# SECTION 307-01A Automatic Transaxle/Transmission — 6F35

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Transaxle	 307-01A-2

## Transaxle

# Special Tool(s)

ST2987-A	Compressor, Forward Clutch Spring 307-574 (includes 307-574/1 and 307-574/2)
ST3029-A	Compressor, Forward/Internediate Spring 307-584 (includes 307-584/1 and 307-584/2)
000 ST1214-A	Dial Indicator Gauge With Holding Fixture 100-002 (TOOL-4201-C)
	Handle 205-153 (T80T-4000-W)
ST1255-A	Handle, Torque Converter 307-091 (T81P-7902-C)
0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Holding Fixture 307-625

ST2996-A	Input Shaft Support Seal Installer (Back Plate, Multiple Rings) 307-578 (includes 307-578/1, 307-578/2 and 307-578/3)
E173281	Installer, Axle Seal 307-718
ST3229-A	Installer, Bushing 307-664
СО ST3070-А	Installer, Differential Seal 307-626
ST2999-A	Manual Lever Seal Installer 307-581
©	Retainer, Torque Converter 307-566
ST3062-A	Seal Protector, 2-6 Piston 307-632

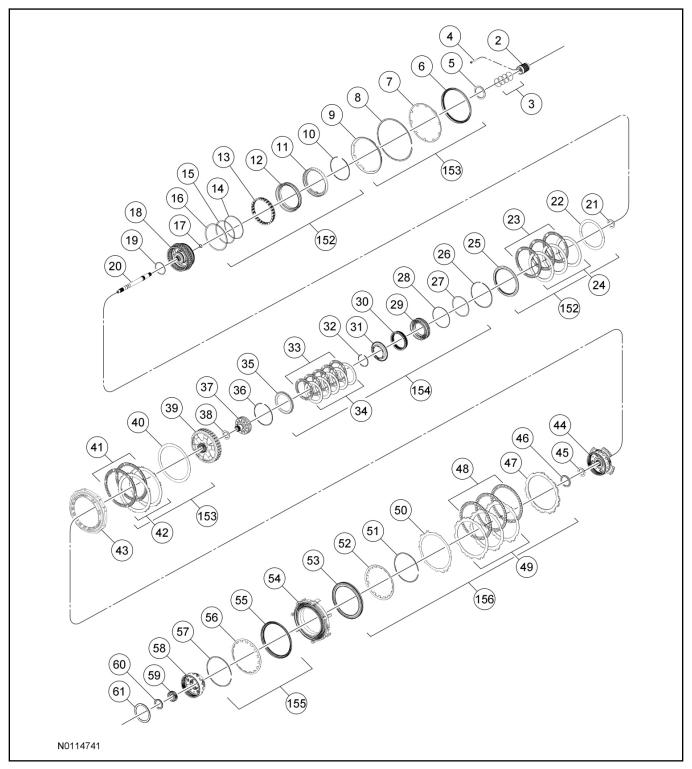
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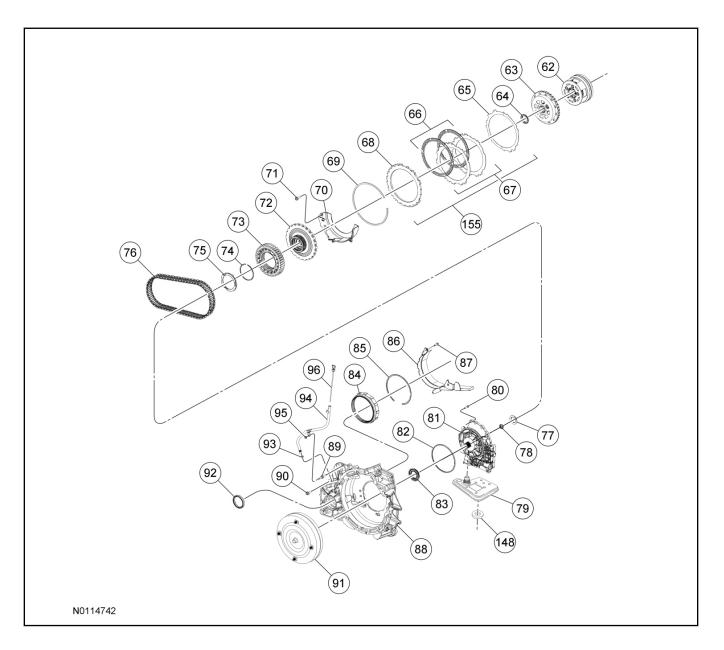
	Seal Protector, Turbine Shaft 307-635
ST3065-A	
ST1954-A	Shim Selection Gauge 307-300 (T94P-77000-Q) (17-055)
ST3063-A	Spring Compressor, 2-6 Piston Return 307-633 (Includes 307-633/1 and 307-633/2)

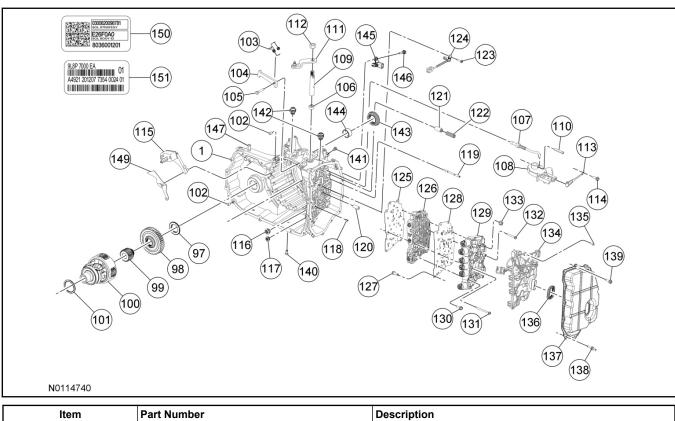
#### Material

Item	Specification
Motorcraft® MERCON® LV Automatic Transmission Fluid XT-10-QLVC (US); CXT-10-LV12 (Canada)	MERCON® LV
Ultra Silicone Sealant TA-29	_

**Disassembled Views** 







Item	Part Number	Description
1	7005	Transaxle case
2	7A130	Clutch support tower
3	7D019	Clutch support tower seals (4 required)
4	W302855	Clutch support tower bolt (3 required)
5	7F242	No. 1 thrust bearing
6	7E005	Intermediate (2, 6) clutch piston
7	7B070	Intermediate (2, 6) clutch piston return spring
8	7D483	Intermediate (2, 6) clutch return spring snap ring
9	7E005	Intermediate (2, 6) clutch apply ring
10	7C122	Direct (3, 5, R) clutch cylinder snap ring
11	7F283	Direct (3, 5, R) clutch cylinder
12	7A262	Direct (3, 5, R) clutch piston
13	7F235	Direct (3, 5, R) clutch piston return spring
14	7C099	Direct (3, 5, R) clutch piston inner (rear) seal
15	7C099	Direct (3, 5, R) clutch piston inner (front) seal
16	7A548	Direct (3, 5, R) clutch piston outer seal
17	7C122	Input shaft snap ring
18	7G384	Direct (3, 5, R)/Overdrive (O/D) (4, 5, 6) clutch cylinder and hub assembly
19	7A548	O/D (4, 5, 6) clutch piston inner seal
20	7F213	Input shaft
21	7D234	No. 2 thrust bearing
22	7B070	Direct (3, 5, R) clutch wave spring
23	7B164	Direct (3, 5, R) clutch friction plates (3 required)
24	7B442	Direct (3, 5, R) clutch steel plates (3 required)

Item	Part Number	Description
25	7B066	Direct (3, 5, R) clutch pressure plate
26	7D483	Direct (3, 5, R) clutch snap ring
27	7A548	O/D (4, 5, 6) clutch piston outer (rear) seal
28	7A548	O/D (4, 5, 6) clutch piston outer (front) seal
29	7A262	O/D (4, 5, 6) clutch piston
30	7F222	O/D (4, 5, 6) clutch piston return spring
31	7H360	O/D (4, 5, 6) clutch balance piston
32	7C122	O/D (4, 5, 6) clutch piston snap ring
33	7B164	O/D (4, 5, 6) clutch friction plates (5 required)
34	7B442	O/D (4, 5, 6) clutch steel plates (5 required)
35	7B066	O/D (4, 5, 6) clutch pressure plate
36	7D483	O/D (4, 5, 6) clutch snap ring
37	7H351	O/D (4, 5, 6) clutch hub
38	7D234	No. 3 thrust bearing
39	7A019	Rear planetary sun gear and shell assembly
40	7E085	Intermediate (2, 6) clutch wave spring
41	7B164	Intermediate (2, 6) clutch friction plates (2 required)
42	7B442	Intermediate (2, 6) clutch steel plates (2 required)
43	7A089	One-Way Clutch (OWC)
44	7D491	Rear planet carrier/center ring gear
45	7C096	No. 6 thrust bearing
46	7G177	No. 5 thrust bearing
47	7B066	Low/reverse clutch pressure plate
48	7B164	Low/reverse clutch friction plates (3 required)
49	7B442	Low/reverse clutch steel plates (3 required)
50	7E085	Low/reverse clutch wave spring
51	7C122	Low/reverse clutch piston snap ring
52	7B070	Low/reverse clutch piston return spring
53	7D402	Low/reverse clutch piston
54	7L328	Center support
55	7A262	Forward (1, 2, 3, 4) clutch piston
56	7B070	Forward (1, 2, 3, 4) clutch piston return spring
57	7H365	Forward (1, 2, 3, 4) clutch piston snap ring
58	7D491	Center planetary carrier/front ring gear
59	7D063	Center planetary sun gear
60	7C096	No. 7 thrust bearing
61	7C096	No. 8 thrust bearing
62	7D491	Front planetary carrier/rear ring gear
63	7A019	Front planetary sun gear and shell assembly
64	7D234	No. 10 thrust bearing
65	7B070	Forward (1, 2, 3, 4) clutch wave spring
66	7B164	Forward (1, 2, 3, 4) clutch friction plates (2 required)
67	7B442	Forward (1, 2, 3, 4) clutch steel plates (2 required)
68	7B066	Forward (1, 2, 3, 4) clutch pressure plate
69	7D483	Forward (1, 2, 3, 4) clutch snap ring
70	7978	Transmission fluid baffle

