

ON-VEHICLE REPAIR

Valve Body

REMOVAL OF VALVE BODY

1. CLEAN TRANSMISSION EXTERIOR

To prevent contamination, clean the exterior of the transmission.

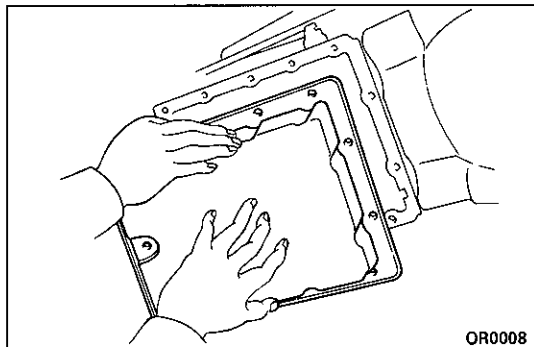
2. DRAIN TRANSMISSION FLUID

Remove the drain plug and drain the fluid into a suitable container.

3. REMOVE OIL PAN, FILLER TUBE AND GASKET

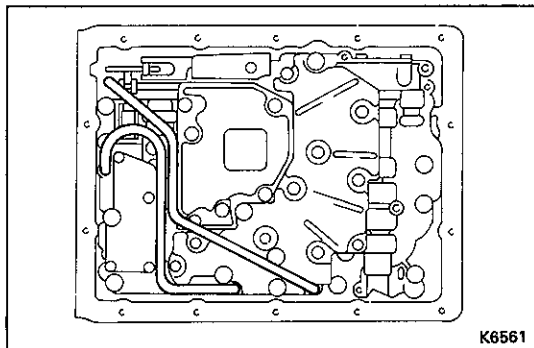
NOTICE: Some fluid will remain in the oil pan. Be careful not to damage the filler tube and O-ring.

Remove all pan bolts, and carefully remove the pan assembly. Discard the gasket.



4. REMOVE OIL TUBES

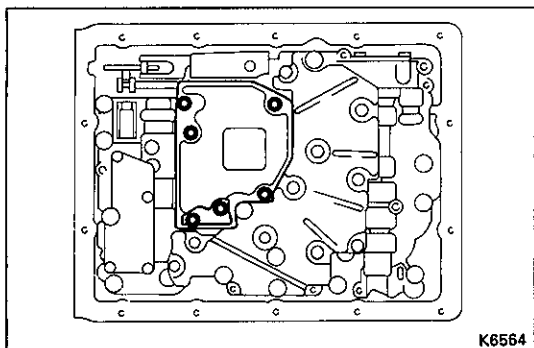
Pry up both tube ends with a large screwdriver and remove the tubes.



5. REMOVE OIL STRAINER

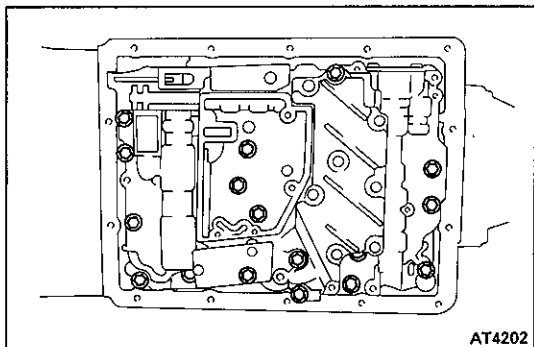
Remove the six bolts, and the oil strainer.

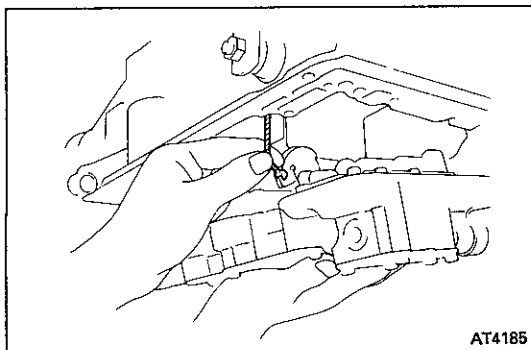
NOTICE: Be careful as some oil will come out with the filter.



6. REMOVE VALVE BODY

(a) Remove the seventeen bolts.



