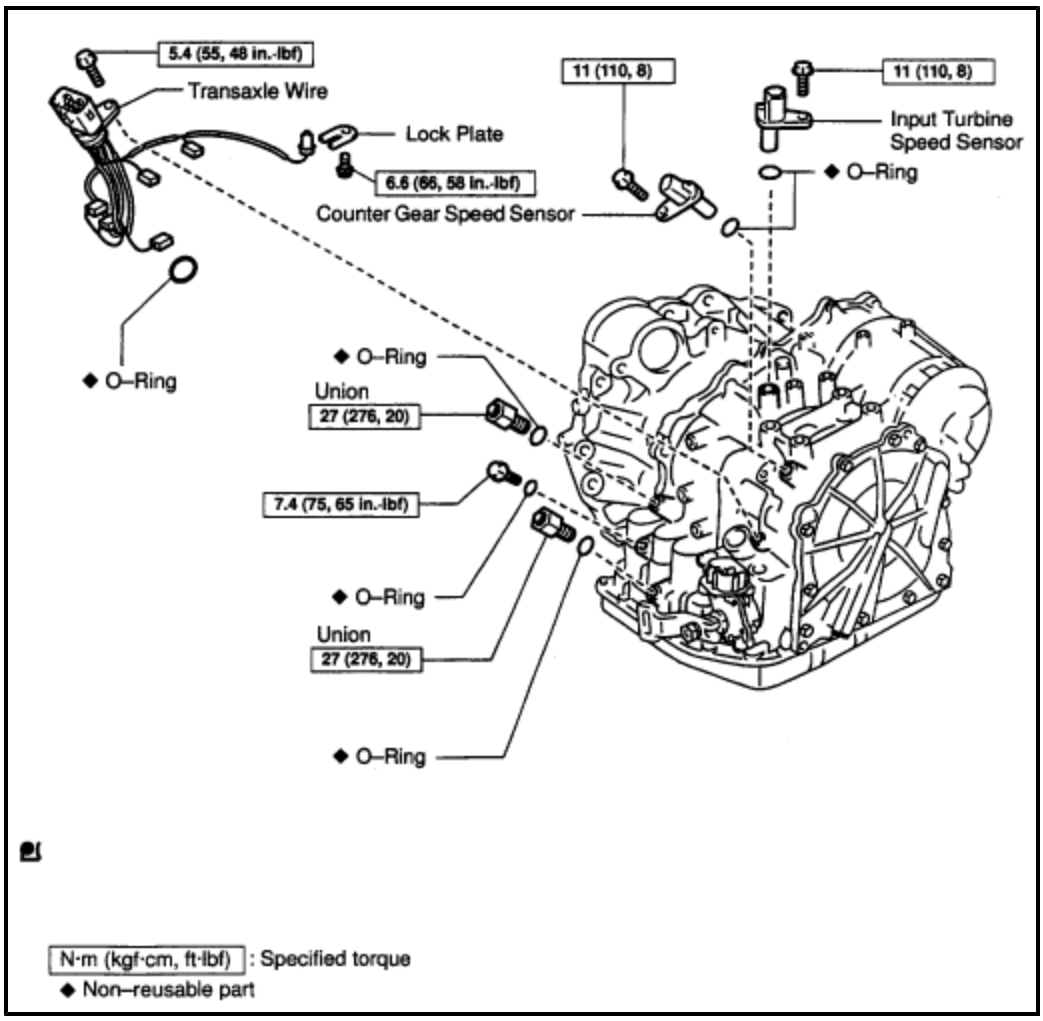
Part 3 of 3



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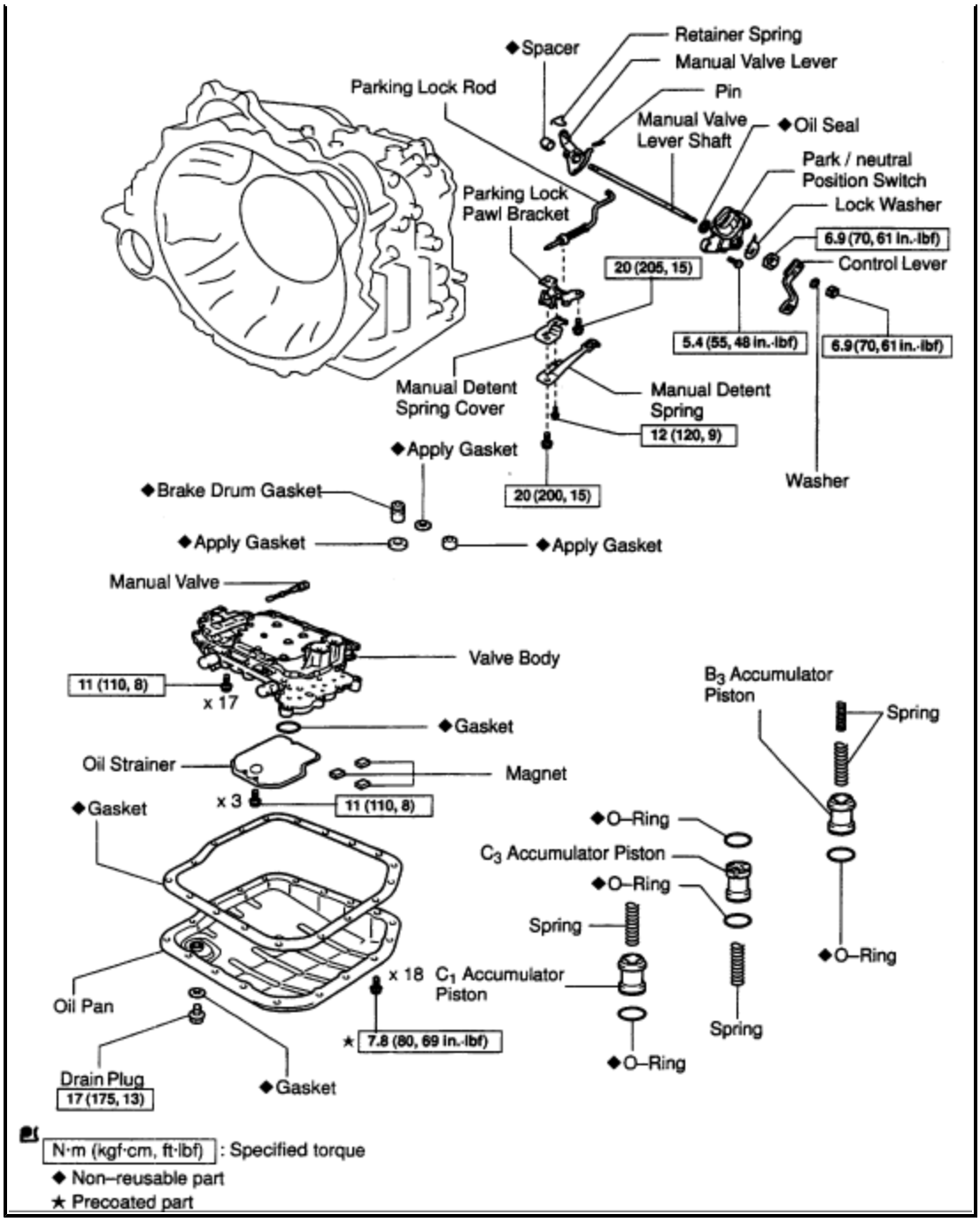

