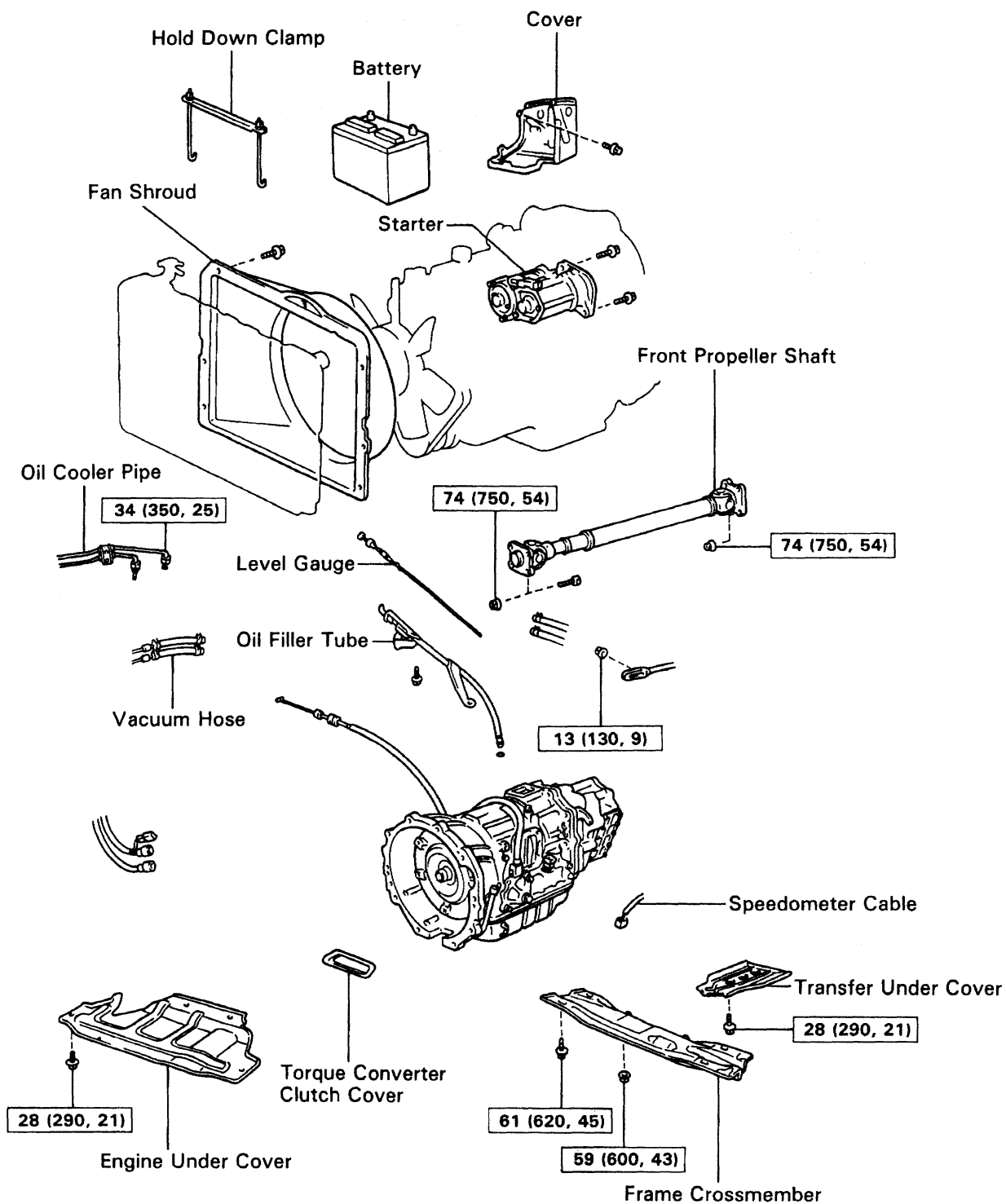
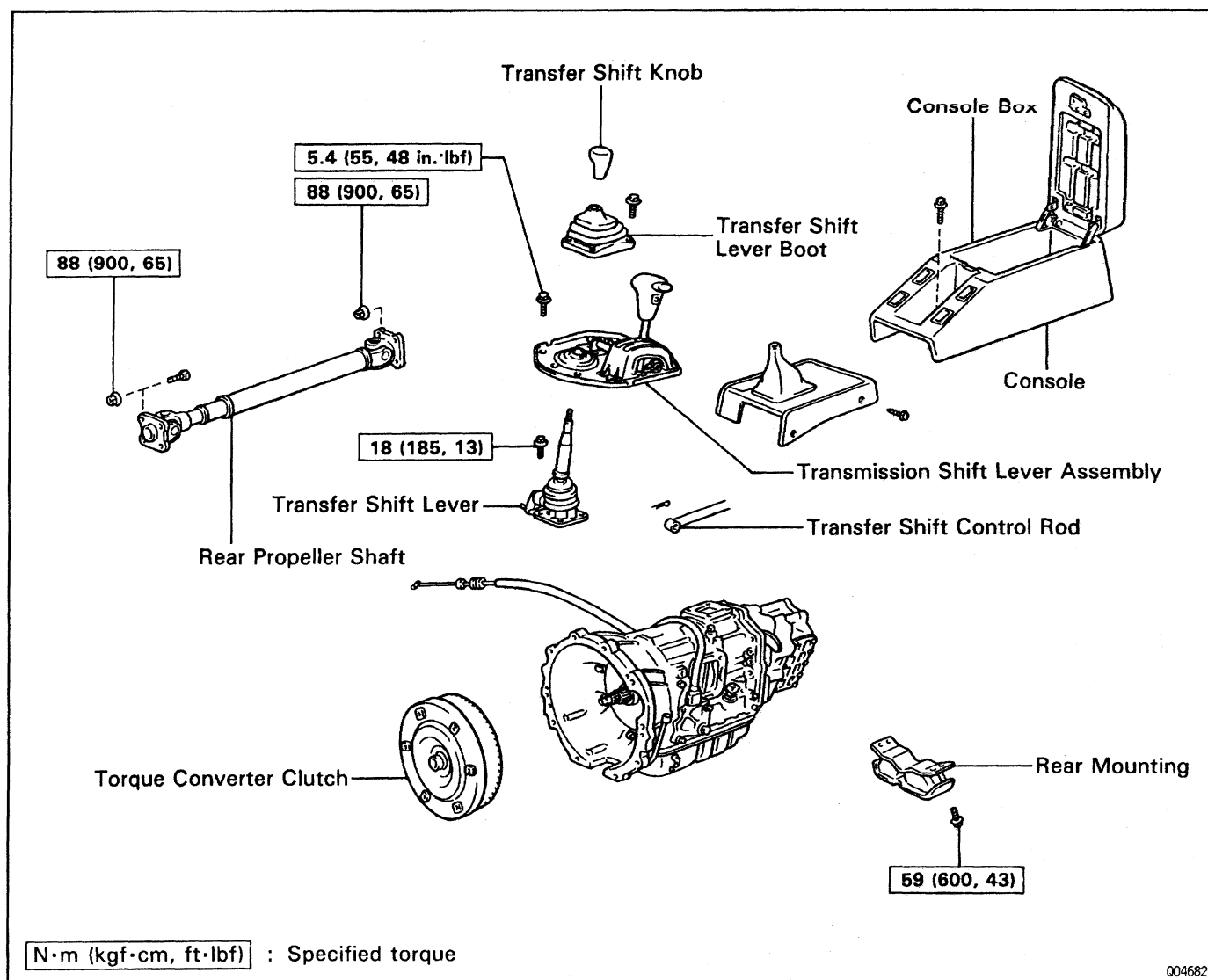