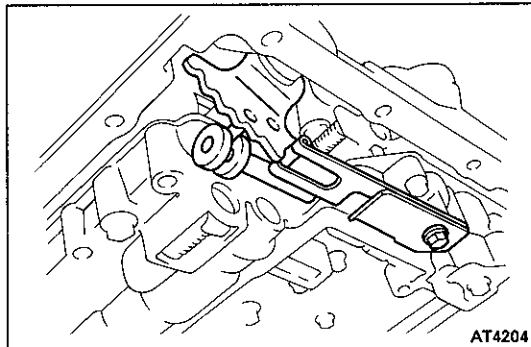


- (b) Disconnect the throttle cable from the cam and remove the valve body.

INSTALLATION OF VALVE BODY

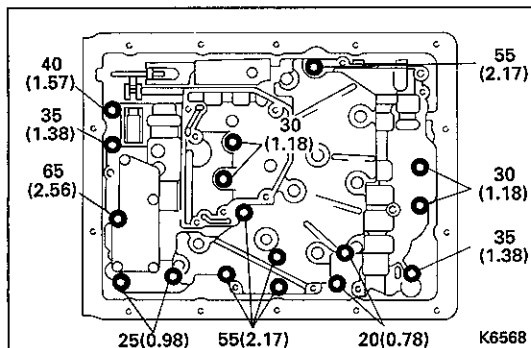
1. CONNECT THROTTLE CABLE TO CAM

Push the cable fitting into the cam.



2. INSTALL VALVE BODY

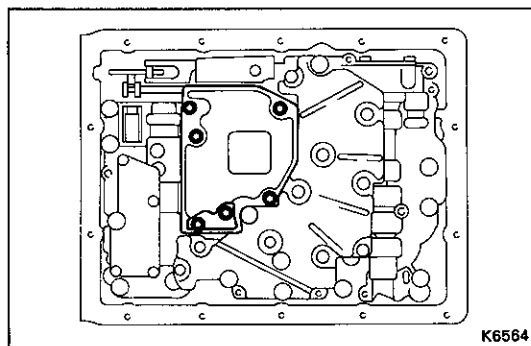
- (a) Align the manual valve lever with the manual valve.



- (b) Finger tighten the all bolts first. Then tighten the bolts evenly.

HINT: Each bolt length (mm) is indicated in the figure.

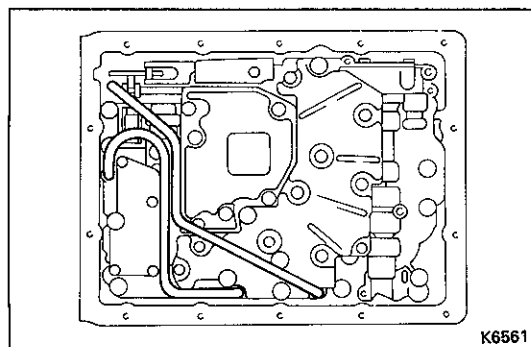
Torque: 100 kg-cm (7 ft-lb, 10 N·m)



3. INSTALL OIL STRAINER

Be sure the screen is clean. Torque the bolts.

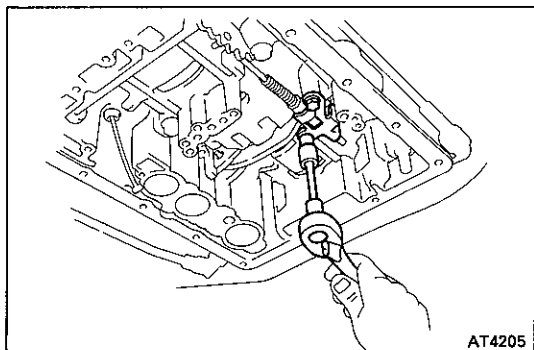
Torque: 55 kg-cm (48 in.-lb, 5.4 N·m)



4. INSTALL OIL TUBES

Tap the tubes with a plastic hammer to install them into the positions indicated in the figure.

