

# Transmission

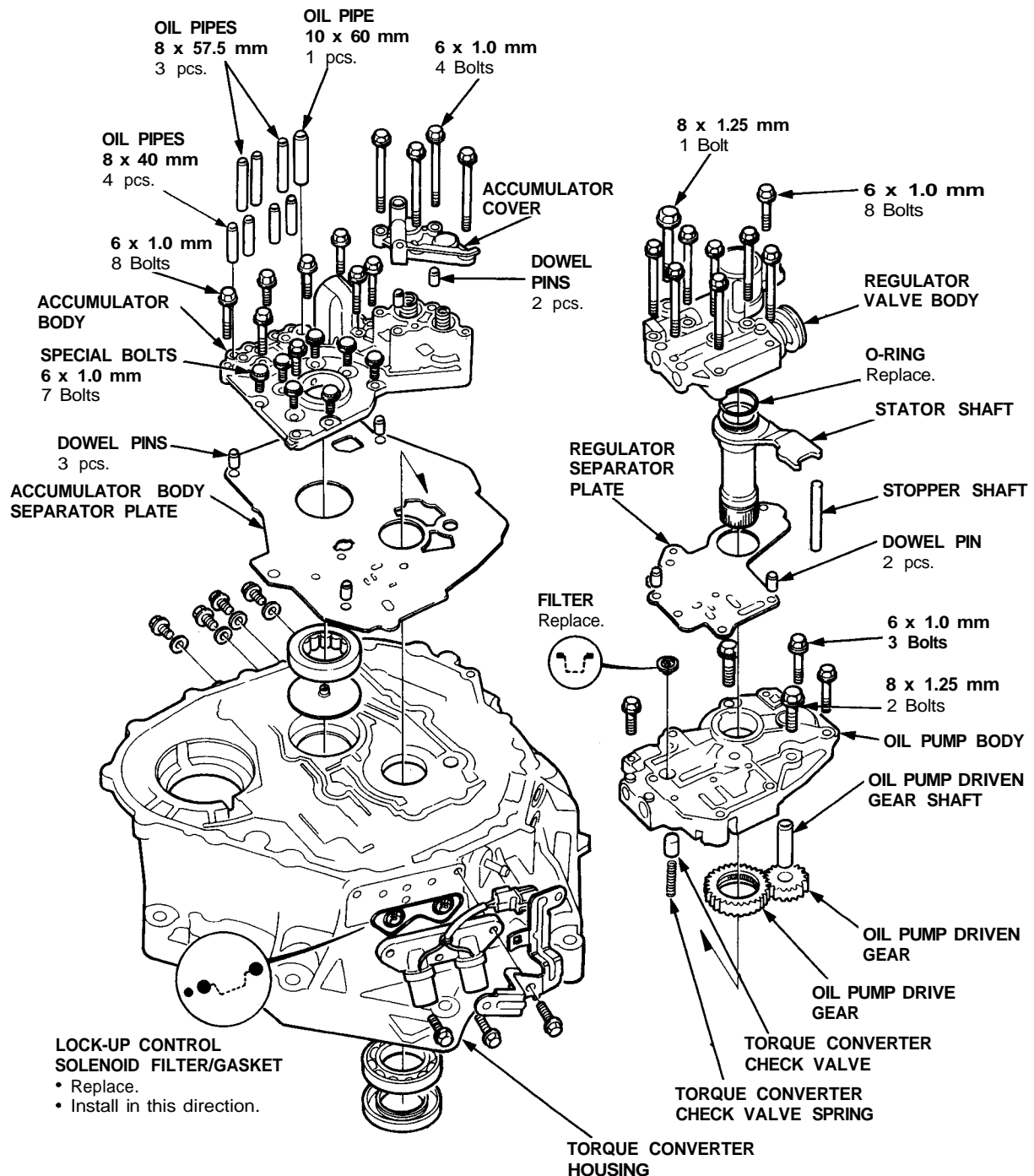
## Reassembly

### NOTE:

- Coat all parts with ATF.
- Replace parts below:
  - O-rings
  - Gaskets
  - Each shaft locknut, 24 mm washer and disc spring
  - Filters

