

ON-VEHICLE REPAIR

Valve Body

REMOVAL OF VALVE BODY

1. CLEAN TRANSMISSION EXTERIOR

To prevent contamination, clean the exterior of the transmission.

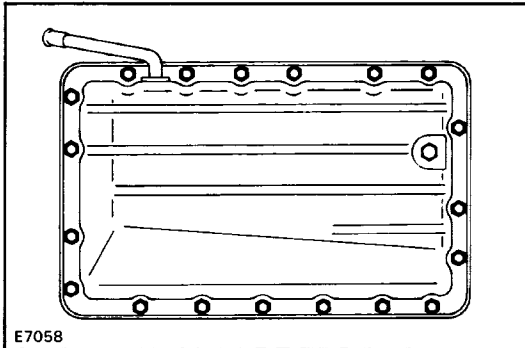
2. DRAIN TRANSMISSION FLUID

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

3. REMOVE OIL PAN

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

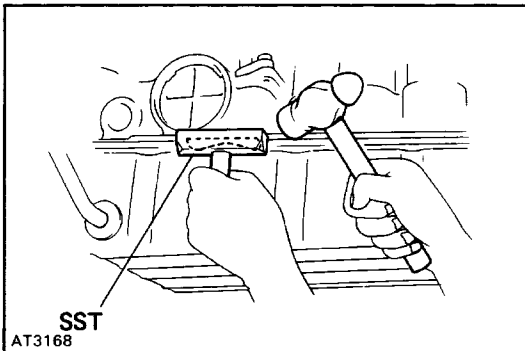
(a) Remove the nineteen bolts.



(b) Install the blade of SST between the transmission case and oil pan, cut off applied sealer and then remove the oil pan.

SST 09032-00100

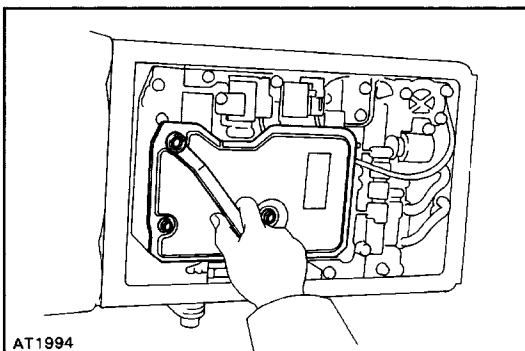
NOTICE: When removing the oil pan, be careful not to damage the oil pan flange.



4. REMOVE OIL STRAINER

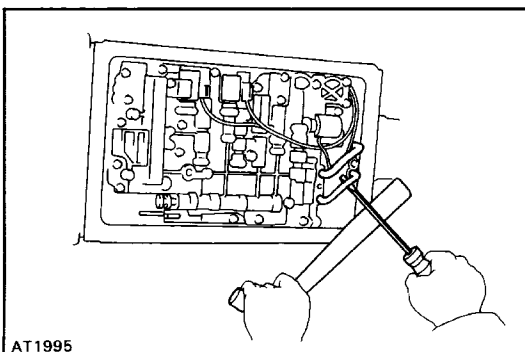
Remove the six bolts, and the oil strainer.

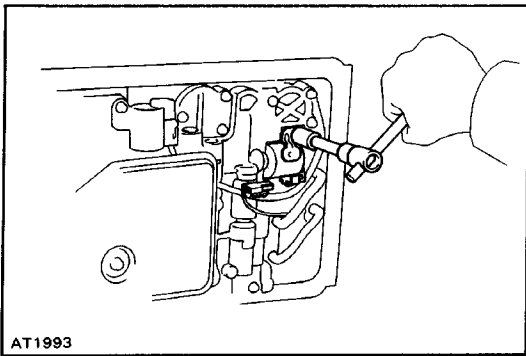
NOTICE: Be careful as some oil will come out with the filter



5. REMOVE OIL TUBES

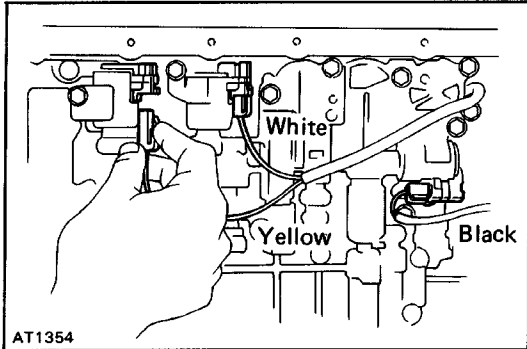
Pry up both tube ends with a large screwdriver and remove the tubes.





