
AUTOMATIC TRANSAXLE (A241E)

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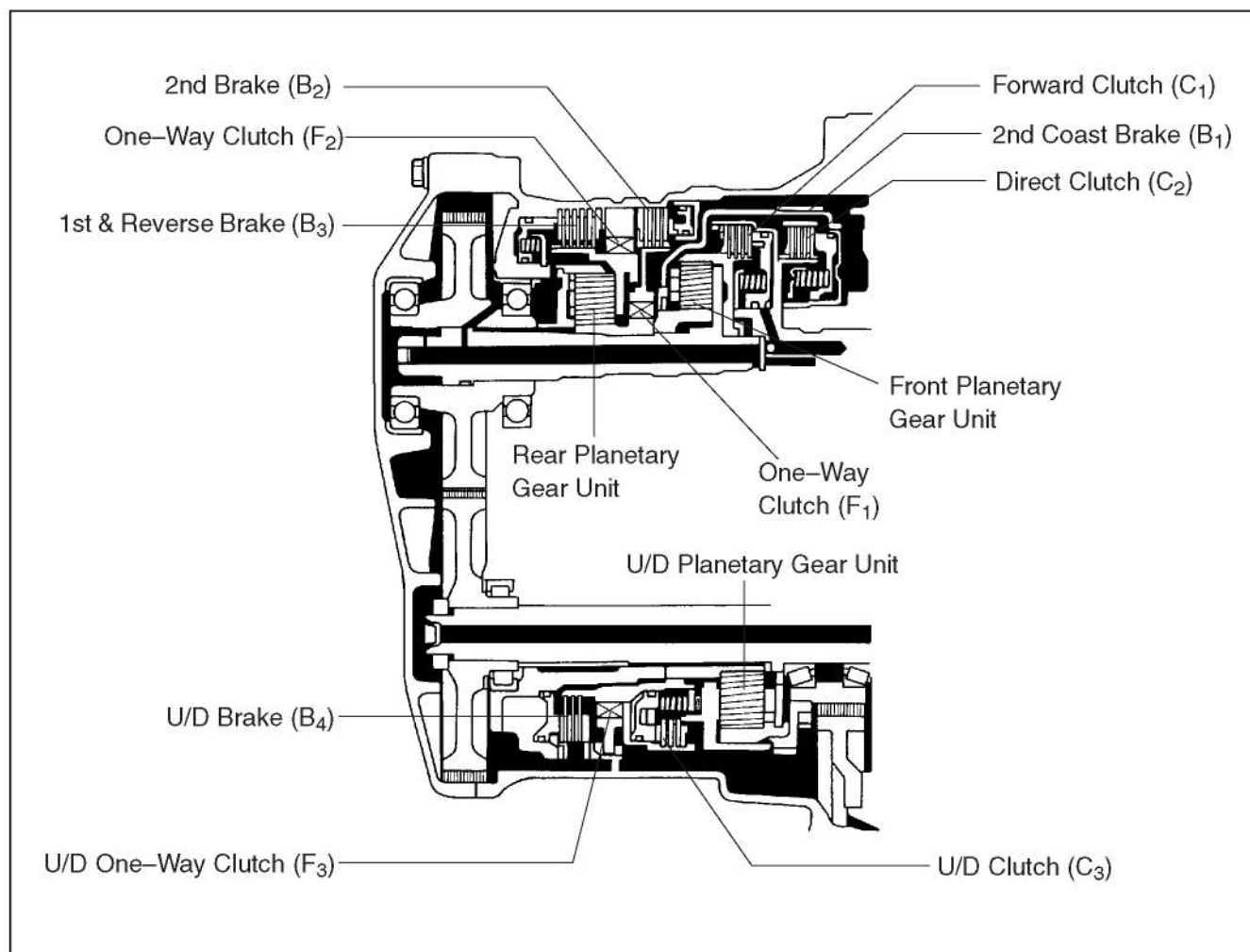
AUTOMATIC TRANSAXLE SYSTEM

PRECAUTION

AX02L-03

If the vehicle is equipped with a mobile communication system, refer to the precautions in the IN section.

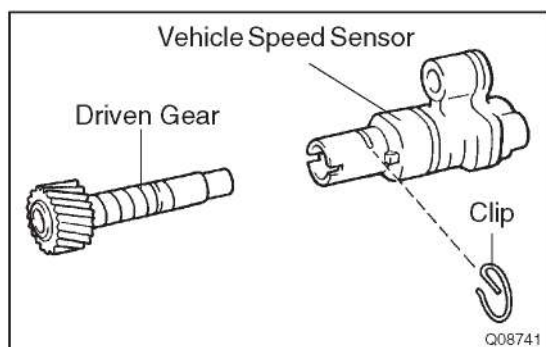
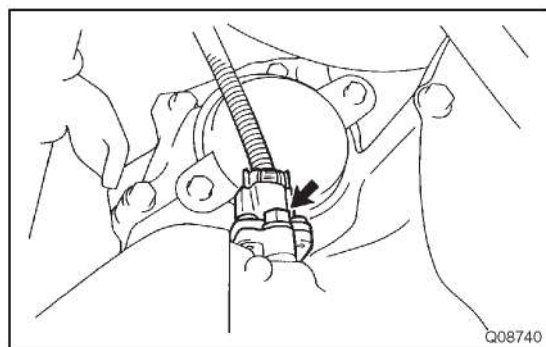
OPERATION



Shift Lever Range	Gear	No.1 Solenoid Valve	No.2 Solenoid Valve	C ₁	C ₂	C ₃	B ₁	B ₂	B ₃	B ₄	F ₁	F ₂	F ₃
P	Park	ON	OFF							●			
R	Reverse	ON	OFF		●				●	●			
N	Neutral	ON	OFF							●			
D	1st	ON	OFF	●						●		●	●
	2nd	ON	ON	●				●		●	●		●
	3rd	OFF	ON	●	●			●		●			●
	O/D	OFF	OFF	●	●	●		●					
2	1st	ON	OFF	●						●		●	●
	2nd	ON	ON	●			●	●		●	●		●
	3rd*	OFF	ON	●	●			●		●			●
L	1st	ON	OFF	●					●	●		●	●
	2nd*	ON	ON	●			●	●		●	●		●

● : Operating

* : Down-Shift only in the 3rd gear for the 2 range and 2nd gear for the L-range – no up-shift

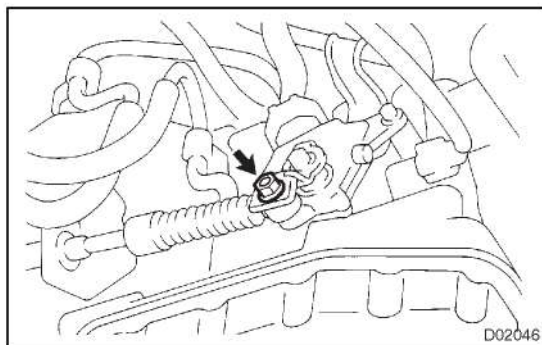


VEHICLE SPEED SENSOR ON-VEHICLE REPAIR

AX05Y-01

1. **DISCONNECT VEHICLE SPEED SENSOR CONNECTOR**
2. **REMOVE VEHICLE SPEED SENSOR ASSEMBLY**
 - (a) Remove the bolt and the vehicle speed sensor assembly.
 - (b) Remove the clip and the speedometer driven gear from the vehicle speed sensor.
 - (c) Remove the O-ring from the vehicle speed sensor.
3. **INSTALL VEHICLE SPEED SENSOR ASSEMBLY**
 - (a) Coat a new O-ring with ATF and install it to the vehicle speed sensor.
 - (b) Install the speedometer driven gear and clip to the vehicle speed sensor.
 - (c) Install the vehicle speed sensor assembly and tighten the bolts.
4. **CONNECT VEHICLE SPEED SENSOR CONNECTOR**

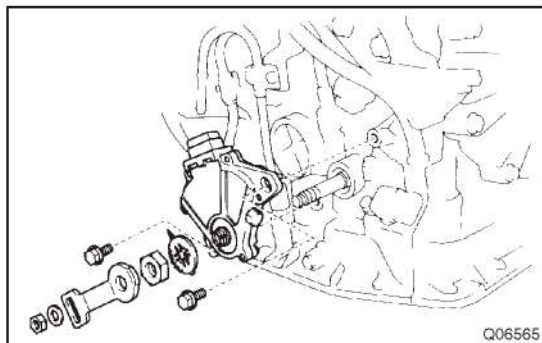
Torque: 16 N·m (160 kgf·cm, 12 ft·lbf)



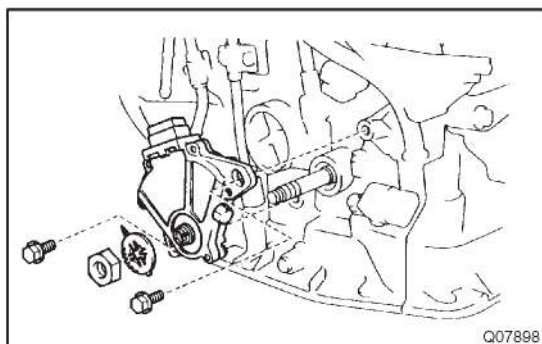
NEUTRAL START SWITCH ON-VEHICLE REPAIR

AX05Z-01

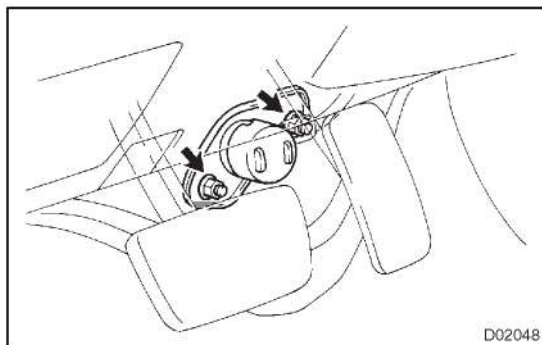
1. REMOVE LH ENGINE UNDER COVER
2. DISCONNECT SHIFT CONTROL CABLE FROM CONTROL SHAFT LEVER
3. DISCONNECT NEUTRAL START SWITCH CONNECTOR



4. REMOVE NEUTRAL START SWITCH
 - (a) Remove the nut and control shaft lever.
 - (b) Pry out the lock washer and remove the control valve shaft nut.
 - (c) Remove the 2 bolts and pull out the neutral start switch.



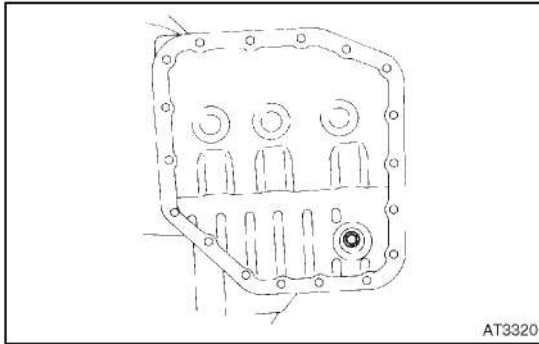
5. INSTALL NEUTRAL START SWITCH
 - (a) Install the neutral start switch with the 2 bolts to the control valve shaft.
Torque: 5.4 N·m (55 kgf·cm, 48 in.-lbf)
 - (b) Install a new lock plate and tighten the nut.
Torque: 6.9 N·m (70 kgf·cm, 61 in.-lbf)
 - (c) Stake the nut with lock plate.
 - (d) Install the control shaft lever and nut.
Torque: 12 N·m (120 kgf·cm, 9 ft.-lbf)
6. CONNECT NEUTRAL START SWITCH CONNECTOR
7. CONNECT SHIFT CONTROL CABLE TO CONTROL SHAFT LEVER
Torque: 12 N·m (120 kgf·cm, 9 ft.-lbf)
8. CHECK NEUTRAL START SWITCH OPERATION
Check that the engine can be started with the shift lever only in the N or P range, but not in other ranges.
If not as stated above, carry out the adjustment procedure (See page DI-4).
9. INSTALL LH ENGINE UNDER COVER
10. TEST DRIVE VEHICLE



KICK-DOWN SWITCH REPLACEMENT

AX06D-01

1. **TURN OVER FLOOR CARPET**
2. **REMOVE KICK-DOWN SWITCH**
 - (a) Disconnect the kick-down switch connector.
 - (b) Remove the 2 nuts and kick-down switch.
3. **INSTALL KICK-DOWN SWITCH**
 - (a) Install the kick-down switch with the 2 nuts.
 - (b) Connect the kick-down switch connector.
4. **PLACE FLOOR CARPET**



VALVE BODY ASSEMBLY ON-VEHICLE REPAIR

AX061-01

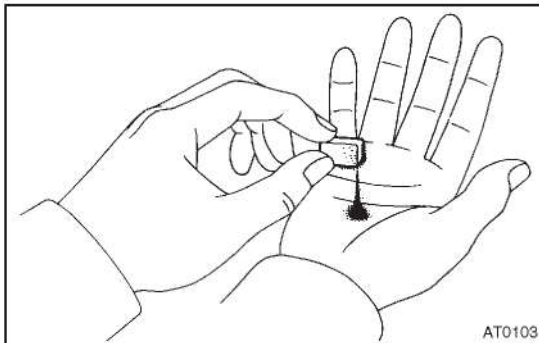
1. REMOVE DRAIN PLUG AND DRAIN ATF
2. REMOVE OIL PAN AND GASKET

Remove the 18 bolts and oil pan.

