

DAIHATSU

G202

STEERING

STEERING WHEEL

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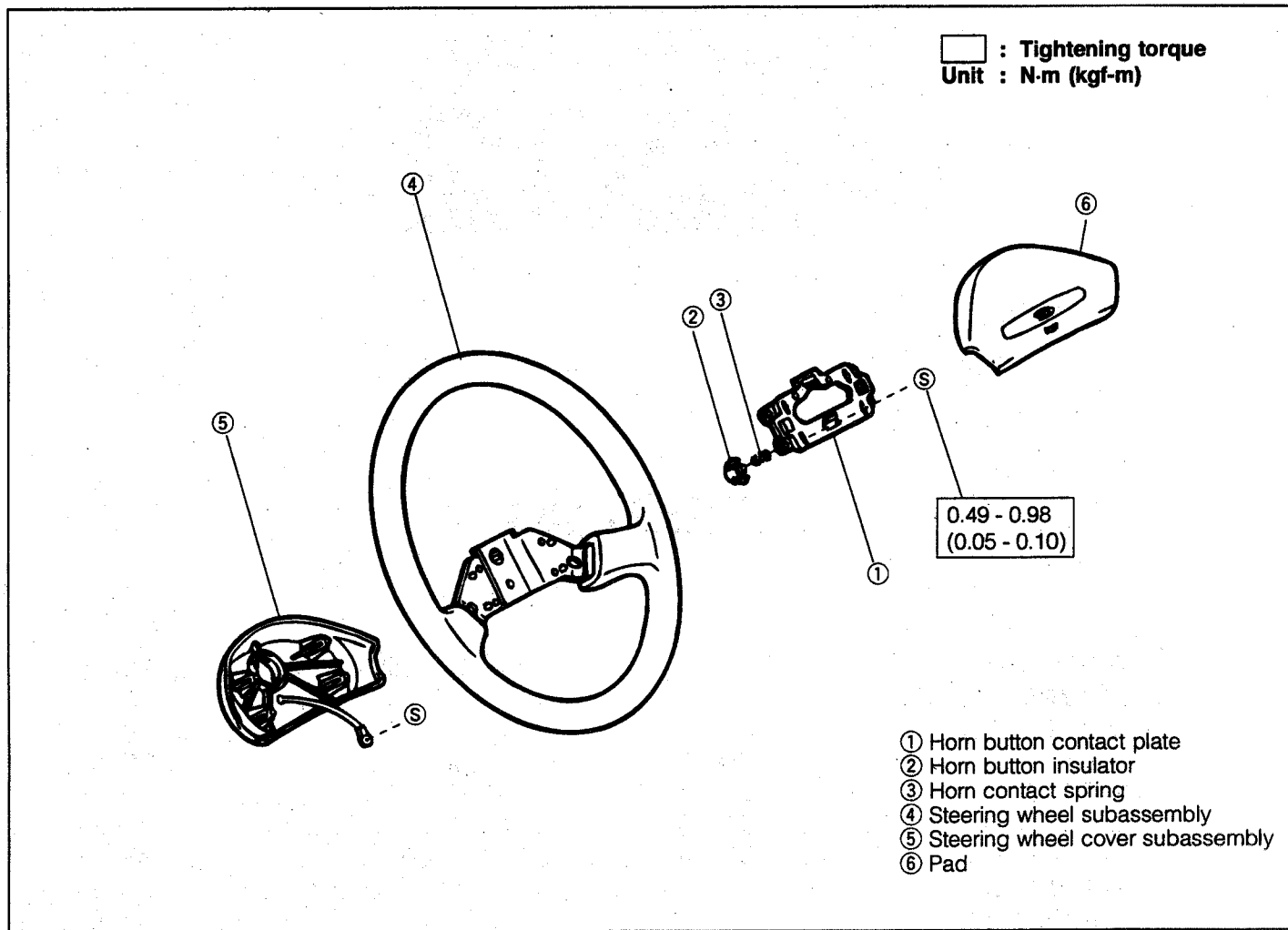
SSTs

SR-26

SR

G2SR00001-00000

**STEERING WHEEL (RESIN TYPE)
COMPONENTS**



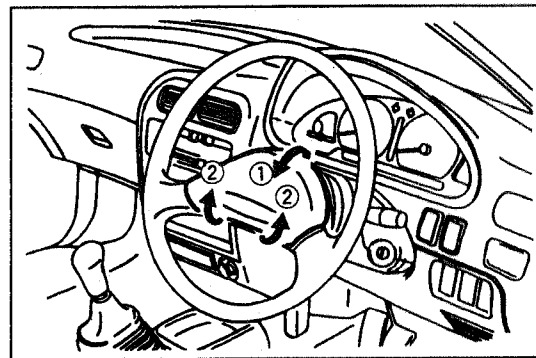
G2SR00002-00001

REMOVAL

1. Disconnect the battery negative (-) terminal.
2. Hold the steering wheel pad at its lower end by your fingers. Then, detach the wheel pad by pulling it toward your side in accordance with the sequence number in the right figure.

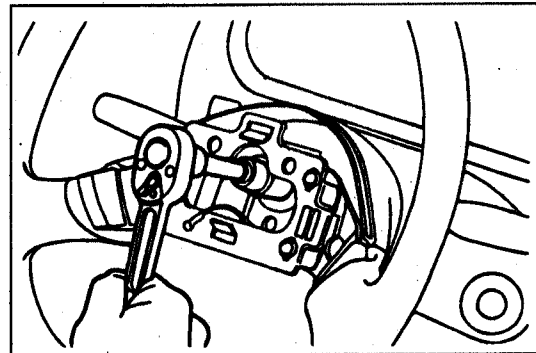
NOTE:

- Be careful not to break the claw of the steering wheel pad by pulling it excessively.



G2SR00003-00002

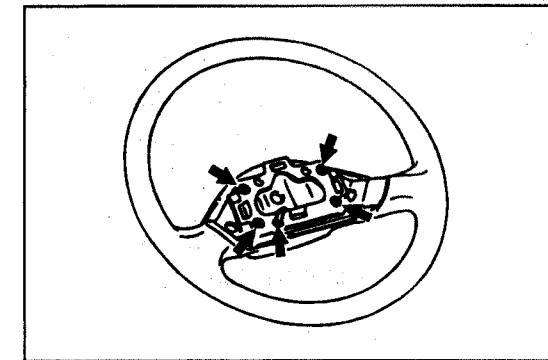
3. Remove the lock nut and the horn harness.
4. Remove the steering wheel subassembly.



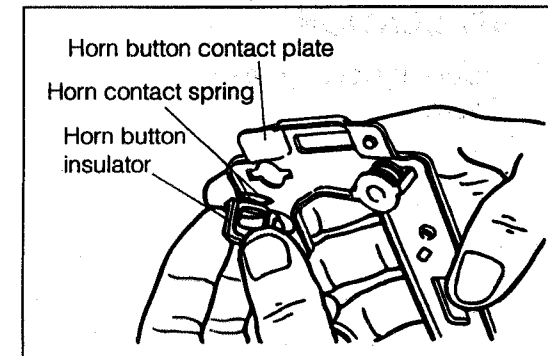
G2SR00004-00003

DISASSEMBLY

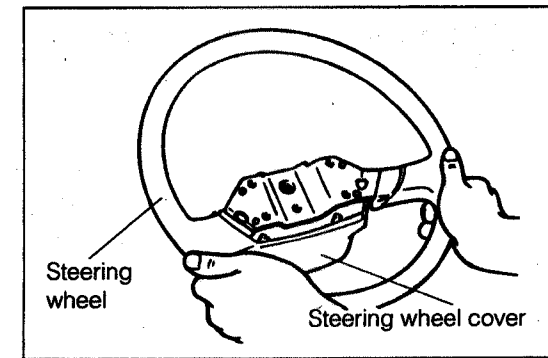
1. Remove the horn button contact plate by loosening the screws.
2. Remove the horn button insulator and horn contact spring from the horn button contact plate.
3. Remove the steering wheel subassembly and steering wheel cover subassembly.



G2SR00005-00004



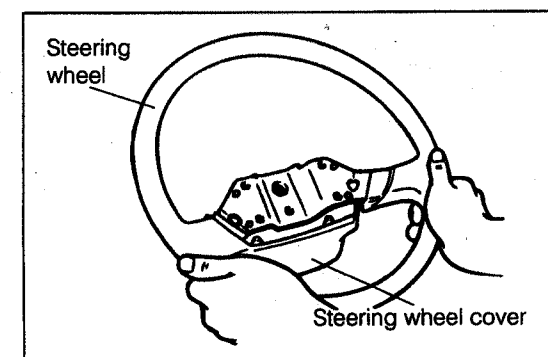
G2SR00006-00005



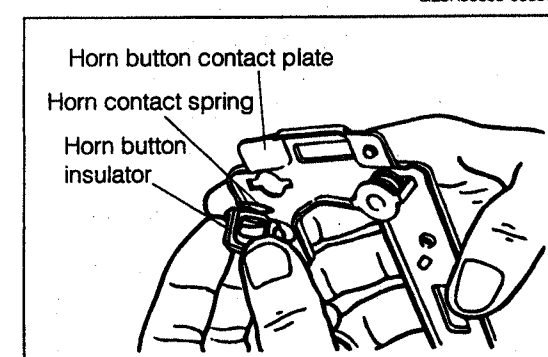
G2SR00007-00006

ASSEMBLY

1. Install the steering wheel cover subassembly and steering wheel subassembly.
2. Install the horn contact spring and horn button insulator to the horn button contact plate.



G2SR00008-00007

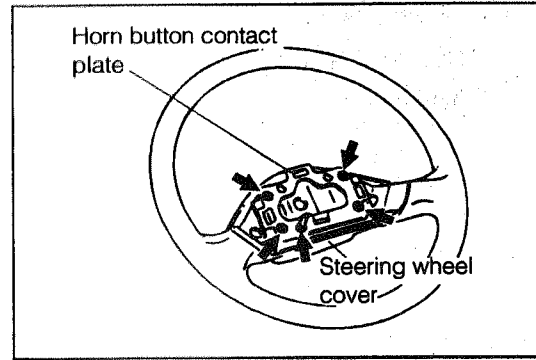


G2SR00009-00008

3. Install the horn button contact plate. Then, tighten the screws.
Tightening Torque: 0.49 - 0.98 N·m
(5 - 10 kgf·cm)

NOTE:

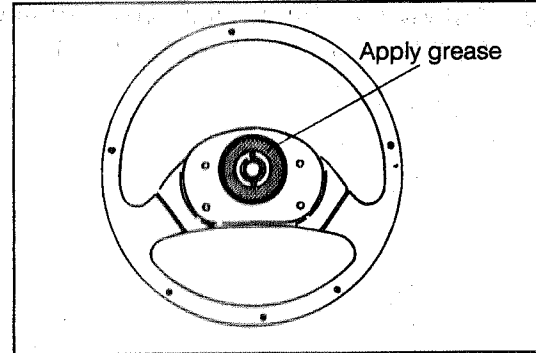
- Tighten the horn button contact plate and steering wheel cover subassembly together by the screws.



G2SR00010-00009

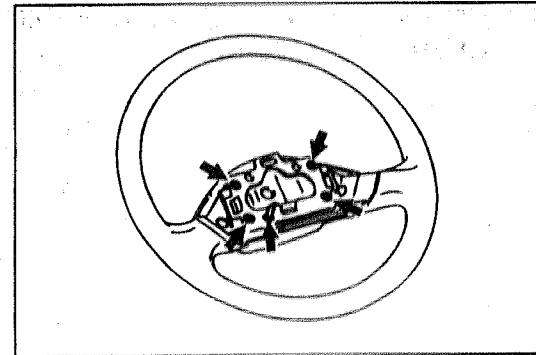
INSTALLATION

1. Apply rubber grease on the indicated area in the right figure.



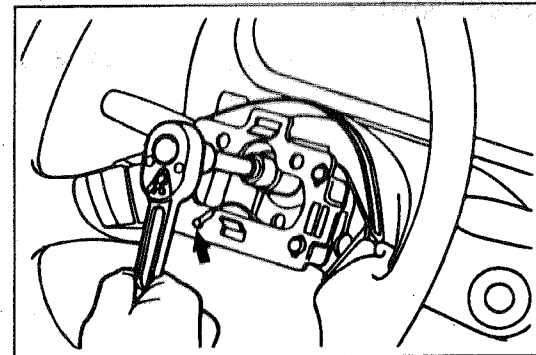
G2SR00011-00010

2. Fit the steering wheel subassembly.



G2SR00012-00011

3. Tighten the lock nut. Then, install the horn harness.
Tightening Torque: 27.4 - 41.2 N·m (lock nut)
(280 - 420 kgf·cm)
0.98 - 1.47 N·m (horn harness)
(10 - 15 kgf·cm)



