesy of CHRYSLER GROUP, LLC

16. Separate the front planetary gear (1) the front annulus gear assembly (2).

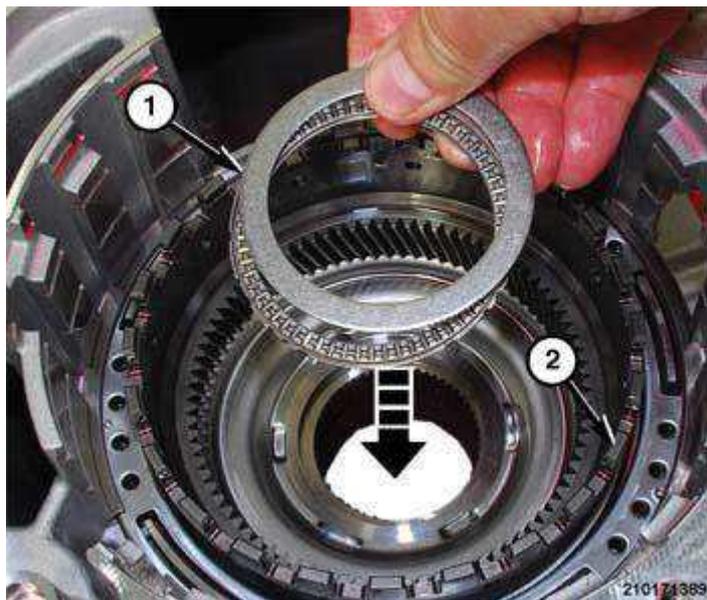


Fig. 143: Front Annulus Gear Thrust Bearing And Race
Courtesy of CHRYSLER GROUP, LLC

17. Separate the front annulus gear thrust bearing and race from the front annulus gear hub,

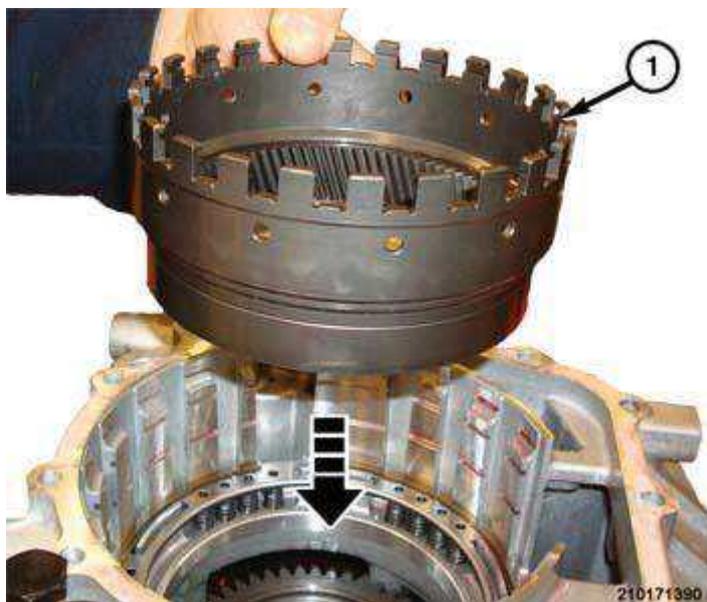


Fig. 144: Front Annulus Gear
Courtesy of CHRYSLER GROUP, LLC

18. Separate the front annulus gear (1) from the low/reverse brake assembly.

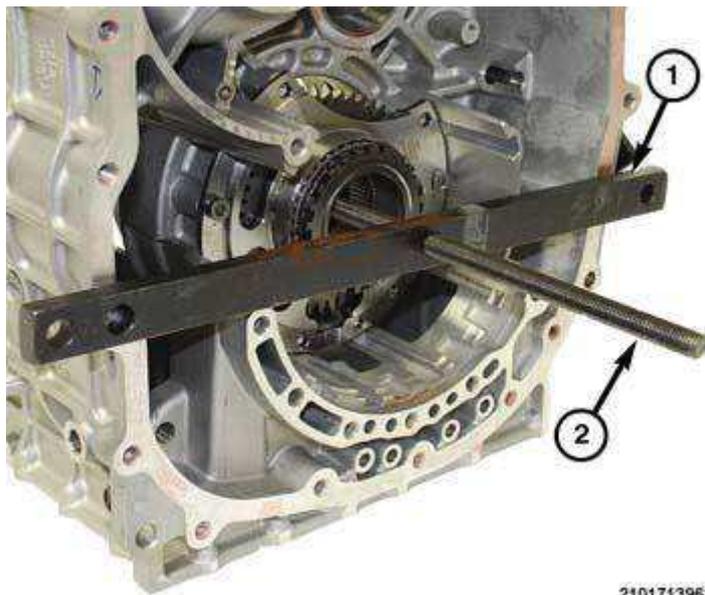


Fig. 145: Special Tool #5058A-3
 Courtesy of CHRYSLER GROUP, LLC

19. Insert (special tool #5058A-3, Screw, Forcing) through center hole in (special tool #8621, Compressor, Spring).

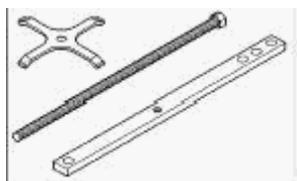


Fig. 146: Special Tool #5058A-3
 Courtesy of CHRYSLER GROUP, LLC



Fig. 147: Special Tool #8621
 Courtesy of CHRYSLER GROUP, LLC

Insert the screw through the transfer gear and into the threaded cross bar across the bell housing opening.

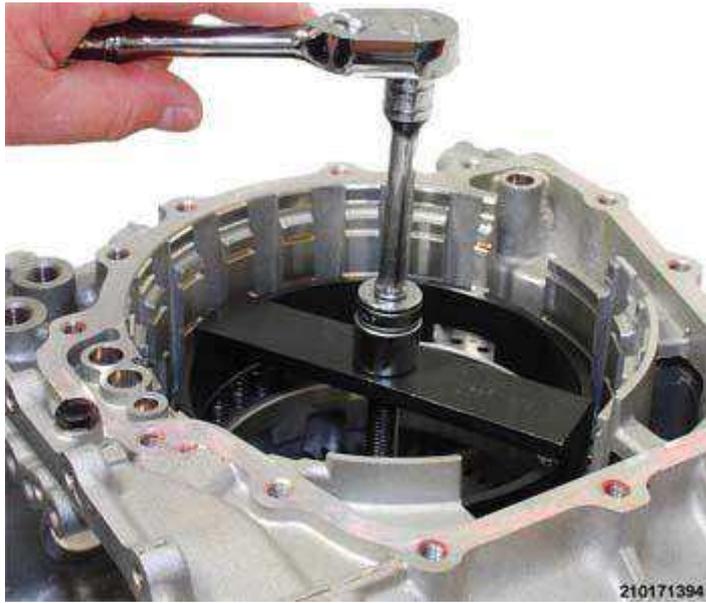


Fig. 148: Compressing Low/Reverse Spring Retainer
Courtesy of CHRYSLER GROUP, LLC

20. Compress the low/reverse spring retainer.



Fig. 149: Low/Reverse Brake Spring Retainer Snap Ring
Courtesy of CHRYSLER GROUP, LLC

21. Remove snap ring holding low/reverse brake spring retainer to the low/reverse brake piston.
22. Remove spring compressor tools from transaxle.

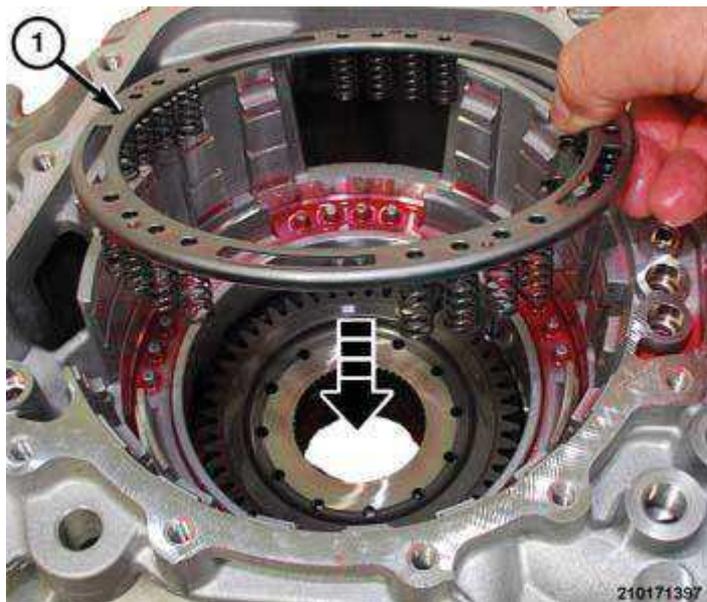


Fig. 150: Low/Reverse Brake Piston Spring Retainer
Courtesy of CHRYSLER GROUP, LLC

23. Remove low & reverse brake piston spring retainer.

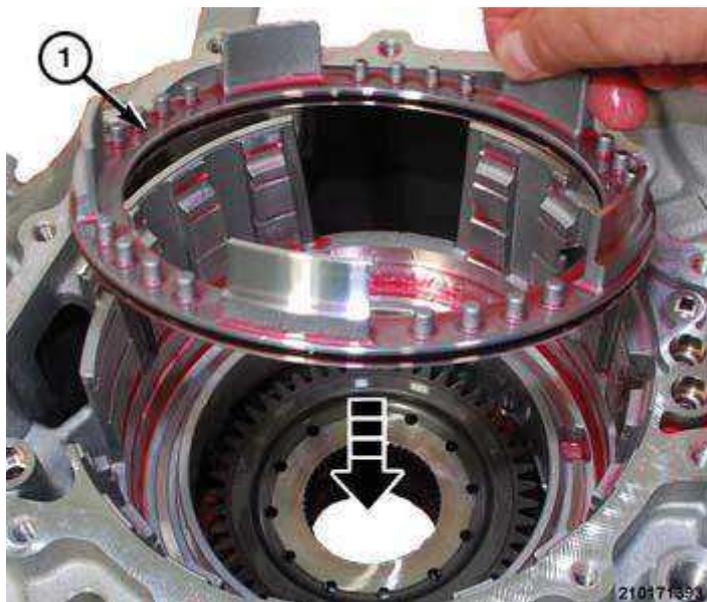


Fig. 151: Low/Reverse Brake Piston
Courtesy of CHRYSLER GROUP, LLC

24. Separate low & reverse brake piston (1) from the transaxle housing.
25. Remove inside and outside D-ring seals from the low & reverse brake piston (1).

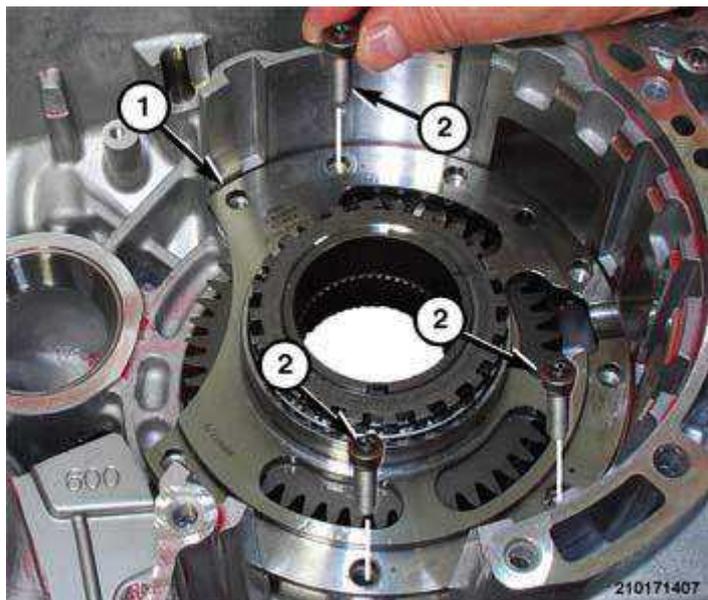


Fig. 152: Transfer Drive Assembly & Bolts
Courtesy of CHRYSLER GROUP, LLC

26. Remove bolts (2) holding transfer drive assembly (1) to the transaxle housing.

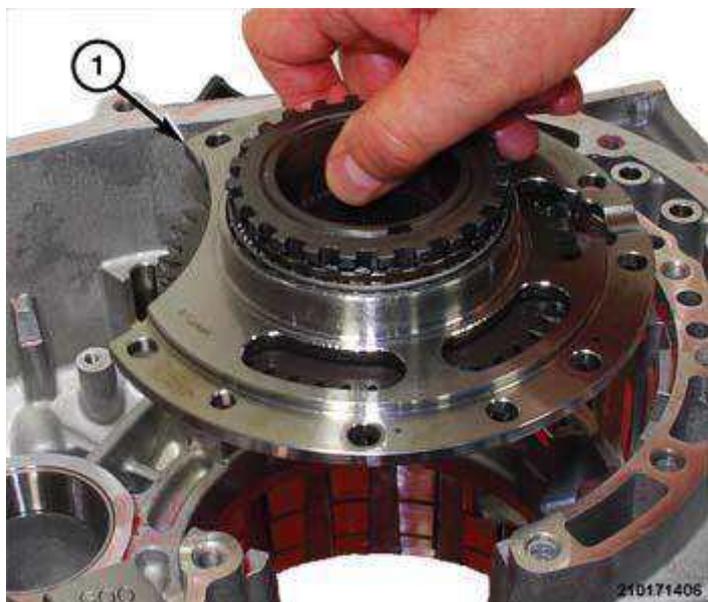


Fig. 153: Transfer Drive Assembly
Courtesy of CHRYSLER GROUP, LLC

27. Remove the transfer drive assembly (1) from the transaxle case

AWD

NOTE: If the transaxle has not been drained before removal, fluid

will spill from the valve body pan as it is removed.

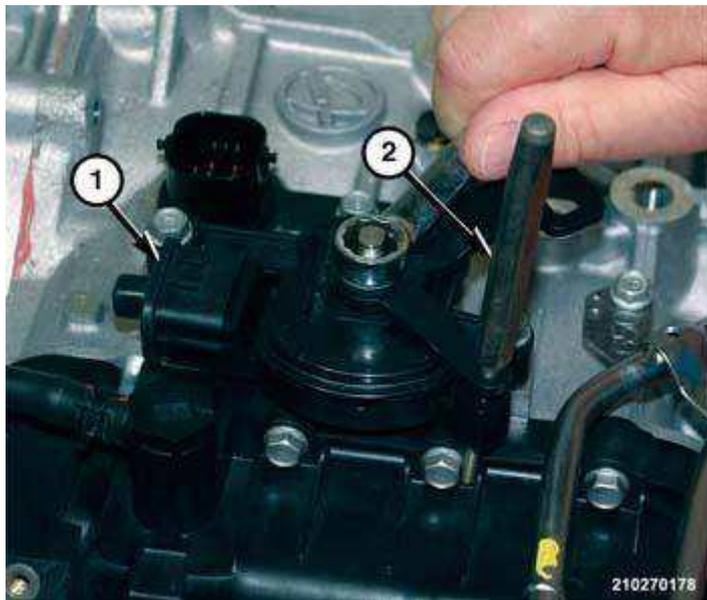


Fig. 154: Pin Punch, Manual Lever & Transmission Range Sensor
Courtesy of CHRYSLER GROUP, LLC

1. Insert a suitable pin punch (2) or equivalent through the manual lever into the TRS switch (1) to hold lever in place.
2. Remove nut holding the manual lever to the manual shaft.



Fig. 155: Manual Lever & Manual Shaft
Courtesy of CHRYSLER GROUP, LLC

3. Separate the manual level (1) from the manual shaft.



Fig. 156: Transmission Range Sensor
Courtesy of CHRYSLER GROUP, LLC

4. Remove bolts holding the TRS (1) to the transaxle housing.

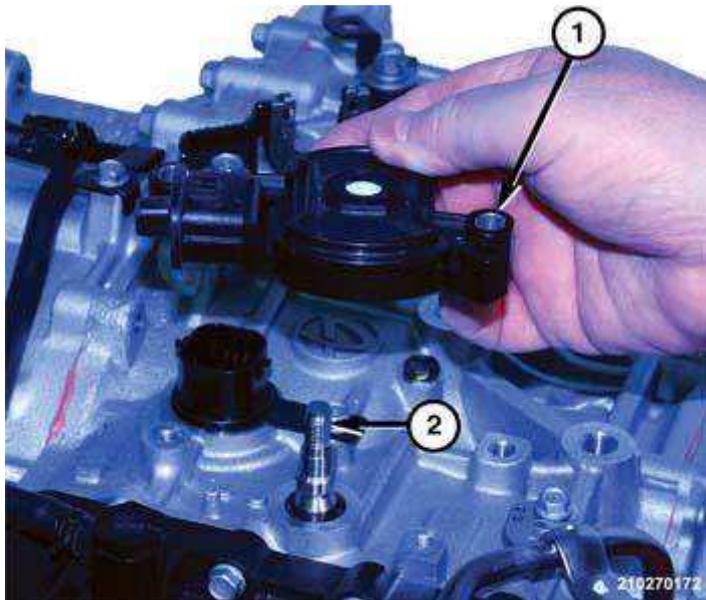


Fig. 157: Transmission Range Sensor Separated From Transaxle
Courtesy of CHRYSLER GROUP, LLC

5. Separate the TRS (1) from the transaxle.

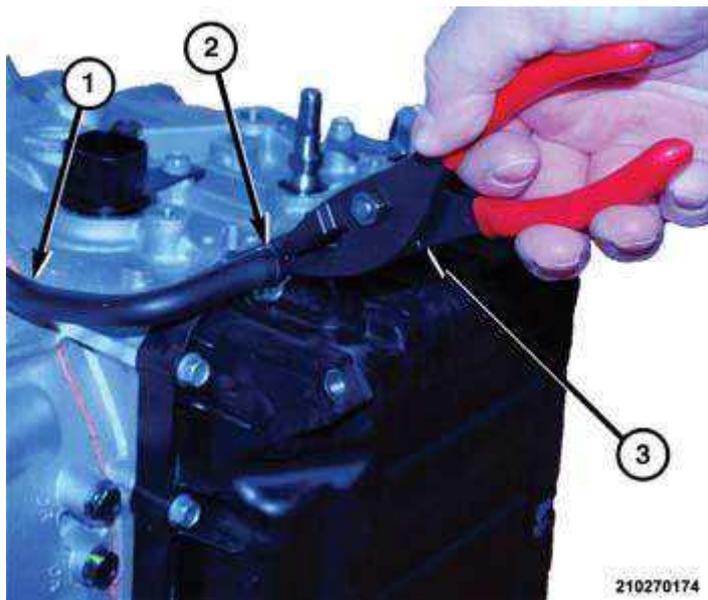


Fig. 158: Vent Hose, Spring Clamp & Pliers
Courtesy of CHRYSLER GROUP, LLC

6. Using common pliers (3), compress the hose spring clamp (2) and slide it down the vent hose (1) away from the nipple adaptor.

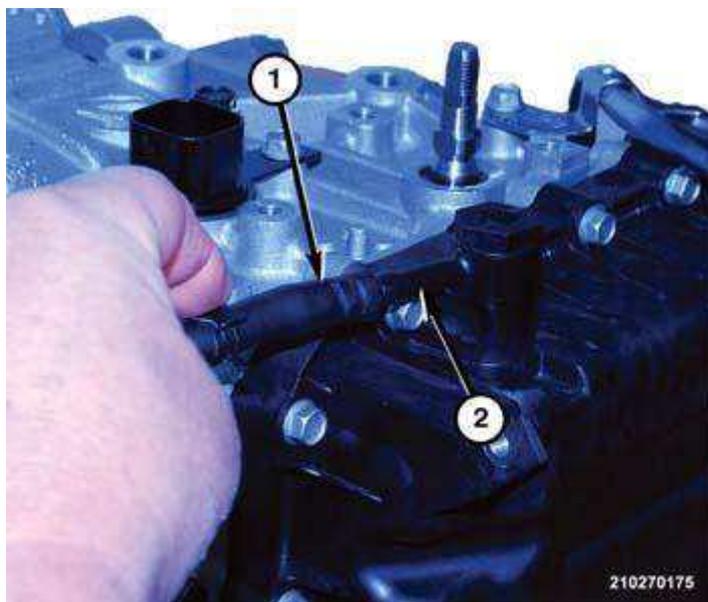


Fig. 159: Vent Hose End & Nipple Adapter
Courtesy of CHRYSLER GROUP, LLC

7. Pull the vent hose end (1) off of the nipple adaptor (2).

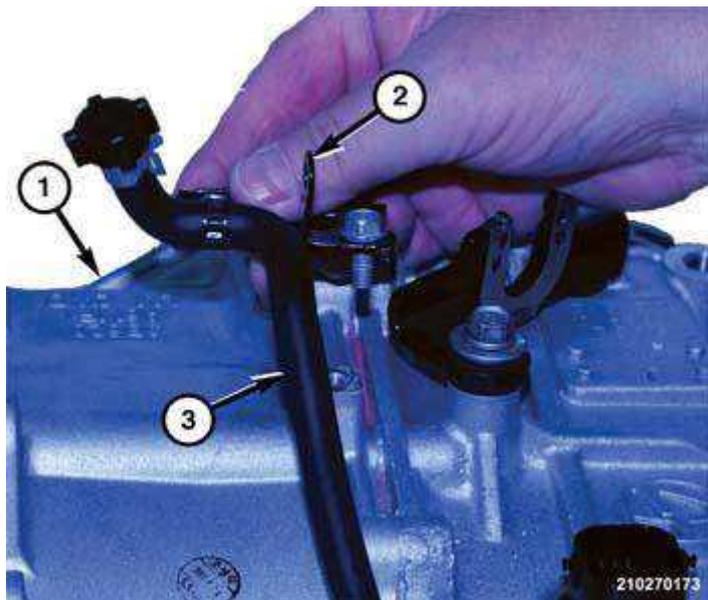


Fig. 160: Vent Tube Bracket & Bolt
Courtesy of CHRYSLER GROUP, LLC

8. Remove bolt holding the vent tube bracket (2) to the transaxle housing.
9. Separate the vent tube (3) from the transaxle (1).

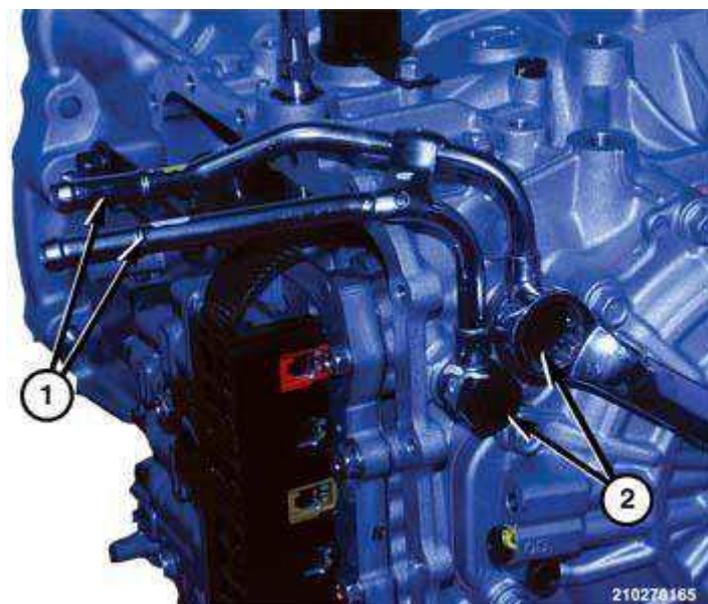


Fig. 161: Cooler Tubes & Banjo Bolts
Courtesy of CHRYSLER GROUP, LLC

10. Remove banjo bolts (2) holding the cooler tubes (1) to the transaxle.

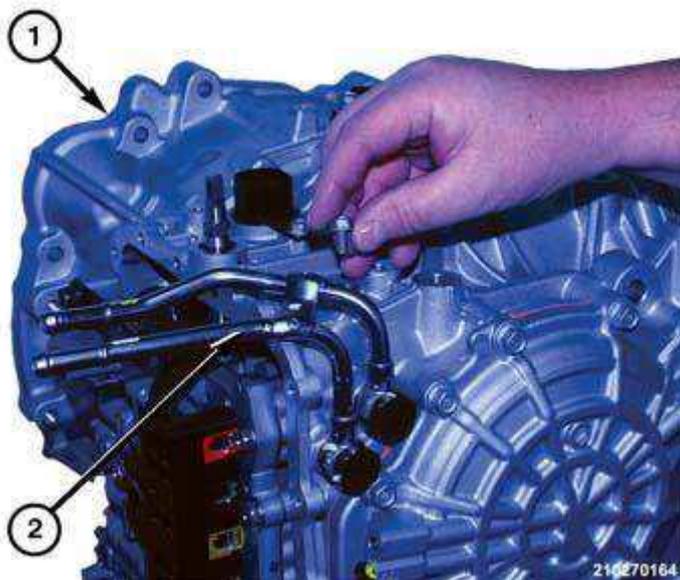


Fig. 162: Cooler Tubes & Transaxle
Courtesy of CHRYSLER GROUP, LLC

11. Remove bolt holding the cooler tube (2) bracket to the transaxle (1).
12. Separate the cooler tubes from the transaxle.

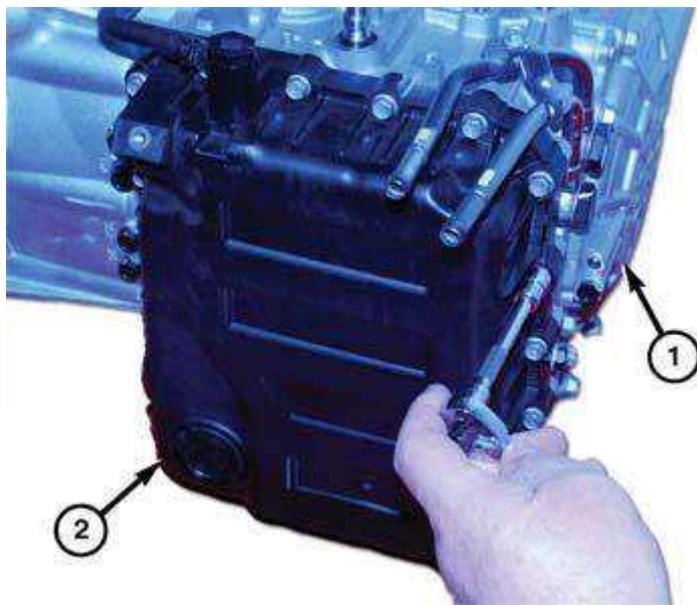


Fig. 163: Valve Body Cover
Courtesy of CHRYSLER GROUP, LLC

13. Position the transaxle over a suitable drain pan.
14. Remove bolts holding the valve body cover (2) to the transaxle (1).



Fig. 164: Valve Body Cover Separated From Transaxle
Courtesy of CHRYSLER GROUP, LLC

15. Separate the cover (1) from the transaxle (2).

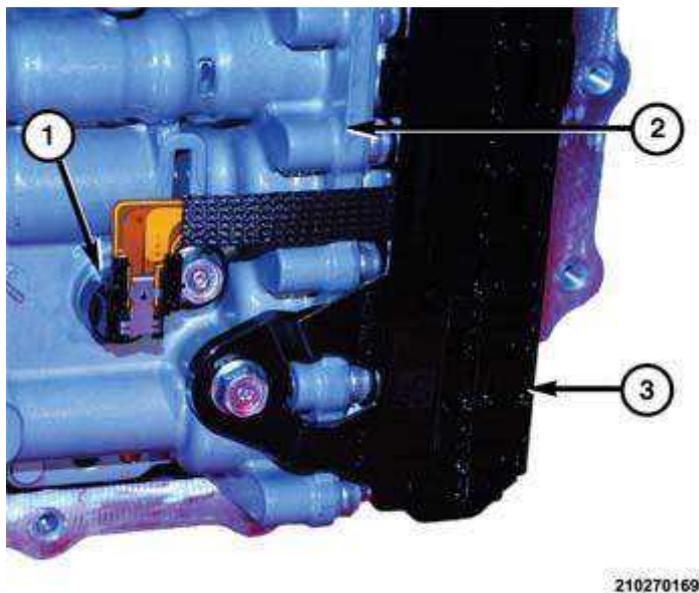


Fig. 165: Fluid Temperature Sensor, Valve Body & Bolt
Courtesy of CHRYSLER GROUP, LLC

16. Remove bolt holding fluid temperature sensor (1) to the valve body (2).
17. Pull temperature sensor (1) straight out of the port in the valve body (2).

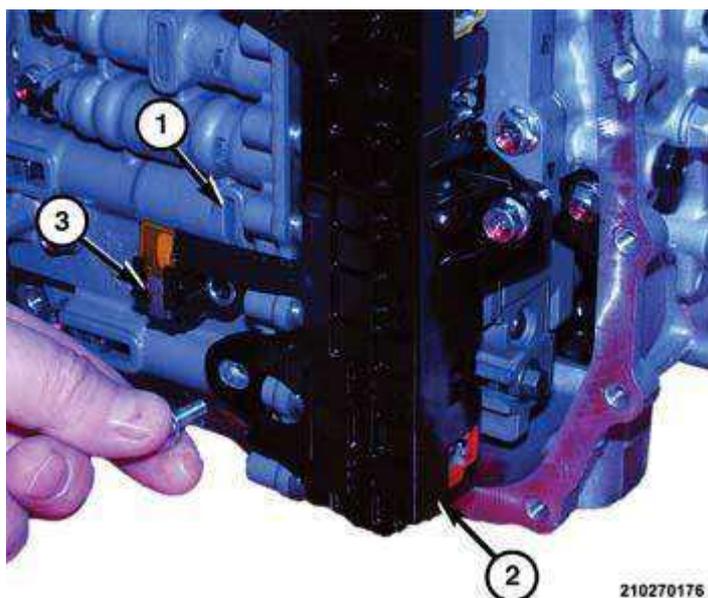


Fig. 166: Solenoid Valve Connector, Valve Body & Bolts
 Courtesy of CHRYSLER GROUP, LLC

18. Remove bolts holding the solenoid valve connector (2) to the valve body (1).

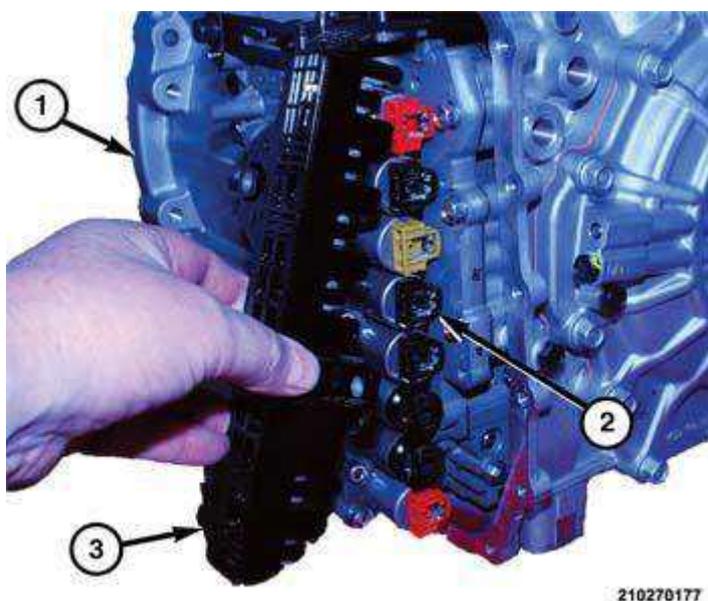


Fig. 167: Solenoids & Connector
 Courtesy of CHRYSLER GROUP, LLC

19. Starting at the bottom solenoid valve, using a suitable prying tool, pry outward at each solenoid (2) until the connector (3) is disengaged.

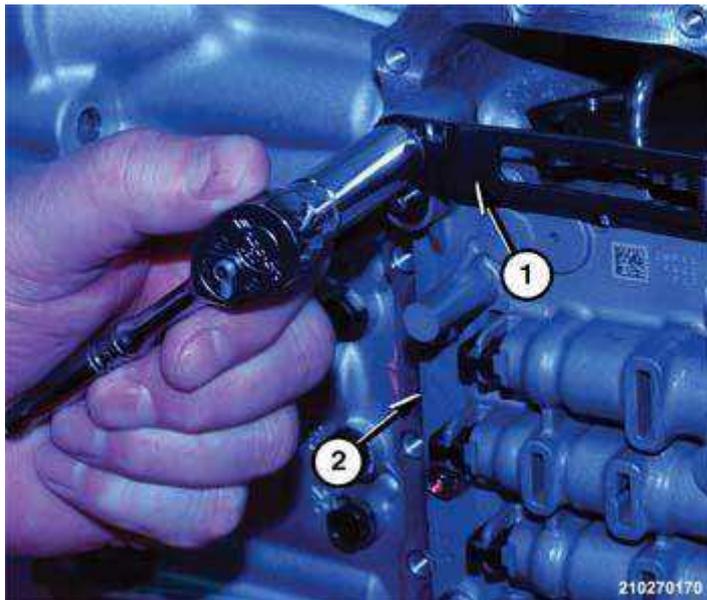


Fig. 168: Manual Shaft Detent Spring & Valve Body
Courtesy of CHRYSLER GROUP, LLC

20. Remove the screw holding the manual shaft detent spring (1) to the valve body (2).

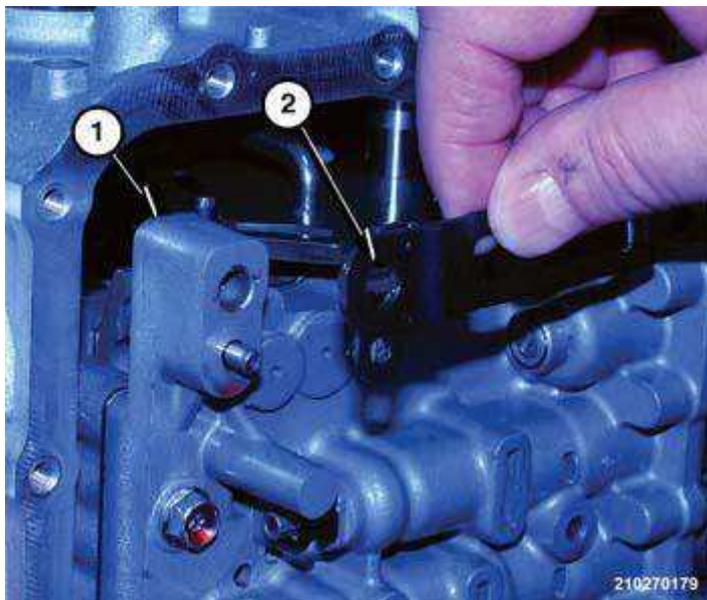


Fig. 169: Detent Spring Separated From Valve Body
Courtesy of CHRYSLER GROUP, LLC

21. Separate the detent spring (2) from the valve body (1).

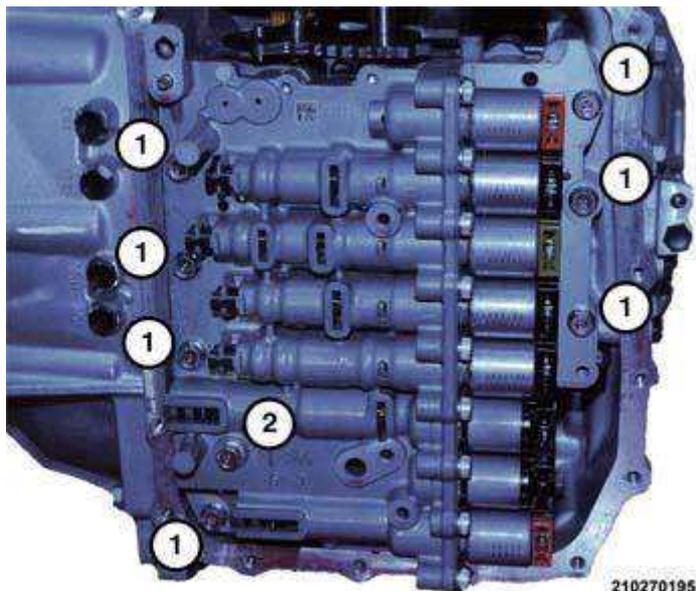


Fig. 170: Valve Body Bolts
Courtesy of CHRYSLER GROUP, LLC

22. Remove bolts, 7 short (1) and 1 long (2) bolts, holding the valve body to the transaxle.

The manual valve is loose after the valve body is removed and may fall out during removal.

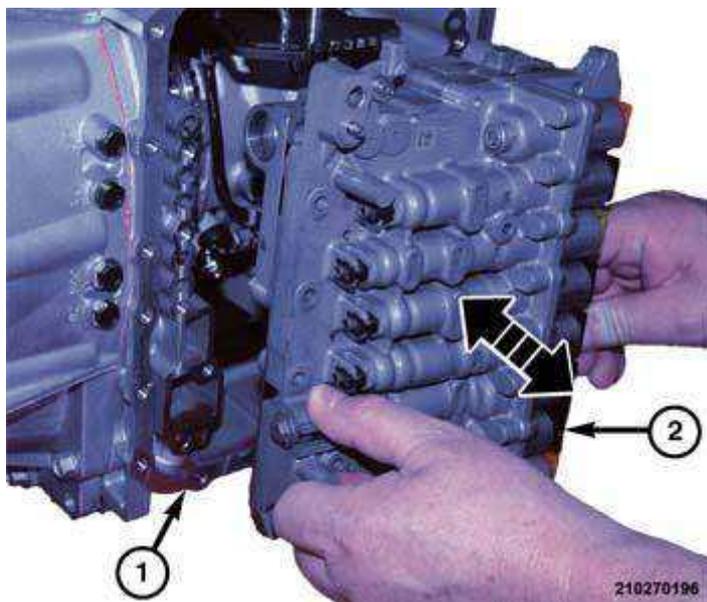


Fig. 171: Valve Body Separated From Transaxle
Courtesy of CHRYSLER GROUP, LLC

23. Separate the valve body (2) from the transaxle (1).

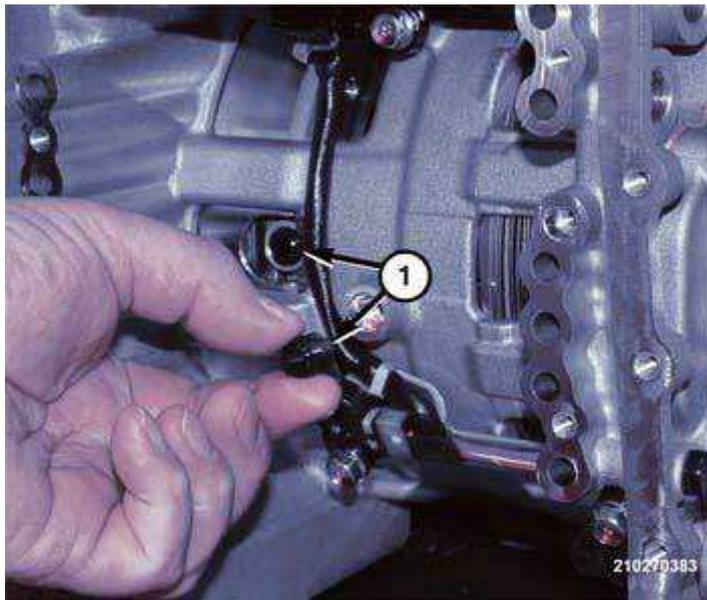


Fig. 172: Transfer Port Seals
Courtesy of CHRYSLER GROUP, LLC

24. Remove the two seals from the transfer ports in transaxle housing.

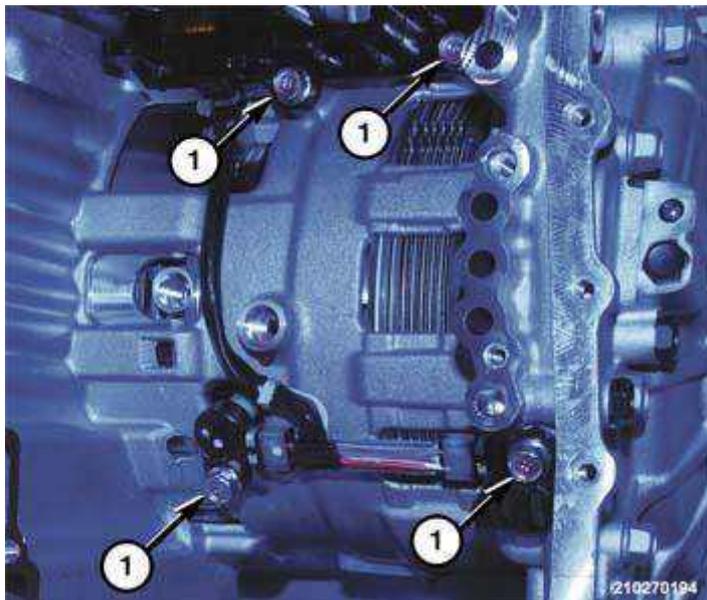


Fig. 173: Speed Sensors, Main Wire Harness & Bolts
Courtesy of CHRYSLER GROUP, LLC

25. Remove bolts (1) holding the speed sensors and main wire harness to transaxle.
26. Separate the speed sensors and main wire harness from the transaxle.

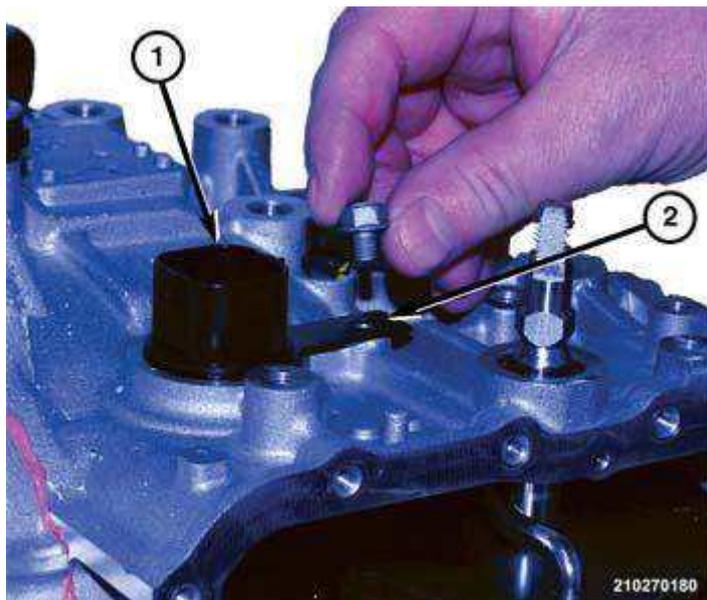


Fig. 174: Hold Down Bracket, Wire Connector & Bolts
Courtesy of CHRYSLER GROUP, LLC

27. Remove bolt holding the wire connector (1) hold down bracket (2) to the top of transaxle housing.

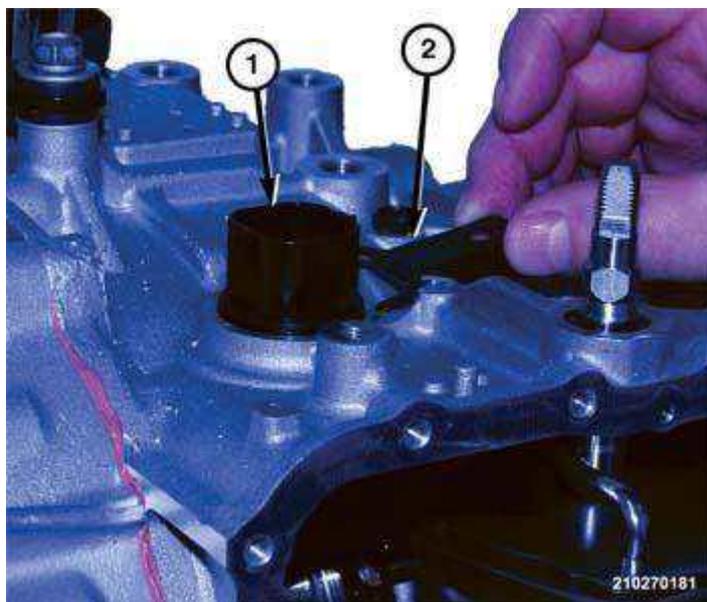


Fig. 175: Wire Connector & Hold Down Bracket Separated From Transaxle
Courtesy of CHRYSLER GROUP, LLC

28. Separate the wire connector (1) hold down bracket (2) from the transaxle.

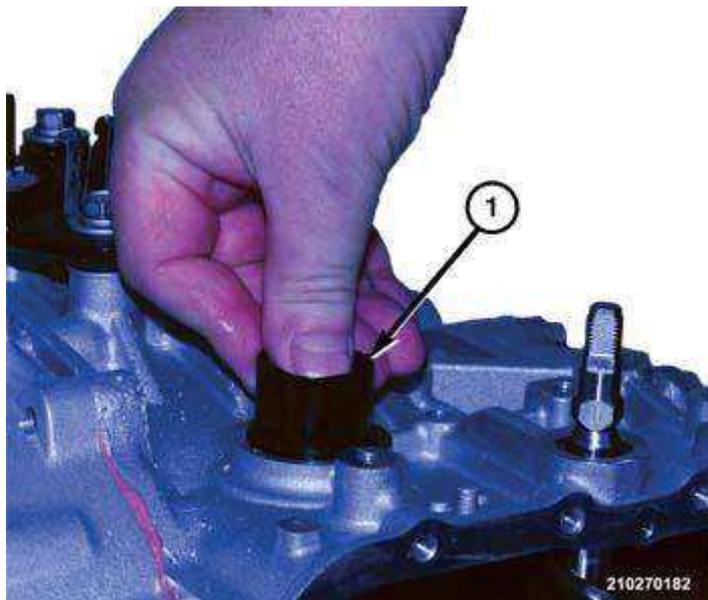


Fig. 176: Pushing Wire Connector Into Housing
Courtesy of CHRYSLER GROUP, LLC

29. Push the wire connector (1) inward to the inside of the transaxle housing.

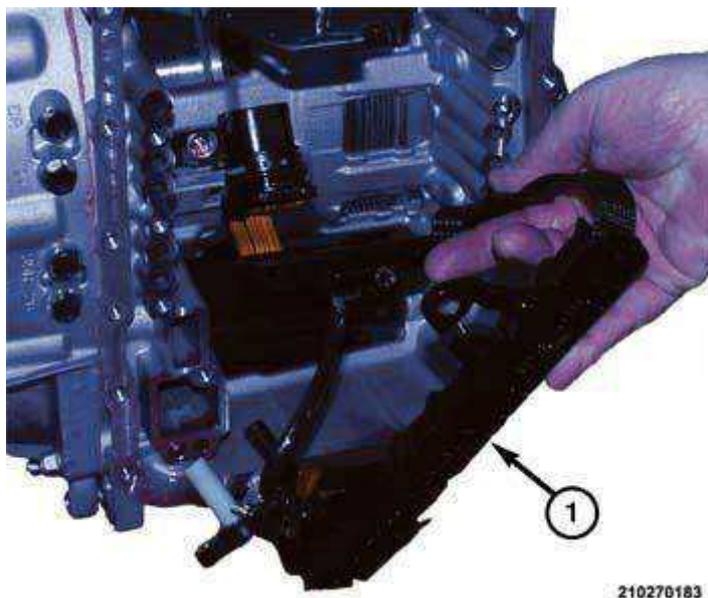


Fig. 177: Main Wire Harness & Sensors
Courtesy of CHRYSLER GROUP, LLC

30. Separate the main wire harness and sensors (1) from the transaxle.

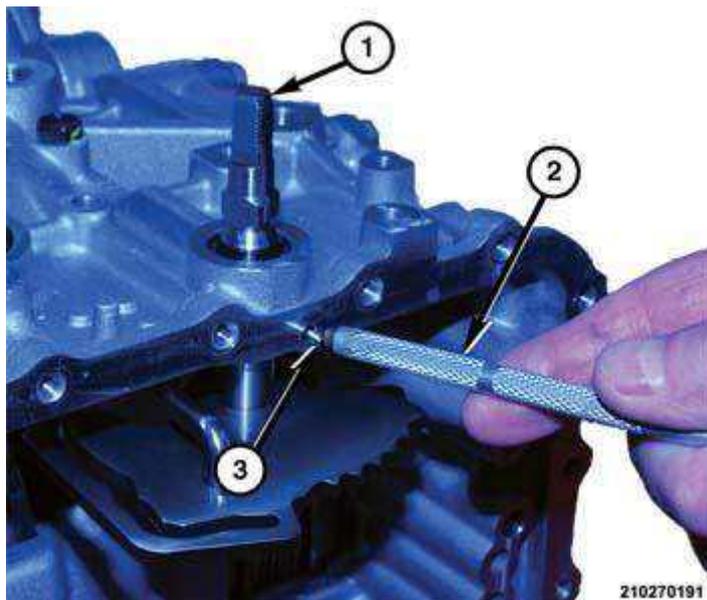


Fig. 178: Manual Shaft, Pin & Magnet
Courtesy of CHRYSLER GROUP, LLC

31. Using a suitable magnet (2), remove the pin (3) holding the manual shaft (1) in the transaxle from the hole in the pan gasket flange.

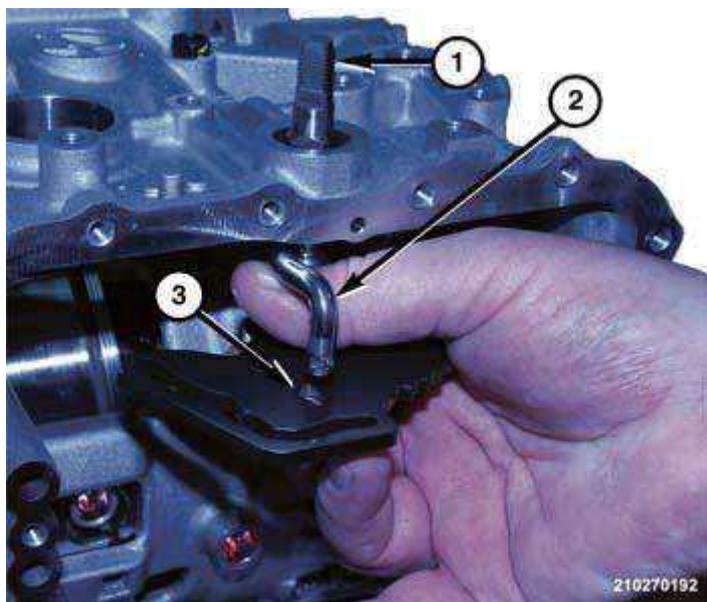


Fig. 179: Manual Shaft, Park Rod & Key Hole Slot
Courtesy of CHRYSLER GROUP, LLC

32. Rotate manual shaft (1) counterclockwise to align the staked nub on the park rod (2) with the key hole slot (3) in the manual shaft detent comb.
33. Push manual shaft (1) downward until park rod (2) disengages from the detent comb.

34. Push the manual shaft (1) inward to the inside of the transaxle.
35. Separate the manual shaft (1) from the transaxle.

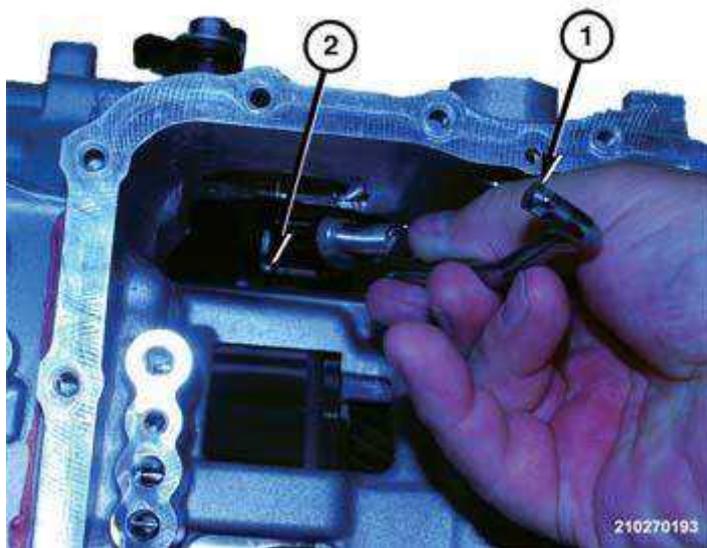
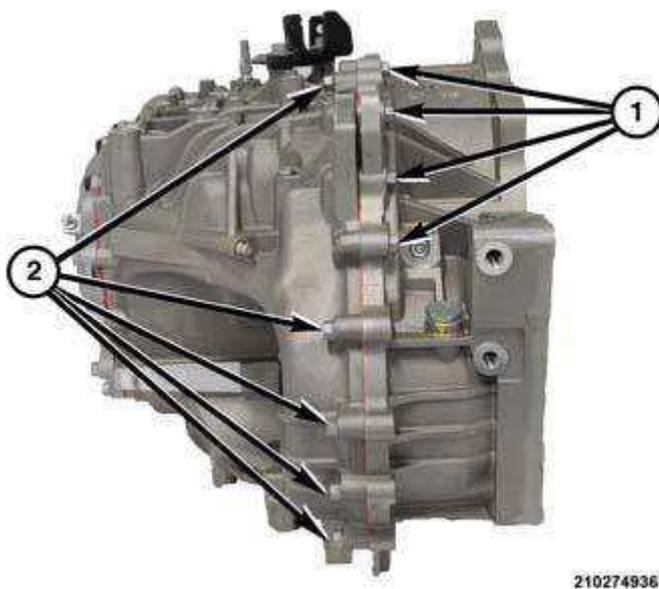


Fig. 180: Park Rod & Park Rod Guide
 Courtesy of CHRYSLER GROUP, LLC

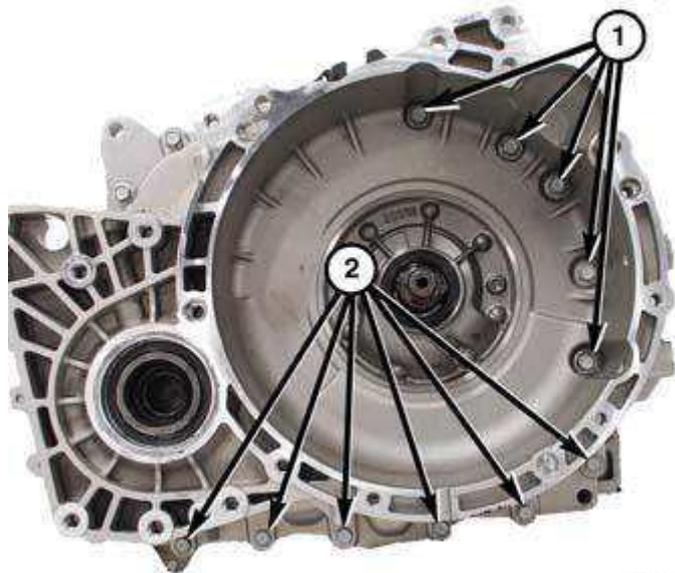
36. Disengage the park rod (1) from the park rod guide (2) in the transaxle housing.
37. Separate the park rod (1) from the transaxle.
38. Using a suitable tool, remove the lip seal from the manual shaft hole in the transaxle housing.



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Fig. 181: Transaxle Housing Bolts
Courtesy of CHRYSLER GROUP, LLC

39. Remove five bolts from the back (2) and four bolts from the top (1) of the transaxle housing.



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Fig. 182: Transaxle Housing Bolts
Courtesy of CHRYSLER GROUP, LLC

40. Remove six bolts from the bottom (2) of the transaxle housing.
41. Remove five bolts (1) from inside bell housing.
42. Using a suitable pry bar, pry the case halves apart in notch location on top of the housing.

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Fig. 183: Transaxle Housing Notch Locations
 Courtesy of CHRYSLER GROUP, LLC

43. Pry the case halves apart in notch location (2) on the bottom of the housing (1).



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Fig. 184: Transaxle Housing Halves
 Courtesy of CHRYSLER GROUP, LLC

44. Separate the bell housing (1) from the transaxle (2).
45. Remove bolts holding the fluid guide to the transaxle housing.
46. Separate the fluid guide from the transaxle.
47. Remove bolts holding the lubrication tube to the transaxle.

48. Separate the lubrication tube from the transaxle.

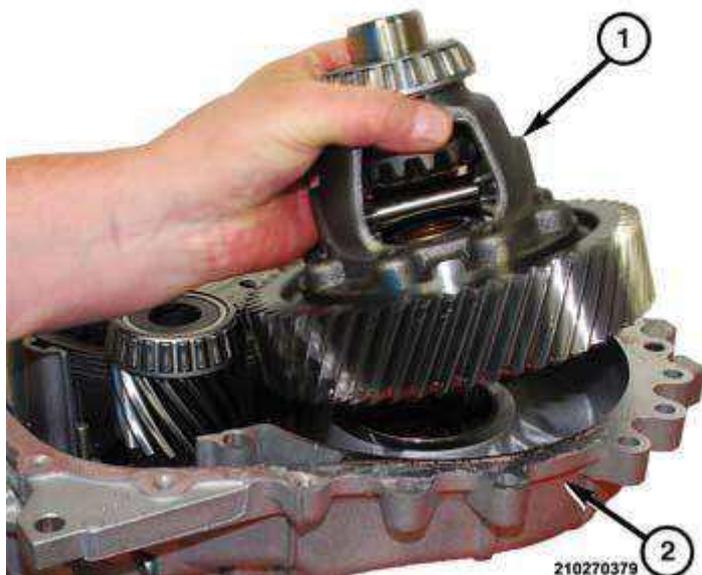


Fig. 185: Differential Assembly Separated From Transaxle Housing
Courtesy of CHRYSLER GROUP, LLC

49. Separate the differential assembly (1) from the transaxle housing (2).

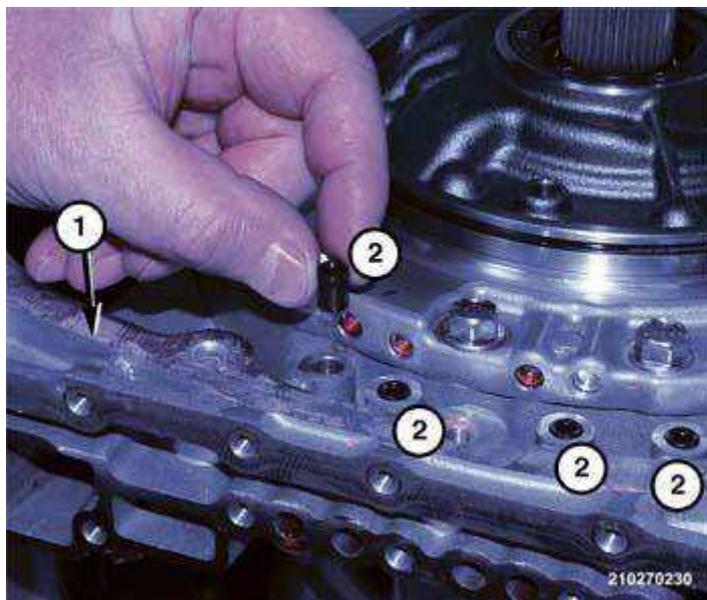


Fig. 186: Small Transfer Port Seals
Courtesy of CHRYSLER GROUP, LLC

50. Remove seals from four small transfer ports (2) in the transaxle housing (1).



Fig. 187: Large Transfer Port Seal
Courtesy of CHRYSLER GROUP, LLC

51. Remove seal from the large transfer port (1) in the axle housing (2).

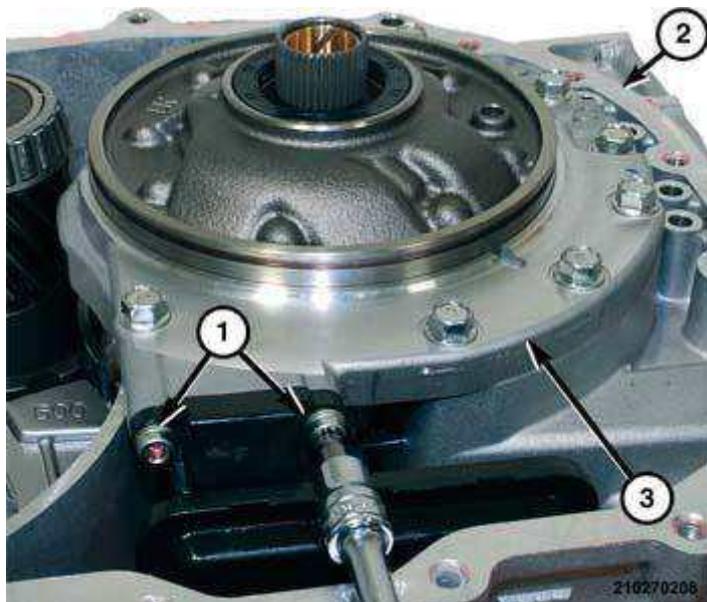


Fig. 188: Fluid Filter, Fluid Pump & Bolts
Courtesy of CHRYSLER GROUP, LLC

52. Remove bolts (1) holding the fluid filter to the fluid pump (3) housing.



Fig. 189: Fluid Filter Separated From Transaxle Housing
Courtesy of CHRYSLER GROUP, LLC

53. Separate the fluid filter (2) from the transaxle housing (1).

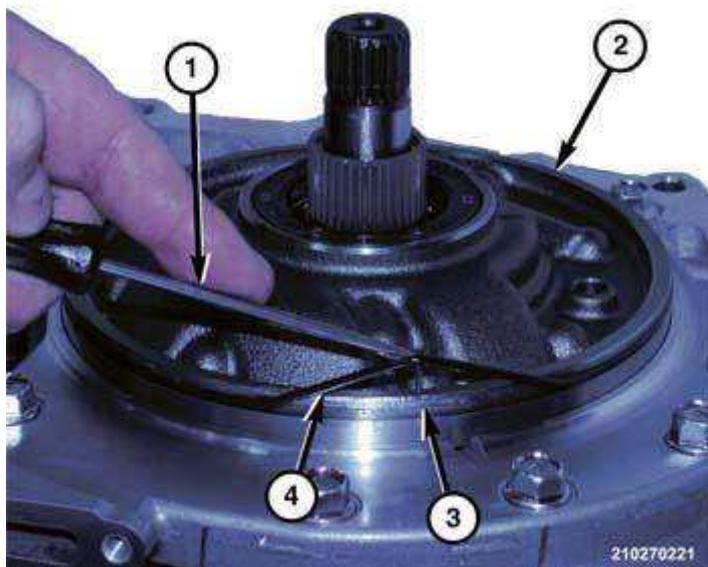


Fig. 190: Fluid Pump Housing O-Ring Seal & Hook Tool
Courtesy of CHRYSLER GROUP, LLC

54. Using a suitable hook tool (1), remove o-ring seal (4) from the groove (3) in the fluid pump housing (3).

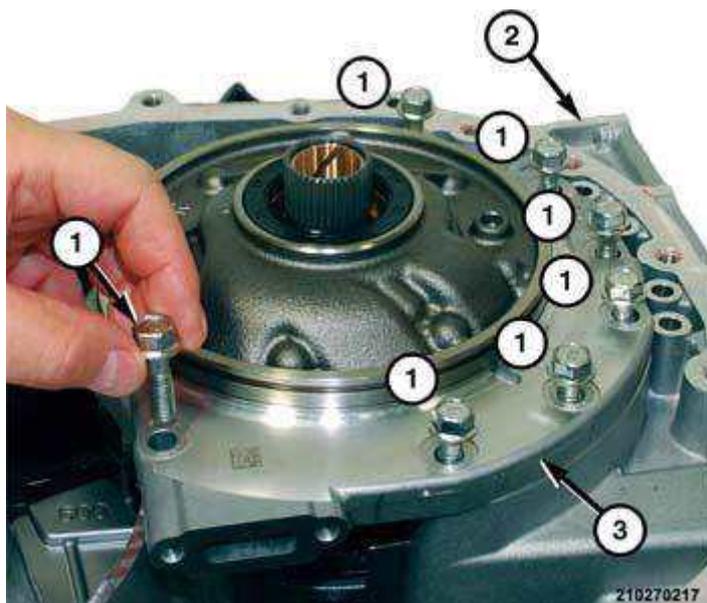


Fig. 191: Fluid Pump & Bolts
Courtesy of CHRYSLER GROUP, LLC

55. Remove bolts (1) holding fluid pump (3) to the trans axle housing (2).

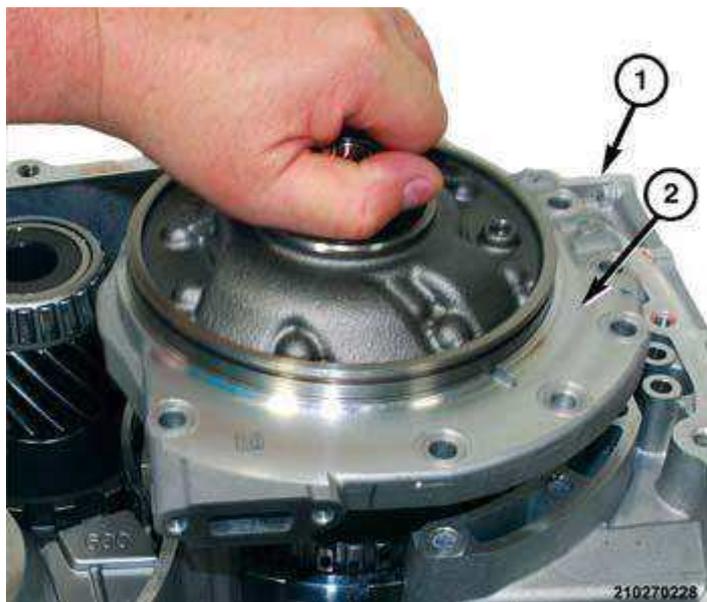


Fig. 192: Fluid Pump Separated From Transaxle Housing
Courtesy of CHRYSLER GROUP, LLC

56. Separate the fluid pump (2) from the transaxle housing (1).



Fig. 193: Thrust Washer & Fluid Pump
 Courtesy of CHRYSLER GROUP, LLC

57. Remove the plastic thrust washer (2) from the underside of the fluid pump (1). There are three nubs that insert into holes in the fluid pump hub to prevent the thrust washer from rotating.



Fig. 194: Split Seal Rings & Fluid Pump Hub
 Courtesy of CHRYSLER GROUP, LLC

58. Remove two split seal rings (3) from land-grooves (2) in fluid pump (1) hub.

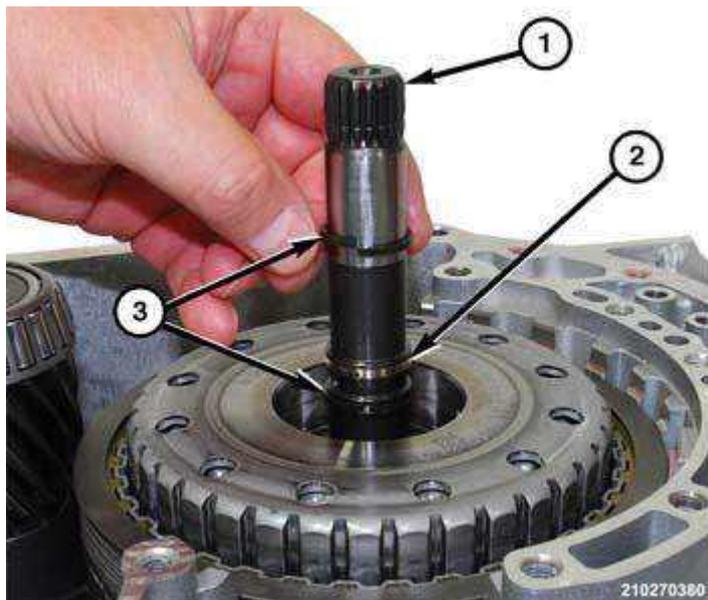


Fig. 195: Split Ring Seals & Input Shaft
Courtesy of CHRYSLER GROUP, LLC

59. Remove two split ring seals (2) from the input shaft (1).

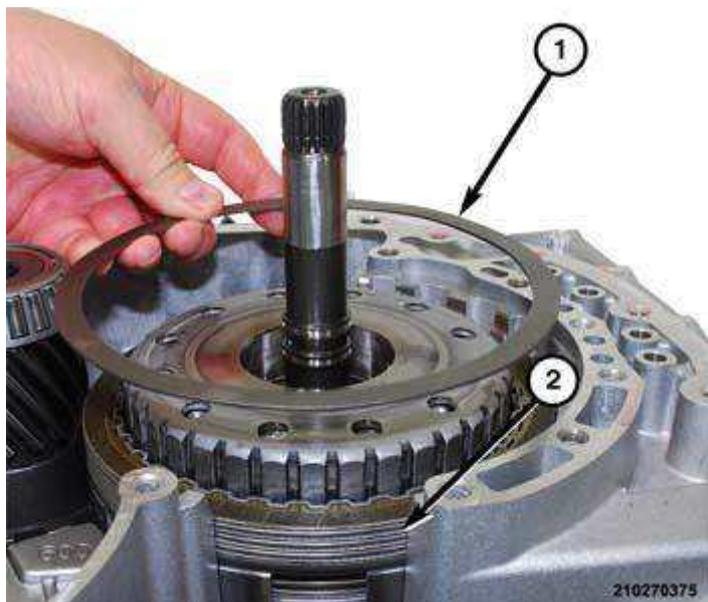


Fig. 196: 2/6 Brake Wave Plate & Hub
Courtesy of CHRYSLER GROUP, LLC

60. Remove 2/6 brake wave plate (1) from 2/6 brake hub.

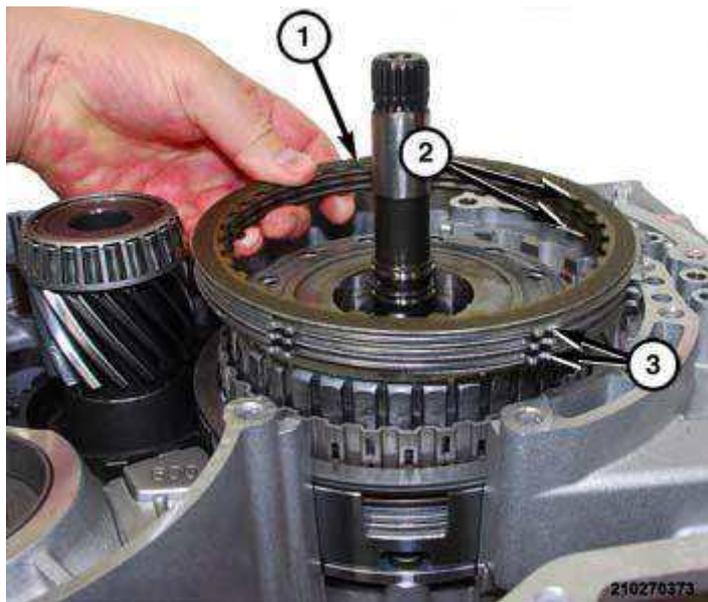


Fig. 197: 2/6 Brake Plates, Discs & Hub
Courtesy of CHRYSLER GROUP, LLC

61. Remove the 2/6 brake (1) plates (3) and discs (2) from the 2/6 brake hub.



Fig. 198: 2/6 Brake Select Thickness Reaction Plate & Hub
Courtesy of CHRYSLER GROUP, LLC

62. Remove 2/6 brake select thickness reaction plate (1) from the 2/6 brake hub.

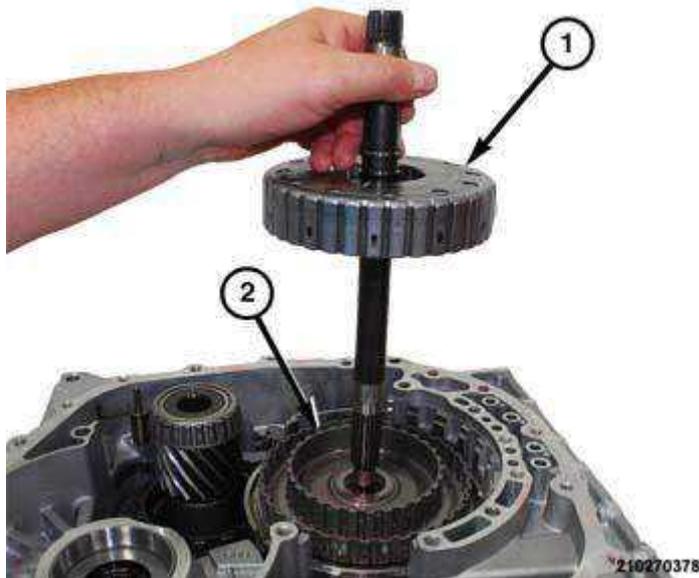


Fig. 199: 3/5/R Clutch Assembly, 3/5/R & 2/6 Brake Hub Assembly
 Courtesy of CHRYSLER GROUP, LLC

63. Remove the 3/5/R clutch assembly (1) from the 3/5/R and 2/6 brake hub (2) assembly.

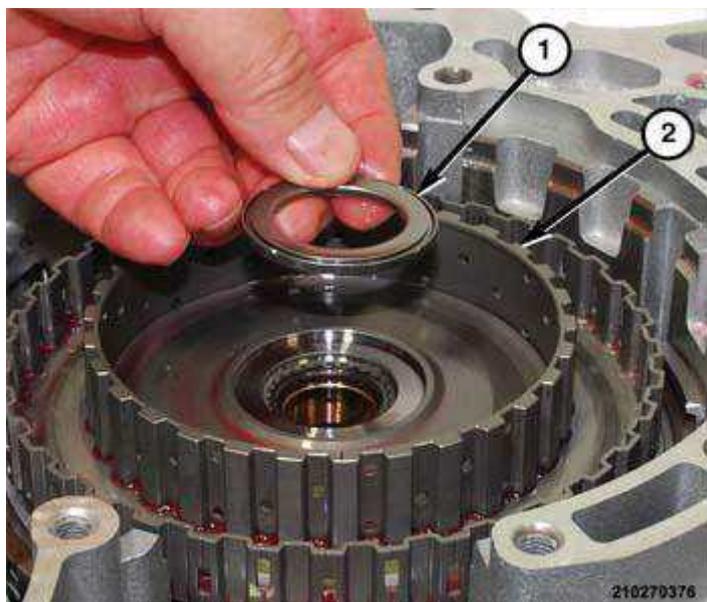


Fig. 200: 3/5/R Clutch & 2/6 Brake Hub, Thrust Bearing
 Courtesy of CHRYSLER GROUP, LLC

64. Remove the thrust bearing (2) from the 3/5/R clutch and 2/6 brake hub. Mark the side toward 3/5/R clutch and 2/6 brake hub on bearing for installation orientation.

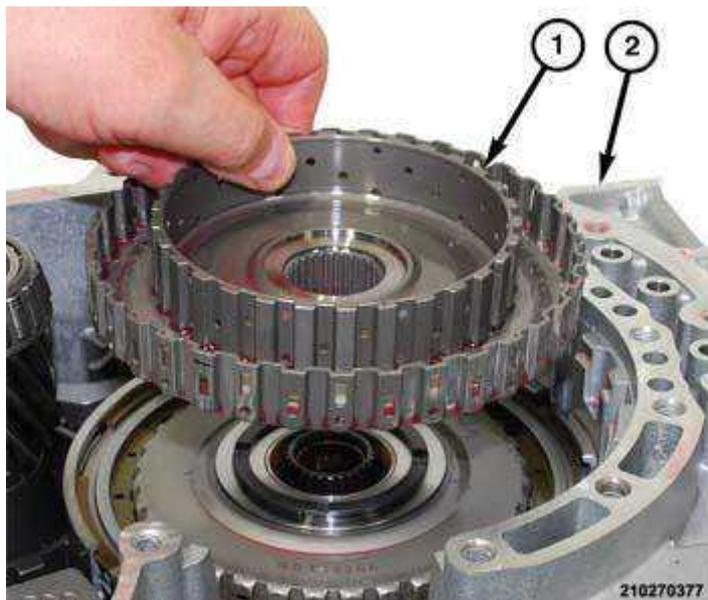


Fig. 201: 3/5/R Clutch & 2/6 Brake Hub Assembly
Courtesy of CHRYSLER GROUP, LLC

65. Remove the 3/5/R clutch and 2/6 brake hub (2) assembly from the underdrive brake.

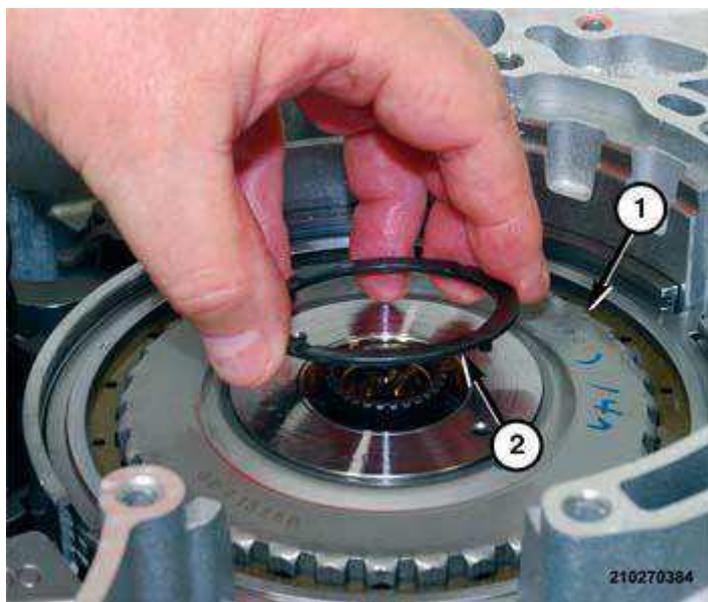


Fig. 202: Underdrive Brake Hub & Thrust Washer
Courtesy of CHRYSLER GROUP, LLC

66. Remove thrust washer (2) from underdrive brake hub.

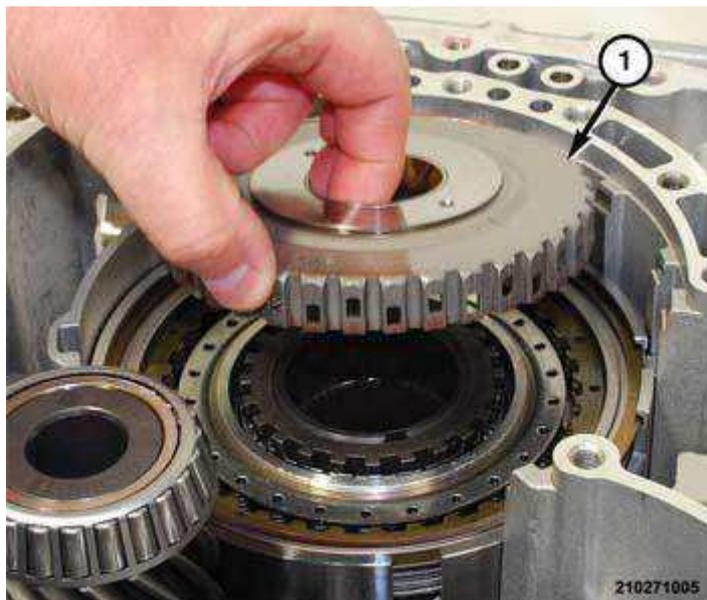


Fig. 203: Underdrive Brake Hub
Courtesy of CHRYSLER GROUP, LLC

67. Remove underdrive brake hub (1) assembly from transaxle.

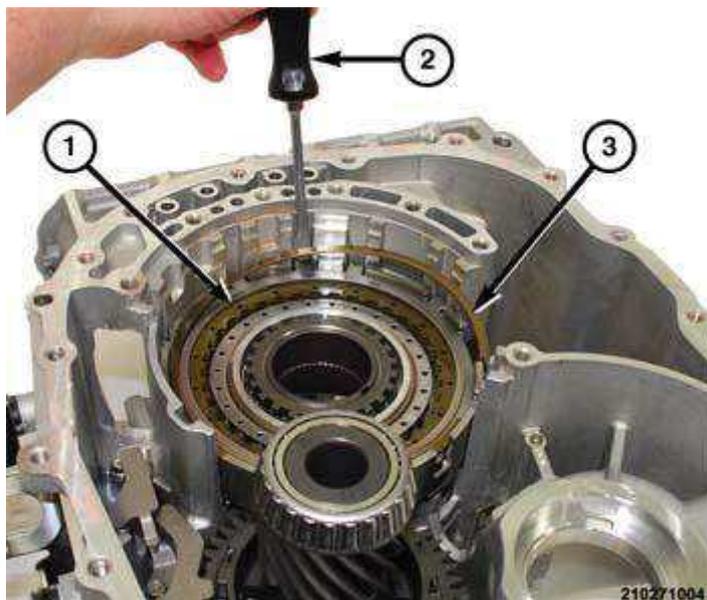


Fig. 204: Underdrive Brake, Underdrive Brake Drum, & Large Snap Ring
Courtesy of CHRYSLER GROUP, LLC

68. Remove large snap ring (3) holding underdrive brake (1) into underdrive brake drum.

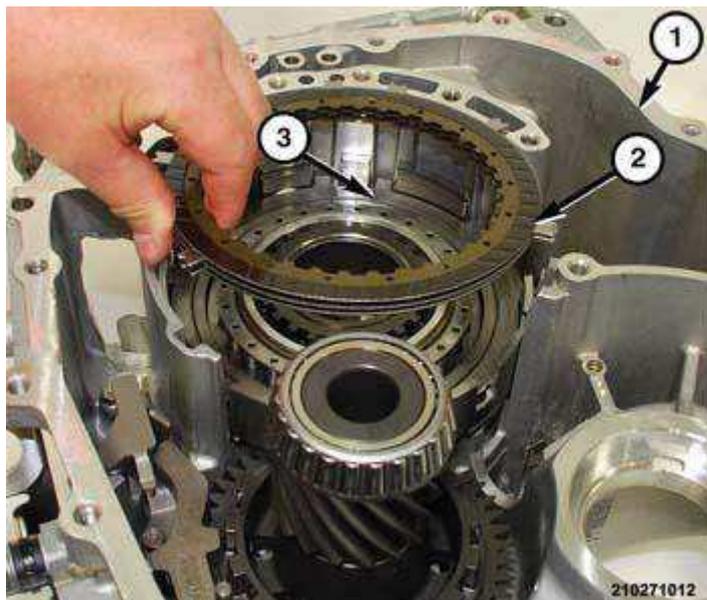


Fig. 205: Underdrive Brake Plates, Discs & Drum
Courtesy of CHRYSLER GROUP, LLC

69. Separate underdrive brake plates and discs from underdrive brake drum.
70. Turn the transaxle over to gain access to the rear cover.

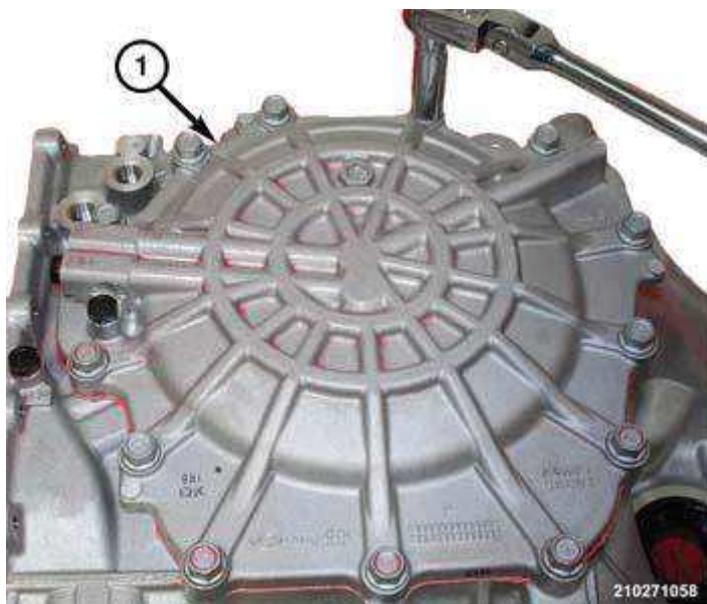


Fig. 206: Transaxle Rear Cover & Bolts
Courtesy of CHRYSLER GROUP, LLC

71. Remove bolts holding the rear cover (1) to the transaxle.

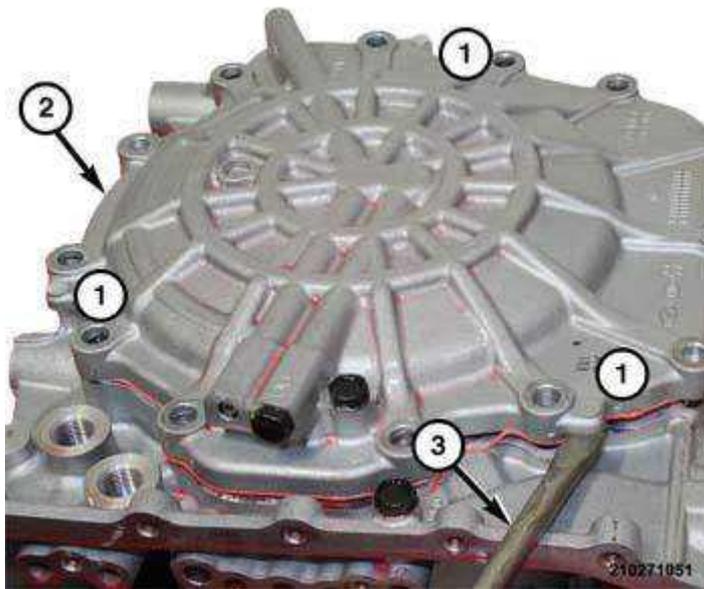


Fig. 207: Prying Locations At Rear Cover
Courtesy of CHRYSLER GROUP, LLC

72. In three locations (1) on the rear cover, pry upward using a suitable pry bar (3).



Fig. 208: Rear Cover Separated From Transaxle
Courtesy of CHRYSLER GROUP, LLC

73. Separate the rear cover (1) from the transaxle.

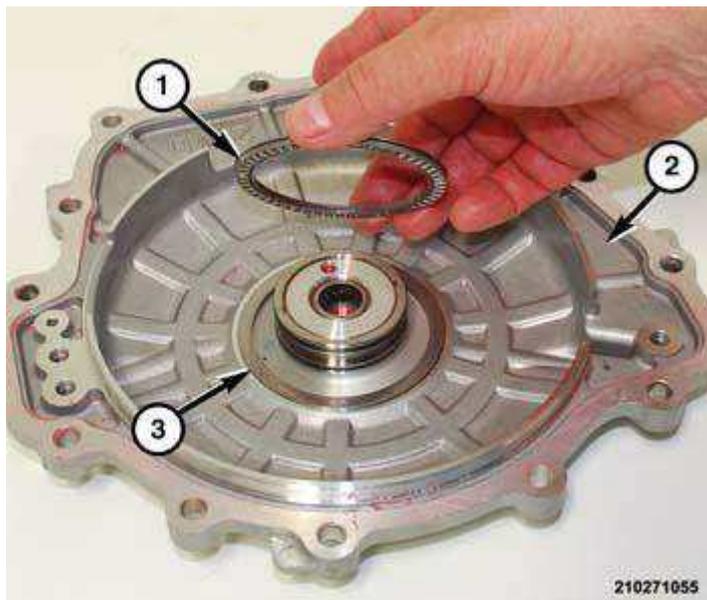


Fig. 209: Selective Spacer, Bearing & Rear Cover
Courtesy of CHRYSLER GROUP, LLC

74. Remove the selective spacer (3) and bearing (1) from under rear cover (2).

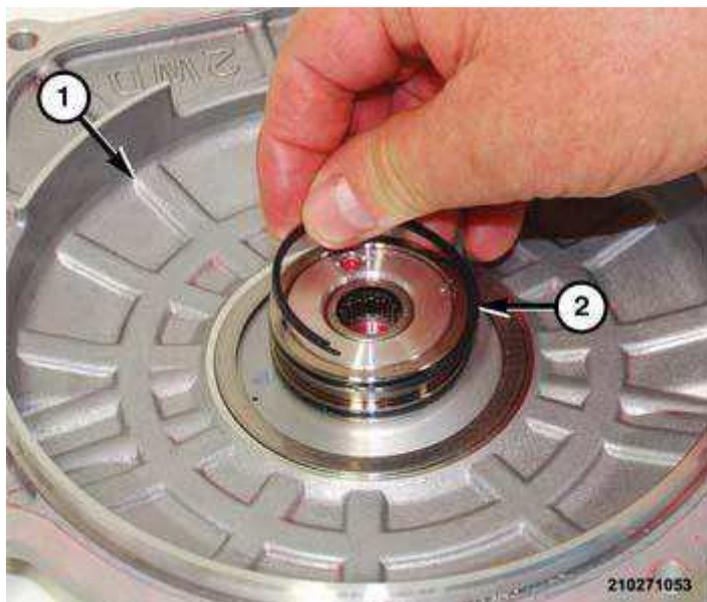


Fig. 210: Split Seal Rings & Rear Cover Hub
Courtesy of CHRYSLER GROUP, LLC

75. Remove the two split seal rings (2) from the lands in the rear cover (1) hub.

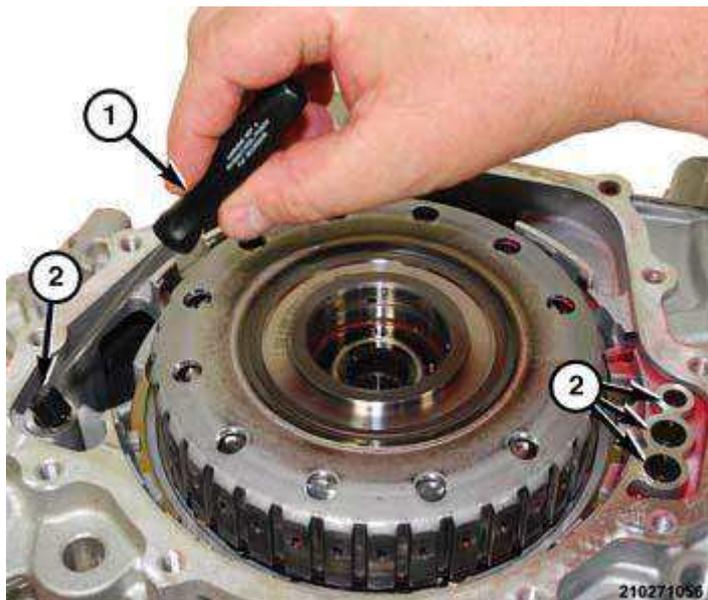


Fig. 211: Transfer Port Seals In Transaxle Housing
Courtesy of CHRYSLER GROUP, LLC

76. Using a suitable hook tool (1), Remove the four seals (2) from transfer ports in transaxle housing.

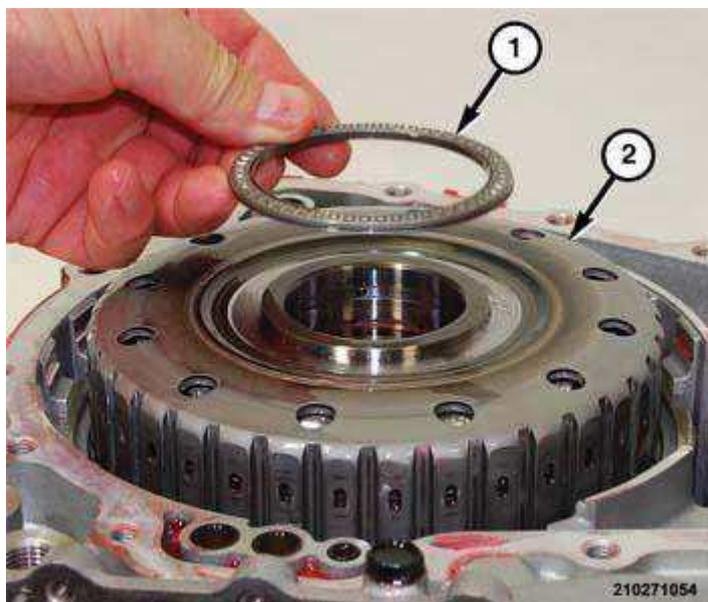


Fig. 212: Thrust Bearing & Overdrive Clutch Hub Assembly
Courtesy of CHRYSLER GROUP, LLC

77. Remove thrust bearing from the overdrive clutch hub assembly.

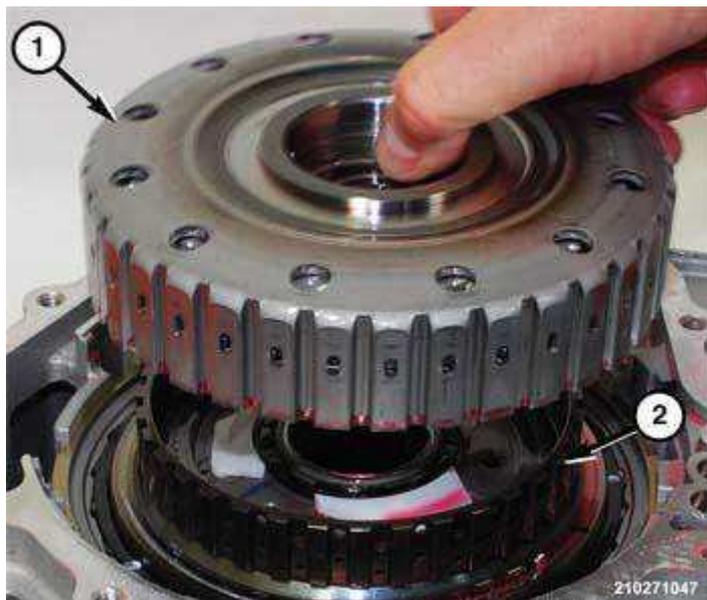


Fig. 213: Overdrive Clutch Assembly & One Way Clutch
Courtesy of CHRYSLER GROUP, LLC

78. Remove the overdrive clutch assembly (1) from the one way clutch (2).

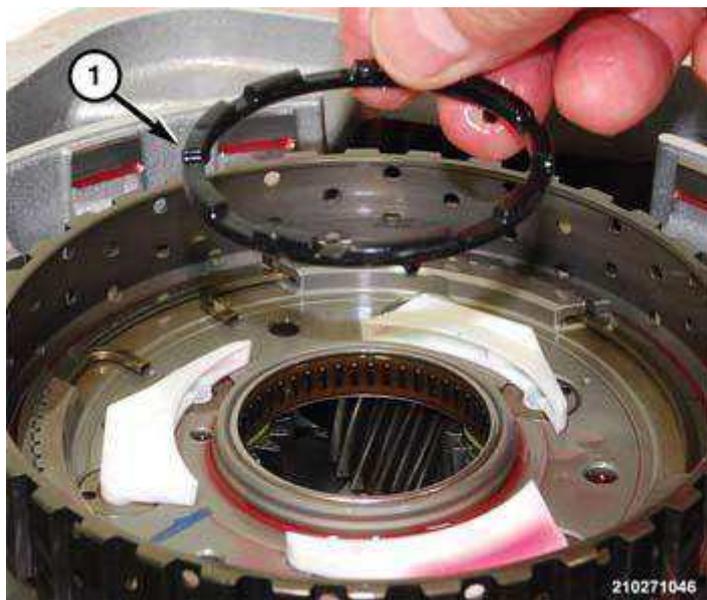


Fig. 214: Thrust Washer & Planetary Gear Assembly Hub
Courtesy of CHRYSLER GROUP, LLC

79. Remove the plastic thrust washer (1) from the planetary gear assembly hub.

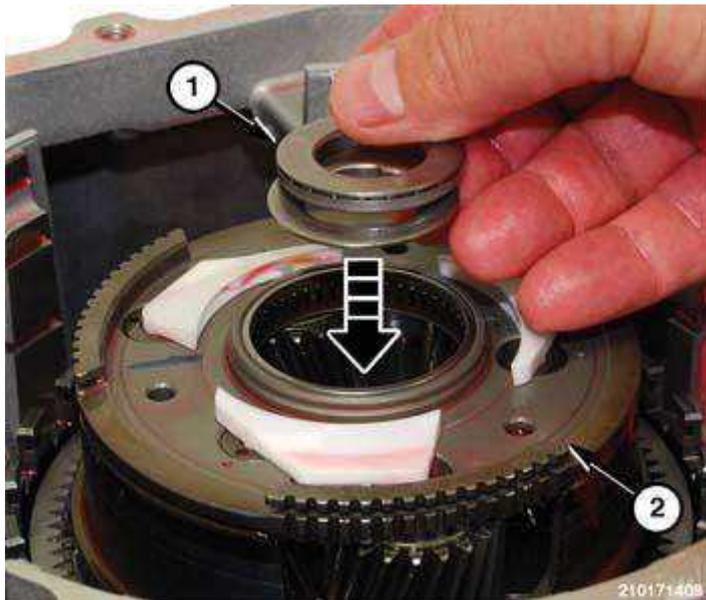


Fig. 215: Thrust Bearing, Race Set & Middle/Rear Planetary Gear Assembly

Courtesy of CHRYSLER GROUP, LLC

80. Using a suitable hook tool, lift the thrust bearing (1) and race set out of the center of the middle/rear planetary gear assembly (2).
81. Turn transaxle over to gain access to the underdrive springs.

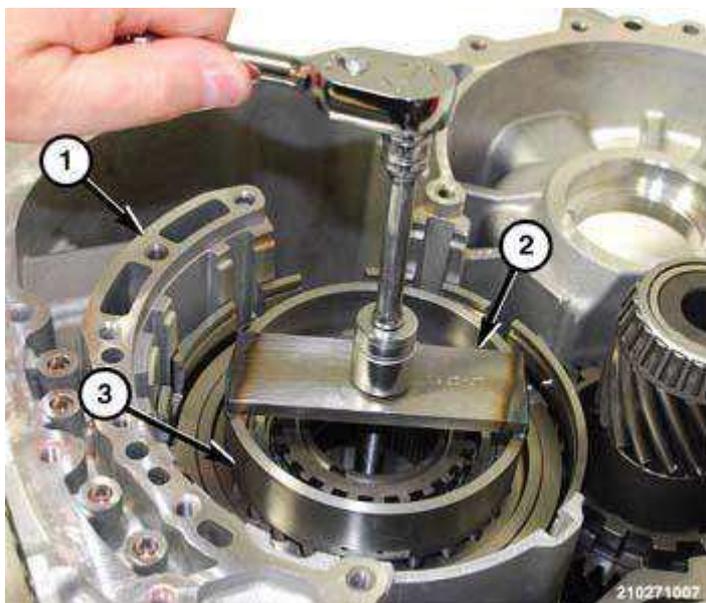


Fig. 216: Tool 5058A & Tool 10426

Courtesy of CHRYSLER GROUP, LLC

82. Insert the bolt for tool (special tool #5058A, Compressor, Spring) through tool (special tool #10426, Compressor, Underdrive Spring).



Fig. 217: Special Tool #5058A-3
Courtesy of CHRYSLER GROUP, LLC

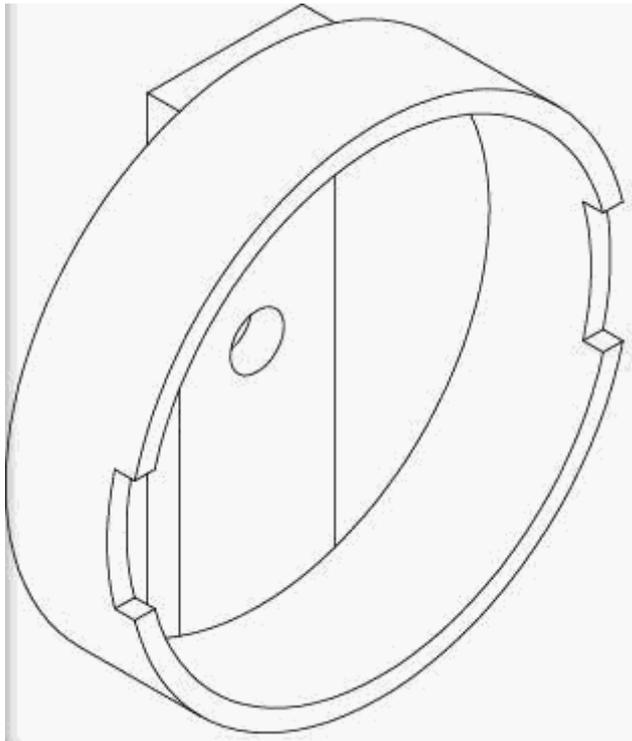
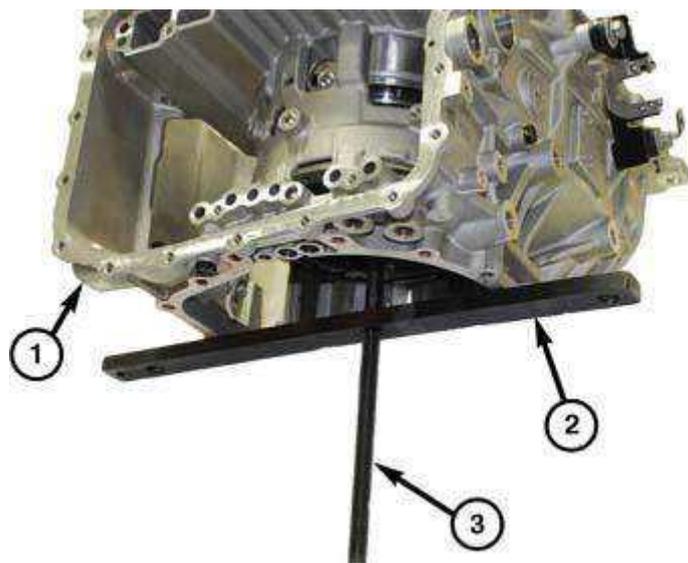


Fig. 218: Special Tool #10426
Courtesy of CHRYSLER GROUP, LLC

cardiagn.com



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Fig. 219: Tool Bolt & Tool Cross Bar
Courtesy of CHRYSLER GROUP, LLC

83. Insert the tool bolt with the spring compressor (special tool #5058A, Compressor, Spring) through the center of the transaxle and out the back into the threaded center bore of the tool cross bar spanning the back of the transaxle. Compress the underdrive springs (3) to gain access to the snap ring.

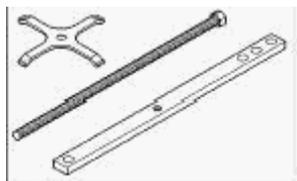


Fig. 220: Special Tool #5058A-3
Courtesy of CHRYSLER GROUP, LLC

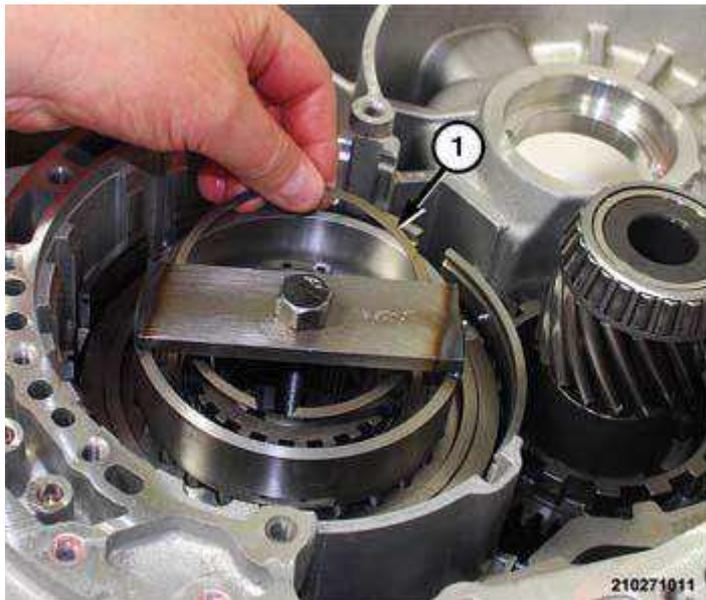


Fig. 221: Underdrive Spring Plate Snap Ring
Courtesy of CHRYSLER GROUP, LLC

84. Remove the snap ring holding the underdrive spring plate to the underdrive brake hub.

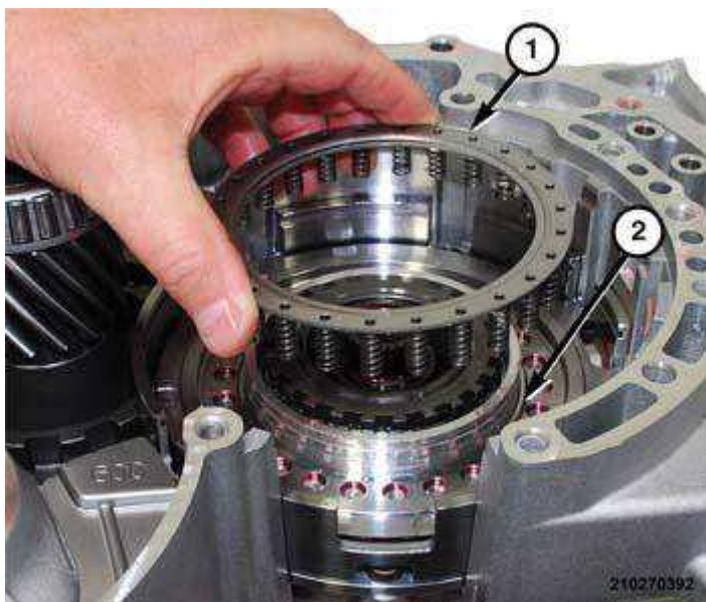


Fig. 222: Underdrive Spring Retainer & Underdrive Brake Piston
Courtesy of CHRYSLER GROUP, LLC

85. Remove the spring compressor tool from the transaxle.
86. Separate the underdrive spring retainer (1) from the underdrive brake piston (2).

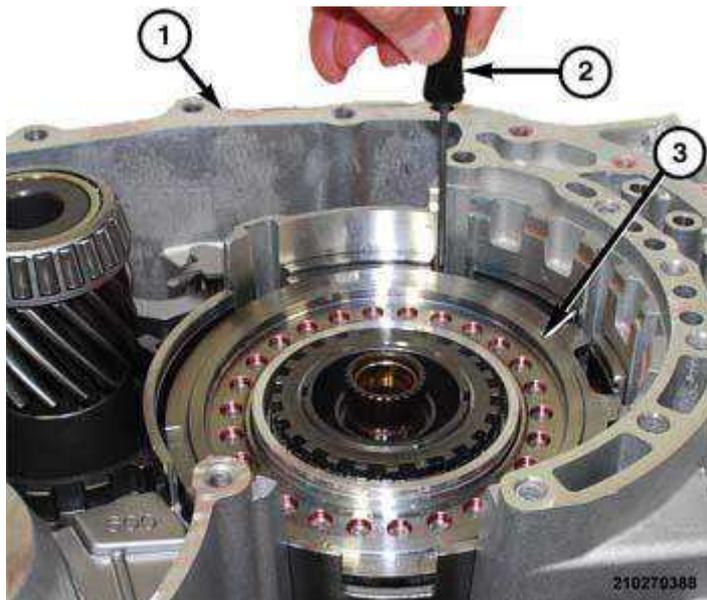


Fig. 223: Underdrive Brake Piston & Underdrive Brake Chamber
Courtesy of CHRYSLER GROUP, LLC

87. Using a suitable pick tool (2) lift the underdrive brake piston (3), in several locations, from the underdrive brake chamber.

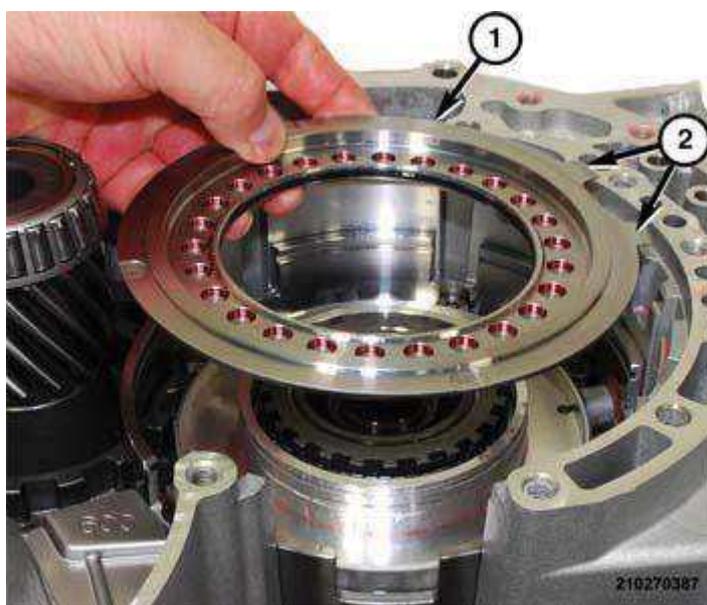


Fig. 224: Underdrive Brake Piston & Location Tabs
Courtesy of CHRYSLER GROUP, LLC

88. Remove the underdrive brake piston (1) from the underdrive brake piston chamber.

NOTE: The location tabs (2) on the underdrive brake piston

should be oriented toward the valve body opening in the transaxle.

89. Remove the D-ring outer seal and the O-ring inner seal from the underdrive piston.

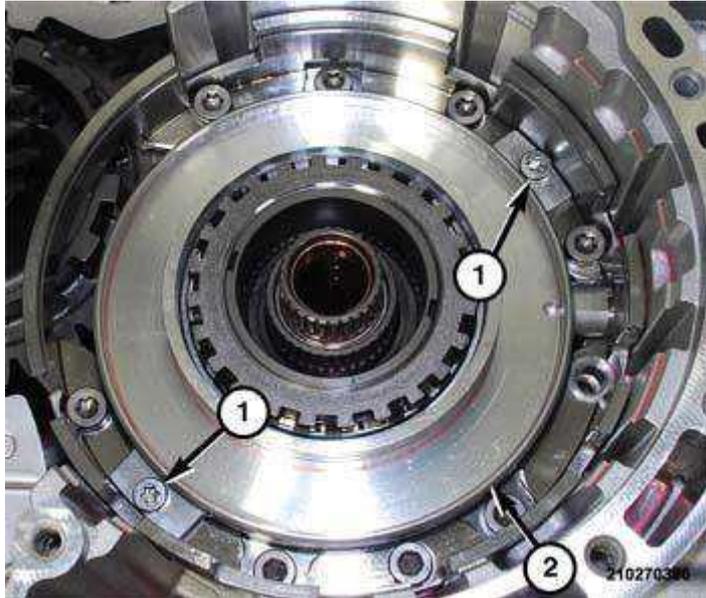


Fig. 225: Underdrive Brake Chamber & Bolts
Courtesy of CHRYSLER GROUP, LLC

90. Remove bolts (1) holding the underdrive brake chamber (2) to the transaxle housing.



Fig. 226: Underdrive Brake Chamber & Transaxle Housing

Courtesy of CHRYSLER GROUP, LLC

91. Separate the underdrive brake chamber from the transaxle housing.



Fig. 227: Underdrive Brake Retainer & Bolts
Courtesy of CHRYSLER GROUP, LLC

92. Mark the location and direction of the underdrive brake retainer in relation to the bolt holes in the transaxle housing to ensure proper installation.
93. Using an impact driver (1), loosen the bolts holding the underdrive brake retainer (2) to the transaxle housing without damaging the Torx® drive heads.

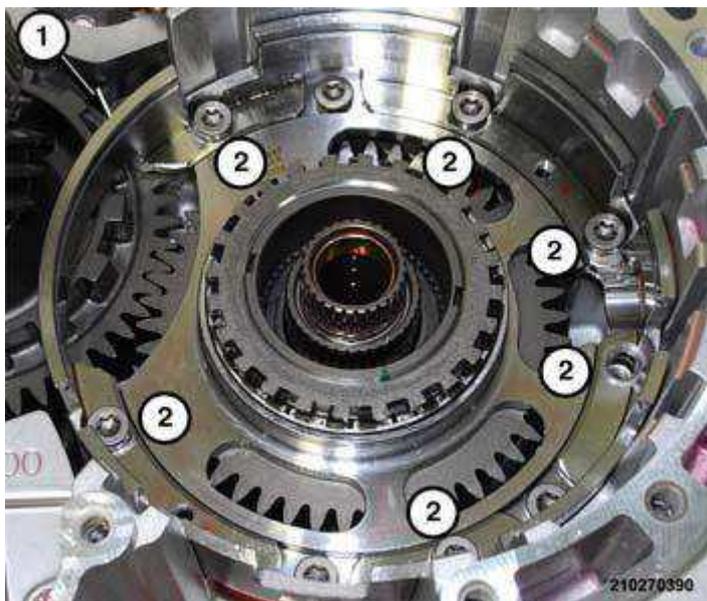


Fig. 228: Underdrive Brake Retainer & Bolts
 Courtesy of CHRYSLER GROUP, LLC

94. Remove bolts (2) holding the underdrive brake retainer (1) to the transaxle housing.

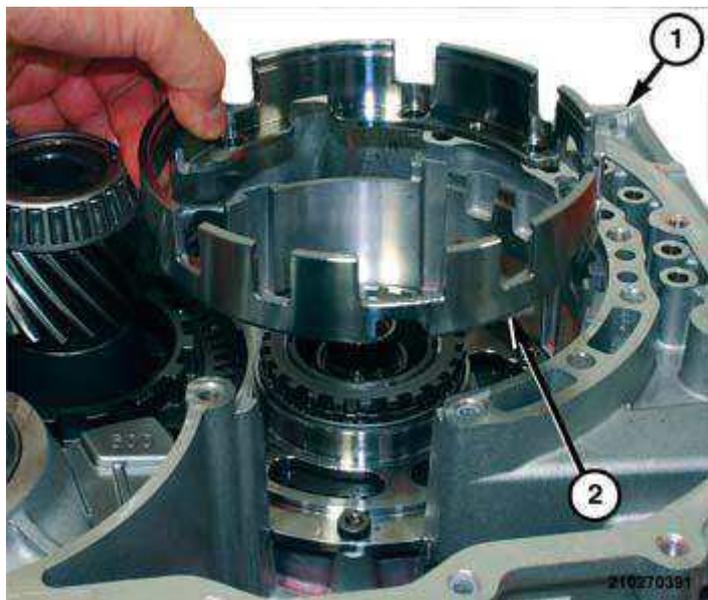


Fig. 229: Underdrive Brake Retainer & Transaxle Housing
 Courtesy of CHRYSLER GROUP, LLC

95. Separate the underdrive brake retainer (2) from the transaxle housing (1).

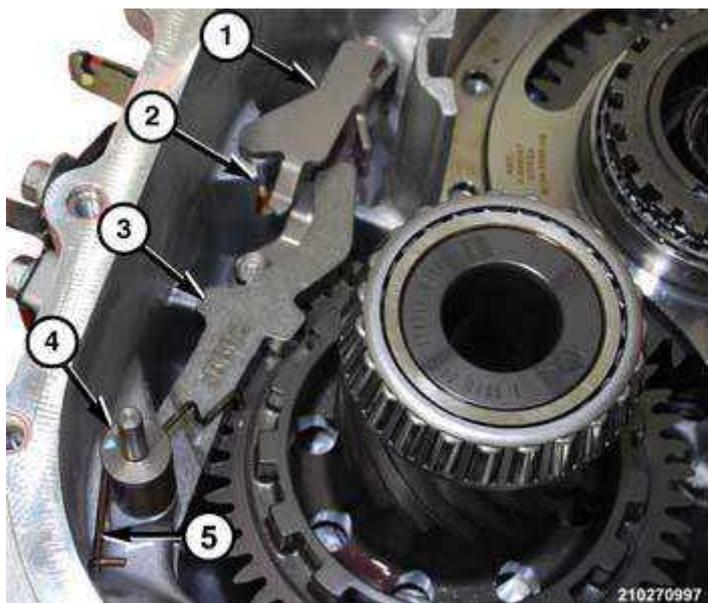


Fig. 230: Park Rod Guide & Bolts
 Courtesy of CHRYSLER GROUP, LLC

96. Remove bolts holding the park rod guide (1) from the transaxle housing.

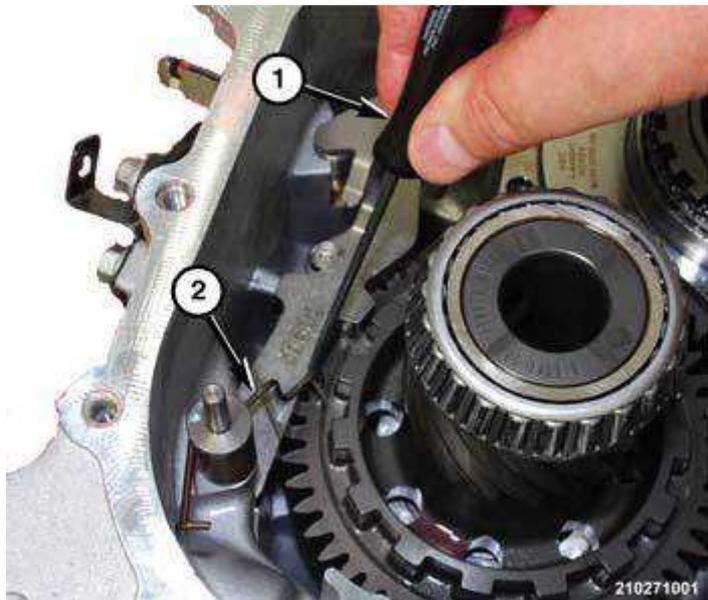


Fig. 231: Park Sprag Spring & Park Sprag
Courtesy of CHRYSLER GROUP, LLC

97. Using a suitable hook tool (1), lift the park sprag spring (2) off the park sprag.



Fig. 232: Park Sprag Spring, Shaft & Transaxle Housing
Courtesy of CHRYSLER GROUP, LLC

98. Remove the park sprag spring and shaft (1) from the transaxle housing.

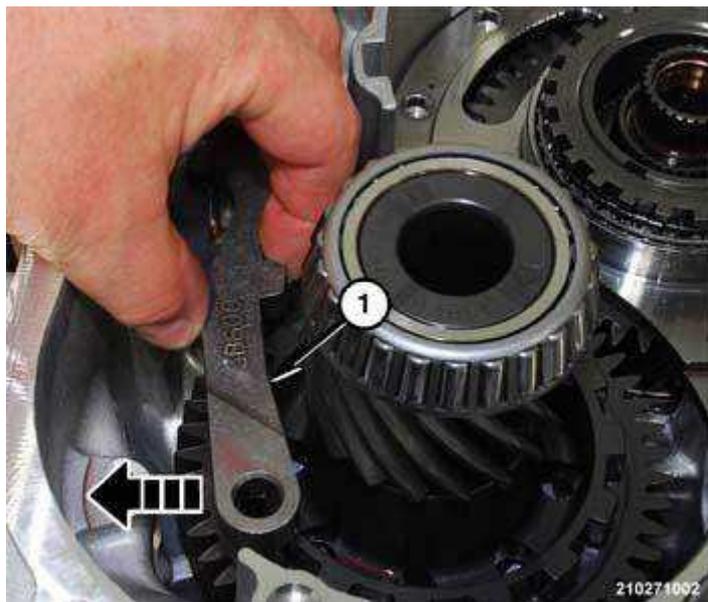


Fig. 233: Park Sprag & Transaxle Housing
Courtesy of CHRYSLER GROUP, LLC

99. Separate the park sprag (1) from the transaxle housing.

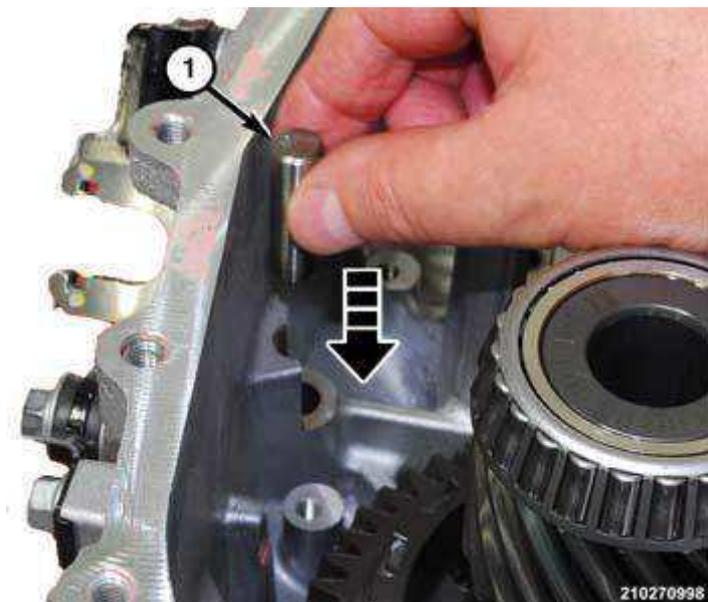


Fig. 234: Park Sprag Support Shaft & Transaxle Housing
Courtesy of CHRYSLER GROUP, LLC

00. Remove the park sprag support shaft (1) from the transaxle housing.

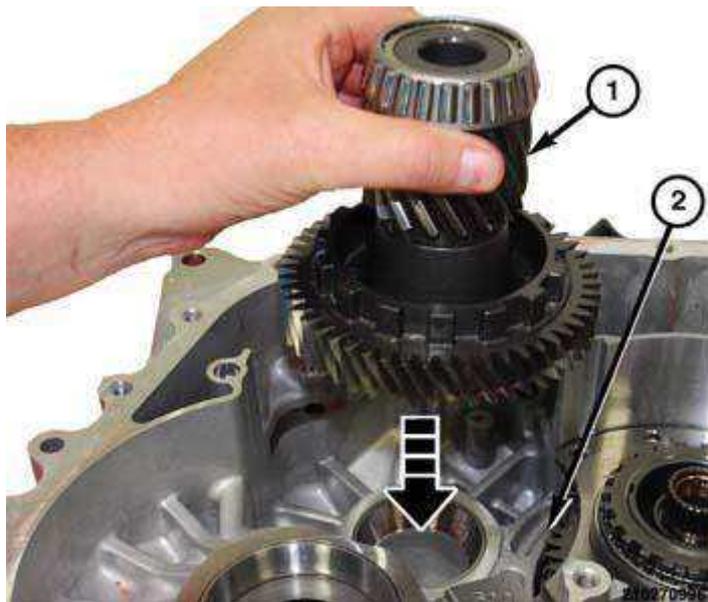


Fig. 235: Transfer Driven Gear Assembly & Transaxle
Courtesy of CHRYSLER GROUP, LLC

01. Remove the transfer driven gear (1) assembly from the transaxle (2).
02. Turn the transaxle over to gain access to the One-way-clutch.