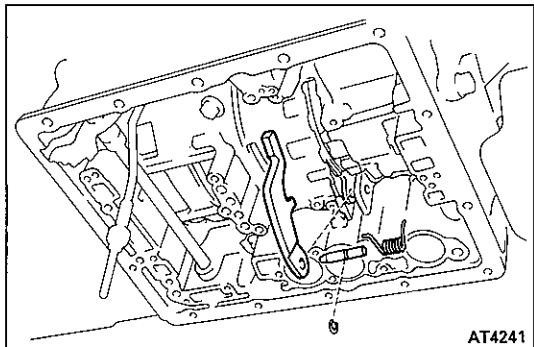
NOTICE: Be careful not to bend or damage the tubes.



Parking Lock Pawl

REMOVAL OF PARKING LOCK PAWL

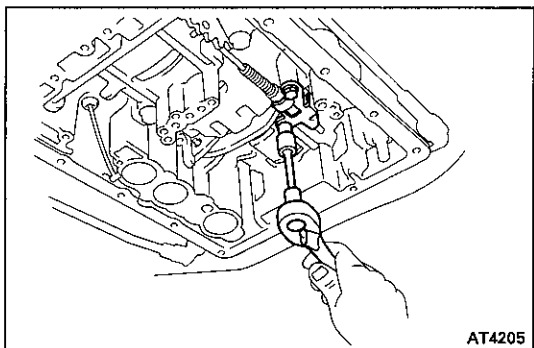
1. REMOVE VALVE BODY (See page AT-28)
2. REMOVE PARKING LOCK PAWL BRACKET
Remove the two bolts and the bracket.



3. REMOVE SPRING FROM PARKING LOCK PAWL PIVOT PIN
4. REMOVE PIVOT PIN AND PARKING LOCK PAWL

INSTALLATION OF PARKING LOCK PAWL

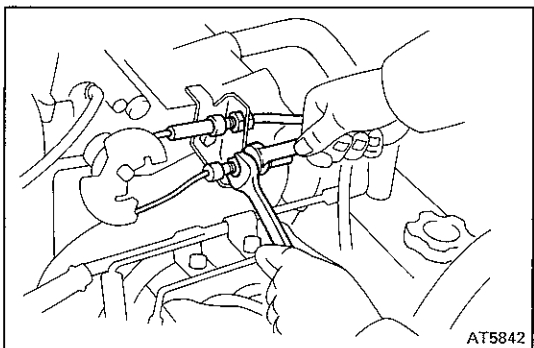
1. INSTALL PARKING LOCK PAWL AND PIVOT PIN
2. INSTALL SPRING



3. INSTALL PARKING LOCK PAWL BRACKET
 - (a) Push lock rod fully forward.
 - (b) Install the two bolts finger tight.
 - (c) Check that the pawl operates smoothly.
 - (d) Torque the bolts.

Torque: 75 kg-cm (65 in.-lb, 7.4 N·m)

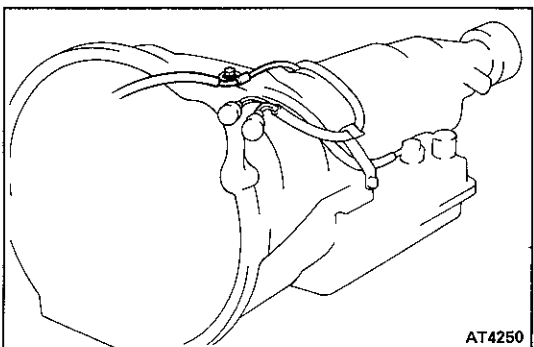
4. INSTALL VALVE BODY (See page AT-29)



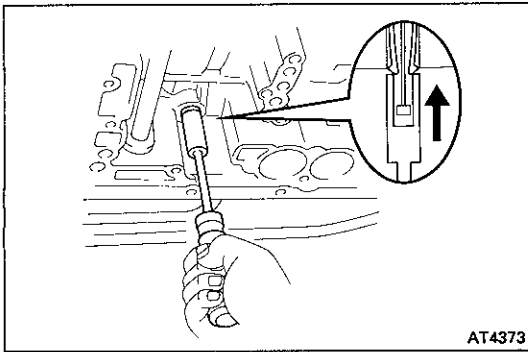
Throttle Cable

REMOVAL OF THROTTLE CABLE

1. DISCONNECT THROTTLE CABLE
 - (a) Disconnect the cable housing from the bracket.
 - (b) Disconnect the cable from the throttle linkage.