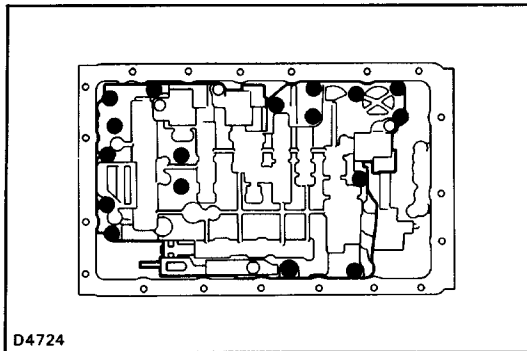
6. WHEN REPLACING SOLENOIDS

- (a) Disconnect the connectors from the solenoids.
- (b) Remove the solenoid mounting bolts.
- (c) Remove the solenoids.



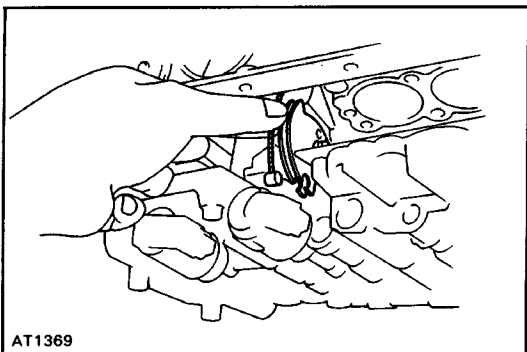
7. DISCONNECT SOLENOID CONNECTORS

Disconnect the three connectors from No.1, No.2 and lock-up solenoids.



8. REMOVE VALVE BODY

- (a) Remove the seventeen bolts.

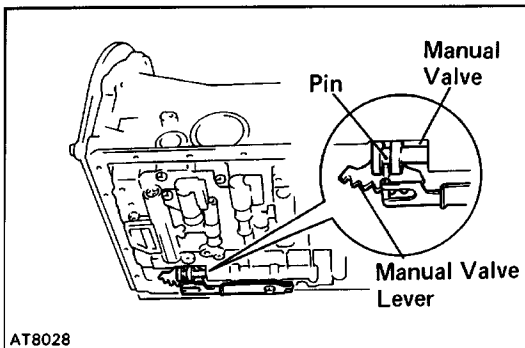


- (b) Disconnect the throttle cable from the cam and remove the valve body.

INSTALLATION OF VALVE BODY

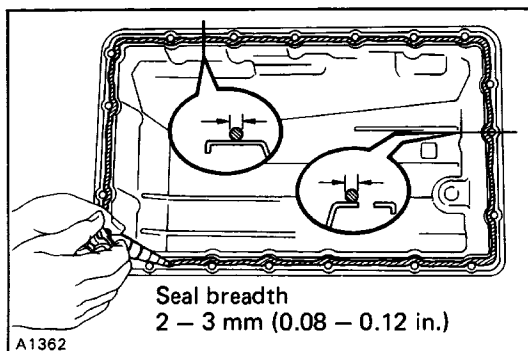
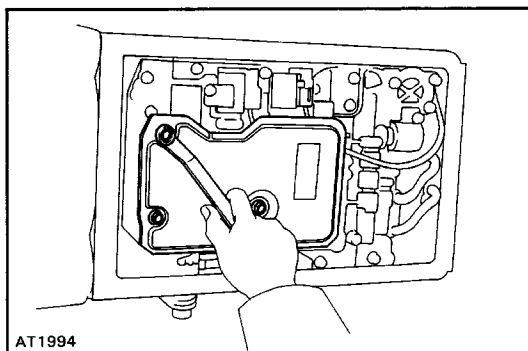
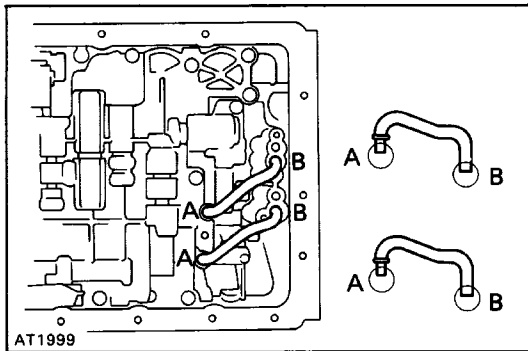
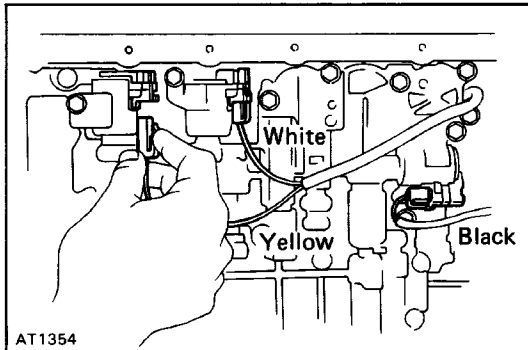
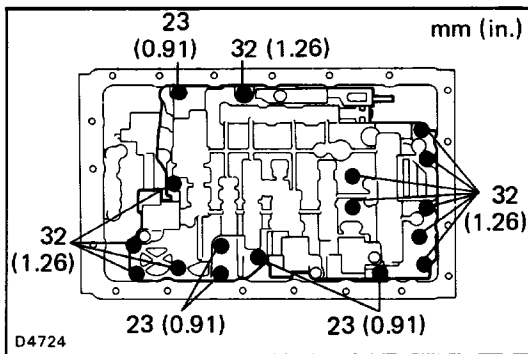
1. CONNECT THROTTLE CABLE TO CAM