NOTICE:

Some fluid will remain in the oil pan.

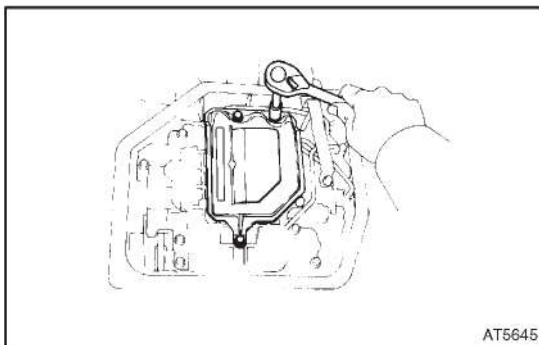
3. REMOVE 2 MAGNETS FROM OIL PAN



4. EXAMINE PARTICLES IN PAN

Remove the magnets and use them to collect any steel chips. Look carefully at the chips and particles in the pan and the magnet to anticipate what type of wear you will find in the transaxle.

- Steel (magnetic): bearing, gear and plate wear
- Brass (non-magnetic): bushing wear

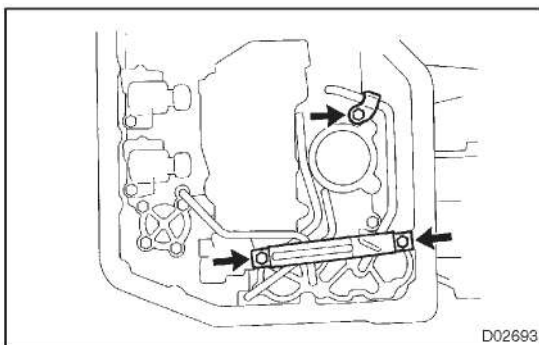


5. REMOVE OIL STRAINER

Remove the 3 bolts, oil strainer and gasket.

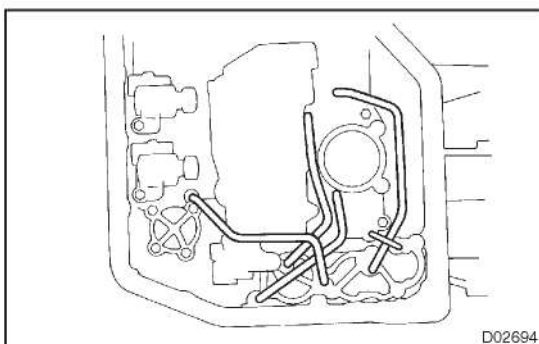
NOTICE:

Be careful as some fluid will come out with the oil strainer.



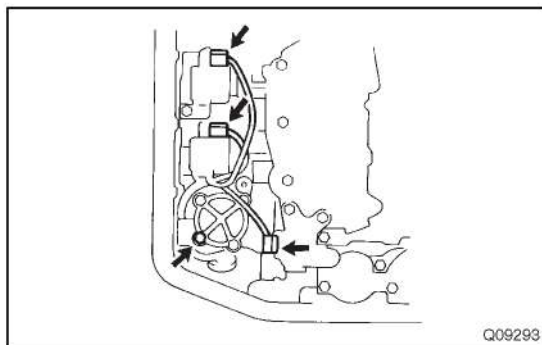
6. REMOVE OIL PIPE BRACKET AND OIL PIPE CLAMP

- (a) Remove the 2 bolts and oil pipe bracket.
- (b) Remove the bolt and oil pipe clamp.

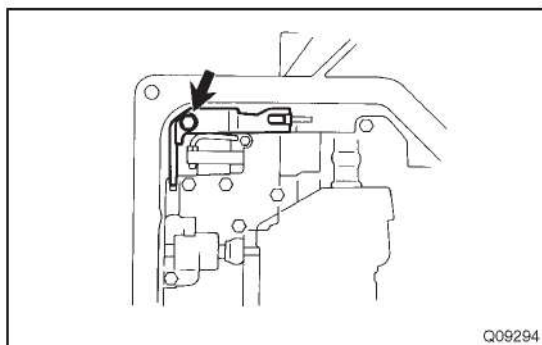


7. REMOVE OIL PIPE

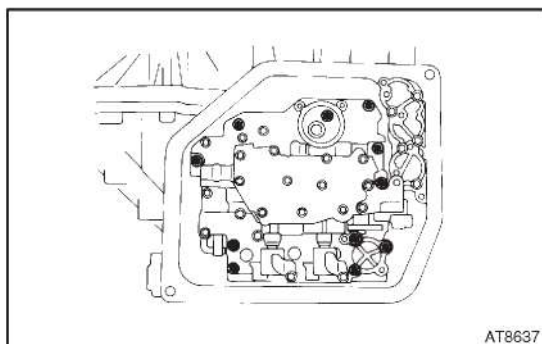
Pry up the both pipe ends with a large screwdriver and remove the 5 pipes.

**8. DISCONNECT 3 SOLENOID CONNECTORS****9. REMOVE WIRE CLAMP**

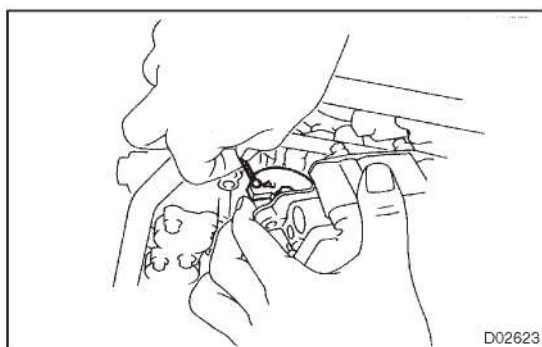
Remove the bolt and clamp.

**10. REMOVE MANUAL DETENT SPRING**

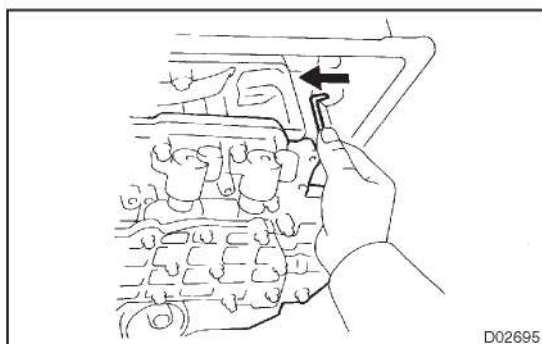
Remove the bolt and manual detent spring.

**11. REMOVE VALVE BODY**

(a) Remove the 11 bolts.

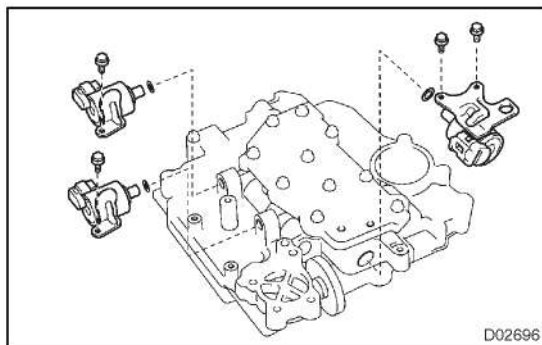


(b) Disconnect the throttle cable from the cam.

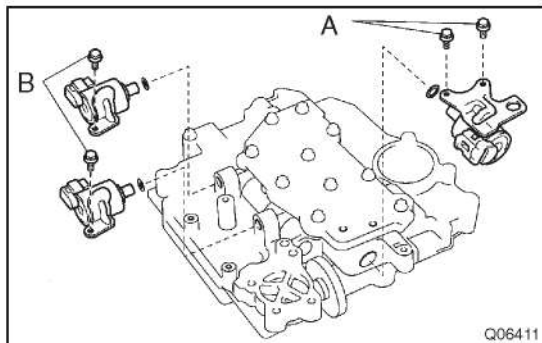


(c) Disconnect manual valve connecting rod.

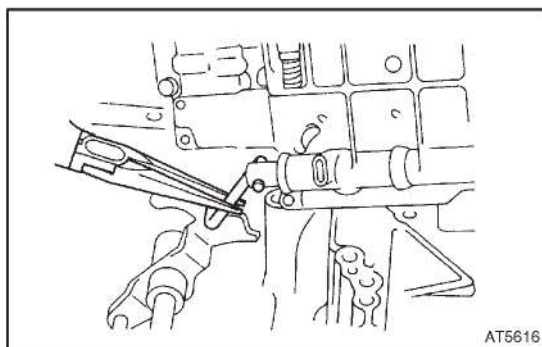
(d) Remove the valve body.

**12. REMOVE SOLENOID VALVE**

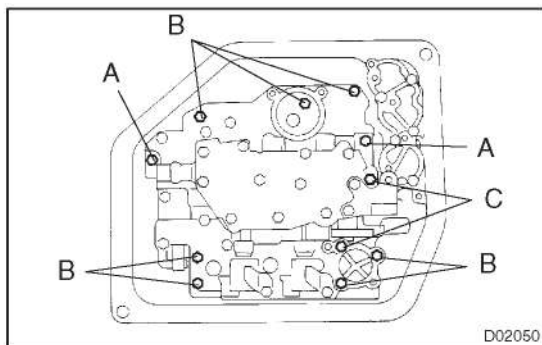
- (a) Remove the 4 bolts and 3 solenoid valve.
- (b) Remove the O-rings from each of the solenoid valves.

**13. INSTALL SOLENOID VALVE**

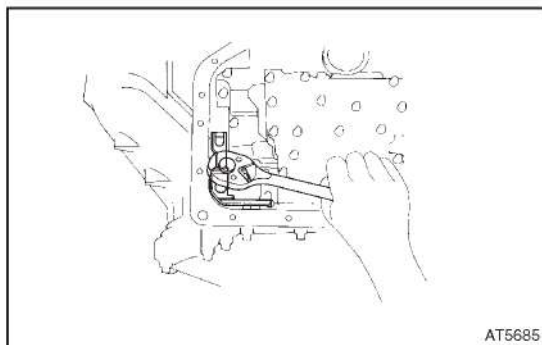
- (a) Install 3 new O-rings to each of the solenoid valves.
- (b) Install the 3 solenoid valves and 4 bolts.

Torque:**A: 6.4 N·m (65 kgf·cm, 56 in.-lbf)****B: 10 N·m (100 kgf·cm, 7 ft·lbf)****14. INSTALL VALVE BODY**

- (a) Connect the connecting rod to the manual valve lever.
- (b) Connect the throttle cable to the cam.



- (c) Install the 11 bolts as shown in the illustration and hand-tighten all the bolts first. Then tighten them with a torque wrench.

Torque: 10 N·m (100 kgf·cm, 7 ft·lbf)**Bolt length:****A: 20 mm (0.79 in.)****B: 30 mm (1.18 in.)****C: 47 mm (1.85 in.)****15. INSTALL MANUAL DETENT SPRING**

Install the detent spring and cover in place, and install the 16 mm (0.63 in.) long bolt.

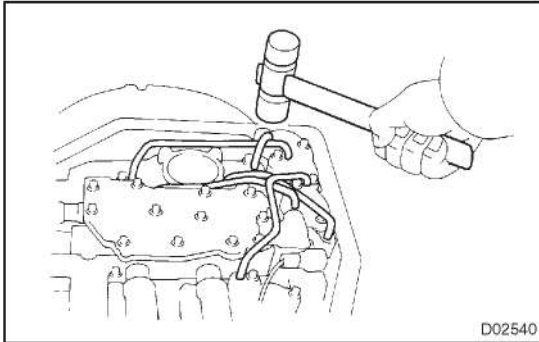
Torque: 10 N·m (100 kgf·cm, 7 ft·lbf)**HINT:**

Check that the manual valve lever is in contact with the center of the roller at the tip of the detent spring.