### TORQUE:

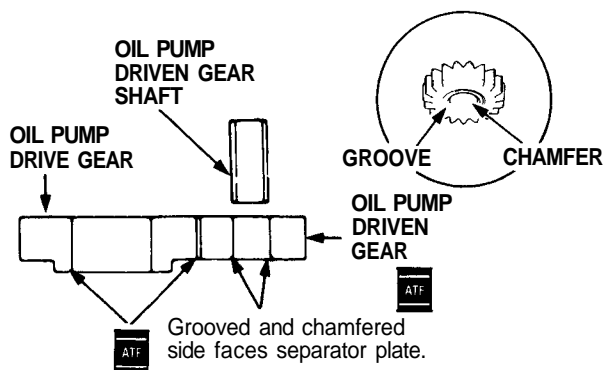
- 6 x 1.0 mm Bolts: 12 N·m (1.2 kg-m, 9 lb-ft)
- 8 x 1.25 mm Bolts: 18 N·m (1.8 kg-m, 13 lb-ft)



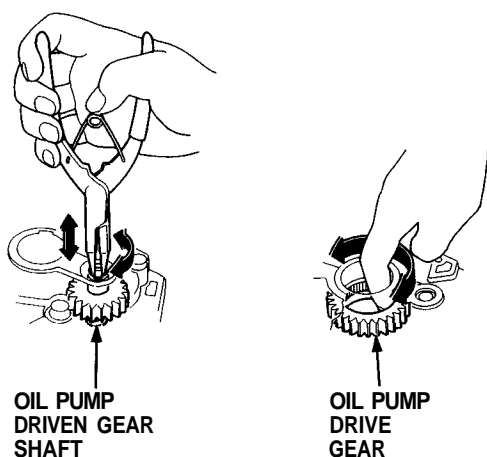


1. Install the accumulator body separator plate with three dowel pins on the torque converter housing. Then install the oil pump drive gear, oil pump driven gear, oil pump driven gear shaft, and torque converter check valve and spring.

NOTE: Install the oil pump driven gear with its grooved and chamfered side facing down.



2. Loosely install the oil pump body with two 8 mm bolts and three 6 mm bolts. Make sure the oil pump drive gear rotates smoothly in the normal operating direction and the oil pump driven gear shaft moves smoothly in the axial and normal operating directions.



3. Install the accumulator body with seven 6 mm special bolts and eight 6 mm bolts.

4. Install the accumulator cover on the accumulator body with two dowel pins and four bolts.

NOTE: To prevent stripping the threads, press down on the accumulator cover while installing the bolts.

5. Tighten two 8 mm bolts to 18 N·m (1.8 kg-m, 13 lb-ft) then tighten three 6 mm bolts to 12 N·m (1.2 kg-m 9 lb-ft) on the oil pump body. Make sure the oil pump drive gear and oil pump driven gear shaft move smoothly, as in the step 2.

6. If the oil pump drive gear and oil pump driven gear shaft do not move freely, loosen five bolts on the oil pump body and disassemble the accumulator cover and accumulator body. Realign the oil pump driven gear shaft and reassemble the accumulator body and accumulator cover, then retighten the bolts to the specified torque. Recheck the oil pump driven gear shaft and oil pump drive gear movement.

**CAUTION: Failure to align the oil pump driven gear shaft correctly will result in seized oil pump gears and oil pump driven gear shaft.**

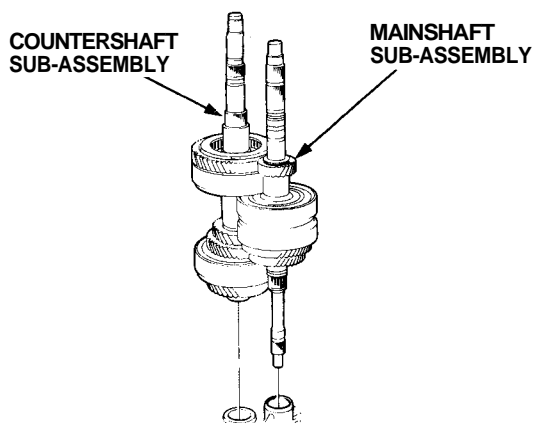
7. Install the regulator separator plate with two dowel pins on the oil pump body.
8. Install the stator shaft with a new O-ring and stopper shaft.
9. Install the regulator valve body with the 8 mm bolt and eight 6 mm bolts.
10. Install the oil pipes in the accumulator body.

