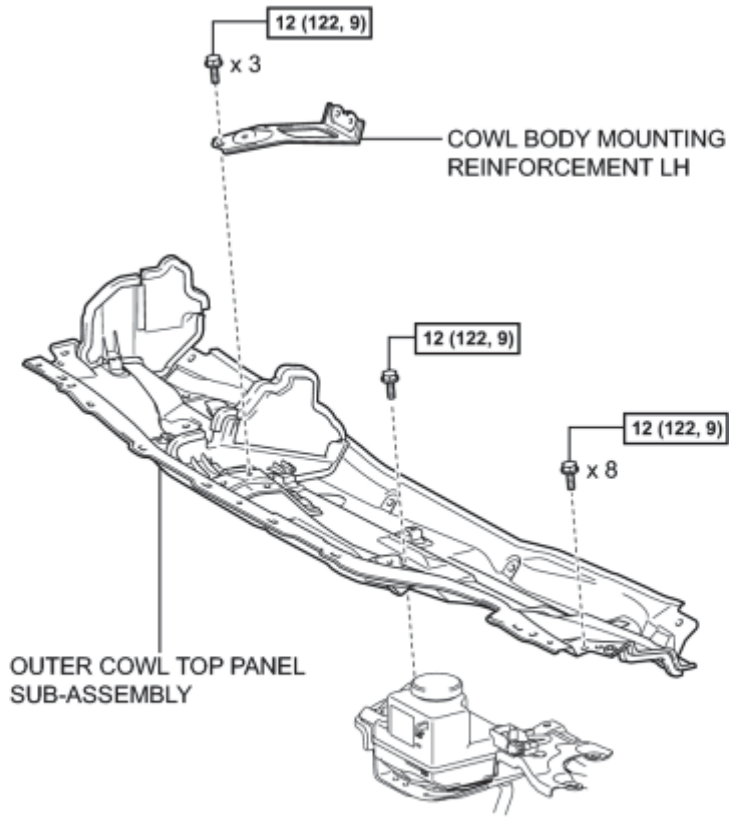


COMPONENTS

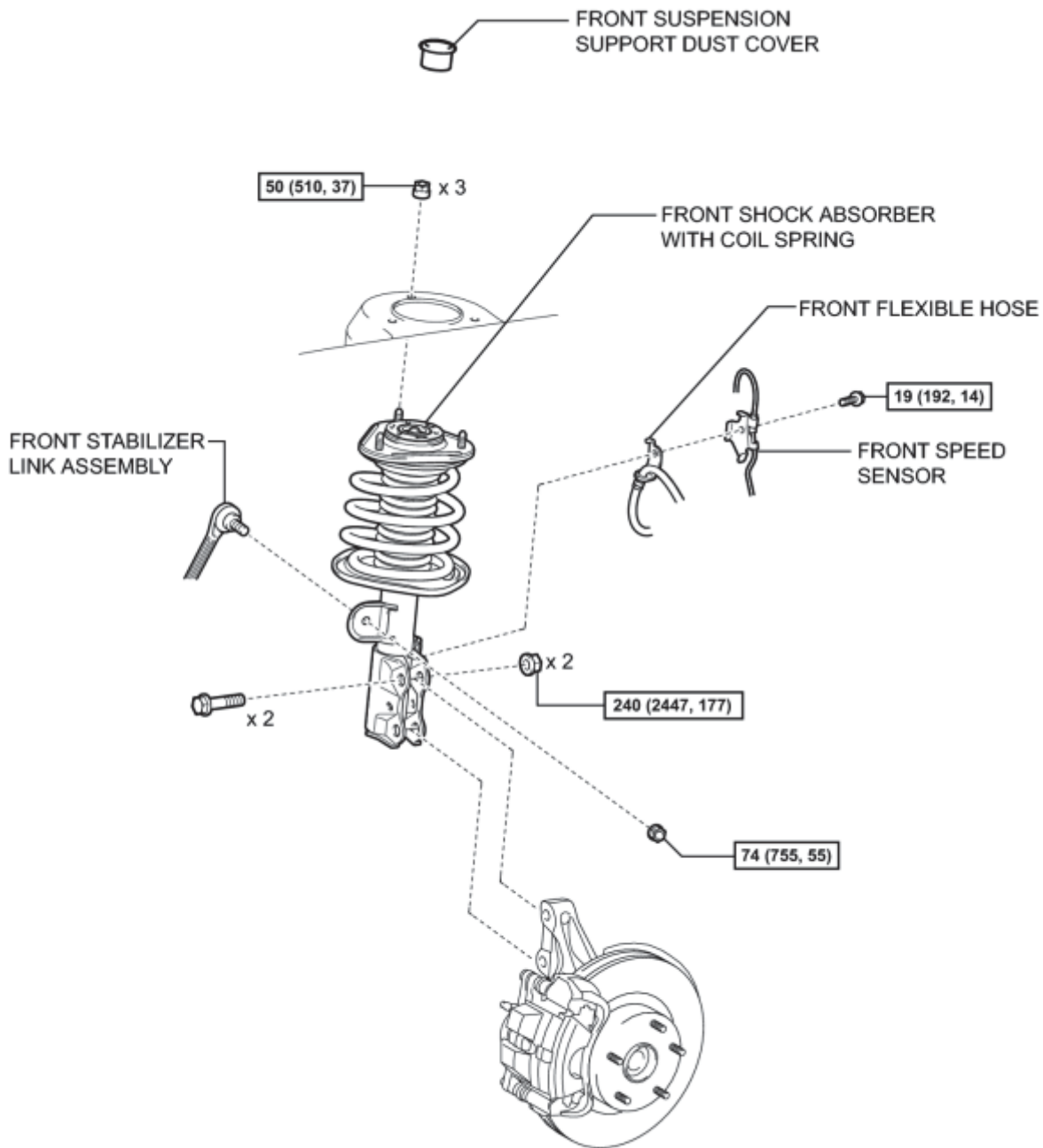
ILLUSTRATION



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

P

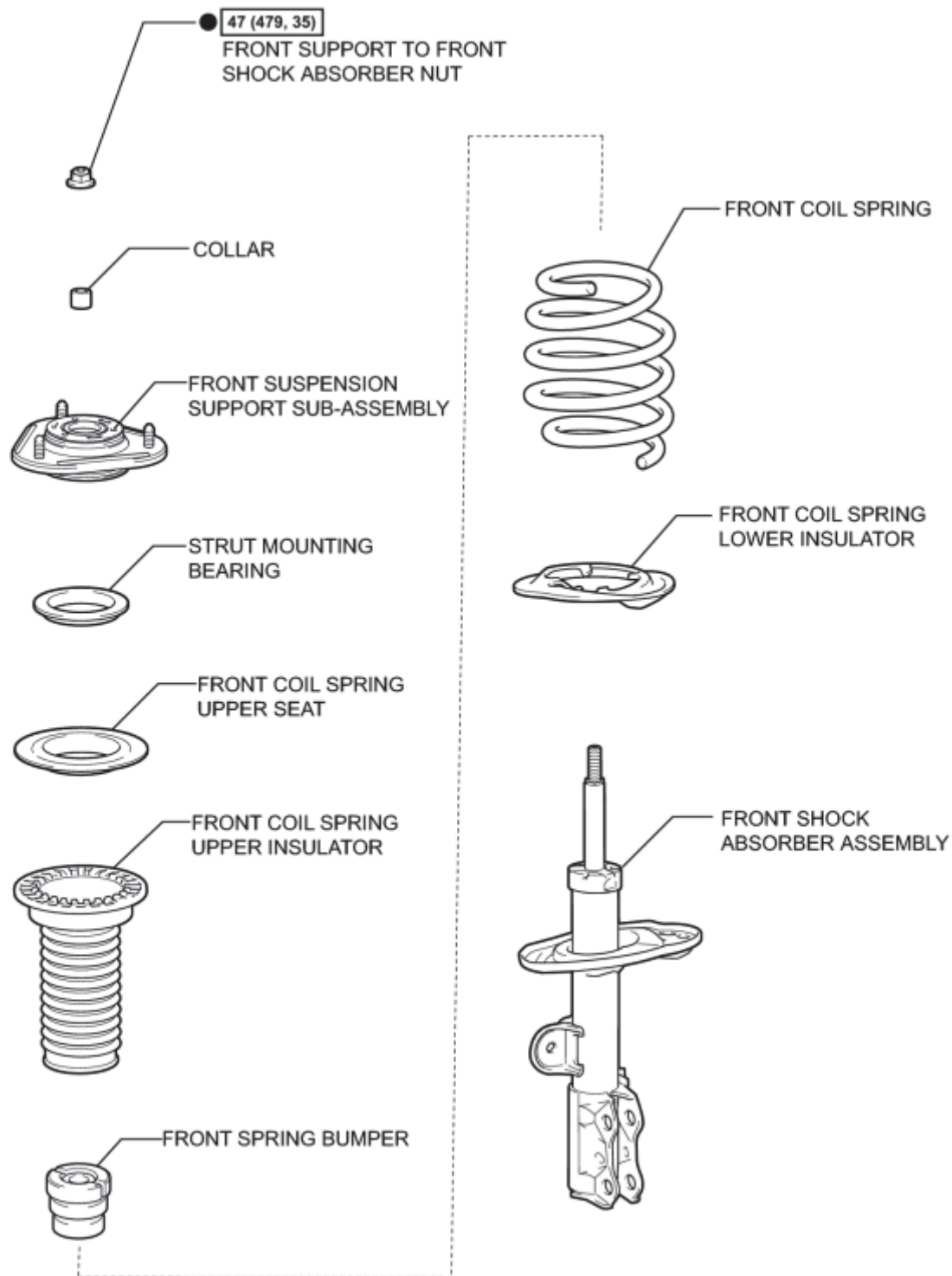
ILLUSTRATION



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

c

ILLUSTRATION



[N*m (kgf*cm, ft.*lbf)]: Specified torque

● Non-reusable part

c

REMOVAL

HINT:

- Use the same procedure for the LH side and RH side.
- The procedure listed below is for the LH side.

1. REMOVE FRONT WHEEL

2. REMOVE WINDSHIELD WIPER MOTOR AND LINK ASSEMBLY

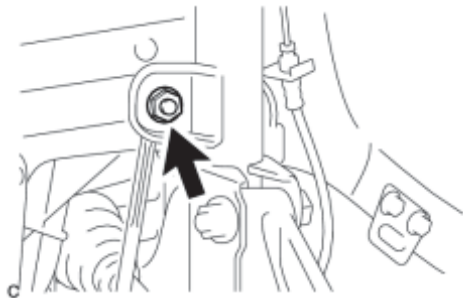
HINT:

Refer to the procedure up to Remove Windshield Wiper Motor and Link Assembly INFO.

3. REMOVE COWL BODY MOUNTING REINFORCEMENT LH_ INFO

4. REMOVE OUTER COWL TOP PANEL SUB-ASSEMBLY_ INFO

5. SEPARATE FRONT STABILIZER LINK ASSEMBLY

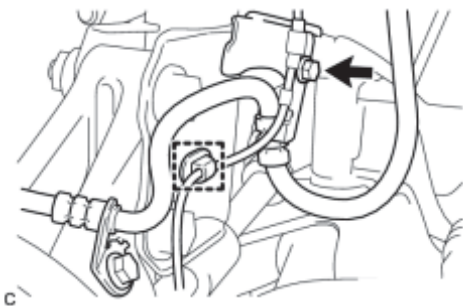


(a) Remove the nut and separate the stabilizer link assembly from the front shock absorber with coil spring.