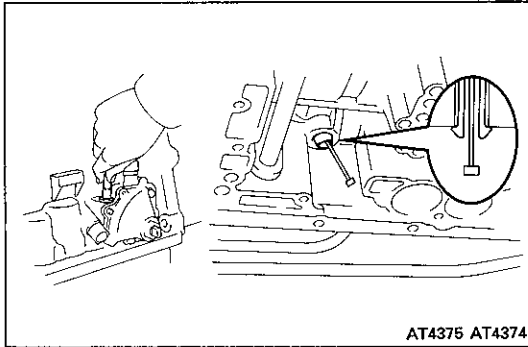
- (c) Disconnect the cable from the torque converter housing.



2. REMOVE VALVE BODY (See page AT-28)

3. PUSH THROTTLE CABLE OUT OF TRANSMISSION CASE

Using a 10 mm socket, push the throttle cable out.

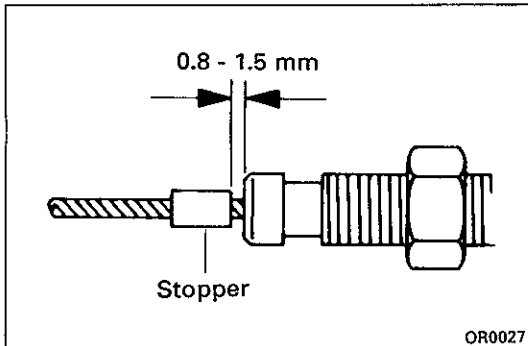


INSTALLATION OF THROTTLE CABLE

1. INSTALL CABLE IN TRANSMISSION CASE

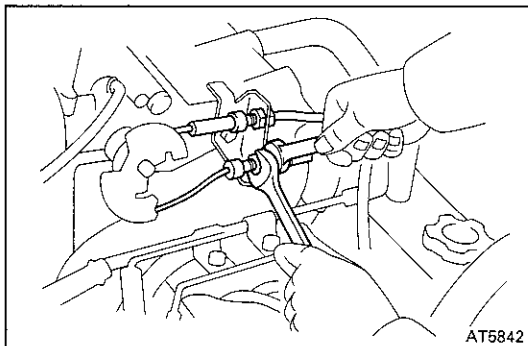
Be sure to push it in all the way.

2. INSTALL VALVE BODY (See page AT-29)



3. IF THROTTLE CABLE IS NEW, STAKE STOPPER ON INNER CABLE

- (a) Pull the inner cable lightly until a slight resistance is felt, and hold it.
- (b) Stake the stopper as shown, 0.8 – 1.5 mm (0.031 – 0.059 in.) in width.



4. CONNECT THROTTLE CABLE

- (a) Connect the cable to the throttle linkage.
- (b) Connect the cable housing to the bracket.
- (c) Connect the cable to the torque converter housing.

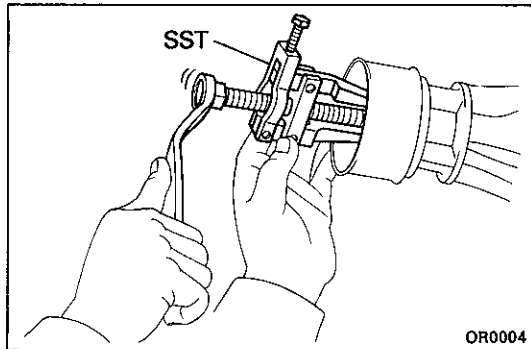
5. ADJUST THROTTLE CABLE (See page AT-11)

6. TEST DRIVE VEHICLE

Extension Housing

REPLACEMENT OF OIL SEAL

1. RAISE VEHICLE, AND POSITION PAN TO CATCH ANY FLUID THAT MAY DRIP
2. REMOVE PROPELLER SHAFT

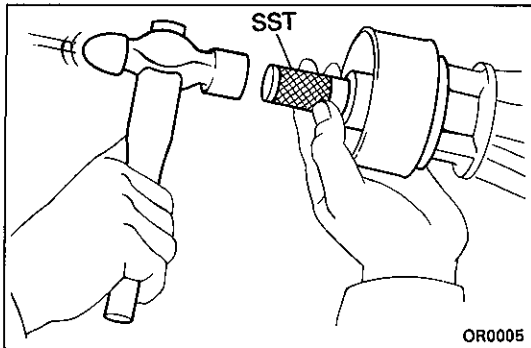


3. REMOVE REAR OIL SEAL

NOTICE: Clean the rear extension housing before removing the seal.