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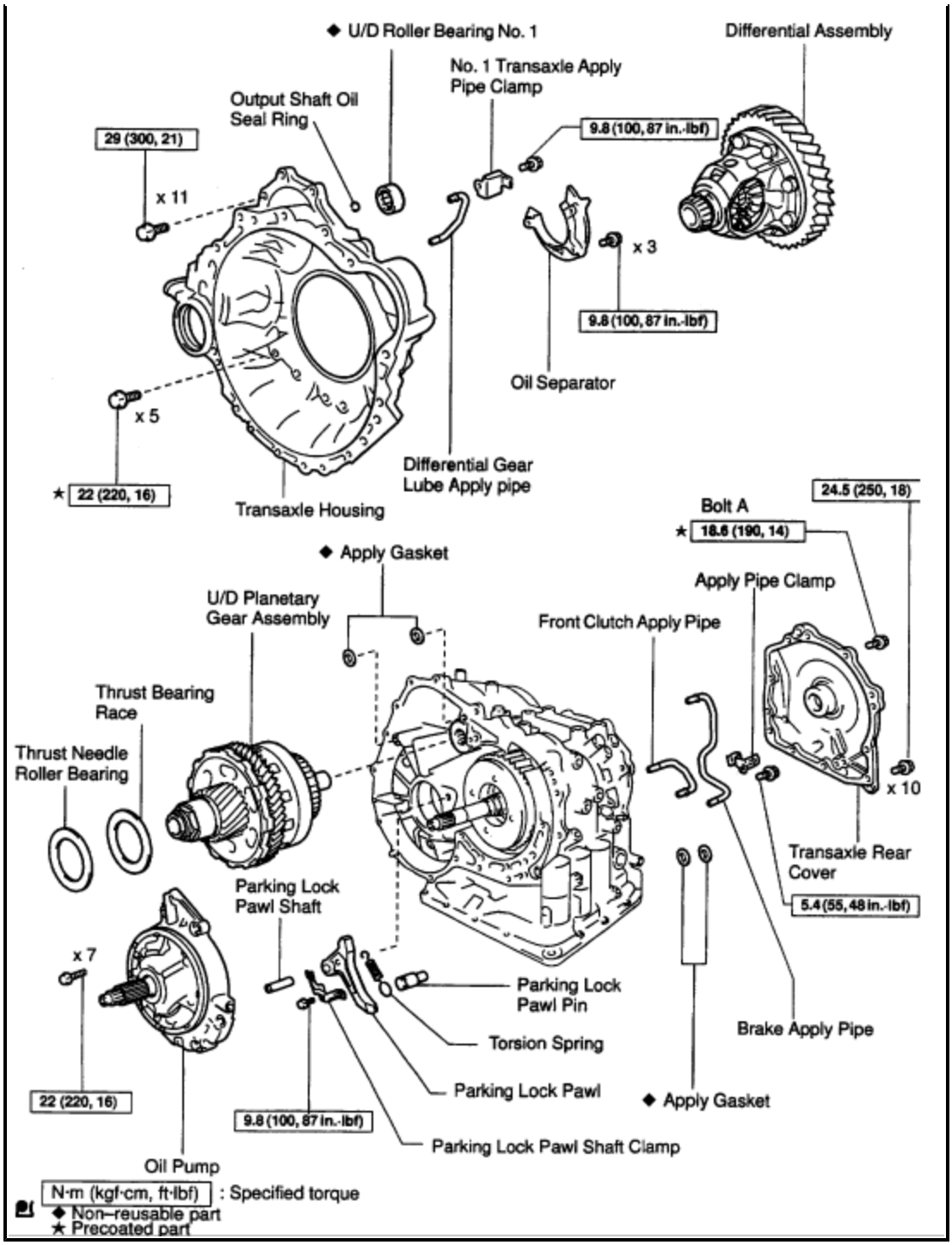

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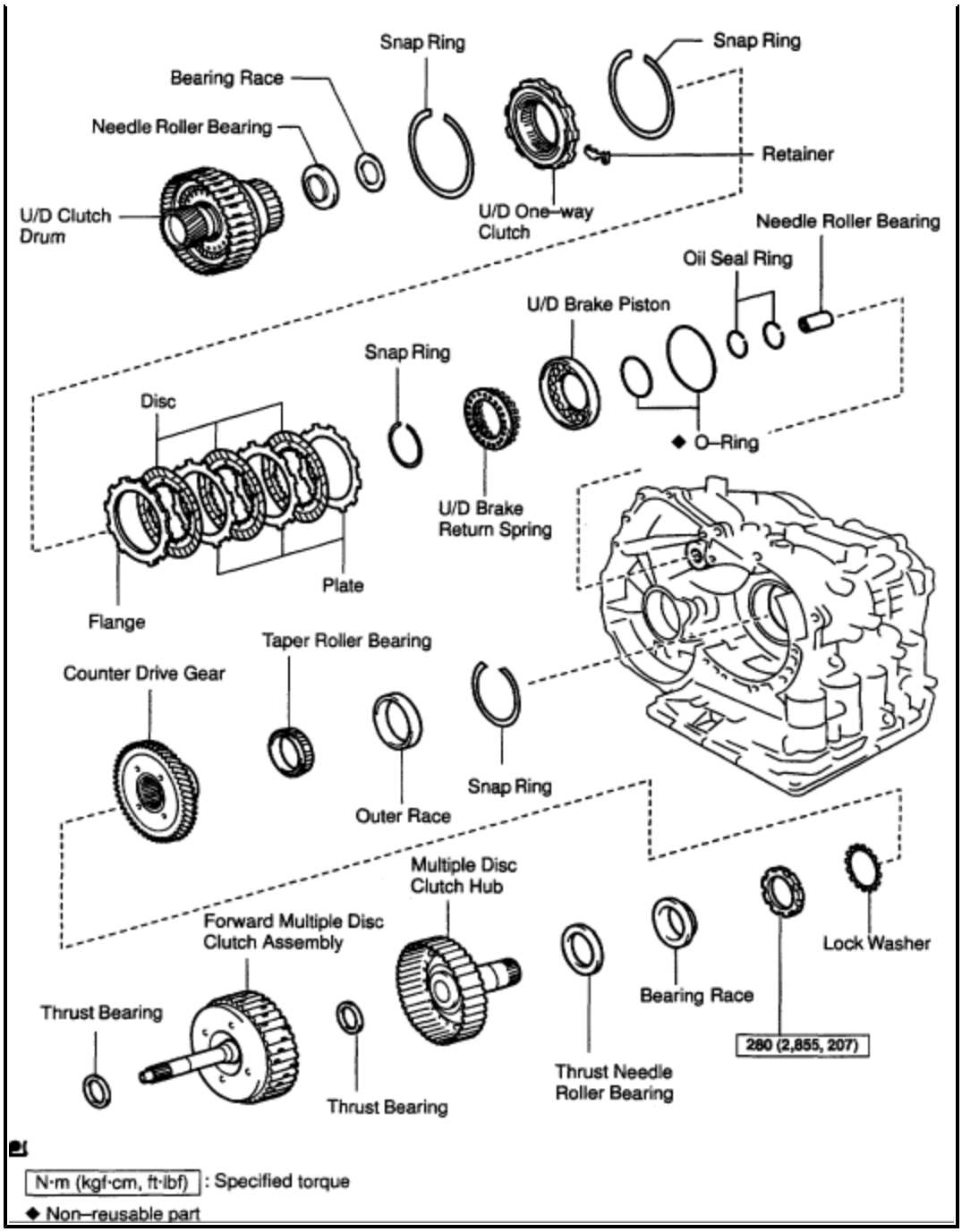