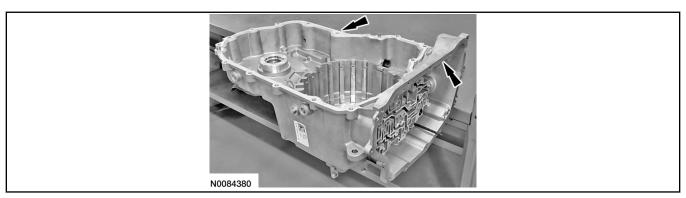
Item	Part Number	Description
71	W500214	Transmission fluid baffle bolt (2 required)
72	7060	Park gear
73	7G132	Drive chain drive sprocket
74	7C122	Drive sprocket snap ring
75	7G099	No. 13 thrust washer
76	7G249	Drive chain
77	7D234	No. 11 thrust washer
78	7048	Input shaft seal
79	7A098	Transmission fluid filter
80	W302860	Pump-to-torque converter housing bolt (8 required)
81	7A103	Pump assembly
82	7A248	Pump assembly-to-torque converter housing O-ring seal
83	7A248	Torque converter hub seal
84	7F343	Different ring gear
85	7C122	Differential ring gear snap ring
86	7H245	Differential transmission fluid baffle
87	W500214	Differential transmission fluid baffle bolt (2 required)
88	7975	Torque converter housing
89	W701606	Torque converter housing stud bolt
90	7A443	Torque converter housing bolt (16 required)
91	7902	Torque converter
92	1177	RH halfshaft seal
93	391308-S	Transaxle filler tube O-ring
94	7A228	Transaxle filler tube
95	W520101	Transaxle filler tube nut
96	7A020	Transmission fluid level indicator
97	7G355	No. 12 thrust bearing
98	7G132	Drive chain driven sprocket
99	7F342	Differential sun gear
100	7F465	Differential assembly
101	7G112	No. 15 thrust bearing
102	7B362	Torque converter housing-to-transaxle case guide pins
103	7D070	Park pawl spring
104	7A441	Park pawl
105	7D071	Park pawl pin
106	7F337	Manual control shaft seal
107	7A232	Park pawl actuator rod
108	7H557	Transmission Range (TR) sensor
109	7C493	Manual control shaft
110	7G100	Manual control shaft pin
111	7A256	Manual control lever
112	W708455	Manual control lever nut
113	7E332	Manual valve detent spring
114	W711235	Manual valve detent spring bolt
115	7J387	Lubrication funnel
116	7A248	Torque converter housing-to-transaxle case seal (large)

ltem	Part Number	Description
117	7A248	Torque converter housing-to-transaxle case seal (small) (4 required)
118	7B431	Main control alignment pin
119	7C207	Main control stud
120	7G199	Main control-to-center support seal (2 required)
121	7H322	Thermal bypass valve and sleeve
122	_	Thermal bypass valve spring (part of 7H322)
123	W713644	Output Shaft Speed (OSS) sensor bolt
124	7H103	OSS sensor
125	7Z490	Main control-to-transaxle case separator plate
126	7A100	Main control valve body
127	N605770	Separator plate-to-soledoid body bolt (2 required)
128	7Z490	Main control valve body-to-solenoid body
129	7G391	Solenoid body
130	W500303	Solenoid body-to-valve body bolt (2 required)
131	W302863	Main control-to-transaxle case bolt (long) (10 required)
132	W302862	Main control-to-transaxle case bolt (short) (12 required)
133	W520412	Main control nut
134	7G276	Main control leadframe
135	W505513	Main control leadframe screw (5 required)
136	7B329	Main control-to-cover seal
137	7G004	Main control cover
138	W714629	Main control cover stud bolt (5 required)
139	W500214	Main control cover bolt (8 required)
140	7010	Drain plug
141	7H398	Line pressure tap
142	7D273	Transmission fluid cooler tube fittings (2 required)
143	1177	LH halfshaft seal
144	7025	LH halfshaft bushing
145	7M101	Turbine Shaft Speed (TSS) sensor
146	W500214	TSS bolt
147	7A246	Vent tube
148	7L027	Magnet
149	7A033	Lubrication funnel bracket
150	7G342	Solenoid body strategy tag
151	7B148	Transaxle service identification tag
152	—	Direct clutch (3, 5, R)
153	—	Intermediate clutch (2, 6)
154	_	O/D clutch (4, 5, 6)
155	_	Forward clutch (1, 2, 3, 4)
156		Low/reverse clutch

#### All vehicles

1. Clean and inspect the transaxle case for damage. Clean the silicone from the transaxle case-to-torque converter housing sealing surface and the main control cover sealing surface.

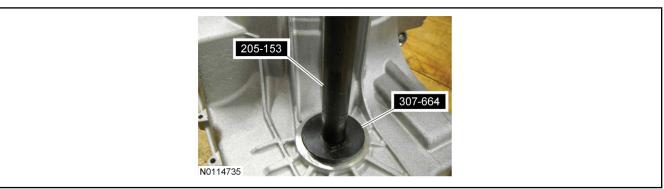
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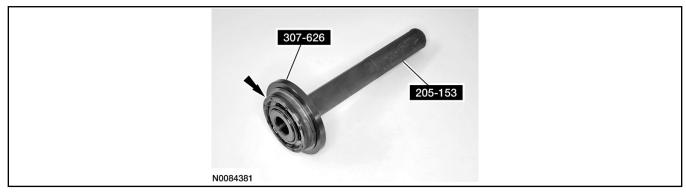
2. Assemble the Handle 205-153 and the Bushing Installer 307-664 and install a new bushing on the Bushing Installer.



3. Using the Handle 205-153 and the Bushing Installer 307-664, install the new bushing in the transaxle case.

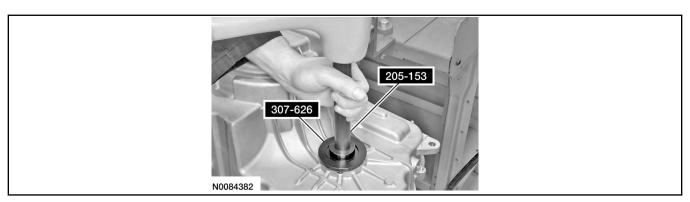


4. Assemble the Handle 205-153 and Seal Installer 307-626. Install a new LH halfshaft seal on the Differential Seal Installer 307-626.



5. Using the Differential Seal Installer 307-626 and Handle 205-153, install the new LH halfshaft seal in the transaxle case.

# (Continued)



6. Install a new manual control shaft seal on Manual Lever Seal Installer 307-581.



7. Using the Manual Lever Seal Installer 307-581, install the new manual control shaft seal in the transaxle case.



- 8. If not previously installed, install the clutch support tower and the 3 bolts.
  - Tighten to 12 Nm (106 lb-in).



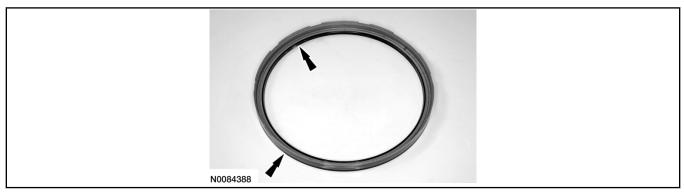
9. Remove Input Shaft Support Seal Installer 307-578/1.



10. Install 2-6 Piston Seal Protector 307-632.



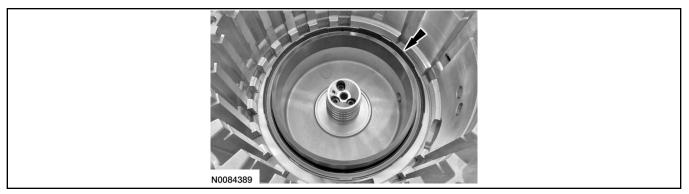
11. Lubricate the seals on the intermediate (2, 6) clutch piston with clean transmission fluid.



12. NOTICE:

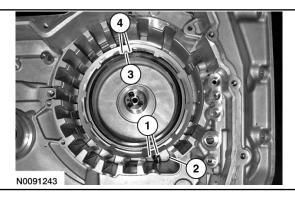
Be sure the bleed hole is aligned in the correct position as noted during disassembly or damage to the transaxle can occur.

Install the intermediate (2, 6) clutch piston on the seal protector with the bleed hole aligned at the top of the transaxle case.

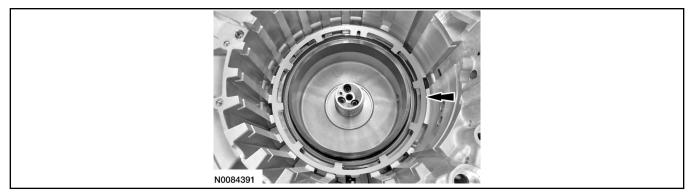


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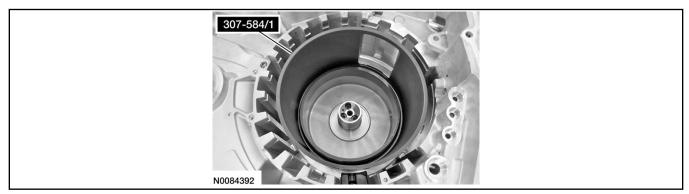
- 13. Position the intermediate (2, 6) clutch piston return spring on the piston to align the piston before pushing it in its bore. The tabs of the return spring should fit into the indentions of the piston and the 2 outer tabs should be at the clockwise most position of the open area at the bottom of the transaxle case. The bleed hole on the piston should be aligned between the inner double tabs of the return spring.
  - 1 Outer tabs
  - 2 Open area at the bottom of the transaxle case
  - 3 Bleed hole
  - 4 Inner double tabs



14. Remove the intermediate (2, 6) clutch piston return spring.



15. Install Forward/Intermediate Spring Compressor 307-584/1 on the intermediate (2, 6) clutch piston.

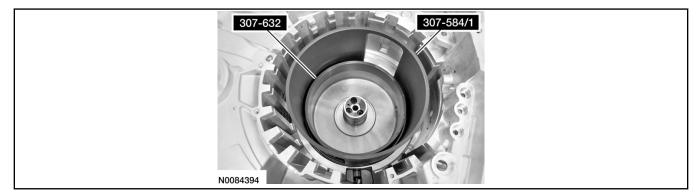


16. Using Forward/Intermediate Spring Compressor 307-584/1, push the intermediate (2, 6) clutch piston into the clutch cylinder by hand.

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17. Remove Forward/Intermediate Spring Compressor 307-584/1 and Clutch Piston Seal Protector 307-632.