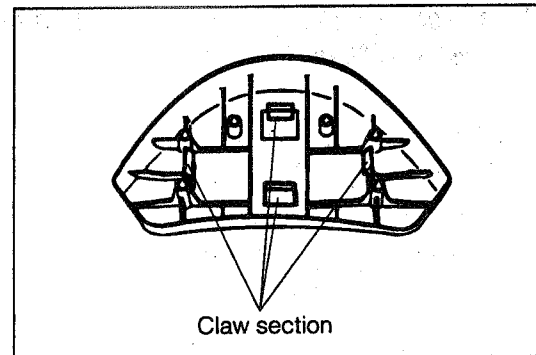
G2SR00013-00012

4. Install the steering wheel pad.

NOTE:

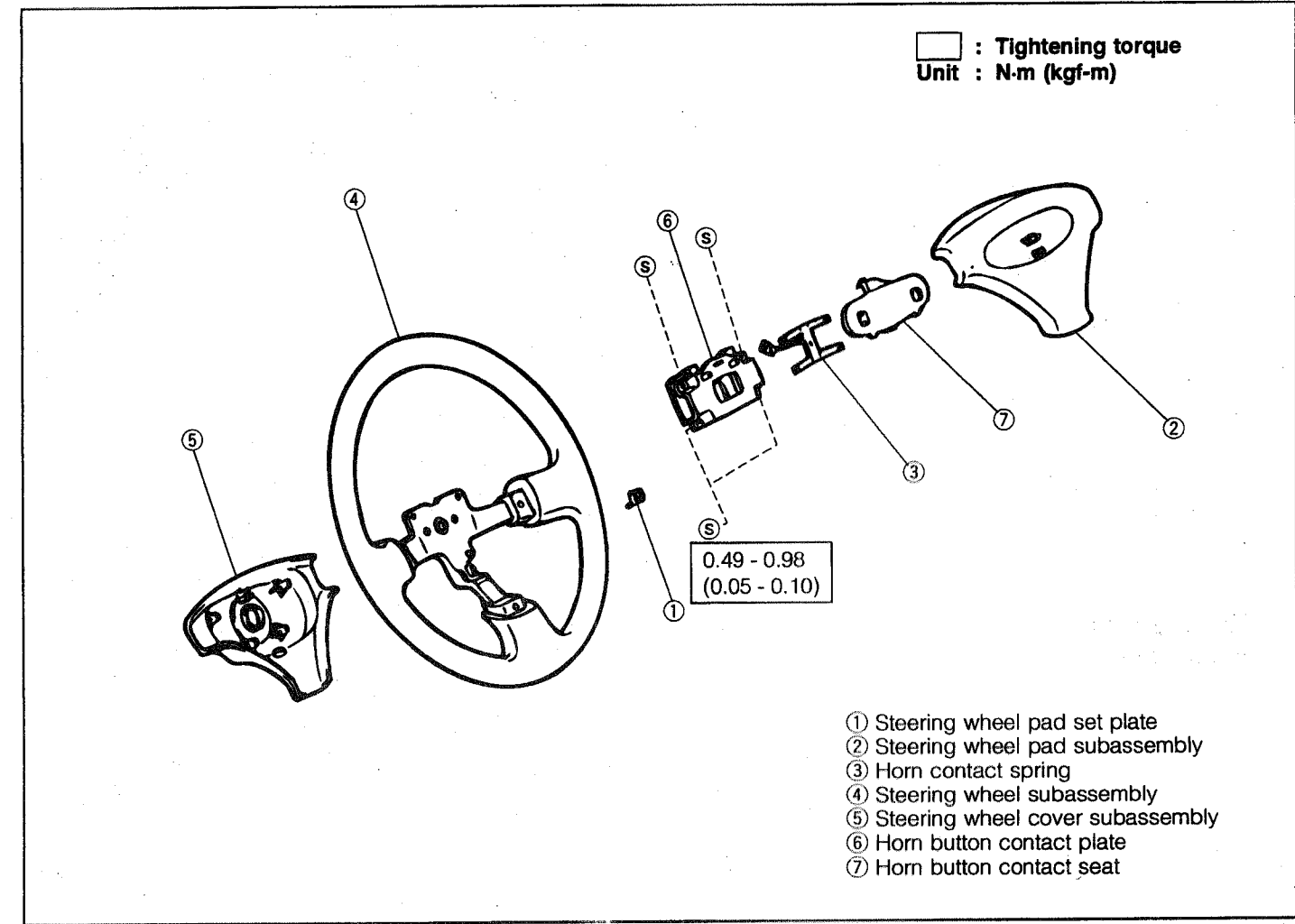
- Be careful not to break the claw at the back side of the steering wheel pad by pushing it excessively.

5. Connect the battery negative (-) terminal.



G2SR00014-00013

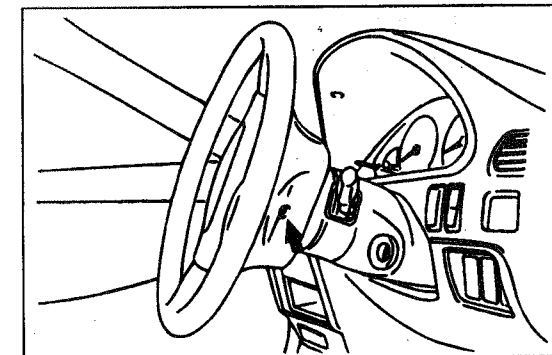
STEERING WHEEL (URETHANE TYPE)
COMPONENTS



G2SR00015-00014

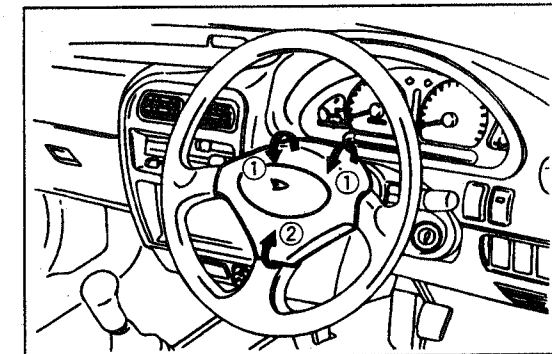
REMOVAL

1. Loosen the screw.



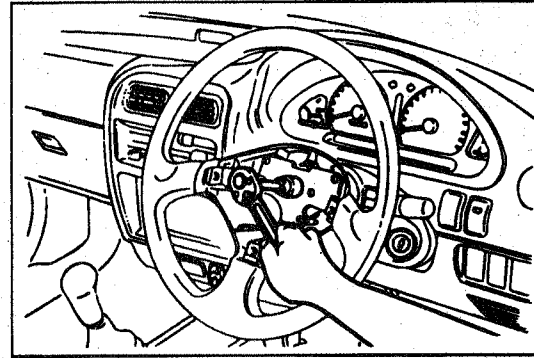
G2SR00016-00015

2. Hold the steering wheel pad subassembly at its lower end by your fingers. Then, detach the upper side of the steering wheel pad subassembly by pulling it toward your side.



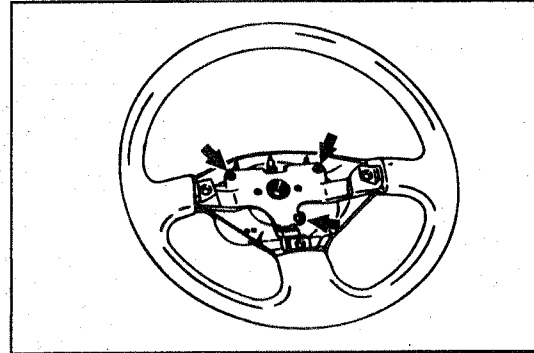
G2SR00017-00016

3. Remove the horn harness and lock nut.



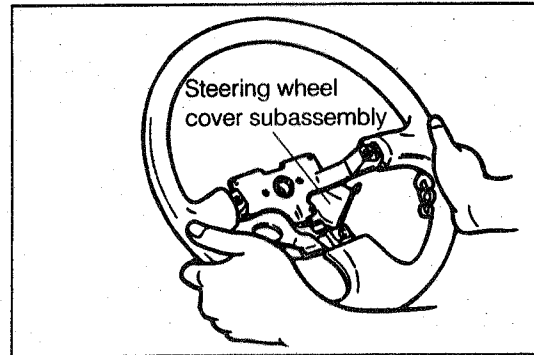
G2SR00018-00017

4. Remove the steering wheel subassembly.



G2SR00019-00018

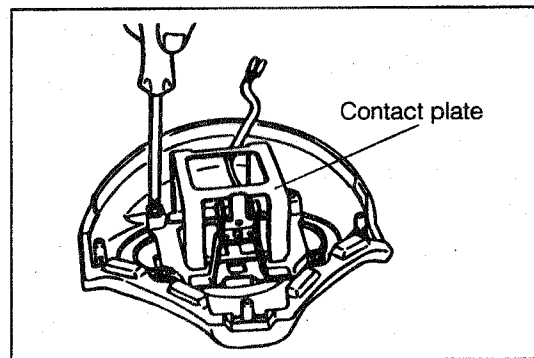
5. Remove the steering wheel cover subassembly by loosening the screws.



G2SR00020-00019

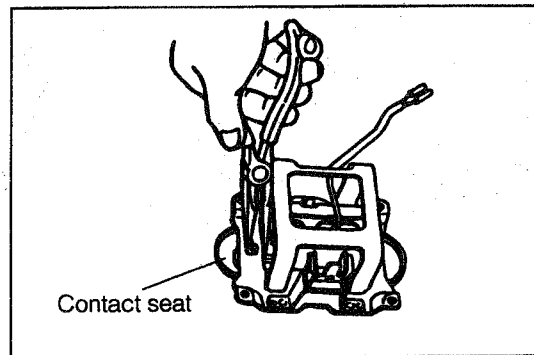
DISASSEMBLY

1. Remove the horn button contact plate from the steering wheel pad subassembly by loosening the screws.



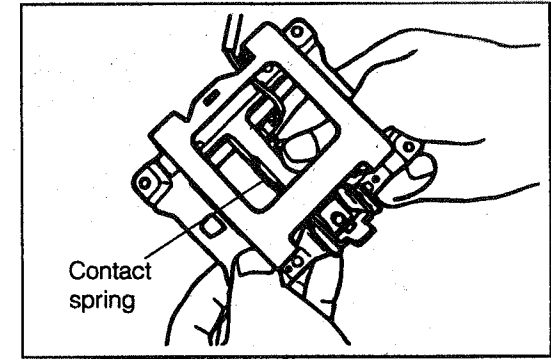
G2SR00021-00020

2. Remove the horn button contact seat from the horn button contact plate, using a needle nose pliers or the like.



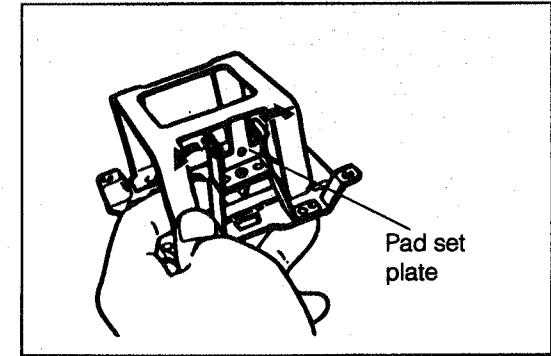
G2SR00022-00021

3. Remove the horn contact spring from the horn button contact plate.



G2SR00023-00022

4. Remove the steering wheel pad set plate from the horn button contact plate.



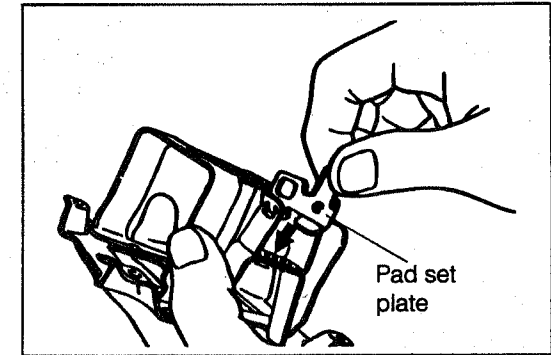
G2SR00024-00023

ASSEMBLY

1. Install the steering wheel pad set plate to the horn button contact plate.

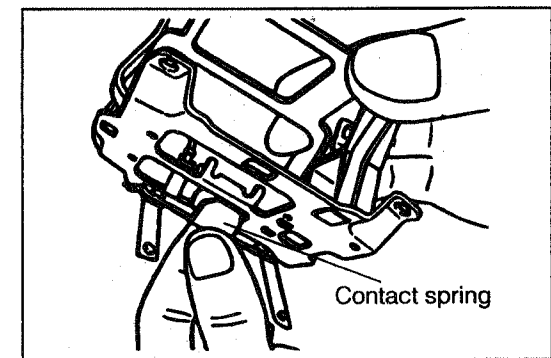
NOTE:

- Be sure to install the steering wheel pad set plate in the correct direction indicated in the right figure.