# ASSEMBLY REMOVAL AND INSTALLATION COMPONENTS

AT06U-02



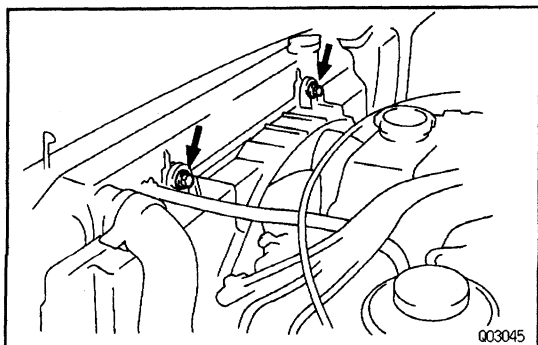
N·m (kgf·cm, ft·lbf) : Specified torque



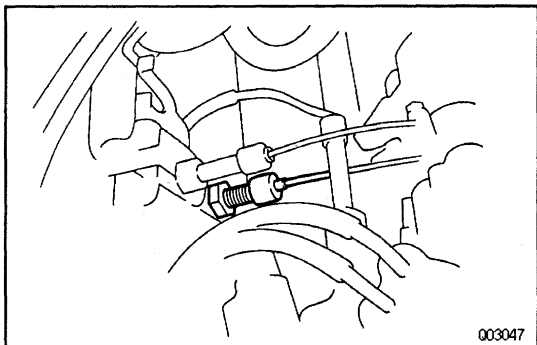
## TRANSMISSION REMOVAL

AT09V-03

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

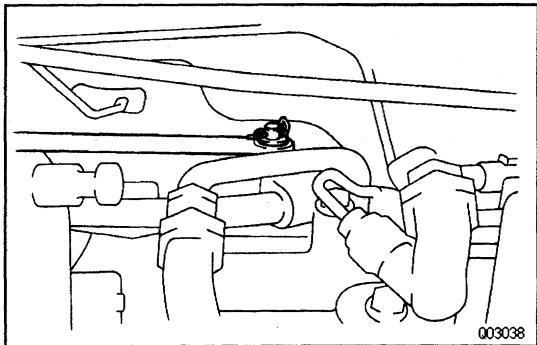


3. LOOSEN FAN SHROUD OF COOLING FAN TO AVOID DAMAGE TO FAN



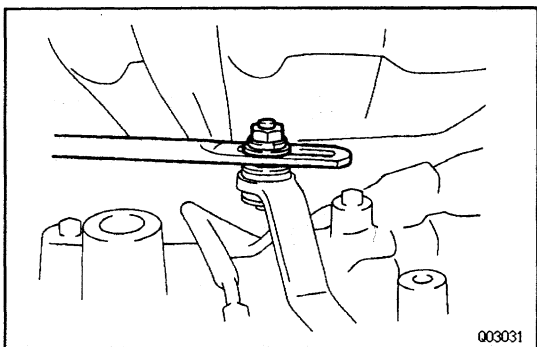
#### 4. DISCONNECT THROTTLE CABLE

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

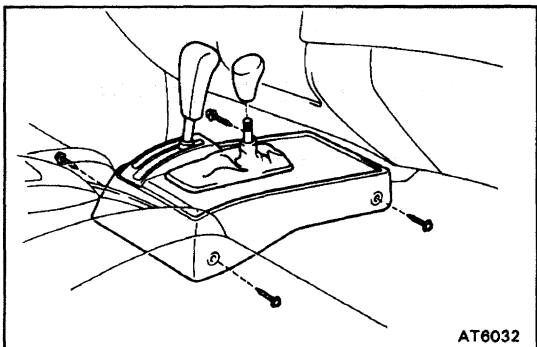


#### 5. REMOVE TRANSMISSION SELECT LEVER AND TRANSFER SHIFT LEVER

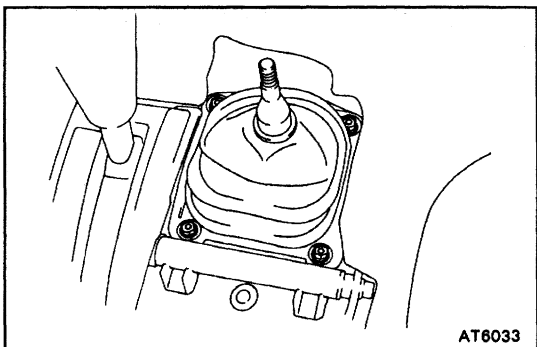
- (a) Remove the clip, washer and wave washer, and disconnect the link.



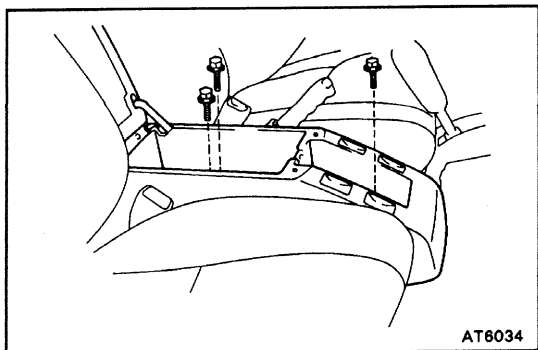
- (b) Remove the nut and washer, disconnect the link.



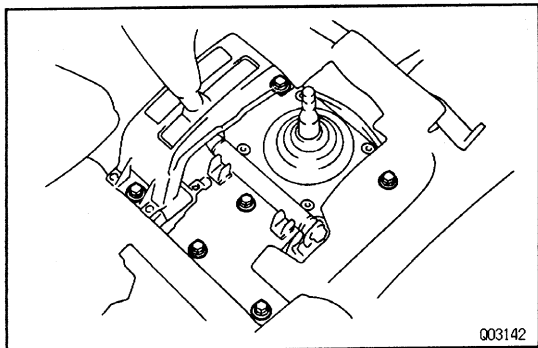
- (c) Remove the transfer shift lever knob.
- (d) Remove the 4 screws and console.



