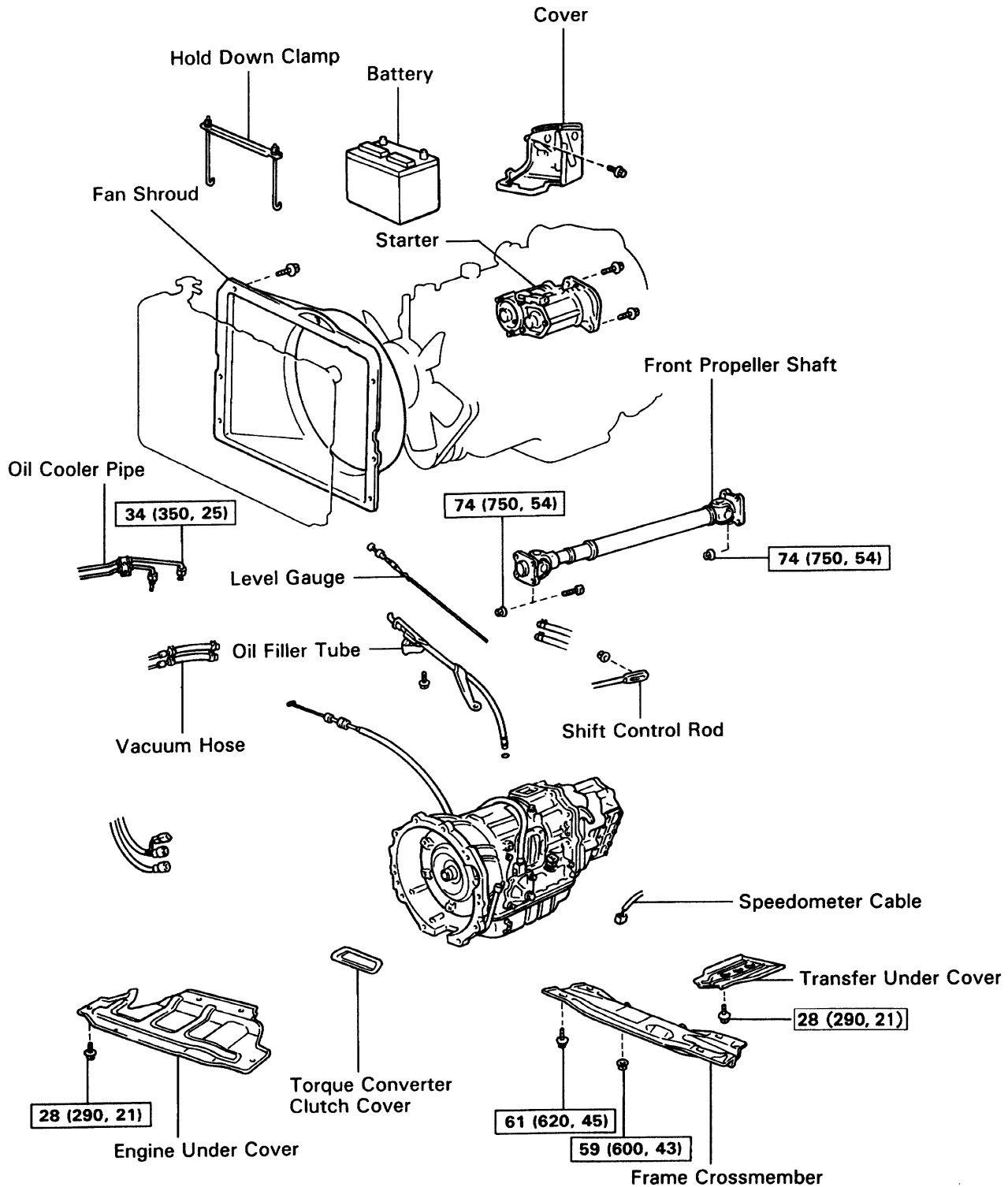
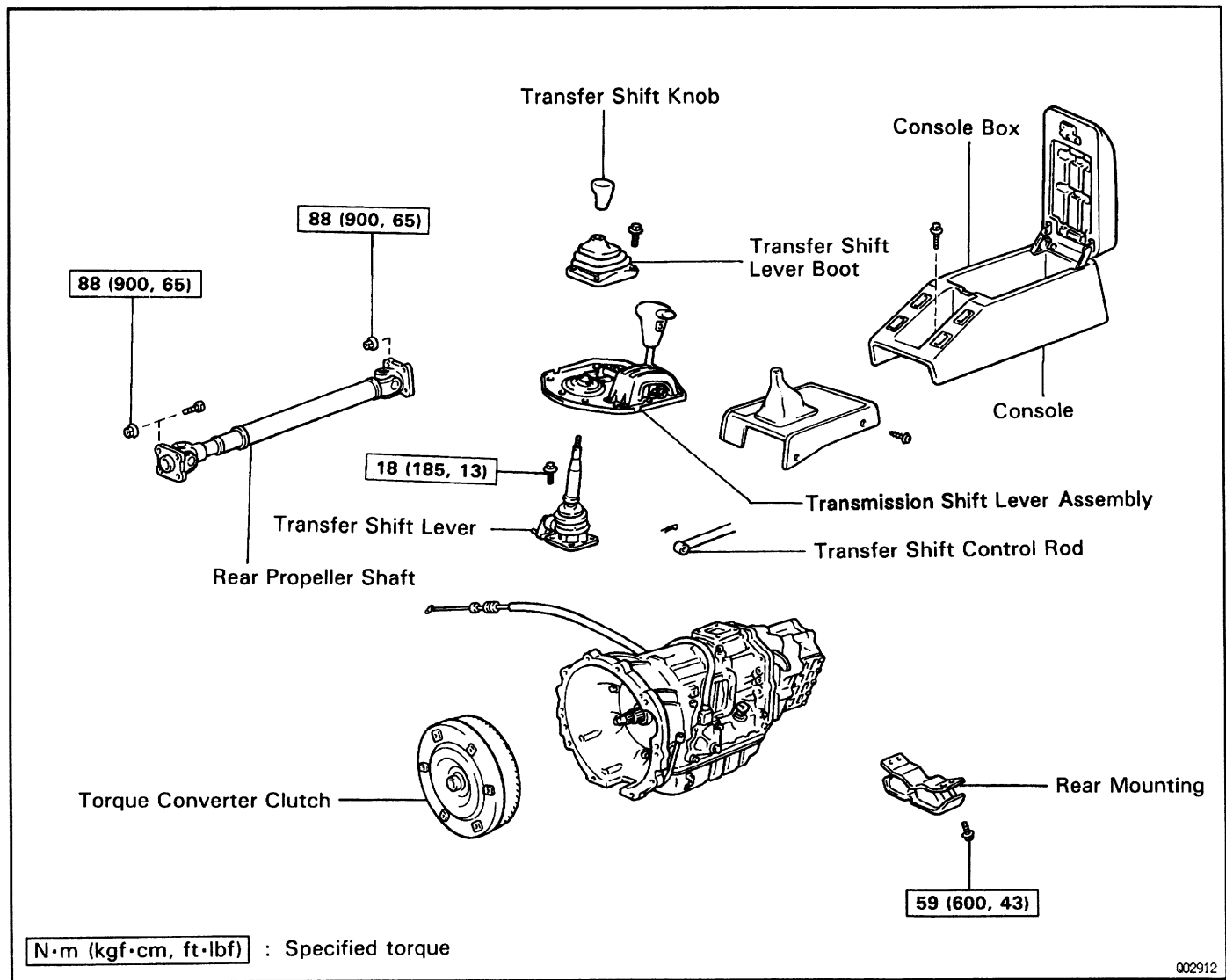