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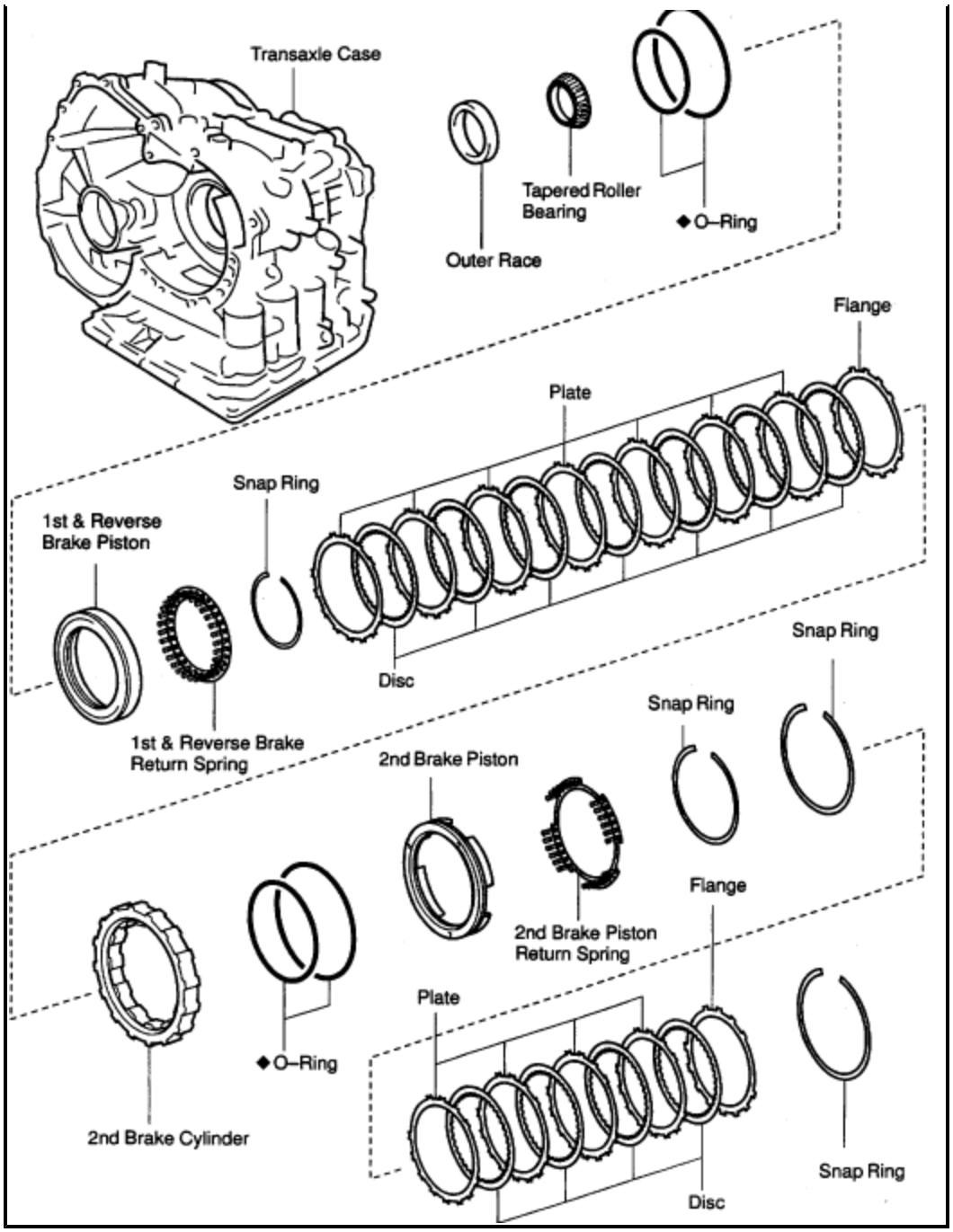