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, in.) is indicated in the figure.

Torque: 10 N-m (100 kgf-cm, 7 ft-lbf)

3. CONNECT SOLENOID WIRING

4. INSTALL OIL TUBES

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

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

5. INSTALL OIL STRAINER

Be sure the screen is clean. Torque the bolts.

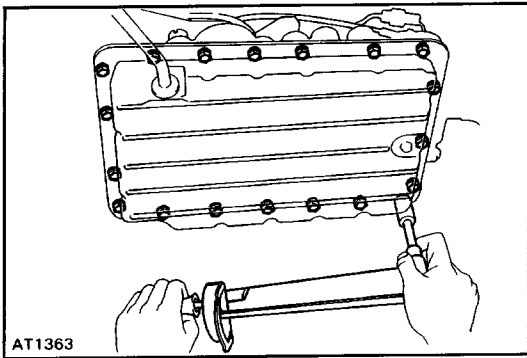
Torque: 5.4 N-m (55 kgf-cm, 48 in.ζlbf)

6. INSTALL OIL PAN

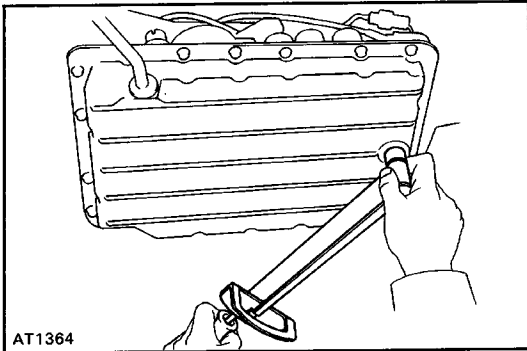
- (a) Remove any packing material and be careful not to drop oil on the contacting surfaces of the transmission case and oil pan.

- (b) Apply seal packing to the oil pan shown in the figure.

Seal packing: Part No. 08826-00090, THREE BOND 1281 or equivalent



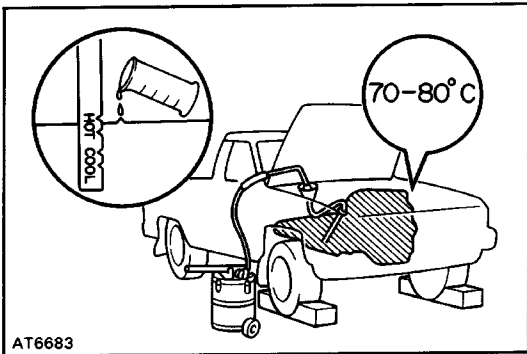
(c) Install and torque the nineteen bolts.
Torque: 7.4 N-m (70 kgf-cm, 65 in.-lbf)



7. INSTALL DRAIN PLUG

Torque the drain plug.