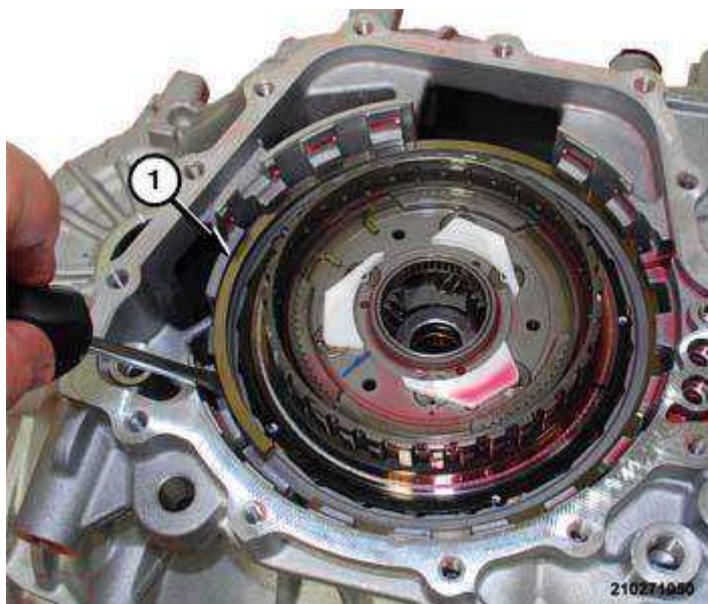


Fig. 236: One-Way-Clutch Snap Ring
Courtesy of CHRYSLER GROUP, LLC

03. Remove the snap ring (1) holding the OWC to the transaxle housing.

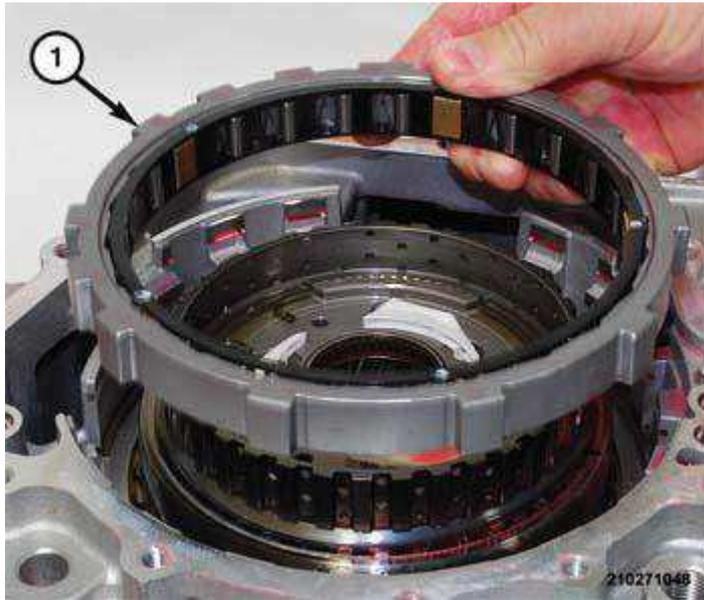


Fig. 237: One-Way-Clutch
Courtesy of CHRYSLER GROUP, LLC

04. Separate the OWC (1) from the transaxle. Mark the one way clutch to aid installation orientation.

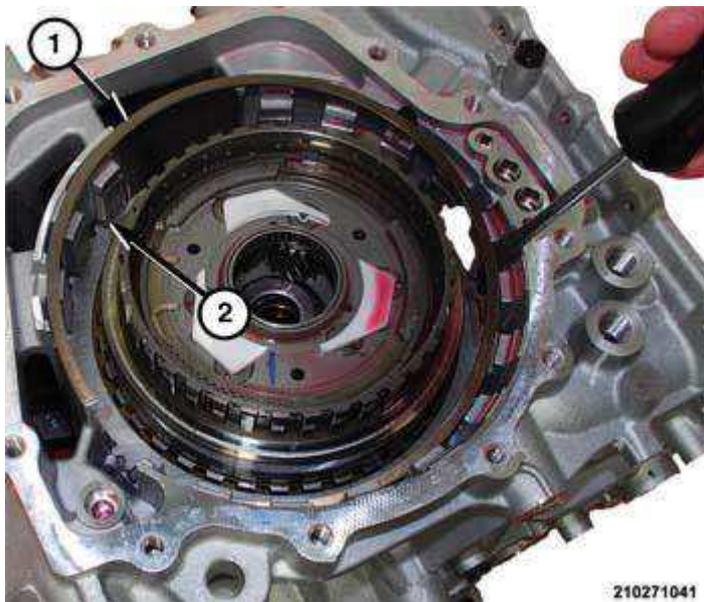


Fig. 238: Low/Reverse Brake & Snap Ring
Courtesy of CHRYSLER GROUP, LLC

05. Remove the snap ring (2) holding low/reverse brake into transaxle.

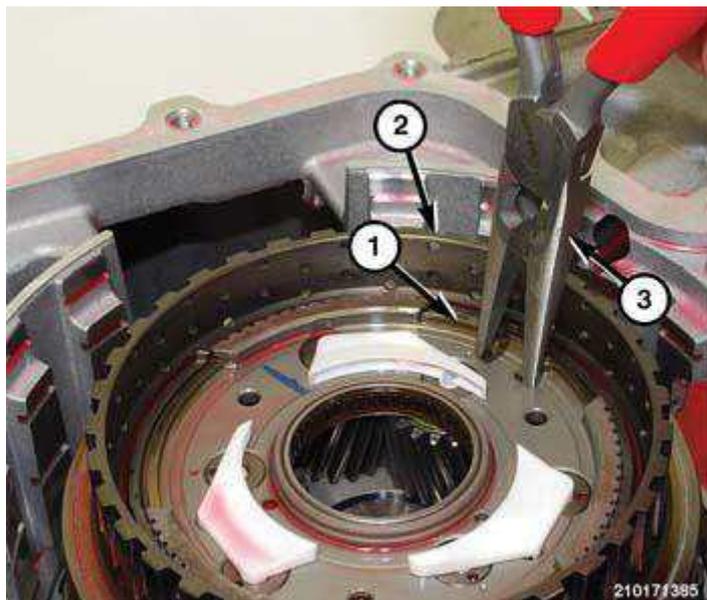


Fig. 239: One Way Clutch Race & Snap Ring
Courtesy of CHRYSLER GROUP, LLC

06. Separate the low & reverse brake pressure plate, cushion plate and discs and plates, in order, from transaxle.
07. Compress snap ring (1) holding one way clutch race (2) into transaxle.

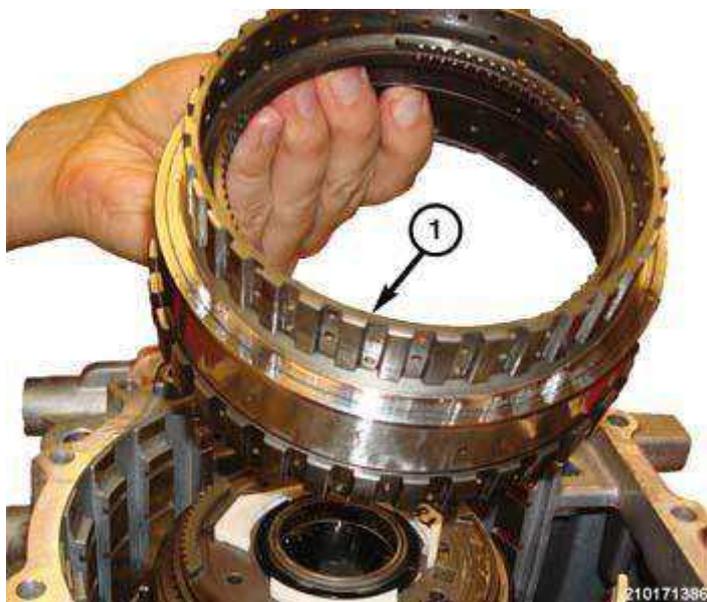


Fig. 240: One Way Clutch Inner Race
Courtesy of CHRYSLER GROUP, LLC

08. Separate the one way clutch inner race (1) from the transaxle.

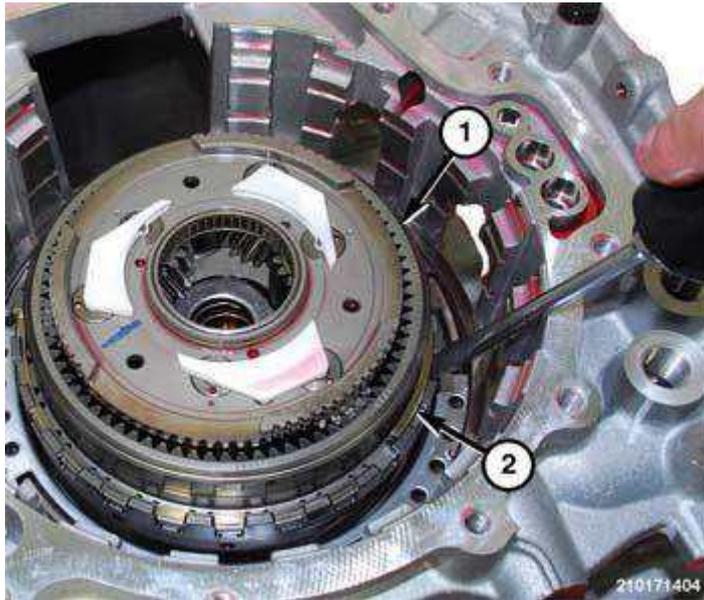


Fig. 241: Rear Annulus Gear & Snap Ring
Courtesy of CHRYSLER GROUP, LLC

09. Remove the snap ring (2) holding the rear annulus gear (1) into transaxle.

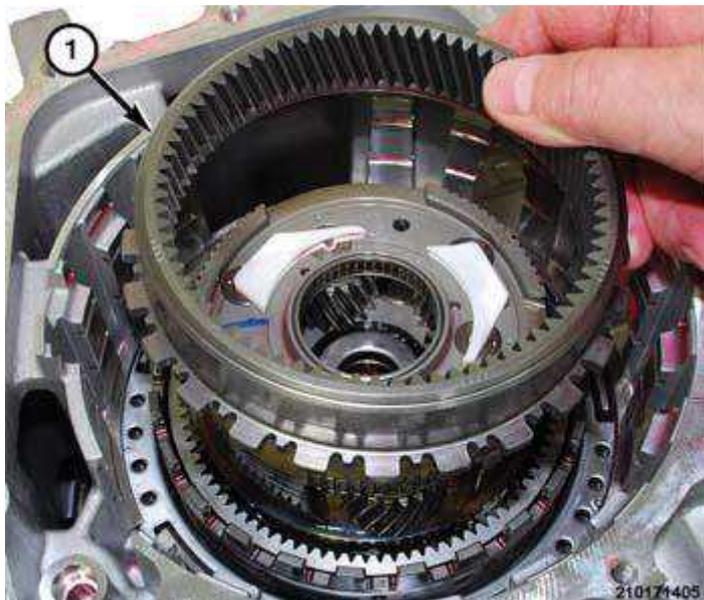


Fig. 242: Rear Annulus Gear
Courtesy of CHRYSLER GROUP, LLC

10. Separate the rear annulus gear (1) from the transaxle.

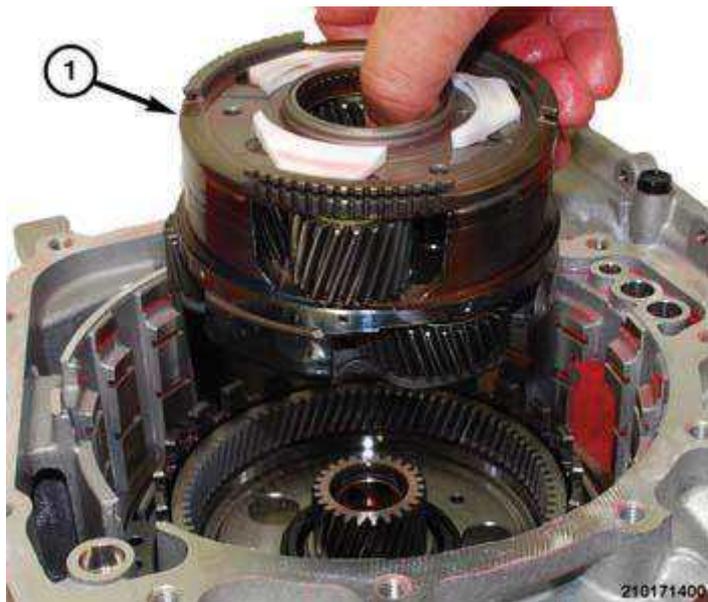


Fig. 243: Middle/Rear Planetary Gear Assembly
Courtesy of CHRYSLER GROUP, LLC

11. Separate the middle/rear planetary gear assembly (1) and from the planetary gear hub.

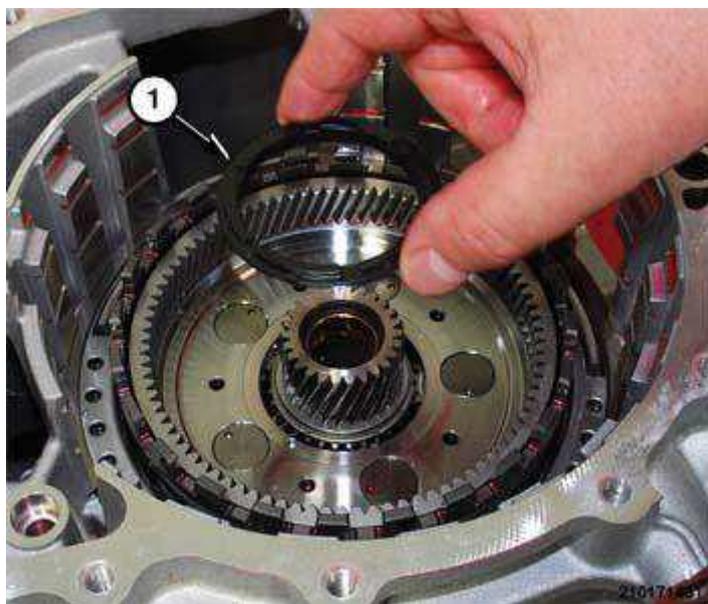


Fig. 244: Front Planetary Gear Hub Thrust Washer
Courtesy of CHRYSLER GROUP, LLC

12. Remove the thrust washer (1) from front planetary gear hub.

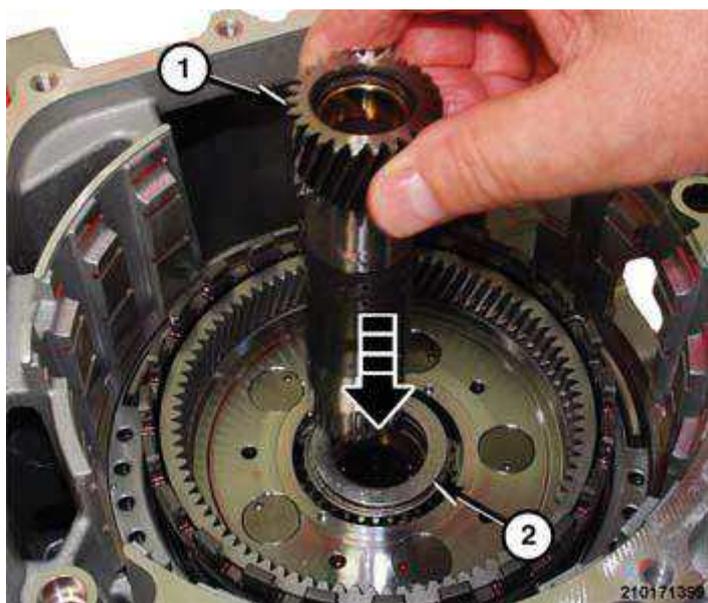


Fig. 245: Middle Sun Gear & Planetary Gear Hub
Courtesy of CHRYSLER GROUP, LLC

13. Separate the middle sun gear (1) from the planetary gear hub (2).

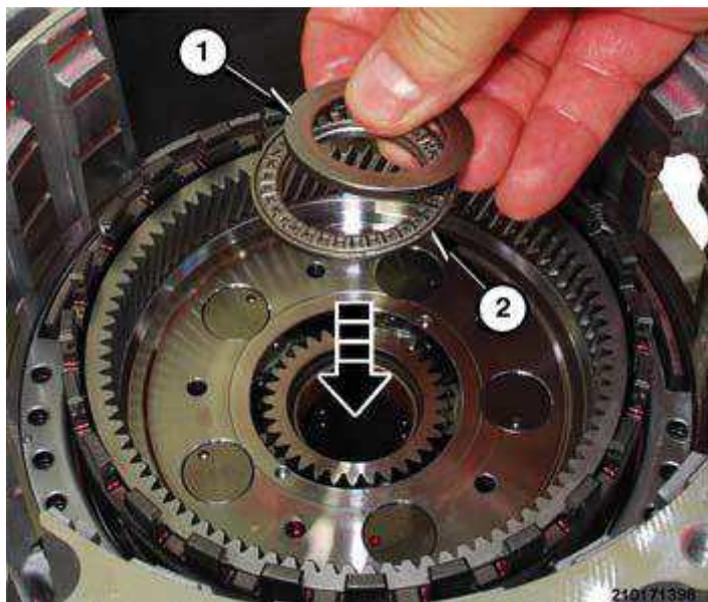


Fig. 246: Planetary Gear Hub Bearing And Race Set
Courtesy of CHRYSLER GROUP, LLC

14. Remove the bearing (2) and race (1) set from the planetary gear hub.

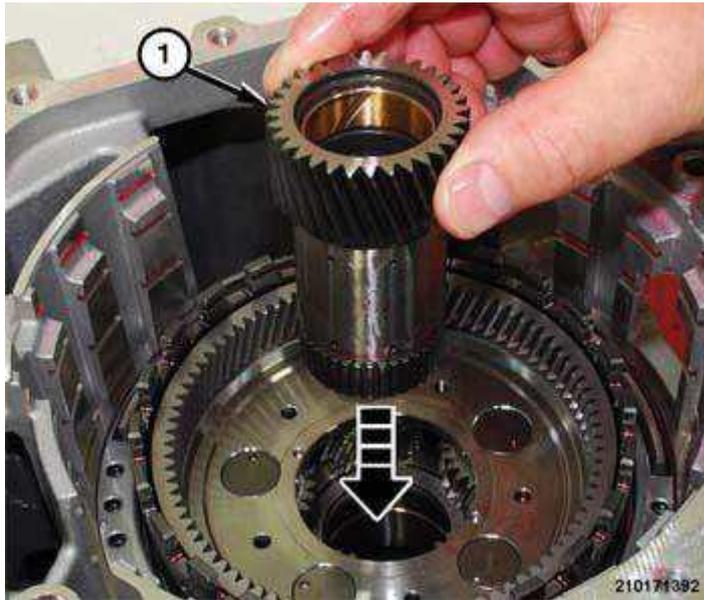


Fig. 247: Front Sun Gear
Courtesy of CHRYSLER GROUP, LLC

15. Separate the front sun gear (1) from front planetary gear assembly.



Fig. 248: Front Planetary Gear & Front Annulus Gear Assembly
Courtesy of CHRYSLER GROUP, LLC

16. Separate the front planetary gear (1) the front annulus gear assembly (2).

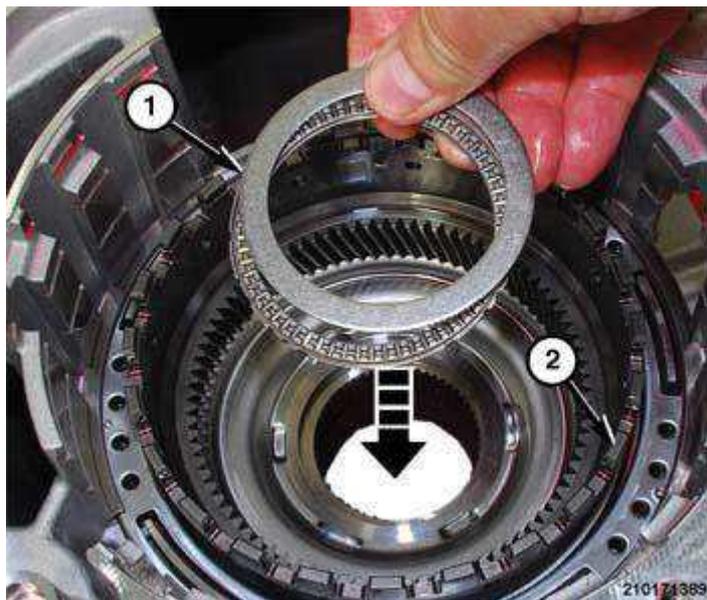


Fig. 249: Front Annulus Gear Thrust Bearing And Race
Courtesy of CHRYSLER GROUP, LLC

17. Separate the front annulus gear thrust bearing and race from the front annulus gear hub,

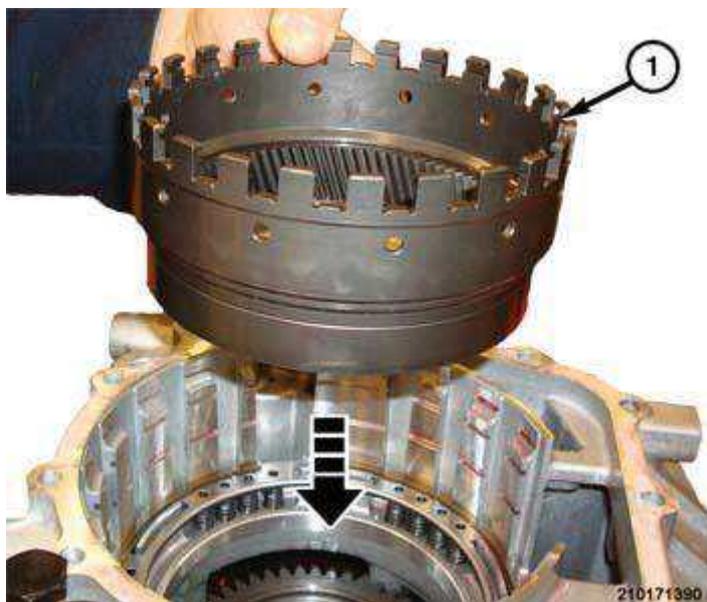


Fig. 250: Front Annulus Gear
Courtesy of CHRYSLER GROUP, LLC

18. Separate the front annulus gear (1) from the low/reverse brake assembly.

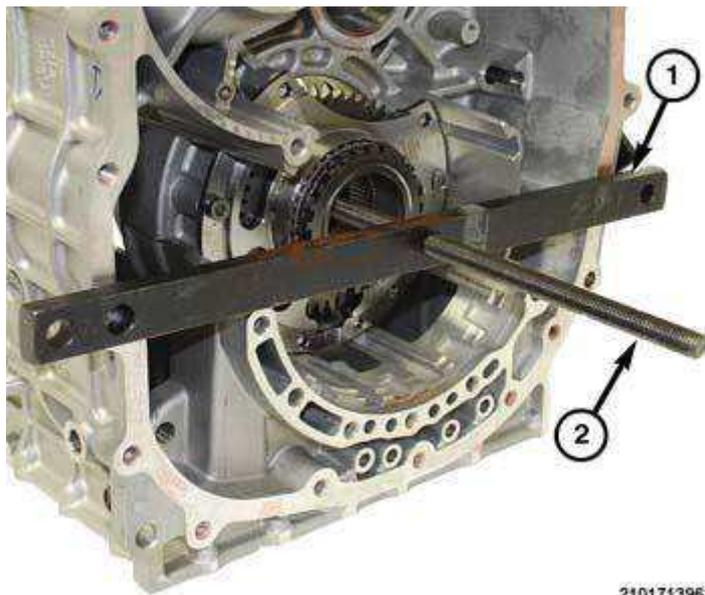


Fig. 251: Special Tool #5058A-3
 Courtesy of CHRYSLER GROUP, LLC

19. Insert (special tool #5058A-3, Screw, Forcing) through center hole in (special tool #8621, Compressor, Spring)



Fig. 252: Special Tool #5058A-3
 Courtesy of CHRYSLER GROUP, LLC



Fig. 253: Special Tool #8621
 Courtesy of CHRYSLER GROUP, LLC

Insert the screw through the transfer gear and into the threaded cross bar across the bell housing opening.

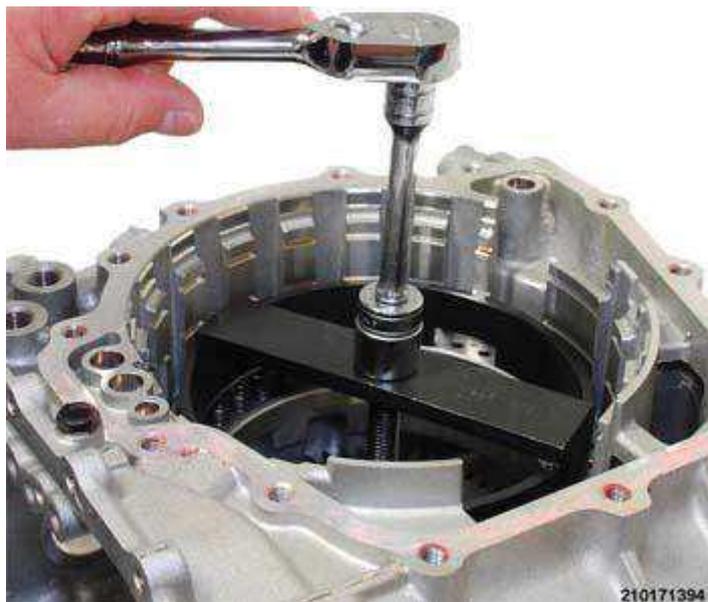


Fig. 254: Compressing Low/Reverse Spring Retainer
Courtesy of CHRYSLER GROUP, LLC

20. Compress the low/reverse spring retainer.



Fig. 255: Low/Reverse Brake Spring Retainer Snap Ring
Courtesy of CHRYSLER GROUP, LLC

21. Remove snap ring holding low/reverse brake spring retainer to the low/reverse brake piston.
22. Remove spring compressor tools from transaxle.

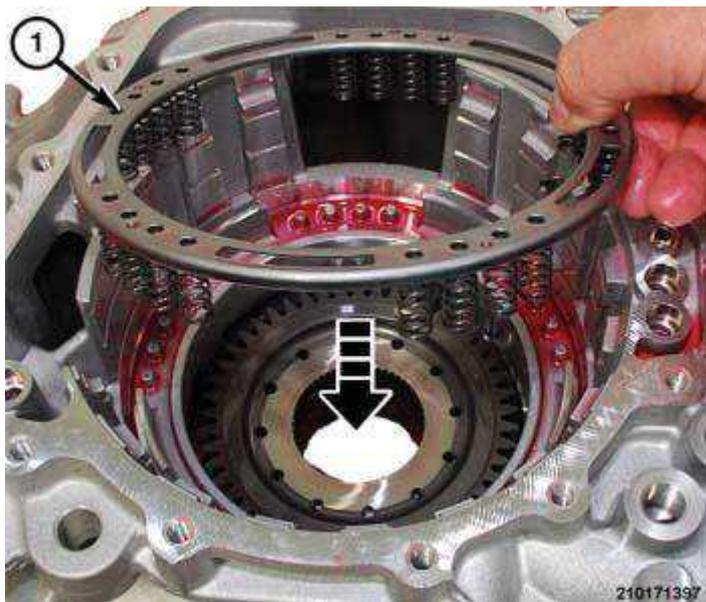


Fig. 256: Low/Reverse Brake Piston Spring Retainer
Courtesy of CHRYSLER GROUP, LLC

23. Remove low & reverse brake piston spring retainer.

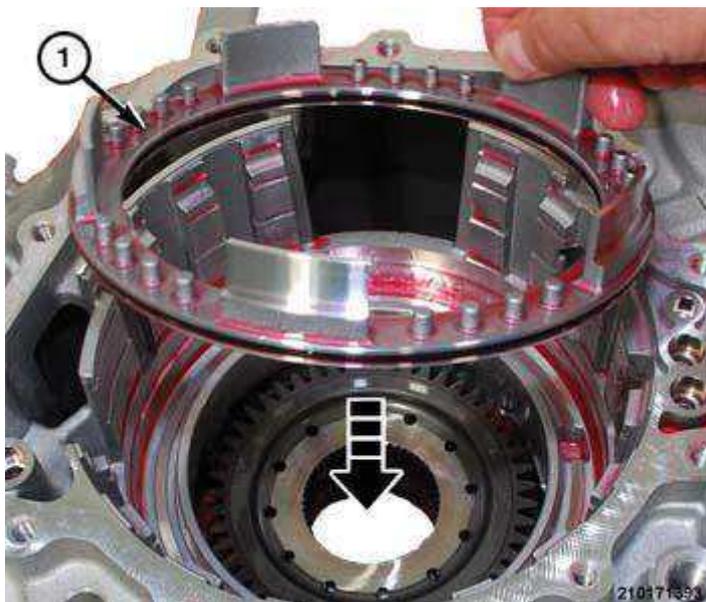


Fig. 257: Low/Reverse Brake Piston
Courtesy of CHRYSLER GROUP, LLC

24. Separate low & reverse brake piston (1) from the transaxle housing.
25. Remove inside and outside D-ring seals from the low & reverse brake piston (1).

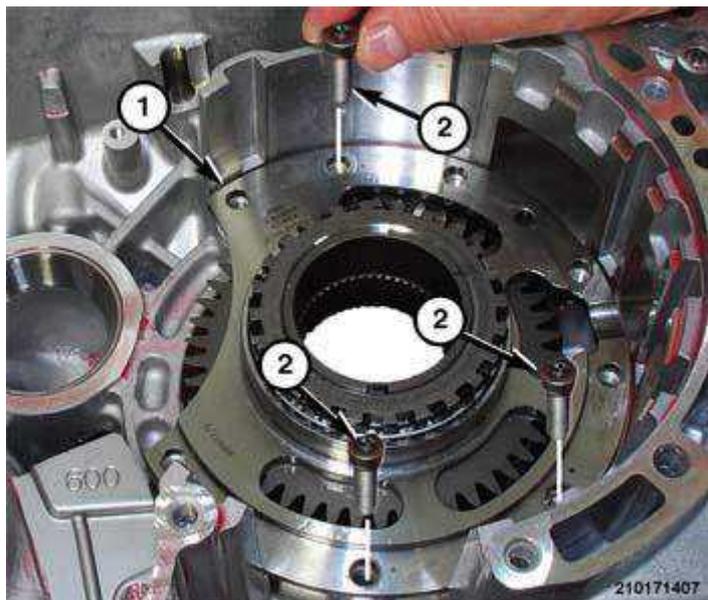


Fig. 258: Transfer Drive Assembly & Bolts
Courtesy of CHRYSLER GROUP, LLC

26. Remove bolts (2) holding transfer drive assembly (1) to the transaxle housing.

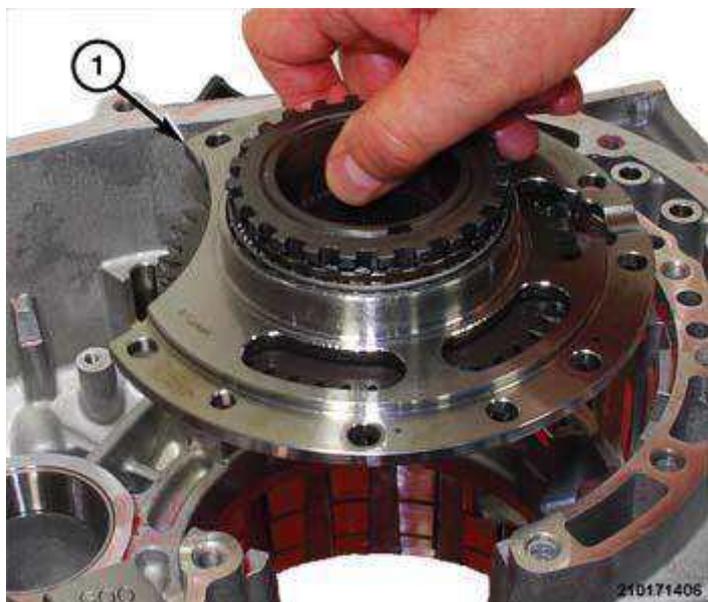


Fig. 259: Transfer Drive Assembly
Courtesy of CHRYSLER GROUP, LLC

27. Remove the transfer drive assembly (1) from the transaxle case

ASSEMBLY

FWD

NOTE: Thoroughly clean all components to remove metallic and fibrous materials that may have contaminated the transaxle during a component failure.

NOTE: Inspect all components for excessive wear, spalled surfaces, or other obvious damage. Replace only damaged components that are serviceable with genuine Mopar Parts.

NOTE: Not before assembling the transaxle, measure the Low-Reverse Brake and adjust if necessary. If the housing, differential, or the driven transfer gear was replaced, it will necessary to the establish proper bearing turning torque. If just the bearings are replaced it is not necessary to measure turn to torque valves. Refer to **STANDARD PROCEDURES**.

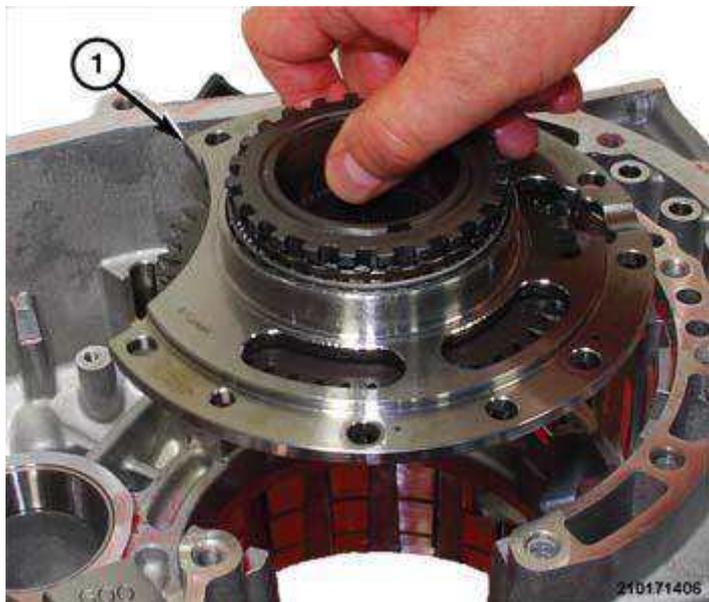


Fig. 260: Transfer Drive Assembly
Courtesy of CHRYSLER GROUP, LLC

1. Place the transfer drive assembly (1) into position in the transaxle case.

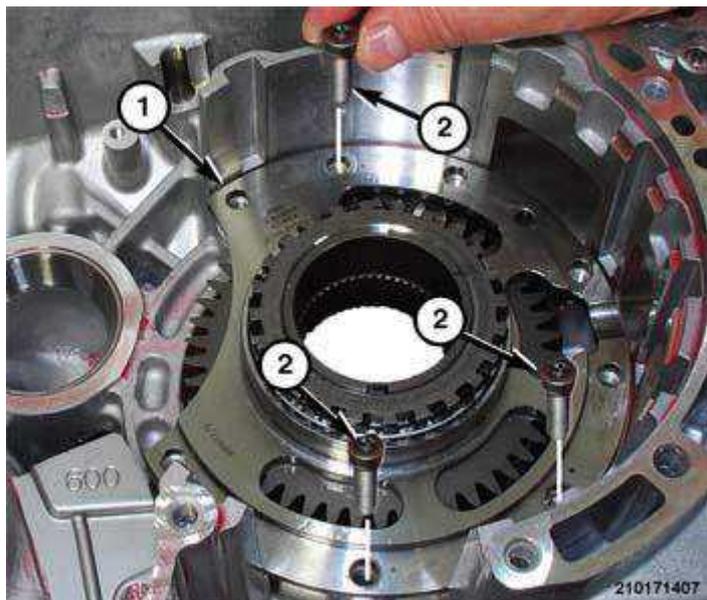


Fig. 261: Transfer Drive Assembly & Bolts
 Courtesy of CHRYSLER GROUP, LLC

2. Install three bolts (2) to hold transfer drive assembly (1) to the transaxle housing. Refer to **SPECIFICATIONS**.
3. Install **NEW** inside and outside D-ring seals into the low & reverse brake piston (1).
4. Using specified transaxle fluid, lubricate the low & reverse brake piston (1) D-ring seals.

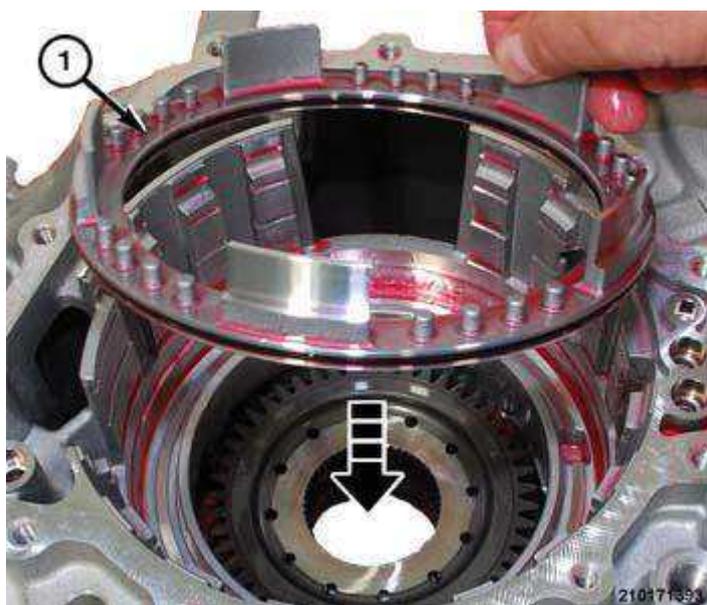


Fig. 262: Low/Reverse Brake Piston
 Courtesy of CHRYSLER GROUP, LLC

5. Place low & reverse brake piston (1) in position in transaxle housing.
6. Push low & reverse brake piston downward into cylinder bore in the transaxle housing.

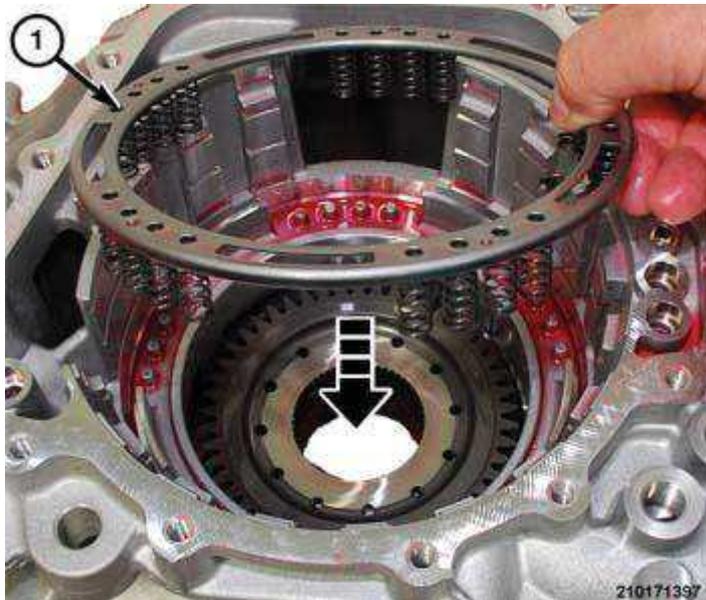


Fig. 263: Low/Reverse Brake Piston Spring Retainer
 Courtesy of CHRYSLER GROUP, LLC

7. Place low & reverse brake piston spring retainer in position on the lo-reverse brake piston.

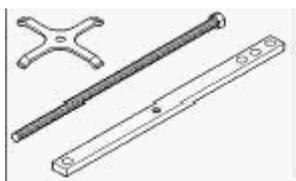


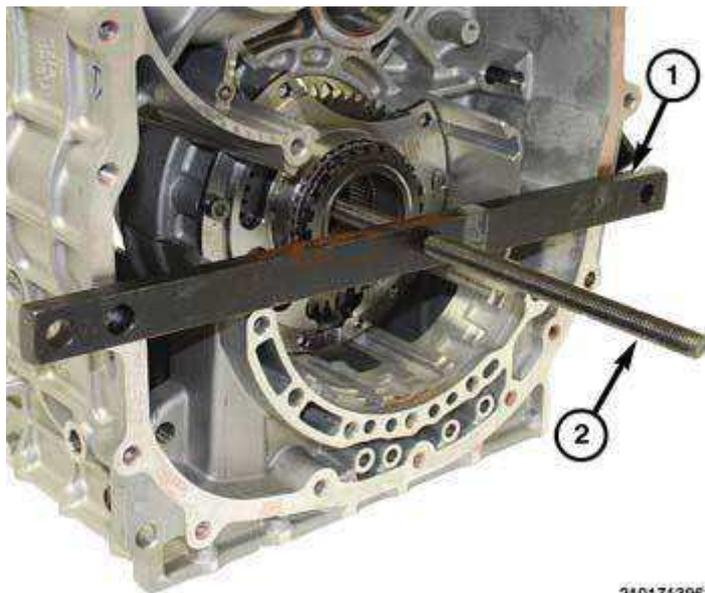
Fig. 264: Special Tool #5058A-3
 Courtesy of CHRYSLER GROUP, LLC

(special tool #5058A-3, Screw, Forcing)



Fig. 265: Special Tool #8621
 Courtesy of CHRYSLER GROUP, LLC

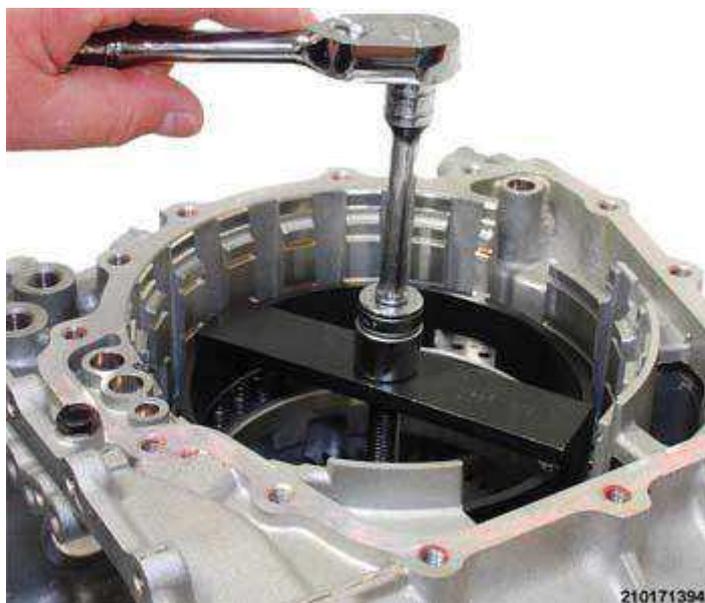
(special tool #8621, Compressor, Spring)



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Fig. 266: Special Tool #5058A-3
 Courtesy of CHRYSLER GROUP, LLC

8. Install spring compressor tools in position on transaxle.
9. Insert screw through center hole in spring compressor 8621. Insert the screw through the transfer gear and into the threaded cross bar across the bell housing opening.



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Fig. 267: Compressing Low/Reverse Spring Retainer
 Courtesy of CHRYSLER GROUP, LLC

10. Compress the low/reverse spring retainer.



Fig. 268: Low/Reverse Brake Spring Retainer Snap Ring
Courtesy of CHRYSLER GROUP, LLC

11. Install the snap ring (1) to hold the low/reverse brake spring retainer to the low/reverse brake piston.

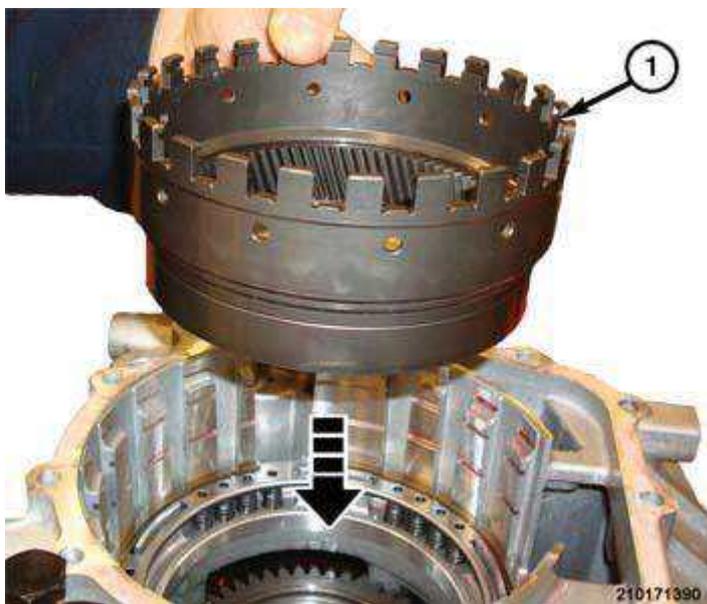


Fig. 269: Front Annulus Gear
Courtesy of CHRYSLER GROUP, LLC

12. Place the front annulus gear (1) in position in the low/reverse brake assembly.

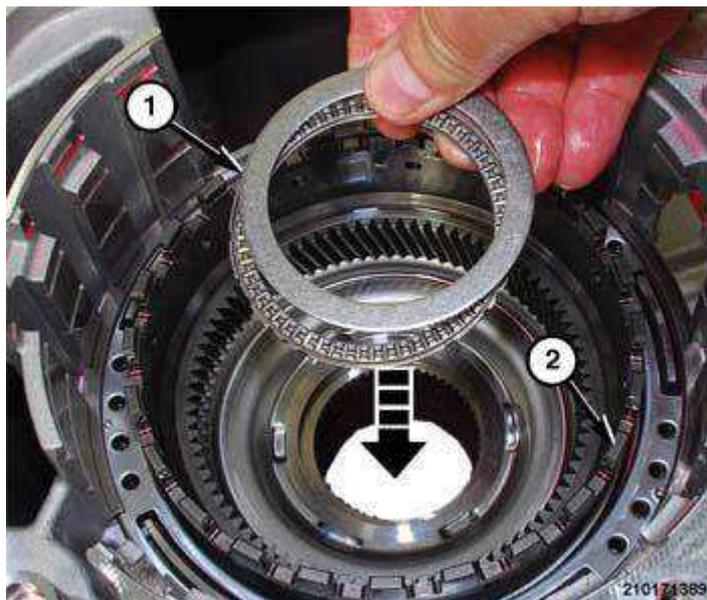


Fig. 270: Front Annulus Gear Thrust Bearing And Race
Courtesy of CHRYSLER GROUP, LLC

13. Place the front annulus gear thrust bearing and race (1) in position on the front annulus gear (2) hub.



Fig. 271: Front Planetary Gear & Front Annulus Gear Assembly
Courtesy of CHRYSLER GROUP, LLC

14. Place the front planetary gear (1) in position on the front annulus gear assembly (2).

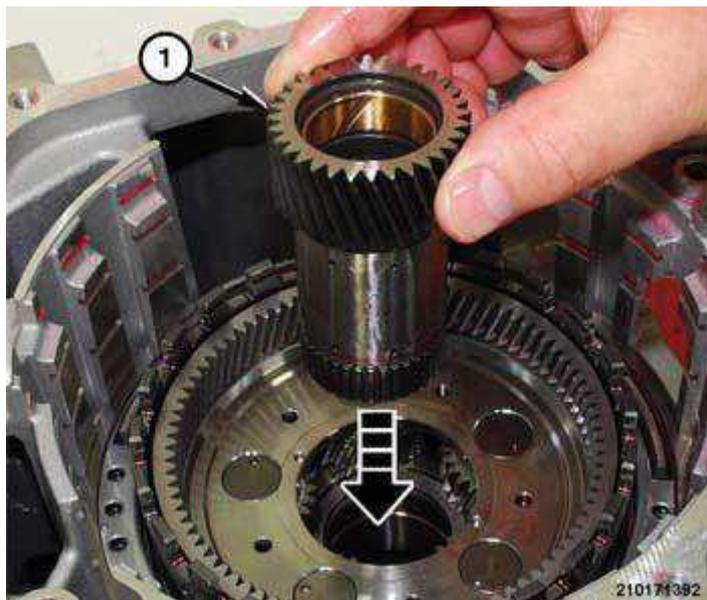


Fig. 272: Front Sun Gear
Courtesy of CHRYSLER GROUP, LLC

15. Insert the front sun gear (1) into front planetary gear assembly.

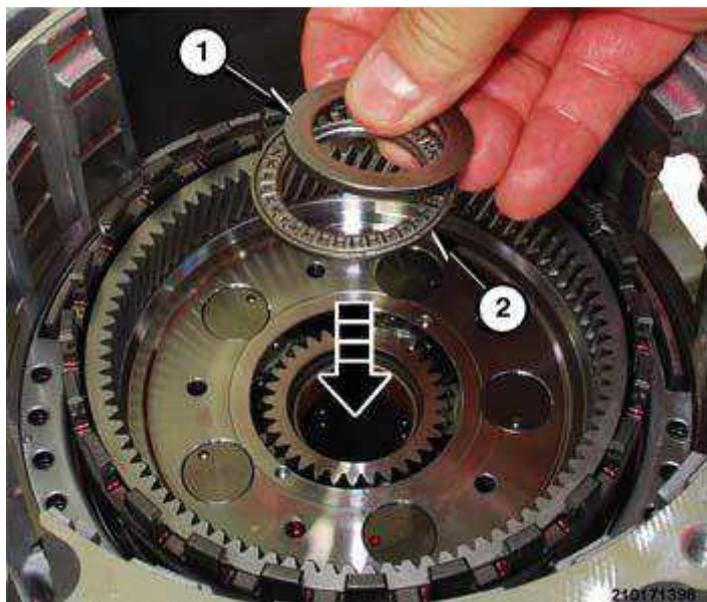


Fig. 273: Planetary Gear Hub Bearing And Race Set
Courtesy of CHRYSLER GROUP, LLC

16. Place the bearing (2) and race (1) set in position on the planetary gear hub.

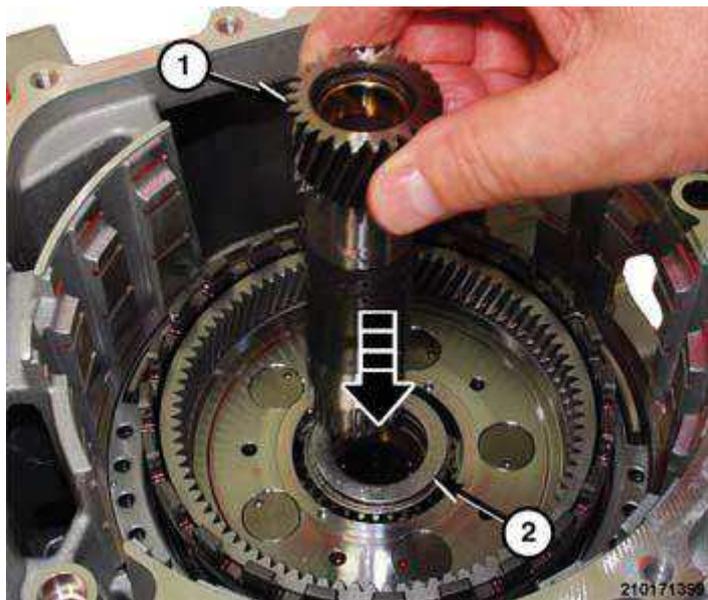


Fig. 274: Middle Sun Gear & Planetary Gear Hub
Courtesy of CHRYSLER GROUP, LLC

17. Insert the middle sun gear (1) in position in the in position on the front sun gear (2).

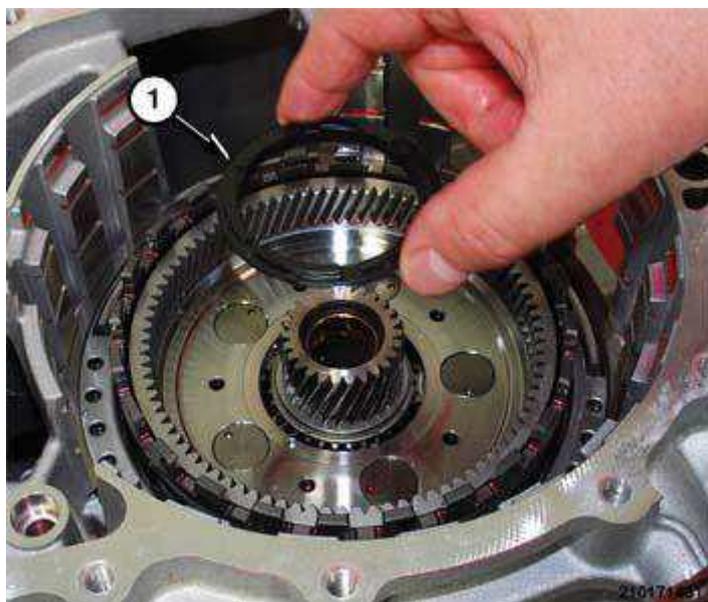


Fig. 275: Front Planetary Gear Hub Thrust Washer
Courtesy of CHRYSLER GROUP, LLC

18. Place the thrust washer (1) in position on the front planetary gear hub.

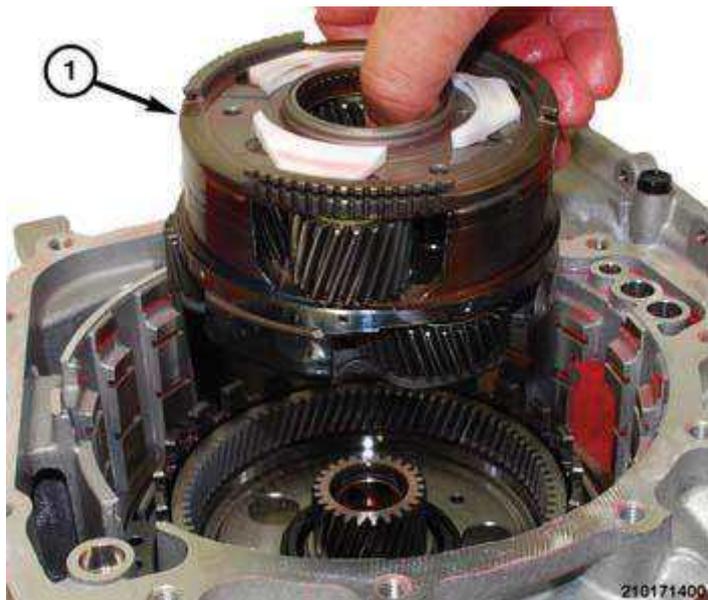


Fig. 276: Middle/Rear Planetary Gear Assembly
Courtesy of CHRYSLER GROUP, LLC

19. Place the middle/rear planetary gear assembly (1) in position in the planetary gear hub.

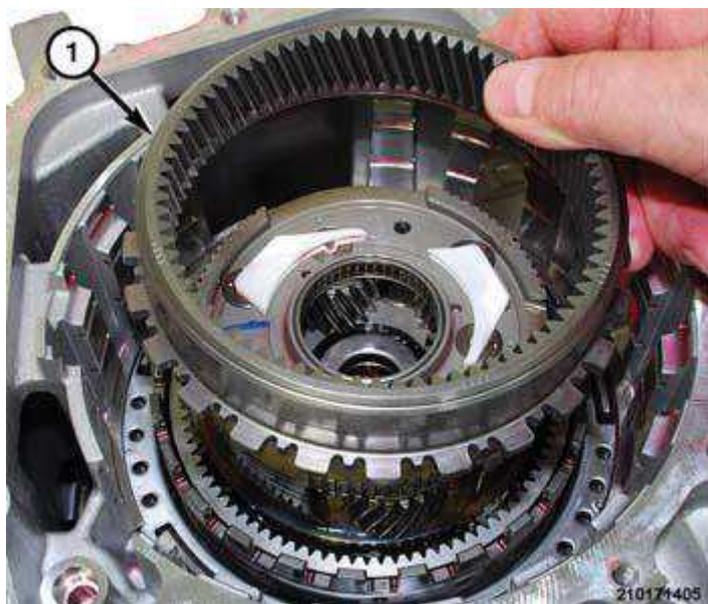


Fig. 277: Rear Annulus Gear
Courtesy of CHRYSLER GROUP, LLC

- 20.
21. Place the rear annulus gear (1) in position on the middle/rear planetary gear assembly.

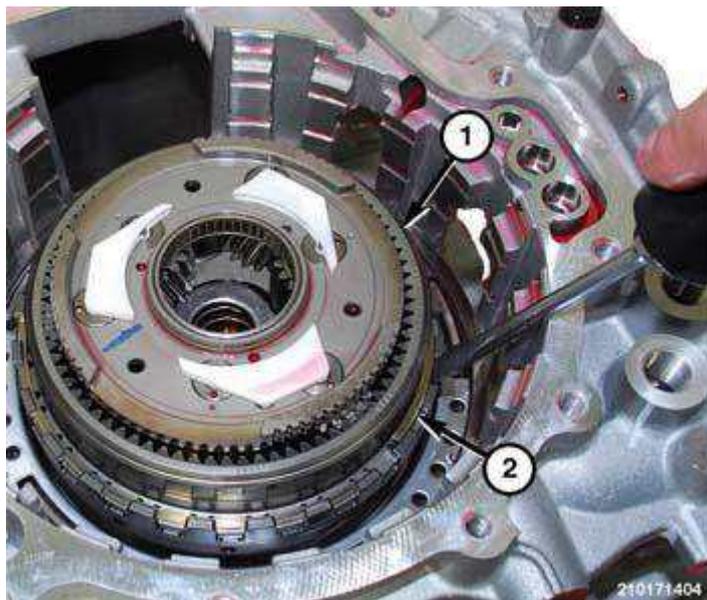


Fig. 278: Rear Annulus Gear & Snap Ring
Courtesy of CHRYSLER GROUP, LLC

22. Install the snap ring (2) to hold the rear annulus gear (1) into the front annulus gear hub.

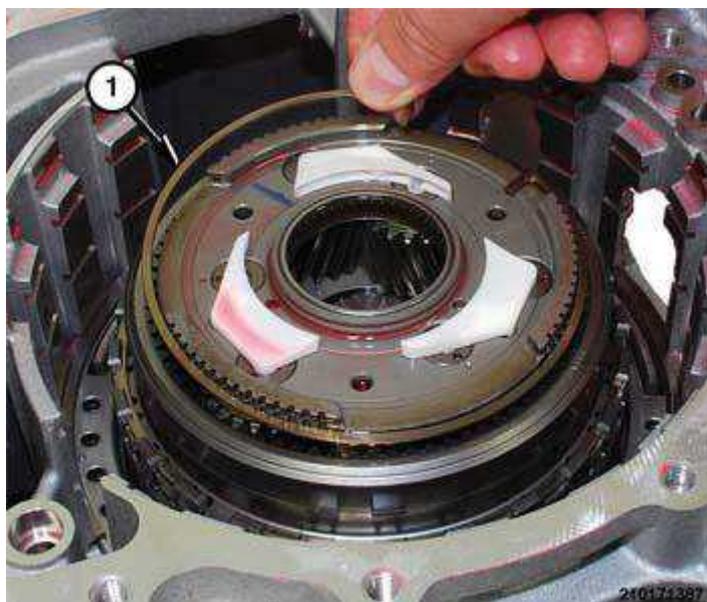


Fig. 279: Middle/Rear Planetary Gear Snap Ring
Courtesy of CHRYSLER GROUP, LLC

23. Insert the snap ring into the groove in the middle/rear planetary gear.

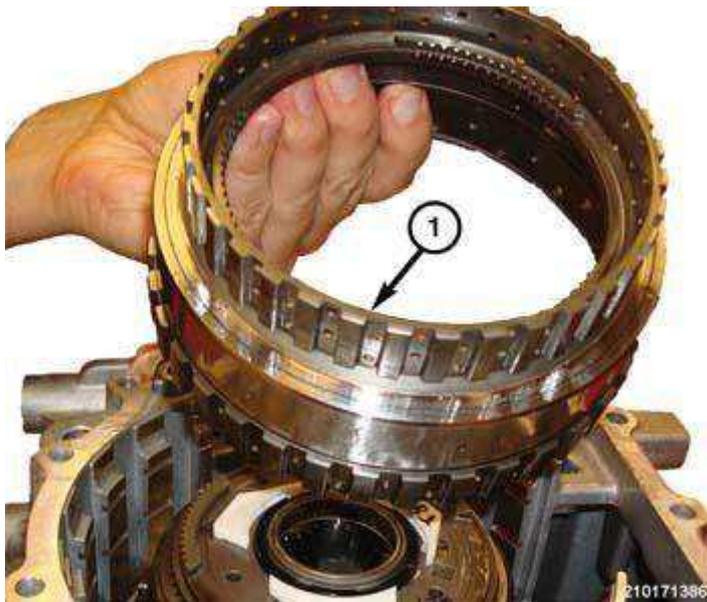


Fig. 280: One Way Clutch Inner Race
Courtesy of CHRYSLER GROUP, LLC

24. Place the one way clutch inner race (1) in position on the middle/rear planetary gear.

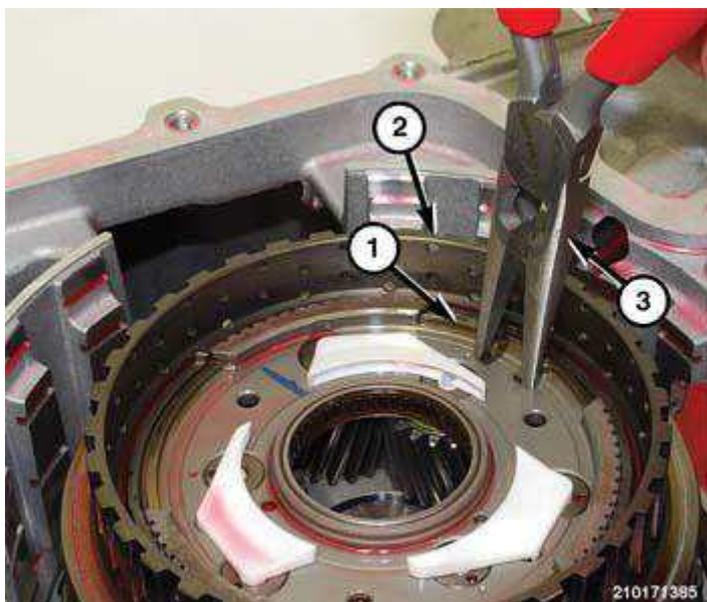
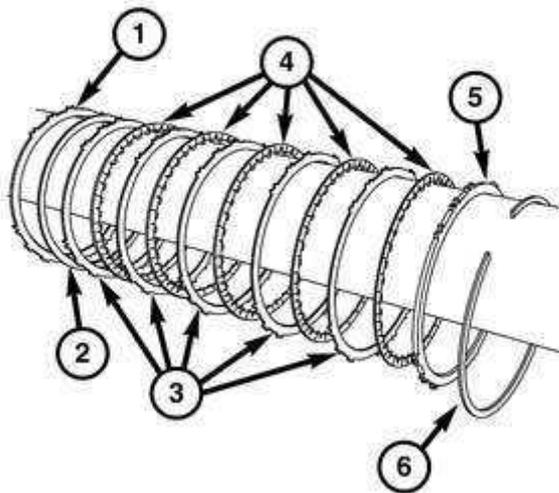


Fig. 281: One Way Clutch Race & Snap Ring
Courtesy of CHRYSLER GROUP, LLC

25. Using long nose pliers (3), compress snap ring (1) to hold the one way clutch race (2) to the middle/rear planetary gear.

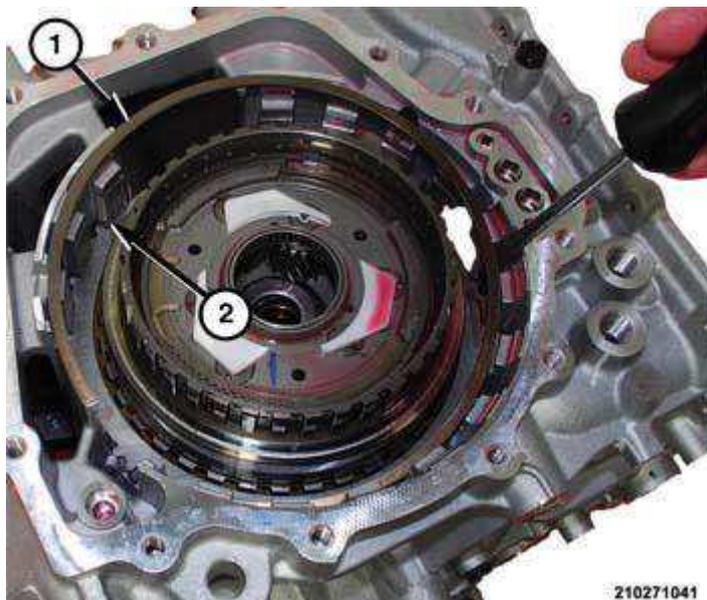


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Fig. 282: Low & Reverse Brake Pressure Plate, Cushion Plate, Plates, Discs, & Reaction Plate

Courtesy of CHRYSLER GROUP, LLC

26. Install the low & reverse brake pressure plate (1), cushion plate (2), plates 3) discs (4), and the reaction plate (5), in order, into the transaxle.



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Fig. 283: Low/Reverse Brake & Snap Ring

Courtesy of CHRYSLER GROUP, LLC

27. Install the snap ring (1) to hold low/reverse brake into the lowest snap ring

land (2) in the transaxle.

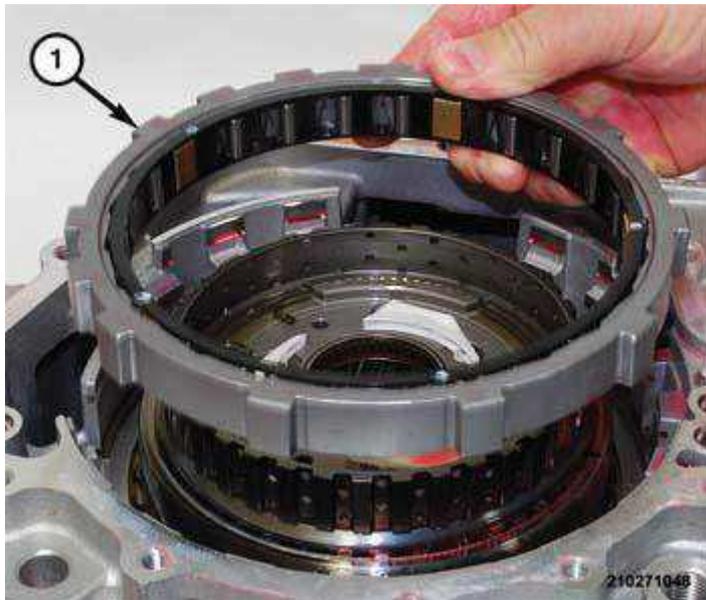


Fig. 284: One-Way-Clutch
Courtesy of CHRYSLER GROUP, LLC

28. Lining up the two narrow lugs on the OWC to the two narrow slots on the transaxle housing insert the OWC (1) into the transaxle. Press down until it is seated. The OWC should rotate in a counterclockwise direction only.

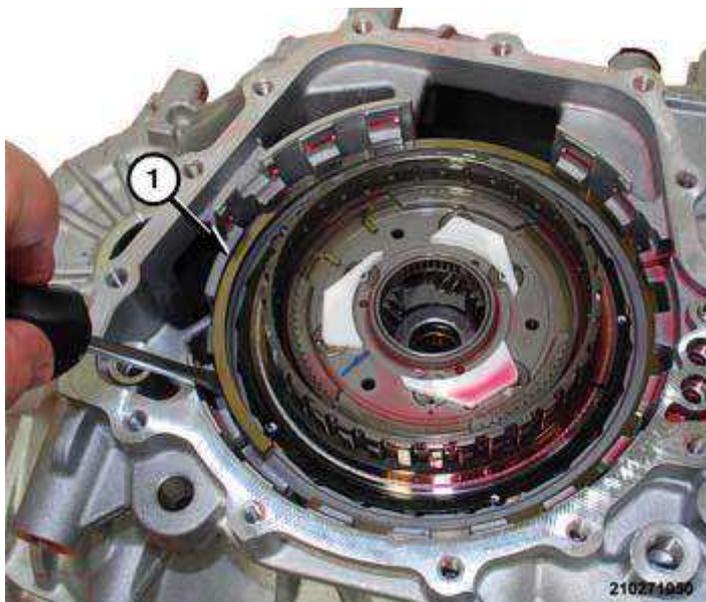


Fig. 285: One-Way-Clutch Snap Ring
Courtesy of CHRYSLER GROUP, LLC

29. Install the snap ring (1) to hold the OWC to the transaxle housing

30. Turn transaxle over to gain access to the front of the transaxle.

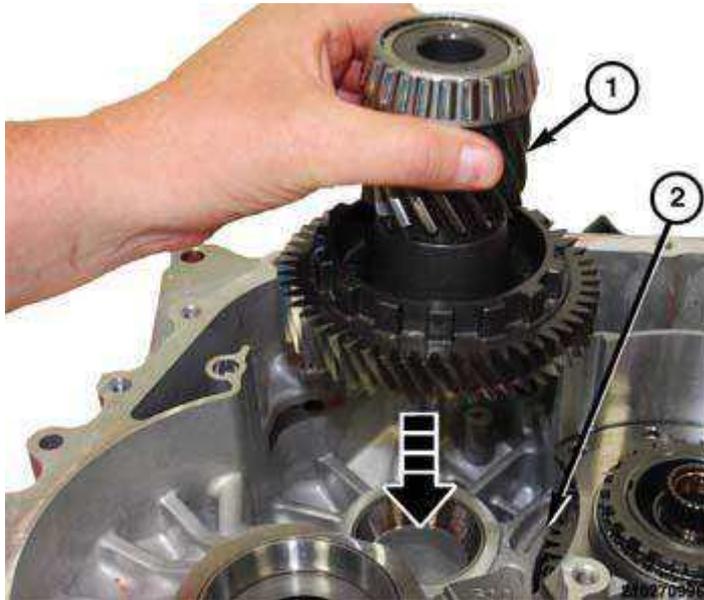


Fig. 286: Transfer Driven Gear Assembly & Transaxle
Courtesy of CHRYSLER GROUP, LLC

31. Install the park sprag support shaft (1) in position in the transaxle housing.

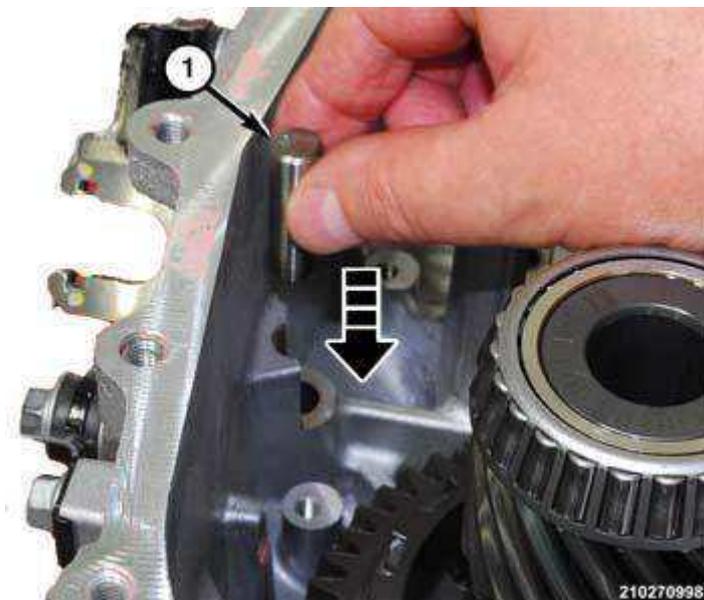


Fig. 287: Park Sprag Support Shaft & Transaxle Housing
Courtesy of CHRYSLER GROUP, LLC

32. Install the park sprag support shaft (1) in position in the transaxle housing.

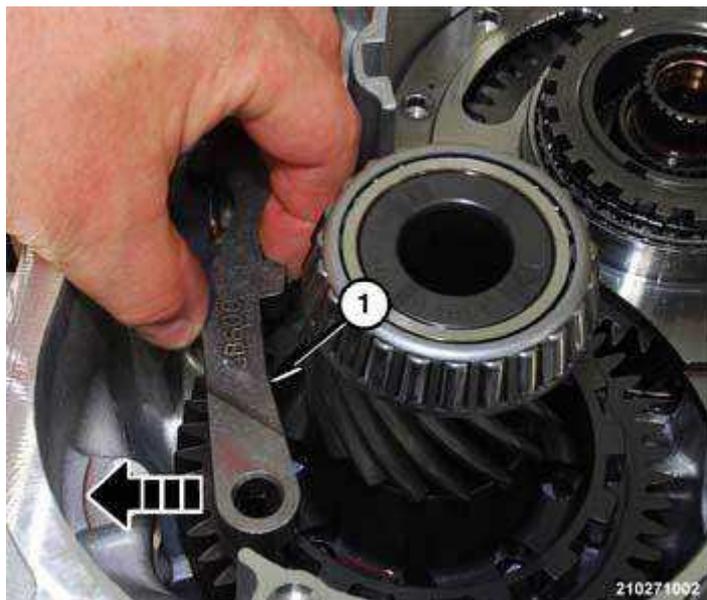


Fig. 288: Park Sprag & Transaxle Housing
Courtesy of CHRYSLER GROUP, LLC

33. Insert the park sprag (1) in position in the transaxle housing.



Fig. 289: Park Sprag Spring, Shaft & Transaxle Housing
Courtesy of CHRYSLER GROUP, LLC

34. Install the park sprag spring and shaft (1) in position in the transaxle housing.

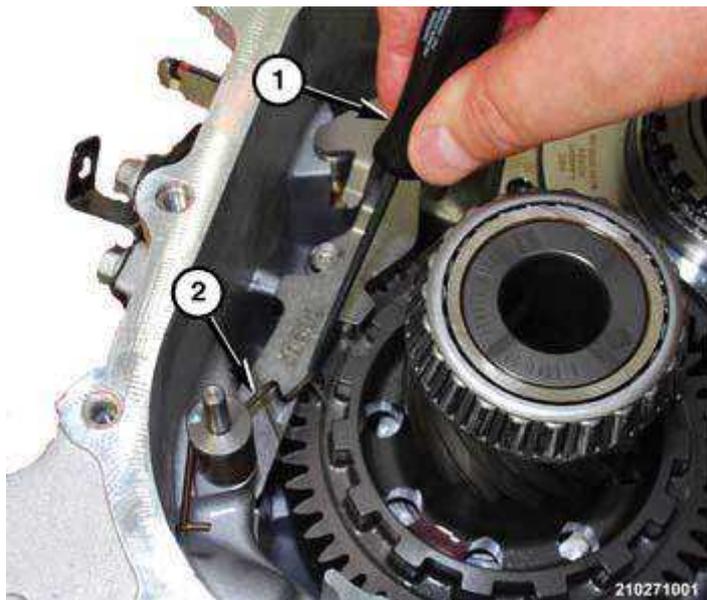


Fig. 290: Park Sprag Spring & Park Sprag
Courtesy of CHRYSLER GROUP, LLC

35. Using a suitable hook tool (1), lift the park sprag spring (2) onto the park sprag.

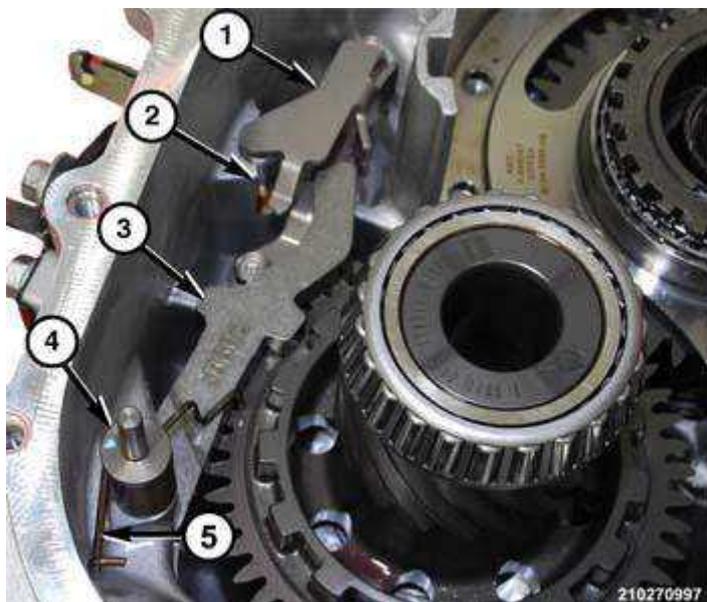


Fig. 291: Park Rod Guide & Bolts
Courtesy of CHRYSLER GROUP, LLC

36. Install bolts to hold the park rod guide (1) in position on the transaxle housing.

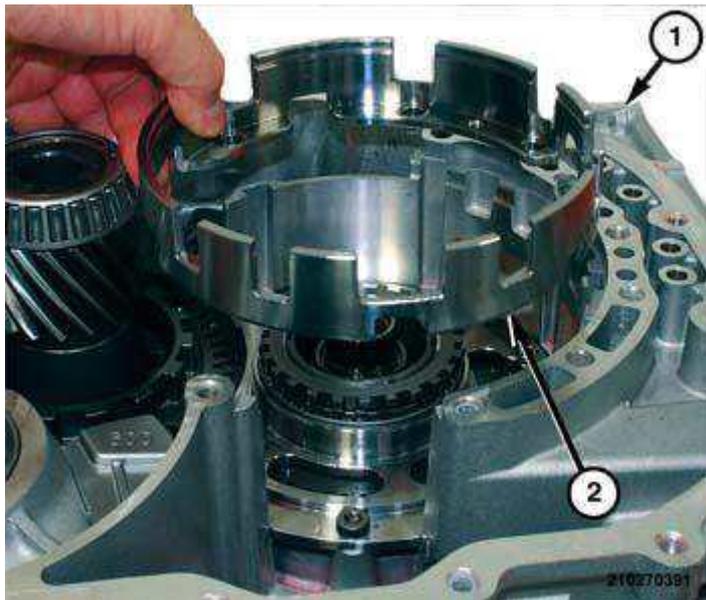


Fig. 292: Underdrive Brake Retainer & Transaxle Housing
Courtesy of CHRYSLER GROUP, LLC

37. Place the underdrive brake retainer (2) in position on the transaxle housing (1).

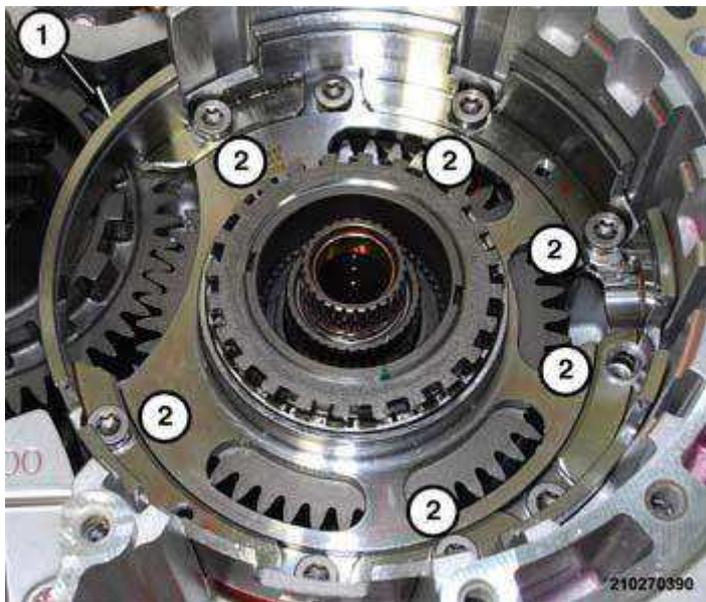


Fig. 293: Underdrive Brake Retainer & Bolts
Courtesy of CHRYSLER GROUP, LLC

38. Install bolts (2) to hold the underdrive brake retainer (1) to the transaxle housing. Refer to **SPECIFICATIONS**.



Fig. 294: Underdrive Brake Chamber & Transaxle Housing
Courtesy of CHRYSLER GROUP, LLC

39. Place the underdrive brake chamber in position on the transaxle housing.

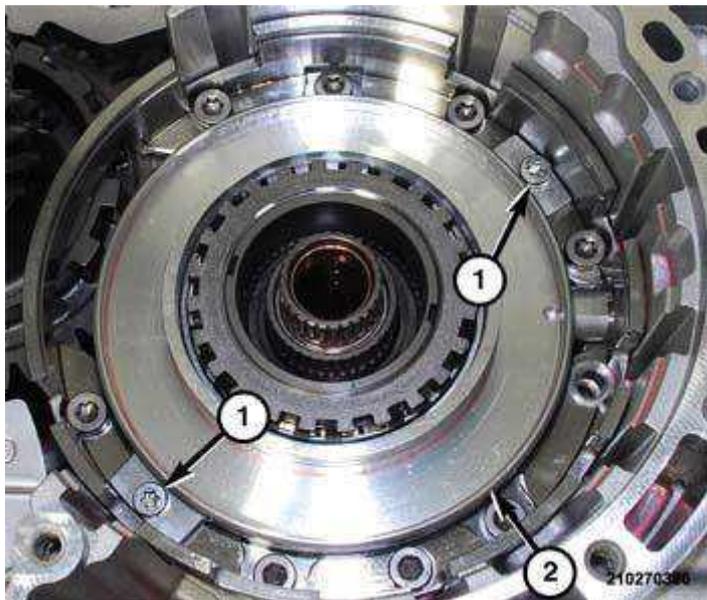


Fig. 295: Underdrive Brake Chamber & Bolts
Courtesy of CHRYSLER GROUP, LLC

40. Install bolts (1) to hold the underdrive brake chamber (2) to the transaxle housing. Refer to **SPECIFICATIONS**.

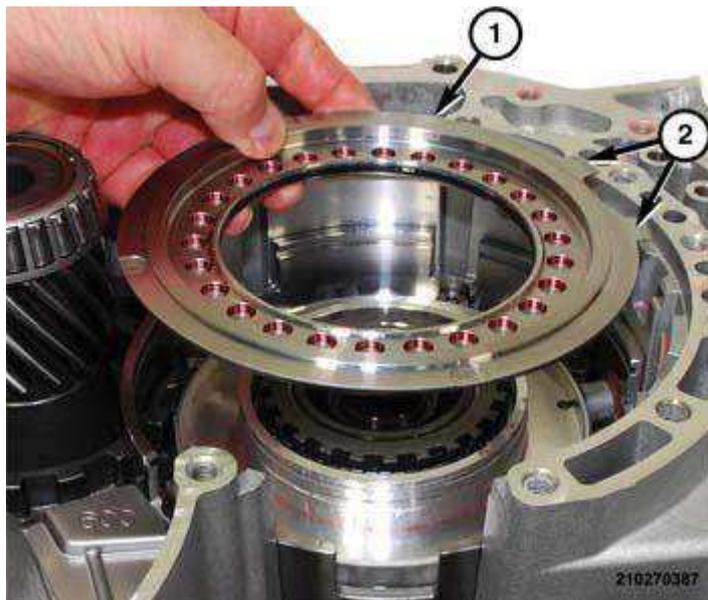


Fig. 296: Underdrive Brake Piston & Location Tabs
Courtesy of CHRYSLER GROUP, LLC

41. Install

NEW

D-ring outer seal and the O-ring inner seal in the lands on the underdrive piston.

42. Install the underdrive brake piston (1) in position on the underdrive brake piston chamber.

NOTE: The location tabs (2) on the underdrive brake piston should be oriented toward the valve body opening in the transaxle.

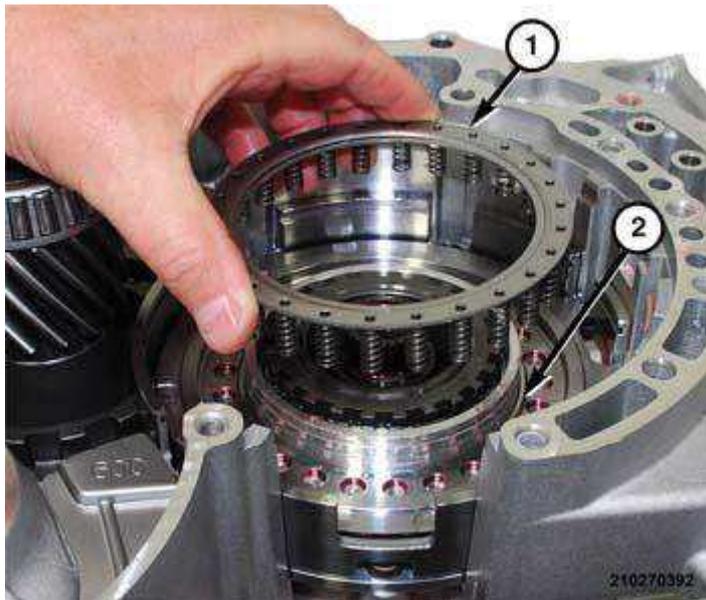


Fig. 297: Underdrive Spring Retainer & Underdrive Brake Piston
 Courtesy of CHRYSLER GROUP, LLC

43. Push underdrive brake piston (3) downward until it seats in the underdrive brake chamber.
44. Place the underdrive spring retainer (1) in position on the underdrive brake piston (2).

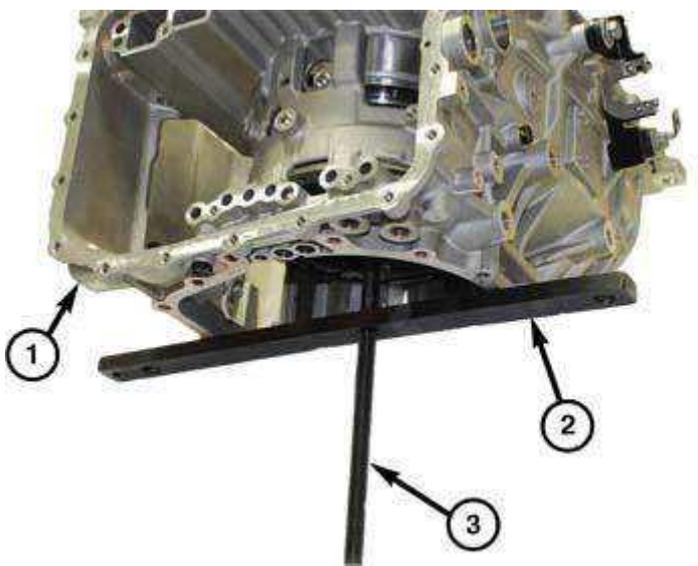


Fig. 298: Tool Bolt & Tool Cross Bar
 Courtesy of CHRYSLER GROUP, LLC

45. Insert the bolt (3) for tool 5058A through tool 10426
46. Insert the tool bolt (3) with the spring compressor through the center of the

transaxle (1) and out the back into the threaded center bore of the tool cross bar (2) spanning the back of the transaxle.

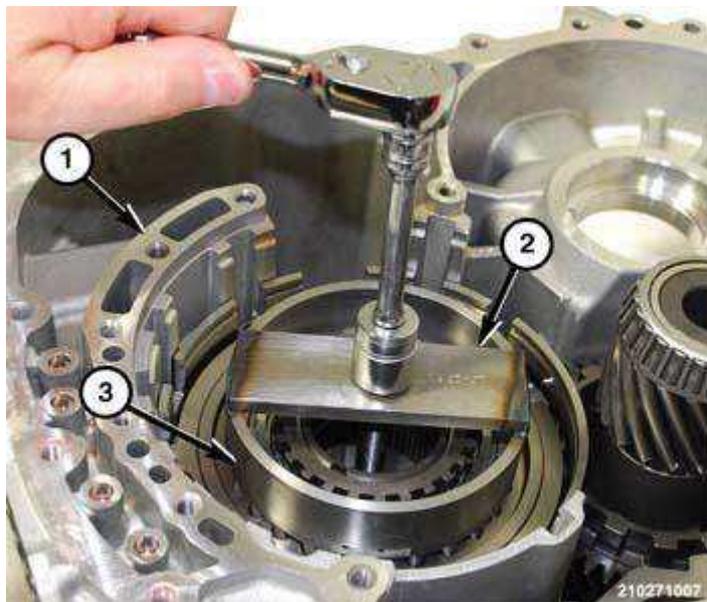


Fig. 299: Tool 5058A & Tool 10426
Courtesy of CHRYSLER GROUP, LLC

(special tool #5058A-3, Screw, Forcing)

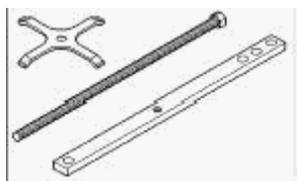


Fig. 300: Special Tool #5058A-3
Courtesy of CHRYSLER GROUP, LLC

(special tool #10426, Compressor, Underdrive Spring)

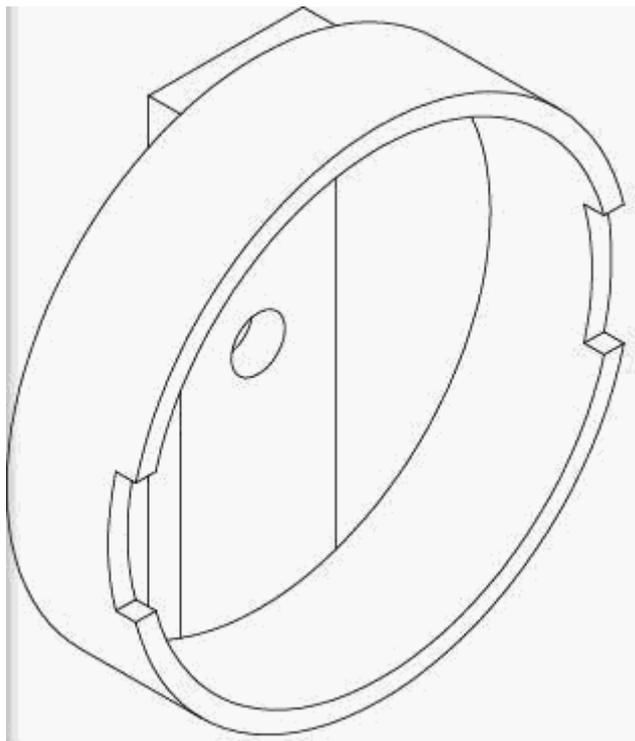


Fig. 301: Special Tool #10426
Courtesy of CHRYSLER GROUP, LLC

Compress the underdrive springs (3) to gain access to the snap ring land.

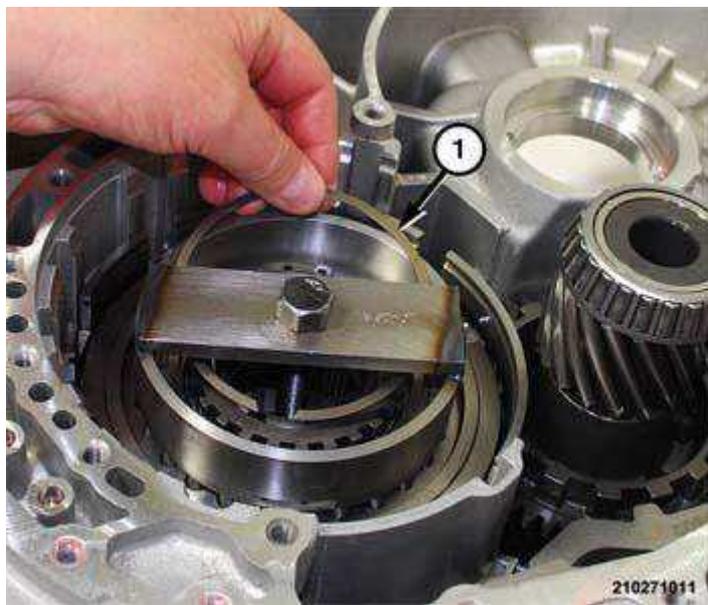


Fig. 302: Underdrive Spring Plate Snap Ring
Courtesy of CHRYSLER GROUP, LLC

47. Install the snap ring (1) to hold the underdrive spring plate to the underdrive brake hub.

48. Remove the spring compressor tool from the transaxle.
49. Turn the transaxle over to gain access to the rear cover.

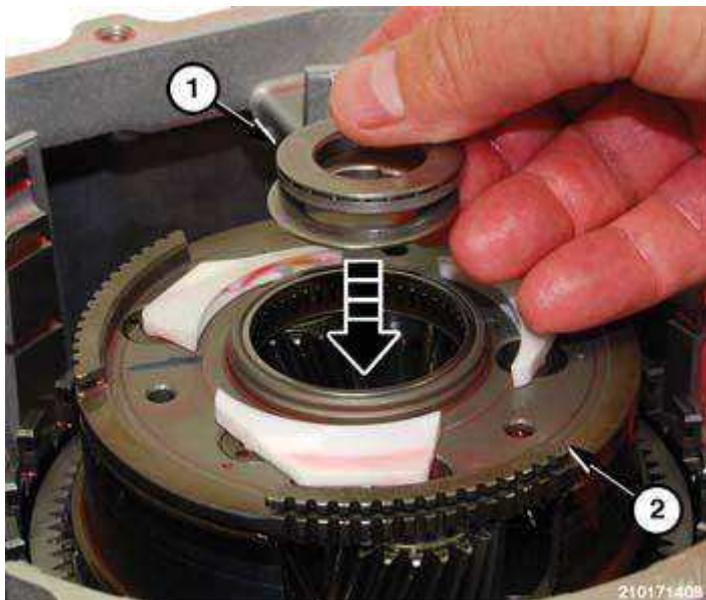


Fig. 303: Thrust Bearing, Race Set & Middle/Rear Planetary Gear Assembly

Courtesy of CHRYSLER GROUP, LLC

50. Place the thrust washer (1) and race set into of the center of the middle/rear planetary gear assembly (2).

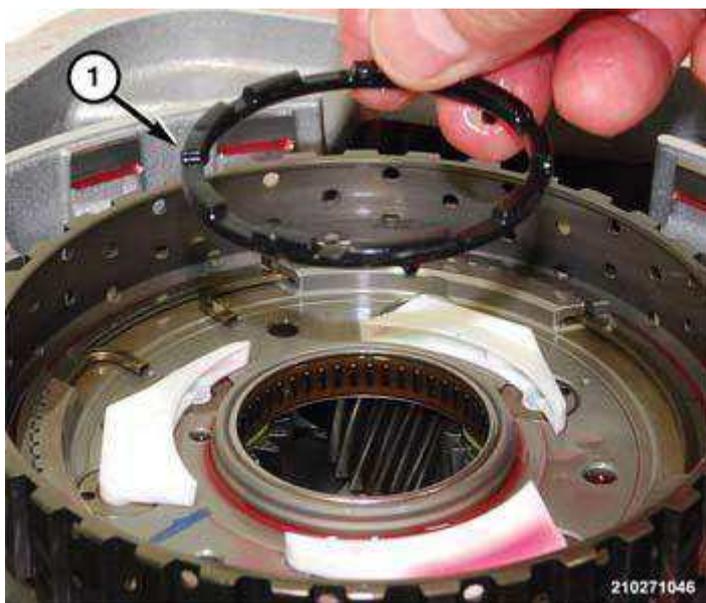


Fig. 304: Thrust Washer & Planetary Gear Assembly Hub

Courtesy of CHRYSLER GROUP, LLC

51. Place the thrust washer (1) in position on the middle/rear planetary gear.

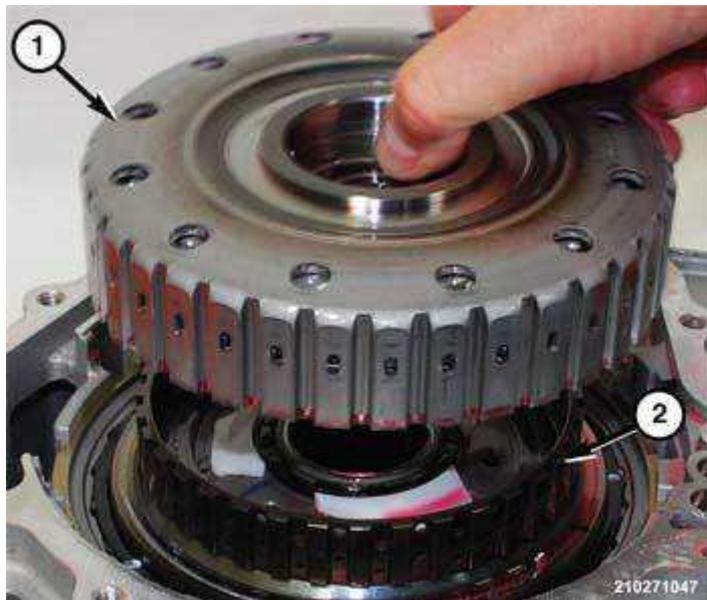


Fig. 305: Overdrive Clutch Assembly & One Way Clutch
Courtesy of CHRYSLER GROUP, LLC

52. Install the overdrive clutch assembly (1) onto the one way clutch race (2).

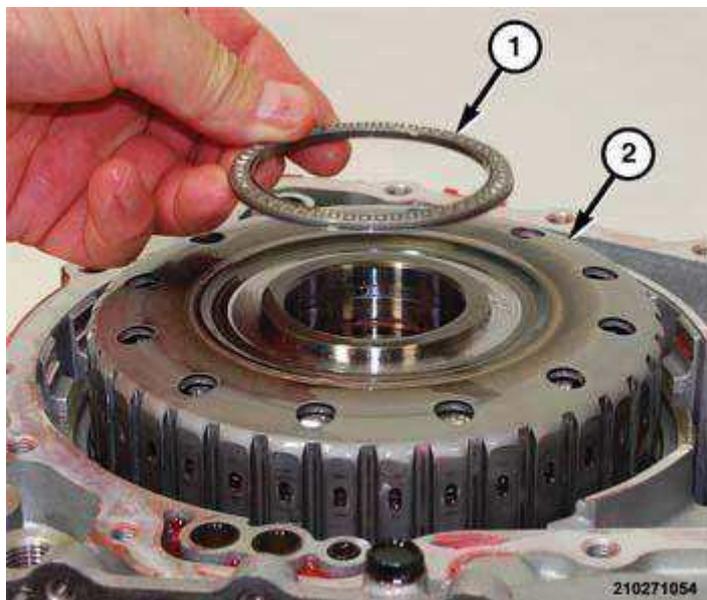


Fig. 306: Thrust Bearing & Overdrive Clutch Hub Assembly
Courtesy of CHRYSLER GROUP, LLC

53. Install thrust bearing (1) onto the overdrive clutch hub (2) assembly with the rollers facing upward.

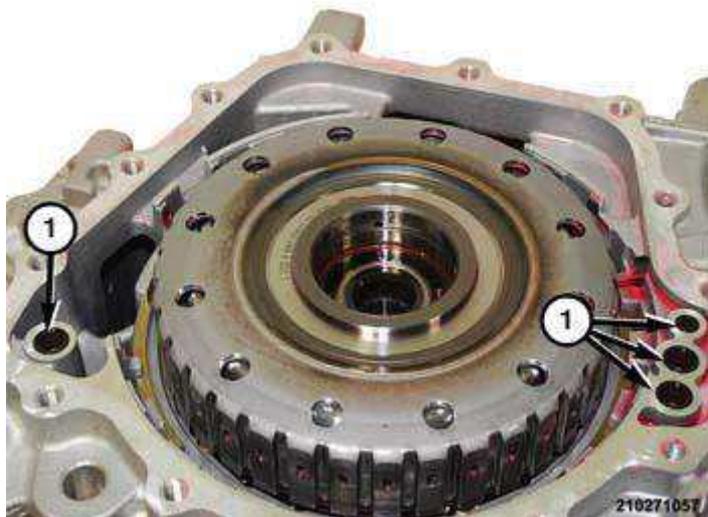


Fig. 307: Transfer Port Seals
Courtesy of CHRYSLER GROUP, LLC

54. Install the four seals (2) into transfer ports in transaxle housing.

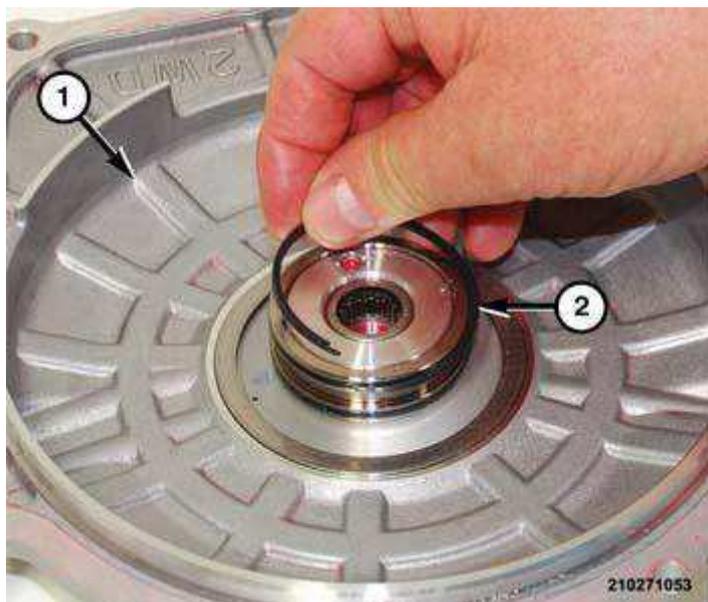


Fig. 308: Split Seal Rings & Rear Cover Hub
Courtesy of CHRYSLER GROUP, LLC

55. Install the two split seal ring seals (2) into the lands in the rear cover (1) hub.

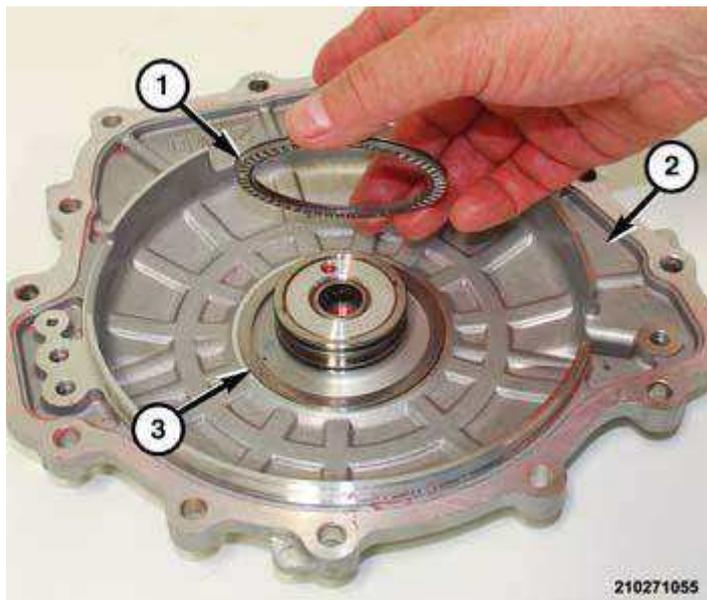


Fig. 309: Selective Spacer, Bearing & Rear Cover
 Courtesy of CHRYSLER GROUP, LLC

56. Using assembly lube applied in the seat area of the rear cover (3), Install the selective spacer (1) onto the rear cover (2).
57. Apply a 3 mm (0.120 in.) bead of Dupont® Loctite™ 5460 Pink Flange Sealant or equivalent around the perimeter of the rear cover.



Fig. 310: Rear Cover Separated From Transaxle
 Courtesy of CHRYSLER GROUP, LLC

58. Place the rear cover (1) in position on the transaxle.

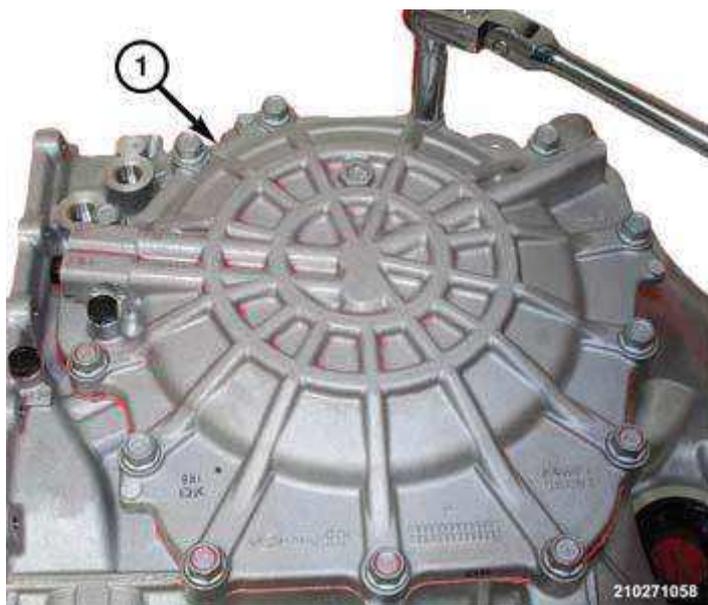


Fig. 311: Transaxle Rear Cover & Bolts
Courtesy of CHRYSLER GROUP, LLC

59. Install bolts to hold the rear cover (1) to the transaxle. Refer to **SPECIFICATIONS**.
60. Turn transaxle over to gain access to the underdrive brake.

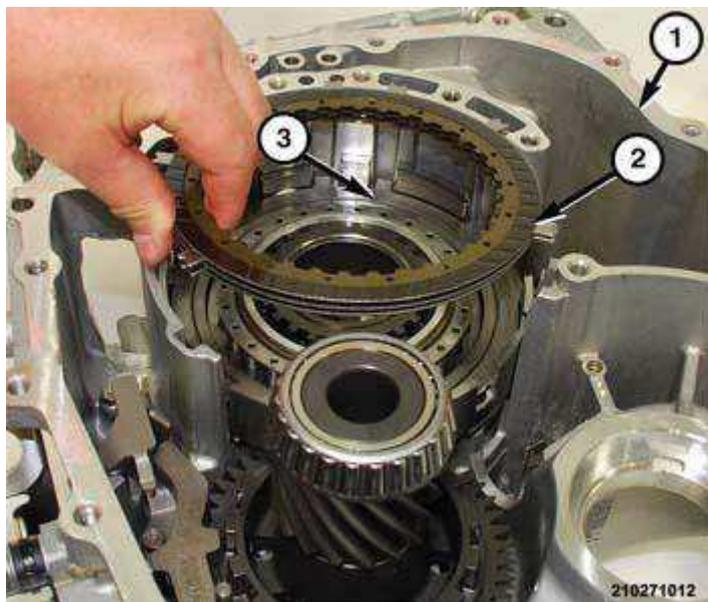


Fig. 312: Underdrive Brake Plates, Discs & Drum
Courtesy of CHRYSLER GROUP, LLC

61. Place underdrive brake plates and discs in position in underdrive brake drum.

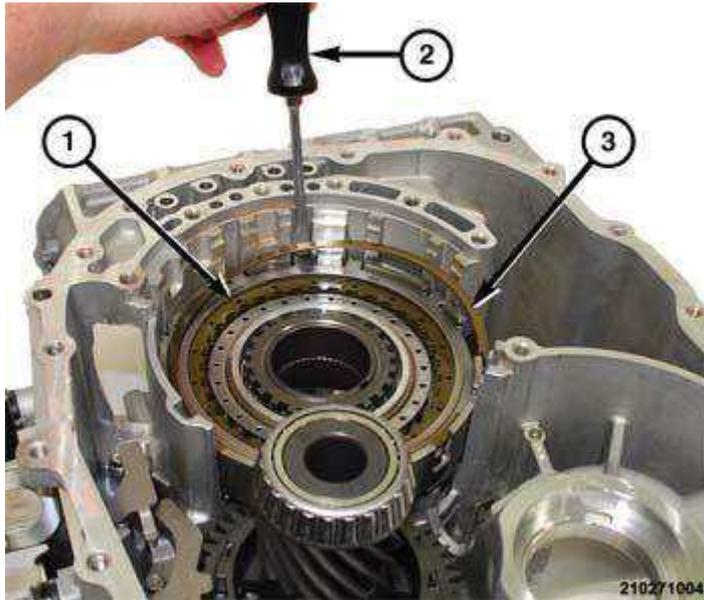


Fig. 313: Underdrive Brake, Underdrive Brake Drum, & Large Snap Ring
Courtesy of CHRYSLER GROUP, LLC

62. Install large snap ring (3) to hold underdrive brake (1) into the underdrive brake drum.

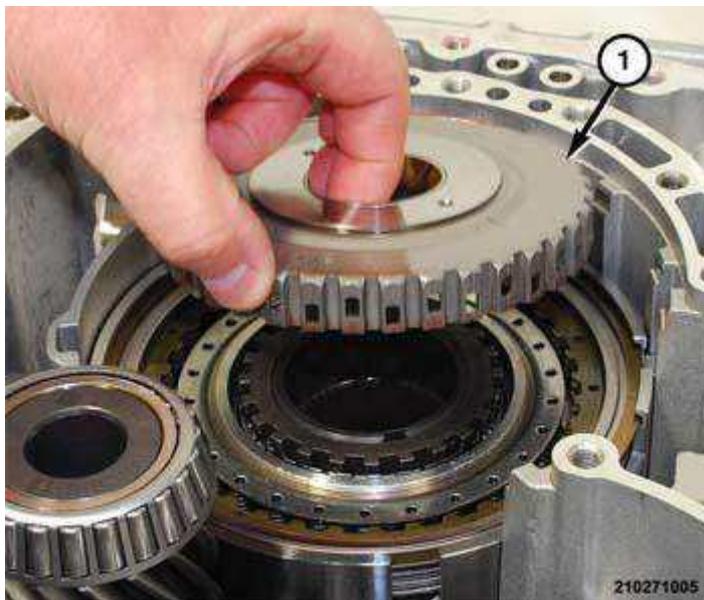


Fig. 314: Underdrive Brake Hub
Courtesy of CHRYSLER GROUP, LLC

63. Install underdrive brake hub (1) assembly in position on transaxle.

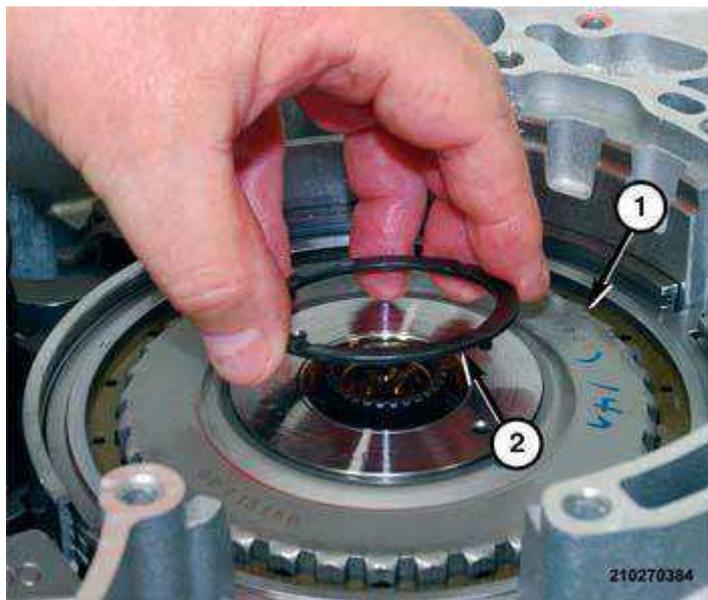


Fig. 315: Underdrive Brake Hub & Thrust Washer
Courtesy of CHRYSLER GROUP, LLC

64. Install thrust washer (2) in position on the underdrive brake hub.

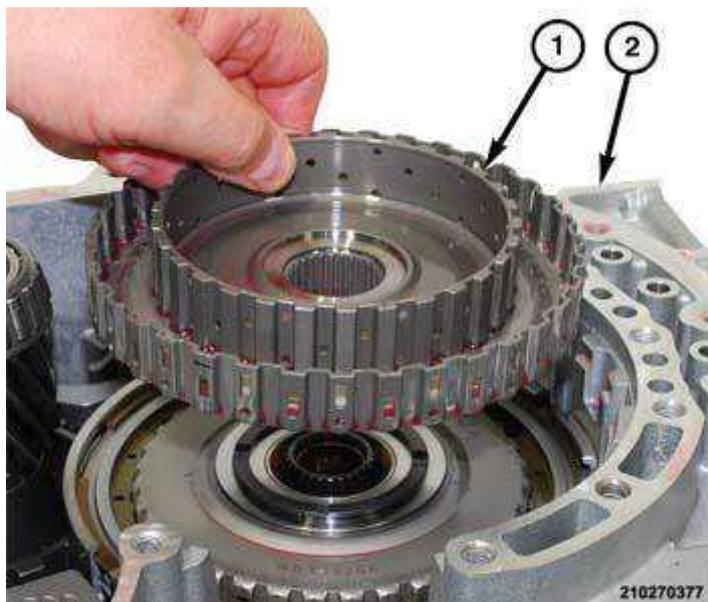


Fig. 316: 3/5/R Clutch & 2/6 Brake Hub Assembly
Courtesy of CHRYSLER GROUP, LLC

65. Install the 3/5/R clutch and 2/6 brake hub (1) assembly in position on the underdrive clutch.

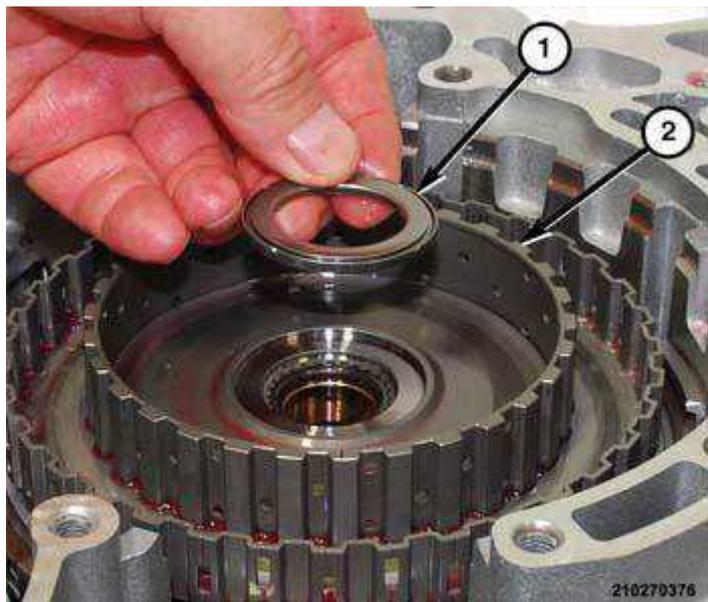


Fig. 317: 3/5/R Clutch & 2/6 Brake Hub, Thrust Bearing
Courtesy of CHRYSLER GROUP, LLC

66. Install the thrust bearing (2) in position on the 3/5/R clutch and 2/6 brake hub.

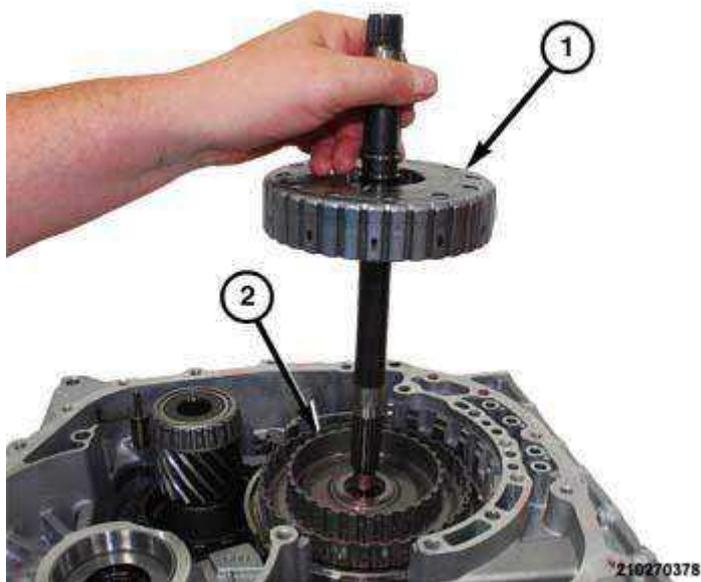


Fig. 318: 3/5/R Clutch Assembly, 3/5/R & 2/6 Brake Hub Assembly
Courtesy of CHRYSLER GROUP, LLC

67. Install the 3/5/R clutch assembly (1) in position in the 3/5/R and 2/6 brake hub (2) assembly.



Fig. 319: 2/6 Brake Select Thickness Reaction Plate & Hub
Courtesy of CHRYSLER GROUP, LLC

68. Install 2/6 brake select thickness reaction plate (1) in position in the 2/6 brake hub.



Fig. 320: 2/6 Brake Plates, Discs & Hub
Courtesy of CHRYSLER GROUP, LLC

69. Install the 2/6 brake alternating the (1) plates (3) and discs (2) in position in the 2/6 brake hub.

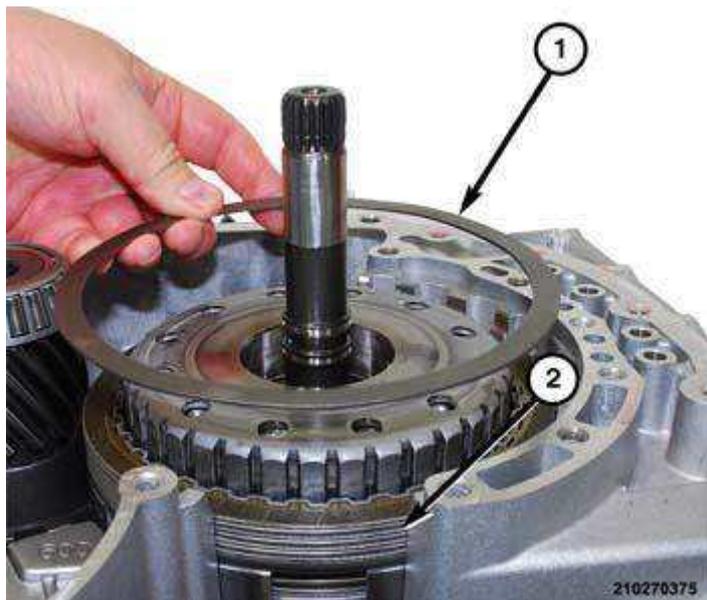


Fig. 321: 2/6 Brake Wave Plate & Hub
Courtesy of CHRYSLER GROUP, LLC

70. Install 2/6 brake wave plate (1) in position in the 2/6 brake hub.



Fig. 322: Split Ring Seals & Input Shaft
Courtesy of CHRYSLER GROUP, LLC

71. Install two split ring seals (2) in the seal lands (2) in the input shaft (1).



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Fig. 323: Split Seal Rings & Fluid Pump Hub
Courtesy of CHRYSLER GROUP, LLC

72. Install two split seal rings (3) in the lands (2) in fluid pump (1) hub.



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Fig. 324: Thrust Washer & Fluid Pump
Courtesy of CHRYSLER GROUP, LLC

73. Apply a 3 mm (0.120 in.) bead of Dupont® Loctite™ 5460 Pink Flange Sealant or equivalent around the perimeter of the fluid pump sealing surface.
74. Using assembly lube, install the plastic thrust washer (2) in position on the underside of the fluid pump (1). There are three nubs that insert into holes in the fluid pump hub to prevent the thrust washer from rotating.

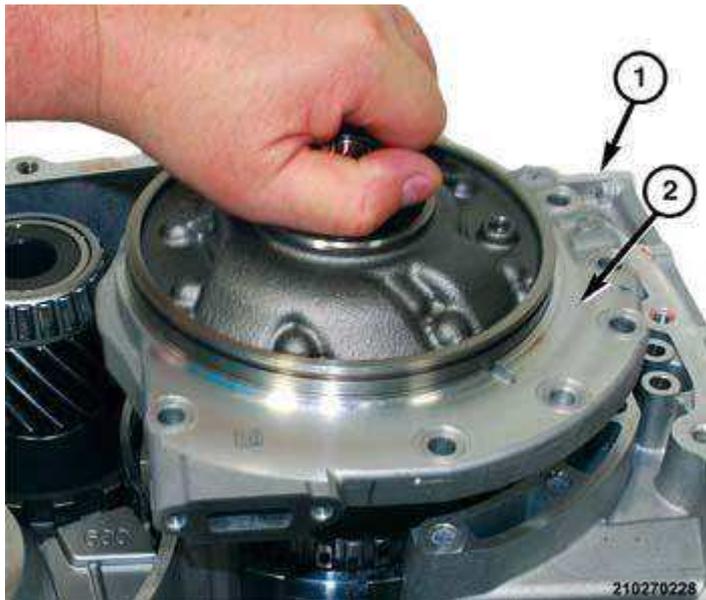


Fig. 325: Fluid Pump Separated From Transaxle Housing
 Courtesy of CHRYSLER GROUP, LLC

75. Place the fluid pump (2) in position on the transaxle housing (1).

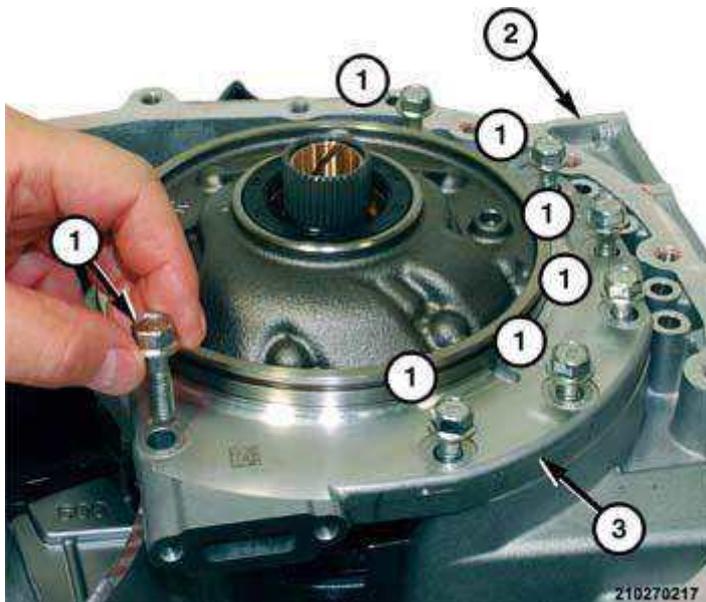


Fig. 326: Fluid Pump & Bolts
 Courtesy of CHRYSLER GROUP, LLC

76. Install bolts (1) to hold fluid pump (3) to the trans axle housing (2). Refer to **SPECIFICATIONS**.

77. Install **NEW** o-ring seal in position in the groove in the fluid pump housing.



Fig. 327: Fluid Filter Separated From Transaxle Housing
Courtesy of CHRYSLER GROUP, LLC

78. Place the fluid filter (2) in position in the transaxle housing (1).

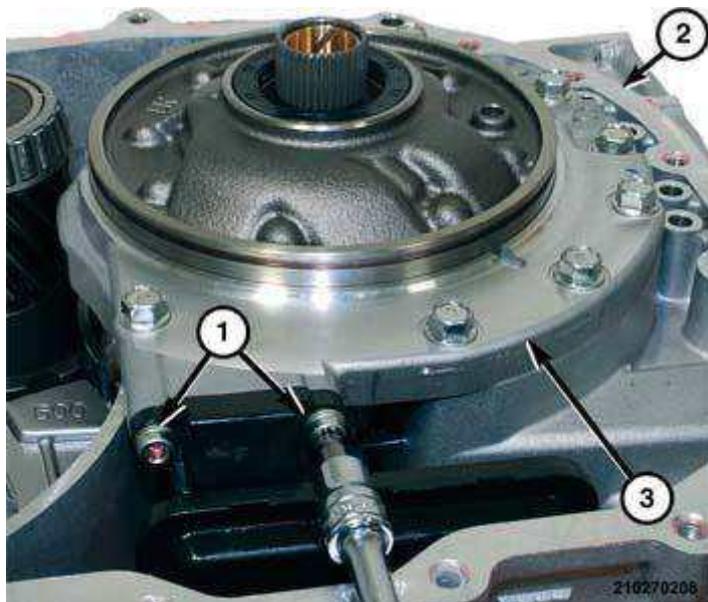


Fig. 328: Fluid Filter, Fluid Pump & Bolts
Courtesy of CHRYSLER GROUP, LLC

79. Install bolts (1) to hold the fluid filter to the fluid pump (3) housing. Refer to **SPECIFICATIONS**.

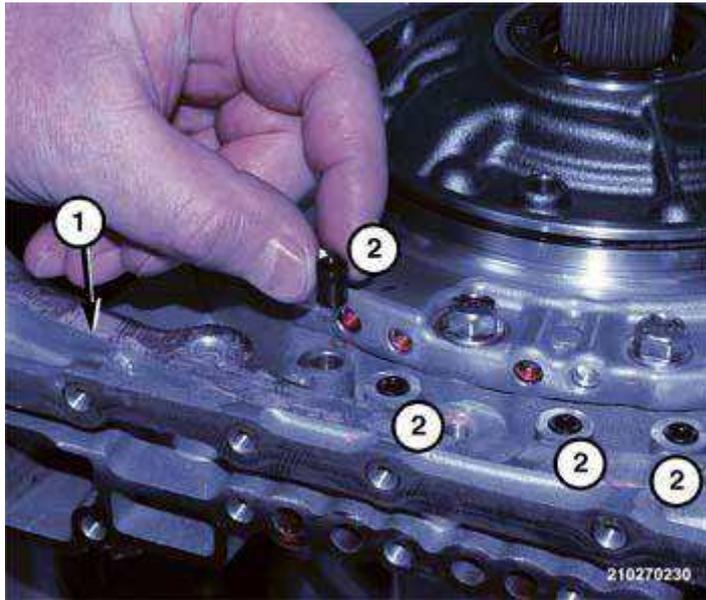


Fig. 329: Small Transfer Port Seals
Courtesy of CHRYSLER GROUP, LLC

80. Install seals in position in four small transfer ports (2) in the transaxle housing (1).

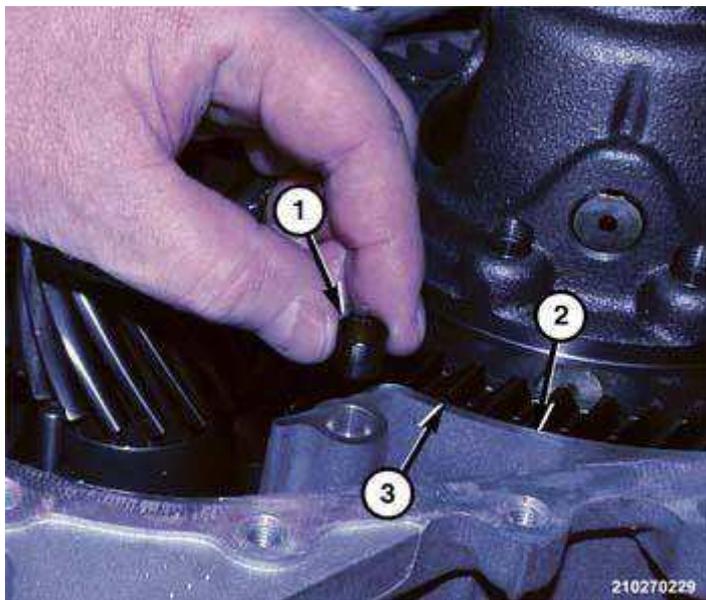


Fig. 330: Large Transfer Port Seal
Courtesy of CHRYSLER GROUP, LLC

81. Install seal in position in the large transfer port (1) in the axle housing (2).



Fig. 331: Differential Assembly Separated From Transaxle Housing
 Courtesy of CHRYSLER GROUP, LLC

82. Place the differential assembly in position in the transaxle housing.
83. Apply a 3 mm (0.120 in.) bead of Dupont® Loctite™ 5460 Pink Flange Sealant or equivalent around the perimeter of the transaxle housing.