Using SST, remove the oil seal.

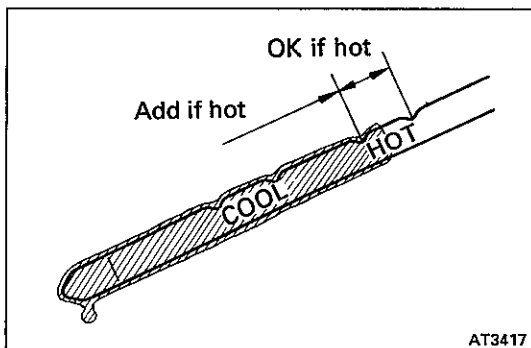
SST 09308-10010



4. INSTALL NEW OIL SEAL

Using SST, drive in a new oil seal as far as it will go.

SST 09325-20010



5. INSTALL PROPELLER SHAFT

6. LOWER VEHICLE AND CHECK FLUID LEVEL

Start the engine and shift the shift lever into each position, then check the fluid level with the transmission in P position.

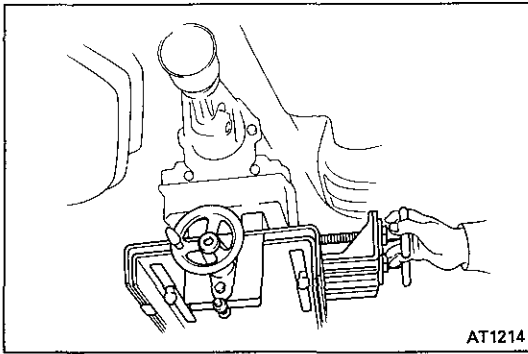
Add fluid as necessary.

NOTICE: Do not overfill.

Fluid type: ATF DEXRON® II

REMOVAL OF EXTENSION HOUSING

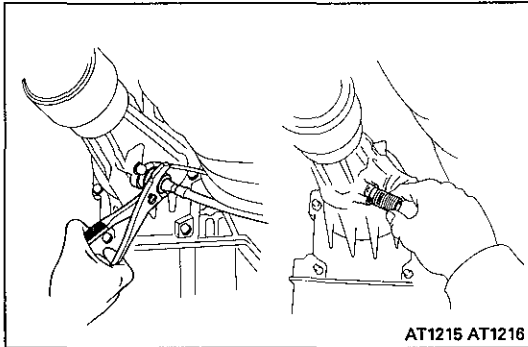
1. RAISE VEHICLE AND POSITION PAN TO CATCH ANY FLUID THAT MAY DRIP
2. REMOVE PROPELLER SHAFT



3. JACK UP TRANSMISSION SLIGHTLY

Securely support the transmission on a transmission jack.

Lift the transmission slightly to remove weight from the rear support member.

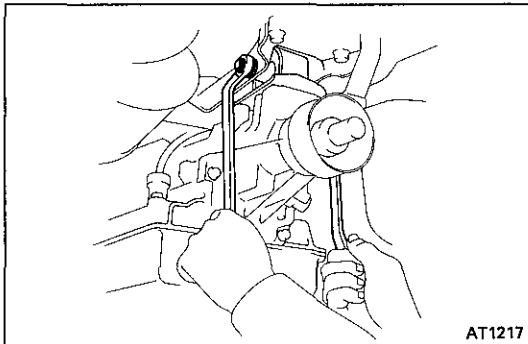


4. DISCONNECT SPEEDOMETER CABLE

Loosen the serrated collar with pliers. Do not lose the felt dust protector and washer.