Torque: 20 N-m (205 kgf-cm, 15 ft-lbf)

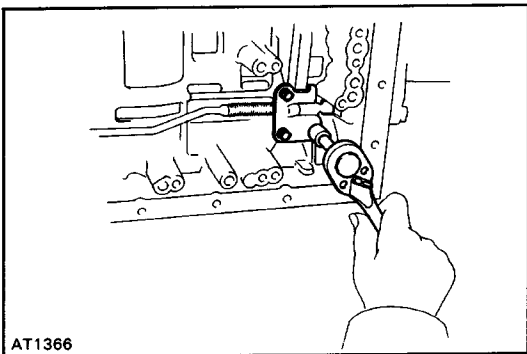


8. FILL TRANSMISSION WITH ATF

Add only about two liters of ATF. Start the engine and shift through all the positions. Check the fluid level and add as necessary.

NOTICE: Do not overfill.

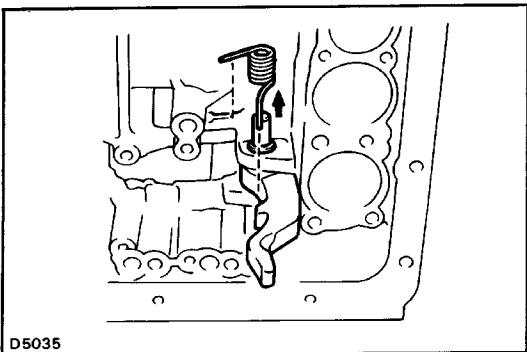
Fluid type: ATF DEXRON® II



Parking Lock Pawl

REMOVAL OF PARKING LOCK PAWL

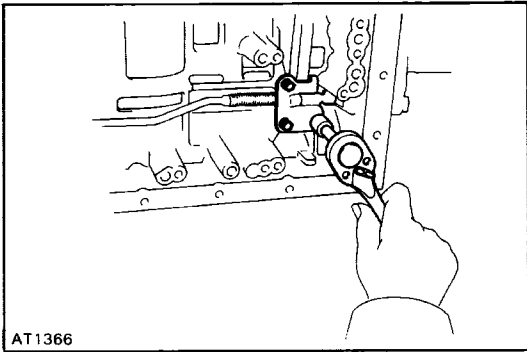
1. REMOVE VALVE BODY (See page [AT-84](#))
2. REMOVE PARKING LOCK PAWL BRACKET
 Remove the three bolts and the bracket.



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



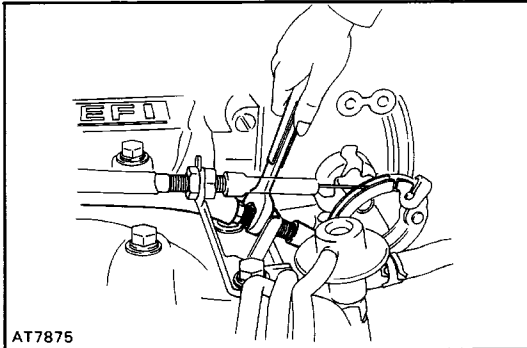
AT1366

3. INSTALL PARKING LOCK PAWL BRACKET

- (a) Push lock rod fully toward.
- (b) Install the three bolts finger tight.
- (c) Check that the pawl operates smoothly.
- (d) Torque the bolts.

Torque: 7.4 N-m (70 kgf-cm, 65 in.·lbf)

4. INSTALL VALVE BODY (See page AT-85)



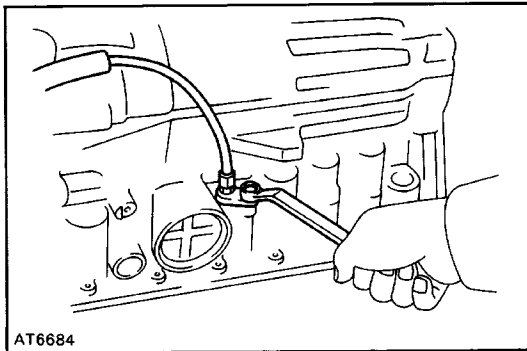
AT7875

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.



AT6684

2. REMOVE VALVE BODY (See page AT-84)

3. PUSH THROTTLE CABLE OUT OF TRANSMISSION CASE

Remove the retaining bolt and pull out the throttle cable.

