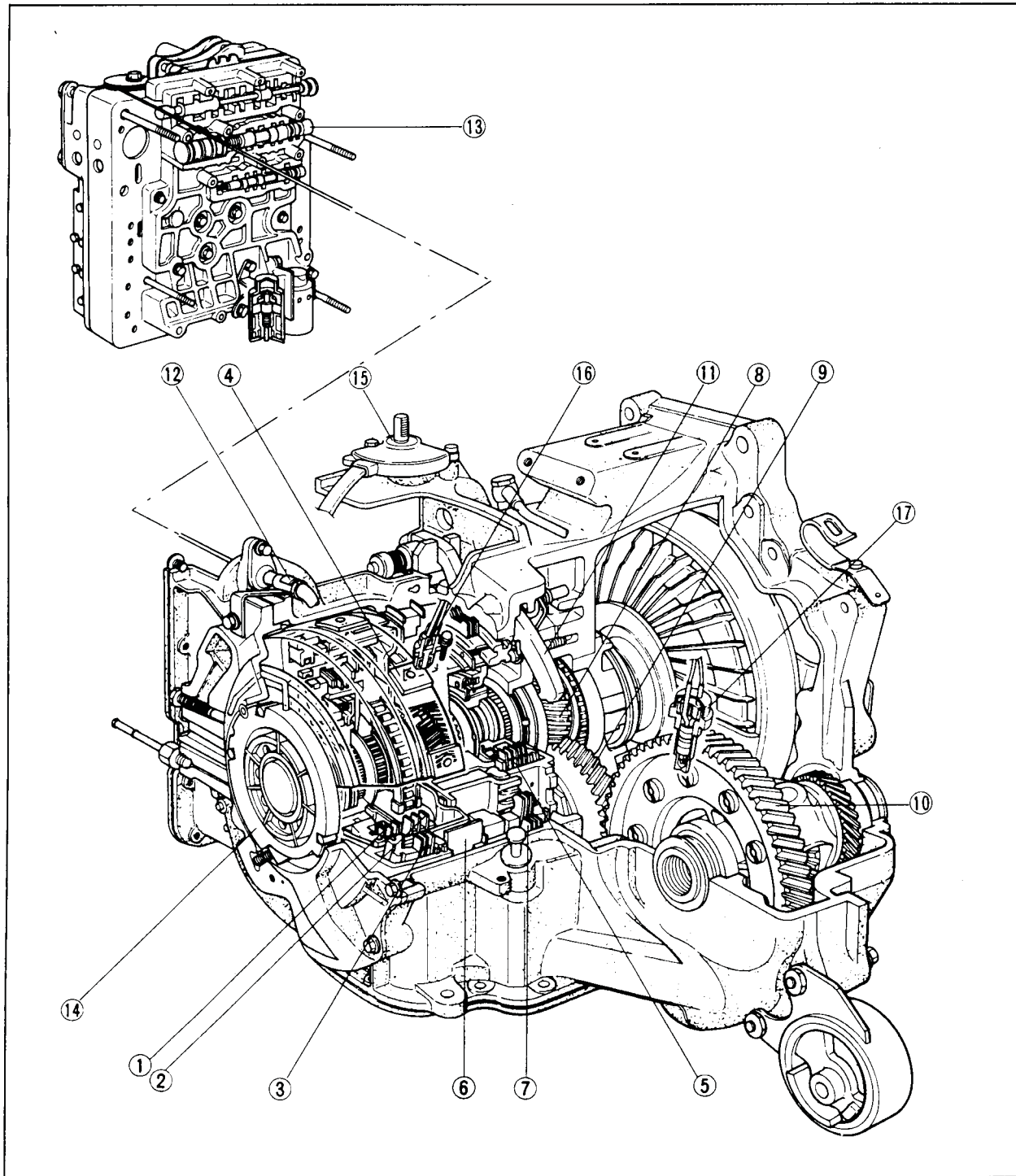


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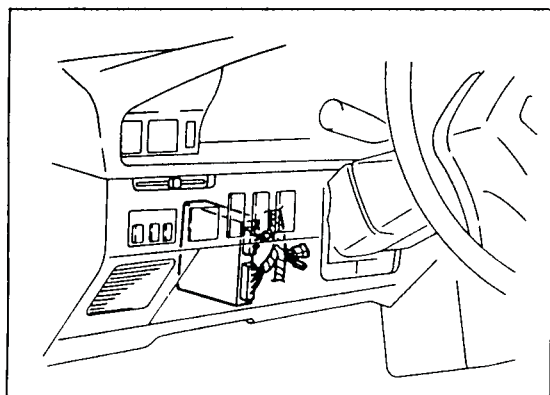
AUTOMATIC TRANSMISSION SERVICE GROUP

## STRUCTURAL VIEW



- |                             |                          |                              |
|-----------------------------|--------------------------|------------------------------|
| 1. Coasting clutch          | 7. Low and reverse brake | 13. Control body             |
| 2. Forward clutch           | 8. Output gear           | 14. Oil pump                 |
| 3. Reverse clutch           | 9. Idle gear             | 15. Inhibitor switch         |
| 4. Reverse and forward drum | 10. Differential         | 16. Pulse generator          |
| 5. 3-4 clutch               | 11. Parking pawl         | 17. Fluid temperature switch |
| 6. 2-4 brake band           | 12. Throttle cable       |                              |

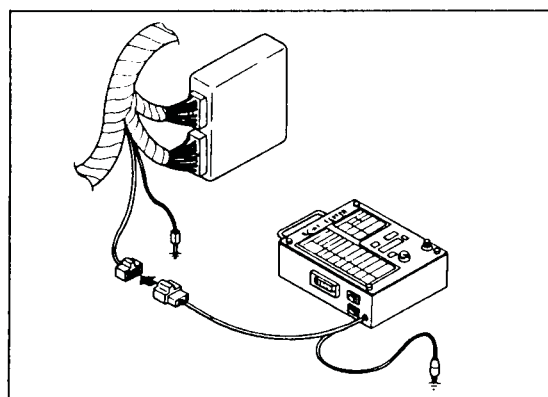
## Technical Service Information



### Retrieval Procedure

Locate the service connector.

**NOTE:** On some models grounding the 1 pin service connector will display the service codes. If this procedure is ineffective, it will be necessary to use a scanner or EC-AT Tester to retrieve stored codes.



Ground the ground connector of the **EC-AT Tester**.

Connect the 6-pin connector of the **EC-AT Tester** to the service connector.

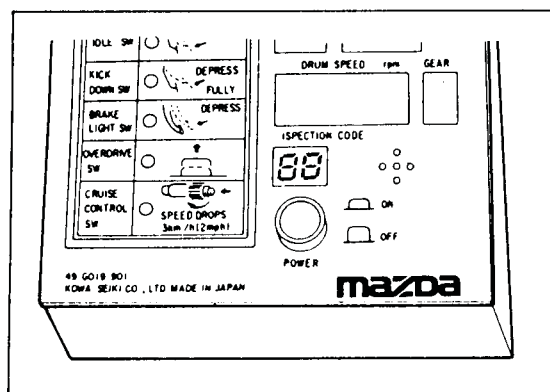
### Note

**The service connector is blue-colored connector.**

Ground the 1 pin service connector.

### Note

**The service connector is blue-colored connector.**



Turn the ignition switch ON.

Check that "88" flashes on the digital display and the buzzer sounds for three seconds after turning the ignition switch ON.

If "88" does not flash, check the service connector wiring.