5. REMOVE SPEEDOMETER DRIVEN GEAR

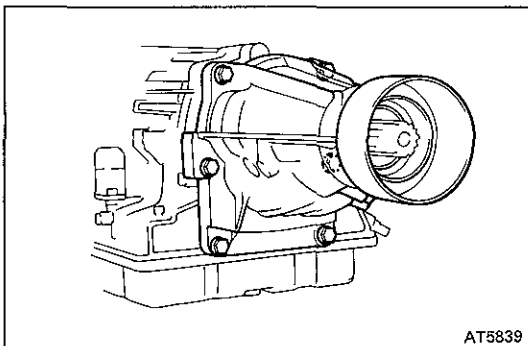
Remove one bolt and locking plate. Pry out the speedometer driven gear with a screwdriver.



6. REMOVE TRANSMISSION MOUNTING THROUGH BOLT

(a) Remove the two fuel tank mount bolts and support the fuel tank.

(b) Remove the transmission mounting through bolt.



7. REMOVE EXTENSION HOUSING AND GASKET

Remove the six bolts. If necessary, tap the extension housing with a plastic hammer or wood to loosen it.

INSTALLATION OF EXTENSION HOUSING

1. INSTALL NEW GASKET AND EXTENSION HOUSING ON TRANSMISSION

(a) Clean the threads of the (A) bolt and bolt hole.

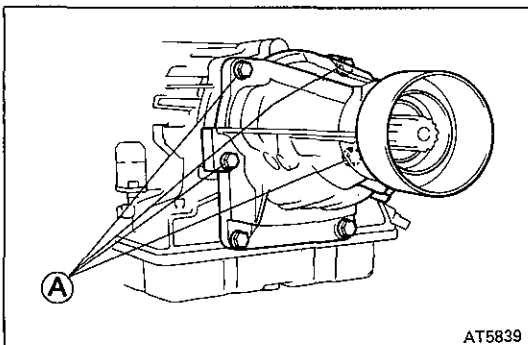
(b) Coat the threads of the (A) bolt with sealant.

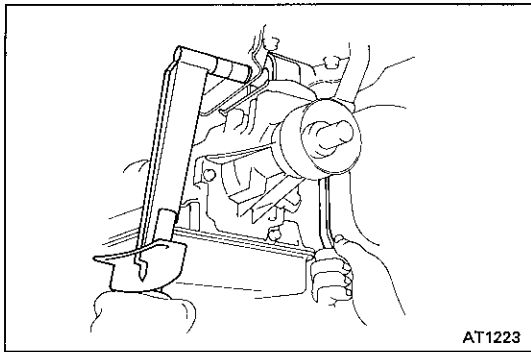
Sealant: Part No. 08833-00080, THREE BOND 1344, LOCTITE 242 or equivalent

(c) Install the extension housing over a new gasket with bolts, and then torque them.

HINT: The two lower bolts are shorter.

Torque: 345 kg-cm (25 ft-lb, 34 N-m)

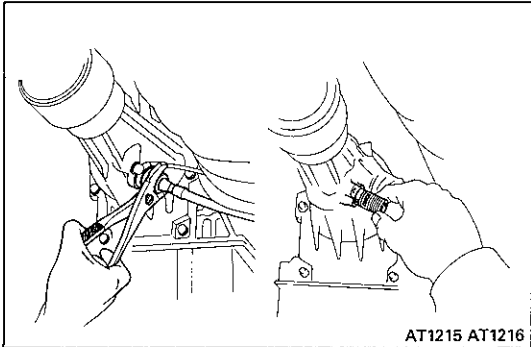




2. INSTALL TRANSMISSION MOUNTING THROUGH BOLT

- (a) Raise the transmission with the jack to allow installation of the transmission mounting through bolt.
- (b) Torque the through bolt.