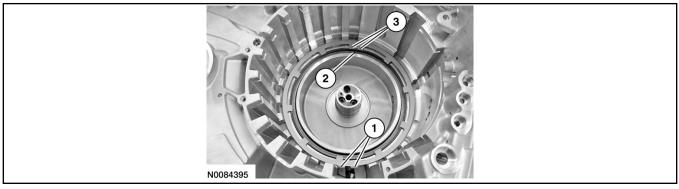


#### 18. NOTICE:

Be sure the return spring is positioned correctly with the forward clutch bleed hole aligned between the inner double tabs and the outer tab in the clockwise most position of the slot at the bottom of the case or damage to the transaxle can occur.

Install the intermediate (2, 6) clutch piston return spring. The tabs of the return spring should fit into the indentions of the piston and the 2 outer tabs should be at the clockwise most position of the slot at the bottom of the case. The bleed hole on the piston should be aligned between the inner double tabs of the return spring.

- 1 Outer tabs
- 2 Bleed hole
- 3 Inner double tabs



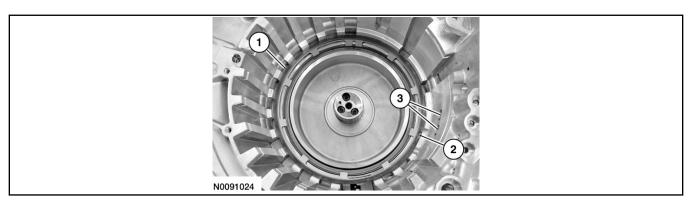
### 19. *NOTICE:*

Be sure the snap ring is aligned with the gap facing the front of the transaxle or damage to the transaxle can occur. The front of the transaxle is where the low/reverse and forward (1, 2, 3, 4) clutch hydraulic ports are located.

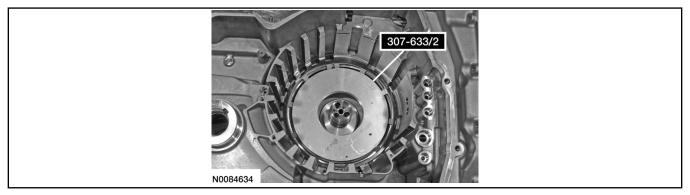
Position the snap ring in place. Align the gap of the snap ring to face the front of the transaxle.

- 1 Snap ring
- 2 Snap ring gap
- 3 Low/reverse and forward (1, 2, 3, 4) clutch hydraulic ports (located at the front of the transaxle case)

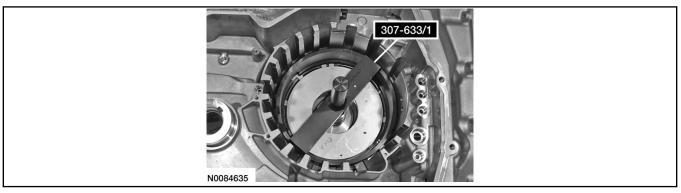
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20. Install the 2-6 Piston Return Spring Compressor 307-633/2 on the transaxle case to center the intermediate (2, 6) clutch return spring.



21. Install the 2-6 Piston Return Spring Compressor 307-633/1 on the snap ring.



22. Install Forward Clutch Spring Compressor 307-574/1 on the transaxle case.

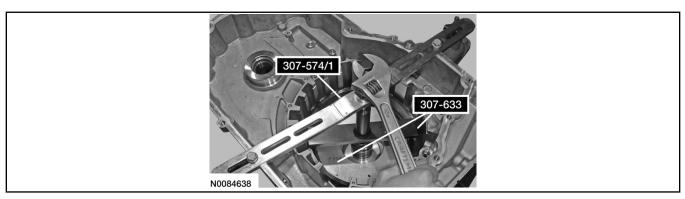
307-574/1 307-574/1 N0084636
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### 23. NOTICE:

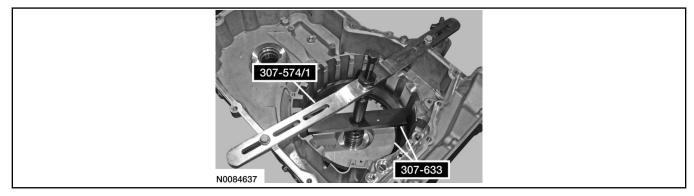
Be sure the return spring is centered or it can bind on the snap ring groove and cause damage to the transaxle case.

Using the Forward Clutch Spring Compressor 307-574/1 and the 2-6 Piston Return Spring Compressor 307-633, install the intermediate (2, 6) clutch snap ring in the groove.

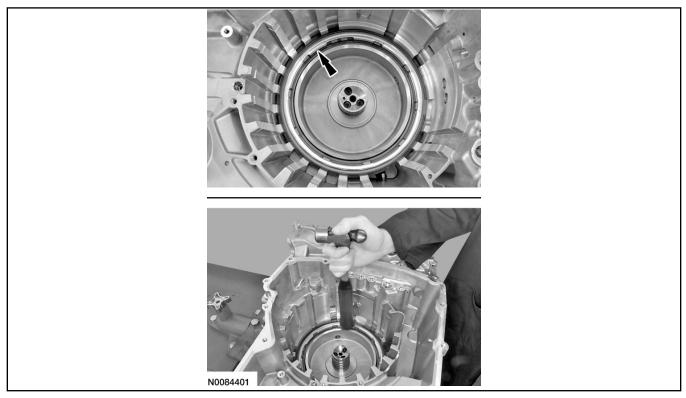
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24. Remove the Forward Clutch Spring Compressor 307-574/1 and the 2-6 Piston Return Spring Compressor 307-633.



25. Install the intermediate (2, 6) clutch apply ring. Tap the ring in place using a suitable tool.

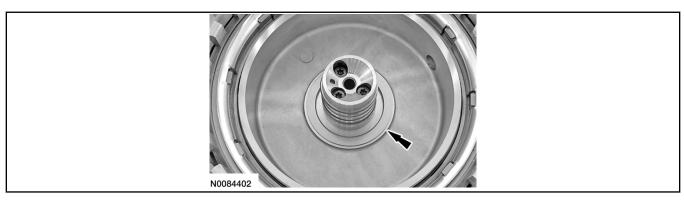


### 26. NOTICE:

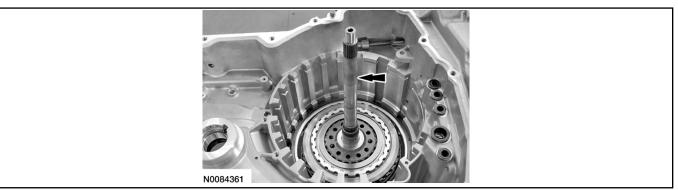
Be sure to install the No. 1 thrust bearing with the flat side facing up or damage to the transaxle can occur.

Install the No. 1 thrust bearing with the flat side facing up.

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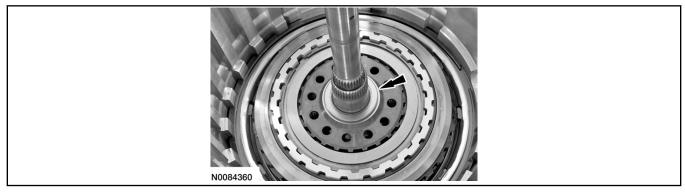
27. Install the overdrive/direct clutch assembly.



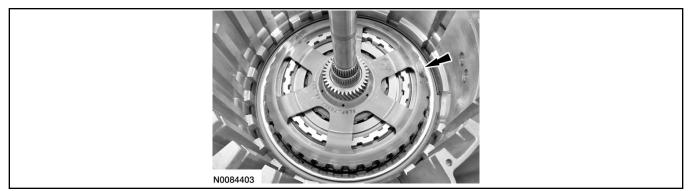
### 28. NOTICE:

### Be sure to install the No. 3 thrust bearing with the flat side facing down or damage to the transaxle can occur.

Install the No. 3 thrust bearing with the flat side facing down.

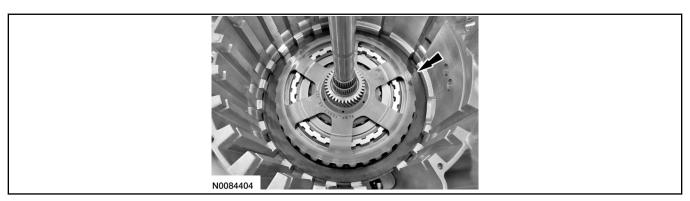


29. Install the direct/intermediate clutch hub and rear sun gear assembly.

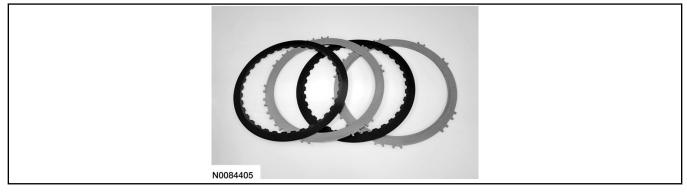


30. Install the intermediate (2, 6) wave spring assembly.

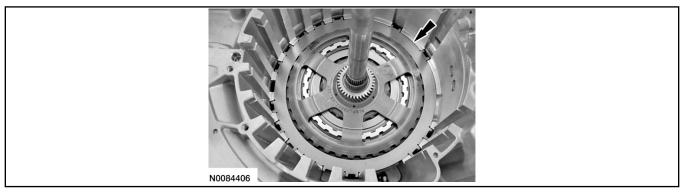
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31. Soak the intermediate (2, 6) clutch assembly in clean transmission fluid.



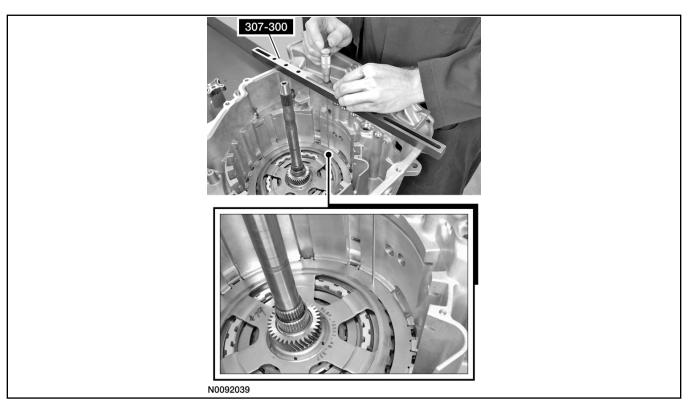
32. Install the intermediate (2, 6) clutch assembly, temporarily reversing the top friction and steel plates for the clutch stack-up measurement.