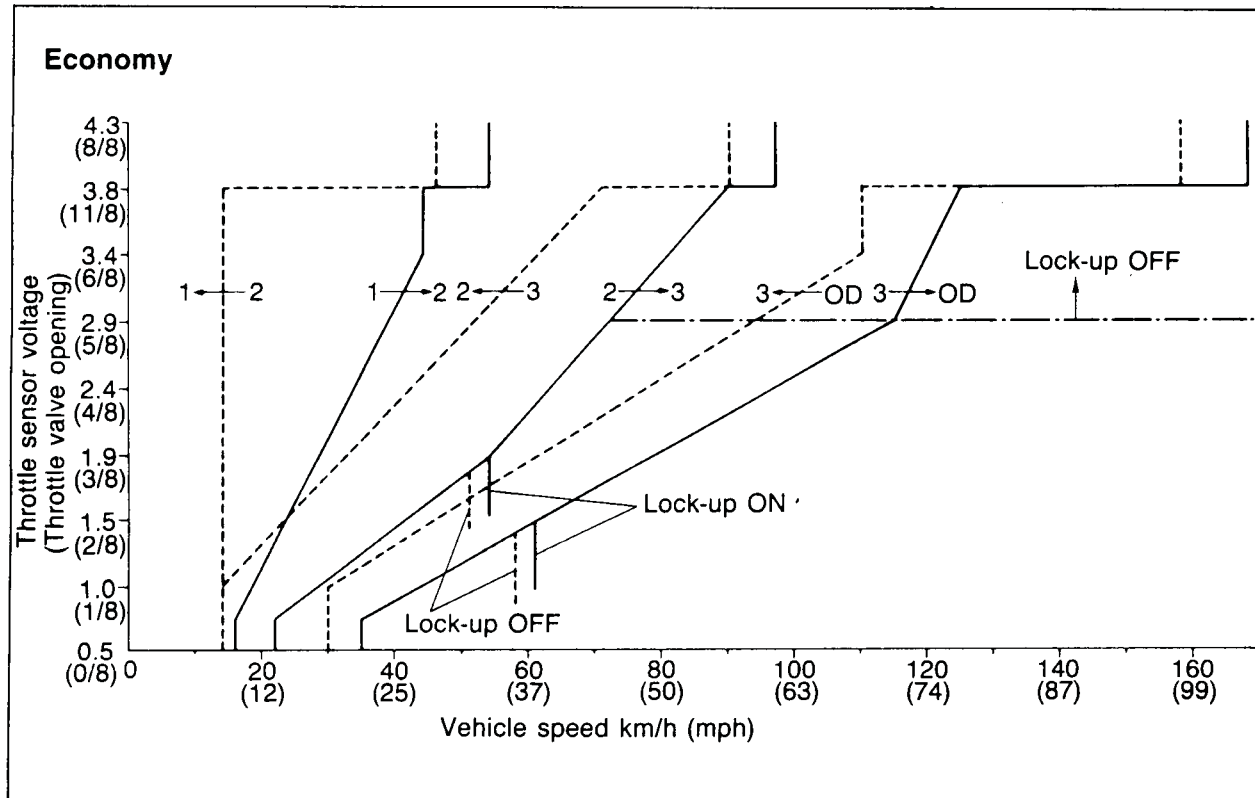
If "88" flashes and the buzzer sounds continuously for more than **20 seconds**, check wiring to 2M terminal of the EC-AT control unit for short-circuit then replace the EC-AT control unit and repeat steps 3 and 4.

Note the code numbers and check for the causes by referring to the Inspection Procedure shown repair as necessary.

### Note

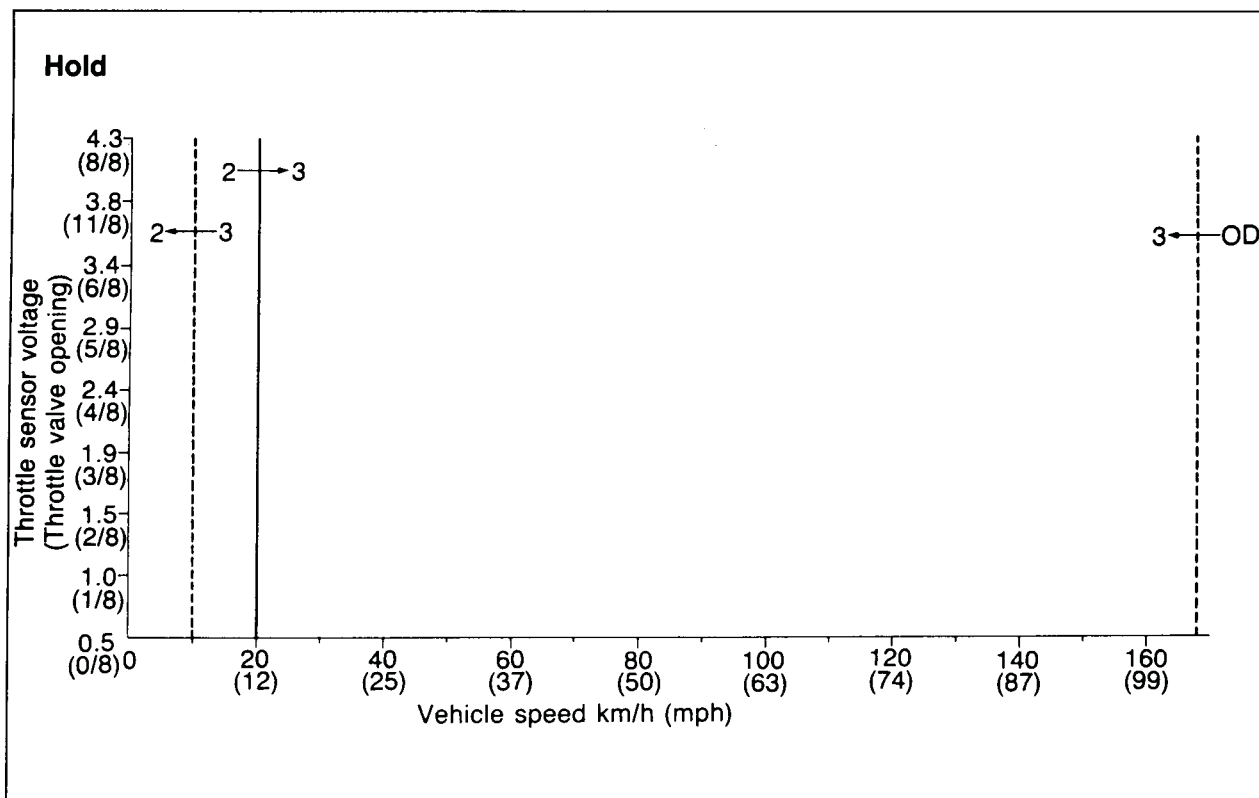
**After repairs are made, recheck for code numbers by performing the "After-repair procedure."**

# Technical Service Information

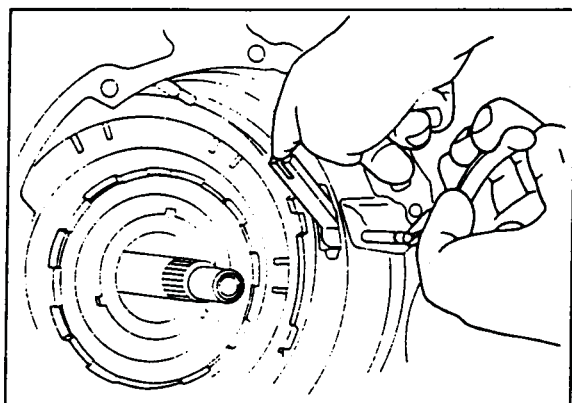


6. Select D range (Hold mode).

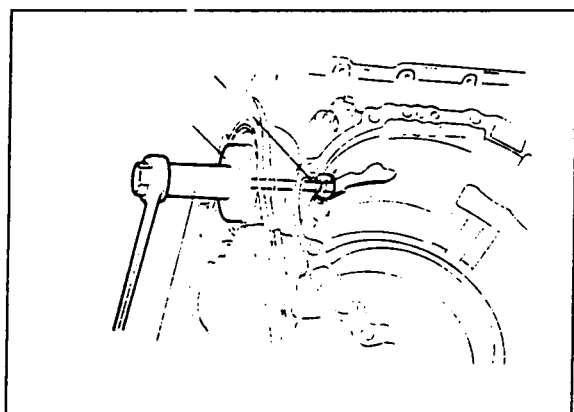
7. Accelerate the vehicle and check 2-3 up- and down-shifts, no 1st, and no OD is obtained and that the 2-3 shift points are as shown in the D range (Hold) shift diagram.