INSTALLATION OF THROTTLE CABLE

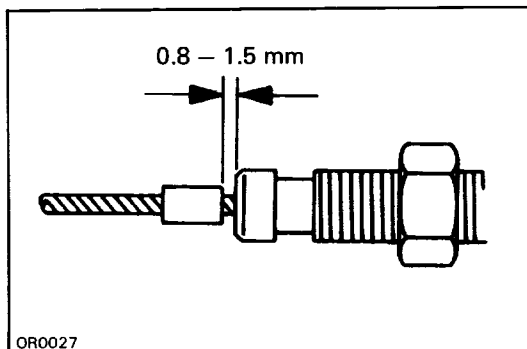
1. INSTALL CABLE IN TRANSMISSION CASE

Install the retaining bolt and push in the throttle cable.

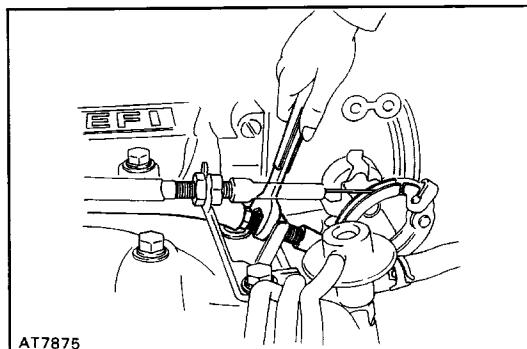
2. INSTALL VALVE BODY (See page AT-85)

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.



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AT7875

4. CONNECT THROTTLE CABLE

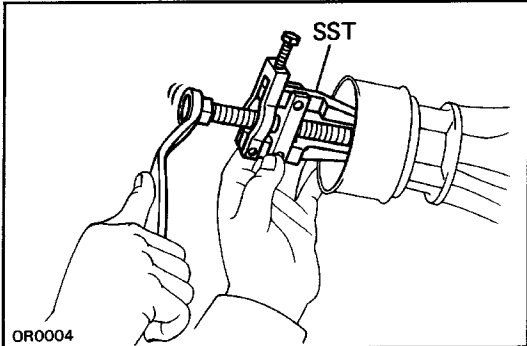
- (a) Connect the cable to the throttle linkage.
- (b) Connect the cable housing to the bracket.

5. ADJUST THROTTLE CABLE (See page AT-60)

6. TEST DRIVE VEHICLE

Extension Housing REPLACEMENT OF OIL SEAL

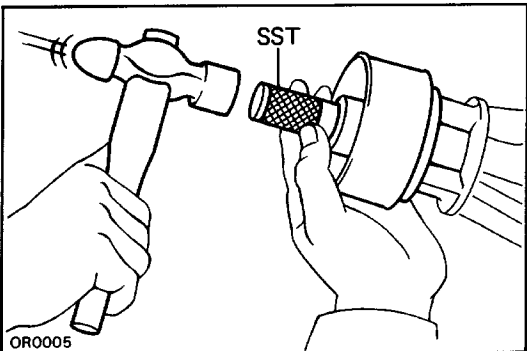
1. RAISE VEHICLE, AND POSITION PAN TO CATCH ANY FLUID THAT MAY DRIP
2. REMOVE PROPELLER SHAFT
(See page [PR-3](#))



3. REMOVE REAR OIL SEAL

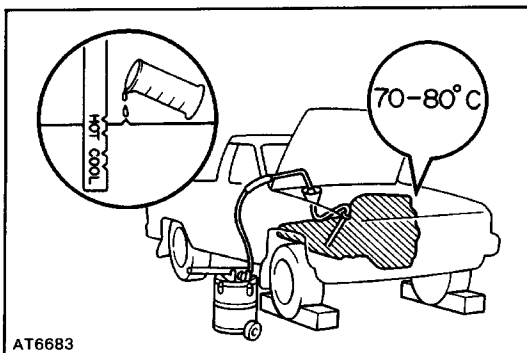
NOTICE: Clean the rear extension housing before removing the seal.