ASSEMBLY REMOVAL AND INSTALLATION COMPONENTS

AT09U-01



N·m (kgf·cm, ft·lbf) : Specified torque

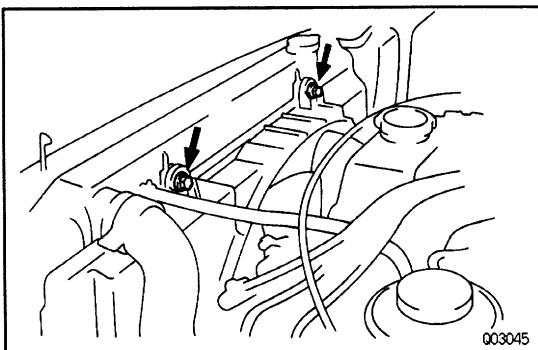


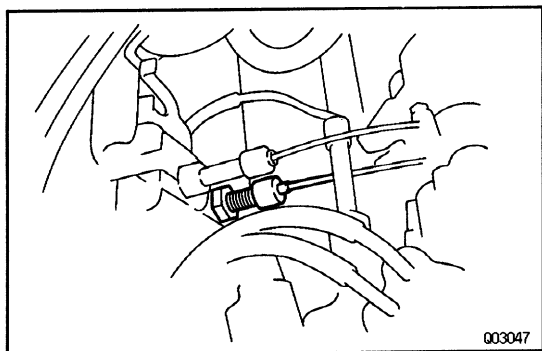
AT00V-01

TRANSMISSION REMOVAL

1. DISCONNECT BATTERY CABLE FROM NEGATIVE TERMINAL
2. REMOVE BATTERY AND COVER

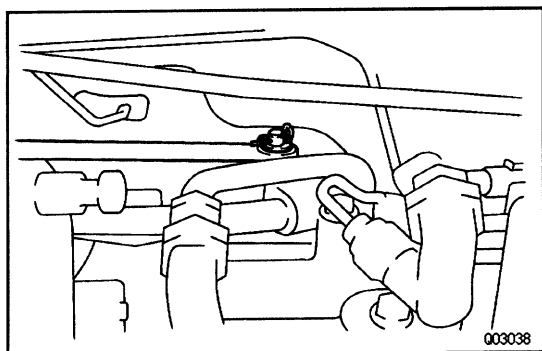
3. LOOSEN FAN SHROUD OF COOLING FAN TO AVOID DAMAGE TO FAN





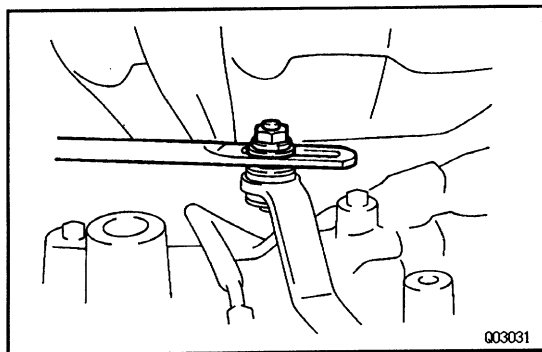
4. DISCONNECT THROTTLE CABLE

- (a) Loosen the adjusting nut and disconnect the cable housing from the bracket.
- (b) Disconnect the cable from the linkage.

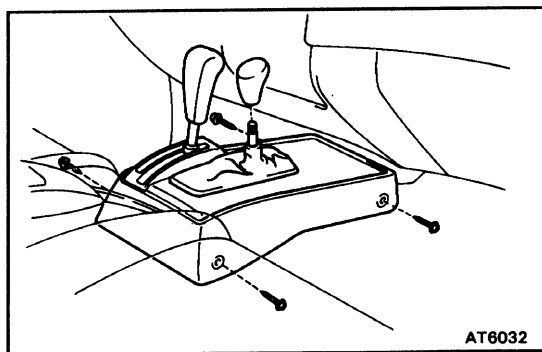


5. REMOVE TRANSMISSION SELECT LEVER AND TRANSFER SHIFT LEVER

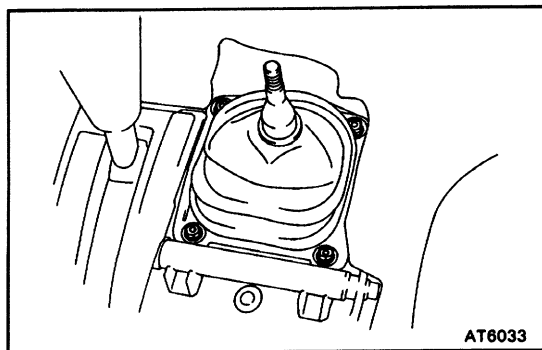
- (a) Remove the clip, washer and wave washer, and disconnect the link.



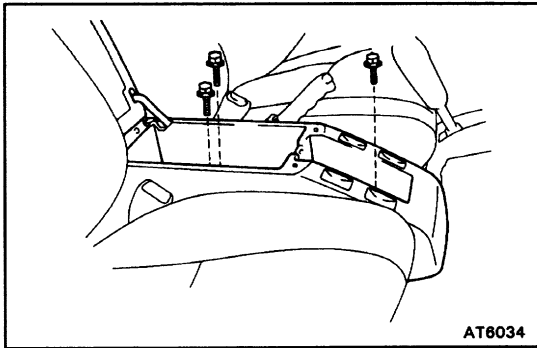
- (b) Remove the nut and washer, disconnect the link.



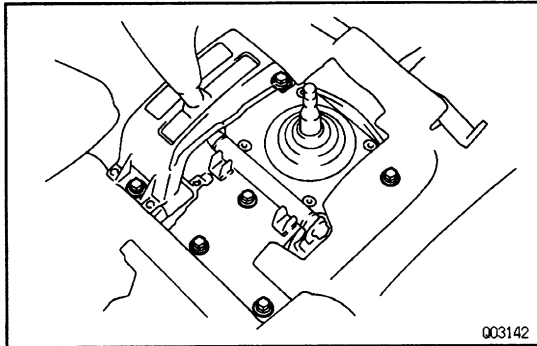
- (c) Remove the transfer shift lever knob.
- (d) Remove the four screws and the console.