## Technical Service Information

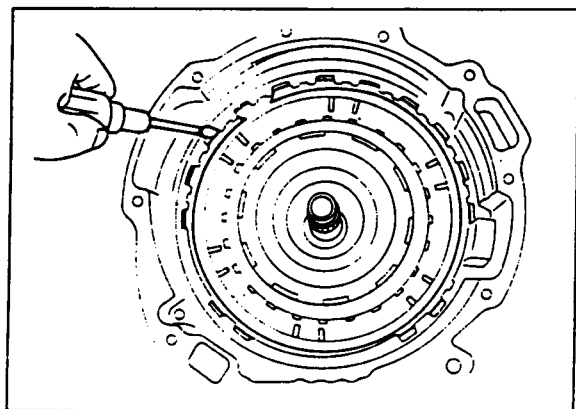


Pull the anchor shaft while holding the strut, then remove the strut.



Remove the servo.

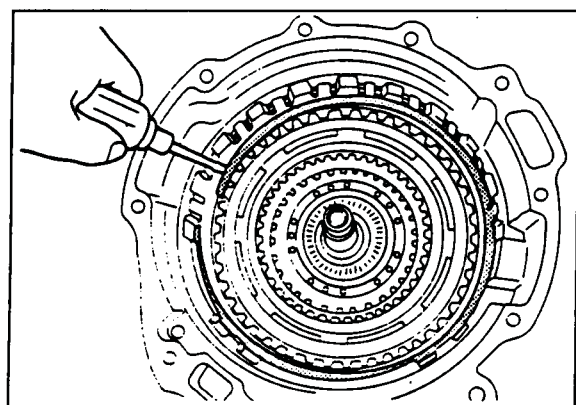
- (1) Remove the snap ring with the
- (2) Remove the servo and spring.



Remove the one-way clutch and carrier hub assembly.

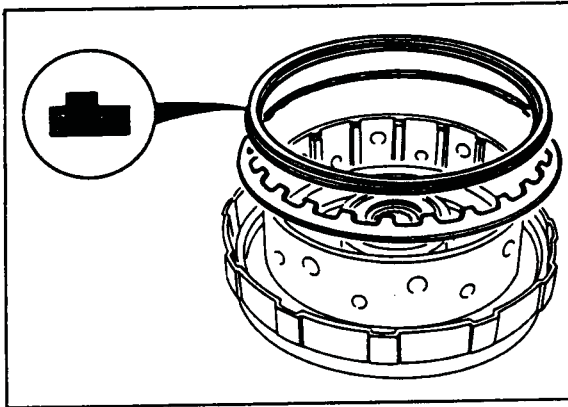
Remove the snap ring.

Remove the internal gear from the 3-4 clutch drum.

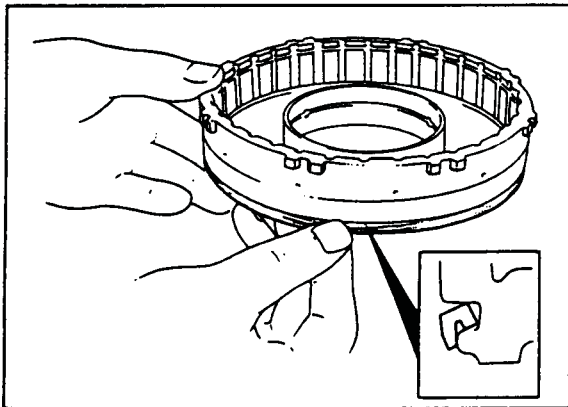


Remove the low and reverse brake assembly.  
Remove the snap ring.

## Technical Service Information



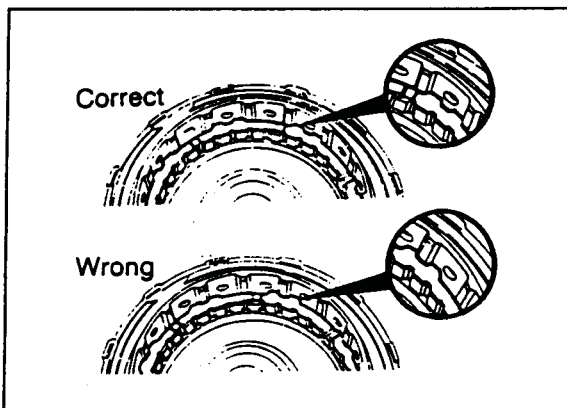
Install the piston return spring with the tabs facing away from the reverse piston.  
Install the return spring stopper with the step facing upwards.



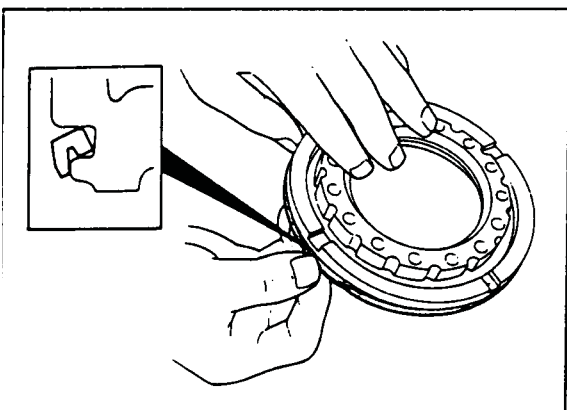
### Coasting clutch

Install the coasting clutch drum.

- (1) Apply ATF to inner and outer faces of the seal, and install it onto the coasting clutch drum.
- (2) Face the outer seal lip toward the inside by gently rolling it down around the circumference for easier installation into the drum.



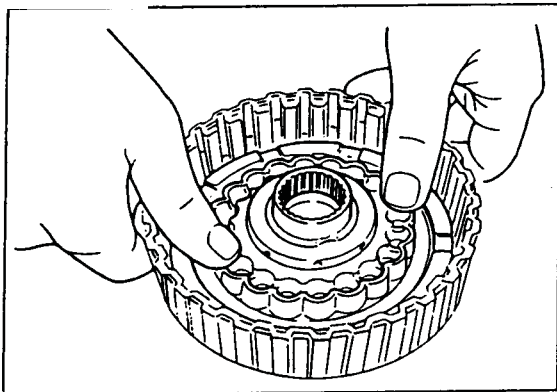
- (3) Install the coasting clutch drum the correct position in the reverse and forward drum.
- (4) Push evenly around the circumference, being careful not to damage the outer seal.



Install the coasting piston

- (1) Apply ATF to inner and outer faces of the seals and install them onto the coasting piston.
- (2) Face the outer seal lip toward the inside by gently rolling it down around the circumference for easier installation into the drum.