G2SR00025-00024

2. Install the horn contact spring to the horn button contact plate.



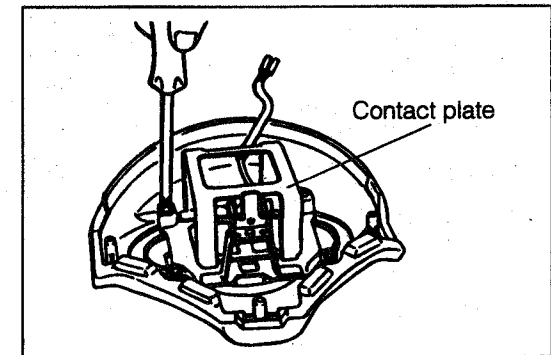
G2SR00026-00025

3. Install the horn button contact seat to the horn button contact plate.

4. Install the horn button contact plate to the steering wheel pad.

Tighten the screws.

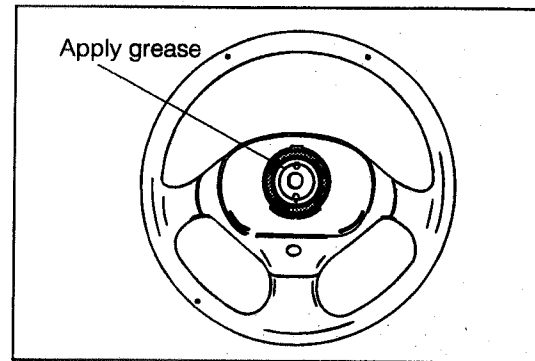
Tightening Torque: 0.49 - 0.98 N·m
(5 - 10 kgf·cm)



G2SR00027-00026

INSTALLATION

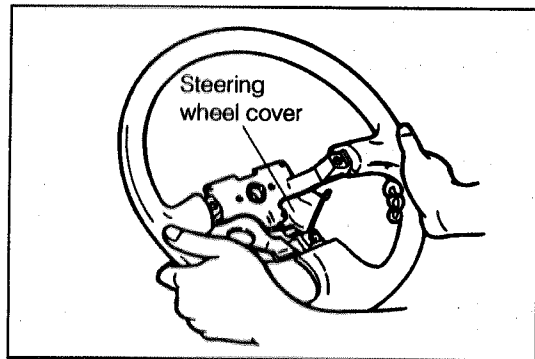
1. Apply rubber grease on the indicated area in the right figure.



G2SR0028-00027

2. Install the steering wheel cover subassembly by tightening the screws.

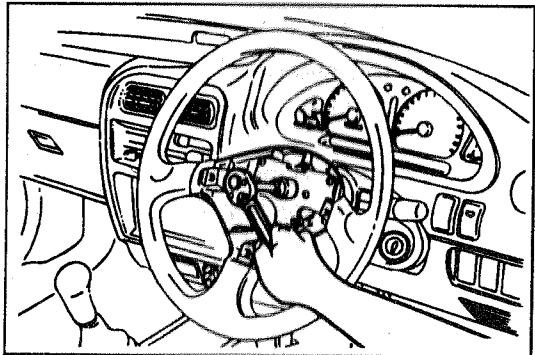
Tightening Torque: 0.59 - 1.08 N-m
(6 - 11 kgf-cm)



G2SR0029-00028

3. Install the steering wheel subassembly.
4. Tighten the lock nut. Then, install the horn harness.

Tightening Torque: 27.4 - 41.2 N-m
(280 - 420 kgf-cm)

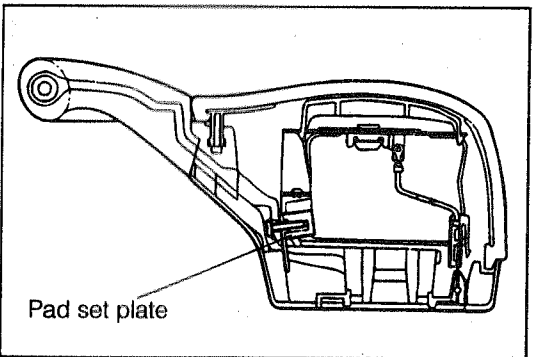


G2SR0030-00029

5. Install the steering wheel pad subassembly in accordance with the sequence number indicated in the right figure.

NOTE:

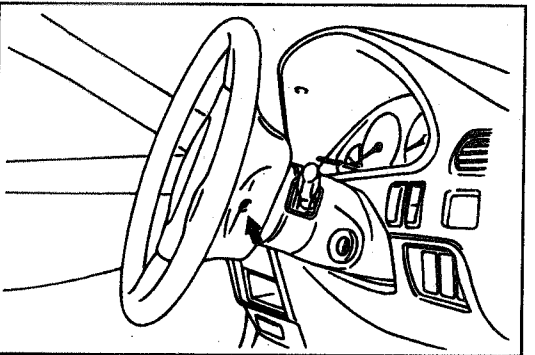
- When installing the steering wheel pad subassembly, be sure to fit the steering wheel pad set plate positively.



G2SR0031-00030

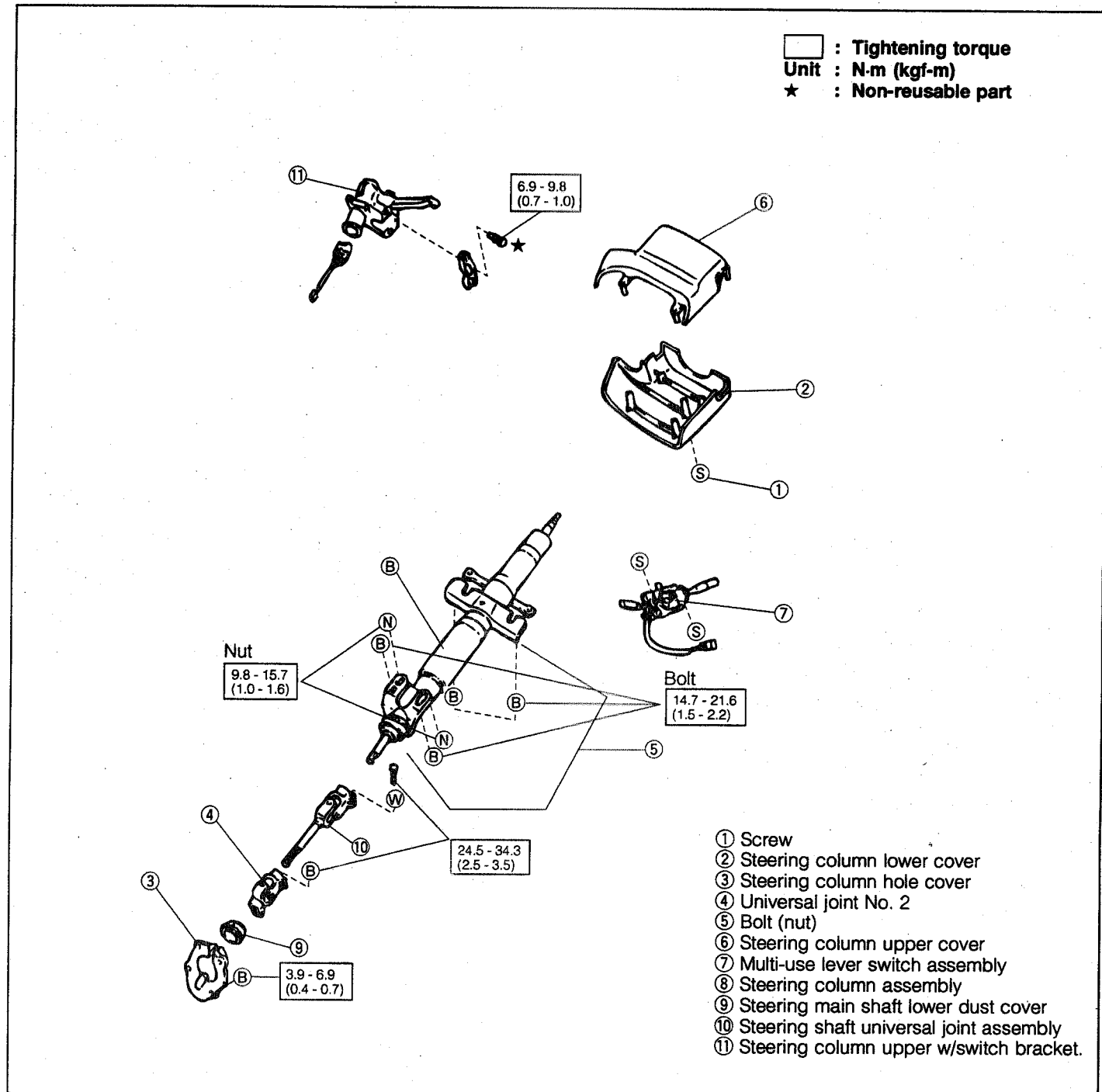
6. Tighten the screw.

Tightening Torque: 0.59 - 1.08 N-m
(6 - 11 kgf-cm)



G2SR0032-00031

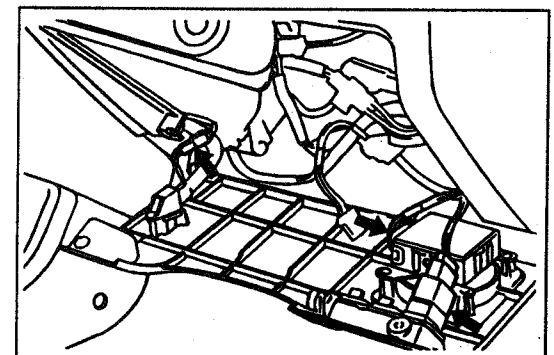
STEERING COLUMN COMPONENTS



G2SR0033-00032

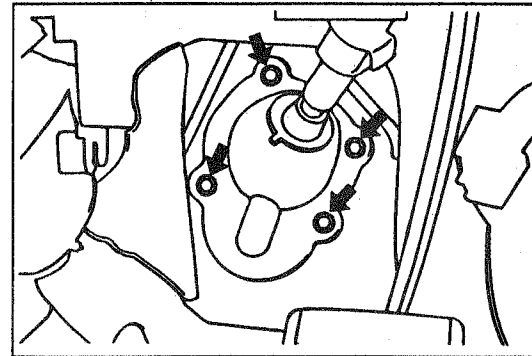
REMOVAL

- Disconnect the battery ground cable terminal from negative (-) terminal of the battery.
- Remove the steering wheel subassembly.
- Detach the instrument lower finish panel.
- Disconnect the connectors for the Multi-use lever switch assembly and engine key switch.



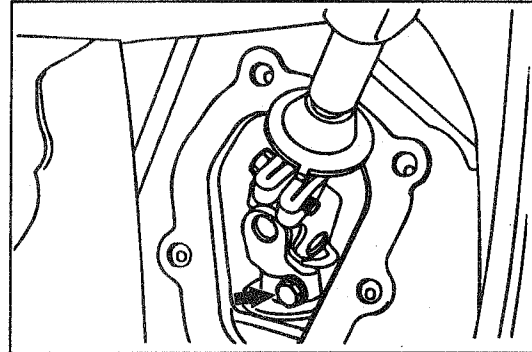
G2SR0034-00033

- Remove the steering column lower cover by loosening the screws.
- Remove the steering column hole cover from the dash panel.



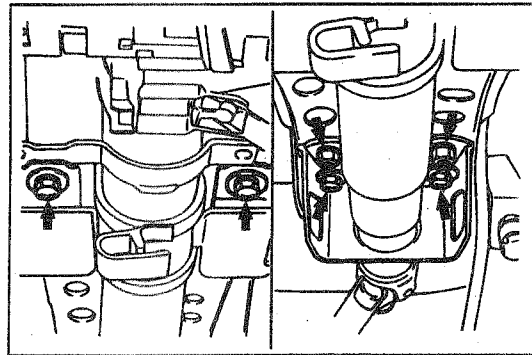
G2SR00035-00034

- Disconnect the universal joint No. 2 (Steering gear assembly side).



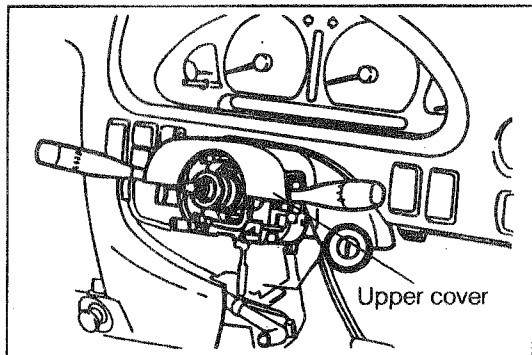
G2SR00036-00035

- Remove bolts and nuts.



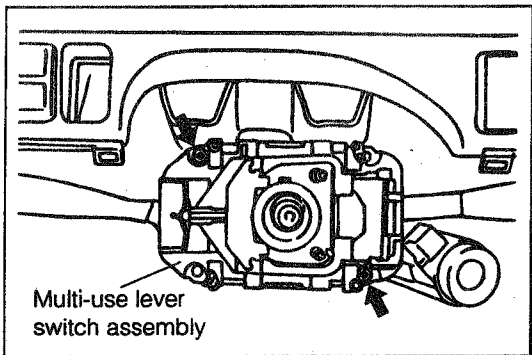
G2SP00037-00036

- Remove the steering column upper cover.



