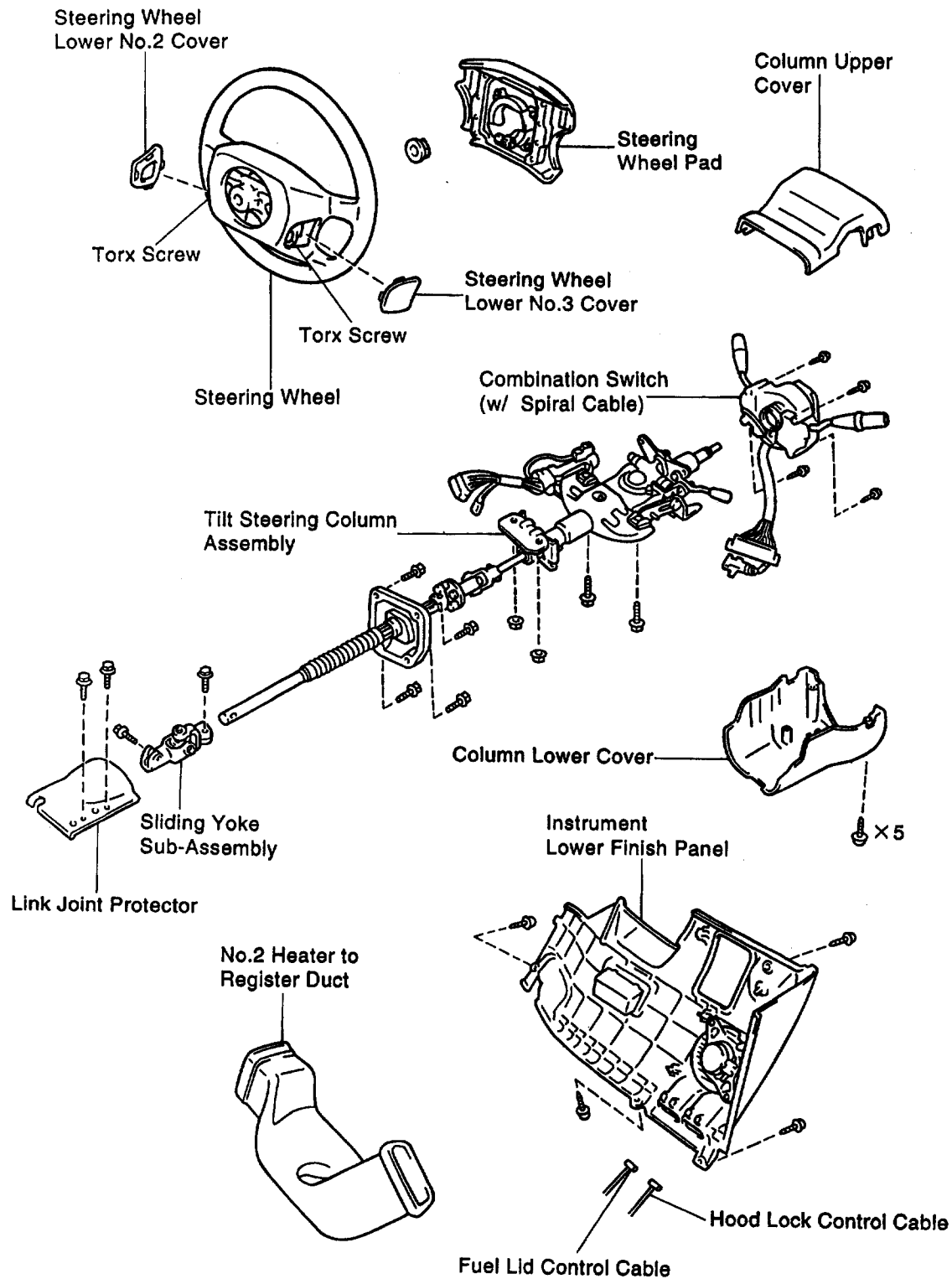
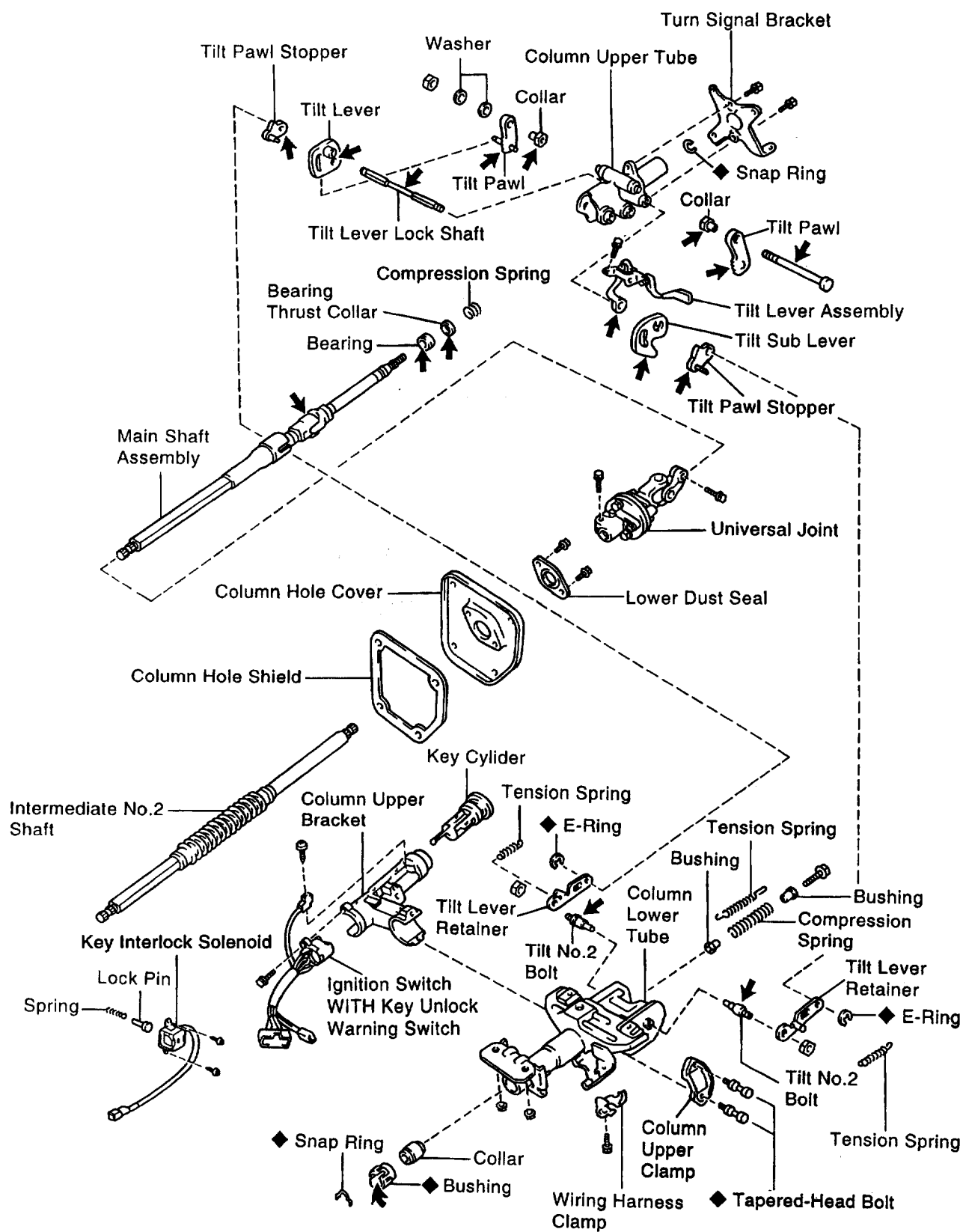