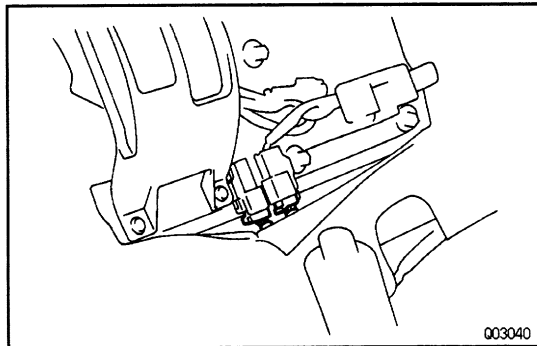
- (e) Remove the four bolts and transfer shift lever bolt.



(f) Remove the three bolts and the console box.

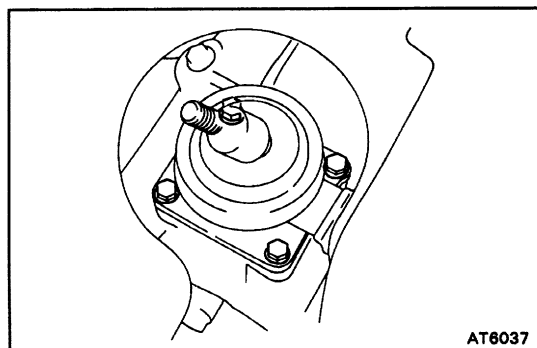


(g) Remove the six bolts.

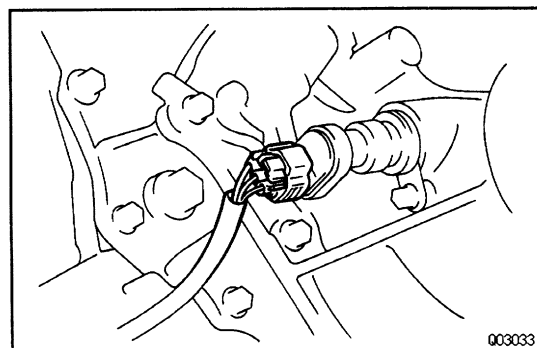


(h) Disconnect the connectors.

(i) Remove the transmission shift lever assembly.



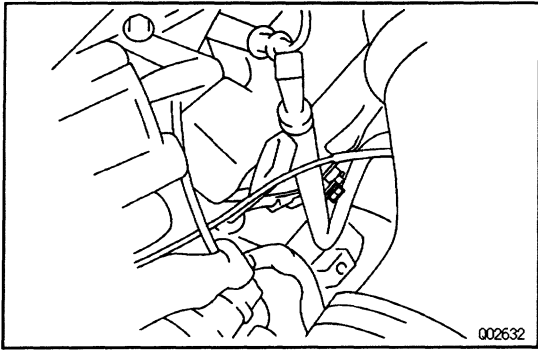
(j) Remove the four screws and the transfer shift lever.



6. REMOVE NO.1 VEHICLE SPEED SENSOR CONNECTOR

7. REMOVE FRONT AND REAR PROPELLER SHAFT

(See page [PR-5](#))

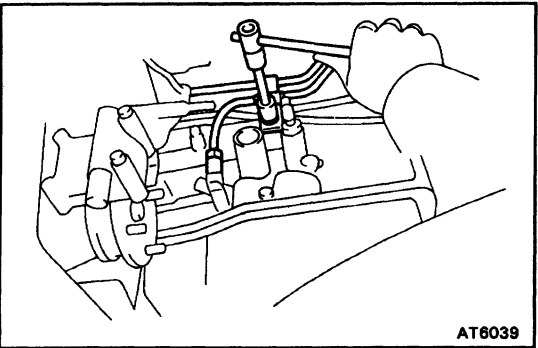


8. REMOVE OIL FILLER TUBE

- (a) Remove the level gauge.
- (b) Remove the bolt.

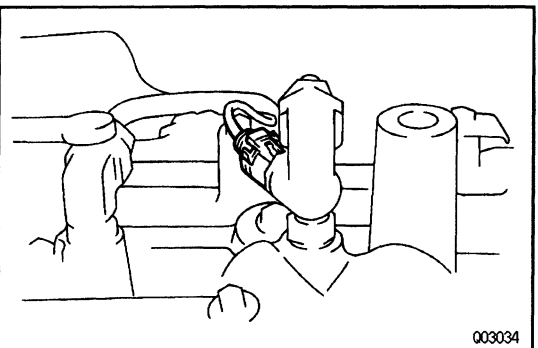


- (c) Remove the bolt and the filler tube.

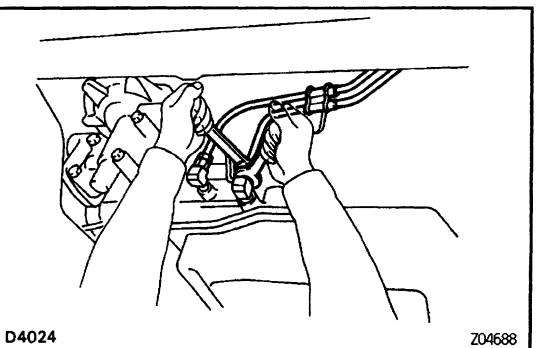


9. DISCONNECT TWO OIL COOLER TUBES

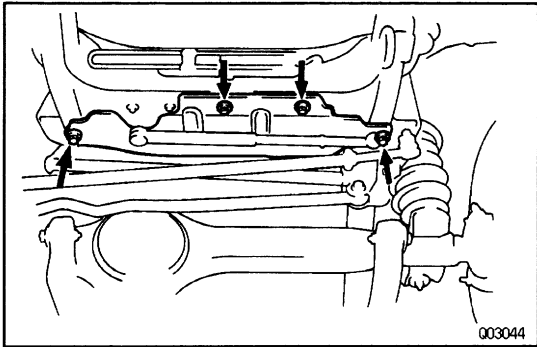
- (a) Remove the bolt and clamp.



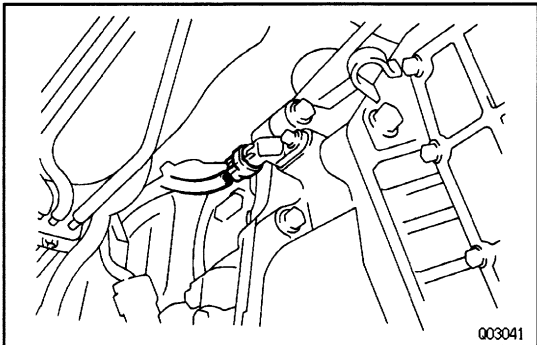
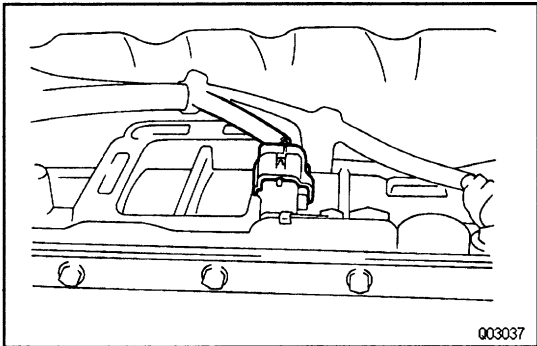
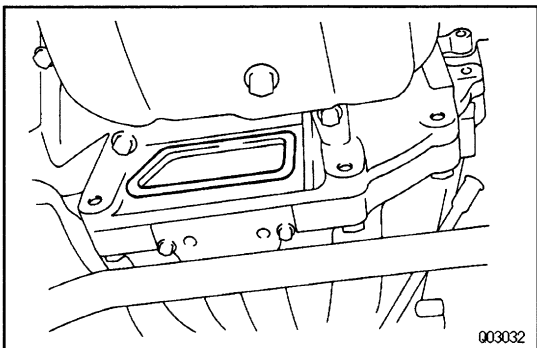
- (b) Disconnect the temperature sensor connector.