HINT:

If the ball joint turns together with the nut, use a hexagon wrench (6 mm) to hold the stud bolt.

6. SEPARATE FRONT SPEED SENSOR



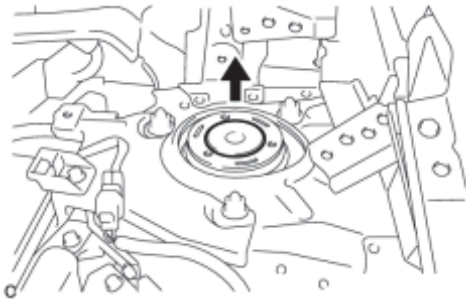
(a) Remove the bolt and clamp, and separate the front speed sensor and front flexible hose from the front shock absorber with coil spring.

NOTICE:

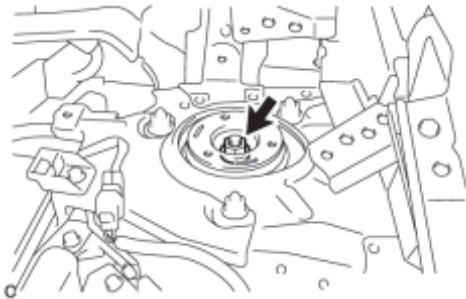
Be sure to separate the front speed sensor from the front shock absorber with coil spring completely.

7. REMOVE FRONT SUSPENSION SUPPORT DUST COVER

(a) Remove the front suspension support dust cover.

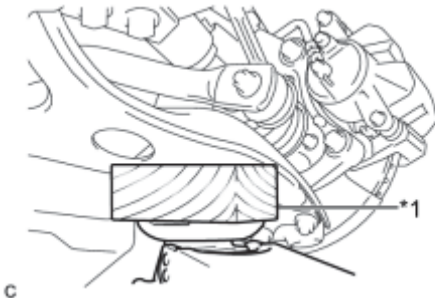


8. REMOVE FRONT SHOCK ABSORBER WITH COIL SPRING



(a) Loosen the front support to front shock absorber nut of the front shock absorber.

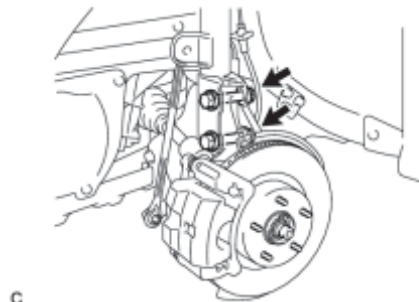
- Do not remove the front support to front shock absorber nut.
- Loosen the nut only when the front shock absorber with coil spring needs to be disassembled.