TILT STEERING COLUMN COMPONENTS





◆ Non-reusable part

← Molybdenum disulphide lithium base grease

TILT STEERING COLUMN REMOVAL

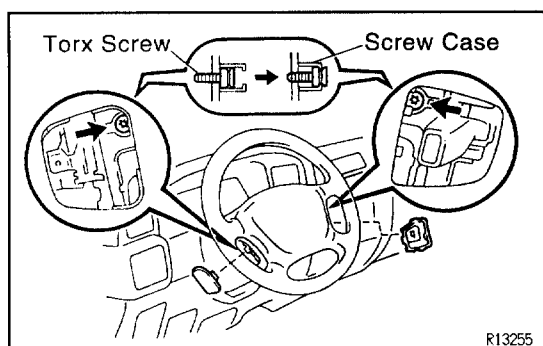
1. REMOVE STEERING WHEEL PAD

NOTICE:

- If the airbag connector is disconnected with the ignition switch at ON or ACC, diagnostic trouble codes will be recorded.
- Never use airbag parts from another vehicle. When replacing parts, replace with new parts.

- Place the front wheels facing straight ahead.
- Remove the steering wheel lower No. 2 and No. 3 cover.
- Using a torx socket wrench, loosen the 2 torx screws.

HINT: Loosen the 2 screws until the groove along the screw circumference catches on the screw case.