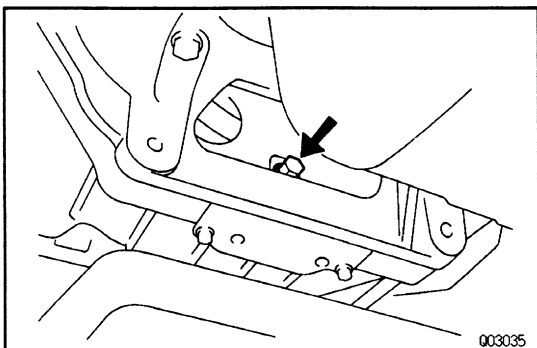
- (c) Disconnect the two oil cooler tubes.

**10. REMOVE ENGINE UNDER COVER**

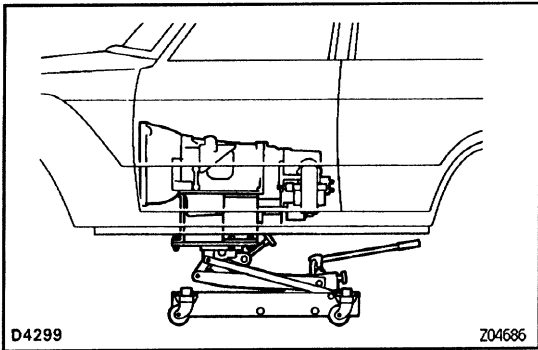
Remove the four bolts and the cover.

**11. DISCONNECT NO. 2 VEHICLE SPEED SENSOR CONNECTOR****12. DISCONNECT SOLENOID CONNECTOR****13. REMOVE SIX TORQUE CONVERTER CLUTCH MOUNTING BOLTS**

(a) Remove the converter hole plug.

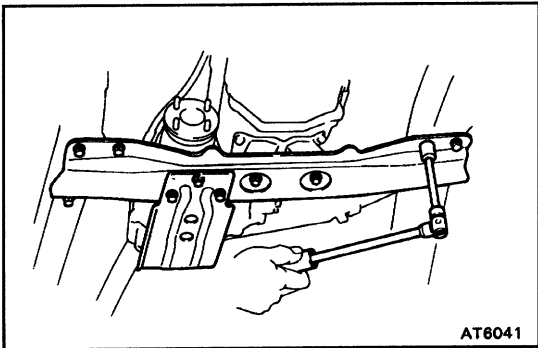


(b) Turn the crankshaft to gain access to each bolt.
Remove the six bolt.

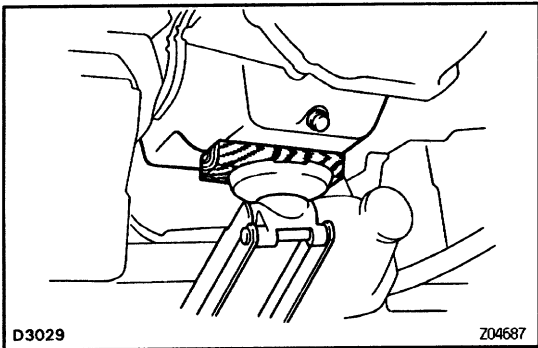


14. REMOVE CROSSMEMBER

- (a) Support the transmission with the transmission jack.

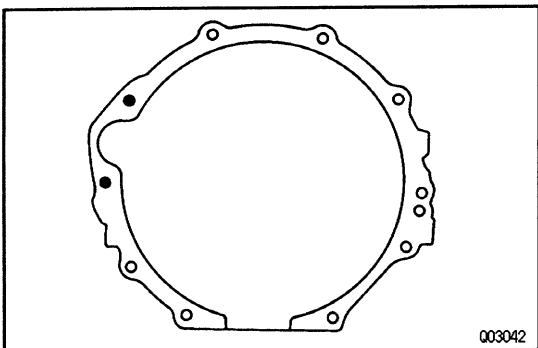


- (b) Remove the eight bolts and two nuts, and then remove the frame crossmember.

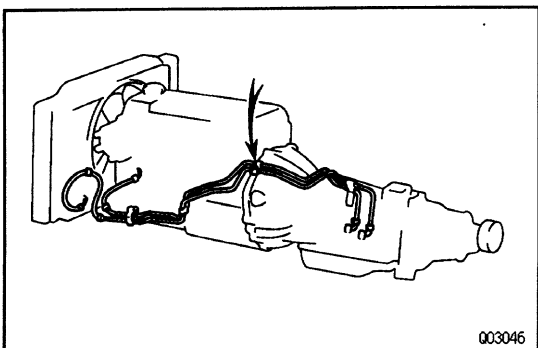


15. REMOVE TRANSMISSION ASSEMBLY

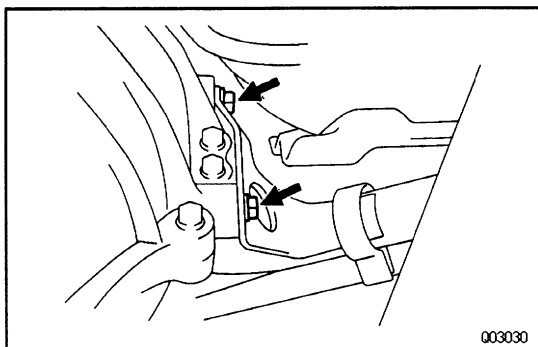
- (a) Be sure to put a wooden block or equivalent between the jack and oil pan to prevent damage. Support the oil pan with a jack.
(b) Lower the rear end of transmission.



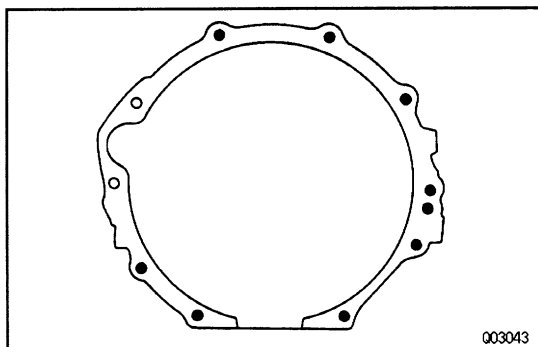
- (c) Remove the nut and disconnect the connectors from the starter.
(d) Remove the two bolts and the starter.



