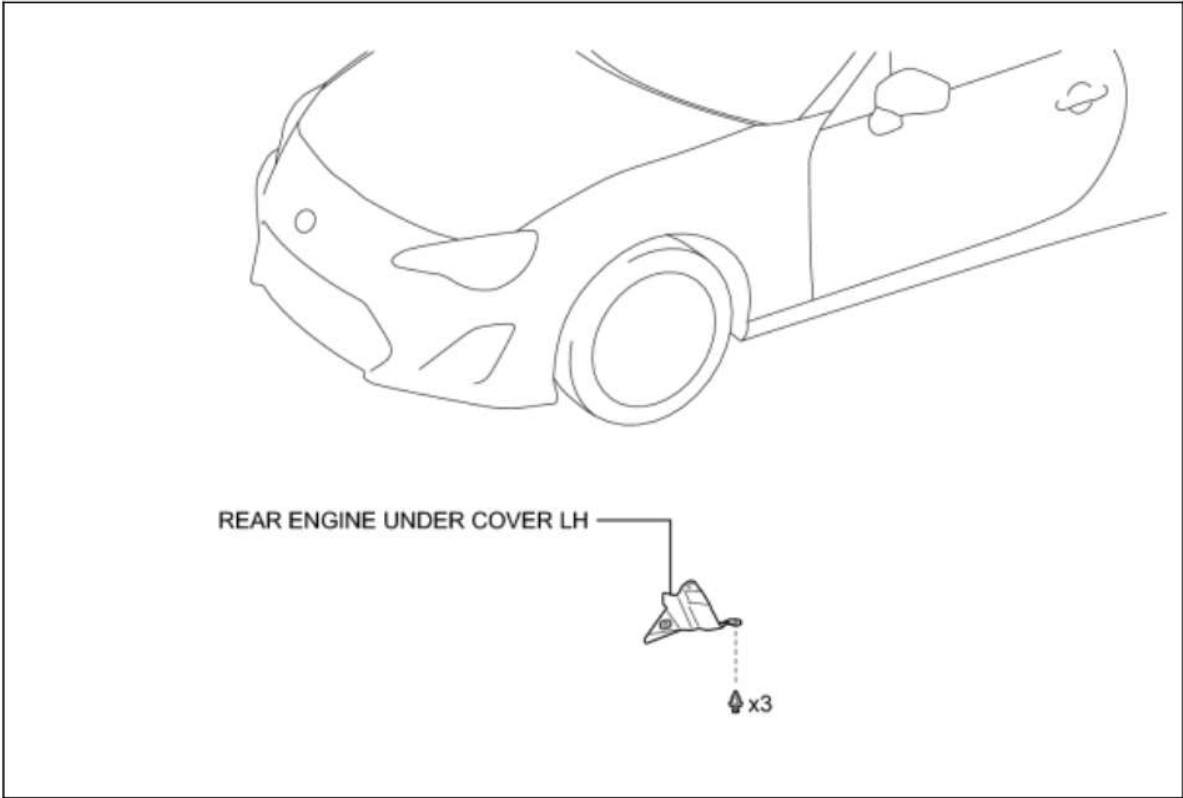


Last Modified: 3-27-2012	6.4 K	From: 201203
Model Year: 2013	Model: FR-S	Doc ID: RM000004EOJ000X
Title: FRONT SUSPENSION: FRONT LOWER SUSPENSION ARM: COMPONENTS (2013 FR-S)		