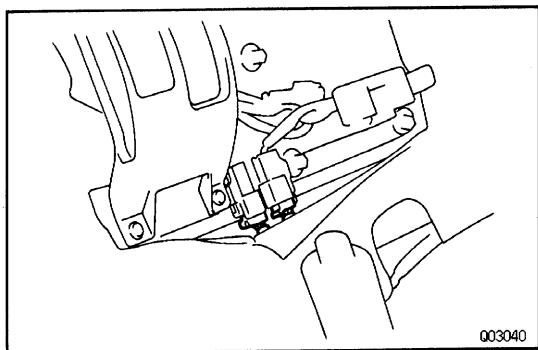
- (e) Remove the 4 bolts and transfer shift lever boot.



(f) Remove the 3 bolts and console box.

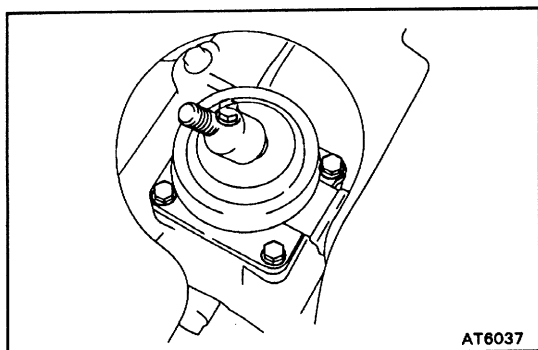


(g) Remove the 6 bolts.

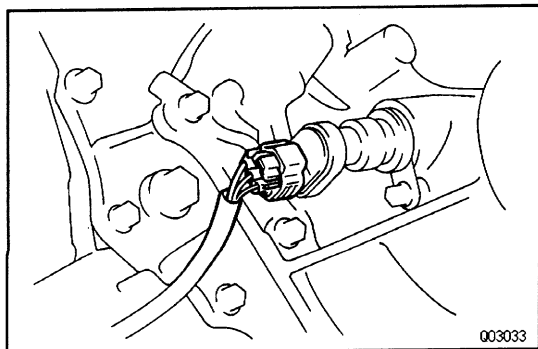


(h) Disconnect the connectors.

(i) Remove the transmission shift lever assembly.

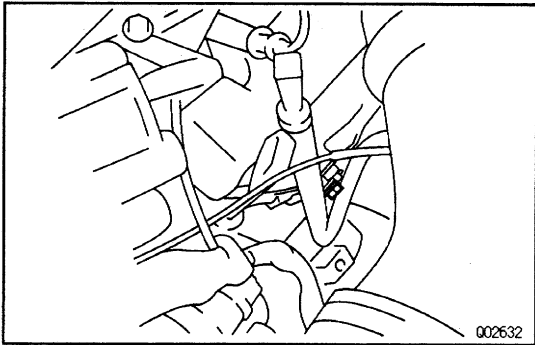


(j) Remove the 4 bolts and transfer shift lever.



**6. REMOVE NO.1 VEHICLE SPEED SENSOR CONNECTOR**

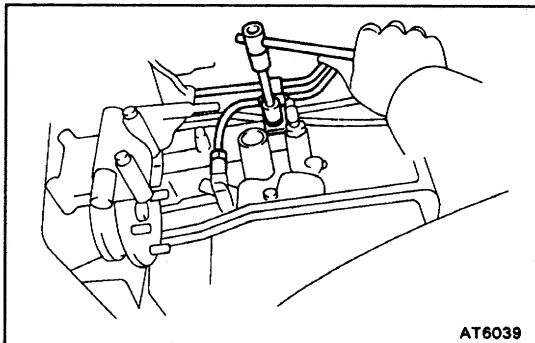
**7. REMOVE FRONT AND REAR PROPELLER SHAFT  
(SEE PAGES [PR-6](#))**

**8. REMOVE OIL FILLER TUBE**

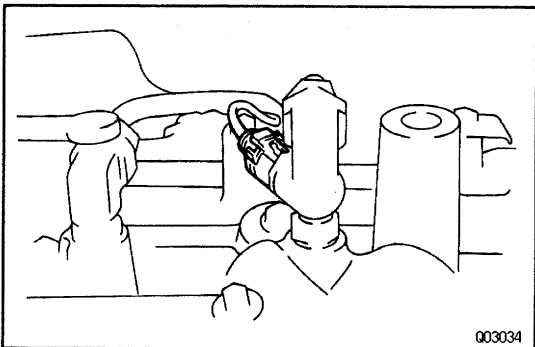
- (a) Remove the level gauge.
- (b) Remove the bolt.



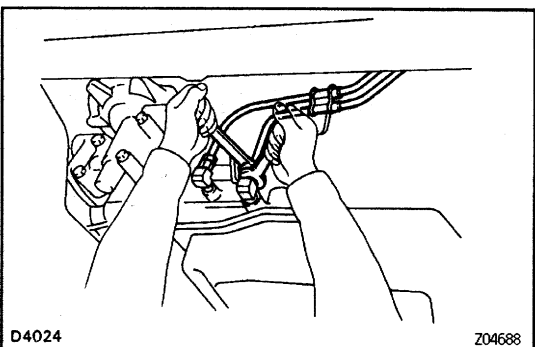
- (c) Remove the bolt and filler tube.

**9. DISCONNECT OIL COOLER TUBES**

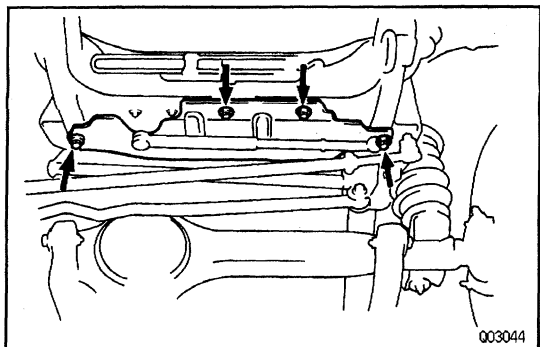
- (a) Remove the bolt and clamp.