Fig. 332: Bell Housing Separated From Transaxle
 Courtesy of CHRYSLER GROUP, LLC

84. If fluid guides and tube were removed during cleaning, install related components in the transaxle housing. Refer to **SPECIFICATIONS**.
85. Place the bell housing (1) in position on the transaxle (2).



Fig. 333: Inside Bell Housing Bolts
Courtesy of CHRYSLER GROUP, LLC

86. Install five bolts (1) on inside of the bell housing (2). Refer to **SPECIFICATIONS**.



Fig. 334: Transaxle Housing & Bottom Bolts
Courtesy of CHRYSLER GROUP, LLC

87. Install six bolts in the bottom (2) of the transaxle housing (1). Refer to **SPECIFICATIONS**.

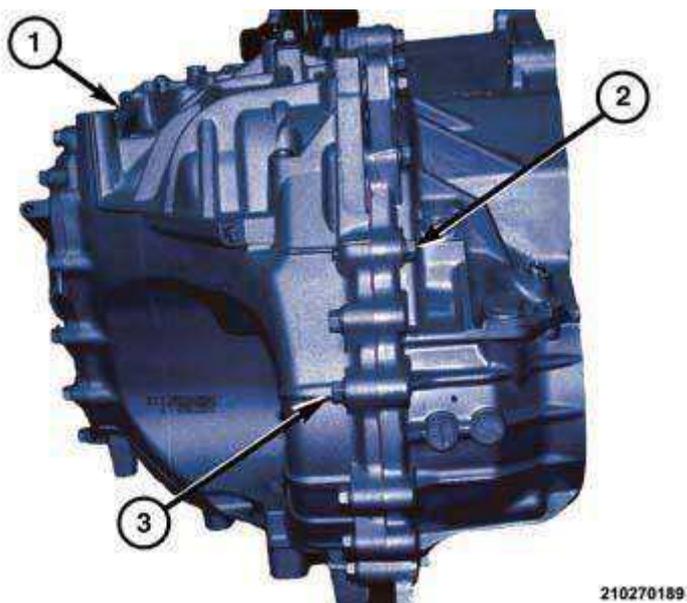


Fig. 335: Transaxle Housing & Bolts
Courtesy of CHRYSLER GROUP, LLC

88. Install five bolts in the back (3) and five bolts in the top (2) of the transaxle housing (1). Refer to **SPECIFICATIONS**.

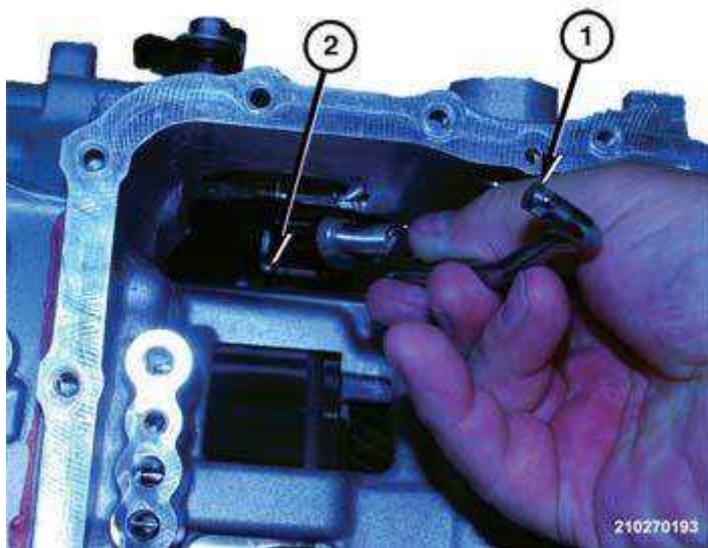


Fig. 336: Park Rod & Park Rod Guide
Courtesy of CHRYSLER GROUP, LLC

89. If seal required replacement, install the

NEW

lip seal in the manual shaft hole in the transaxle housing.

90. Insert the park rod (1) into the park rod guide.

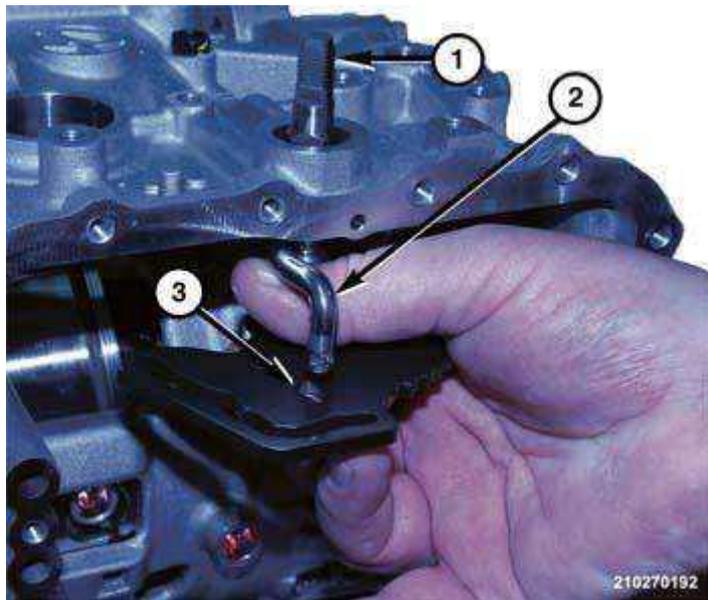


Fig. 337: Manual Shaft, Park Rod & Key Hole Slot
Courtesy of CHRYSLER GROUP, LLC

91. Insert the manual shaft (1) into the bearing in the transaxle.

92. Push manual shaft (1) upward until park rod (2) engages the detent comb.

93. Rotate manual shaft (1) clockwise to lock the staked nub on the park rod (2) in the key hole slot (3) in the manual shaft detent comb.

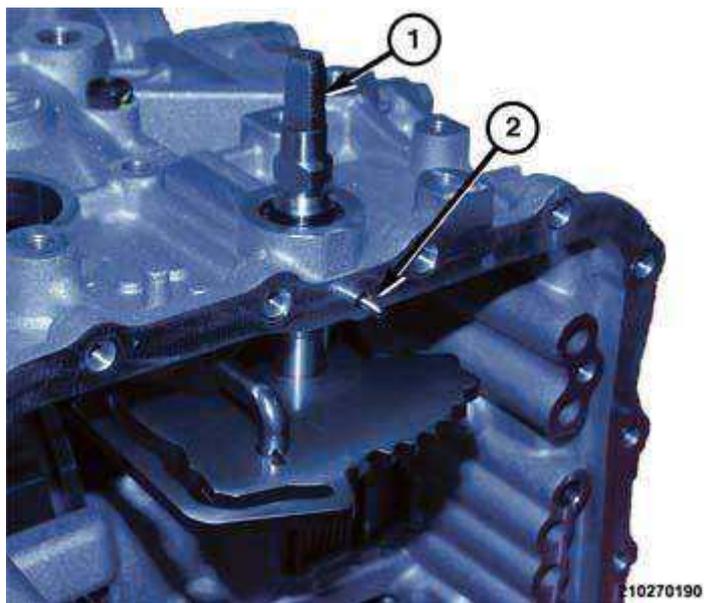


Fig. 338: Manual Shaft & Pin
Courtesy of CHRYSLER GROUP, LLC

94. Install the pin (2) to hold the manual shaft (1) in the transaxle into the hole in the pan gasket flange.

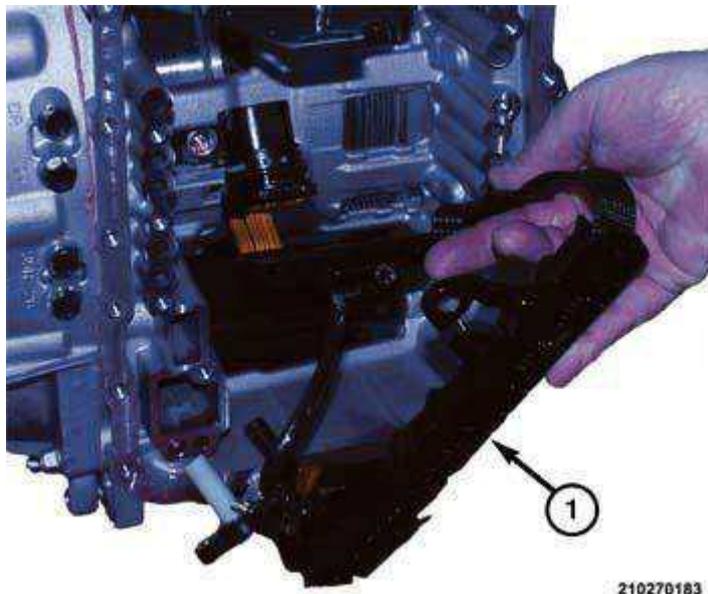


Fig. 339: Main Wire Harness & Sensors
Courtesy of CHRYSLER GROUP, LLC

95. Place the main wire harness and sensors (1) in position on the transaxle.
96. Push the wire connector outward through to hole in the transaxle housing.

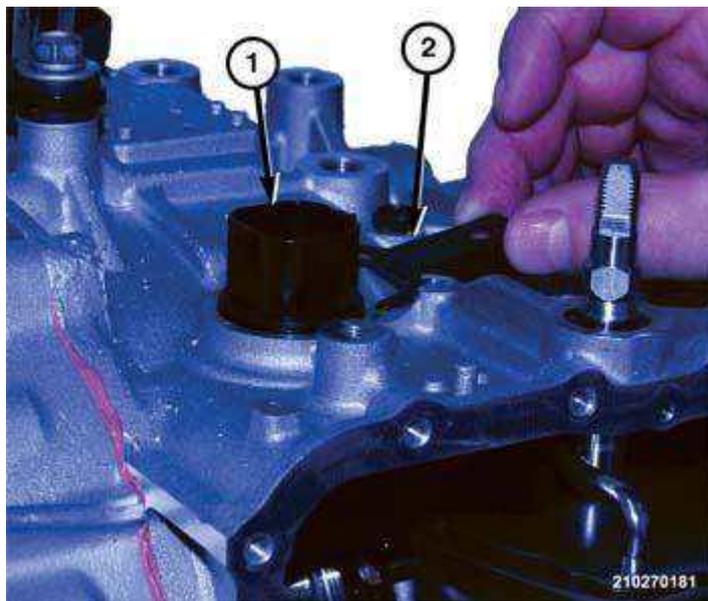


Fig. 340: Wire Connector & Hold Down Bracket Separated From Transaxle
Courtesy of CHRYSLER GROUP, LLC

97. Place the wire connector (1) hold down bracket (2) in position on the transaxle.

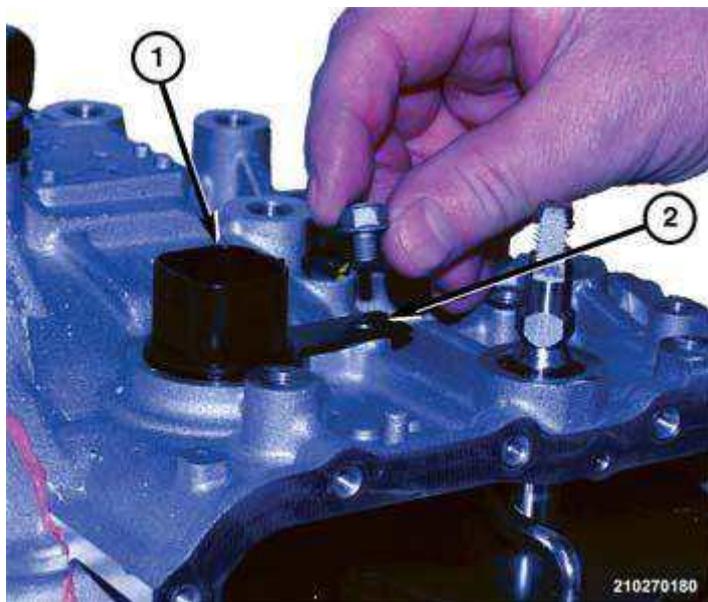


Fig. 341: Hold Down Bracket, Wire Connector & Bolts
Courtesy of CHRYSLER GROUP, LLC

98. Install bolt to hold the wire connector (1) hold down bracket (2) to the top of transaxle housing. Refer to **SPECIFICATIONS**.
99. Insert the speed sensors in position in the transaxle housing.

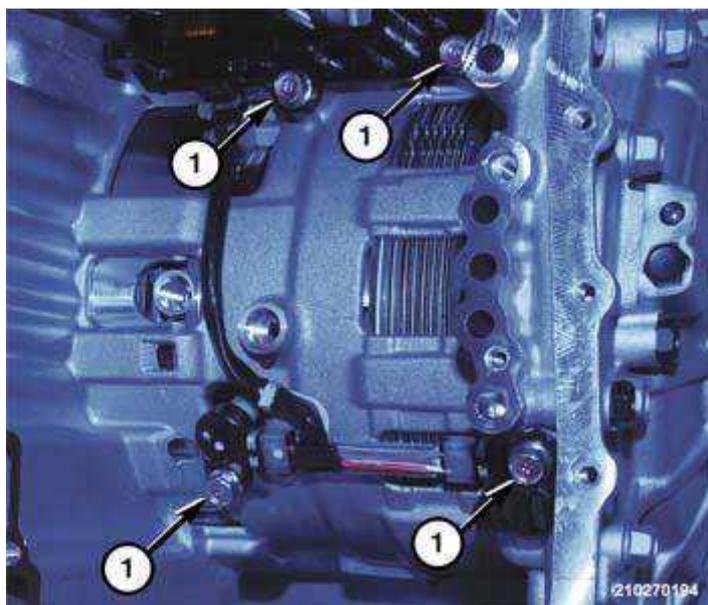


Fig. 342: Speed Sensors, Main Wire Harness & Bolts
Courtesy of CHRYSLER GROUP, LLC

00. Install bolts (1) to hold the speed sensors and main wire harness to transaxle. Refer to **SPECIFICATIONS**.

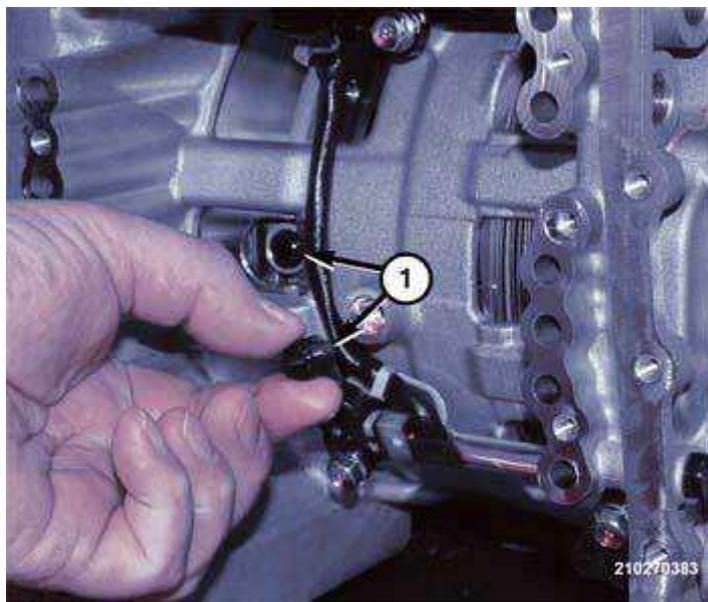


Fig. 343: Transfer Port Seals
Courtesy of CHRYSLER GROUP, LLC

01. Install the two seals into the transfer ports in transaxle housing.

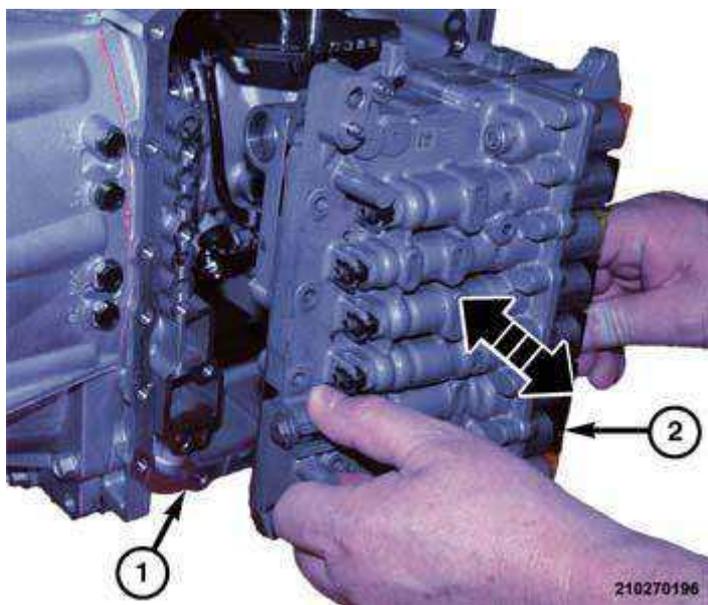


Fig. 344: Valve Body Separated From Transaxle
Courtesy of CHRYSLER GROUP, LLC

02. The manual valve is loose after the valve body is removed and may fall out during installation.

Place the valve body (2) in position on the transaxle (1). Guide the pin on the manual valve into the slot in the manual shaft detent comb.

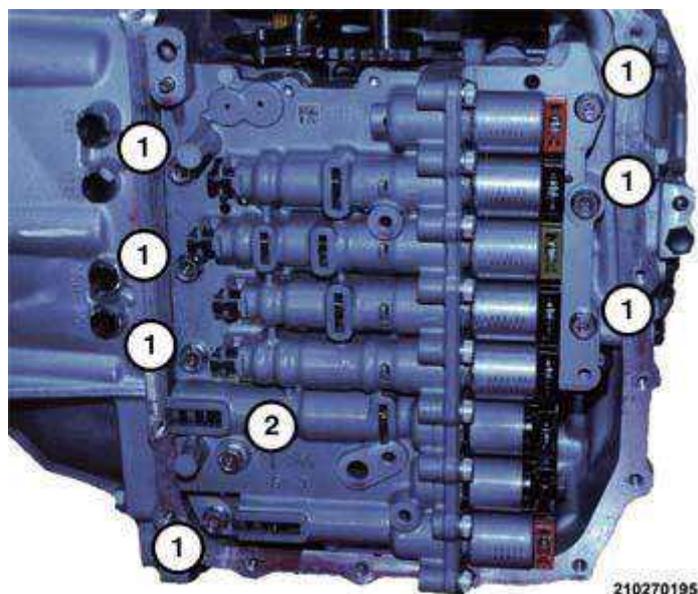


Fig. 345: Valve Body Bolts
Courtesy of CHRYSLER GROUP, LLC

03. Install bolts, 7 short (1) and 1 long (2) bolts, to hold the valve body to the transaxle. Refer to **SPECIFICATIONS**.

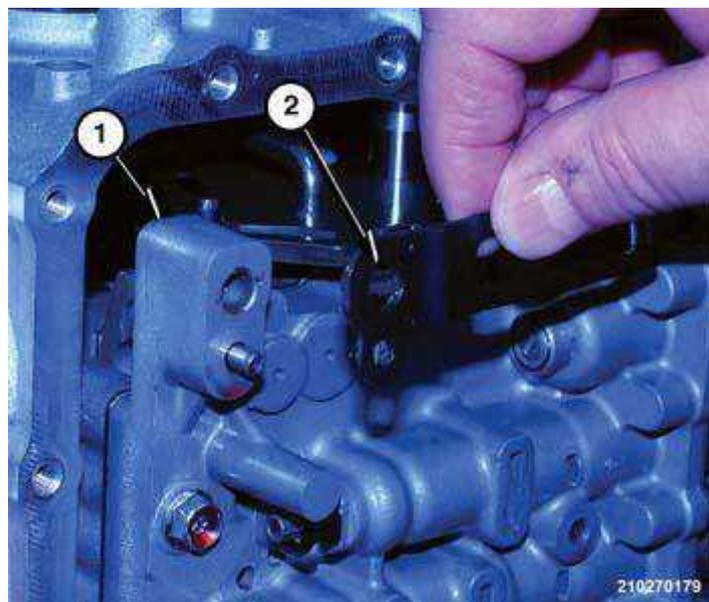


Fig. 346: Detent Spring Separated From Valve Body
Courtesy of CHRYSLER GROUP, LLC

04. Place the detent spring (2) in position on the valve body (1).

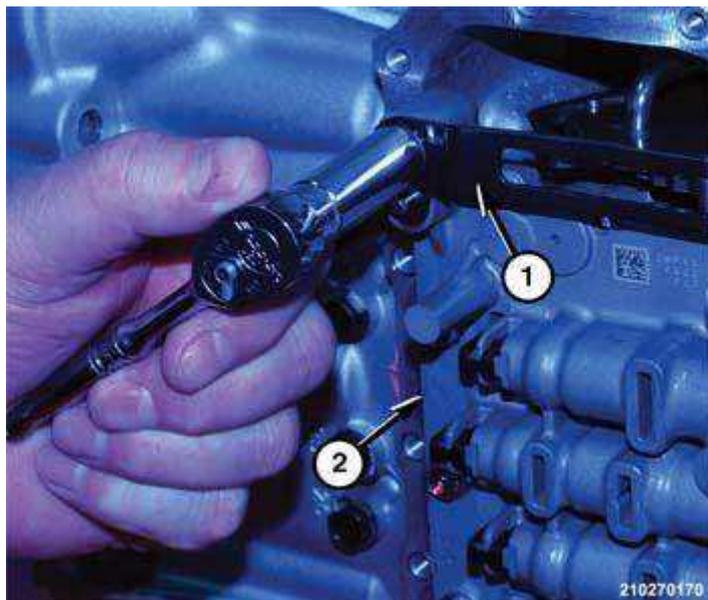


Fig. 347: Manual Shaft Detent Spring & Valve Body
Courtesy of CHRYSLER GROUP, LLC

05. Install the screw to hold the manual shaft detent spring (1) to the valve body (2). Refer to **SPECIFICATIONS**.

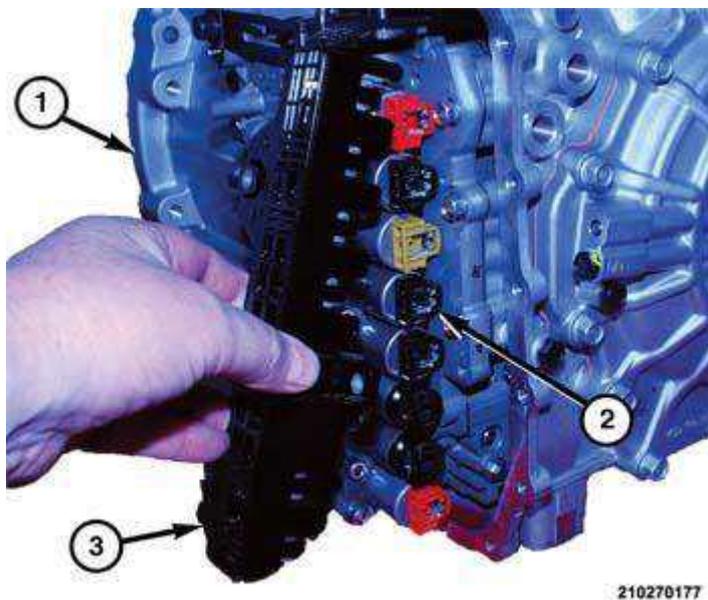


Fig. 348: Solenoids & Connector
Courtesy of CHRYSLER GROUP, LLC

06. Starting at the top solenoid valve, push inward at each solenoid (2) until the connector (3) is engaged.

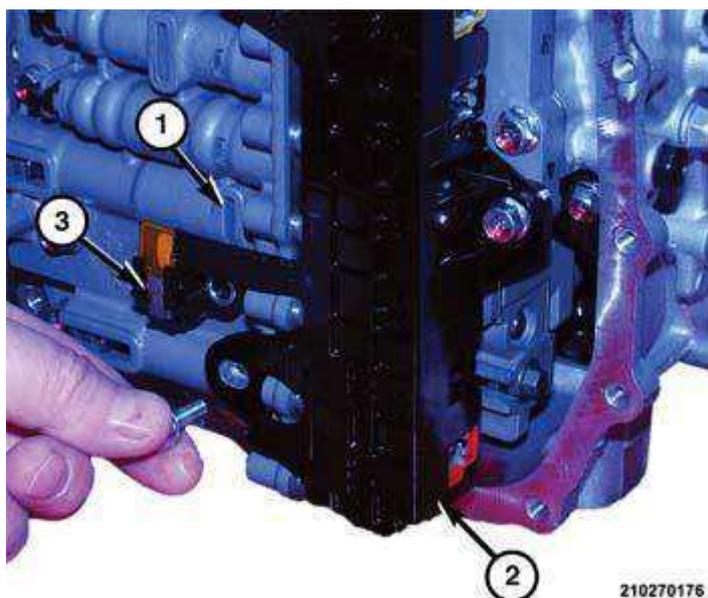


Fig. 349: Solenoid Valve Connector, Valve Body & Bolts
 Courtesy of CHRYSLER GROUP, LLC

07. Install bolts to hold the solenoid valve connector (2) to the valve body (1). Refer to **SPECIFICATIONS**.

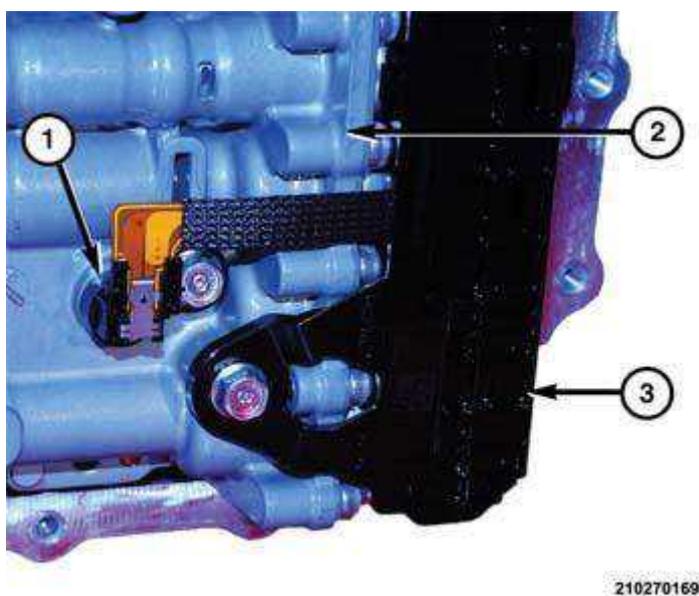


Fig. 350: Fluid Temperature Sensor, Valve Body & Bolt
 Courtesy of CHRYSLER GROUP, LLC

08. Insert the temperature sensor (1) into port in the valve body (2).
 09. Install bolt to hold fluid temperature sensor (1) to the valve body (2). Refer to **SPECIFICATIONS**.



Fig. 351: Valve Body Cover Separated From Transaxle
Courtesy of CHRYSLER GROUP, LLC

10. Install a **NEW** gasket on the pan and place the pan (1) in position on the transaxle (2).

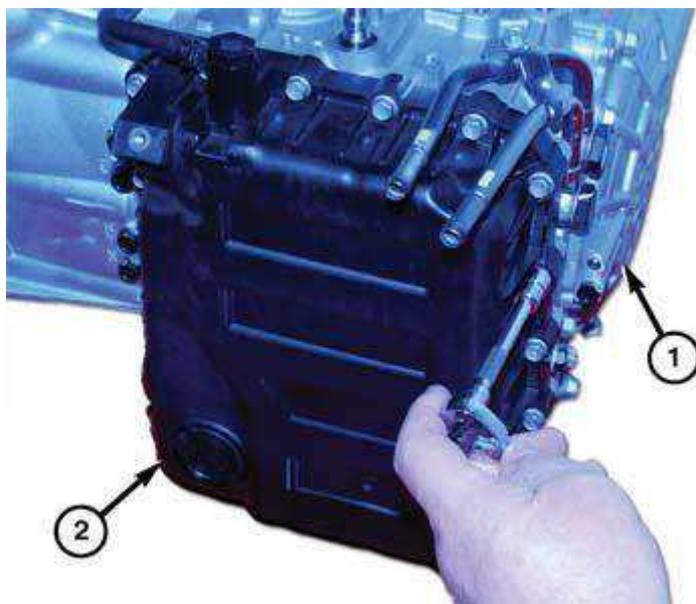


Fig. 352: Valve Body Cover
Courtesy of CHRYSLER GROUP, LLC

11. Install bolts to hold the valve body pan (2) to the transaxle (1). Refer to **SPECIFICATIONS**.

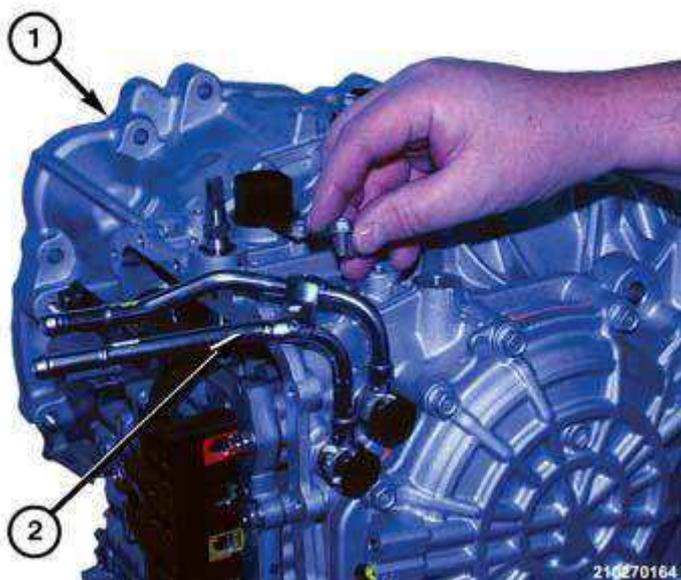


Fig. 353: Cooler Tubes & Transaxle
Courtesy of CHRYSLER GROUP, LLC

12. Place the cooler tubes (2) in position on the transaxle (1).
13. Install bolt to hold the cooler tube (2) bracket to the transaxle (1). Refer to **SPECIFICATIONS**.

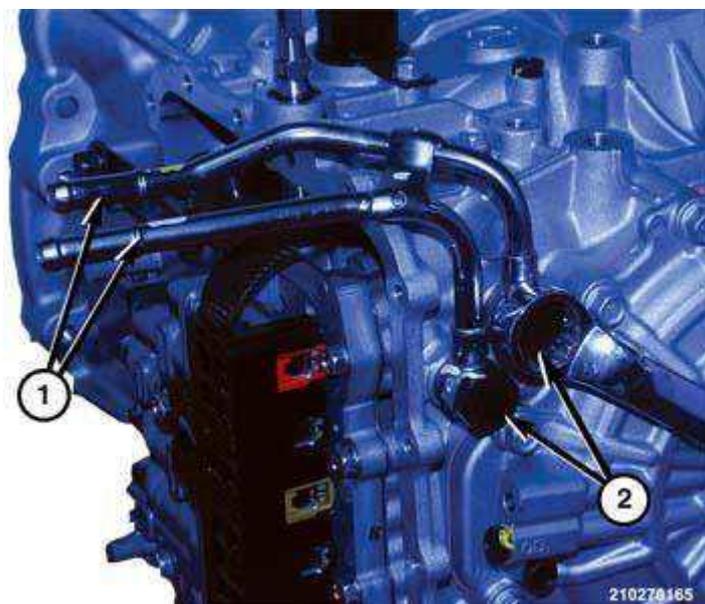


Fig. 354: Cooler Tubes & Banjo Bolts
Courtesy of CHRYSLER GROUP, LLC

14. Install banjo bolts (2) to hold the cooler tubes (1) to the transaxle. Refer to **SPECIFICATIONS**.

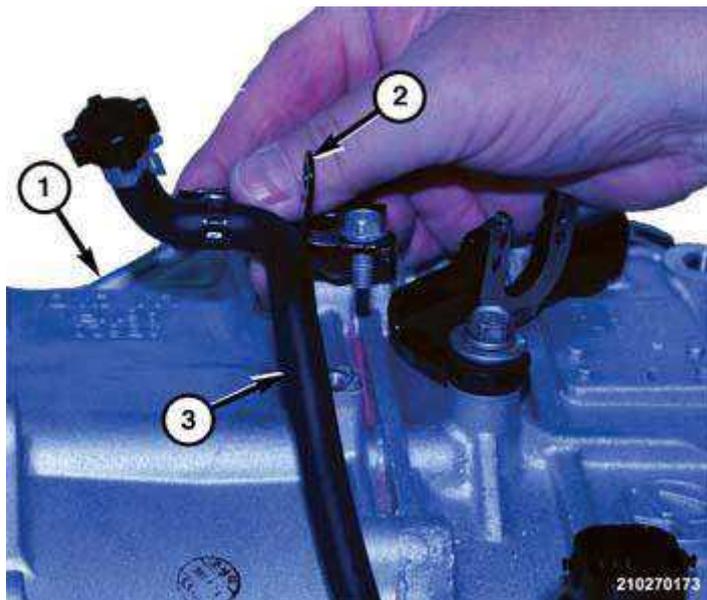


Fig. 355: Vent Tube Bracket & Bolt
Courtesy of CHRYSLER GROUP, LLC

15. Place the vent tube (3) in position on the transaxle (1).
16. Install bolt to hold the vent tube bracket (2) to the transaxle housing. Refer to **SPECIFICATIONS**.



Fig. 356: Vent Hose End & Nipple Adapter
Courtesy of CHRYSLER GROUP, LLC

17. Push the vent hose end (1) onto of the nipple on the vent adaptor (2).

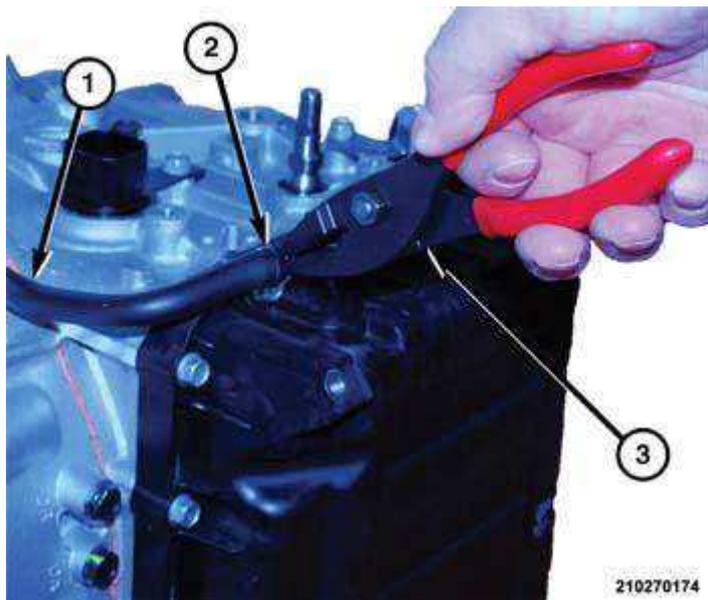


Fig. 357: Vent Hose, Spring Clamp & Pliers
Courtesy of CHRYSLER GROUP, LLC

18. Using common pliers (3), compress the hose spring clamp (2) and slide it up the vent hose (1) into position to hold the hose to the nipple.

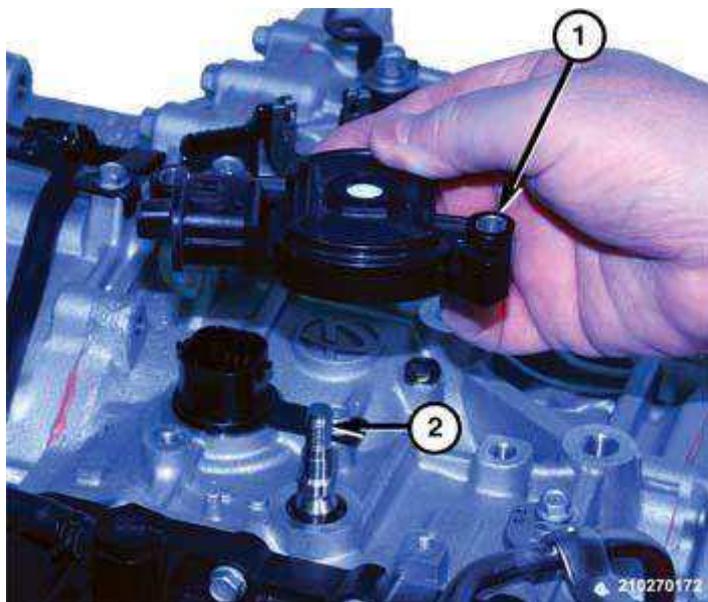


Fig. 358: Transmission Range Sensor Separated From Transaxle
Courtesy of CHRYSLER GROUP, LLC

19. Place the TRS (1) in position on the transaxle.



Fig. 359: Transmission Range Sensor
Courtesy of CHRYSLER GROUP, LLC

20. Install bolts to hold the TRS (1) to the transaxle housing. Refer to **SPECIFICATIONS**.



Fig. 360: Manual Lever & Manual Shaft
Courtesy of CHRYSLER GROUP, LLC

21. Place the manual level (1) in position on the manual shaft.

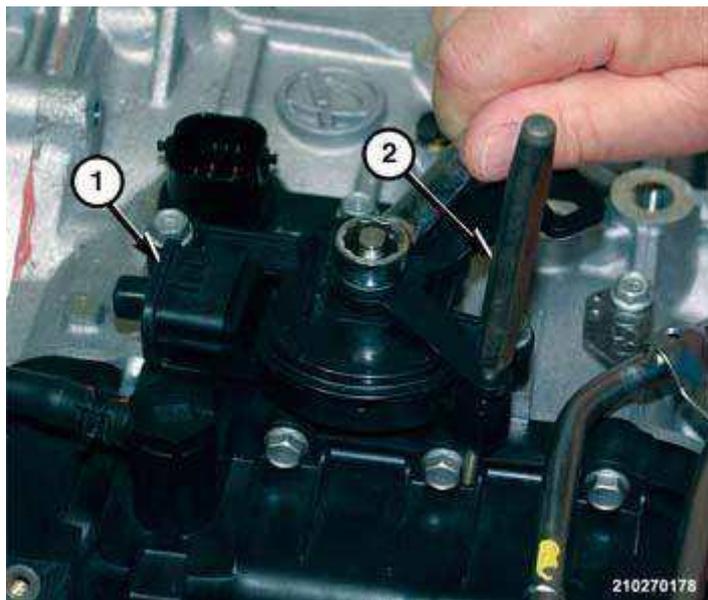


Fig. 361: Pin Punch, Manual Lever & Transmission Range Sensor
Courtesy of CHRYSLER GROUP, LLC

22. Insert a suitable pin punch (2) or equivalent through the manual lever into the TRS switch (1) to hold lever in place.
23. Install the nut to hold the manual lever to the manual shaft. Refer to **SPECIFICATIONS**.

NOTE: The transaxle can now be installed in a vehicle. Refer to **INSTALLATION**.

AWD

NOTE: Thoroughly clean all components to remove metallic and fibrous materials that may have contaminated the transaxle during a component failure.

NOTE: Inspect all components for excessive wear, spalled surfaces, or other obvious damage. Replace only damaged components that are serviceable with genuine Mopar Parts.

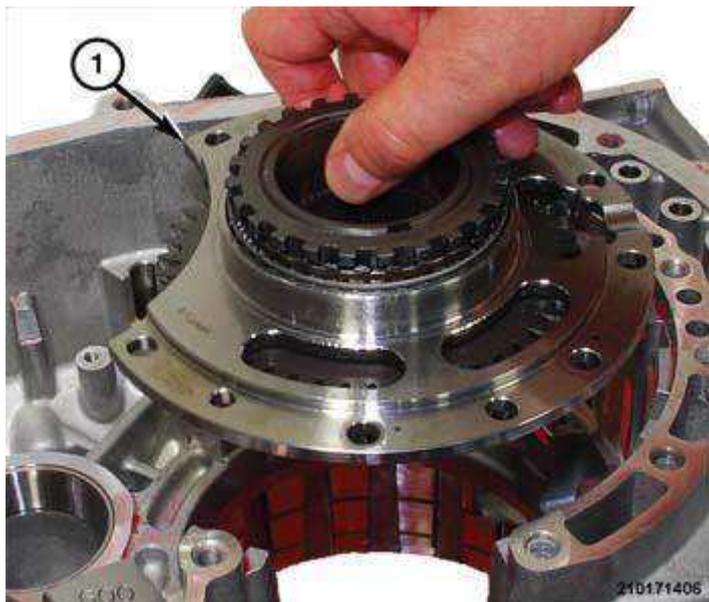


Fig. 362: Transfer Drive Assembly
Courtesy of CHRYSLER GROUP, LLC

1. Place the transfer drive assembly (1) into position in the transaxle case.

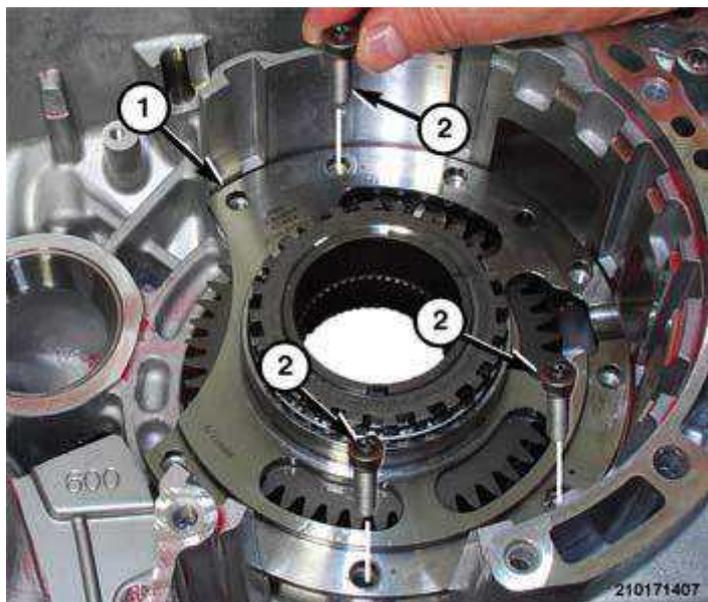


Fig. 363: Transfer Drive Assembly & Bolts
Courtesy of CHRYSLER GROUP, LLC

2. Install three bolts (2) to hold transfer drive assembly (1) to the transaxle housing. Refer to **SPECIFICATIONS**.
3. Install **NEW** inside and outside D-ring seals into the low & reverse brake piston (1).
4. Using specified transaxle fluid, lubricate the low & reverse brake piston (1)

D-ring seals.

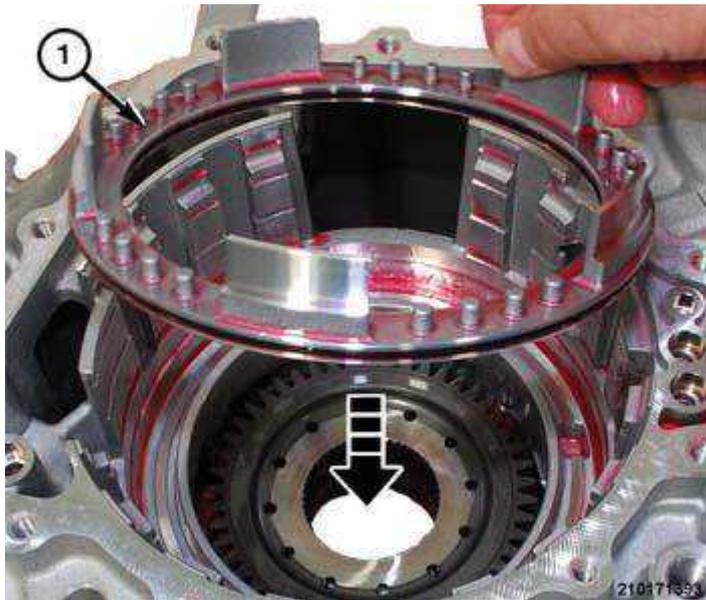


Fig. 364: Low/Reverse Brake Piston
 Courtesy of CHRYSLER GROUP, LLC

5. Place low & reverse brake piston (1) in position in transaxle housing.
6. Push low & reverse brake piston downward into cylinder bore in the transaxle housing.

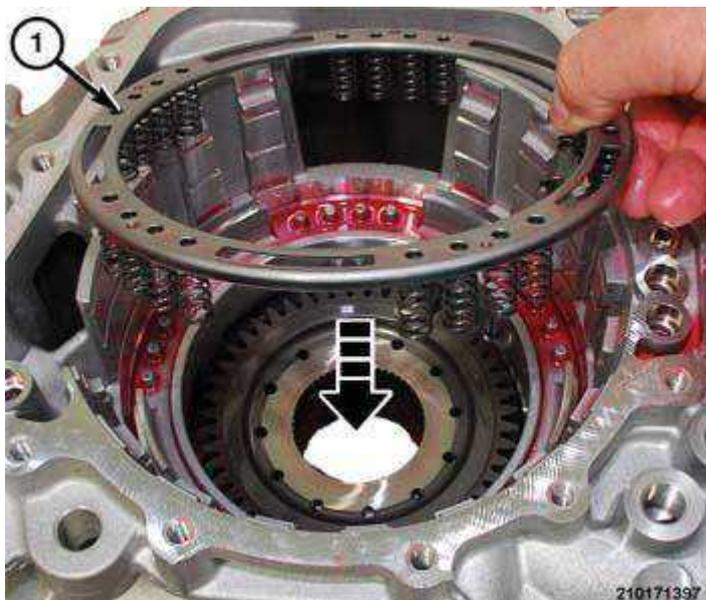


Fig. 365: Low/Reverse Brake Piston Spring Retainer
 Courtesy of CHRYSLER GROUP, LLC

7. Place low & reverse brake piston spring retainer in position on the lo-reverse

brake piston.

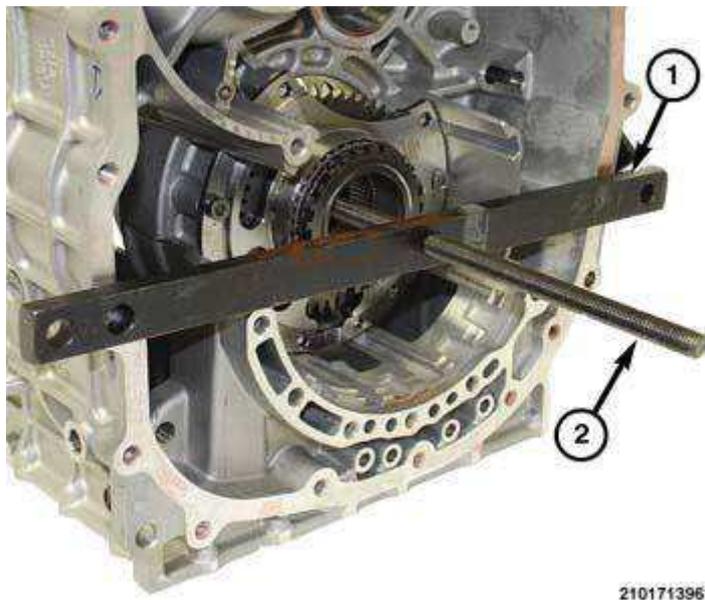


Fig. 366: Special Tool #5058A-3
Courtesy of CHRYSLER GROUP, LLC

8. Install spring compressor tools (special tool #5058A-3, Screw, Forcing) in position on transaxle.
9. Insert screw through center hole in spring compressor (special tool #8621, Compressor, Spring).



Fig. 367: Special Tool #8621
Courtesy of CHRYSLER GROUP, LLC

Insert the screw through the transfer gear and into the threaded cross bar across the bell housing opening.

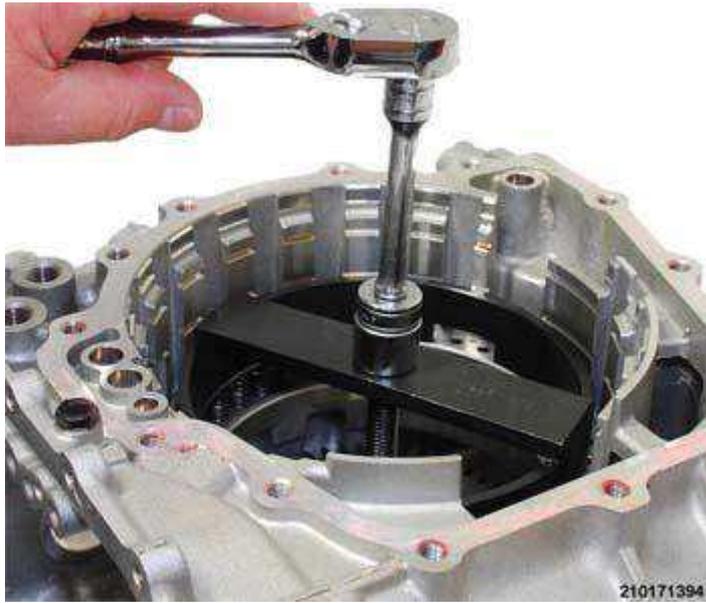


Fig. 368: Compressing Low/Reverse Spring Retainer
Courtesy of CHRYSLER GROUP, LLC

10. Compress the low/reverse spring retainer.



Fig. 369: Low/Reverse Brake Spring Retainer Snap Ring
Courtesy of CHRYSLER GROUP, LLC

11. Install the snap ring (1) to hold the low/reverse brake spring retainer to the low/reverse brake piston.

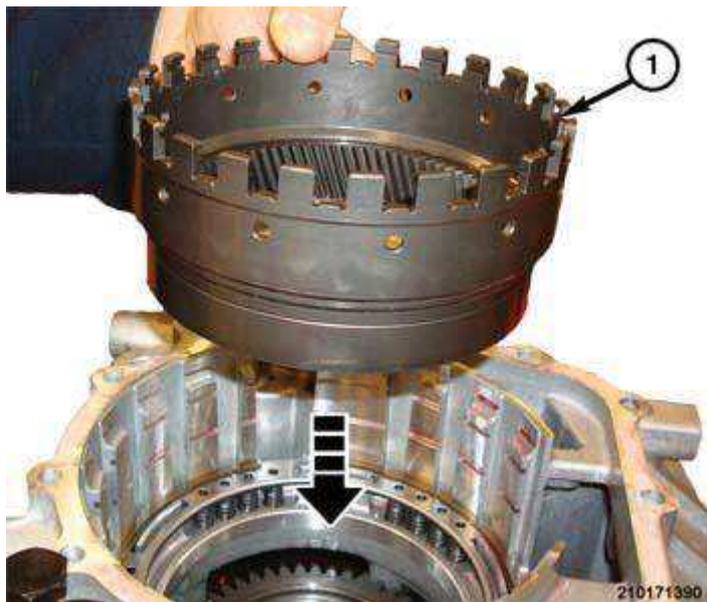


Fig. 370: Front Annulus Gear
Courtesy of CHRYSLER GROUP, LLC

12. Place the front annulus gear (1) in position in the low/reverse brake assembly.

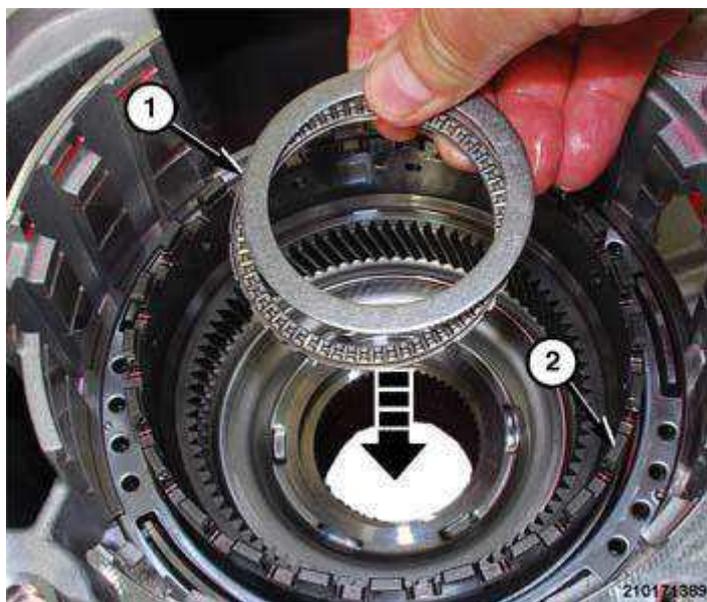


Fig. 371: Front Annulus Gear Thrust Bearing And Race
Courtesy of CHRYSLER GROUP, LLC

13. Place the front annulus gear thrust bearing and race (1) in position on the front annulus gear (2) hub.



Fig. 372: Front Planetary Gear & Front Annulus Gear Assembly
Courtesy of CHRYSLER GROUP, LLC

14. Place the front planetary gear (1) in position on the front annulus gear assembly (2).

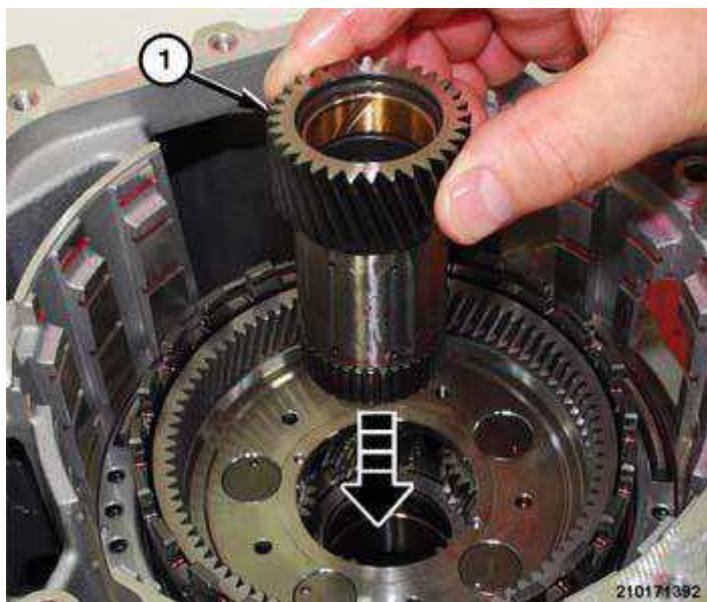


Fig. 373: Front Sun Gear
Courtesy of CHRYSLER GROUP, LLC

15. Insert the front sun gear (1) into front planetary gear assembly.

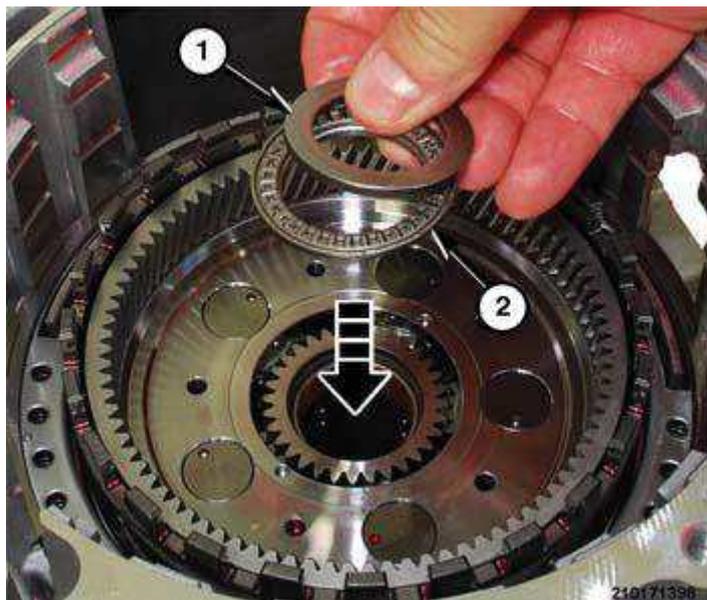


Fig. 374: Planetary Gear Hub Bearing And Race Set
 Courtesy of CHRYSLER GROUP, LLC

16. Place the bearing (2) and race (1) set in position on the planetary gear hub.

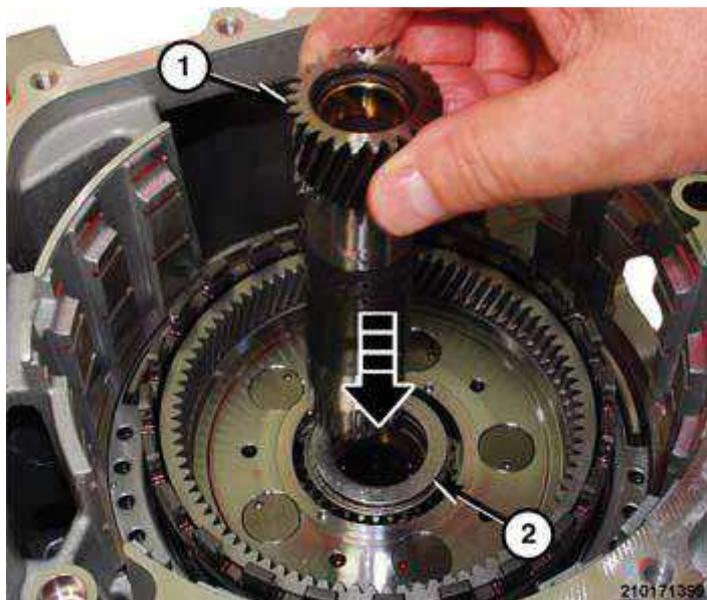


Fig. 375: Middle Sun Gear & Planetary Gear Hub
 Courtesy of CHRYSLER GROUP, LLC

17. Insert the middle sun gear (1) in position in the in position on the front sun gear (2).

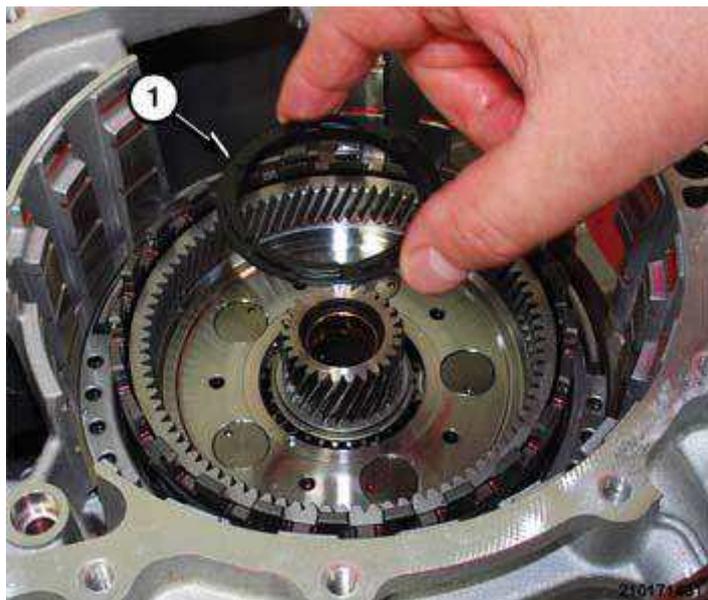


Fig. 376: Front Planetary Gear Hub Thrust Washer
Courtesy of CHRYSLER GROUP, LLC

18. Place the thrust washer (1) in position on the front planetary gear hub.

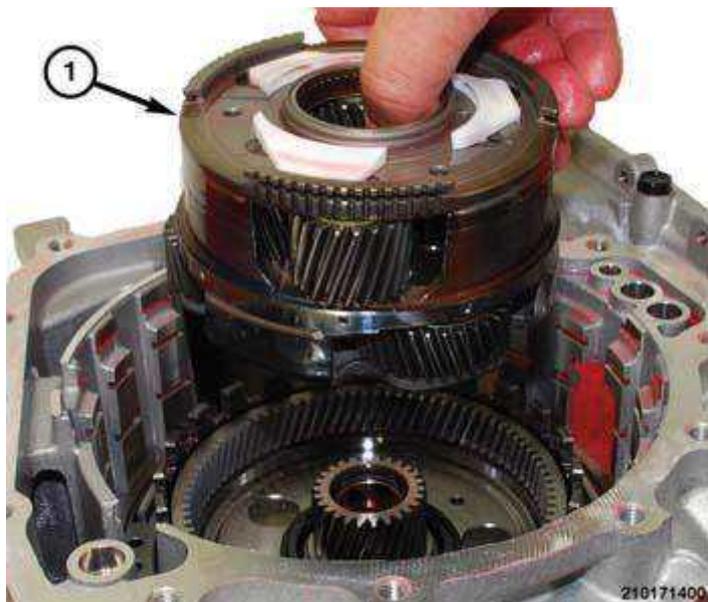


Fig. 377: Middle/Rear Planetary Gear Assembly
Courtesy of CHRYSLER GROUP, LLC

19. Place the middle/rear planetary gear assembly (1) in position in the planetary gear hub.

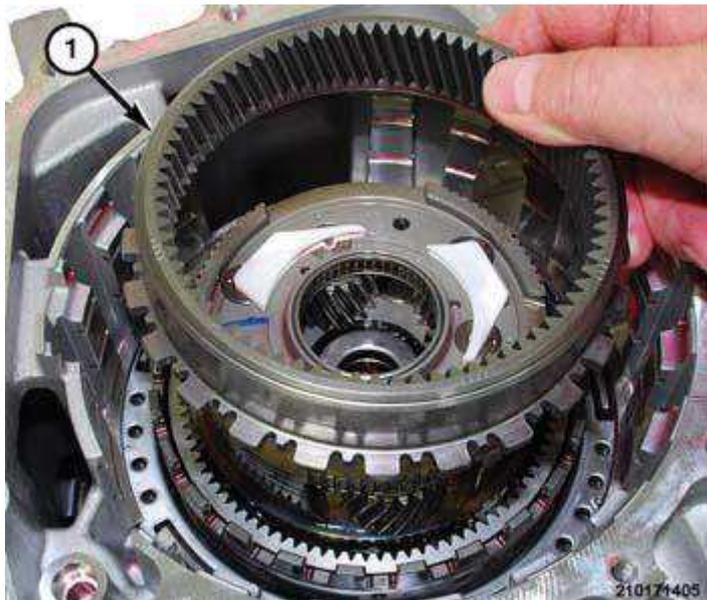


Fig. 378: Rear Annulus Gear
Courtesy of CHRYSLER GROUP, LLC

- 20.
21. Place the rear annulus gear (1) in position on the middle/rear planetary gear assembly.

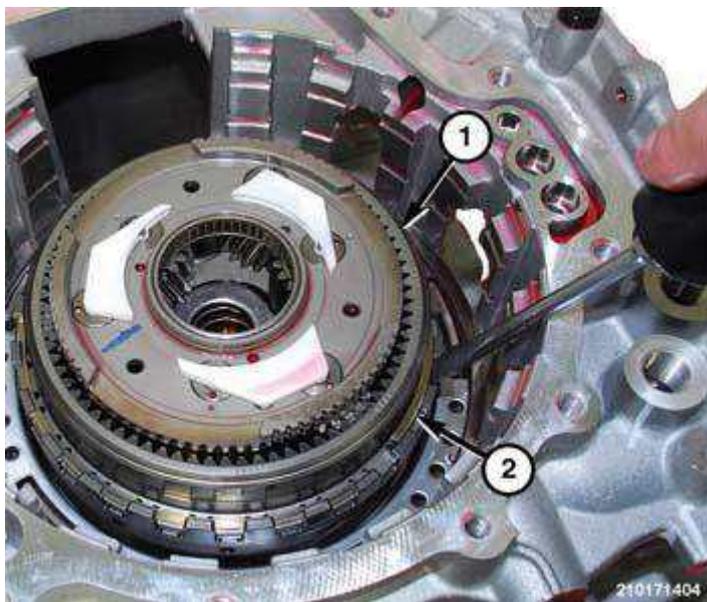


Fig. 379: Rear Annulus Gear & Snap Ring
Courtesy of CHRYSLER GROUP, LLC

22. Install the snap ring (2) to hold the rear annulus gear (1) into the front annulus gear hub.

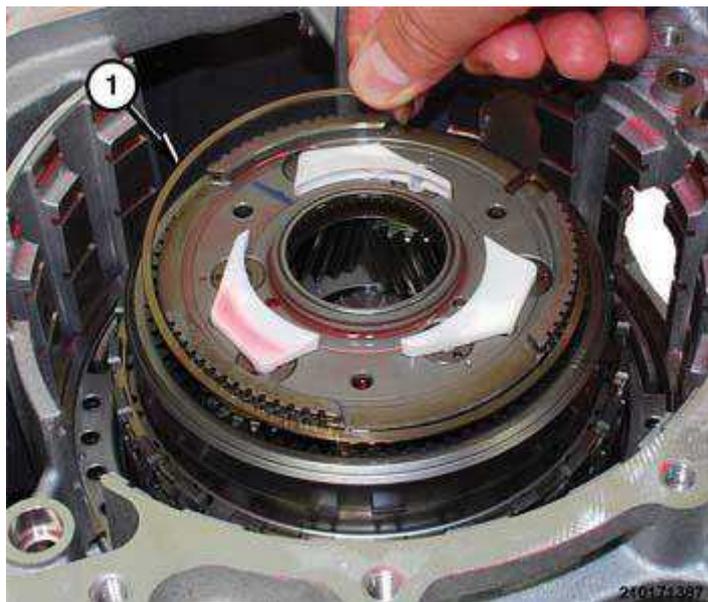


Fig. 380: Middle/Rear Planetary Gear Snap Ring
Courtesy of CHRYSLER GROUP, LLC

23. Insert the snap ring into the groove in the middle/rear planetary gear.

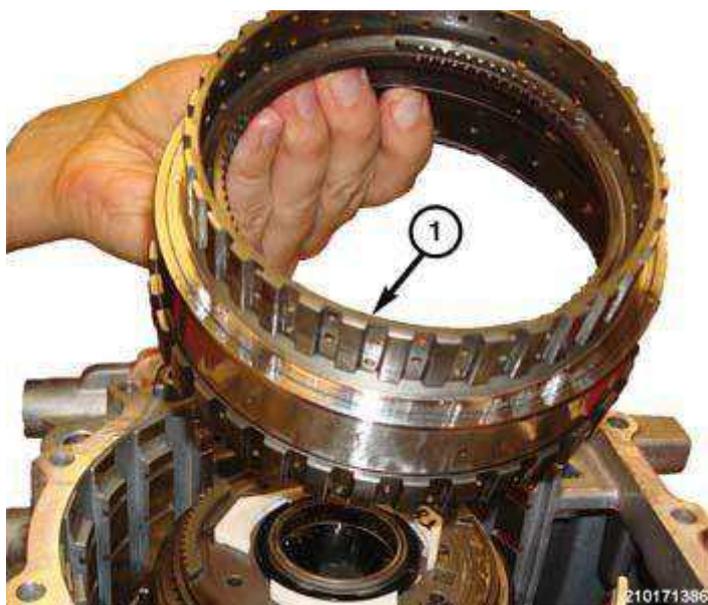


Fig. 381: One Way Clutch Inner Race
Courtesy of CHRYSLER GROUP, LLC

24. Place the one way clutch inner race (1) in position on the middle/rear planetary gear.

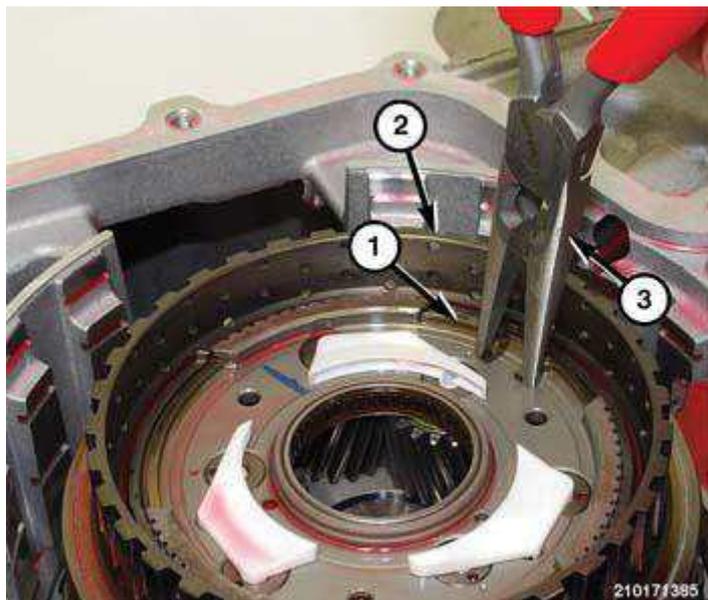
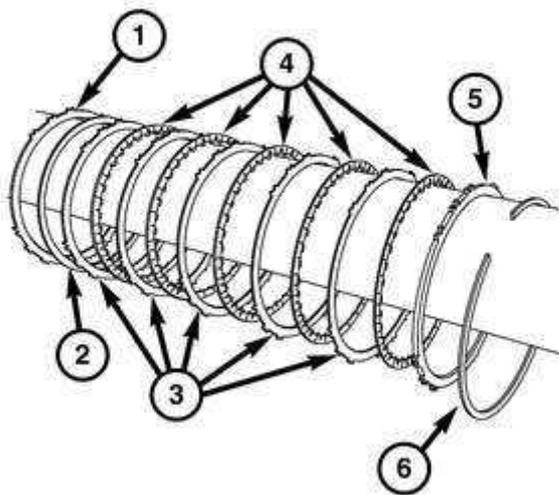


Fig. 382: One Way Clutch Race & Snap Ring
 Courtesy of CHRYSLER GROUP, LLC

25. Using long nose pliers (3), compress snap ring (1) to hold the one way clutch race (2) to the middle/rear planetary gear.



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Fig. 383: Low & Reverse Brake Pressure Plate, Cushion Plate, Plates, Discs, & Reaction Plate
 Courtesy of CHRYSLER GROUP, LLC

26. Install the low & reverse brake pressure plate (1), cushion plate (2), plates 3)

discs (4), and the reaction plate (5), in order, into the transaxle.

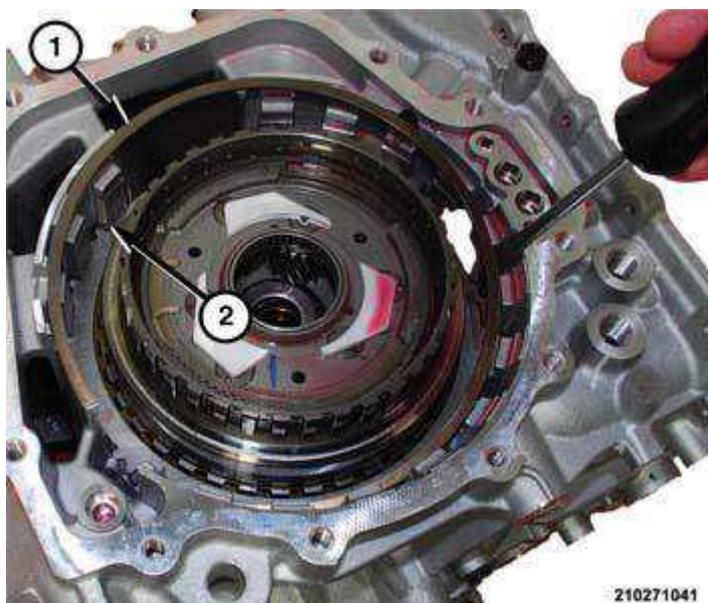


Fig. 384: Low/Reverse Brake & Snap Ring
Courtesy of CHRYSLER GROUP, LLC

27. Install the snap ring (1) to hold low/reverse brake into the lowest snap ring land (2) in the transaxle.

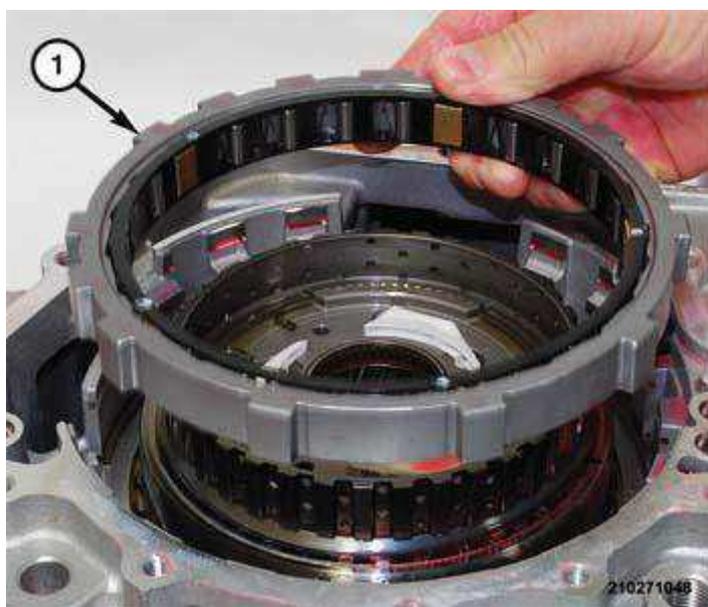


Fig. 385: One-Way-Clutch
Courtesy of CHRYSLER GROUP, LLC

28. Lining up the two narrow lugs on the OWC to the two narrow slots on the transaxle housing insert the OWC (1) into the transaxle. Press down until it is seated. The OWC should rotate in a counterclockwise direction only.

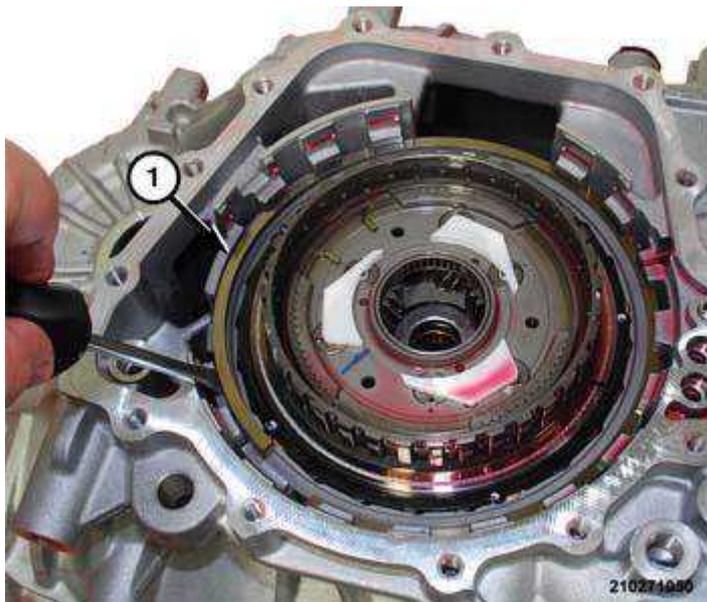


Fig. 386: One-Way-Clutch Snap Ring
Courtesy of CHRYSLER GROUP, LLC

29. Install the snap ring (1) to hold the OWC to the transaxle housing
30. Turn transaxle over to gain access to the front of the transaxle.

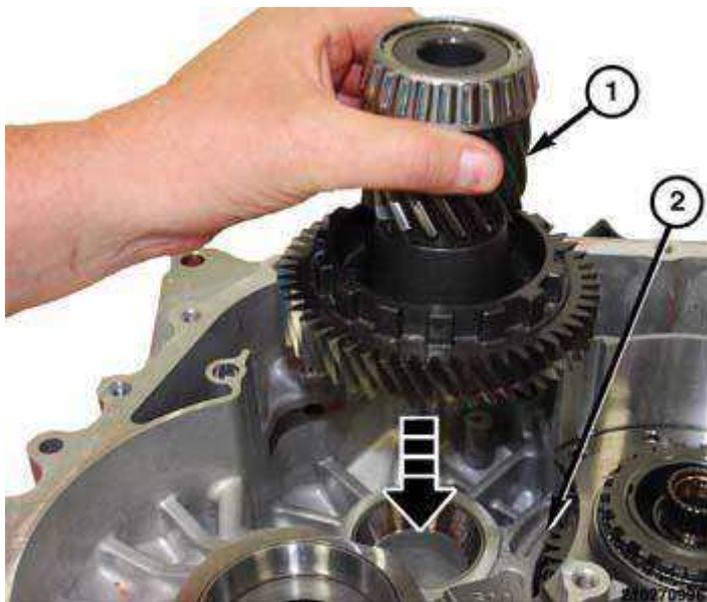


Fig. 387: Transfer Driven Gear Assembly & Transaxle
Courtesy of CHRYSLER GROUP, LLC

31. Install the transfer driven gear (1) assembly in position in the transaxle (2).

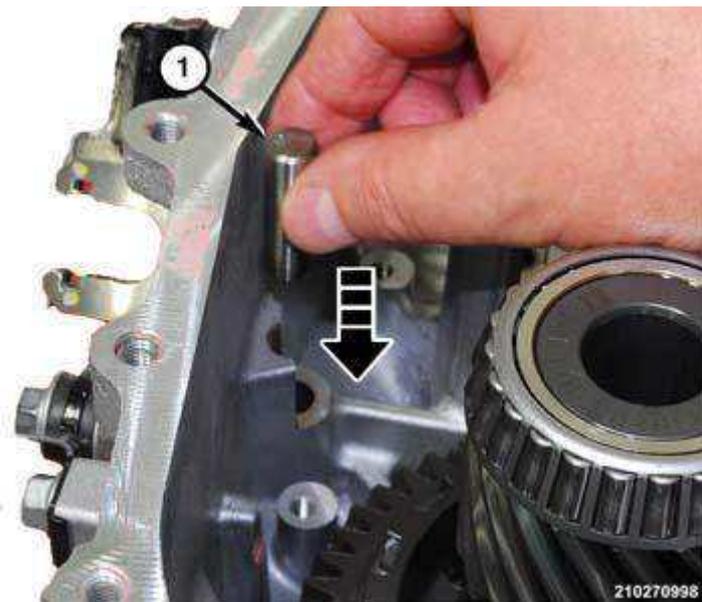


Fig. 388: Park Sprag Support Shaft & Transaxle Housing
Courtesy of CHRYSLER GROUP, LLC

32. Install the park sprag support shaft (1) in position in the transaxle housing.

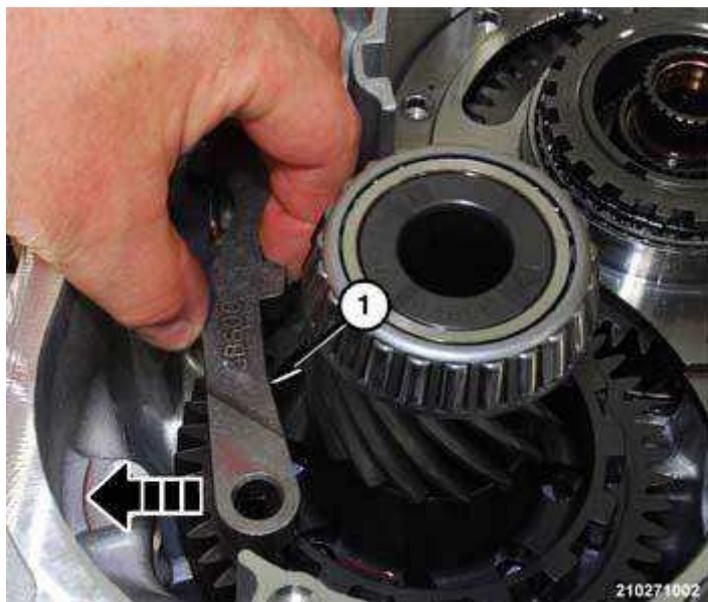


Fig. 389: Park Sprag & Transaxle Housing
Courtesy of CHRYSLER GROUP, LLC

33. Insert the park sprag (1) in position in the transaxle housing.



Fig. 390: Park Sprag Spring, Shaft & Transaxle Housing
Courtesy of CHRYSLER GROUP, LLC

34. Install the park sprag spring and shaft (1) in position in the transaxle housing.

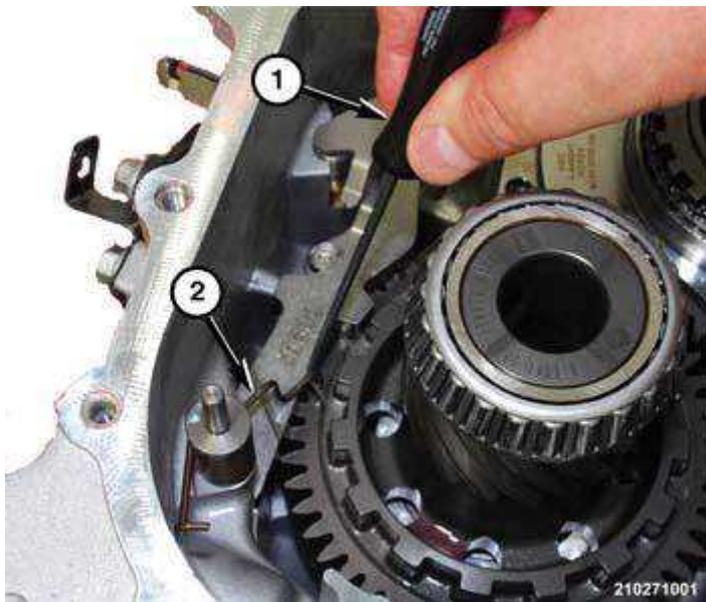


Fig. 391: Park Sprag Spring & Park Sprag
Courtesy of CHRYSLER GROUP, LLC

35. Using a suitable hook tool (1), lift the park sprag spring (2) onto the park sprag.

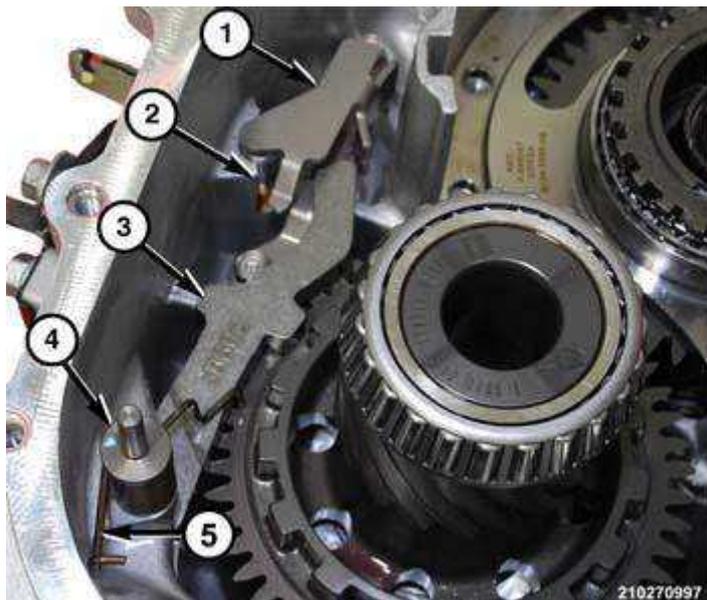


Fig. 392: Park Rod Guide & Bolts
Courtesy of CHRYSLER GROUP, LLC

36. Install bolts to hold the park rod guide (1) in position on the transaxle housing.

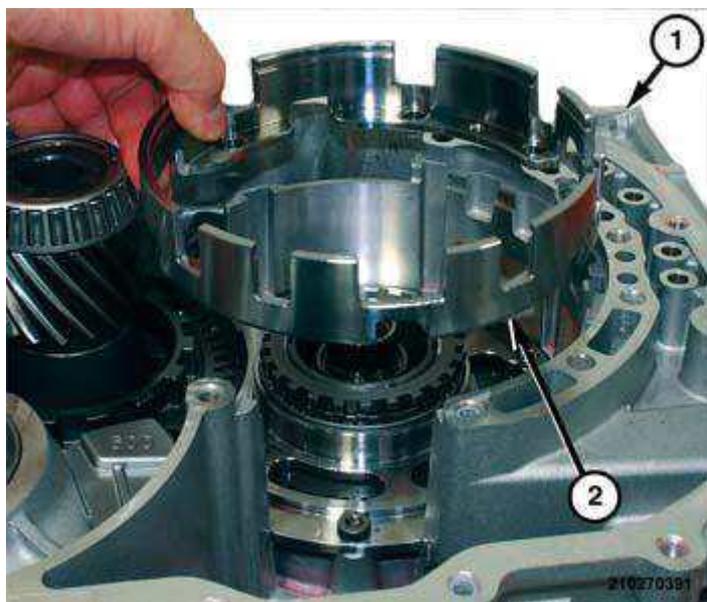


Fig. 393: Underdrive Brake Retainer & Transaxle Housing
Courtesy of CHRYSLER GROUP, LLC

37. Place the underdrive brake retainer (2) in position on the transaxle housing (1).

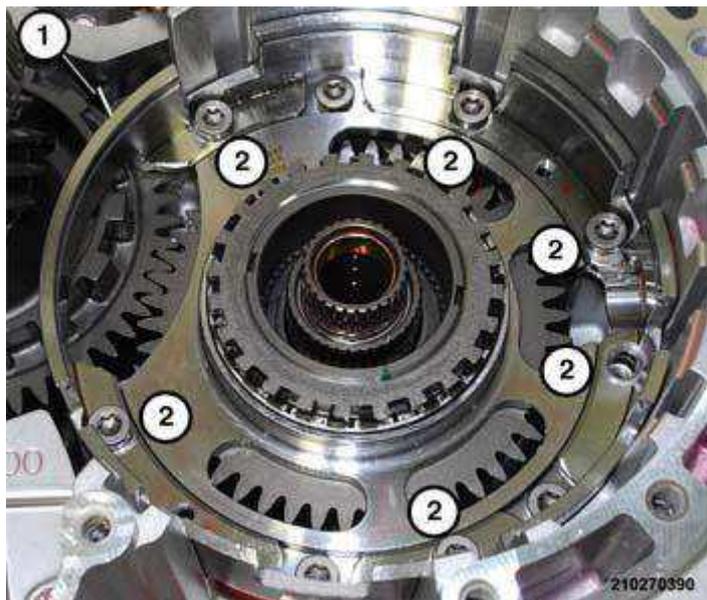


Fig. 394: Underdrive Brake Retainer & Bolts
Courtesy of CHRYSLER GROUP, LLC

38. Install bolts (2) to hold the underdrive brake retainer (1) to the transaxle housing. Refer to **SPECIFICATIONS**.



Fig. 395: Underdrive Brake Chamber & Transaxle Housing
Courtesy of CHRYSLER GROUP, LLC

39. Place the underdrive brake chamber in position on the transaxle housing.

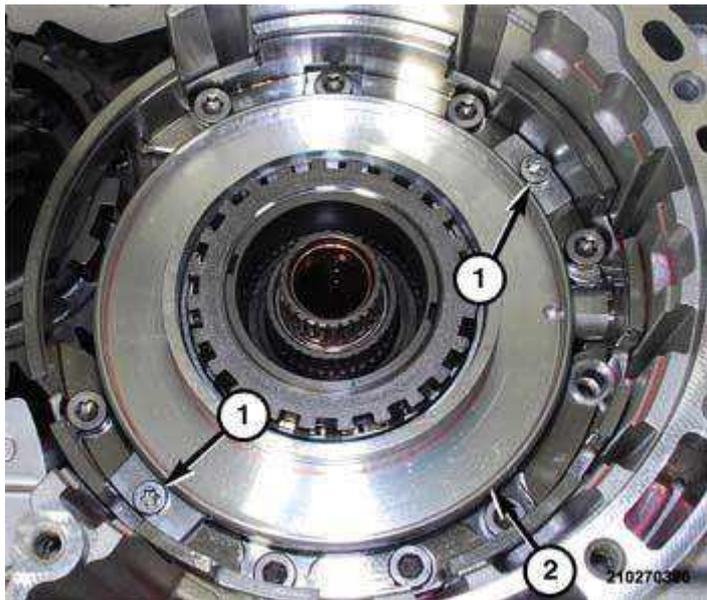


Fig. 396: Underdrive Brake Chamber & Bolts
Courtesy of CHRYSLER GROUP, LLC

40. Install bolts (1) to hold the underdrive brake chamber (2) to the transaxle housing. Refer to **SPECIFICATIONS**.

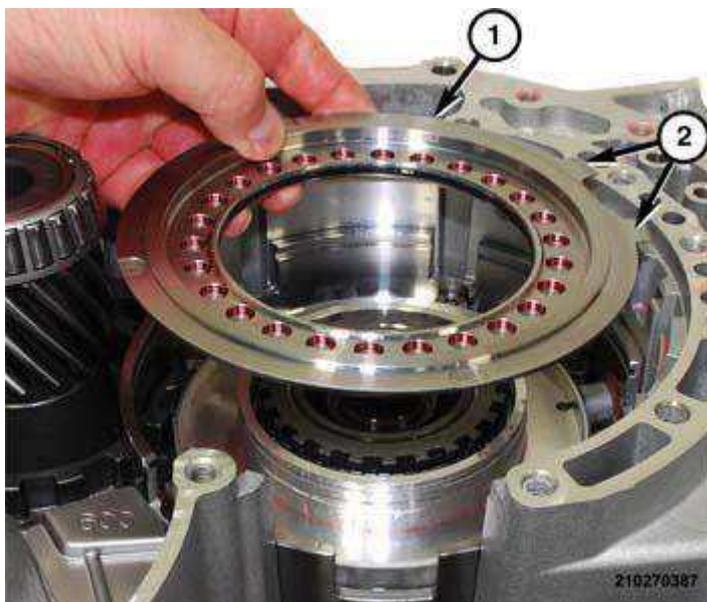


Fig. 397: Underdrive Brake Piston & Location Tabs
Courtesy of CHRYSLER GROUP, LLC

41. Install **NEW** D-ring outer seal and the O-ring inner seal in the lands on the underdrive piston.
42. Install the underdrive brake piston (1) in position on the underdrive brake piston chamber.

NOTE: The location tabs (2) on the underdrive brake piston should be oriented toward the valve body opening in the transaxle.

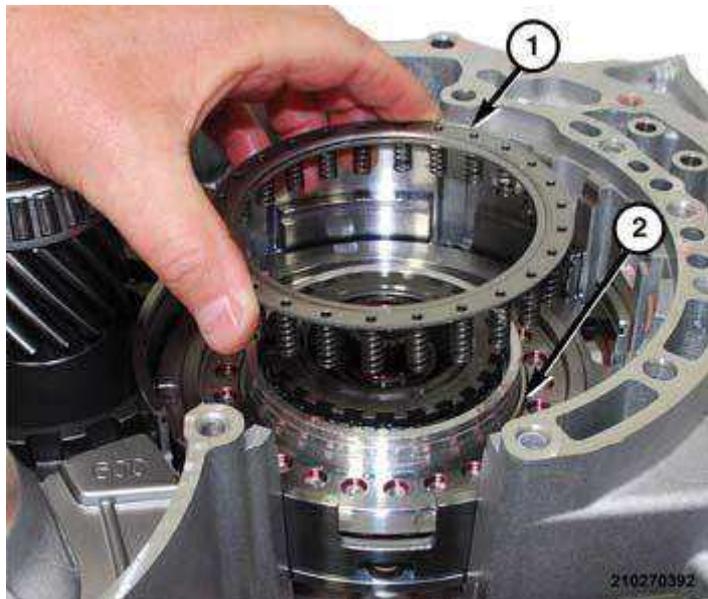


Fig. 398: Underdrive Spring Retainer & Underdrive Brake Piston
Courtesy of CHRYSLER GROUP, LLC

43. Push underdrive brake piston (3) downward until it seats in the underdrive brake chamber.
44. Place the underdrive spring retainer (1) in position on the underdrive brake piston (2).



Fig. 399: Tool Bolt & Tool Cross Bar

Courtesy of CHRYSLER GROUP, LLC

45. Insert the bolt (3) for tool (special tool #5058A, Compressor, Spring) through tool (special tool #10426, Compressor, Underdrive Spring).
46. Insert the tool (special tool #5058A-3, Screw, Forcing) bolt (3) with the spring compressor through the center of the transaxle (1) and out the back into the threaded center bore of the tool cross bar (2) spanning the back of the transaxle.

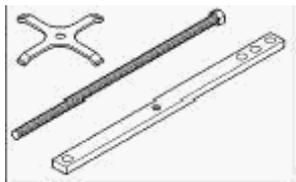


Fig. 400: Special Tool #5058A-3
Courtesy of CHRYSLER GROUP, LLC

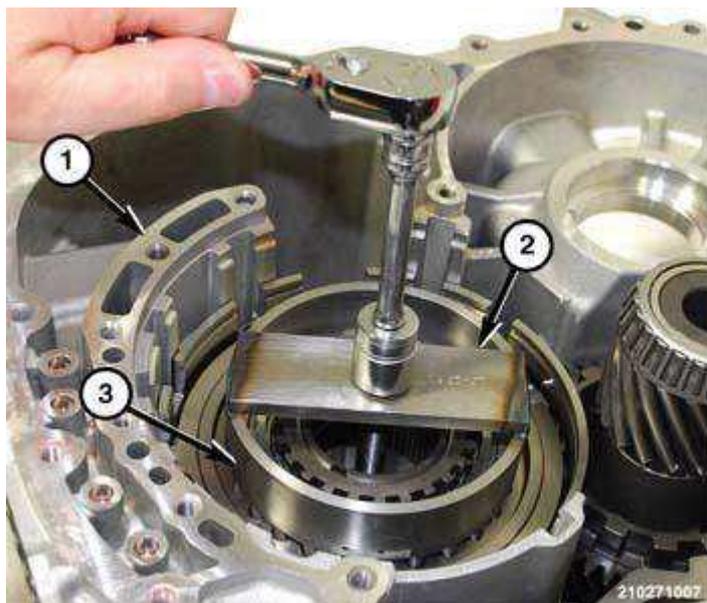


Fig. 401: Tool 5058A & Tool 10426
Courtesy of CHRYSLER GROUP, LLC

Compress the underdrive springs (3) to gain access to the snap ring land.

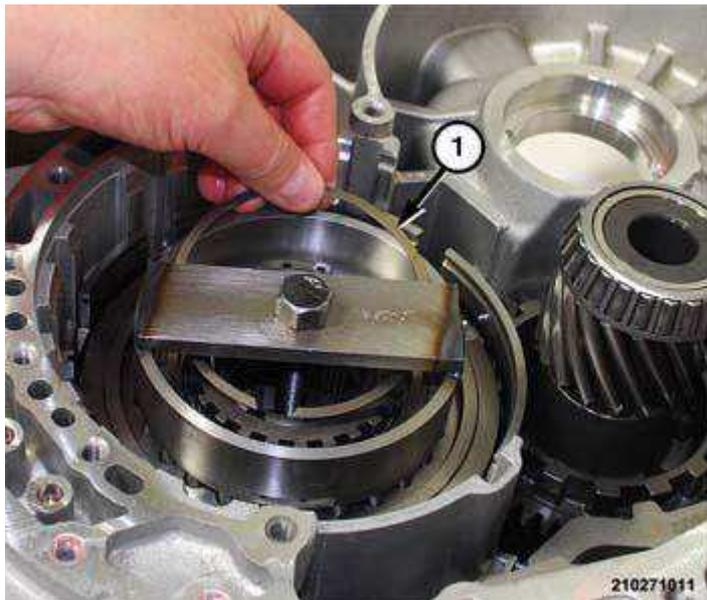


Fig. 402: Underdrive Spring Plate Snap Ring
 Courtesy of CHRYSLER GROUP, LLC

47. Install the snap ring (1) to hold the underdrive spring plate to the underdrive brake hub.
48. Remove the spring compressor tool from the transaxle.
49. Turn the transaxle over to gain access to the rear cover.

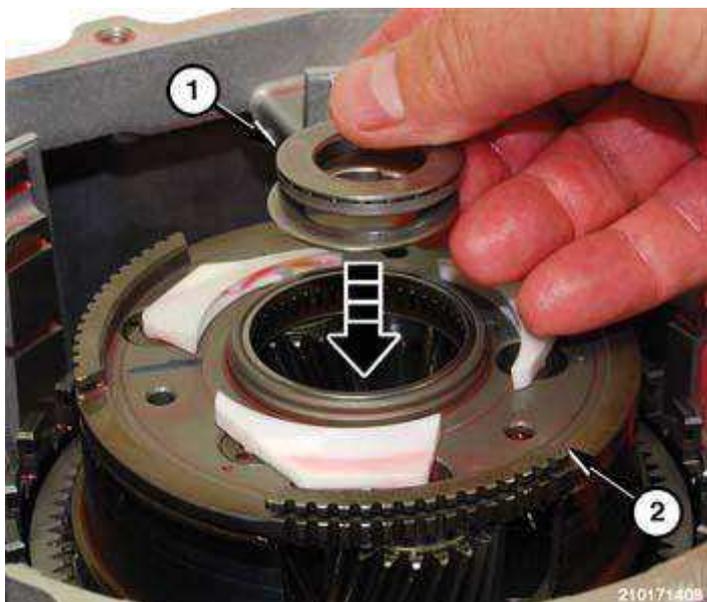


Fig. 403: Thrust Bearing, Race Set & Middle/Rear Planetary Gear Assembly
 Courtesy of CHRYSLER GROUP, LLC

50. Place the thrust bearing (1) and race set into of the center of the middle/rear

planetary gear assembly (2).

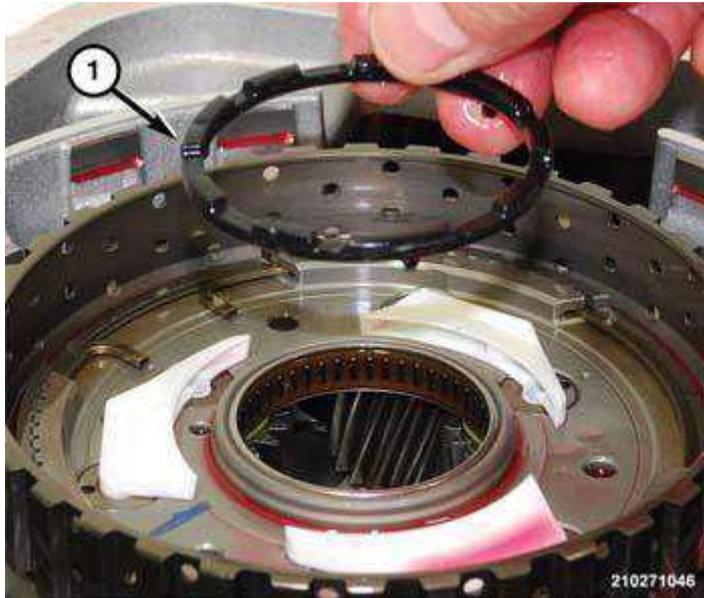


Fig. 404: Thrust Washer & Planetary Gear Assembly Hub
Courtesy of CHRYSLER GROUP, LLC

51. Place the thrust washer (1) in position on the middle/rear planetary gear.

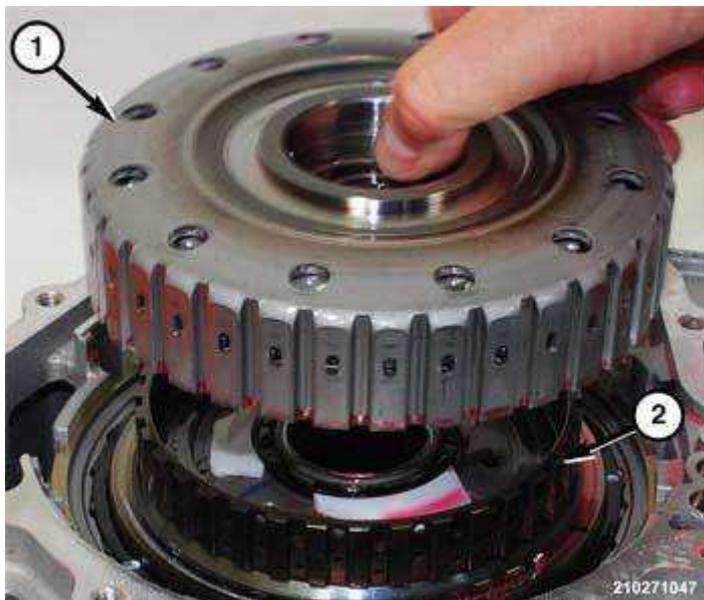


Fig. 405: Overdrive Clutch Assembly & One Way Clutch
Courtesy of CHRYSLER GROUP, LLC

52. Install the overdrive clutch assembly (1) onto the one way clutch race (2).

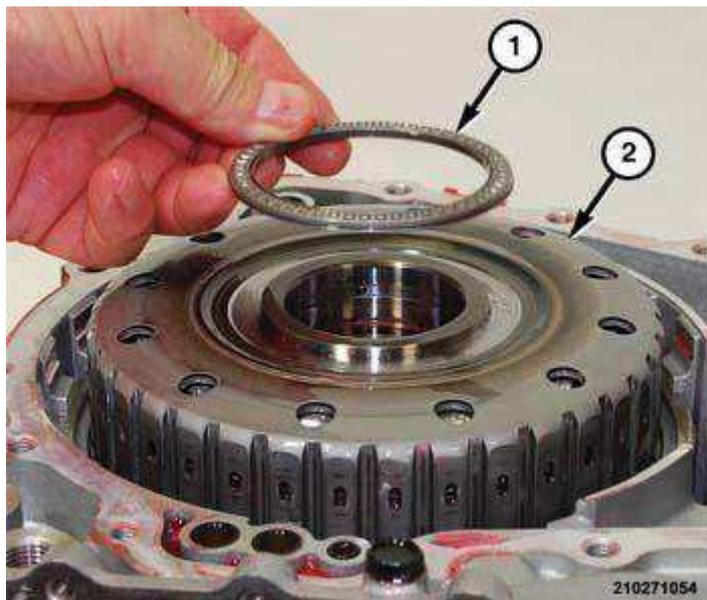


Fig. 406: Thrust Bearing & Overdrive Clutch Hub Assembly
Courtesy of CHRYSLER GROUP, LLC

53. Install thrust bearing (1) onto the overdrive clutch hub (2) assembly with the rollers facing upward.

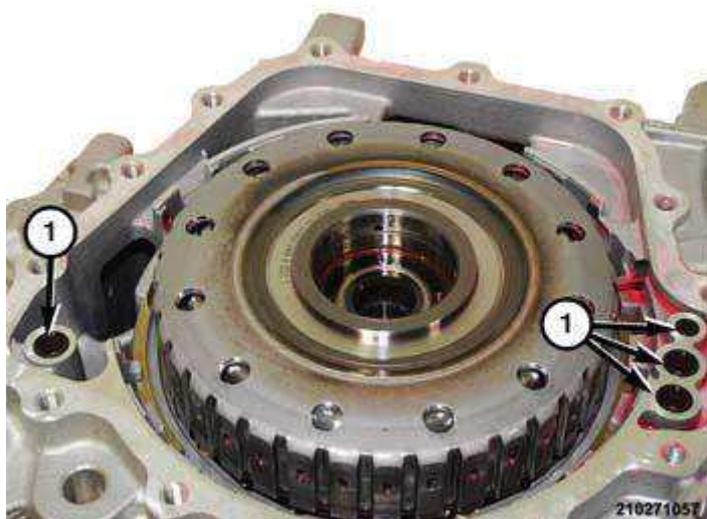


Fig. 407: Transfer Port Seals
Courtesy of CHRYSLER GROUP, LLC

54. Install the four seals (2) into transfer ports in transaxle housing.

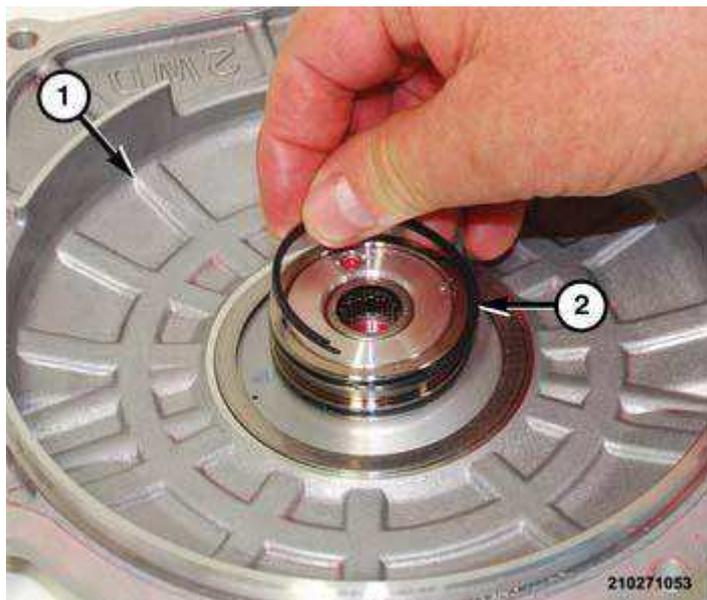


Fig. 408: Split Seal Rings & Rear Cover Hub
Courtesy of CHRYSLER GROUP, LLC

55. Install the two split seal ring seals (2) into the lands in the rear cover (1) hub.

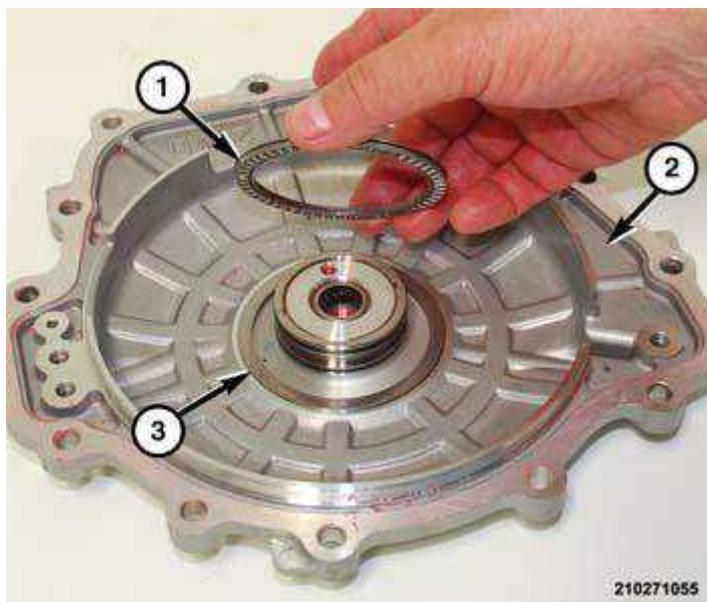


Fig. 409: Selective Spacer, Bearing & Rear Cover
Courtesy of CHRYSLER GROUP, LLC

56. Using assembly lube applied in the seat area of the rear cover (3), Install the selective spacer (1) onto the rear cover (2).
57. Apply a 3 mm (0.120 in.) bead of Dupont® Loctite™ 5460 Pink Flange Sealant or equivalent around the perimeter of the rear cover.



Fig. 410: Rear Cover Separated From Transaxle
Courtesy of CHRYSLER GROUP, LLC

58. Place the rear cover (1) in position on the transaxle.

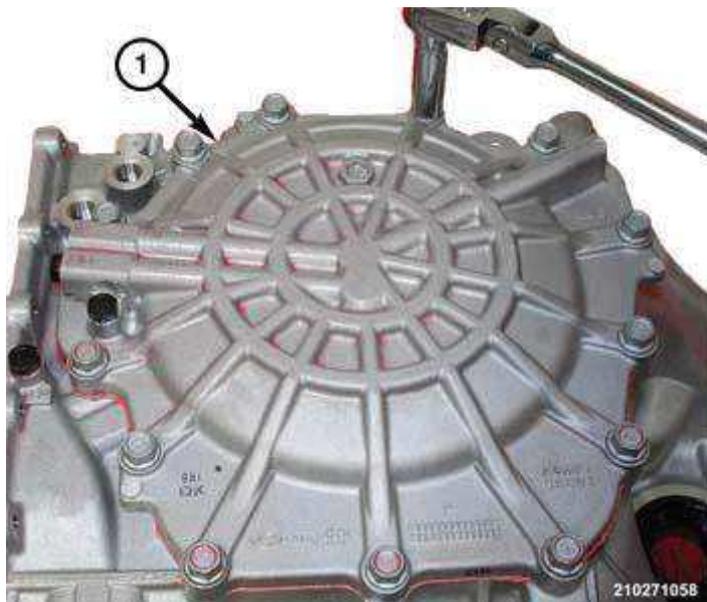


Fig. 411: Transaxle Rear Cover & Bolts
Courtesy of CHRYSLER GROUP, LLC

59. Install bolts to hold the rear cover (1) to the transaxle. Refer to **SPECIFICATIONS**.

60. Turn transaxle over to gain access to the underdrive brake.

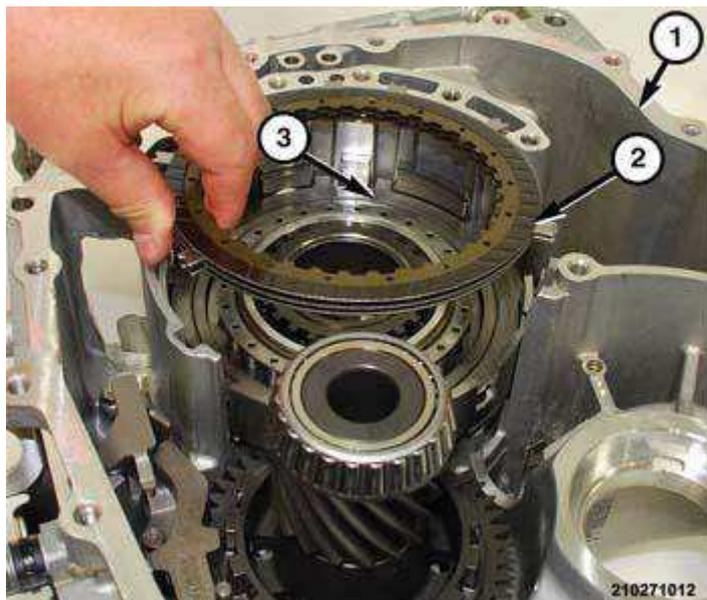


Fig. 412: Underdrive Brake Plates, Discs & Drum
Courtesy of CHRYSLER GROUP, LLC

61. Place underdrive brake plates and discs in position in underdrive brake drum.



Fig. 413: Underdrive Brake, Underdrive Brake Drum, & Large Snap Ring
Courtesy of CHRYSLER GROUP, LLC

62. Install large snap ring (3) to hold underdrive brake (1) into the underdrive brake drum.

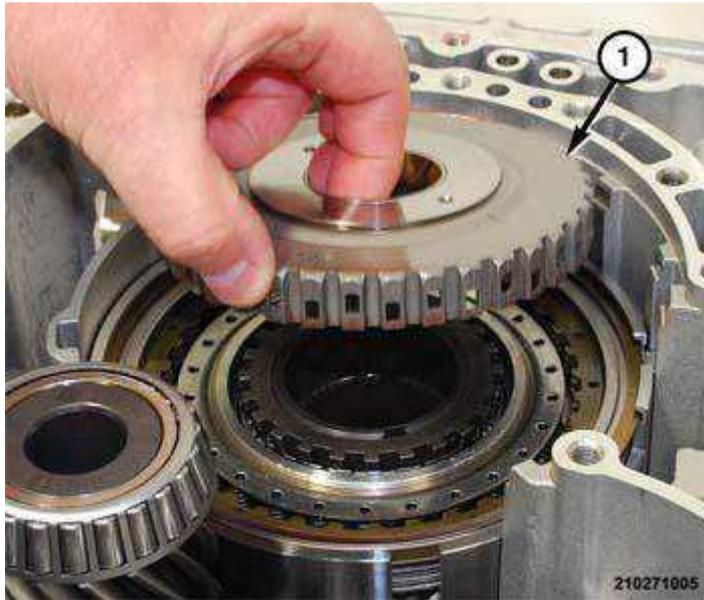


Fig. 414: Underdrive Brake Hub
Courtesy of CHRYSLER GROUP, LLC

63. Install underdrive brake hub (1) assembly in position on transaxle.

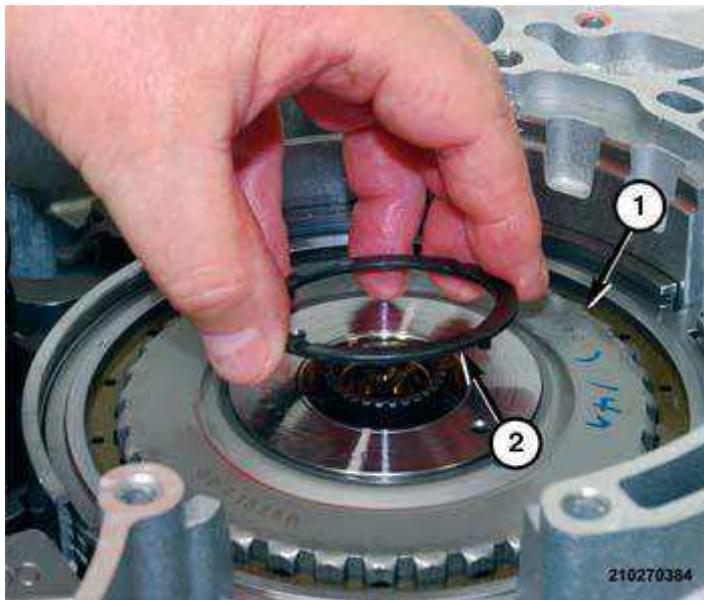


Fig. 415: Underdrive Brake Hub & Thrust Washer
Courtesy of CHRYSLER GROUP, LLC

64. Install thrust washer (2) in position on the underdrive brake hub.

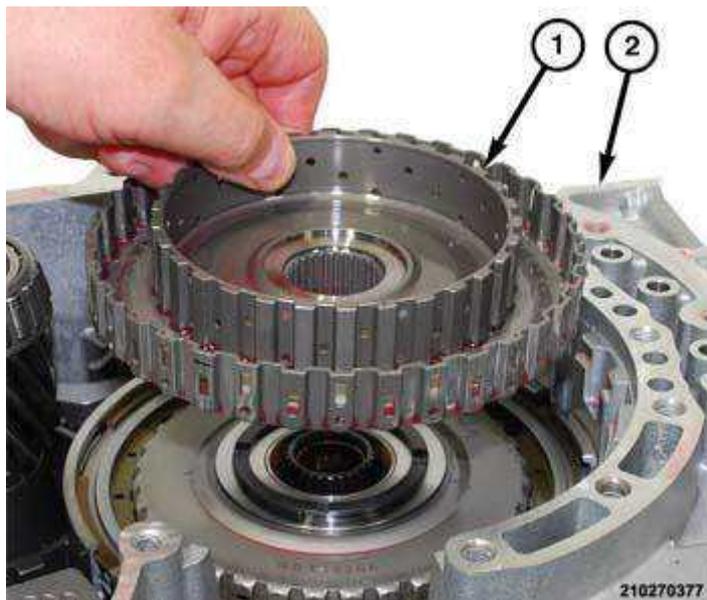


Fig. 416: 3/5/R Clutch & 2/6 Brake Hub Assembly
Courtesy of CHRYSLER GROUP, LLC

65. Install the 3/5/R clutch and 2/6 brake hub (1) assembly in position on the underdrive clutch.

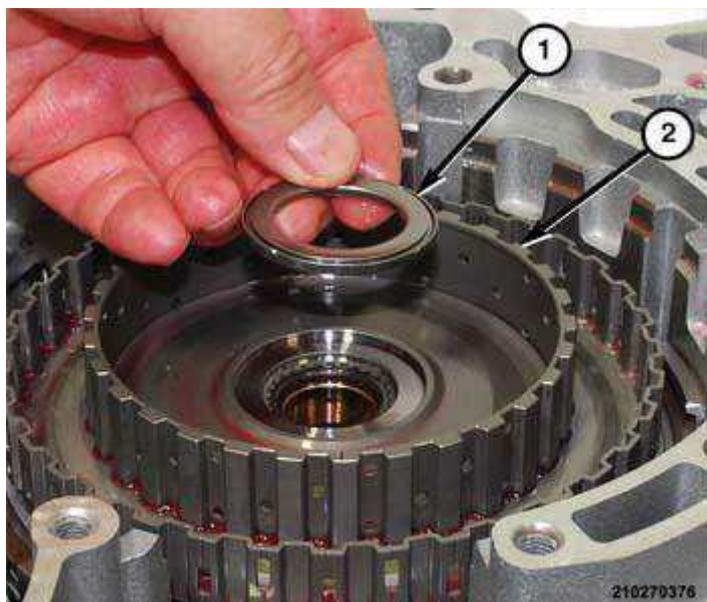


Fig. 417: 3/5/R Clutch & 2/6 Brake Hub, Thrust Bearing
Courtesy of CHRYSLER GROUP, LLC

66. Install the thrust bearing (2) in position on the 3/5/R clutch and 2/6 brake hub.

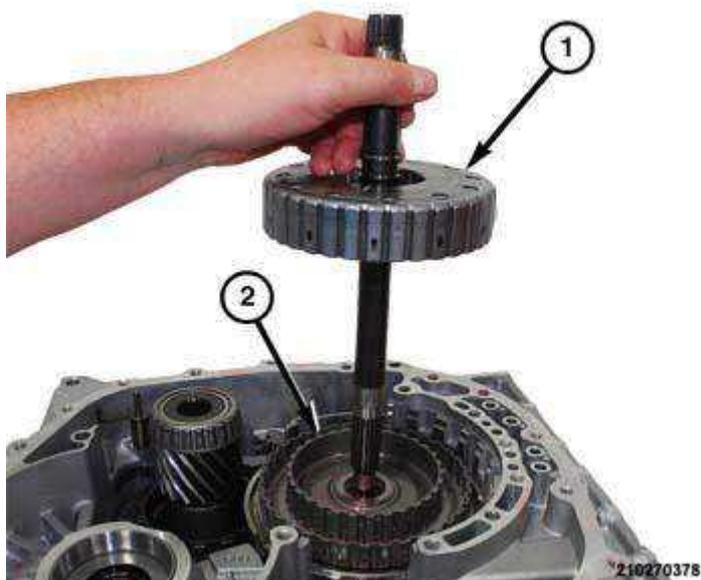


Fig. 418: 3/5/R Clutch Assembly, 3/5/R & 2/6 Brake Hub Assembly
Courtesy of CHRYSLER GROUP, LLC

67. Install the 3/5/R clutch assembly (1) in position in the 3/5/R and 2/6 brake hub (2) assembly.



Fig. 419: 2/6 Brake Select Thickness Reaction Plate & Hub
Courtesy of CHRYSLER GROUP, LLC

68. Install 2/6 brake select thickness reaction plate (1) in position in the 2/6 brake hub.

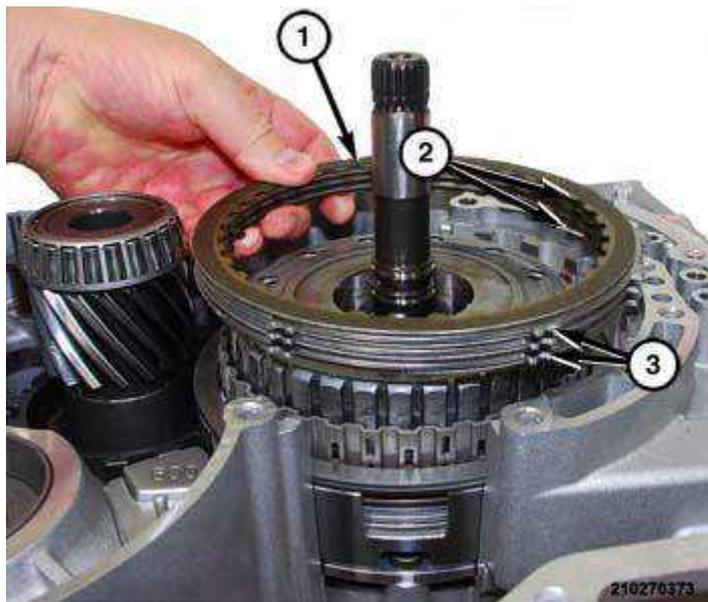


Fig. 420: 2/6 Brake Plates, Discs & Hub
Courtesy of CHRYSLER GROUP, LLC

69. Install the 2/6 brake alternating the (1) plates (3) and discs (2) in position in the 2/6 brake hub.

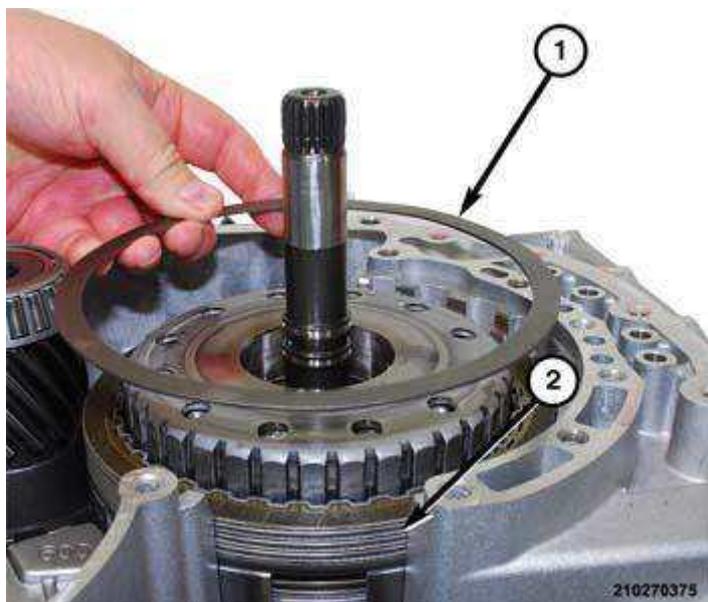


Fig. 421: 2/6 Brake Wave Plate & Hub
Courtesy of CHRYSLER GROUP, LLC

70. Install 2/6 brake wave plate (1) in position in the 2/6 brake hub.

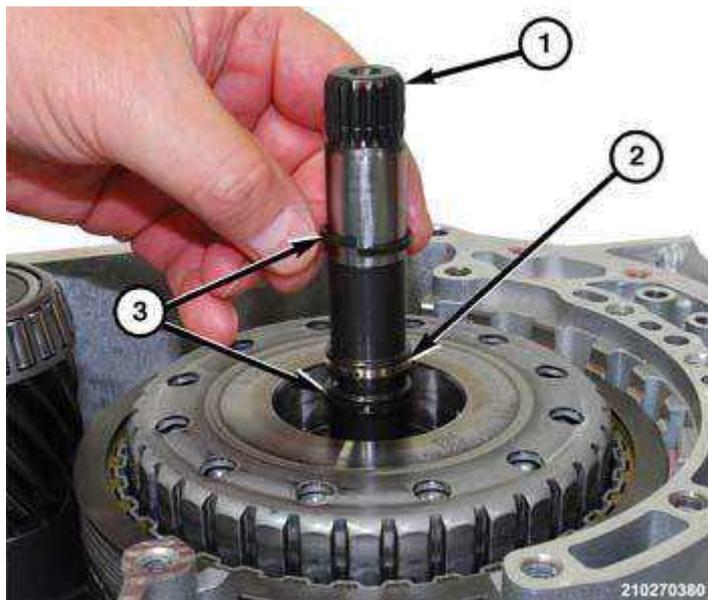


Fig. 422: Split Ring Seals & Input Shaft
Courtesy of CHRYSLER GROUP, LLC

71. Install two split ring seals (2) in the seal lands (2) in the input shaft (1).



Fig. 423: Split Seal Rings & Fluid Pump Hub
Courtesy of CHRYSLER GROUP, LLC

72. Install two split seal rings (3) in the lands (2) in fluid pump (1) hub.



Fig. 424: Thrust Washer & Fluid Pump
Courtesy of CHRYSLER GROUP, LLC

73. Apply a 3 mm (0.120 in.) bead of Dupont® Loctite™ 5460 Pink Flange Sealant or equivalent around the perimeter of the fluid pump sealing surface.
74. Using assembly lube, install the plastic thrust washer (2) in position on the underside of the fluid pump (1). There are three nubs that insert into holes in the fluid pump hub to prevent the thrust washer from rotating.