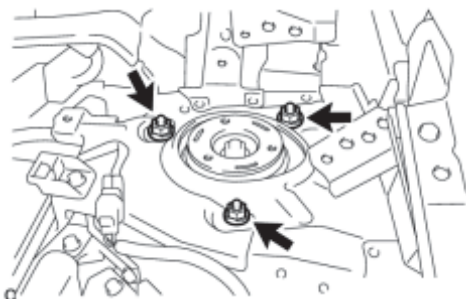
(b) Support the front axle using a jack and wooden block.

Text in Illustration

*1	Wooden Block
----	--------------



(c) Remove the 2 bolts and 2 nuts, and separate the front shock absorber with coil spring (lower side) from the steering knuckle.

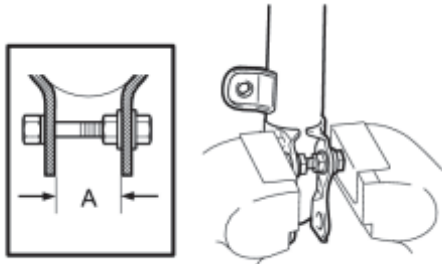


(d) Remove the 3 nuts and front shock absorber with coil spring.

NOTICE:

Make sure that the front speed sensor is completely separated from the front shock absorber with coil spring.

9. SECURE FRONT SHOCK ABSORBER WITH COIL SPRING



(a) Install a bolt and nut to the front shock absorber as shown in the illustration and secure the front shock absorber in a vise.

Standard length A:

40 mm (1.575 in.)

c

10. REMOVE FRONT SUPPORT TO FRONT SHOCK ABSORBER NUT

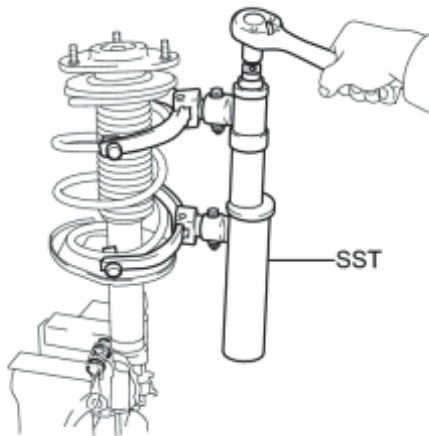
(a) Using SST, compress the front coil spring.

SST: 09727-30021

09727-00010

09727-00021

09727-00031



NOTICE:

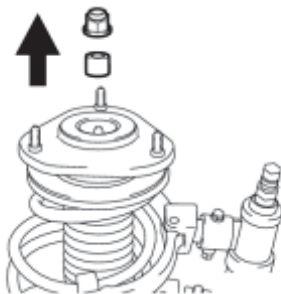
Do not use an impact wrench. It will damage SST.

HINT:

If the front coil spring is compressed at an angle, using 2 SST will make the work easier.

c

(b) Check that the front coil spring is sufficiently compressed.



(c) Remove the front support to front shock absorber nut and collar.

P

11. REMOVE FRONT SUSPENSION SUPPORT SUB-ASSEMBLY

12. REMOVE STRUT MOUNTING BEARING

13. REMOVE FRONT COIL SPRING UPPER SEAT

14. REMOVE FRONT COIL SPRING UPPER INSULATOR
15. REMOVE FRONT COIL SPRING
16. REMOVE FRONT SPRING BUMPER
17. REMOVE FRONT COIL SPRING LOWER INSULATOR
18. REMOVE FRONT SHOCK ABSORBER ASSEMBLY

INSPECTION

1. INSPECT FRONT SHOCK ABSORBER ASSEMBLY



P

(a) Compress and extend the shock absorber rod 4 times or more.

Standard:

There is no abnormal resistance or sound.

HINT:

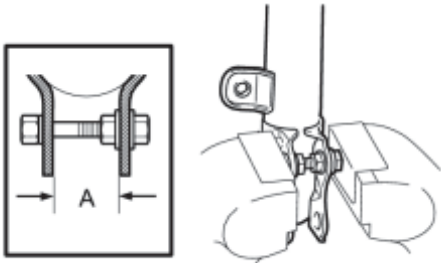
If there is any abnormality, replace the front shock absorber assembly with a new one.

INSTALLATION

HINT:

- Use the same procedure for the LH side and RH side.
- The procedure listed below is for the LH side.

1. SECURE FRONT SHOCK ABSORBER ASSEMBLY



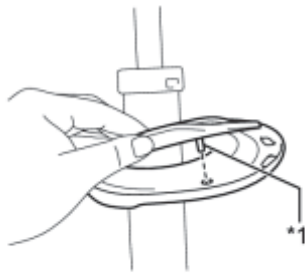
(a) Install the bolt and nut to the front shock absorber as shown in the illustration and secure the front shock absorber in a vise.

Standard length A:

40 mm (1.575 in.)

c

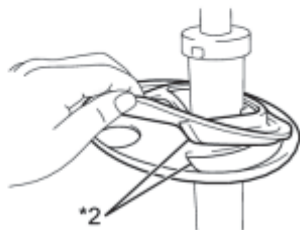
2. INSTALL FRONT COIL SPRING LOWER INSULATOR



(a) Install the front coil spring lower insulator to the front shock absorber assembly.

Text in Illustration

*1	Positioning Pin
*2	Depression



NOTICE:

When installing the insulator, fit the insulator to the depression of the spring seat and align the positioning pin into the hole.

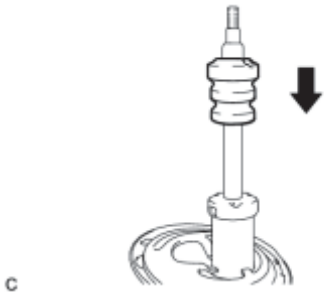
c

3. INSTALL FRONT SPRING BUMPER

(a) Install the front spring bumper to the front shock absorber assembly.

NOTICE:

Face the smaller diameter end of the front spring bumper downward.



4. INSTALL FRONT COIL SPRING

(a) Using SST, compress the front coil spring.

SST: 09727-30021

09727-00010

09727-00021

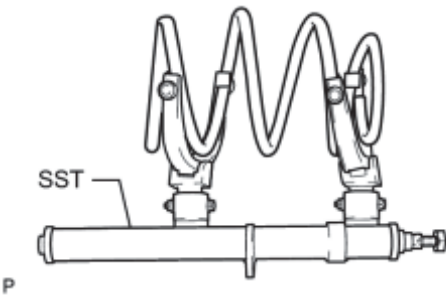
09727-00031

NOTICE:

Do not use an impact wrench. It will damage the SST.

HINT:

If the front coil spring is compressed at an angle, using 2 SST will make the work easier.

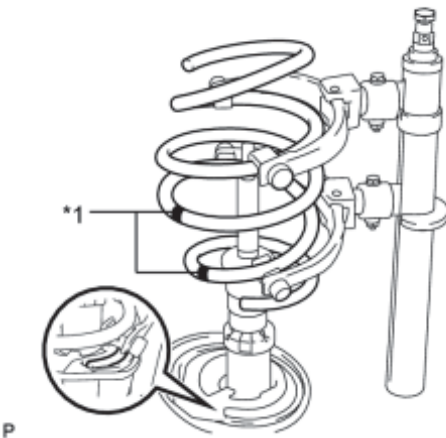


(b) Install the front coil spring.