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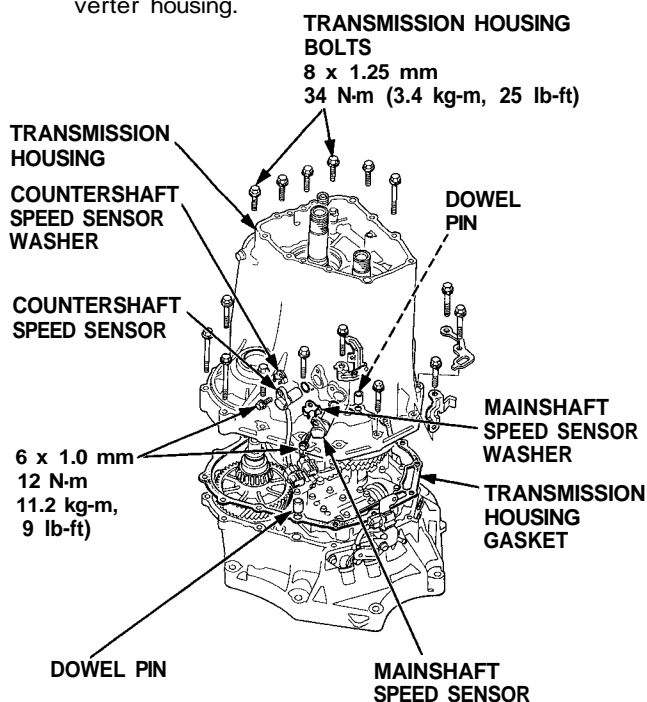
# Transmission

## Reassembly (cont'd)

11. Install the parking brake rod assembly with the detent lever to the control shaft, and detent spring on the transmission housing, if necessary (see page 14-155).
12. Install the secondary gear assembly in the torque converter housing.
13. Install the mainshaft sub-assembly and the countershaft sub-assembly together in the torque converter housing.

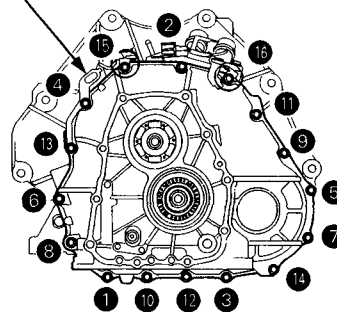


14. Install two dowel pins and a new gasket on the torque converter housing.
15. Place the transmission housing on the torque converter housing.



16. Install the transmission housing bolts, transmission hanger, harness stay and mainshaft and countershaft speed sensor connector stay, then torque the bolts to 34 N·m (3.4 kg-m, 25 lb-ft) in two or more steps in the pattern shown.

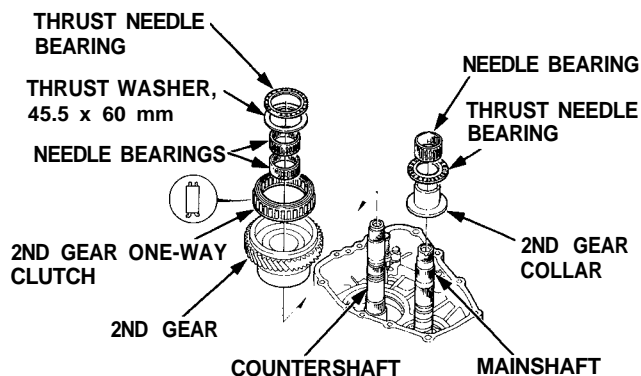
### TRANSMISSION HANGER



17. Install the countershaft speed sensor washer on the countershaft speed sensor and the mainshaft speed sensor washer on the mainshaft speed sensor. Then install the mainshaft and countershaft speed sensors in the transmission housing.

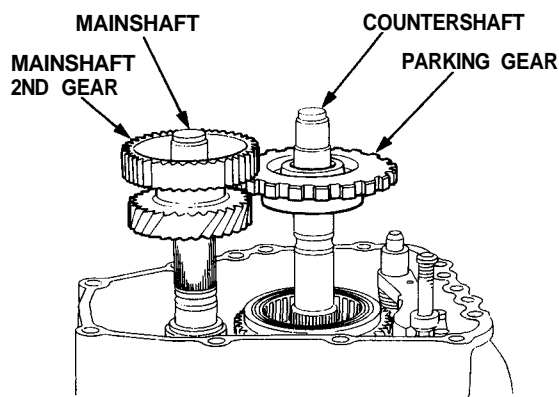
NOTE: Make sure you install the appropriate washer on the appropriate sensor (see page 14-77).