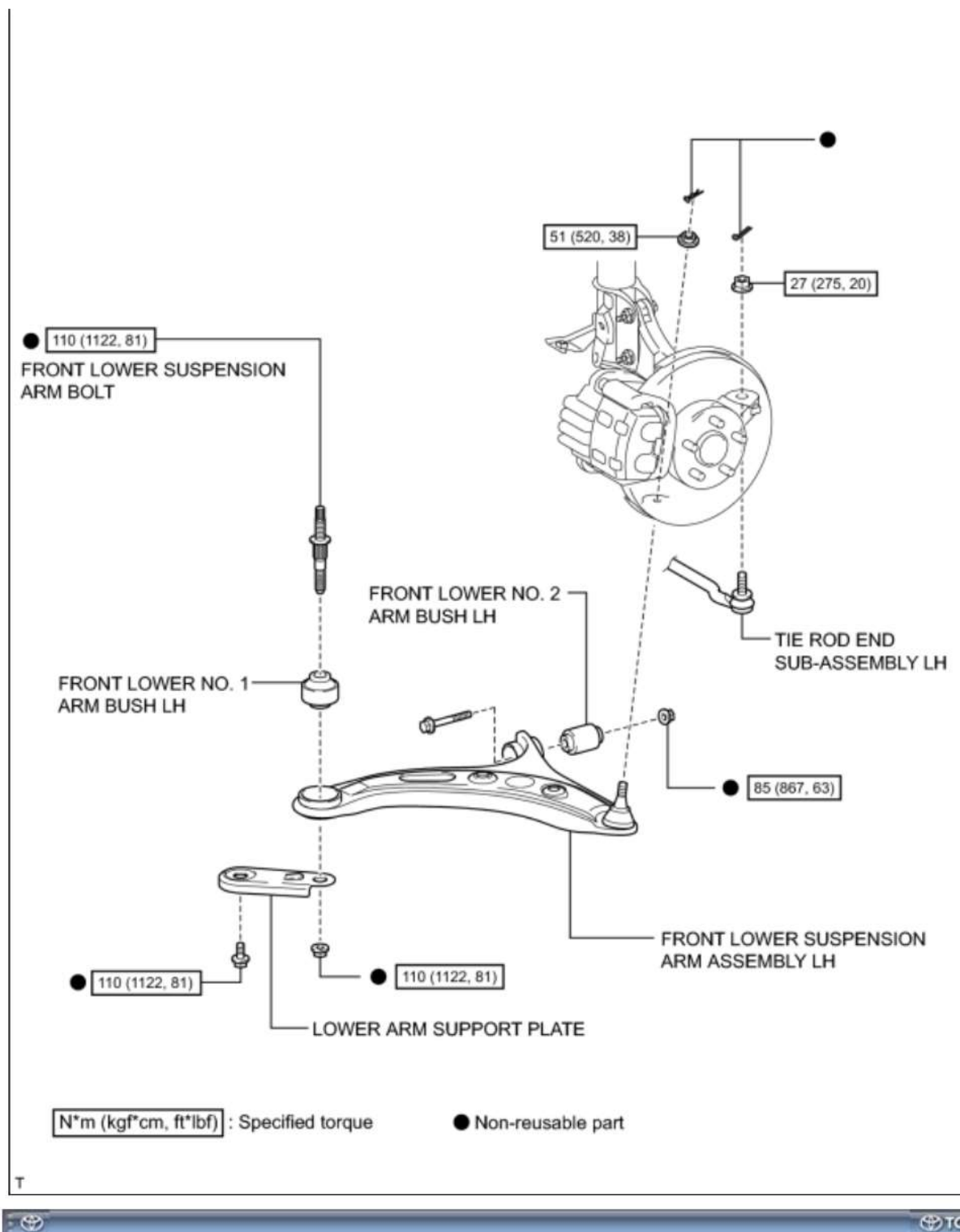
COMPONENTS

ILLUSTRATION



ILLUSTRATION

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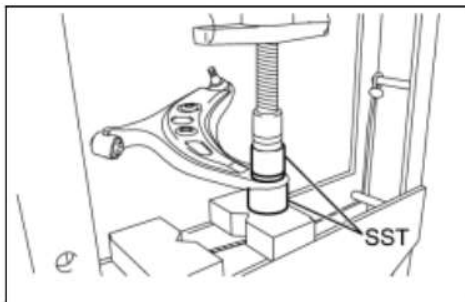
Last Modified: 3-27-2012	6.4 A	From: 201203
Model Year: 2013	Model: FR-S	Doc ID: RM0000058PR000X
Title: FRONT SUSPENSION: FRONT LOWER SUSPENSION ARM: DISASSEMBLY (2013 FR-S)		

DISASSEMBLY

HINT:

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

1. REMOVE FRONT LOWER NO. 1 ARM BUSH LH

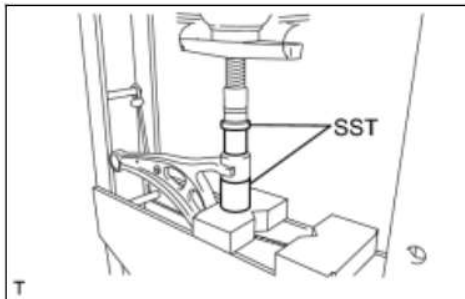


(a) Using SST and a press, front lower No. 1 arm bush LH.

SST: 09716-18020

SST: 09716-18030

2. REMOVE FRONT LOWER NO. 2 ARM BUSH LH



(a) Using SST, front lower No. 2 arm bush LH.