16. INSTALL WIRE CLAMP

Install the clamp with the bolt.

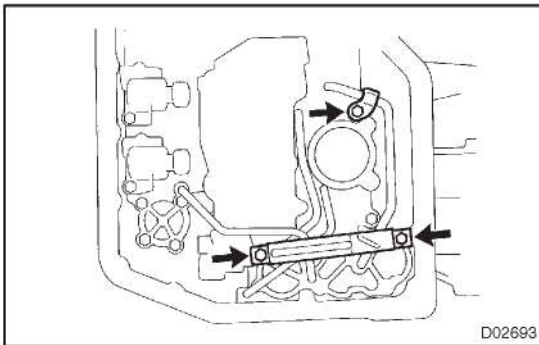
Torque: 10 N·m (100 kgf·cm, 7 ft·lbf)

17. CONNECT 3 SOLENOID CONNECTORS**18. INSTALL OIL PIPES**

Tap the pipes with a plastic hammer to install them into the positions indicated in the illustration.

NOTICE:

Be careful not to bend or damage the pipes.

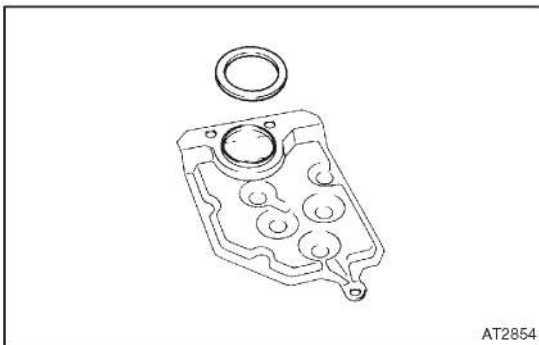
**19. INSTALL OIL PIPE BRACKET AND OIL PIPE CLAMP**

- (a) Install the oil pipe bracket with the 2 bolts.

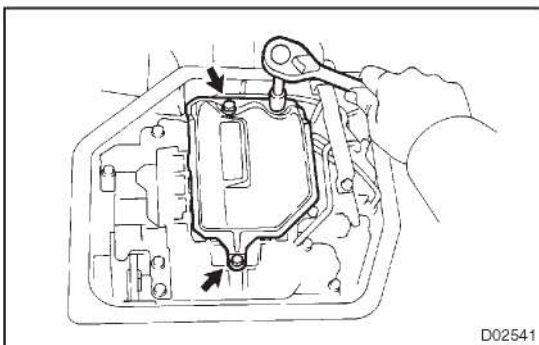
Torque: 10 N·m (100 kgf·cm, 7 ft·lbf)

- (b) Install the oil pipe clamp with the bolt.

Torque: 10 N·m (100 kgf·cm, 7 ft·lbf)

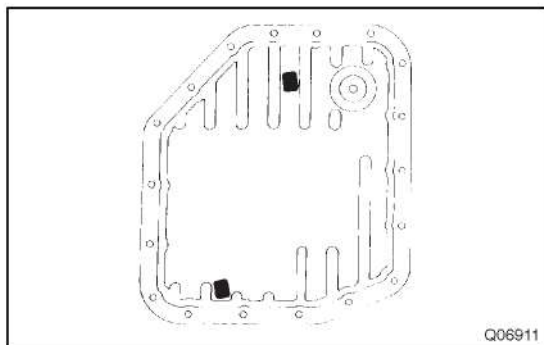
**20. INSTALL OIL STRAINER**

- (a) Install a new gasket to the oil strainer.



- (b) Install the oil strainer with the 3 bolts.

Torque: 10 N·m (100 kgf·cm, 7 ft·lbf)

**21. INSTALL 2 MAGNETS IN OIL PAN****NOTICE:**

Make sure that the magnets do not interfere with the oil pipes.

22. INSTALL OIL PAN AND GASKET

- (a) Install a new gasket to the oil pan and install them to the transaxle.
- (b) Install the 18 bolts.

Torque: 4.9 N·m (50 kgf·cm, 43 in.-lbf)

23. INSTALL DRAIN PLUG

Torque: 17 N·m (175 kgf·cm, 13 ft·lbf)

24. FILL ATF AND CHECK FLUID LEVEL

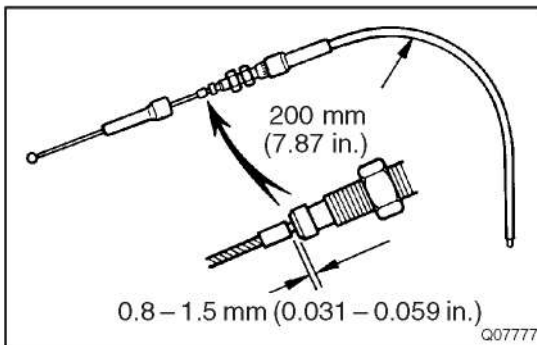
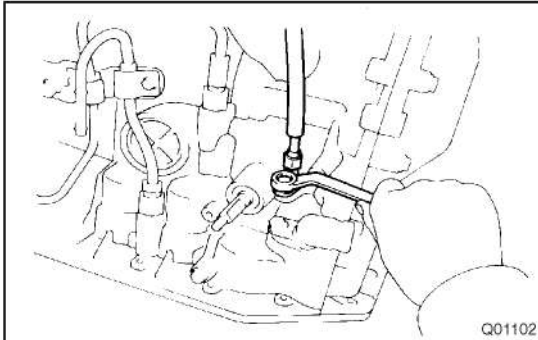
(See page DI-4)

THROTTLE CABLE ON-VEHICLE REPAIR

AX062-01

1. DISCONNECT THROTTLE CABLE FROM ENGINE
2. DISCONNECT SHIFT CONTROL CABLE FROM CONTROL SHAFT LEVER
3. REMOVE NEUTRAL START SWITCH
(See page AX-4)
4. REMOVE DRAIN PLUG AND DRAIN ATF
5. REMOVE VALVE BODY (See page AX-6)
6. REMOVE THROTTLE CABLE

Remove the retaining bolt and pull out the throttle cable.



7. INSTALL THROTTLE CABLE

If throttle cable is new, do the following operations (a) – (c).

- (a) Bend the cable so there is a radius of about 200 mm (7.87 in.).
- (b) Pull the inner cable lightly until slight resistance is felt, and hold it there.
- (c) Stake the stopper, 0.8 – 1.5 mm (0.031 – 0.059 in.) from the end of the outer cable.
- (d) Install a new O-ring to the throttle cable.
- (e) Insert the throttle cable and install the retaining bolt.

Torque: 10 N·m (100 kgf·cm, 7 ft·lbf)

8. INSTALL VALVE BODY (See page AX-6)

9. INSTALL NEUTRAL START SWITCH (See page AX-4)

10. CONNECT SHIFT CONTROL CABLE TO CONTROL SHAFT LEVER

Torque: 12 N·m (120 kgf·cm, 9 ft·lbf)

11. CONNECT THROTTLE CABLE TO ENGINE

12. INSTALL DRAIN PLUG

Torque: 17 N·m (175 kgf·cm, 13 ft·lbf)

13. FILL ATF AND CHECK FLUID LEVEL

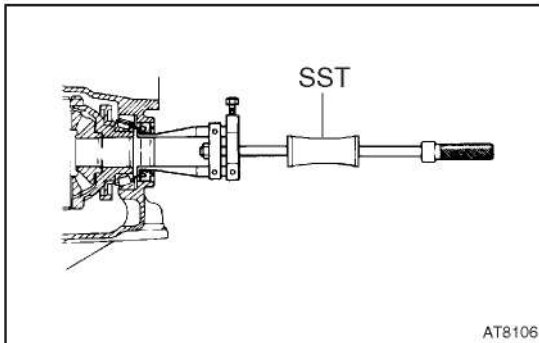
(See page DI-4)

14. ADJUST THROTTLE CABLE (See page DI-4)

15. TEST DRIVE VEHICLE

DIFFERENTIAL OIL SEAL ON-VEHICLE REPAIR

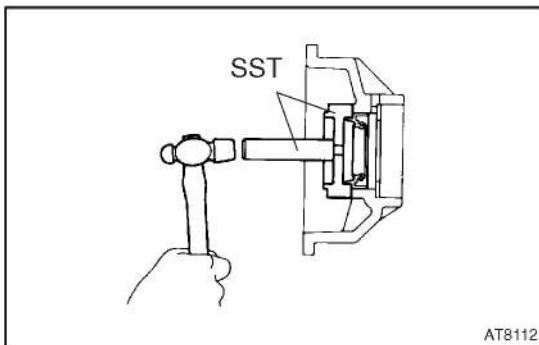
1. REMOVE LH AND RH ENGINE UNDER COVERS
2. REMOVE LH AND RH DRIVE SHAFTS
(See page SA-19)



3. REMOVE LH AND RH OIL SEALS

Using SST, drive out the LH and RH oil seals.

SST 09308-00010



4. INSTALL LH SIDE OIL SEAL

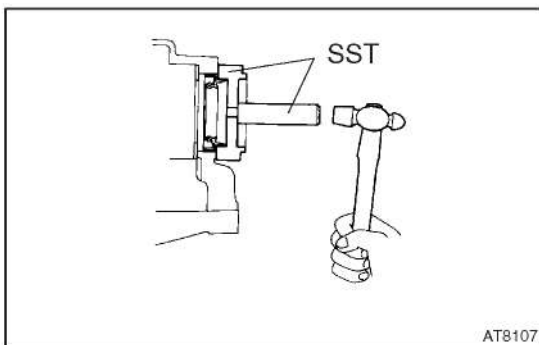
- (a) Using SST, drive in a new oil seal.

SST 09350-32014 (09351-32111),
09950-70010 (09951-07100)

Oil seal drive depth:

5.2 ± 0.5 mm (0.205 ± 0.020 in.)

- (b) Coat the lip of oil seal with MP grease.



5. INSTALL RH SIDE OIL SEAL

- (a) Using SST, drive in a new oil seal until SST makes contact with the case surface.

SST 09350-32014 (09351-32150),
09950-70010 (09951-07100)

Oil seal drive depth:

0 ± 0.5 mm (0 ± 0.020 in.)

- (b) Coat the lip of oil seal with MP grease.

6. INSTALL LH AND RH DRIVE SHAFTS (See page SA-28)

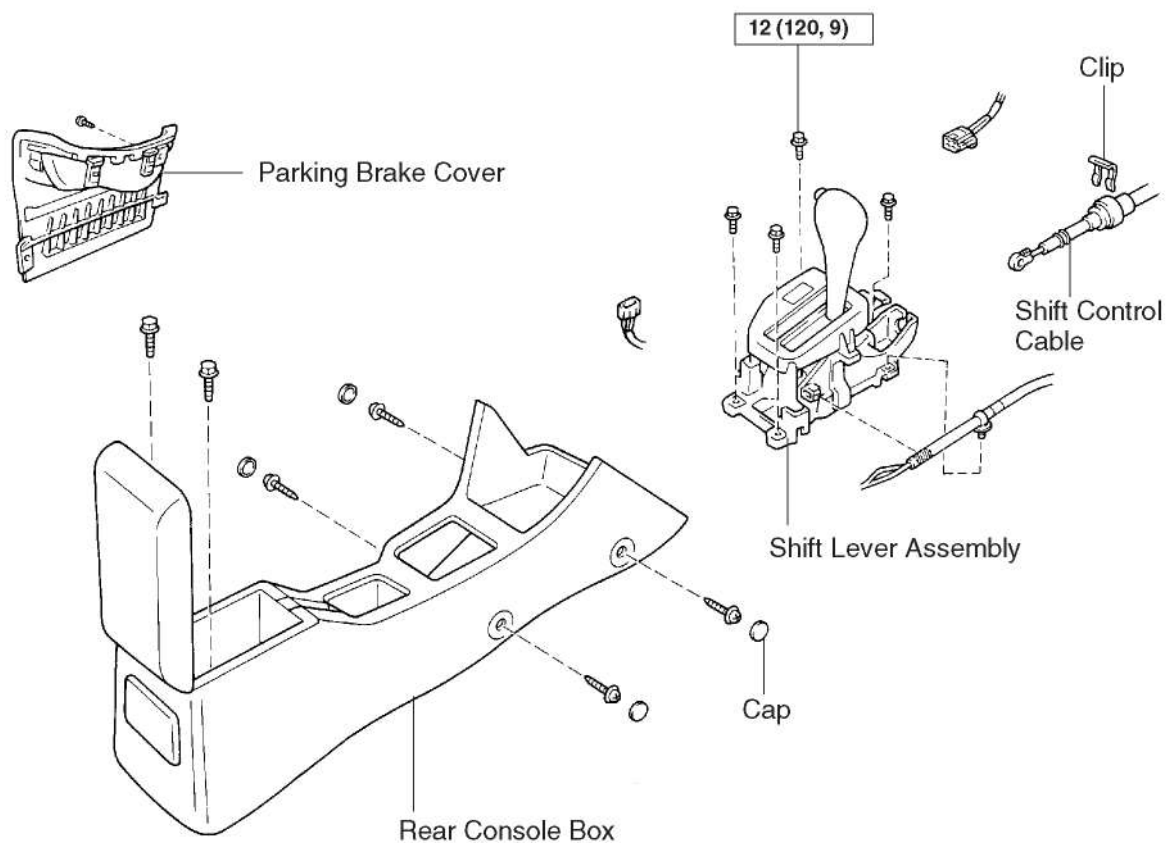
7. FILL ATF AND CHECK FLUID LEVEL

(See page DI-4)