## Technical Service Information

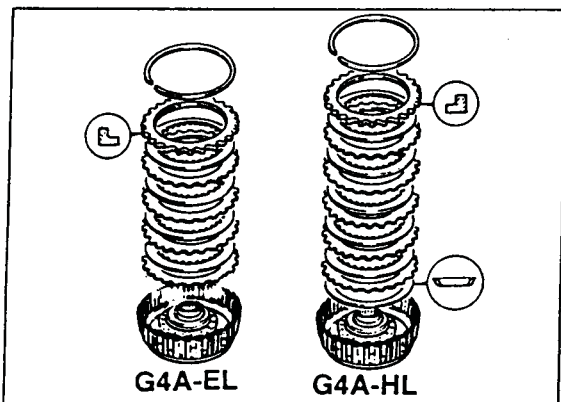


### Assembly

Install the 3-4 clutch piston.

- (1) Apply ATF to the inner and outer seals, and install them onto the 3-4 clutch piston.
- (2) Install the piston by pushing evenly around the circumference, being careful not to damage the seal rings.

Install the spring and retainer assembly.



Install the dished plate the dished side up ward (G4A-HL).

Install the drive and driven plates.

### Note

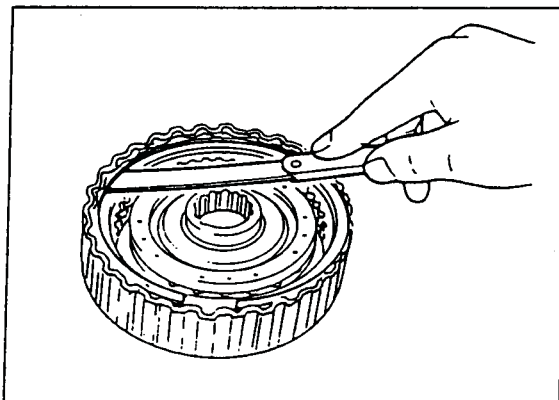
Installation order:

**G4A-EL**

**Drive-Drive-Driven-Drive-Driven-Drive-Driven-Drive-Driven-Drive**

**G4A-HL**

**Driven-Drive-Driven-Drive-Driven-Drive-Driven-Drive**



Install the retaining plate with the step facing upward.

Install the snap ring.

Check the 3-4 clutch clearance.

- (1) Measure the clearance between the snap ring and the retaining plate of the 3-4 clutch.
- (2) If the clearance is not within specification, adjust it by selecting a proper retaining plate.

**3-4 clutch clearance:**

**1.3—1.5 mm (0.051—0.059 in)**

**G4A-EL**

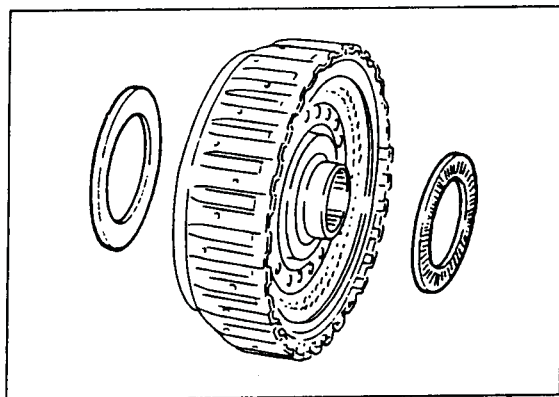
3.8 (0.150)	4.0 (0.157)	4.2 (0.165)
4.4 (0.173)	4.6 (0.181)	4.8 (0.189)

Apply petroleum jelly to the thrust bearings and secure them to both sides of the 3-4 clutch drum.

**Thrust bearing outer diameter**

**Carrier hub side: 56.1 mm (2.21 in)**

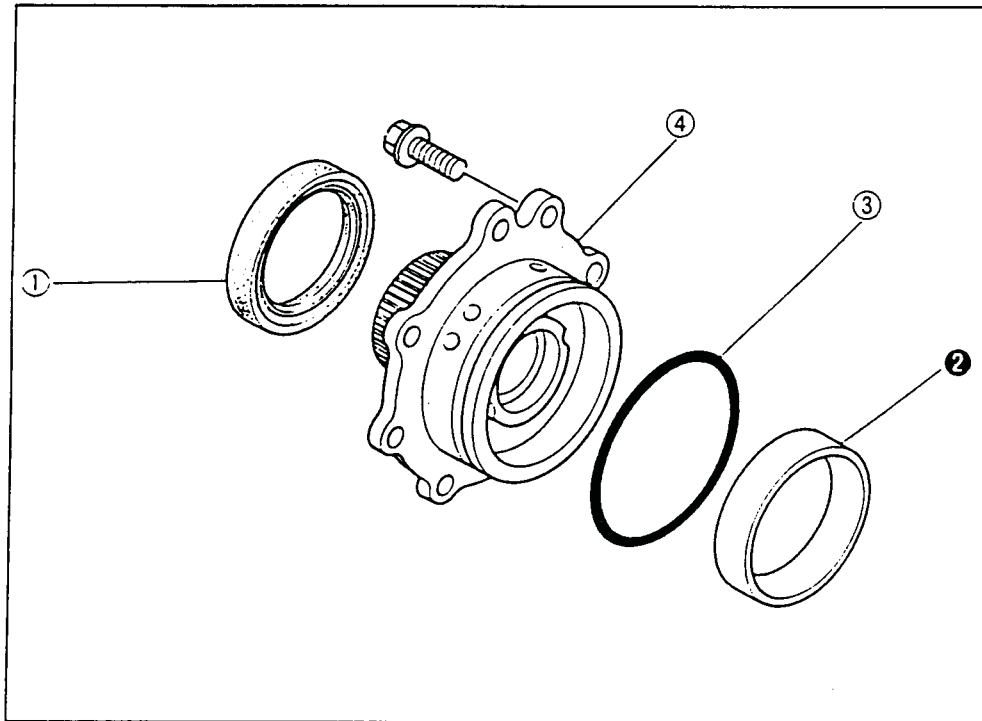
**Output shell side: 72.1 mm (2.84 in)**



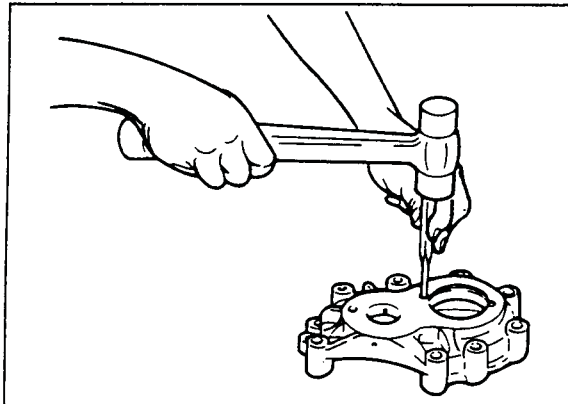
## BEARING COVER ASSEMBLY

### Disassembly

Disassemble in the sequence shown in the figure referring to the disassembly note for the specially marked parts.



1. Oil seal
2. Bearing outer race
3. O-ring
4. Bearing cover



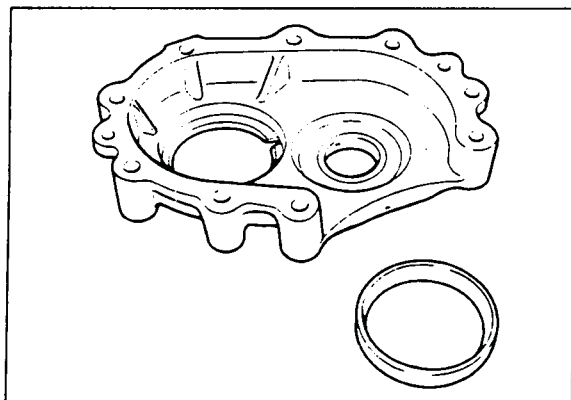
## BEARING HOUSING

### Disassembly

Remove the bearing outer race with a pin punch and hammer.