SST: 09710-18040

09711-01010

09711-01020

09711-01030

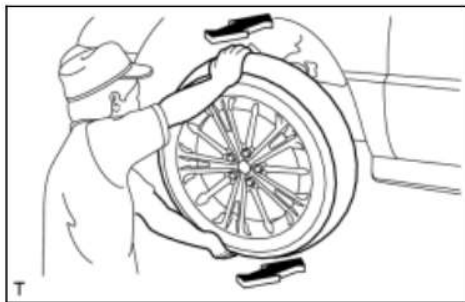


Last Modified: 3-27-2012	6.4 G	From: 201203
Model Year: 2013	Model: FR-S	Doc ID: RM0000058V1000X
Title: FRONT SUSPENSION: FRONT LOWER SUSPENSION ARM: INSPECTION (2013 FR-S)		

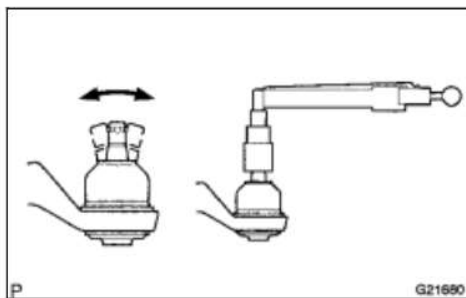
INSPECTION

1. INSPECT FRONT LOWER SUSPENSION ARM ASSEMBLY LH

- (a) Inspect the state of rotation of the ball joint.



- (1) With the brake pedal depressed, attempt to move the top and bottom of the front tire in the axial direction, and confirm that there is no play.
- (2) If there is any play, replace the front lower suspension arm assembly LH.
- (3) With the brake pedal released, attempt to move the top and bottom of the front tire in the axial direction, and confirm that there is no play.
- (4) If there is any play, replace the front axle hub.
- (5) Install the nut to the front lower suspension arm assembly LH stud.



- (6) Turn the stud back and forth.

Standard:

There is no unusual resistance or play.

- (7) If there is any unusual resistance or play, replace the front lower suspension arm assembly LH with a new one.
- (b) Inspect the dust cover.
- (1) Check that the dust cover is not cracked and that there is no grease on it.
 - (2) If the dust cover is cracked or there is grease on it, replace the front lower suspension arm assembly LH with a new one.



Last Modified: 3-27-2012	6.4 A	From: 201203
Model Year: 2013	Model: FR-S	Doc ID: RM000004EGK01DX
Title: FRONT SUSPENSION: FRONT LOWER SUSPENSION ARM: INSTALLATION (2013 FR-S)		

INSTALLATION

HINT:

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

1. INSTALL FRONT LOWER SUSPENSION ARM BOLT

- (a) Using SST, install the new front lower suspension arm bolt.

SST: 09726-18010

Torque: 110 N·m (1122 kgf·cm, 81ft·lbf)

2. TEMPORARILY TIGHTEN FRONT LOWER SUSPENSION ARM ASSEMBLY LH

- (a) Temporarily tighten the front lower suspension arm assembly LH with the bolt and new nut.

NOTICE:

Insert the bolt from the front of the vehicle.

3. INSTALL STEERING KNUCKLE LH

- (a) Install the front lower arm suspension arm assembly LH with the nut to the steering knuckle LH.

Torque: 51 N·m (520 kgf·cm, 38ft·lbf)

- (b) Install new clip.

4. INSTALL TIE ROD END SUB-ASSEMBLY LH INFO

5. INSTALL LOWER ARM SUPPORT PLATE

- (a) Install the lower arm support plate with the new bolt and new nut.

Torque: 110 N·m (1122 kgf·cm, 81ft·lbf)

6. INSTALL FRONT WHEEL

Torque: 120 N·m (1224 kgf·cm, 89ft·lbf)

7. STABILIZE SUSPENSION INFO

8. FULLY TIGHTEN FRONT LOWER SUSPENSION ARM ASSEMBLY LH

- (a) Fully tighten the nut on the rear of front lower suspension arm assembly LH.

Torque: 85 N·m (867 kgf·cm, 63ft·lbf)

9. INSTALL REAR ENGINE UNDER COVER LH

- (a) Install the rear engine under cover LH with the 3 clips.