8. INSTALL LH AND RH ENGINE UNDER COVERS

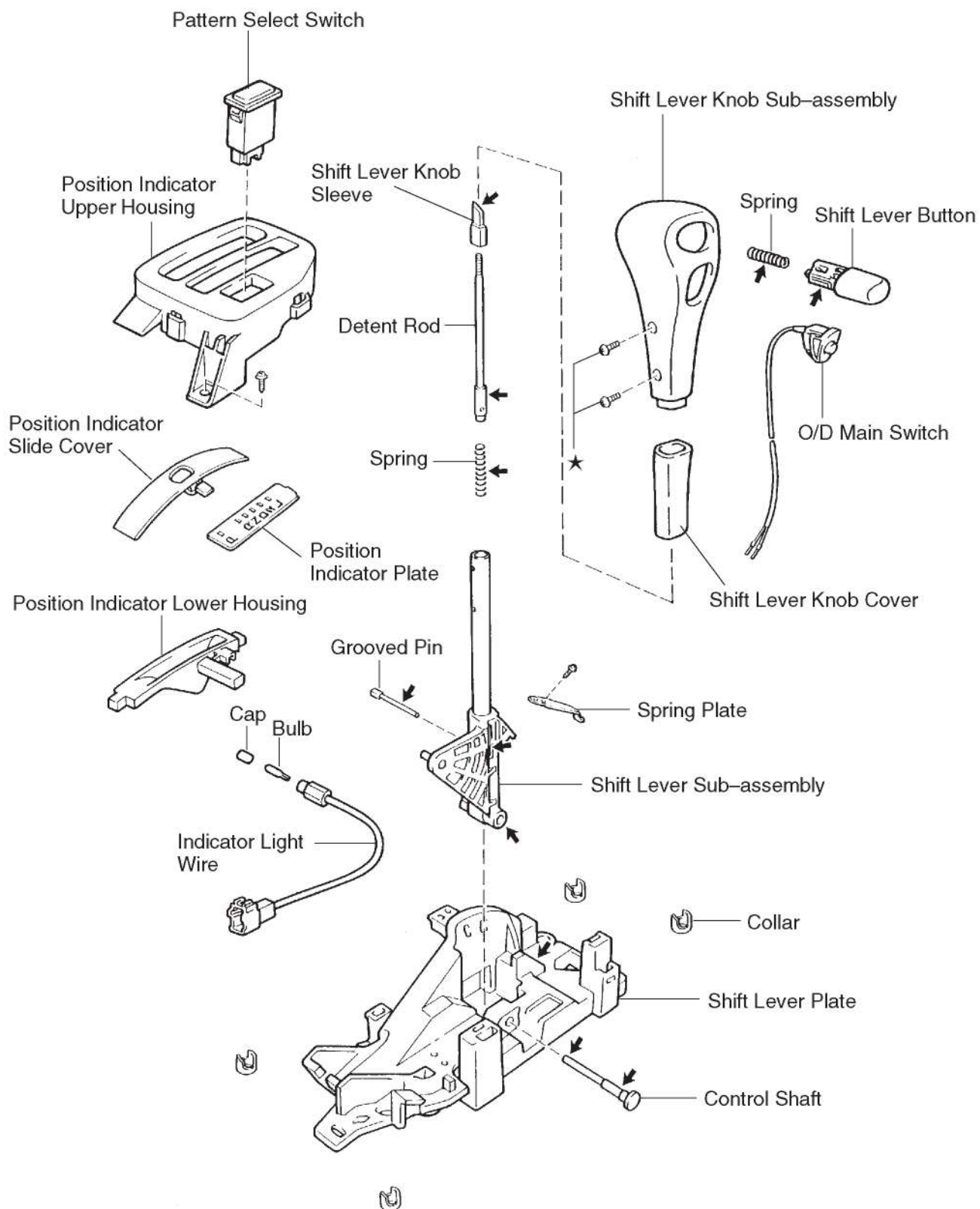
FLOOR SHIFT ASSEMBLY (LHD) COMPONENTS

AX02U-03



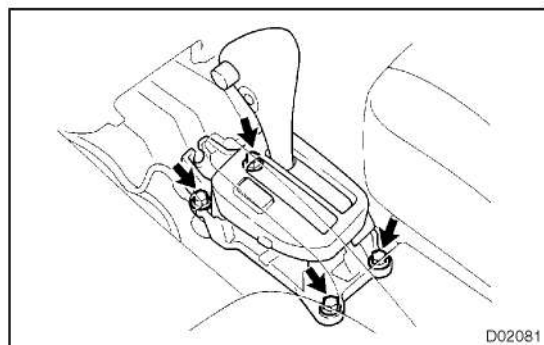
N·m (kgf·cm, ft·lbf) : Specified torque

D02056



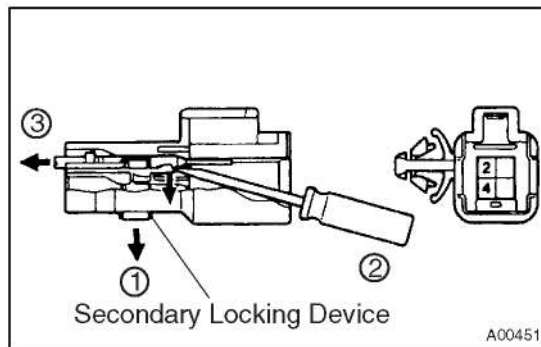
REMOVAL

1. REMOVE REAR CONSOLE (See page BO-113)
2. REMOVE SHIFT LEVER ASSEMBLY
 - (a) Disconnect the 2 connectors and wire harness.
 - (b) Remove the clip and disconnect the shift control cable.



- (c) Remove the 4 bolts and floor shift assembly.

Torque: 12 N·m (120 kgf·cm, 9 ft·lbf)



DISASSEMBLY

1. REMOVE O/D MAIN SWITCH TERMINAL

- Remove O/D main switch connector from the shift lever plate.
- Disengage the secondary locking device.
- Disengage the locking lug of the terminals 2 and 4, and pull the terminals out from the rear.

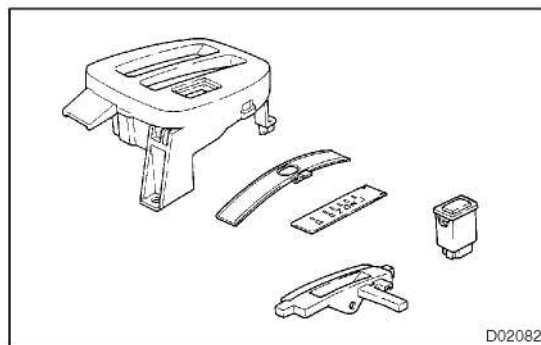
2. REMOVE SHIFT LEVER KNOB SUB-ASSEMBLY

- Remove the 2 screws and shift lever knob sub-assembly.

NOTICE:

Pay attention not to apply unnatural load onto O/D main switch wire harness.

- Remove these parts:
 - Shift lever knob cover
 - Shift lever button
 - Spring
 - O/D main switch
 - REMOVE INDICATOR LIGHT WIRE
 - REMOVE BULB AND CAP FROM INDICATOR LIGHT WIRE
 - REMOVE INDICATOR HOUSING SUB-ASSEMBLY
- Remove the screw and an indicator housing sub-assembly.

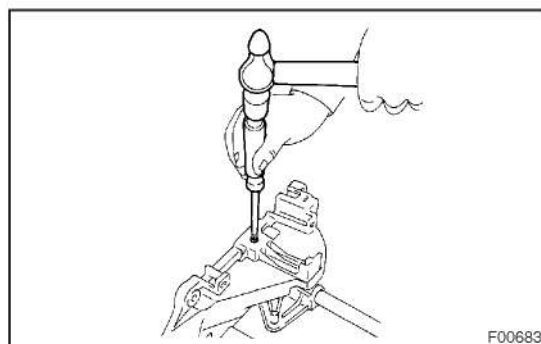


6. DISASSEMBLE INDICATOR HOUSING SUB-ASSEMBLY

Remove these parts from the position indicator upper housing.

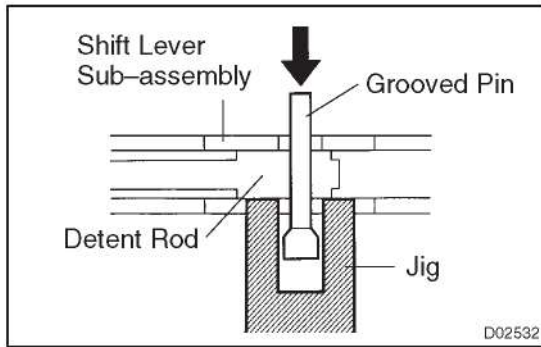
- Pattern select switch
- Position indicator lower housing
- Position indicator slide cover
- Position indicator plate

7. REMOVE SPRING PLATE



8. REMOVE SHIFT LEVER SUB-ASSEMBLY

- Using a screwdriver and a hammer, remove the control shaft.
- Remove the shift lever sub-assembly.

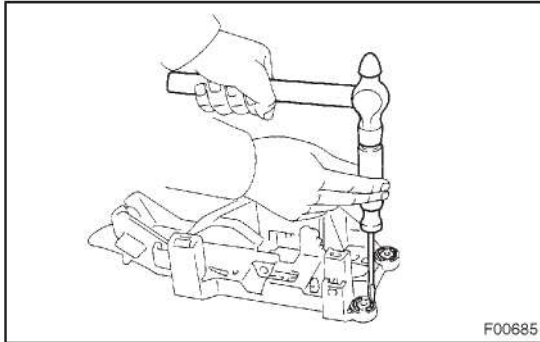


9. DISASSEMBLE SHIFT LEVER SUB-ASSEMBLY

- (a) Secure the room for the pin to be released by using a jig as shown in the illustration, and hit the grooved pin with a hammer and pull the grooved pin out.

NOTICE:

- **Hit and pull the pin out gradually.**
 - **Do not damage the shift lever sub-assembly.**
- (b) Remove the detent rod and compression spring.
- (c) Remove the shift lever knob sleeve from the detent rod.

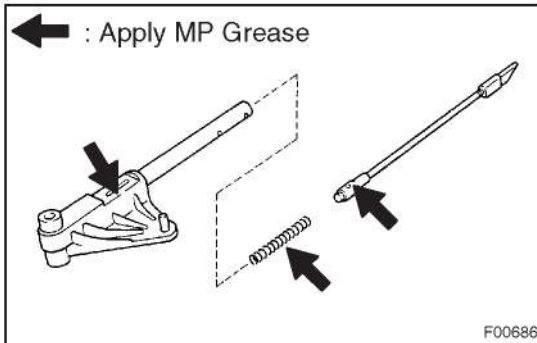


10. REMOVE COLLARS

Using a screwdriver and a hammer, remove the 4 collars.