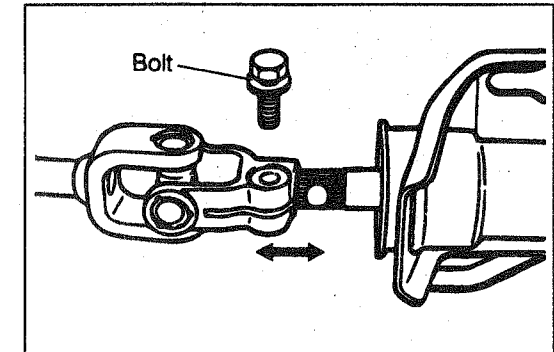
G2SR00038-00037

- Remove the Multi-use lever switch assembly by loosening two screws.



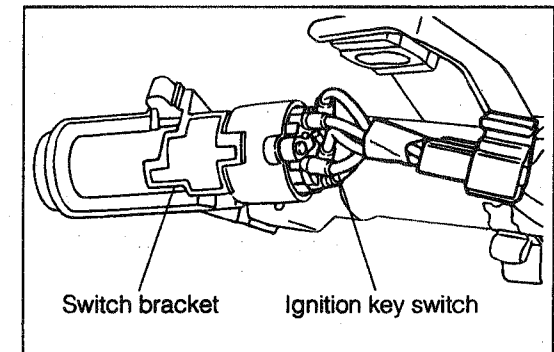
G2SR00039-00038

- Remove the steering column assembly.
NOTE:
 - Be sure not to impact on the steering column assembly during removing it.



G2SR00040-00039

- Remove the steering main shaft lower dust cover and steering shaft universal joint assembly from the steering column assembly.

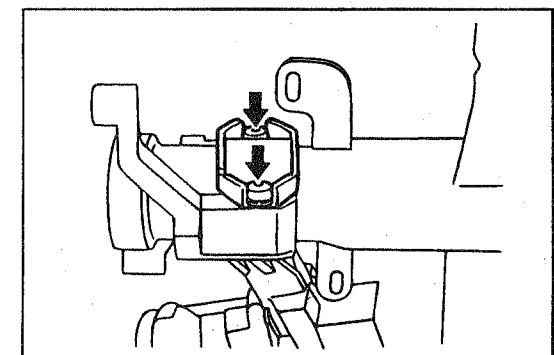


G2SR00041-00040

- Remove the ignition key switch from the switch bracket.
- Remove the key cylinder from the switch bracket.

- Remove the switch bracket from the steering column assembly.
NOTE:

- Remove the switch bracket by making a hole at the center of the bolt, using a drill.
- Once the switch bracket is removed, attaching bolt is no longer possible to be put use again. Therefore, do not remove the switch bracket, unless its removal is absolutely necessary.
- When installing the switch bracket with set bolts, tighten set bolts until its head is cut off.

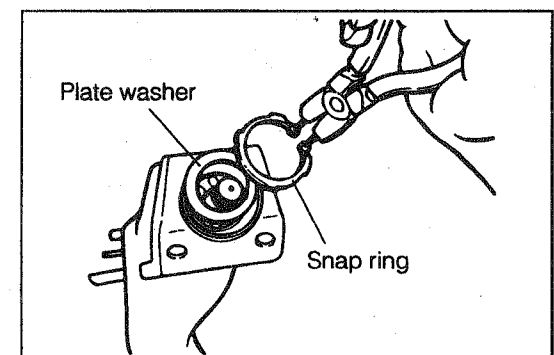


G2SR00042-00041

DISASSEMBLY

- Detach the plate washer and shaft snap ring by means of a snap ring expander.

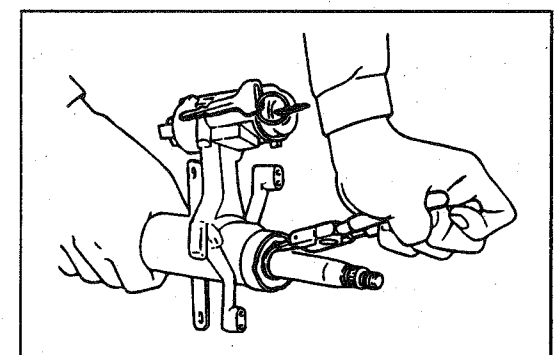
- NOTE:
- Never reuse the detached shaft snap ring.



G2SR00043-00042

- Detach the hole snap ring by means of a snap ring expander.

- NOTE:
- Never reuse the detached hole snap ring.



G2SR00044-00043

3. Remove the steering main shaft with bearing and thrust stopper by tapping it, using a plastic hammer.

CAUTION:

- Never strike the main shaft hard. If the shaft should be struck too hard, the resin pin providing the steering main shaft may be damaged and length of the main shaft is to be shorter than the specified length.
- Clamp the lower side bracket in a vise. never clamp the upper side bracket, to prevent the column separation.

4. Detach the thrust stopper from the steering main shaft.

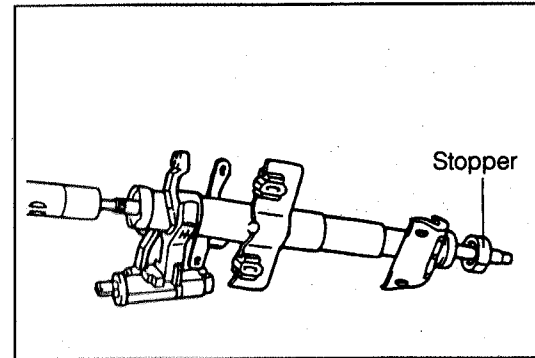
INSPECTION

1. Measure the whole length of the steering main shaft.

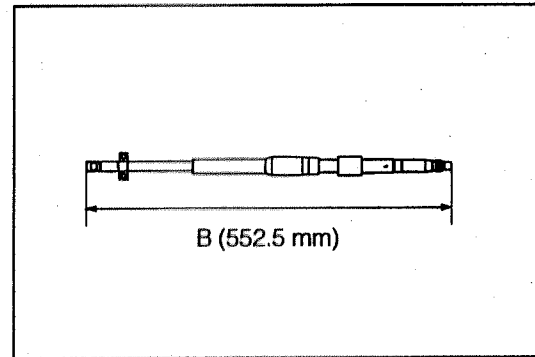
Specified Length: 552.5 mm

NOTE:

- If the length is shorter than the specified length excessively, replace it by new one.

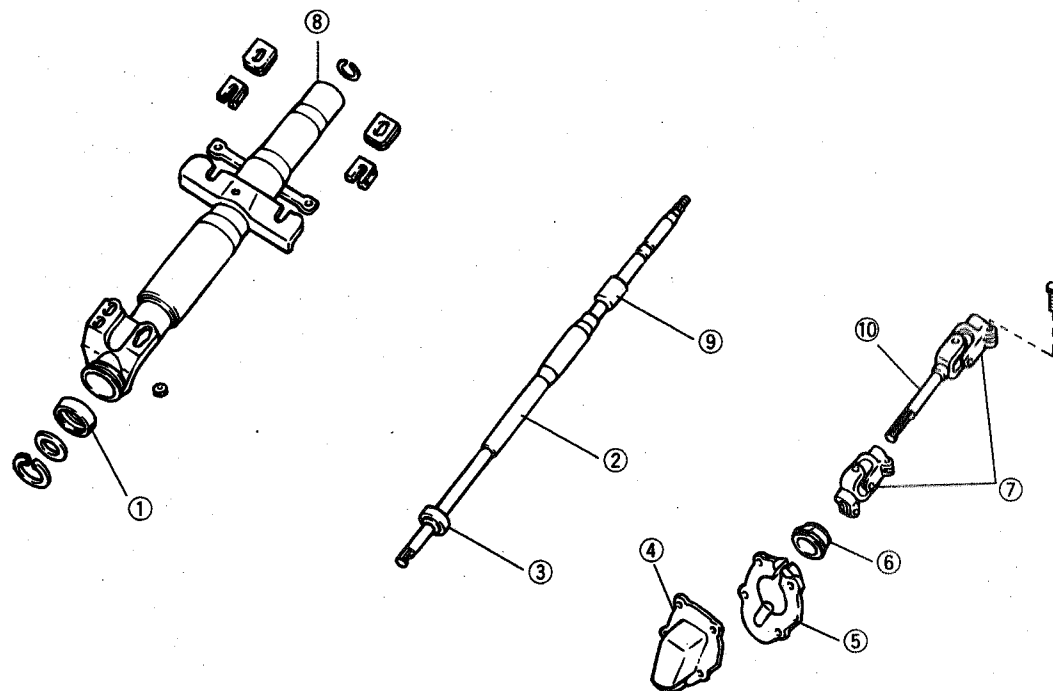


G2SR00045-00044



G2SR00046-00045

2. Inspect the following parts.

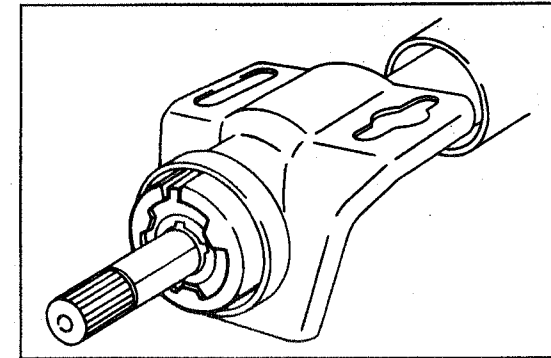


- ① Stopper for breakage
- ② Resin pins for damage
- ③ Bearing for wear or rotating condition
- ④ Boot for breakage
- ⑤ Retainer for damage
- ⑥ Dust cover for breakage
- ⑦ Spider & yoke for excessive looseness
- ⑧ Bearing for wear or rotating condition
- ⑨ Shaft for bend or damage
- ⑩ Resin pins for damage

G2SR00047-00046

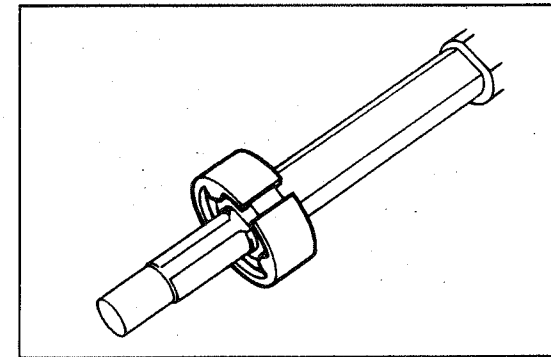
ASSEMBLY

1. Install the thrust stopper to the steering main shaft bearing.



G2SR00048-00047

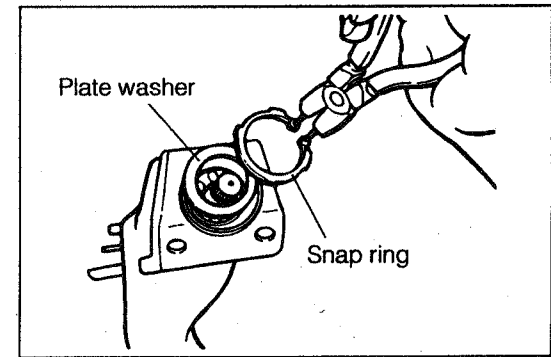
2. Insert the steering main shaft into the column tube subassembly by tapping it, using a plastic hammer.



G2SR00049-00048

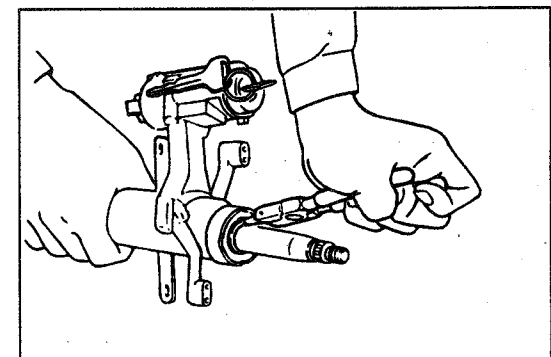
3. Install the plate washer.

4. Fit a new hole snap ring to the column tube subassembly by means of a snap ring.



G2SR00050-00049

5. Fit a new shaft snap ring to the steering main shaft by means of a snap ring expander.

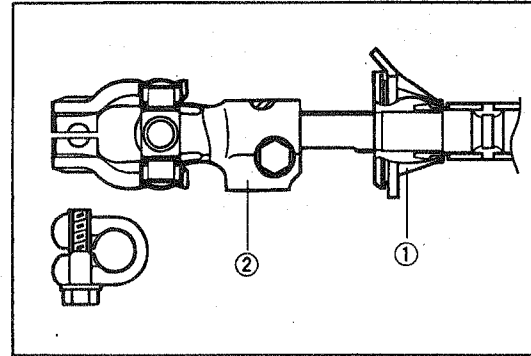


G2SR00051-00050

INSTALLATION

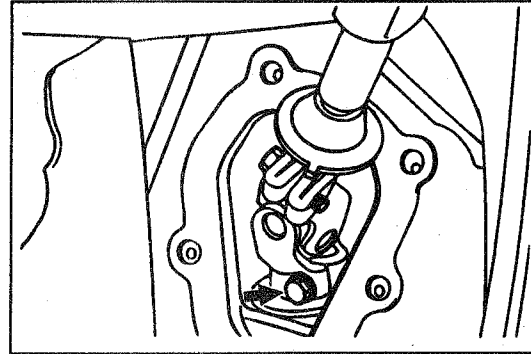
1. Install the lower dust cover ① to the universal joint shaft assembly.
2. Connect the universal No. 2 joint to the universal joint shaft assembly.