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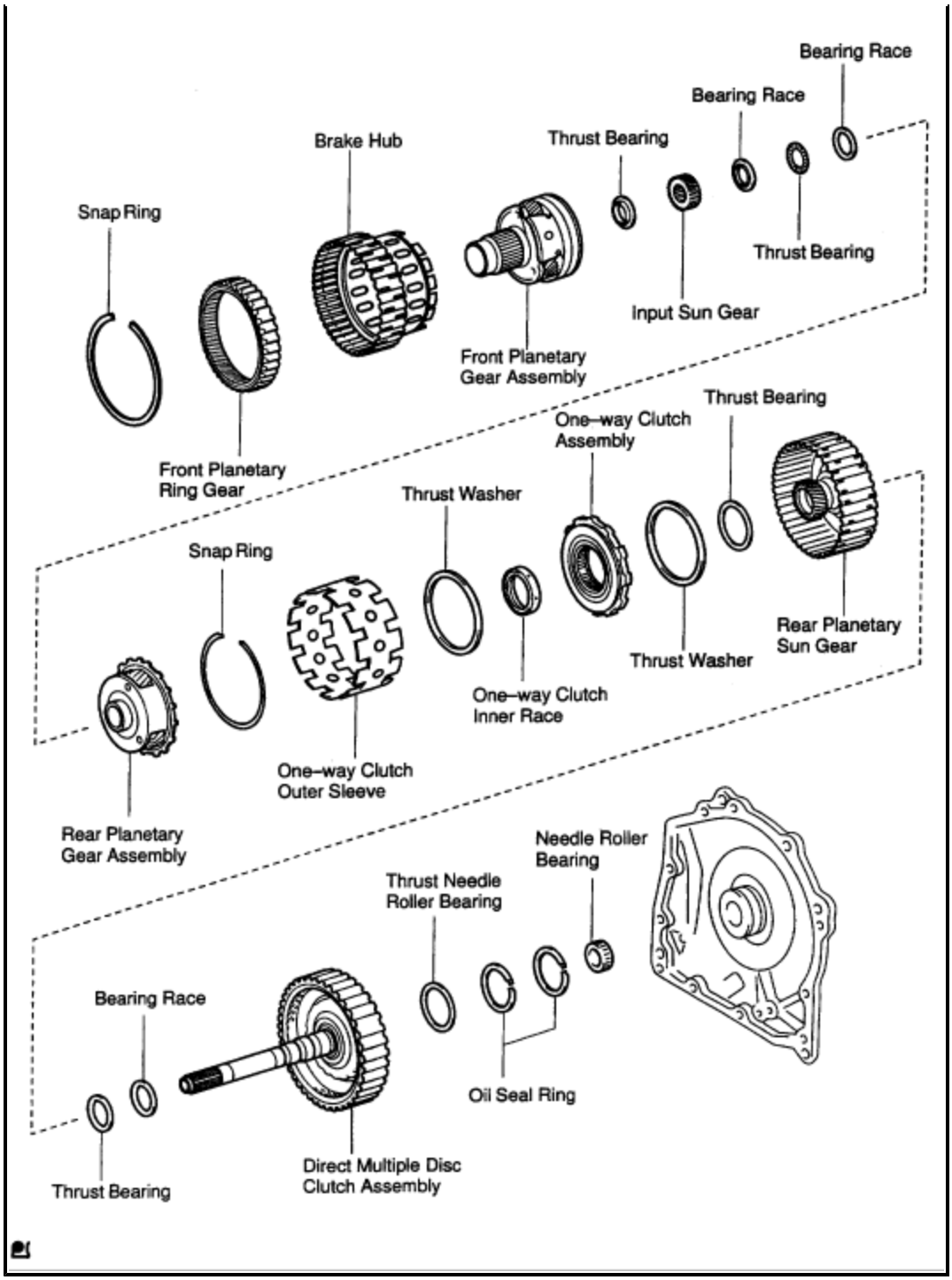

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REASSEMBLY

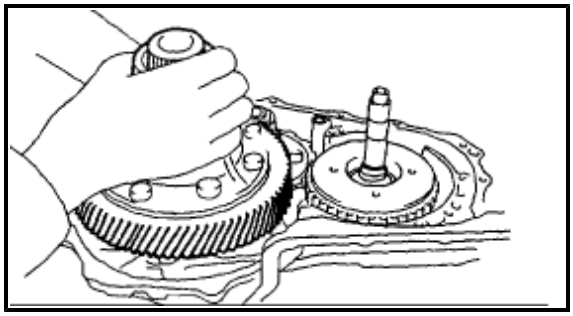
NOTICE:

- The automatic transaxle is composed of highly precision-finished parts, necessitating careful inspection before reassembly because even a small nick could cause fluid leakage or affect the performance. The instructions here are organized so that you will work on only one component group at a time. This will help avoid confusion from similar-looking parts of different sub-assemblies being on your workbench at the same time. The component groups are

inspected and repaired from the converter housing side. As much as possible, complete the inspection, repair and reassembly before proceeding to the next component group. If a defect is found in a certain component group during reassembly, inspect and repair this group immediately. If a component group cannot be assembled because parts are being ordered, be sure to keep all parts of that group in a separate container while proceeding with disassembly, inspection, repair and reassembly of other component groups. Recommended ATF: TYPE T-IV or equivalent

- All disassembled parts should be washed clean and any fluid passages and holes should be blown through with compressed air.
- Dry all parts with compressed air-never use shop rags.
- When using compressed air, always aim away from yourself to prevent accidentally spraying ATF or kerosene on your face.
- The recommended automatic transaxle fluid or kerosene should be used for cleaning.
- After cleaning, the parts should be arranged in the correct order for efficient inspection, repairs, and reassembly.
- When disassembling a valve body, be sure to match each valve together with the corresponding spring..
- New discs for the brakes and clutches that are to be used for replacement must be soaked in ATF for at least 15 minutes before reassembly.
- All oil seal rings, clutch discs, clutch plates, rotating parts, and sliding surfaces should be coated with ATF prior to reassembly.
- All gaskets and rubber O-rings should be replaced.
- Do not apply adhesive cements to gaskets and similar parts.
- Make sure that the ends of a snap ring are not aligned with one of the cutouts and are installed in the groove correctly.
- If a worn bushing is to be replaced, the sub-assembly containing the bushing must also be replaced.
- Check thrust bearings and races for wear or damage. Replace if necessary. Use petroleum jelly to keep parts in place.
- When working with Formed In Place Gasket **(FIPG)** material, you must observe the following: Using a razor blade and a gasket scraper, remove all of the old packing from the gasket surface.

Thoroughly clean all components to remove all of the loose material. Clean both sealing surfaces with a non-residue solvent. Parts must be reassembled within 10 minutes of application. Otherwise, the packing Formed In Place Gasket (FIPG) material must be removed and reapplied.



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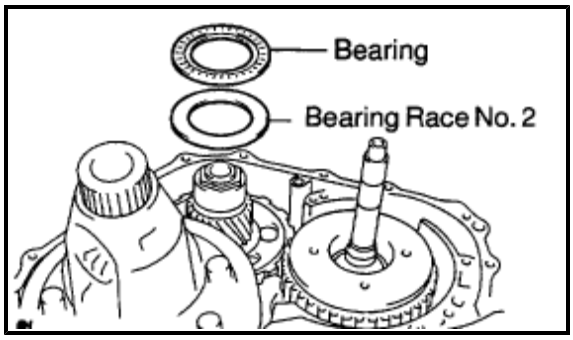
30. INSTALL DIFFERENTIAL ASSEMBLY
31. INSTALL TRANSAXLE HOUSING



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a. Calculate the end play value using the following formula and values of Dimension D and E that were measured when installing cylindrical roller bearing and U/D planetary gear. Select an appropriate U/D planetary gear thrust bearing race No.2 which satisfies the specified end play value, and install it. End play: **0.198 - 0.693 mm (0.0078 - 0.0273 inch) HINT:** End play = Dimension E - Dimension D - Thrust bearing thickness 3.28 mm (0.1291 inch) - U/D gear thrust bearing race No.2 thickness

E – D	Thickness
Less than 7.42 (0.2921)	3.5 (0.138)
7.42 (0.2921) or more	3.8 (0.150)