### Note

Install the bearing outer race during reassembly of transaxle to adjust the preload.



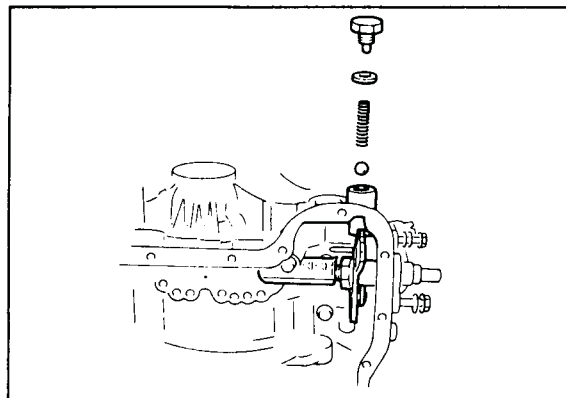
### Inspection

Check the following and replace any faulty parts.

1. Damaged bearing housing
2. Damaged bearing outer race

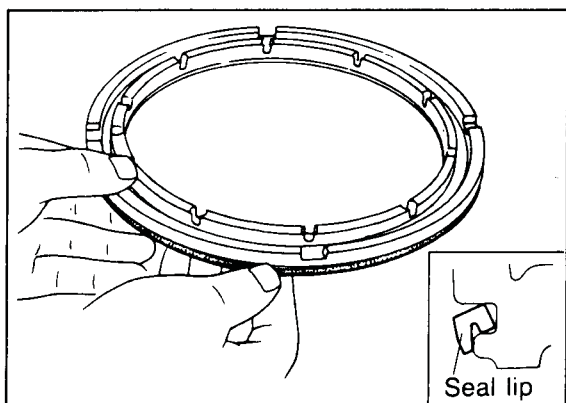


## Technical Service Information



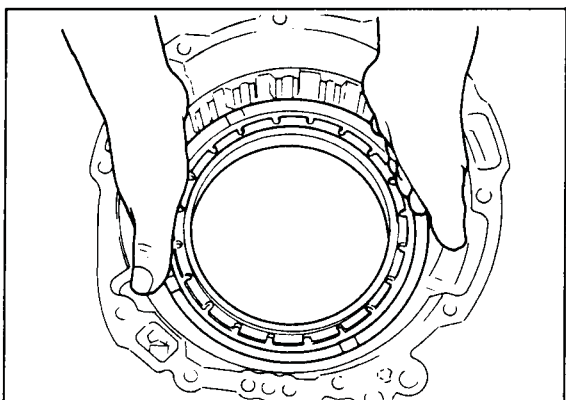
- (4) Install the detent ball, spring, washer and plug; then tighten the plug.

**Tightening torque:**  
 12—18 N·m (1.2—1.8 m·kg, 8.7—13 ft·lb)

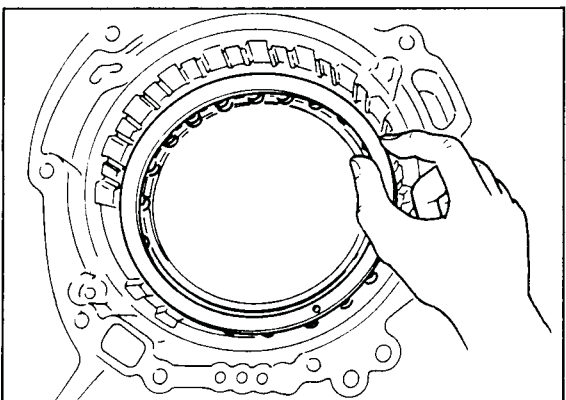


Install the low and reverse brake piston.

- (1) Apply ATF to the inner and outer seals, and install them to the low and reverse brake piston.
- (2) Face the outer seal lip toward the inside by gently rolling it down around the circumference for easier installation into the case.

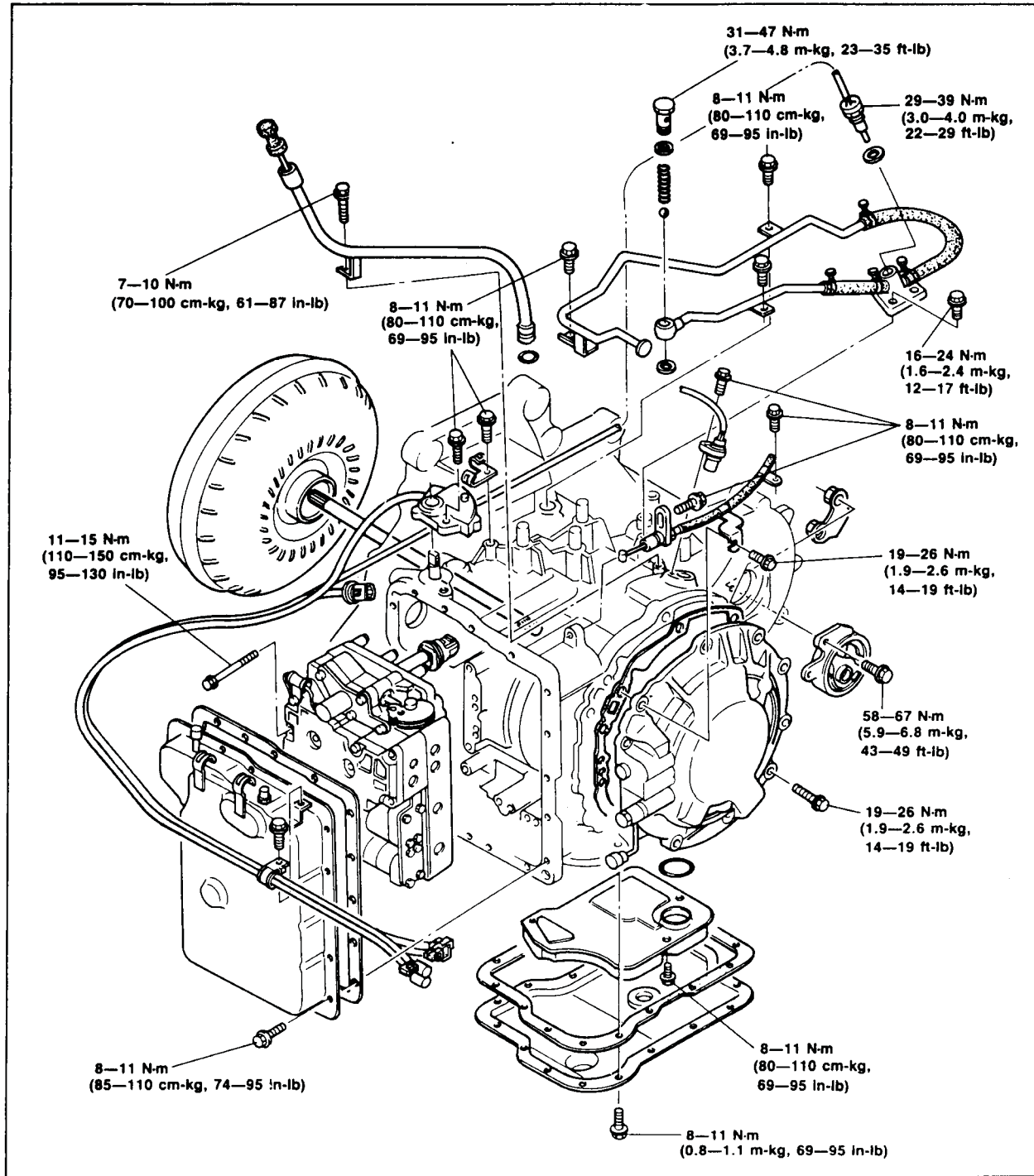


- (3) Install the low and reverse brake piston by pushing evenly around the circumference, being careful not to damage the outer seal.