Torque: 500 kg-cm (36 ft-lb, 49 N·m)



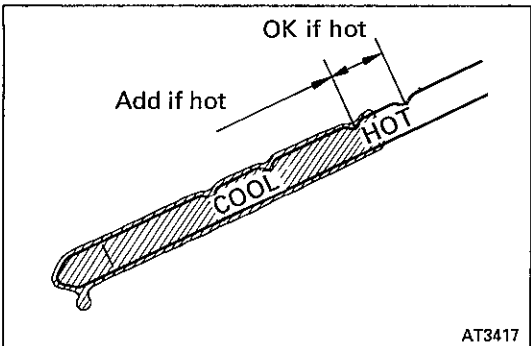
3. INSTALL PROPELLER SHAFT

4. INSTALL SPEEDOMETER DRIVEN GEAR

- (a) Install a new O-ring on the sleeve.
- (b) Install the lock plate with a bolt.

5. CONNECT SPEEDOMETER CABLE

Place the felt dust protector and washer on the end of the cable. Tighten the collar with pliers.



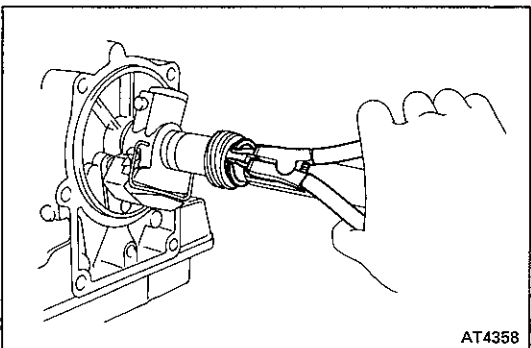
6. LOWER VEHICLE AND CHECK FLUID LEVEL

Start the engine and shift the shift lever into each position, then check the fluid level with the transmission in P position.

Add fluid as necessary.

NOTICE: Do not overfill.

Fluid type: ATF DEXRON®II



Governor Body

REMOVAL OF GOVERNOR BODY

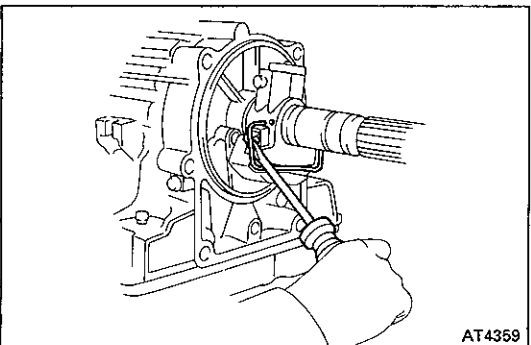
1. REMOVE EXTENSION HOUSING (See page AT-32)

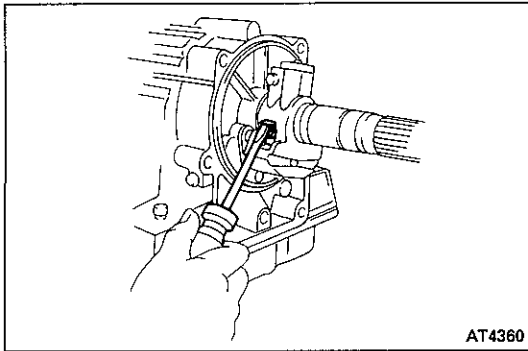
2. REMOVE SPEEDOMETER DRIVE GEAR

- (a) Using snap ring pliers, remove snap ring.
- (b) Slide off the speedometer gear.
- (c) Remove the lock ball and the other snap ring.

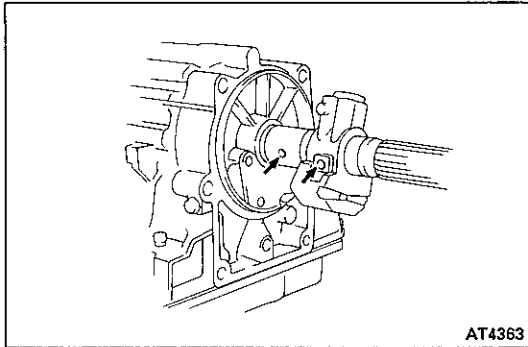
3. REMOVE GOVERNOR FROM OUTPUT SHAFT

- (a) Using a larger screwdriver, remove the retaining clip.