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Race thickness: mm (inch)

	Inside	Outside
Bearing	57.2 (2.252)	84.96 (3.3449)
Bearing race	56.4 (2.220)	83.0 (3.268)

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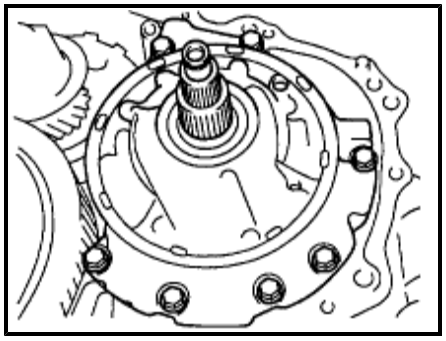
Bearing and bearing race diameter: mm (inch)



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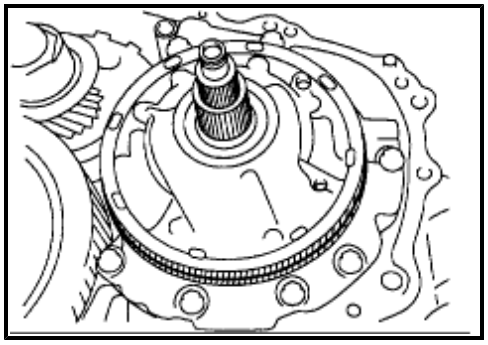
b. Install the oil pump and 7 bolts to the transaxle case Torque: **22 Nm (226 kgf-cm, 16 ft. lbs.)**



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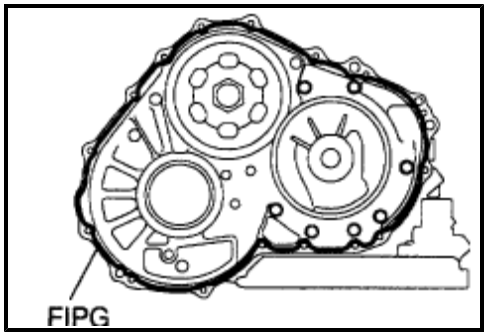
c. Coat on O-ring of oil pump with ATF.



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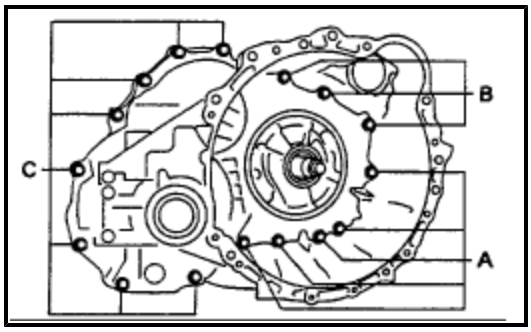
d. Remove any packing material and be careful not to get oil on the contacting surfaces of the transaxle case or transaxle housing.
e. Apply FIPG to the transaxle case. FIPG: Part No. 08826-00090, THREE BOND 1281 or equivalent



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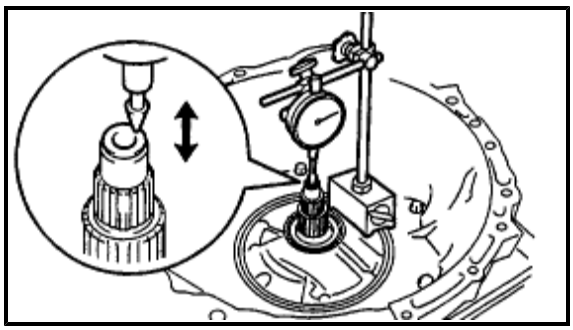
f. Install the transaxle housing and 16 bolts to the transaxle case. Torque: Bolt A: **22 Nm (226 kgf-cm, 16 ft. lbs.)** Bolt B and C: **29 Nm (300 kgf-cm, 22 ft. lbs.)** **HINT:** Apply seal packing or equivalent to the bolt A. Seal packing: THREE BOND 2403 or equivalent Bolt length: Bolt A: **50 mm (1.969 inch)** Bolt B: **50 mm (1.969 inch)** Bolt C: **42 mm (1.654 inch)** **NOTICE:** Because the bolt A is a seal bolt, apply the seal packing to new bolts and tighten them within 10 minutes after application.



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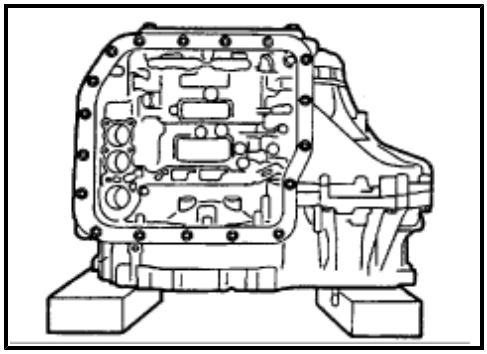
32. INSPECT INPUT SHAFT END PLAY Using a dial indicator, measure the input shaft end play. End play: **0.27 - 1.24**

mm (0.0106 - 0.0417 inch)

33. CHECK DIFFERENTIAL PRELOAD (See page AX-107)



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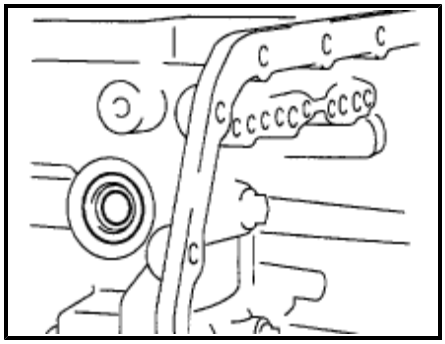
34. PLACE TRANSAXLE HOUSING
35. INSTALL MANUAL VALVE LEVER SHAFT



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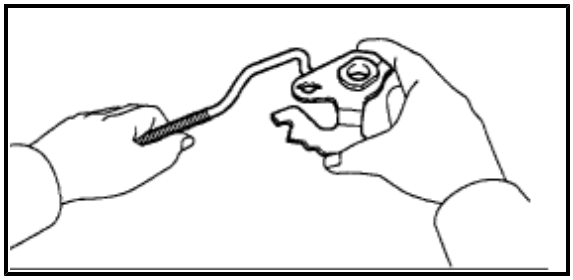
a. Coat the new oil seal with ATF.
b. Install the oil seal to the transaxle case.



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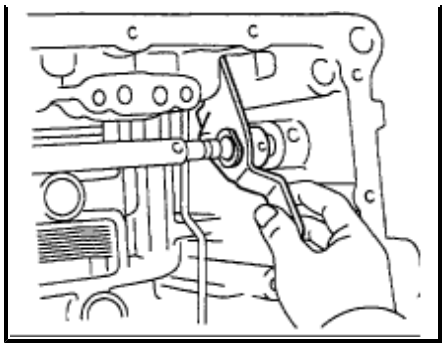
c. Install the parking lock rod to the manual valve lever.