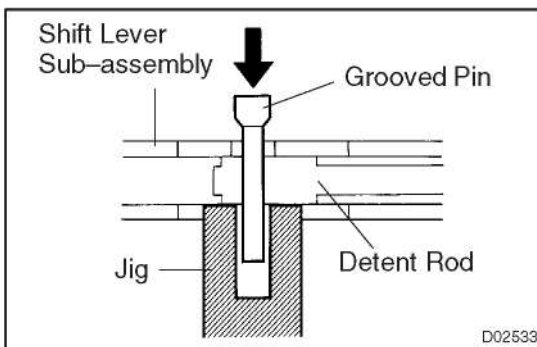
REASSEMBLY

1. INSTALL COLLARS
2. INSTALL SHIFT LEVER KNOB SLEEVE TO DETENT ROD

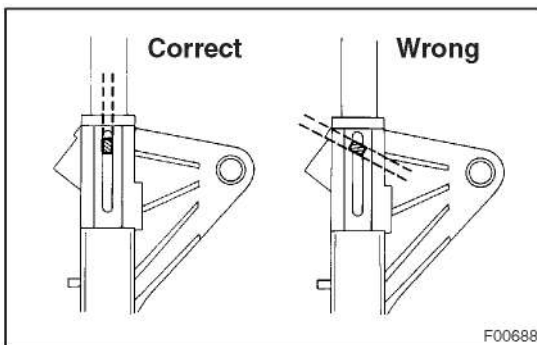


3. ASSEMBLE SHIFT LEVER SUB-ASSEMBLY

- (a) Apply MP grease to the compression spring, the detent rod and the shift lever sub-assembly.
- (b) Install the compression spring and the detent rod to shift lever sub-assembly.



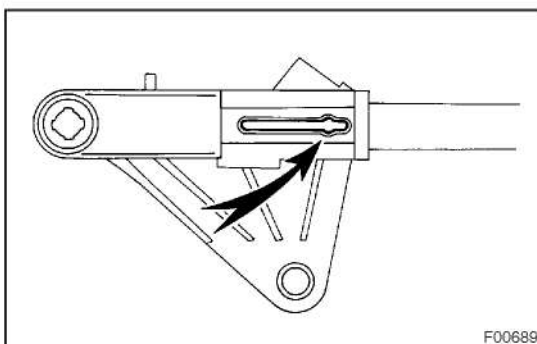
- (c) Place the shift lever sub-assembly as shown in the illustration.



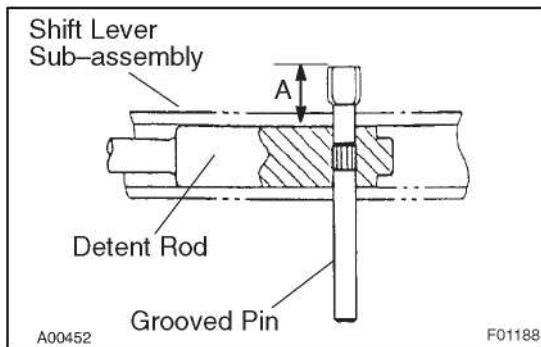
- (d) Insert the grooved pin in the detent rod pin hole.

NOTICE:

- Assemble the grooved pin so that it fits into the guide hole of the shift lever sub-assembly in parallel.
- Take care not to insert the pin in the wrong direction against the detent rod.



- (e) Meet the grooved pin with the notch of the guide hole.

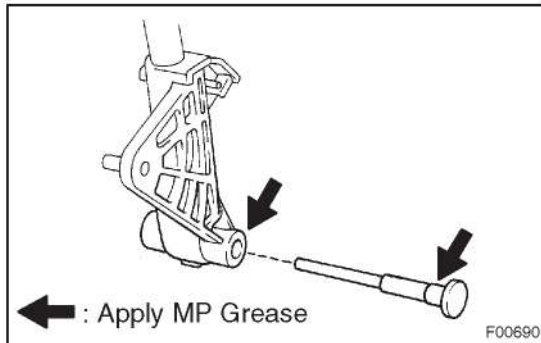


- (f) Press the pin with a hammer.
A: 10.0 – 10.4 mm (0.39 – 0.41 in.)

NOTICE:

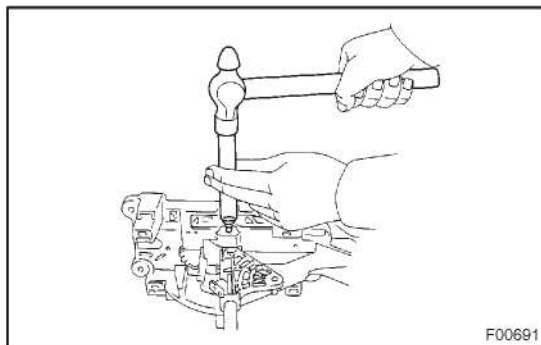
When pressing in the grooved pin, if doing it at the place other than the notch, the shift lever sub-assembly might be damaged.

4. CHECK DETENT ROD OPERATION



5. INSTALL SHIFT LEVER SUB-ASSEMBLY

- (a) Apply the MP grease.



- (b) Using a brass bar and a hammer, install the control shaft and the shift lever sub-assembly to the shift lever plate.

NOTICE:

Take care not to install them in the wrong direction against the shift lever sub-assembly.

6. INSTALL SPRING PLATE

7. ASSEMBLE INDICATOR HOUSING SUB-ASSEMBLY

Install these parts to the position indicator upper housing.

- Position indicator plate
- Position indicator slide plate
- Position indicator lower housing
- Patter select switch

8. INSTALL INDICATOR HOUSING SUB-ASSEMBLY

Install the screw and an indicator housing.

9. INSTALL CAP AND BULB TO INDICATOR LIGHT WIRE

10. INSTALL INDICATOR LIGHT WIRE

11. INSTALL SHIFT LEVER KNOB SUB-ASSEMBLY

- (a) Install these parts:

HINT:

Apply MP grease to shift lever knob button.

- O/D main switch
- Spring
- Shift lever button
- Shift lever knob cover

- (b) Install the shift lever knob sub-assembly and 2 screws.

HINT:

Coat the threads of the screws with sealant.

Sealant:

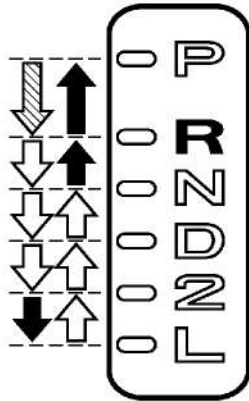
Part No. 08833-00080, THREE BOND 1344, LOCTITE 242 or equivalent

NOTICE:

Make sure not to catch O/D main switch wire harness.

- (c) Install the O/D main switch wire harness securely and hang it on the hook of the shift lever sub-assembly.

12. INSTALL O/D MAIN SWITCH TERMINAL



↓
With the brake pedal depressed, shift while holding the lock release button in. (The ignition switch must be in ON position.)

↓ ↑ Shift while holding the lock release button in.

↓ ↑ Shift normally

D02013

INSTALLATION

Installation is in the reverse order of removal (See page AX-15).

HINT:

After installation, adjust shift lever ranges (See page DI-4) and inspect shift lever operation.

- When shifting it to each range, make sure that the shifting lever moves smoothly, can be moderately operated and the range indicator displays correctly.

Ranges which can be operated without pressing the shift lever nob button

R → N → D → 2

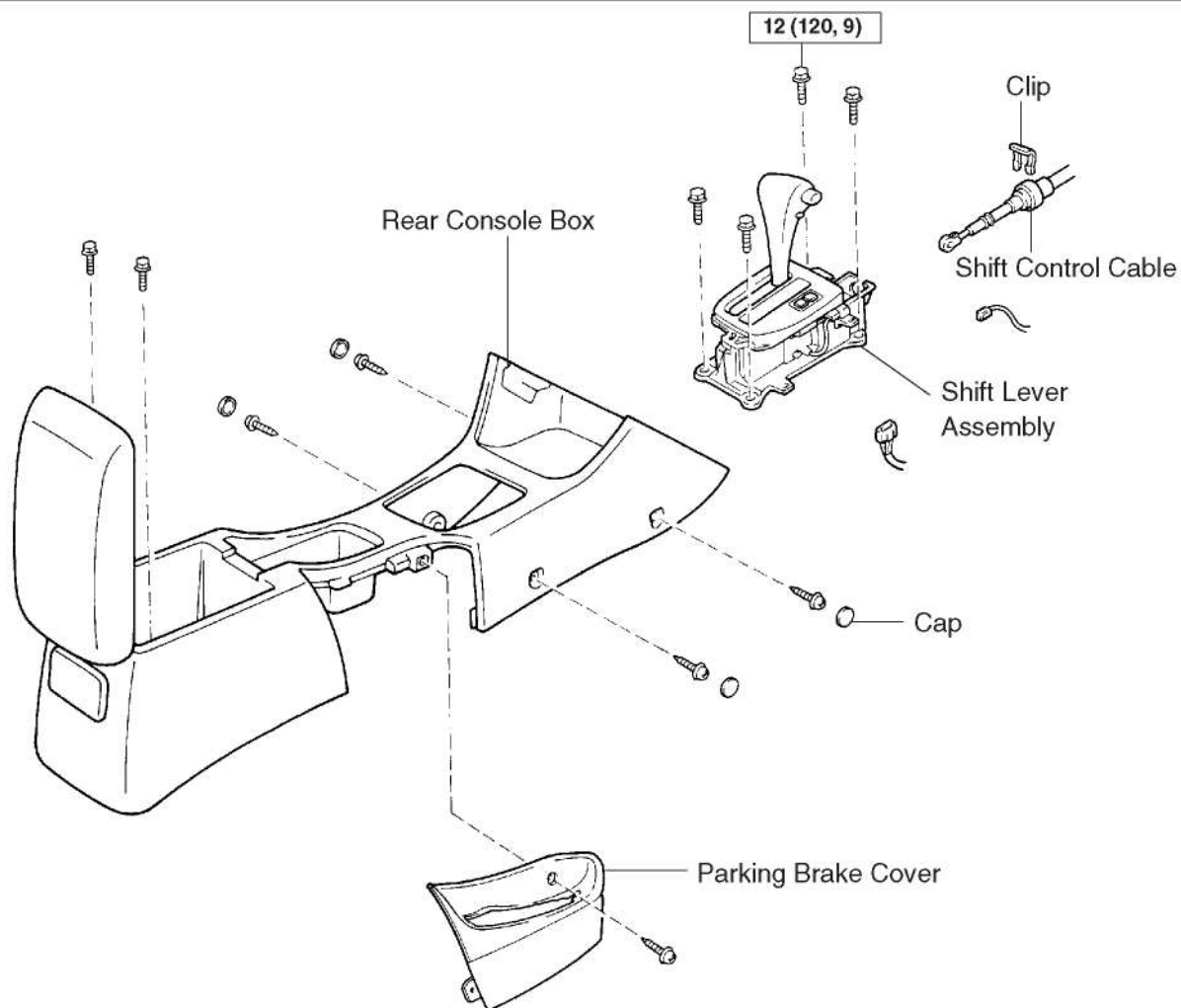
Ranges which can be operated only with pressing the shift lever nob button

P → R, 2 → L, N → R → P

- When starting the engine, make sure that the vehicle moves forward when shifting from N to D range, and moves rearward when shifting to R range.