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 0932 5-20010



5. INSTALL PROPELLER SHAFT

(See page [PR-3](#))

6. LOWER VEHICLE AND CHECK FLUID LEVEL

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

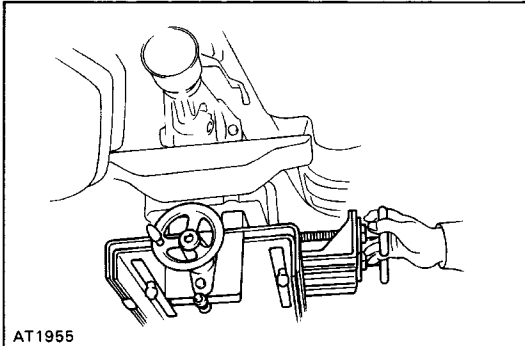
Add fluid as necessary.

NOTICE: Do not overfill.

Fluid type: ATF DEXRON[®] II

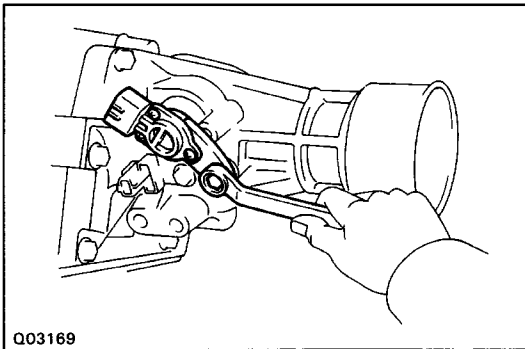
REMOVAL OF EXTENSION HOUSING

1. RAISE VEHICLE AND POSITION PAN TO CATCH ANY FLUID THAT MAY DRIP
2. REMOVE PROPELLER SHAFT
(See page [PR-3](#))



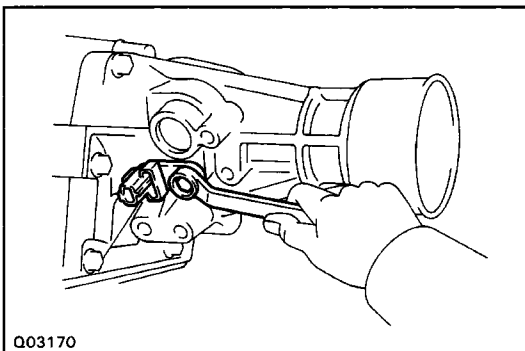
3. JACK UP TRANSMISSION SLIGHTLY

Securely support the transmission on a transmission jack. Lift the transmission slightly to remove weight from the rear support member.

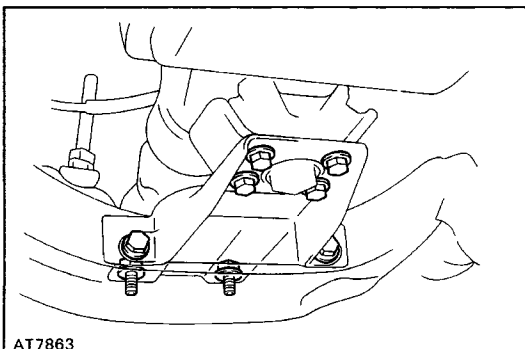


4. REMOVE NO. 1 VEHICLE SPEED SENSOR

- (a) Disconnect the connector.
- (b) Remove the bolt and pry out the No. 1 vehicle speed sensor with a screwdriver.
- (c) Remove the O-ring from the sensor.

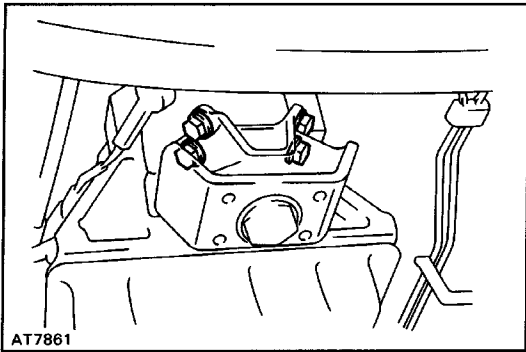


5. REMOVE NO.2 VEHICLE SPEED SENSOR



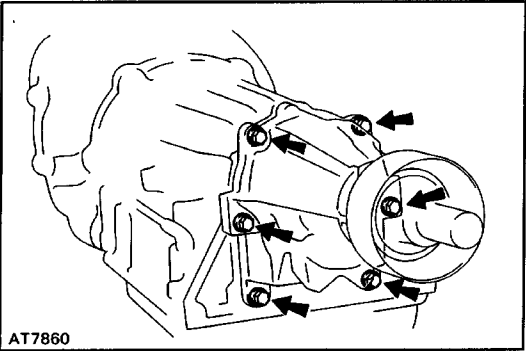
6. REMOVE ENGINE REAR MOUNTING FROM BRACKET

Remove eight bolts from the bracket.