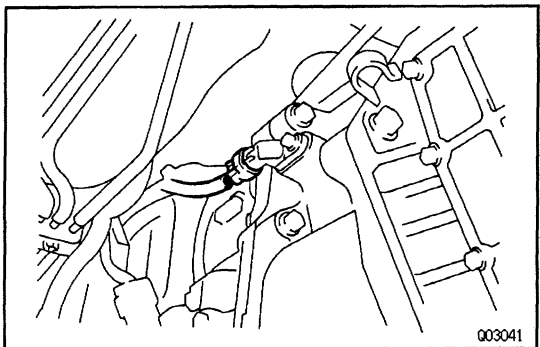
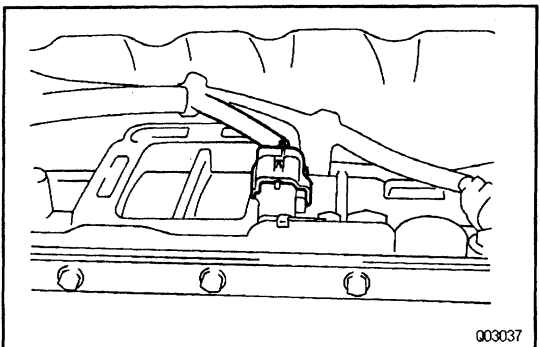
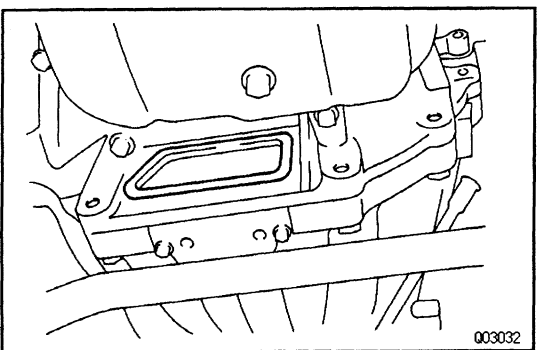
- (b) Disconnect the temperature sensor connector.



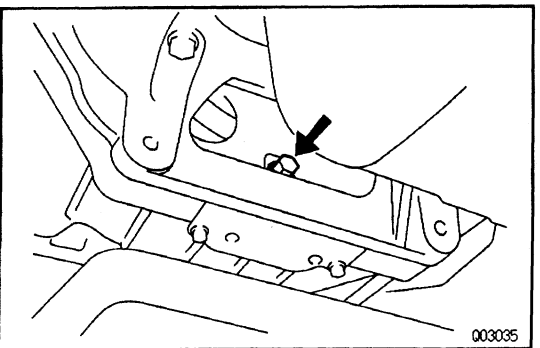
- (c) Disconnect the 2 oil cooler tubes.

**10. REMOVE ENGINE UNDER COVER**

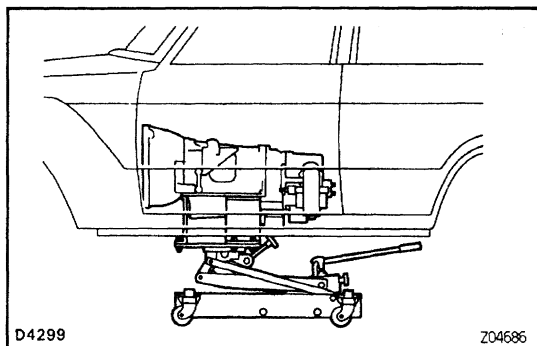
Remove the 4 bolts and cover.

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

(a) Remove the converter hole plug.

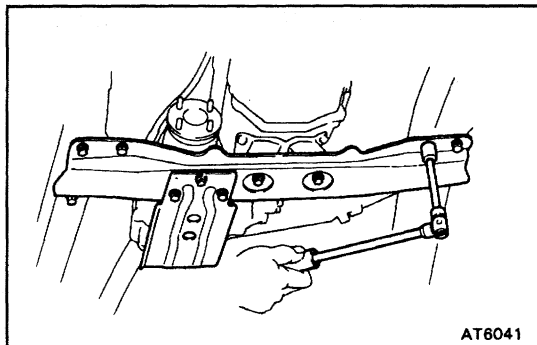


(b) Turn the crankshaft to gain access to each bolt.  
Remove the 6 bolts.

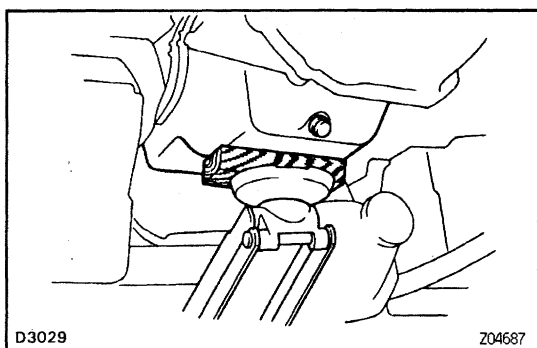


#### 14. REMOVE CROSSMEMBER

(a) Support the transmission with the transmission jack.



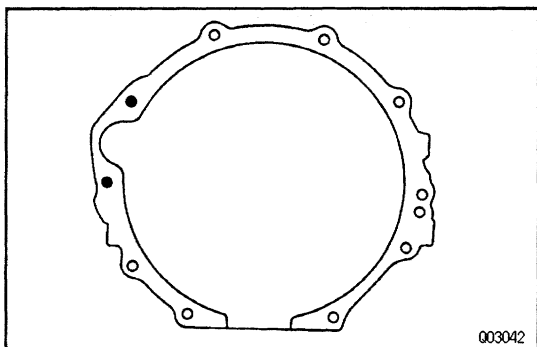
(b) Remove the 8 bolts and 2 nuts, and then remove the frame crossmember.



#### 15. REMOVE TRANSMISSION ASSEMBLY

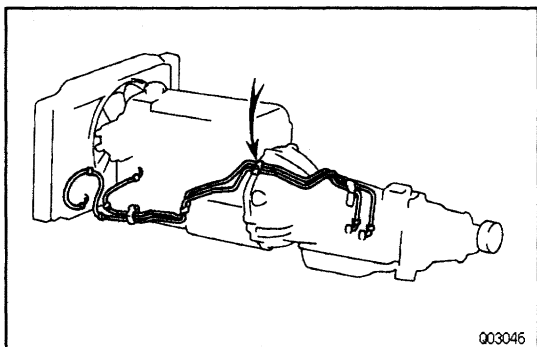
(a) Be sure to put a wooden block or equivalent between the jack and oil pan to prevent damage. Support the oil pan with a jack.

(b) Lower the rear end of transmission.



(c) Remove the nut and disconnect the connectors from the starter.

(d) Remove the 2 bolts and starter.

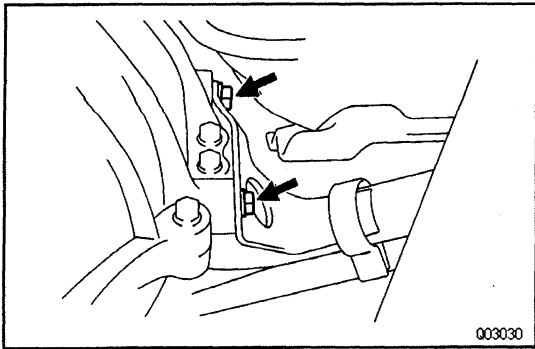


(e) Disconnect the park/neutral position switch connectors.