Tightening Torque: 24.5 - 34.3 N·m
(250 - 350 kgf·cm)



G2SR00052-00051

3. Connect the steering shaft universal joint assembly to the steering gear shaft assembly.

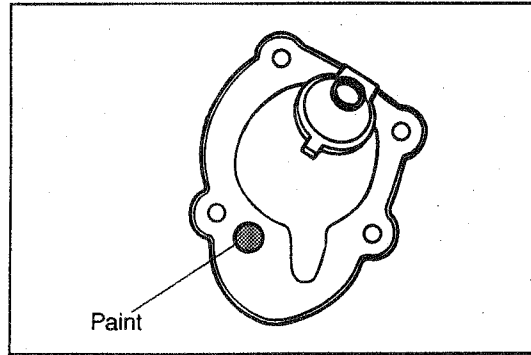


G2SR00053-00052

4. Install the dust cover retainer to the dash panel.
Tightening Torque: 3.9 - 6.9 N·m (40 - 70 kgf·cm)

NOTE:

Be sure to fit the steering main shaft lower dust cover in the dust cover retainer correctly.



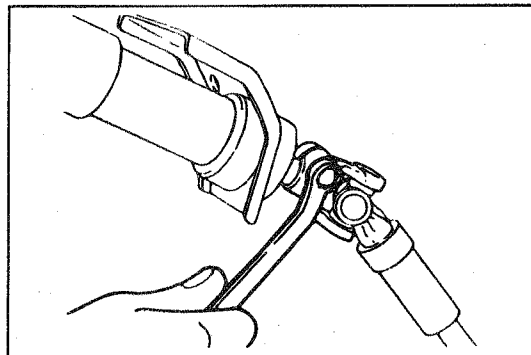
G2SR00054-00053

5. Install the steering shaft universal joint assembly to the steering main shaft.

Tightening Torque: 24.5 - 34.3 N·m
(250 - 350 kgf·cm)

NOTE:

- Be sure to insert the attaching bolt of the universal joint in the correct direction.

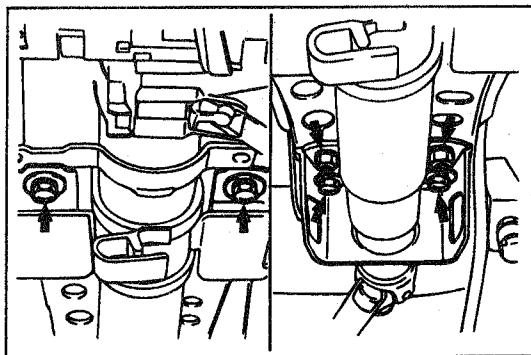


G2SR00055-00054

6. Tighten the attaching bolts and nuts of the steering column assembly temporarily.

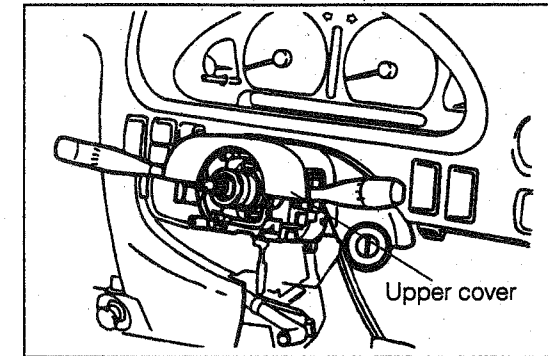
NOTE:

- Install the nut of the column assembly lower bracket. Then, hang the steering column assembly.
- Install the attaching bolts and nut.



G2SR00056-00036

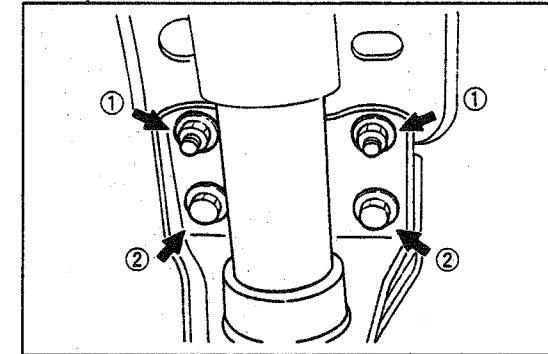
7. Install the Multi-use lever switch assembly to the steering column by tightening the screws.
8. Install the steering column upper cover.



G2SR00057-00055

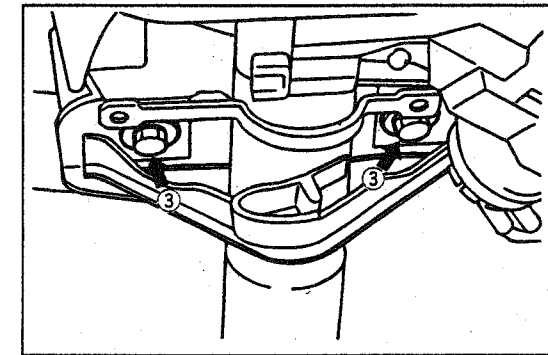
9. Tighten the attaching bolts and nuts of the steering column assembly.

Tightening Torque: Nuts ① 9.8 - 15.7 N·m
(100 - 160 kgf·cm)



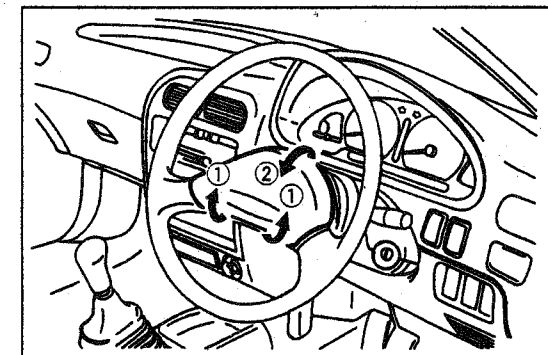
G2SR00058-00056

Tightening Torque: Bolts ② & ③ 14.7 - 21.6 N·m
(150 - 220 kgf·cm)



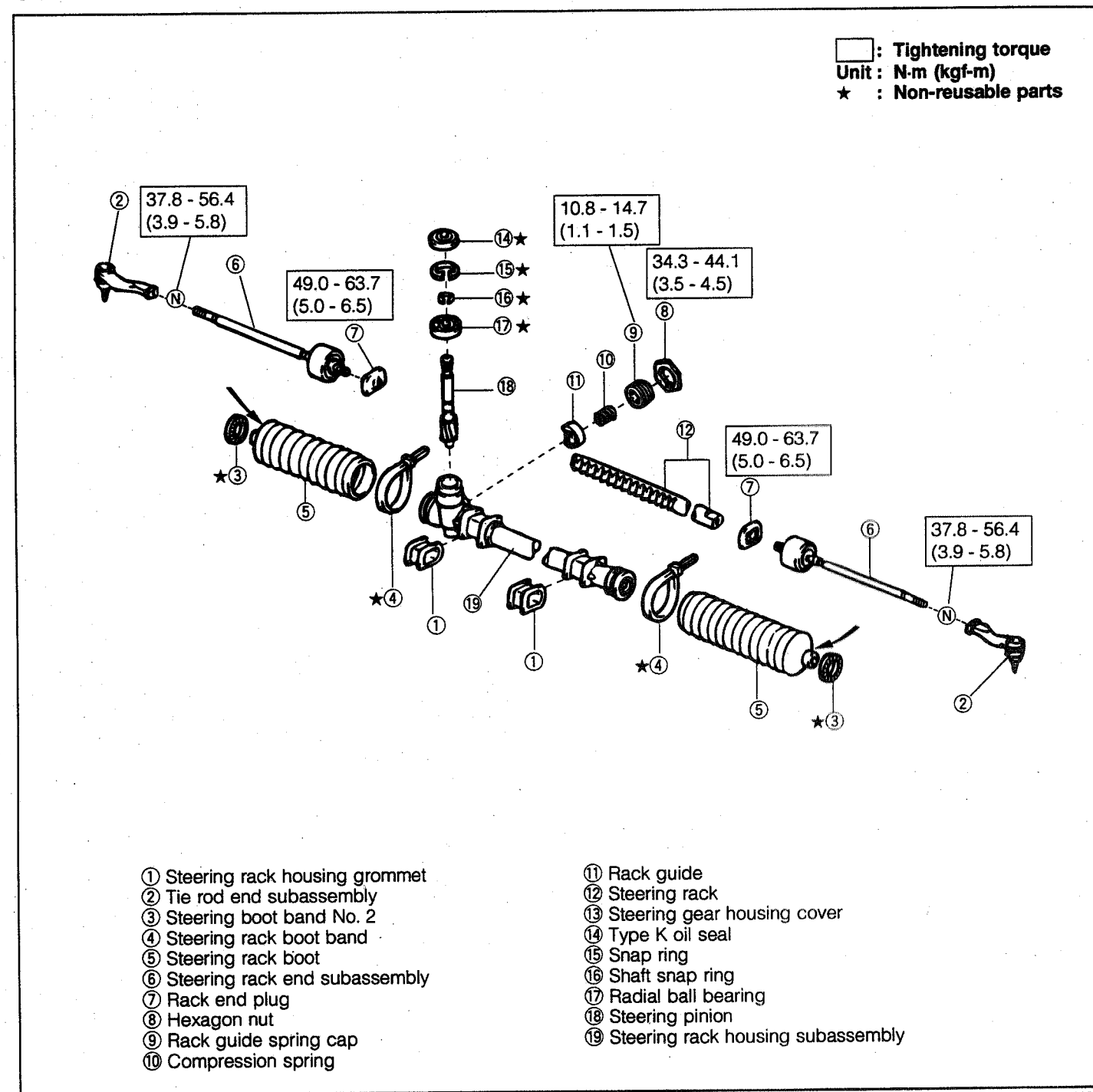
G2SR00059-00057

10. Install the steering column lower cover by tightening the screws.
11. Connect the connectors for the Multi-use lever switch assembly and engine key switch.
12. Install the instrument lower finish panel.
13. Install the steering wheel subassembly.
14. Connect the battery ground cable terminal to negative (-) terminal of the battery.



G2SR00060-00058

**STEERING GEAR ASSEMBLY
COMPONENTS**



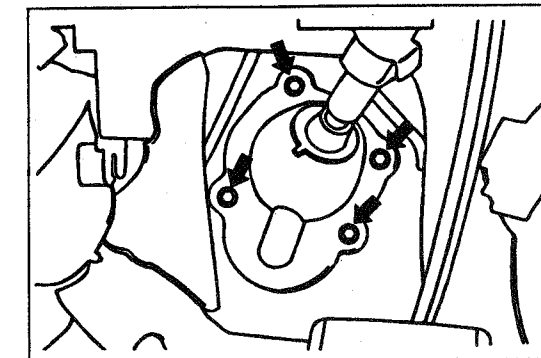
G2SR00061-00059

REMOVAL

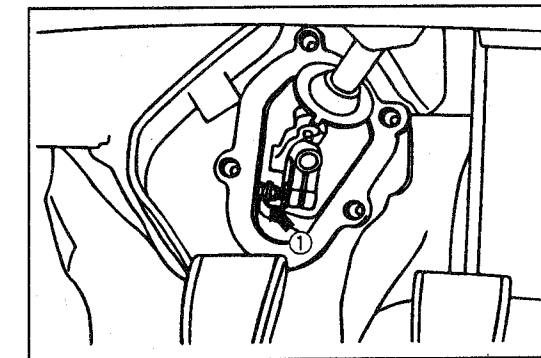
1. Jack up the vehicle at the front side. Support the body with safety stands.
2. Remove the wheels.
3. Remove the engine under cover.

G2SR00062-00000

4. Remove the dust cover retainer.



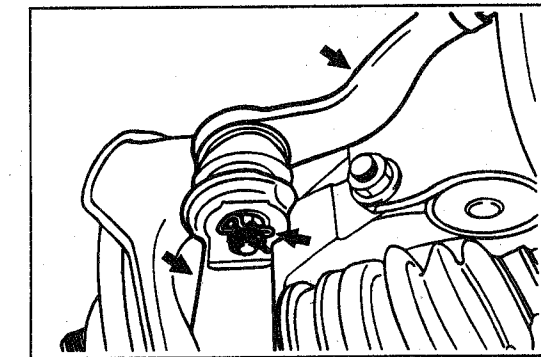
5. Remove the universal joint attaching bolt ①.