- (e) Disconnect the park/neutral position switch connectors.
(f) Remove the bolt and disconnect the oil cooler tube clamp from the converter housing.
(g) Disconnect the connectors from the transfer.
(h) Remove the clamp and disconnect the wire harness from the transmission and transfer.



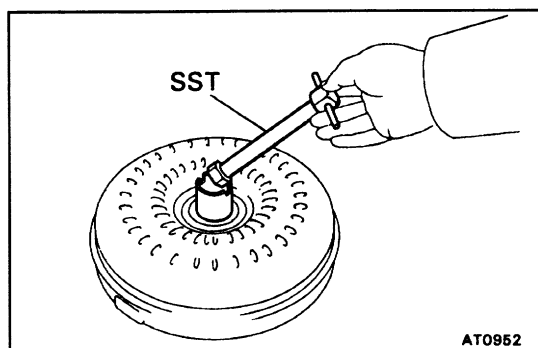
- (i) Remove the two bolts and disconnect the exhaust pipe bracket from the converter housing.



- (j) Remove the bolts and the transmission.

TORQUE CONVERTER CLUTCH CLEANING

If the transmission is contaminated, the torque converter clutch and transmission cooler should be thoroughly flashed with ATF.

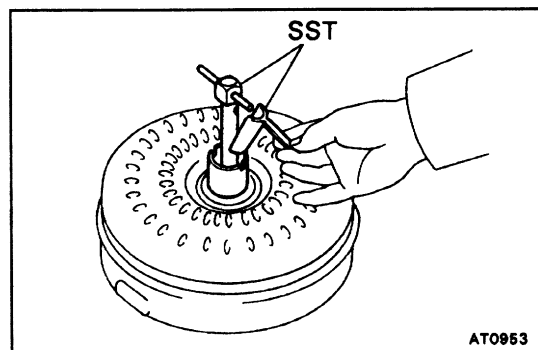


TORQUE CONVERTER CLUTCH AND DRIVE PLATE INSPECTION

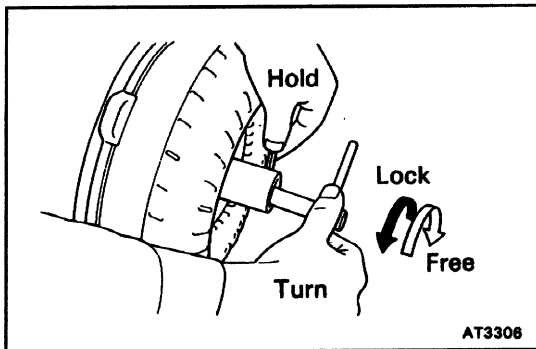
AT09X-01

1. INSPECT ONE-WAY CLUTCH

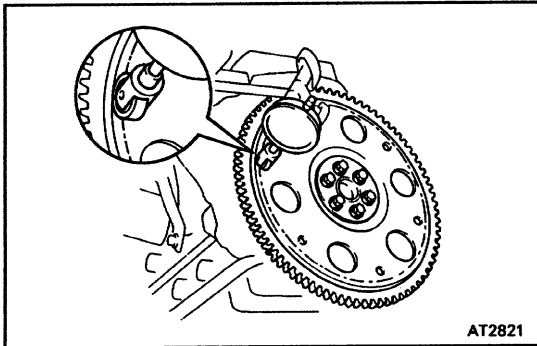
- (a) Install SST in the inner race of one-way clutch.
SST 09350-30020 (09351-32010)



- (b) Install SST so that it fits in the notch of the converter hub and outer race of the one-way clutch.
SST 09350-30020 (09351-32010)



- (c) With the torque converter clutch made stand, the clutch should lock when turned counterclockwise, and rotate freely and smoothly clockwise. If necessary, clean the converter clutch and retest the clutch. Replace the converter if the clutch still fails the test.



2. MEASURE DRIVE PLATE RUNOUT AND INSPECT RING GEAR

Set up a dial indicator and measure the drive plate runout. If runout exceeds 0.20 mm (0.0079 in.) or if the ring gear is damaged, replace the drive plate. If installing a new drive plate, note the orientation of spacers and tighten the bolts.

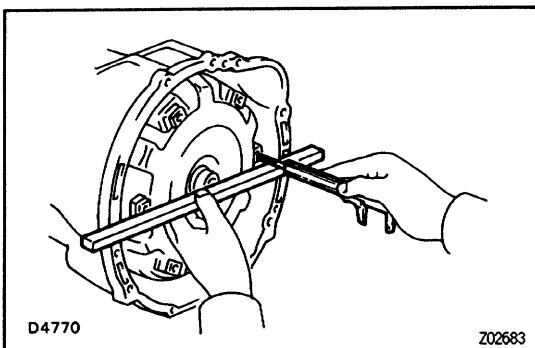
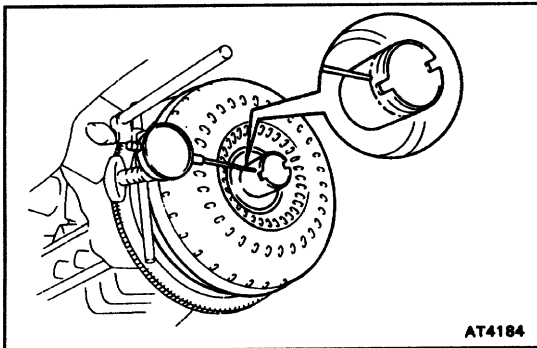
Torque: 100 N·m (1,000 kgf·cm, 72 ft·lbf)

3. MEASURE TORQUE CONVERTER CLUTCH SLEEVE RUN-OUT

- (a) Temporarily mount the torque converter clutch to the drive plate. Set up a dial indicator. If runout exceeds 0.30 mm (0.0118 in.), try to correct by reorienting the installation of the converter clutch. If excessive runout cannot be corrected, replace the torque converter clutch.

HINT: Mark the position of the converter clutch to ensure correct installation.

- (b) Remove the torque converter clutch.



TRANSMISSION INSTALLATION

1. INSTALL TORQUE CONVERTER CLUTCH IN TRANSMISSION

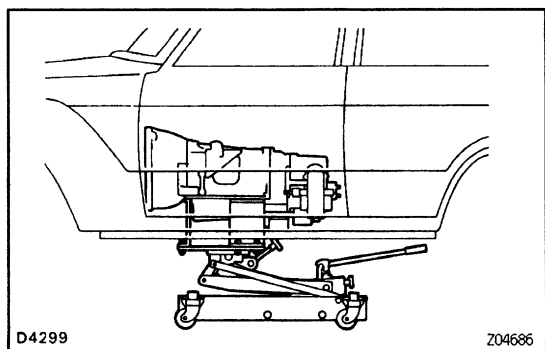
If the torque converter clutch has been drained and washed, refill with new ATF.