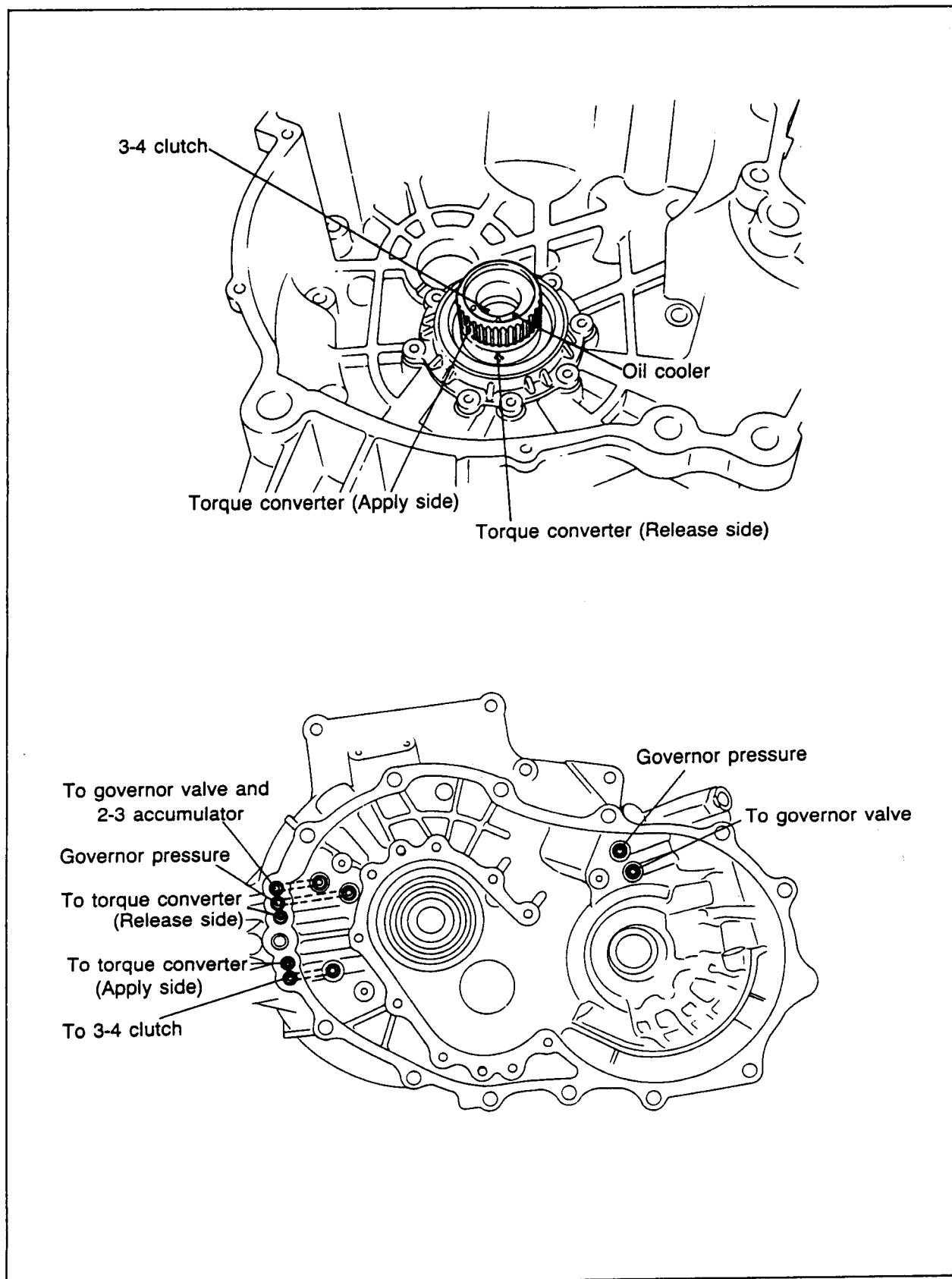


- (4) Install the spring and retainer assembly.