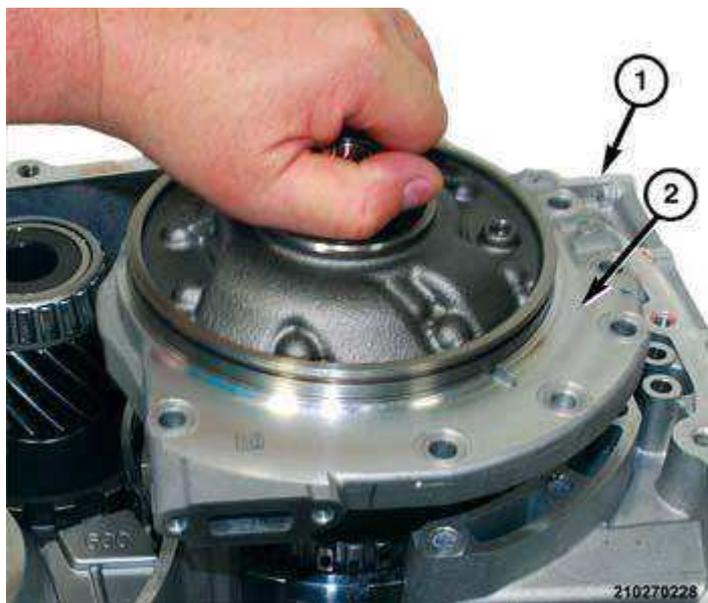


Fig. 425: Fluid Pump Separated From Transaxle Housing
Courtesy of CHRYSLER GROUP, LLC

75. Place the fluid pump (2) in position on the transaxle housing (1).

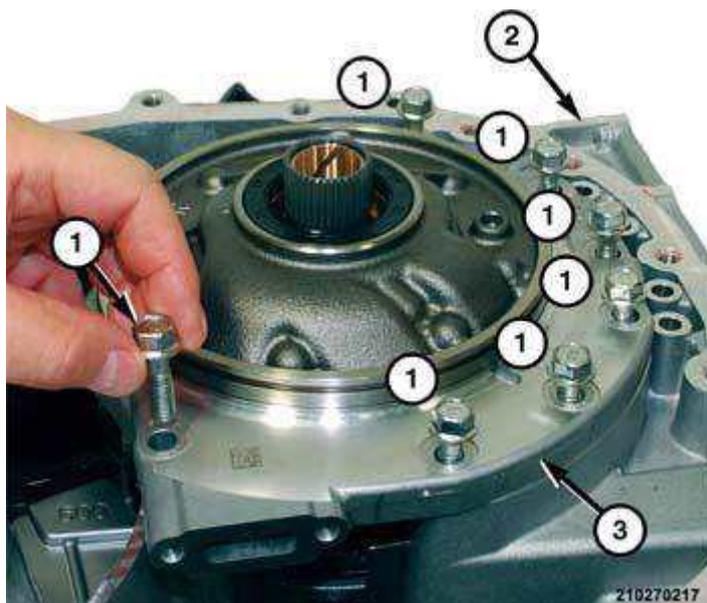


Fig. 426: Fluid Pump & Bolts
 Courtesy of CHRYSLER GROUP, LLC

76. Install bolts (1) to hold fluid pump (3) to the trans axle housing (2). Refer to **SPECIFICATIONS**.
77. Install **NEW** o-ring seal in position in the groove in the fluid pump housing.



Fig. 427: Fluid Filter Separated From Transaxle Housing
 Courtesy of CHRYSLER GROUP, LLC

78. Place the fluid filter (2) in position in the transaxle housing (1).

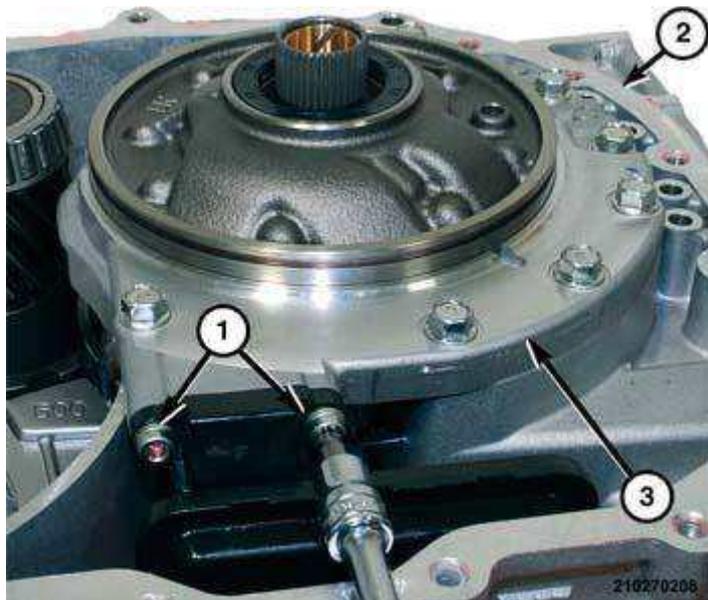


Fig. 428: Fluid Filter, Fluid Pump & Bolts
Courtesy of CHRYSLER GROUP, LLC

79. Install bolts (1) to hold the fluid filter to the fluid pump (3) housing. Refer to **SPECIFICATIONS**.

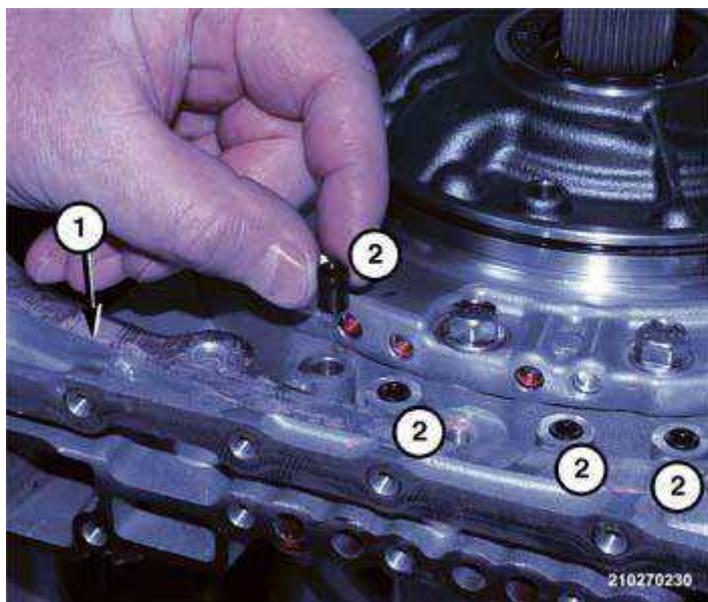


Fig. 429: Small Transfer Port Seals
Courtesy of CHRYSLER GROUP, LLC

80. Install seals in position in four small transfer ports (2) in the transaxle housing (1).

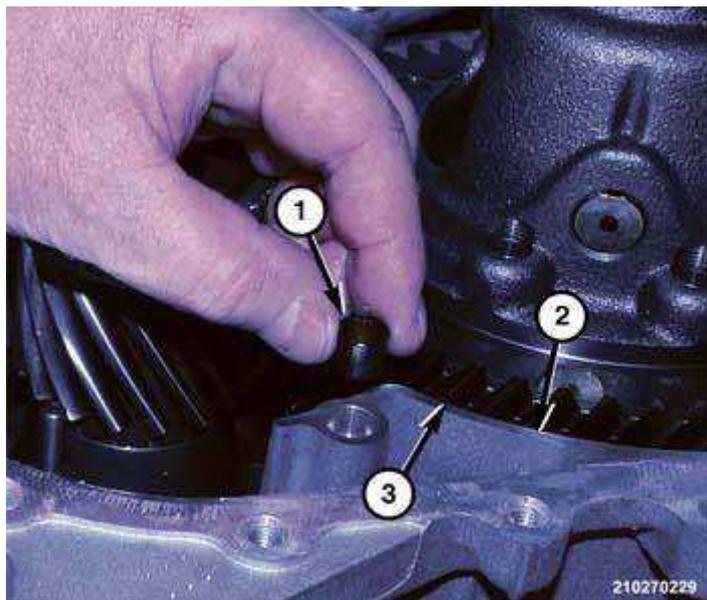


Fig. 430: Large Transfer Port Seal
 Courtesy of CHRYSLER GROUP, LLC

81. Install seal in position in the large transfer port (1) in the axle housing (2).



Fig. 431: Differential Assembly Separated From Transaxle Housing
 Courtesy of CHRYSLER GROUP, LLC

82. Place the differential assembly in position in the transaxle housing.
83. Apply a 3 mm (0.120 in.) bead of Dupont® Loctite™ 5460 Pink Flange Sealant or equivalent around the perimeter of the transaxle housing.



Fig. 432: Transaxle Housing Halves
Courtesy of CHRYSLER GROUP, LLC

- 84. If fluid guides and tube were removed during cleaning, install related components in the transaxle housing. Refer to **SPECIFICATIONS**.
- 85. Place the bell housing (1) in position on the transaxle (2).

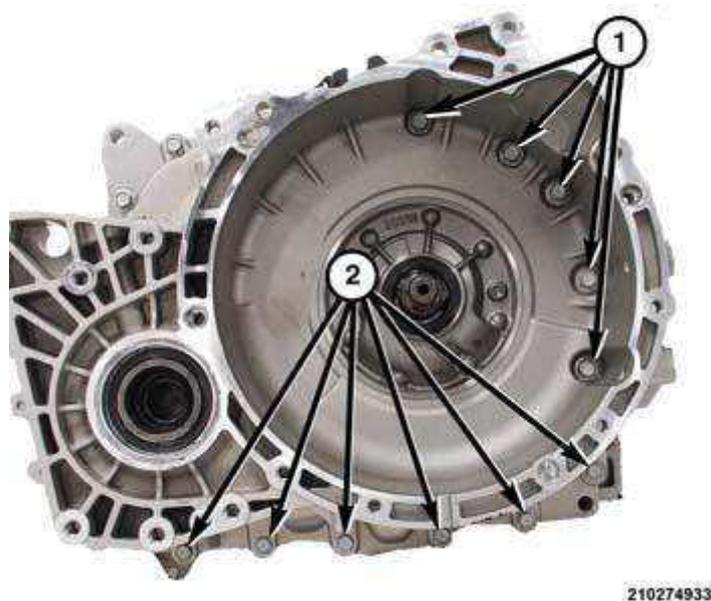


Fig. 433: Transaxle Housing Bolts
Courtesy of CHRYSLER GROUP, LLC

- 86. Install five bolts (1) on inside of the bell housing. Refer to **SPECIFICATIONS**.

87. Install six bolts (2) in the bottom of the transaxle housing. Refer to **SPECIFICATIONS**.

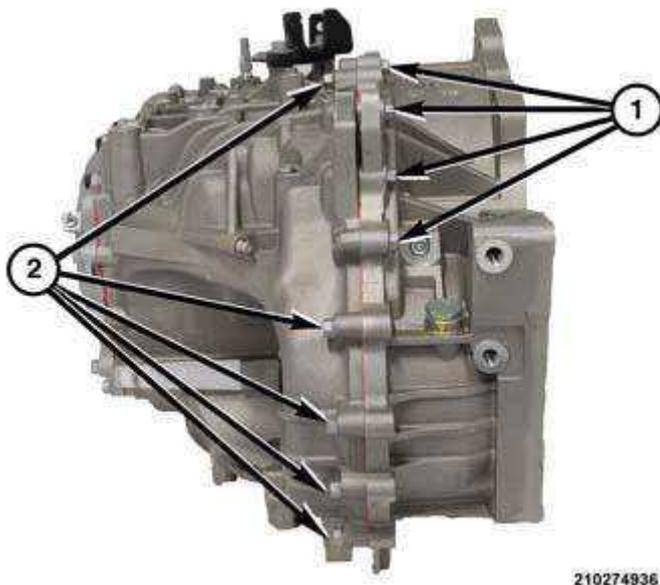


Fig. 434: Transaxle Housing Bolts
 Courtesy of CHRYSLER GROUP, LLC

88. Install five bolts from the back (2) and four bolts from the top (1) of the transaxle housing. Refer to **SPECIFICATIONS**.

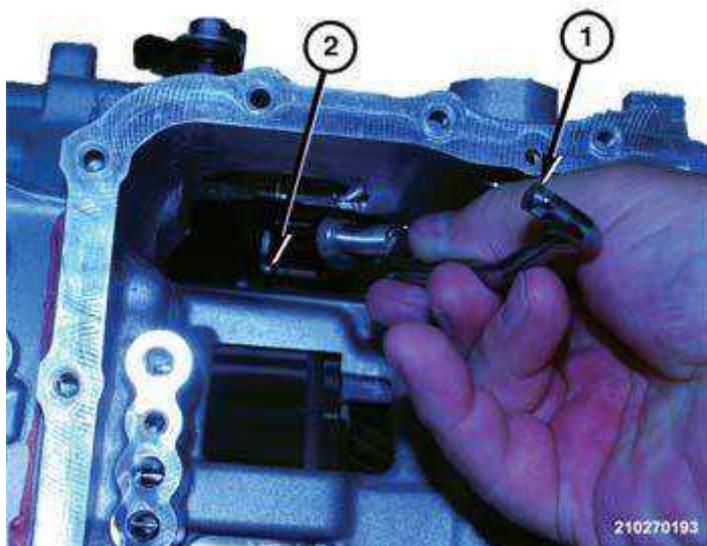


Fig. 435: Park Rod & Park Rod Guide
 Courtesy of CHRYSLER GROUP, LLC

89. If seal required replacement, install the **NEW** lip seal in the manual shaft

hole in the transaxle housing.

90. Insert the park rod (1) into the park rod guide.

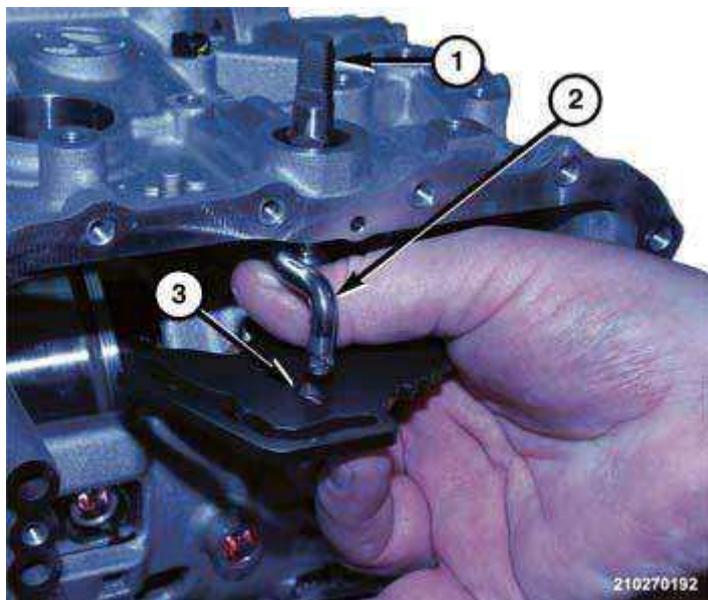


Fig. 436: Manual Shaft, Park Rod & Key Hole Slot
Courtesy of CHRYSLER GROUP, LLC

91. Insert the manual shaft (1) into the bearing in the transaxle.
92. Push manual shaft (1) upward until park rod (2) engages the detent comb.
93. Rotate manual shaft (1) clockwise to lock the staked nub on the park rod (2) in the key hole slot (3) in the manual shaft detent comb.



Fig. 437: Manual Shaft & Pin
Courtesy of CHRYSLER GROUP, LLC

94. Install the pin (2) to hold the manual shaft (1) in the transaxle into the hole in the pan gasket flange.

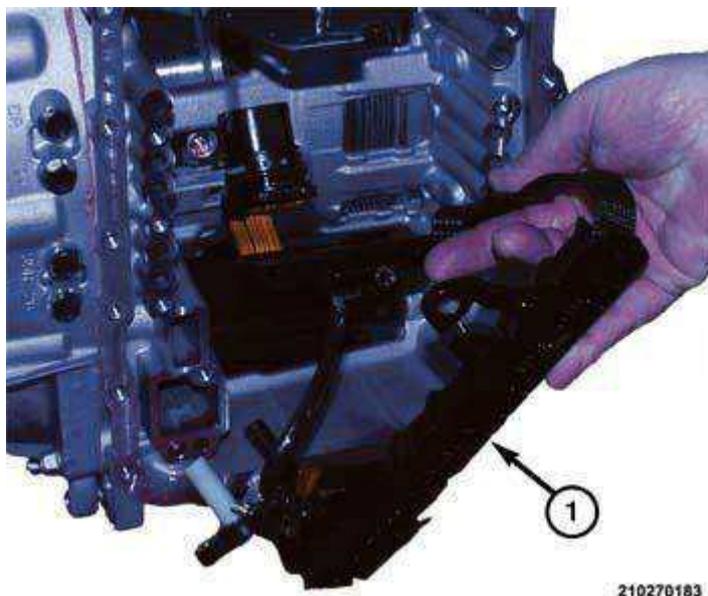


Fig. 438: Main Wire Harness & Sensors
Courtesy of CHRYSLER GROUP, LLC

95. Place the main wire harness and sensors (1) in position on the transaxle.
96. Push the wire connector outward through to hole in the transaxle housing.

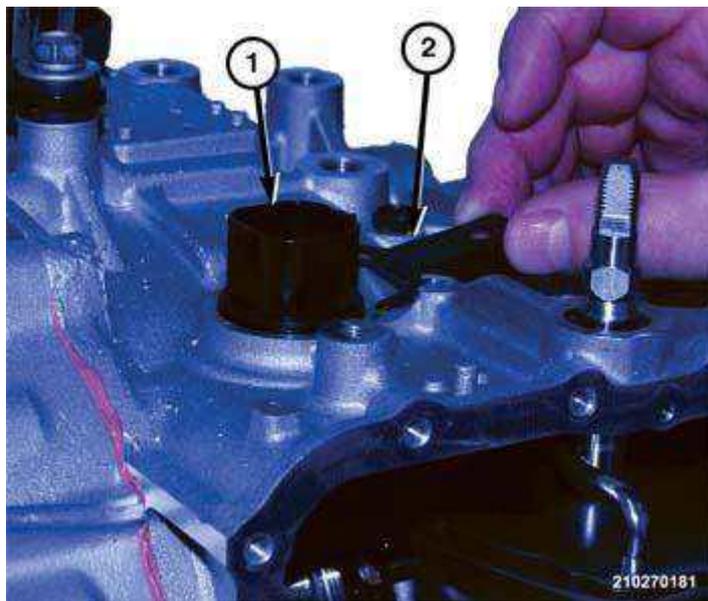


Fig. 439: Wire Connector & Hold Down Bracket Separated From Transaxle
Courtesy of CHRYSLER GROUP, LLC

97. Place the wire connector (1) hold down bracket (2) in position on the transaxle.

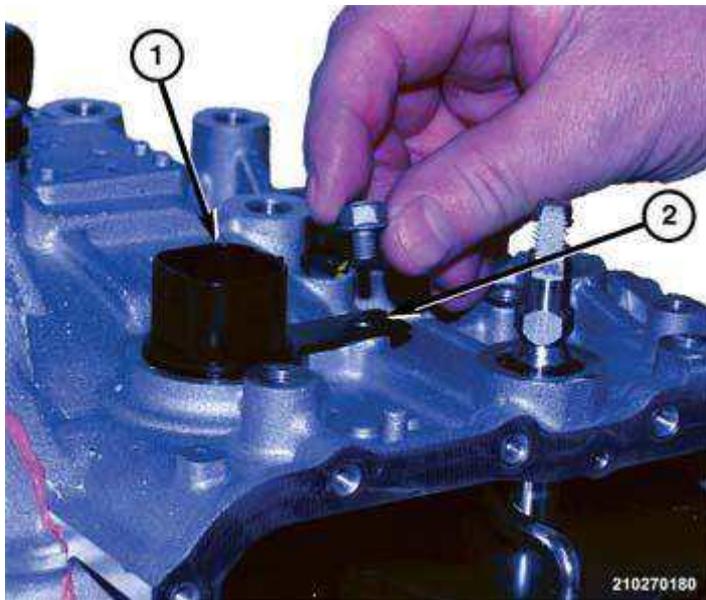


Fig. 440: Hold Down Bracket, Wire Connector & Bolts
Courtesy of CHRYSLER GROUP, LLC

98. Install bolt to hold the wire connector (1) hold down bracket (2) to the top of transaxle housing. Refer to **SPECIFICATIONS**.
99. Insert the speed sensors in position in the transaxle housing.

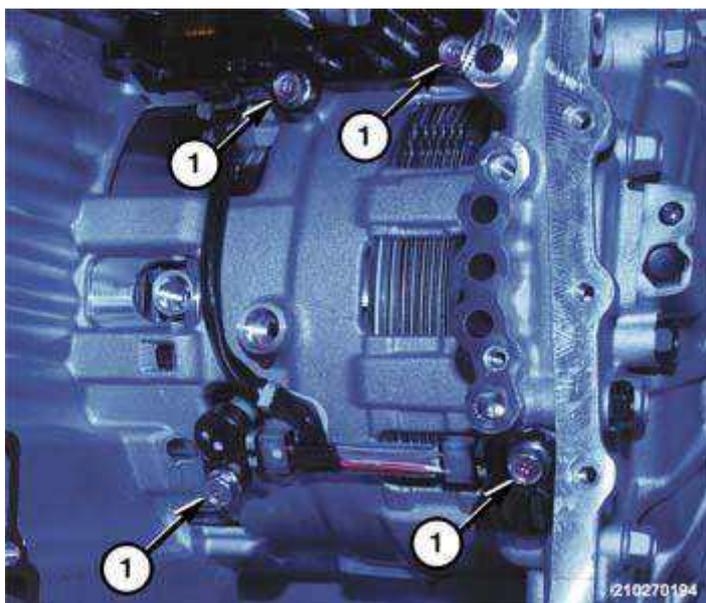


Fig. 441: Speed Sensors, Main Wire Harness & Bolts
Courtesy of CHRYSLER GROUP, LLC

00. Install bolts (1) to hold the speed sensors and main wire harness to transaxle. Refer to **SPECIFICATIONS**.

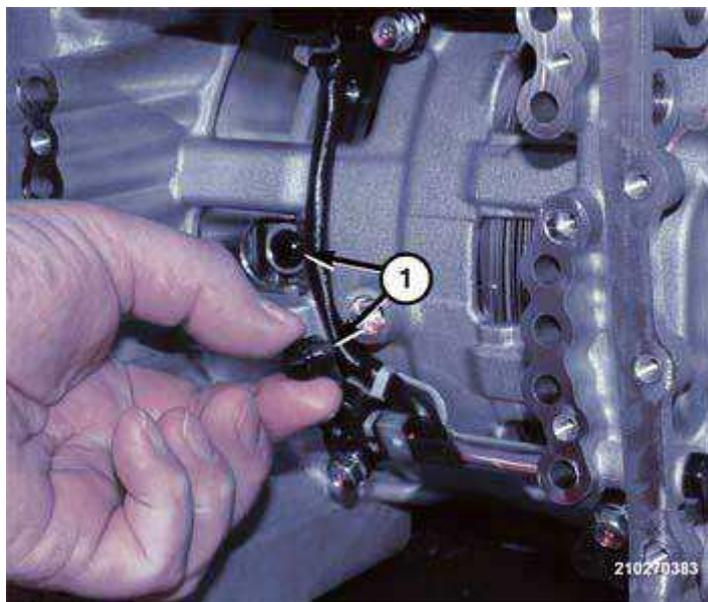


Fig. 442: Transfer Port Seals
Courtesy of CHRYSLER GROUP, LLC

01. Install the two seals into the transfer ports in transaxle housing.

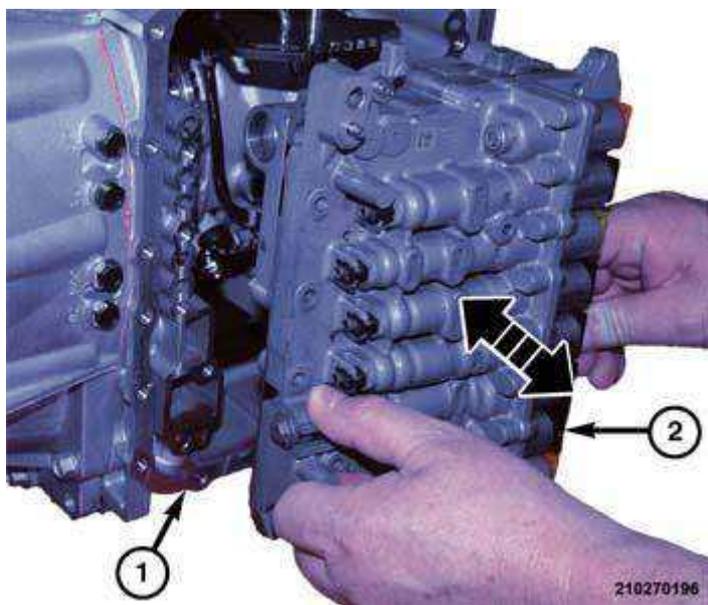


Fig. 443: Valve Body Separated From Transaxle
Courtesy of CHRYSLER GROUP, LLC

02. The manual valve is loose after the valve body is removed and may fall out during installation.

Place the valve body (2) in position on the transaxle (1). Guide the pin on the manual valve into the slot in the manual shaft detent comb.

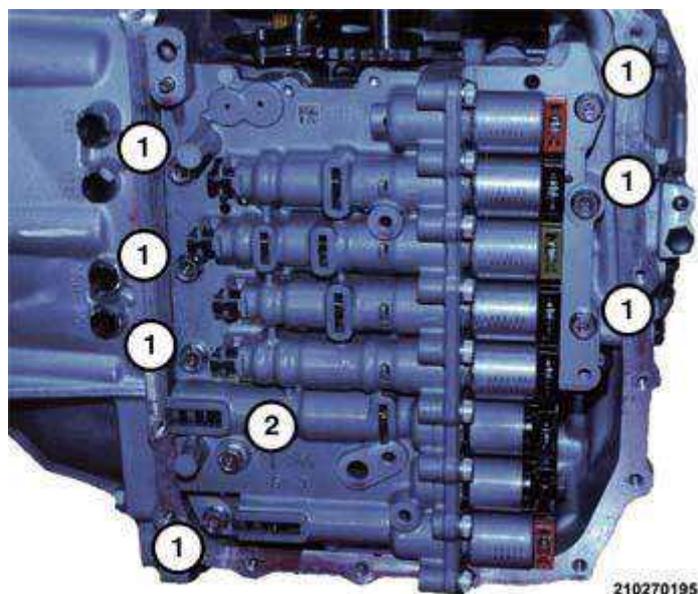


Fig. 444: Valve Body Bolts
Courtesy of CHRYSLER GROUP, LLC

03. Install bolts, 7 short (1) and 1 long (2) bolts, to hold the valve body to the transaxle. Refer to **SPECIFICATIONS**.

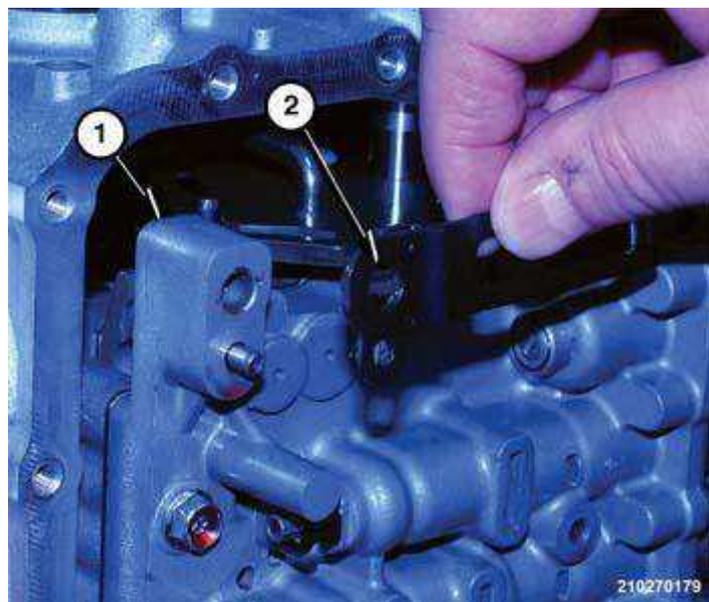


Fig. 445: Detent Spring Separated From Valve Body
Courtesy of CHRYSLER GROUP, LLC

04. Place the detent spring (2) in position on the valve body (1).

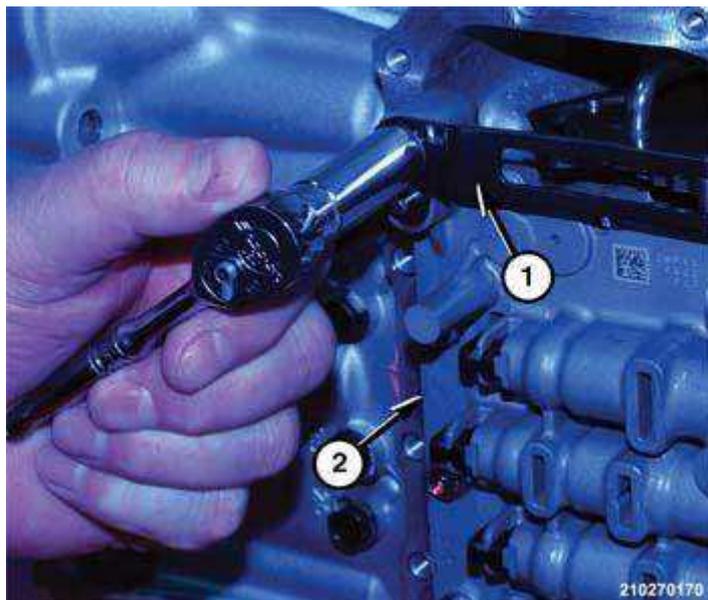


Fig. 446: Manual Shaft Detent Spring & Valve Body
Courtesy of CHRYSLER GROUP, LLC

05. Install the screw to hold the manual shaft detent spring (1) to the valve body (2). Refer to **SPECIFICATIONS**.

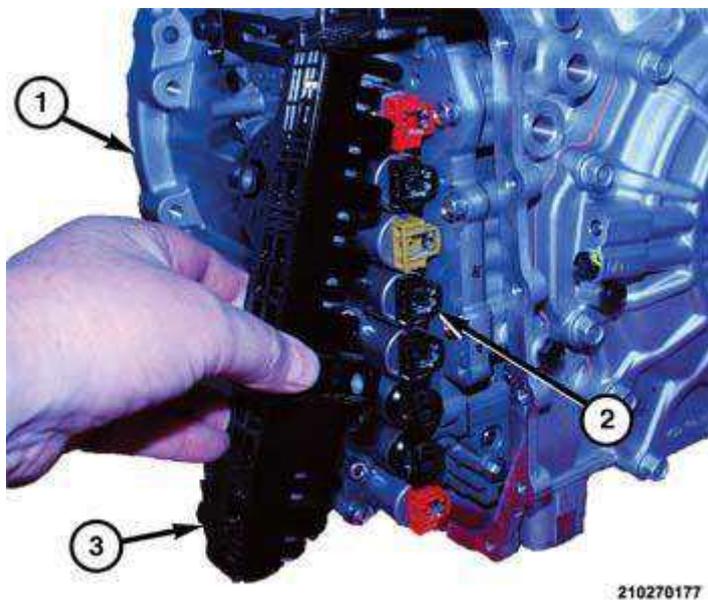


Fig. 447: Solenoids & Connector
Courtesy of CHRYSLER GROUP, LLC

06. Starting at the top solenoid valve, push inward at each solenoid (2) until the connector (3) is engaged.

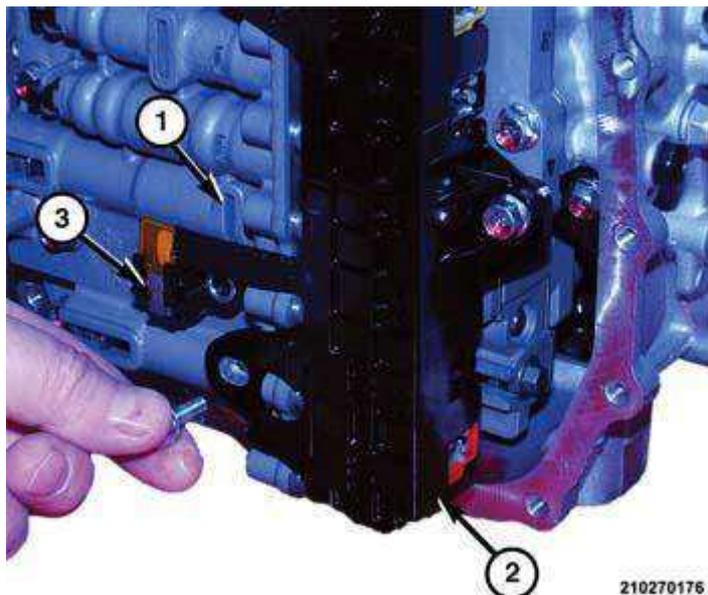


Fig. 448: Solenoid Valve Connector, Valve Body & Bolts
 Courtesy of CHRYSLER GROUP, LLC

07. Install bolts to hold the solenoid valve connector (2) to the valve body (1). Refer to **SPECIFICATIONS**.

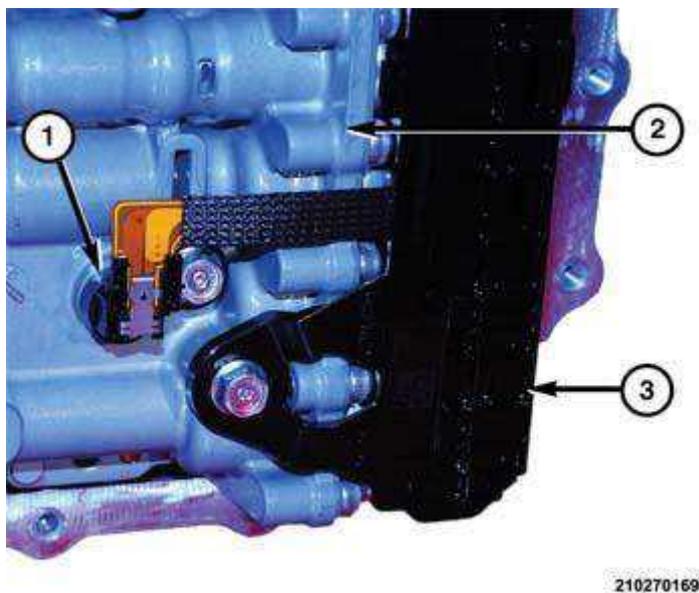


Fig. 449: Fluid Temperature Sensor, Valve Body & Bolt
 Courtesy of CHRYSLER GROUP, LLC

08. Insert the temperature sensor (1) into port in the valve body (2).
 09. Install bolt to hold fluid temperature sensor (1) to the valve body (2). Refer to **SPECIFICATIONS**.



Fig. 450: Valve Body Cover Separated From Transaxle
Courtesy of CHRYSLER GROUP, LLC

10. Install a **NEW** gasket on the pan and place the pan (1) in position on the transaxle (2).

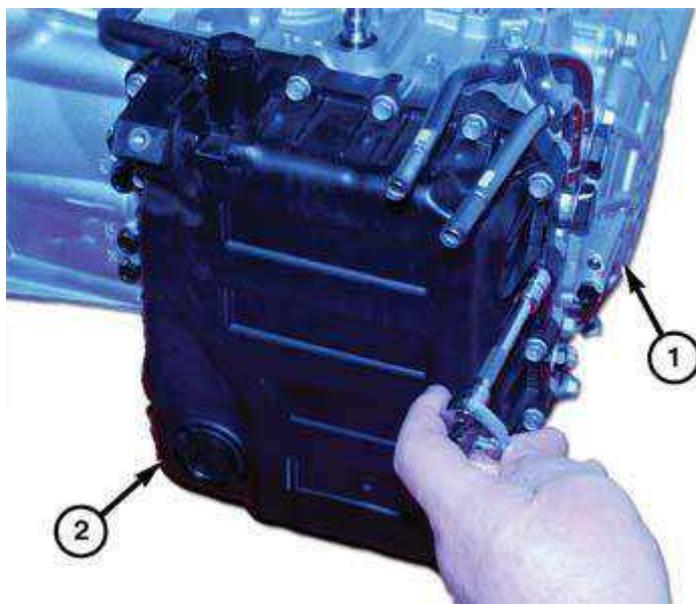


Fig. 451: Valve Body Cover
Courtesy of CHRYSLER GROUP, LLC

11. Install bolts to hold the valve body pan (2) to the transaxle (1). Refer to **SPECIFICATIONS**.

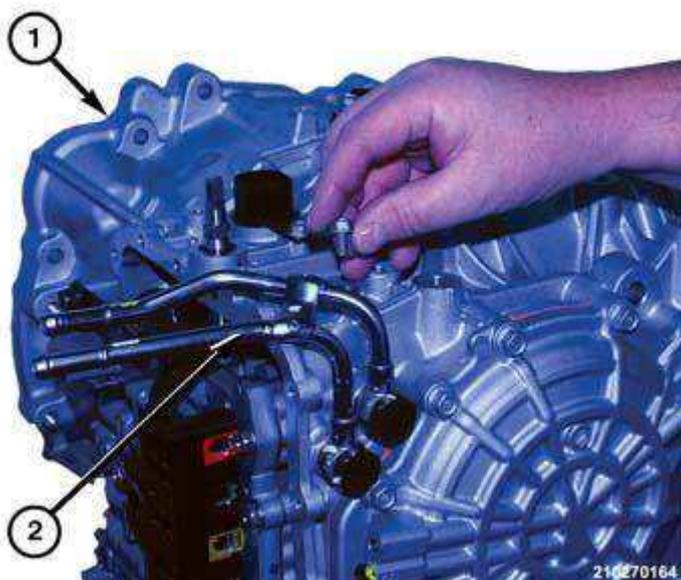


Fig. 452: Cooler Tubes & Transaxle
Courtesy of CHRYSLER GROUP, LLC

12. Place the cooler tubes (2) in position on the transaxle (1).
13. Install bolt to hold the cooler tube (2) bracket to the transaxle (1). Refer to **SPECIFICATIONS**.

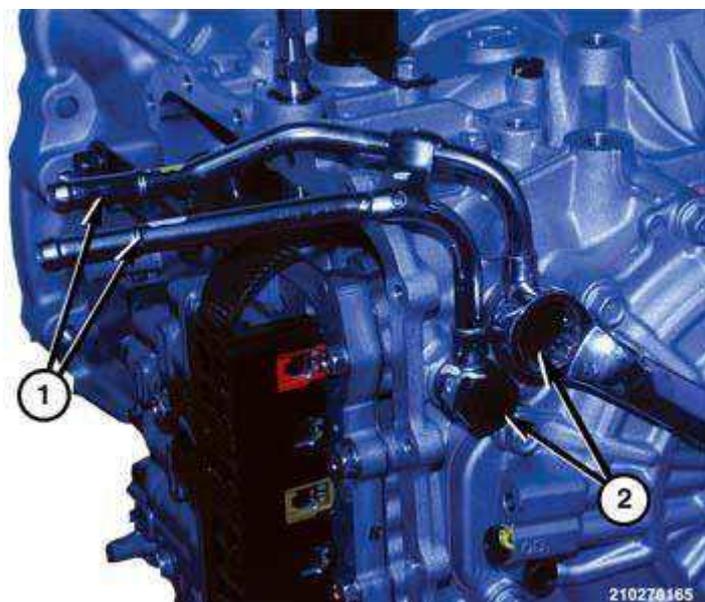


Fig. 453: Cooler Tubes & Banjo Bolts
Courtesy of CHRYSLER GROUP, LLC

14. Install banjo bolts (2) to hold the cooler tubes (1) to the transaxle. Refer to **SPECIFICATIONS**.



Fig. 454: Vent Tube Bracket & Bolt
Courtesy of CHRYSLER GROUP, LLC

15. Place the vent tube (3) in position on the transaxle (1).
16. Install bolt to hold the vent tube bracket (2) to the transaxle housing. Refer to **SPECIFICATIONS**.



Fig. 455: Vent Hose End & Nipple Adapter
Courtesy of CHRYSLER GROUP, LLC

17. Push the vent hose end (1) onto of the nipple on the vent adaptor (2).

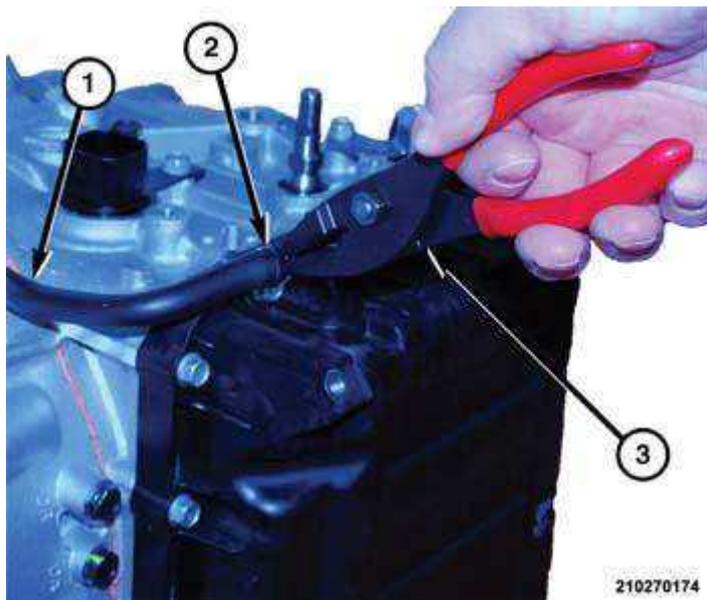


Fig. 456: Vent Hose, Spring Clamp & Pliers
Courtesy of CHRYSLER GROUP, LLC

18. Using common pliers (3), compress the hose spring clamp (2) and slide it up the vent hose (1) into position to hold the hose to the nipple.

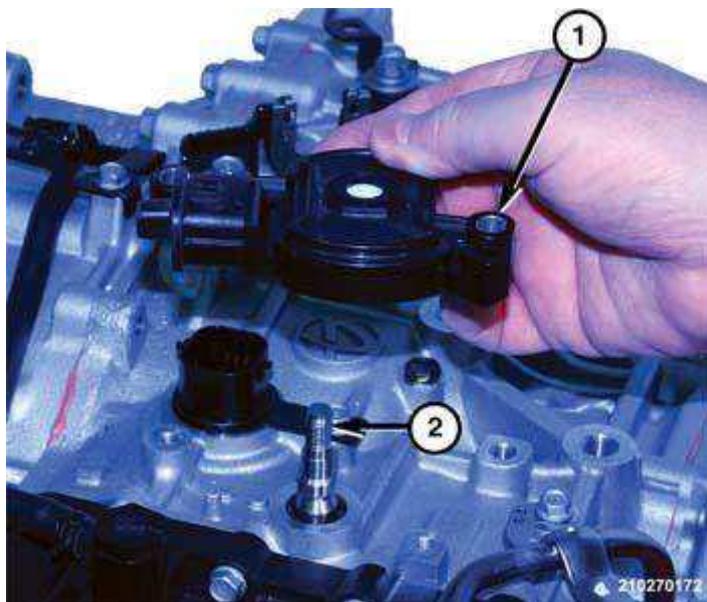


Fig. 457: Transmission Range Sensor Separated From Transaxle
Courtesy of CHRYSLER GROUP, LLC

19. Place the TRS (1) in position on the transaxle.



Fig. 458: Transmission Range Sensor
Courtesy of CHRYSLER GROUP, LLC

20. Install bolts to hold the TRS (1) to the transaxle housing. Refer to **SPECIFICATIONS**.



Fig. 459: Manual Lever & Manual Shaft
Courtesy of CHRYSLER GROUP, LLC

21. Place the manual level (1) in position on the manual shaft.

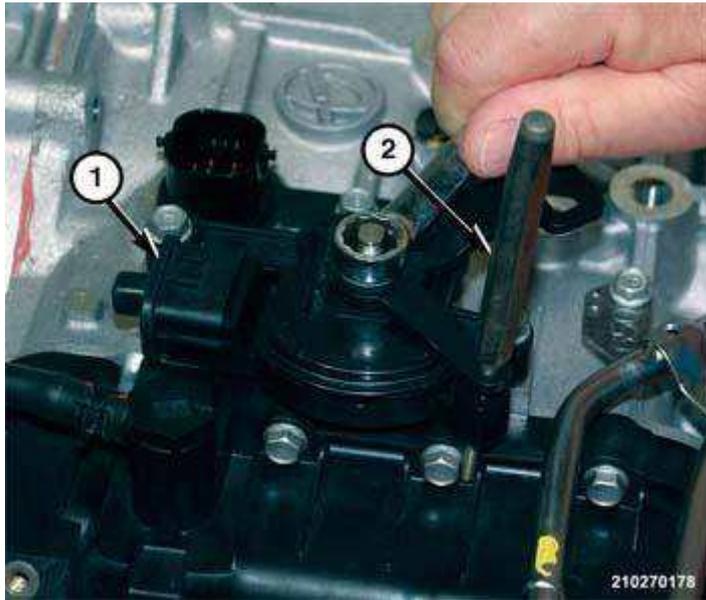


Fig. 460: Pin Punch, Manual Lever & Transmission Range Sensor
Courtesy of CHRYSLER GROUP, LLC

22. Insert a suitable pin punch (2) or equivalent through the manual lever into the TRS switch (1) to hold lever in place.
23. Install the nut to hold the manual lever to the manual shaft. Refer to **SPECIFICATIONS.**

NOTE: The transaxle can now be installed in a vehicle. Refer to **INSTALLATION.**

INSTALLATION

FWD

1. While guiding the transaxle past obstacles, raise the transaxle upward until the transaxle is in line with the engine.



Fig. 461: Bellhousing & Engine Block
Courtesy of CHRYSLER GROUP, LLC

2. Place the bellhousing (1) in position against the engine block (2).

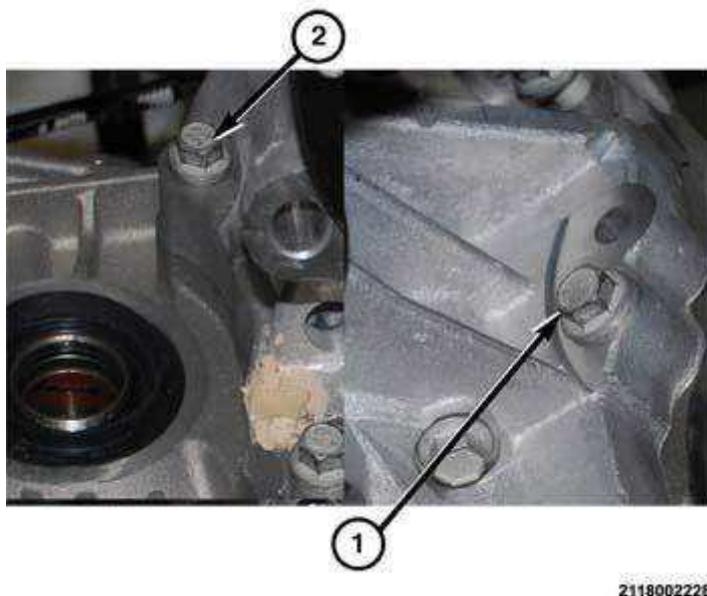


Fig. 462: Bellhousing Bolts
Courtesy of CHRYSLER GROUP, LLC

3. Install the bolts (1, 2) to hold the front (1) and rear (2) of the engine block to the bellhousing. Refer to **SPECIFICATIONS**.

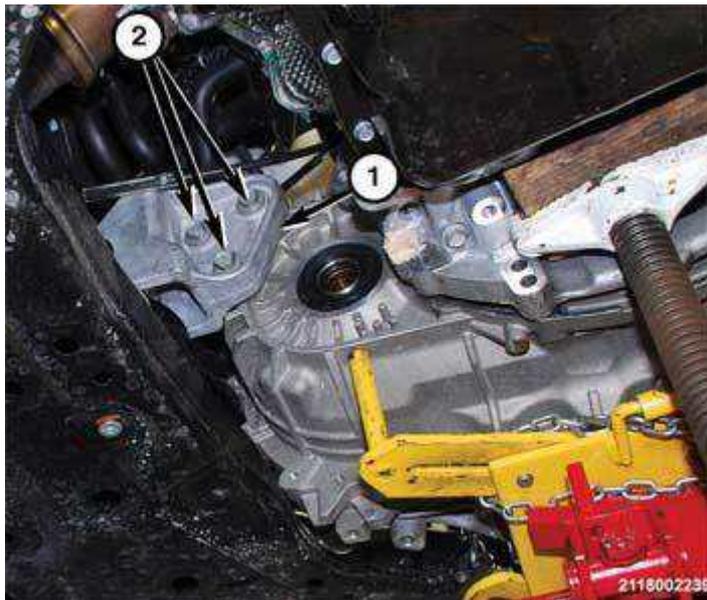


Fig. 463: Rear Transaxle Mount
 Courtesy of CHRYSLER GROUP, LLC

4. Place the rear mount (1) in position and install the bolts (2) to hold the rear transaxle mount (1) to the back of the transaxle. Refer to **SPECIFICATIONS**.

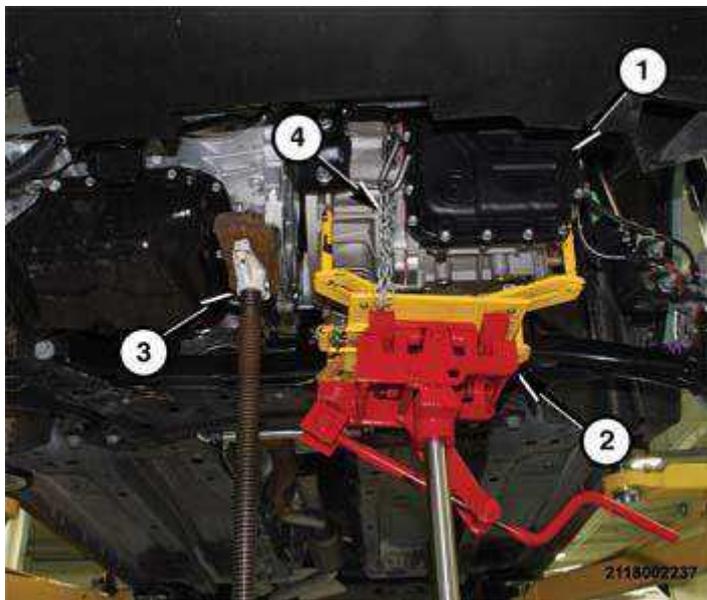
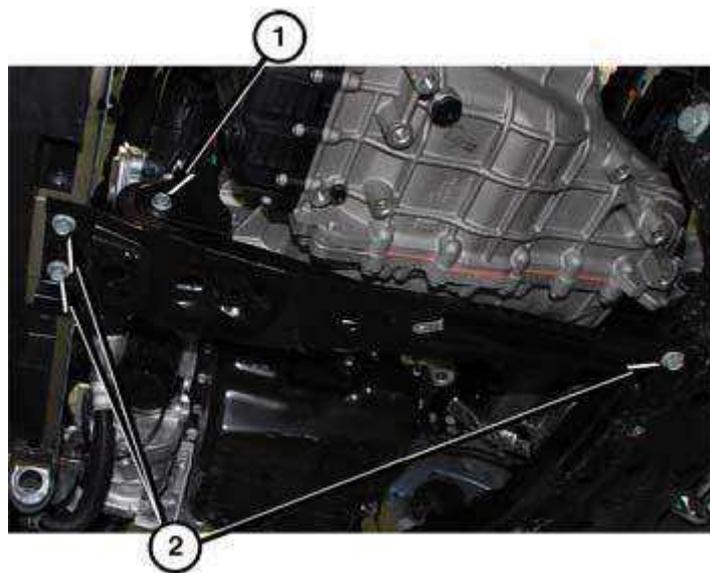


Fig. 464: Supporting Engine
 Courtesy of CHRYSLER GROUP, LLC

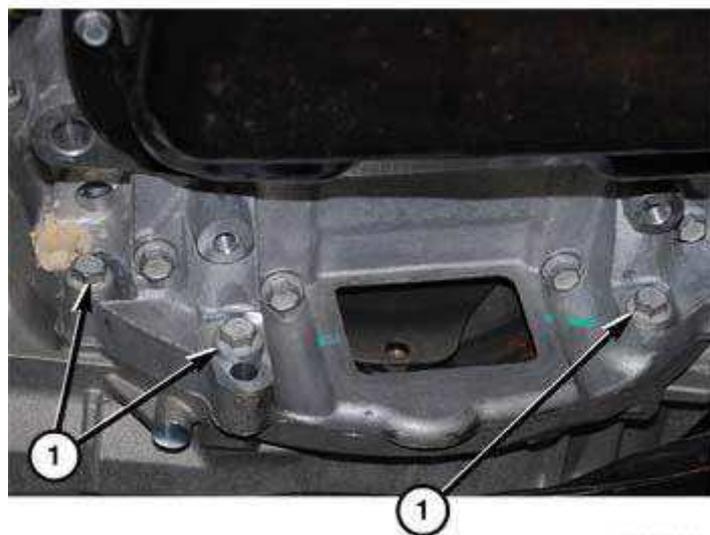
5. Lower the transaxle (1) so all of the weight is bearing on the high-stand (3).
6. Remove the safety chine (4) holding the transaxle (1) to the jack cradle.
7. Lower and remove the transmission jack (2) from under the transaxle.



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Fig. 465: Front-To-Rear Support
 Courtesy of CHRYSLER GROUP, LLC

8. Place the front-to-rear support in position on the vehicle.
9. Install the bolts (2) to hold the front-to-rear support to the front and rear crossmembers. Refer to **SPECIFICATIONS**.
10. Install the trough bolt (1) to hold the front-to-rear support rubber isolator to the front crossmember. Refer to **SPECIFICATIONS**.
11. Remove the high-stand (3) from under the engine.



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Fig. 466: Bellhousing Bolts
 Courtesy of CHRYSLER GROUP, LLC

12. Install the bolts (1) to hold the lower engine adapter to the bellhousing. Refer to **SPECIFICATIONS**.

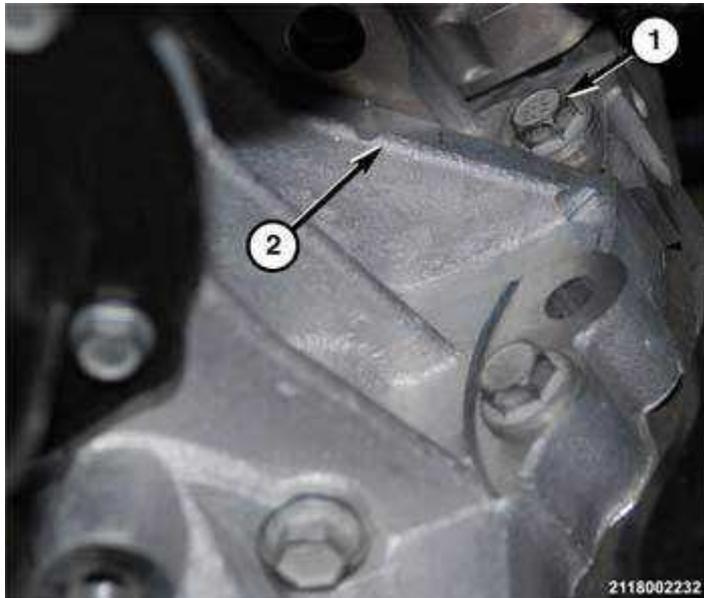


Fig. 467: Bellhousing Bolt
Courtesy of CHRYSLER GROUP, LLC

13. Install the bolt (1) to hold the engine block (2) to the bellhousing next to the starter motor. Refer to **SPECIFICATIONS**.



Fig. 468: Bellhousing Bolt
Courtesy of CHRYSLER GROUP, LLC

14. Install the hidden bolt (2) to hold the engine block to the bellhousing behind

the heat-shield (1) at the back of the engine. Refer to **SPECIFICATIONS**.



Fig. 469: Torque Converter Bolt
Courtesy of CHRYSLER GROUP, LLC

15. Install the bolts (2) to hold the flex plate to the torque converter. Refer to **SPECIFICATIONS**.

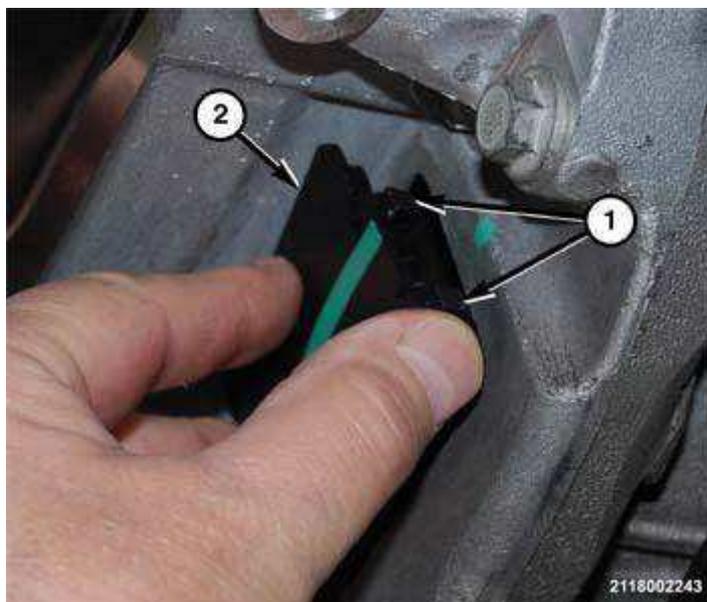


Fig. 470: Torque Converter Bolt Access Plug
Courtesy of CHRYSLER GROUP, LLC

16. Install the torque converter bolt access plug (2) into the bellhousing cover.
17. Install the left and right halfshafts. Refer to **INSTALLATION**.

18. Fill the transaxle to the proper level.
19. Install the belly pan. Refer to **BELLY PAN, INSTALLATION**.

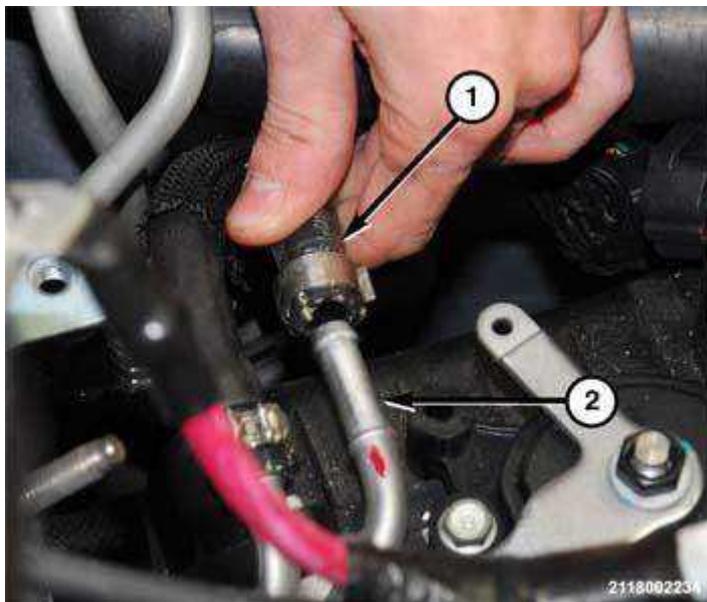


Fig. 471: Cooler Tubes & Hoses
Courtesy of CHRYSLER GROUP, LLC

20. Push the hoses (1) onto the cooler tubes (2) on the transaxle.

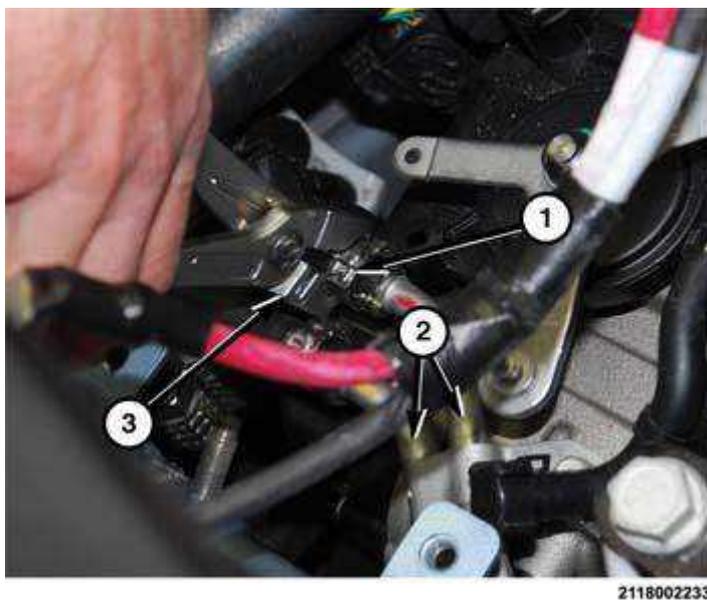


Fig. 472: Transaxle Cooler Hose Clamps
Courtesy of CHRYSLER GROUP, LLC

21. Using a suitable clamp pliers (3), crimp the clamps (1) to hold the transaxle cooler hoses to the tubes (2) on the transaxle.

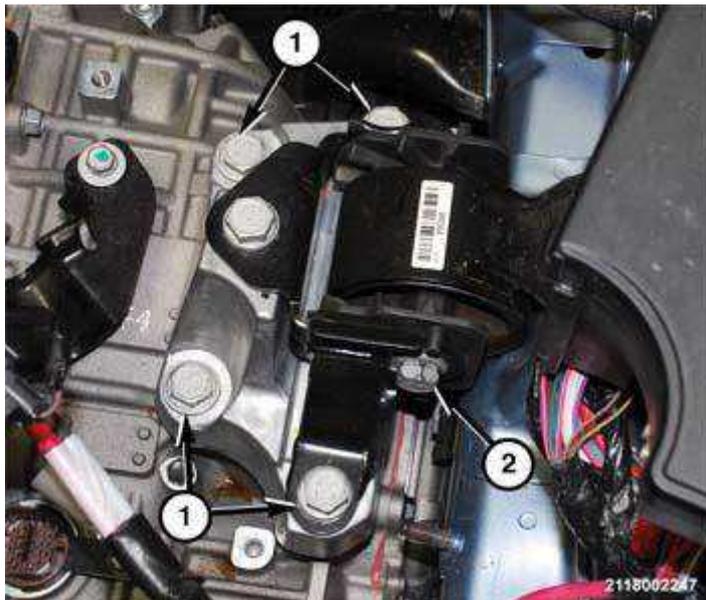


Fig. 473: Transaxle Mount Bolts
Courtesy of CHRYSLER GROUP, LLC

22. Place the transaxle mount in position on the vehicle.
23. Position a suitable floor jack under the left (driver) side of the transaxle to add support.
24. Raise the transaxle until the bolt holes for the transaxle mount line up.
25. Install the bolts (1) to hold the transaxle mount to the transaxle. Refer to **SPECIFICATIONS**.
26. Install the through bolt (2) to hold the transaxle mount rubber isolator to the frame rail bracket. Refer to **SPECIFICATIONS**.



Fig. 474: Starter Motor Bolts
Courtesy of CHRYSLER GROUP, LLC

27. Install the hidden bolts (1, 2) to hold the starter motor to the engine block and bellhousing. Refer to **SPECIFICATIONS**.

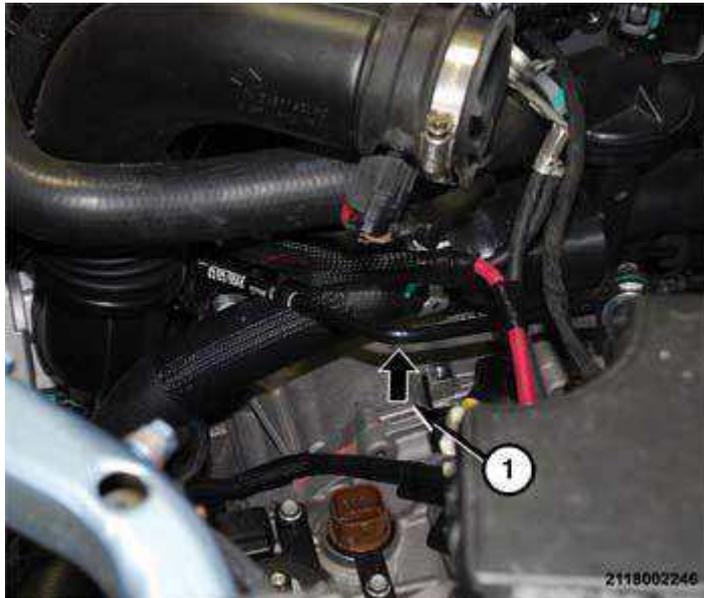


Fig. 475: Ground Cable & Transaxle Bellhousing Bolt
Courtesy of CHRYSLER GROUP, LLC

28. Install the hidden bolt (1) to hold the ground cable and transaxle bellhousing to the engine block under the engine coolant tubes. Refer to **SPECIFICATIONS**.

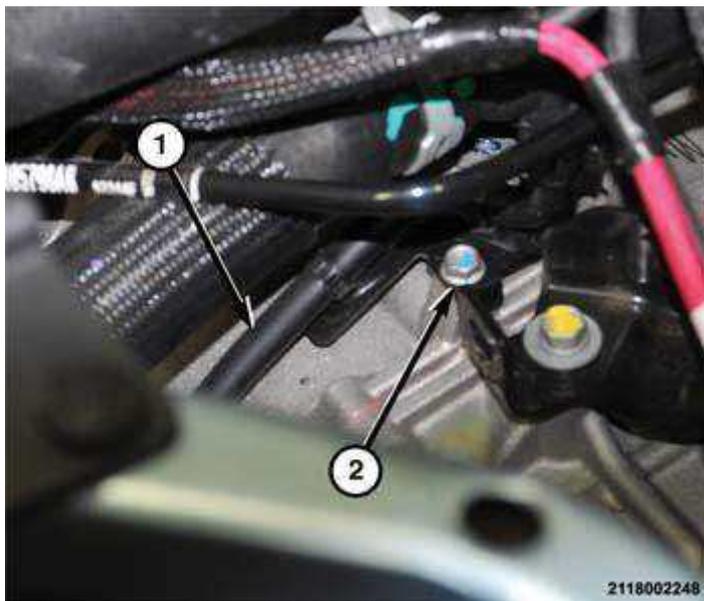


Fig. 476: Vent Tube & Bolt

Courtesy of CHRYSLER GROUP, LLC

29. Place the vent tube (1) in position on the transaxle.
30. Install the bolt (2) to hold the vent tube (1) to the transaxle. Refer to **SPECIFICATIONS**.

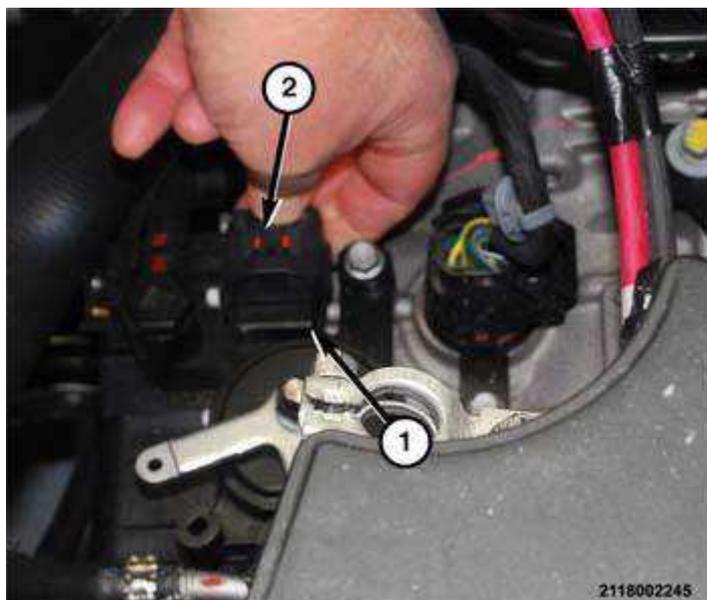


Fig. 477: Transaxle TRS Connector
Courtesy of CHRYSLER GROUP, LLC

31. Engage the wire harness connector into the TRS (1).
32. Push inward until the lock (2) clicks into position.

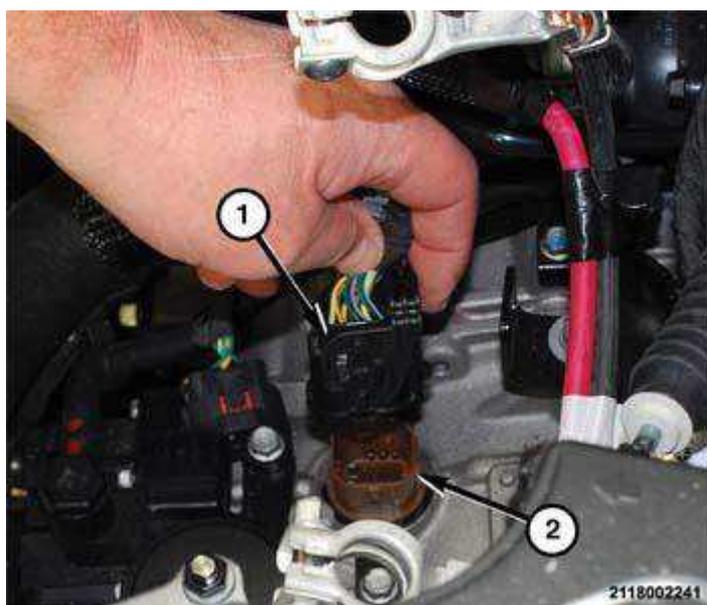


Fig. 478: Transaxle Wire Harness Connector

Courtesy of CHRYSLER GROUP, LLC

33. Engage the wire harness connector (1) into the solenoid connector on the transaxle.
34. Set the lock on the transaxle solenoid connector (1).
35. Insert the shift cable into the bracket on the top of the transaxle and engage the locking clips.
36. Place the shift cable (adjuster screw up) on the manual lever pin.
37. Push downward on the shift cable end until it locks on the manual lever pin.



Fig. 479: Lower Air Cleaner Bracket
Courtesy of CHRYSLER GROUP, LLC

38. Place the lower air cleaner bracket (1) in position on the vehicle.

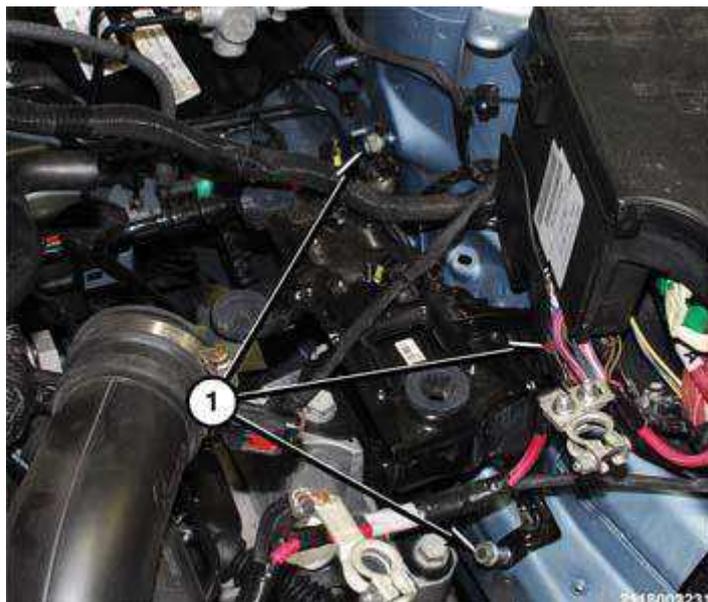


Fig. 480: Air Cleaner Bracket Nuts & Bolts
Courtesy of CHRYSLER GROUP, LLC

39. Install the bolts and nuts (1) to hold the lower air cleaner bracket to the left frame rail. Refer to **SPECIFICATIONS**.
40. Install the lower air cleaner body. Refer to **2.0L BODY, AIR CLEANER, INSTALLATION** , **2.2L BODY, AIR CLEANER, INSTALLATION** or **2.4L BODY, AIR CLEANER, INSTALLATION** .
41. Install the air box lid.
42. Install the battery tray in the vehicle. Refer to **TRAY, BATTERY, INSTALLATION** .
43. Install the battery in the vehicle. Refer to **BATTERY, INSTALLATION** .
44. Install the engine air-box in the vehicle.
45. Secure the fasteners to hold the engine air-box to the front crossmember.
46. Close the hood.
47. Road test the vehicle to verify the repair.

AWD

1. While guiding the transaxle past obstacles, raise the transaxle upward until the transaxle is in line with the engine.



Fig. 481: Bellhousing & Engine Block
Courtesy of CHRYSLER GROUP, LLC

2. Place the bellhousing (1) in position against the engine block (2).
3. Install the bolt (1) to hold the front of the engine block to the bellhousing. Refer to **SPECIFICATIONS**.

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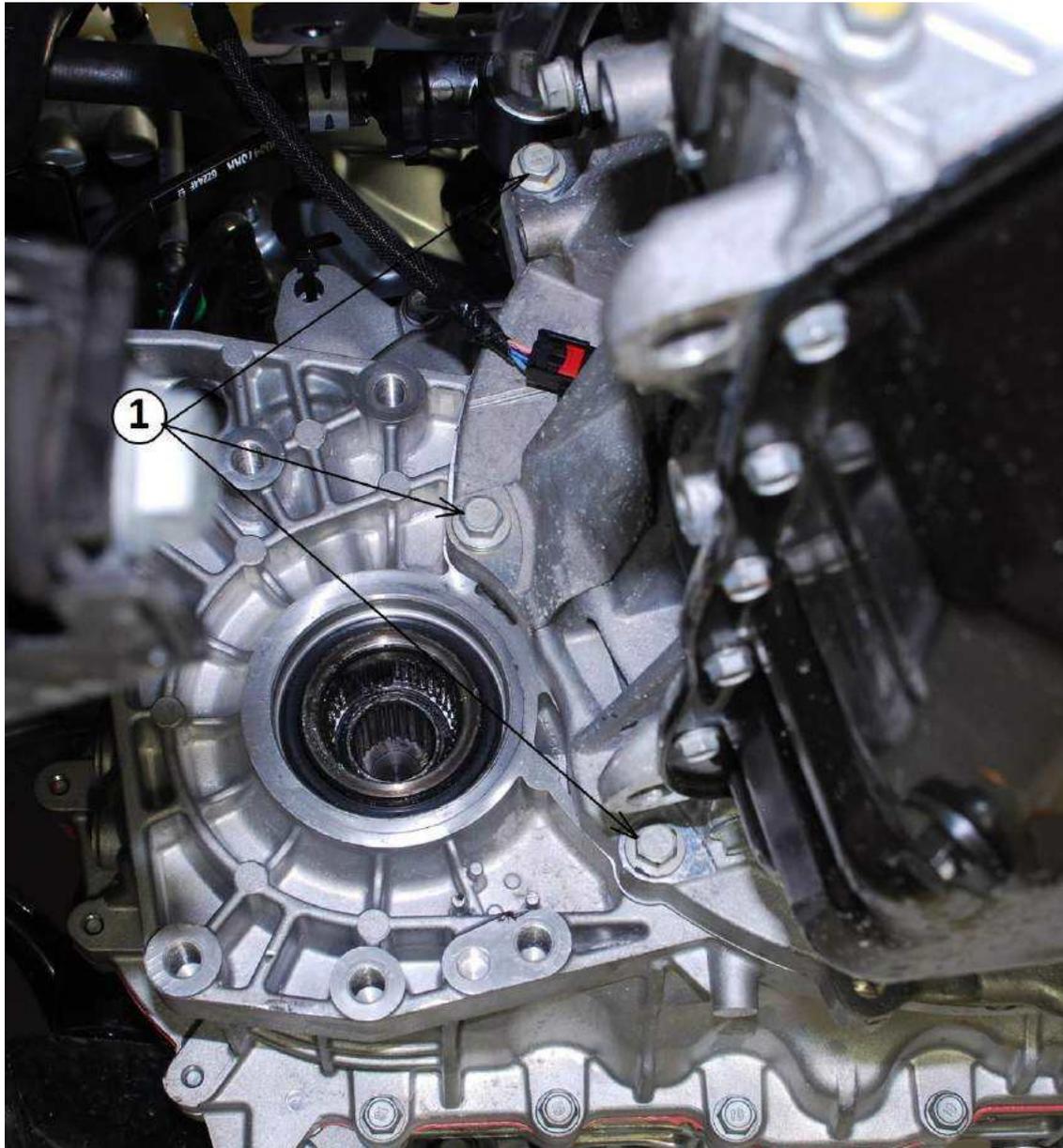


Fig. 482: Bellhousing Bolts
Courtesy of CHRYSLER GROUP, LLC

4. Install the bolts (1) to hold the rear of the engine block to the bellhousing. Refer to **SPECIFICATIONS**.

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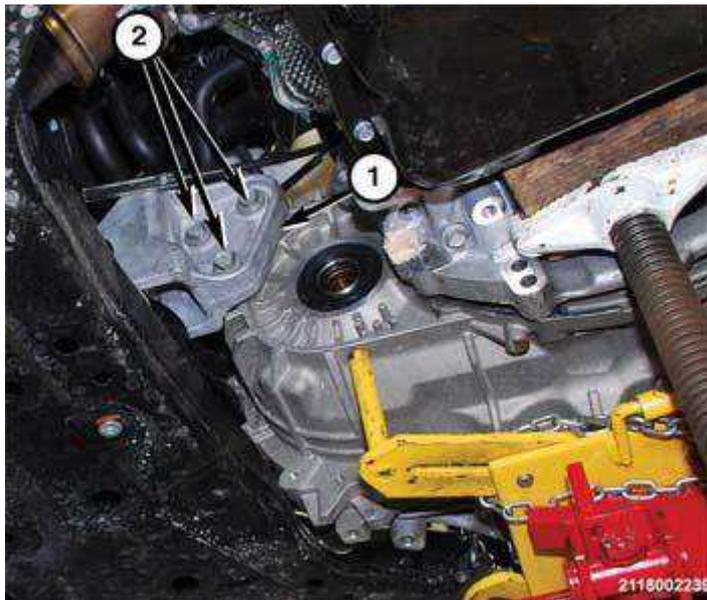


Fig. 483: Rear Transaxle Mount
 Courtesy of CHRYSLER GROUP, LLC

5. Place the rear mount (1) in position (typical) and install the bolts (2) to hold the rear transaxle mount (1) to the back of the transaxle. Refer to **SPECIFICATIONS**.

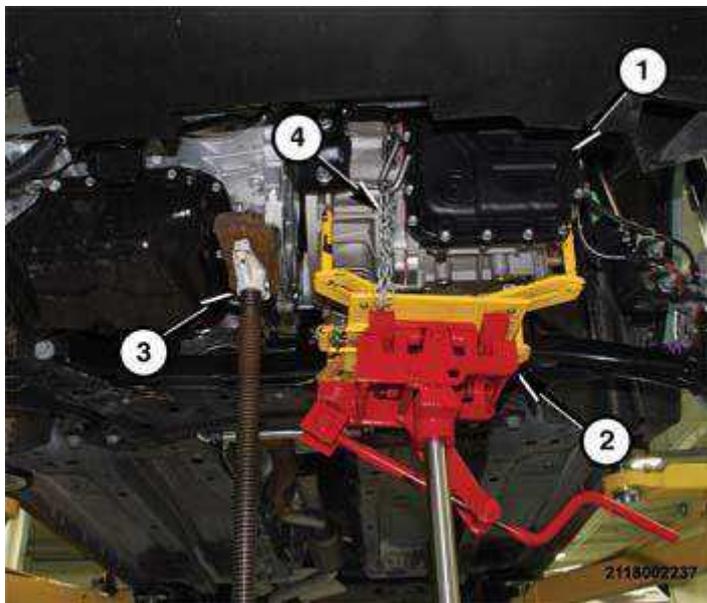
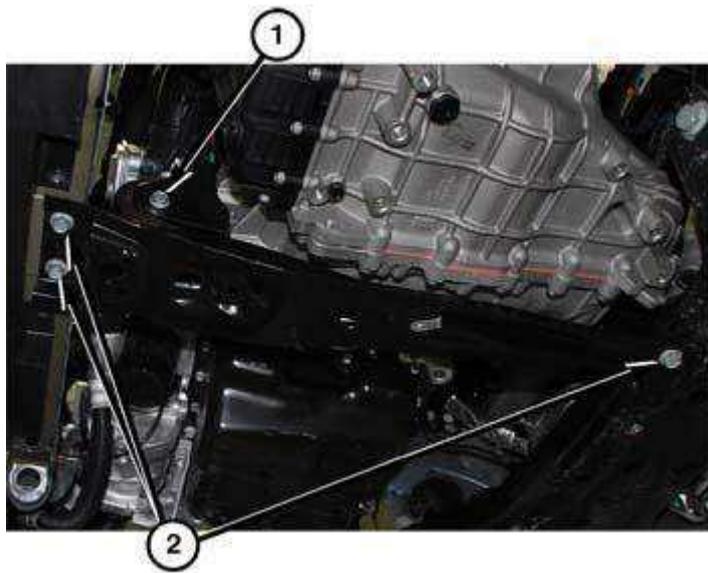


Fig. 484: Supporting Engine
 Courtesy of CHRYSLER GROUP, LLC

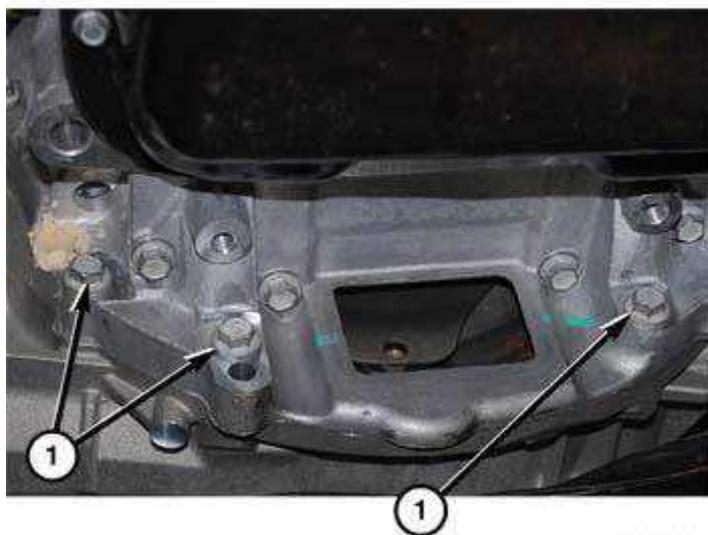
6. Lower the transaxle (1) so all of the weight is bearing on the high-stand (3).
7. Remove the safety chine (4) holding the transaxle (1) to the jack cradle.
8. Lower and remove the transmission jack (2) from under the transaxle.



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Fig. 485: Front-To-Rear Support
 Courtesy of CHRYSLER GROUP, LLC

9. Place the front-to-rear support in position on the vehicle.
10. Install the bolts (2) to hold the front-to-rear support to the front and rear crossmembers. Refer to **SPECIFICATIONS**.
11. Install the trough bolt (1) to hold the front-to-rear support rubber isolator to the front crossmember. Refer to **SPECIFICATIONS**.
12. Remove the high-stand (3) from under the engine.



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Fig. 486: Bellhousing Bolts
 Courtesy of CHRYSLER GROUP, LLC

13. Install the bolts (1) to hold the lower engine adapter to the bellhousing. Refer to **SPECIFICATIONS**.

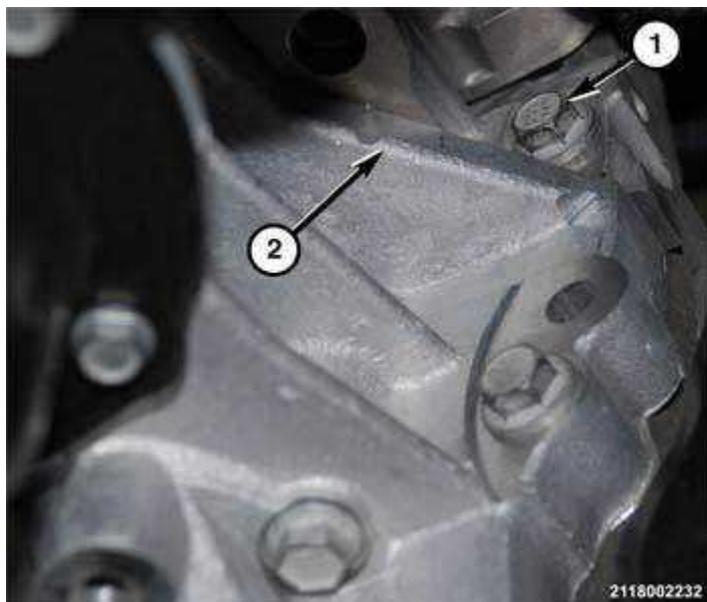


Fig. 487: Bellhousing Bolt
Courtesy of CHRYSLER GROUP, LLC

14. Install the bolt (1) to hold the engine block (2) to the bellhousing next to the starter motor. Refer to **SPECIFICATIONS**.



Fig. 488: Torque Converter Bolt
Courtesy of CHRYSLER GROUP, LLC

15. Install the bolts (2) to hold the flex plate to the torque converter. Refer to

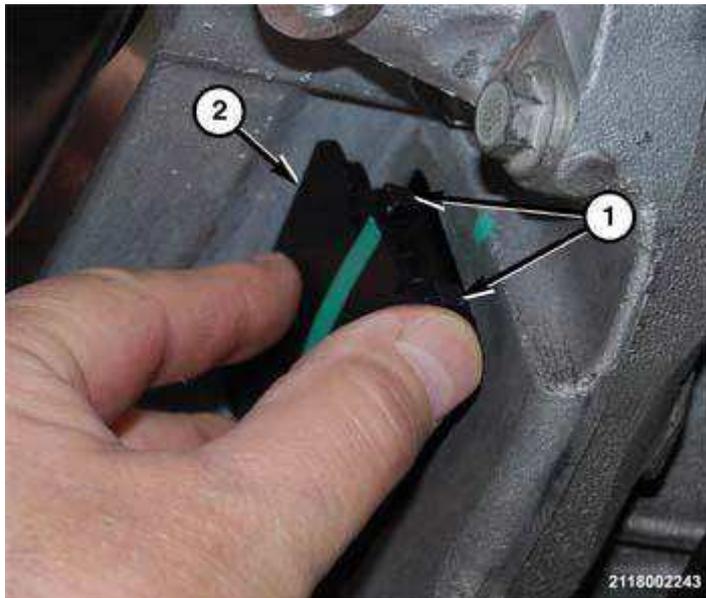
SPECIFICATIONS.

Fig. 489: Torque Converter Bolt Access Plug
Courtesy of CHRYSLER GROUP, LLC

16. Install the torque converter bolt access plug (2) into the bellhousing cover.
17. Install the power transfer unit (PTU). Refer to **INSTALLATION** .
18. Install the left and right halfshafts. Refer to **INSTALLATION** .
19. Fill the transaxle to the proper level.
20. Install the belly pan. Refer to **BELLY PAN, INSTALLATION** .
21. Lower the vehicle.

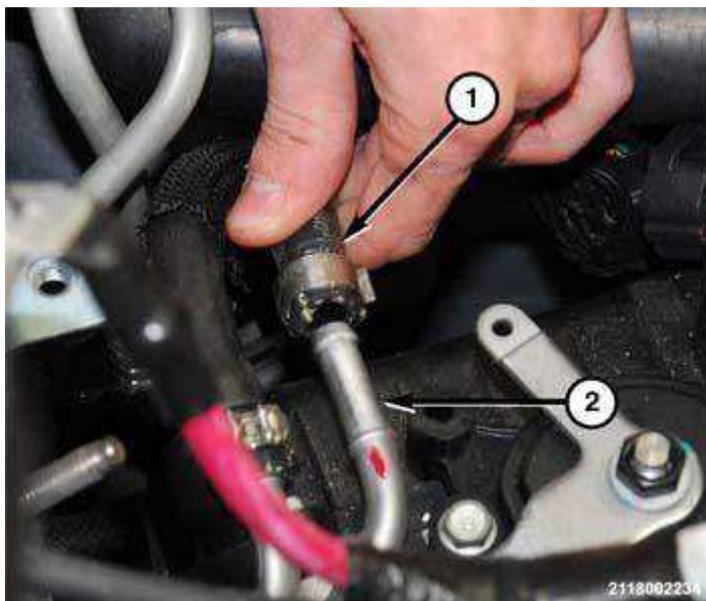


Fig. 490: Cooler Tubes & Hoses
Courtesy of CHRYSLER GROUP, LLC

22. Push the hoses (1) onto the cooler tubes (2) on the transaxle.

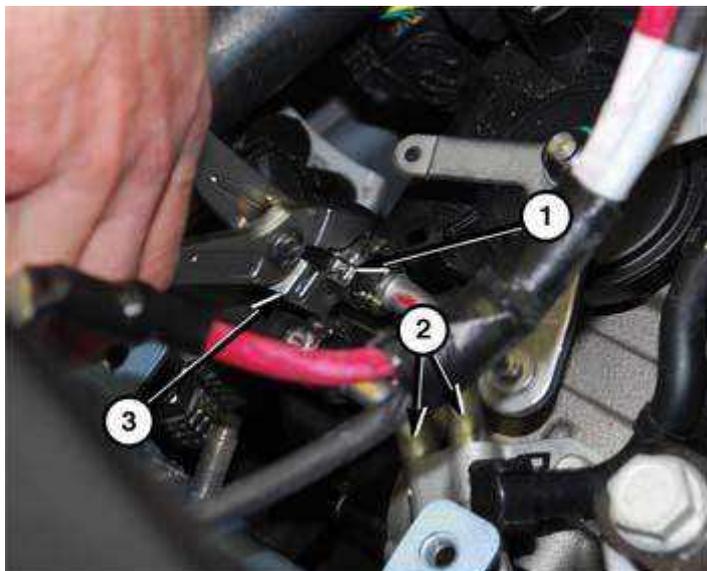


Fig. 491: Transaxle Cooler Hose Clamps
Courtesy of CHRYSLER GROUP, LLC

23. Using a suitable clamp pliers (3), crimp the clamps (1) to hold the transaxle cooler hoses to the tubes (2) on the transaxle.

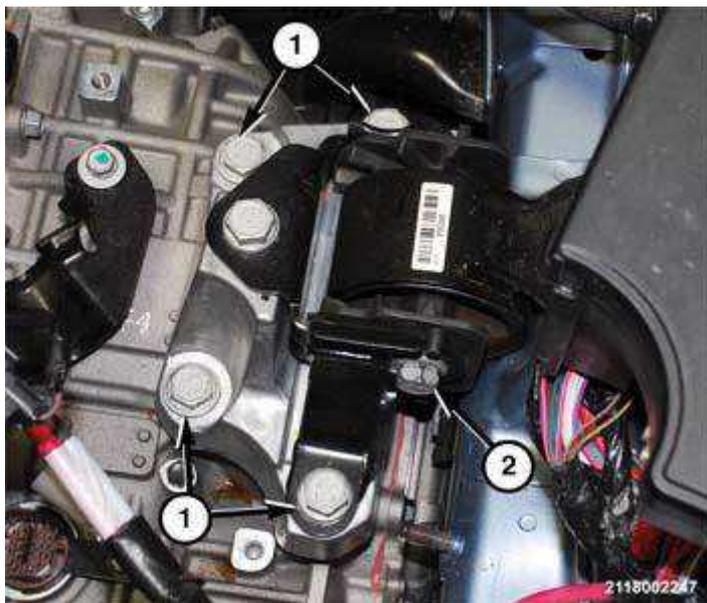


Fig. 492: Transaxle Mount Bolts
Courtesy of CHRYSLER GROUP, LLC

24. Place the transaxle mount in position on the vehicle.
25. Position a suitable floor jack under the left (driver) side of the transaxle to add support.
26. Raise the transaxle until the bolt holes for the transaxle mount line up.
27. Install the bolts (1) to hold the transaxle mount to the transaxle. Refer to **SPECIFICATIONS**.
28. Install the through bolt (2) to hold the transaxle mount rubber isolator to the frame rail bracket. Refer to **SPECIFICATIONS**.



Fig. 493: Starter Motor Bolts
Courtesy of CHRYSLER GROUP, LLC

29. Install the hidden bolts (1, 2) to hold the starter motor to the engine block and bellhousing. Refer to **SPECIFICATIONS**.

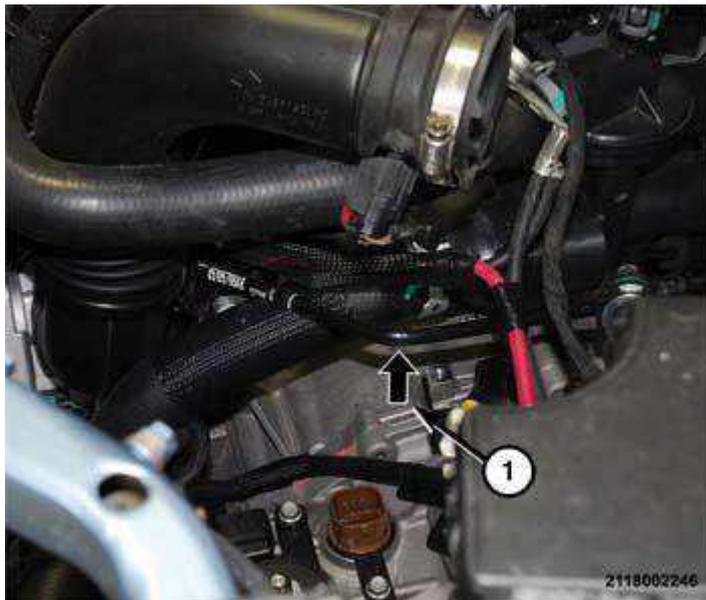


Fig. 494: Ground Cable & Transaxle Bellhousing Bolt
 Courtesy of CHRYSLER GROUP, LLC

30. Install the hidden bolt (1) to hold the ground cable and transaxle bellhousing to the engine block under the engine coolant tubes. Refer to **SPECIFICATIONS**.

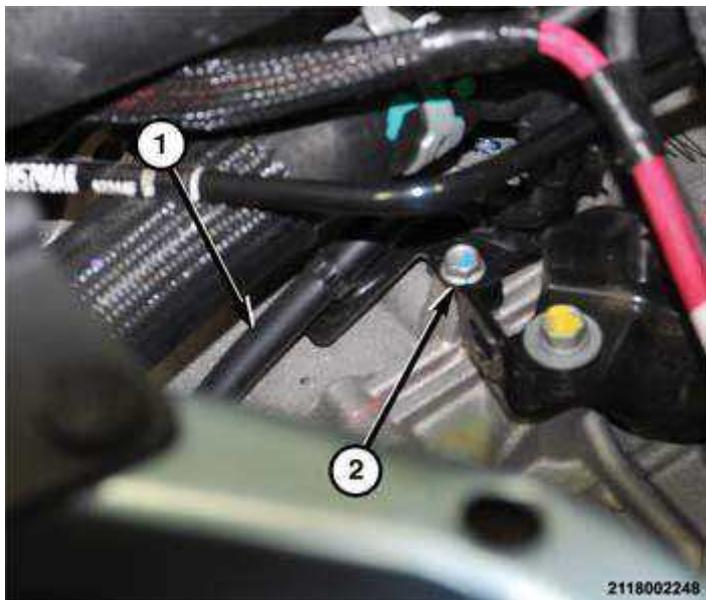


Fig. 495: Vent Tube & Bolt
 Courtesy of CHRYSLER GROUP, LLC

31. Place the vent tube (1) in position on the transaxle.
32. Install the bolt (2) to hold the vent tube (1) to the transaxle. Refer to **SPECIFICATIONS**.

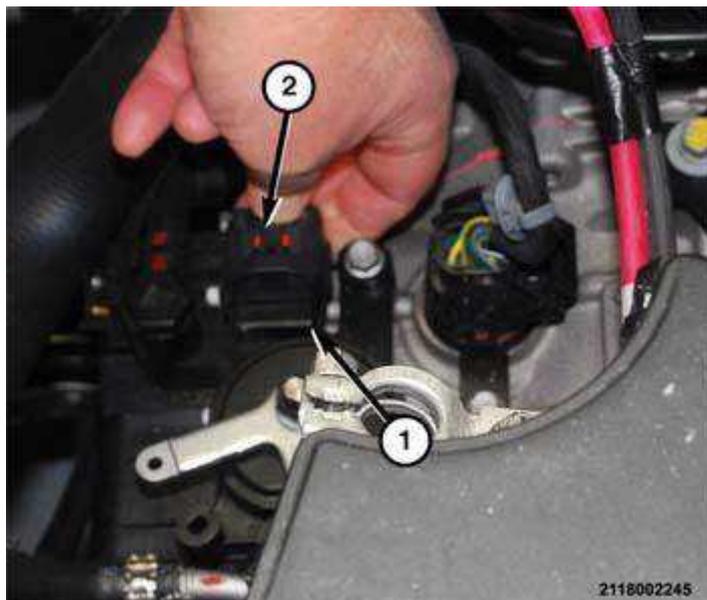


Fig. 496: Transaxle TRS Connector
 Courtesy of CHRYSLER GROUP, LLC

33. Engage the wire harness connector into the TRS (1).
34. Push inward until the lock (2) clicks into position.

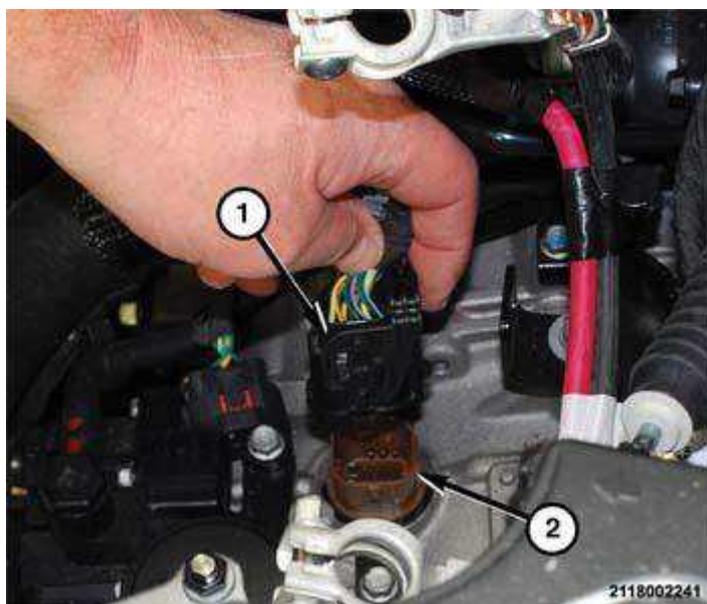


Fig. 497: Transaxle Wire Harness Connector
 Courtesy of CHRYSLER GROUP, LLC

35. Engage the wire harness connector (1) into the solenoid connector on the transaxle.
36. Set the lock on the transaxle solenoid connector (1).
37. Insert the shift cable into the bracket on the top of the transaxle and engage

the locking clips.

38. Place the shift cable (adjuster screw up) on the manual lever pin.
39. Push downward on the shift cable end until it locks on the manual lever pin.



Fig. 498: Lower Air Cleaner Bracket
Courtesy of CHRYSLER GROUP, LLC

40. Place the lower air cleaner bracket (1) in position on the vehicle.

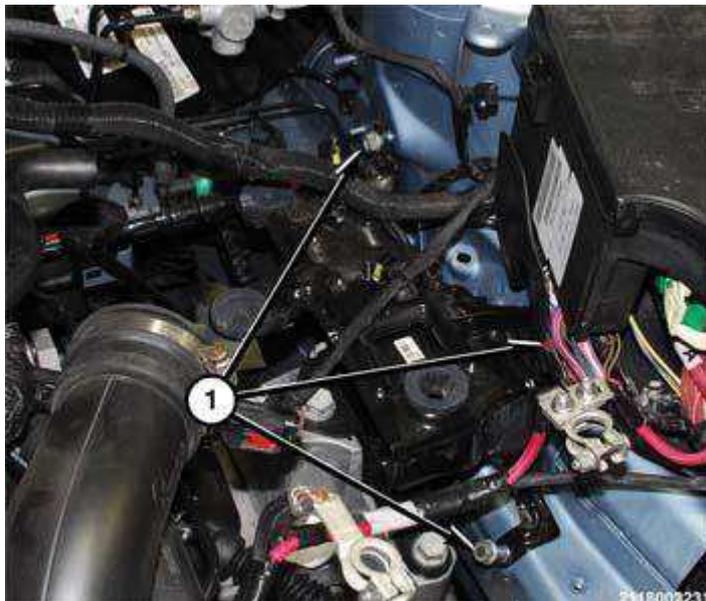


Fig. 499: Air Cleaner Bracket Nuts & Bolts
Courtesy of CHRYSLER GROUP, LLC

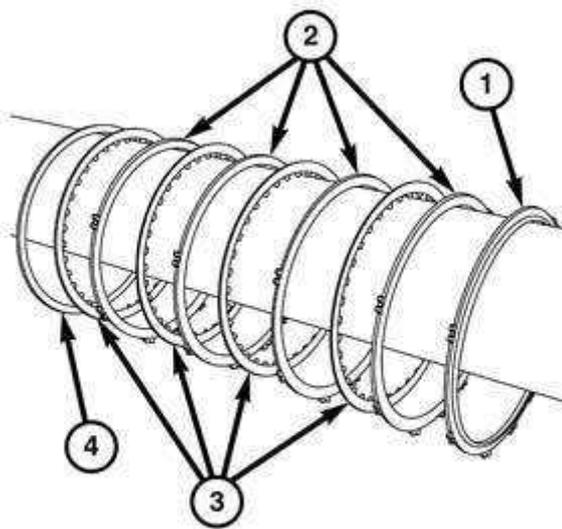
41. Install the bolts and nuts (1) to hold the lower air cleaner bracket to the left

frame rail. Refer to **SPECIFICATIONS**.

42. Install the lower air cleaner body. Refer to **2.0L BODY, AIR CLEANER, INSTALLATION** , **2.2L BODY, AIR CLEANER, INSTALLATION** or **2.4L BODY, AIR CLEANER, INSTALLATION** .
43. Install the air box lid.
44. Install the battery tray in the vehicle. Refer to **TRAY, BATTERY, INSTALLATION** .
45. Install the battery in the vehicle. Refer to **BATTERY, INSTALLATION** .
46. Install the engine air-box in the vehicle.
47. Secure the fasteners to hold the engine air-box to the front crossmember.
48. Close the hood.
49. Road test the vehicle to verify the repair.

STANDARD PROCEDURES

2-6 BRAKE MEASUREMENT



210171874

Fig. 500: 2-6 Brake Discs & Plates
Courtesy of CHRYSLER GROUP, LLC

When the 2-6 brake is replaced, the proper select pressure plate must be install to achieve specified clearance. Refer to **SPECIFICATIONS**.

Measurement (special tool #10427, Compressor, Return Spring) (special tool #10429, Gauge, Force)

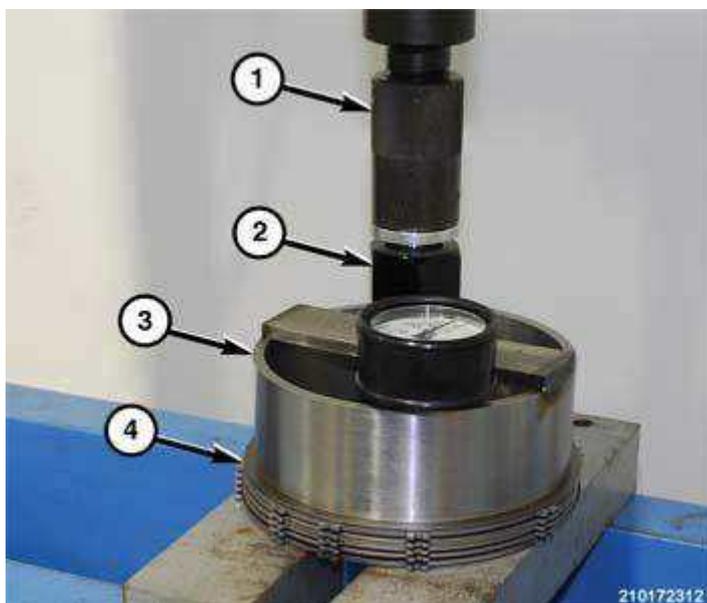


Fig. 501: 2-6 Brake Wave Plate, Arbor Press & Tools 10427 & 10429
Courtesy of CHRYSLER GROUP, LLC

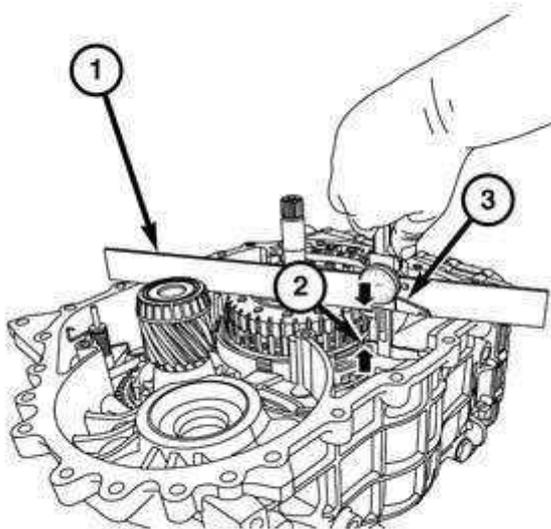
1. Place the 2-6 brake, with the wave plate on top (4), on a suitable arbor press (1).
2. Position tools 10427 (3) and 10429 (2) on top of the 2-6 brake wave plate and under the press ram (1).



Fig. 502: 2-6 Brake & Linear Caliper
Courtesy of CHRYSLER GROUP, LLC

3. Apply 48.4 kg/cm² (688 lbf.) of downward force on the 2-6 brake to compress the wave plate.
4. Using a suitable linear caliper (2), measure the thickness of the compressed 2-6 brake (1) to calculate the 2-6 brake clearance in order to determine the correct select pressure plate (2) thickness.

Record the measurement as (A)



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Fig. 503: Straight Edge & Underdrive Brake Retainer
Courtesy of CHRYSLER GROUP, LLC

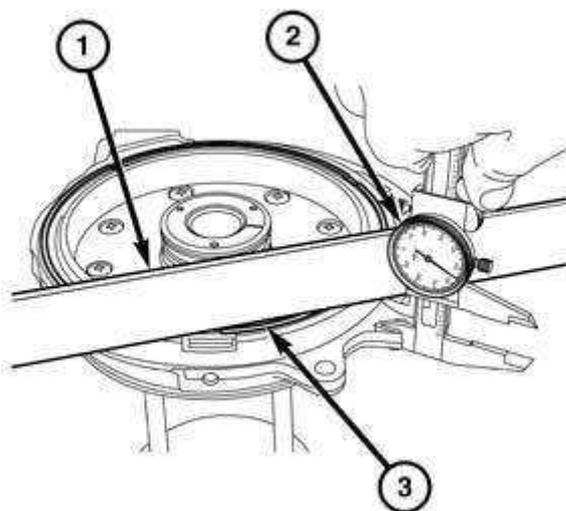
5. Place a suitable straight edge (1) across the sealing surface of the transaxle housing.
6. Measure (3) the distance between the underdrive brake retainer (2) and the bottom of the straight edge (1) to calculate the 2-6 brake clearance in order to determine the correct select pressure plate thickness.

Record the measurement as (B)



Fig. 504: Special Tool #8285
Courtesy of CHRYSLER GROUP, LLC

(special tool #8285, Compressor, Spring)



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Fig. 505: 2-6 Brake Piston & Straight Edge
Courtesy of CHRYSLER GROUP, LLC

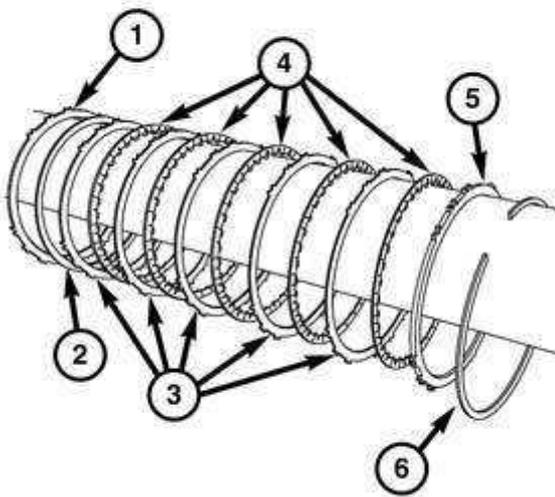
7. Positioning the fluid pump on tool 8285 with the 2-6 brake piston (3) facing up.
8. Place a straight edge (1) across the 2-6 brake piston (3).
9. Measure (2) distance between the fluid pump sealing surface and the bottom of the straight edge to calculate the 2-6 brake clearance in order to determine the correct select pressure plate thickness.

Record the measurement as (C)

Calculation

Add measurement C to B and subtract A. The remainder is the clearance of the 2-6 brake. Refer to **SPECIFICATIONS**. If the clearance is not within specification, a thicker or thinner select pressure plate can be installed to achieve proper clearance.

LOW-REVERSE BRAKE MEASUREMENT



210171879

Fig. 506: Low & Reverse Brake Pressure Plate, Cushion Plate, Plates, Discs, & Reaction Plate

Courtesy of CHRYSLER GROUP, LLC

When the low-reverse brake is replaced, the proper select pressure plate (1) must be installed to achieve specified end play. Refer to **SPECIFICATIONS**.

1. Install the low-reverse brake pressure plate (1), wave plate (2), plates (3), discs (4), reaction plate (5) and snap-ring (6) in the transaxle housing.
2. Place transaxle housing on a suitable arbor press.

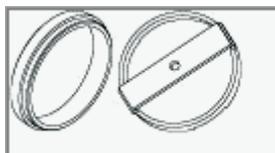


Fig. 507: Special Tool #10427

Courtesy of CHRYSLER GROUP, LLC

(special tool #10427, Compressor, Return Spring)

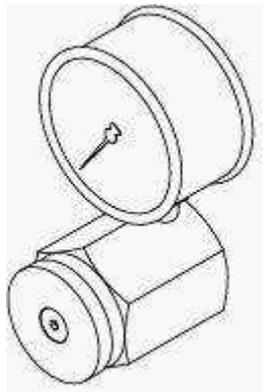
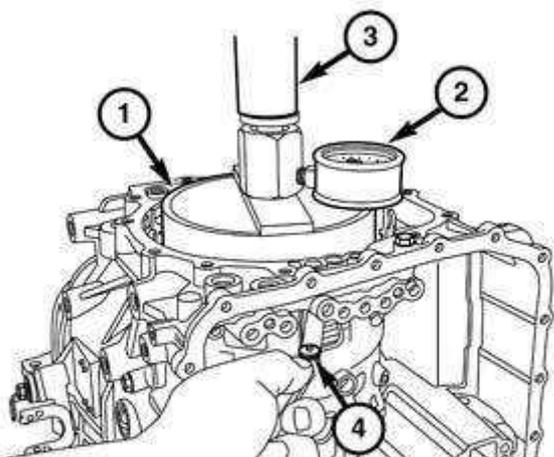


Fig. 508: Special Tool #10429

Courtesy of CHRYSLER GROUP, LLC

(special tool #10429, Gauge, Force)



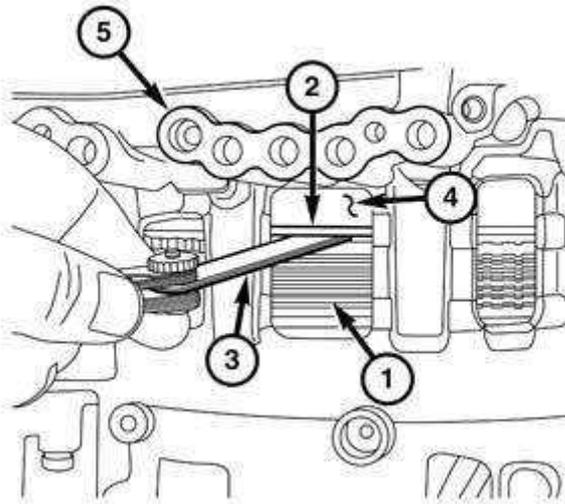
210171880

Fig. 509: Tool 10427 On The Low-Reverse Clutch, Tool 10429 On Compressor Tool

Courtesy of CHRYSLER GROUP, LLC

3. Place tool 10427 on the low-reverse clutch.
4. Place tool 10429 on compressor tool directly under the arbor press ram.

5. Apply 28 kg/cm² (400 lbf.) of force to compress the wave plate in the low-reverse brake.



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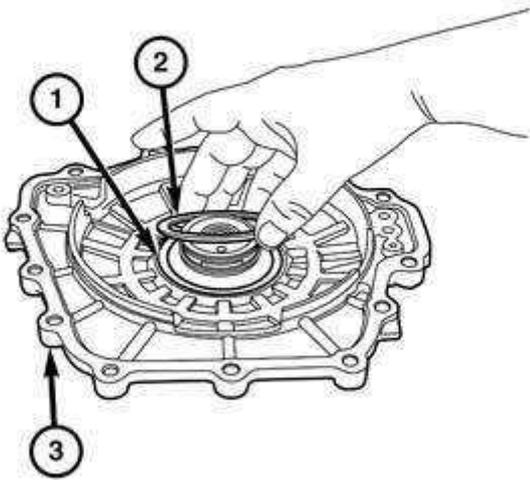
Fig. 510: Measuring Gap Between The Low-Reverse Reaction Plate & Snap Ring

Courtesy of CHRYSLER GROUP, LLC

6. Using a suitable feeler gauge set (3), measure the gap between the low-reverse reaction plate and the snap ring. Refer to **SPECIFICATIONS**.
7. If the clearance is not within specification, install a thicker or thinner select pressure plate to adjust the clearance.

REAR COVER BEARING SPACER MEASUREMENT

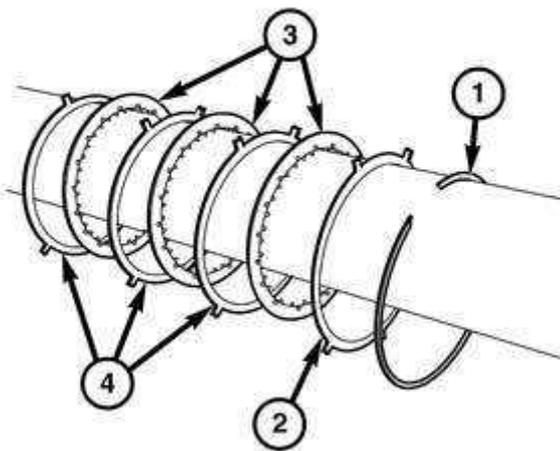
Refer to **MIDDLE-REAR PLANETARY THRUST WASHER MEASUREMENT** to determine the proper thickness for the rear cover spacer/race.



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Fig. 511: Rear Cover Spacer/Race
Courtesy of CHRYSLER GROUP, LLC

UNDERDRIVE BRAKE MEASUREMENT



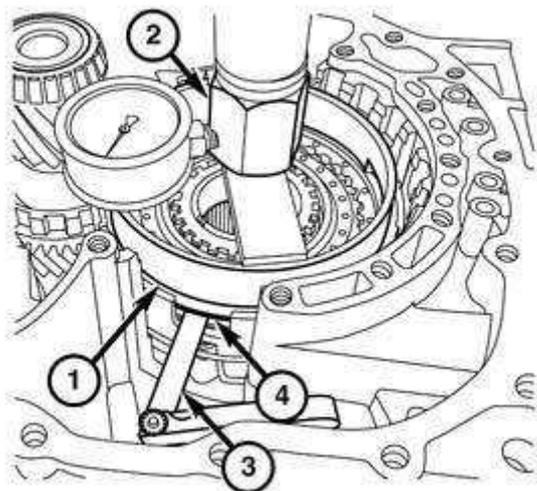
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Fig. 512: Underdrive Brake Discs, Plates, Reaction Plate & Snap-Ring
Courtesy of CHRYSLER GROUP, LLC

When the underdrive brake is replaced, the proper select snap ring (1) must be

install to achieve specified end play Refer to **SPECIFICATIONS**.

1. Install the, discs (3), plates (4), reaction plate (2) and snap-ring (1) in the transaxle housing.
2. Place transaxle housing on a suitable arbor press.



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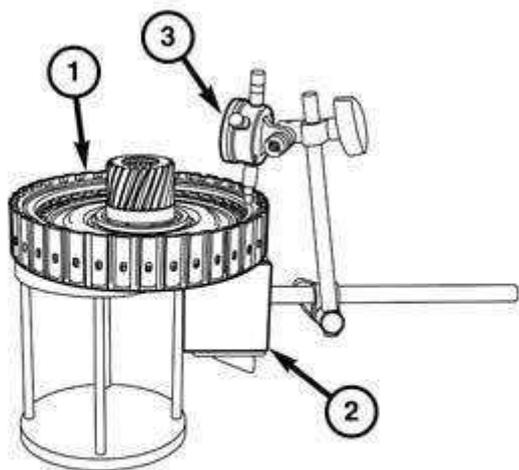
Fig. 513: Special Tool #8621, special tool #10429 & Press
Courtesy of CHRYSLER GROUP, LLC

3. Place tool (special tool #8621, Compressor, Spring) (1) on the underdrive clutch.
4. Place tool (special tool #10429, Gauge, Force) on compressor tool (2) directly under the arbor press ram.
5. Apply 2.8 kg/cm^2 (40 psi) of force to compress the underdrive brake.
6. Using a suitable feeler gauge set (3), measure the gap between the underdrive reaction plate and the snap ring (4). Refer to **SPECIFICATIONS**.
7. If the clearance is not within specification, install a thicker or thinner select snap-ring (4) to adjust the clearance.

OVERDRIVE CLUTCH MEASUREMENT

The overdrive clutch should be measured before and after it is disassembled or

assembled. The end play can be adjusted by installing a thicker or thinner snap ring holding the reaction plate into the overdrive clutch retainer.



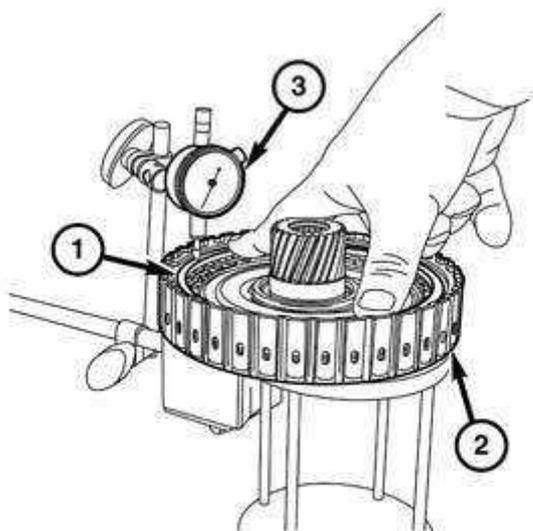
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Fig. 514: Overdrive Clutch & Special Tool #8285
Courtesy of CHRYSLER GROUP, LLC

1. Place the overdrive clutch (1) on tool (special tool #8285, Compressor, Spring) 8285.
2. Attach a magnetic base dial indicator stand (special tool #C-3339A, Set, Dial Indicator) (2) to the overdrive clutch retainer (1).
3. Attach a (special tool #C-3339A, Set, Dial Indicator) dial indicator (3) to the stand (2) with the dial indicator plunger against the top of the overdrive clutch (1) reaction plate (1).