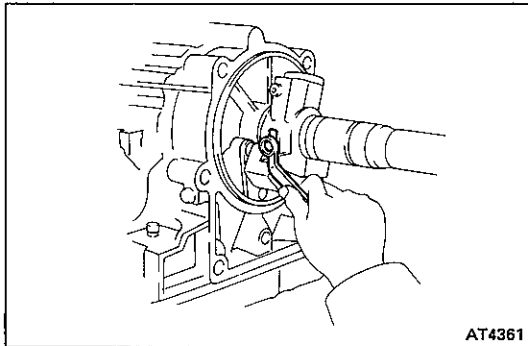
- (b) Unstake the lock plate, remove the bolt and lock plate.
- (c) Remove the governor body.



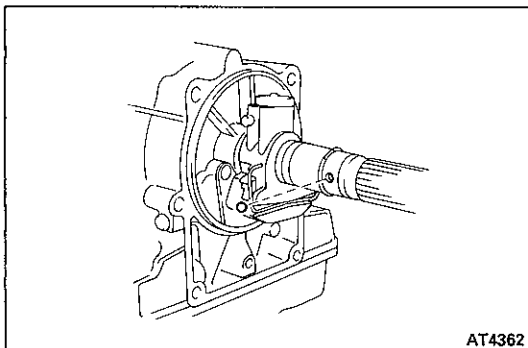
INSTALLATION OF GOVERNOR BODY

1. INSTALL GOVERNOR ON OUTPUT SHAFT

- (a) Align the governor body and bolt hole on the output shaft.

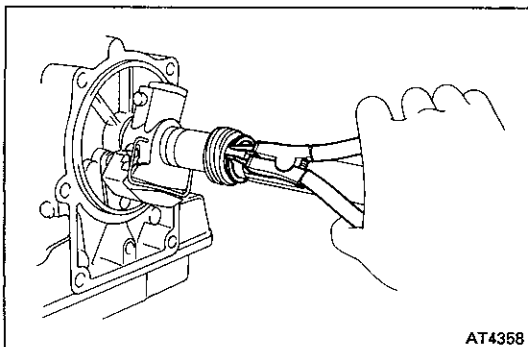


- (b) Install the bolt and lock plate, stake the lock plate.
- (c) Using a large screwdriver, install the retaining clip into the hole in the output shaft.
- (d) Check that the governor assembly is secure.



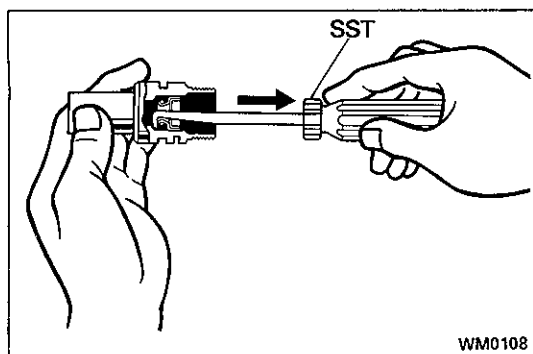
2. INSTALL SPEEDOMETER DRIVE GEAR

- (a) Install the snap ring and lock ball.



- (b) Slide the speedometer drive gear on the shaft.
- (c) Using snap ring pliers, install the outer snap ring.

3. INSTALL EXTENSION HOUSING (See page AT-34)



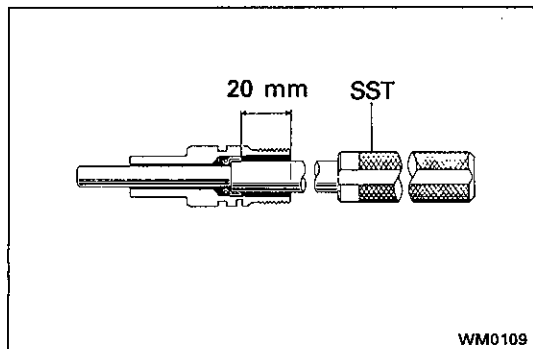
Speedometer Driven Gear

REPLACEMENT OF OIL SEAL

REMOVE SPEEDOMETER DRIVEN GEAR OIL SEAL

Using SST, remove the oil seal.

SST 09921-00010



INSTALL SPEEDOMETER DRIVEN GEAR OIL SEAL

Using SST, install a new oil seal.

SST 09201-60011

Drive in depth: 20 mm (0.79 in.)