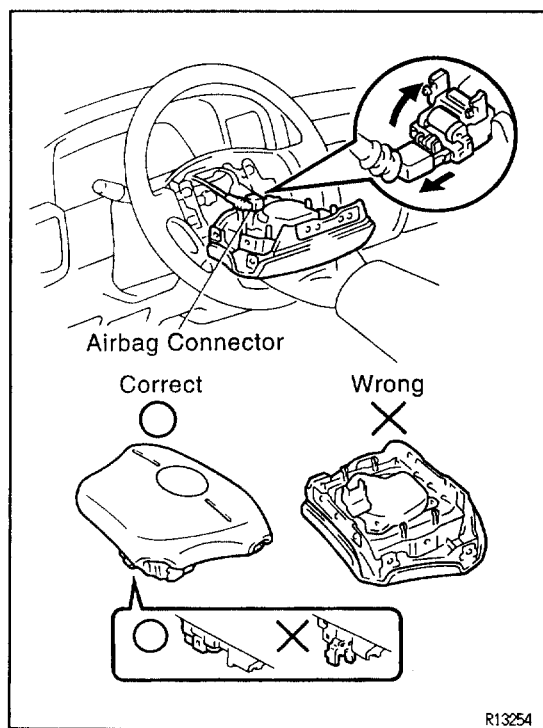
R13255

- Pull out the wheel pad from the steering wheel and disconnect the airbag connector.

CAUTION:

- When storing the wheel pad, keep the upper surface of the pad facing upward.
- Never disassemble the wheel pad.

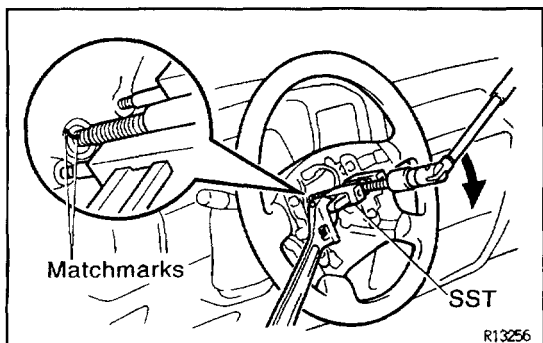
NOTICE: When removing the wheel pad, take care not to pull the airbag wire harness.



R13254

2. REMOVE STEERING WHEEL

- Disconnect the connector.
- Remove the steering wheel set nut.
- Place matchmarks on the steering wheel and main shaft assembly.
- Using SST, remove the wheel.
SST 09950-50010 (09951-05010, 09952-05010, 09953-05020, 09954-05020)



R13256

3. REMOVE INSTRUMENT LOWER FINISH PANEL

- (a) Disconnect the hood lock control cable and fuel lid control cable.

- (b) Remove the 4 panel set screws.

4. REMOVE NO.2 HEATER TO REGISTER DUCT**5. REMOVE UPPER AND LOWER COLUMN COVERS**

Remove the 5 screws.

6. REMOVE COMBINATION SWITCH WITH SPIRAL CABLE

- (a) Disconnect the 2 connectors.

- (b) Disconnect the airbag connector.

- (c) Remove the 4 screws.

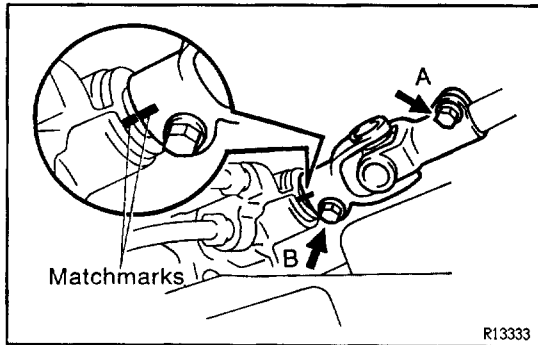
7. REMOVE SPIRAL CABLE

(See page [BE-13](#))

NOTICE: Do not disassemble the cable or apply oil to it.

8. REMOVE 4 COLUMN HOLE COVER SET BOLTS**9. REMOVE LINK JOINT PROTECTOR**

Remove the 2 bolts.

**10. DISCONNECT SLIDING YOKE SUB-ASSEMBLY**

- (a) Place matchmarks on the yoke sub-assembly and worm gear valve body shaft.

- (b) Loosen bolt A and remove bolt B.

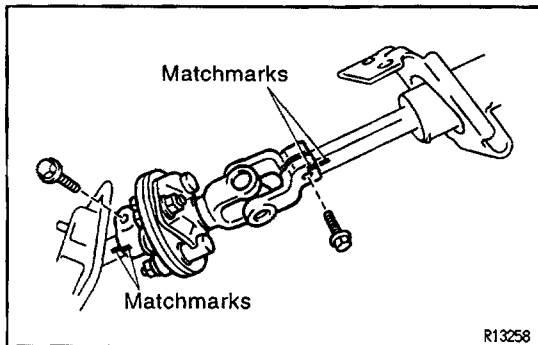
11. REMOVE SLIDING YOKE SUB-ASSEMBLY

Remove the bolt A.

12. REMOVE TILT STEERING COLUMN ASSEMBLY

- (a) Disconnect the 3 connectors.

- (b) Remove the 2 column assembly set nuts and 2 set bolts.

**TILT STEERING COLUMN DISASSEMBLY**

NOTICE: When using a vise, do not overtighten it.

1. DISCONNECT UNIVERSAL JOINT

- (a) Place matchmarks on the universal joint, intermediate No.2 shaft and main shaft.

- (b) Remove the 2 bolts.