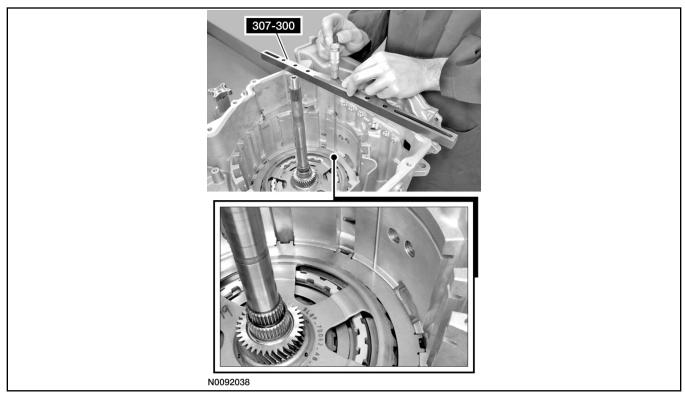
33. Install the Shim Selection Gauge 307-300 on the transaxle case.

N0084407	

34. Using a suitable depth gauge, measure and record as measurement A, the distance from the Shim Selection Gauge 307-300 to the top of the intermediate (2, 6) clutch pack at 3 different points and average the 3 distances.



35. Using a suitable depth gauge, measure and record as measurement B, the distance from the top of Shim Selection Gauge 307-300 to the transaxle case step above the intermediate (2, 6) clutch.



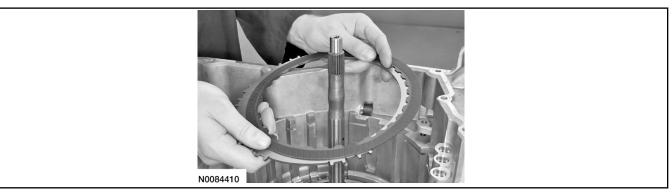
36. Subtract measurement B from measurement A The clearance should be between 0.240 mm (0.009 in) and 2.60 mm (0.102 in). If the clearance is out of range, check the intermediate (2, 6) clutch pack for correct installation. If the intermediate (2, 6) clutch pack is correctly installed, install a new clutch pack.

Description	Reading
Measurement A	
Measurement B	
Subtract measurement B from measurement A and check to see if it is within range of 0.240 mm (0.009 in) and 2.60 mm (0.102 in)	

#### 37. NOTE:

When the intermediate (2, 6) clutch is correctly installed, a friction plate is on top.

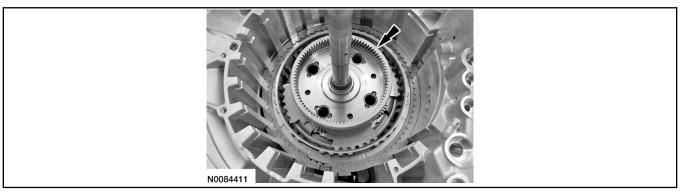
Remove the top intermediate (2, 6) clutch friction and steel plate and correctly install the plates back in the transaxle case.



38. Install the One-Way Clutch (OWC) assembly.



39. Install the rear planetary carrier/center ring gear assembly.

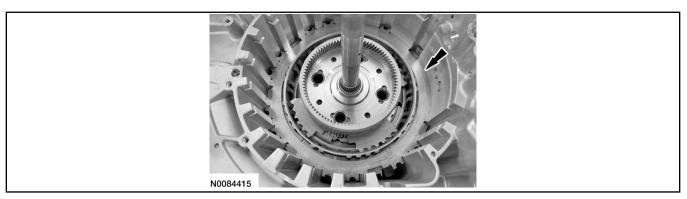


#### 40. NOTE:

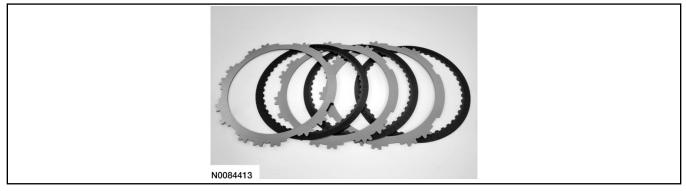
Note the position of the low/reverse pressure plate. When installing the center support, the long support legs must fit through the low/reverse pressure plate and rest on the OWC.

Position the low/reverse pressure plate so that the center support legs fit through the pressure plate and rest on the OWC and install the low/reverse pressure plate.

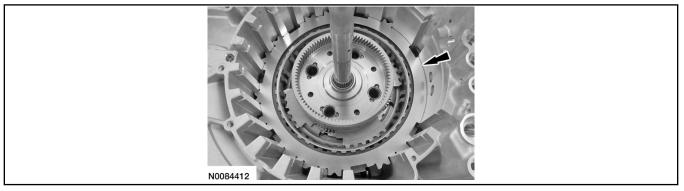
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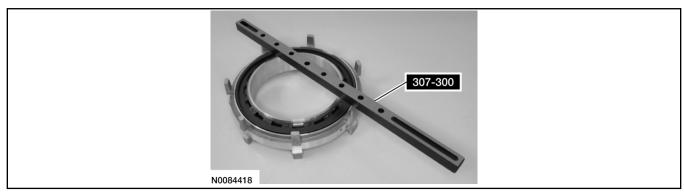
41. Soak the low/reverse clutch in clean automatic transmission fluid.



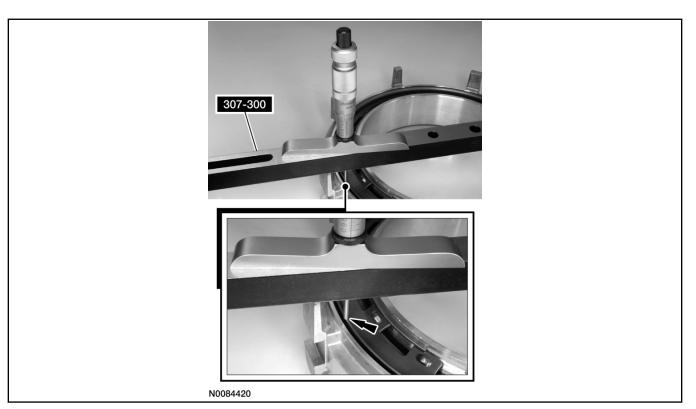
42. Align the low/reverse clutch pack with the pressure plate and install it in the transaxle case temporarily reversing the wave spring and top steel plate.



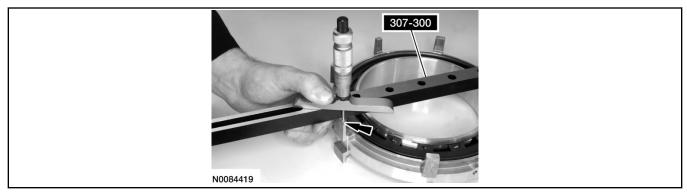
43. Install the Shim Selection Gauge 307-300 on the side of the center support with the long support legs.



44. Using a suitable depth gauge, measure and record as measurement A, the distance from the top of Shim Selection Gauge 307-300 to the contact surface of the low/reverse clutch piston.



45. Using a suitable depth gauge, measure and record as measurement B, the distance from the top of Shim Selection Gauge 307-300 to the leg surface of the center support.

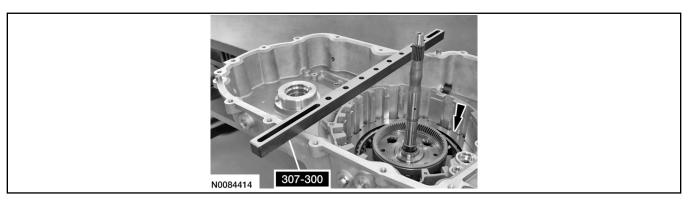


46. Subtract measurement B from measurement A and record as measurement C.

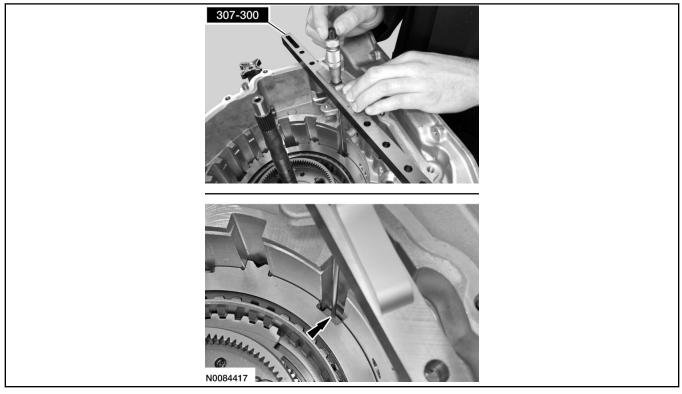
Description	Reading
Measurement A	
Measurement B	
Subtract measurement B from measurement A and record as measurement C.	

47. Install the Shim Selection Gauge 307-300 on the transaxle case.

# (Continued)



48. Using a suitable depth micrometer, measure and record as measurement D, the distance from the Shim Selection Gauge 307-300 to the top of the OWC.



49. Using a suitable depth gauge, measure and record as measurement E, the distance from the top of Shim Selection Gauge 307-300 to the top of the low/reverse clutch at 3 different points and average the 3 distances.

### 307-01A-25

# (Continued)

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#### 50. Subtract measurement E from measurement D and record as measurement F.

Description	Reading
Measurement D	
Measurement E	
Subtract measurement E from measurement D and record as measurement F	

51. Subtract measurement F from measurement C to get the low/reverse clutch clearance. The clearance should be between 0.406 mm (0.015 in) and 2.000 mm (0.078 in). If the clearance is out of range, check the low/reverse clutch pack for correct installation. If the low/reverse clutch pack is correctly installed, install a new clutch pack.

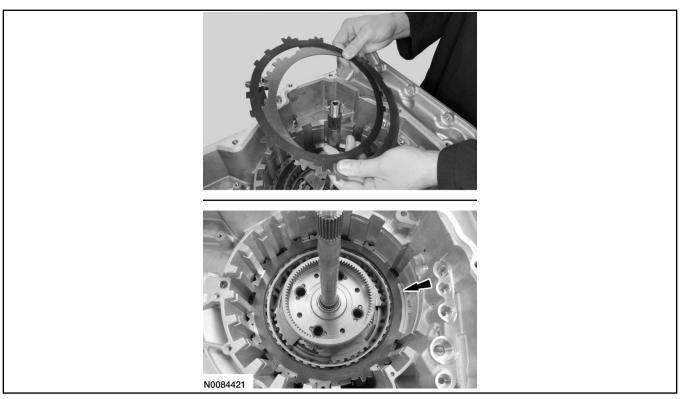
Description	Reading
Measurement C	
Measurement F	
Subtract measurement F from measurement C and check to see if it is within range of 0.406 mm (0.015 in) and 2.000 mm (0.078 in)	

#### 52. **NOTE:**

When the low/reverse clutch is correctly installed, the wave spring is on top.