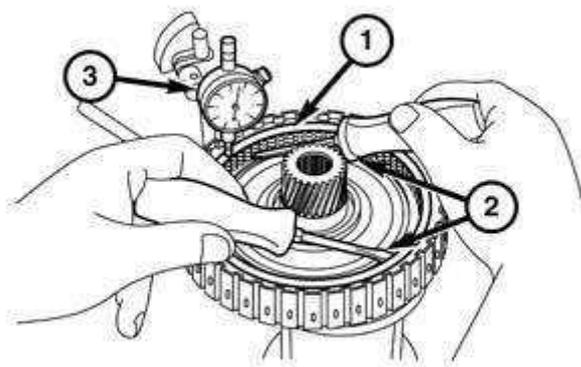
Fig. 515: Special Tool #C-3339A
Courtesy of CHRYSLER GROUP, LLC



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Fig. 516: Reaction Plate & Dial Indicator
Courtesy of CHRYSLER GROUP, LLC

4. Press downward on the reaction plate (1) and "zero" the dial indicator (3).



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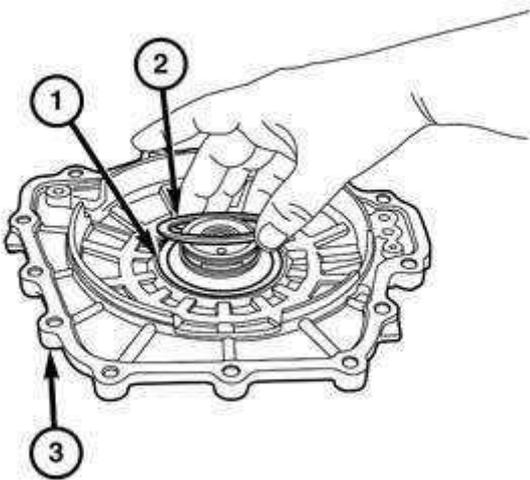
Fig. 517: Reaction Plate, Pair Of Screw Drivers & Dial Indicator
Courtesy of CHRYSLER GROUP, LLC

5. Lift upward on the reaction plate (1) with a pair of screw drivers (2).

- Record the highest reading on the dial indicator (3). This is the amount of free travel within the overdrive clutch. Refer to **SPECIFICATIONS**.
- If the overdrive clutch is not within specifications, install a thicker or thinner snap ring to hold the reaction plate in the clutch retainer.

MIDDLE-REAR PLANETARY THRUST WASHER MEASUREMENT

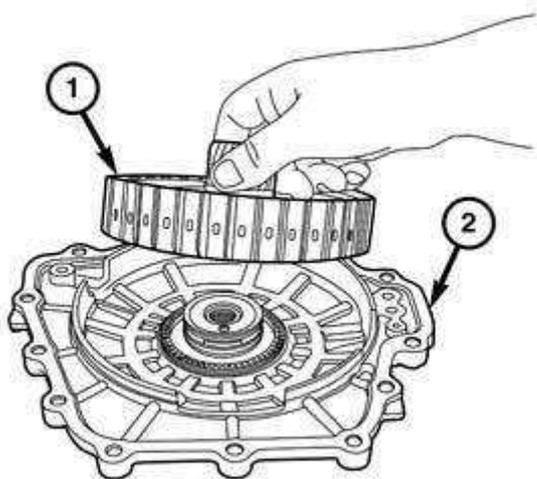
This procedure is used to determine the proper thickness for the thrust washer located between the middle-rear planetary assembly and the overdrive clutch assembly.



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Fig. 518: Rear Cover Spacer/Race
Courtesy of CHRYSLER GROUP, LLC

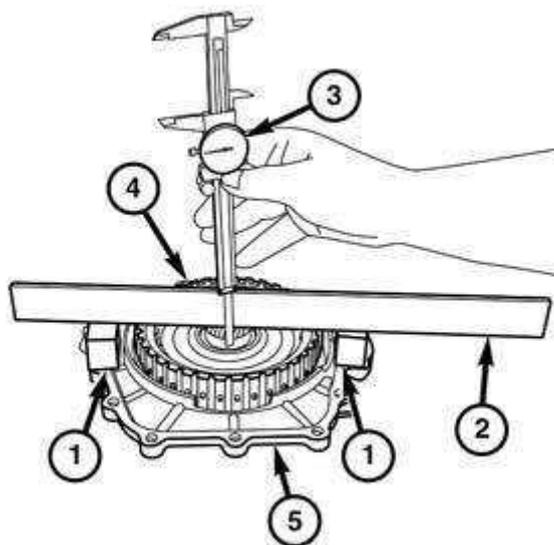
- Place the rear cover on a clean work surface, inside up.
- Place the rear bearing spacer/race (1) and bearing (2) in position on rear cover (3).



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Fig. 519: Overdrive Clutch & Rear Cover
Courtesy of CHRYSLER GROUP, LLC

3. Place the overdrive clutch (1) in position on the rear cover (2).

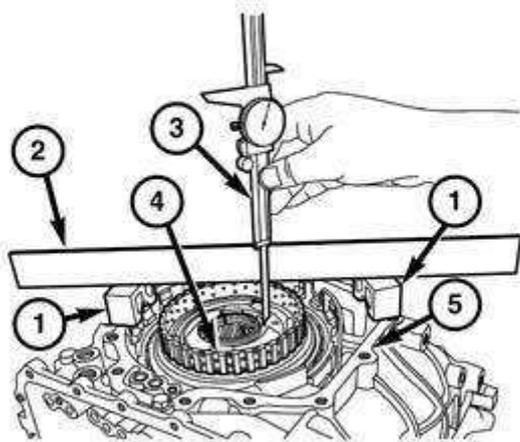


210172083

Fig. 520: Gauge Blocks, Straight Edge, Overdrive Clutch Hub & Rear Cover
Courtesy of CHRYSLER GROUP, LLC

4. Place two 25 mm (1 in) gauge blocks (1) on opposite sides of the rear cover (5) on the sealing surface.
5. Place a straight edge (2) across the gauge blocks (1).
6. Using a linear caliper, measure the distance from the top of the straight edge (2) to the top of the thrust race on the overdrive clutch hub (4).
7. Subtract the thickness of the gauge blocks and straight edge from the overall measurement. This is the distance from the sealing surface to the thrust race of the overdrive clutch hub.

Record this as measurement (A)



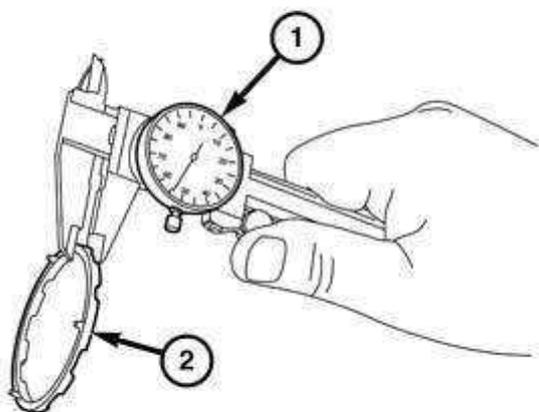
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Fig. 521: Gauge Blocks, Straight Edge & Thrust Race
 Courtesy of CHRYSLER GROUP, LLC

8. Place two 25 mm (1 in) gauge blocks (1) on opposite sides of the rear of the transaxle housing (5).
9. Place a straight edge (2) across the gauge blocks (1).
10. Measure (3) the distance from the top of the straight edge (2) to the top of the thrust race (4) on the middle-rear planetary gear assembly.
11. Subtract the thickness of the gauge blocks (1) and straight edge (2) from the overall measurement. This is the distance from the sealing surface to the

thrust race of the middle-rear planetary gear assembly (4).

Record this as measurement (B)



210171884

Fig. 522: Middle-Rear Planetary Gear Thrust Washer
Courtesy of CHRYSLER GROUP, LLC

12. Measure (1) the thickness of the middle-rear planetary gear thrust washer (2).

Record this as measurement (C)

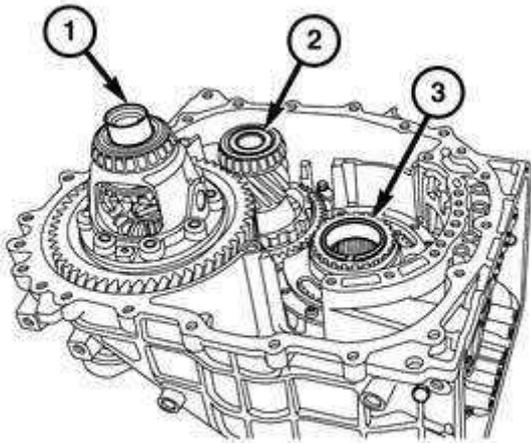
Calculation and Thrust Washer Selection

Subtract measurement A from B. Record the sum and subtract measurement C. The remaining sum is the clearance between the middle-rear planetary gear and the overdrive clutch. Refer to **SPECIFICATIONS**.

A thicker or thinner thrust washer can be install to achieve the specified end play. If the service kit does not contain a suitable replacement thrust washer, the rear cover thrust bearing spacer/race can be changed to a suitable thickness.

BEARING TURNING TORQUE MEASUREMENT

To determine proper select shim thickness for the Differential and driven transfer gear bearings, the turning torque must be measured.



210171738

Fig. 523: Differential & Transfer Gear
Courtesy of CHRYSLER GROUP, LLC

If the bearings, differential, driven transfer gear or transaxle housings have been replaced turning torque of the differential (1) and then turning torque with the transfer gear (2) added must be performed. A good starting point to would be to use the factory installed select shims behind the bearing races in the transaxle housing and bell housing.

Verify that the bearings and races are **NEW** and properly installed on/in clean components with the factory installed select shims behind the bearing races. Lightly lubricate the bearings with transaxle fluid.

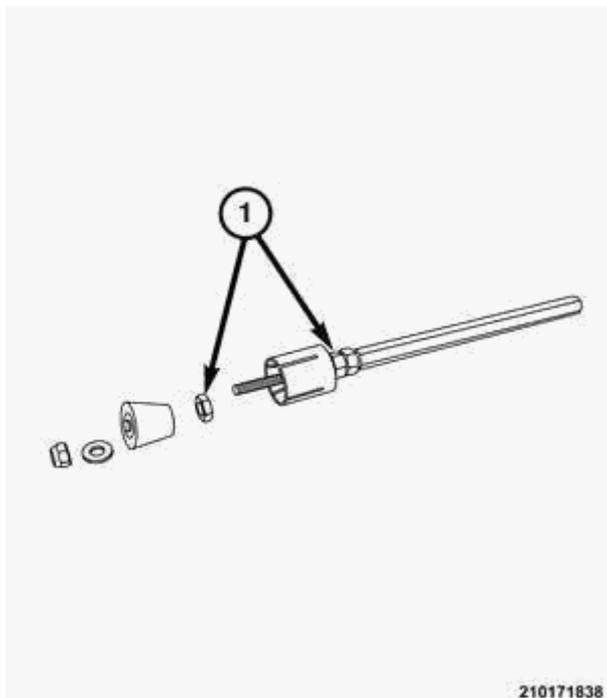


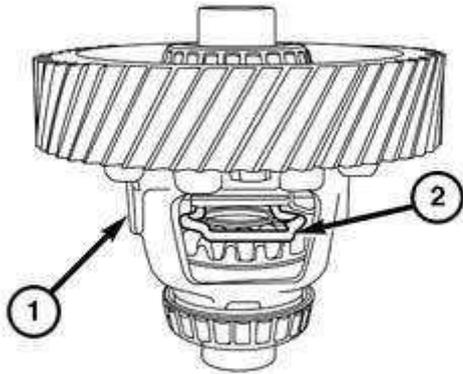
Fig. 524: Special Tool #C-4995A
Courtesy of CHRYSLER GROUP, LLC

Tool (special tool #C-4995A, Tool, Differential Bearing Torque) must be modified to be compatible with the following operation. Two 3/8-24 nuts (1) must be added to keep the center shaft from rotating in the cone and sleeve.

1. Remove the nylok™ nut and expander cone from the center shaft.
2. Remove the sleeve from the center shaft.
3. Install a nut on the center shaft and tighten it against the existing nut. Install the sleeve.
4. Install the 2nd nut inside the sleeve just far enough to install the cone and nut.
5. Install the cone and nut tight enough to keep the center shaft from rotating inside the cone and sleeve.

MEASUREMENT PROCEDURE

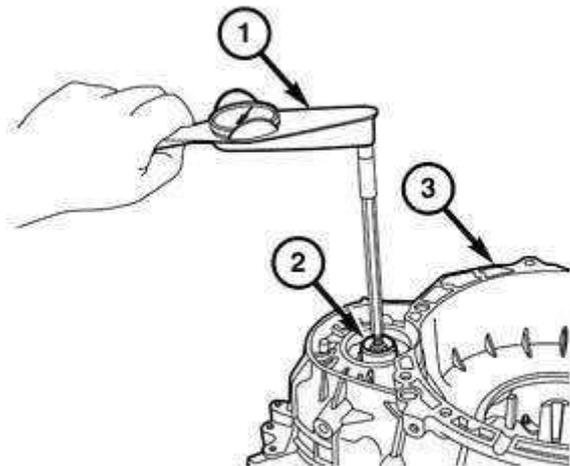
1. Position the differential on a clean work surface.



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Fig. 525: Differential Pinion Gears & Lock Tool
 Courtesy of CHRYSLER GROUP, LLC

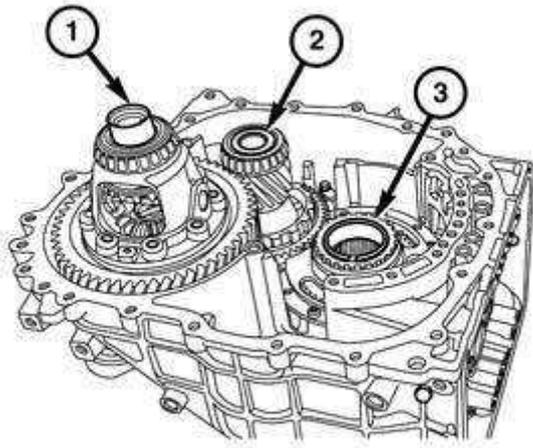
2. Install the lock tool (special tool #10425, Tool, Pinion and Side Gear Locking) (2) between the differential (1) pinion gears next to the link pin to prevent the differential from rotating.
3. Position the transaxle and bell housings on a suitable clean work bench.
4. Install new bearing races with the original select shims.
5. Install the differential with new bearings lightly lubricated with transaxle fluid in the transaxle housing.
6. Install the bell housing.
7. Install the bolts to hold the bell housing to the transaxle housing. Tighten bolts to 50% on the specified torque value. Refer to **SPECIFICATIONS**.
8. Insert modified tool (special tool #C-4995A, Tool, Differential Bearing Torque) into the differential until the sleeve (C-4995-1) enters the halfshaft spline in the differential side gear.
9. Tighten the nut until the sleeve expands tightly in the side gear.
10. Tighten the jamb nut to prevent the center shaft from rotating in the sleeve.
11. Using a suitable wrench, rotate the differential 20 rotations clockwise and 20 rotations counterclockwise.



210171756

Fig. 526: Torque Wrench & Differential
Courtesy of CHRYSLER GROUP, LLC

12. Using a torque wrench (1), measure the turning resistance of the differential (2) after the initial break away. Refer to **SPECIFICATIONS**.
13. Adjust the turning torque by adding to or subtracting from the thickness of the select shims behind the differential bearing races.
14. After achieving proper differential turning torque, separate the bell housing from the transaxle housing.



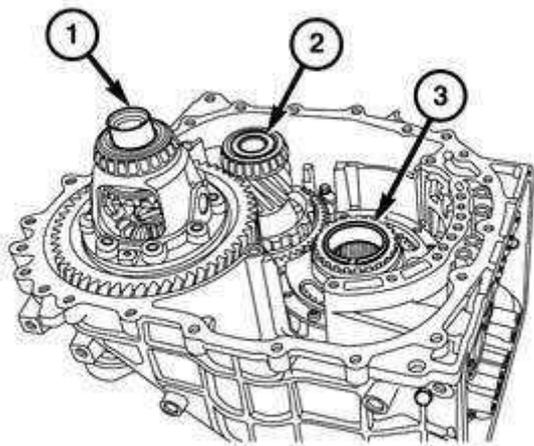
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Fig. 527: Differential & Transfer Gear
 Courtesy of CHRYSLER GROUP, LLC

15. Install the driven transfer gear (2) with new bearings into the transaxle housing.
16. Install the bell housing.
17. Install the bolts to hold the bell housing to the transaxle housing. Tighten bolts to 50% on the specified torque value. Refer to **SPECIFICATIONS**.

NOTE: The turning torque of the differential and the transfer gear will be about 4 times higher than the differential alone. The ring gear is driving a much smaller pinion gear on the transfer shaft.

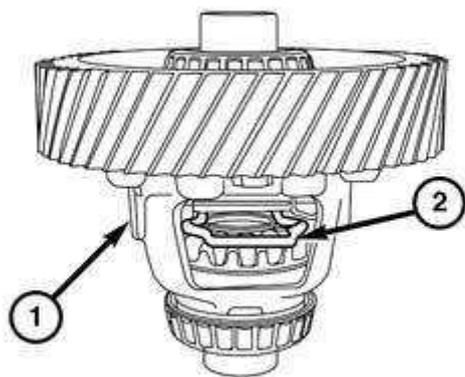
18. Using a suitable wrench, rotate the differential 20 rotations clockwise and 20 rotations counterclockwise.
19. Using a torque wrench (1), measure the turning resistance of the differential (2) after the initial break away. Refer to **SPECIFICATIONS**.
20. Adjust the turning torque by adding to or subtracting from the thickness of the select shims behind the driven transfer shaft bearing races.
21. Remove tool C-4995 from the differential.
22. Separate the bell housing from the transaxle housing.



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Fig. 528: Differential & Transfer Gear
Courtesy of CHRYSLER GROUP, LLC

23. Remove the differential (1) and driven transfer gear (2).



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Fig. 529: Differential Pinion Gears & Lock Tool
Courtesy of CHRYSLER GROUP, LLC

24. Remove lock tool 10425 (2) from the differential (1).

25. Prepare transaxle components for final assembly.

3/5/REVERSE CLUTCH MEASUREMENT

The 3-5-Reverse (3-5-R) clutch should be measured before and after it is disassembled or assembled. The end play can be adjusted by installing a thicker or thinner snap ring holding the reaction plate into the 3-5-R clutch retainer.

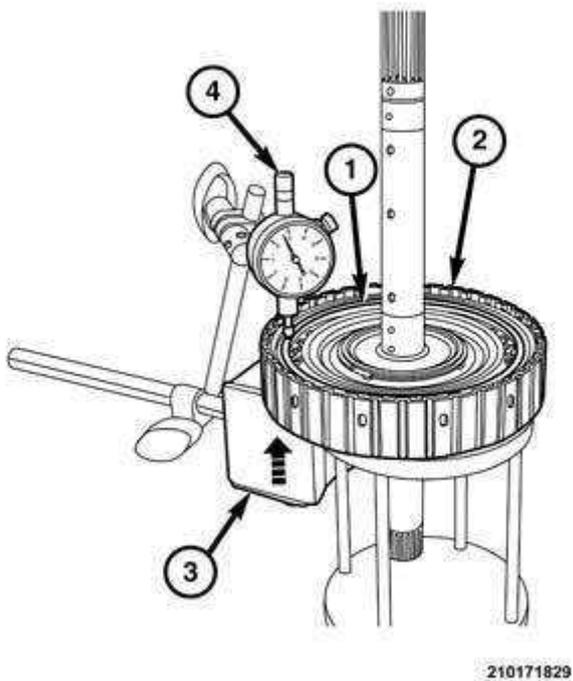
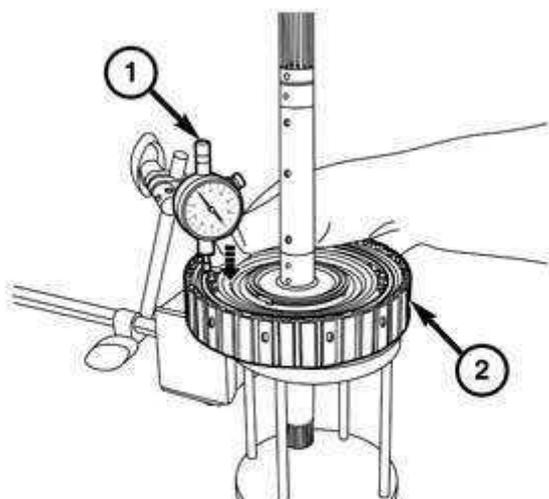


Fig. 530: 3-5-R Clutch Measurement Set-Up
Courtesy of CHRYSLER GROUP, LLC

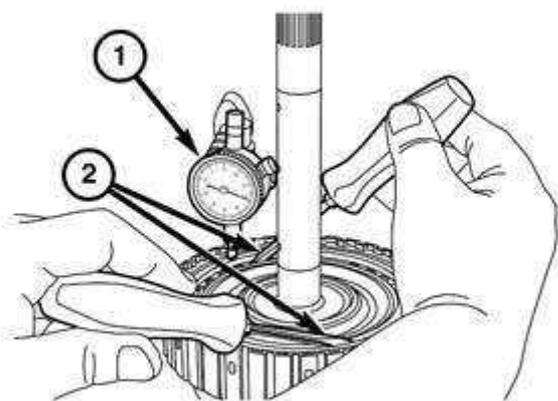
1. Place the 3-5-R clutch (2) on tool (special tool #8285, Compressor, Spring).
2. Attach a magnetic base dial indicator stand (3) (special tool #C-3339A, Set, Dial Indicator) to the 3-5-R clutch retainer (2).
3. Attach a dial indicator (4) to the stand (3) with the dial indicator plunger against the top of the 3-5-R clutch (2) reaction plate (1).



210171822

Fig. 531: Reaction Place & Dial Indicator
Courtesy of CHRYSLER GROUP, LLC

4. Press downward on the reaction plate and "zero" the dial indicator (1).



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Fig. 532: Dial Indicator, Pair Of Screw Drivers & Reaction Plate
Courtesy of CHRYSLER GROUP, LLC

5. Lift upward on the reaction plate with a pair of screw drivers (2).

6. Record the highest reading on the dial indicator (1). This is the amount of free travel within the 3-5-R clutch. Refer to **SPECIFICATIONS**.
7. If the 3-5-R clutch is not within specifications, install a thicker or thinner snap ring to hold the reaction plate in the clutch retainer.

SPECIFICATIONS

SPECIFICATIONS

TIGHTENING SPECIFICATIONS

DESCRIPTION	N.m	Ft. Lb.	In. Lb.
Flexplate to Torque Converter	37	27	-
Flexplate to Crankshaft-M12X1.25X14.00 (Do Not Reuse Original Bolts)	95	70	-
Engine to Transaxle-M12X1.25X65.00	93	69	-
Engine to Transaxle-M10X1.25X45.00	50	37	-
Trans to Engine-M12X1.25X80.0	95	70	-
Transaxle to Engine-M12X1.25X50.0	93	69	-
Trans to Engine-M10X1.25X45.00	50	37	-
Bracket to Transaxle-M6X1.0X20.0	8	-	71
Dust Shield to Transaxle-M6X1X9.5	10	-	88
Lever to Transaxle Shaft-M8X1.25	19	14	-
ATX Cable Adjust-M5X0.8X14.00	8	-	71
Shifter to Floor Pan-M6X1.00	9	-	80
Bracket to Front Crossmember-M12X1.75X40.00	95	70	-
FEM to Lower Load Path-M10X1.25X83.0	45	33	-
FEM to Front Rail-M10X1.25X30.5	45	33	-
Isolator to Transaxle Bracket-M12X1.75X70.00	100	74	-
Isolator to Rail LT-M12X1.75X50.00	87	64	-

6F24 INTERNAL TIGHTENING SPECIFICATIONS

DESCRIPTION	N.m	Ft. Lb.	In. Lb.
Transfer Gear Driven	34	25	-
Transfer Gear Driven Spanner Nut	265	195	-

2014 Jeep Compass Limited

2014 AUTOMATIC TRANSMISSION 6F24 - Service Information - Compass & Patriot

Rear Cover	30	22	-
Under Driver Brake Retainer With 40HP driver	33	24	-
Under Driver Brake Retainer With 45HP driver	39	28	-
Under Drive Brake Chamber	11	-	97
Differential Ring Gear Bolts	120	88	-
Differential Case Screws	11	-	97
Parking Rod Guide	11	-	97
Fluid Pump Pipe	11	-	97
Fluid Pump to Transaxle	22.5	17	-
Fluid Pump Cover	22.5	17	-
Fluid Filter	11	-	97
Bell Housing	32	23	-
Valve Body	11	-	97
Detent Spring	14	-	124
Valve Body Solenoid Retainer Screws	10	-	88
Valve Body Accumulator Plate Bolts	11	-	97
Valve Body Separator Plate Bolts	6	-	53
Valve Body Housing Bolts	15	-	97
Valve Body Cover Pan	13	-	132
Trans Range Sensor (Inhibitor Switch)	11	-	97
Wire Harness Retainer Screws	10	-	88
Wire Harness Connector Hold Down Bolt	10	-	88
Wire Harness Solenoid Connector Bolts	10	-	88
Vent Bracket Bolt	11	-	97
Cooler Line Bracket Bolt	11	-	97
Differential Fluid Shield Bolts	11	-	97

END PLAY TOLERANCE

ITEM	TOLERANCE
Input shaft end play (Rear)	0.25 - 0.45 mm (0.0098 - 0.0177 in.)
2/6 brake pressure plate end play	2.05 - 2.35 mm (0.0807 - 0.0925 in.)
Low & reverse brake pressure plate	2.25 - 2.55 mm (0.0886 - 0.1004 in.)

end play	
Under drive brake snap ring end play	0.65 - 0.95 mm (0.0255 - 0.0374 in.)
Over drive clutch snap ring end play	1.05 - 1.35 mm (0.0413 - 0.0531 in.)
3-5-R clutch snap ring end play	0.85 - 1.15 mm (0.0335 - 0.0453 in.)
Middle & rear planetary gear end play	0.1 - 0.4 mm (0.0039 - 0.0157 in.)
Input shaft end play (Front)	0.55 - 0.85 mm (0.0216 - 0.0334 in.)
Differential side gear & differential pinion gear backlash	0.025 - 0.150 mm (0.0009 - 0.0059 in.)

SHIM SELECTION-DIFFERENTIAL

The following list of shims are available in a complete kit supplied by Mopar®.

Spacer	1.10 mm	0.043 in.
Spacer	1.01 mm	0.040 in.
Spacer	1.04 mm	0.041 in.
Spacer	1.07 mm	0.042 in.
Spacer	1.13 mm	0.044 in.
Spacer	1.16 mm	0.045 in.
Spacer	1.19 mm	0.047 in.
Spacer	1.22 mm	0.048 in.
Spacer	1.25 mm	0.049 in.
Spacer	1.28 mm	0.050 in.
Spacer	1.31 mm	0.051 in.
Spacer	1.34 mm	0.052 in.
Spacer	1.37 mm	0.054 in.
Spacer	0.77 mm	0.030 in.
Spacer	0.80 mm	0.031 in.
Spacer	0.83 mm	0.033 in.
Spacer	0.86 mm	0.034 in.
Spacer	0.89 mm	0.035 in.
Spacer	0.92 mm	0.036 in.
Spacer	0.95 mm	0.037 in.
Spacer	0.98 mm	0.038 in.

SHIM SELECTION-DRIVEN TRANSFER GEAR

The following list of shims are available in a complete kit supplied by Mopar®.

Spacer Output	0.83 mm	0.033 in.
Spacer Output	0.86 mm	0.034 in.
Spacer Output	0.89 mm	0.035 in.
Spacer Output	0.92 mm	0.036 in.
Spacer Output	0.95 mm	0.037 in.
Spacer Output	0.98 mm	0.039 in.
Spacer Output	1.01 mm	0.040 in.
Spacer Output	1.04 mm	0.041 in.
Spacer Output	1.07 mm	0.042 in.
Spacer Output	1.10 mm	0.043 in.
Spacer Output	1.13 mm	0.044 in.
Spacer Output	1.16 mm	0.046 in.
Spacer Output	1.19 mm	0.047 in.
Spacer Output	1.22 mm	0.048 in.
Spacer Output	1.25 mm	0.049 in.
Spacer Output	1.28 mm	0.050 in.
Spacer Output	1.31 mm	0.051 in.
Spacer Output	1.34 mm	0.053 in.

THRUST RACE SELECTION

The following list of Thrust Races are a complete kit available from Mopar®.

Thrust Race (Input Shaft End Play-Rear)	1.4 mm	0.055 in.
Thrust Race (Input Shaft End Play-Rear)	1.5 mm	0.059 in.
Thrust Race (Input Shaft End Play-Rear)	1.6 mm	0.063 in.
Thrust Race (Input Shaft End Play-Rear)	1.7 mm	0.067 in.
Thrust Race (Input Shaft End Play-Rear)	1.8 mm	0.071 in.
Thrust Race (Input Shaft End Play-Rear)	1.9 mm	0.075 in.
Thrust Race (Input Shaft End Play-Rear)	2.0 mm	0.079 in.
Thrust Race (Input Shaft End Play-Rear)	2.1 mm	0.083 in.
Thrust Race (Input Shaft End Play-Rear)	2.2 mm	0.087 in.

Thrust Race (Input Shaft End Play-Rear)	2.3 mm	0.091 in.
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BEARING TURNING TORQUE SPECIFICATION

Turning Torque Measurement must be performed with NEW bearings.

After the **NEW** bearings have been installed, they should be lightly lubricated with automatic transaxle fluid. The bearings must be lapped in by rotating the bearings 20 rotations clockwise and 20 rotations counterclockwise before measuring the turning torque. Due to the larger size of the differential ring gear over the smaller transfer gear the turning torque of the transfer gear is increased by about 3.45 times by the gear ratio.

BEARING SET	N.m	in. lb.
Differential Side Bearings	1.6 (+/- .22)	15 (+/- 2)
Transfer Gear (Driven)	6.77 (+/- .9	60 (+/- 8)
Transfer Gear (Output)	0.67 (+/- 0.22	6 (+/- 2)

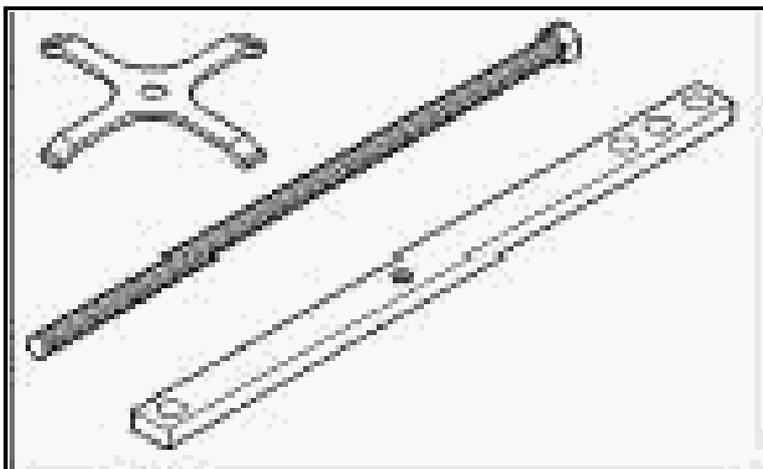
CLUTCH, BRAKE, THRUST AND BEARING CLEARANCE

For transfer bearing and differential bearing shim selection refer to Bearing Turning Torque Measurement. Refer to **SPECIFICATIONS**.

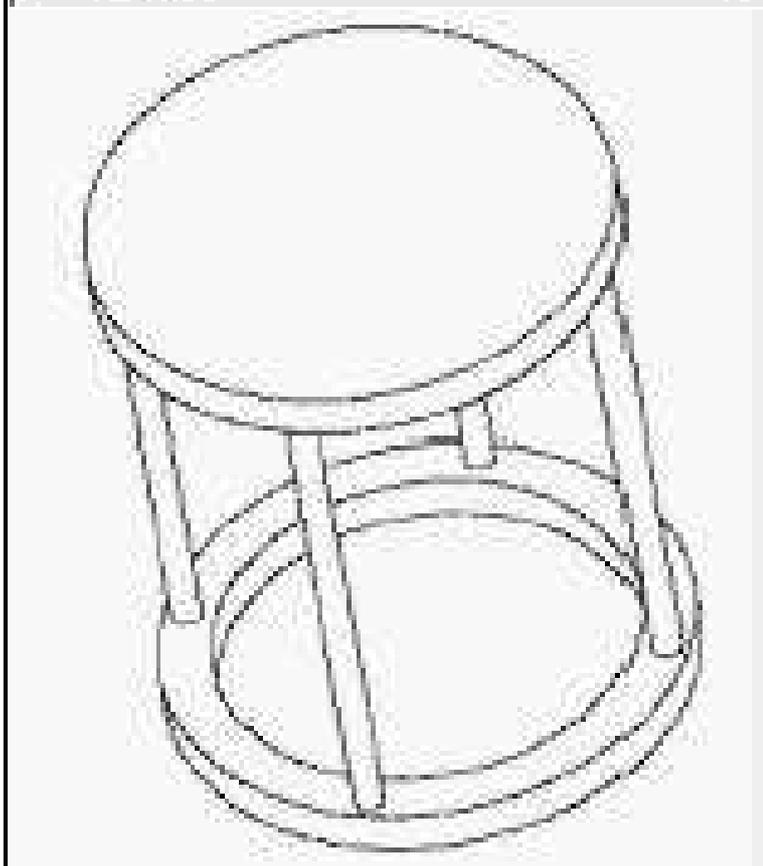
Element	mm	in.
3-5-Reverse Clutch	0.85 to 1.15	0.033 to 0.045
Overdrive Clutch	1.25 to 1.55	0, 049 to 0.061
2-6 Brake	2.05 to 2.35	0.080 to 0.092
Underdrive Brake	0.65 to 0.95	0.025 to 0.037
Low-Reverse Brake	2.25 to 2.55	0.088 to 0.100
Middle-rear Planetary Thrust Washer	0.1 to 0.4	0.003 to 0.015
Rear Cover Bearing Spacer	0.25 to 0.45	0.009 to 0.017

SPECIAL TOOLS

SPECIAL TOOLS - FWD

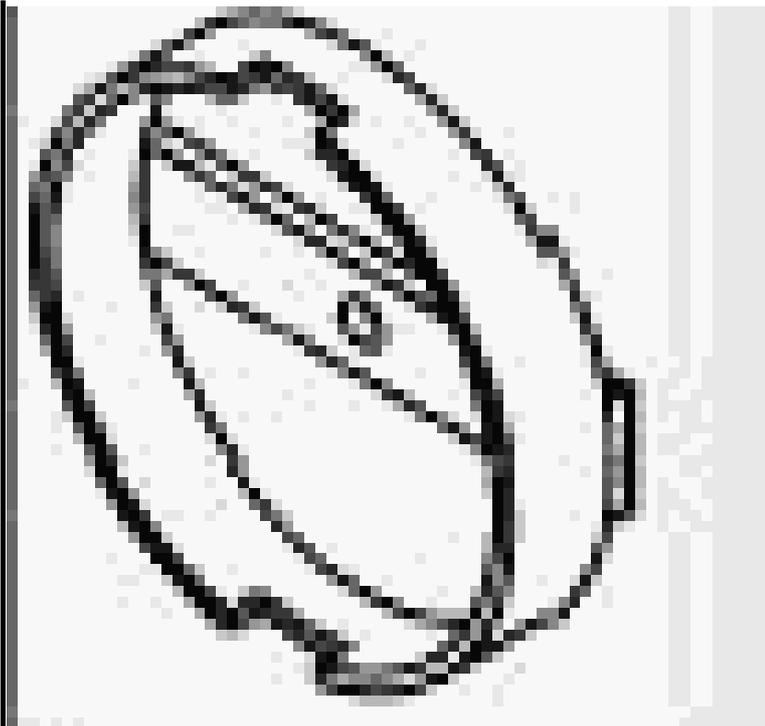


5058A-3 - Screw, Forcing
(Originally Shipped In Kit
Number(s) 8853.)

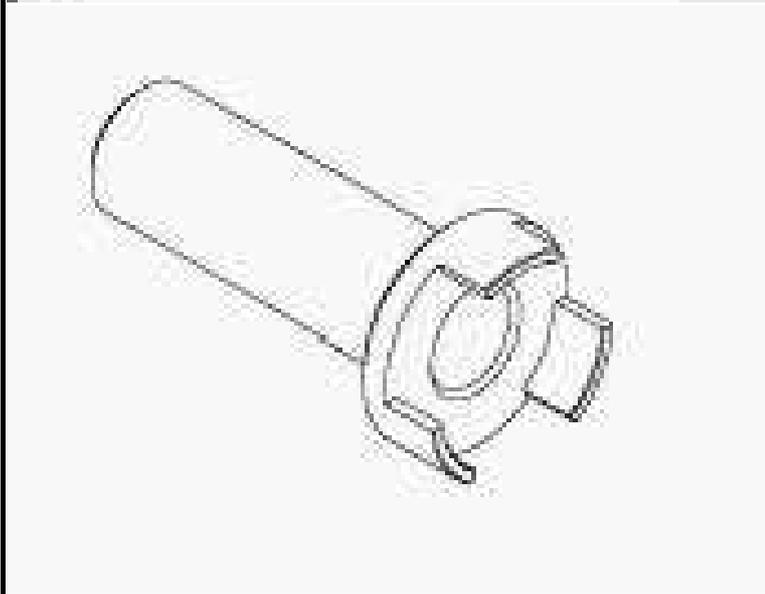


8285 - Compressor, Spring
(Originally Shipped In Kit
Number(s) 8283, 8283CC,
8527, 8527CC, 8575, 8575CC,
9975.)

8621 - Compressor, Spring
(Originally Shipped In Kit
Number(s) 8705.)

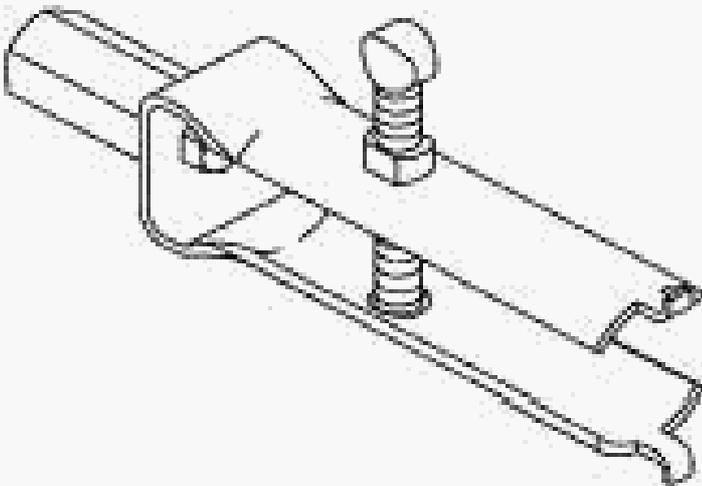
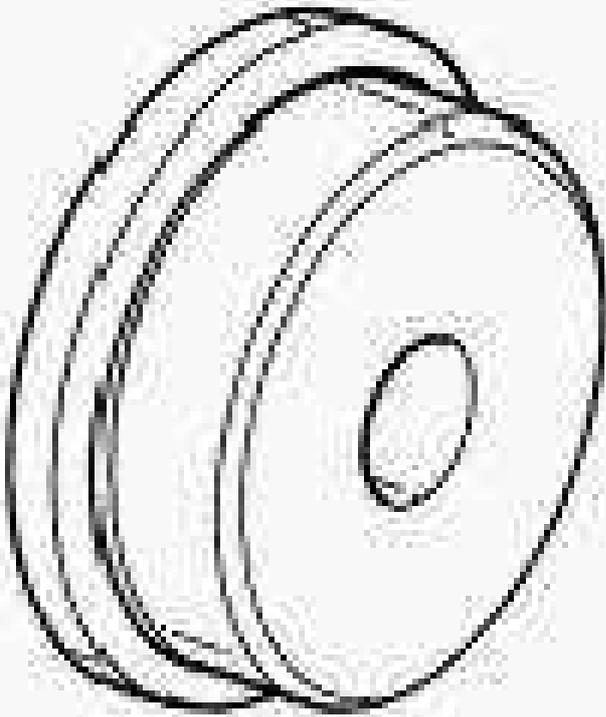


8680 - Installer, Damper
(Originally Shipped In Kit
Number(s).)



8866 - Installer, Bearing Cup
(Originally Shipped In Kit
Number(s) 8998, 8998CC.)

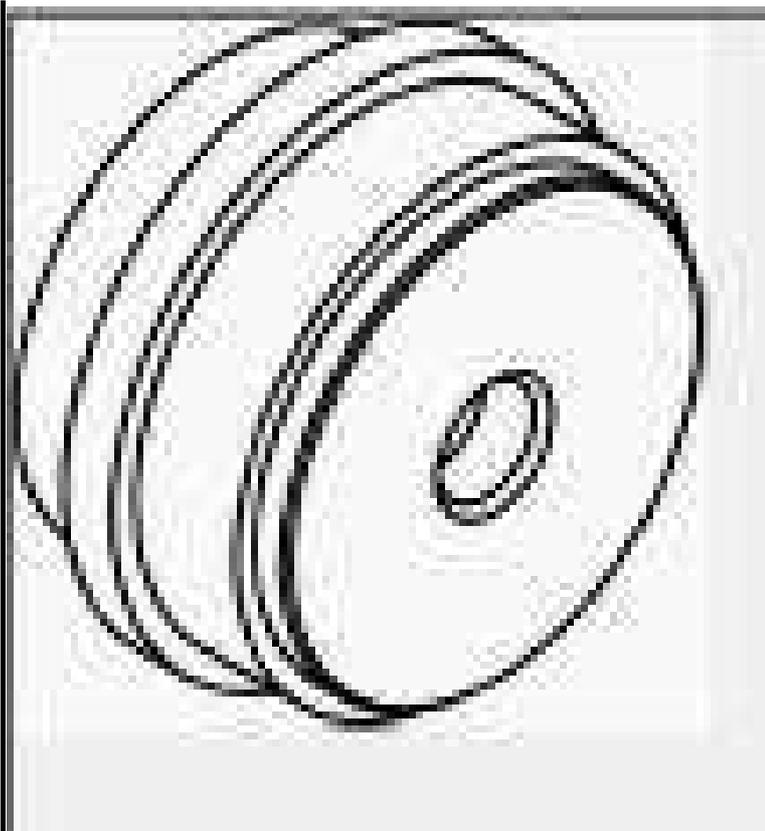
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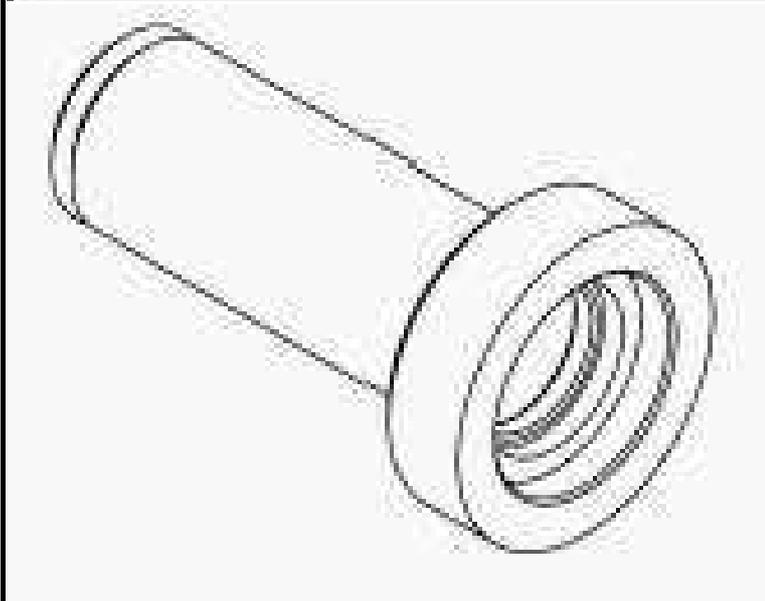
9664 - Remover, Bearing Cup
(Originally Shipped In Kit
Number(s) 9675, 9685, 9695.)

9668 - Remover/Installer,
Bearing Cup
(Originally Shipped In Kit
Number(s) 9691.)

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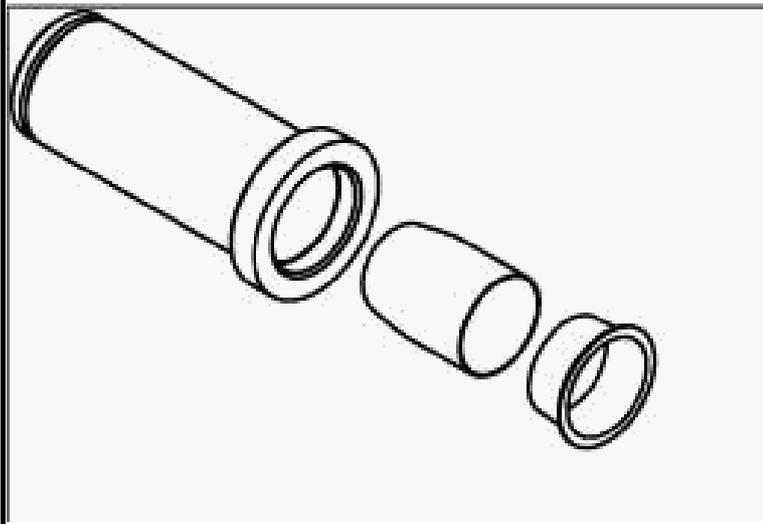


10117 - Installer, Seal
(Originally Shipped In Kit
Number(s) 10075-CHRYSLER,
10075-DODGE.)

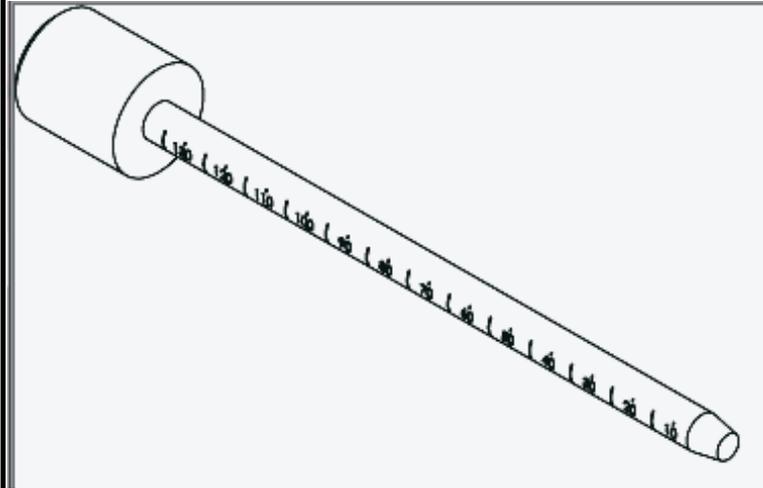


10304 - Installer, Input Shaft
Seal
(Originally Shipped In Kit
Number(s) 10366, 10366A.)

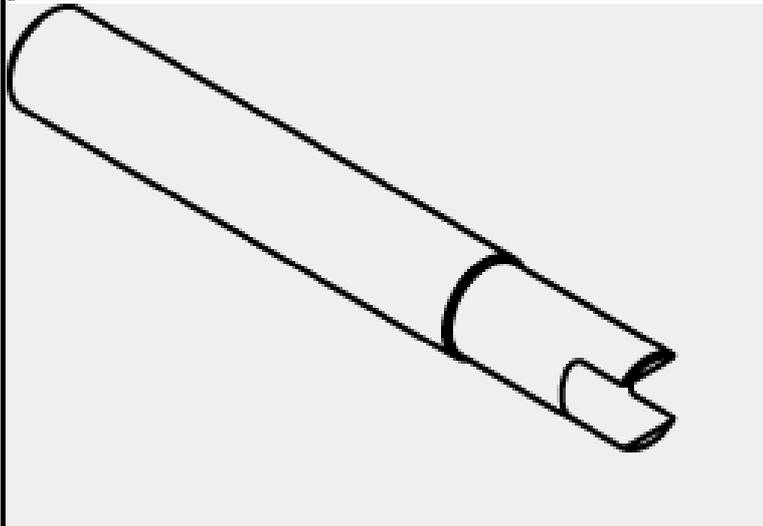
cardiagn.com



10323A - Dipstick
(Originally Shipped In Kit
Number(s).)

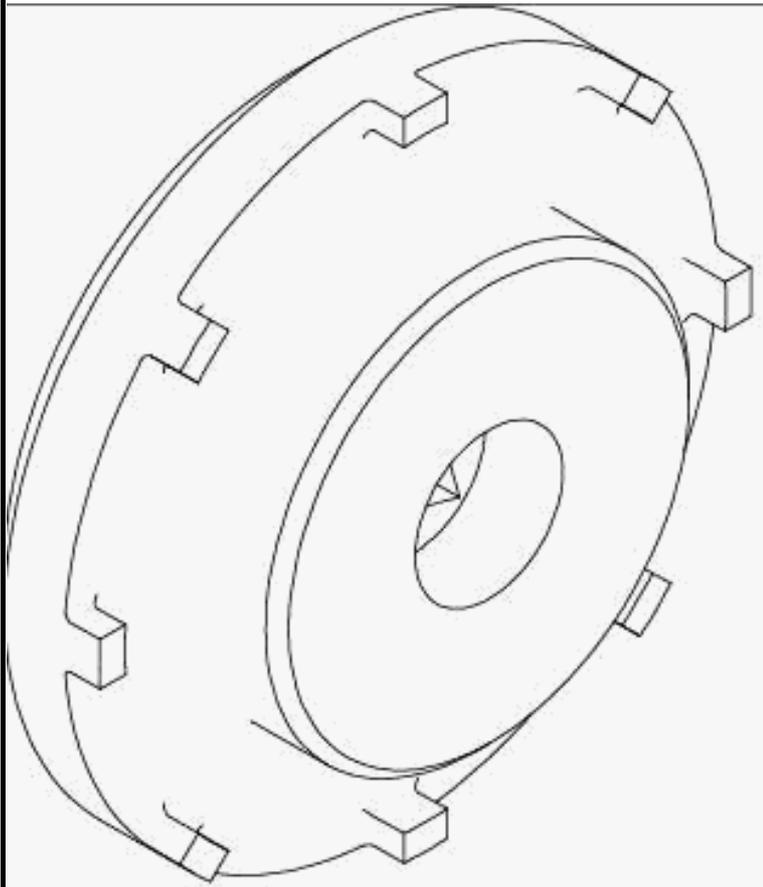


10371 - Tool, Turning Torque



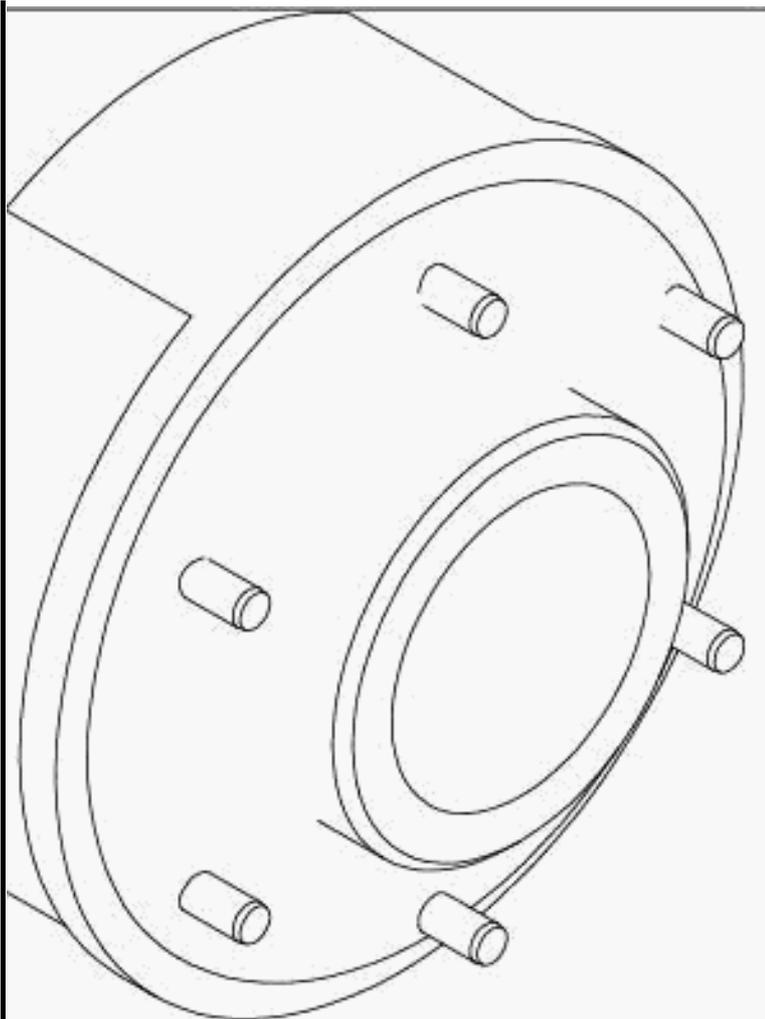
10422 - Wrench, Spanner
(Originally Shipped In Kit
Number(s) 10419.)

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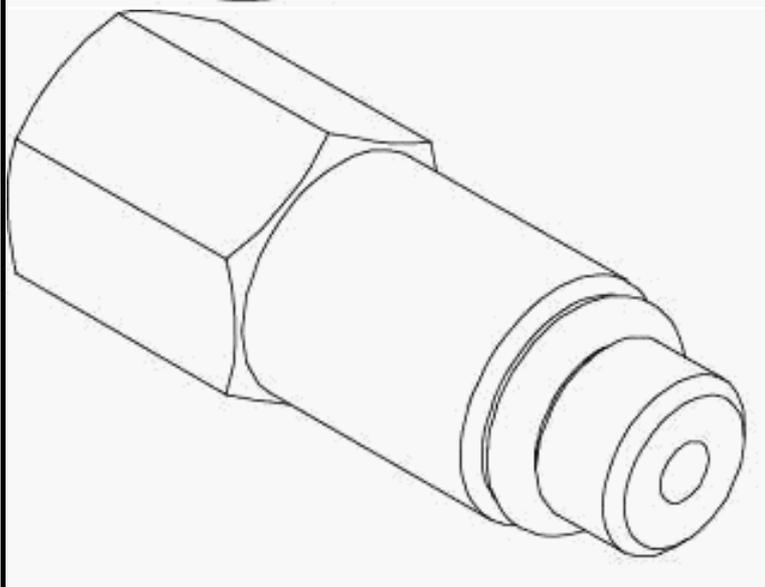


10423 - Fixture, Transfer Gear Holding
(Originally Shipped In Kit Number(s) 10419.)

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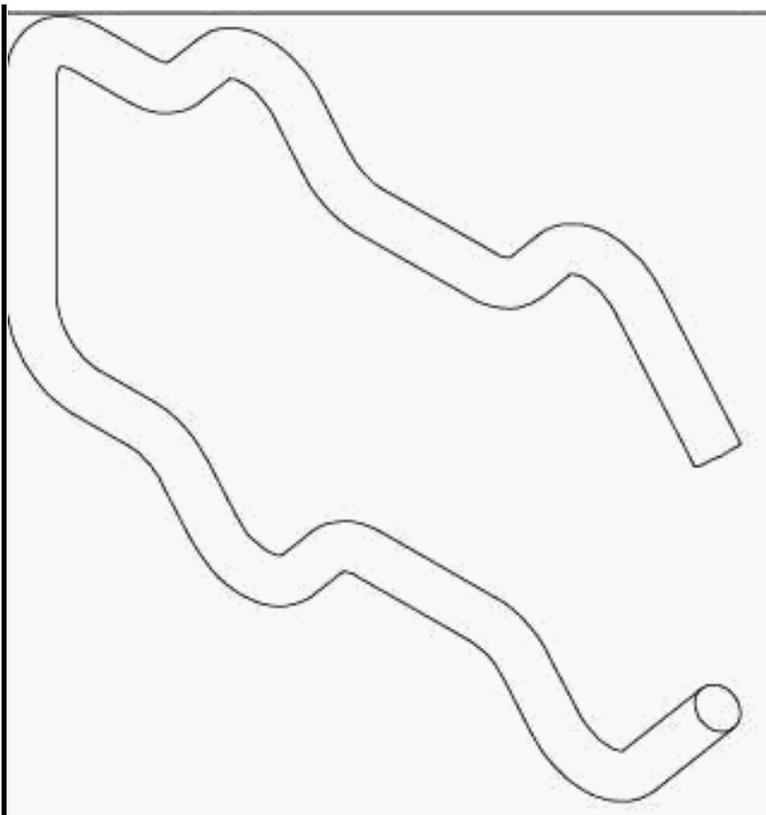


10424 - Adapter, Transmission Pressure
(Originally Shipped In Kit Number(s) 10419.)

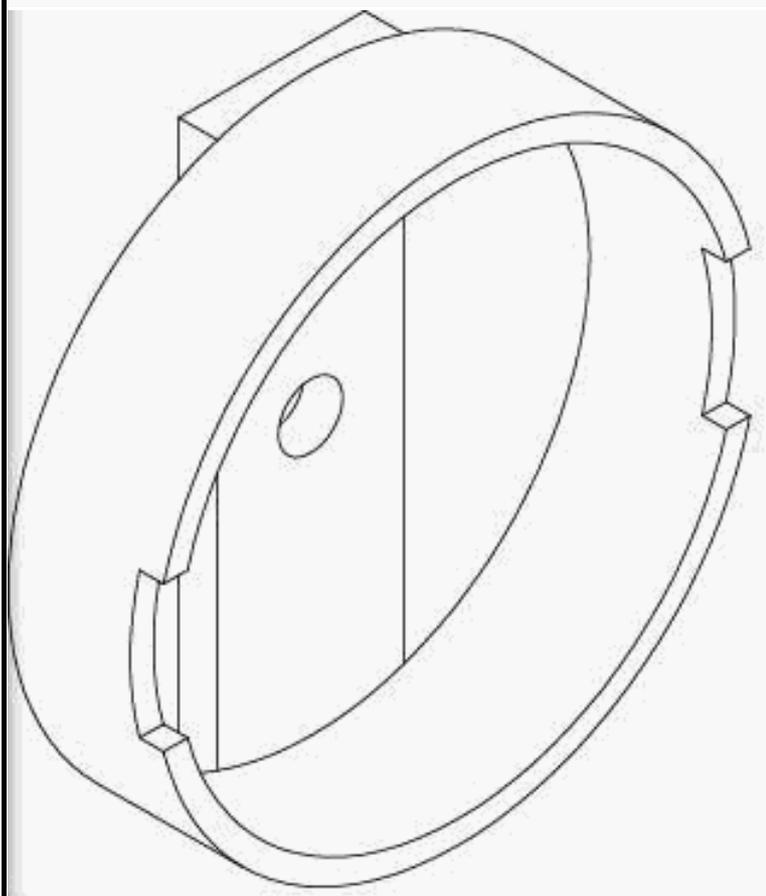


10425 - Tool, Pinion and Side Gear Locking
(Originally Shipped In Kit Number(s) 10419.)

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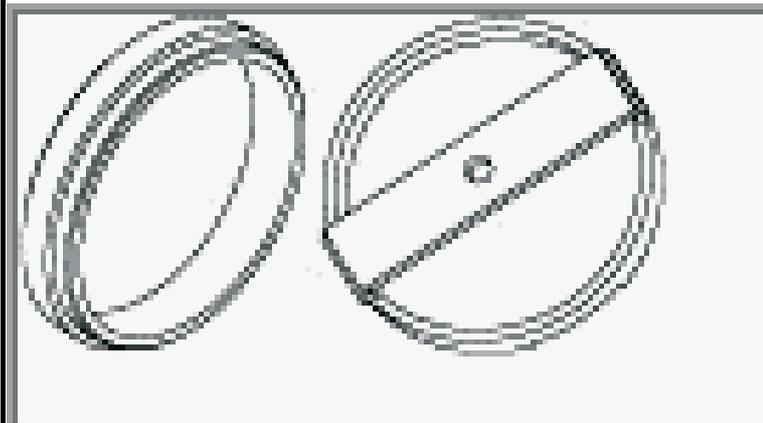


10426 - Compressor,
Underdrive Spring
(Originally Shipped In Kit
Number(s) 10419.)

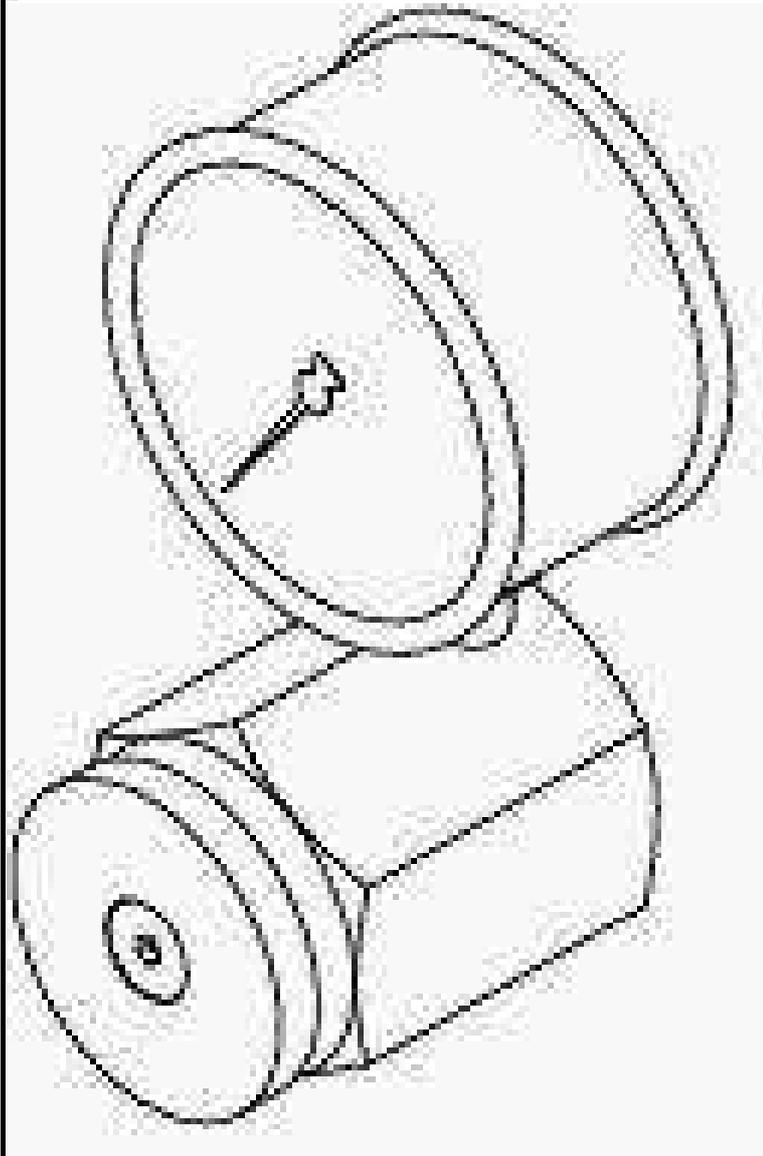


10427 - Compressor, Return
Spring

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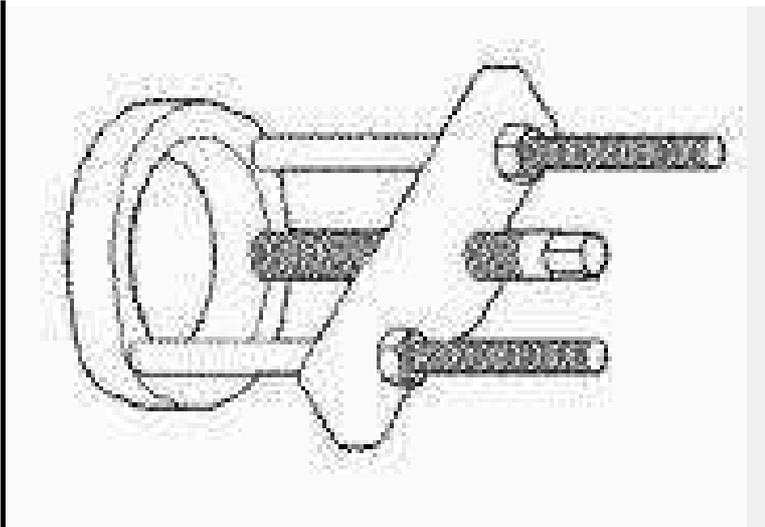
(Originally Shipped In Kit Number(s) 10419.)



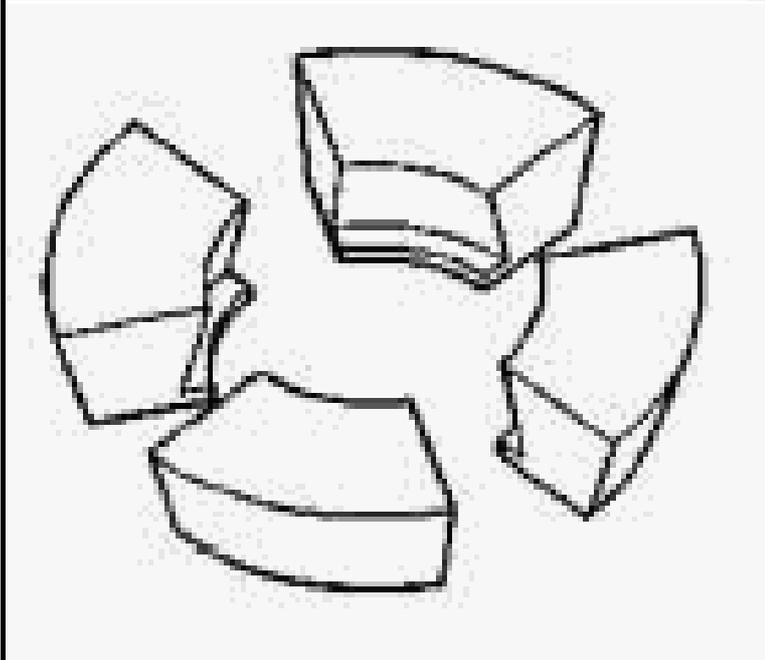
10429 - Gauge, Force (Originally Shipped In Kit Number(s) 10419.)

C-293-PA - Puller, Press (Originally Shipped In Kit Number(s) 8418, 8837, C-293-M.)

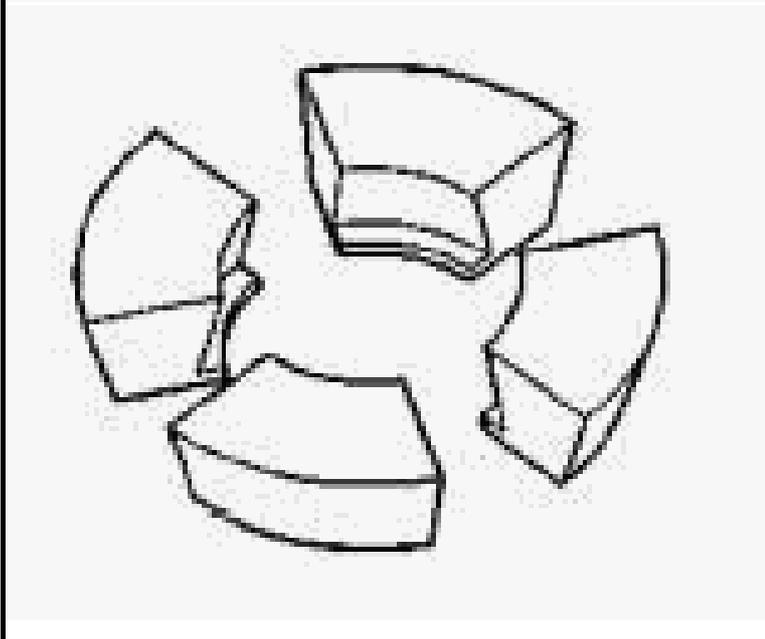
cardiagn.com



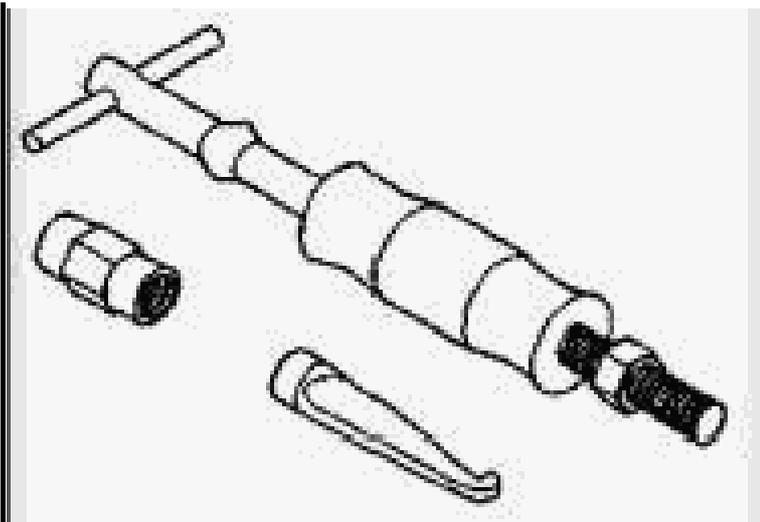
C-293-39 - Block Set, Puller
(Originally Shipped In Kit
Number(s) 8418, C-293-M,
DD-914-CLT-L.)



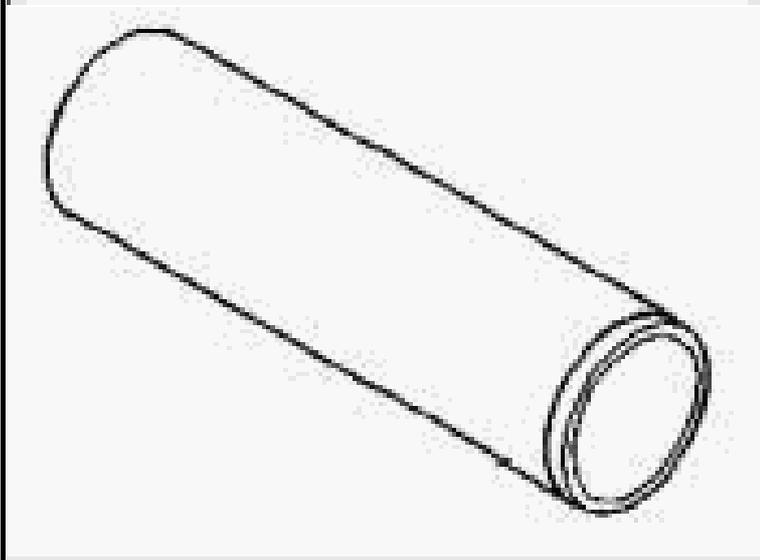
C-293-48 - Block Set, Puller
(Originally Shipped In Kit
Number(s) 8418, 8837, C-293-
M, DD-914-CLT-L.)



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C-637 - Slide Hammer,
Universal
(Originally Shipped In Kit
Number(s) 9202.)



C-3095-A - Installer, Bearing

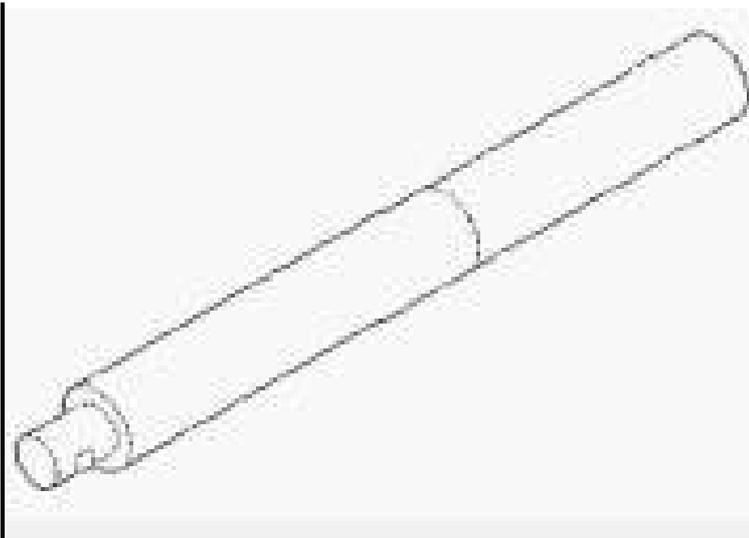


C-3339A - Set, Dial Indicator
(Originally Shipped In Kit
Number(s) 9202.)

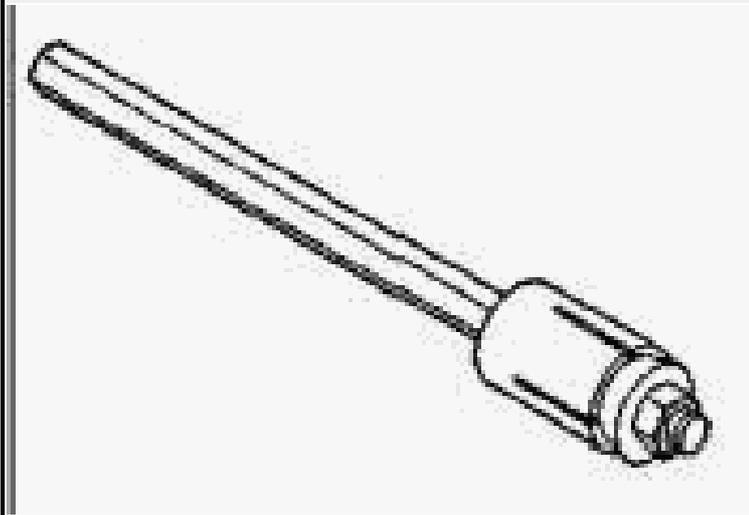


C-4171 - Driver Handle,
Universal
(Originally Shipped In Kit

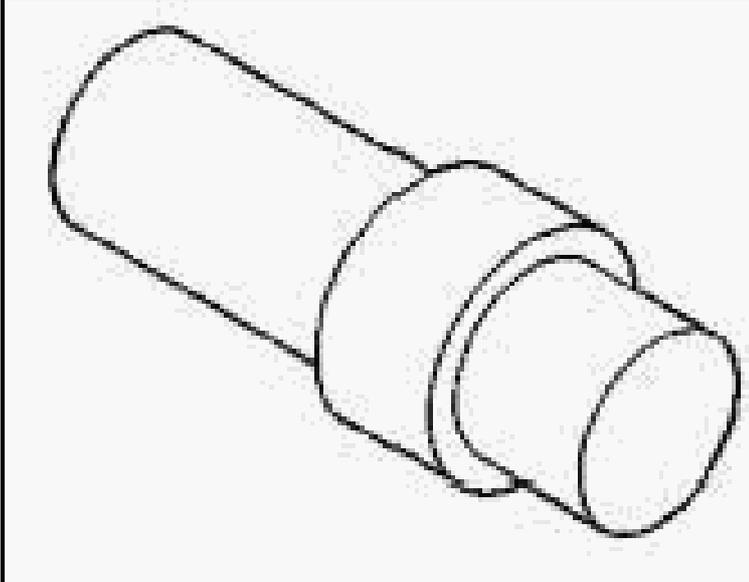
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Number(s) 9202, 9202A-CAN, 9202CC, 9299, 9299CC, 9299CC, 9300A-CAN.)



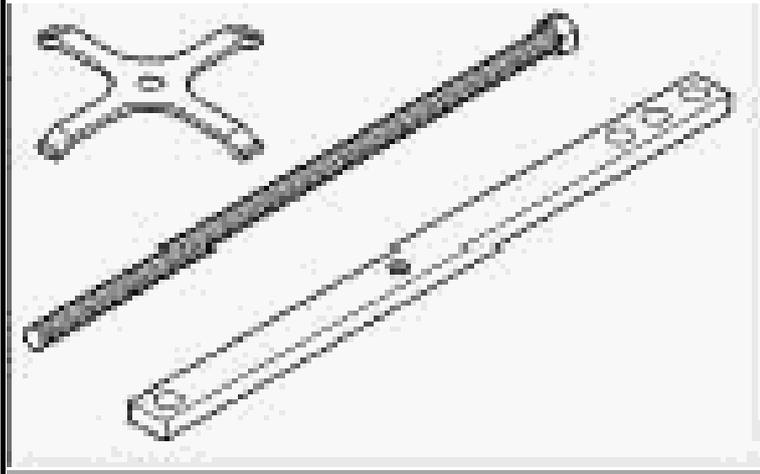
C-4995A - Tool, Differential Bearing Torque



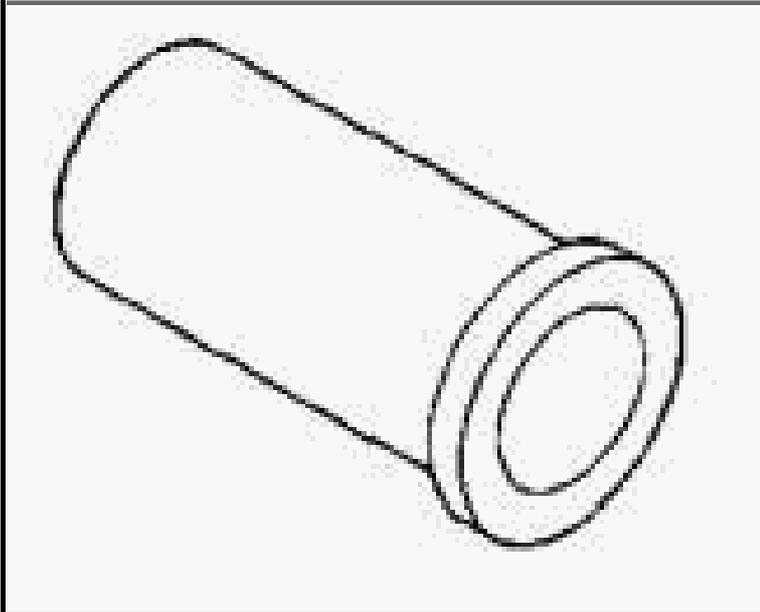
C-4996 - Adapter, Plug (Originally Shipped In Kit Number(s) 6672.)

SPECIAL TOOLS - AWD

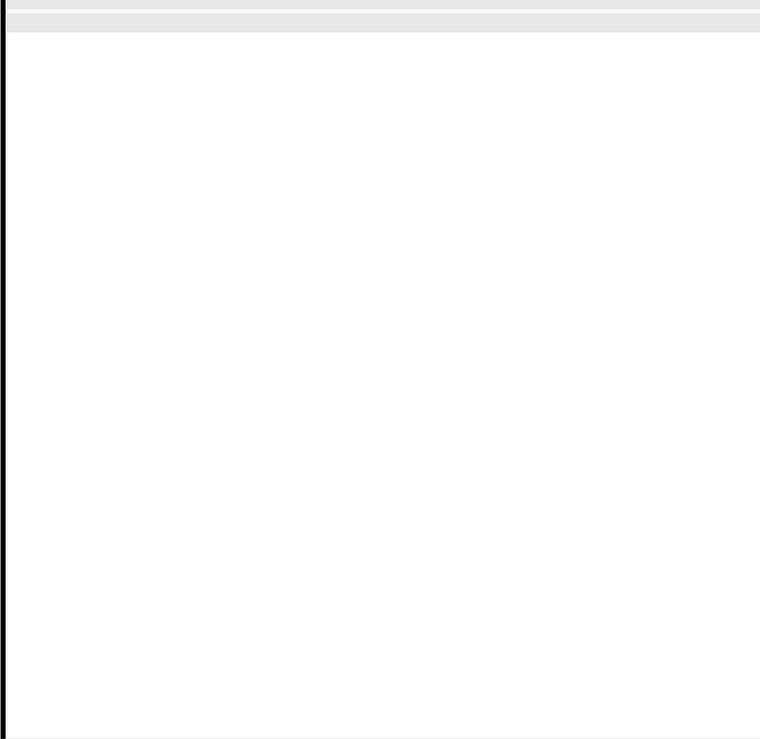
5058A-3 - Screw, Forcing



(Originally Shipped In Kit Number(s) 8853.)



6342 - Installer, Seal
(Originally Shipped In Kit Number(s) 6672.)

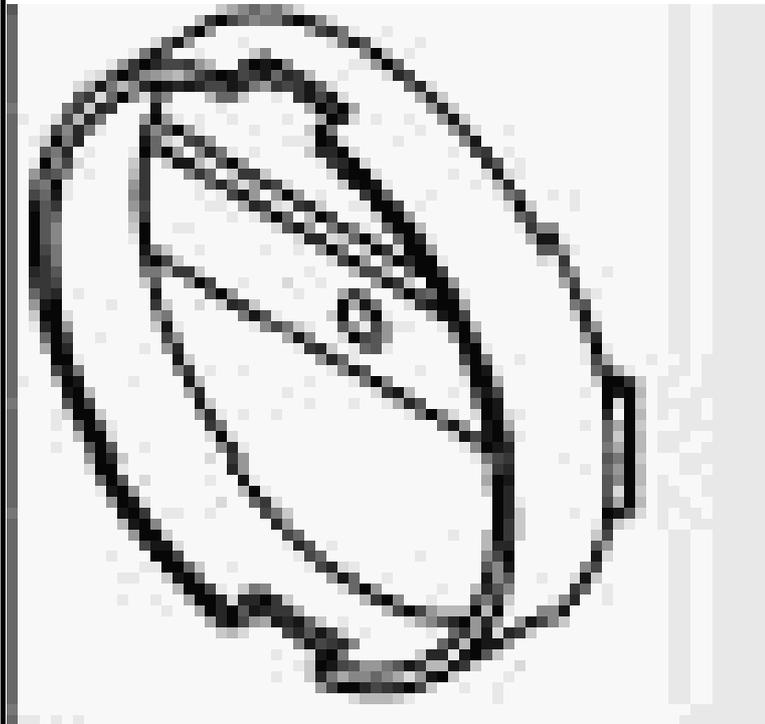


8285 - Compressor, Spring
(Originally Shipped In Kit Number(s) 8283, 8283CC, 8527, 8527CC, 8575, 8575CC, 9975.)

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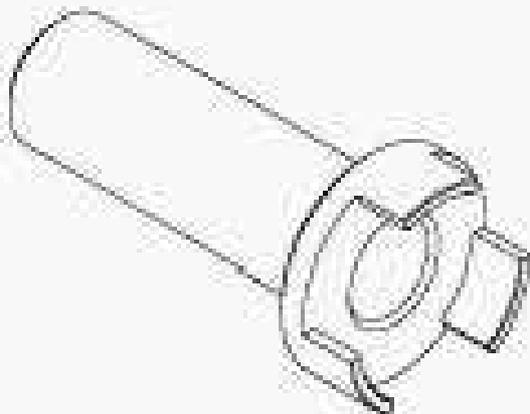


8621 - Compressor, Spring
(Originally Shipped In Kit
Number(s) 8705.)

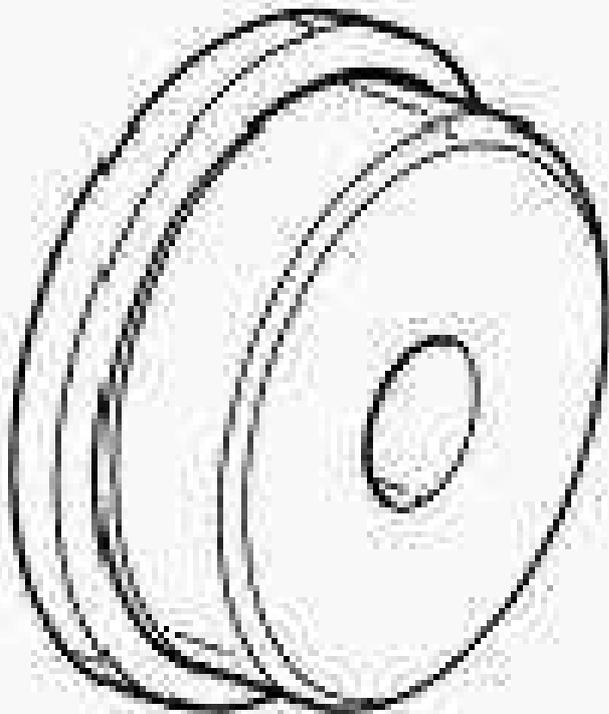


8680 - Installer, Damper
(Originally Shipped In Kit
Number(s).)

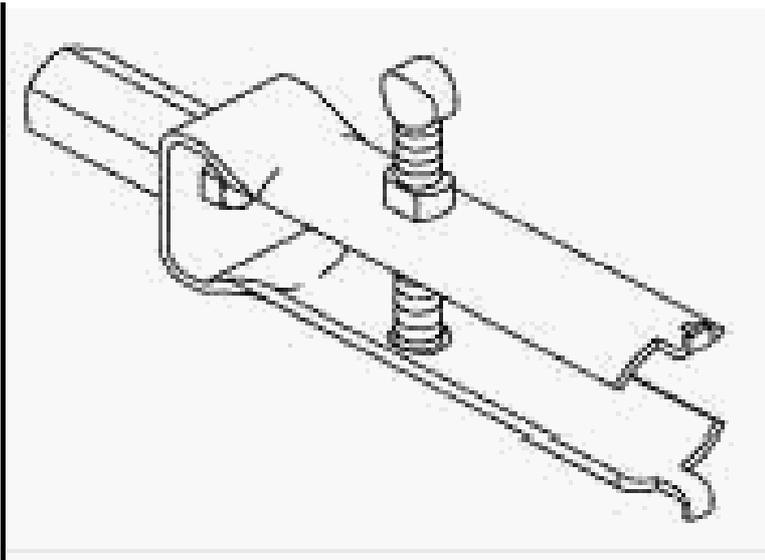
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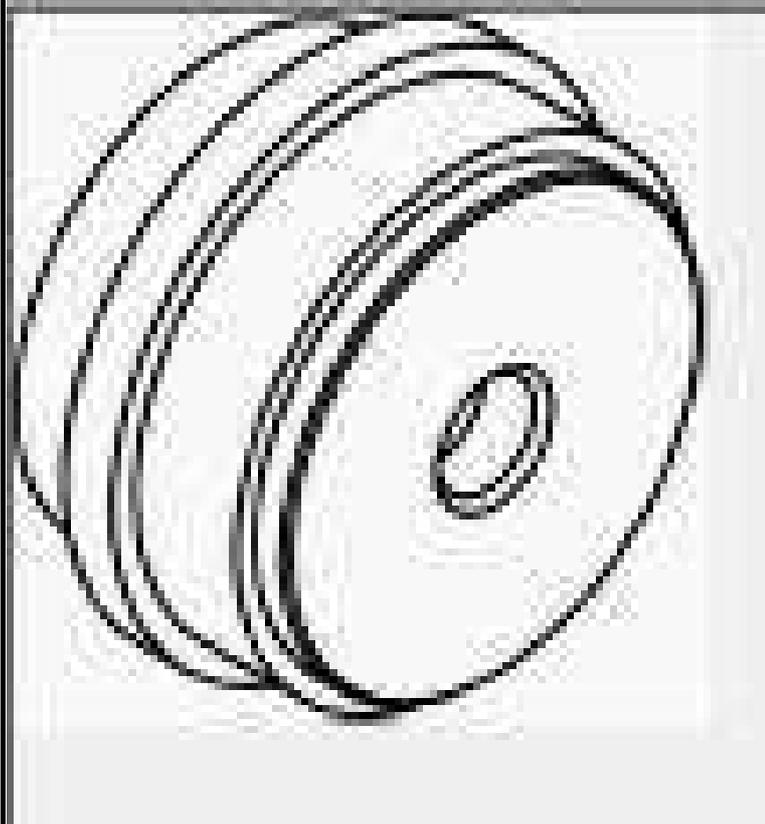
8866 - Installer, Bearing Cup
(Originally Shipped In Kit
Number(s) 8998, 8998CC.)



9664 - Remover, Bearing Cup
(Originally Shipped In Kit
Number(s) 9675, 9685, 9695.)

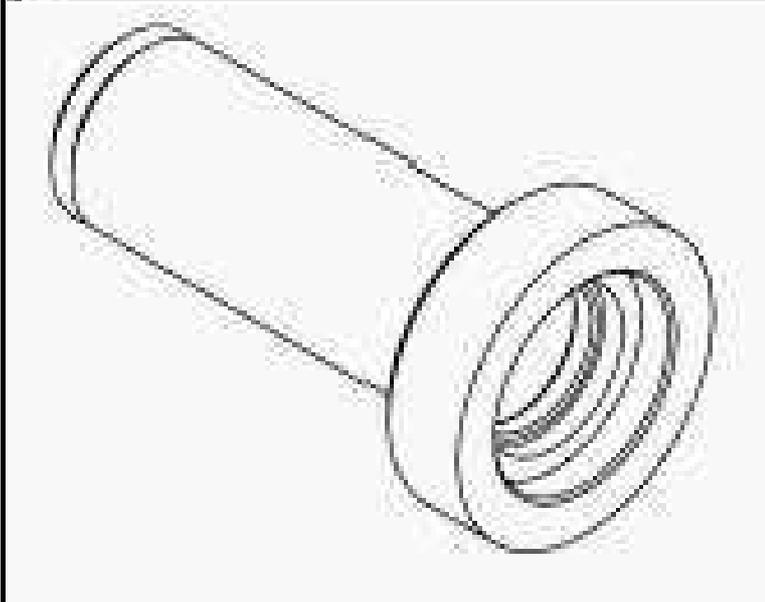
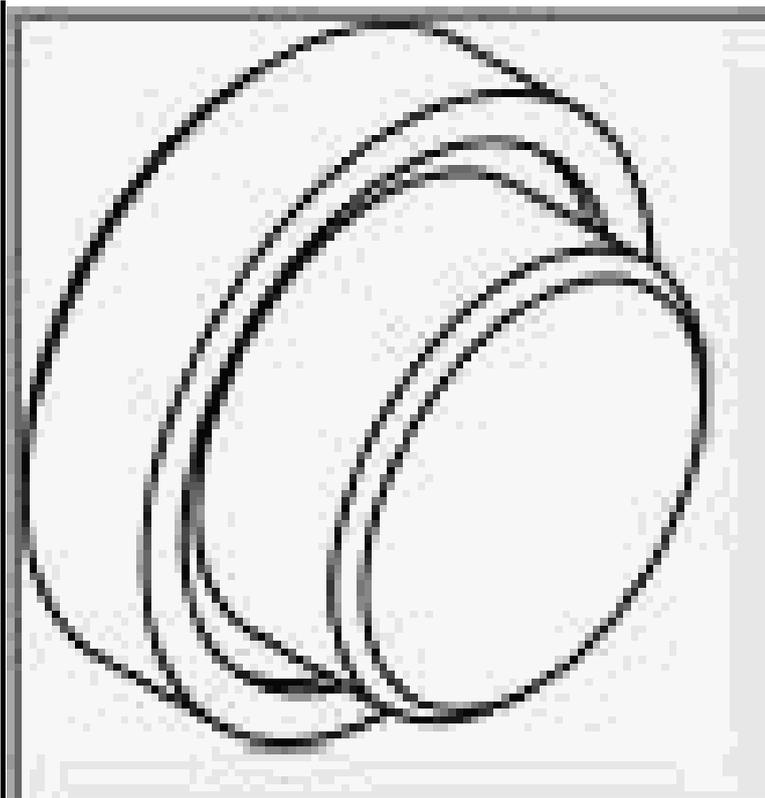


9668 - Remover/Installer,
Bearing Cup
(Originally Shipped In Kit
Number(s) 9691.)



9678 - Press Plug
(Originally Shipped In Kit
Number(s) 9675, 9685, 9695.)

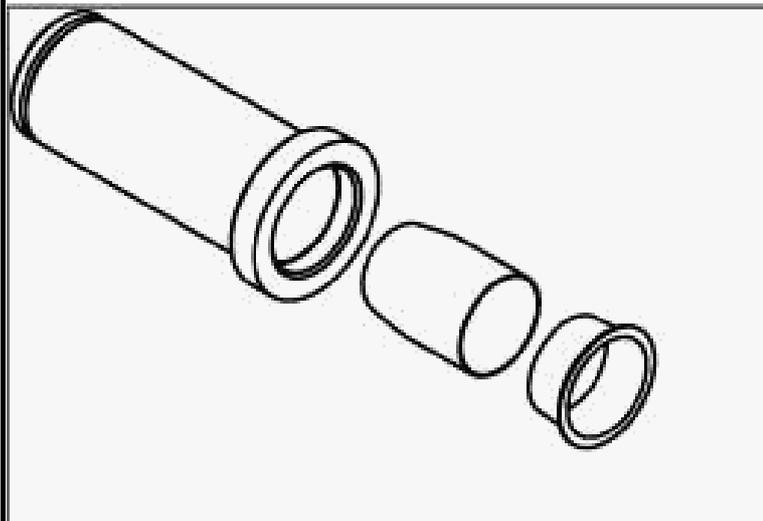
cardiagn.com



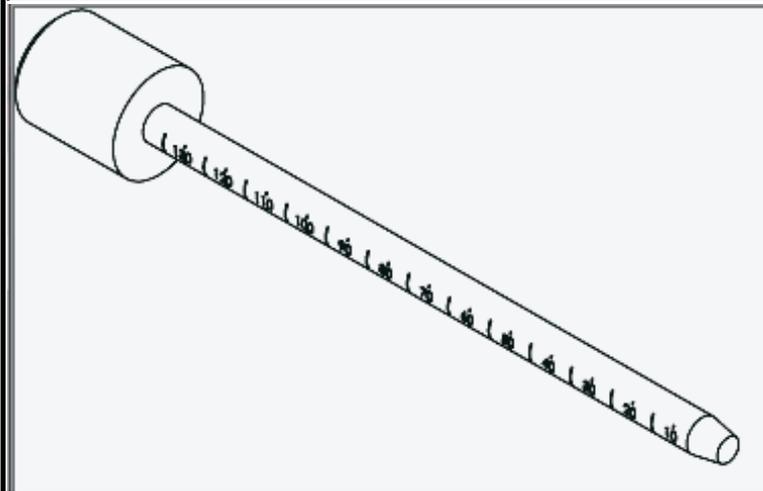
10117 - Installer, Seal
(Originally Shipped In Kit
Number(s) 10075-CHRYSLER,
10075-DODGE.)

10304 - Installer, Input Shaft
Seal
(Originally Shipped In Kit
Number(s) 10366, 10366A.)

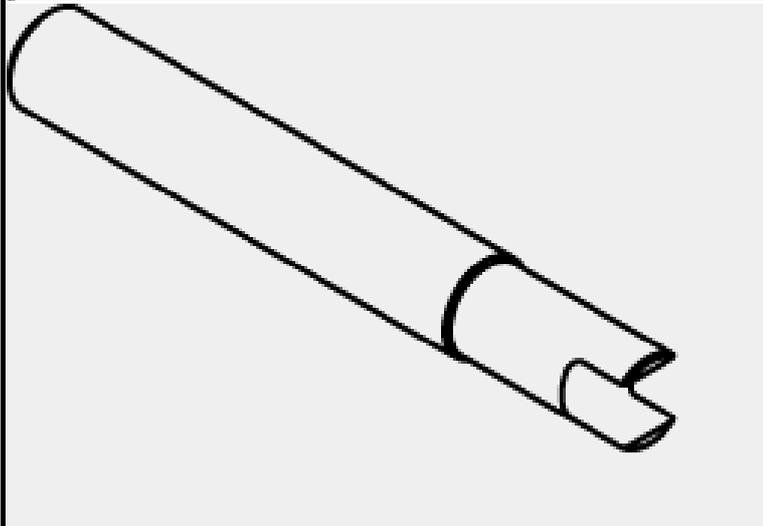
cardiagn.com



10323A - Dipstick
(Originally Shipped In Kit
Number(s).)

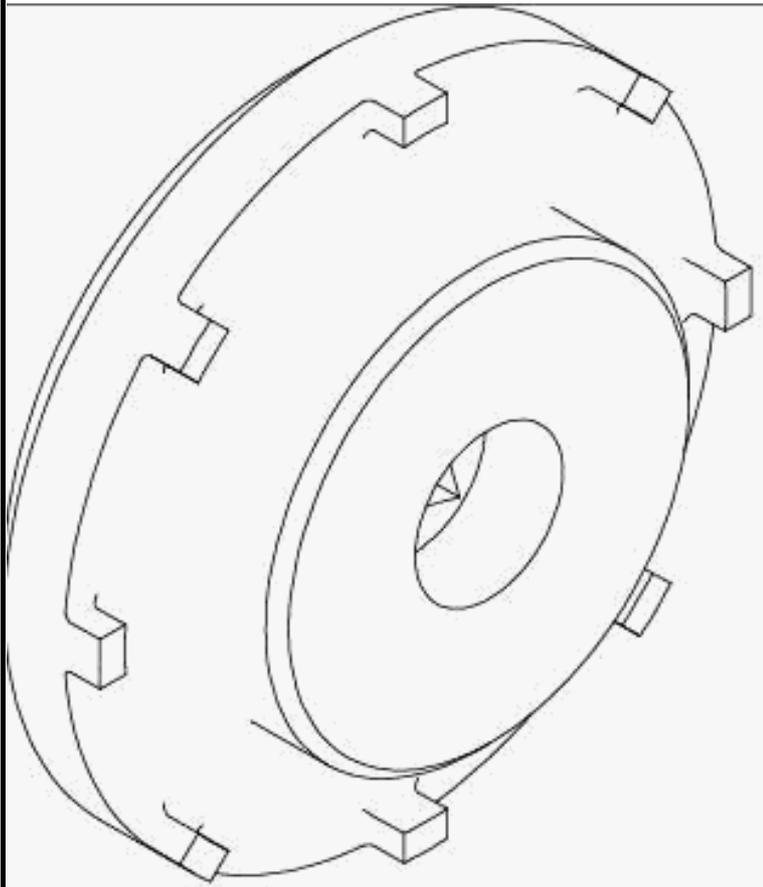


10371 - Tool, Turning Torque



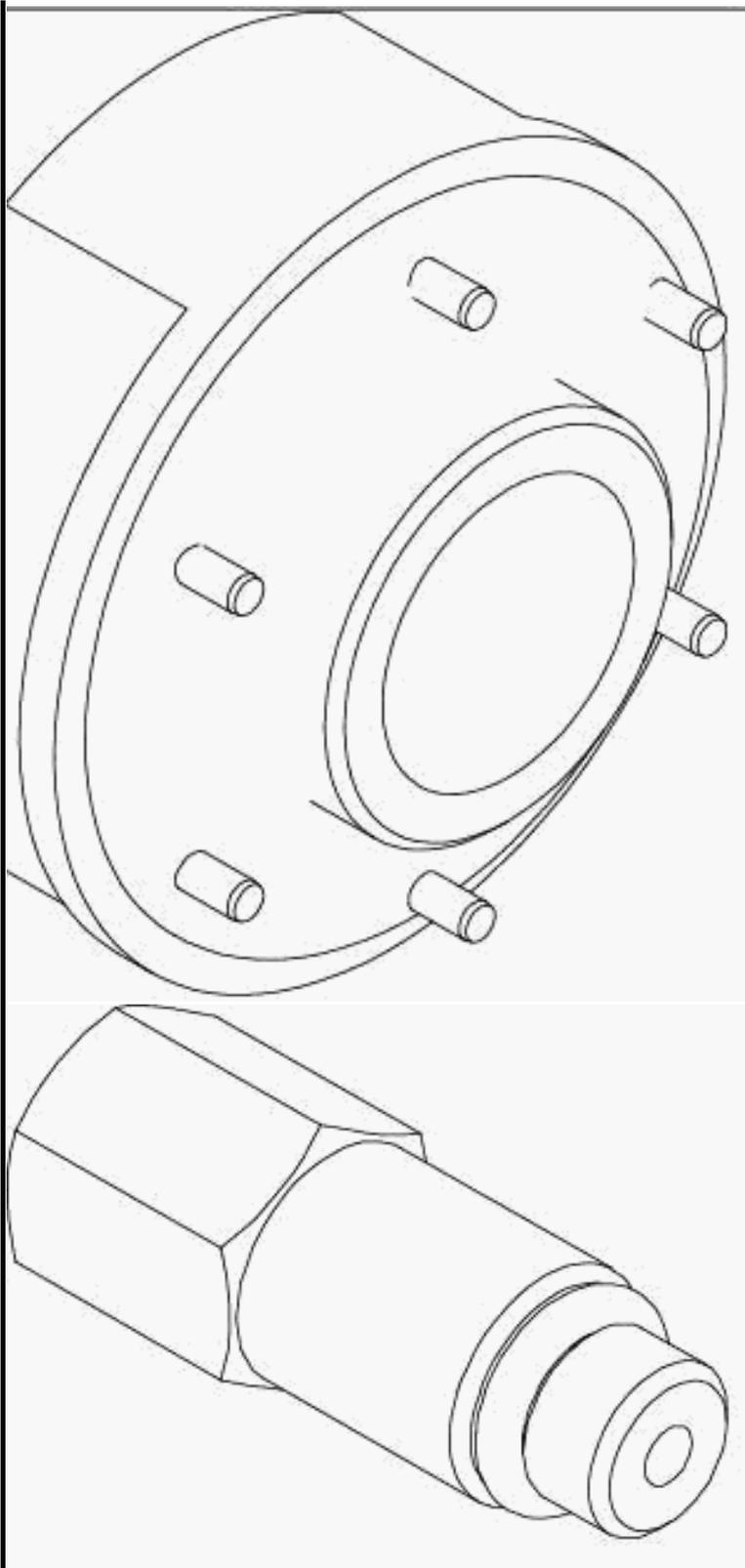
10422 - Wrench, Spanner
(Originally Shipped In Kit
Number(s) 10419.)

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10423 - Fixture, Transfer Gear Holding
(Originally Shipped In Kit Number(s) 10419.)

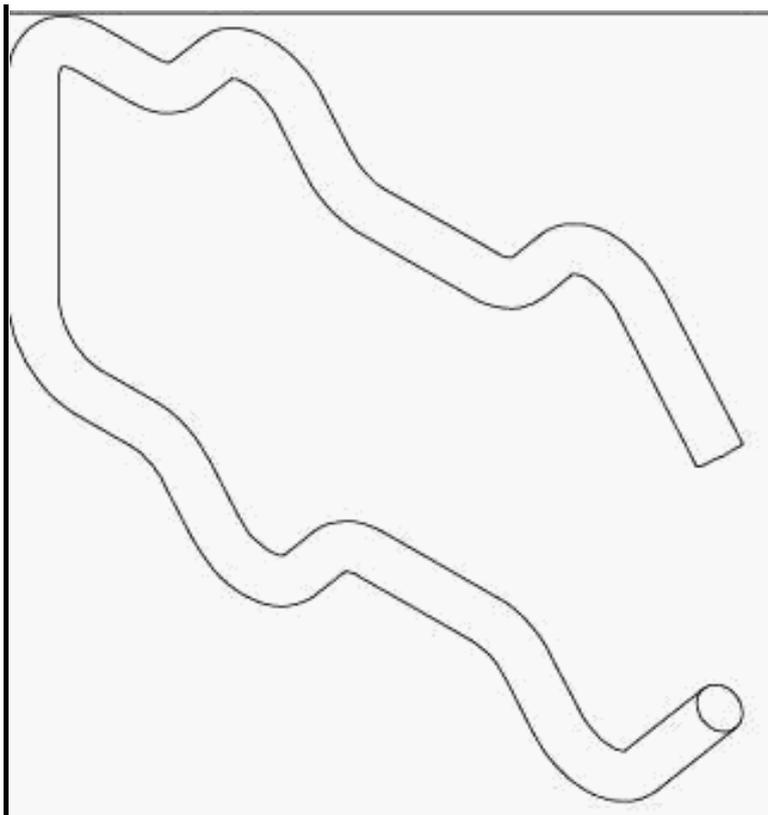
cardiagn.com



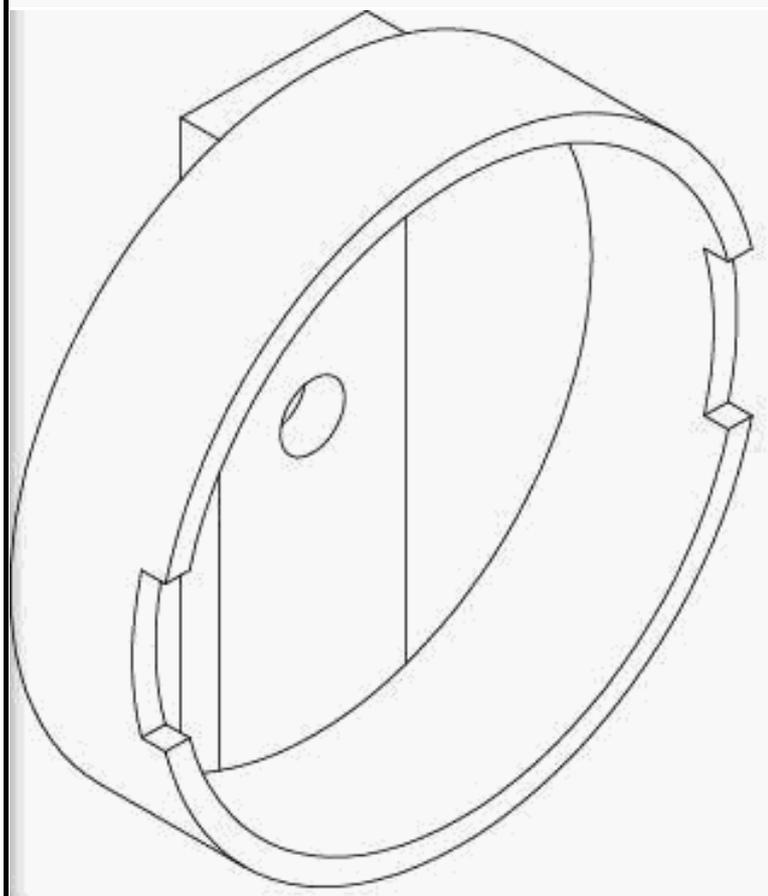
10424 - Adapter, Transmission Pressure
(Originally Shipped In Kit Number(s) 10419.)

10425 - Tool, Pinion and Side Gear Locking
(Originally Shipped In Kit Number(s) 10419.)

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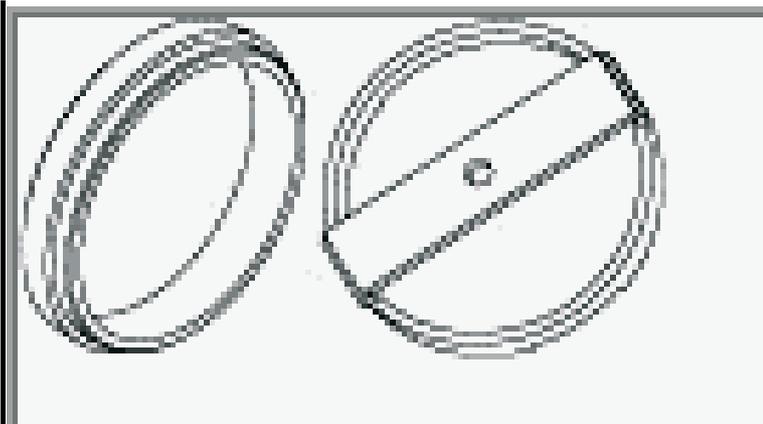


10426 - Compressor,
Underdrive Spring
(Originally Shipped In Kit
Number(s) 10419.)

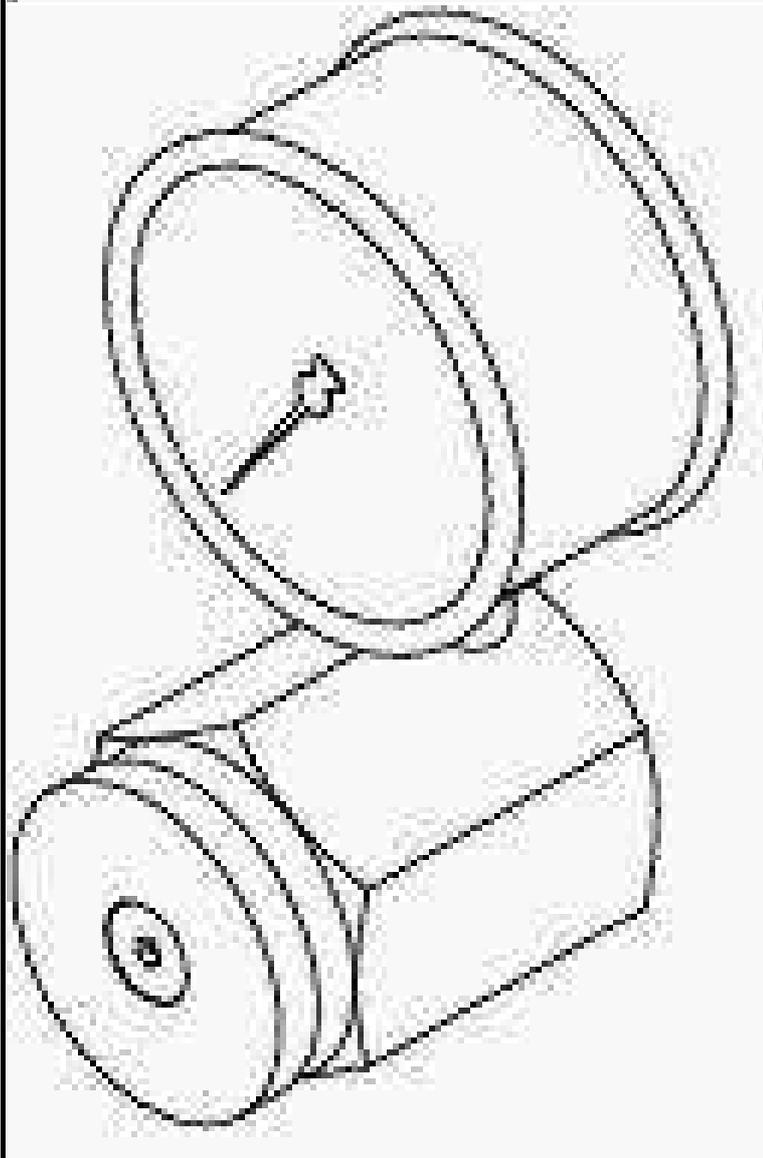


10427 - Compressor, Return
Spring

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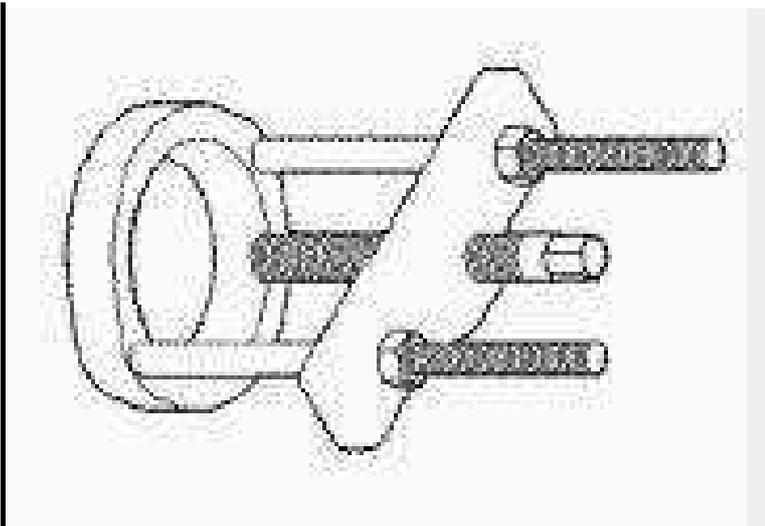
(Originally Shipped In Kit Number(s) 10419.)



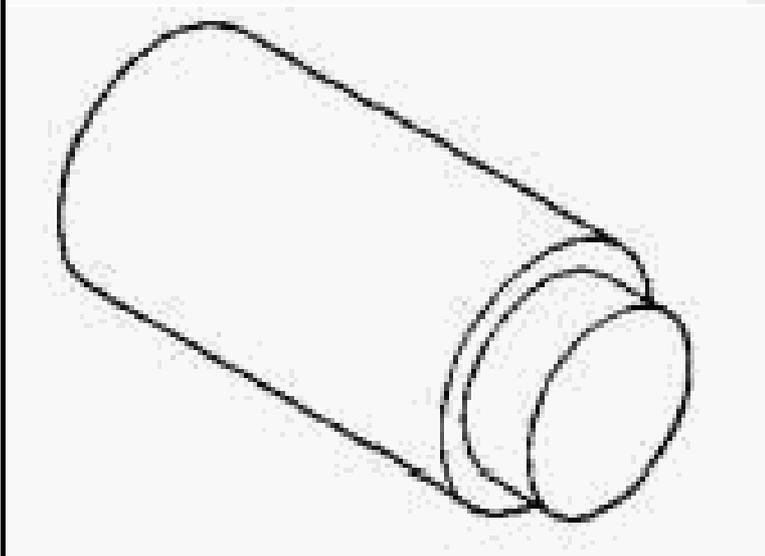
10429 - Gauge, Force (Originally Shipped In Kit Number(s) 10419.)

C-293-PA - Puller, Press (Originally Shipped In Kit Number(s) 8418, 8837, C-293-M.)

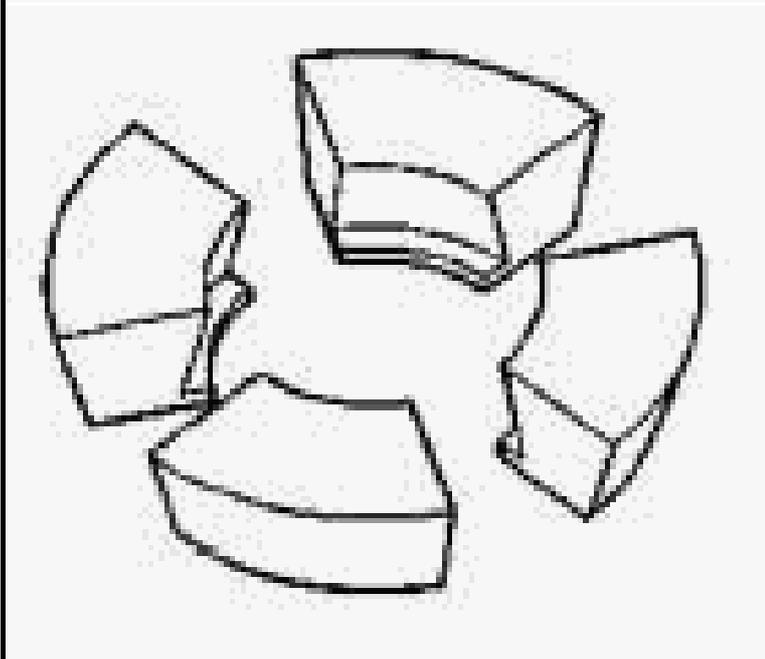
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C-293-3 - Adapter,
Bearing/Gear
(Originally Shipped In Kit
Number(s) 8418, 8837, C-293-
M, C-4246-AL, DD-914-CLT-
L.)

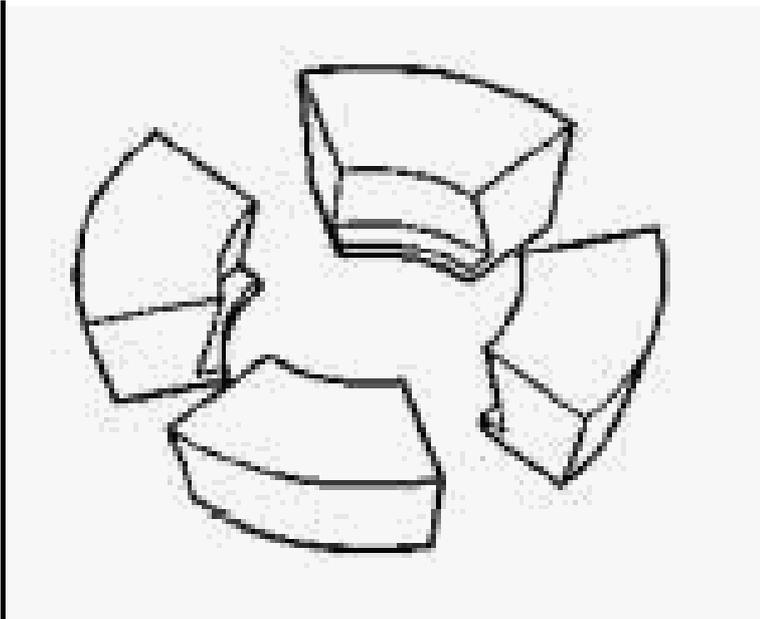


C-293-39 - Block Set, Puller
(Originally Shipped In Kit
Number(s) 8418, C-293-M,
DD-914-CLT-L.)

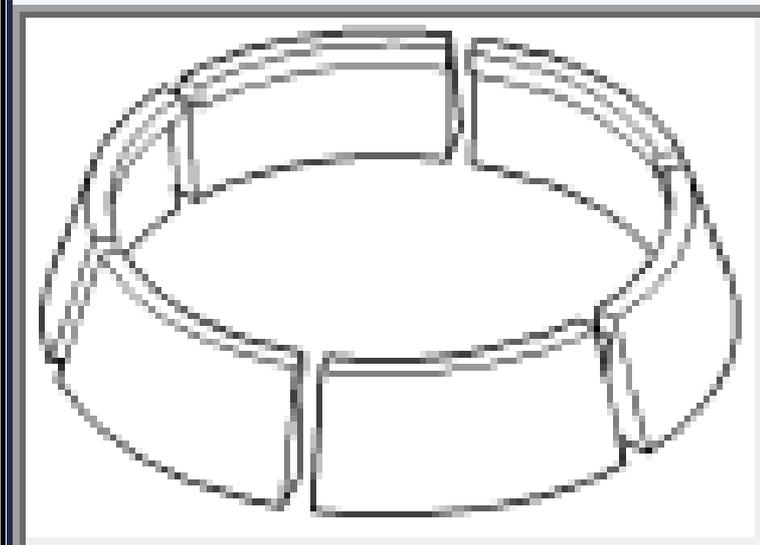


C-293-48 - Block Set, Puller

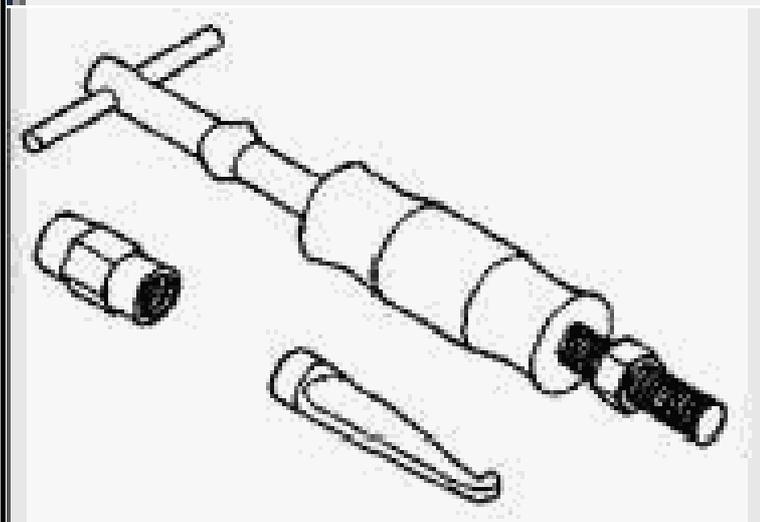
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(Originally Shipped In Kit Number(s) 8418, 8837, C-293-M, DD-914-CLT-L.)



C-293-62 - Block Set, Puller

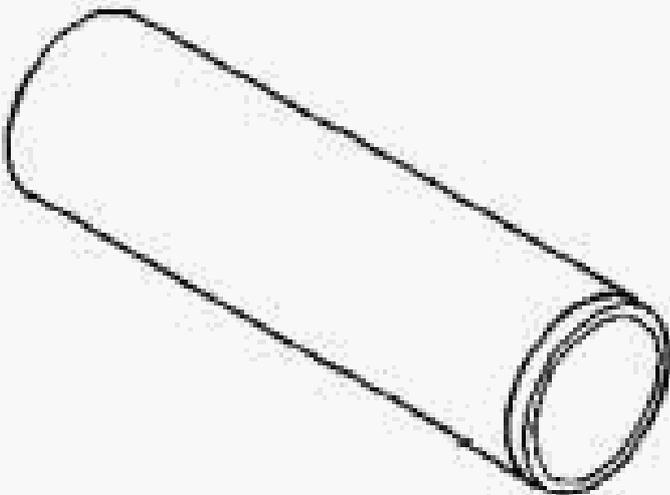


C-637 - Slide Hammer, Universal
(Originally Shipped In Kit Number(s) 9202.)

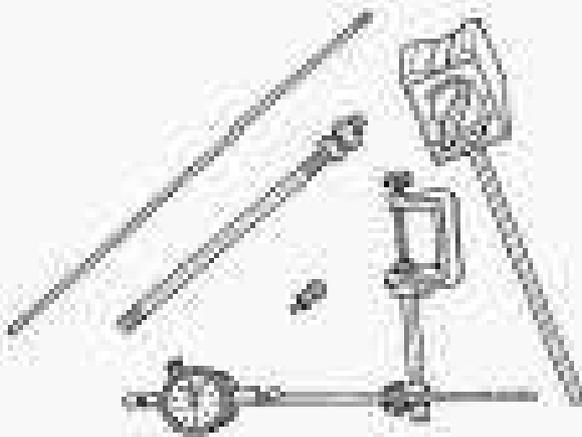


C-3095-A - Installer, Bearing

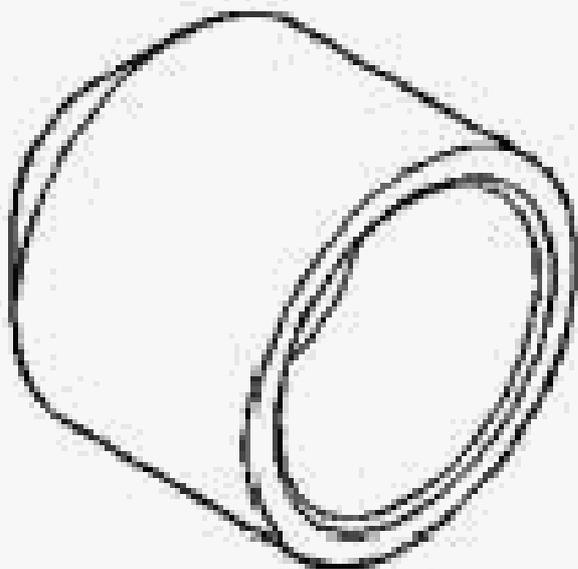
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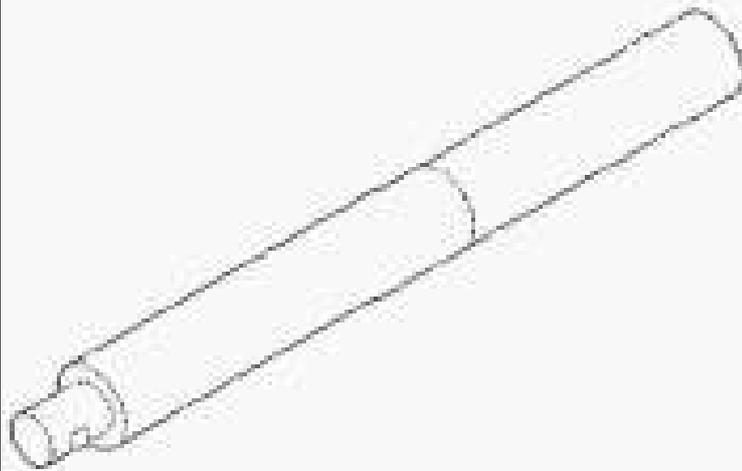
C-3339A - Set, Dial Indicator
(Originally Shipped In Kit
Number(s) 9202.)