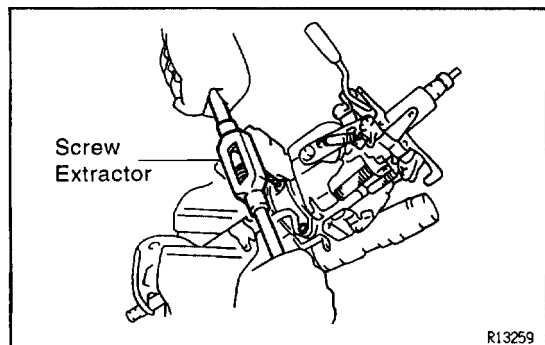
2. REMOVE LOWER DUST SEAL, COLUMN HOLE COVER AND COLUMN HOLE SHIELD

- (a) Remove the 2 bolts from the dust seal.

- (b) Remove the hole shield from the hole cover.

3. REMOVE WIRING HARNESS CLAMP

Remove the bolt.



4. REMOVE COLUMN UPPER BRACKET AND COLUMN UPPER CLAMP

- Using a punch, mark the center of the 2 tapered head bolts.
- Using a 3–4 mm (0.12–0.16 in.) drill, drill into the 2 bolts.
- Using a screw extractor, remove the 2 bolts.

5. REMOVE COMPRESSION SPRING

- Remove the bolt.
- Remove the 2 bushings from the spring.

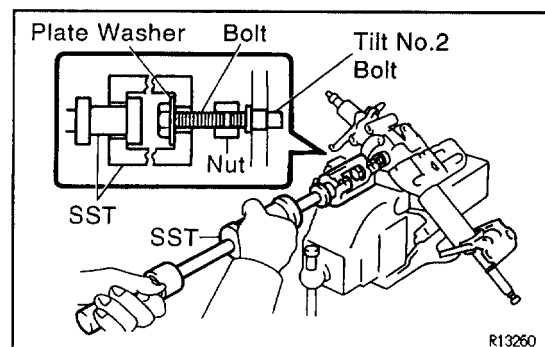
6. REMOVE 3 TENSION SPRINGS

7. REMOVE 2 TILT LEVER RETAINERS AND TILT PAWL STOPPERS

- Remove the 2 E-rings from the tilt lever lock shaft.
- Remove the 2 nuts from the tilt No.2 bolt.

8. REMOVE 2 TILT PAWLS

- Remove the nut and 2 washers from the bolt.
- Pull out the bolt.
- Remove the tilt lever assembly set bolt.



9. REMOVE TILT LEVER, TILT SUB LEVER, TILT LEVER ASSEMBLY AND TILT LEVER LOCK SHAFT

10. REMOVE COLUMN UPPER TUBE WITH MAIN SHAFT ASSEMBLY

- Set SST, the nut (10 mm diameter, 1.25 mm pitch), plate washer (36 mm outer diameter) and bolt (10 mm diameter, 1.25 mm pitch, 50 mm length), as shown. And then remove the 2 tilt No.2 bolts.

SST 09910-00015 (09911-00011, 09912-00010)

Reference

Nut: 90170-10004

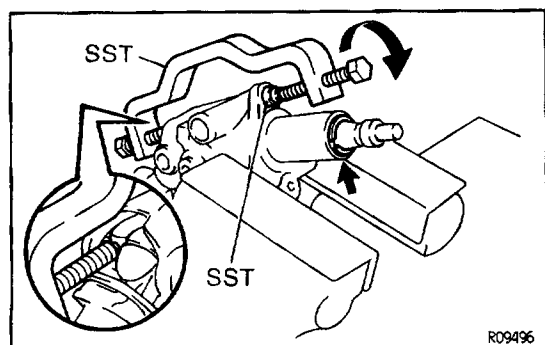
Plate washer: 90201-10201

Bolt: 91111-51050

- Remove the 2 tilt No.2 bolts by using the sliding hammer on SST.
- Remove the column upper tube with the shaft assembly from the column lower tube.

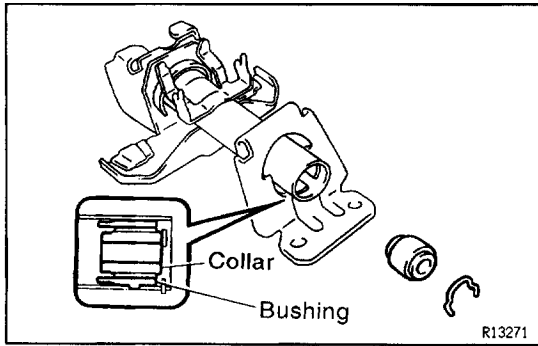
11. REMOVE TURN SIGNAL BRACKET

Remove the 2 bolts.