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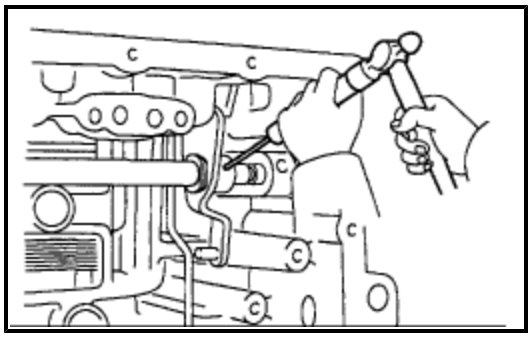
d. Install a new spacer and manual valve lever shaft to the transaxle case.



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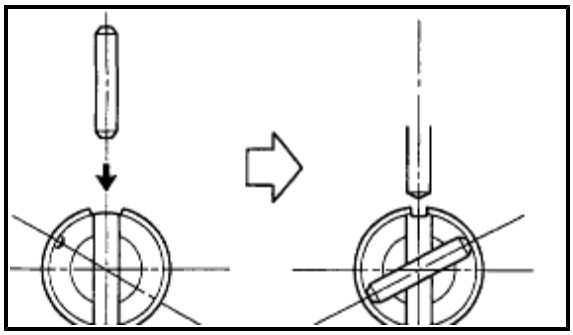
e. Using a pin punch and a hammer, drive in a new pin.



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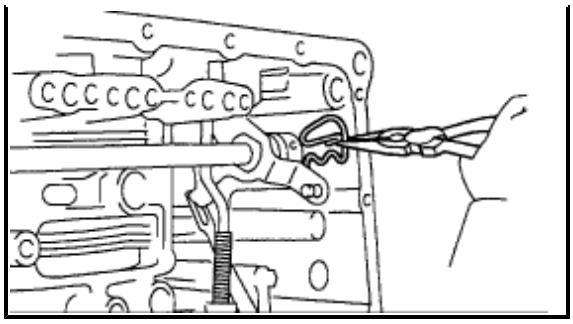
f. Turn the spacer and the lever shaft to alight the small hole for locating the staking position in the spacer with the staking position mark on the lever shaft.
g. Using a pin punch, stake the spacer through the small hole.
h. Check that the spacer does not turn.



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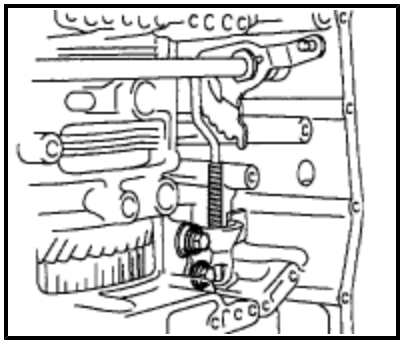
i. Using needle-nose pliers, install the return spring.



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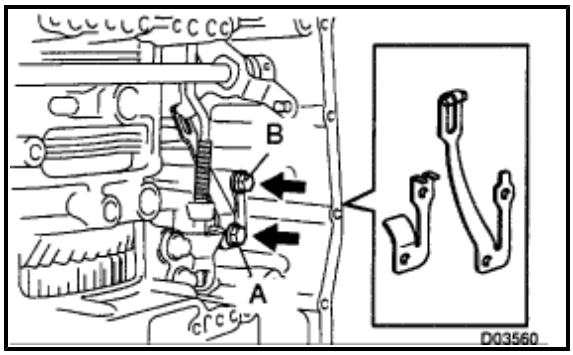
j. Install the parking lock pawl bracket with 2 bolts. Torque: **20 Nm (205 kgf-cm, 15 ft. lbs.)** Bolt length: **25 mm (0.984 inch)**



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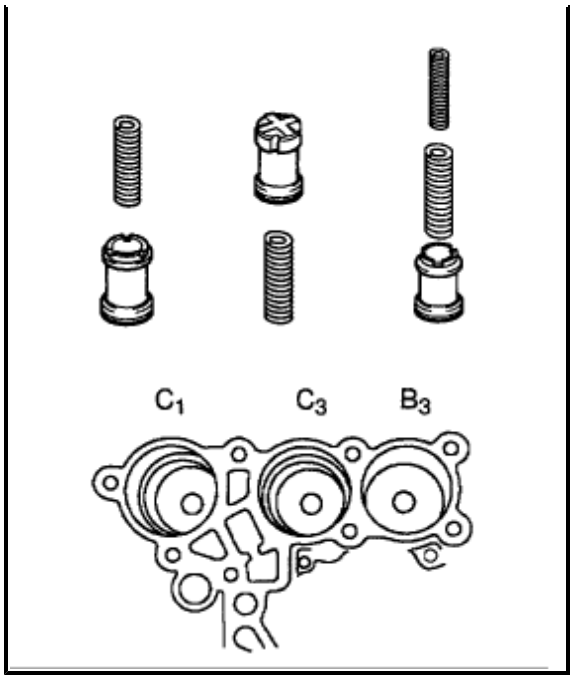
k. Install the manual detent spring with 2 bolts. **NOTICE:** Make sure to install the manual detent spring and cover in this order. Torque: Bolt A: **20 Nm (205 kgf-cm, 15 ft. lbs.)** Bolt B: **12 Nm (120 kgf-cm, 9 ft. lbs.)** Bolt length: Bolt A: **27 mm (1.063 inch)** Bolt B: **16 mm (0.630 inch)**



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36. INSTALL ACCUMULATOR PISTONS AND SPRINGS

a. Coat new 4 O-rings with ATF and install them to the pistons.
b. Coat the 4 springs and 3 accumulator pistons with ATF, install them to the holes.

Spring		Free length Outer diameter mm (in.)	Color
B_3	Inner	60.24 (2.3716) / 15.9 (0.626)	Green
	Outer	72.61 (2.8587) / 16.7 (0.657)	Blue
C_3		86.66 (3.4118) / 19.2 (0.756)	Yellow
C_1		90.53 (3.5642) / 18.5 (0.728)	Red

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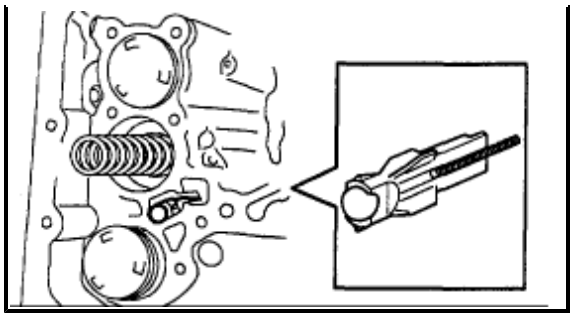
Accumulator spring:



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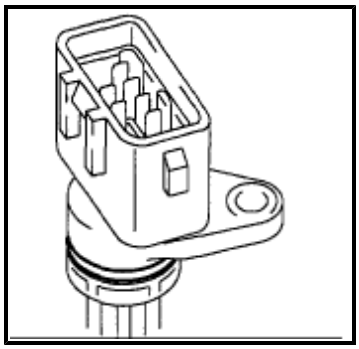
37. INSTALL CHECK BALL BODY AND SPRING
38. INSTALL TRANSAXLE SOLENOID WIRE



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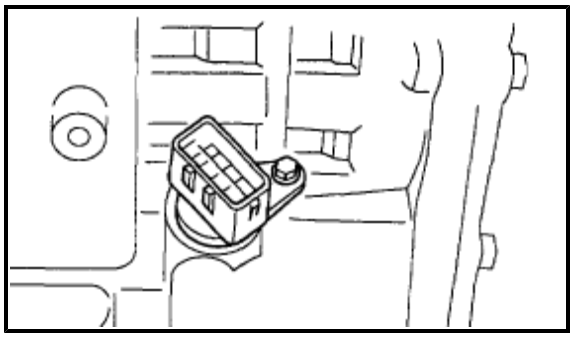
a. Coat a new O-ring with ATF, install it to the transaxle solenoid wire.



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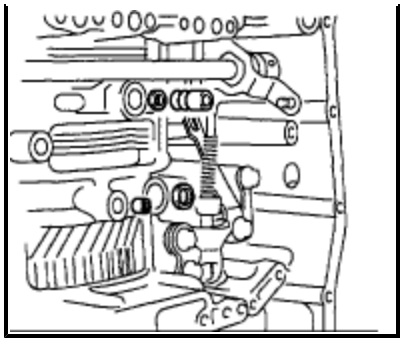
b. Install the solenoid wire retaining bolt Torque: **5.4 Nm (55 kgf-cm, 48 inch lbs.)**



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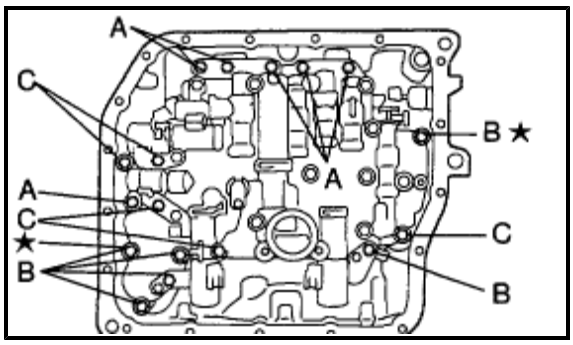
39. INSTALL APPLY GASKET

a. Coat 4 apply gaskets with ATF and install them to the transaxle case.



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40. INSTALL VALVE BODY ASSEMBLY

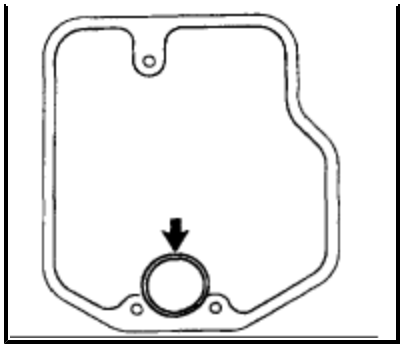
a. Align the groove of the manual valve with the pin of lever.
b. Install the 17 bolts. Torque: **11 Nm (110 kgf-cm, 8 ft. lbs.) NOTICE:**

- Push the valve body against the accumulator piston spring and the check ball body to install It.
- Tighten those bolts marked by * in the illustration first temporarily because they are positioning bolts.

HINT: Each bolt length is indicated.

Bolt length:
Bolt A: **25 mm (0.984 inch)**
Bolt B: **41 mm (1.614 inch)**
Bolt C: **45 mm (1.771 inch)**

41. INSTALL OIL STRAINER



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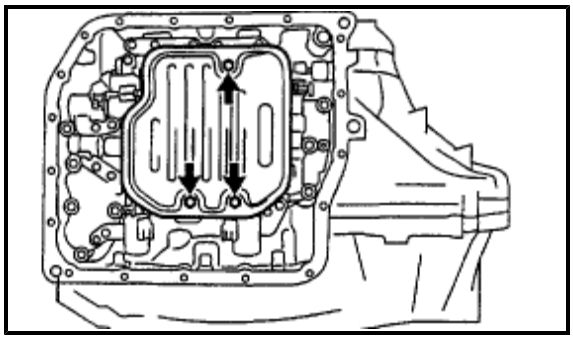
a. Coat new gasket with ATF, install it to the oil strainer.



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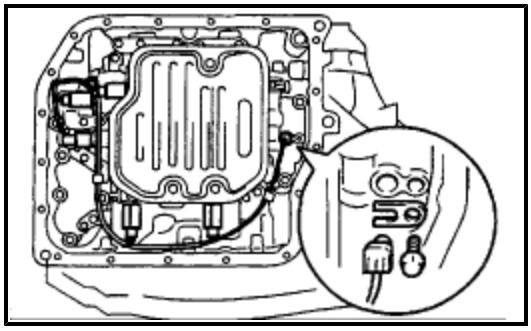
b. Install the oil strainer and 3 bolts to the valve body. Torque: **11 Nm (110 kgf-cm, 8 ft. lbs.)**



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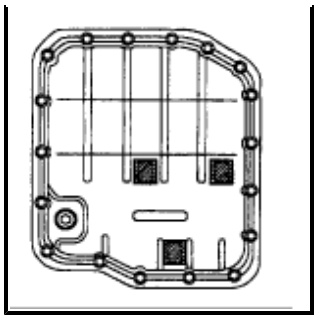
c. Connect the 5 solenoid connectors.
d. Install the ATF temperature sensor, lock plate and bolt. Torque: **6.6 Nm (67 kgf-cm, 58 inch lbs.)**

42. INSTALL OIL PAN



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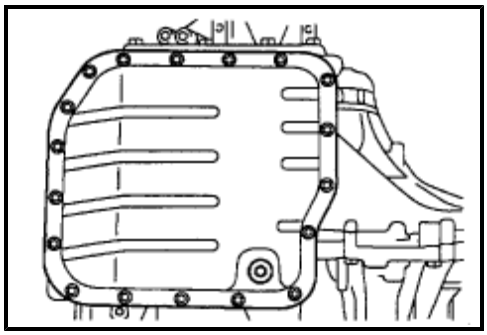
a. Install the 3 magnets in the oil pan.
b. Apply seal packing or equivalent to the new 18 bolts. Seal packing: THREE BOND 2430 or equivalent



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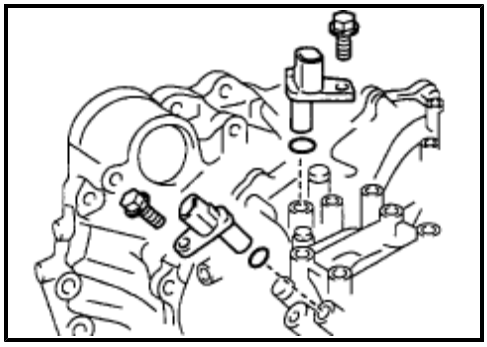
c. Install a new gasket, oil pan and 18 bolts to the transaxle case. Torque: **7.8 Nm (80 kgf-cm, 69 inch lbs.) NOTICE:** Because the bolts should be seal bolts, apply seal packing to new bolts and tighten them within 10 minutes after application.