## ASSEMBLY Torque Specifications



## Technical Service Information

**FLUID PASSAGE LOCATION  
Converter Housing**

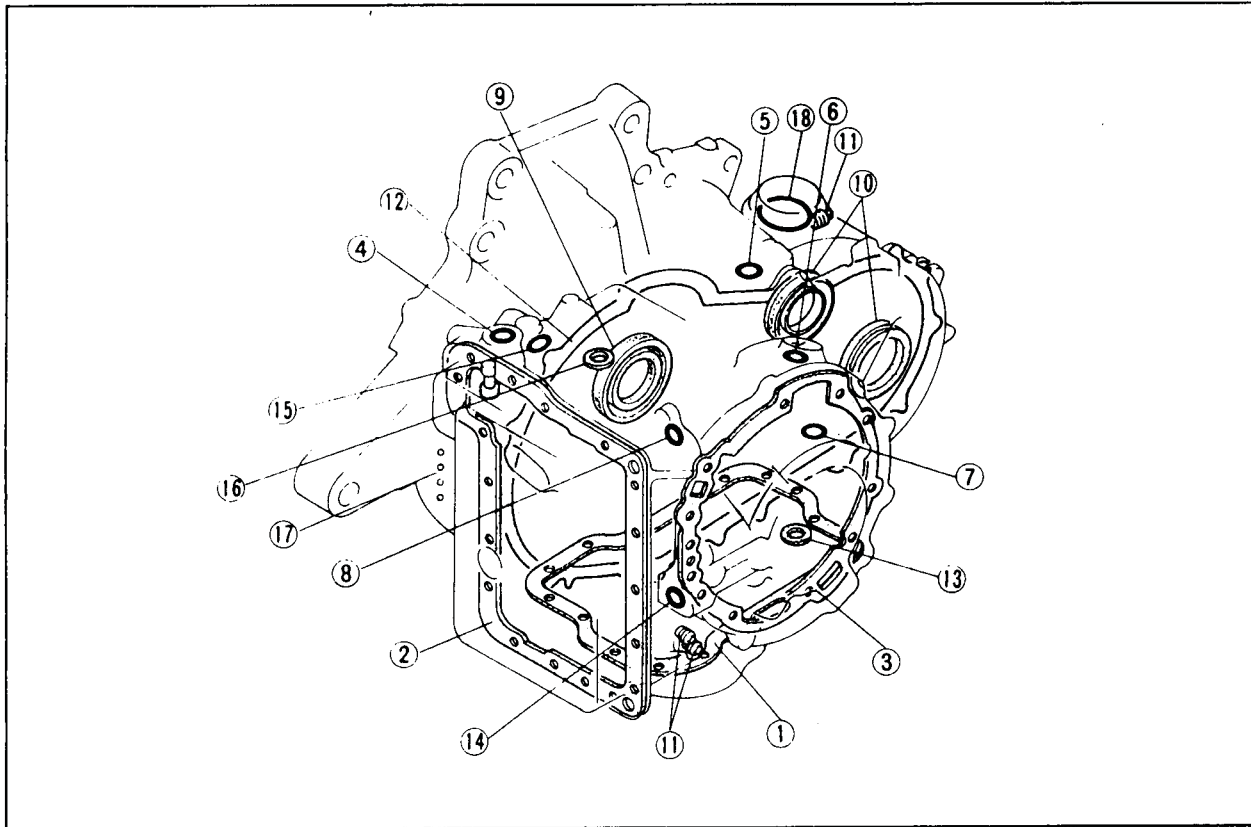
## Technical Service Information

### ON-VEHICLE MAINTENANCE

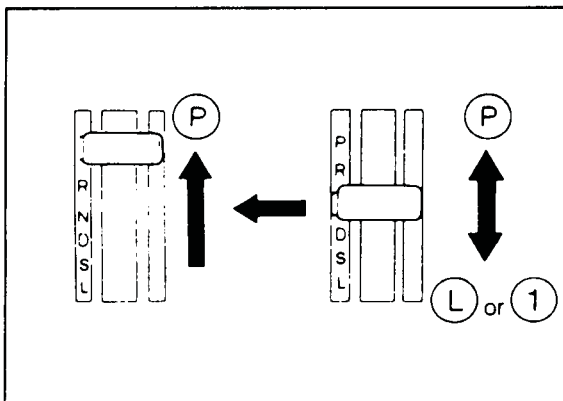
#### AUTOMATIC TRANSAXLE FLUID (ATF)

##### Inspection for Fluid Leaks

Check for fluid leaks; the following figure shows the locations where fluid leakage may possibly occur.



- |                             |                                       |
|-----------------------------|---------------------------------------|
| 1. Oil pan                  | 10. Driveshaft                        |
| 2. Control valve body cover | 11. Square head plug                  |
| 3. Oil pump                 | 12. Transaxle case                    |
| 4. Inhibitor switch         | 13. Drain plug                        |
| 5. Speedometer driven gear  | 14. Oil cooler return pipe            |
| 6. Pulse generator (G4A-EL) | 15. Oil cooler outlet pipe            |
| 7. Oil filler tube          | 16. Fluid temperature switch (G4A-EL) |
| 8. Throttle cable           | 17. Blind plugs                       |
| 9. Bearing cover            | 18. Governor cover (G4A-HL)           |



##### Inspection of Level

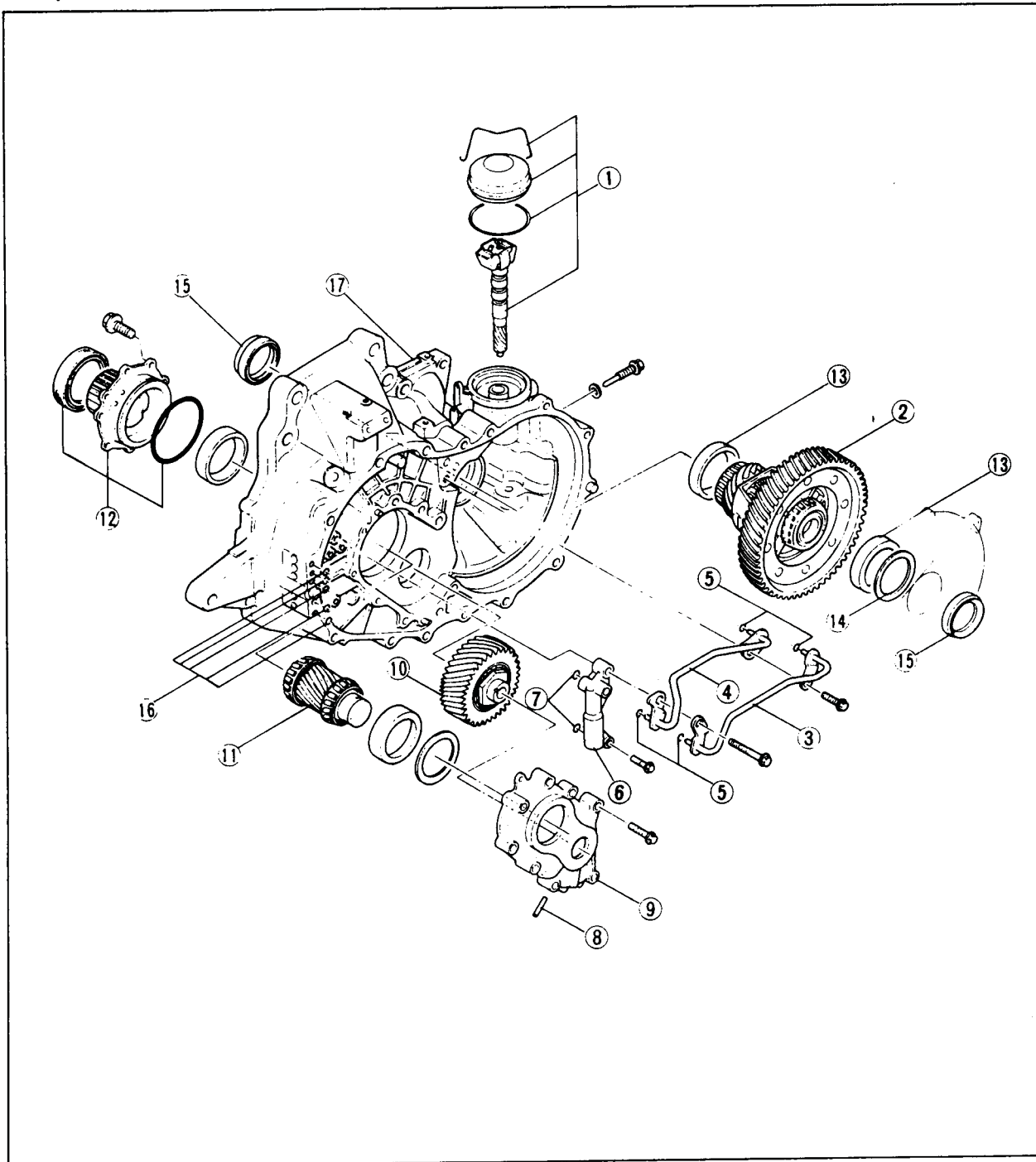
1. Apply the parking brake and position wheel chocks to prevent the car from rolling forward.

##### Note

**Place the car on a flat, level surface.**

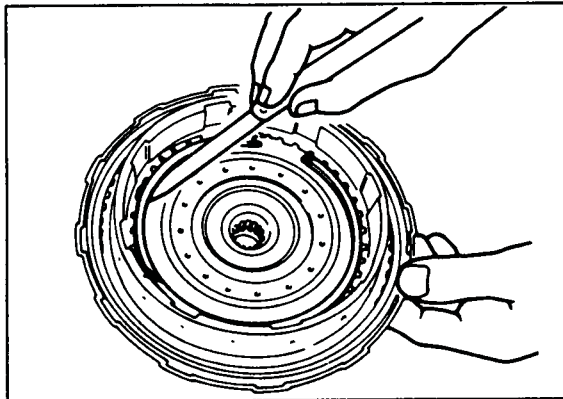
2. Run the engine so that the automatic transaxle fluid reaches specified temperature.
3. While the engine is idling, shift the select lever from P to L or P to 1 and back again.
4. Let the engine idle.
5. Shift the select lever to P.