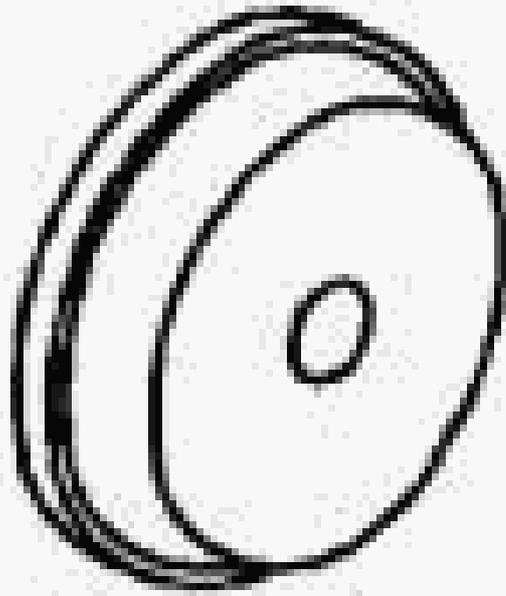
C-3972-A - Installer, Seal
(Originally Shipped In Kit
Number(s) 9975.)



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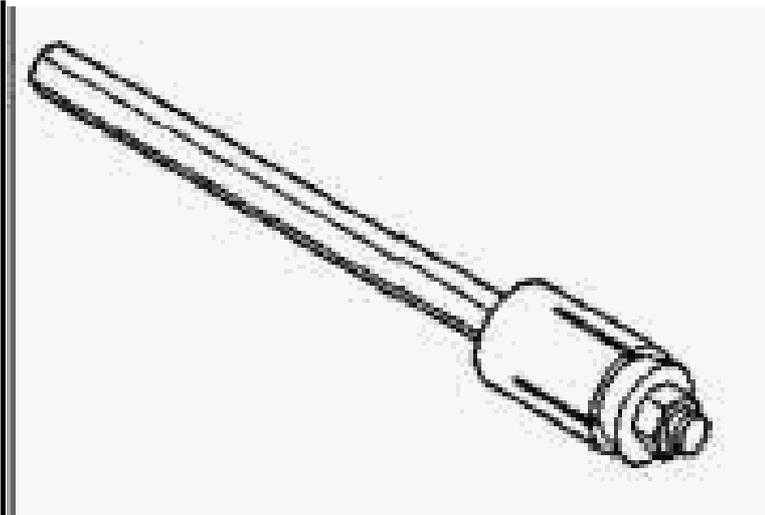
C-4171 - Driver Handle,
Universal
(Originally Shipped In Kit
Number(s) 9202, 9202A-CAN,
9202CC, 9299, 9299CC,
9299CC, 9300A-CAN.)



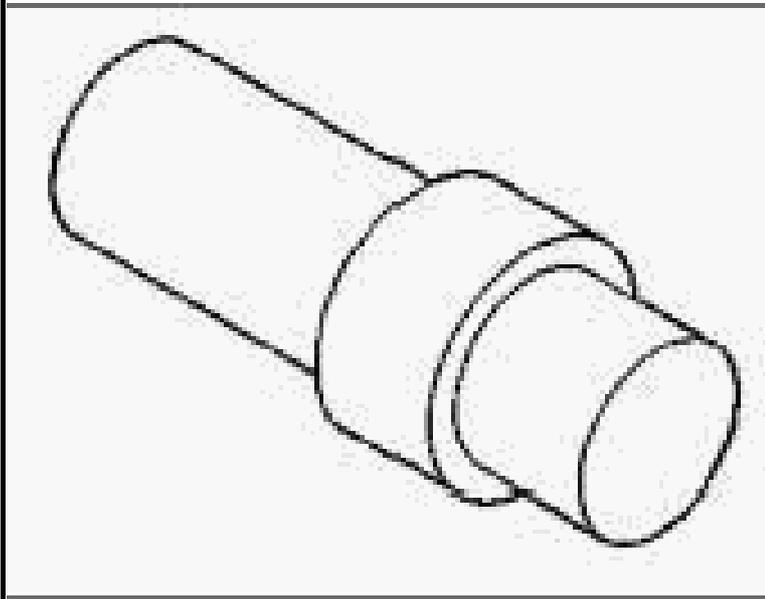
C-4310 - Installer, Bearing
(Originally Shipped In Kit
Number(s) C-4306.)

C-4995A - Tool, Differential
Bearing Torque

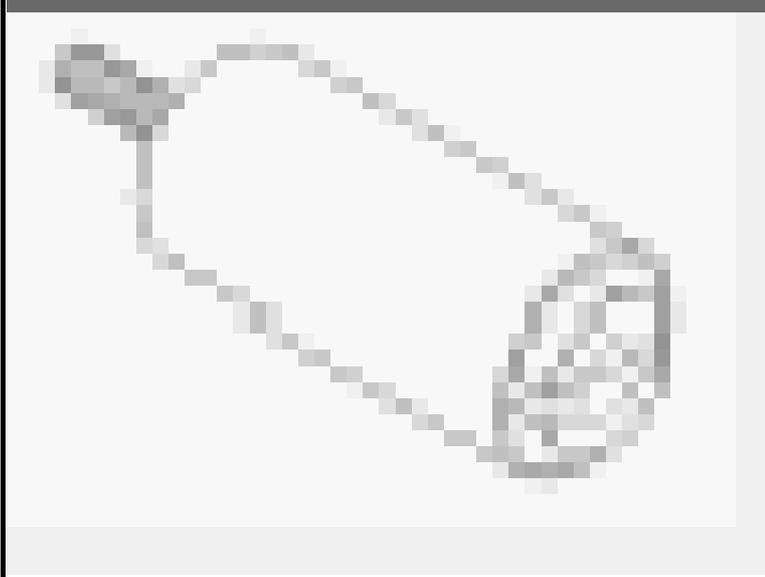
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C-4996 - Adapter, Plug
(Originally Shipped In Kit
Number(s) 6672.)

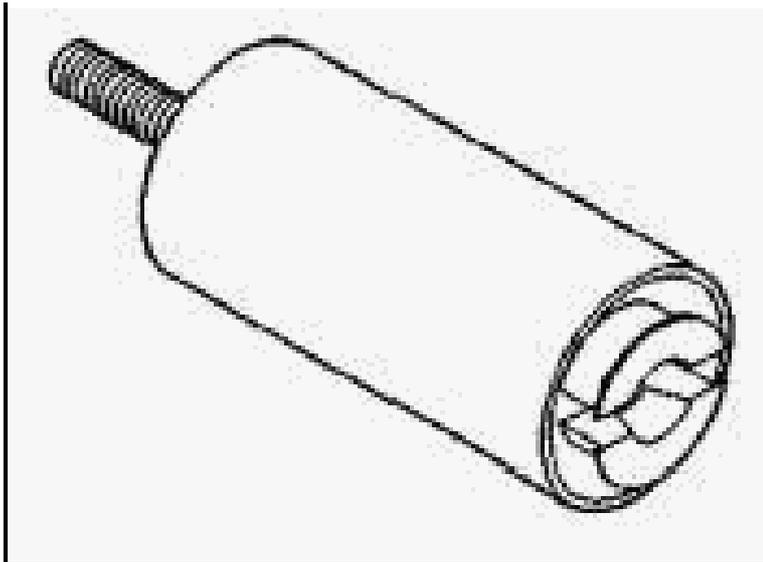


L-4454A - Remover, Bearing
Cup
(Originally Shipped In Kit
Number(s) 9975.)



L-4518 - Remover, Bearing
Cup

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(Originally Shipped In Kit Number(s) 6822.)

FLUID

STANDARD PROCEDURES

FLUID

Fluid Type, Capacity and Service Interval

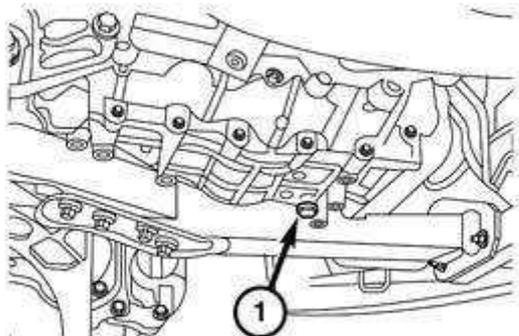
NOTE: There is no service interval recommended for the 6F24 Automatic Transaxle when operated under normal conditions.

The fluid used in the 6F24 Automatic Transaxle is clear liquid with red tint. It is formulated for use only in the 6F24 automatic transaxle. The Mopar Part Number (PN) is on **Star Parts** .

The factory fill fluid capacity of the 6F24 Automatic Transaxle is 7.1 L (7.5 qt.). Service fill with full torque converter and fluid cooler is 4.7 L (5 qt.)

FLUID DRAIN

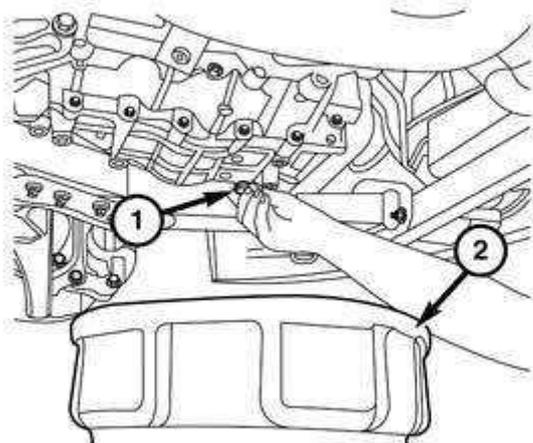
1. Raise the vehicle on a suitable hoist that will keep the vehicle in a level position, front-to-rear and side-to-side. Refer to **HOISTING, STANDARD PROCEDURE** .



210271136

Fig. 533: Transaxle Fluid Drain Plug
Courtesy of CHRYSLER GROUP, LLC

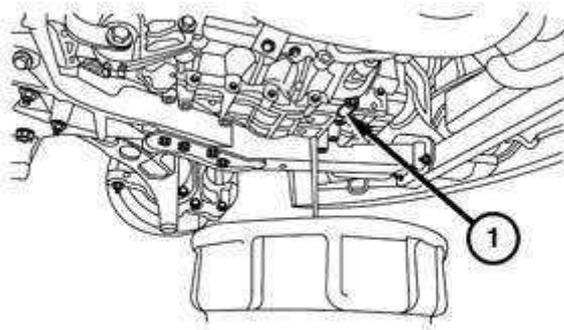
2. Remove the belly pan to gain access to the transaxle fluid drain plug (1). Refer to **BELLY PAN, REMOVAL** .



210271135

Fig. 534: Transaxle Fluid Drain Plug & Drain Pan
Courtesy of CHRYSLER GROUP, LLC

3. Position a suitable drain pan (2) under the vehicle to drain the transaxle fluid into.



210271137

Fig. 535: Drain Fluid From Transaxle
Courtesy of CHRYSLER GROUP, LLC

4. Remove the drain plug from the transaxle (1) and allow fluid the drain into the drain pan.
5. After the fluid has ceased draining from the transaxle, Install the drain plug. Tighten to specifications.
6. Remove the drain pan.
7. Perform repair procedures as necessary or proceed to Fluid Fill Procedure.
8. Install the belly pan. Refer to **BELLY PAN, INSTALLATION** .

FLUID FILL

NOTE: It is necessary to vent the transaxle by removing the plug from the fluid level check port, located on top of the transaxle housing above the differential, before attempting to pour fluid into the transaxle.

The 6F24 Automatic Transaxle is filled through the vent pod located on top front surface of the valve body pan.

1. Raise the vehicle on a suitable hoist that will keep the vehicle in a level position, front-to-rear and side-to-side. Refer to **HOISTING, STANDARD PROCEDURE** .

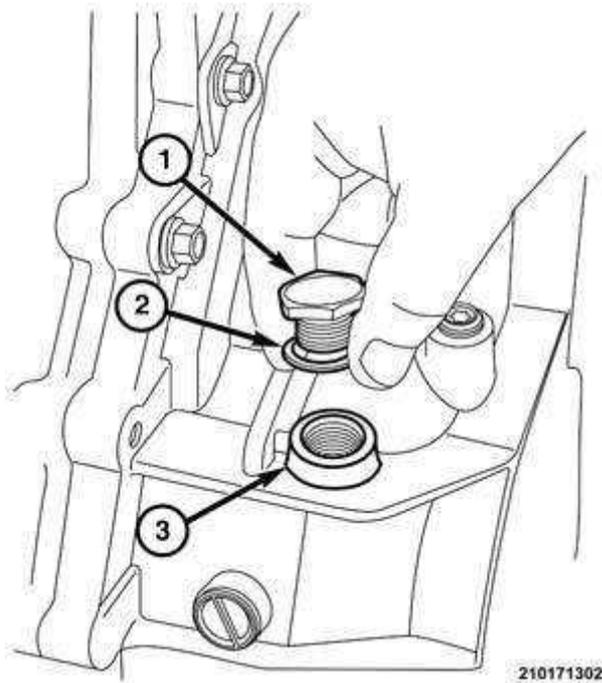
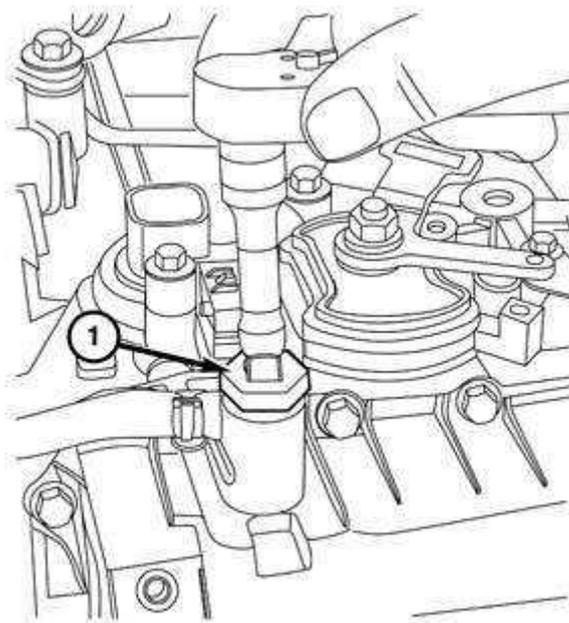


Fig. 536: Fluid Level Check Port
Courtesy of CHRYSLER GROUP, LLC

2. Remove the belly pan to gain access to the fluid level check port (3) located on top of the transaxle housing above the differential. Refer to **BELLY PAN, REMOVAL** .
3. Remove the plug (1) from the fluid level check port (3).
4. Lower the vehicle until the tires are 2 cm (8 in.) off the floor.



210171308

Fig. 537: Fluid Level Check Port Plug
 Courtesy of CHRYSLER GROUP, LLC

5. Connect a Scan tool to the diagnostic connector under the instrument panel on the driver side.
6. Navigate the scan tool to a screen to display the transaxle temperature.
7. Remove the fill plug from the vent pod located on the front of the valve body pan.
8. Insert a suitable funnel into the vent pod on the front of the valve body pan.
9. Slowly pour 4 L (4.3 qt.) of specified fluid into the funnel while watching the fill hole for spill over.
10. Start the engine and allow it to idle in park.
11. Pour 1 L (1.05 qt.) into the transaxle and install the fill plug. Tighten to specification.
12. With engine still running in park, raise the vehicle and check the fluid level.
13. Add or siphon fluid to achieve the specified fluid level. Refer to **FLUID, STANDARD PROCEDURES**.
14. Install the fluid check plug in the transaxle. Tighten to specification
15. Install the belly pan. Refer to **BELLY PAN, INSTALLATION** .
16. Lower the vehicle and disconnect the scan tool.
17. Road test the vehicle to verify the repair.

FLUID FILTER

FLUID FILTER SERVICE

The fluid filter in the 6F24 automatic transaxle is not periodically serviced. To replace the fluid filter the transaxle must be removed and the bell housing separated from the transaxle housing. Refer to **DISASSEMBLY**.

FLUID LEVEL CHECK

NOTE: It is not necessary to check the fluid level in the 6F24 Automatic Transaxle unless there are shifting issues and/or has evidence of a transaxle fluid leak.

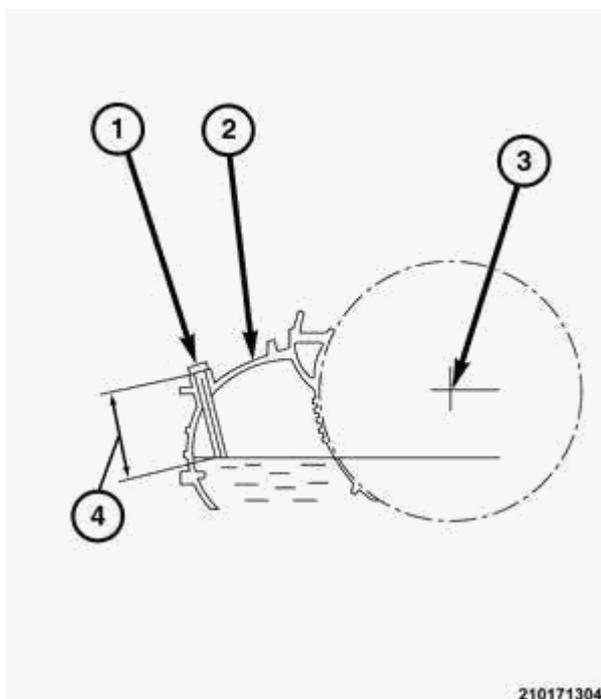


Fig. 538: Fluid Level Indicator, Transaxle & Fluid Level
Courtesy of CHRYSLER GROUP, LLC

NOTE: Special Tool (special tool #10323A, Dipstick) Fluid level Indicator (1) and a Scan-tool are required to accurately measure the fluid level (4) in the 6F24 Automatic Transaxle (2).

Checking the fluid level in the 6F24 Automatic Transaxle (2) is to measure the distance from the upper lip of the fluid level check port, located on top of the transaxle housing above the differential, down to the surface of the fluid (4).

Tool 10323A fluid level indicator is marked in 5 mm increments with the base of the handle at 140 mm and the lower tip at "0". The engine must be running at idle with the transaxle in park and the vehicle hoisted in a level position.

1. Connect a Scan Tool to the Diagnostic Connector under the instrument panel on the driver's side of the vehicle.
2. Navigate to a screen to display transaxle fluid temperature.
3. Start the engine and allow it to run at idle with the transaxle in Park.
4. Verify that the fluid temperature is above 50 °C.
5. Raise the vehicle on a suitable hoist that will keep the vehicle in a level position, front-to-rear and side-to-side. Refer to **HOISTING, STANDARD PROCEDURE** .

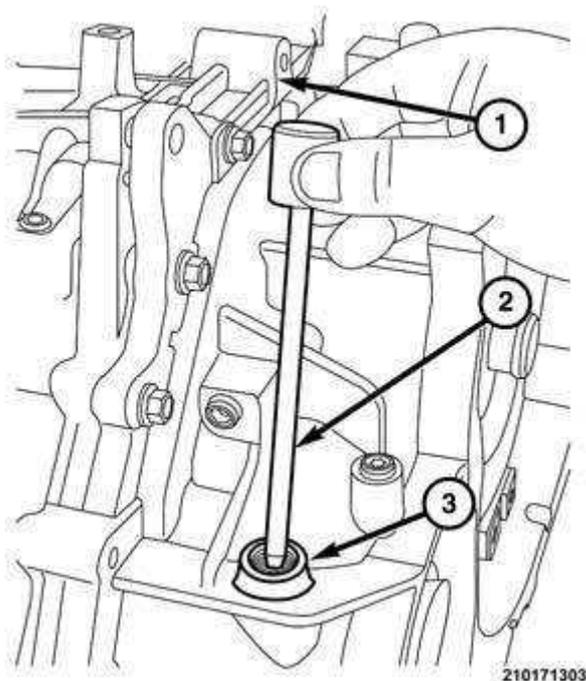
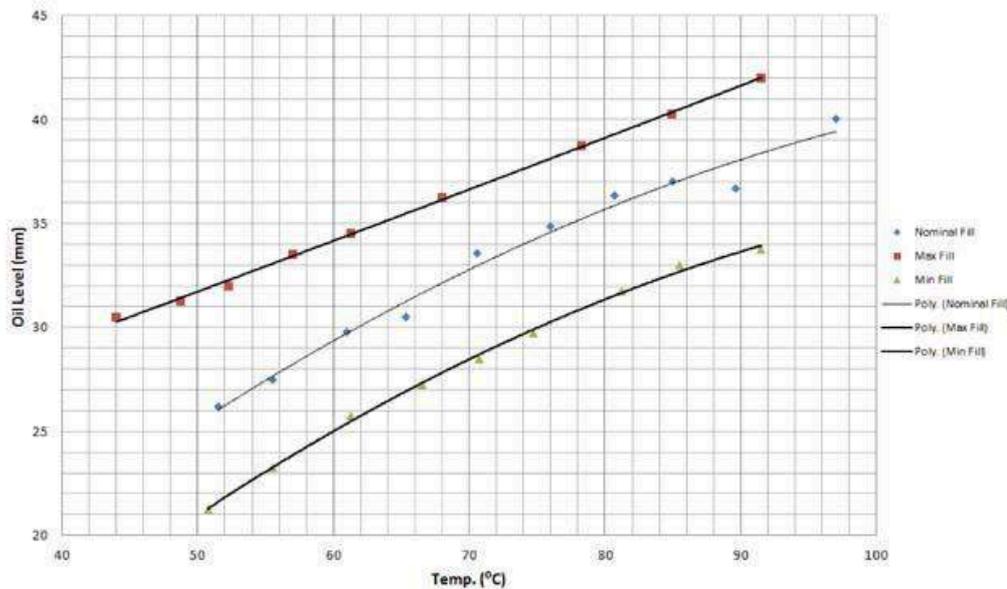


Fig. 539: Differential, Special Tool #10323A & Fluid Level Check Port
Courtesy of CHRYSLER GROUP, LLC

6. Remove the belly pan to gain access to the fluid level check port (3) located on top of the transaxle housing above the differential (1). Refer to **BELLY PAN, REMOVAL** .
7. Remove the plug from the fluid level check port.
8. Insert tool (special tool #10323A, Dipstick) (2) into the fluid level check port (3) and allow the handle of the tool to rest on the flat surface of the transaxle housing (1) around the check port.

9. Remove the tool from the check port, keeping the handle above the tip so the level reading remains accurate.
10. Note the increment on the shaft of the tool where the fluid left a witness mark.



2101004346

Fig. 540: Fluid Level & Temperature Chart
 Courtesy of CHRYSLER GROUP, LLC

11. Based on the temperature of the fluid and the measurement on the tool, refer to the graph or the table to determine the proper level.
12. Install the plug into the fluid level check port. Tighten to specification.
13. Install the belly pan. Refer to **BELLY PAN, INSTALLATION**.
14. Lower vehicle.

6F24 AUTOMATIC TRANSAXLE FLUID LEVEL TABLE

TEMP in °C	MIN LEVEL (mm)	NOMINAL LEVEL (mm)	MAX LEVEL (mm)
50°	21 mm	26 mm	31.5 mm
55°	23 mm	27.5 mm	33 mm
60°	25 mm	30 mm	34 mm
65°	27 mm	31 mm	35.5 mm
70°	28.5 mm	33 mm	36.5 mm
75°	30 mm	35 mm	38 mm
80°	31.5 mm	36 mm	39 mm

85°	32.5 mm	37 mm	40 mm
90°	34 mm	38 mm	41.5 mm

FLUID LEAK DETECTION - AWD

The following procedure is for detecting transaxle fluid leaks from the area between the transaxle and the Power Transfer Unit (PTU). When transaxle fluid is leaking from the weep hole in the area of the PTU, the seals around the differential output shaft and the differential side gear is most likely faulty. The large seal around the differential output shaft is serviceable without removing the transaxle. The seal around the inner differential side gear is serviceable after the differential unit is removed from the transaxle. The following procedure is recommended to determine which seal is leaking.

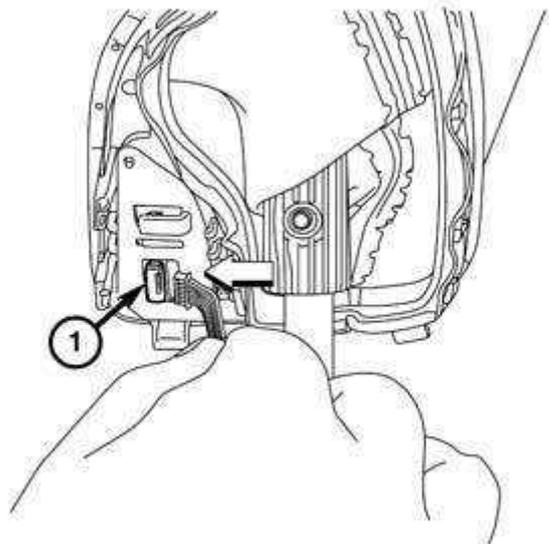
1. Disconnect the transaxle vent tube from the adaptor nipple on the top of the valve body pan.
2. Adapt a compressed shop air coupling and a length neoprene hose onto the vent nipple.
3. Attach a 48 kPa (7 psi) regulated shop air source to the air coupling on the vent nipple.
4. Raise the vehicle on a suitable hoist.
5. Remove the PTU from the vehicle. Refer to **REMOVAL** .
6. Apply a soapy solution to the seals inside and around the differential output shaft.
7. Observe over several minutes to see if air bubbles form in the leak area.

Test Results

- If bubbles are emanating from the inner differential side gear seal, remove the differential unit and replace the inner seal.
- If bubbles are emanating from the outer output shaft seal, replace the seal.
- If bubbles are emanating from the transaxle housing casting, replace the porous component.

KNOB, GEARSHIFT**REMOVAL****REMOVAL**

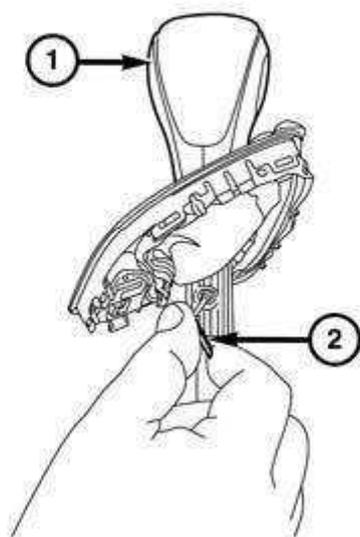
1. Pry PRND escutcheon upward and separate it from the shifter assembly.



210171834

Fig. 541: Wire Connector At PRND Display
Courtesy of CHRYSLER GROUP, LLC

2. Disconnect the wire connector from the PRND display.
3. Pull shift boot upward to expose the shift knob set screw.

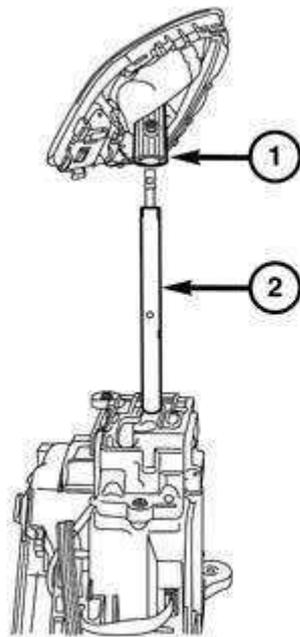


210171832

Fig. 542: Shift Knob & Set Screw At Shift Lever

Courtesy of CHRYSLER GROUP, LLC

4. Loosen the set screw holding the shift knob to the shift lever.
5. Depress and hold the lock button on the shift knob.



210171833

Fig. 543: Shift Knob And Shifter
Courtesy of CHRYSLER GROUP, LLC

6. Lift the shift knob upward and separate it from the shifter.

INSTALLATION

INSTALLATION

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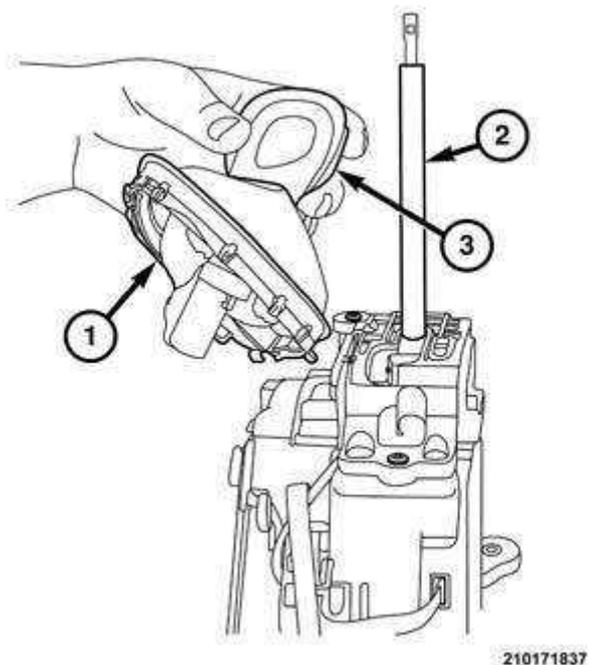


Fig. 544: Lock Button On The Shift Knob
Courtesy of CHRYSLER GROUP, LLC

1. Depress and hold the lock button (3) on the shift knob.

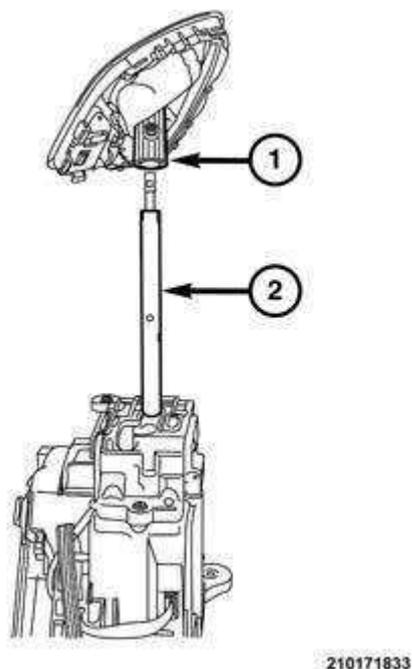
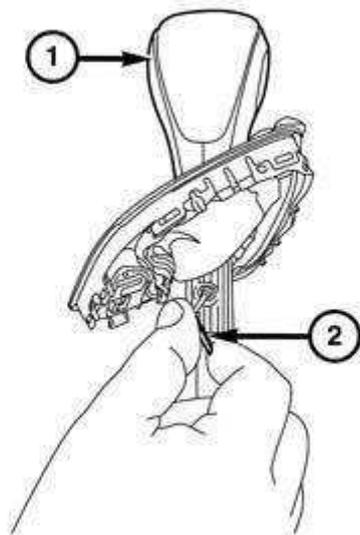


Fig. 545: Shift Knob And Shifter
Courtesy of CHRYSLER GROUP, LLC

2. With the lock button facing forward, guide the shift knob (1) downward and

onto the shifter (2) until it seats.

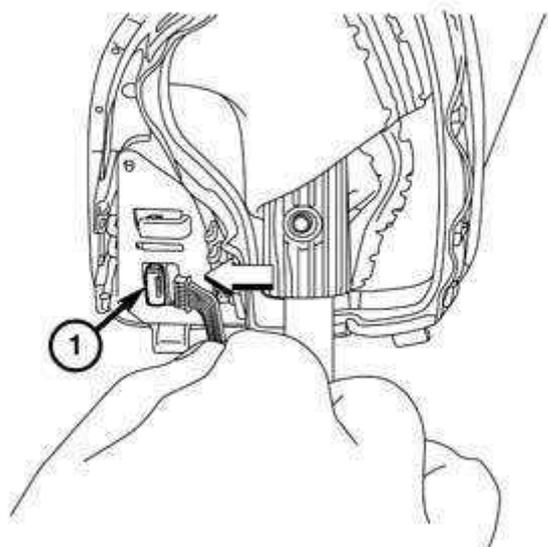
3. Release the lock button.



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Fig. 546: Shift Knob & Set Screw At Shift Lever
Courtesy of CHRYSLER GROUP, LLC

4. Tighten the set screw to hold the shift knob to the shift lever.



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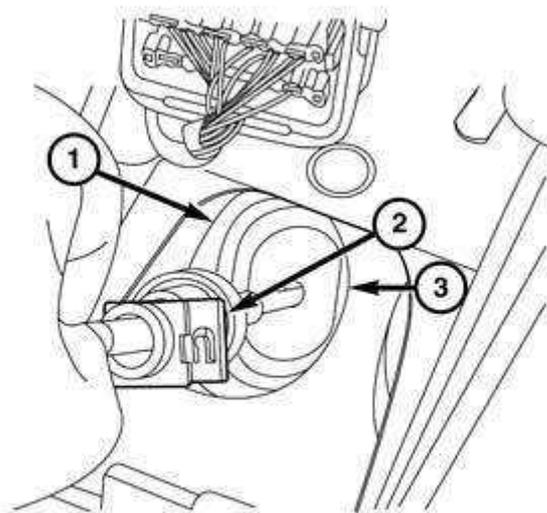
Fig. 547: Wire Connector At PRND Display

Courtesy of CHRYSLER GROUP, LLC

5. Connect the wire connector onto the PRND display.
6. Press PRND escutcheon downward until the clips engage the shifter assembly.

CABLE, SHIFT**REMOVAL****REMOVAL**

1. Open hood and support it on the prop-rod.
2. Disconnect the battery negative cable.
3. Remove the center floor console from the vehicle. Refer to **CONSOLE, FLOOR, REMOVAL**.
4. Disconnect the shift cable from the shifter.



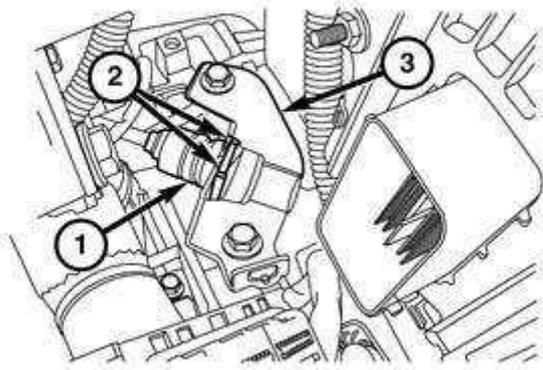
210171739

Fig. 548: Floor Grommet, Gear Shift Cable & Access Hole
Courtesy of CHRYSLER GROUP, LLC

5. Push gear shift cable (2) floor grommet (1) through the access hole (3) in the floor.
6. Remove air cleaner/engine cover. Refer to **2.0L BODY, AIR CLEANER,**

REMOVAL , 2.2L BODY, AIR CLEANER, REMOVAL or 2.4L BODY, AIR CLEANER, REMOVAL .

- From under the battery tray, pry the shift cable end from the manual lever on the transaxle.



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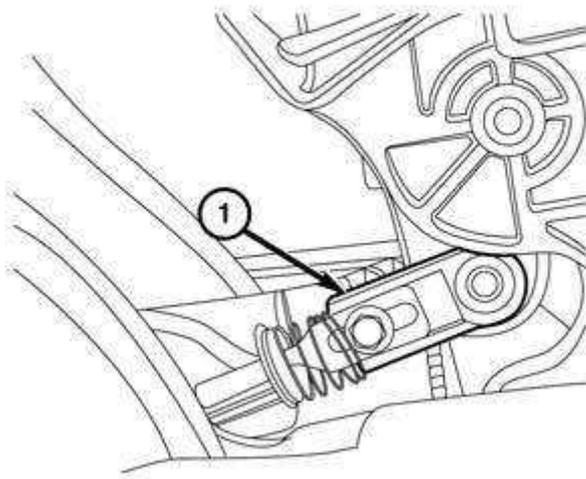
Fig. 549: Gear Shift Cable, Clips & Bracket
 Courtesy of CHRYSLER GROUP, LLC

- Release the clips (2) holding the gear shift cable (1) to the bracket (3) on the transaxle.
- Lift vehicle on a suitable hoist. Refer to **HOISTING, STANDARD PROCEDURE** .
- Remove the heat shield from above the steering rack to enable the cable removal.
- Guide the shift cable rearward over the steering gear and toward passenger side of the vehicle.
- Squeeze the cable housing lock hub through the widest point between the floor and the steering rack.
- Separate the shift cable from the vehicle.

ADJUSTMENTS

GEAR SHIFT CABLE ADJUSTMENT

1. Remove the center floor console to gain access to the gear shift cable under the gear shift assembly. Refer to **CONSOLE, FLOOR, REMOVAL** .
2. Set the parking brake.
3. Place the Powertech transmission and the shifter lever into NEUTRAL. This can be done with the key in the "Run" position and viewing the PRND. (Engine should not be running.)



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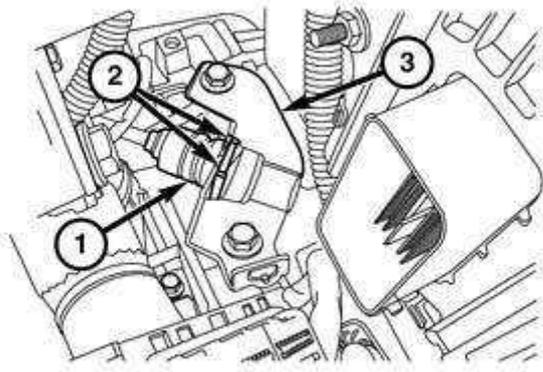
Fig. 550: Shift Cable Adjustment Screw
Courtesy of CHRYSLER GROUP, LLC

4. Loosen the cable adjustment screw, but don't remove it.
5. Push shift lever forward, without depressing the knob button, until it hits the gate stop to ensure shifter is in N position.
6. The cable will settle into its natural position which should be near the center of the adjustment slot.
7. Tighten the adjusting screw to 8 +/-1 N.m (70 in. lb.).
8. Verify the shift lever can place the transaxle into PARK and the other gears.
9. Install the floor console. Refer to **CONSOLE, FLOOR, INSTALLATION** .

INSTALLATION

INSTALLATION

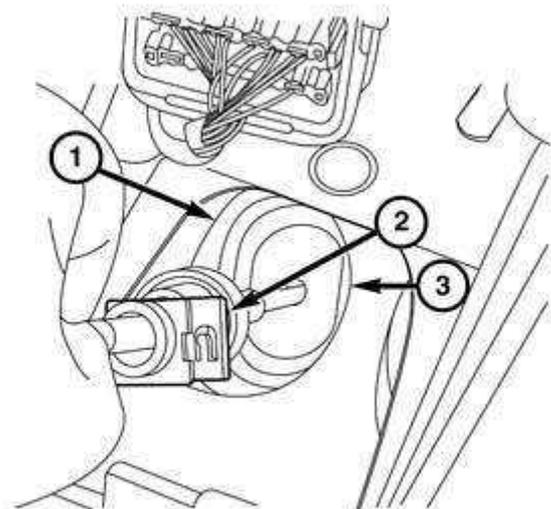
1. Insert the shift cable end upward into hole through the floor pan.
2. With the shift cable coiled above the passenger side heat shield, squeeze the cable housing lock hub through the widest point between the floor and the steering rack.
3. Guide the shift cable forward over the steering gear and toward the transaxle.
4. Install the heat shield above the steering rack.
5. Lower vehicle to the floor.



210171741

Fig. 551: Gear Shift Cable, Clips & Bracket
Courtesy of CHRYSLER GROUP, LLC

6. Engage the clips (2) to hold the gear shift cable (1) to the bracket (3) on the transaxle.
7. Under the battery tray, snap the shift cable end onto the manual lever on the transaxle.
8. Install the air cleaner/engine cover. Refer to **2.0L BODY, AIR CLEANER, INSTALLATION** , **2.2L BODY, AIR CLEANER, INSTALLATION** or **2.4L BODY, AIR CLEANER, INSTALLATION** .



210171739

Fig. 552: Floor Grommet, Gear Shift Cable & Access Hole
Courtesy of CHRYSLER GROUP, LLC

9. Engage the gear shift cable (2) floor grommet (1) into the access hole (3) in the floor.
10. Connect the shift cable onto the shifter.
11. Install the center floor console onto the vehicle. Refer to **CONSOLE, FLOOR, INSTALLATION** .
12. Connect the battery negative cable.
13. Close the hood.

SEAL, DIFFERENTIAL

REMOVAL

FWD

1. Remove the halfshaft from the vehicle. Refer to **REMOVAL** .



Fig. 553: Punching Hole In Differential Seal
Courtesy of CHRYSLER GROUP, LLC

NOTE: Keep the punch tool in the center of the seal to avoid damage to the transaxle housing.

2. Using a suitable slide awl tool and hammer, punch a hole in the metal armature inside the seal.



Fig. 554: Slide Hammer & Differential Seal
Courtesy of CHRYSLER GROUP, LLC

3. Use a suitable Slide Hammer Dent Puller, to remove the seal.

4. Thread the sheet metal screw of the dent puller into the punched hole in the seal.
5. Tap outward on the slide hammer until the seal comes out of the seal bore.

REMOVAL

1. Remove PTU unit from the vehicle. Refer to **REMOVAL** .



210274941

Fig. 555: Punching Hole In Differential Seal
Courtesy of CHRYSLER GROUP, LLC

NOTE: Keep the punch tool in the center of the seal to avoid damage to the transaxle housing.

2. Using a suitable slide awl tool and hammer, punch a hole in the metal armature inside the seal.

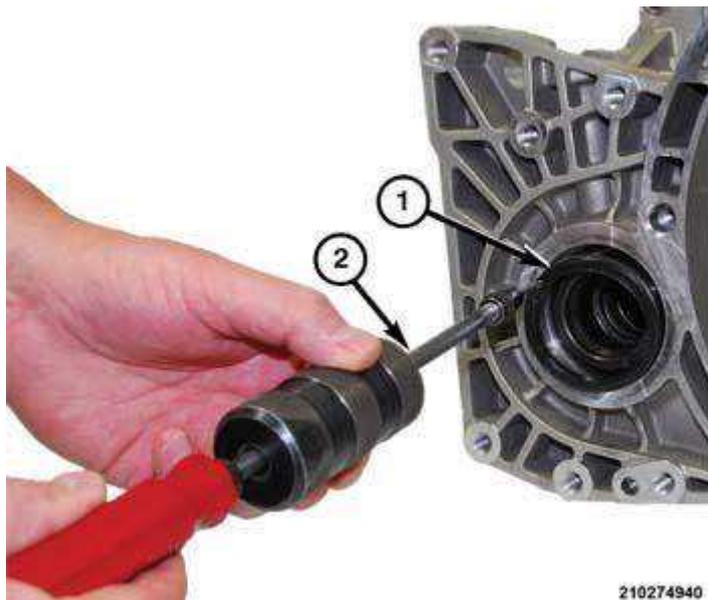


Fig. 556: Slide Hammer & Differential Seal
Courtesy of CHRYSLER GROUP, LLC

3. Use a suitable Slide Hammer Dent Puller, to remove the seal.
4. Thread the sheet metal screw of the dent puller into the punched hole in the seal.
5. Tap outward on the slide hammer until the seal comes out of the seal bore.

INSTALLATION

INSTALLATION

Verify that the seal bore is smooth and undamaged. Use a clean shop towel to wipe residue from the sealing surfaces.

1. Apply transmission assembly lube on the seal lip and inside the tension spring cavity on the inside of the seal.

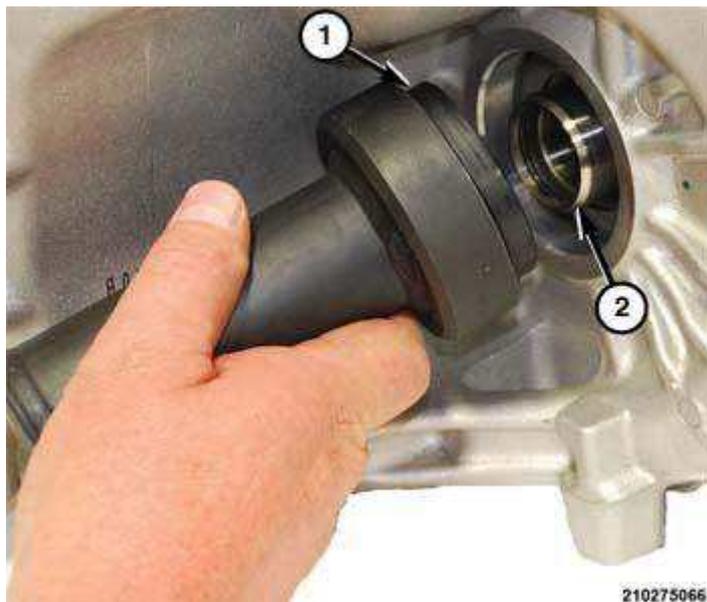


Fig. 557: Special Tool #10117 & Differential Seal
Courtesy of CHRYSLER GROUP, LLC

2. Attach the new seal onto the installer (1) (special tool #10117, Installer, Seal).
3. Insert the installer and seal (1) into the output shaft seal bore on the transaxle.



Fig. 558: Installing Differential Seal
Courtesy of CHRYSLER GROUP, LLC

4. Using a suitable hammer, drive the seal (1) into the seal bore until the installer seats on the transaxle housing.

5. Install the halfshaft. Refer to **INSTALLATION**.
6. Road test vehicle to verify the repair.

INSTALLATION

Clean the seal bore with suitable shop towel. Inspect the seal bore for scratches or other defects that may cause fluid leaks. If all sealing surfaces are smooth and defect free, install a NEW seal.

1. Apply transmission assembly lube on the seal lip and inside the tension spring cavity on the inside of the seal.
2. Insert the NEW seal into the into the bore in the transaxle housing around the output shaft.

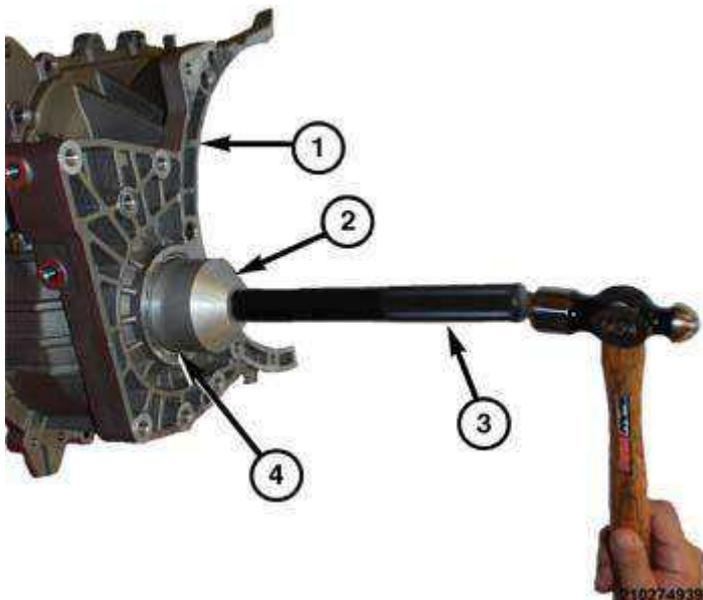


Fig. 559: Installing Differential Seal
Courtesy of CHRYSLER GROUP, LLC

3. Using tool (special tool #C-3972-A, Installer, Seal) and (special tool #C-4171, Driver Handle, Universal) drive the seal in the bore until it is fully seated.
4. Install the PTU unit.
5. Verify that the transaxle and PTU is properly filled with specified fluid.
6. Road test vehicle to verify the repair.

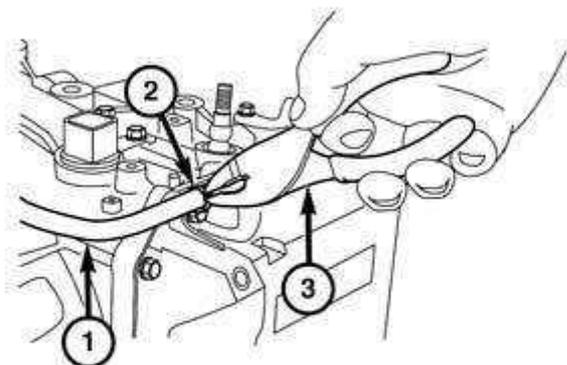
VALVE BODY

DESCRIPTION**DESCRIPTION AND INSPECTION**

The valve body is the device that controls the hydraulic power flow to the clutches and brakes within the 6F24 Automatic Transaxle. The valve body is equipped with on-off and variable force solenoids that are electrically controlled by the PCM. If the transaxle passes an air pressure test and is relatively clean, the transaxle should be OK and the valve body is most likely at fault. All of the valve body internal components must be able to travel freely within their bores and cylinders. Any dirt or debris within the valve body can cause a valve or piston to bind and fail to function. The valve body valves are somewhat self-cleaning. The leading edges of the valve chambers are ground sharply to cut through soft debris and allow the valve to function. The strainers and screen in the valve body are designed to filter out dirt and debris as the fluid circulates through the hydraulic passages. If a valve or piston is deeply scratched and can be felt with a fingernail, the valve body or transaxle must be replaced depending on parts availability.

REMOVAL**REMOVAL**

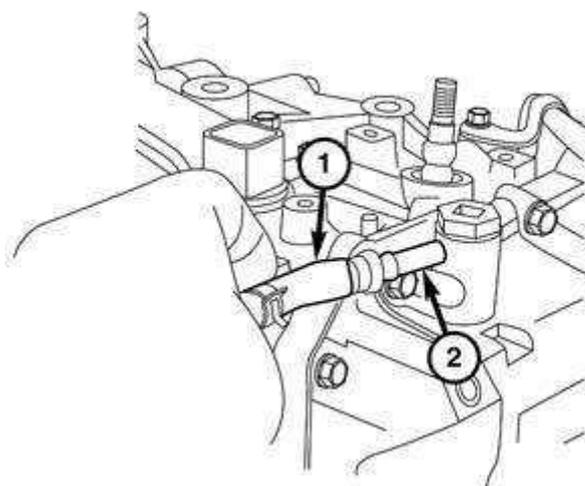
1. Remove the engine cover/air cleaner from the vehicle. Refer to **2.0L AIR CLEANER, REMOVAL** , **2.2L AIR CLEANER, REMOVAL** or **AIR CLEANER, REMOVAL** .
2. Drain the fluid from the transaxle. Refer to **FLUID, STANDARD PROCEDURES**.



210270174

Fig. 560: Vent Hose, Spring Clamp & Pliers
Courtesy of CHRYSLER GROUP, LLC

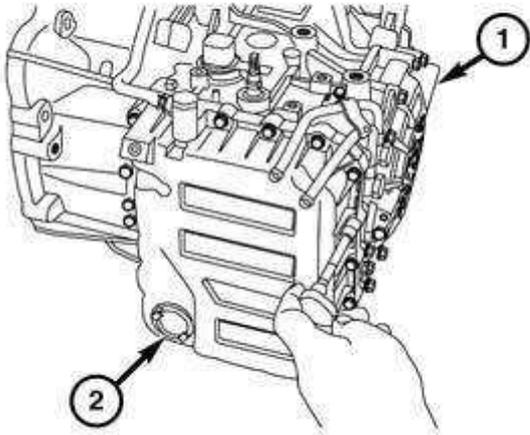
- Using common pliers (3), compress the hose spring clamp (2) and slide it down the vent hose (1) away from the nipple adaptor.



210270175

Fig. 561: Vent Hose End & Nipple Adaptor
Courtesy of CHRYSLER GROUP, LLC

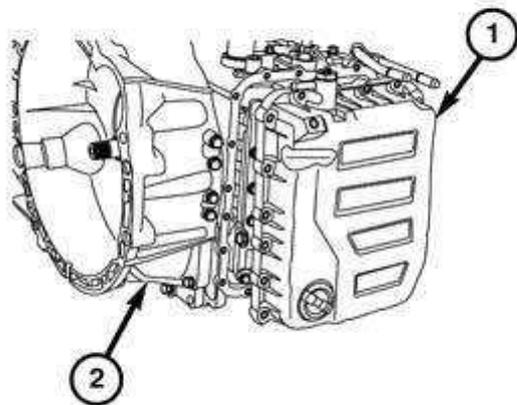
4. Pull the vent hose end (1) off of the nipple adaptor (2).
5. Position suitable drain pan under the valve body cover to catch fluid that may spill as the cover is removed.



210270166

Fig. 562: Transaxle & Valve Body Cover
Courtesy of CHRYSLER GROUP, LLC

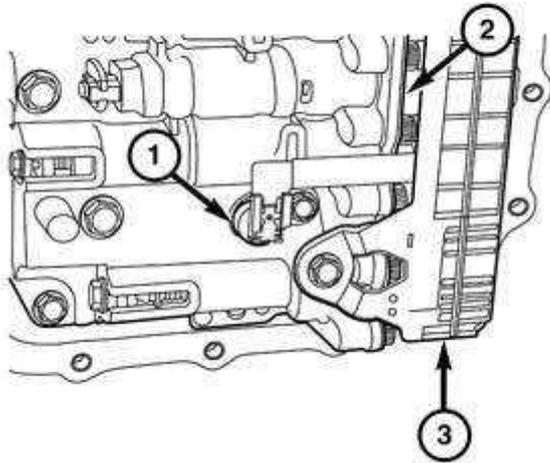
6. Remove bolts holding the valve body cover (2) to the transaxle (1).



210270167

Fig. 563: Valve Body Cover Separated From Transaxle
Courtesy of CHRYSLER GROUP, LLC

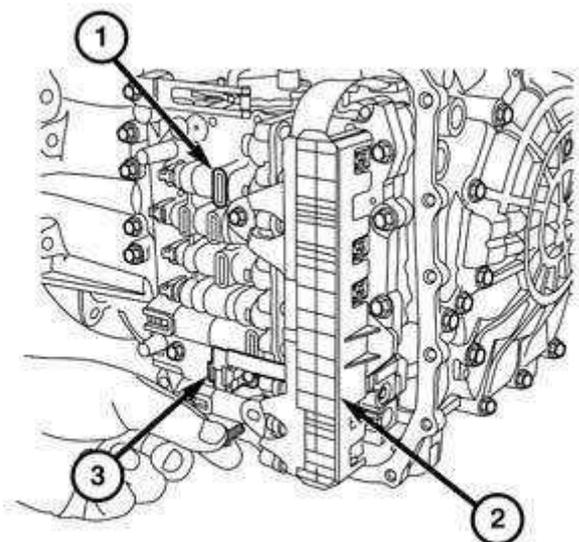
7. Separate the valve body cover (1) from the transaxle (2).



210270169

Fig. 564: Fluid Temperature Sensor & Valve Body
Courtesy of CHRYSLER GROUP, LLC

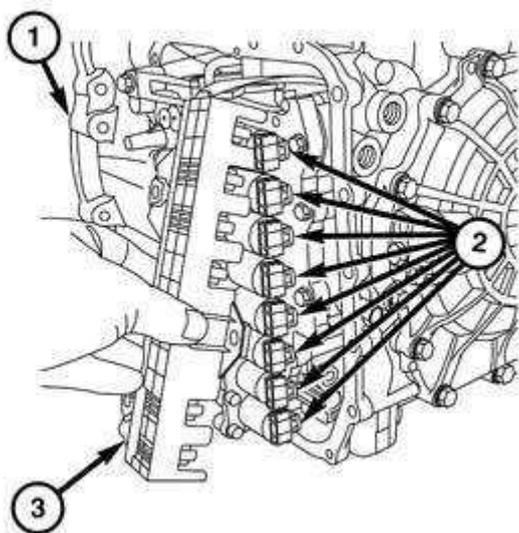
8. Remove bolt holding fluid temperature sensor (1) to the valve body (2).
9. Pull temperature sensor (1) straight out of the port in the valve body (2).



210270176

Fig. 565: Valve Body & Solenoid Valve Connector
Courtesy of CHRYSLER GROUP, LLC

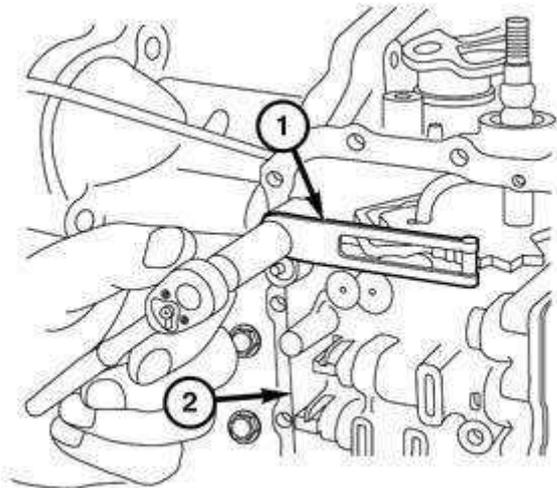
10. Remove bolts holding the solenoid valve connector (2) to the valve body (1).



210270177

Fig. 566: Solenoids & Connector
Courtesy of CHRYSLER GROUP, LLC

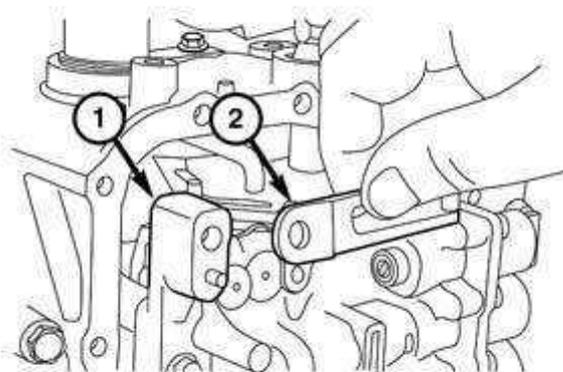
11. Starting at the bottom solenoid valve, using a suitable prying tool, pry outward at each solenoid (2) until the connector (3) is disengaged.



210270170

Fig. 567: Manual Shaft Detent Spring & Valve Body
Courtesy of CHRYSLER GROUP, LLC

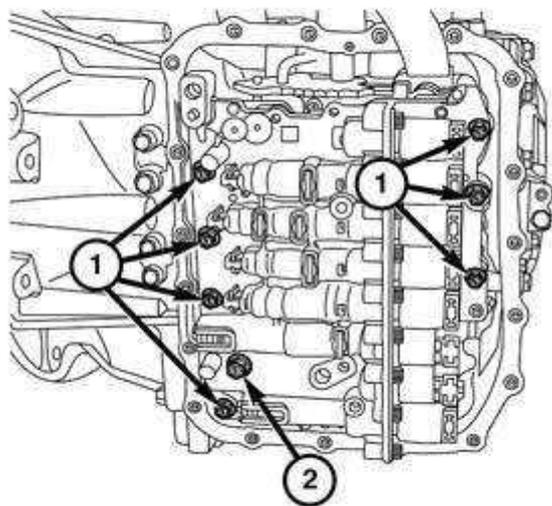
12. Remove the screw holding the manual shaft detent spring (1) to the valve body (2).



210270179

Fig. 568: Detent Spring Separated From Valve Body
Courtesy of CHRYSLER GROUP, LLC

13. Separate the detent spring (2) from the valve body (1).

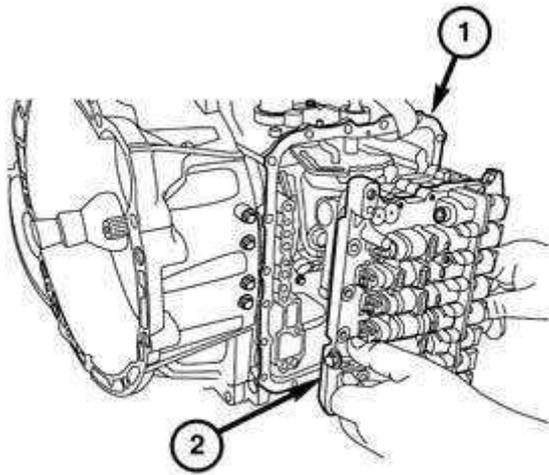


210270195

Fig. 569: Valve Body Bolts
Courtesy of CHRYSLER GROUP, LLC

14. Remove bolts, 7 short (1) and 1 long (2) bolts, holding the valve body to the transaxle.

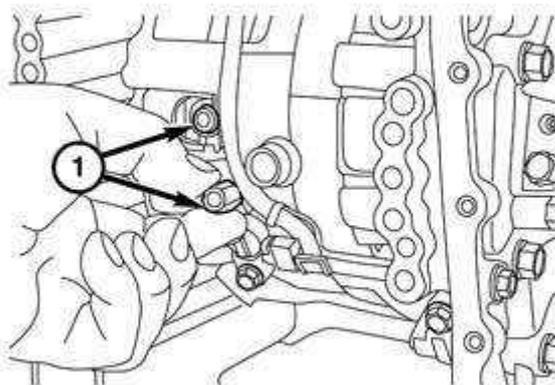
The manual valve is loose after the valve body is removed and may fall out during removal.



210270196

Fig. 570: Valve Body & Transaxle
Courtesy of CHRYSLER GROUP, LLC

15. Separate the valve body (2) from the transaxle (1).



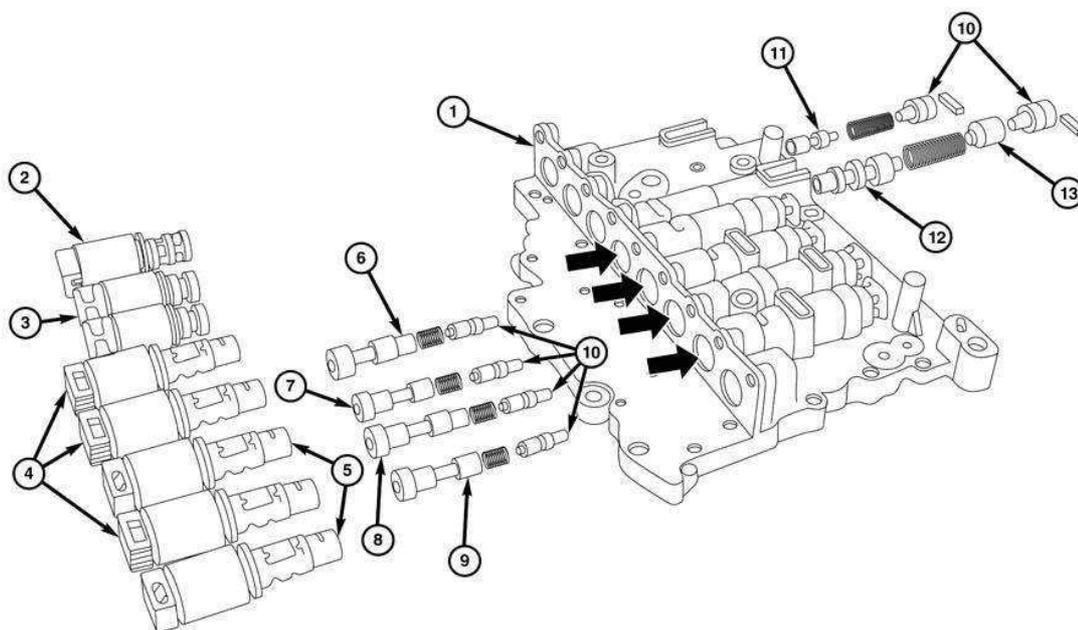
210270383

Fig. 571: Transfer Port Seals
Courtesy of CHRYSLER GROUP, LLC

16. Remove the two seals from the transfer ports in transaxle housing.

DISASSEMBLY**DISASSEMBLY**

Prepare a work area that is clean and large enough to organize the valve body components as they are cleaned and inspected and set aside to be installed during the assembly of the valve body. Arrange the valve components and solenoids in the order and direction that they will be installed to assure proper function when the job is completed.

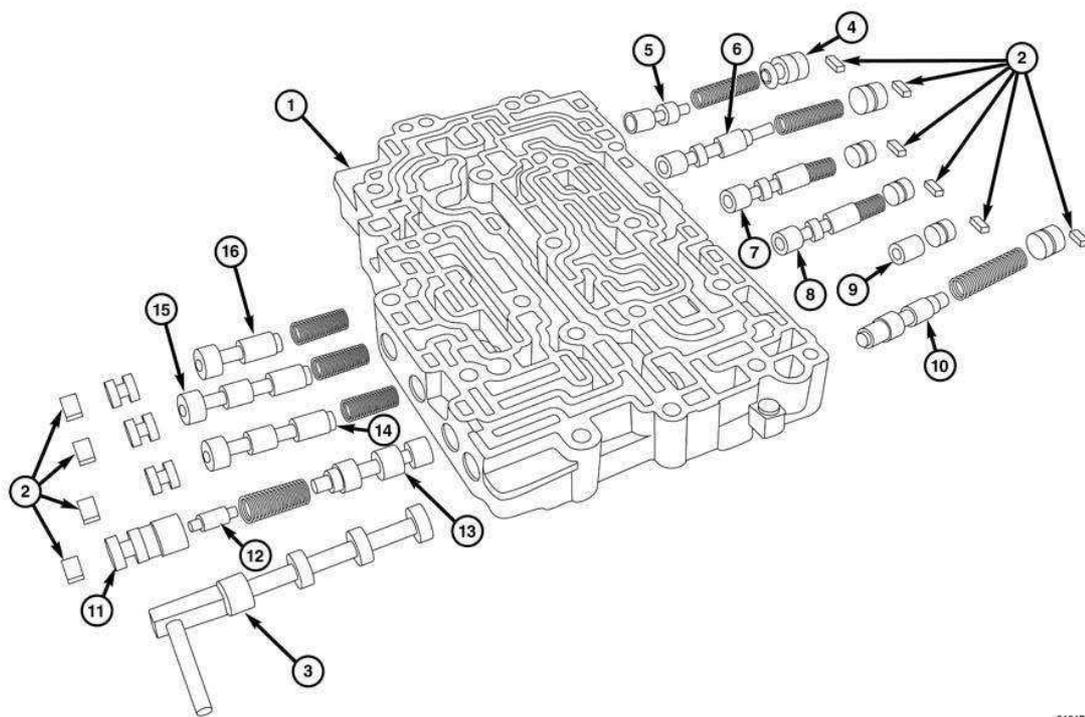


210171576

Fig. 572: Valve Body Solenoids
Courtesy of CHRYSLER GROUP, LLC

- 1= Outer Valve Body
- 2= VFS Solenoid Valve NH
- 3= On-Off Solenoid Valve
- 4= VFS Solenoid Valve NH
- 5= VFS Solenoid Valve NL
- 6= Over Drive Pressure Control Valve
- 7= Under Drive Pressure Control Valve
- 8= 2-6 Brake Pressure Control Valve
- 9= 3-5-R Pressure Control Valve
- 10= Adjust Screws

11= Reducing Valve
 12= Regulator Valve
 13= Regulator Sleeve

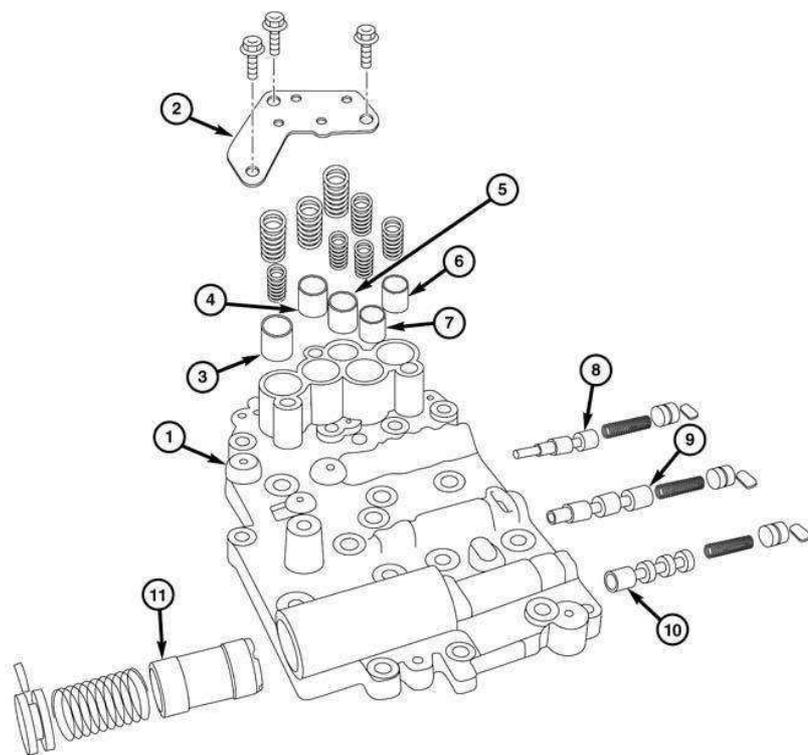


210171577

Fig. 573: Valve Body & Valves
 Courtesy of CHRYSLER GROUP, LLC

1= Middle Valve Body
 2= Stopper Plates
 3= Manual Valve
 4= Adjust Screw
 5= Reducing Valve -2
 6= Torque Converter Control Valve
 7= Overdrive and Low-reverse Switch Valve
 8= Over Drive Pressure Switch Valve
 9= 3-5-R and 2-6 Brake Check Valve
 10= Low-reverse Switch Valve
 11= Torque Converter Pressure Control Sleeve
 12= Torque Converter Control Plug
 13= Torque Converter Pressure Control Valve
 14= 3-5-R pressure Switch Valve

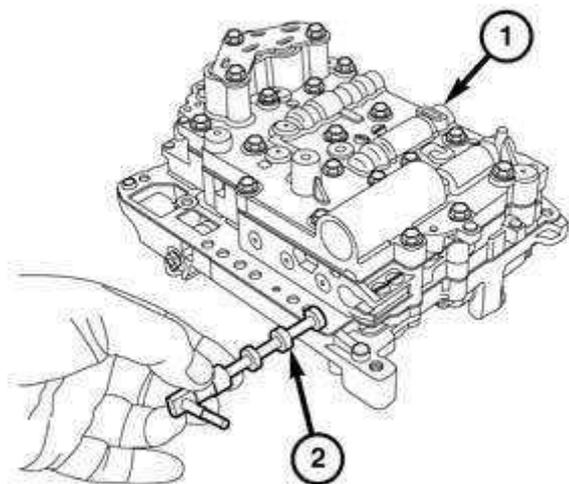
15= 2-6 Brake Pressure Switch Valve
 16= Under Drive Pressure Switch Valve



210171575

Fig. 574: Inner Valve Body & Accumulator
 Courtesy of CHRYSLER GROUP, LLC

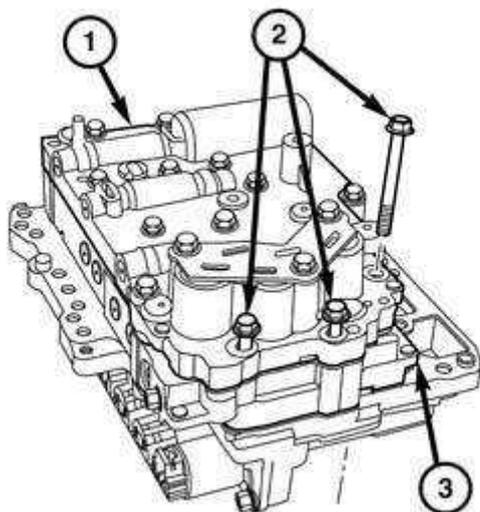
- 1= Inner Valve Body
- 2= Accumulator Plate
- 3= Accumulator 2
- 4= Accumulator 1
- 5= Damping Valve (Red 2)
- 6= Accumulator 3
- 7= Accumulator 4
- 8= OD Fail Safe Valve
- 9= 3-5-R Switch Valve
- 10= Lock-up Switch Valve
- 11= Accumulator Piston



210171536

Fig. 575: Middle Valve Body & Manual Valve
Courtesy of CHRYSLER GROUP, LLC

1. Remove the manual valve (2) from the middle valve body.



210171526

Fig. 576: Valve Body Sections & Bolts
Courtesy of CHRYSLER GROUP, LLC

2. Remove three long bolts (2) holding the outer (1) and middle (3) valve body

sections to the inner valve body from next to the accumulators.

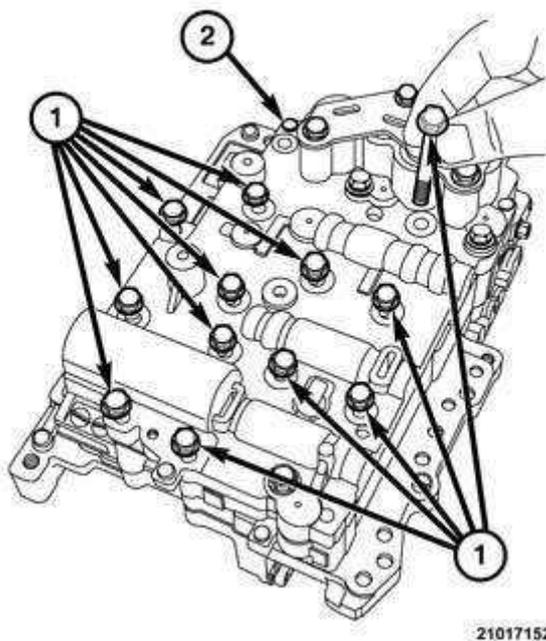


Fig. 577: Valve Body Sections & Bolts
 Courtesy of CHRYSLER GROUP, LLC

3. Remove twelve bolts (1) holding the outer (2) and middle valve body sections to the inner valve body.

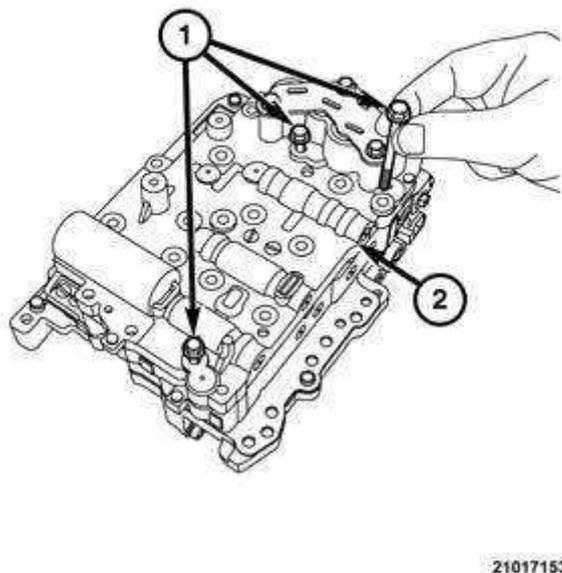
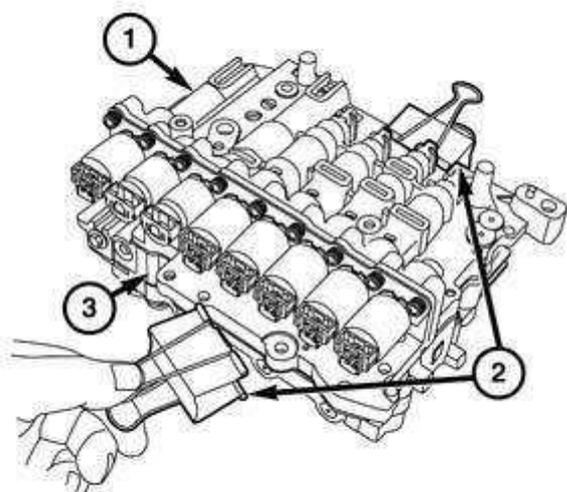


Fig. 578: Valve Body Sections & "black" Bolts

Courtesy of CHRYSLER GROUP, LLC

4. Remove three "black" bolts (1) holding the outer (2) and middle valve body sections to the inner valve body.

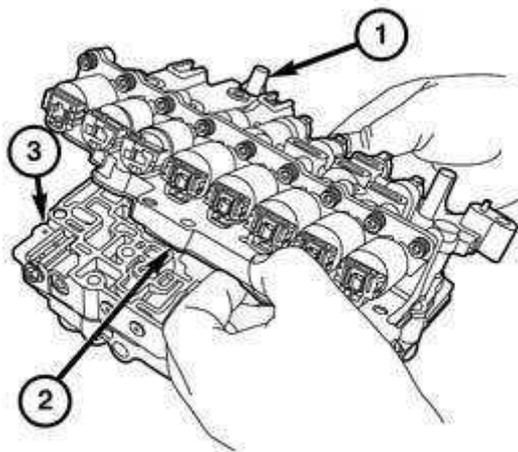


210171538

Fig. 579: Valve Body & Clamps
Courtesy of CHRYSLER GROUP, LLC

NOTE: There are check valves and damping valves that can fall out when the inner valve body is separated from the separator plate.

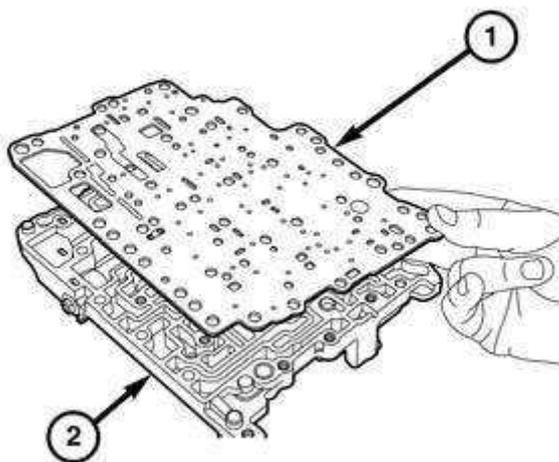
5. Optionally, suitable clamps (2) can be installed to keep the inner valve body and the separator plate from parting prematurely during the next set.



210171528

Fig. 580: Separator Plate, Outer & Middle Valve Body
Courtesy of CHRYSLER GROUP, LLC

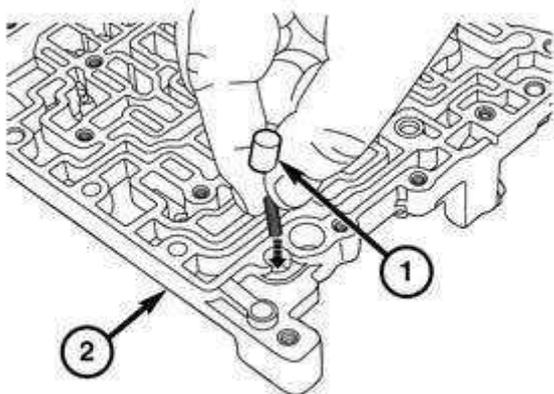
6. If clamping option is not used, pinch the separator plate (2) to the outer valve body (1) and lift them away from the middle valve body (3).
7. Turn the outer valve body over and set it on a flat work surface.



210171535

Fig. 581: Separator Plate & Outer Valve Body
Courtesy of CHRYSLER GROUP, LLC

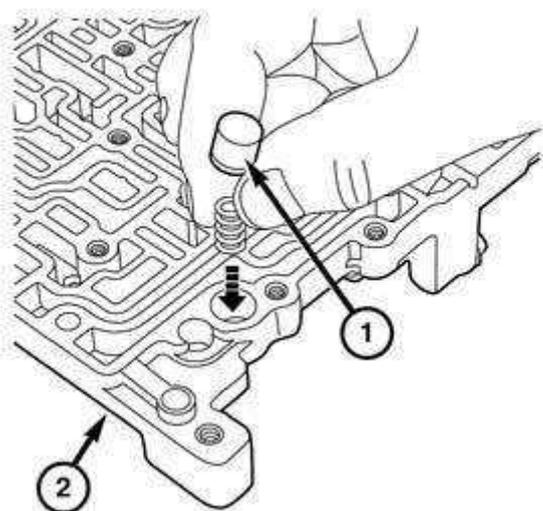
8. Separate the separator plate (1) from the outer valve body (2).



210171523

Fig. 582: Outer Valve Body, Damping Valve & Spring
Courtesy of CHRYSLER GROUP, LLC

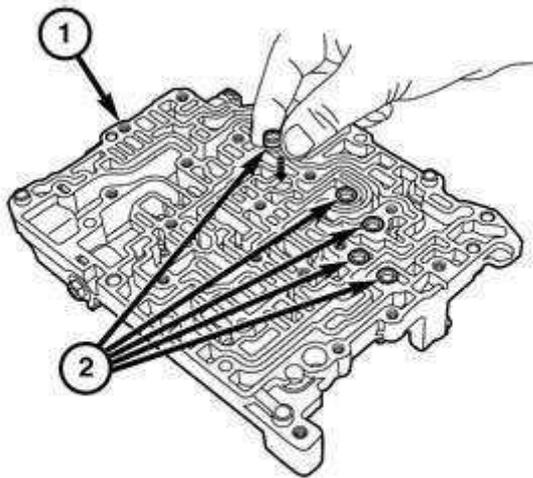
9. Remove the damping valve and spring (1) from the outer valve body (2).



210171522

Fig. 583: Outer Valve Body, Check Valve & Spring
Courtesy of CHRYSLER GROUP, LLC

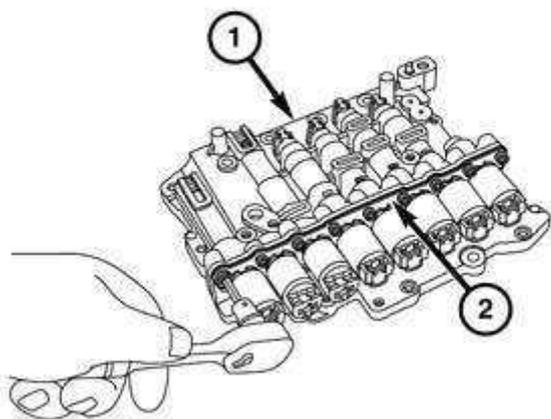
10. Remove the check valve (1) and spring from the outer valve body (2).



210171527

Fig. 584: Outer Valve Body & Five Strainers
Courtesy of CHRYSLER GROUP, LLC

- 11. Remove five strainers (2) from the outer valve body (1).
- 12. Turn the outer valve body over on the work surface.

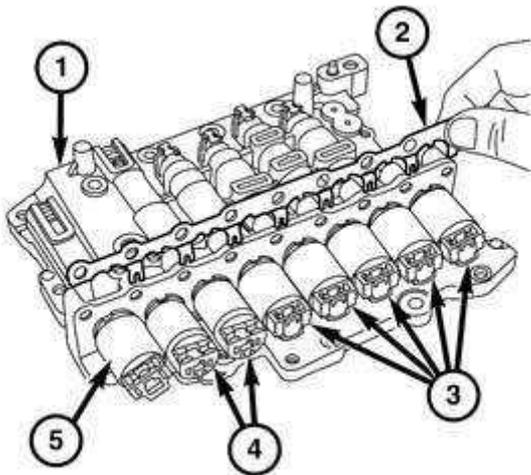


210171524

Fig. 585: Outer Valve Body & Solenoid Retainer

Courtesy of CHRYSLER GROUP, LLC

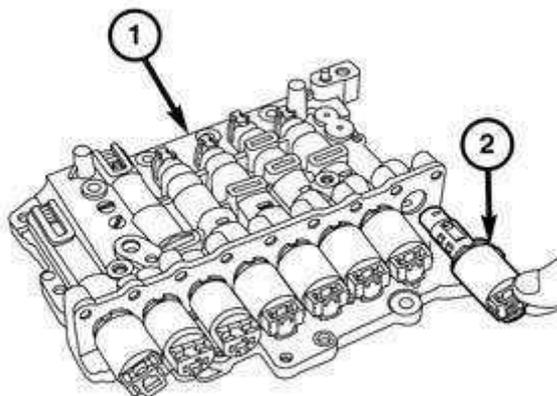
13. Remove screws holding the solenoid retainer (2) to the outer valve body (1).



210171587

Fig. 586: Solenoid Retainer Separated From Outer Valve Body
Courtesy of CHRYSLER GROUP, LLC

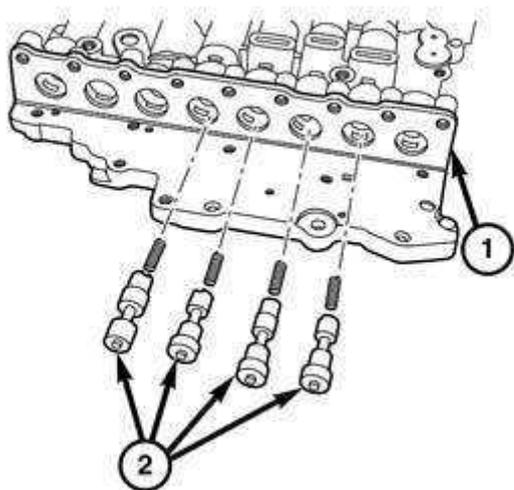
14. Separate the solenoid retainer (2) from the outer valve body (1).



210171592

Fig. 587: Outer Valve Body & Solenoids
Courtesy of CHRYSLER GROUP, LLC

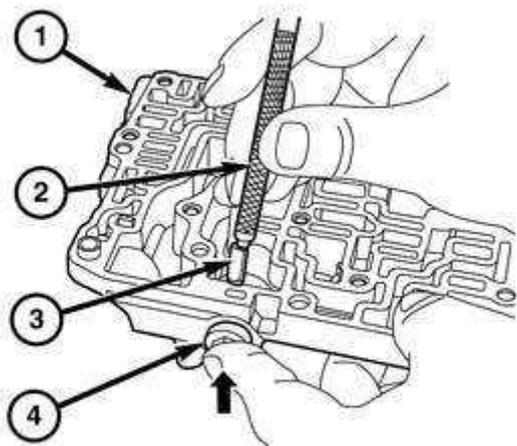
15. Pull the solenoids (2) from the outer valve body (1). The solenoids must be installed in the same locations that they are removed.



210171588

Fig. 588: Outer Valve Body, Pressure Control Valves & Springs
Courtesy of CHRYSLER GROUP, LLC

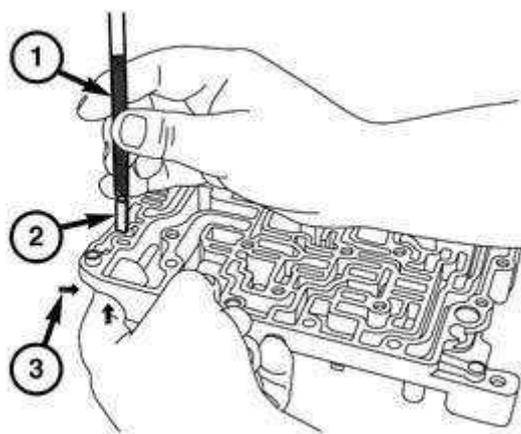
16. Remove the pressure control valves (2) and springs from the outer valve body (1).



210171591

Fig. 589: Outer Valve Body, Stopper Plate & Regulator Valve Adjuster
Courtesy of CHRYSLER GROUP, LLC

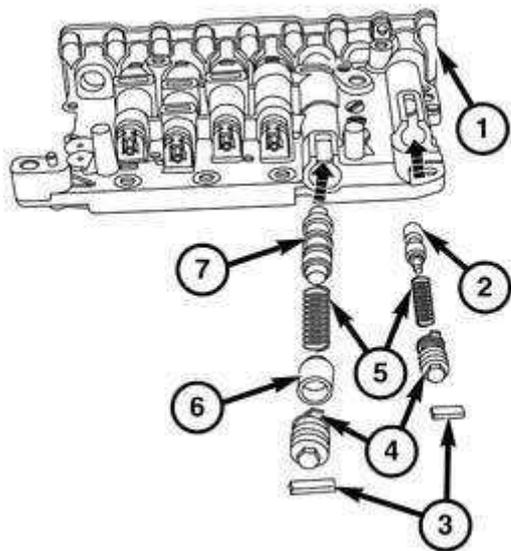
17. Using a suitable magnet (2), remove the stopper plate (3) holding the regulator valve adjuster (4) into the outer valve body (1).



210171589

Fig. 590: Outer Valve Body, Stopper Plate & Reducing Valve Adjuster
Courtesy of CHRYSLER GROUP, LLC

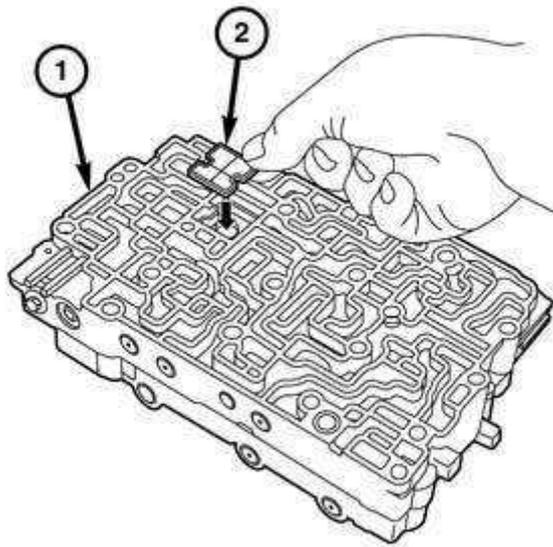
18. Using a suitable magnet (1), remove the stopper plate (2) holding the reducing valve adjuster (3) into the outer valve body.



210171590

Fig. 591: Outer Valve Body, Regulator, Regulator Sleeve, Reducing Valve & Springs
Courtesy of CHRYSLER GROUP, LLC

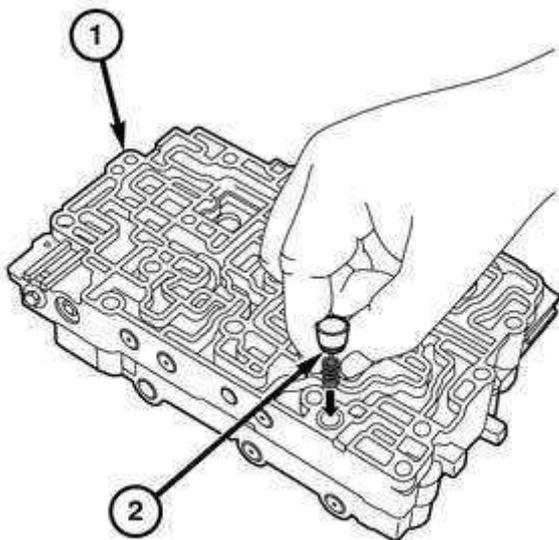
19. Remove the regulator (7), regulator sleeve (6) and reducing valve (2) and springs (5) from the outer valve body (1).



210171530

Fig. 592: Middle Valve Body & Fluid Strainer
Courtesy of CHRYSLER GROUP, LLC

20. Remove the fluid strainer (2) from the middle valve body (1).



210171529

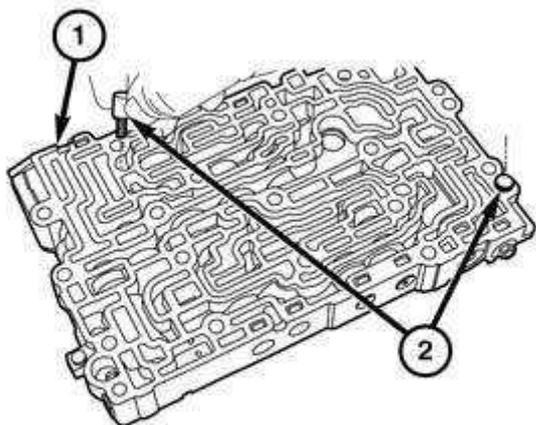
Fig. 593: Middle Valve Body & Damping Valve
Courtesy of CHRYSLER GROUP, LLC

21. Remove the damping valve (2) and coil spring from the middle valve body

(1).

NOTE: There are two check valves on the backside of the middle valve body that will fall out if the middle valve body is lifted away from the outer valve body.

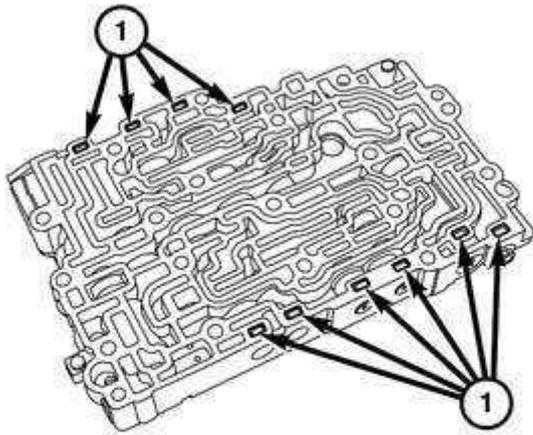
22. While holding the middle valve body to the inner valve body, turn the two sections over so the middle valve body is on the work surface.
23. Separate the outer valve away from the middle valve body to gain access to the check valves and stopper plates.



210171586

Fig. 594: Middle Valve Body, Check Valves & Springs
Courtesy of CHRYSLER GROUP, LLC

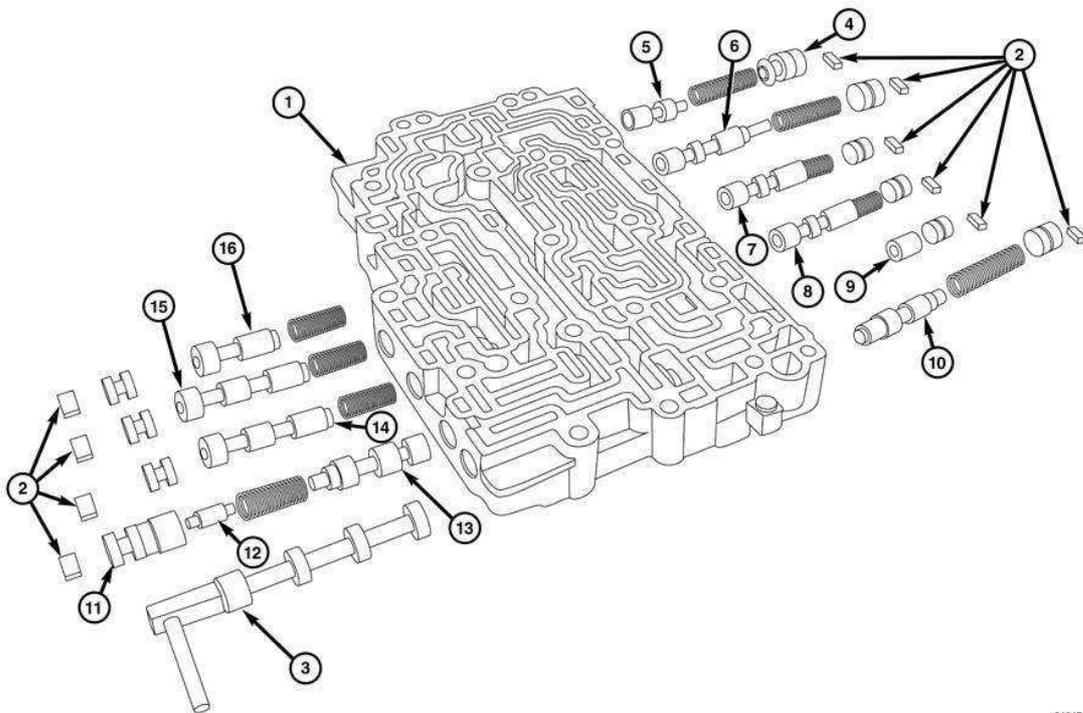
24. Remove the check valves and springs (2) from the middle valve body (1).



210171584

Fig. 595: Middle Valve Body, Stopper Plates, Valve Plugs & Adjusters
Courtesy of CHRYSLER GROUP, LLC

25. One valve at a time, remove the stopper plates (1) holding the valve plugs and adjusters into the middle valve body.

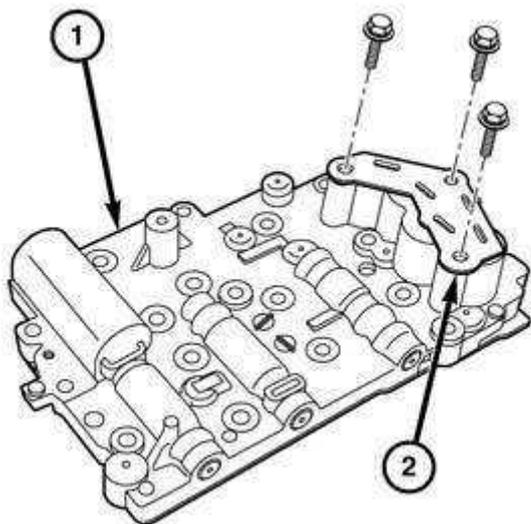


210171577

Fig. 596: Valve Body & Valves
Courtesy of CHRYSLER GROUP, LLC

- 1= Middle Valve Body
- 2= Stopper Plates
- 3= Manual Valve
- 4= Adjust Screw
- 5= Reducing Valve -2
- 6= Torque Converter Control Valve
- 7= Overdrive and Low-reverse Switch Valve
- 8= Over Drive Pressure Switch Valve
- 9= 3-5-R and 2-6 Brake Check Valve
- 10= Low-reverse Switch Valve
- 11= Torque Converter Pressure Control Sleeve
- 12= Torque Converter Control Plug
- 13= Torque Converter Pressure Control Valve
- 14= 3-5-R pressure Switch Valve
- 15= 2-6 Brake Pressure Switch Valve
- 16= Under Drive Pressure Switch Valve

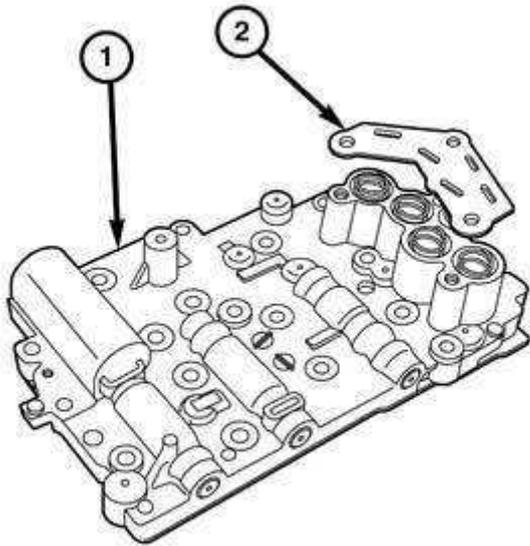
26. Remove valve assemblies, one at a time, and place them on a clean surface oriented, and in order of, the way they were removed.



210171580

Fig. 597: Inner Valve Body, Accumulator Plate & Bolts
 Courtesy of CHRYSLER GROUP, LLC

27. Remove bolts holding accumulator plate (2) to the inner valve body (1).

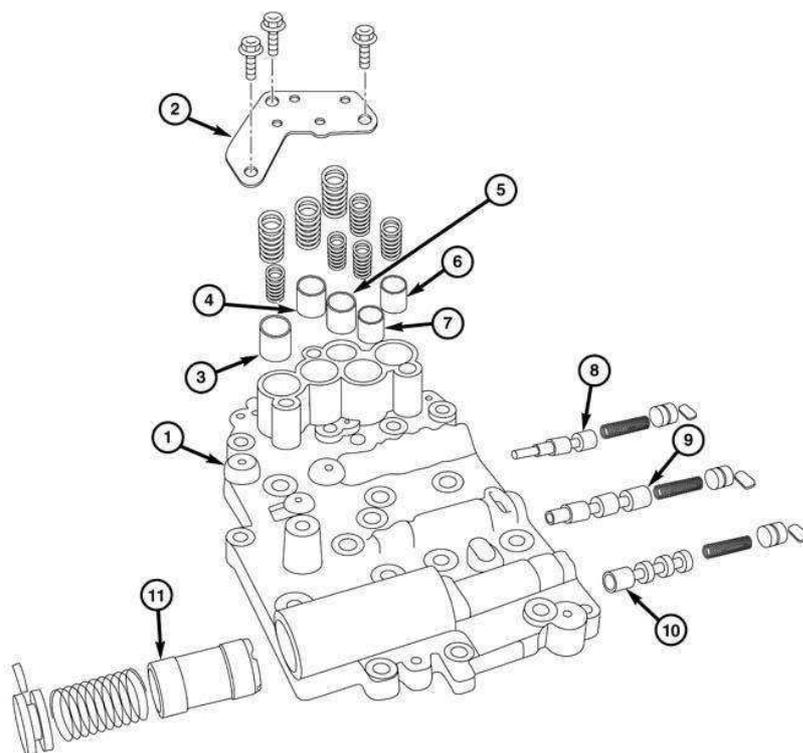


210171579

Fig. 598: Inner Valve Body & Accumulator Plate
Courtesy of CHRYSLER GROUP, LLC

28. Separate the accumulator plate (2) from the inner valve body (1).

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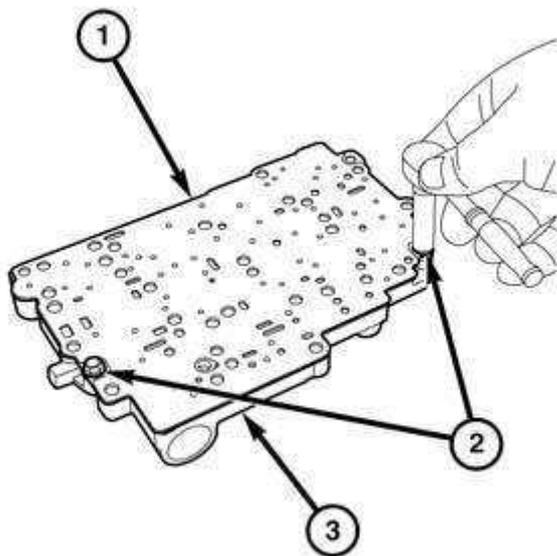


210171575

Fig. 599: Inner Valve Body & Accumulator
 Courtesy of CHRYSLER GROUP, LLC

- 1= Inner Valve Body
- 2= Accumulator Plate
- 3= Accumulator 2 (Green and Yellow Springs)
- 4= Accumulator 1 (Pink Spring)
- 5= Damping Valve (White and White springs)
- 6= Accumulator 3 (Pink Spring)
- 7= Accumulator 4 (Yellow and Yellow Spring)
- 8= OD Fail Safe Valve
- 9= 3-5-R Switch Valve
- 10= Lock-up Switch Valve
- 11= Accumulator Piston

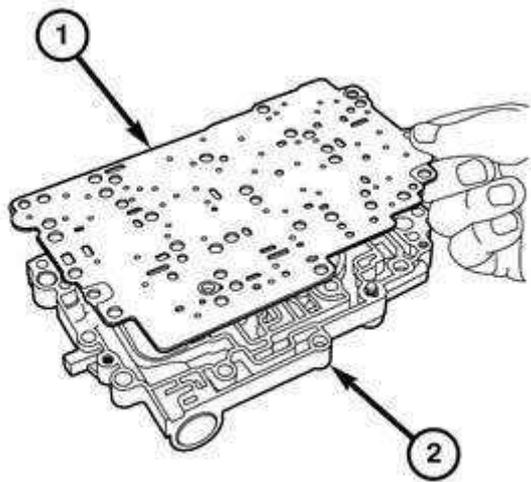
29. Remove accumulators and valves and place them on a clean surface oriented, and in order of, the way they were removed.



210171582

Fig. 600: Inner Valve Body, Separator Plate & Bolts
Courtesy of CHRYSLER GROUP, LLC

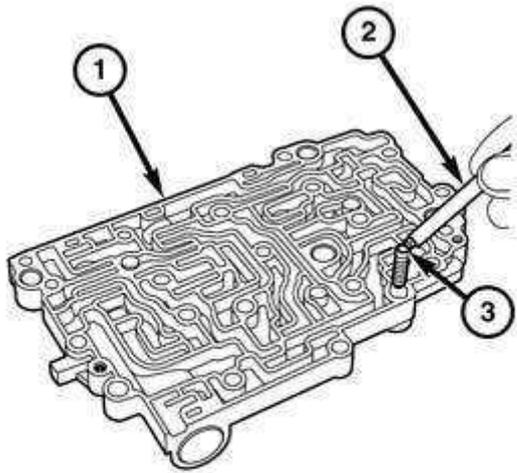
30. Remove bolts (2) holding the separator plate (1) to the inner valve body (3).



210171581

Fig. 601: Inner Valve Body & Separator Plate
Courtesy of CHRYSLER GROUP, LLC

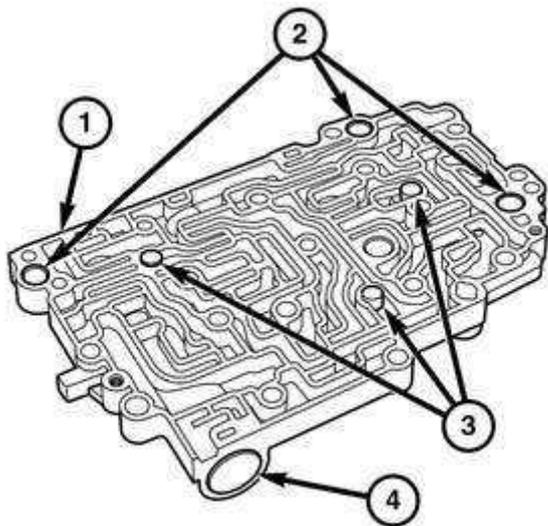
31. Separate the separator plate (1) from the inner valve body (2).



210171583

Fig. 602: Inner Valve Body, Steel Check Ball & Spring
Courtesy of CHRYSLER GROUP, LLC

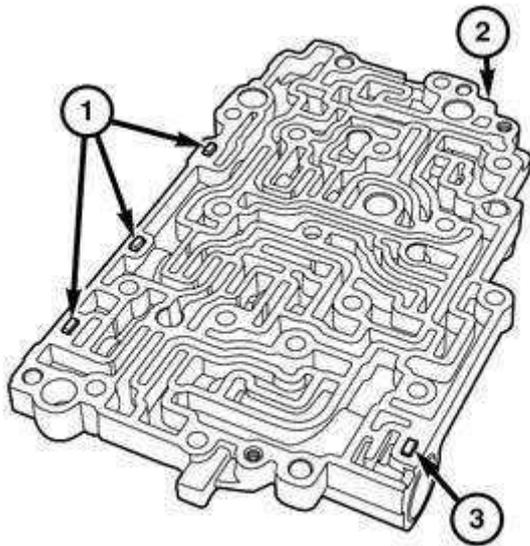
32. Using a suitable magnet (2), remove steel check ball and spring (3) from inner valve body (1).



210171578

Fig. 603: Inner Valve Body, Damping Valves & Check Valves
Courtesy of CHRYSLER GROUP, LLC

33. Remove three damping valves (2) and three check valves (3) from inner valve body (1).

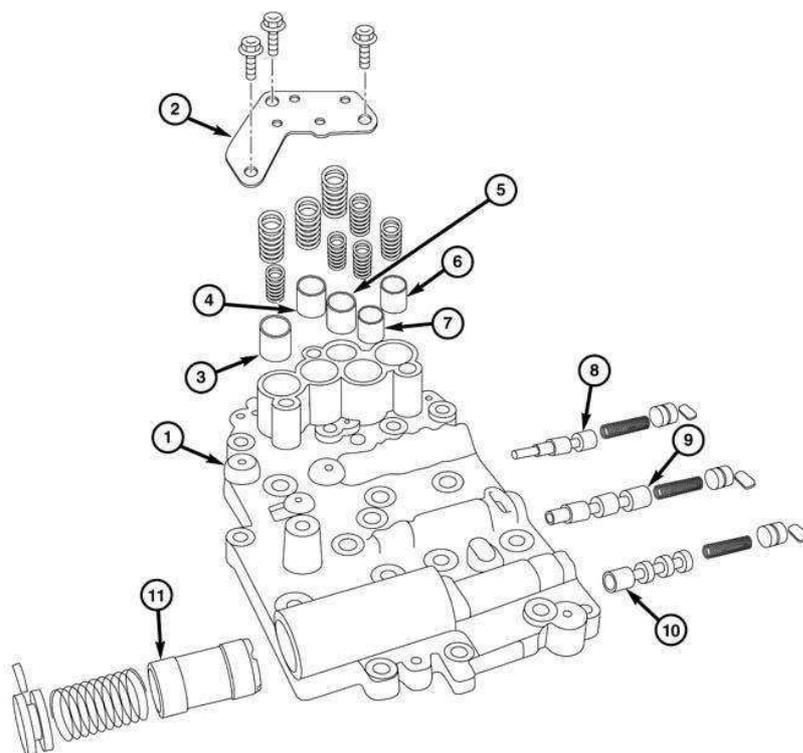


210171716

Fig. 604: Inner Valve Body, Stopper Plates & Accumulator
Courtesy of CHRYSLER GROUP, LLC

34. Remove stopper plates holding valves (1) and accumulator (3) in the inner valve body (2).

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210171575

Fig. 605: Inner Valve Body & Accumulator
 Courtesy of CHRYSLER GROUP, LLC

- 1= Inner Valve Body
- 2= Accumulator Plate
- 3= Accumulator 2 (Green and Yellow Springs)
- 4= Accumulator 1 (Pink Spring)
- 5= Damping Valve (White and White springs)
- 6= Accumulator 3 (Pink Spring)
- 7= Accumulator 4 (Yellow and Yellow Spring)
- 8= OD Fail Safe Valve
- 9= 3-5-R Switch Valve
- 10= Lock-up Switch Valve
- 11= Accumulator Piston

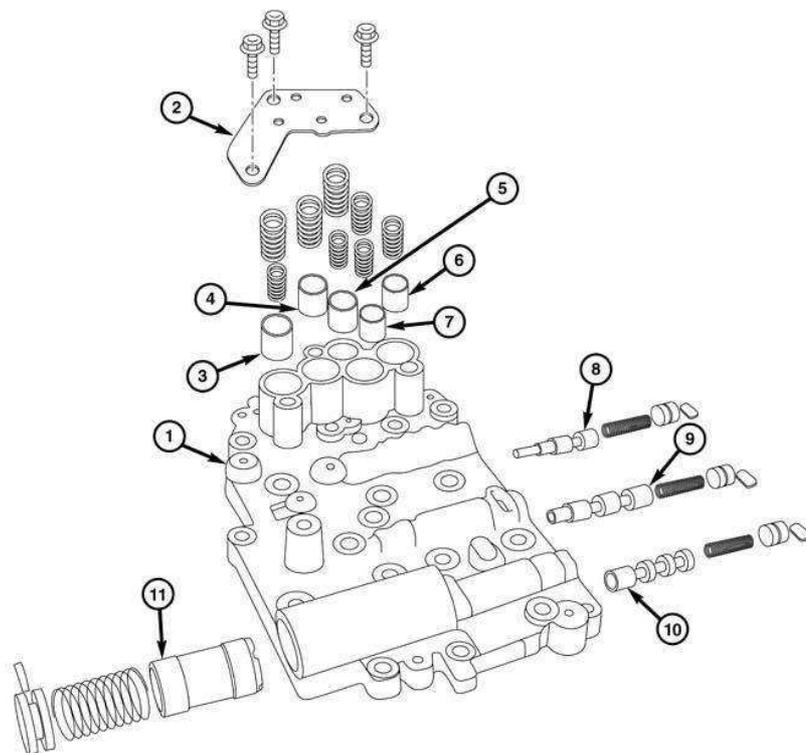
35. Remove the valves assemblies (8, 9 and 10) and accumulator piston (11) and place them on a clean surface oriented, and in order of, the way they were removed.

ASSEMBLY

ASSEMBLY

Clean all valve body components with a suitable solvent and blow them dry with regulated 345 kPa (50 psi) compressed shop air. Inspect all valves, pistons, accumulators, and their bores for damage. If any of the surfaces are scored or show evidence of damage, the valve body must be replaced. As the valve body is assembled, lubricate each component with specified transaxle fluid as they are installed. Refer to **SPECIFICATIONS**.

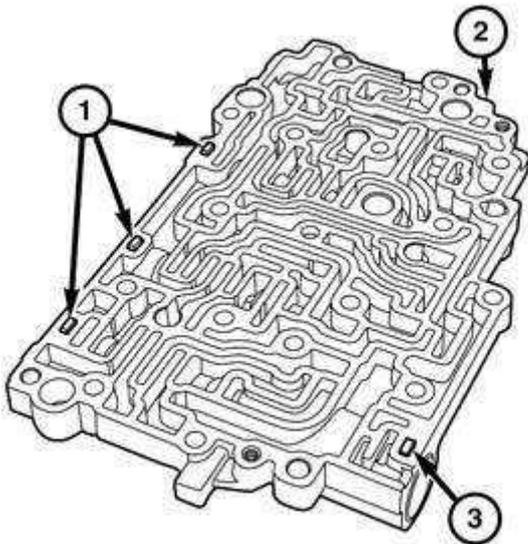
- 1= Inner Valve Body
- 2= Accumulator Plate
- 3= Accumulator 2 (Green and Yellow Springs)
- 4= Accumulator 1 (Pink Spring)
- 5= Damping Valve (White and White springs)
- 6= Accumulator 3 (Pink Spring)
- 7= Accumulator 4 (Yellow and Yellow Spring)
- 8= OD Fail Safe Valve
- 9= 3-5-R Switch Valve
- 10= Lock-up Switch Valve
- 11= Accumulator Piston



210171575

Fig. 606: Inner Valve Body & Accumulator
Courtesy of CHRYSLER GROUP, LLC

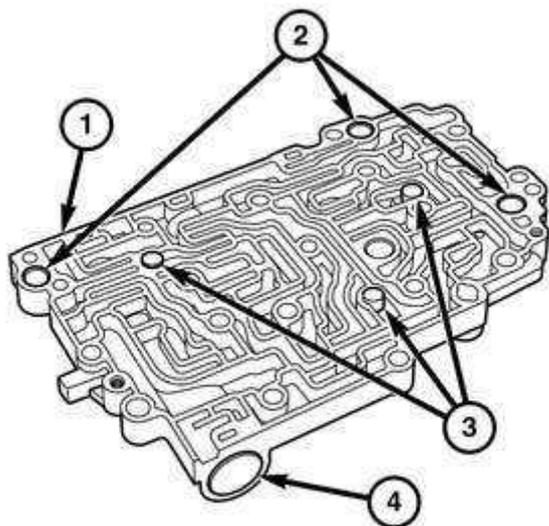
1. Install the valve assemblies (8, 9, and 10) and accumulator piston (11) in the inner valve body (1) removed.



210171716

Fig. 607: Inner Valve Body, Stopper Plates & Accumulator
Courtesy of CHRYSLER GROUP, LLC

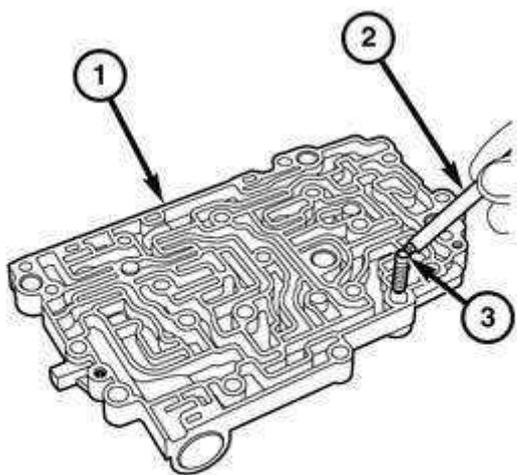
2. Install the stopper plates to hold the valve assemblies (1) and accumulator piston (3) in the inner valve body (2).



210171578

Fig. 608: Inner Valve Body, Damping Valves & Check Valves
Courtesy of CHRYSLER GROUP, LLC

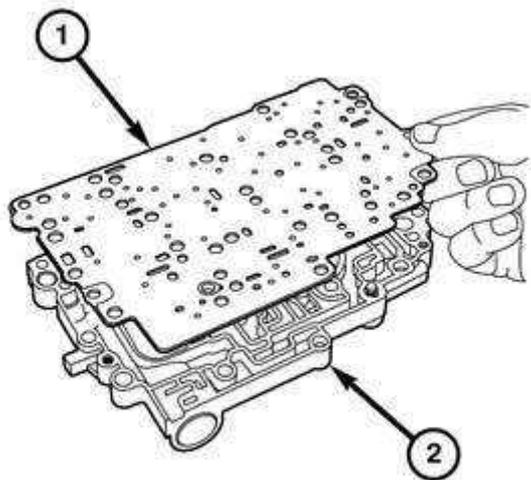
3. Install three damping valves (2) and three check valves (3) in the inner valve body (1).



210171583

Fig. 609: Inner Valve Body, Steel Check Ball & Spring
Courtesy of CHRYSLER GROUP, LLC

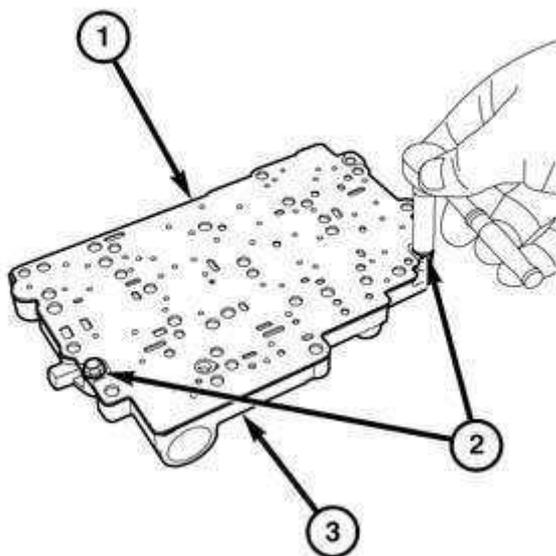
4. Install the steel check ball and spring (3) into inner valve body (1).



210171581

Fig. 610: Inner Valve Body & Separator Plate
Courtesy of CHRYSLER GROUP, LLC

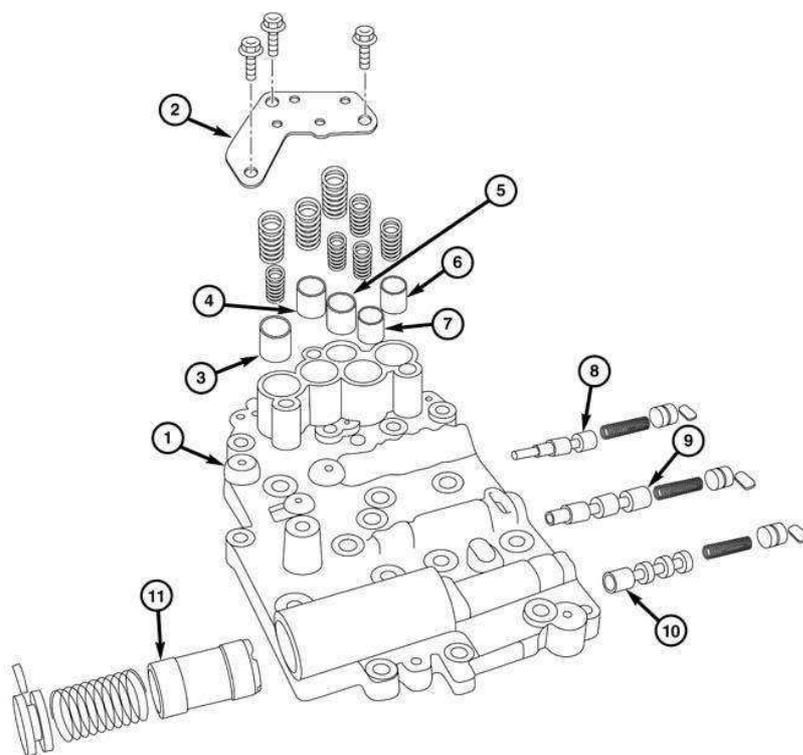
5. Place the separator plate (1) in position on the inner valve body (2).



210171582

Fig. 611: Inner Valve Body, Separator Plate & Bolts
Courtesy of CHRYSLER GROUP, LLC

6. Install bolts (2) to hold the separator plate (1) to the inner valve body (3). Refer to **SPECIFICATIONS**.

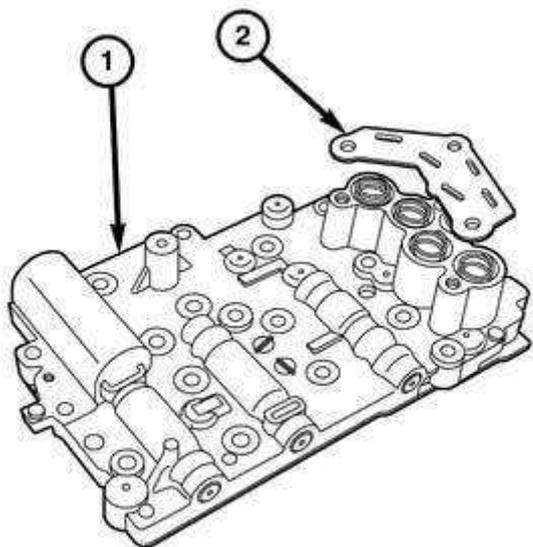


210171575

Fig. 612: Inner Valve Body & Accumulator
 Courtesy of CHRYSLER GROUP, LLC

- 1= Inner Valve Body
- 2= Accumulator Plate
- 3= Accumulator 2 (Green and Yellow Springs)
- 4= Accumulator 1 (Pink Spring)
- 5= Damping Valve (White and White springs)
- 6= Accumulator 3 (Pink Spring)
- 7= Accumulator 4 (Yellow and Yellow Spring)
- 8= OD Fail Safe Valve
- 9= 3-5-R Switch Valve
- 10= Lock-up Switch Valve
- 11= Accumulator Piston

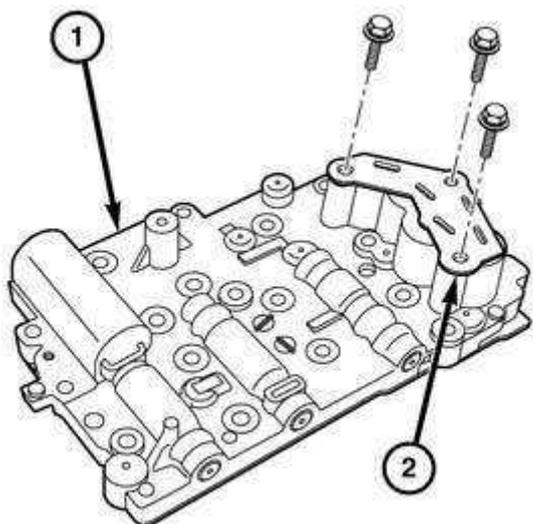
7. Install accumulators (2, 3, 4 and 6) and valves (5, 8, 9 and 10) in the inner valve body (1).