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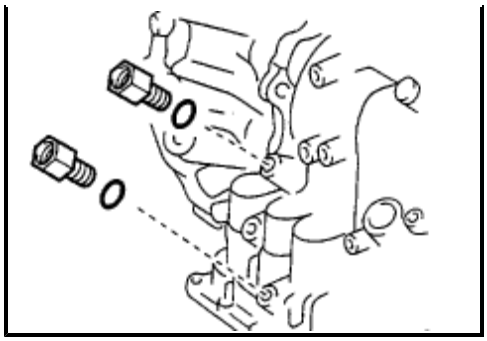
43. INSTALL SPEED SENSOR

a. Coat new 2 O-rings with ATF, install it to the 2 sensors.
b. Install the 2 sensors with 2 bolts to the transaxle case. Torque: **11 Nm (110 kgf-cm, 8 inch lbs.)**



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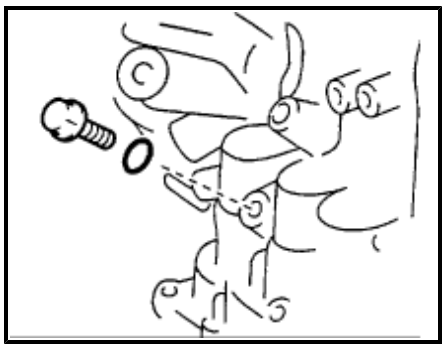
44. INSTALL UNION

a. Coat new 2 O-rings with ATF, install them to the 2 unions.
b. Install the 2 unions to the transaxle case. Torque: **27 Nm (276 kgf-cm, 20 ft. lbs.)**



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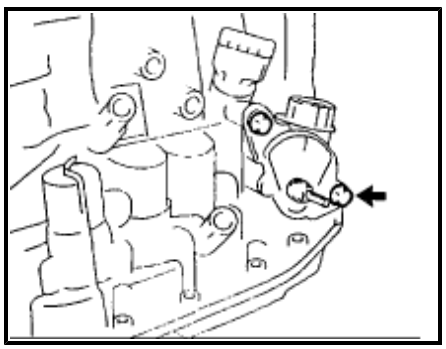
45. INSTALL TRANSAXLE CASE PLUG NO.1

a. Coat a new O-ring with ATF, install it to the transaxle case plug No. 1.
b. Install the transaxle case plug No.1 to the transaxle case. Torque: **7.4 Nm (75 kgf-cm, 65 inch lbs.)**

46. INSTALL PARK/NEUTRAL POSITION SWITCH



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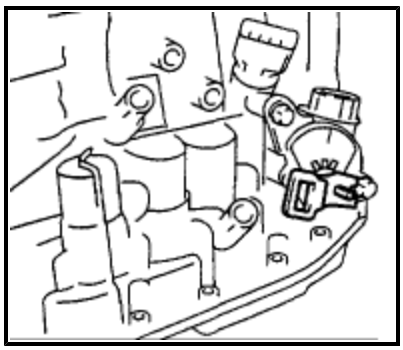
a. Install the park/neutral position switch onto the manual valve lever shaft and temporarily install the 2 adjusting bolts.

b. Install the new nut stopper and nut. Torque: **6.9 Nm (70 kgf-cm, 61 inch lbs.)**



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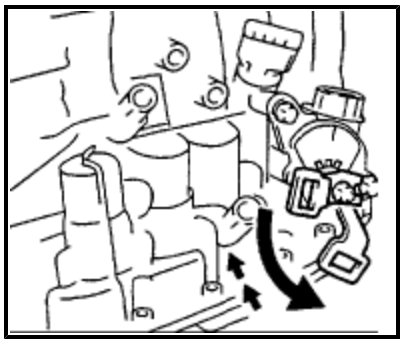
c. Temporarily install control shaft lever.



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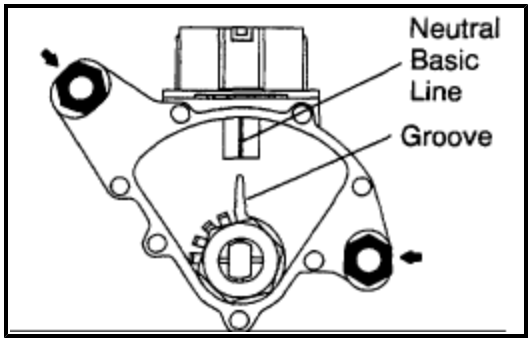
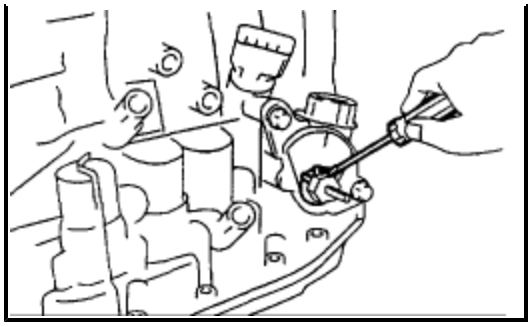
d. Turn the lever counterclockwise until it stops, them turn it clockwise 2 notches.
e. Remove the control shaft lever.



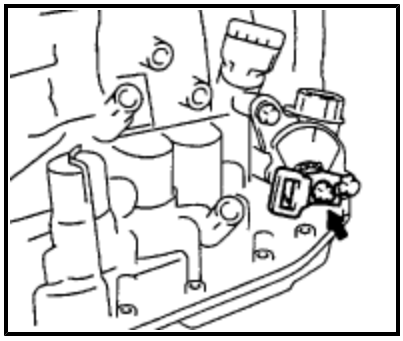
ZOOM SIZED FOR PRINT

f. Align the groove with neutral basic line.
g. Tighten the 2 bolts. Torque: **5.4 Nm (55 kgf-cm, 48 inch lbs.)**



ZOOM SIZED FOR PRINT

h. Using a screwdriver, stake the nut with the nut stopper.



ZOOM SIZED FOR PRINT

i. Install control shaft lever, washer and nut. Torque: **6.9 Nm (70 kgf-cm, 61 inch lbs.)**