Fluid type:

ATF DEXRON® II

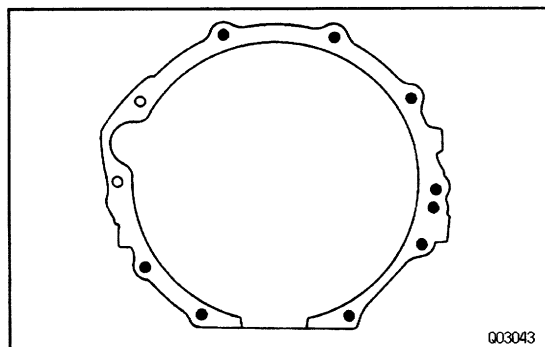
2. CHECK TORQUE CONVERTER CLUTCH INSTALLATION

Using calipers and a straight edge, measure from the installed surface to the front surface of the transmission.



3. PLACE TRANSMISSION AT INSTALLATION POSITION

Jack up and push the transmission fully into position.



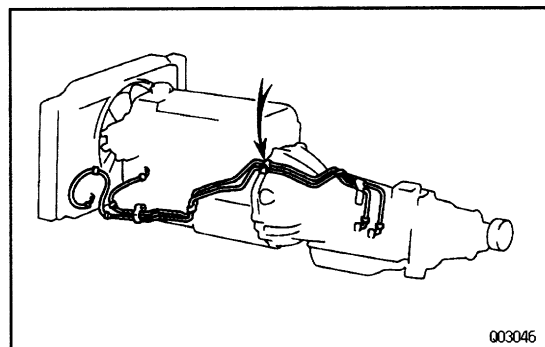
4. INSTALL TRANSMISSION BOLTS

(a) Install the transmission with the bolts.

Torque: 72 N-m (730 kgf-cm, 53 ft-lbf)

(b) Connect the wire harness to the transmission and transfer with the clamp.

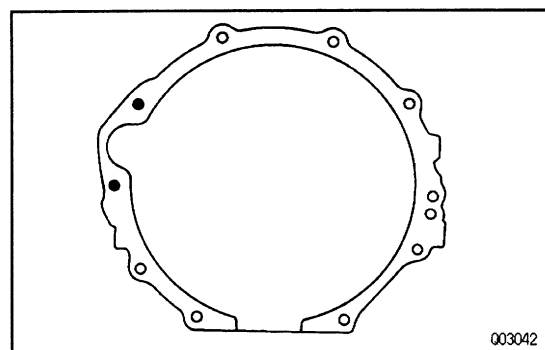
(c) Connect the connectors to the transfer.



(d) Connect the oil cooler tube clamp to the converter housing with the bolt.

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

(e) Connect the park/neutral position switch.

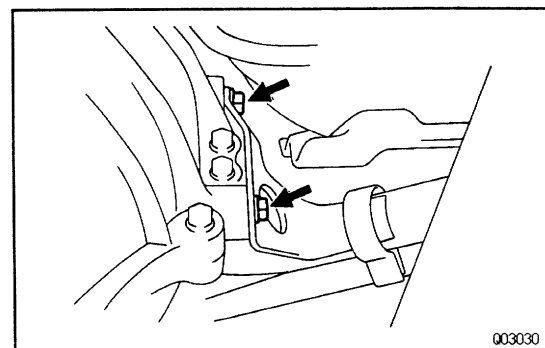


(f) Install the starter with the two bolts.

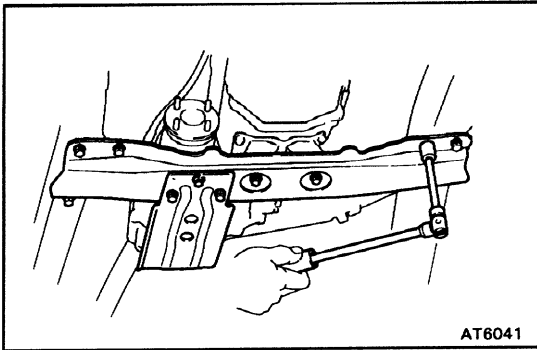
Torque: 72 N-m (730 kgf-cm, 53 ft-lbf)

(g) Connect the connectors.

(h) Install the nut.



(i) Connect the exhaust pipe bracket to the converter housing with the two bolts.



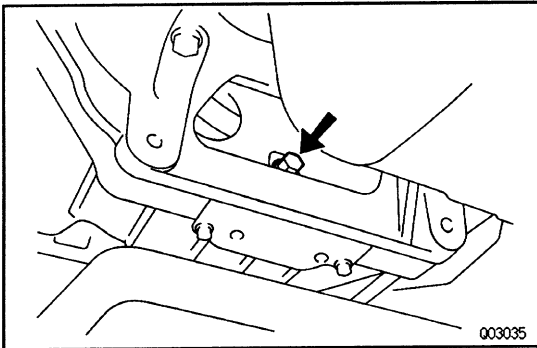
5. INSTALL CROSSMEMBER

Install the crossmember with eight bolts and two nuts.

Torque:

Bolt 61 N-m (620 kgf-cm, 45 ft-lbf)

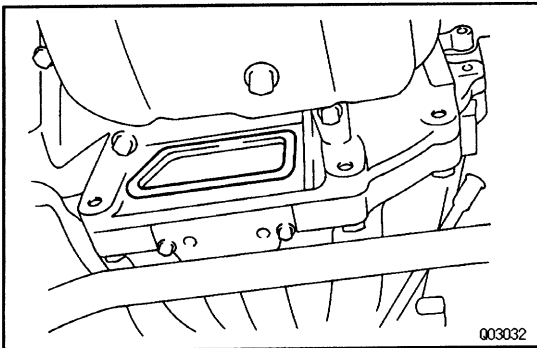
Nut 59 N-m (600 kgf-cm, 43 ft-lbf)



6. INSTALL TORQUE CONVERTER CLUTCH MOUNTING BOLTS

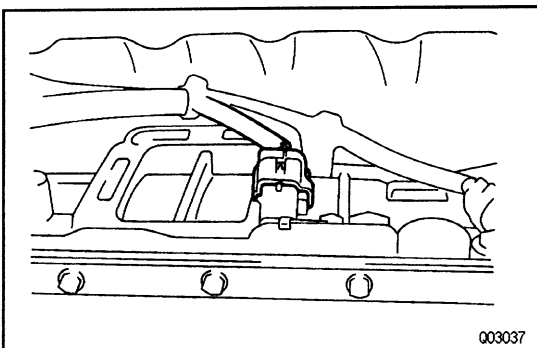
(a) Install the six bolts while turning the crankshaft.

Torque: 55 N-m (550 kgf-cm, 40 ft-lbf)

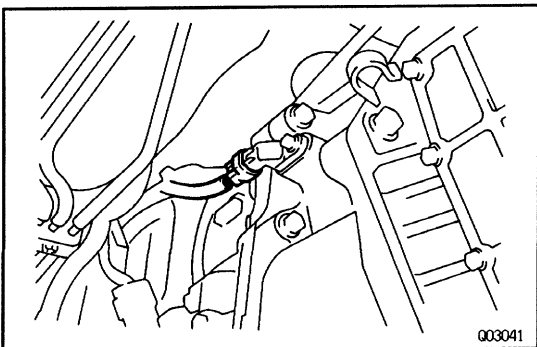


(b) Seal the converter hole plug with adhesive.