18. Install the 2nd gear, 2nd gear one-way clutch, needle bearings, thrust washer, 45.5 x 60 mm, and thrust needle bearing on the countershaft.
19. Install the 2nd gear collar, thrust needle bearing, and needle bearing on the mainshaft.

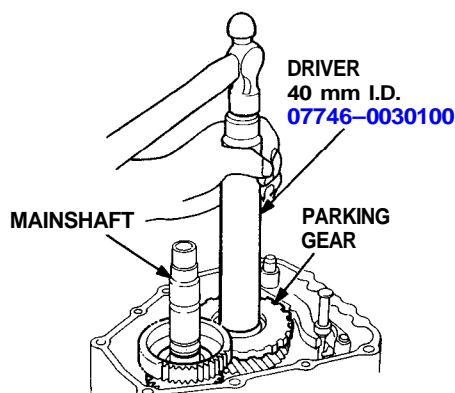




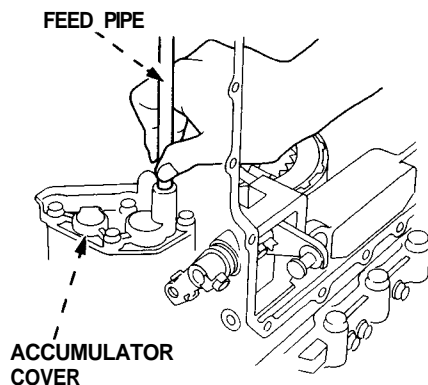
20. Combine mainshaft 2nd gear with the parking gear, then install them on the shafts.



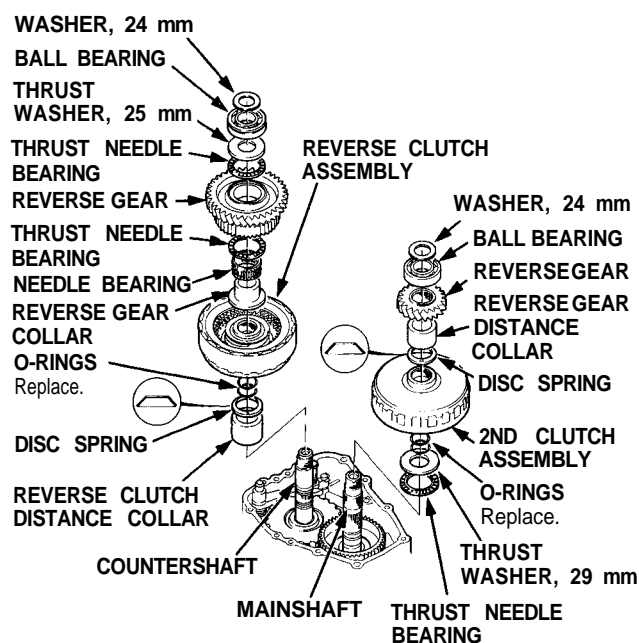
21. Tapping the parking gear very lightly, install 2nd gear one-way clutch using the special tool as shown.



22. Install the parking brake pawl shaft, spring, pawl and sleeve in the transmission housing (see page 14-155).
23. Install the feed pipe in the accumulator cover.



24. Install the reverse clutch distance collar and a new countershaft disc spring on the countershaft.
25. Install the thrust needle bearing and 29 mm thrust washer on the mainshaft.
26. Install new O-rings on the countershaft and mainshaft.
- NOTE: Before installing the O-rings, wrap the shaft splines with tape to prevent damage to the O-rings.
27. Install the 2nd clutch assembly on the mainshaft, then install the reverse clutch assembly, reverse gear collar, needle bearing, thrust needle bearing, reverse gear, thrust needle bearing, 25 mm thrust washer, ball bearing and a new 24 mm washer on the countershaft.
28. Install a new mainshaft disc spring, reverse gear distance collar, reverse gear, ball bearing and a new 24 mm washer on the mainshaft.