Remove the top low/reverse clutch steel plate and wave spring and correctly install the plates back in the transaxle case.

# (Continued)

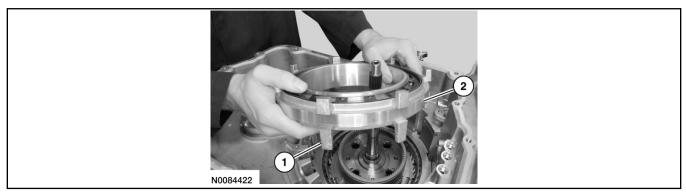


### 53. NOTE:

Be sure the center support is installed with the long support legs facing down and the feed holes facing the front of the transaxle.

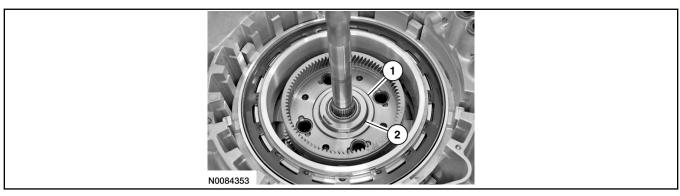
Install the center support with the long legs facing down and the feed holes aligned with the feed holes in the transaxle case.

- 1 Long center support legs face down
- 2 Feed holes face the front of the transaxle case

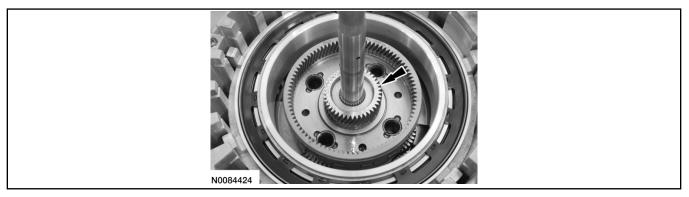


- 54. Install the No. 5 and No. 6 thrust bearings.
  - 1 No. 5 thrust bearing
  - 2 No. 6 thrust bearing

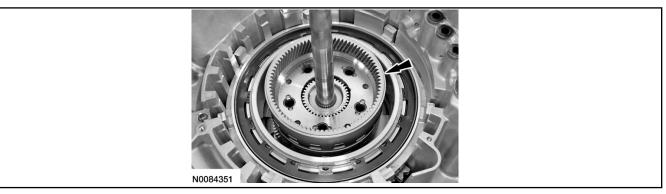
# (Continued)



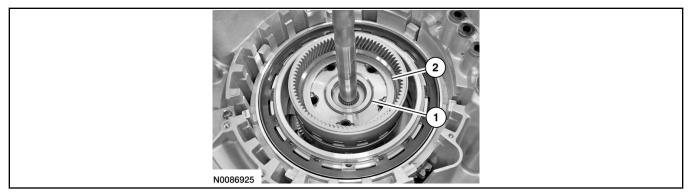
55. Install the center sun gear.



56. Install the center carrier/front ring gear assembly.

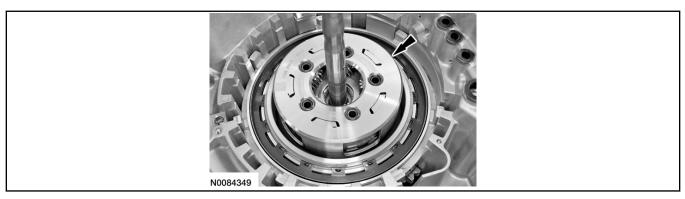


- 57. Install the No. 7 and No. 8 thrust bearings.
  - 1 No. 7 thrust bearing
  - 2 No. 8 thrust bearing

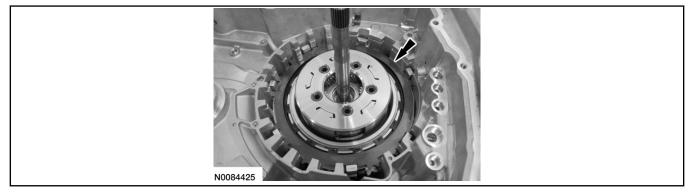


58. Install the front planetary/rear ring gear assembly.

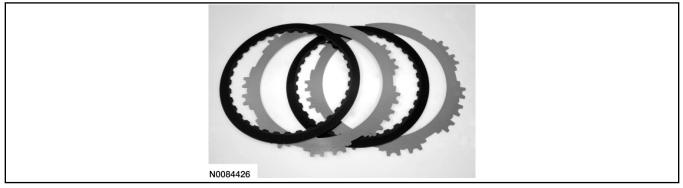
# (Continued)



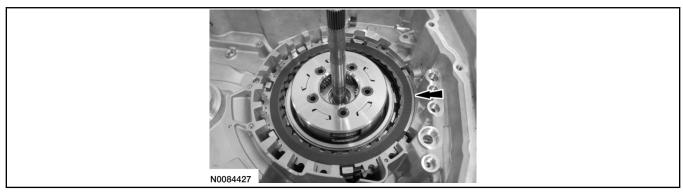
59. Install the forward (1, 2, 3, 4) clutch wave spring.



60. Soak the forward (1, 2, 3, 4) clutch pack in clean automatic transmission fluid.



61. Install the forward (1, 2, 3, 4) clutch pack.



62. Install the forward (1, 2, 3, 4) clutch pressure plate.

# (Continued)

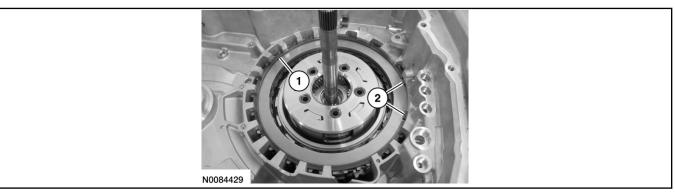
N0084428	

#### 63. NOTICE:

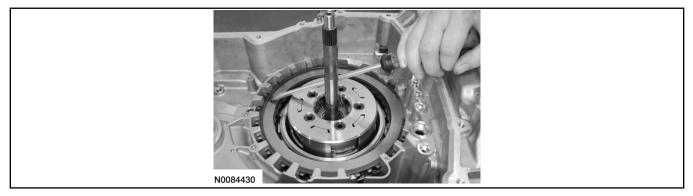
Be sure to install the forward (1, 2, 3, 4) clutch beveled snap ring with the flat side facing down or the snap ring can come loose, causing damage to the transaxle.

Install the forward (1, 2, 3, 4) clutch beveled snap ring with the flat side down with the gap facing the front of the transaxle.

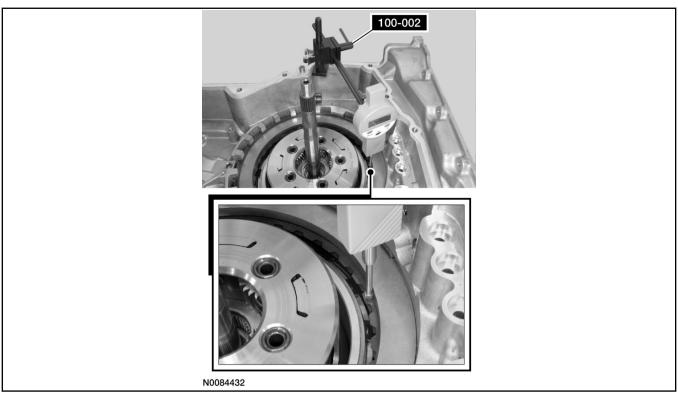
- 1 Forward (1, 2, 3, 4) clutch snap ring
- 2 Forward (1, 2, 3, 4) clutch snap ring gap



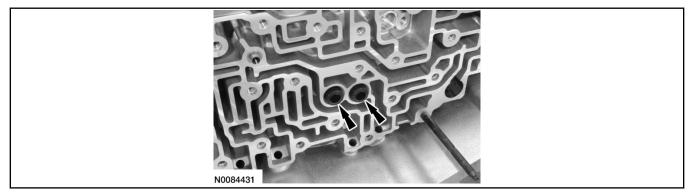
64. Using a suitable tool, seat the snap ring in the snap ring groove.



65. Install Dial Indicator Gauge With Holding Fixture 100-002 or a suitable dial indicator on the transaxle case and position the plunger on the top forward (1, 2, 3, 4) clutch friction plate.

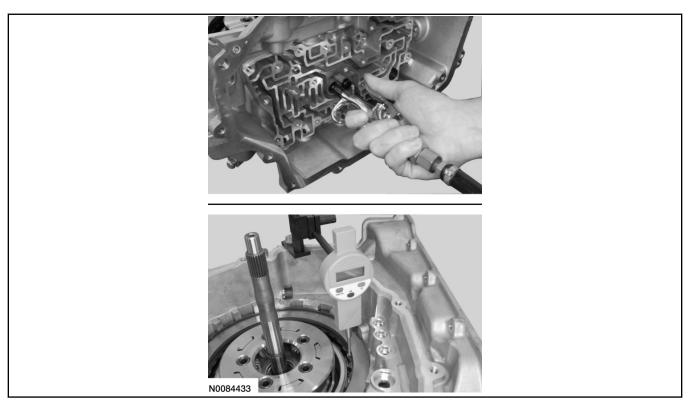


66. Install the new low/reverse and forward (1, 2, 3, 4) clutch feed seals in the transaxle case.

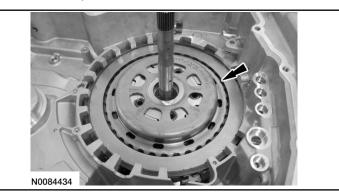


67. Apply 483 kPa (70 psi) of air pressure to the forward (1, 2, 3, 4) clutch piston port while recording the clutch pack clearance on the dial indicator. The clearance should be between 0.076 mm (0.002 in) and 1.840 mm (0.072 in). If the clearance is out of range, check the forward (1, 2, 3, 4) clutch pack for correct installation and the transaxle for correct assembly. If the forward (1, 2, 3, 4) clutch pack is correctly installed, install a new forward (1, 2, 3, 4) clutch pack.