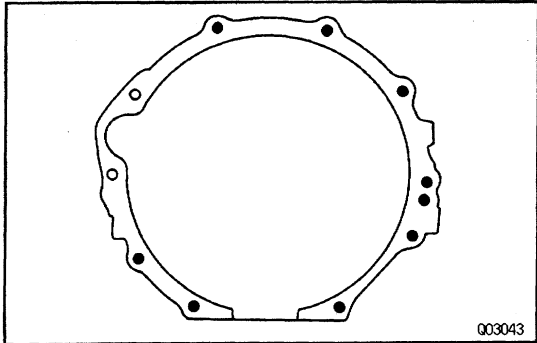
(f) Remove the bolt and disconnect the oil cooler tube clamp from the converter clutch housing.

(g) Disconnect the connectors from the transfer.

(h) Remove the clamp and disconnect the wire harness from the transmission and transfer.



(i) Remove the 2 bolts and disconnect the exhaust pipe bracket from the converter clutch housing.

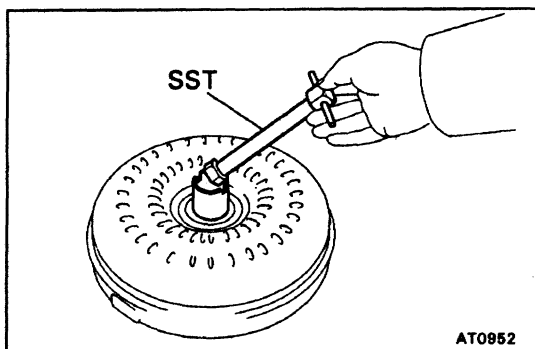


(j) Remove the bolts and transmission.

AT01W-M

### TORQUE CONVERTER CLUTCH CLEANING

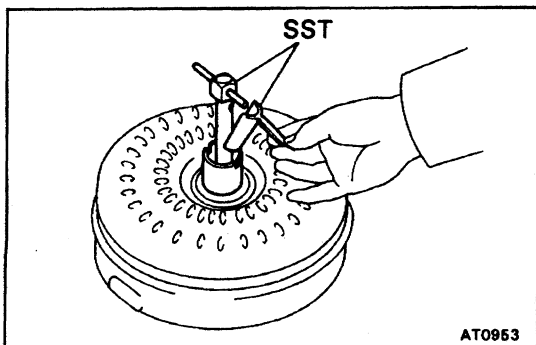
If the transmission is contaminated, the torque converter clutch and transmission cooler should be thoroughly flushed with ATF.



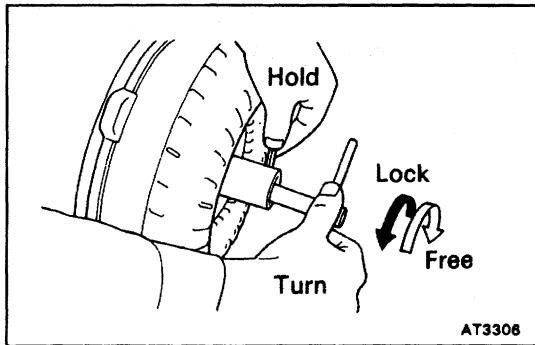
## TORQUE CONVERTER CLUTCH AND DRIVE PLATE INSPECTION <sup>AT09X-01</sup>

### 1. INSPECT ONE-WAY CLUTCH

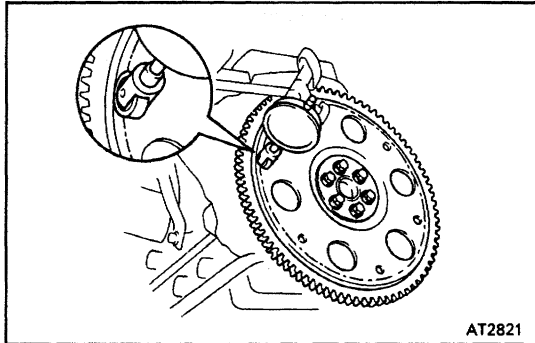
(a) Install SST in the inner race of one-way clutch.  
SST 09350-30020 (09351-32010)



(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.

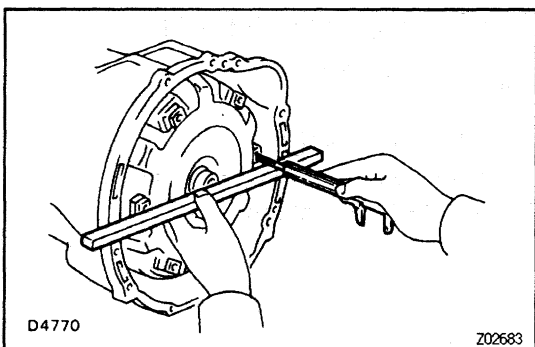
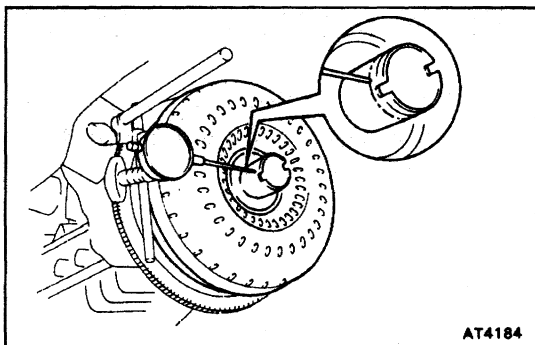
**Torque: 100 N-m (1,000 kgf-cm, 72 ft-lbf)**

## 3. MEASURE TORQUE CONVERTER CLUTCH SLEEVE runout

- (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.



AT00Y-03

# TRANSMISSION INSTALLATION

## 1. INSTALL TORQUE CONVERTER CLUTCH IN TRANSMISSION

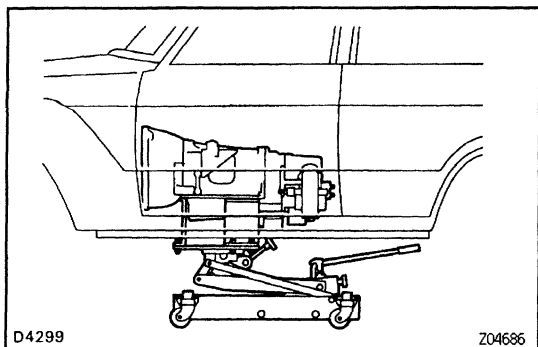
If the torque converter clutch has been drained and washed, refill with new ATF.

Fluid type:

ATF DEXRON®II

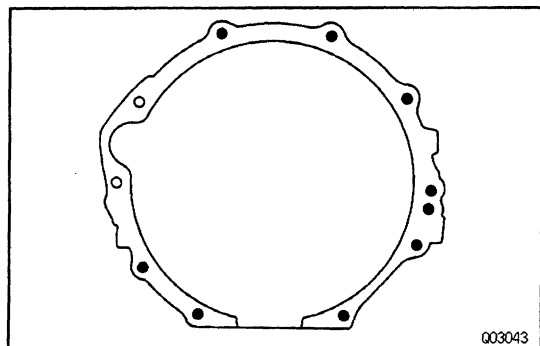
## 2. CHECK TORQUE CONVERTER CLUTCH INSTALLATION

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.