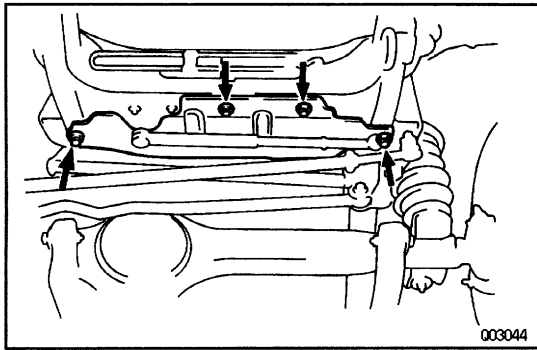
(c) Install the converter hole plug.



7. CONNECT SOLENOID CONNECTOR



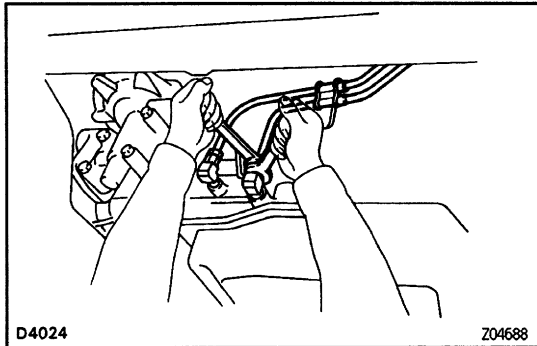
8. CONNECT NO.2 VEHICLE SPEED SENSOR CONNECTOR



9. INSTALL ENGINE UNDER COVER

Install the cover with the four bolts.

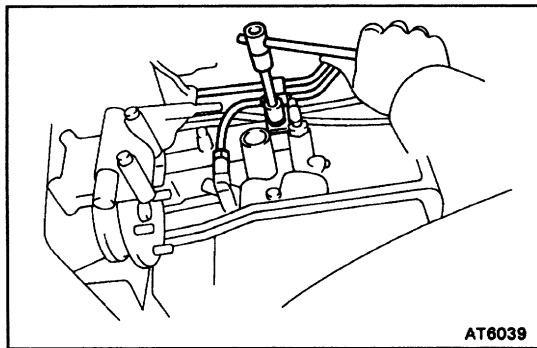
Torque: 28 N-m (290 kgf-cm, 21 ft-lbf)



10. CONNECT TWO OIL COOLER TUBES

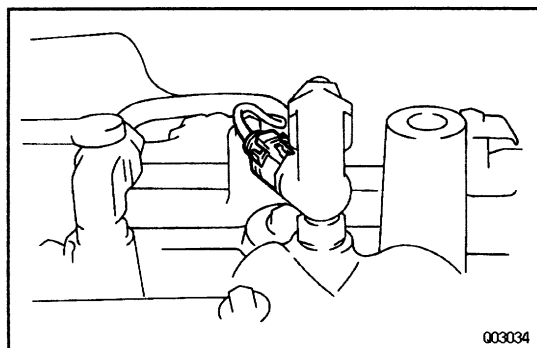
(a) Connect the two oil cooler tubes.

Torque: 34 N-m (350 kgf-cm, 25 ft-lbf)



(b) Install the cooler tube clamp.

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

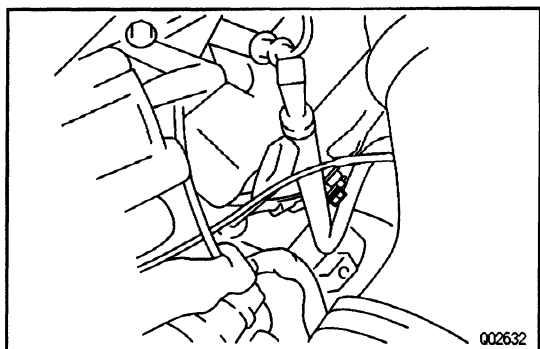


(c) Connect the oil temperature sensor connector.

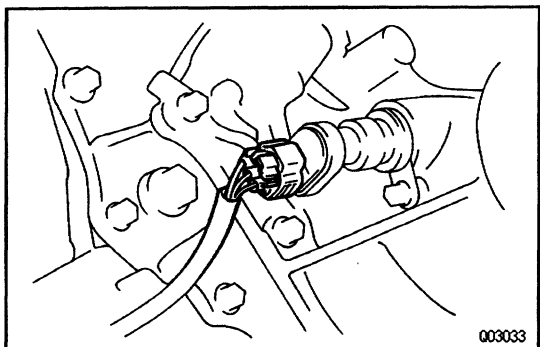


11. INSTALL OIL FILLER TUBE

(a) Install the filler tubes with the bolt.

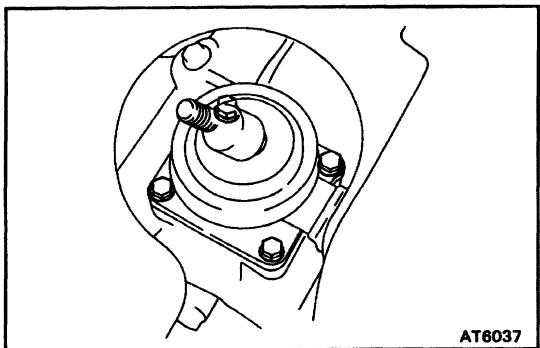


- (b) Install the bolt.
- (c) Install the level gauge.



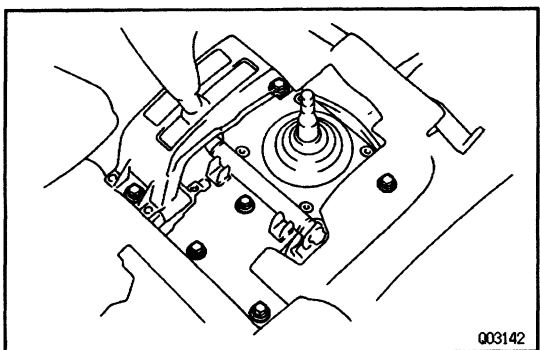
12. CONNECT NO. 1 VEHICLE SPEED SENSOR CONNECTOR

13. INSTALL FRONT AND REAR PROPELLER SHAFTS
(See page [PR-11](#))

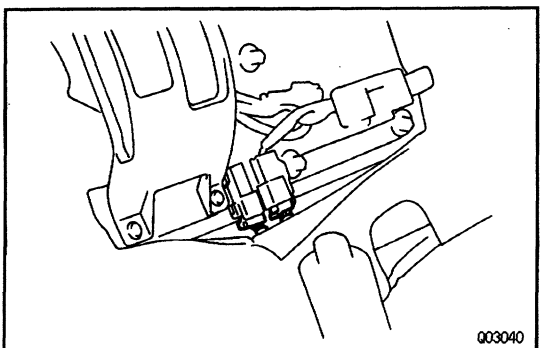


14. INSTALL TRANSMISSION SELECT LEVER AND TRANSFER SHIFT LEVER

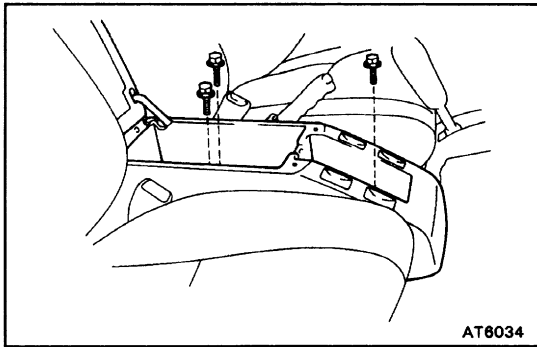
- (a) Remove the four bolts and the transfer shift lever.