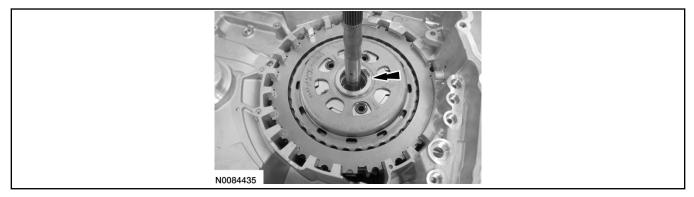
# (Continued)



68. Install the front planetary sun gear and shell assembly.

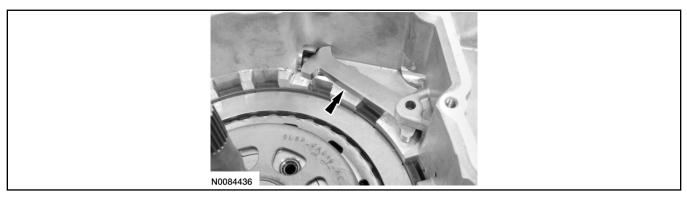


69. Install the No. 10 thrust bearing.

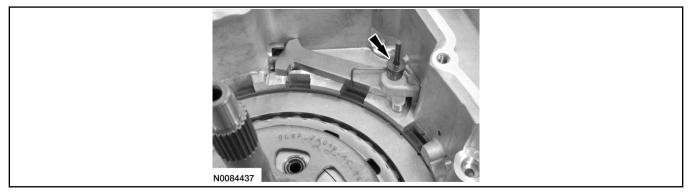


70. Install the park pawl.

# (Continued)



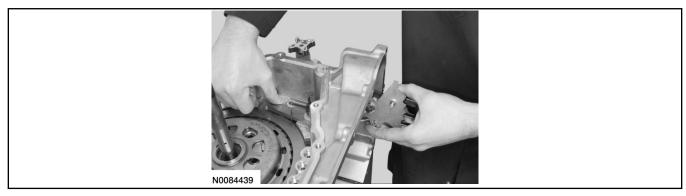
71. Install the park pawl pin and spring.



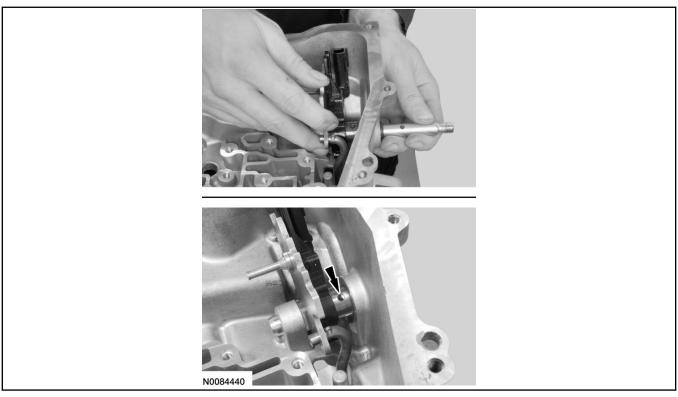
72. Install the park pawl actuator rod in the Transmission Range (TR) sensor.



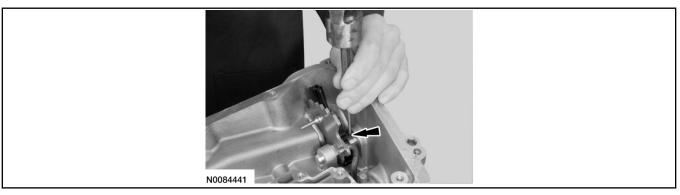
73. Position the park pawl aside and position the park pawl actuator rod and the TR sensor in the transaxle case.



74. Install the manual control shaft and align the roll pin holes.



75. Install the manual control shaft roll pin.

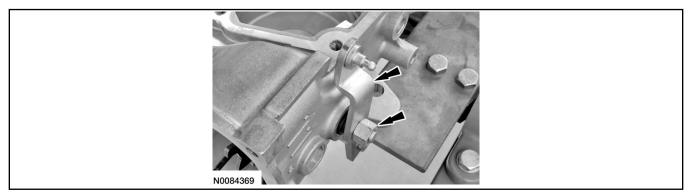


76. NOTICE:

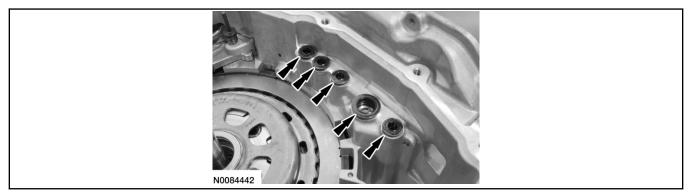
Make sure to hold the manual control lever while tightening the manual control lever nut or damage to the manual control lever and park components will occur.

Install the manual control lever and the nut.

• Tighten to 24 Nm (18 lb-ft).



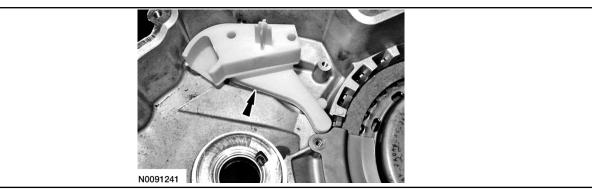
77. Install the 5 new clutch feed seals.



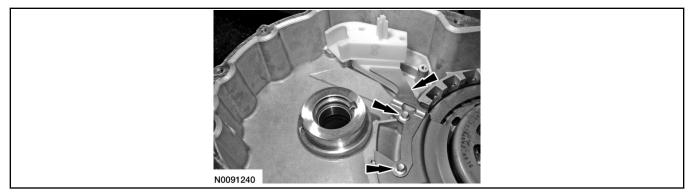
78. Position the transmission fluid baffle in place.



79. Install the lube funnel and position the alignment pin in the alignment hole.

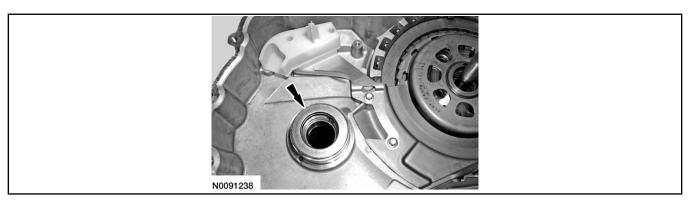


- 80. Position the lube funnel hold-down bracket in place and install the 2 bolts.
  - Tighten to 12 Nm (106 lb-in).

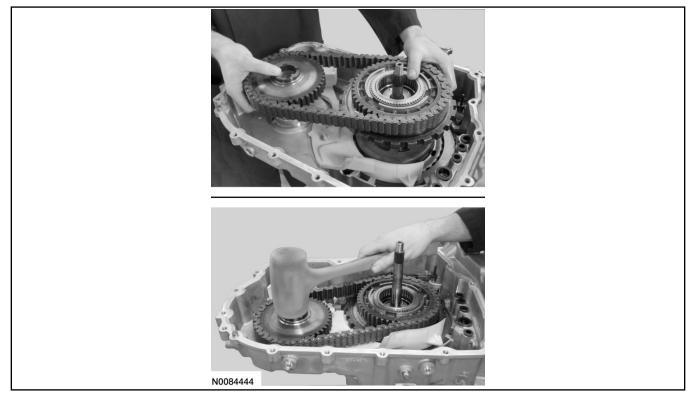


81. Install the No. 12 thrust bearing.

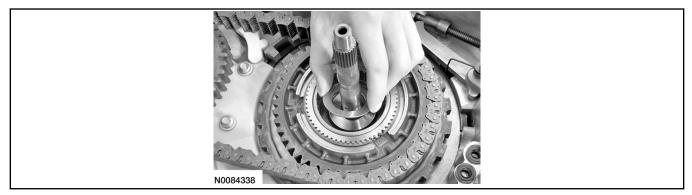
# (Continued)



82. Simultaneously install the drive/driven sprocket and chain assembly. Lightly tap on the driven sprocket to be sure it is fully seated in the case.

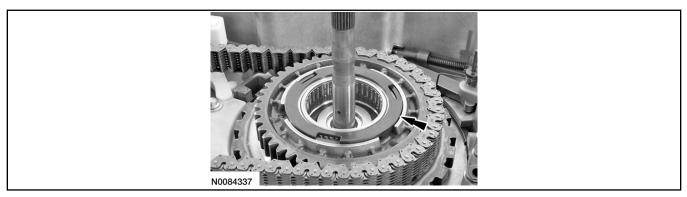


83. Install the No. 11 thrust bearing.

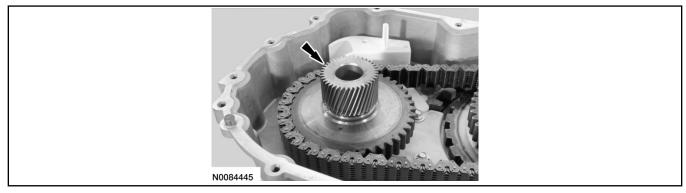


84. Install the No. 13 thrust washer.

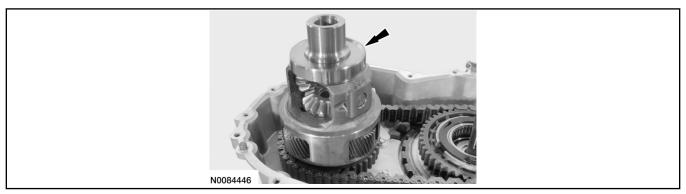
# (Continued)



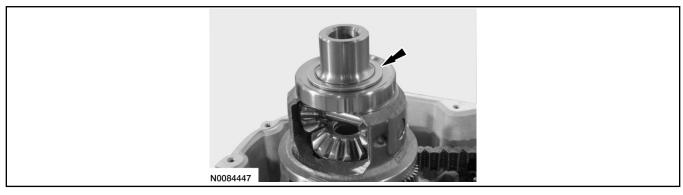
85. Install the final drive sun gear.