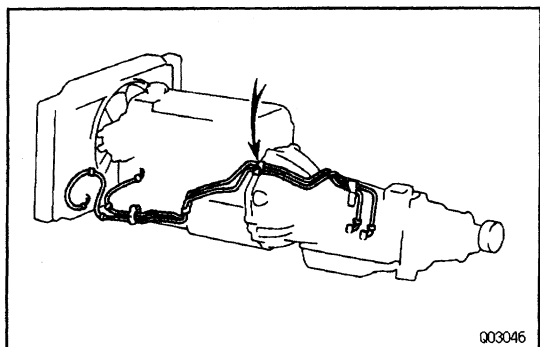
### 4. INSTALL TRANSMISSION BOLTS

(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.

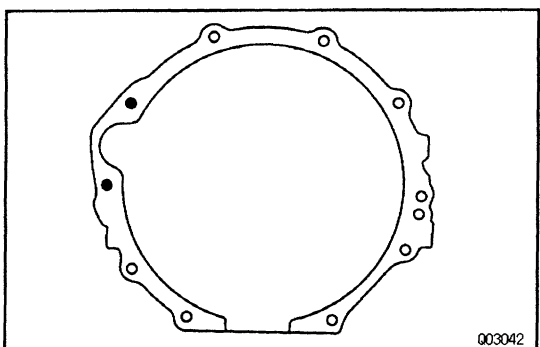
(c) Connect the connectors to the transfer.



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

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

(e) Connect the park/neutral position switch connector.

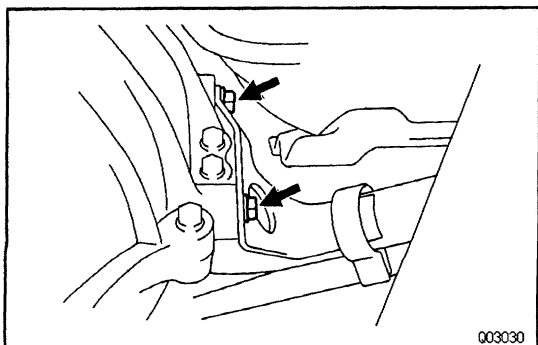


(f) Install the starter with the 2 bolts.

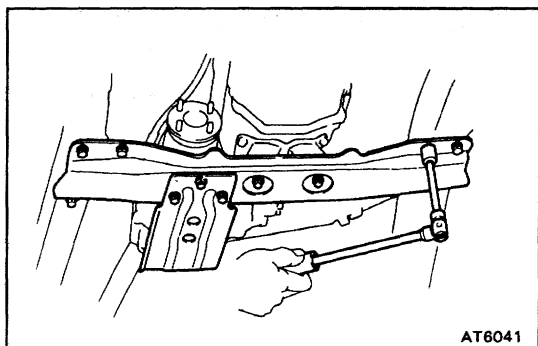
**Torque: 72 N·m (730 kgf-cm, 53 ft-lbf)**

(g) Connect the connectors to the starter.

(h) Install the nut to the starter.



(i) Connect the exhaust pipe bracket to the converter clutch housing with the 2 bolts.



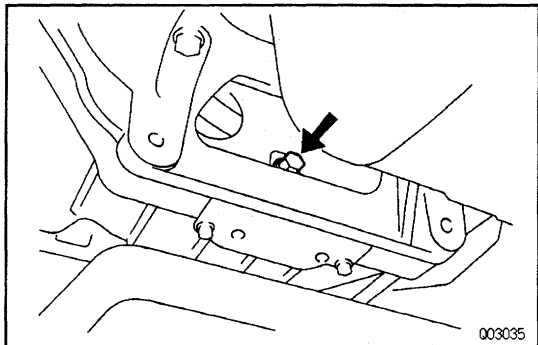
## 5. INSTALL CROSSMEMBER

Install the crossmember with 8 bolts and 2 nuts.

Torque:

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

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

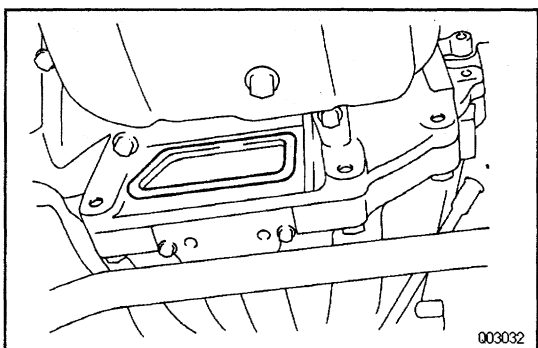


## 6. INSTALL

### TORQUE CONVERTER CLUTCH MOUNTING BOLTS

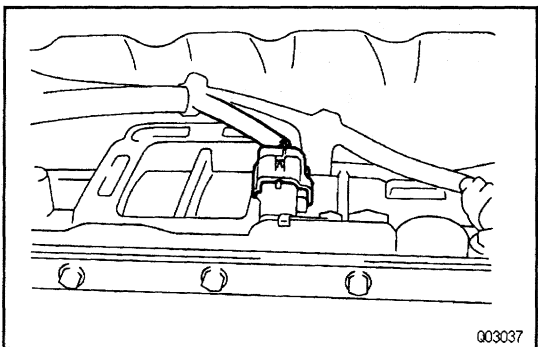
(a) install the 6 bolts while turning the crankshaft.

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

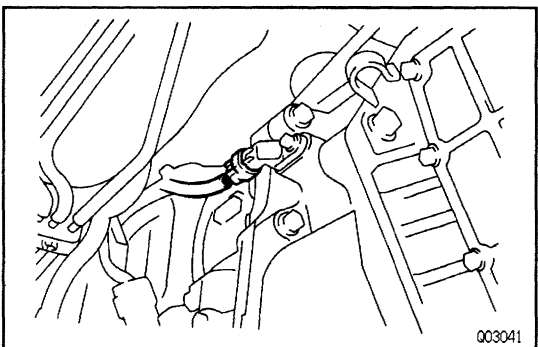


(b) Seal the converter hole plug with adhesive.

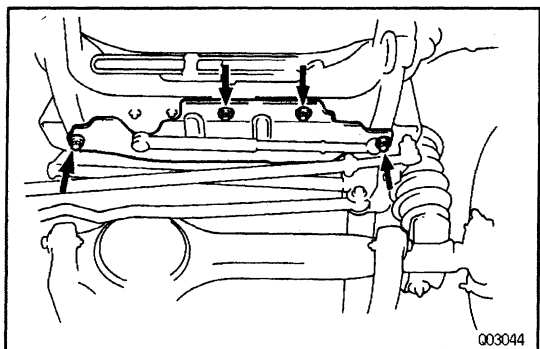
(c) Install the converter hole plug.