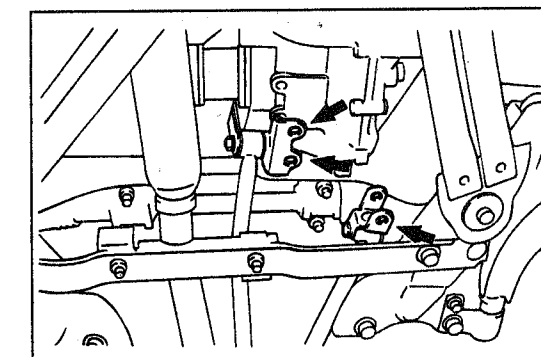
6. Removal of tie rod end
 - (1) Remove the clips and castle nuts.
 - (2) Remove the tie rod end from the steering knuckle, using the following SST.

SST: 09611-87701-000

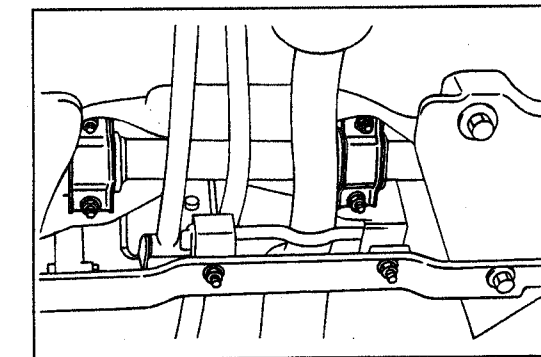
NOTE:
• Never reuse the removal clips and castle nuts.



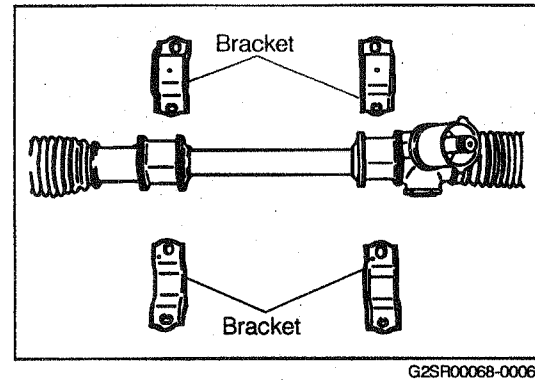
7. Remove the attaching bolts of the shift & select shaft subassembly and extension rod subassembly at the transmission side.



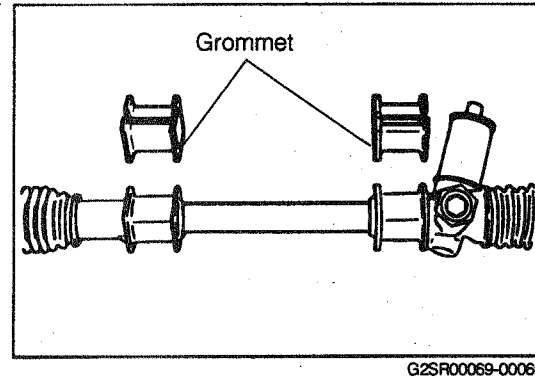
8. Remove the attaching nuts of the manual steering gear assembly from the front suspension cross member subassembly.
9. Remove the steering column hall shield from the steering gear housing cover.
10. Take out the manual steering gear assembly from the front suspension cross member subassembly.



11. Remove the steering rack housing bracket.



12. Remove the steering rack housing grommet.



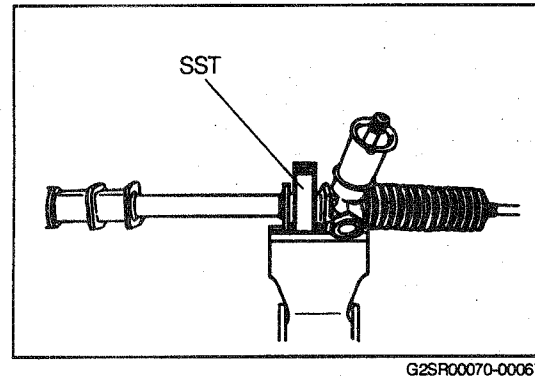
DISASSEMBLY

1. Secure the manual steering gear assembly in a vice, using the following SST.

SST: 09612-00012-000

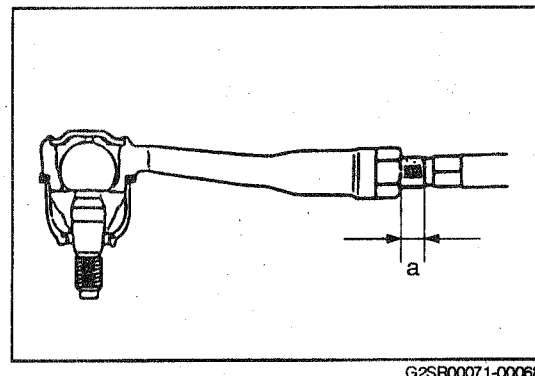
NOTE:

- When the SST is installed to the manual steering gear assembly, a gap will be formed. At this time, be very careful not to damage the rack housing by excessively tightening the attaching nuts of the SST.
- Be sure to evenly tighten the attaching nuts of the SST.

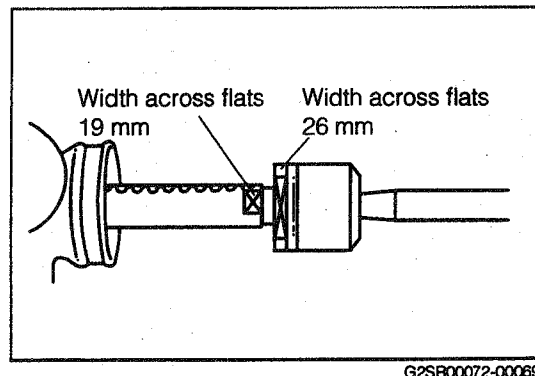


2. Removal of tie rod end

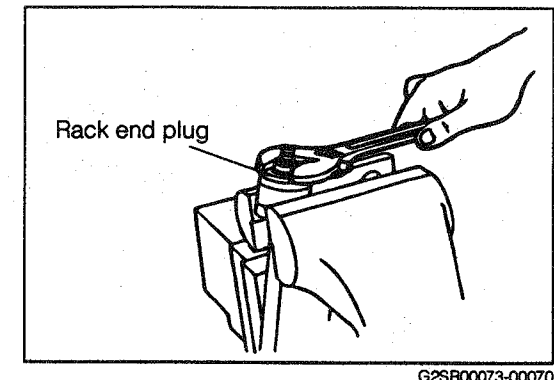
- (1) Before the tie rod end is removed, measure the dimension a or put a mark on the rack end section in order that this mark may be used as a guide to ensure easier toe-in adjustment during the reassembly.
- (2) Slacken the lock nut. Remove the tie rod end from the rack end.



3. Remove the steering rack housing grommet.
4. Remove the tie rod end subassembly.
5. Remove the steering boot band No. 2.
6. Remove the steering rack boot band.
7. Remove the steering rack boot.
8. Remove the steering rack end subassembly, using an open end wrench of which width across flats is 19 mm.

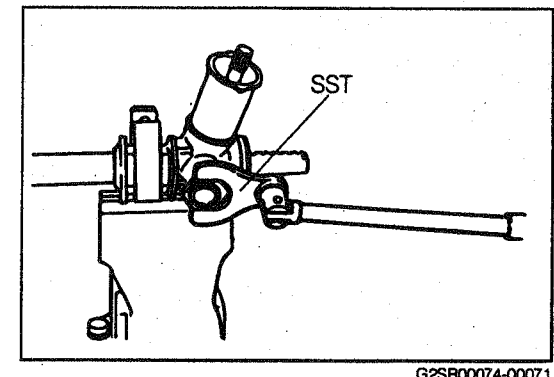


9. Secure the steering rack end subassembly in a vice. Remove the rack end plug.

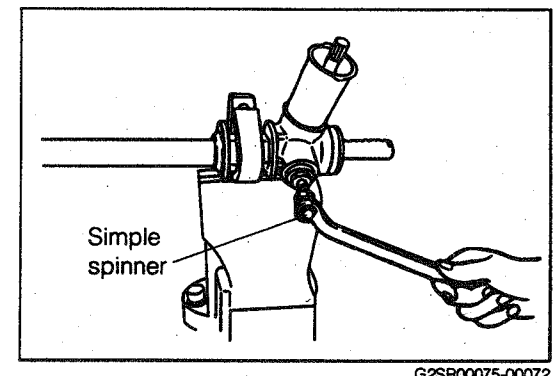


10. Remove the hexagon nut, using the following SST.

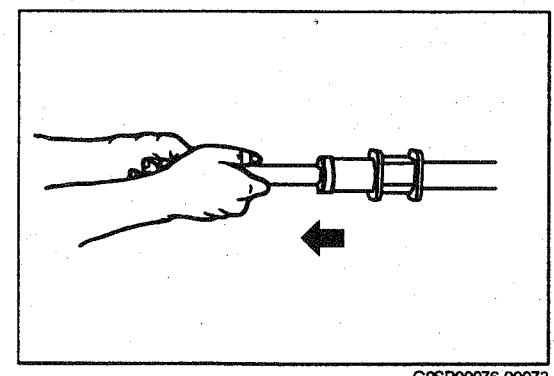
SST: 09617-87201-000
(Width across flats: 39 mm)



11. Removal of the rack guide spring cap.
- (1) Remove the rack guide spring cap, using a simple spinner.
 - (2) Remove the compression spring and rack guide from the steering rack housing.

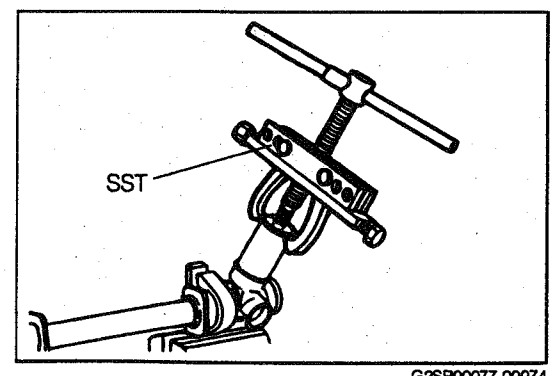


12. Remove the steering rack.
- NOTE:**
- Be sure to draw out the rack toward the housing side so that the rack bush may not be damaged by the rack tooth surface.
 - Draw out the rack straight, not allowing the rack to rotate.



13. Remove the steering gear housing cover, using the following SST.

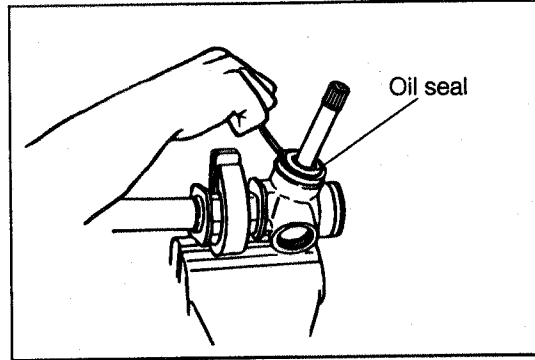
SST: 09950-20017-000



14. Remove the oil seal, using a screwdriver or the like.

NOTE:

- Be very careful not to damage the housing during the removal.
- Never reuse the removed oil seal.

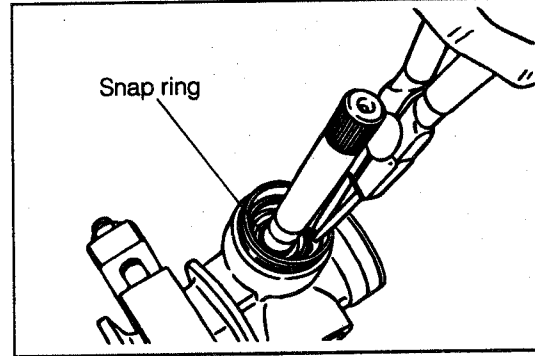


G2SR00078-00075

15. Detach the snap ring, using a snap ring expander.

NOTE:

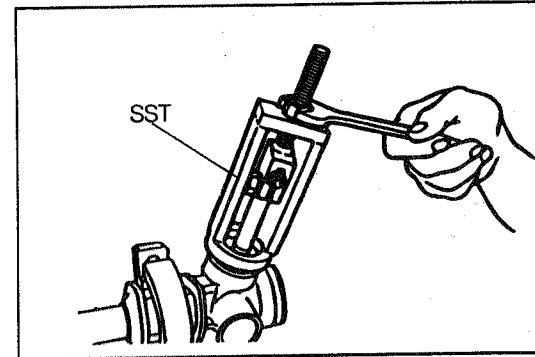
- Never reuse the removed snap ring.



G2SR00079-00076

16. Remove the steering pinion, together with the bearing, from the steering rack housing, using the following SST.

SST: 09631-87201-000

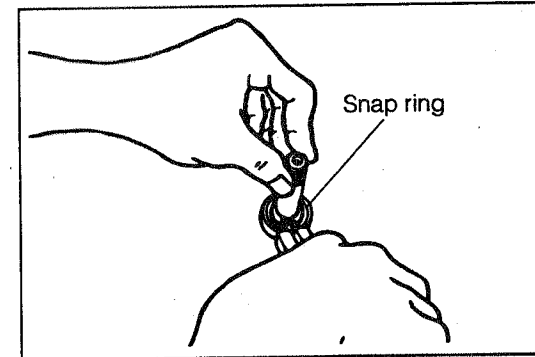


G2SR00080-00077

17. Detach the shaft snap ring, using a snap ring expander.

NOTE:

- Never reuse the removed shaft snap ring.