### 86. Install the differential assembly.

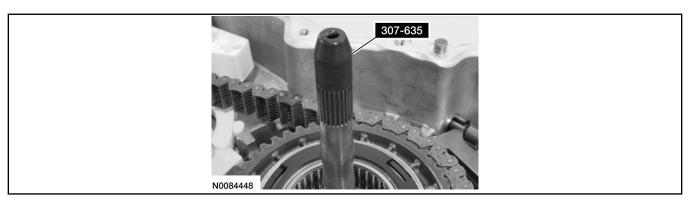


87. Install the No. 15 thrust bearing.

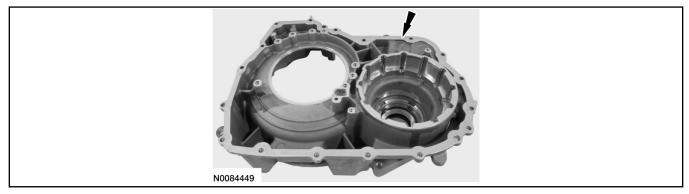


88. Install the Turbine Shaft Seal Protector 307-635 on the input shaft.

## (Continued)

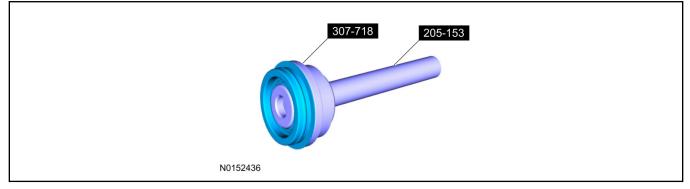


89. Clean the torque converter housing sealing surface.

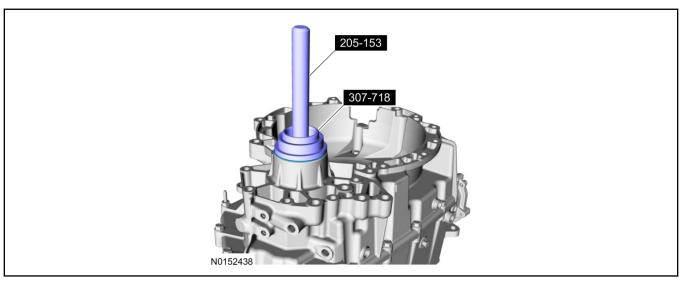


#### Front Wheel Drive (FWD) vehicles

90. Assemble the Handle 205-153 and Axle Seal Installer 307-718. Install a new RH seal on the Seal Installer 307-718.

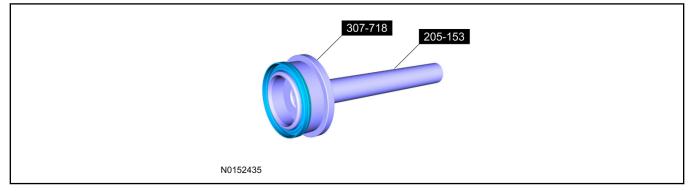


91. Using the Handle 205-153 and Axle Seal Installer 307-718, install the new RH halfshaft seal.

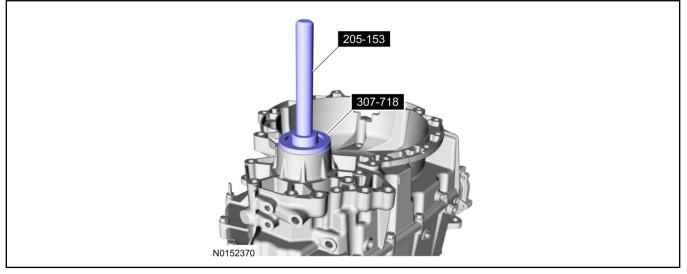


### All-Wheel Drive (AWD) vehicles

92. Assemble the Handle 205-153 and Axle Seal Installer 307-718. Install a new RH seal on the Seal Installer 307-718.



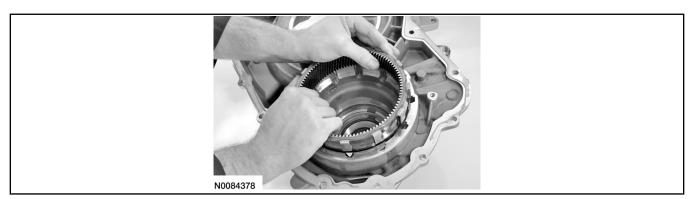
93. Using the Handle 205-153 and Axle Seal Installer 307-718, install the new RH halfshaft seal.



### All vehicles

94. Install the differential ring gear in the torque converter housing.

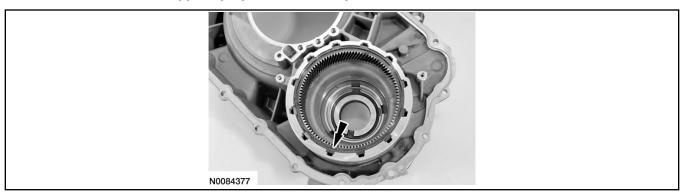
## (Continued)



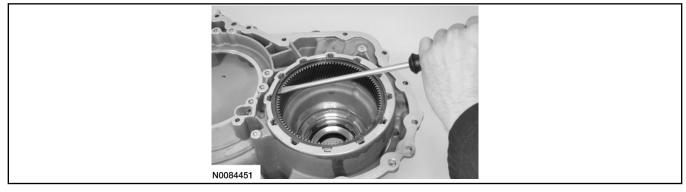
#### 95. NOTICE:

Be sure the flat side of the beveled snap ring is facing down or the ring can come loose, causing damage to the transaxle.

Install the beveled differential ring gear snap ring with the flat side facing down.

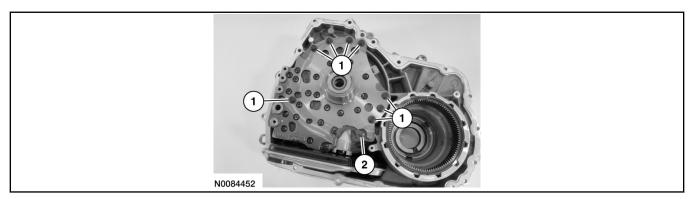


### 96. Seat the snap ring using a suitable tool.



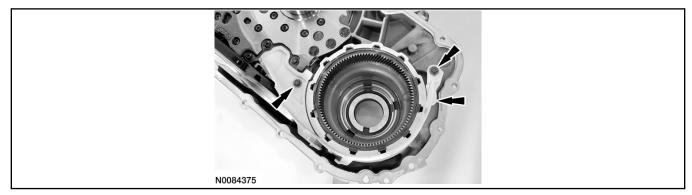
- 97. Install the pump and filter assembly in the torque converter housing and install the pump bolts.
  - 1 Tighten to 35 Nm (26 lb-ft).
  - 2 Tighten to 10 Nm (89 lb-in).

## (Continued)



98. Install the transmission fluid baffle and the 2 bolts.

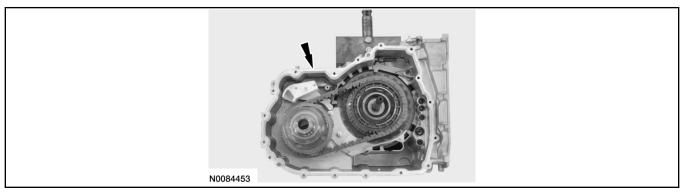
• Tighten to 12 Nm (106 lb-in).



### 99. NOTE:

Be sure the sealing surfaces of the torque converter housing and the transaxle housing are free of oil before applying silicone.

Apply silicone to the sealing surface of the transaxle case.

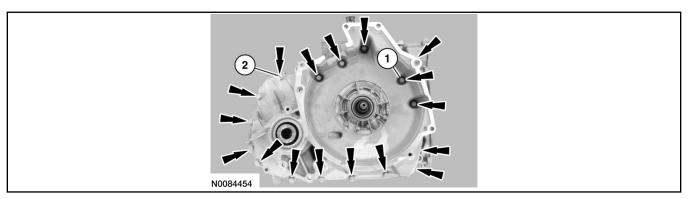


#### 100. NOTE:

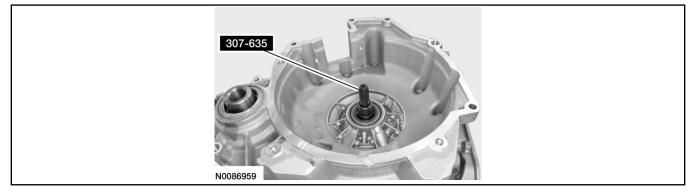
Be sure the stud bolt is in the correct location as noted during disassembly.

Install the torque converter housing on the transaxle case and install the 17 transaxle case-to-torque converter housing bolts.

- 1 Tighten to 24 Nm (18 lb-ft).
- 2 Stud bolt location.

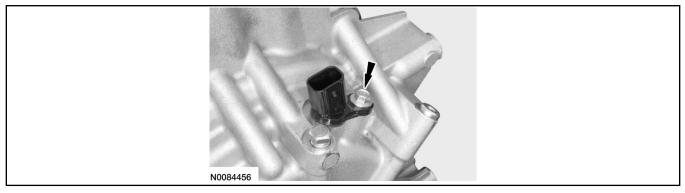


101. Remove the Turbine Shaft Seal Protector 307-635.

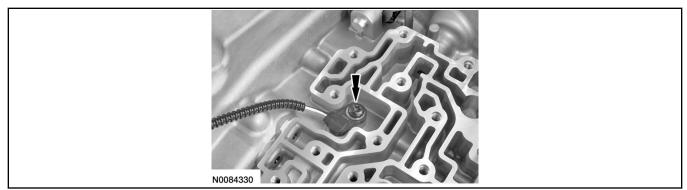


102. Install the Turbine Shaft Speed (TSS) sensor and the bolt.

• Tighten to 10 Nm (89 lb-in).



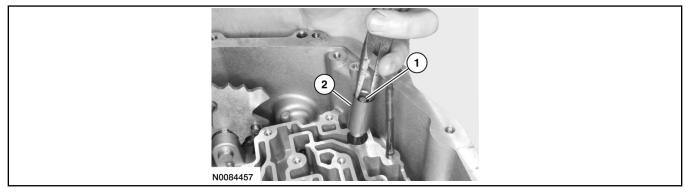
- 103. Install the Output Shaft Speed (OSS) sensor and the bolt.
  - Tighten to 10 Nm (89 lb-in).



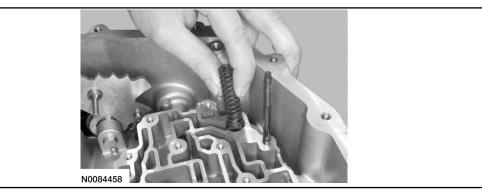
104. Assemble the bypass valve in the sleeve and install the assembly in the case.