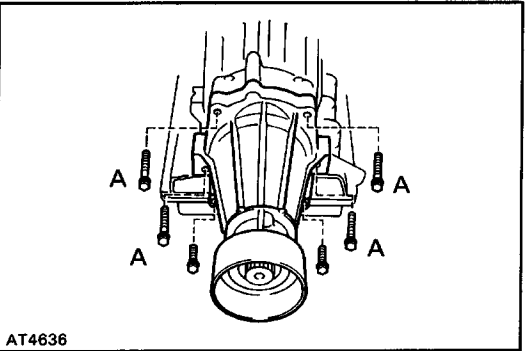
7. REMOVE ENGINE REAR MOUNTING FROM EXTENSION HOUSING

Remove four bolts and the engine rear mounting from the extension housing.



8. REMOVE EXTENSION HOUSING AND GASKET

Remove the six bolts. If necessary, tap the extension housing with a plastic hammer or wooden block 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.

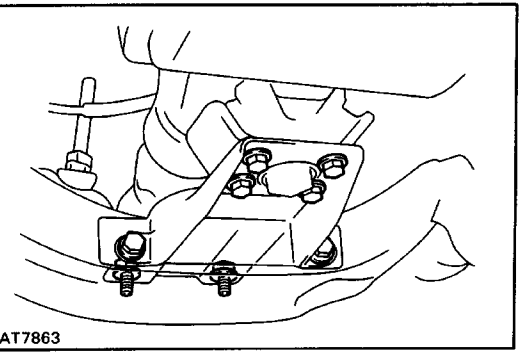
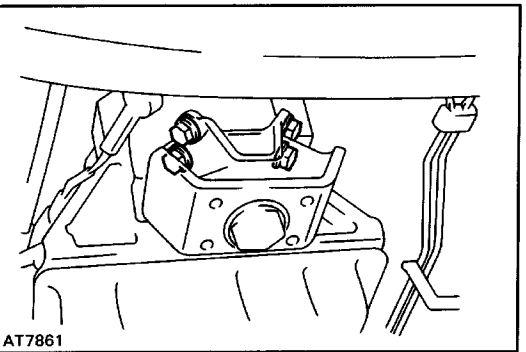
HINT: The two lower bolts are shorter.

Torque: 34 N-m (345 kgf-cm, 25 ft-lbf)

2. INSTALL ENGINE REAR MOUNTING

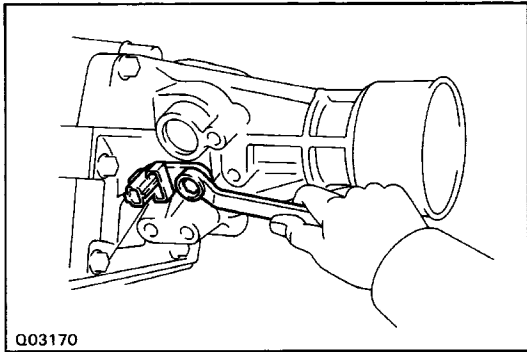
- (a) Install the engine rear mounting to the extension housing. Tighten the four bolts.

Torque: 25 N-m (250 kgf-cm, 18 ft-lbf)

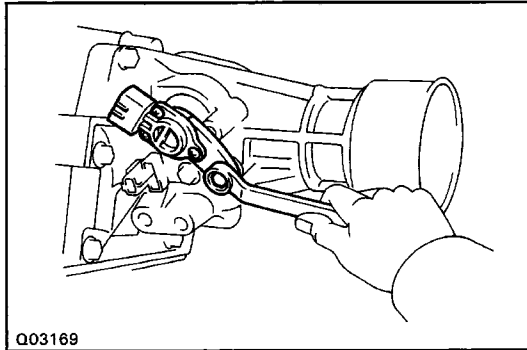


- (b) Connect the bracket to the rear mounting and tighten the four bolts.