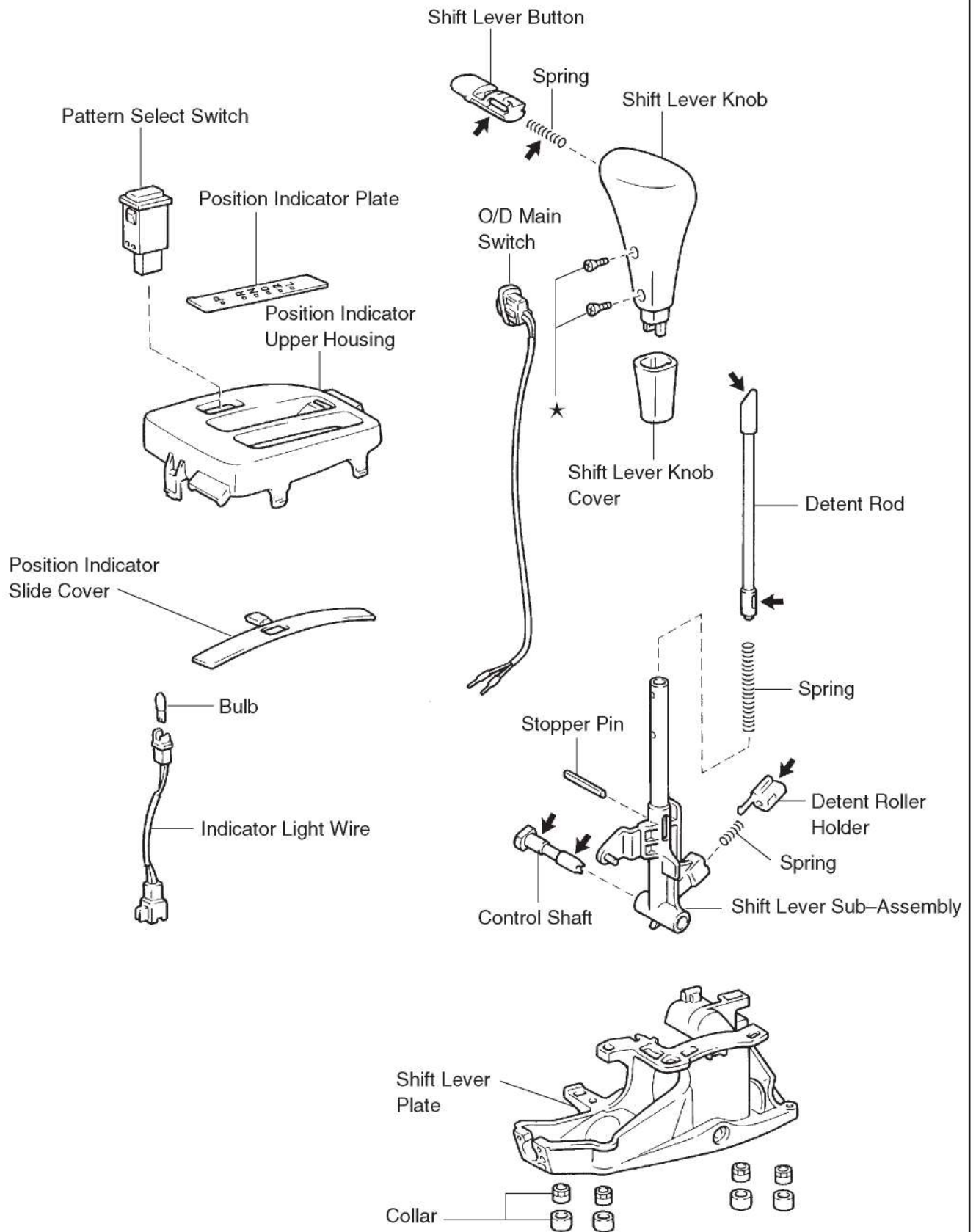
FLOOR SHIFT ASSEMBLY (RHD) COMPONENTS

AX06N-01



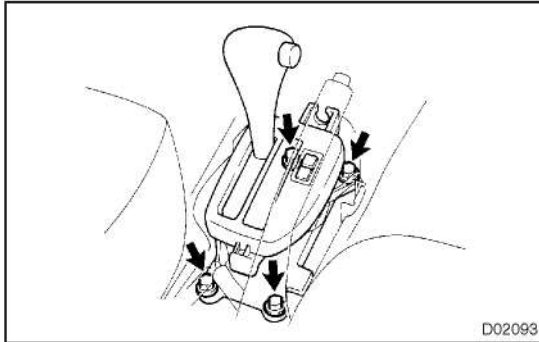
N·m (kgf·cm, ft·lbf) : Specified torque

D02091

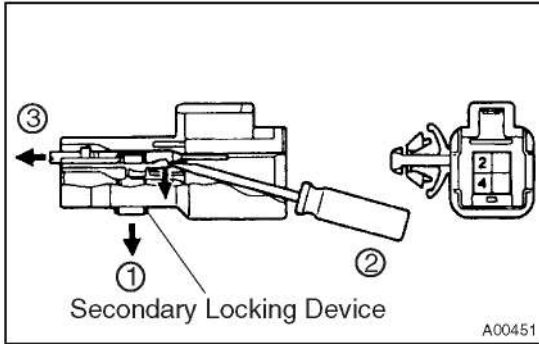


REMOVAL

1. REMOVE REAR CONSOLE (See page BO-113)
2. REMOVE FLOOR SHIFT ASSEMBLY
 - (a) Disconnect the connectors.
 - (b) Remove the clip and disconnect the shift control cable.



- (c) Remove the 4 bolts and shift lever assembly.
Torque: 12 N·m (120 kgf·cm, 9 ft·lbf)



DISASSEMBLY

1. REMOVE O/D MAIN SWITCH TERMINAL

- (a) Remove O/D main switch connector from the shift lever plate.
- (b) Disengage the secondary locking device.
- (c) Disengage the locking lug of the terminals 2 and 4, and pull the terminals out from the rear.

2. REMOVE SHIFT LEVER KNOB SUB-ASSEMBLY

- (a) Remove the 2 screws and shift lever knob sub-assembly.

NOTICE:

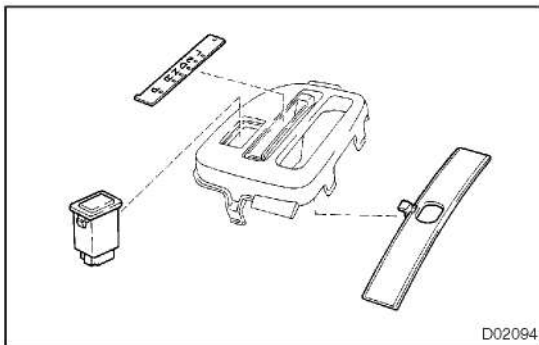
Pay attention not to apply unnatural load onto O/D main switch wire harness.

- (b) Remove these parts:
 - Shift lever knob cover
 - Shift lever button
 - Spring
 - O/D main switch

3. REMOVE INDICATOR LIGHT WIRE

4. REMOVE BULB FROM INDICATOR LIGHT WIRE

5. REMOVE INDICATOR HOUSING SUB-ASSEMBLY

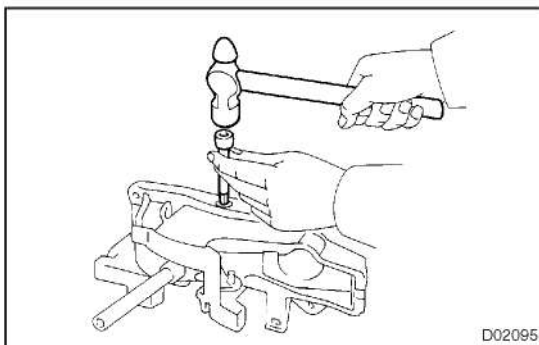


6. DISASSEMBLE INDICATOR HOUSING SUB-ASSEMBLY

Remove these parts from the position indicator upper housing.

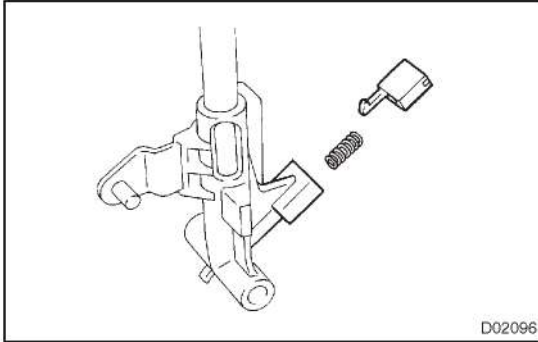
- Position indicator slide cover
- Position indicator plate
- Pattern select switch

7. REMOVE STOPPER PIN, DETENT ROD AND COMPRESSION SPRING



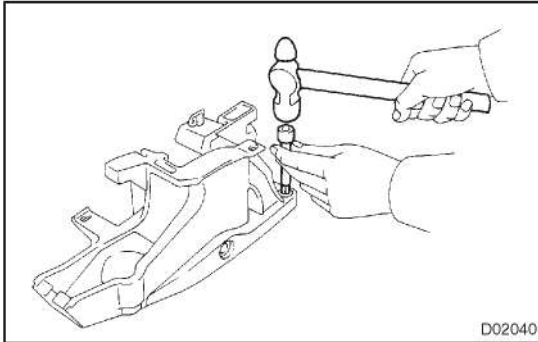
8. REMOVE SHIFT LEVER SUB-ASSEMBLY

- (a) Using an extension bar and hammer, remove the control shaft.
- (b) Remove the shift lever sub-assembly.

**9. DISASSEMBLE SHIFT LEVER SUB-ASSEMBLY**

Remove these part:

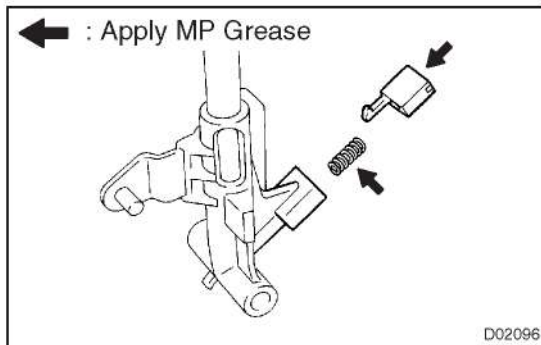
- Detent roller holder
- Compression spring

**10. REMOVE COLLARS**

Using an extension bar and hammer, remove the 4 collars.

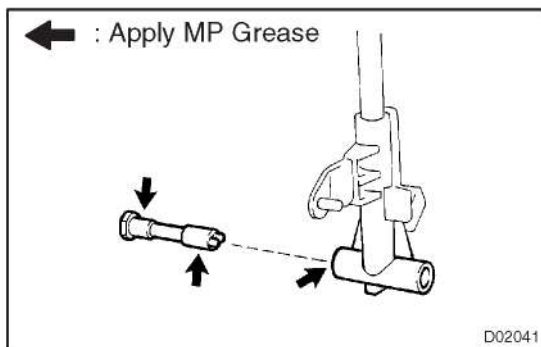
REASSEMBLY

1. INSTALL COLLARS



2. ASSEMBLE SHIFT LEVER SUB-ASSEMBLY

- Apply the MP grease to the detent roller holder, compression spring and shift lever sub-assembly.
- Install the compression spring to the detent roller holder.
- Install the detent roller holder with the compression spring to the shift lever sub-assembly.



3. INSTALL SHIFT LEVER SUB-ASSEMBLY

- Apply the MP grease to the control shaft and shift lever sub-assembly.
- Using an extension bar and hammer, install the control shaft and shift lever sub-assembly to the shift lever plate.

4. INSTALL COMPRESSION SPRING, DETENT ROD AND STOPPER PIN

- Apply the MP grease to the detent rod and stopper pin.
- Install the compression spring and detent rod to the shift lever sub-assembly.
- Insert the stopper pin in the stopper pin hole.

NOTICE:

Take care not to insert the pin in the wrong direction against the detent rod.

5. CHECK SHIFT LEVER OPERATION

6. ASSEMBLE INDICATOR HOUSING SUB-ASSEMBLY

Install these parts to the position indicator upper housing.

- Pattern select switch
- Position indicator plate
- Position indicator slide plate

7. INSTALL INDICATOR HOUSING SUB-ASSEMBLY

8. INSTALL BULB TO INDICATOR LIGHT WIRE

9. INSTALL INDICATOR LIGHT WIRE

10. INSTALL SHIFT LEVER KNOB SUB-ASSEMBLY

(a) Install these parts:

HINT:

Apply MP grease to the shift lever knob button.

- O/D main switch
- Spring
- Shift lever button
- Shift lever knob cover

(b) Install the shift lever knob sub-assembly and 2 screws.

HINT:

Coat the threads of the screws with sealant.

Sealant:

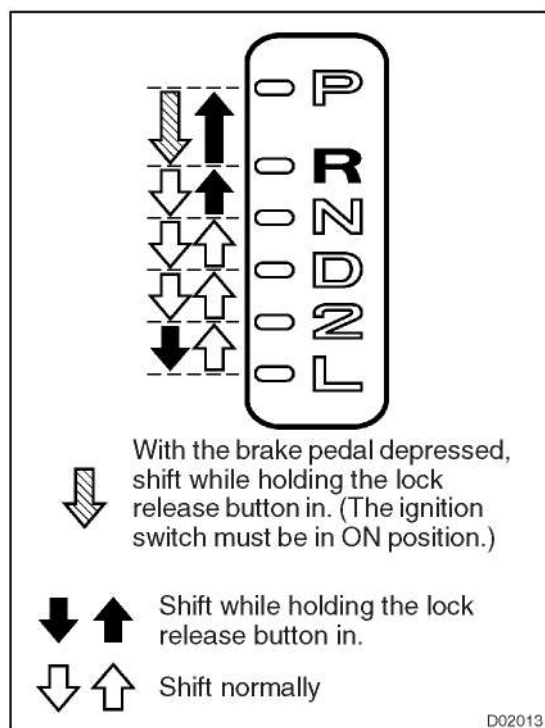
Part No. 08833-00080, THREE BOND 1344, LOCTITE 242 or equivalent

NOTICE:

Make sure not to catch O/D main switch wire harness.