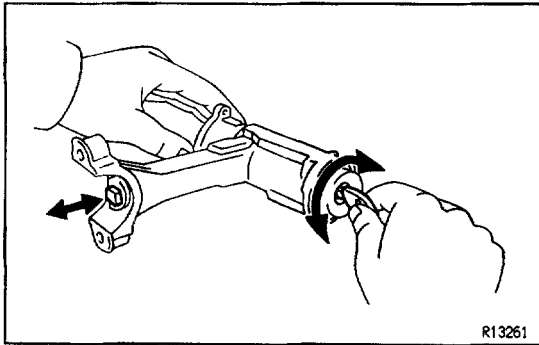
12. REMOVE MAIN SHAFT ASSEMBLY

- Using SST, compress the compression spring.
SST 09950-40010 (09957-04010, 09958-04010)
NOTICE: Do not bend the sliding yoke of the main shaft assembly more than 20°.
- Using snap ring pliers, remove the snap ring.
- Remove the shaft assembly from the column upper tube.
- Remove the compression spring, bearing thrust collar and bearing from the shaft assembly.



13. REMOVE COLLAR

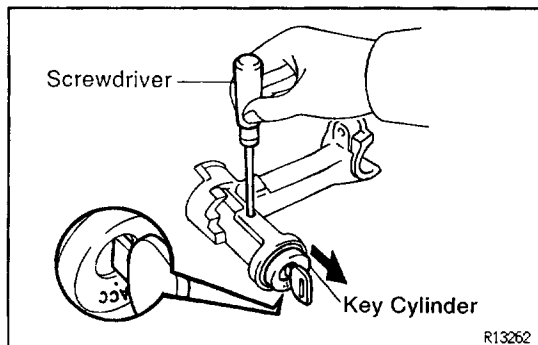
Remove the snap ring and collar from the column lower tube.



TILT STEERING COLUMN INSPECTION AND REPLACEMENT

1. INSPECT STEERING LOCK OPERATION

Check that the steering lock mechanism operates properly.



2. IF NECESSARY, REPLACE KEY CYLINDER

- Place the ignition key at the ACC position.
 - Push down the stop pin with a screwdriver, and pull out the cylinder.
 - Install a new cylinder.
- HINT: Make sure the key is at the ACC position.

3. INSPECT IGNITION SWITCH

(See page [BE-7](#))

4. INSPECT KEY UNLOCK WARNING SWITCH

(See page [BE-8](#))

5. IF NECESSARY, REPLACE IGNITION SWITCH WITH KEY UNLOCK WARNING SWITCH

- Remove the screw.
- Install a new switches with the screw.

6. INSPECT KEY INTERLOCK SOLENOID

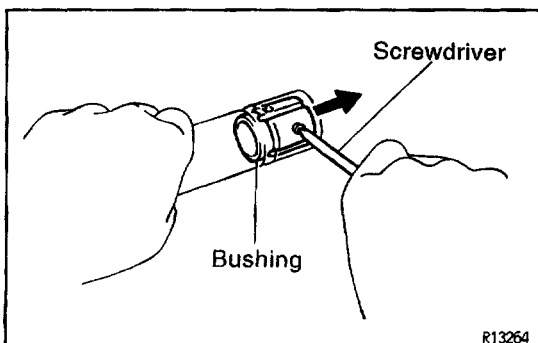
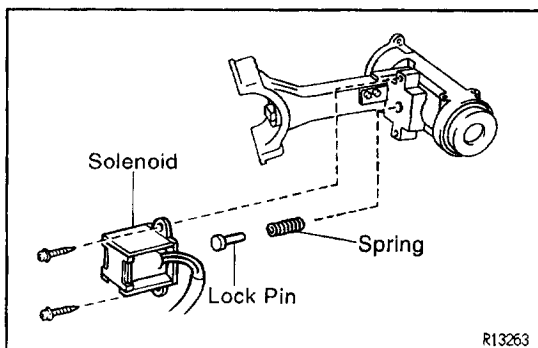
(See page [AT-29](#))

7. IF NECESSARY, REPLACE KEY INTERLOCK SOLENOID

- Remove the 2 screws.
- Remove the solenoid, spring and lock pin.
- Install a new solenoid with the spring and lock pin, with the 2 screws.

8. IF NECESSARY, REPLACE BUSHING

- Using a screwdriver, remove the bushing from the column lower tube.
- Align the holes of the tube and projections of a new bushing.



TILT STEERING COLUMN ASSEMBLY

NOTICE: When using a vise, do not overtighten it.

1. COAT WITH MOLYBDENUM DISULPHIDE LITHIUM BASE GREASE

(See page [SR-12](#))

2. INSTALL MAIN SHAFT ASSEMBLY

- (a) Install the bearing, bearing thrust collar and compression spring to the shaft assembly.
- (b) Install the shaft assembly into the column upper tube.
- (c) Using SST, compress the compression spring.