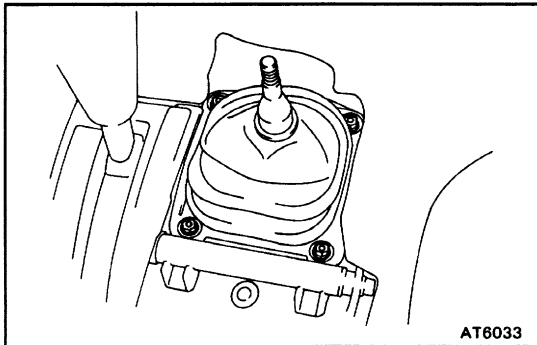
- (b) Install the transmission shift lever assembly with the six bolts.



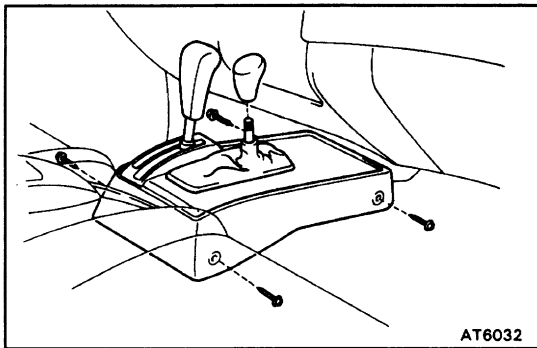
- (c) Connect the connectors.



(d) Install the console box with the three bolts.

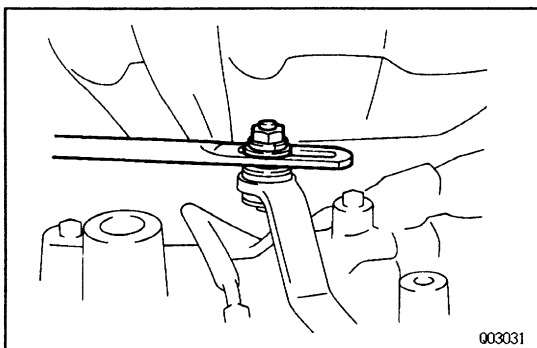


(e) install the transfer shift lever boot with the four bolts.

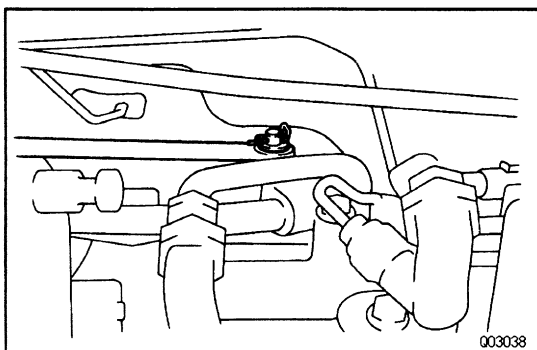


(f) Install the four screws and the console.

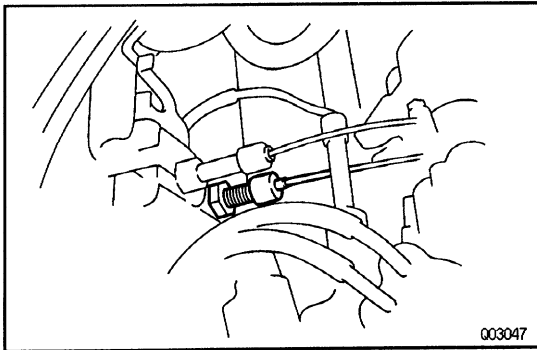
(g) install the transfer shift lever knob.



(h) Connect the link with the washer and nut.



(i) Connect the link with the wave washer, washer and clip.

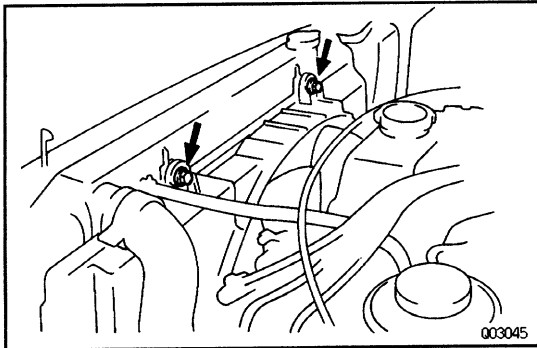


15. CONNECT THROTTLE CABLE

- (a) Connect the cable from the throttle linkage.
- (b) Tighten the adjusting nuts and connect the cable housing from the bracket.

16. ADJUST THROTTLE CABLE

(See page [AT-26](#))



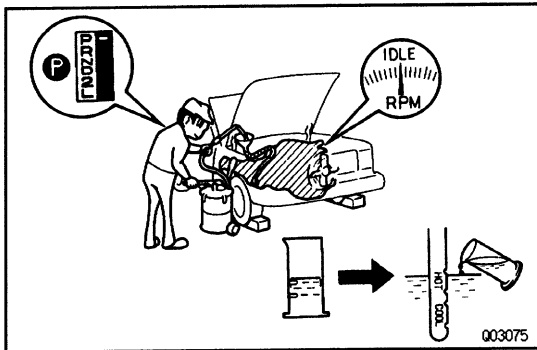
17. TIGHTEN FAN SHROUD OF COOLING FAN TO AVOID DAMAGE TO FAN

18. INSTALL BATTERY AND COVER

19. CONNECT BATTERY CABLE FROM NEGATIVE TERMINAL

20. ADJUST SHIFT CONTROL ROD

(See page [AT-26](#))



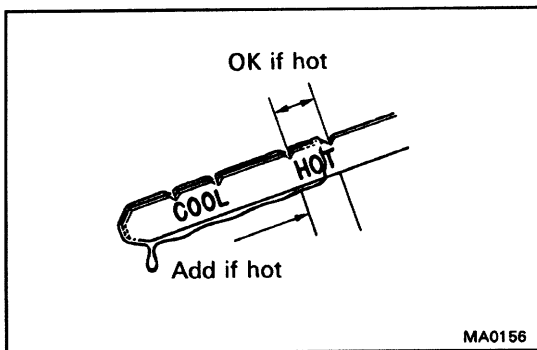
21. FILL SHIFT CONTROL ROD

Fluid type:

ATF DEXRON® II

Capacity:

6.0 liters (6.3 US qts, 5.3 Imp.qts)



22. CHECK FLUID LEVEL

(See page [AT-25](#))