**DISASSEMBLY-  
Component**



- |                                    |                            |
|------------------------------------|----------------------------|
| 1. Governor assembly (G4A-HL)      | 9. Bearing housing         |
| 2. Differential assembly           | 10. Idle gear assembly     |
| 3. Governor outlet pipe (G4A-HL)   | 11. Output gear assembly   |
| 4. Governor inlet pipe (G4A-HL)    | 12. Bearing cover assembly |
| 5. O-rings (G4A-HL)                | 13. Bearing outer races    |
| 6. 2-3 accumulator piston assembly | 14. Adjust shim            |
| 7. O-rings                         | 15. Oil seals              |
| 8. Roll pin                        | 16. O-rings                |
|                                    | 17. Converter housing      |

## Technical Service Information



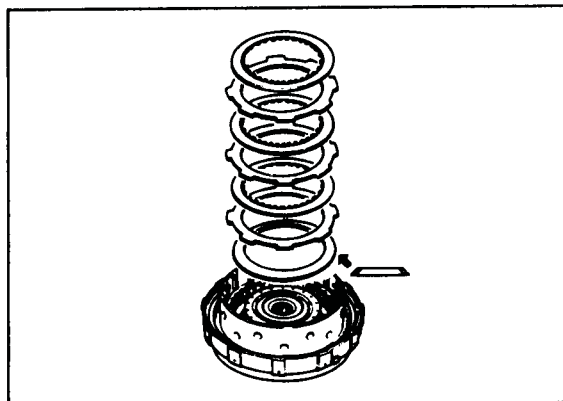
Check the coasting clutch clearance.

Measure the clearance between the snap ring and the retaining plate of the coasting clutch. If the clearance is not within specification, adjust it by selecting a proper retaining plate.

**Coasting clutch clearance:**  
1.0—1.2 mm (0.040—0.047 in)

**Retaining plate sizes** mm (in)

4.6 (0.181)	4.8 (0.189)	5.0 (0.197)
5.2 (0.205)	5.4 (0.213)	5.6 (0.220)

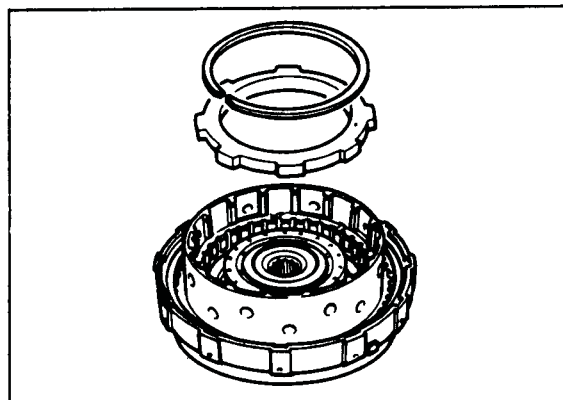


### Forward clutch

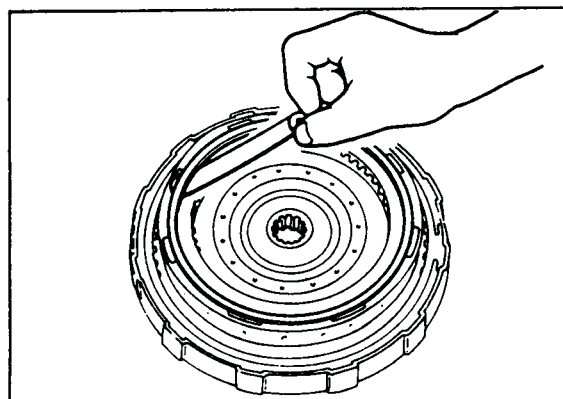
Install the dished plate with the dished side downward.  
Install the drive and driven plates.

### Note

**Installation order:**  
Driven-Drive-Driven-Drive-Driven-Drive



Install the retaining plate.  
Install the snap ring.



Check the forward clutch clearance.

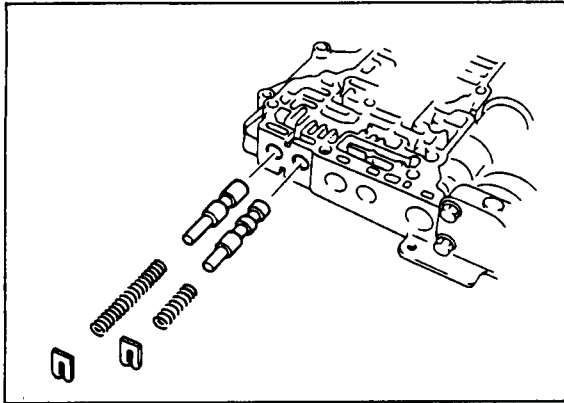
Measure the clearance between the snap ring and the retaining plate of the forward clutch. If the clearance is not within specification, adjust it by selecting a proper retaining plate.

**Forward clutch clearance:**  
1.0—1.2 mm (0.040—0.047 in)

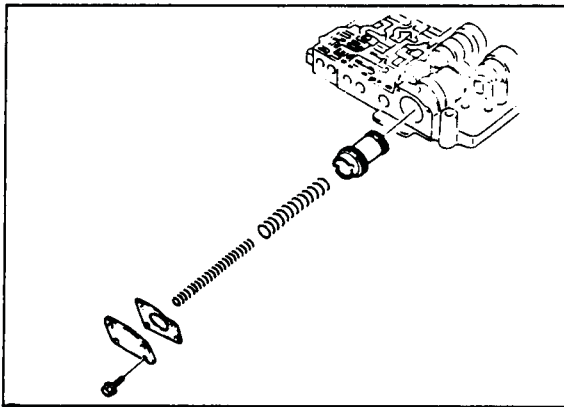
**Retaining plate sizes** mm (in)

5.9 (0.232)	6.1 (0.240)	6.3 (0.248)
6.5 (0.256)	6.7 (0.264)	8.9 (0.350)

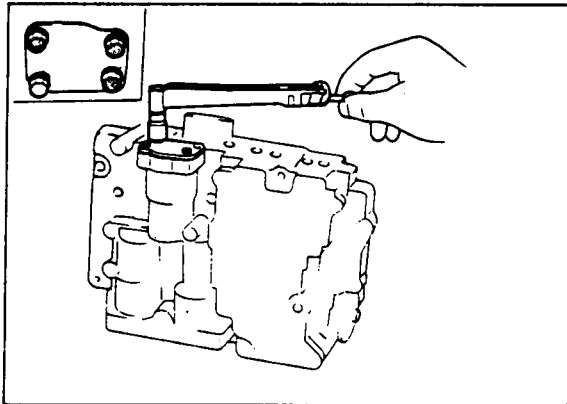
## Technical Service Information



Install the 2-3 timing valve, 2-3 timing spring, and retainer.  
Install the low reducing valve, low reducing spring, and retainer.



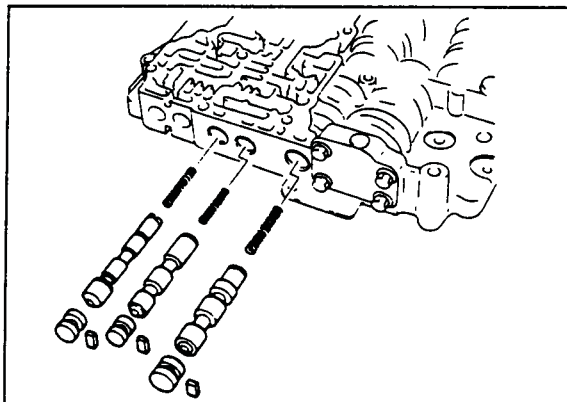
Apply ATF to the O-rings, and install them onto the piston; then install the 1-2 accumulator piston and 1-2 accumulator springs.



Install the 1-2 accumulator gasket and plate; then tighten the plate.

**Tightening torque:**

**6—8 N·m (66—80 cm·kg, 57—69 in·lb)**



Install the OD release spring, OD release valve, stopper plug, and stopper pin.  
Install the bypass spring, bypass valve, stopper plug, and stopper pin.  
Install the servo control spring, servo control valve, stopper plug, and stopper pin.