SST 09950-40010 (09957-04010, 09958-04010)

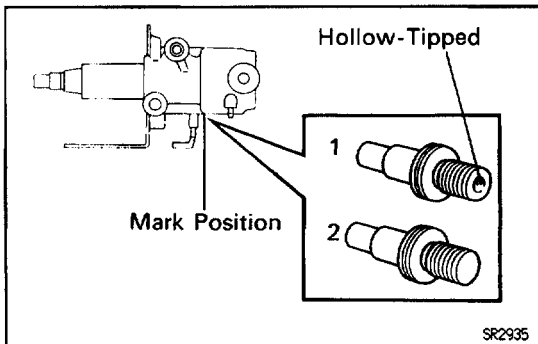
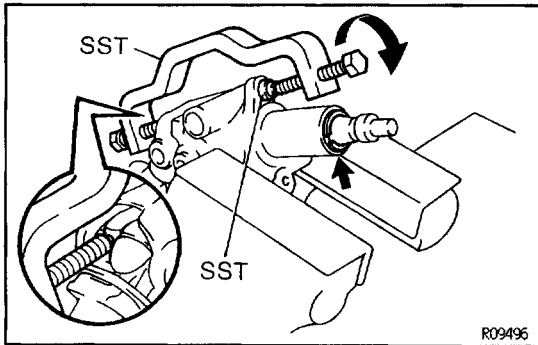
NOTICE: Do not bend the universal joint of the main shaft more than 20°.

- (d) Using snap ring pliers, install a new snap ring.

3. INSTALL TURN SIGNAL BRACKET

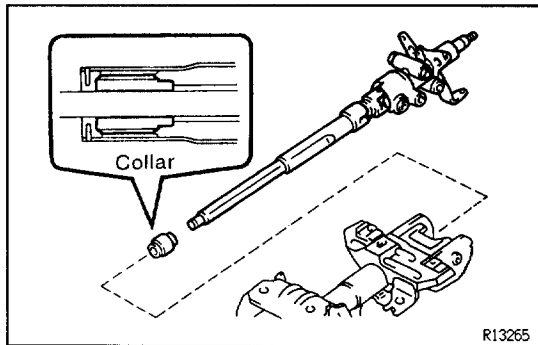
Torque the 2 bolts.

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



4. SELECT TILT NO.2 BOLTS

Select the bolt with plain thread end when the column upper tube mark is 2, and the bolt with the hollow-tipped thread end when the mark is 1.

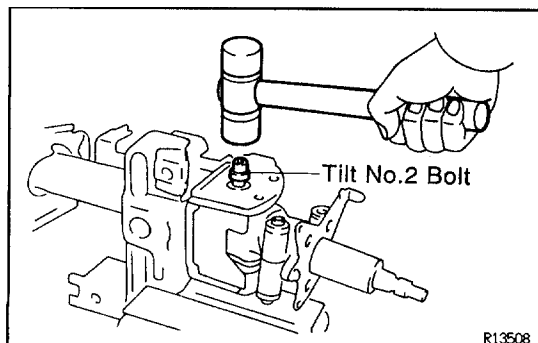


5. INSTALL COLUMN UPPER TUBE WITH MAIN SHAFT ASSEMBLY

- (a) Install the collar to the shaft assembly.
- (b) Install a new snap ring.
- (c) Install the upper tube with the shaft assembly into the column lower tube.

- (d) Using a plastic hammer, drive in the 2 tilt No.2 bolts.

6. INSTALL TILT LEVER LOCK SHAFT, TILT LEVER ASSEMBLY, TILT SUB LEVER AND TILT LEVER



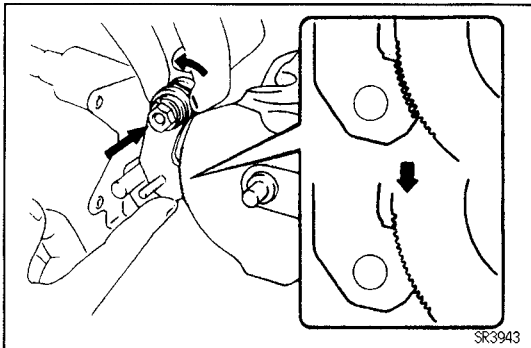
7. INSTALL TILT PAWLS

- (a) Install the 2 pawls.

HINT: Install the pawl pin into the long hole of the tilt lever and tilt sub lever.

- (b) Install the bolt through the pawls and tilt lever assembly.
 (c) Temporarily install the 2 washers and nut.
 (d) Torque the tilt lever assembly set bolt.

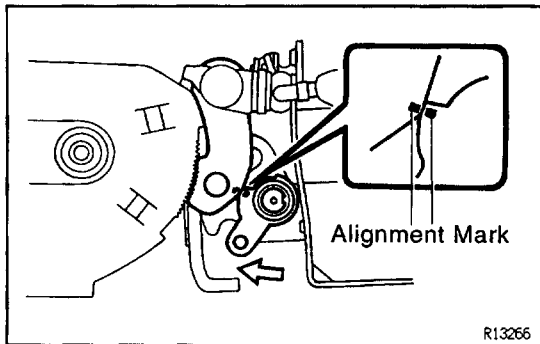
Torque: 2.9 N·m (30 kgf·cm, 26 in·lbf)

**8. ENGAGE AND ADJUST 2 TILT PAWLS**

- (a) Engage the tilt sub lever side pawl to the center of the ratchet.
 (b) While turning the tilt lever side tilt pawl collar, completely engage the tilt lever side pawl to the ratchet.
 (c) Torque the nut.