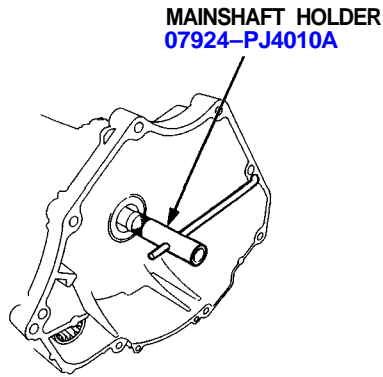


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# Transmission

## Reassembly (cont'd)

29. Install the special tool onto the mainshaft as shown, and engage the parking brake pawl with the parking gear.

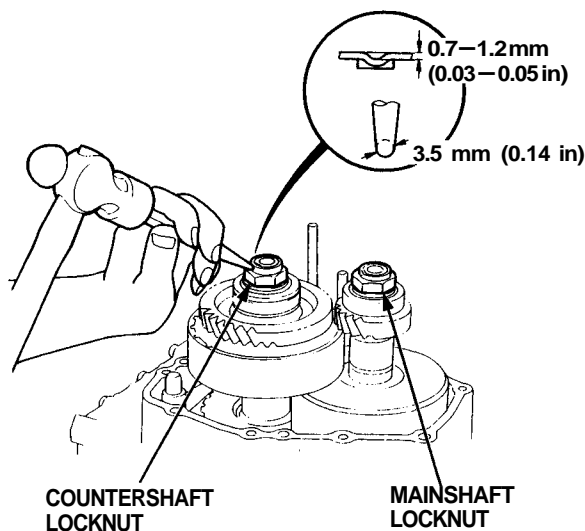


30. Install and torque the new locknuts.

**TORQUE: 130 N·m (13.0 kg-m, 94 lb-ft)**

NOTE: Countershaft locknut has left-hand threads.

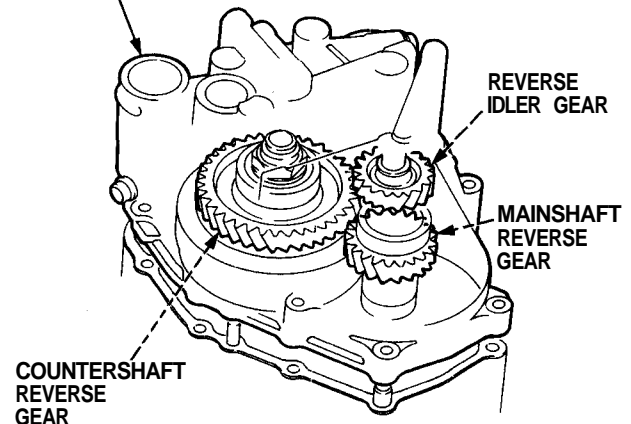
31. Stake each locknut into its shaft, using a 3.5 mm punch.



32. Install two dowel pins, four oil pipes with new O-rings, and a new rear cover gasket on the transmission housing.

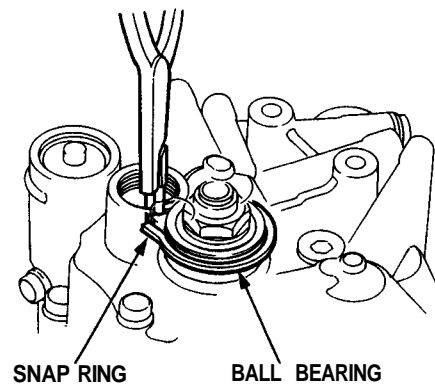
33. Install the rear cover and engage the reverse gears while rotating the mainshaft.

REAR COVER



34. Install the snap ring in the ball bearing.

NOTE: Make sure the snap ring fits in place around the bearing. If not, raise the countershaft to fit the snap ring in place.



35. Torque the bolts on the rear cover.

**TORQUE: 27 N·m (2.7 kg-m, 20 lb-ft)**

36. Apply liquid gasket (P/N: 08718 - 0001) to the sealing bolt threads and install it on the rear cover.

**TORQUE: 80 N·m (8.0 kg-m, 58 lb-ft)**



37. Route the shift control solenoid valve/linear solenoid harness through the transmission housing, and put the manual valve and detent lever together. Then install the lower valve body with two dowel pins and six bolts in the transmission housing.
38. Install the ATF strainer with three bolts.
39. Position the connector stopper in the groove of the shift control solenoid valve/linear solenoid connector and install the bolt.
40. Install a new oil pan gasket and two dowel pins on the oil pan, then attach it with the fourteen bolts.

41. Install the ATF cooler pipes, and torque the joint bolts.

**TORQUE: 40 N·m (4.0 kg-m, 29 lb-ft)**

42. Connect the transmission sub-harness connector to the shift control solenoid valve/linear solenoid harness 4P connector.