10. INSPECT STEERING WHEEL CENTER POINT

11. INSPECT AND ADJUST FRONT WHEEL ALIGNMENT

INFO

12. VSC SENSOR NEUTRAL MEMORIZATION



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Last Modified: 3-27-2012	6.4 A	From: 201203
Model Year: 2013	Model: FR-S	Doc ID: RM0000058PS000X
Title: FRONT SUSPENSION: FRONT LOWER SUSPENSION ARM: REASSEMBLY (2013 FR-S)		

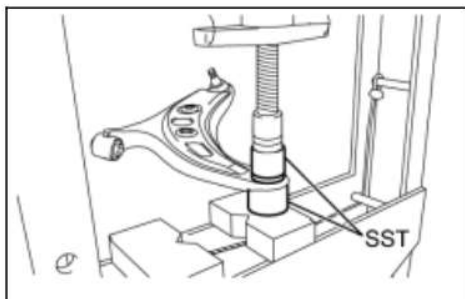
REASSEMBLY

HINT:

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

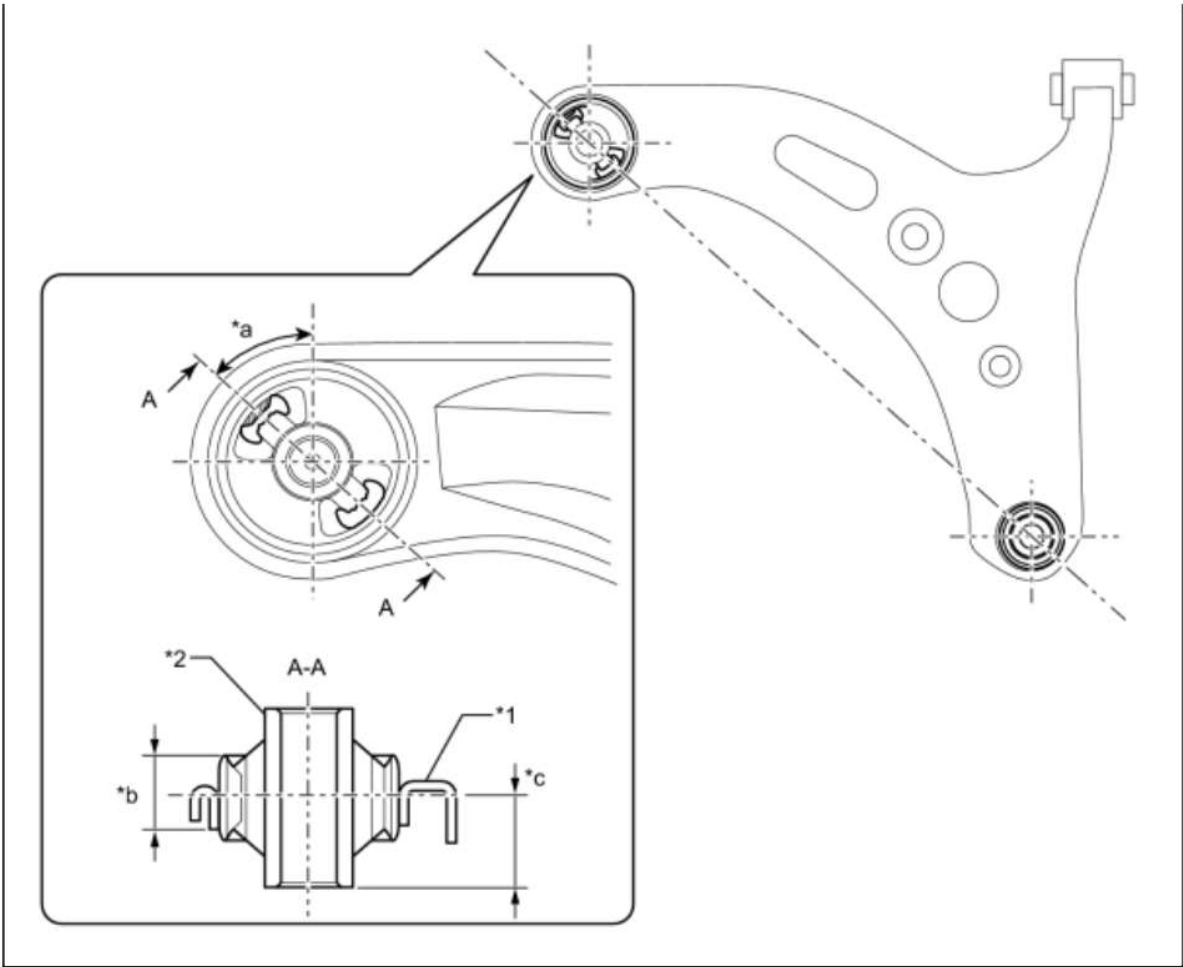
1. INSTALL FRONT LOWER NO. 1 ARM BUSH LH

- (a) Using SST, install the front lower No. 1 arm bushing LH to the front lower suspension arm assembly LH so that the fitting dimensions come within the specifications shown in the illustration.