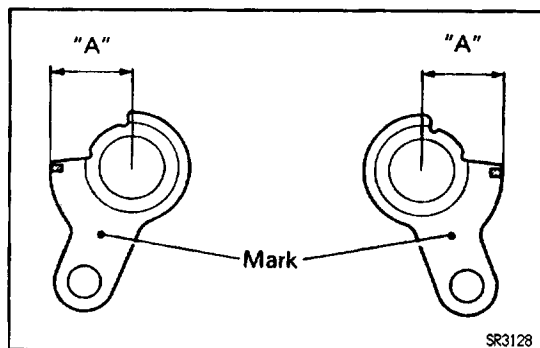
Torque: 5.9 N·m (60 kgf·cm, 52 in·lbf)

- (d) Check that the pawls rotate smoothly.

**9. SELECT AND INSTALL 2 TILT PAWL STOPPERS**

- (a) With the tilt pawl and ratchet engaged, install the stopper.
 (b) Check that the alignment marks on the stopper and pawl align when the stopper is rotated to the pawl side.
 (c) If the alignment marks do not align, select stopper according to the following table.

Tilt lever side	Tilt sub lever side	Dimension "A" mm (in.)
1	A	12.65–12.75 (0.4980–0.5020)
2	B	12.55–12.65 (0.4941–0.4980)
3	C	12.45–12.55 (0.4902–0.4941)
4	D	12.35–12.45 (0.4862–0.4902)
5	E	12.25–12.35 (0.4823–0.4862)



- (d) After selecting the stoppers, check that on both sides the pawl and ratchet are fully engaged.

10. INSTALL 2 TILT LEVER RETAINERS

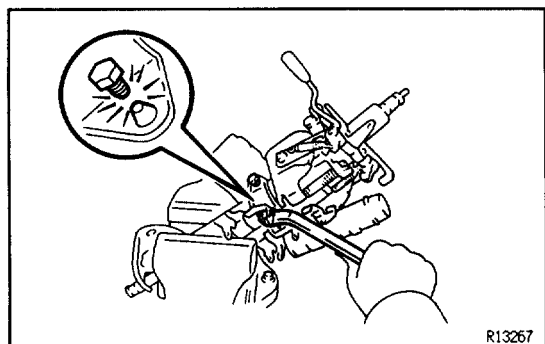
- (a) Install 2 new E-rings.
 (b) Torque the 2 nuts.

Torque: 15 N·m (150 kgf·cm, 11 ft·lbf)

11. INSTALL 3 TENSION SPRINGS**12. INSTALL COMPRESSION SPRING**

- (a) Install the 2 bushings to the spring.
- (b) Torque the bolt.

Torque: 7.8 N·m (80 kgf·cm, 69 in·lbf)

**13. INSTALL COLUMN UPPER BRACKET AND COLUMN UPPER CLAMP**

Tighten 2 new tapered-head bolts until the bolt head brakes off.

14. INSTALL WIRING HARNESS CLAMP

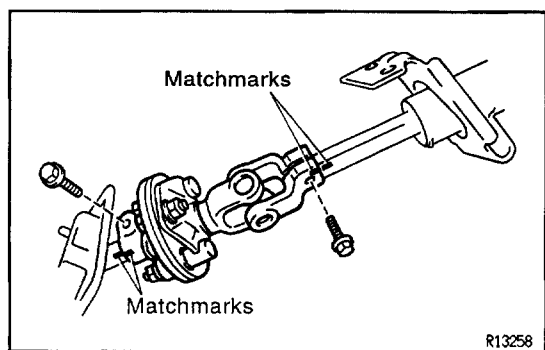
Torque the bolt.

Torque: 18 N·m (185 kgf·cm, 13 ft·lbf)

15. INSTALL COLUMN HOLE SHIELD, COLUMN HOLE COVER AND LOWER DUST SEAL

- (a) Install the hole shield to the hole cover.
- (b) Install the dust seal to the hole cover.
- (c) Torque 2 bolts.

Torque: 5.9 N·m (60 kgf·cm, 52 in·lbf)

**16. CONNECT UNIVERSAL JOINT**

- (a) Align the matchmarks on the intermediate No.2 shaft and universal joint then torque the bolt.

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

- (b) Align the matchmarks on the universal joint and the main shaft then torque the bolt.

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

17. CHECK OPERATION OF TILT STEERING LEVER AND SUPPORT

- (a) Check that there is no axial play at the end of the main shaft.
- (b) With the main shaft in the neutral position, raise the tilt lever and check that the main shaft rises to the uppermost position.
- (c) Lower the main shaft, and check that it locks in the lowermost position.