210171579

Fig. 613: Inner Valve Body & Accumulator Plate
Courtesy of CHRYSLER GROUP, LLC

8. Place the accumulator plate (2) in position on the inner valve body (1).

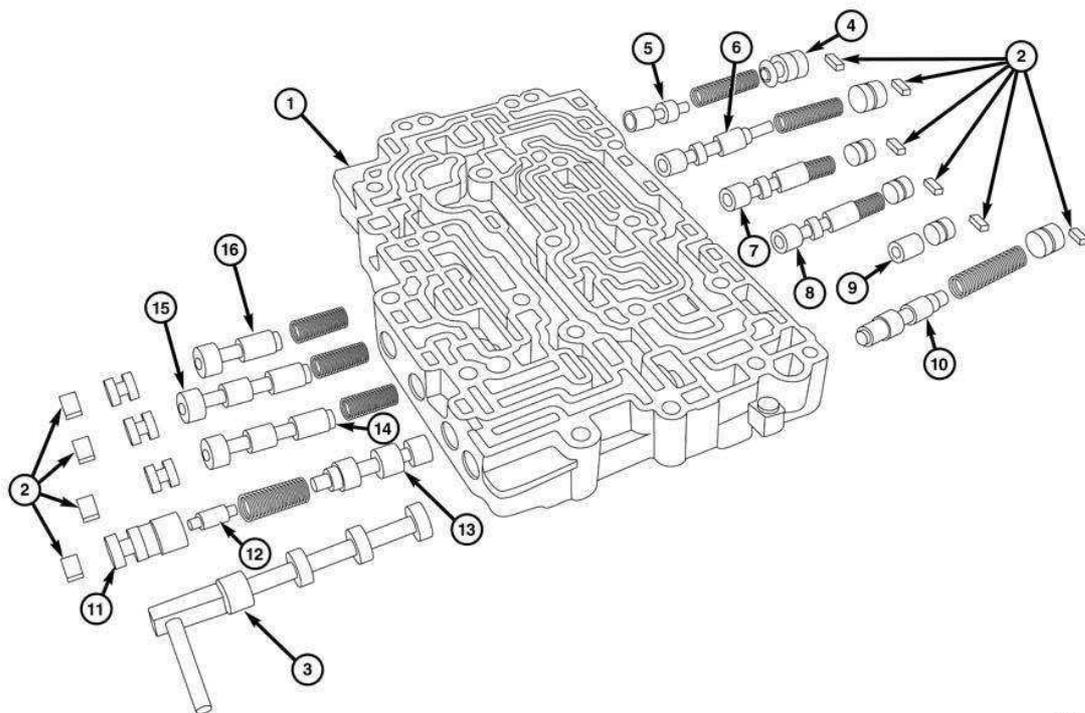


210171580

Fig. 614: Inner Valve Body, Accumulator Plate & Bolts
Courtesy of CHRYSLER GROUP, LLC

9. Install bolts to hold the accumulator plate (2) to the inner valve body (1).

Refer to **SPECIFICATIONS**.

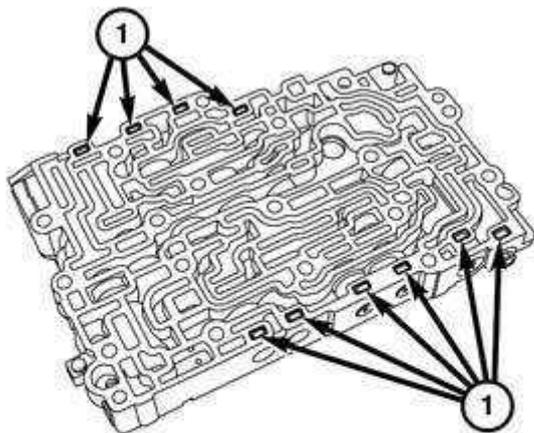


210171577

Fig. 615: Valve Body & Valves
 Courtesy of CHRYSLER GROUP, LLC

- 1= Middle Valve Body
- 2= Stopper Plates
- 3= Manual Valve
- 4= Adjust Screw
- 5= Reducing Valve -2
- 6= Torque Converter Control Valve
- 7= Overdrive and Low-reverse Switch Valve
- 8= Over Drive Pressure Switch Valve
- 9= 3-5-R and 2-6 Brake Check Valve
- 10= Low-reverse Switch Valve
- 11= Torque Converter Pressure Control Sleeve
- 12= Torque Converter Control Plug
- 13= Torque Converter Pressure Control Valve
- 14= 3-5-R pressure Switch Valve
- 15= 2-6 Brake Pressure Switch Valve
- 16= Under Drive Pressure Switch Valve

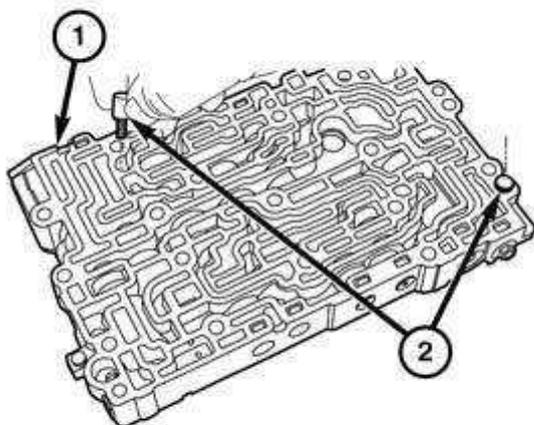
10. Install valve assemblies (5 thru 16), one at a time, into the middle valve body (1).



210171584

Fig. 616: Middle Valve Body, Stopper Plates, Valve Plugs & Adjusters
Courtesy of CHRYSLER GROUP, LLC

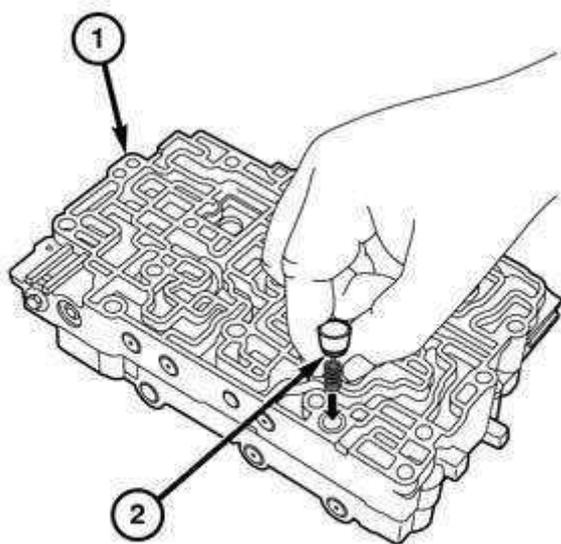
11. One valve at a time, install the stopper plates (1) to hold the valve plugs and adjusters into the middle valve body.



210171586

Fig. 617: Middle Valve Body, Check Valves & Springs
Courtesy of CHRYSLER GROUP, LLC

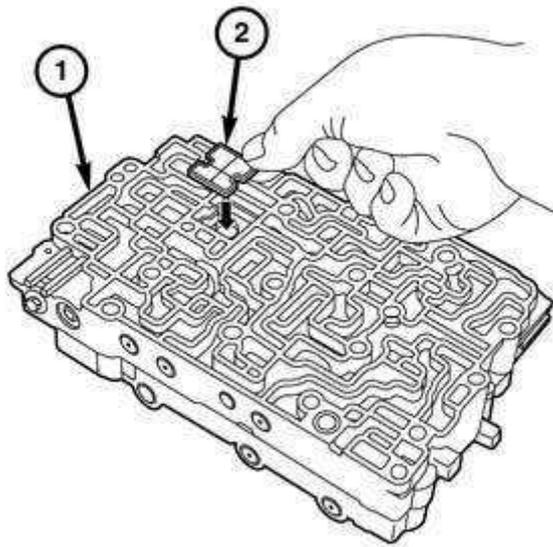
12. Install the check valves and springs (2) in the middle valve body (1).
13. Place the outer valve body on the middle valve body.
14. While holding the middle valve body to the inner valve body, turn the two sections over so the inner valve body is on the work surface.



210171529

Fig. 618: Middle Valve Body & Damping Valve
Courtesy of CHRYSLER GROUP, LLC

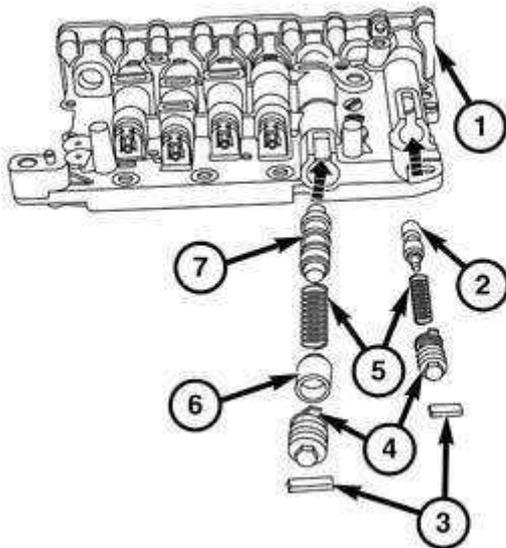
15. Install the damping valve (2) and coil spring into the middle valve body (1).



210171530

Fig. 619: Middle Valve Body & Fluid Strainer
Courtesy of CHRYSLER GROUP, LLC

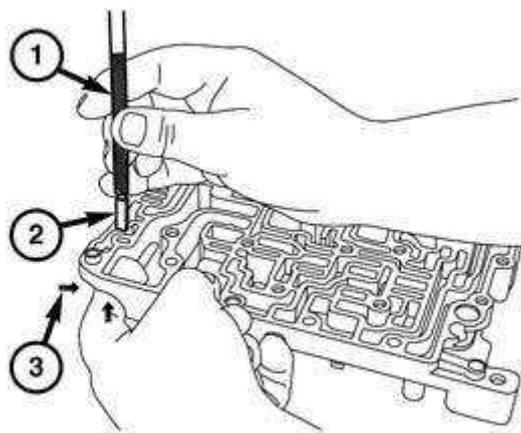
16. Install the oil strainer (2) into the middle valve body (1).



210171590

Fig. 620: Outer Valve Body, Regulator, Regulator Sleeve, Reducing Valve & Springs
Courtesy of CHRYSLER GROUP, LLC

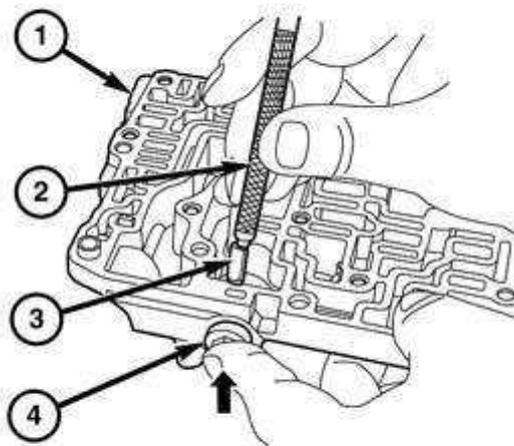
17. Install the regulator (7), regulator sleeve (6) and reducing valve (2) and springs (5) into the outer valve body (1).



210171589

Fig. 621: Outer Valve Body, Stopper Plate & Reducing Valve Adjuster
 Courtesy of CHRYSLER GROUP, LLC

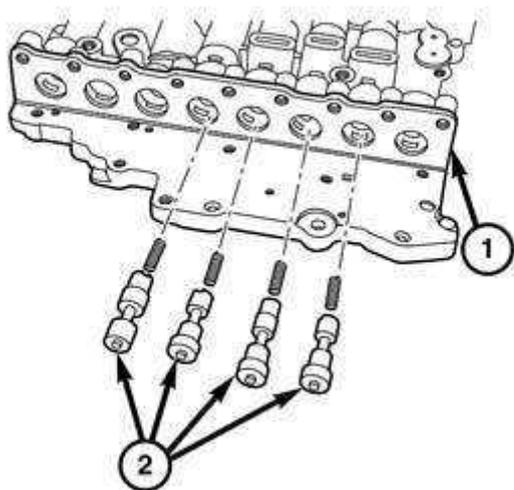
18. Install the stopper plate (2) to hold the reducing valve adjuster (3) into the outer valve body.



210171591

Fig. 622: Outer Valve Body, Stopper Plate & Regulator Valve Adjuster
Courtesy of CHRYSLER GROUP, LLC

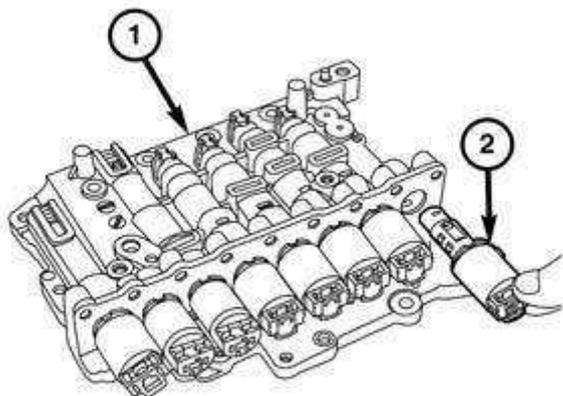
19. Install the stopper plate (3) to hold the regulator valve adjuster (4) into the outer valve body (1).



210171588

Fig. 623: Outer Valve Body, Pressure Control Valves & Springs
Courtesy of CHRYSLER GROUP, LLC

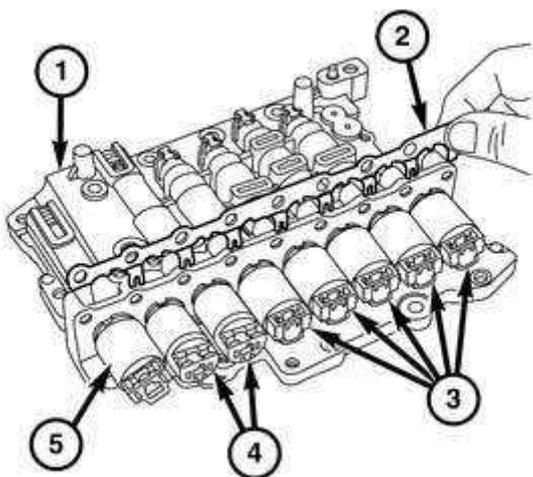
20. Install the pressure control valves (2) and springs into the outer valve body (1).



210171592

Fig. 624: Outer Valve Body & Solenoids
Courtesy of CHRYSLER GROUP, LLC

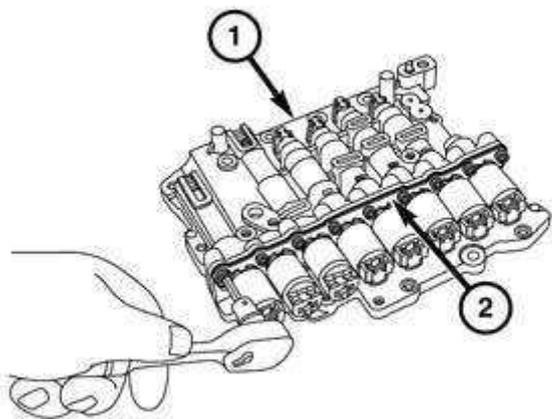
21. Insert the solenoids (2) into the outer valve body (1). The solenoids (1) must be installed in the same locations that they were removed from.



210171587

Fig. 625: Solenoid Retainer Separated From Outer Valve Body
Courtesy of CHRYSLER GROUP, LLC

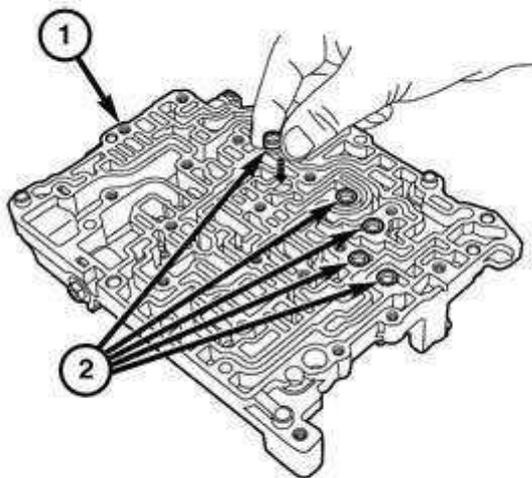
22. Place the solenoid retainer (2) in position on outer valve body (1).



210171524

Fig. 626: Outer Valve Body & Solenoid Retainer
Courtesy of CHRYSLER GROUP, LLC

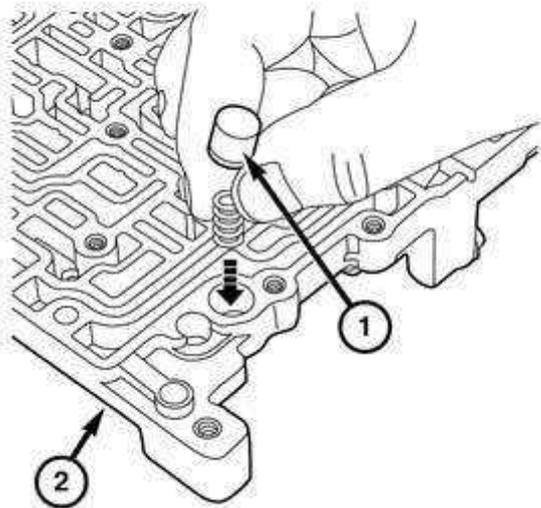
23. Install screws to hold the solenoid retainer (2) to the outer valve body (1). Refer to **SPECIFICATIONS**.
24. Turn the outer valve body over on the work surface.



210171527

Fig. 627: Outer Valve Body & Five Strainers
Courtesy of CHRYSLER GROUP, LLC

25. Install five strainers (2) into the outer valve body (1).

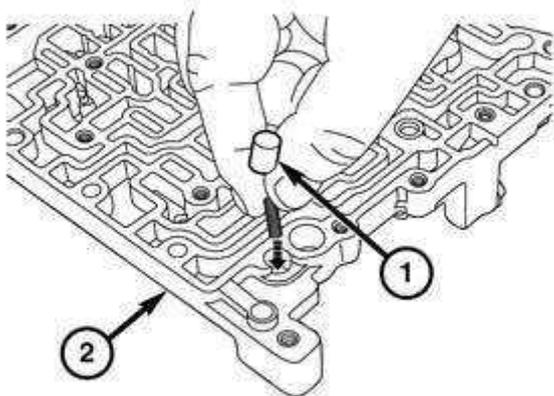


210171522

Fig. 628: Outer Valve Body, Check Valve & Spring
Courtesy of CHRYSLER GROUP, LLC

26. Install the check valve (1) and spring into the outer valve body (2).

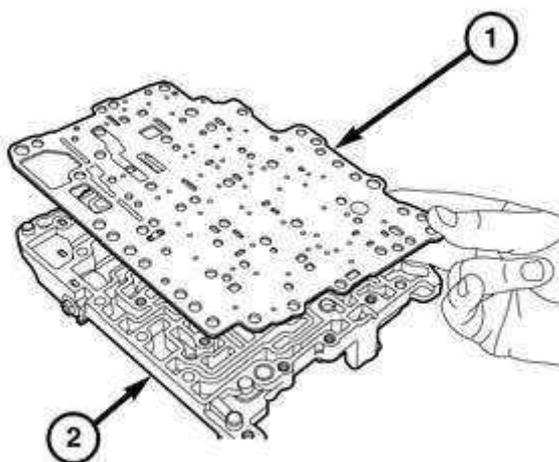
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210171523

Fig. 629: Outer Valve Body, Damping Valve & Spring
Courtesy of CHRYSLER GROUP, LLC

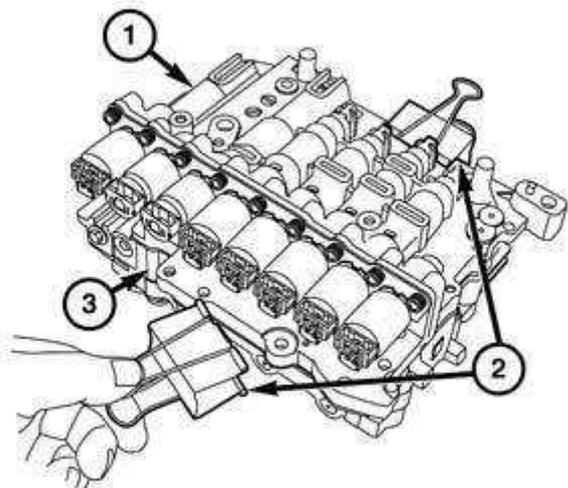
27. Install the damping valve and spring (1) into the outer valve body (2).



210171535

Fig. 630: Separator Plate & Outer Valve Body
Courtesy of CHRYSLER GROUP, LLC

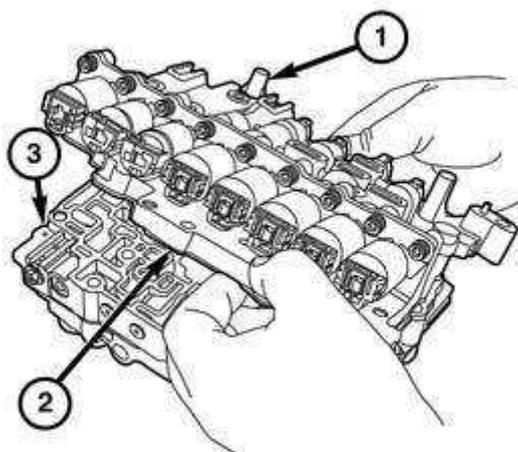
28. Place the separator plate (1) onto the outer valve body (2).



210171538

Fig. 631: Valve Body & Clamps
Courtesy of CHRYSLER GROUP, LLC

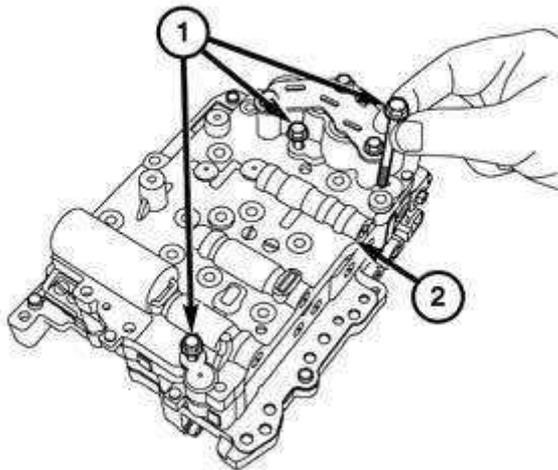
29. Optionally, suitable clamps (2) can be installed to keep the inner valve body and the separator plate from parting prematurely during the next set.



210171528

Fig. 632: Separator Plate, Outer & Middle Valve Body
Courtesy of CHRYSLER GROUP, LLC

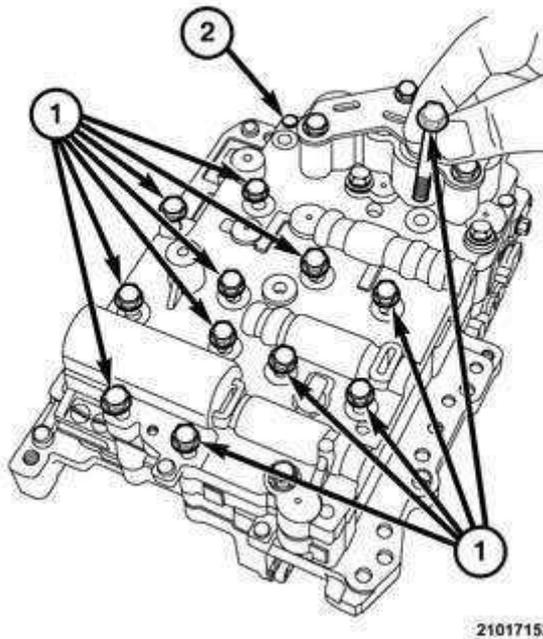
30. If clamping option is not used, pinch the separator plate (2) to the outer valve body (1) and lower them onto the middle valve body (3).
31. Holding the Lower, middle, and inner valve body sections together, turn the valve body over, set it on a flat work surface.



210171534

Fig. 633: Valve Body Sections & "black" Bolts
Courtesy of CHRYSLER GROUP, LLC

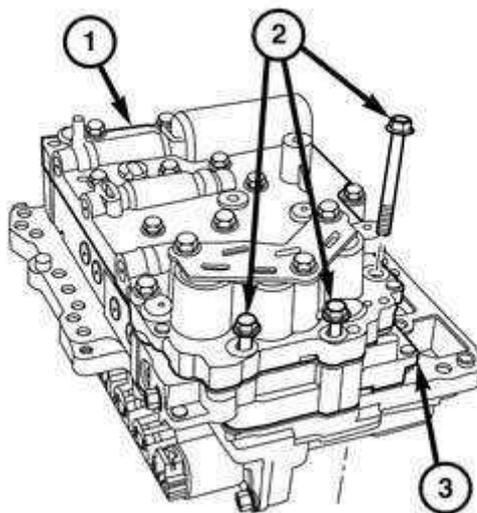
32. Install three "black" bolts (1) to hold the outer (2) and middle valve body sections to the inner valve body. Refer to **SPECIFICATIONS**.



210171525

Fig. 634: Valve Body Sections & Bolts
Courtesy of CHRYSLER GROUP, LLC

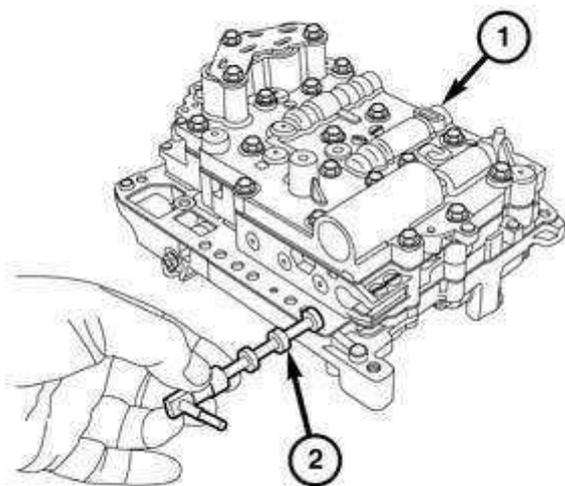
33. Install twelve bolts (1) to hold the outer (2) and middle valve body sections to the inner valve body. Refer to **SPECIFICATIONS**.



210171526

Fig. 635: Valve Body Sections & Bolts
Courtesy of CHRYSLER GROUP, LLC

34. Install three bolts (2) to hold the outer (1) and middle (3) valve body sections to the inner valve body next to the accumulators. Refer to **SPECIFICATIONS**.



210171536

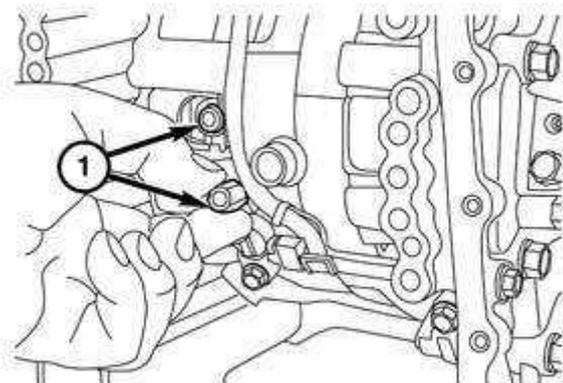
Fig. 636: Middle Valve Body & Manual Valve
Courtesy of CHRYSLER GROUP, LLC

35. Install the manual valve (2) into the middle valve body.
36. Install the valve body into the transaxle. Refer to **VALVE BODY, INSTALLATION**.

INSTALLATION

INSTALLATION

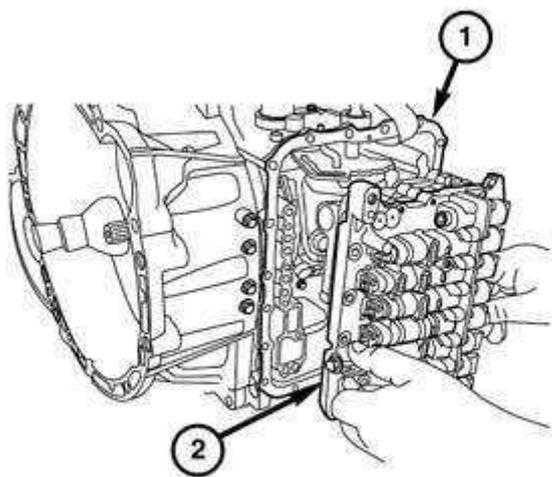
Verify that all of the valve body mating surfaces are clean and are undamaged on the transaxle housing and the valve body. If the surfaces are damaged the transaxle housing or valve body will require replacement.



210270383

Fig. 637: Transfer Port Seals
Courtesy of CHRYSLER GROUP, LLC

1. Install the two seals into the transfer ports in transaxle housing.

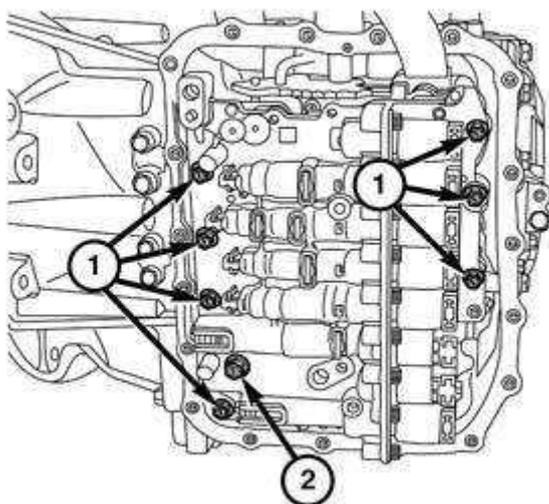


210270196

Fig. 638: Valve Body & Transaxle
Courtesy of CHRYSLER GROUP, LLC

NOTE: The manual valve is loose after the valve body is

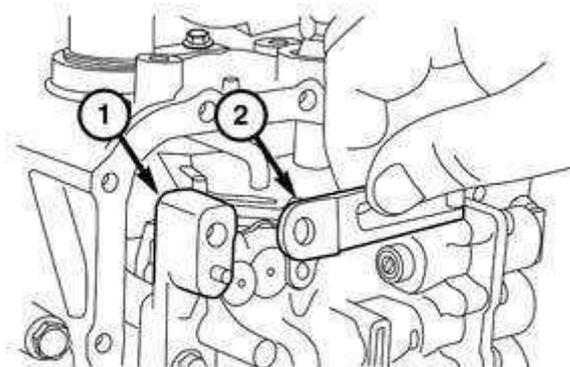
installed and may fall out during removal.



210270195

Fig. 639: Valve Body Bolts
Courtesy of CHRYSLER GROUP, LLC

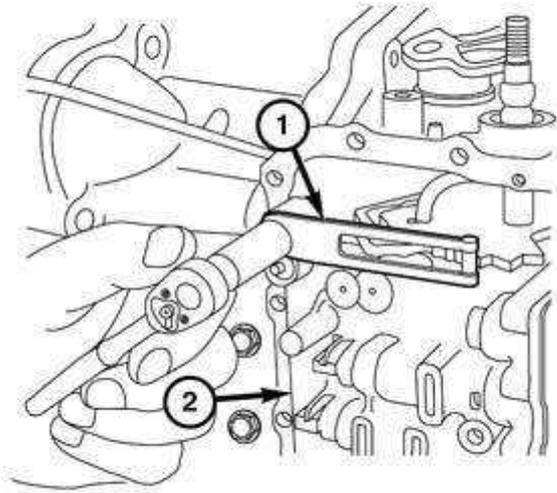
2. Place the valve body (2) in position on the transaxle (1).
3. Install bolts, 7 short (1) and 1 long (2) bolts, to hold the valve body to the transaxle. Refer to **SPECIFICATIONS**.



210270179

Fig. 640: Detent Spring Separated From Valve Body
Courtesy of CHRYSLER GROUP, LLC

4. Place the detent spring (2) in position on the valve body (1).

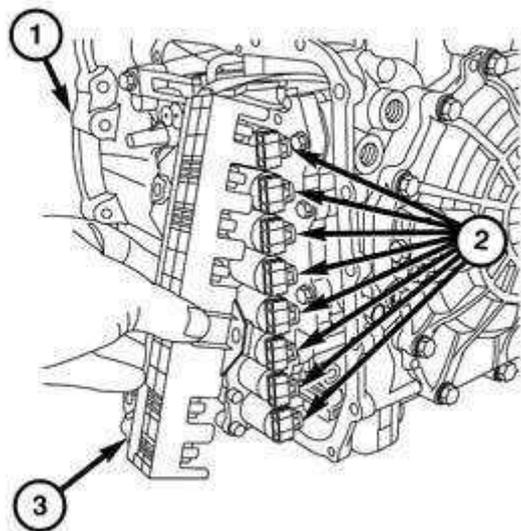


210270170

Fig. 641: Manual Shaft Detent Spring & Valve Body
Courtesy of CHRYSLER GROUP, LLC

5. Install the screw to hold the manual shaft detent spring (1) to the valve body (2). Refer to **SPECIFICATIONS**.

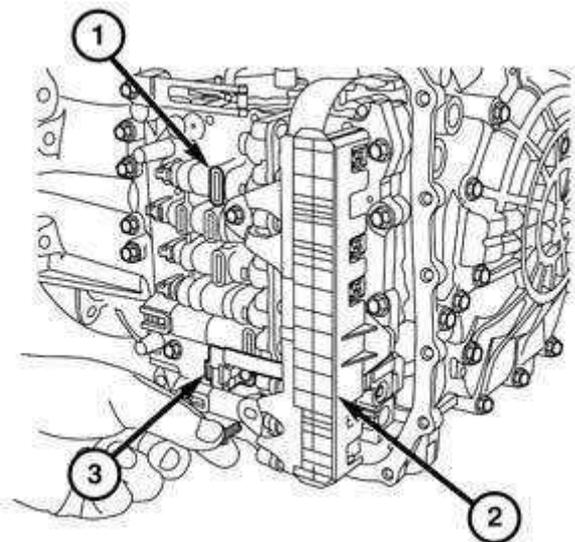
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210270177

Fig. 642: Solenoids & Connector
Courtesy of CHRYSLER GROUP, LLC

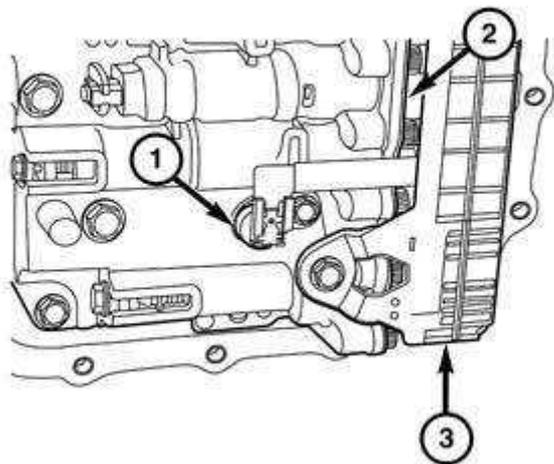
6. Starting at the top solenoid valve, push the wire connector onto each solenoid (2) until the connector (3) is engaged.



210270176

Fig. 643: Valve Body & Solenoid Valve Connector
Courtesy of CHRYSLER GROUP, LLC

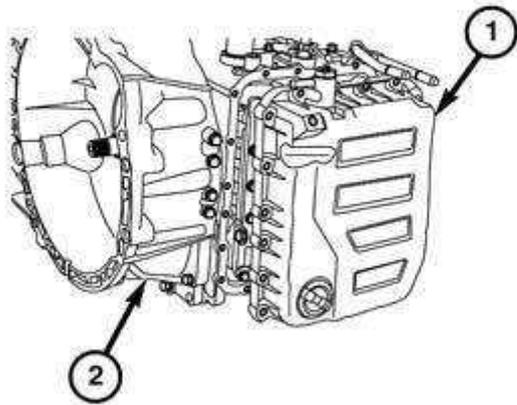
7. Install bolts to hold the solenoid valve connector (2) to the valve body (1). Refer to **SPECIFICATIONS**.



210270169

Fig. 644: Fluid Temperature Sensor & Valve Body
Courtesy of CHRYSLER GROUP, LLC

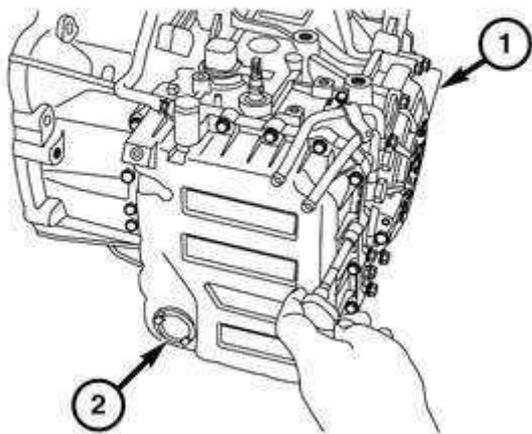
8. Push temperature sensor (1) straight into the port in the valve body (2).
9. Install bolt to hold fluid temperature sensor (1) to the valve body (2). Refer to **SPECIFICATIONS**.



210270167

Fig. 645: Valve Body Cover Separated From Transaxle
Courtesy of CHRYSLER GROUP, LLC

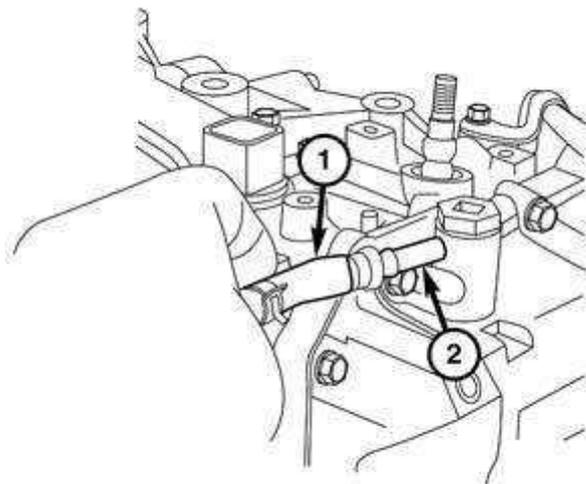
10. Install a **NEW** gasket on the cover and place the valve body cover (1) in position on the transaxle (2).



210270166

Fig. 646: Transaxle & Valve Body Cover
Courtesy of CHRYSLER GROUP, LLC

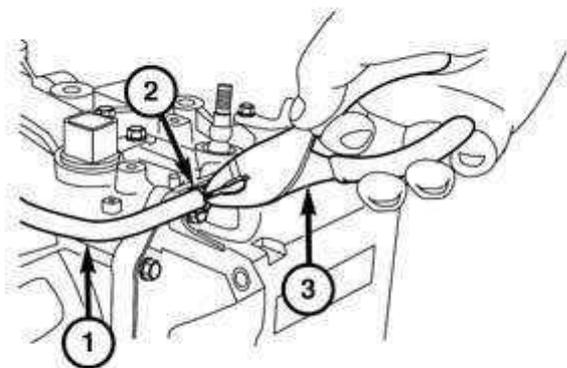
11. Install bolts to hold the valve body cover (2) to the transaxle (1). Refer to **SPECIFICATIONS**.
12. Remove the drain pan from under transaxle.



210270175

Fig. 647: Vent Hose End & Nipple Adaptor
Courtesy of CHRYSLER GROUP, LLC

13. Push the vent hose end (1) onto the nipple adaptor (2).



210270174

Fig. 648: Vent Hose, Spring Clamp & Pliers
Courtesy of CHRYSLER GROUP, LLC

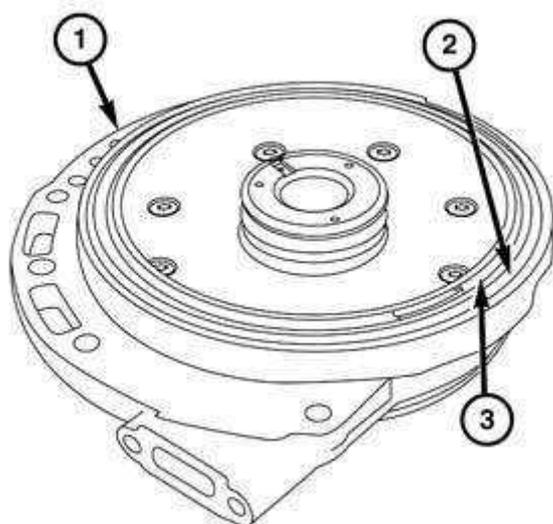
14. Using common pliers (3), compress the hose spring clamp (2) and slide it up the vent hose (1) onto nipple adaptor.
15. Fill the transaxle with specified fluid. Refer to **FLUID, STANDARD PROCEDURES**.
16. Install the engine cover/air cleaner on the vehicle. Refer to **2.0L AIR CLEANER, INSTALLATION** , **2.2L AIR CLEANER, INSTALLATION** or **2.4L AIR CLEANER, INSTALLATION** .
17. Road test the vehicle to verify the repair.

BRAKE AND PISTON, 2-6

REMOVAL

REMOVAL

1. Remove the transaxle from the vehicle
2. Disassemble the transaxle to remove the bell housing portion of the transaxle housing.
3. Remove the fluid pump.



210270210

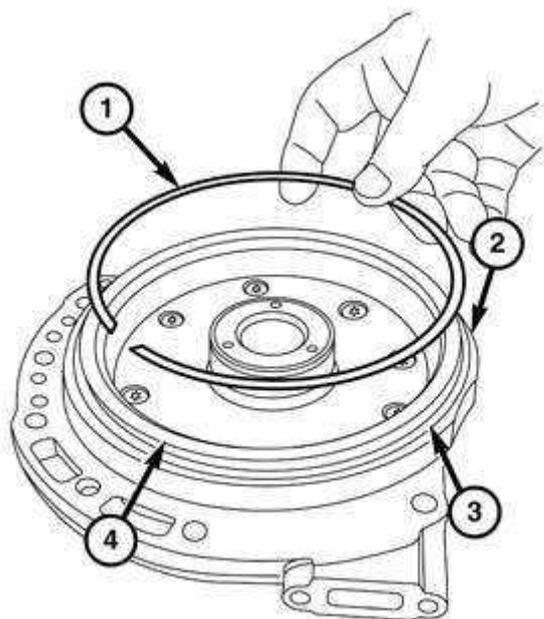
Fig. 649: Fluid Pump & 2-6 Brake Piston

Courtesy of CHRYSLER GROUP, LLC

4. Position the fluid pump on a clean work surface with the 2-6 brake piston facing upward.

NOTE: The 2-6 brake piston return spring and retainer will self-eject when the snap-ring is removed.

5. Place one hand over the 2-6 brake piston assembly to prevent the piston return spring and retainer from ejecting from the fluid pump housing when the snap-ring is released.



210270215

Fig. 650: Fluid Pump Housing, Snap-Ring & 2-6 Brake Piston Return Spring & Retainer

Courtesy of CHRYSLER GROUP, LLC

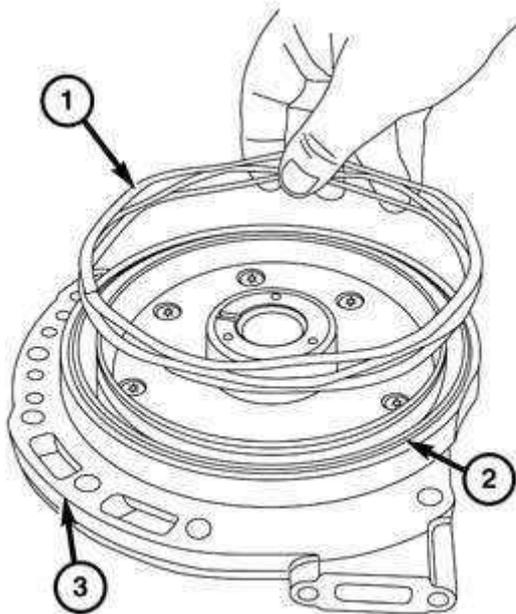
6. Using a suitable snap-ring pliers, remove the snap-ring holding the 2-6 brake piston return spring and retainer into the fluid pump housing.



210270213

Fig. 651: Return Spring & Return Spring Retainer
Courtesy of CHRYSLER GROUP, LLC

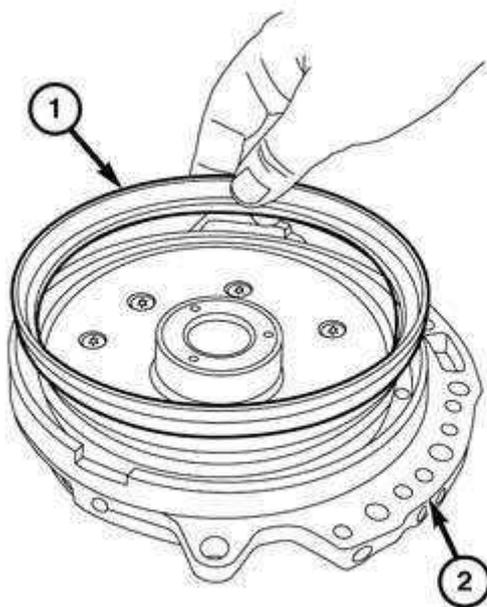
7. Separate the return spring retainer from the return spring.



210270216

Fig. 652: Fluid Pump Housing & Return Spring
Courtesy of CHRYSLER GROUP, LLC

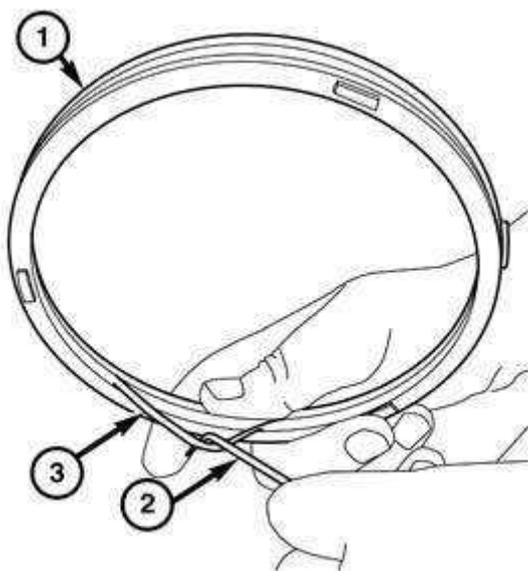
8. Separate the return spring from the fluid pump housing.



210270214

Fig. 653: Fluid Pump Housing Assembly & 2-6 Brake Piston
Courtesy of CHRYSLER GROUP, LLC

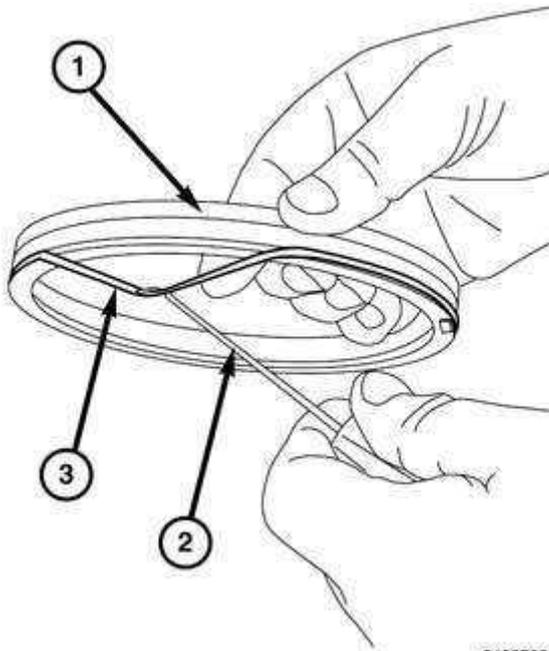
9. Using two small pocket screw driver pry and lift the 2-6 brake piston out of the groove in the fluid pump housing assembly.



210270225

Fig. 654: Removing 2-6 Brake Piston & Inner O-Ring Seal
Courtesy of CHRYSLER GROUP, LLC

- Using a suitable pick tool, remove the inner o-ring seal from the groove in the center of the 2-6 brake piston.



210270212

Fig. 655: Removing 2-6 Brake Piston & Outer O-Ring Seal
Courtesy of CHRYSLER GROUP, LLC

- Using a suitable pick tool, remove the outer o-ring seal from the groove in the circumference of the 2-6 brake piston.

INSTALLATION

INSTALLATION

NOTE: Do not wash the fluid pump housing in solvent prior to assembling the 2-6 brake piston unless the fluid pump itself required an overhaul.

NOTE: Wash the 2-6 brake piston components in suitable solvent and dry them with regulated 344 kPa (50 psi) shop air.

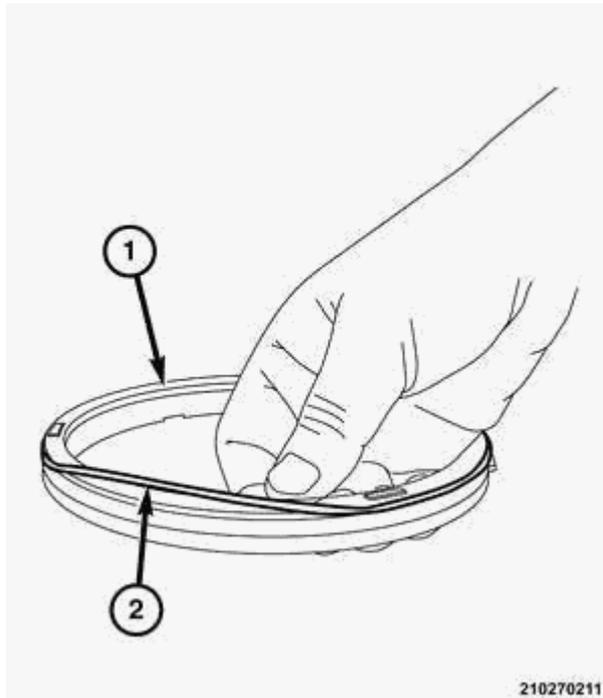


Fig. 656: Installing 2-6 Brake Piston & Outer O-Ring Seal
Courtesy of CHRYSLER GROUP, LLC

1. Install the outer o-ring seal into the groove in the circumference of the 2-6 brake piston.

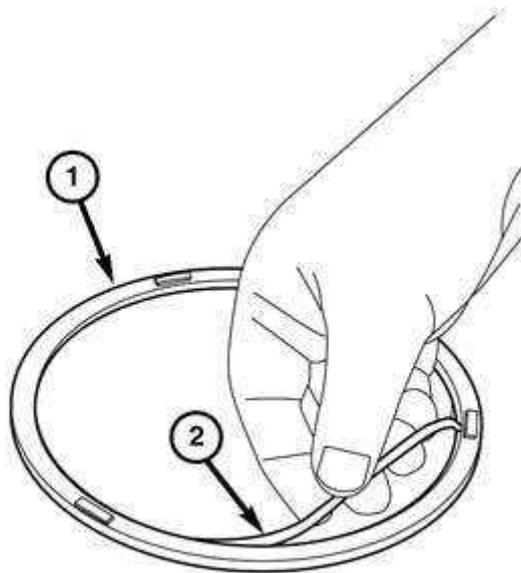
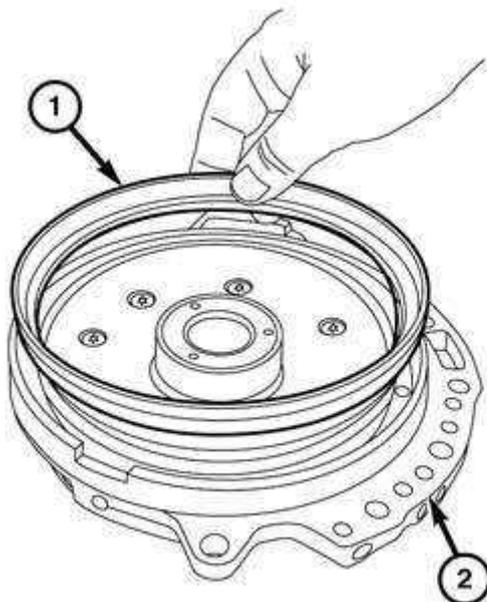


Fig. 657: Installing 2-6 Brake Piston & Inner O-Ring Seal
Courtesy of CHRYSLER GROUP, LLC

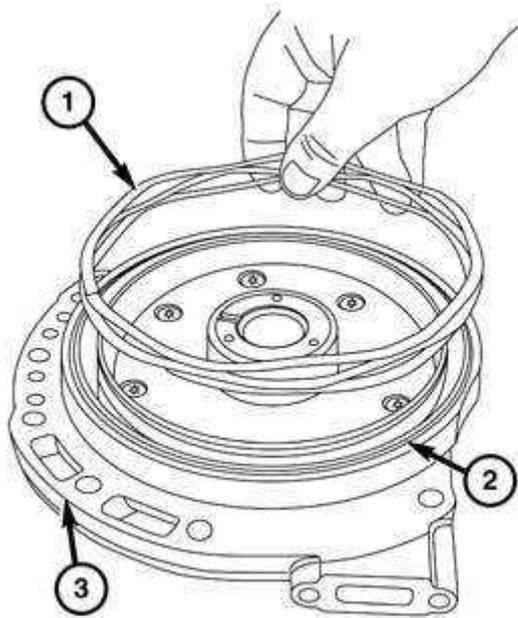
2. Install the inner o-ring seal into the groove in the center of the 2-6 brake piston.



210270214

Fig. 658: Fluid Pump Housing Assembly & 2-6 Brake Piston
Courtesy of CHRYSLER GROUP, LLC

3. Coat the 2-5 brake piston and o-ring seals with Automatic Transmission Fluid (ATF) to ease installation.
4. Place the 2-6 brake piston in position in the groove in the fluid pump housing assembly.
5. Push the 2-6 brake piston downward until the piston reaches the bottom of the groove in the fluid pump assembly.



210270216

Fig. 659: Fluid Pump Housing & Return Spring
Courtesy of CHRYSLER GROUP, LLC

6. Place the return spring into the groove in the fluid pump housing.



210270213

Fig. 660: Return Spring & Return Spring Retainer
Courtesy of CHRYSLER GROUP, LLC

7. Place the return spring retainer on the return spring.

- Place Tool (special tool #10427, Compressor, Return Spring) over the 2-6 brake piston return spring retainer.

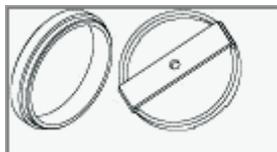
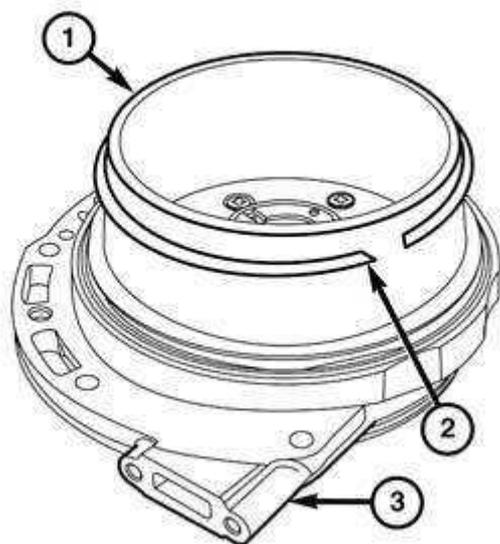


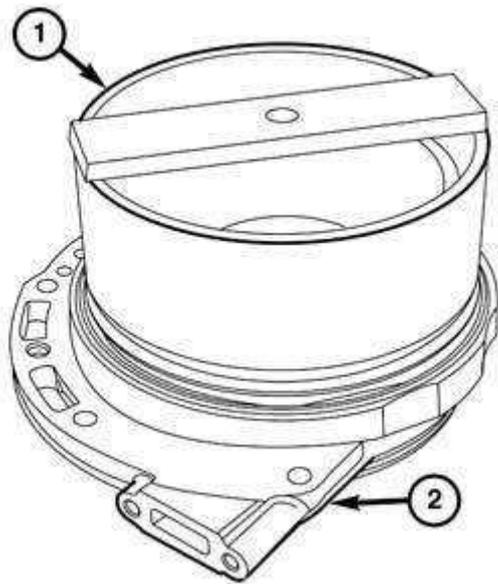
Fig. 661: Special Tool #10427
Courtesy of CHRYSLER GROUP, LLC



210171298

Fig. 662: Tool Guide & Snap-Ring
Courtesy of CHRYSLER GROUP, LLC

- Position the snap-ring over the circumference of the Tool guide.



210171301

Fig. 663: Special Tool #10427 Installed Over Snap-Ring
Courtesy of CHRYSLER GROUP, LLC

10. Position Tool (special tool #10427, Compressor, Return Spring) Installer over the snap-ring.

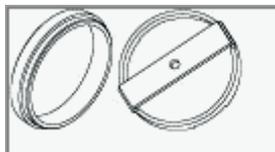
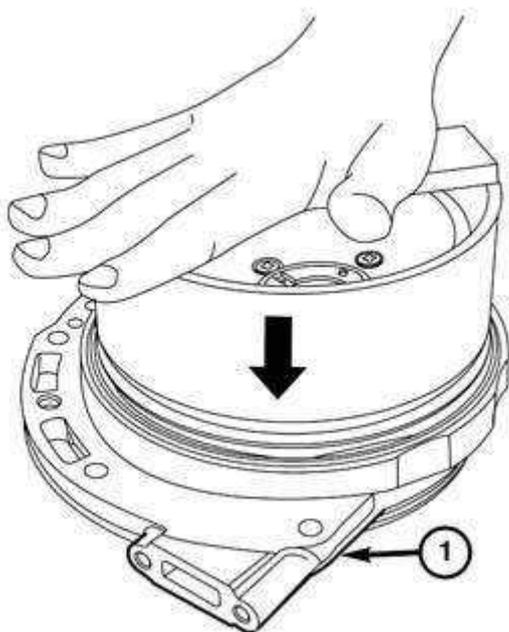


Fig. 664: Special Tool #10427
Courtesy of CHRYSLER GROUP, LLC

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210171299

Fig. 665: Pushing Installer Downward
 Courtesy of CHRYSLER GROUP, LLC

11. Push the installer downward until the snap-ring locks in the groove in the fluid pump hub.
12. Remove the tools from the fluid pump.
13. Install the fluid pump in the transaxle.
14. Assemble the transaxle to install the bell housing portion of the transaxle housing.
15. Install the transaxle into the vehicle
16. Road test the vehicle the validate the repair

CLUTCH, 3-5 REVERSE

DISASSEMBLY

DISASSEMBLY

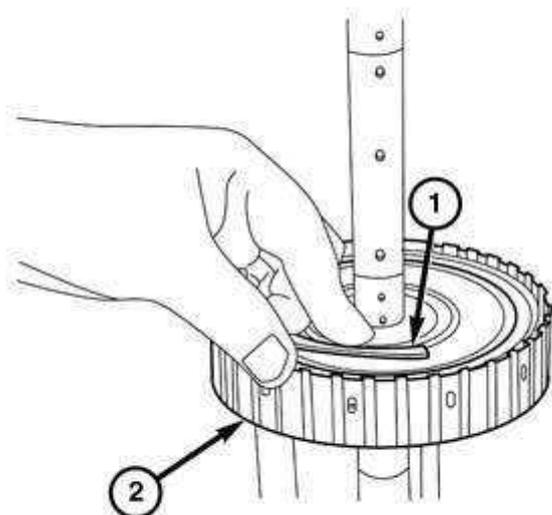
The 3-5-Reverse (3-5-R) Clutch is located under the fluid pump, in the center of the input shaft, inside of the 2-6 brake discs and plates. The clutch includes a retainer and shaft, selective snap-ring, five discs, five plates, reaction plate, balance piston, bellville return spring, and a piston. The 3-5-R clutch balance piston is equipped with a integral seal that cannot be replaced. If the seal is faulty the balance piston must be replaced. The 3-5-R clutch piston is equipped with

and inner and outer D-ring seals. The 3-5-R clutch has a series of alternating steel plates separated by fiber discs. When applied it drives the 2-6 brake discs and the overdrive clutch hub. The free play of the 3-5-R clutch is controlled by a select snap-ring that the thickness can be changed to tighten or loosen the clutch. Refer to **SPECIFICATIONS**.

1. Remove the transaxle. Refer to **REMOVAL**.
2. Disassemble the transaxle to gain access to the 3-5-R clutch. Refer to **DISASSEMBLY**.
3. Remove the 3-5-R clutch from the transaxle.
4. Optionally, place the 3-5-R clutch on tool (special tool #8285, Compressor, Spring).



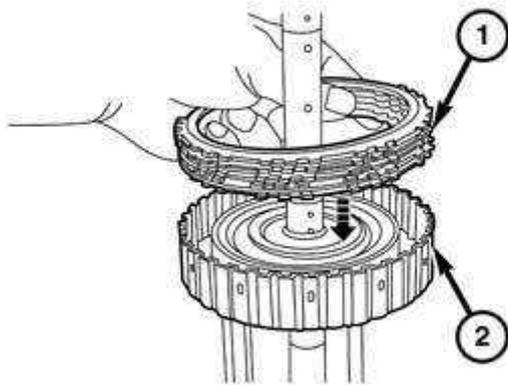
Fig. 666: Special Tool #8285
Courtesy of CHRYSLER GROUP, LLC



210171825

Fig. 667: 3-5-R Clutch Retainer & Snap-Ring
Courtesy of CHRYSLER GROUP, LLC

5. Using a suitable screw driver, pry the snap-ring out (1) of the 3-5-R clutch retainer (2).

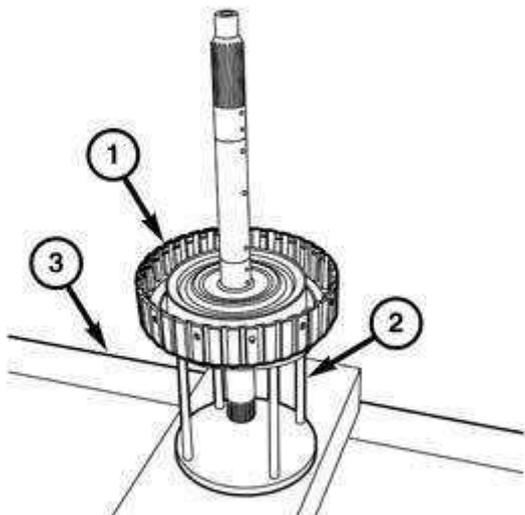


210171821

Fig. 668: 3-5-R Clutch Reaction Plate, Discs, Plates & Retainer
Courtesy of CHRYSLER GROUP, LLC

6. Remove the 3-5-R clutch reaction plate, discs, and plates (1) from the retainer (2).

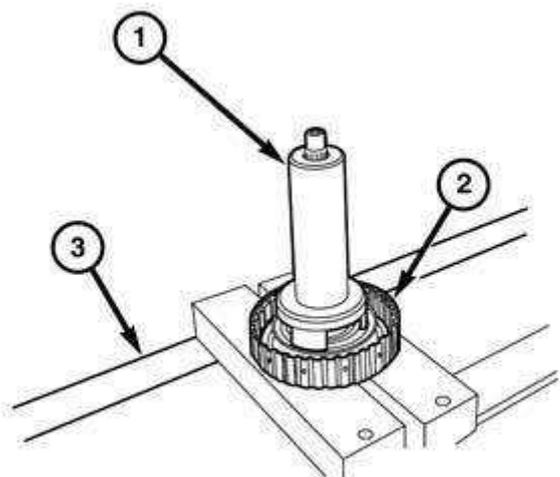
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210171824

Fig. 669: 3-5-R Clutch, Tool & Arbor Press
Courtesy of CHRYSLER GROUP, LLC

7. Place 3-5-R clutch (1) and tool on a suitable arbor press (3).



210171831

Fig. 670: 3-5-R Clutch, Special Tool #8680 & Arbor Press
Courtesy of CHRYSLER GROUP, LLC

8. Position tool (special tool #8680, Installer, Damper) over the shaft and onto

the 3-5-R clutch balance piston.

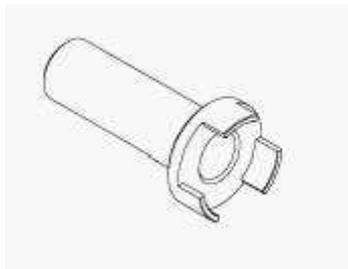
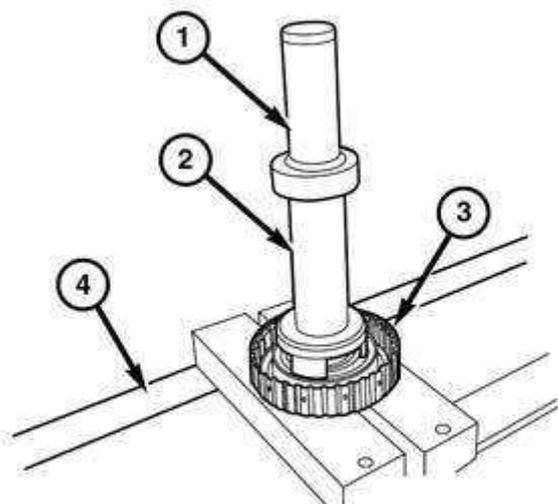


Fig. 671: special tool #8680
Courtesy of CHRYSLER GROUP, LLC



210171830

Fig. 672: 3-5-R Clutch Balance Piston & Special Tool #10117
Courtesy of CHRYSLER GROUP, LLC

9. Position tool (special tool #10117, Installer, Seal) over the shaft and onto the tool 8680.

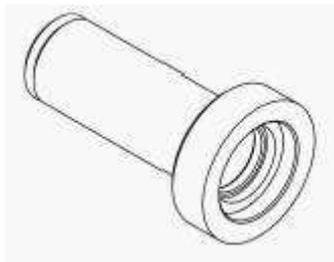


Fig. 673: Special Tool #10117
Courtesy of CHRYSLER GROUP, LLC

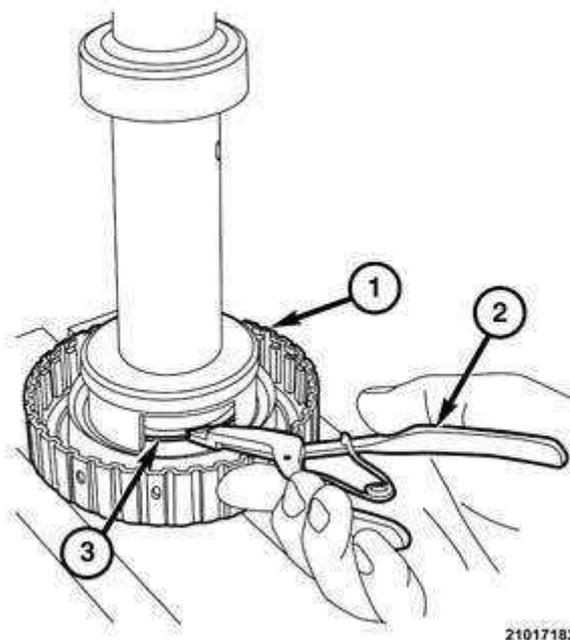


Fig. 674: 3-5-R Clutch, Balance Piston & Snap-Ring
 Courtesy of CHRYSLER GROUP, LLC

10. Compress the 3-5-R clutch return spring until the snap-ring is free to be removed.
11. Using a suitable snap-ring pliers, remove the snap-ring holding the balance piston into the piston.
12. Remove the 3-5-R clutch from the arbor press.

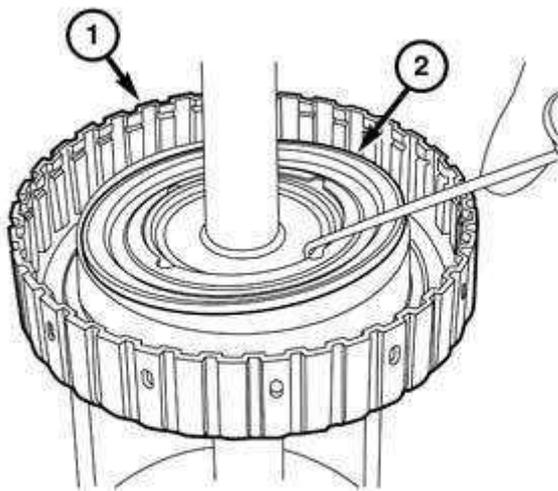
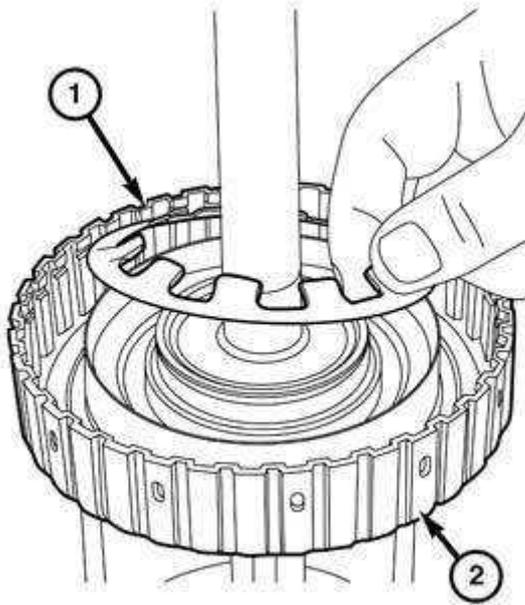


Fig. 675: 3-5-R Clutch Balance Piston & Piston
Courtesy of CHRYSLER GROUP, LLC

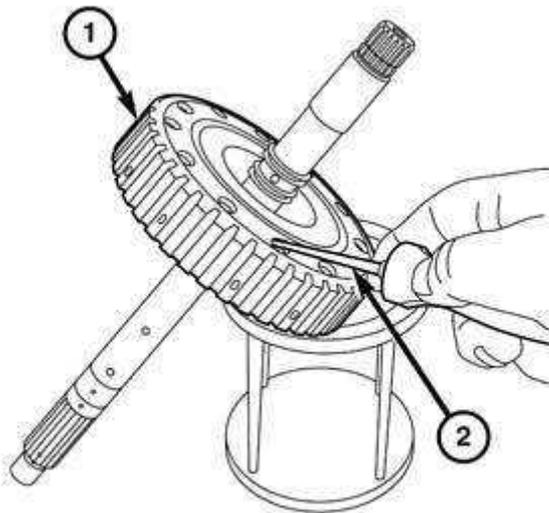
13. Using a suitable hook tool, remove the 3-5-R clutch balance piston (1) from the piston.



210171827

Fig. 676: 3-5-R Clutch Return Spring & Piston
Courtesy of CHRYSLER GROUP, LLC

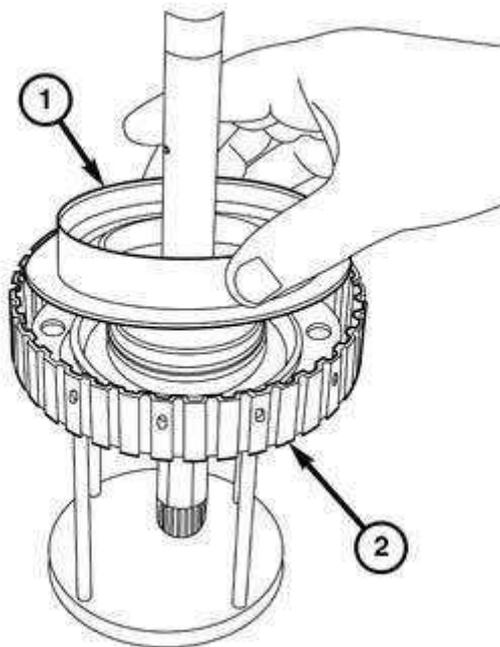
14. Remove the 3-5-R clutch return spring (1) from the piston.



210171935

Fig. 677: 3-5-R Clutch Retainer & Piston
Courtesy of CHRYSLER GROUP, LLC

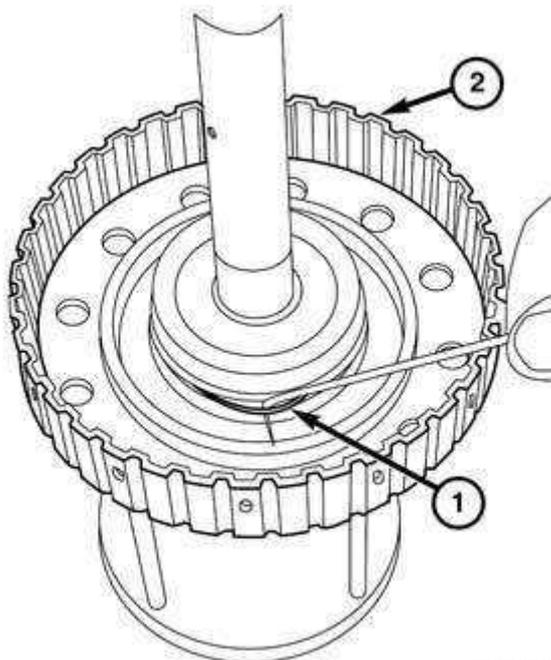
15. Through the holes in the back of the 3-5-R clutch retainer (1), Insert a screw driver (2) and push the piston out of the retainer.



210171932

Fig. 678: 3-5-R Clutch Retainer & Piston
Courtesy of CHRYSLER GROUP, LLC

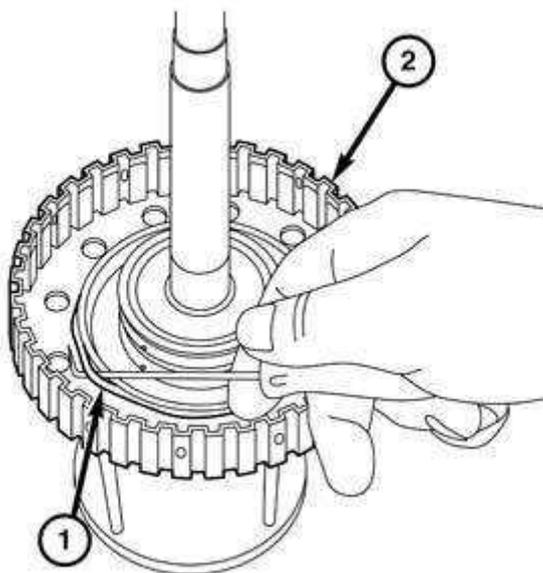
16. Remove the 3-5-R clutch piston (1) from the retainer (2).



210171931

Fig. 679: Removing Inner D-Ring Seal
 Courtesy of CHRYSLER GROUP, LLC

17. Using a suitable hook tool, remove the inner D-ring seal (1) from the groove in the 3-5-R clutch hub (2).



210171934

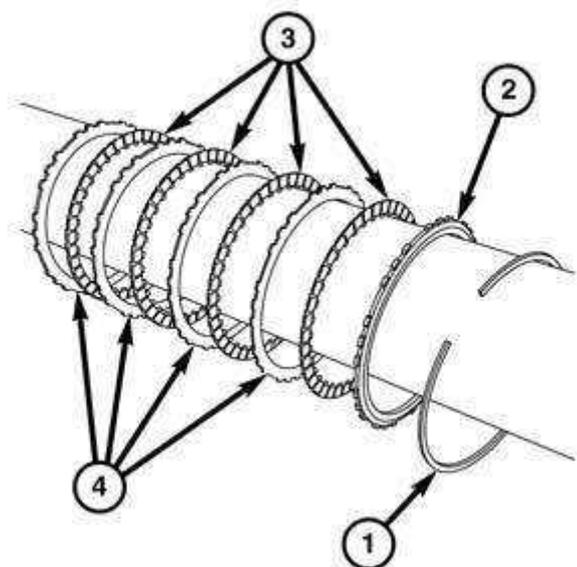
Fig. 680: Removing Outer D-Ring Seal

Courtesy of CHRYSLER GROUP, LLC

18. Using a suitable hook tool, remove the outer D-ring seal (1) from the groove in the 3-5-R clutch retainer (2).

ASSEMBLY

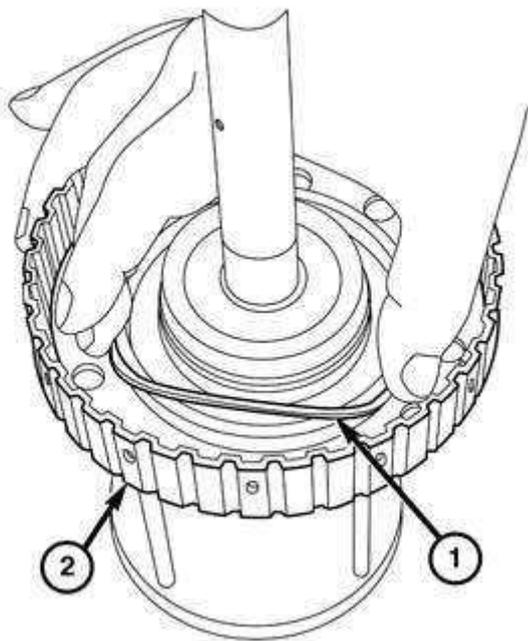
ASSEMBLY



210171823

Fig. 681: 3-5-R Clutch Components
Courtesy of CHRYSLER GROUP, LLC

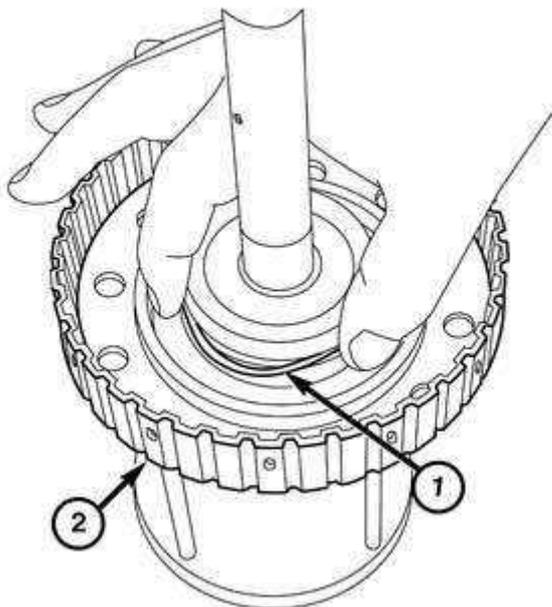
Wash the 3-5-Reverse (3-5-R) clutch components with suitable solvent and blow them dry with 344 kPa (50 psi) regulated shop air. Inspect the steel side of the plates for warping or excessive hot spots (blue) or other damage. Inspect the fiber side of the discs for excessive wear or warping. If damage is evident, the clutch assembly will require replacement.



210171933

Fig. 682: Installing Outer D-Ring Seal
Courtesy of CHRYSLER GROUP, LLC

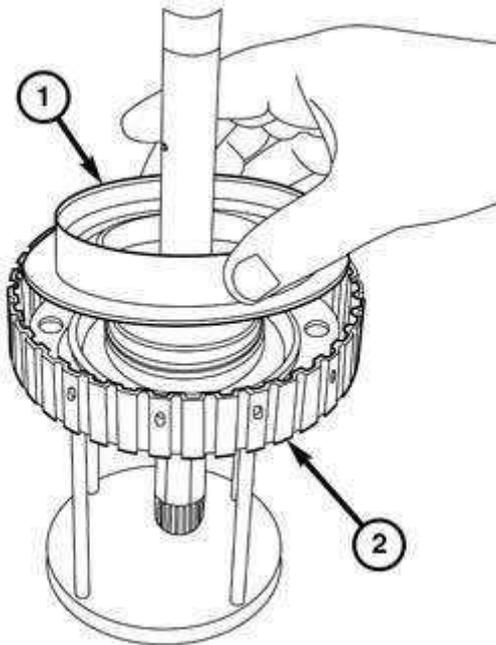
1. Install the outer D-ring seal (1) into the groove in the 3-5-R clutch retainer (2).



210171930

Fig. 683: Installing Inner D-Ring Seal
Courtesy of CHRYSLER GROUP, LLC

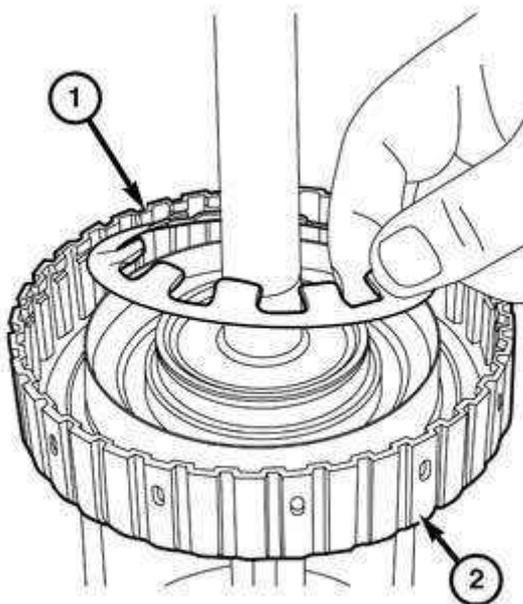
2. Install the D-ring seal (1) into the groove in the 3-5-R clutch hub (2).
3. Apply a light coat of transaxle fluid on the D-ring seals.



210171932

Fig. 684: 3-5-R Clutch Retainer & Piston
Courtesy of CHRYSLER GROUP, LLC

4. Install the 3-5-R clutch piston (1) into the retainer (2).

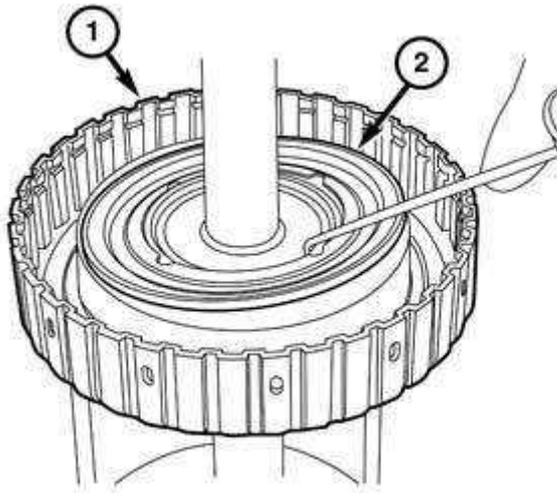


210171827

Fig. 685: 3-5-R Clutch Return Spring & Piston

Courtesy of CHRYSLER GROUP, LLC

5. Install the 3-5-R clutch return spring (1) into the piston.

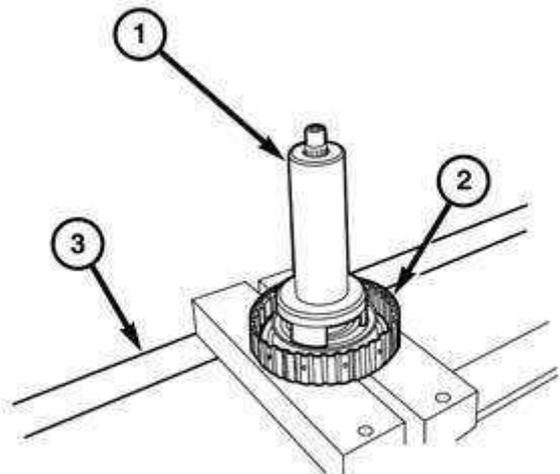


210171826

Fig. 686: 3-5-R Clutch Balance Piston & Piston
Courtesy of CHRYSLER GROUP, LLC

6. Install the 3-5-R clutch balance piston (1) into the piston.
7. Place the 3-5-R clutch on a suitable arbor press.

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210171831

Fig. 687: 3-5-R Clutch, Special Tool #8680 & Arbor Press
Courtesy of CHRYSLER GROUP, LLC

8. Position tool (special tool #8680, Installer, Damper) over the shaft and onto the 3-5-R clutch balance piston.

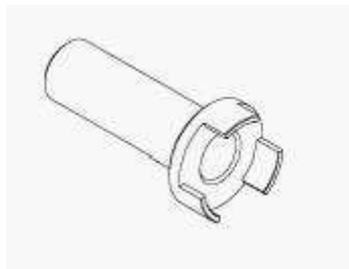
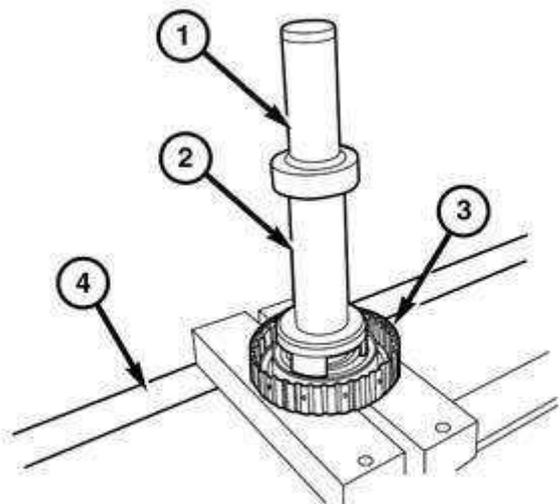


Fig. 688: special tool #8680
Courtesy of CHRYSLER GROUP, LLC



210171830

Fig. 689: 3-5-R Clutch Balance Piston & Special Tool #10117
Courtesy of CHRYSLER GROUP, LLC

9. Position tool (special tool #10117, Installer, Seal) over the shaft and onto the tool 8680.

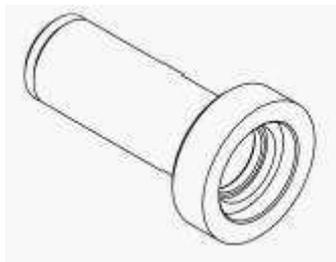
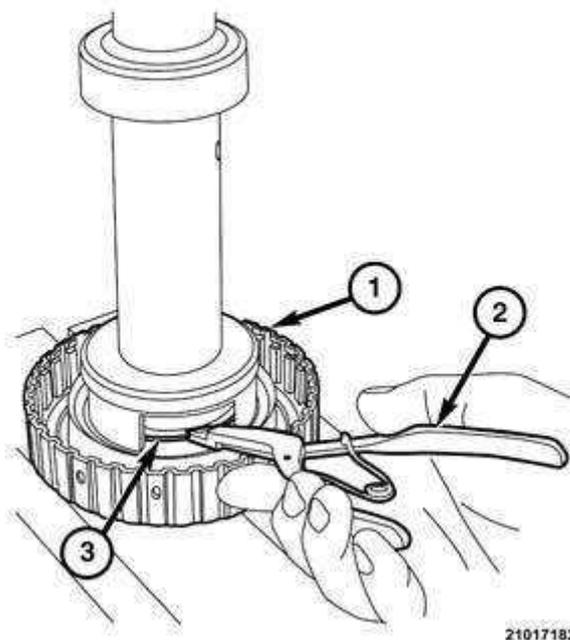


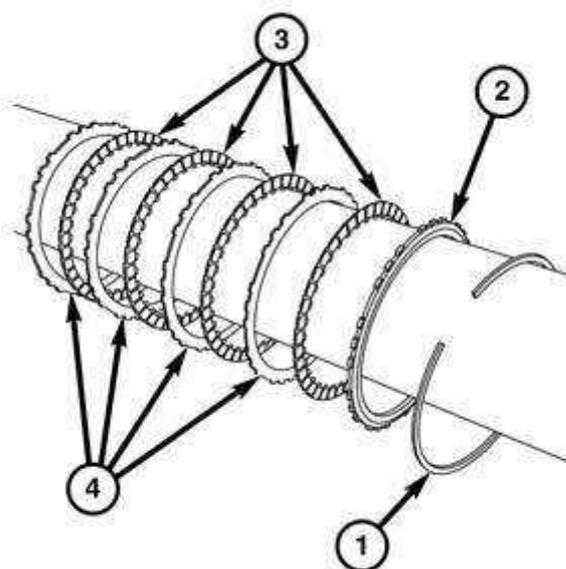
Fig. 690: Special Tool #10117
Courtesy of CHRYSLER GROUP, LLC



210171828

Fig. 691: 3-5-R Clutch, Balance Piston & Snap-Ring
 Courtesy of CHRYSLER GROUP, LLC

10. Compress the 3-5-R clutch return spring until the snap-ring groove is open to receive the snap-ring.
11. Using a suitable snap-ring pliers, install the snap-ring to hold the balance piston into the piston.

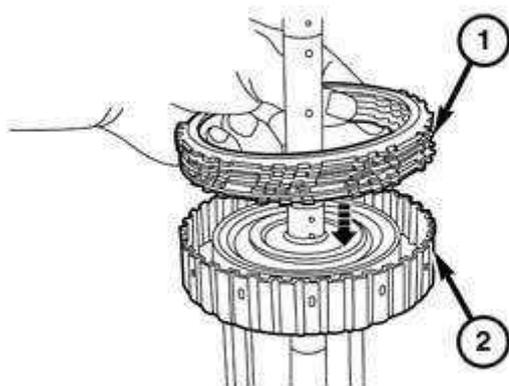


210171823

Fig. 692: 3-5-R Clutch Components

Courtesy of CHRYSLER GROUP, LLC

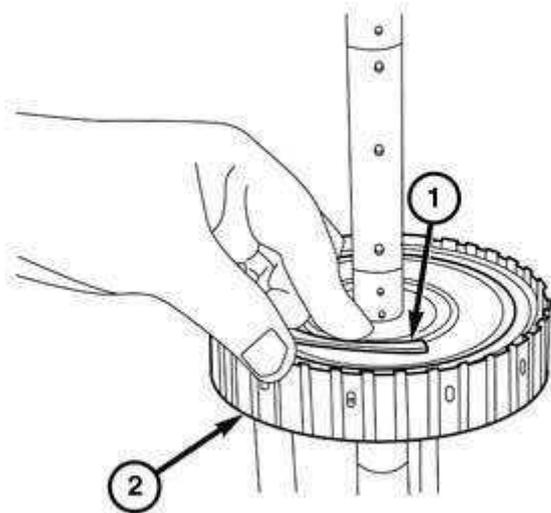
12. Starting with an outside lug disc, stack (in alternating order) four outside lug plates (4) and four inside lug discs (3). Place the reaction plate (2) on top of the stack, stepped side up.



210171821

Fig. 693: 3-5-R Clutch Reaction Plate, Discs, Plates & Retainer
Courtesy of CHRYSLER GROUP, LLC

13. Install the 3-5-R clutch reaction plate, discs, and plates (1) into the retainer (2).



210171825

Fig. 694: 3-5-R Clutch Retainer & Snap-Ring
 Courtesy of CHRYSLER GROUP, LLC

14. Install the snap-ring (1) to hold the reaction plate into 3-5-R clutch retainer (2).

NOTE: Verify that end play is within specifications. Refer to **SPECIFICATIONS**.

15. Install the 3-5-R clutch into the transaxle.

NOTE: Before installing the valve body, perform an air test to determine that the seals were installed properly. Refer to **DIAGNOSIS AND TESTING**.

16. Assemble the transaxle.
17. Install the transaxle in the vehicle.

CLUTCH, OVERDRIVE

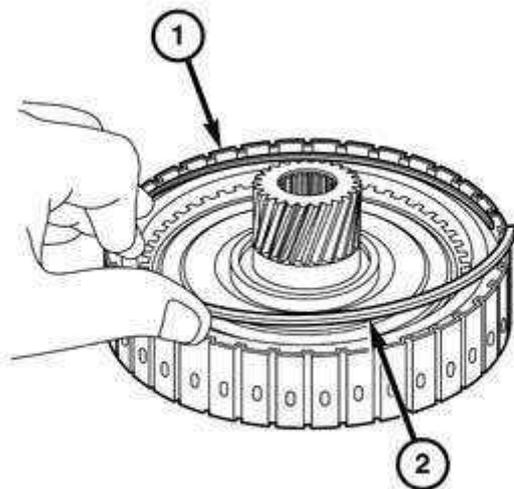
DISASSEMBLY

DISASSEMBLY

The Overdrive Clutch is located under the rear cover, on top of the one way

clutch (OWC) race. The overdrive clutch includes a retainer, selective snap-ring, five discs, six plates, reaction plate, balance piston, helical return springs, and a piston. The overdrive clutch balance piston is equipped with a integral seal that cannot be replaced. If the seal is faulty the balance piston must be replaced. The overdrive clutch piston is equipped with and inner and outer D-ring seals. The overdrive clutch has a series of alternating steel plates separated by fiber discs. When applied it drives the 2-6 brake discs and the 3-5-Reverse clutch hub shaft. The free play of the overdrive clutch is controlled by a select snap-ring that the thickness can be changed to tighten or loosen the clutch. Refer to **SPECIFICATIONS**.

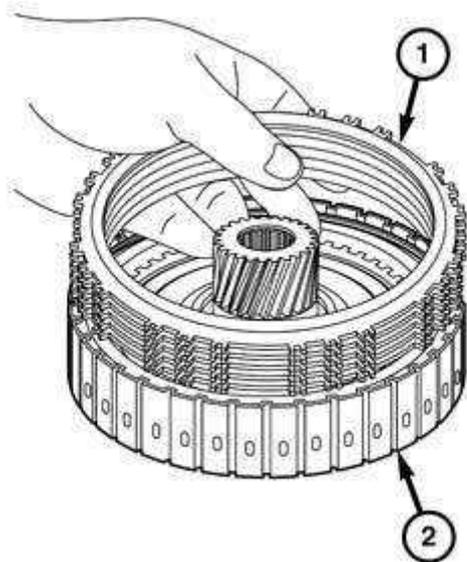
1. Remove the transaxle. Refer to **REMOVAL**.
2. Disassemble the transaxle to gain access to the overdrive clutch. Refer to **DISASSEMBLY**.
3. Remove the overdrive clutch from the transaxle.
4. Place the overdrive clutch on a clean work surface.



210171938

Fig. 695: Overdrive Clutch Retainer & Snap-Ring
Courtesy of CHRYSLER GROUP, LLC

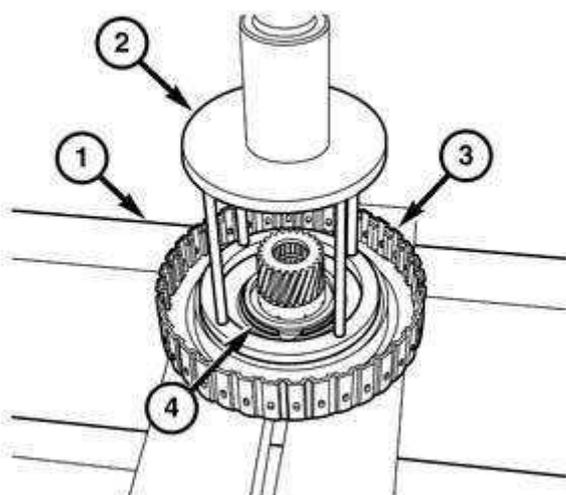
5. Using a suitable screw driver, pry the snap-ring out (1) of the overdrive clutch retainer (2).



210171940

Fig. 696: Retainer, Overdrive Clutch Reaction Plate, Discs, & Plates
 Courtesy of CHRYSLER GROUP, LLC

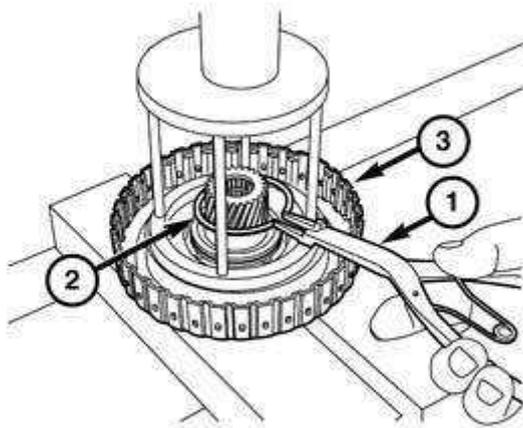
6. Remove the overdrive clutch reaction plate, discs, and plates (1) from the retainer (2).
7. Place the overdrive clutch, balance piston up, on a suitable arbor press. (1)



210171951

Fig. 697: Overdrive Clutch, Special Tool #8285 & Balance Piston
 Courtesy of CHRYSLER GROUP, LLC

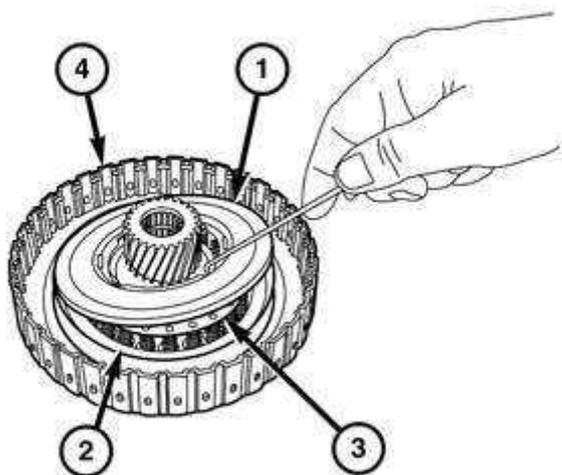
8. Position tool (special tool #8285, Compressor, Spring) (2) on the overdrive clutch balance piston.
9. Compress the overdrive clutch return spring until the snap-ring is free to be removed.



210171950

Fig. 698: Balance Piston, Piston & Snap-Ring
Courtesy of CHRYSLER GROUP, LLC

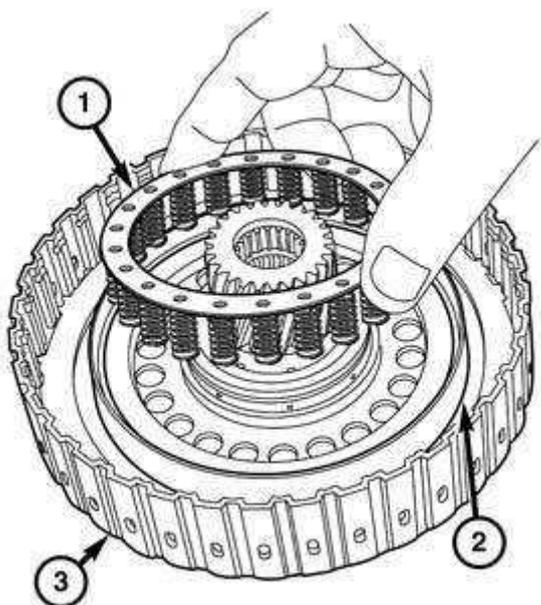
10. Using a suitable snap-ring pliers, remove the snap-ring (1) holding the balance piston into the piston.
11. Remove the overdrive clutch from the arbor press.



210171939

Fig. 699: Overdrive Clutch Balance Piston & Piston
Courtesy of CHRYSLER GROUP, LLC

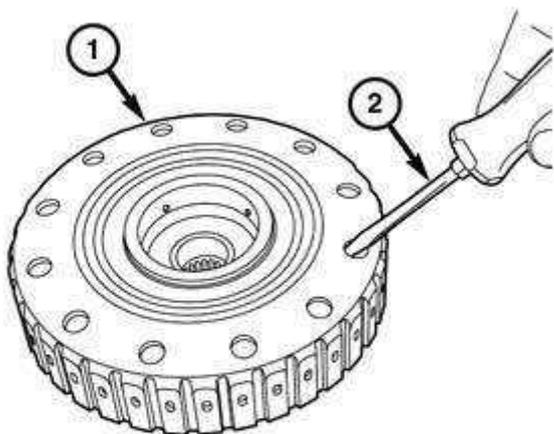
- Using a suitable hook tool, remove the overdrive clutch balance piston (1) from the piston (2).



210171953

Fig. 700: Overdrive Clutch Return Spring & Piston
Courtesy of CHRYSLER GROUP, LLC

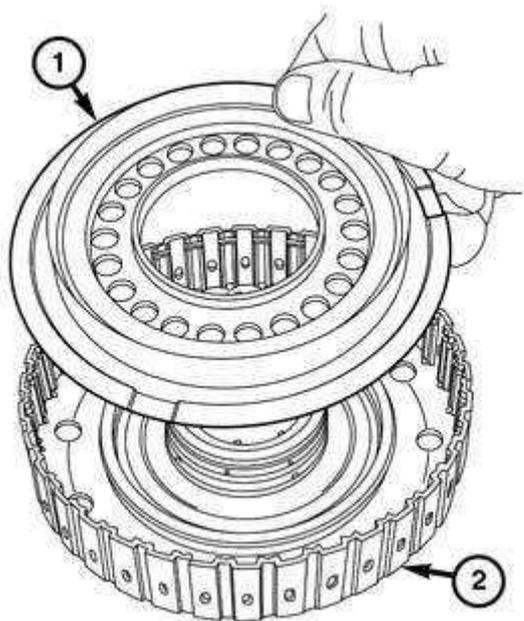
13. Remove the overdrive clutch return spring (1) from the piston (2).



210171949

Fig. 701: Pushing Piston Out Of Retainer
Courtesy of CHRYSLER GROUP, LLC

14. Through the holes in the back of the overdrive clutch retainer (1), Insert a screw driver (2) and push the piston out of the retainer.

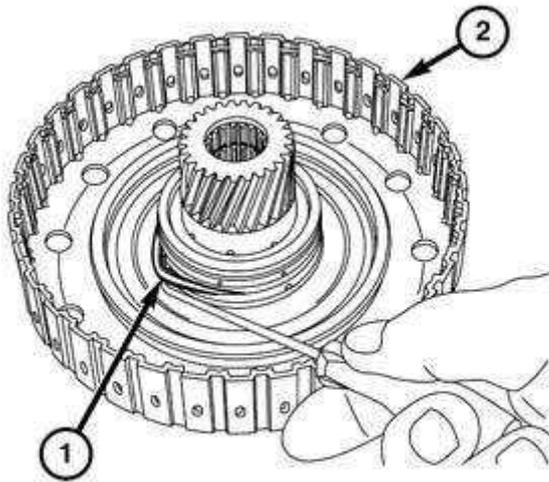


210171944

Fig. 702: Overdrive Clutch Retainer & Piston

Courtesy of CHRYSLER GROUP, LLC

15. Remove the overdrive clutch piston from the retainer.

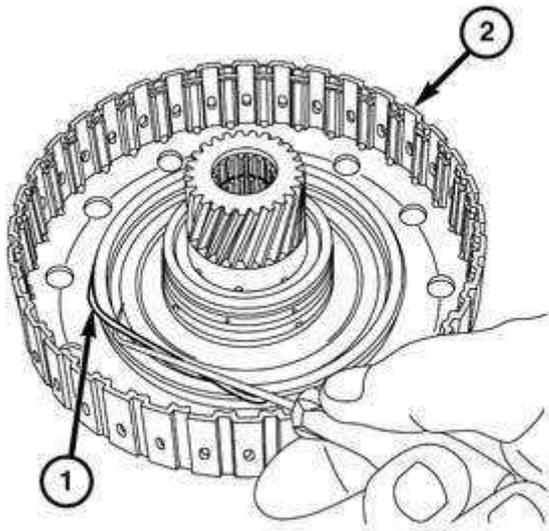


210171943

Fig. 703: Removing Inner D-Ring Seal
Courtesy of CHRYSLER GROUP, LLC

16. Using a suitable hook tool, remove the inner D-ring seal (1) from the groove in the overdrive clutch hub (2).

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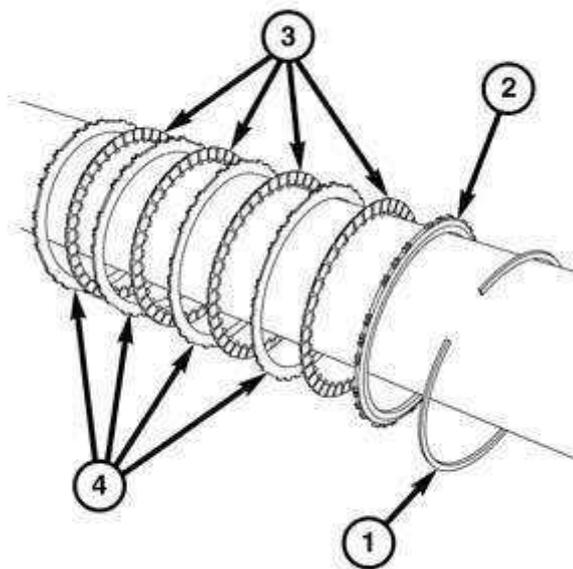
210171947

Fig. 704: Removing Outer D-Ring Seal
Courtesy of CHRYSLER GROUP, LLC

17. Using a suitable hook tool, remove the outer D-ring seal (1) from the groove in the overdrive clutch retainer (2).

ASSEMBLY

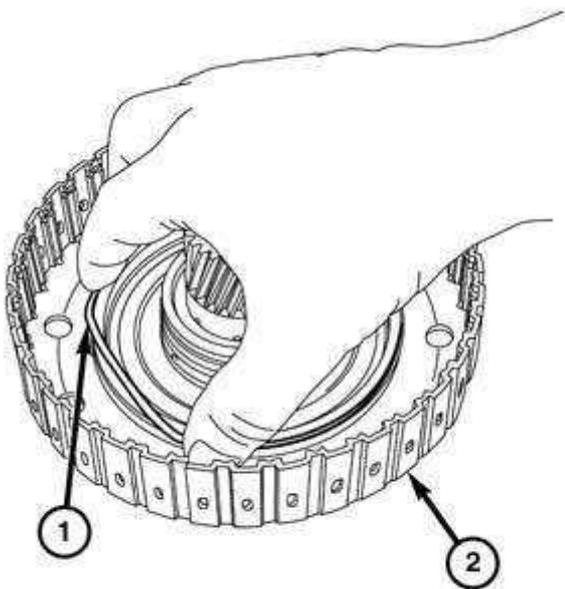
ASSEMBLY



210171941

Fig. 705: Overdrive Clutch Components
Courtesy of CHRYSLER GROUP, LLC

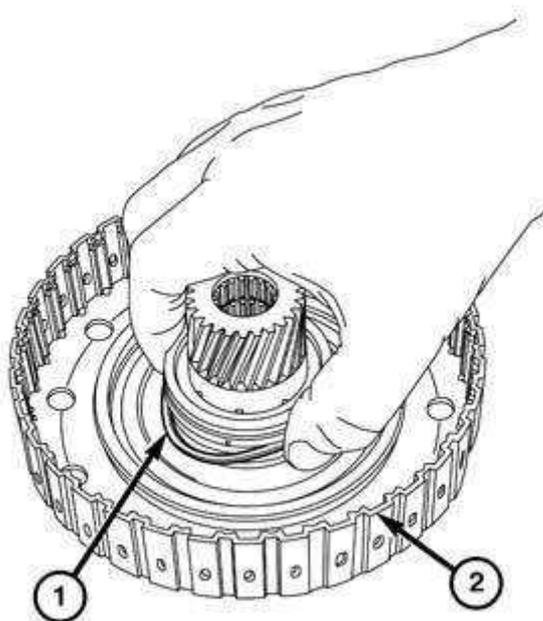
Wash the Overdrive Clutch components with suitable solvent and blow them dry with 344 kPa (50 psi) regulated shop air. Inspect the steel plates (2 and 4) for warping or excessive hot spots (blue) or other damage. Inspect the fiber discs (3) for excessive wear or warping. If damage is evident, the clutch assembly will require replacement.



210171945

Fig. 706: Overdrive Clutch Retainer & Outer D-Ring Seal
Courtesy of CHRYSLER GROUP, LLC

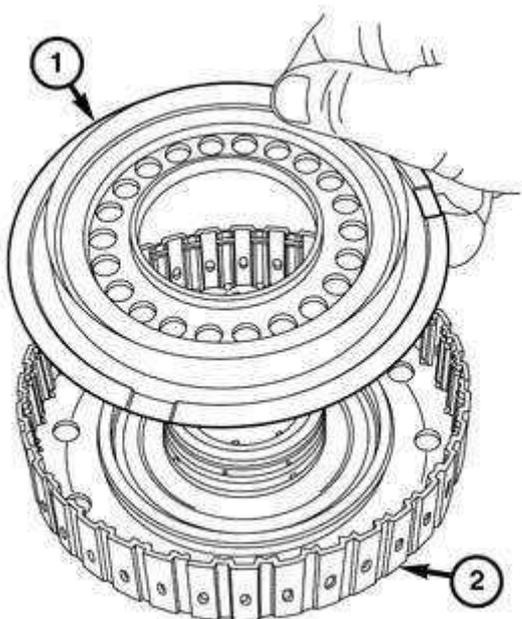
1. Install the outer D-ring seal (1) into the groove in the overdrive clutch retainer (2).



210171946

Fig. 707: Overdrive Clutch Hub & Inner D-Ring Seal
Courtesy of CHRYSLER GROUP, LLC

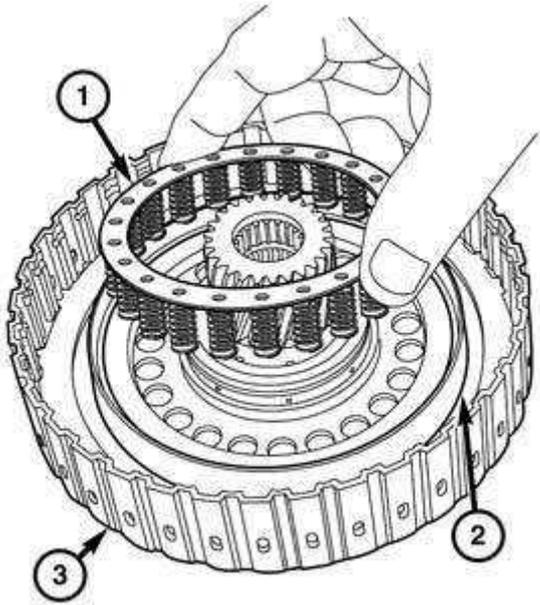
2. Install the D-ring seal (1) into the groove in the overdrive clutch hub (2).
3. Apply a light coat of transaxle fluid on the D-ring seals.



210171944

Fig. 708: Overdrive Clutch Retainer & Piston
Courtesy of CHRYSLER GROUP, LLC

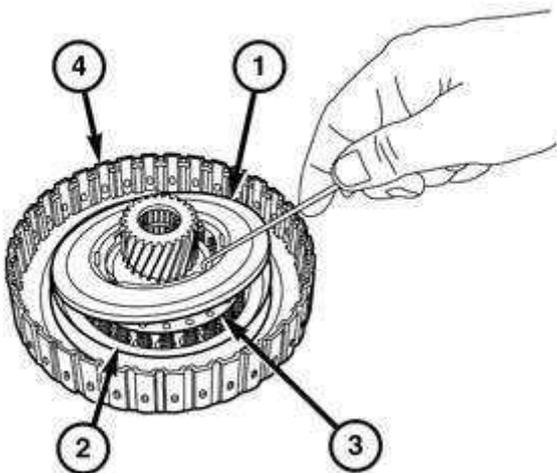
4. Install the overdrive clutch piston (1) into the retainer (2).



210171953

Fig. 709: Overdrive Clutch Return Spring & Piston
Courtesy of CHRYSLER GROUP, LLC

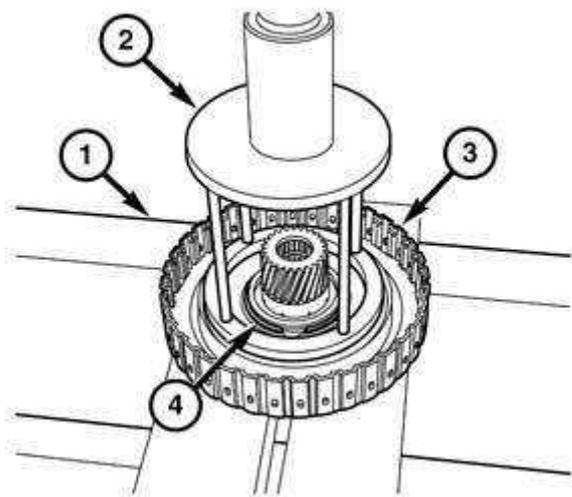
5. Install the overdrive clutch return spring (1) into the piston.



210171939

Fig. 710: Overdrive Clutch Balance Piston & Piston
Courtesy of CHRYSLER GROUP, LLC

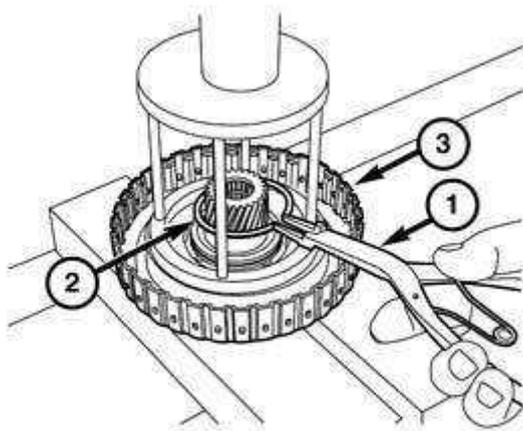
6. Install the overdrive clutch balance piston (1) into the piston.
7. Place the overdrive clutch, balance piston up, on a suitable arbor press.



210171951

Fig. 711: Overdrive Clutch, Special Tool #8285 & Balance Piston
Courtesy of CHRYSLER GROUP, LLC

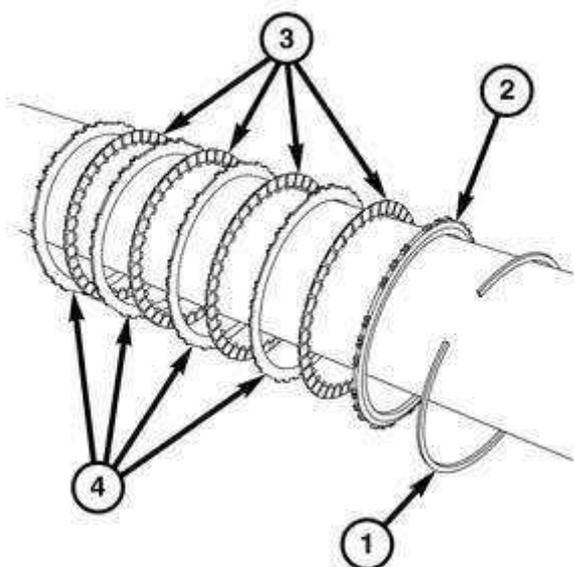
8. Position tool (special tool #8285, Compressor, Spring) (2) on the overdrive clutch balance piston.
9. Compress the overdrive clutch return spring until the snap-ring groove is open to receive the snap-ring.



210171950

Fig. 712: Balance Piston, Piston & Snap-Ring
Courtesy of CHRYSLER GROUP, LLC

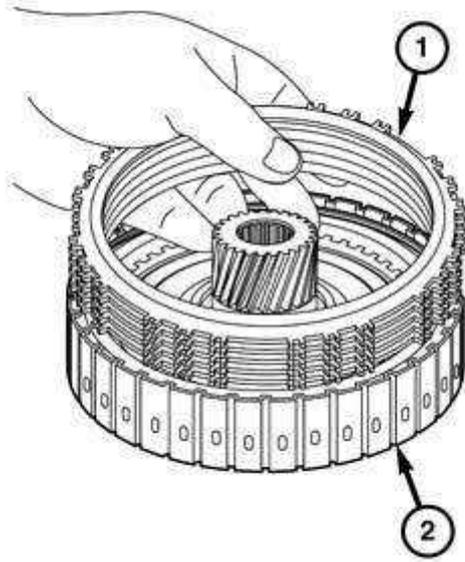
10. Using a suitable snap-ring pliers (1), install the snap-ring (2) to hold the balance piston into the piston.



210171941

Fig. 713: Overdrive Clutch Components
Courtesy of CHRYSLER GROUP, LLC

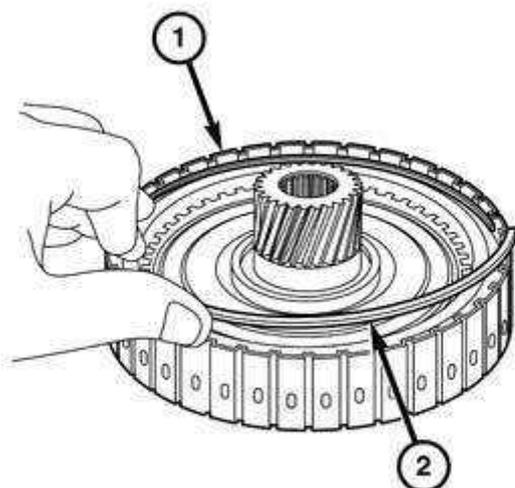
11. Starting with a steel plate, stack (in alternating order) four steel plates (4) and four fiber discs (3). Place the reaction plate on top of the stack, stepped side up.



210171940

Fig. 714: Retainer, Overdrive Clutch Reaction Plate, Discs, & Plates
Courtesy of CHRYSLER GROUP, LLC

12. Install the overdrive clutch reaction plate, discs, and plates (1) from the retainer (2).



210171938

Fig. 715: Overdrive Clutch Retainer & Snap-Ring
Courtesy of CHRYSLER GROUP, LLC

13. Install the snap-ring (1) to hold the reaction plate into overdrive clutch retainer (2).

NOTE: Verify that end play is within specifications. Refer to **SPECIFICATIONS**.

14. Install the overdrive clutch into the transaxle.

NOTE: Before installing the valve body, perform an air test to determine that the seals were installed properly. Refer to **DIAGNOSIS AND TESTING**.

15. Assemble the transaxle.
16. Install the transaxle in the vehicle.

PUMP, FLUID

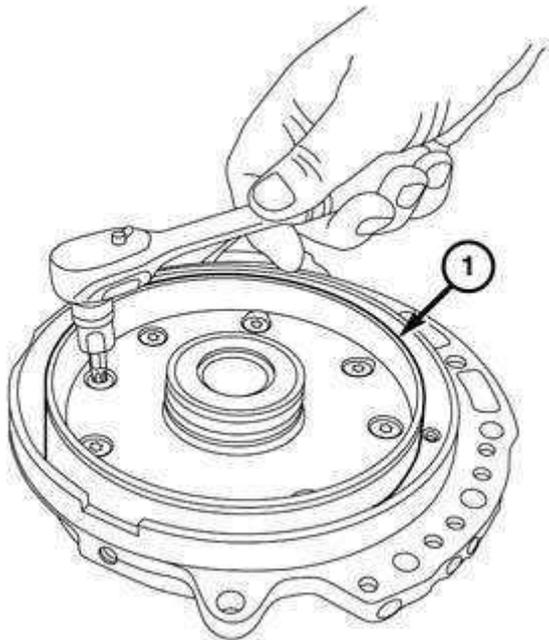
DISASSEMBLY

DISASSEMBLY

1. Drain the fluid from the transaxle. Refer to **FLUID, STANDARD**

PROCEDURES.

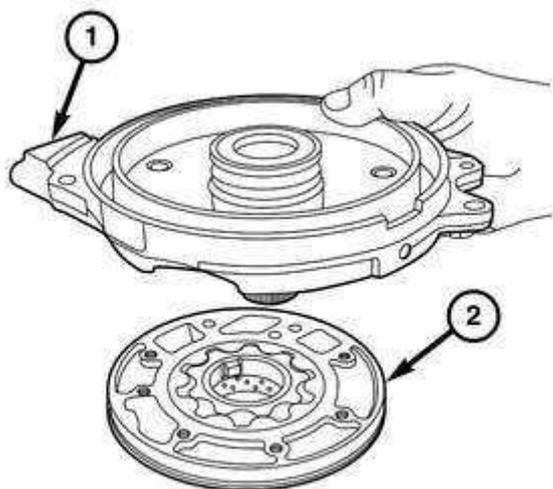
2. Remove the transaxle from the vehicle. Refer to **REMOVAL.**
3. Disassemble the transaxle to gain access to the fluid pump. Refer to **DISASSEMBLY.**
4. Remove the 2-6 brake piston from the fluid pump housing. Refer to **BRAKE AND PISTON, 2-6, REMOVAL.**



210171520

Fig. 716: Fluid Pump Cover
Courtesy of CHRYSLER GROUP, LLC

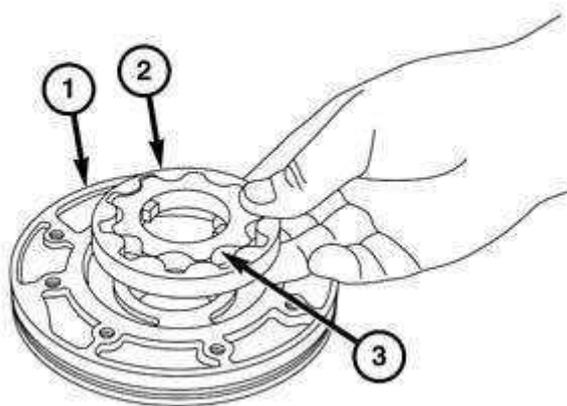
5. Remove screws holding fluid pump cover (1) to the fluid pump. It may be necessary to use an impact driver to loosen the screws to avoid damaging the Torx® head of the bolts.



210171519

Fig. 717: Fluid Pump & Fluid Pump Cover
Courtesy of CHRYSLER GROUP, LLC

6. Separate the fluid pump cover (1) from the fluid pump (2).



210171521

Fig. 718: Fluid Pump Housing & Rotor Assembly
Courtesy of CHRYSLER GROUP, LLC

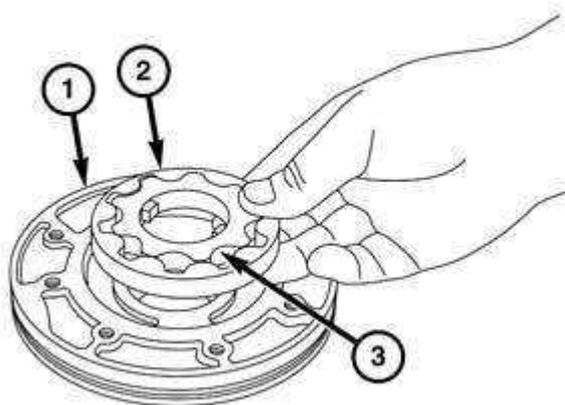
7. Separate the gerotor assembly (2-3) from the fluid pump housing (1).

ASSEMBLY

ASSEMBLY

NOTE: The fluid pump components must be thoroughly cleaned before assembly.

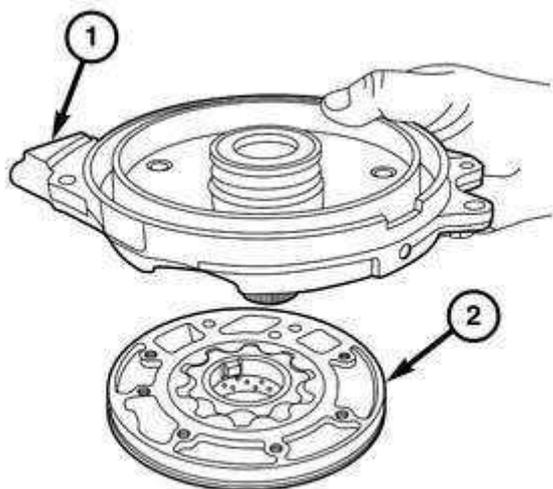
NOTE: Inspect fluid pump components for damage or excessive wear before assembly. If damage is evident, replace the fluid pump.