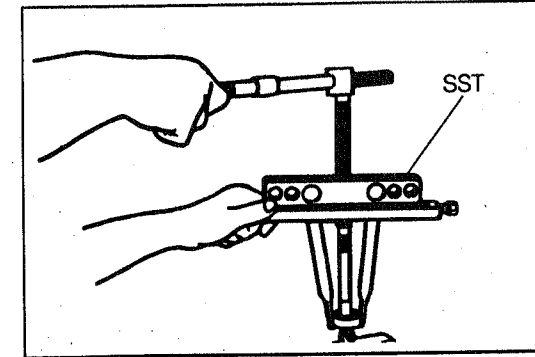
G2SR00081-00078

18. Remove the radial ball bearing, using the following SST.

SST: 09950-20017-000

NOTE:

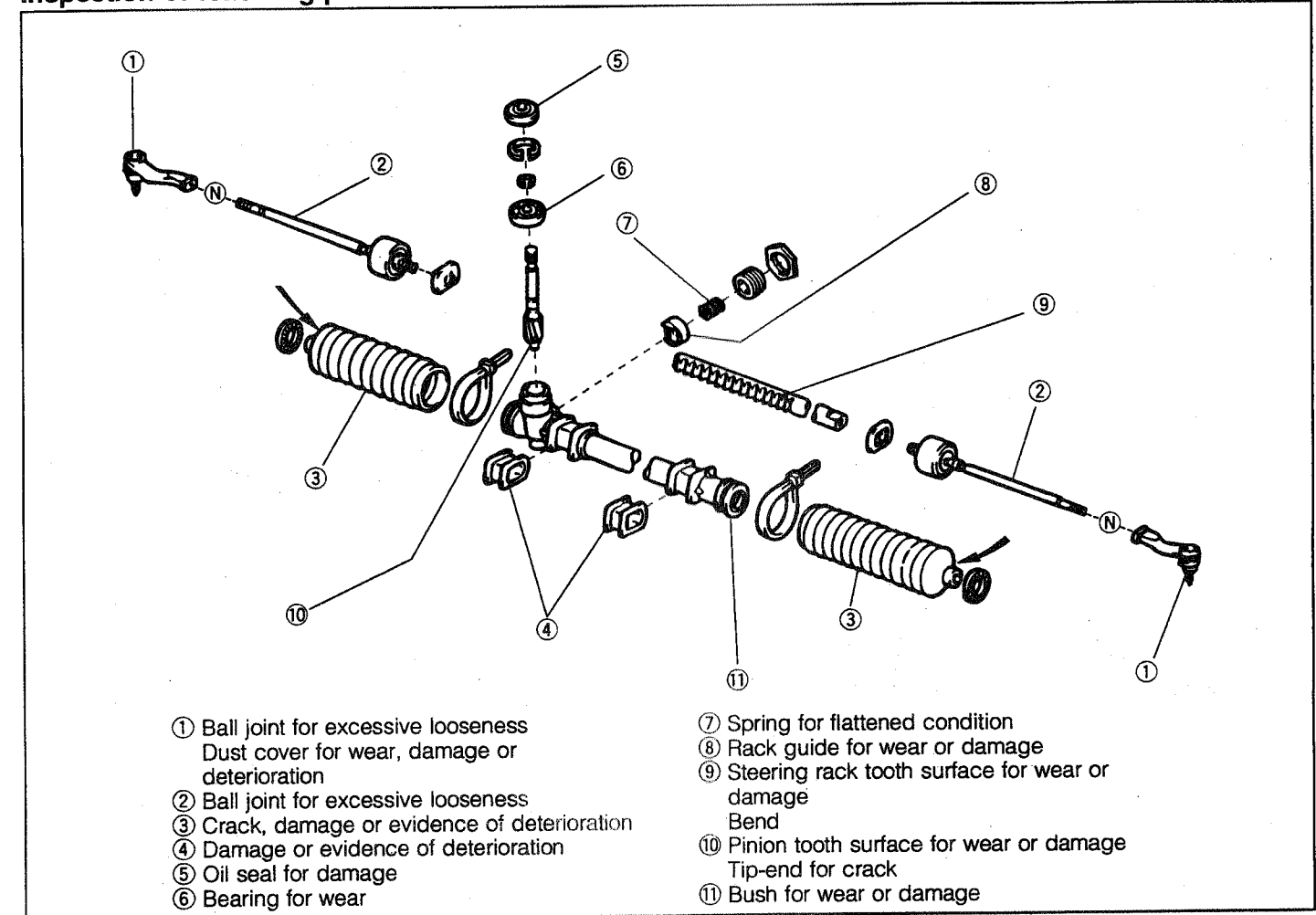
- Never reuse the removed radial ball bearing.



G2SR00082-00079

INSPECTION

Inspection of following parts



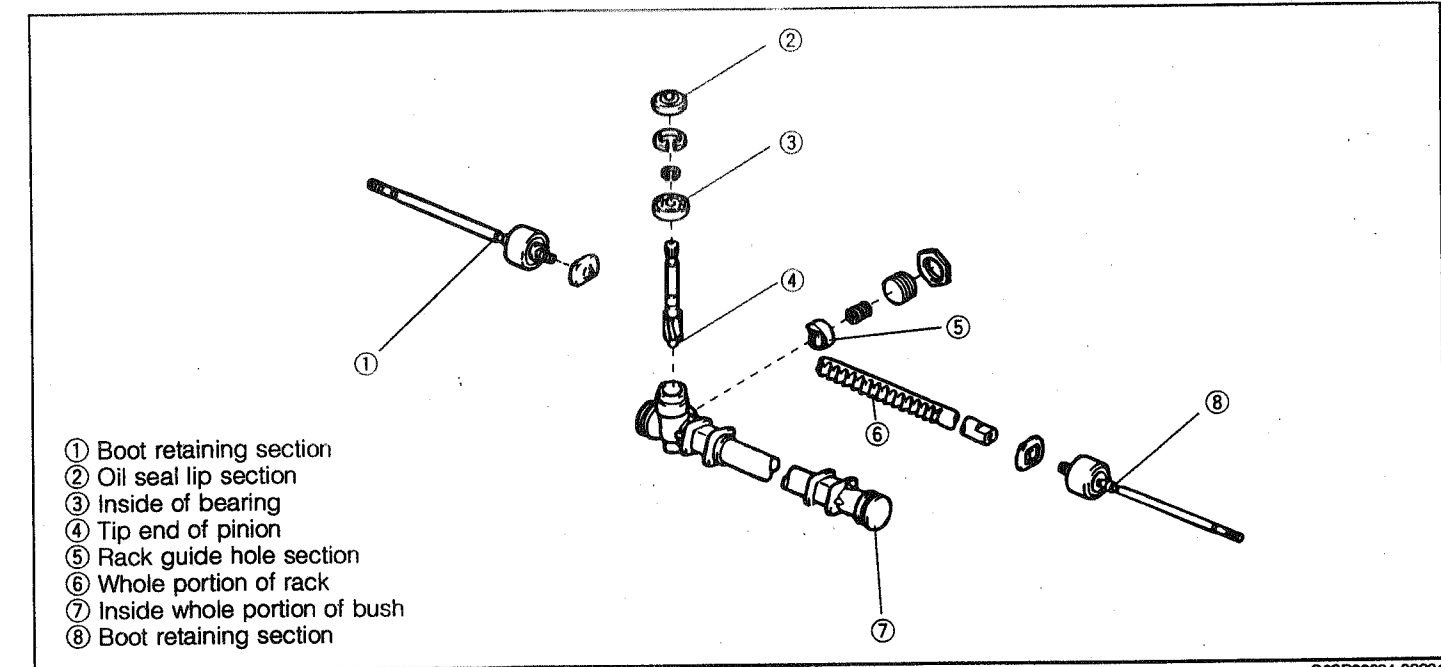
- ① Ball joint for excessive looseness
Dust cover for wear, damage or deterioration
- ② Ball joint for excessive looseness
- ③ Crack, damage or evidence of deterioration
- ④ Damage or evidence of deterioration
- ⑤ Oil seal for damage
- ⑥ Bearing for wear
- ⑦ Spring for flattened condition
- ⑧ Rack guide for wear or damage
- ⑨ Steering rack tooth surface for wear or damage
Bend
- ⑩ Pinion tooth surface for wear or damage
Tip-end for crack
- ⑪ Bush for wear or damage

G2SR00083-00080

ASSEMBLY

1. Apply grease to the following sections

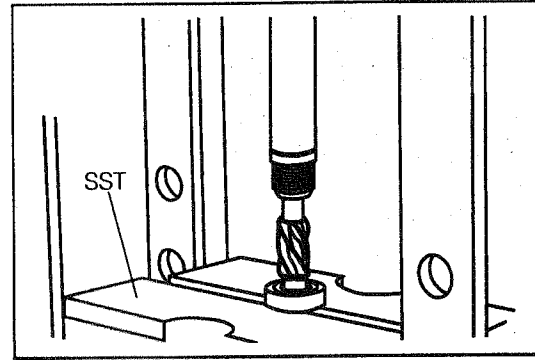
Specified Grease: Molybdenum disulphide lithium base grease (NLGI No. 2)



- ① Boot retaining section
- ② Oil seal lip section
- ③ Inside of bearing
- ④ Tip end of pinion
- ⑤ Rack guide hole section
- ⑥ Whole portion of rack
- ⑦ Inside whole portion of bush
- ⑧ Boot retaining section

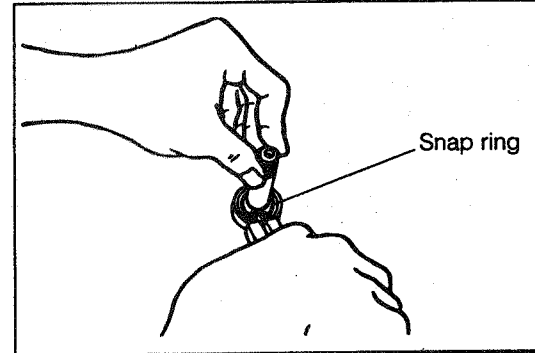
G2SR00084-00081

2. Install a new radial ball bearing to the steering pinion, using the following SST in combination with a vice.
SST: 09527-10011-000



G2SR00085-00082

3. Attach a new shaft snap ring, using a snap ring expander.

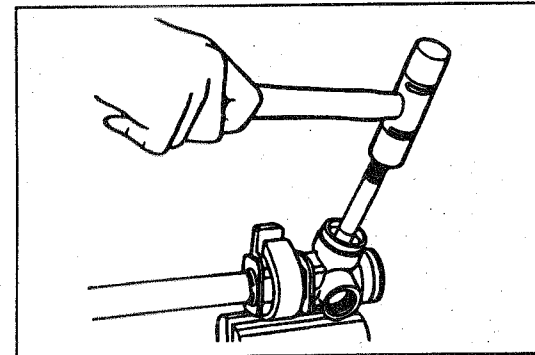


G2SR00086-00083

4. Install the steering pinion to the steering rack housing sub-assembly, using a plastic hammer.

NOTE:

- Be sure to strike the steering pinion into the steering rack housing lightly.



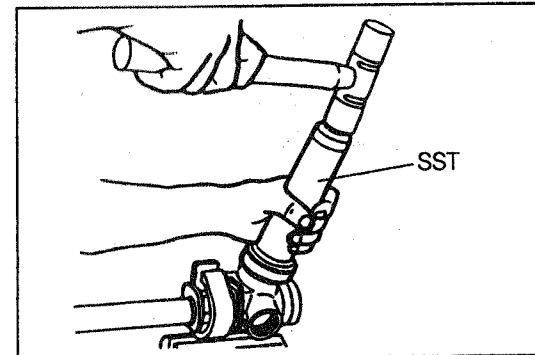
G2SR00087-00084

6. Install a new oil seal to the steering rack housing, Using the following SST.

SST: 09310-87301-000

NOTE:

- Be sure not to allow grease to adhere to the oil seal attaching section of the steering rack housing.



G2SR00088-00085

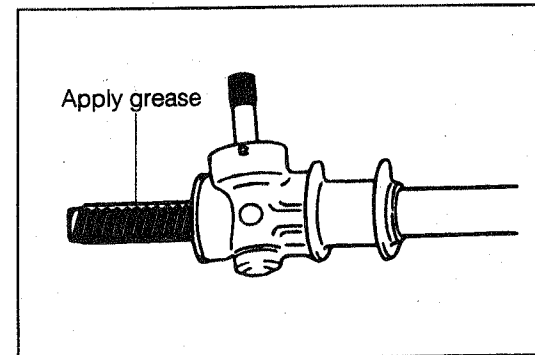
7. Assemble the steering rack to the steering rack housing.

NOTE:

- Apply grease to the tooth surface and whole peripheral portion of the steering rack.