Text in Illustration

*1	Paint Mark
----	------------

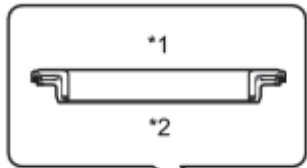
- Make sure that the end of the front coil spring is positioned in the depression of the lower spring seat.
- Make sure to install the coil spring with the paint mark facing downward.



5. INSTALL FRONT COIL SPRING UPPER INSULATOR

6. INSTALL FRONT COIL SPRING UPPER SEAT

7. INSTALL STRUT MOUNTING BEARING



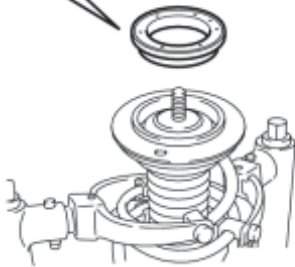
(a) Install the strut mounting bearing.

Text in Illustration

*1	Upper Side
*2	Lower Side

NOTICE:

Do not install the bearing upside down.



c

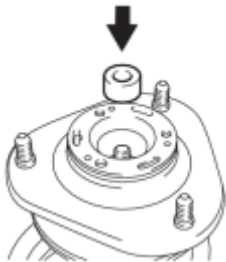
8. INSTALL FRONT SUSPENSION SUPPORT SUB-ASSEMBLY

(a) Install the front suspension support sub-assembly to the front shock absorber assembly.

NOTICE:

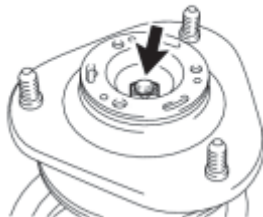
When installing, align the cutout on the front suspension support sub-assembly and the shock absorber piston rod end.

9. TEMPORARILY TIGHTEN FRONT SUPPORT TO FRONT SHOCK ABSORBER NUT



c

(a) Install the collar to the front shock absorber assembly.



c

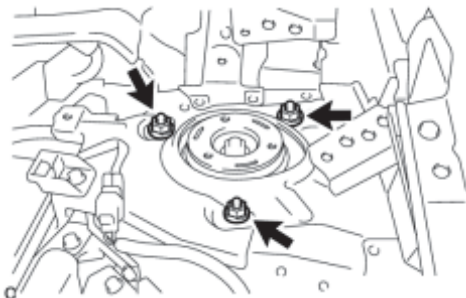
(b) Temporarily tighten a new front support to front shock absorber nut.

(c) Remove SST from the front coil spring.

NOTICE:

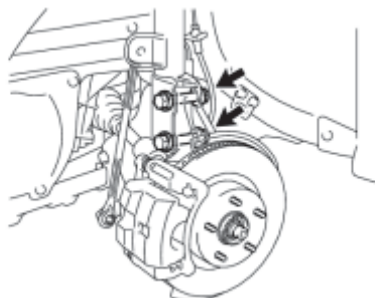
Do not use an impact wrench. It will damage SST.

10. INSTALL FRONT SHOCK ABSORBER WITH COIL SPRING



(a) Install the front shock absorber with coil spring (upper side) with the 3 nuts.

Torque: **50 N·m (510 kgf·cm, 37ft·lbf)**



(b) Install the front shock absorber with coil spring (lower side) to the steering knuckle with the 2 bolts and 2 nuts.

Torque: **240 N·m (2447 kgf·cm, 177ft·lbf)**

NOTICE:

While keeping the bolts from rotating, tighten the nuts.

c

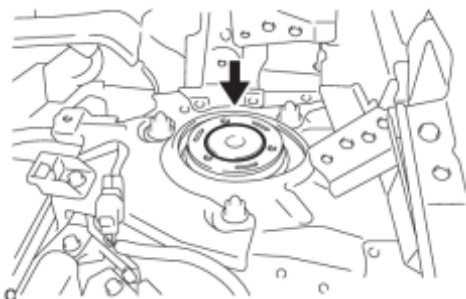
11. FULLY TIGHTEN FRONT SUPPORT TO FRONT SHOCK ABSORBER NUT



(a) Fully tighten the front support to front shock absorber nut.

Torque: **47 N·m (479 kgf·cm, 35ft·lbf)**

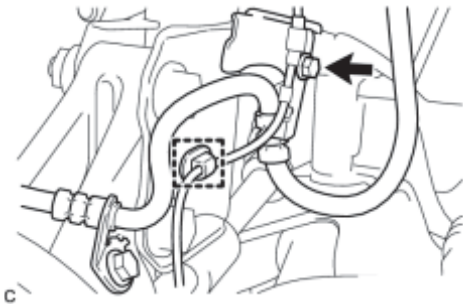
12. INSTALL FRONT SUSPENSION SUPPORT DUST COVER



(a) Install the front suspension support dust cover.

13. INSTALL FRONT SPEED SENSOR

(a) Install the front speed sensor and front flexible hose to the front shock



absorber with the bolt and clamp.

Torque: **19 N·m (192 kgf·cm, 14ft·lbf)**

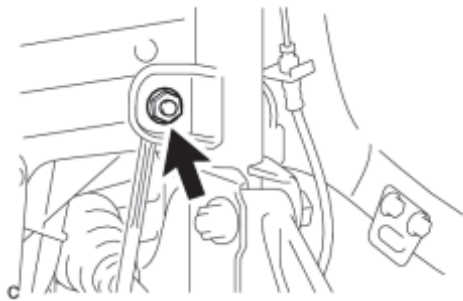
NOTICE:

Do not twist the front speed sensor when installing it.

HINT:

Install the front flexible hose first and then the speed sensor harness bracket.

14. INSTALL FRONT STABILIZER LINK ASSEMBLY



(a) Install the front stabilizer link assembly to the front shock absorber with coil spring with the nut.

Torque: **74 N·m (755 kgf·cm, 55ft·lbf)**

HINT:

If the ball joint turns together with the nut, use a hexagon wrench (6 mm) to hold the stud bolt.

15. INSTALL OUTER COWL TOP PANEL SUB-ASSEMBLY_ INFO

16. INSTALL COWL BODY MOUNTING REINFORCEMENT LH_ INFO

17. INSTALL WINDSHIELD WIPER MOTOR AND LINK ASSEMBLY

HINT:

Refer to the procedure from Install Windshield Wiper Motor and Link Assembly INFO.

18. INSTALL FRONT WHEEL

Torque: **103 N·m (1050 kgf·cm, 76ft·lbf)**

19. INSPECT AND ADJUST FRONT WHEEL ALIGNMENT

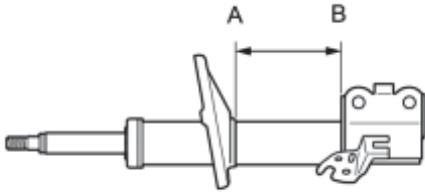
HINT:

Inspect and adjust the front wheel alignment INFO.

DISPOSAL

1. DISPOSE OF FRONT SHOCK ABSORBER ASSEMBLY

(a) Position the front shock absorber assembly level with the piston rod fully extended. Using a drill, make a hole in the cylinder between A and B shown in the illustration to discharge the gas inside.



NOTICE:

Always use proper safety equipment and be careful when drilling because shards of metal fly about.