210171521

Fig. 719: Fluid Pump Housing & Rotor Assembly
Courtesy of CHRYSLER GROUP, LLC

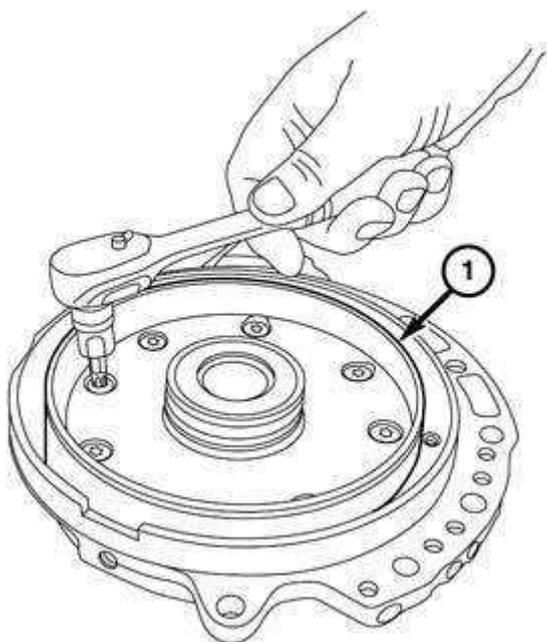
1. Insert the gerotor assembly (2-3) into the fluid pump housing (1). Center the rotor to the center of the pump housing bushing.



210171519

Fig. 720: Fluid Pump & Fluid Pump Cover
Courtesy of CHRYSLER GROUP, LLC

2. Place the fluid pump cover (1) over the fluid pump housing (2).



210171520

Fig. 721: Fluid Pump Cover
Courtesy of CHRYSLER GROUP, LLC

3. Install screws to hold fluid pump cover (1) to the fluid pump housing. Refer

to **SPECIFICATIONS**.

4. Install the 2-6 brake piston from the fluid pump housing. Refer to **BRAKE AND PISTON, 2-6, INSTALLATION**.
5. Assemble the transaxle. Refer to **DISASSEMBLY**.
6. Install the transaxle in the vehicle. Refer to **INSTALLATION**.
7. Fill the transaxle with specified fluid. Refer to **FLUID, STANDARD PROCEDURES**.

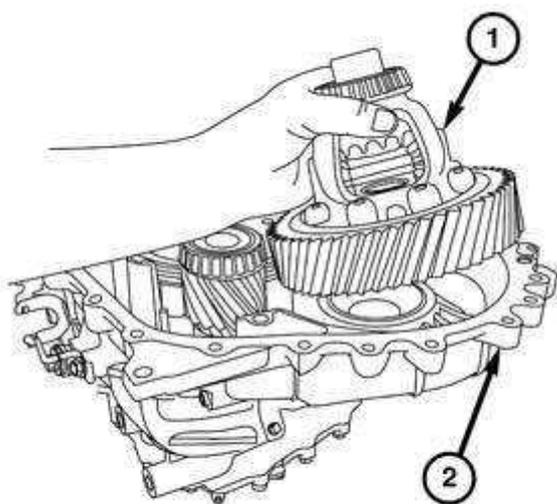
BEARINGS, DIFFERENTIAL

REMOVAL

DIFFERENTIAL BEARING

FWD

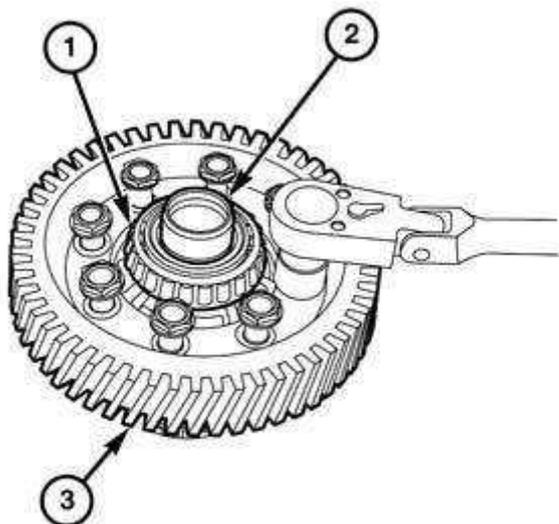
1. Remove the transaxle from the vehicle. Refer to **REMOVAL**.
2. Separate the Bell housing from the transaxle housing. Refer to **DISASSEMBLY**.



210270379

Fig. 722: Differential & Transaxle Housing
Courtesy of CHRYSLER GROUP, LLC

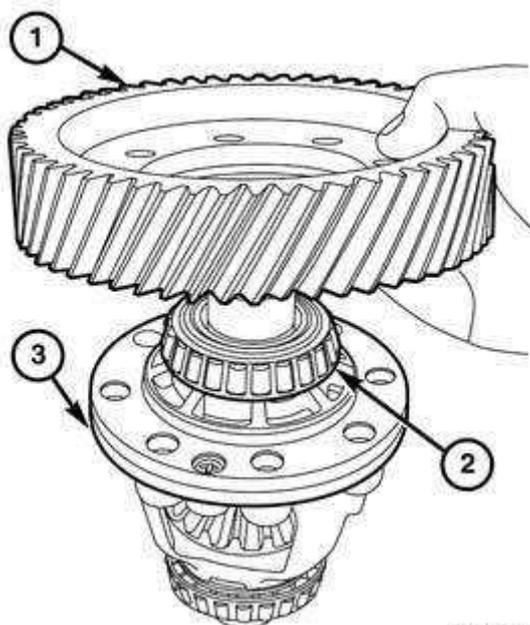
3. Separate the differential (1) from the transaxle housing (2). Refer to **DISASSEMBLY**.



210171726

Fig. 723: Differential & Ring Gear
Courtesy of CHRYSLER GROUP, LLC

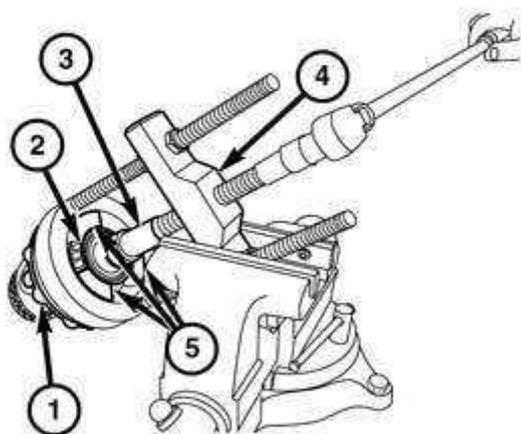
4. Remove bolts holding the ring gear (3) to the differential (2)



210171725

Fig. 724: Differential, Ring Gear & Bearing
Courtesy of CHRYSLER GROUP, LLC

5. Separate the ring gear (1) from the differential (3).



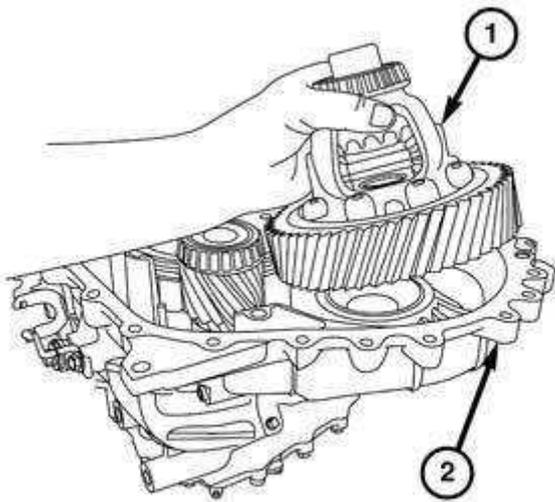
210171724

Fig. 725: Removing Bearing From Differential
Courtesy of CHRYSLER GROUP, LLC

6. Using tools (special tool #C-293-PA, Puller, Press) press (4), (special tool #C-293-48, Block Set, Puller) collets (5), and (special tool #C-4996, Adapter, Plug) plug (3), secured in a vise, remove the bearing (2) from the differential (1) (ring gear side shown in illustration above).

AWD

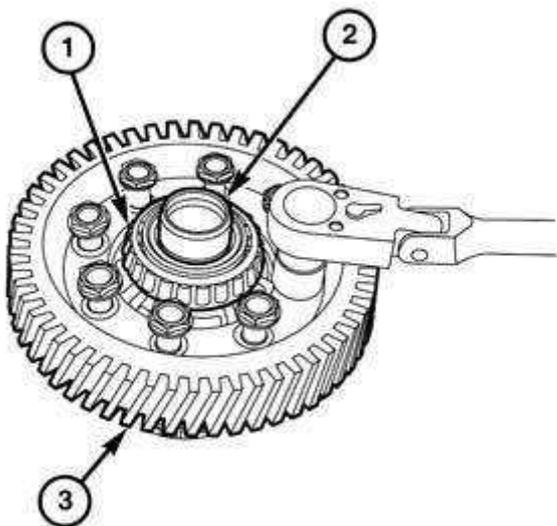
1. Remove the transaxle from the vehicle. Refer to **REMOVAL**.
2. Separate the Bell housing from the transaxle housing. Refer to **DISASSEMBLY**.



210270379

Fig. 726: Differential & Transaxle Housing
Courtesy of CHRYSLER GROUP, LLC

3. Separate the differential (1) from the transaxle housing (2). Refer to **DISASSEMBLY**.



210171726

Fig. 727: Differential & Ring Gear
Courtesy of CHRYSLER GROUP, LLC

4. Remove bolts holding the ring gear (3) to the differential (2)

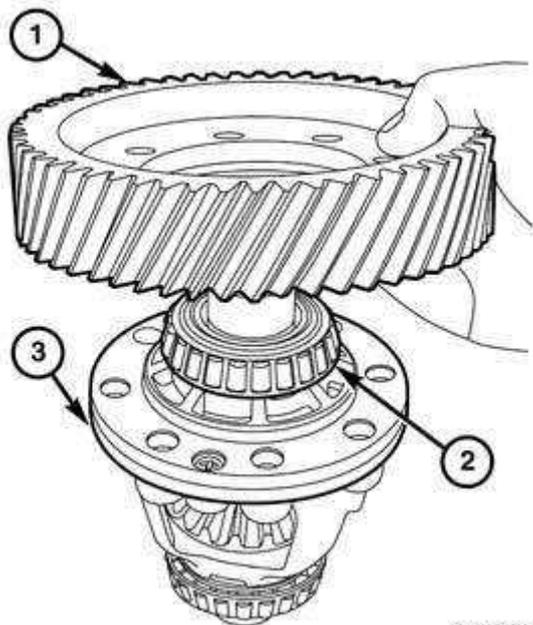


Fig. 728: Differential, Ring Gear & Bearing
Courtesy of CHRYSLER GROUP, LLC

5. Separate the ring gear (1) from the differential (3).

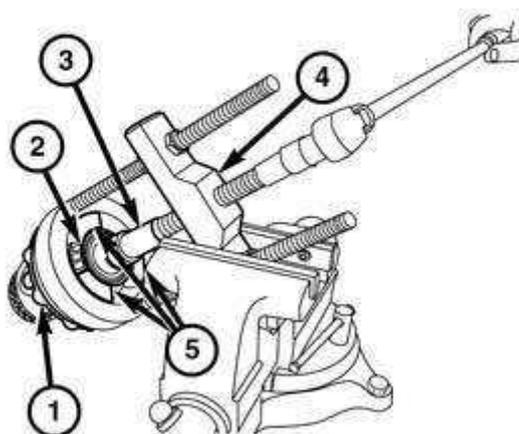


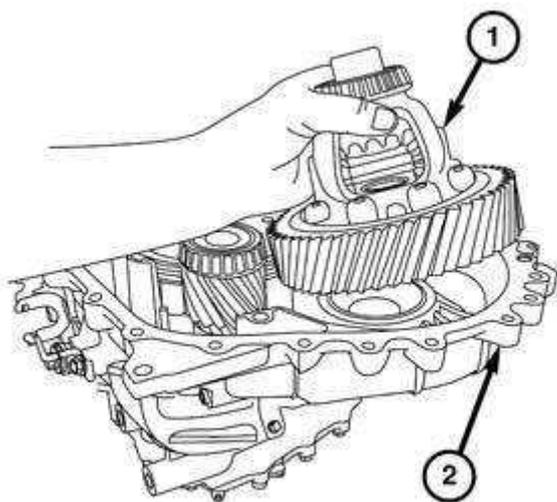
Fig. 729: Removing Bearing From Differential
Courtesy of CHRYSLER GROUP, LLC

- Using tools press (special tool #C-293-PA, Puller, Press) (4), collets (special tool #C-293-62, Block Set, Puller) (5), and plug (special tool #9678, Press Plug) (3), secured in a vise, remove the bearing (2) from the differential (1) (PTU side shown in illustration above).

DIFFERENTIAL BEARING RACE

The transaxle housing and bell housing must be separated to gain access to the differential bearings.

- Remove the transaxle from the vehicle. Refer to **REMOVAL**.
- Separate the Bell housing from the transaxle housing. Refer to **DISASSEMBLY**.



210270379

Fig. 730: Differential & Transaxle Housing
Courtesy of CHRYSLER GROUP, LLC

- Separate the differential (1) from the transaxle housing (2). Refer to **DISASSEMBLY**.

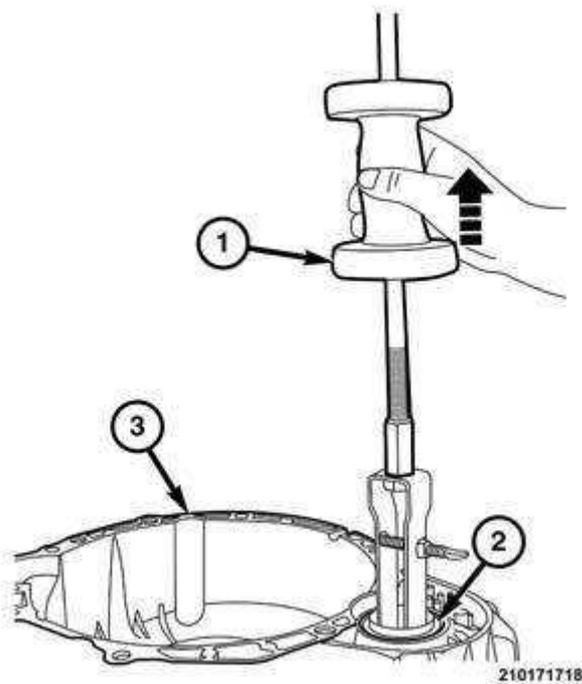


Fig. 731: Removing Halfshaft Axle Seal
 Courtesy of CHRYSLER GROUP, LLC

- Using tool (special tool #9664, Remover, Bearing Cup) and slide hammer (special tool #C-637, Slide Hammer, Universal), remove the halfshaft axle seal from the bell housing or transaxle housing (bell housing side shown in illustration above).

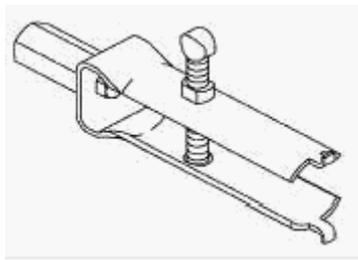


Fig. 732: Special Tool #9664
 Courtesy of CHRYSLER GROUP, LLC

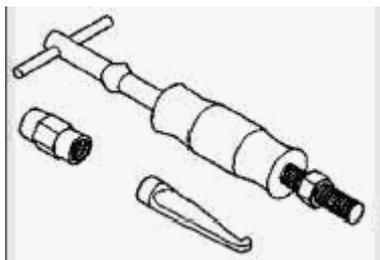
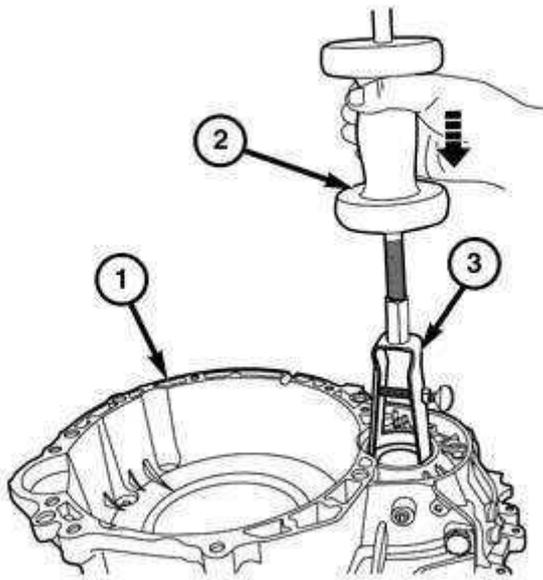


Fig. 733: Special Tool #C-637
 Courtesy of CHRYSLER GROUP, LLC



210171721

Fig. 734: Removing Differential Bearing Race
Courtesy of CHRYSLER GROUP, LLC

- Using special tool (special tool #9664, Remover, Bearing Cup) (inserted into the relief slots outside the select spacer) and slide hammer (special tool #C-637, Slide Hammer, Universal) remove the differential bearing race from the back of the bell housing or transaxle housing (bell housing side shown in illustration above).

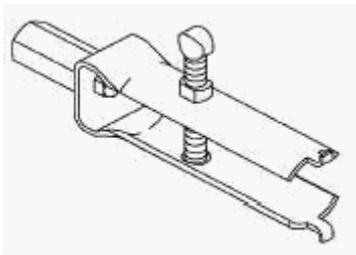


Fig. 735: Special Tool #9664
Courtesy of CHRYSLER GROUP, LLC

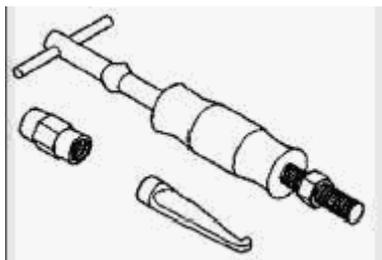
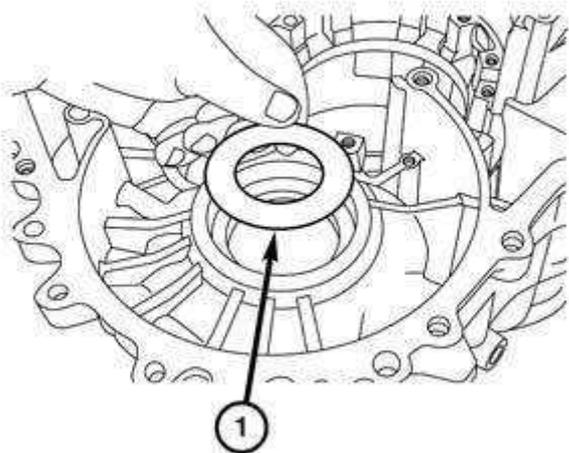


Fig. 736: Special Tool #C-637

Courtesy of CHRYSLER GROUP, LLC



210171722

Fig. 737: Differential Bearing Race Select Shim
Courtesy of CHRYSLER GROUP, LLC

6. Remove select shim from bottom of differential bearing race bore.

INSTALLATION

DIFFERENTIAL BEARING

WARNING: Use welding gloves or tongs when handling heated components. Failure to follow these instructions will result in personal injury.

CAUTION: A bearing heater is used to assembly some components. Use only a bearing heater/hot plate and follow manufacture's instructions. Heat components to 100° - 150° Celsius (212° Min. - 300° Max Fahrenheit). Never use an open flame to heat components. Never leave components on heater for and extended amount of time. If component is discolored after heating, the component has been overheated and must not be used. Failure to follow these instructions will result in component

damage.

NOTE: If the bearings are being replaced along with the differential or a transaxle housing component, the select shim thickness will need to be established. If only the bearing and race are being replaced, the original shim can be reused.

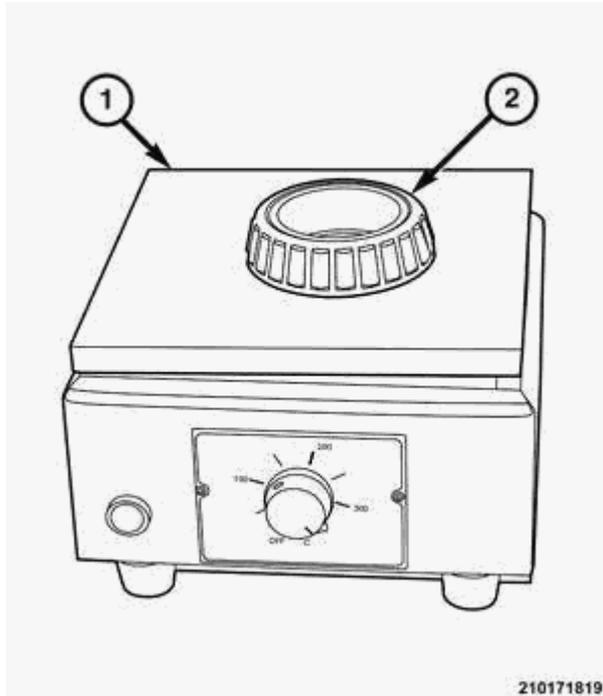
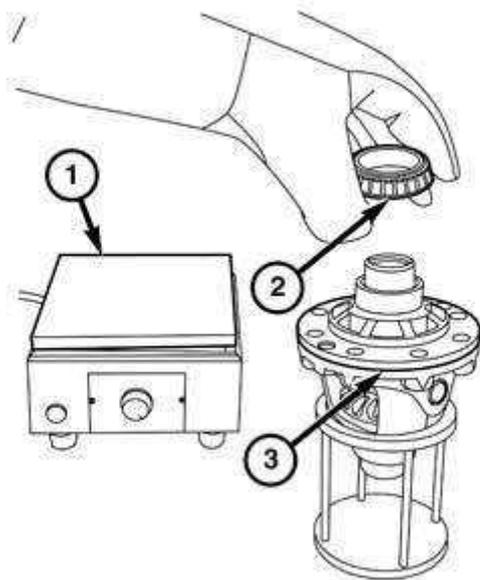


Fig. 738: Hot Plate & Bearing
Courtesy of CHRYSLER GROUP, LLC

1. Using a suitable HOT plate, heat the bearing to near 150° C (300° F). Light smoke may be produced as the bearing is heated. Do not allow the bearing to discolor.

NOTE: An infrared thermometer can be used to monitor the temperature of the bearing as it is heated.



210171723

Fig. 739: Differential, Special Tool #8285 & Bearing
 Courtesy of CHRYSLER GROUP, LLC

- Place the differential (3) on (special tool #8285, Compressor, Spring).



Fig. 740: Special Tool #8285
 Courtesy of CHRYSLER GROUP, LLC

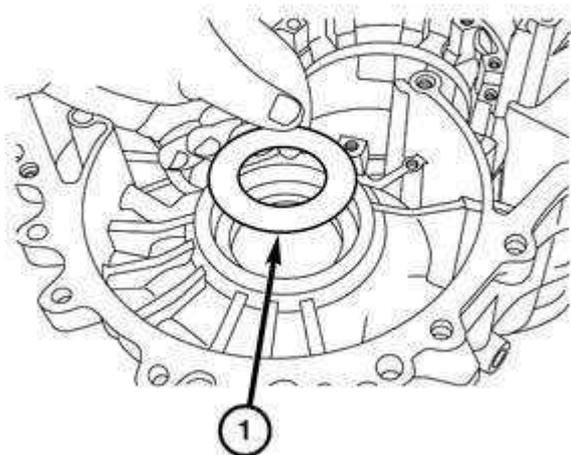
While wearing welding gloves, Place heated bearing (2) onto the differential (3) and allow to cool (ring gear side shown in illustration above).

NOTE: If the bearing does not fall all the way onto the differential, it was not hot enough. Remove the bearing and repeat step 1 and 2.

DIFFERENTIAL BEARING RACE

FWD

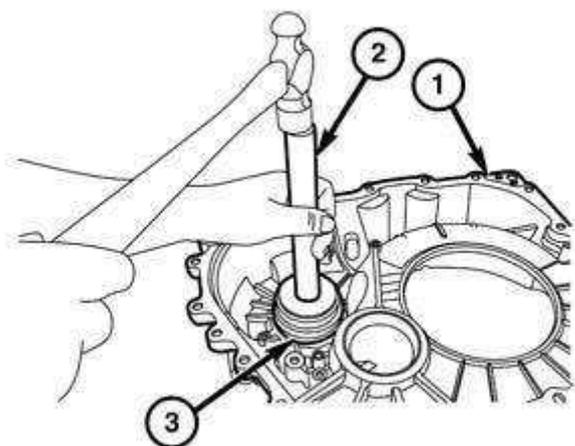
NOTE: If the bearings are being replaced along with the differential or a transaxle housing component, the select shim thickness will need to be established. If only the bearing and race are being replaced, the original shim can be reused.



210171722

Fig. 741: Differential Bearing Race Select Shim
Courtesy of CHRYSLER GROUP, LLC

1. Install the select shim (1) into the bearing race bore in the housing.



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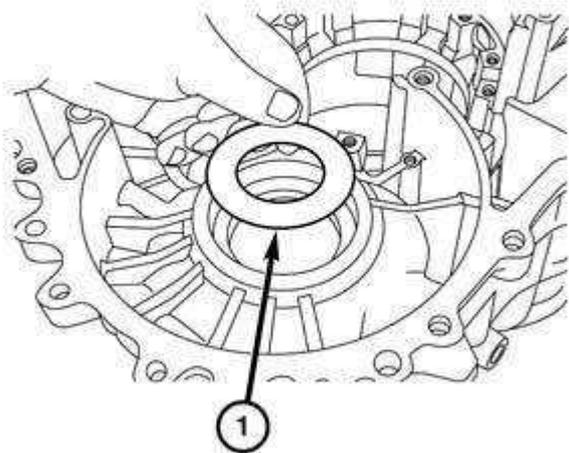
Fig. 742: Special Tool #9668 & Differential Bearing Race
Courtesy of CHRYSLER GROUP, LLC

NOTE: When installing the differential bearing race, do not allow the race to tip and bind as it is driven into the bore.

2. Using tools (special tool #9668, Remover/Installer, Bearing Cup) (3) and (special tool #C-4171, Driver Handle, Universal) (2), carefully drive the bearing race into the bore in the housing.
3. Prepare to reassemble the transaxle. If necessary, perform the Turning Torque Measurement procedure.

AWD

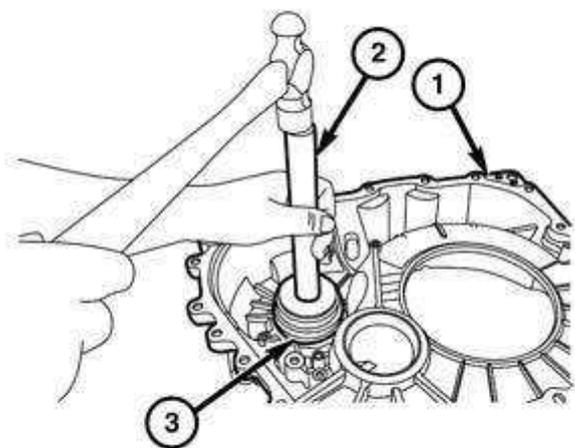
NOTE: If the bearings are being replaced along with the differential or a transaxle housing component, the select shim thickness will need to be established. If only the bearing and race are being replaced, the original shim can be reused.



210171722

Fig. 743: Differential Bearing Race Select Shim
Courtesy of CHRYSLER GROUP, LLC

1. Install the select shim (1) into the bearing race bore in the housing.



210171719

Fig. 744: Special Tool #9668 & Differential Bearing Race
Courtesy of CHRYSLER GROUP, LLC

NOTE: When installing the differential bearing race, do not

allow the race to tip and bind as it is driven into the bore.

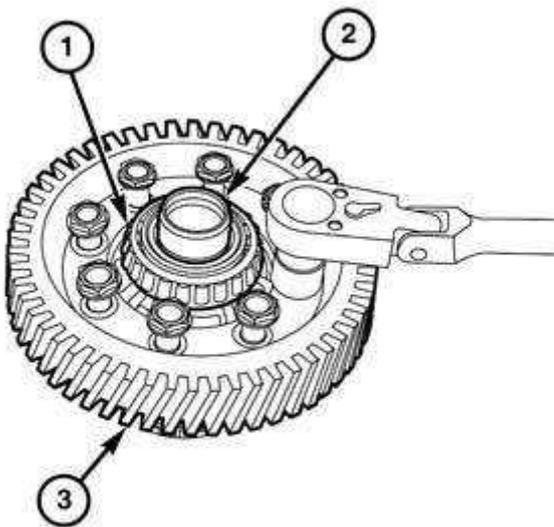
2. Using tools (special tool #C-4310, Installer, Bearing) (3) and (special tool #C-4171, Driver Handle, Universal) (2), carefully drive the bearing race into the bore in the housing.
3. Prepare to reassemble the transaxle. If necessary, perform the Turning Torque Measurement procedure.

DIFFERENTIAL AND RING GEAR

DISASSEMBLY

FWD

1. Remove the transaxle from the vehicle. Refer to **REMOVAL**.
2. Disassemble the transaxle to gain access to the differential. Refer to **DISASSEMBLY**.
3. Separate the differential from the transaxle housing.



210171726

Fig. 745: Differential & Ring Gear
Courtesy of CHRYSLER GROUP, LLC

4. Remove the bolts (2) holding the ring gear (3) to the differential.

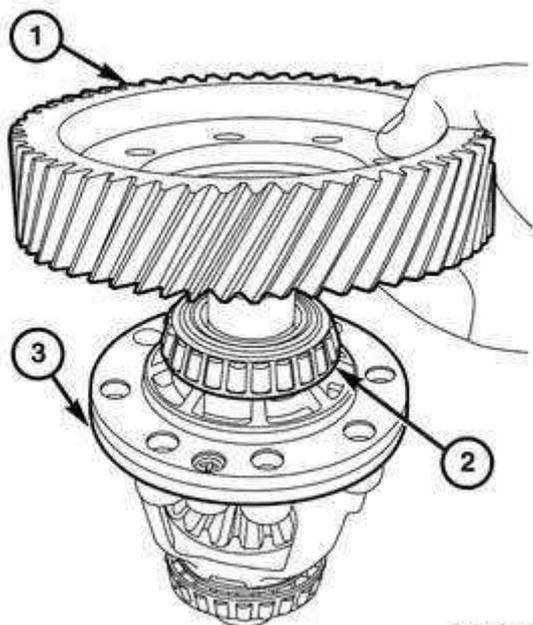


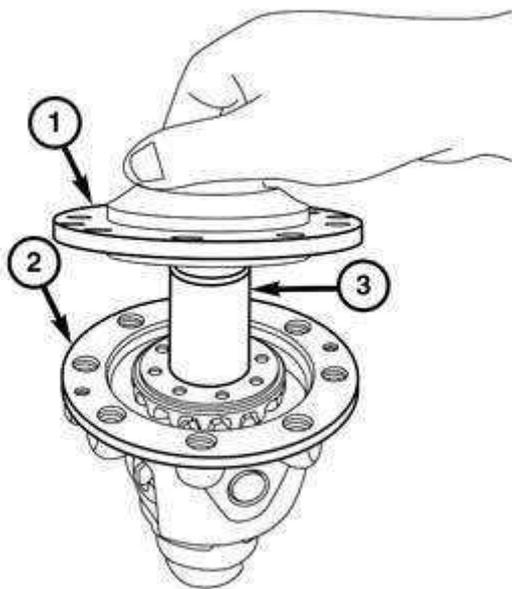
Fig. 746: Differential, Ring Gear & Bearing
Courtesy of CHRYSLER GROUP, LLC

5. Separate the ring gear (1) from the differential (3).



Fig. 747: Differential Case Halves & Screws
Courtesy of CHRYSLER GROUP, LLC

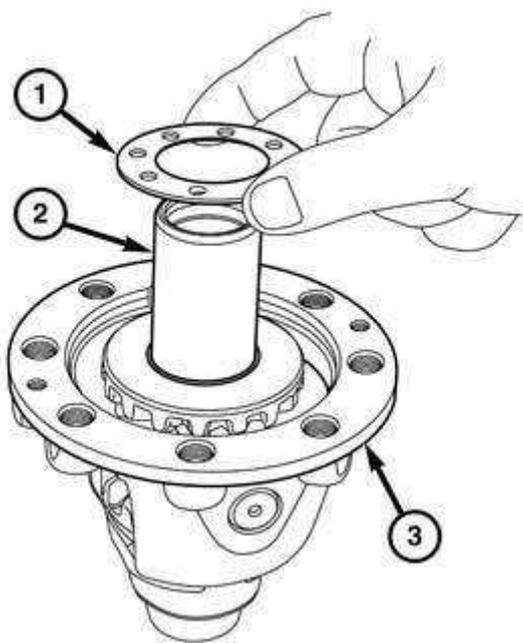
6. Remove the screws (1) holding the differential case halves (2) together.



210171886

Fig. 748: Ring Gear Half & Differential
Courtesy of CHRYSLER GROUP, LLC

7. Separate the ring gear half (1) of the case from the differential (2).

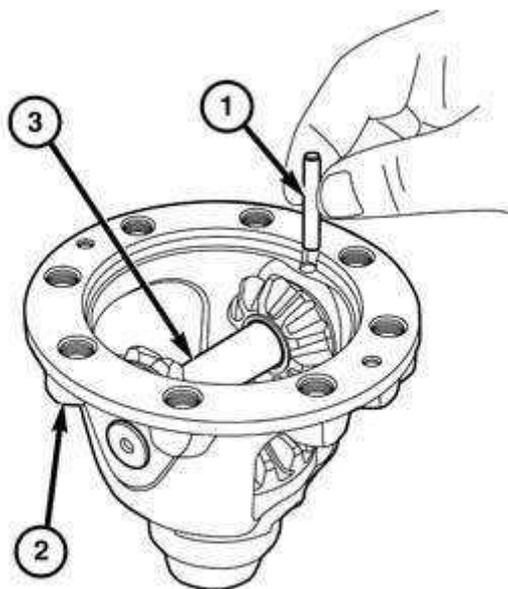


210171891

Fig. 749: Side Gear Thrust Washer, Side Gear & Differential
Courtesy of CHRYSLER GROUP, LLC

8. Separate the side gear thrust washer (1) from the side gear (2).

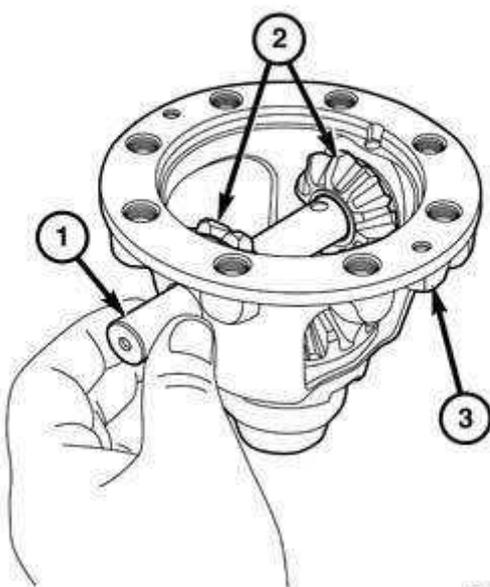
9. Separate the side gear (2) from the differential (3).



210171889

Fig. 750: Pin, Differential Case & Differential Link Shaft
Courtesy of CHRYSLER GROUP, LLC

10. Remove the pin (1) holding the differential link shaft (3) into the differential case (2).

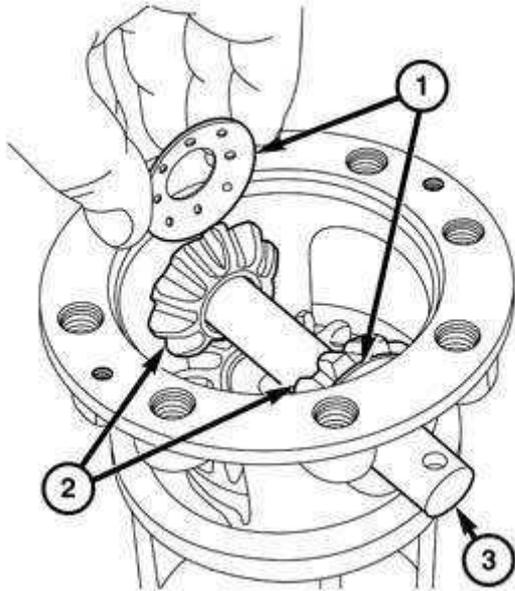


210171888

Fig. 751: Differential Case & Differential Link Shaft

Courtesy of CHRYSLER GROUP, LLC

11. Slide the differential link shaft (1) out of the differential case (3).

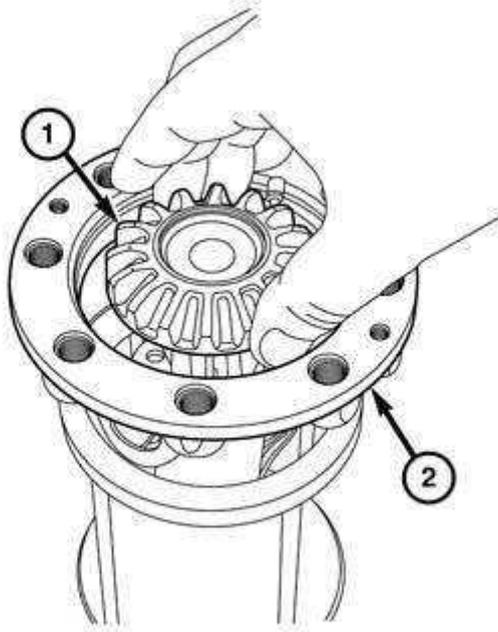


210171887

Fig. 752: Conical Washers & Pinion Gears
Courtesy of CHRYSLER GROUP, LLC

12. Remove the conical washers (1) and pinion gears (2) from the differential case.

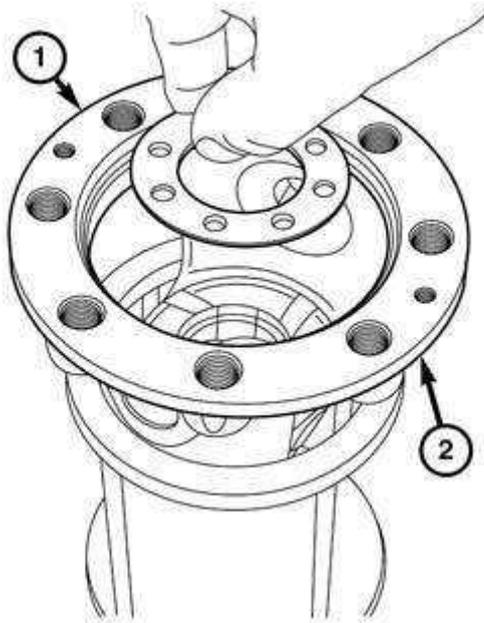
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210171892

Fig. 753: Differential Case & Side Gear
Courtesy of CHRYSLER GROUP, LLC

13. Remove the side gear (1) from the differential case (2).



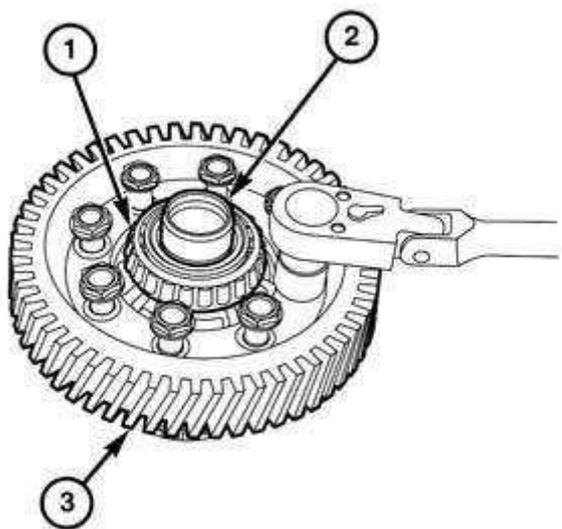
210171893

Fig. 754: Side Gear Thrust Washer & Differential
Courtesy of CHRYSLER GROUP, LLC

14. Remove the side gear thrust washer (1) from the differential (2).

AWD

1. Remove the transaxle from the vehicle. Refer to **REMOVAL**.
2. Disassemble the transaxle to gain access to the differential. Refer to **DISASSEMBLY**.
3. Separate the differential from the transaxle housing.



210171726

Fig. 755: Differential & Ring Gear
Courtesy of CHRYSLER GROUP, LLC

4. Remove the bolts (2) holding the ring gear (3) to the differential.

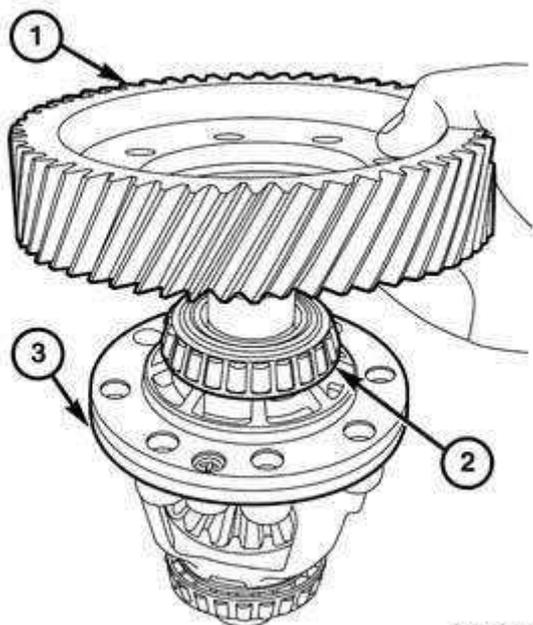


Fig. 756: Differential, Ring Gear & Bearing
Courtesy of CHRYSLER GROUP, LLC

5. Separate the ring gear (1) from the differential (3).

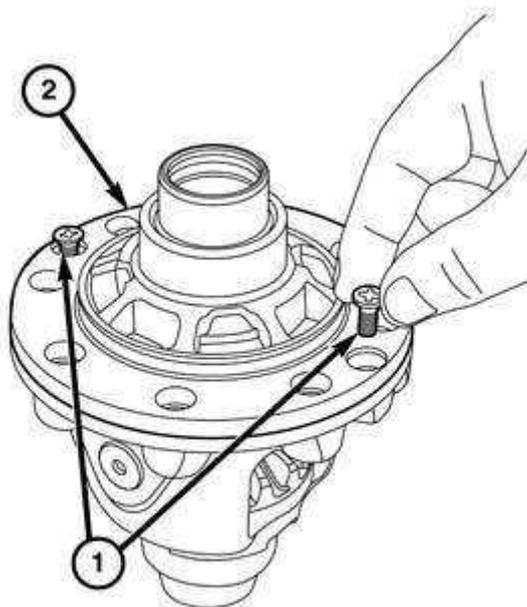
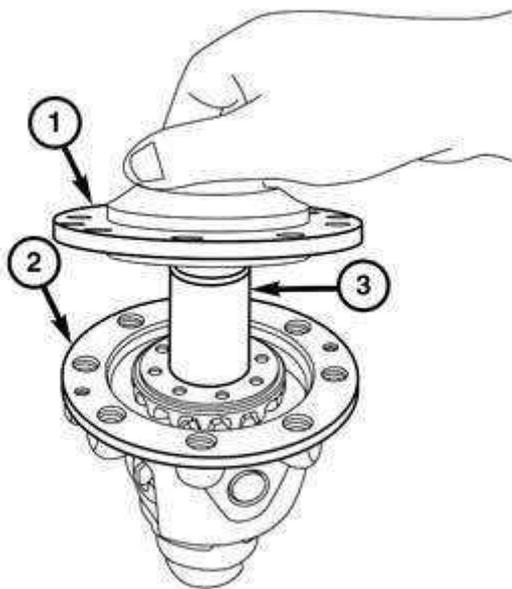


Fig. 757: Differential Case Halves & Screws
Courtesy of CHRYSLER GROUP, LLC

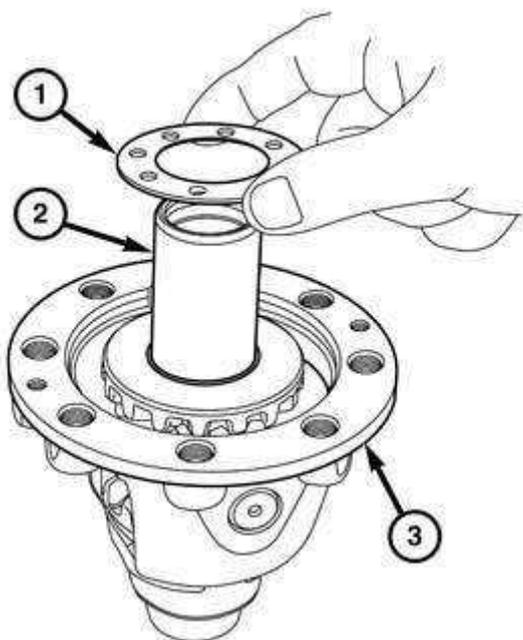
6. Remove the screws (1) holding the differential case halves (2) together.



210171886

Fig. 758: Ring Gear Half & Differential
Courtesy of CHRYSLER GROUP, LLC

7. Separate the ring gear half (1) of the case from the differential (2).

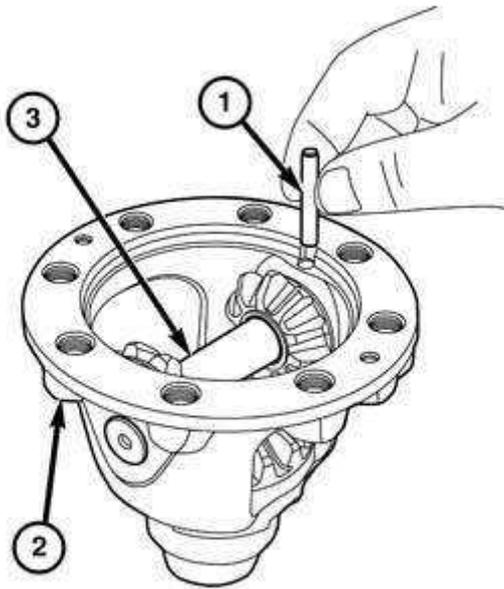


210171891

Fig. 759: Side Gear Thrust Washer, Side Gear & Differential
Courtesy of CHRYSLER GROUP, LLC

8. Separate the side gear thrust washer (1) from the side gear (2).

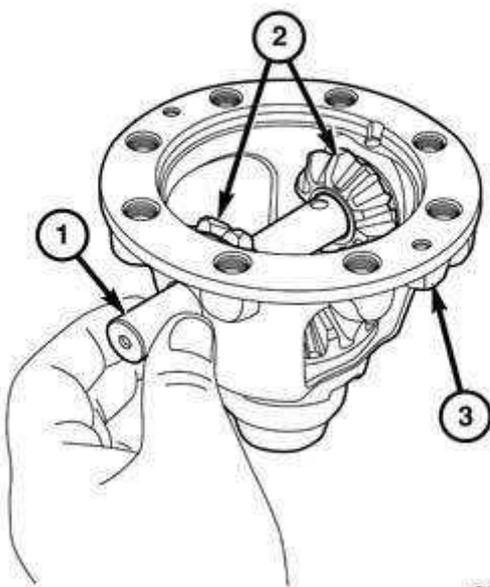
9. Separate the side gear (2) from the differential (3).



210171889

Fig. 760: Pin, Differential Case & Differential Link Shaft
Courtesy of CHRYSLER GROUP, LLC

10. Remove the pin (1) holding the differential link shaft (3) into the differential case (2).

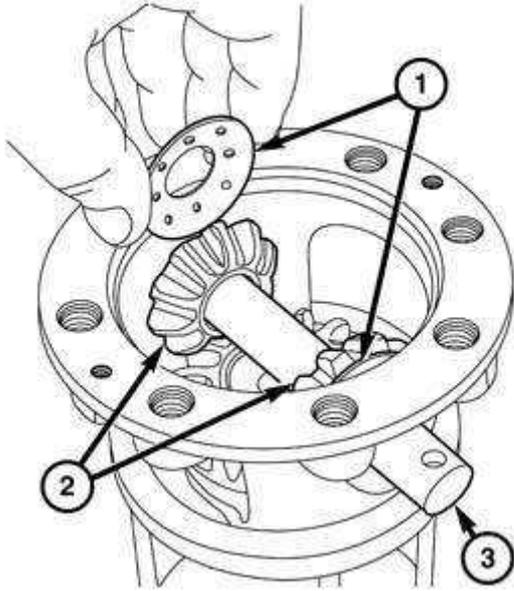


210171888

Fig. 761: Differential Case & Differential Link Shaft

Courtesy of CHRYSLER GROUP, LLC

11. Slide the differential link shaft (1) out of the differential case (3).

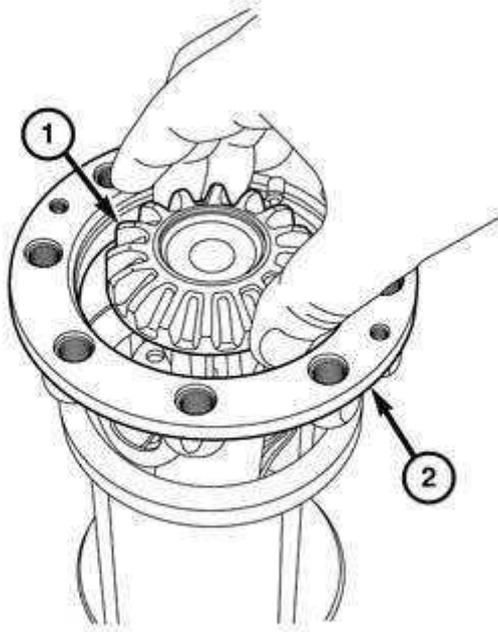


210171887

Fig. 762: Conical Washers & Pinion Gears
Courtesy of CHRYSLER GROUP, LLC

12. Remove the conical washers (1) and pinion gears (2) from the differential case.

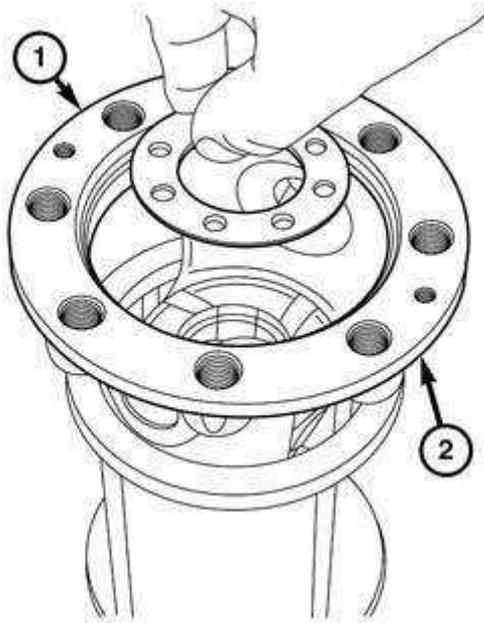
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210171892

Fig. 763: Differential Case & Side Gear
Courtesy of CHRYSLER GROUP, LLC

13. Remove the side gear (1) from the differential case (2).



210171893

Fig. 764: Side Gear Thrust Washer & Differential
Courtesy of CHRYSLER GROUP, LLC

14. Remove the side gear thrust washer (1) from the differential (2).

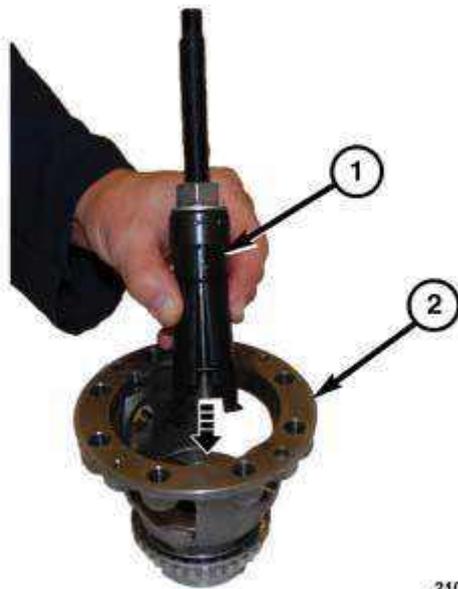


Fig. 765: Special Tool #L-4454-1 & Differential
Courtesy of CHRYSLER GROUP, LLC

15. Insert expanding end of collet tool L-4454-1, from tool kit (special tool #L-4454A, Remover, Bearing Cup) all-the-way into the needle bearing.
16. Tighten the nut until the collet tool is secure in the needle bearing.
17. Place tube receiver tool L-4518-1 from tool kit (special tool #L-4518, Remover, Bearing Cup) over the collet tool and install the bearing, washer and nut.

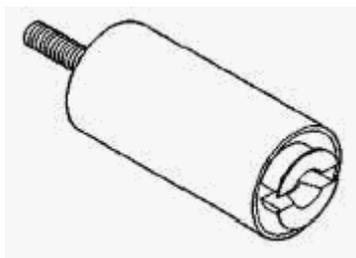


Fig. 766: special tool #L-4518
Courtesy of CHRYSLER GROUP, LLC

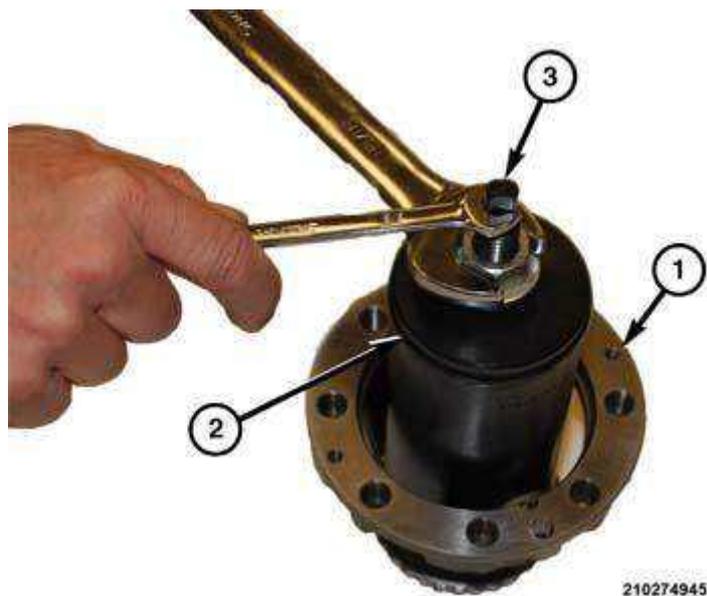


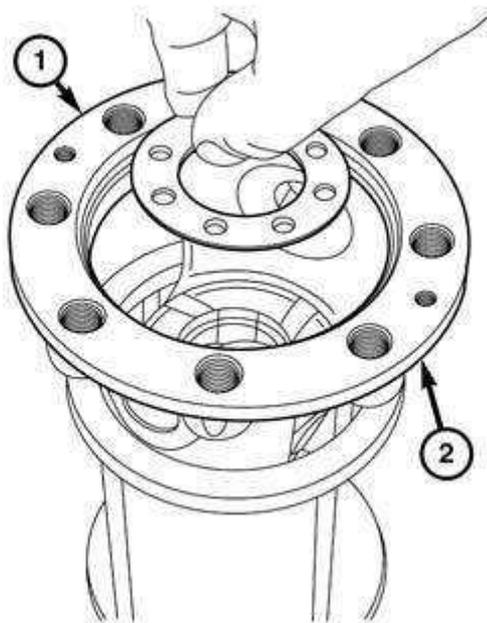
Fig. 767: Differential Housing & Needle Bearing
Courtesy of CHRYSLER GROUP, LLC

18. Tighten the nut to draw the needle bearing from the differential housing.
19. Using a common flat blade screw and hammer, tap the side gear seal from the differential housing bore.

ASSEMBLY

FWD

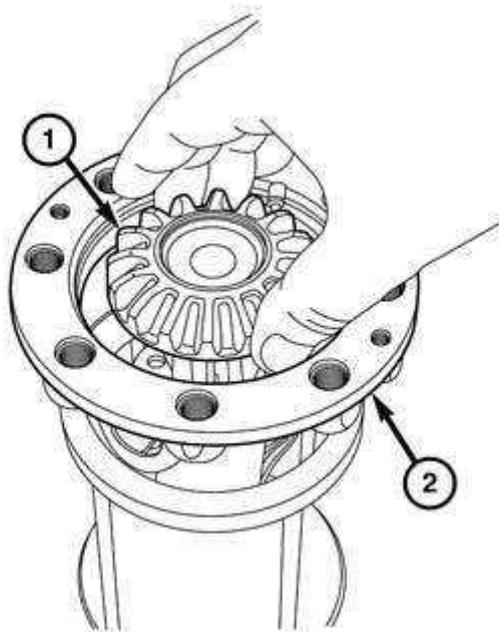
Clean the differential in suitable solvent and inspect components for damage or debris. Dry the components with regulated 344 kPa (50 psi) shop air. Do not free spin the bearings with shop air.



210171893

Fig. 768: Side Gear Thrus Washer & Differential
Courtesy of CHRYSLER GROUP, LLC

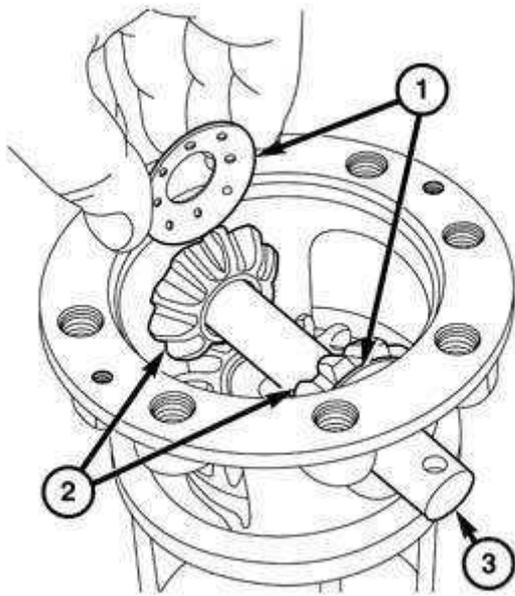
1. Install the side gear thrus washer (1) into the differential (2).



210171892

Fig. 769: Differential Case & Side Gear
Courtesy of CHRYSLER GROUP, LLC

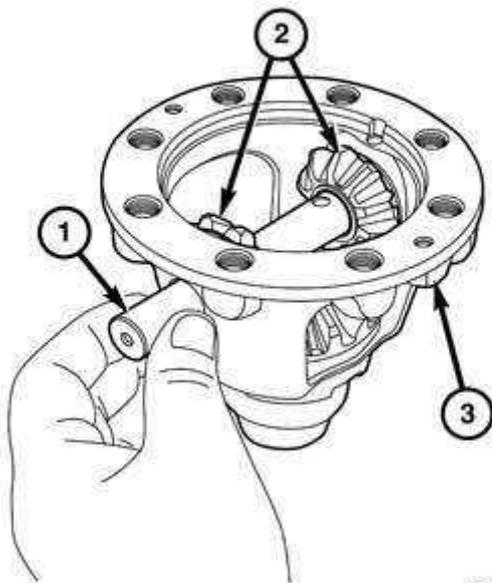
2. Install the side gear (1) into the differential case (2).



210171887

Fig. 770: Conical Washers & Pinion Gears
Courtesy of CHRYSLER GROUP, LLC

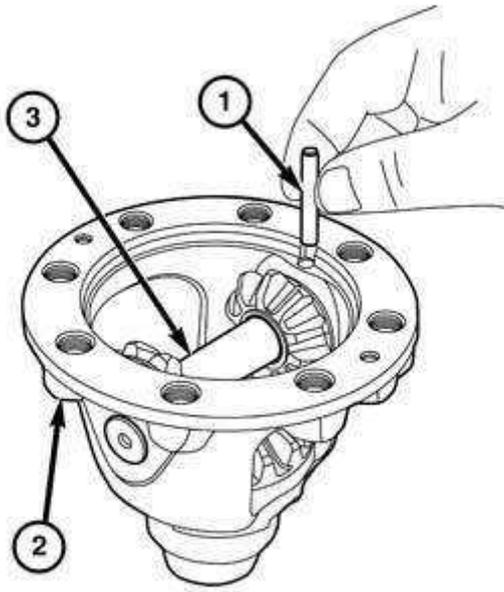
3. Install the conical washers (1) and pinion gears (2) into the differential case.



210171888

Fig. 771: Differential Case & Differential Link Shaft
Courtesy of CHRYSLER GROUP, LLC

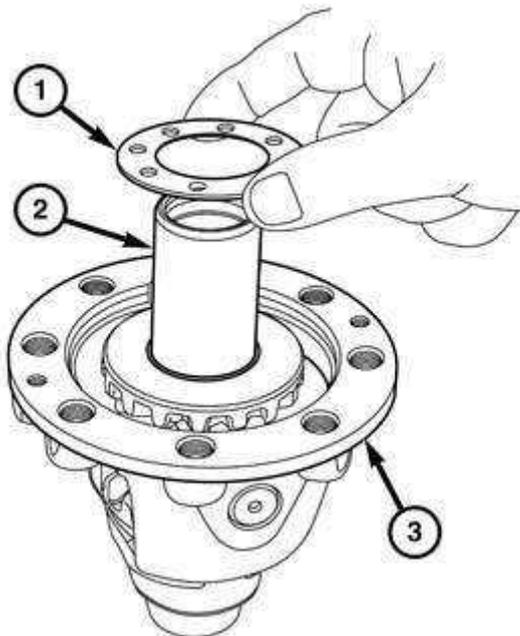
4. Slide the differential link shaft (1) into the differential case (3)



210171889

Fig. 772: Pin, Differential Case & Differential Link Shaft
Courtesy of CHRYSLER GROUP, LLC

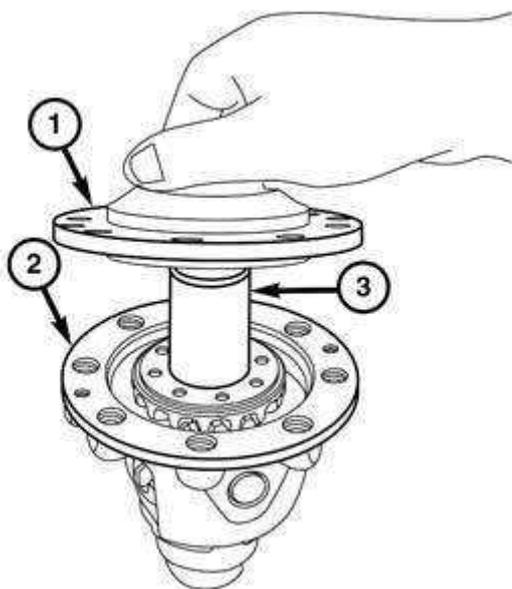
5. Install the pin (1) to hold the differential link shaft (3) into the differential case (2).



210171891

Fig. 773: Side Gear Thrust Washer, Side Gear & Differential
Courtesy of CHRYSLER GROUP, LLC

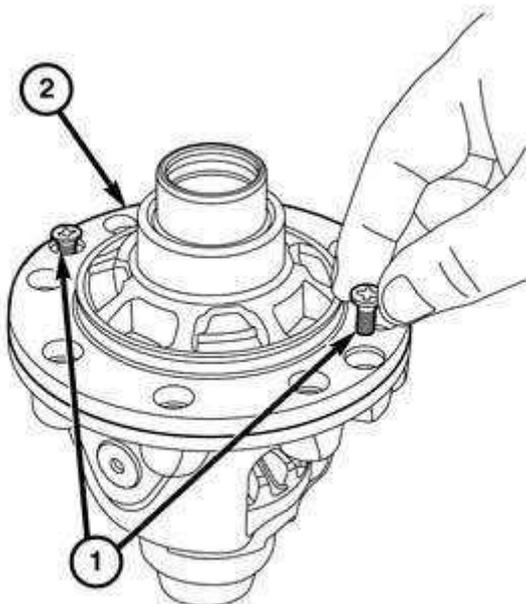
6. Place the side gear (2) into the differential (3).
7. Place the side gear thrust washer (1) onto the side gear (2).



210171886

Fig. 774: Ring Gear Half & Differential
Courtesy of CHRYSLER GROUP, LLC

8. Place the ring gear half (1) of the case onto the differential (2).

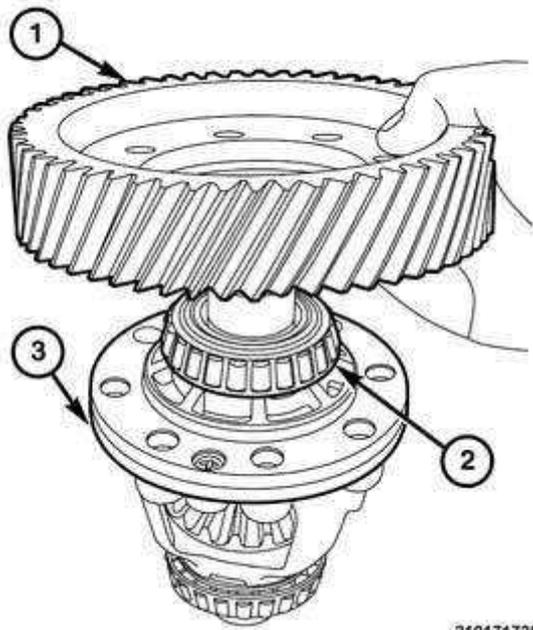


210171890

Fig. 775: Differential Case Halves & Screws

Courtesy of CHRYSLER GROUP, LLC

9. Install the screws (1) to hold the differential case halves (2) together. Refer to **SPECIFICATIONS**.

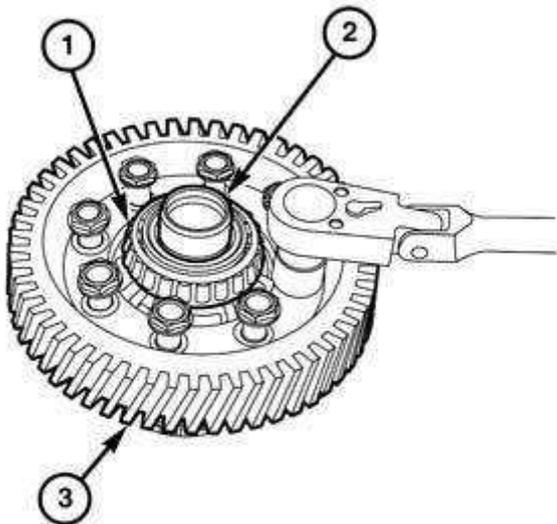


210171725

Fig. 776: Differential, Ring Gear & Bearing
Courtesy of CHRYSLER GROUP, LLC

10. Place the ring gear (1) in position on the differential (3).

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210171726

Fig. 777: Differential & Ring Gear
Courtesy of CHRYSLER GROUP, LLC

11. Install the bolts (2) to hold the ring gear (3) to the differential. Refer to **SPECIFICATIONS**.
12. Place the differential in position in the transaxle housing.
13. Assemble the transaxle. Refer to **ASSEMBLY**.
14. Install the transaxle in the vehicle. Refer to **INSTALLATION**.

AWD

Clean the differential in suitable solvent and inspect components for damage or debris. Dry the components with regulated 344 kPa (50 psi) shop air. Do not free spin the bearings with shop air.

1. Apply transmission assembly lube on the lip and tension spring cavity on the open side of the seal.



Fig. 778: Seal & Installer
Courtesy of CHRYSLER GROUP, LLC

2. Insert tool (special tool #C-293-3, Adapter, Bearing/Gear) into open side of the side gear lip seal.

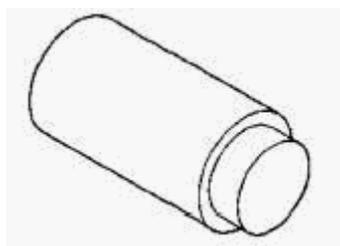


Fig. 779: Special Tool #C-293-3
Courtesy of CHRYSLER GROUP, LLC

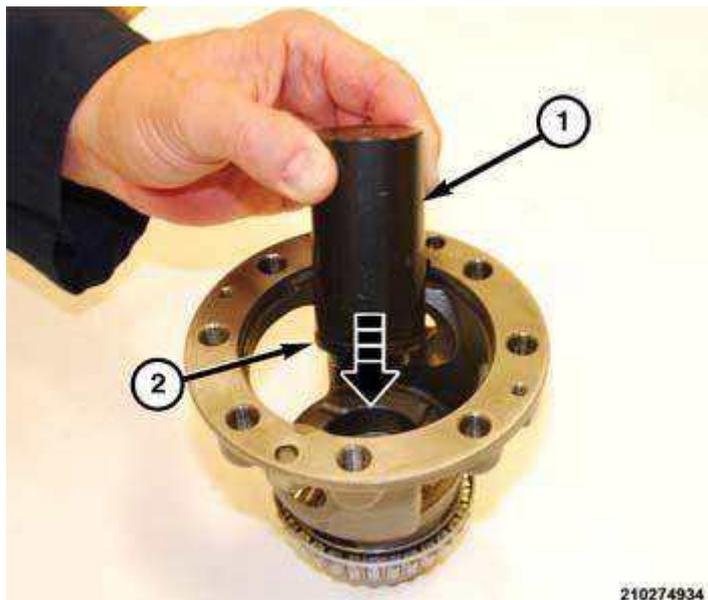


Fig. 780: Differential Housing, Seal & Tool
Courtesy of CHRYSLER GROUP, LLC

3. Insert the seal and tool into the bore in the differential housing.

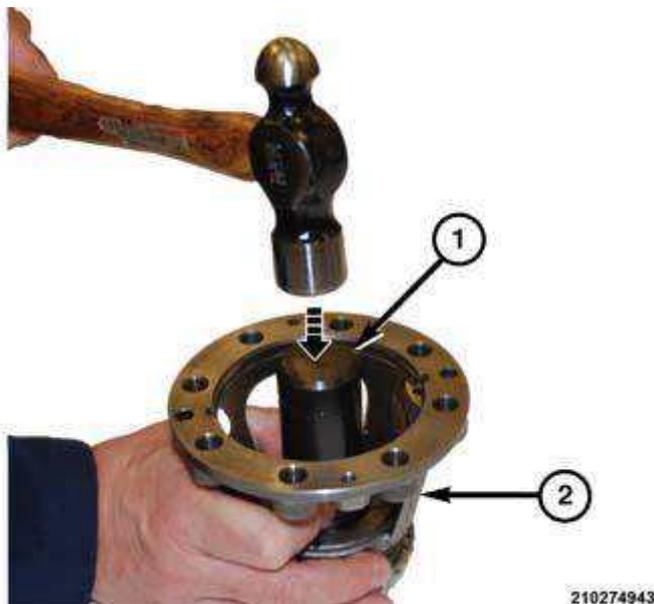


Fig. 781: Tapping Seal Into Housing
Courtesy of CHRYSLER GROUP, LLC

4. Using a suitable hammer, tap the seal into the differential housing bore until it seats against in inner lip.



Fig. 782: Side Gear Needle Bearing & Differential Housing
Courtesy of CHRYSLER GROUP, LLC

5. Insert the side gear needle bearing into the bore in the differential housing.

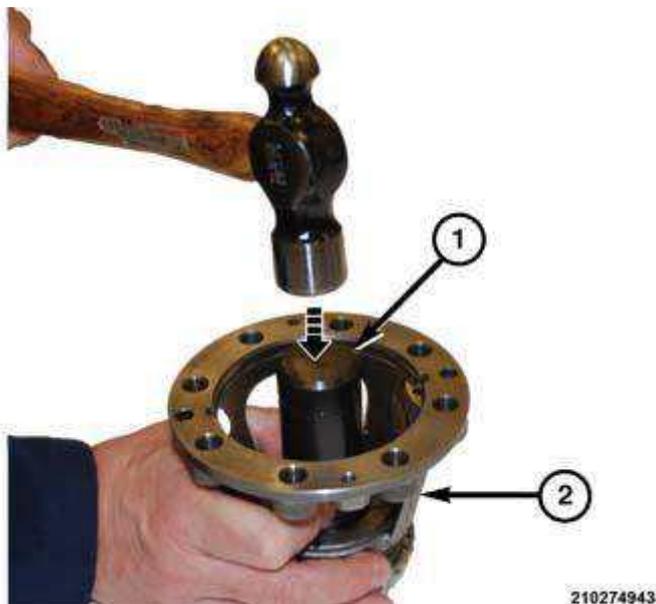
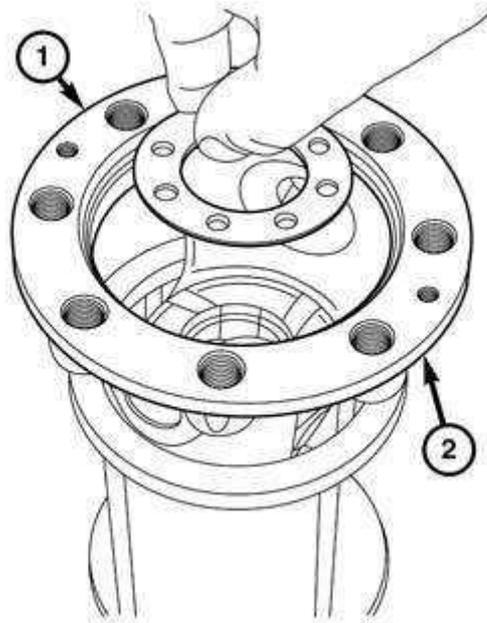


Fig. 783: Tapping Seal Into Housing
Courtesy of CHRYSLER GROUP, LLC

6. Using tool (special tool #6342, Installer, Seal) drive the needle bearing into the differential housing until it seats against the bottom of the bore.



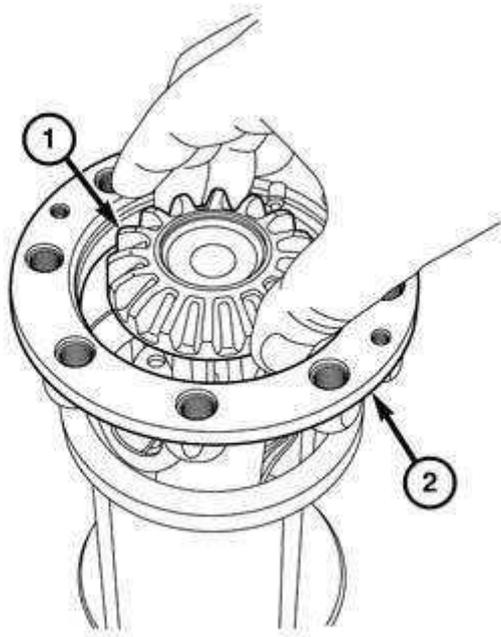
Fig. 784: Special Tool #6342
Courtesy of CHRYSLER GROUP, LLC



210171893

Fig. 785: Side Gear Thrus Washer & Differential
Courtesy of CHRYSLER GROUP, LLC

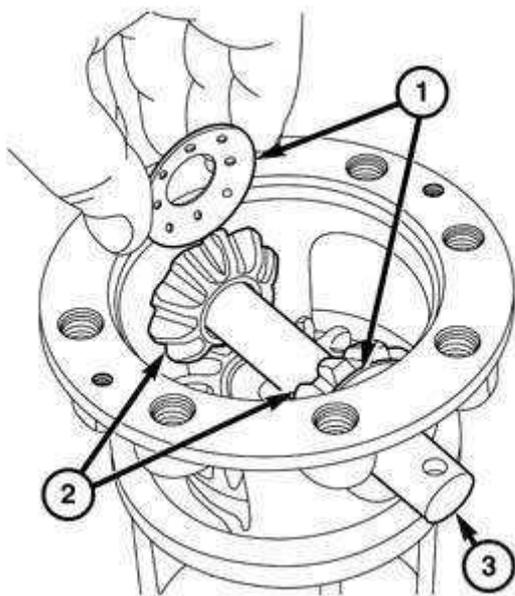
7. Install the side gear thrus washer (1) into the differential (2).



210171892

Fig. 786: Differential Case & Side Gear
Courtesy of CHRYSLER GROUP, LLC

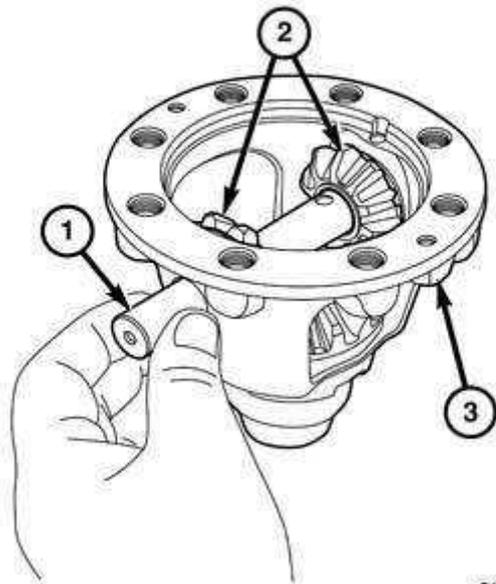
8. Install the side gear (1) into the differential case (2).



210171887

Fig. 787: Conical Washers & Pinion Gears
Courtesy of CHRYSLER GROUP, LLC

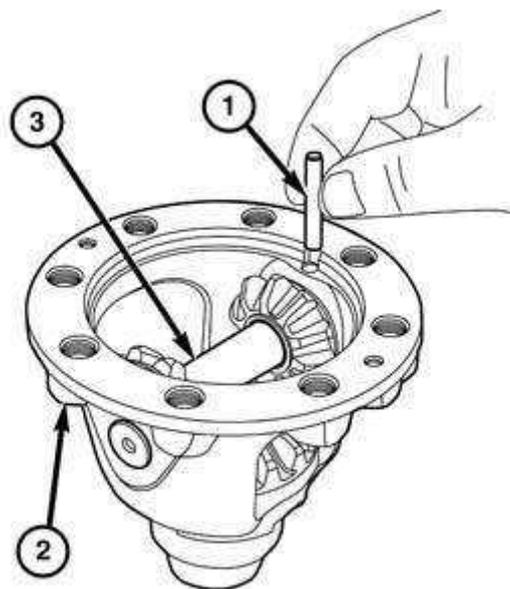
9. Install the conical washers (1) and pinion gears (2) into the differential case.



210171888

Fig. 788: Differential Case & Differential Link Shaft
Courtesy of CHRYSLER GROUP, LLC

10. Slide the differential link shaft (1) into the differential case (3)

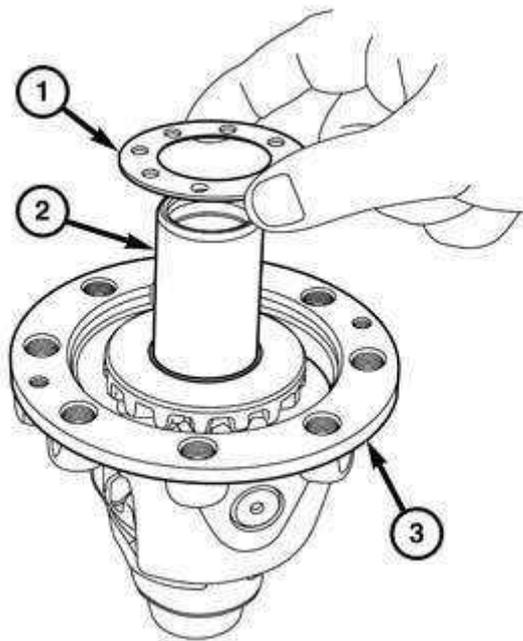


210171889

Fig. 789: Pin, Differential Case & Differential Link Shaft
Courtesy of CHRYSLER GROUP, LLC

11. Install the pin (1) to hold the differential link shaft (3) into the differential

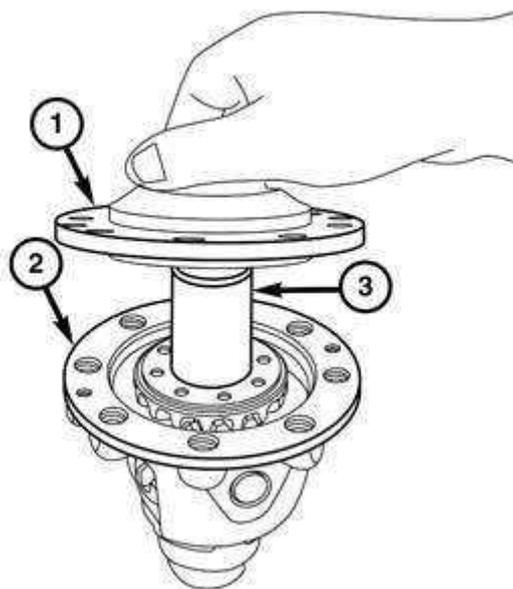
case (2).



210171891

Fig. 790: Side Gear Thrust Washer, Side Gear & Differential
 Courtesy of CHRYSLER GROUP, LLC

12. Place the side gear (2) into the differential (3).
13. Place the side gear thrust washer (1) onto the side gear (2).

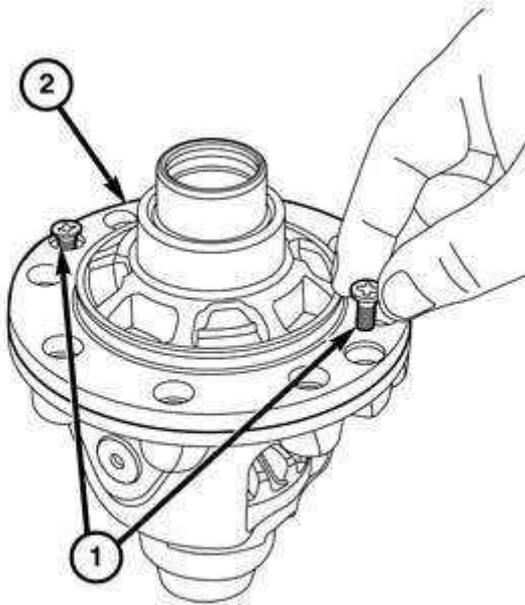


210171886

Fig. 791: Ring Gear Half & Differential

Courtesy of CHRYSLER GROUP, LLC

14. Place the ring gear half (1) of the case onto the differential (2).

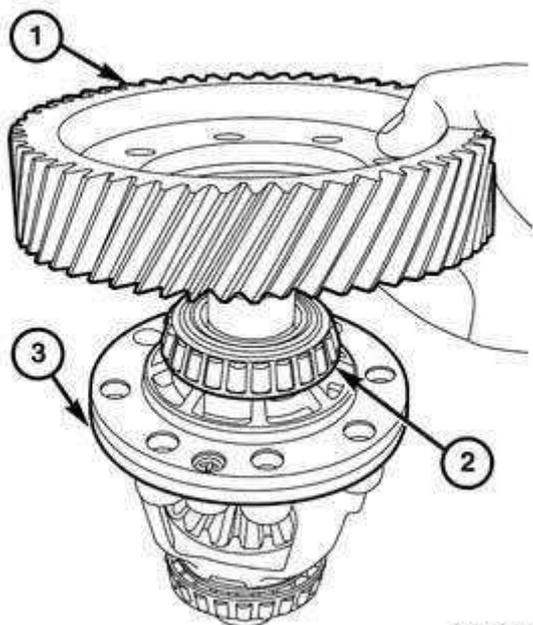


210171890

Fig. 792: Differential Case Halves & Screws
Courtesy of CHRYSLER GROUP, LLC

15. Install the screws (1) to hold the differential case halves (2) together. Refer to **SPECIFICATIONS**.

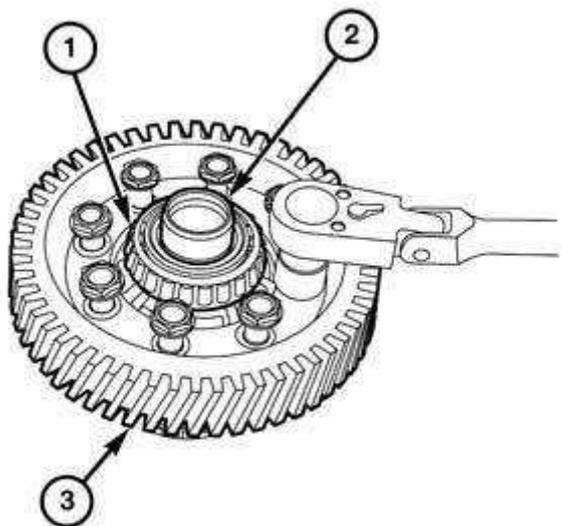
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210171725

Fig. 793: Differential, Ring Gear & Bearing
Courtesy of CHRYSLER GROUP, LLC

16. Place the ring gear (1) in position on the differential (3).



210171726

Fig. 794: Differential & Ring Gear
Courtesy of CHRYSLER GROUP, LLC

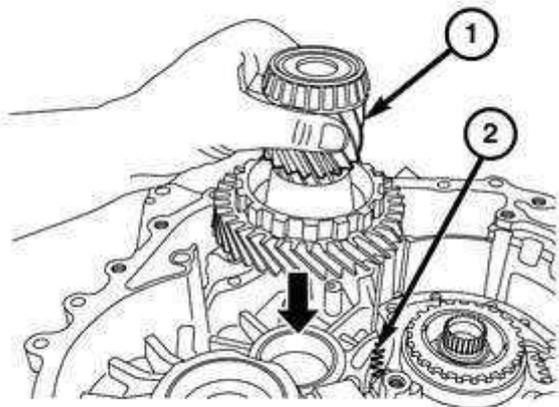
17. Install the bolts (2) to hold the ring gear (3) to the differential. Refer to

SPECIFICATIONS.

18. Place the differential in position in the transaxle housing.
19. Assemble the transaxle. Refer to **ASSEMBLY**.
20. Install the transaxle in the vehicle. Refer to **INSTALLATION**.

BEARINGS, TRANSFER GEAR DRIVEN**REMOVAL****TRANSFER GEAR (DRIVEN) BEARING**

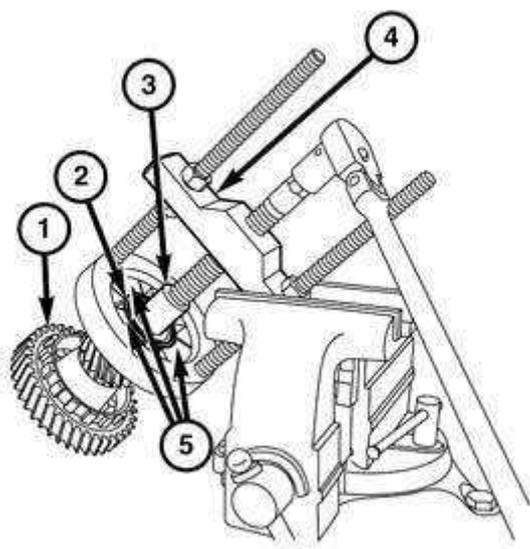
1. Remove the transaxle from the vehicle. Refer to **REMOVAL**.



210270996

Fig. 795: Transaxle & Transfer Gear
Courtesy of CHRYSLER GROUP, LLC

2. Disassemble the transaxle to remove the transfer gear. Refer to **DISASSEMBLY**.



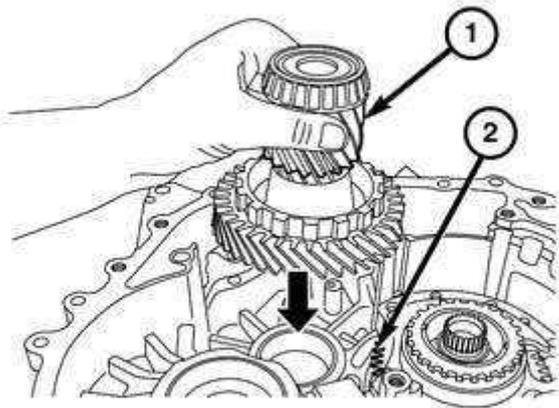
210171734

Fig. 796: Transfer Gear, Special Tools & Vice
 Courtesy of CHRYSLER GROUP, LLC

- Using tools (special tool #C-293-PA, Puller, Press) press (4), (special tool #C-293-48, Block Set, Puller) or (special tool #C-293-39, Block Set, Puller) collets (5), and (special tool #C-4996, Adapter, Plug) plug (3), secured in a vise, remove the bearing (2) from the transfer gear (1) (pinion side shown in illustration above).

TRANSFER GEAR (DRIVEN) BEARING RACE

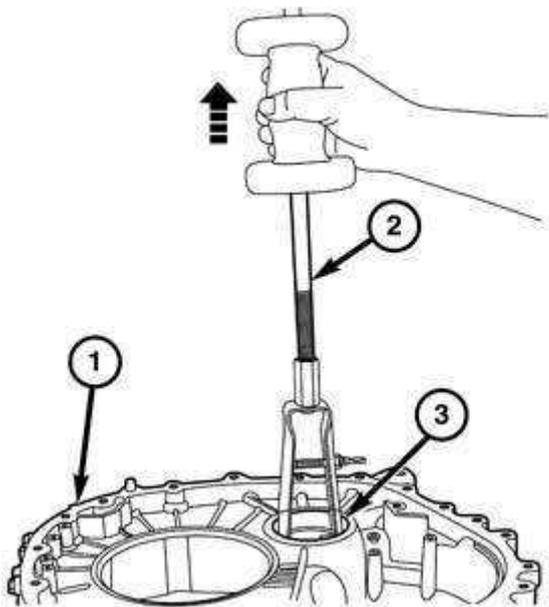
- Remove the transaxle from the vehicle. Refer to **REMOVAL**.
- Disassemble the transaxle. Refer to **DISASSEMBLY**.



210270996

Fig. 797: Transaxle & Transfer Gear
Courtesy of CHRYSLER GROUP, LLC

3. Remove the transfer gear.



210171732

Fig. 798: Transfer Gear Bearing Race, Special Tool #9664 & Special Tool #C-637
Courtesy of CHRYSLER GROUP, LLC

- Using tool (special tool #9664, Remover, Bearing Cup) and slide hammer (special tool #C-637, Slide Hammer, Universal) (2), remove the transfer gear bearing race (3) from the bell housing (1) and transaxle housing (bell housing shown in illustration above).

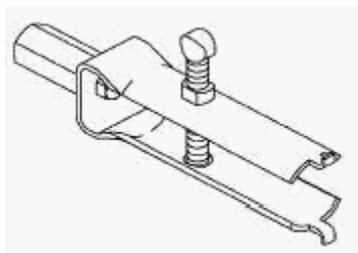


Fig. 799: Special Tool #9664
 Courtesy of CHRYSLER GROUP, LLC

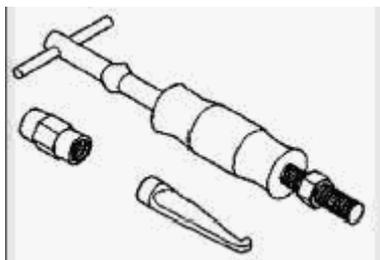
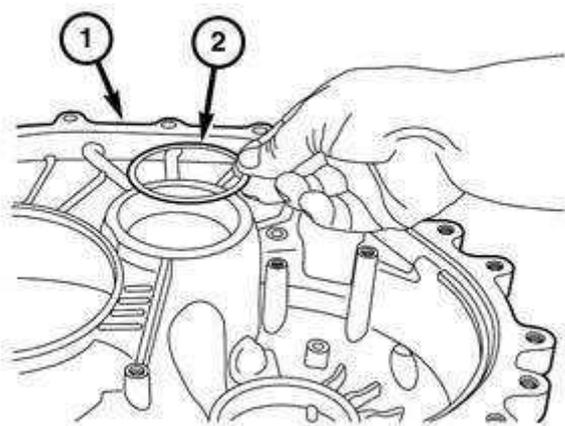


Fig. 800: Special Tool #C-637
 Courtesy of CHRYSLER GROUP, LLC



210171735

Fig. 801: Transfer Gear Bearing Select Shim
 Courtesy of CHRYSLER GROUP, LLC

5. Remove select shim (2) from bottom of transfer gear bearing race bore (3). Mark the shim to aid installation (bell housing shown in illustration above).

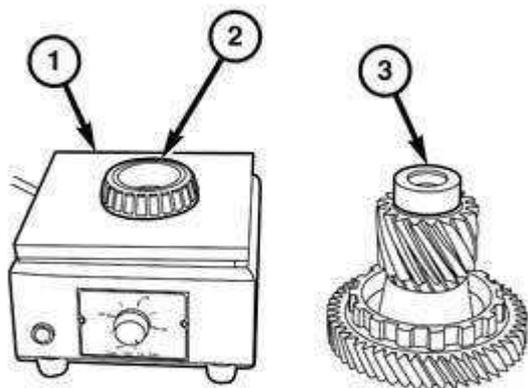
INSTALLATION

TRANSFER GEAR (DRIVEN) BEARING

WARNING: Use welding gloves or tongs when handling heated components. Failure to follow these instructions will result in personal injury.

CAUTION: A bearing heater is used to assembly some components. Use only a bearing heater/hot plate and follow manufacture's instructions. Heat components to 100° - 150° Celsius (212° Min. - 300° Max Fahrenheit). Never use an open flame to heat components. Never leave components on heater for and extended amount of time. If component is discolored after heating, the component has been overheated and must not be used. Failure to follow these instructions will result in component damage.

NOTE: If the bearings are being replaced along with the transfer gear or a transaxle housing component, the select shim thickness will need to be established. If only the bearing and race are being replaced, the original shim can be reused.

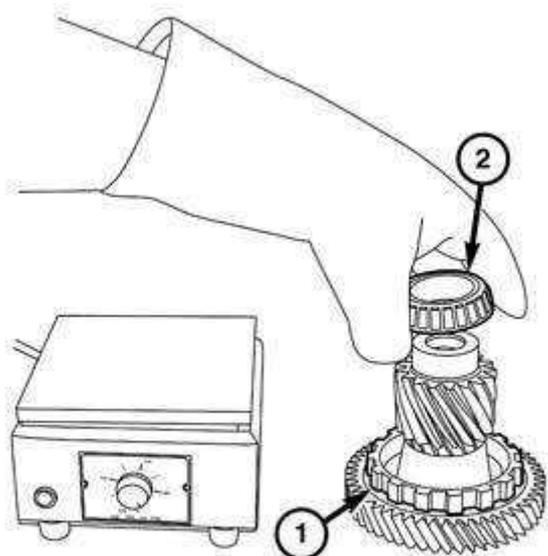


210171729

Fig. 802: Hot Plate & Bearing
Courtesy of CHRYSLER GROUP, LLC

1. Using a suitable HOT plate (1), heat the bearing (2) to near 150° C (300° F). Light smoke may be produced as the bearing is heated. Do not allow the bearing to discolor.

NOTE: An infrared thermometer can be used to monitor the temperature of the bearing as it is heated.



210171730

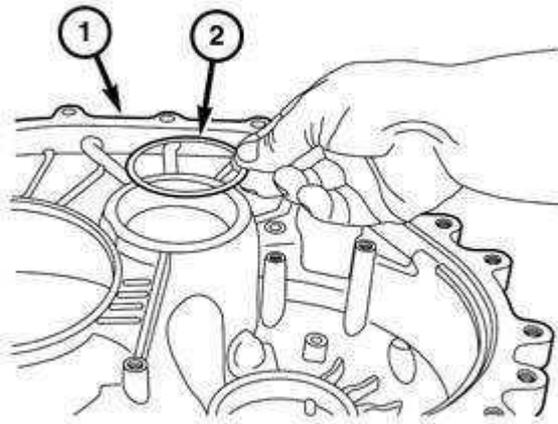
Fig. 803: Transfer Gear & Heated Bearing
 Courtesy of CHRYSLER GROUP, LLC

2. While wearing welding gloves, Place heated bearing (2) onto the transfer gear (1) and allow to cool (pinion gear side shown in illustration above).

NOTE: If the bearing does not fall all the way onto the transfer gear, it was not hot enough. Remove the bearing and repeat step 1 and 2.

TRANSFER GEAR (DRIVEN) BEARING RACE

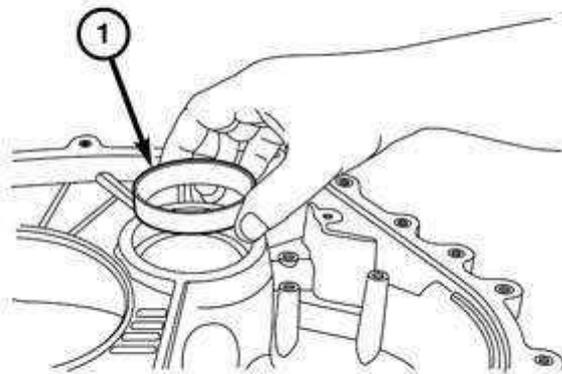
NOTE: If the bearings are being replaced along with the transfer gear or transaxle housing component, the select shim thickness will need to be established. If only the bearing and race are being replaced, the original shim can be reused.



210171735

Fig. 804: Transfer Gear Bearing Select Shim
Courtesy of CHRYSLER GROUP, LLC

1. Install the select shim (1) into the bearing race bore in the housing.

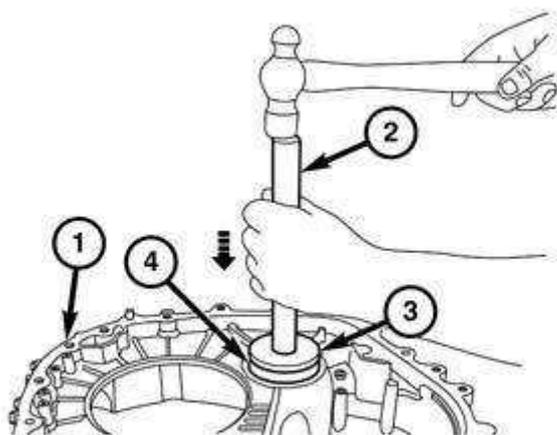


210171733

Fig. 805: Transfer Gear Bearing Race & Bore
Courtesy of CHRYSLER GROUP, LLC

2. Place the transfer gear bearing race (1) in the bore in the bell housing or

transaxle housing.



210171731

Fig. 806: Transfer Case Bearing Race, Special Tool #8866 & Special Tool #C-4171

Courtesy of CHRYSLER GROUP, LLC

NOTE: When installing the transfer case bearing race (4), do not allow the race to tip and bind as it is driven into the bore.

3. Using tools (special tool #8866, Installer, Bearing Cup) (3) and (special tool #C-4171, Driver Handle, Universal) (2), carefully drive the bearing race into the bore in the housing.
4. Prepare to reassemble the transaxle. If necessary, perform the Turning Torque Measurement procedure.

BEARINGS, TRANSFER GEAR DRIVE

REMOVAL

REMOVAL

NOTE: The transfer gear (output) support is also the bearing races for the inner and outer transfer gear bearings. If a bearing is faulty it is recommended that the entire

transfer gear assembly (with support) is replaced. The only reason to disassemble the transfer gear (output) is to inspect it for damage.

1. Remove the transaxle from the vehicle. Refer to **REMOVAL**.
2. Disassemble the transaxle. Refer to **DISASSEMBLY**.

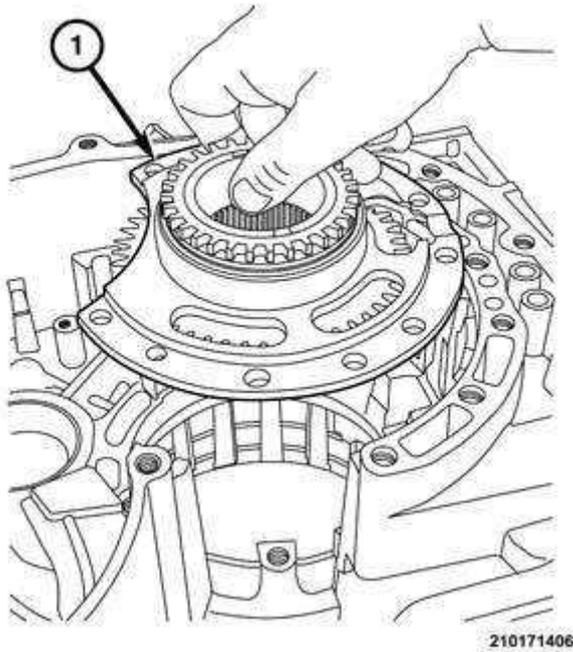
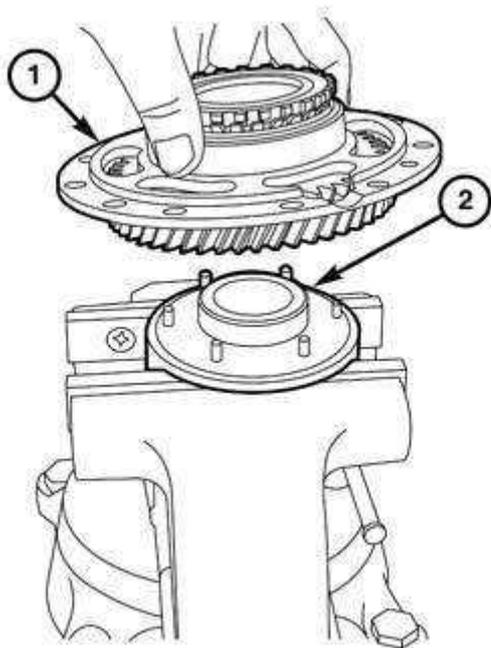


Fig. 807: Transfer Gear (Output)
Courtesy of CHRYSLER GROUP, LLC

3. Remove the transfer gear (output) from the transaxle case.

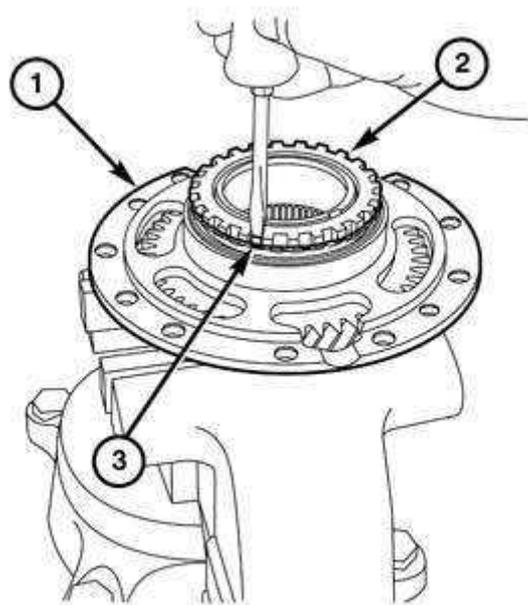
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210171727

Fig. 808: Transfer Gear Assembly & Holding Fixture
Courtesy of CHRYSLER GROUP, LLC

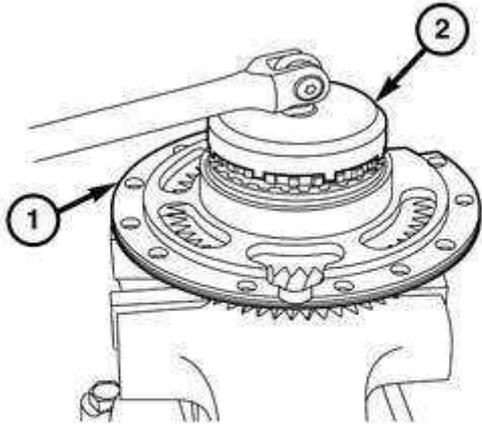
4. Secure holding fixture (special tool #10423, Fixture, Transfer Gear Holding) (2) in a suitable vise
5. Place the transfer gear assembly (1) on the holding fixture (2).



210171728

Fig. 809: Spanner Groove & Lock Tab
Courtesy of CHRYSLER GROUP, LLC

- Using a suitable screw driver pry the lock tab out of the spanner groove.



210171754

Fig. 810: Spanner Wrench & Bearing Support
Courtesy of CHRYSLER GROUP, LLC

- Using spanner wrench (special tool #10422, Wrench, Spanner) (2), loosen the spanner nut holding the transfer gear to the bearing support (1).

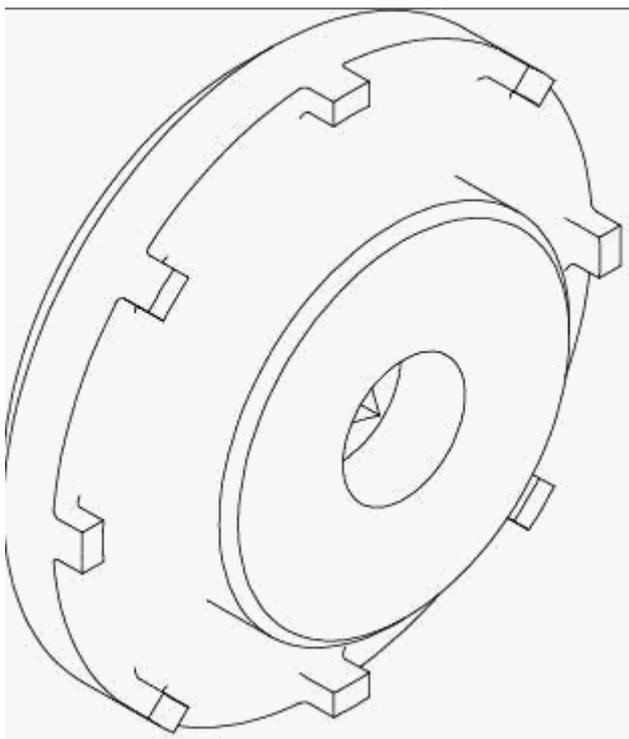
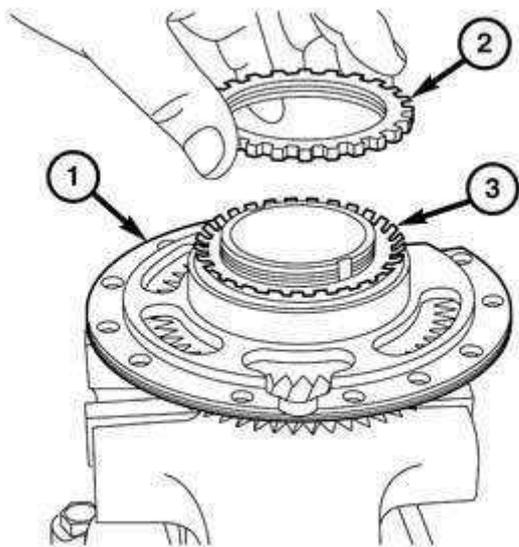


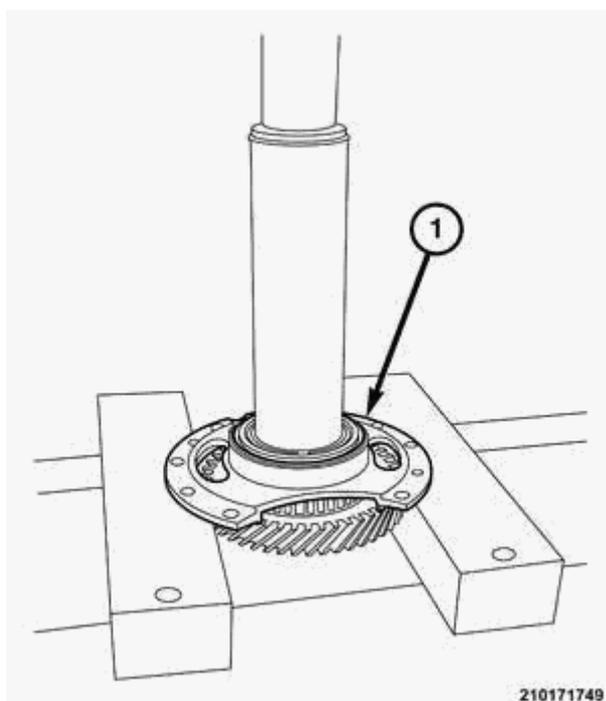
Fig. 811: Special Tool #10422
Courtesy of CHRYSLER GROUP, LLC



210171752

Fig. 812: Spanner Nut, Lock & Transfer Gear Assembly
Courtesy of CHRYSLER GROUP, LLC

8. Remove the spanner nut (2) and lock (3) from the transfer gear assembly.



210171749

Fig. 813: Transfer Gear Assembly & Special Tool #C-3095-A

Courtesy of CHRYSLER GROUP, LLC

- Using a suitable press and tool (special tool #C-3095-A, Installer, Bearing) or equivalent, press the transfer gear out of the inner bearing.

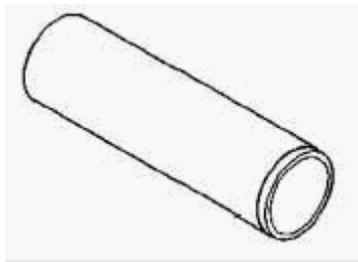
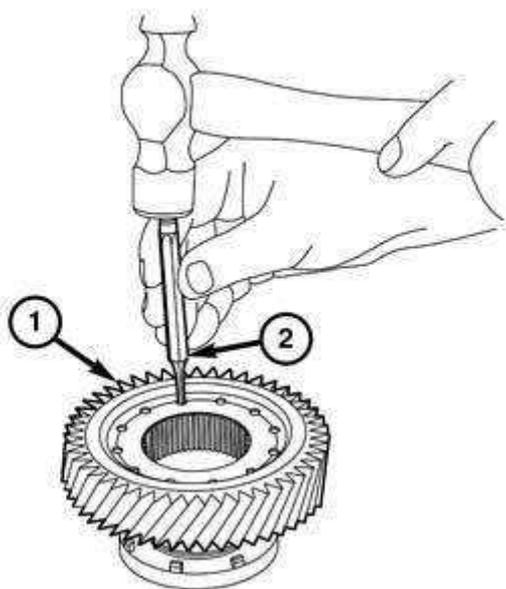


Fig. 814: Special Tool #C-3095-A
Courtesy of CHRYSLER GROUP, LLC



210171751

Fig. 815: Transfer Gear & Outer Bearing
Courtesy of CHRYSLER GROUP, LLC

- Place the gear on the spanner wrench on a suitable work surface.
- Using a suitable punch (2), drive the outer bearing from the transfer gear (1).

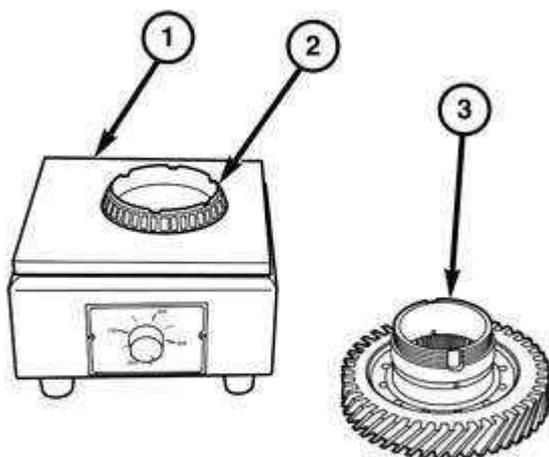
INSTALLATION**TRANSFER GEAR (OUTPUT) BEARING INSTALLATION**

WARNING: Use welding gloves or tongs when handling

heated components. Failure to follow these instructions will result in personal injury.

CAUTION: A bearing heater is used to assembly some components. Use only a bearing heater/hot plate and follow manufacture's instructions. Heat components to 100° - 150° Celsius (212° Min. - 300° Max Fahrenheit). Never use an open flame to heat components. Never leave components on heater for and extended amount of time. If component is discolored after heating, the component has been overheated and must not be used. Failure to follow these instructions will result in component damage.

NOTE: If the original bearings or gears are damaged in any way the entire transfer gear output must be replaced.



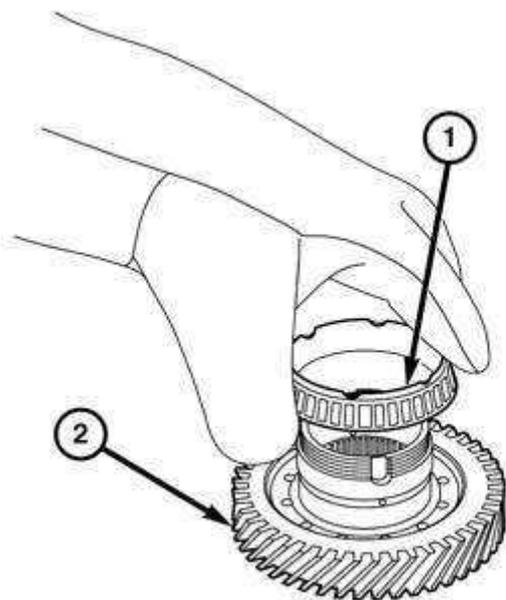
210171746

Fig. 816: Hot Plate & Bearing
Courtesy of CHRYSLER GROUP, LLC

1. Using a suitable HOT plate (1), heat the bearing (2) to near 150° C (300° F). Light smoke may be produced as the bearing is heated. Do not allow the

bearing to discolor.

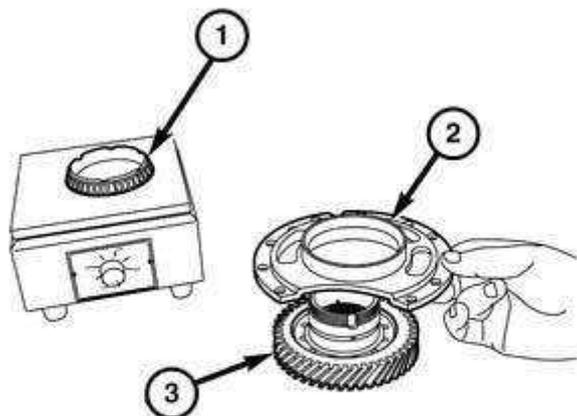
NOTE: An infrared thermometer can be used to monitor the temperature of the bearing as it is heated.



210171747

Fig. 817: Transfer Gear & Inner Bearing
Courtesy of CHRYSLER GROUP, LLC

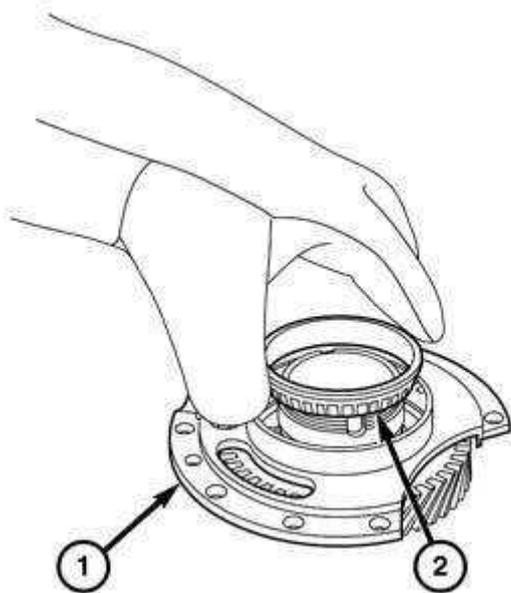
2. While wearing welding gloves, Place heated inner bearing (1) onto the transfer gear (2) and allow to cool. If the bearing fails to fall all the way onto the transfer gear, it will need to be removed and reheated.



210171750

Fig. 818: Transfer Gear, Support/Race & Bearing
Courtesy of CHRYSLER GROUP, LLC

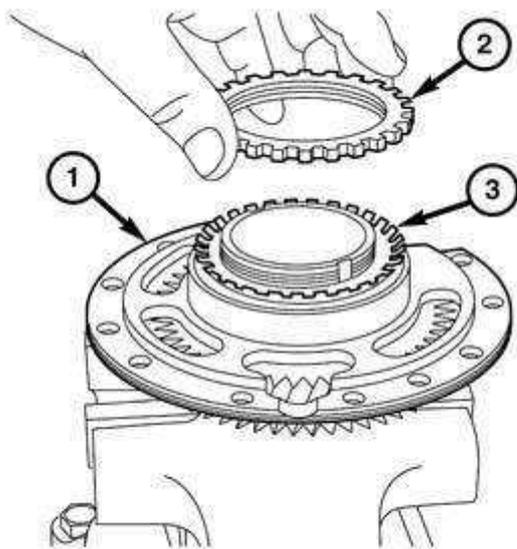
3. While heating the outer bearing (1), place the transfer gear support/race (2) in position on the transfer gear (3).



210171748

Fig. 819: Transfer Gear & Outer Bearing
Courtesy of CHRYSLER GROUP, LLC

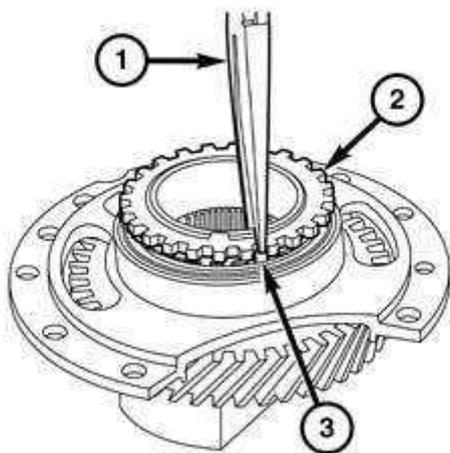
4. While wearing welding gloves, Place heated outer bearing (2) onto the transfer gear and allow to cool. If the bearing fails to fall all the way onto the transfer gear, it will need to be removed and reheated.



210171752

Fig. 820: Spanner Nut, Lock & Transfer Gear Assembly
Courtesy of CHRYSLER GROUP, LLC

5. Install the lock ring and the spanner nut on the transfer gear (output).
(special tool #10423, Fixture, Transfer Gear Holding) (special tool #10422, Wrench, Spanner)
6. Tighten the spanner nut to specified torque. Refer to **SPECIFICATIONS**.



210171753

Fig. 821: Spanner Nut & Lock Tab
Courtesy of CHRYSLER GROUP, LLC

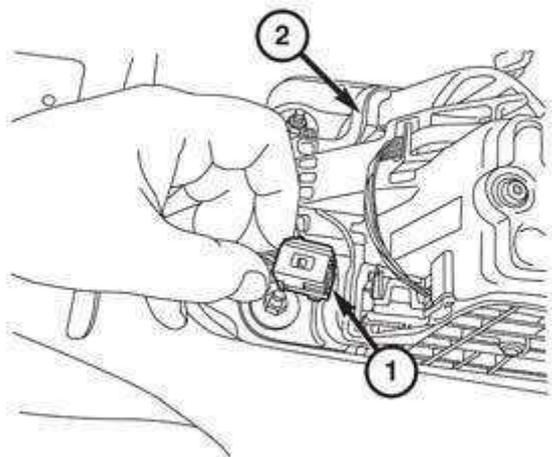
7. Using a suitable pliers (1), bend a lock tab into the spanner nut.
8. Verify that the bearing turning torque is no greater than 1.3 N.m (12 in. lb.) before installing the transfer gear in the transaxle.

SHIFTER, FLOOR CONSOLE

REMOVAL

REMOVAL

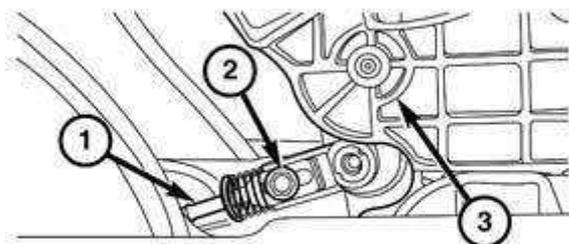
1. Disconnect the battery negative cable.
2. Remove the center floor console. Refer to **CONSOLE, FLOOR, REMOVAL**.



210171835

Fig. 822: PRND Wire Connector & Shifter Assembly
Courtesy of CHRYSLER GROUP, LLC

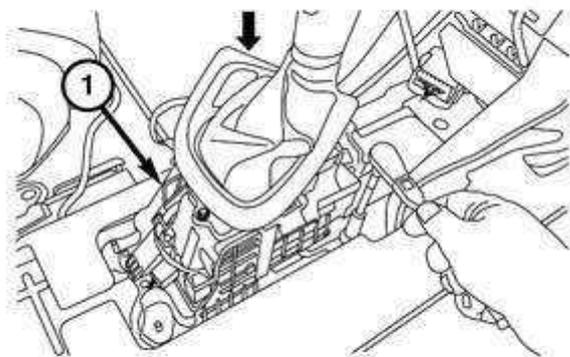
3. Release the wire connector lock and disconnect the PRND wire connector from the shifter assembly.



210171740

Fig. 823: Shifter Assembly & Gear Shift Cable End
Courtesy of CHRYSLER GROUP, LLC

4. Pry the gear shift cable end (2) from the pin under the shifter assembly (3).
5. Release the shift cable housing retainer and disengage the cable from the shifter assembly.



210171836

Fig. 824: Gear Shifter

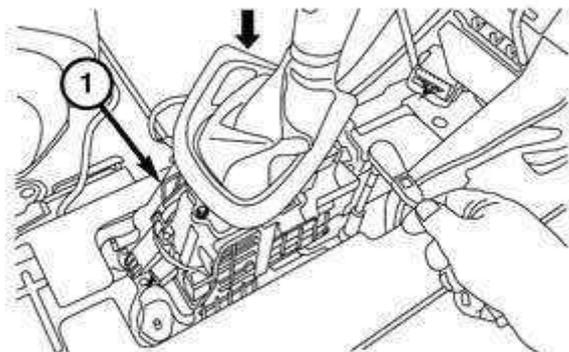
Courtesy of CHRYSLER GROUP, LLC

6. Remove the nuts holding the gear shifter to the floor.
7. Separate the gear shifter from the vehicle.

INSTALLATION

INSTALLATION

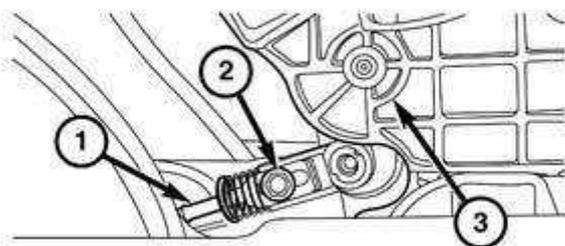
1. Place the gear shifter in position on the floor pan.



210171836

Fig. 825: Gear Shifter
Courtesy of CHRYSLER GROUP, LLC

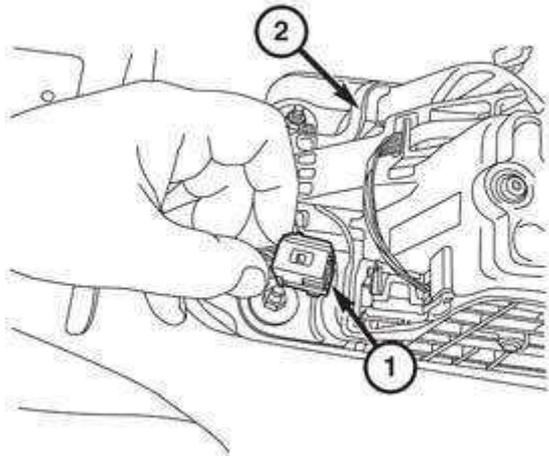
2. Install nuts to hold the gear shifter assembly (1) to the floor pan.
3. Insert the shift cable into the access hole on the front of the shifter and lock the retainer into the shifter.



210171740

Fig. 826: Shifter Assembly & Gear Shift Cable End
Courtesy of CHRYSLER GROUP, LLC

4. Push the gear shift cable end (2) onto the pin under the shifter assembly (3).



210171835

Fig. 827: PRND Wire Connector & Shifter Assembly
Courtesy of CHRYSLER GROUP, LLC

5. Connect the PRND wire connector into the shifter assembly connector.
6. Install the center floor console. Refer to **CONSOLE, FLOOR, INSTALLATION** .
7. Connect the battery negative cable.

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