## 7. CONNECT SOLENOID CONNECTOR



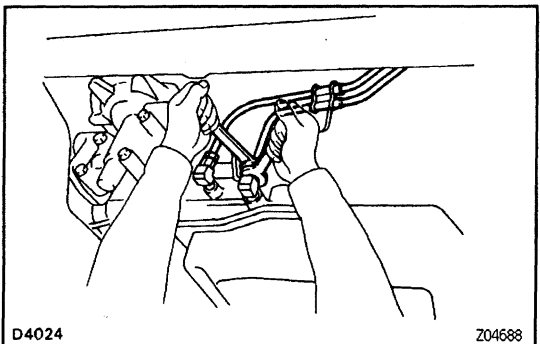
## 8. CONNECT NO. 2 VEHICLE SPEED SENSOR CONNECTOR



## 9. INSTALL ENGINE UNDER COVER

Install the cover with the 4 bolts.

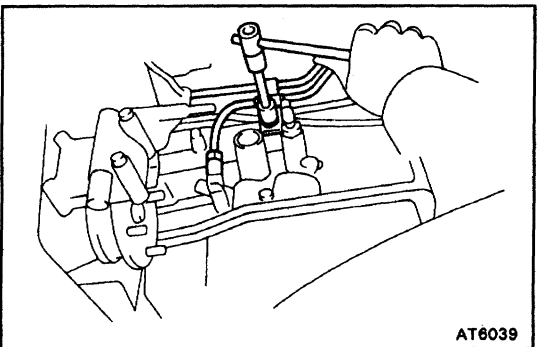
**Torque: 28 N-m (290 kgf-cm, 21 ft-lbf)**



## 10. CONNECT OIL COOLER TUBES

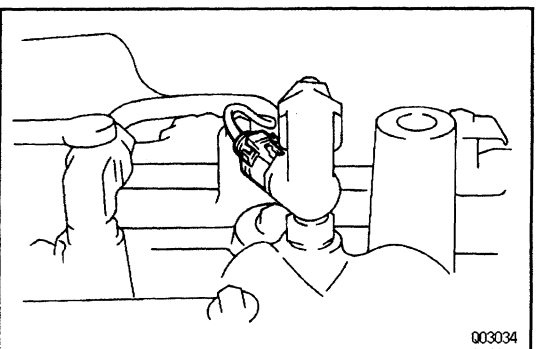
(a) Connect the 2 oil cooler tubes.

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

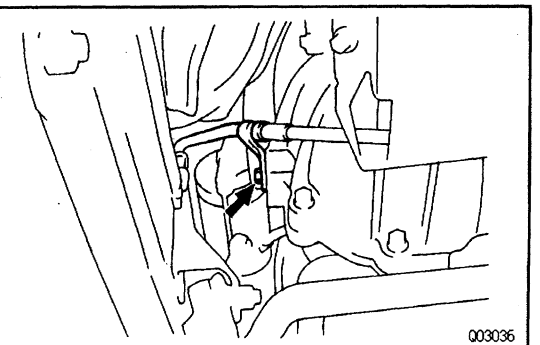


(b) Install the cooler tube clamp.

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

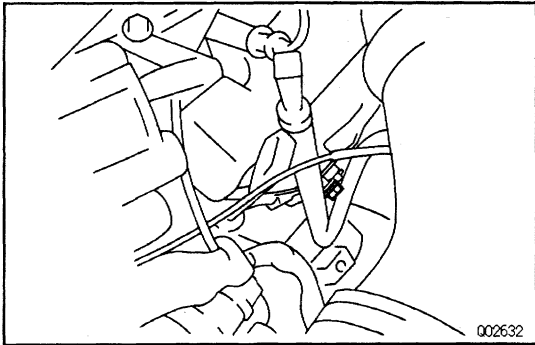


(c) Connect the oil temperature sensor connector.

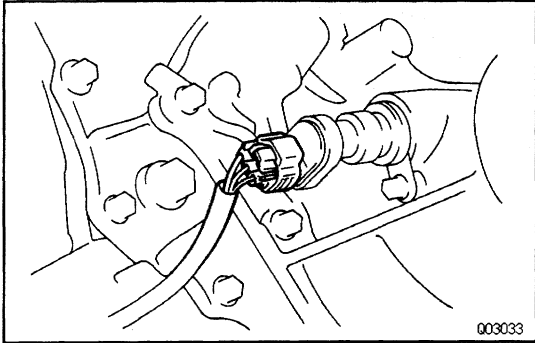


## 11. INSTALL OIL FILLER TUBE

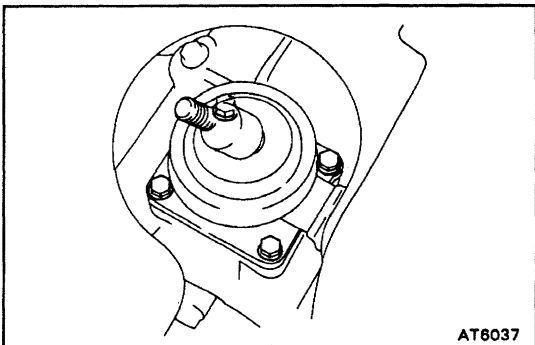
(a) Install the filler tubes with the bolt.



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

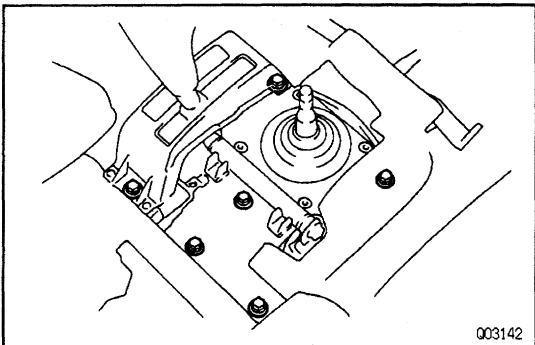


- 12. CONNECT NO. 1 VEHICLE SPEED SENSOR CONNECTOR**
- 13. INSTALL FRONT AND REAR PROPELLER SHAFTS**  
(SEE PAGES [PR-12](#))