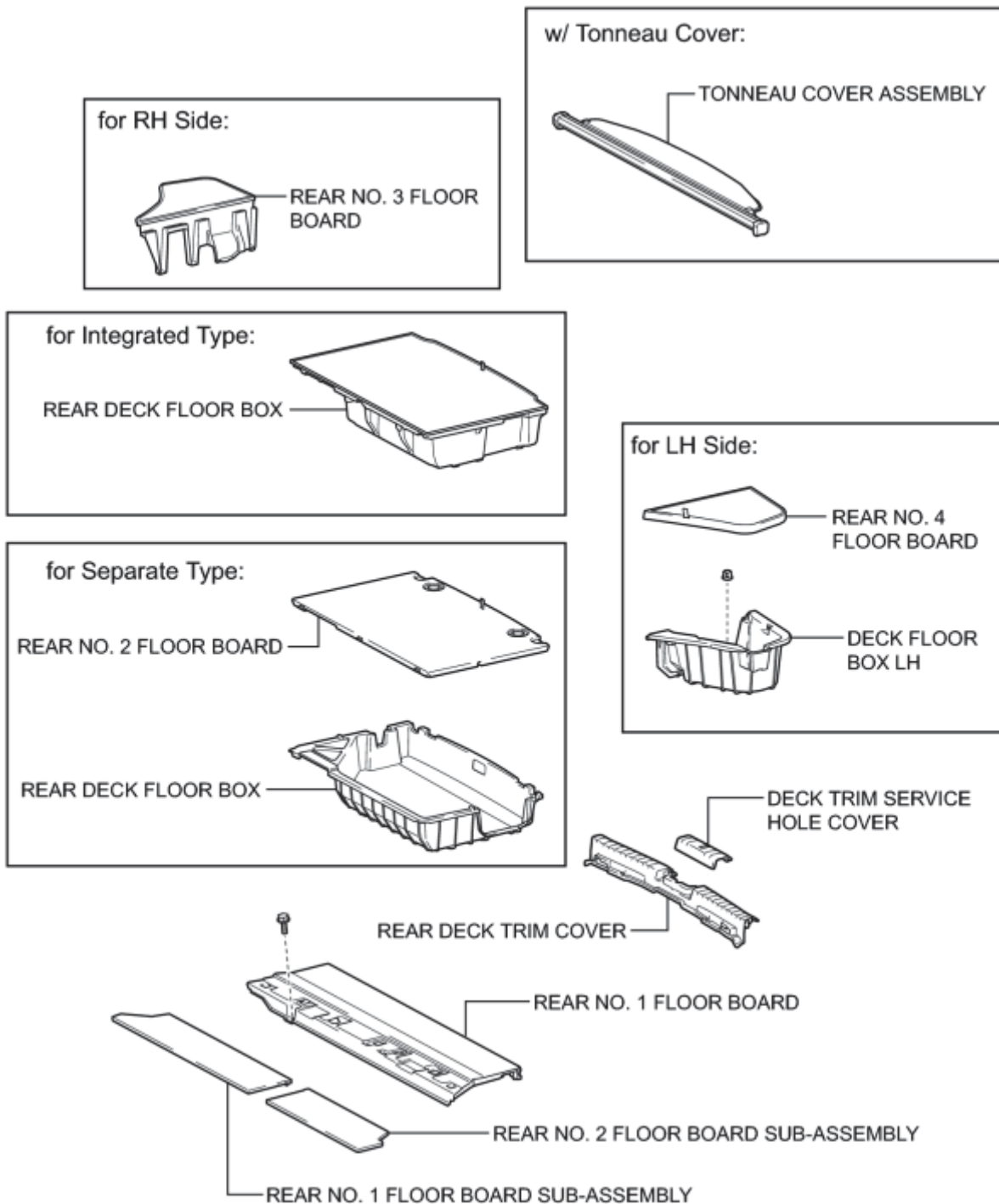
HINT:

The gas is colorless, odorless and non-poisonous.

P

COMPONENTS

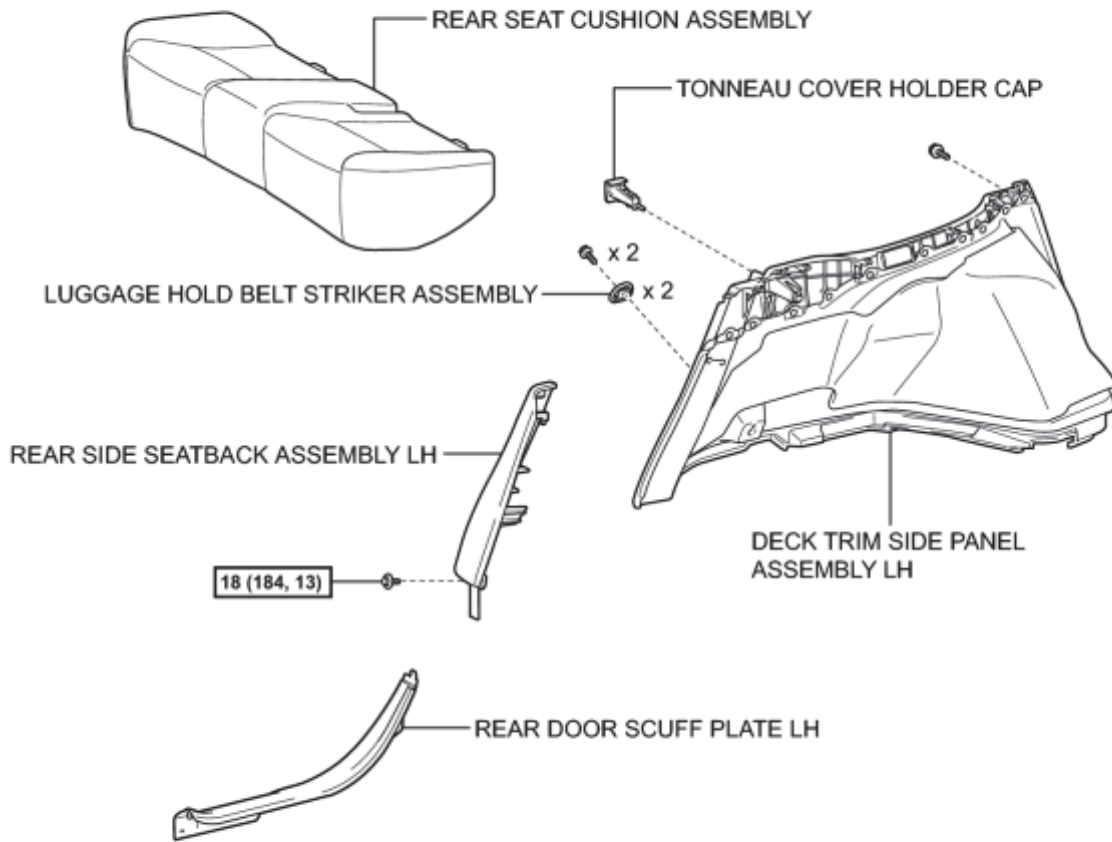
ILLUSTRATION



c

ILLUSTRATION

for LH Side:

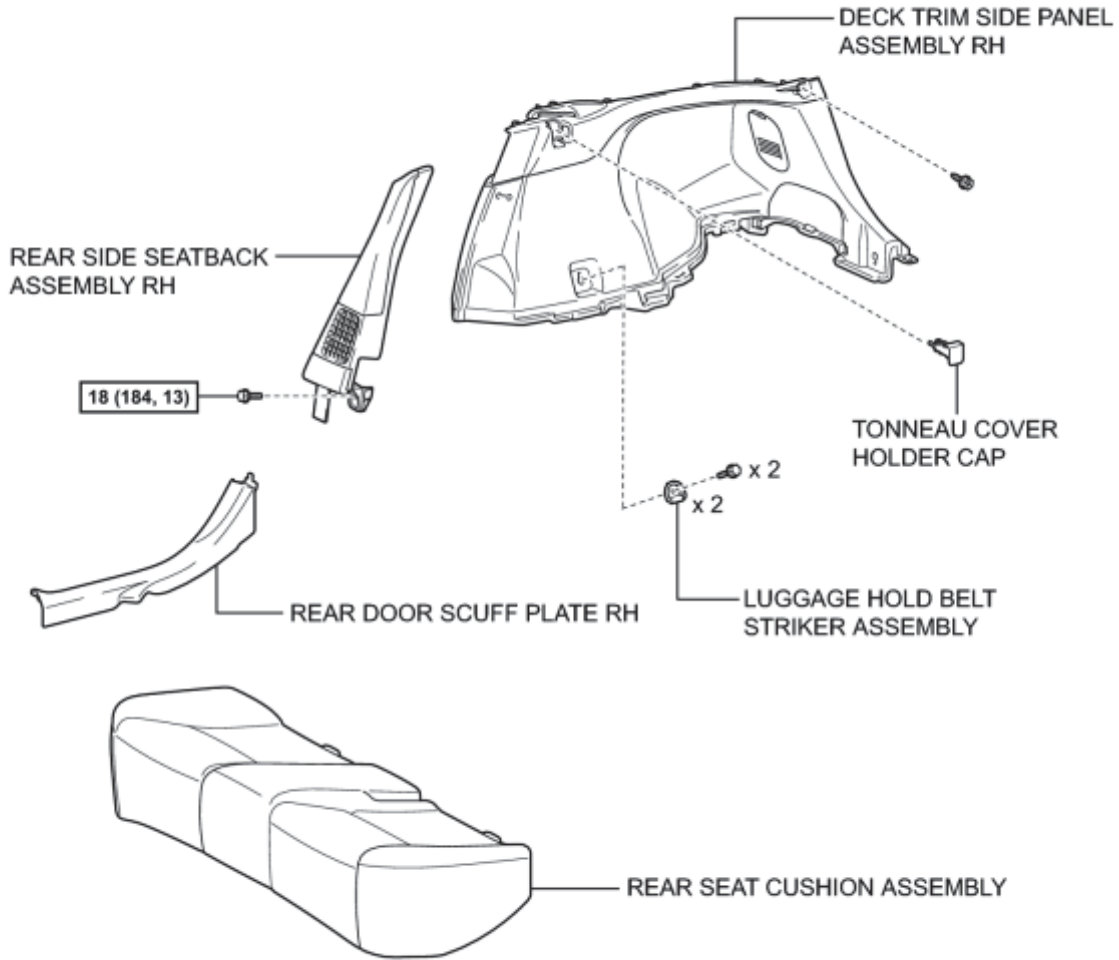


18 (184, 13) : Specified torque

c

ILLUSTRATION

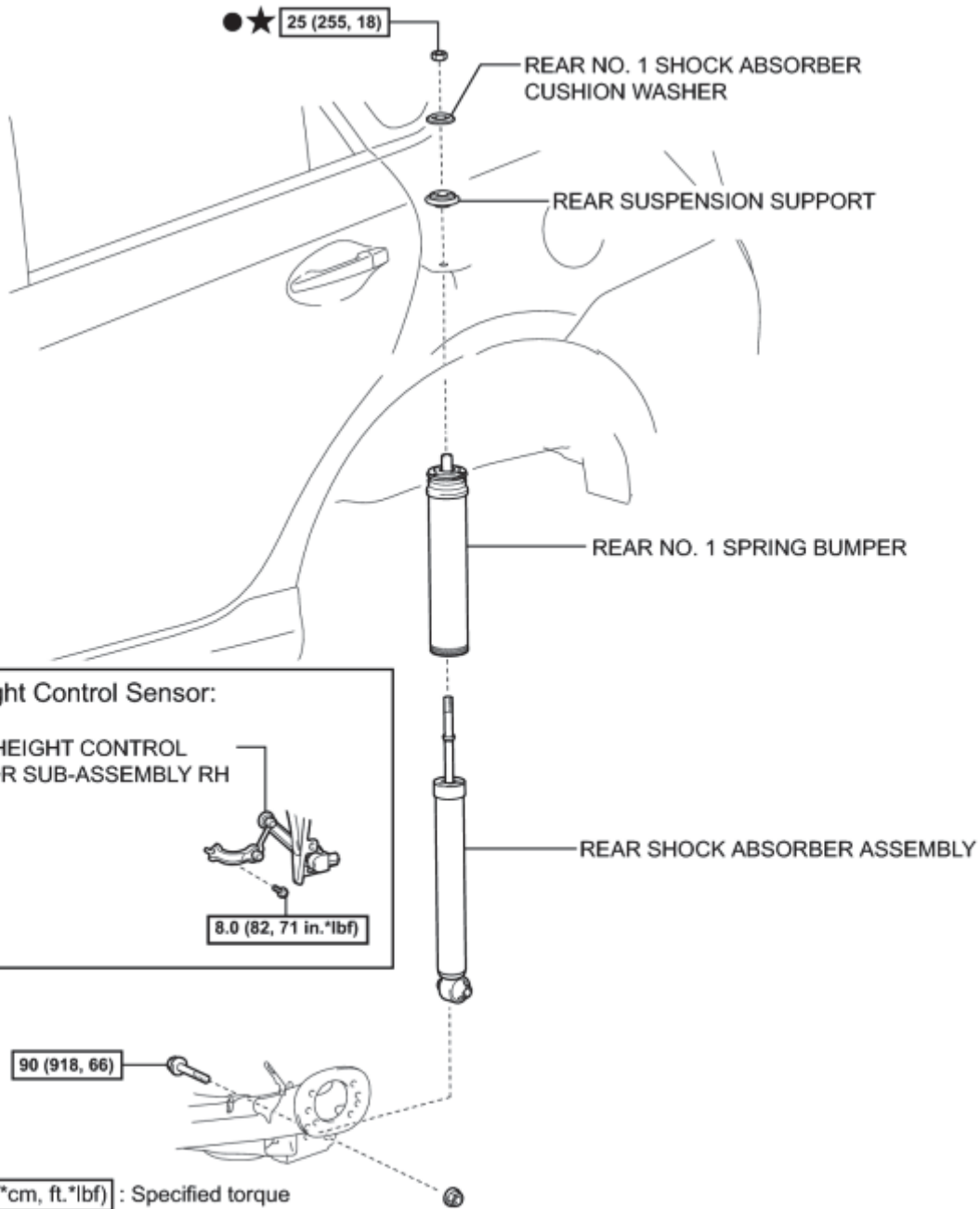
for RH Side:



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

c

ILLUSTRATION



● Non-reusable part

★ Precoated part

c

REMOVAL

HINT:

- Use the same procedure for the RH side and LH side.
- The procedure listed below is for the LH side.