(c) Install the O/D main switch wire harness securely and hang it on the hook of the shift lever sub-assembly.

11. INSTALL O/D MAIN SWITCH TERMINAL



INSTALLATION

Installation is in the reverse order of removal (See page AX-24).

HINT:

After installation, adjust shift lever ranges (See page DI-4) and inspect shift lever operation.

- When shifting it to each range, make sure that the shifting lever moves smoothly, can be moderately operated and the range indicator displays correctly.

Ranges which can be operated without pressing the shift lever nob button

R → N → D → 2

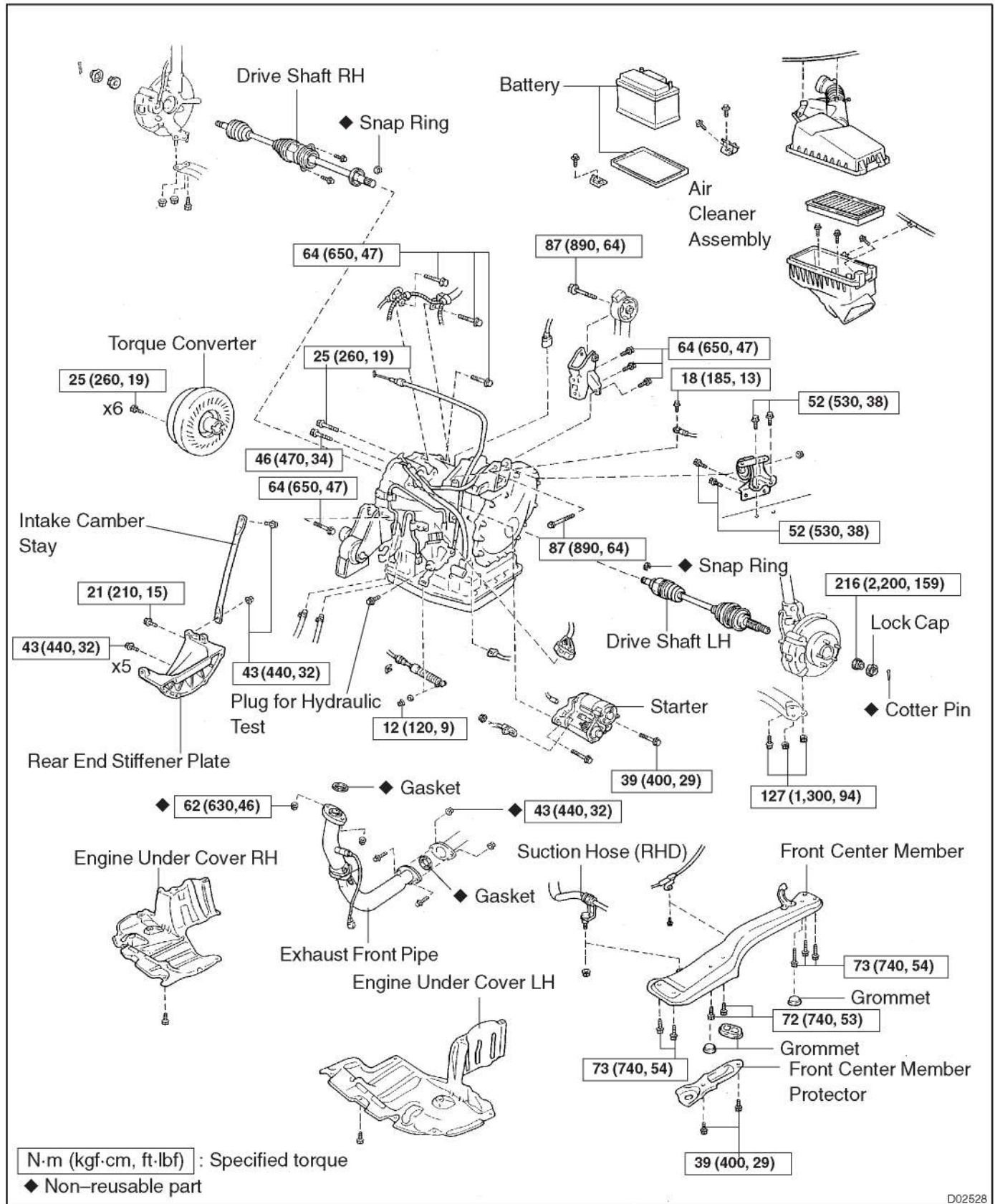
Ranges which can be operated only with pressing the shift lever nob button

P → R, 2 → L, N → R → P

- When starting the engine, make sure that the vehicle moves forward when shifting from N to D range, and moves rearward when shifting to R range.

AUTOMATIC TRANSAXLE UNIT COMPONENTS

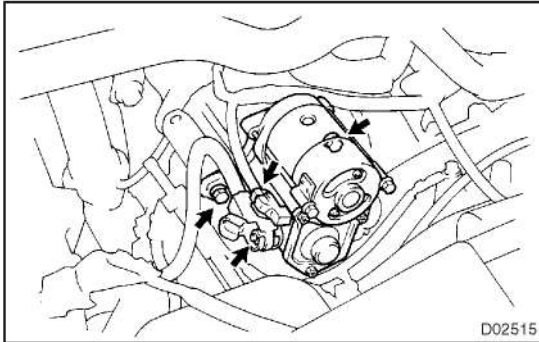
AX064-01



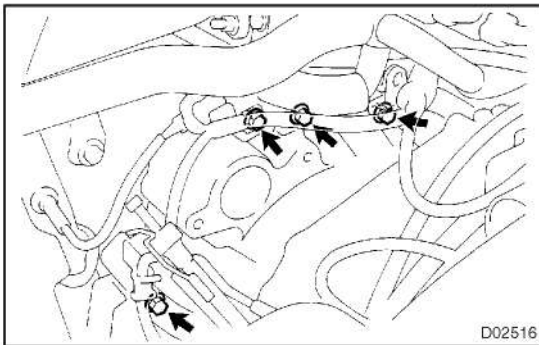
D02528

REMOVAL

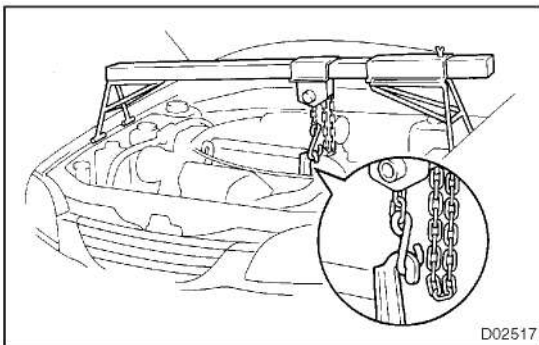
1. REMOVE AIR CLEANER ASSEMBLY
2. REMOVE BATTERY
3. DISCONNECT THROTTLE CABLE



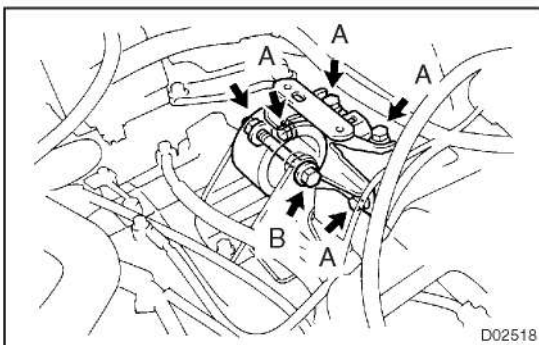
4. REMOVE STARTER
 - (a) Remove the nut and disconnect the connector.
 - (b) Remove the 2 bolts, bracket and starter.
 Torque: 39 N·m (400 kgf·cm, 29 ft·lbf)
5. DISCONNECT GROUND CABLE
 Torque: 18 N·m (185 kgf·cm, 13 ft·lbf)



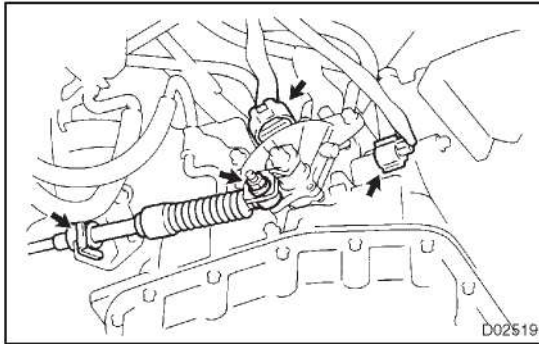
6. REMOVE 4 UPPER SIDE TRANSAXLE MOUNTING BOLTS
 Torque: 64 N·m (650 kgf·cm, 47 ft·lbf)



7. INSTALL ENGINE SUPPORT FIXTURE
8. REMOVE ENGINE UNDER COVERS

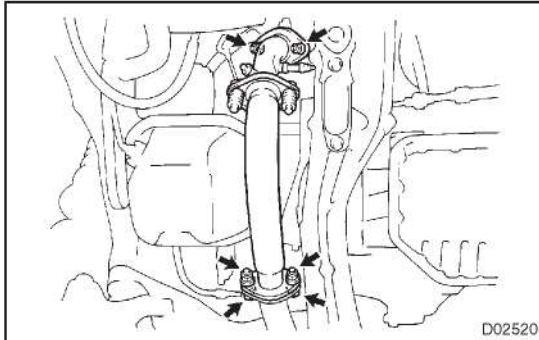


9. REMOVE LH SIDE ENGINE MOUNTING
 Remove the 5 bolts, nut and LH engine mounting.
 Torque:
 - A: 52 N·m (530 kgf·cm, 38 ft·lbf)
 - B: 87 N·m (890 kgf·cm, 64 ft·lbf)
10. REMOVE LH AND RH DRIVE SHAFTS
 (See page SA-19)

**11. DISCONNECT SHIFT CONTROL CABLE**

Remove the nut, clip and disconnect the shift control cable.

Torque: 12 N·m (120 kgf·cm, 9 ft·lbf)

12. DISCONNECT NEUTRAL START SWITCH CONNECTOR AND SOLENOID CONNECTOR**13. DISCONNECT VEHICLE SPEED SENSOR CONNECTOR****14. REMOVE EXHAUST FRONT PIPE**

(a) Disconnect the oxygen sensor connector.

(b) Remove the 2 nuts from the exhaust manifold.

Torque: 62 N·m (630 kgf·cm, 46 ft·lbf)

HINT:

At the time of installation, please refer to the following item.

Replace the used nuts with new ones.

(c) Remove the 2 bolts, nuts and exhaust front pipe with 2 gaskets.

Torque: 43 N·m (440 kgf·cm, 32 ft·lbf)

HINT:

At the time of installation, please refer to the following item.

Replace the used nuts with new ones.

(d) Remove the 2 gaskets from the exhaust front pipe.

HINT:

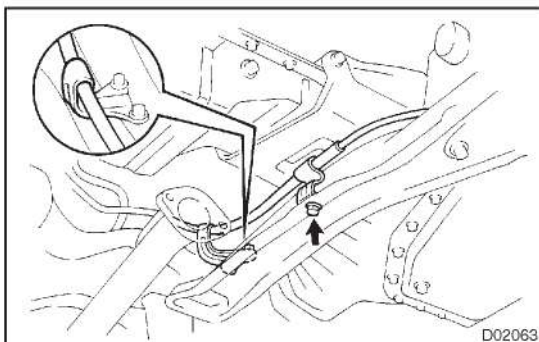
At the time of installation, please refer to the following item.

Replace the used gaskets with new ones.