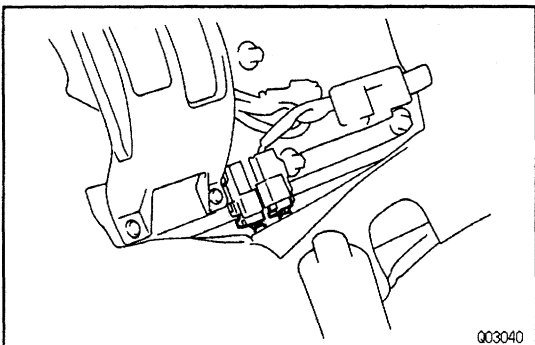


**14. INSTALL TRANSMISSION SELECT LEVER AND  
TRANSFER SHIFT LEVER**

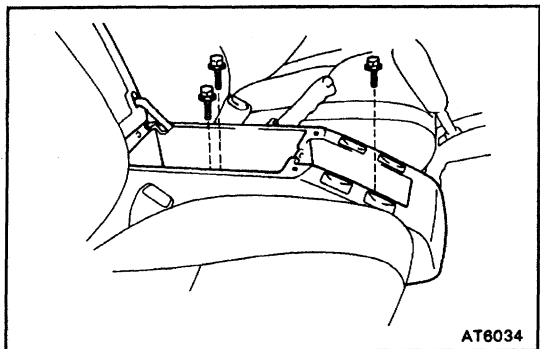
- (a) Remove the 4 bolts and transfer shift lever.



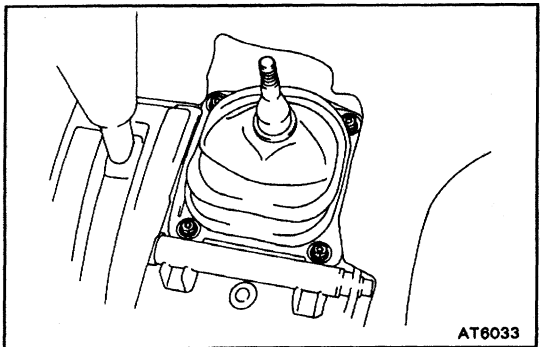
- (b) Install the transmission shift lever assembly with the 6 bolts.



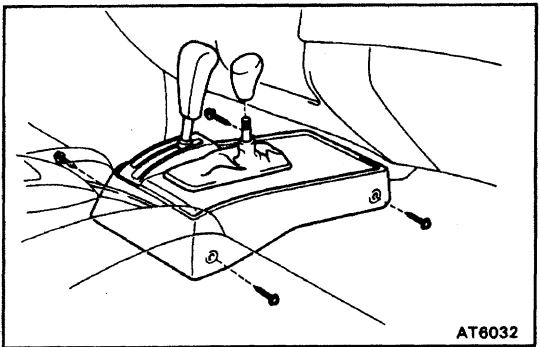
- (c) Connect the connectors.



(d) Install the console box with the 3 bolts.

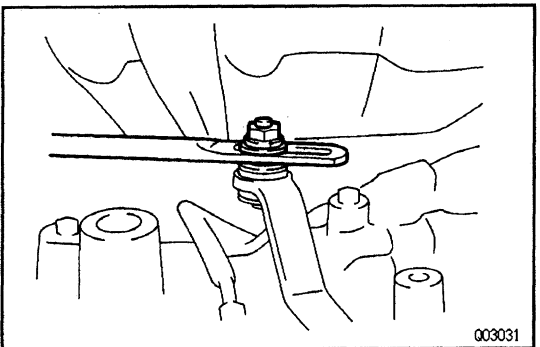


(e) Install the transfer shift lever boot with the 4 bolts.

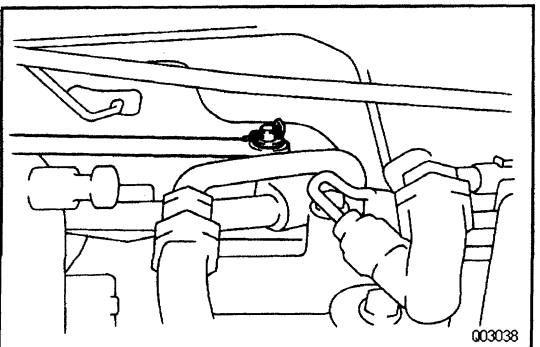


(f) Install the 4 screws and the console.

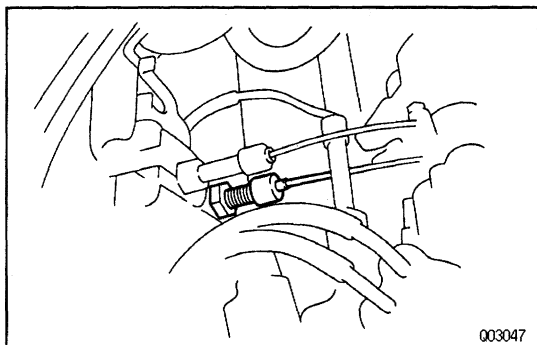
(g) Install the transfer shift lever knob.



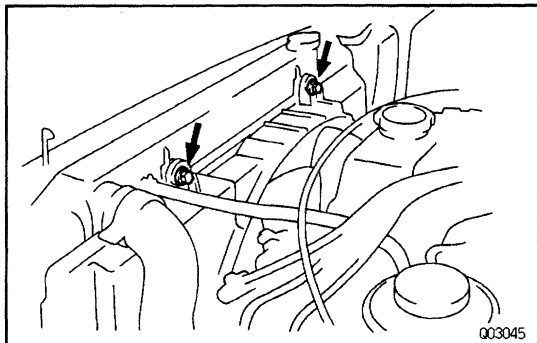
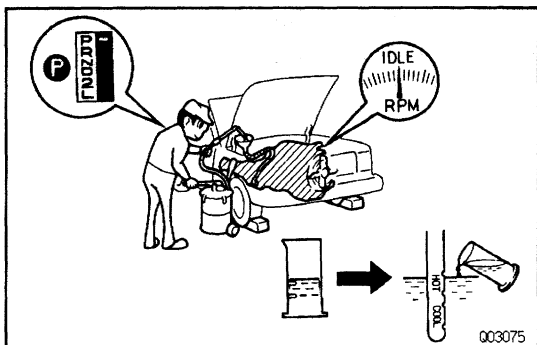
(h) Connect the link with the washer and nut.



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

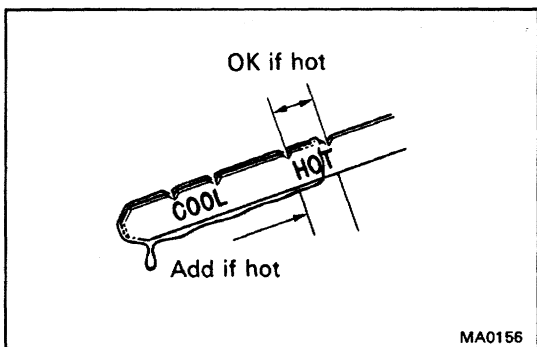
**15. CONNECT THROTTLE CABLE**

- (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 TO 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 Imperial qts)

**22. CHECK FLUID LEVEL**(SEE PAGE [AT-25](#))