1. REMOVE TONNEAU COVER ASSEMBLY (w/ Tonneau Cover) [INFO](#)
2. REMOVE REAR NO. 2 FLOOR BOARD (for Separate Type) [INFO](#)
3. REMOVE REAR DECK FLOOR BOX [INFO](#)
4. REMOVE REAR NO. 4 FLOOR BOARD (for LH Side) [INFO](#)
5. REMOVE DECK FLOOR BOX LH (for LH Side) [INFO](#)
6. REMOVE REAR NO. 3 FLOOR BOARD (for RH Side) [INFO](#)
7. REMOVE REAR NO. 1 FLOOR BOARD SUB-ASSEMBLY [INFO](#)
8. REMOVE REAR NO. 2 FLOOR BOARD SUB-ASSEMBLY [INFO](#)
9. REMOVE REAR NO. 1 FLOOR BOARD [INFO](#)
10. REMOVE DECK TRIM SERVICE HOLE COVER [INFO](#)
11. REMOVE REAR DECK TRIM COVER [INFO](#)
12. REMOVE REAR DOOR SCUFF PLATE LH (for LH Side) [INFO](#)
13. REMOVE REAR DOOR SCUFF PLATE RH (for RH Side) [INFO](#)
14. REMOVE REAR SEAT CUSHION ASSEMBLY [INFO](#)
15. REMOVE REAR SIDE SEATBACK ASSEMBLY LH (for LH Side) [INFO](#)
16. REMOVE LUGGAGE HOLD BELT STRIKER ASSEMBLY (for LH Side) [INFO](#)
17. REMOVE TONNEAU COVER HOLDER CAP (for LH Side) [INFO](#)
18. REMOVE DECK TRIM SIDE PANEL ASSEMBLY LH (for LH Side) [INFO](#)
19. REMOVE REAR SIDE SEATBACK ASSEMBLY RH (for RH Side) [INFO](#)
20. REMOVE LUGGAGE HOLD BELT STRIKER ASSEMBLY (for RH Side) [INFO](#)
21. REMOVE TONNEAU COVER HOLDER CAP (for RH Side) [INFO](#)

22. REMOVE DECK TRIM SIDE PANEL ASSEMBLY RH (for RH Side) INFO

23. REMOVE REAR WHEEL

24. SEPARATE REAR HEIGHT CONTROL SENSOR SUB-ASSEMBLY RH (w/ Height Control Sensor)

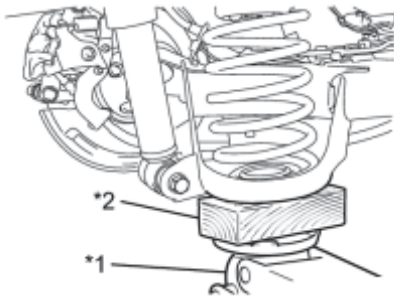
INFO

25. REMOVE REAR NO. 1 SHOCK ABSORBER CUSHION WASHER

(a) Support the spring seat of the rear axle beam assembly using a jack and wooden block.

Text in Illustration

*1	Jack
*2	Wooden Block



P

CAUTION:

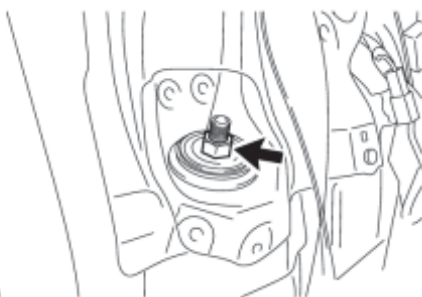
Do not jack up the rear axle beam assembly too high as the vehicle may fall.

NOTICE:

Keep supporting the rear axle beam assembly with a jack until the installation of the rear shock absorber assembly has been completed.

HINT:

Support the rear shock absorber at a position where it compresses by approximately 20 to 30 mm (0.787 to 1.18 in.).



c

(b) Using a hexagon socket wrench, secure the rear shock absorber rod and remove the lock nut.

NOTICE:

Securely insert the hexagon socket wrench to the rear shock absorber rod to prevent damage to the rear shock absorber assembly when removing the nut.

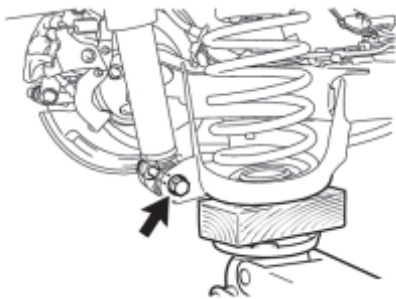
(c) Remove the rear No. 1 shock absorber cushion washer.



26. REMOVE REAR SUSPENSION SUPPORT

(a) Remove the rear suspension support.

27. REMOVE REAR SHOCK ABSORBER ASSEMBLY

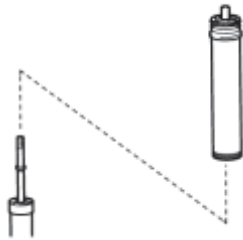


(a) Remove the bolt while holding the nut and remove the rear shock absorber assembly.

NOTICE:

Since the stopper nut is used, turn the bolt.

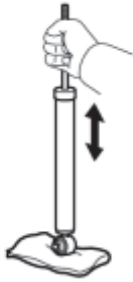
28. REMOVE REAR NO. 1 SPRING BUMPER



(a) Remove the rear No. 1 spring bumper from the rear shock absorber assembly.

INSPECTION

1. INSPECT REAR SHOCK ABSORBER ASSEMBLY



(a) Compress and extend the rear shock absorber rod, and check that there is no abnormal resistance or unusual sound during operation.

If there is any abnormality, replace the shock absorber with a new one.

NOTICE:

When disposing of the rear shock absorber assembly, see DISPOSAL

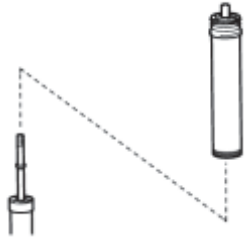
INFO

INSTALLATION

HINT:

- Use the same procedure for the RH side and LH side.
- The procedure listed below is for the LH side.

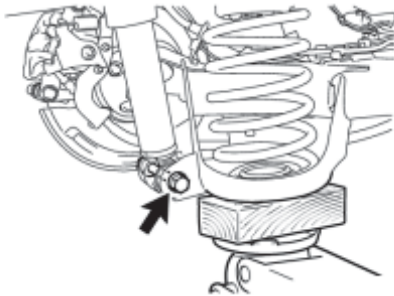
1. INSTALL REAR NO. 1 SPRING BUMPER



(a) Install the rear No. 1 spring bumper to the rear shock absorber assembly.

2. TEMPORARILY TIGHTEN REAR SHOCK ABSORBER ASSEMBLY

(a) Insert the upper end of the rear shock absorber assembly with the rear No. 1 spring bumper to the vehicle body.



(b) Temporarily tighten the rear shock absorber assembly to the rear axle beam assembly with the bolt and nut.

NOTICE:

Since the stopper nut is used, turn the bolt.

HINT:

Insert the bolt with the threaded end facing the outside of the vehicle.