TILT STEERING COLUMN INSTALLATION

1. INSTALL STEERING COLUMN ASSEMBLY

- (a) Torque the 2 column assembly set nuts and 2 set bolts.
Torque: 25 N·m (250 kgf·cm, 18 ft·lbf)

- (b) Connect the 3 connectors.

2. INSTALL SLIDING YOKE SUB-ASSEMBLY

Temporarily tighten the bolt A.

3. CONNECT SLIDING YOKE SUB-ASSEMBLY

- (a) Align the matchmarks on the yoke sub-assembly and worm gear valve body shaft.

- (b) Torque the bolt B.

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

- (c) Torque the bolt A.

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

4. INSTALL LINK JOINT PROTECTOR

Torque the 2 bolts.

Torque: 12 N·m (120 kgf·cm, 9 ft·lbf)

5. TORQUE 4 COLUMN HOLE COVER SET BOLTS

Torque: 13 N·m (130 kgf·cm, 9 ft·lbf)

6. INSTALL SPIRAL CABLE (See page [BE-13](#))

7. INSTALL COMBINATION SWITCH WITH SPIRAL CABLE

- (a) Tighten the 4 screws.

- (b) Connect the airbag connector.

- (c) Connect the 2 connectors.

8. INSTALL UPPER AND LOWER COLUMN COVERS

Tighten the 5 screws.

9. INSTALL NO.2 HEATER TO REGISTER DUCT

10. INSTALL INSTRUMENT LOWER FINISH PANEL

- (a) Tighten the 4 panel set screws.

- (b) Connect the hood lock control cable and fuel lid control cable.

11. CENTER SPIRAL CABLE

- (a) Check that the front wheels are facing straight ahead.

- (b) Turn the cable counterclockwise by hand until it becomes harder to turn the cable.

- (c) Then rotate the cable clockwise about 3 turns to align the red mark.

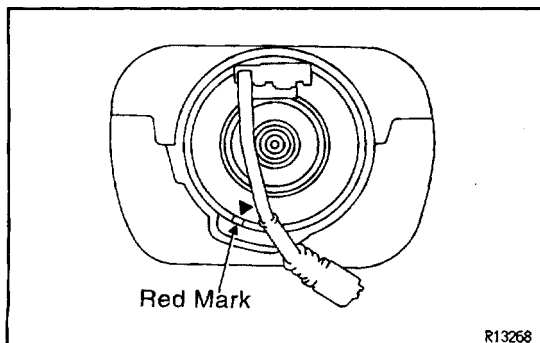
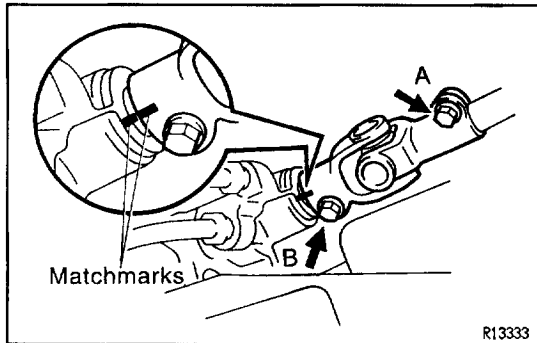
HINT: The cable will rotate about 3 turns to either left or right of the center.

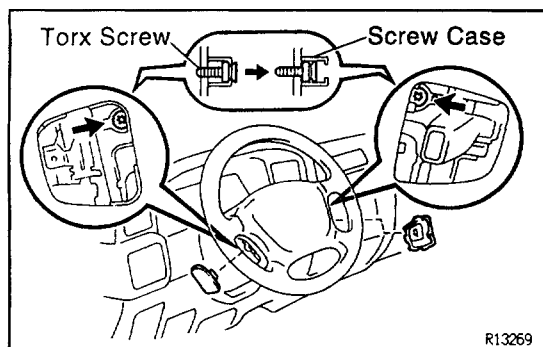
12. INSTALL STEERING WHEEL

- (a) Align the matchmarks on the wheel and main shaft assembly.
- (b) Torque the wheel set nut.

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

- (c) Connect the connector.



**13. INSTALL STEERING WHEEL PAD**

- (a) Connect the airbag connector.
- (b) Install the wheel pad after confirming that the circumference groove of the torx screws is caught on the screw case.
- (c) Using a torx socket wrench, torque the 2 screws.

Torque: 9.0 N·m (90 kgf·cm, 78 in·lbf)

NOTICE:

- Make sure the wheel pad is installed to the specified torque.
 - If the wheel pad has been dropped, or there are cracks, dents or other defects in the case or connector, replace the wheel pad with a new one.
 - When installing the wheel pad, take care that the wirings do not interfere with other parts and are not pinched between other parts.
- (d) Install the steering wheel lower No.2 and No.3 cover.

14. CHECK STEERING WHEEL CENTER POINT