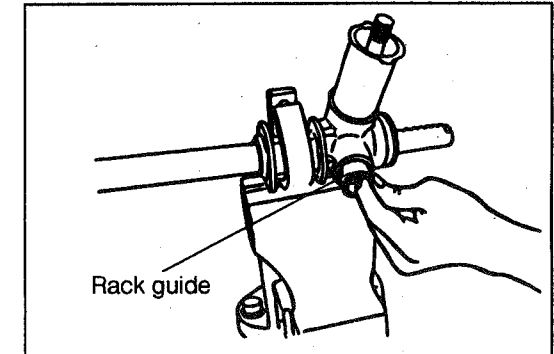
Specified Grease: Molybdenum disulphide lithium base grease (NLGI No. 2)

- Be sure not to damage the rack bush during the assembly.



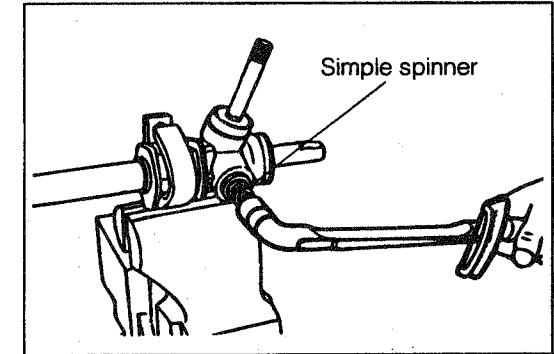
G2SR00089-00086

8. Install the rack guide.
9. Install the compression spring.



G2SR00090-00087

10. Total preload adjusting procedures
(1) Tighten the rack guide spring cap to the specified torque, using a simple spinner.
Tightening Torque: 10.8 - 14.7 N·m
(110 - 150 kgf-cm)
Simple Spinner: (Width across flats: 17 mm)



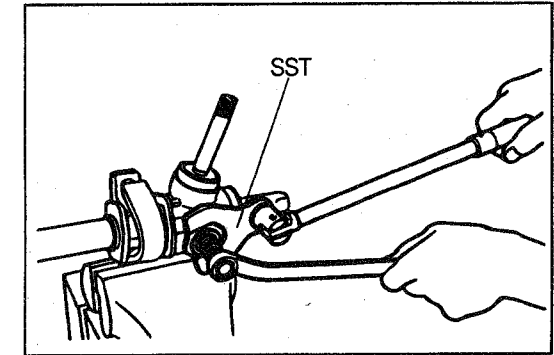
G2SR00091-00088

- (2) From the condition (1), back off the rack guide spring cap 45° - 55°, using a simple spinner.

- (3) Tighten the hexagon nut, while holding the rack guide spring cap with a simple spinner so as to prevent the rack guide spring cap from turning during the tightening.

Tightening Torque: 34.3 - 44.1 N·m
(350 - 450 kgf-cm)

SST: 09617-87201-000
(Width across flats: 39 mm)

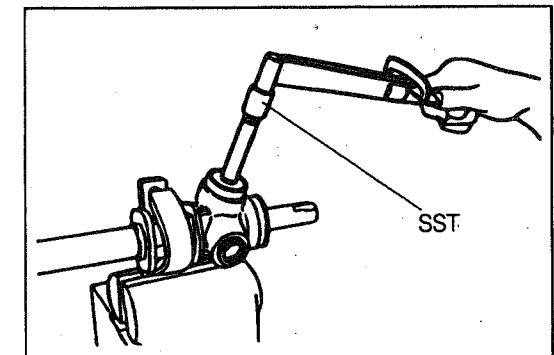


G2SR00092-00089

- (4) Measure the preload, using the following SST.

SST: 09616-87701-000
Specified Preload: 0.49 - 1.57 N·m
(5 - 16 kgf-cm)

If the preload does not comply with the specification, repeat the operations (1) through (3).



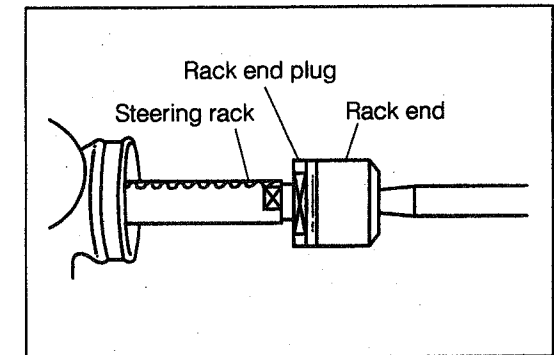
G2SR00093-00090

11. Installation of steering rack end

- (1) Screw in the rack end plug into the rack end.
(Set the rack end plug in such a way that the side having a larger flange comes to the rack end side.)

- (2) Under the condition described in (1), tighten the rack end to the steering rack.

- (3) Secure the steering rack. Tighten the rack end plug.
Tightening Torque: 49.0 - 63.7 N·m
(500 - 650 kgf-cm)



G2SR00094-00091

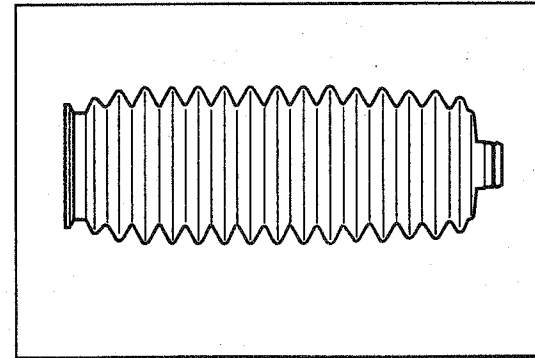
12. Install the steering rack boot.

NOTE:

- Be sure to install the shorter boot at the steering pinion side.

13. Install a new steering rack boot band.

14. Install a new steering boot band No. 2.



G2SR00095-00092

INSTALLATION

1. Install the steering rack housing grommet to the manual steering gear assembly.

2. Installation of tie rod end.

- (1) Screw in the lock nut and tie rod end into the rack end up to the mating mark or the dimension **a**. Tighten the lock nut temporarily.
- (2) Tighten the lock nut securely after the toe-in check and adjustment have been carried out.

Tightening Torque: 37.8 - 56.4 N·m
(390 - 580 kgf·cm)

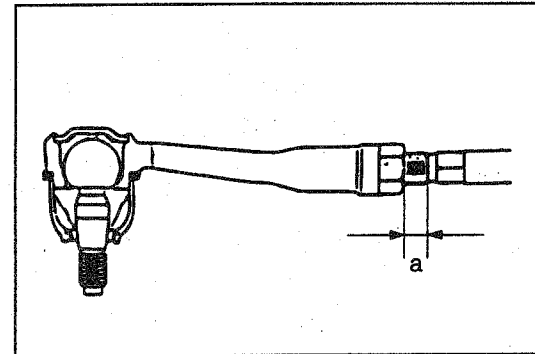
[Temporary tightening]

3. Take in the manual steering gear assembly to the front suspension cross member subassembly. Connect the universal joint No. 2 to the steering gear shaft as a temporary.

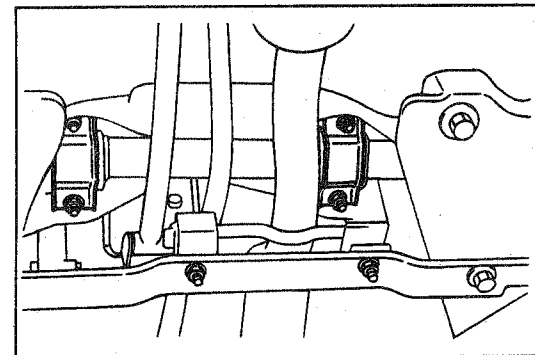
4. Install the steering rack housing bracket to the manual steering gear assembly.

Tighten the nuts.

Tightening Torque: 31.4 - 47.0 N·m
(320 - 480 kgf·cm)



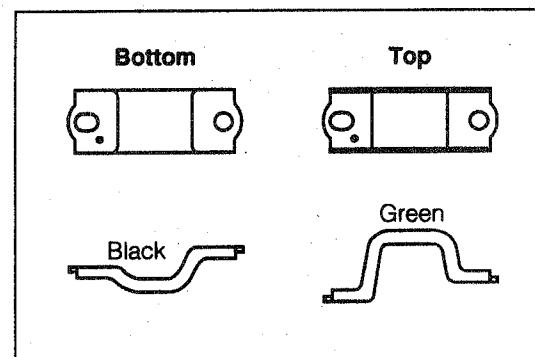
G2SR00096-00068



G2SR00097-00064

NOTE:

- The steering rack housing bracket divides into top and bottom. Be sure to install it in the correct direction.

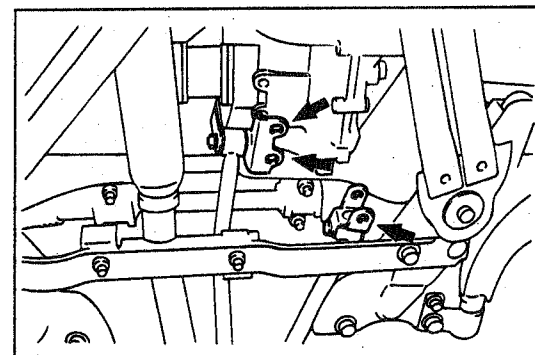


G2SR00098-00095

5. Install the steering column hall shield to the manual steering gear assembly.

6. Install the shift & select shaft subassembly and extension rod bracket to the transmission case.

Tightening Torque: 16.7 - 30.4 N·m
(170 - 310 kgf·cm)



G2SR00099-00063

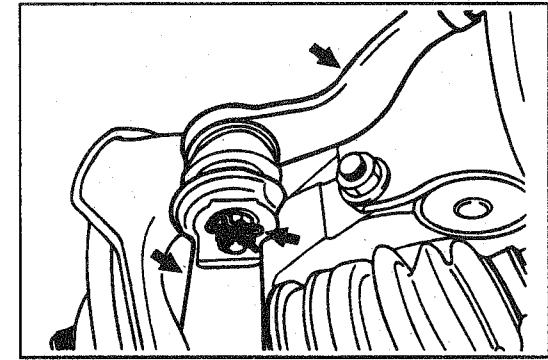
7. Install the tie rod end to the steering knuckle. Tighten the castle nut.

Install the clip.

Tightening Torque: 26.0 - 38.7 N·m
(270 - 400 kgf·cm)

NOTE:

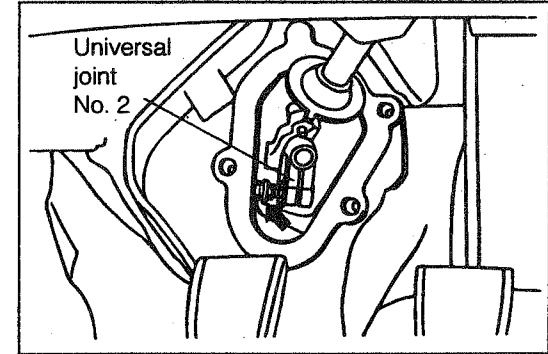
- Be sure to use new castle nuts and clips.
- Be sure to set positions of the clip and castle nut by the smallest additional tightening angle (less than 60°).



G2SR00100-00062

8. Tighten the universal joint No. 2 with attaching bolt.

Tightening Torque: 24.5 - 34.3 N·m
(250 - 350 kgf·cm)

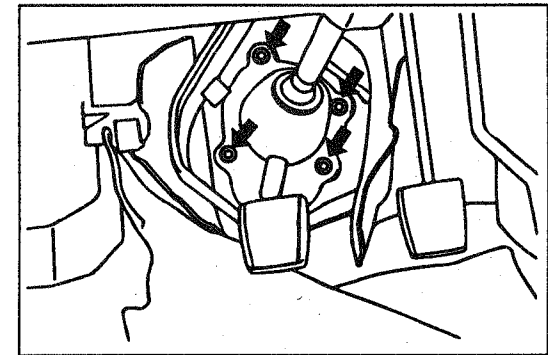


G2SR00101-00098

9. Install the dust cover retainer.

Tighten the attaching bolts.

Tightening Torque: 3.9 - 6.9 N·m
(40 - 70 kgf·cm)











G2SR00102-00099

10. Install the engine under cover.

11. Install the wheels.

SR-26

SSTs

Shape	Part No.	Part name	Use	Remarks
	09611-87701-000	Tie-rod end puller	Disconnection of tie-rod end	P17
	09612-00012-000	Rack and pinion steering rack housing stand	For securing rack housing	P18
	09617-87201-000	Steering rack end wrench	Removal/installation of lock nut for steering rack guide	P19
	09950-20017-000 (09950-20014-000)	Universal puller	Removal of radial ball joint	P19
	09631-87201-000	Steering pinion bearing remover	Removal of steering pinion	P20
	09527-10011-000	Rear axle shaft bearing remover	Removal of spacer and oil seal (Type S)	P22
	09310-87301-000	Counter shaft front bearing replacer	Installation of oil seal	P22
	09616-87701-000	Steering pinion bearing adjusting socket (for Manual steering)	Measurement of preload, etc.	P23

G2SR00103-00100