1 Bypass valve

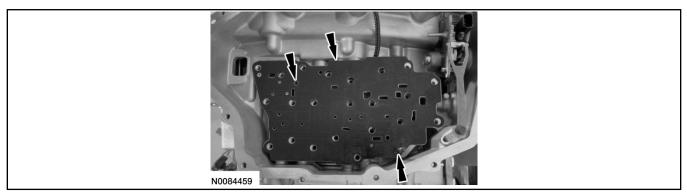
2 Bypass valve sleeve



105. Install the bypass valve spring.



106. Install the new main control-to-transaxle case separator plate and align it on the stud and the guide pin.

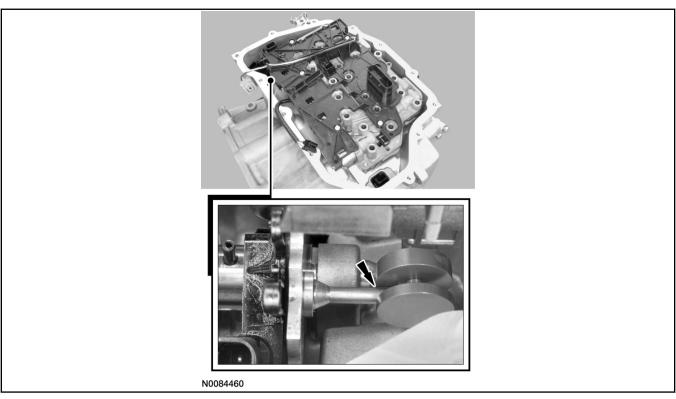


### 107. NOTE:

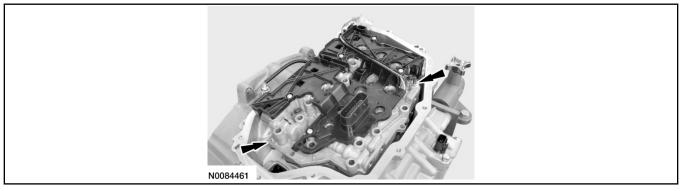
Be sure that the manual pin (part of the TR sensor) is correctly installed in the manual valve.

Position the main control assembly in place and align the manual valve on the TR sensor.

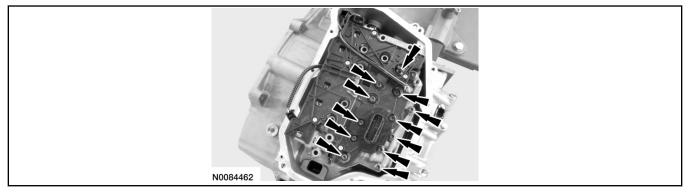
## (Continued)



### 108. Install the nut hand-tight.

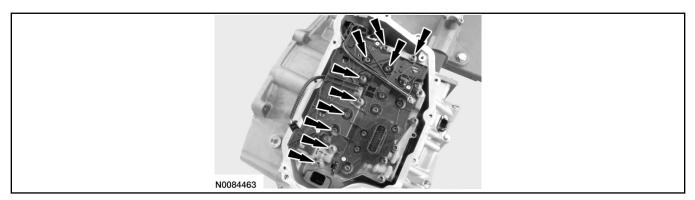


109. Install the short bolts hand-tight.

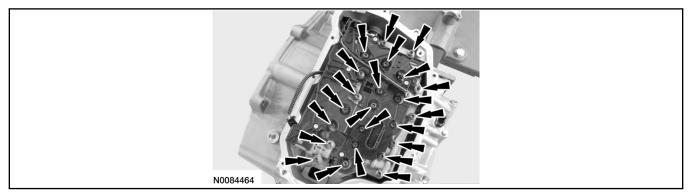


110. Install the long bolts hand-tight.

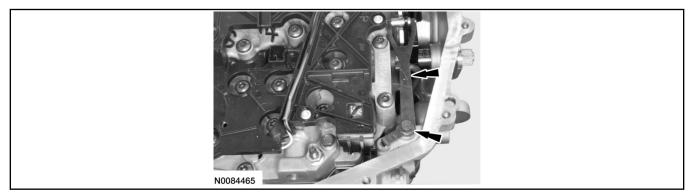
## (Continued)



- 111. Tighten the main control bolts and the nut in a crisscross pattern.
  - Tighten to 10 Nm (89 lb-in).



- 112. Position the TR sensor detent spring in place with the alignment tab in the alignment hole and install the bolt.
  - Tighten to 13 Nm (115 lb-in).

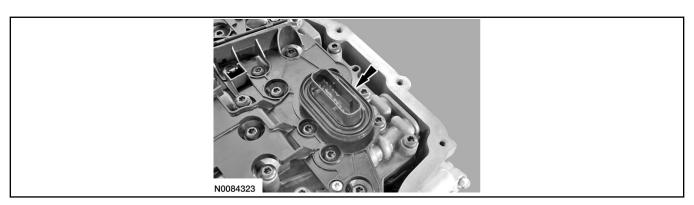


### 113. NOTE:

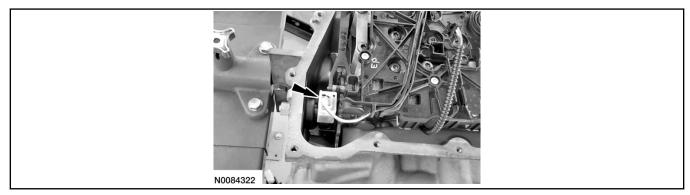
Be sure the solenoid body-to-main control cover seal is installed with the holes facing up.

Install the solenoid body-to-main control cover seal.

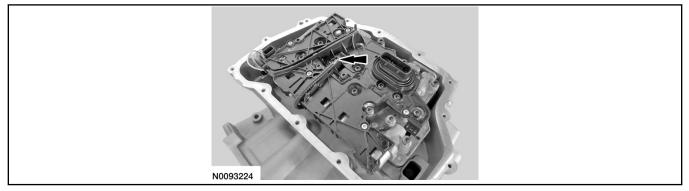
## (Continued)



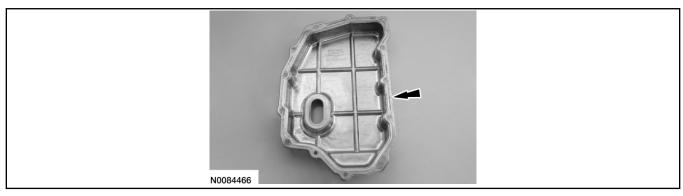
114. Connect the TR sensor electrical connector.



### 115. Connect the OSS sensor electrical connector.

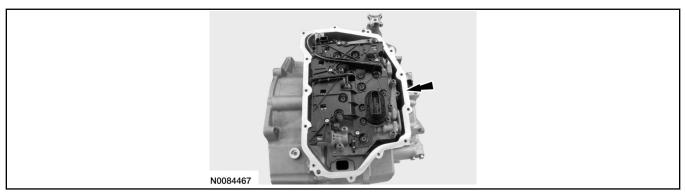


116. Clean the main control cover sealing surface.

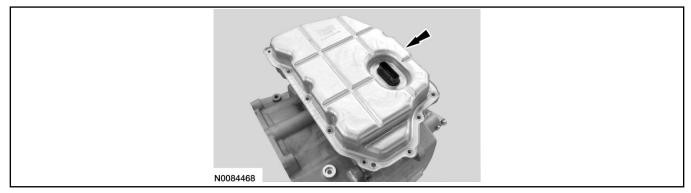


117. Apply silicone to the main control sealing surface of the transaxle case.

## (Continued)



118. Position the main control cover in place.

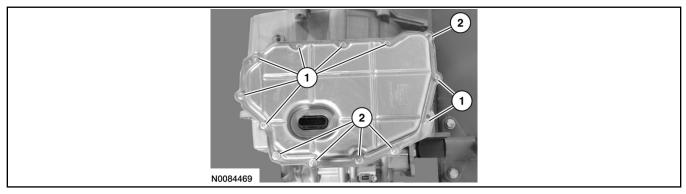


### 119. NOTE:

Install the main control cover stud bolts in the correct location as noted during disassembly.

Install the main control cover bolts.

- 1 Bolt location
- 2 Stud bolt location
- Tighten to 12 Nm (106 lb-in).

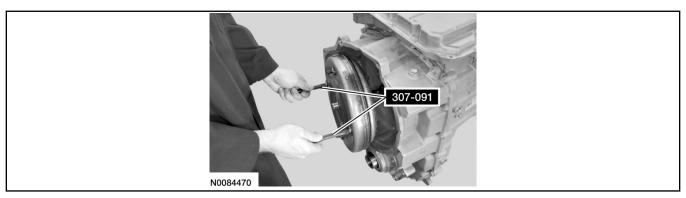


### 120. NOTICE:

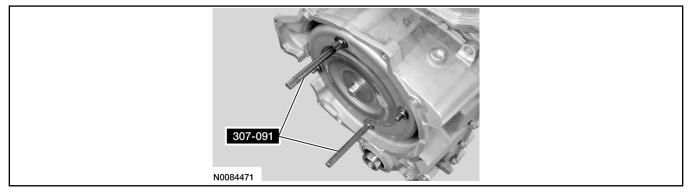
The torque converter is heavy. Be careful not to drop it or damage will result.

Using the Torque Converter Handle 307-091, install the torque converter.

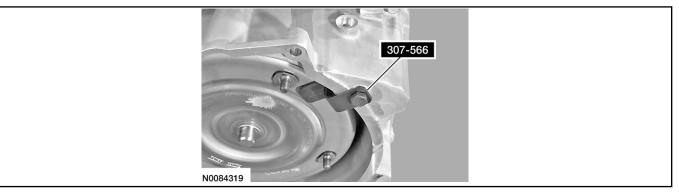
# (Continued)



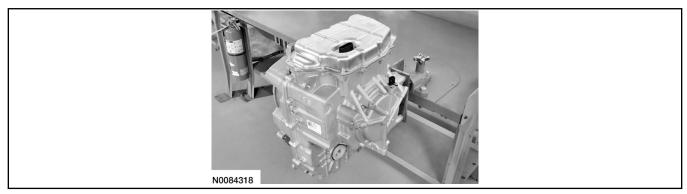
121. Remove the Torque Converter Handle 307-091.



### 122. Install the Torque Converter Retainer 307-566.



123. Remove the transaxle from the bench-mounted holding fixture.



124. Remove the Holding Fixture 307-625.

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