3. INSTALL REAR SUSPENSION SUPPORT

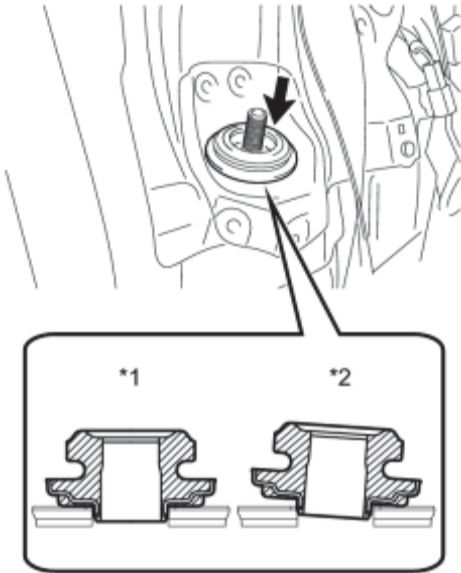
(a) Install the rear suspension support.

Text in Illustration

*1	Correct
*2	Incorrect

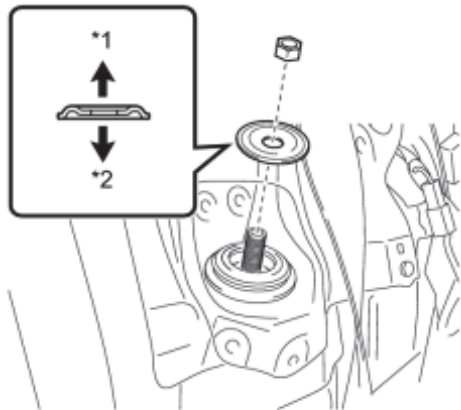
NOTICE:

Make sure that the rear suspension support is correctly installed as shown in the illustration.



c

4. INSTALL REAR NO. 1 SHOCK ABSORBER CUSHION WASHER



c

(a) Apply a few drops of adhesive to the threads of a new nut.

Text in Illustration

*1	Upper Side
*2	Lower Side

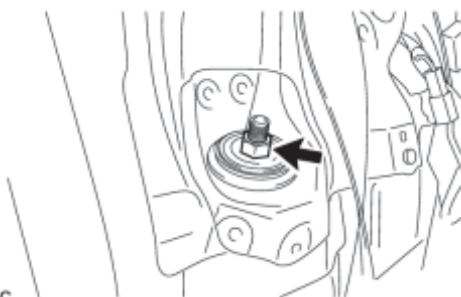
Adhesive:

Toyota genuine adhesive 1324, three bond 1324 or equivalent

(b) Install the rear No. 1 shock absorber cushion washer.

NOTICE:

Be sure to install the rear No. 1 shock absorber cushion washer in the correct direction.



c

(c) Using a union nut wrench, fully tighten the lock nut while holding the rod of the rear shock absorber assembly with a hexagon socket wrench.

Torque: 25 N·m (255 kgf·cm, 18ft·lbf)

- Securely insert the hexagon socket wrench to the rear shock absorber rod to prevent damage to the rear shock absorber assembly when tightening the nut.
- Use the formula to calculate special torque values for situations

where the union nut wrench is combined with a torque wrench

INFO

5. INSTALL REAR HEIGHT CONTROL SENSOR SUB-ASSEMBLY RH (w/ Height Control Sensor) INFO
6. INSTALL DECK TRIM SIDE PANEL ASSEMBLY LH (for LH Side) INFO
7. INSTALL TONNEAU COVER HOLDER CAP (for LH Side) INFO
8. INSTALL LUGGAGE HOLD BELT STRIKER ASSEMBLY (for LH Side) INFO
9. INSTALL REAR SIDE SEATBACK ASSEMBLY LH (for LH Side) INFO
10. INSTALL DECK TRIM SIDE PANEL ASSEMBLY RH (for RH Side) INFO
11. INSTALL TONNEAU COVER HOLDER CAP (for RH Side) INFO
12. INSTALL LUGGAGE HOLD BELT STRIKER ASSEMBLY (for RH Side) INFO
13. INSTALL REAR SIDE SEATBACK ASSEMBLY RH (for RH Side) INFO
14. INSTALL REAR SEAT CUSHION ASSEMBLY INFO
15. INSTALL REAR DOOR SCUFF PLATE LH (for LH Side) INFO
16. INSTALL REAR DOOR SCUFF PLATE RH (for RH Side) INFO
17. INSTALL REAR DECK TRIM COVER INFO
18. INSTALL DECK TRIM SERVICE HOLE COVER INFO
19. INSTALL REAR NO. 1 FLOOR BOARD INFO
20. INSTALL REAR NO. 2 FLOOR BOARD SUB-ASSEMBLY INFO
21. INSTALL REAR NO. 1 FLOOR BOARD SUB-ASSEMBLY INFO
22. INSTALL DECK FLOOR BOX LH (for LH Side) INFO
23. INSTALL REAR NO. 4 FLOOR BOARD (for LH Side) INFO
24. INSTALL REAR NO. 3 FLOOR BOARD (for RH Side) INFO
25. INSTALL REAR DECK FLOOR BOX INFO
26. INSTALL REAR NO. 2 FLOOR BOARD (for Separate Type) INFO
27. INSTALL TONNEAU COVER ASSEMBLY (w/ Tonneau Cover) INFO

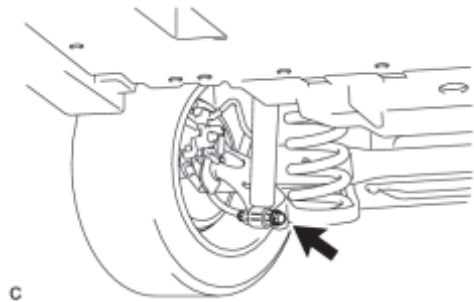
28. INSTALL REAR WHEEL

Torque: **103 N·m (1050 kgf·cm, 76ft·lbf)**

29. STABILIZE SUSPENSION

- (a) Lower the vehicle.
- (b) Bounce the vehicle up and down several times to stabilize the suspension.

30. FULLY TIGHTEN REAR SHOCK ABSORBER ASSEMBLY



- (a) Fully tighten the bolt.

Torque: **90 N·m (918 kgf·cm, 66ft·lbf)**

- Since the stopper nut is used, turn the bolt.
- The final torque must be applied under the standard vehicle height conditions.

31. PERFORM INITIALIZATION (w/ Height Control Sensor)

NOTICE:

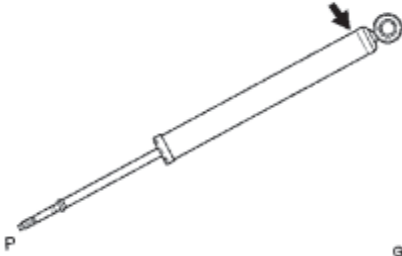
Some systems need to be initialized after the rear height control sensor sub-assembly RH is replaced INFO.

DISPOSAL

1. DISPOSE OF REAR SHOCK ABSORBER ASSEMBLY

(a) Disposal using a drill

(1) Fully extend the piston rod and secure the rear shock absorber assembly at an angle in a vise.



(2) Using a drill, slowly make a hole at the position indicated by the arrow in the illustration to discharge the gas inside.

NOTICE:

G22405 Be careful when drilling because shards of metal may fly about, so always use proper safety equipment.

HINT:

The gas is colorless, odorless and non-poisonous.