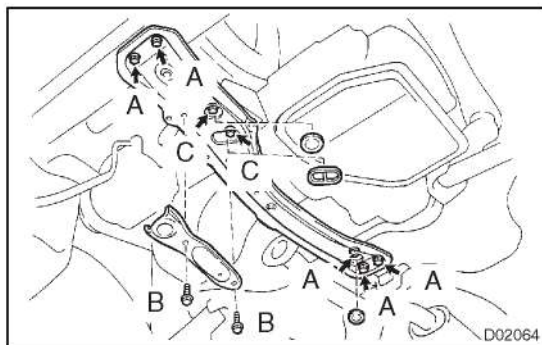
15. REMOVE FRONT CENTER MEMBER

(a) RHD:

Remove the nut and disconnect the suction hose from the front center member.



(b) Remove the bolt and disconnect the shift control cable from the bracket.



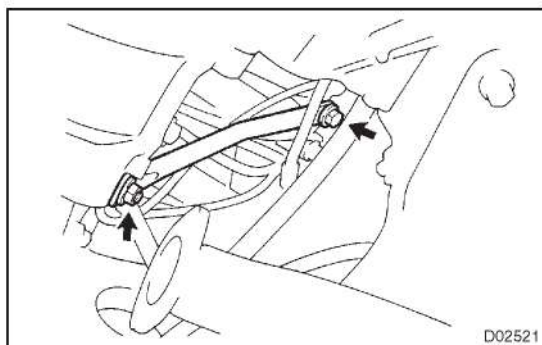
- (c) Remove the 9 bolts, 3 grommets, front center member protector and front center member.

Torque:

A: 73 N·m (740 kgf·cm, 54 ft·lbf)

B: 39 N·m (400 kgf·cm, 29 ft·lbf)

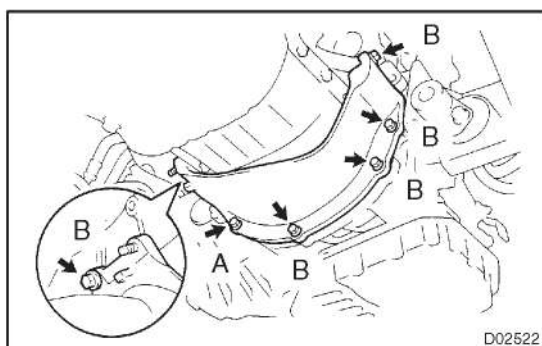
C: 72 N·m (740 kgf·cm, 53 ft·lbf)



16. REMOVE INTAKE CAMBER STAY

Remove the bolt, nut and intake camber stay.

Torque: 43 N·m (440 kgf·cm, 32 ft·lbf)



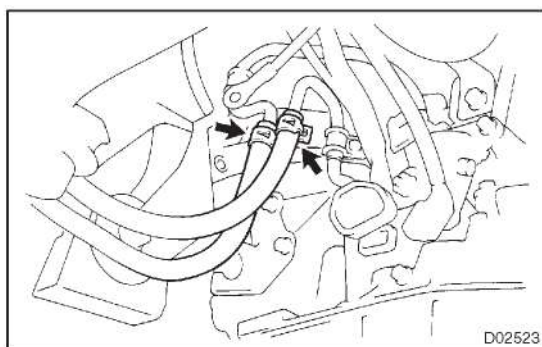
17. REMOVE REAR END STIFFENER PLATE

Remove the 6 bolts and rear end stiffener plate.

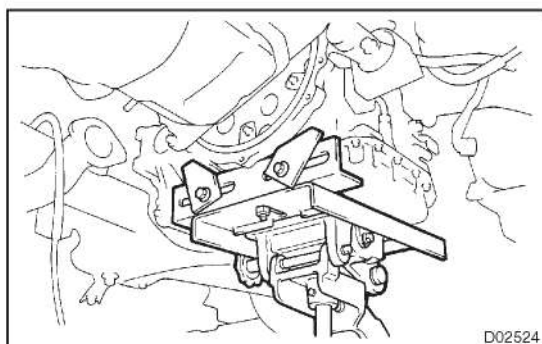
Torque:

A: 21 N·m (210 kgf·cm, 15 ft·lbf)

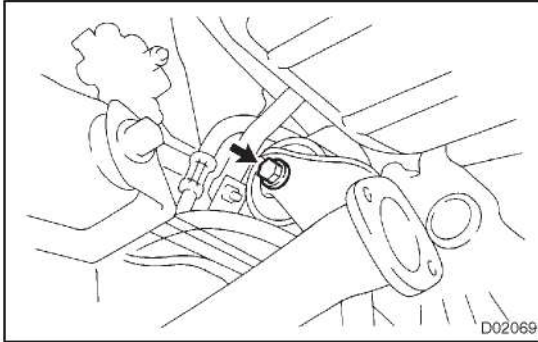
B: 43 N·m (440 kgf·cm, 32 ft·lbf)



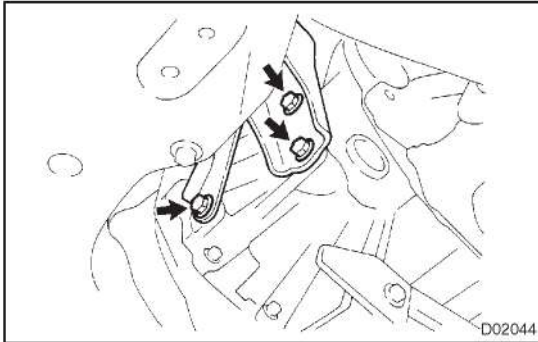
18. DISCONNECT OIL COOLER HOSES



19. SUPPORT TRANSAXLE

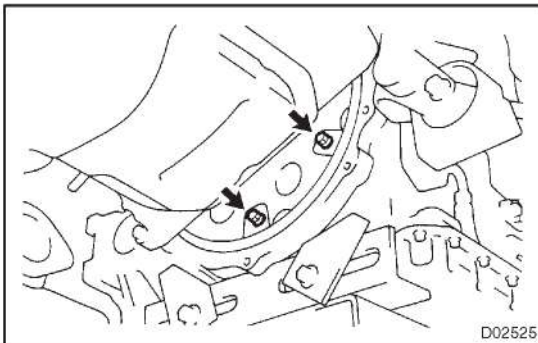
**20. REMOVE ENGINE REAR MOUNTING BOLT**

Torque: 87 N·m (890 kgf·cm, 64 ft·lbf)

**21. REMOVE ENGINE REAR MOUNTING BRACKET**

Remove the 3 bolts and engine rear mounting bracket.

Torque: 64 N·m (650 kgf·cm, 47 ft·lbf)

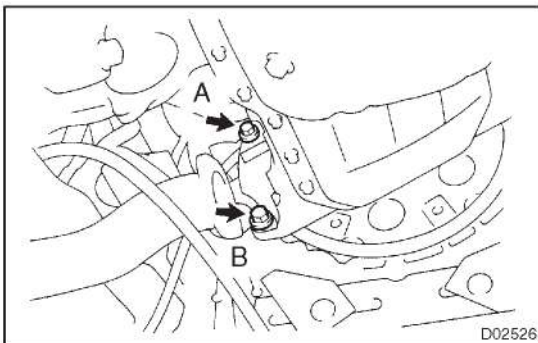
**22. REMOVE TRANSAXLE**

- (a) Turn the crankshaft to gain access and remove the 6 bolts with holding the crankshaft pulley bolt by a wrench.

Torque: 25 N·m (260 kgf·cm, 19 ft·lbf)

HINT:

At the time of installation, please refer to the following item.
First, install the gray bolt. Then install 5 black bolts.



- (b) Remove the 2 bolts.

Torque:

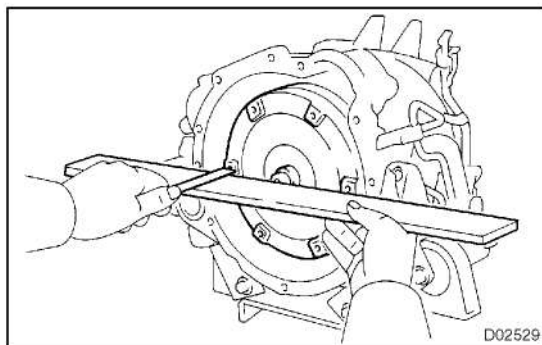
A: 25 N·m (260 kgf·cm, 19 ft·lbf)

B: 46 N·m (470 kgf·cm, 34 ft·lbf)

- (c) Lower the left side of the engine and remove the transaxle from the engine.

HINT:

At the time of installation, please refer to the following item.
Temporarily tighten the transaxle mounting bolts.



INSTALLATION

1. CHECK TORQUE CONVERTER INSTALLATION

Using a scale and a straight edge, measure the distance from the installation surface to the front surface of the transaxle housing.

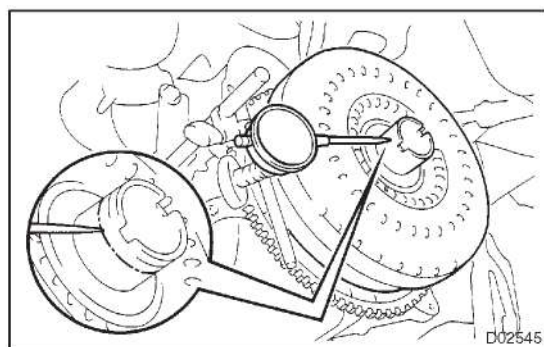
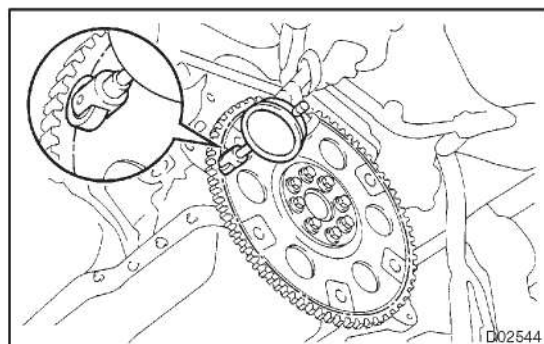
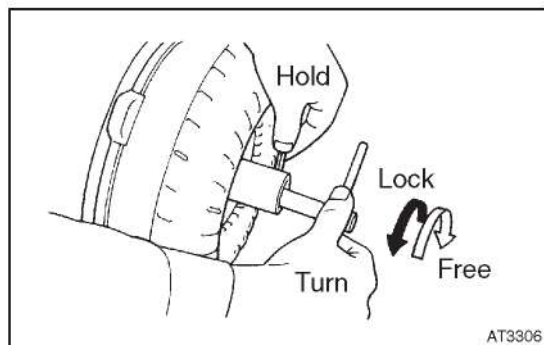
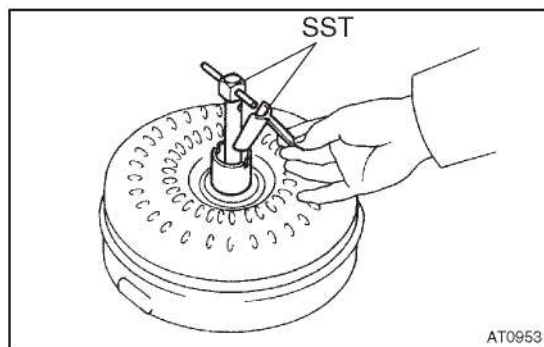
Correct distance: More than 12.75 mm (0.502 in.)

2. TRANSAXLE INSTALLATION

Installation is in the reverse order of removal (See page AX-31).

HINT:

- After installation, adjust the throttle cable, shift control cable and neutral start switch (See page DI-4).
- Fill ATF and check fluid level (See page DI-4).
- Test drive vehicle.



TORQUE CONVERTER AND DRIVE PLATE INSPECTION

AX067-01

1. INSPECT ONE-WAY CLUTCH

- Install SST into the inner race of the one-way clutch.
SST 09350-32014 (09351-32010)
- Install SST so that it fits in the notch of the converter hub and outer race of the one-way clutch.
SST 09350-32014 (09351-32020)
- With the torque converter set up on its side, check that the clutch locks when it is turned counterclockwise, and rotates smoothly clockwise.

If necessary, clean the converter 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.
- Check the damage of the ring gear.

Maximum runout: 0.20 mm (0.0079 in.)

If the runout is not within the specification or ring gear is damaged, replace the drive plate.

Torque: 64 N·m (650 kgf·cm 47 ft·lbf)

3. MEASURE TORQUE CONVERTER SLEEVE RUNOUT

Temporarily mount the torque converter to the drive plate. Set up a dial indicator and measure the torque converter sleeve runout.

Maximum runout: 0.30 mm (0.0118 in.)

If the runout is not within the specification, try to correct by reorienting the installation of the converter.

HINT:

Mark the position of the converter to ensure the correct installation.