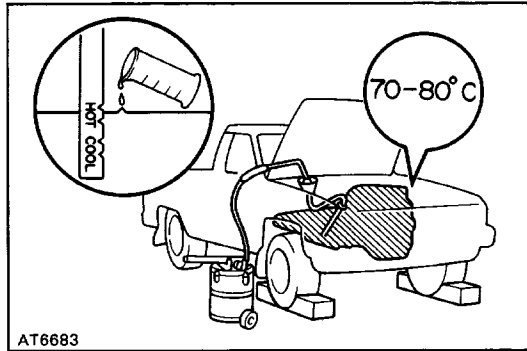
Torque: 13 N-m (130 kgf-cm, 9 ft-lbf)



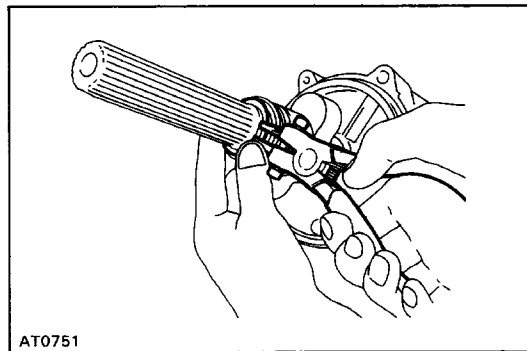
Q03170



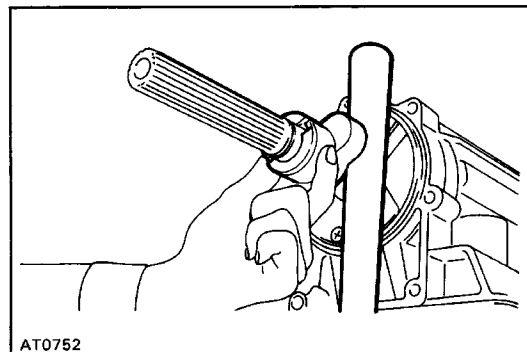
Q03169



AT6683



AT0751



AT0752

3. INSTALL NO.2 VEHICLE SPEED SENSOR

4. INSTALL PROPELLER SHAFT

(See page [PR-3](#))

5. INSTALL NO. 1 VEHICLE SPEED SENSOR

- (a) Install a new O-ring on the sensor.
- (b) Install the No. 1 vehicle speed sensor.

6. CONNECT CONNECTOR

7. LOWER VEHICLE AND CHECK FLUID LEVEL

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

Add fluid as necessary.

NOTICE: Do not overfill.

Fluid type: ATF DEXRON® 11

Sensor Rotor

REMOVAL OF SENSOR ROTOR

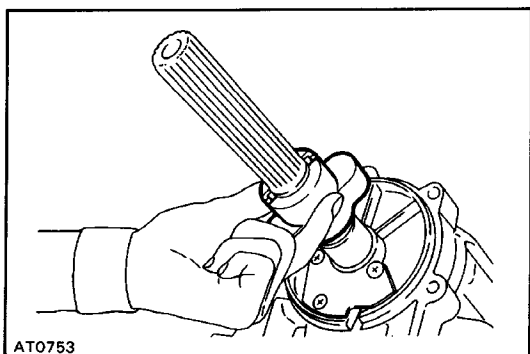
1. REMOVE EXTENSION HOUSING

(See page [AT-90](#))

2. REMOVE SPEEDOMETER DRIVE GEAR

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

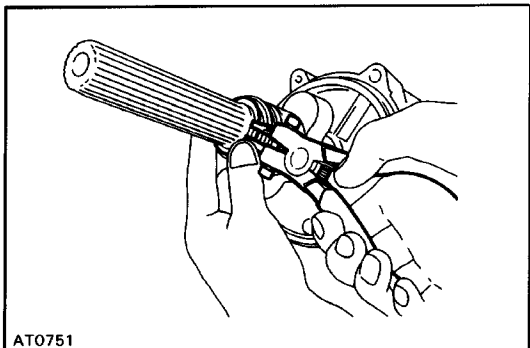
3. REMOVE SENSOR ROTOR FROM OUTPUT SHAFT



INSTALLATION OF SENSOR ROTOR

1. INSTALL SENSOR ROTOR ON OUTPUT SHAFT

- (a) Make sure that the key is installed in the groove.
- (b) Install the sensor rotor on the shaft.



2. INSTALL SPEEDOMETER DRIVE GEAR

- (a) Slide the lock ball and the speedometer drive gear on the output shaft.
- (b) Using snap ring pliers, install the snap ring.

3. INSTALL EXTENSION HOUSING

(See page [AT-91](#))