SST: 09716-18020

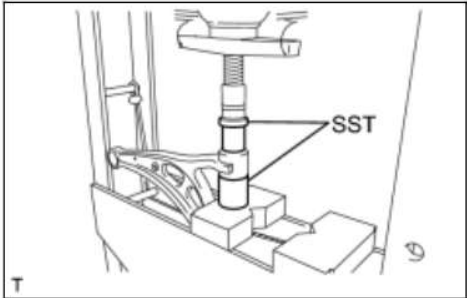
SST: 09716-18030



Text in Illustration

*1	Front Lower Suspension Arm Assembly LH	*2	Front Lower No. 2 Arm Bush LH
*a	44 to 50°	*b	25.0 to 26.0 mm (0.984 to 1.023 in.)
*c	26.5 to 27.5 mm (1.043 to 1.083 in.)	-	-

2. INSTALL FRONT LOWER NO. 2 ARM BUSH LH



(a) Using SST, install the front lower No. 2 arm bush LH to the front lower suspension arm assembly LH.

SST: 09710-18040

09711-01010

09711-01020

09711-01030

Last Modified: 3-27-2012	6.4 A	From: 201203
Model Year: 2013	Model: FR-S	Doc ID: RM000004EGK01EX
Title: FRONT SUSPENSION: FRONT LOWER SUSPENSION ARM: REMOVAL (2013 FR-S)		

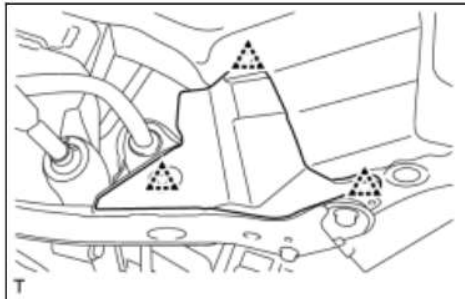
REMOVAL

HINT:

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

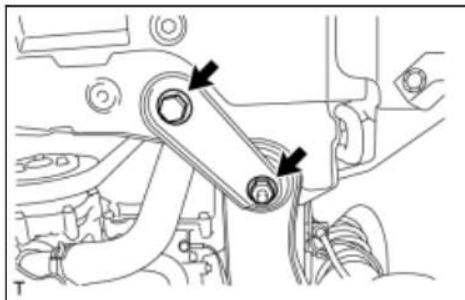
1. REMOVE FRONT WHEEL

2. REMOVE REAR ENGINE UNDER COVER LH



(a) Remove the 3 clips and rear engine under cover LH.

3. REMOVE LOWER ARM SUPPORT PLATE



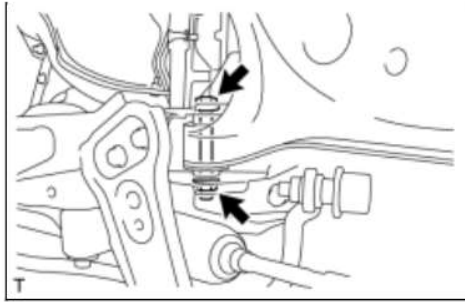
(a) Remove the bolt, nut and lower arm support plate.

4. SEPARATE TIE ROD END SUB-ASSEMBLY LH INFO

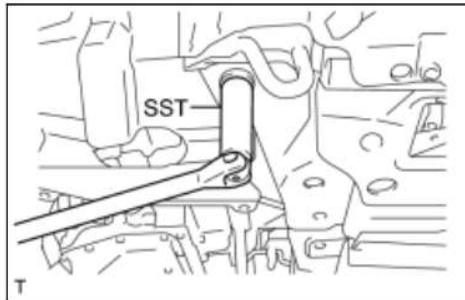
5. SEPARATE STEERING KNUCKLE LH INFO

6. REMOVE FRONT LOWER SUSPENSION ARM ASSEMBLY LH

(a) Remove the bolt, nut and front lower suspension arm assembly LH from the front cross member sub-assembly.



7. REMOVE FRONT LOWER SUSPENSION ARM BOLT



(a) Using SST, remove the front lower suspension arm bolt.

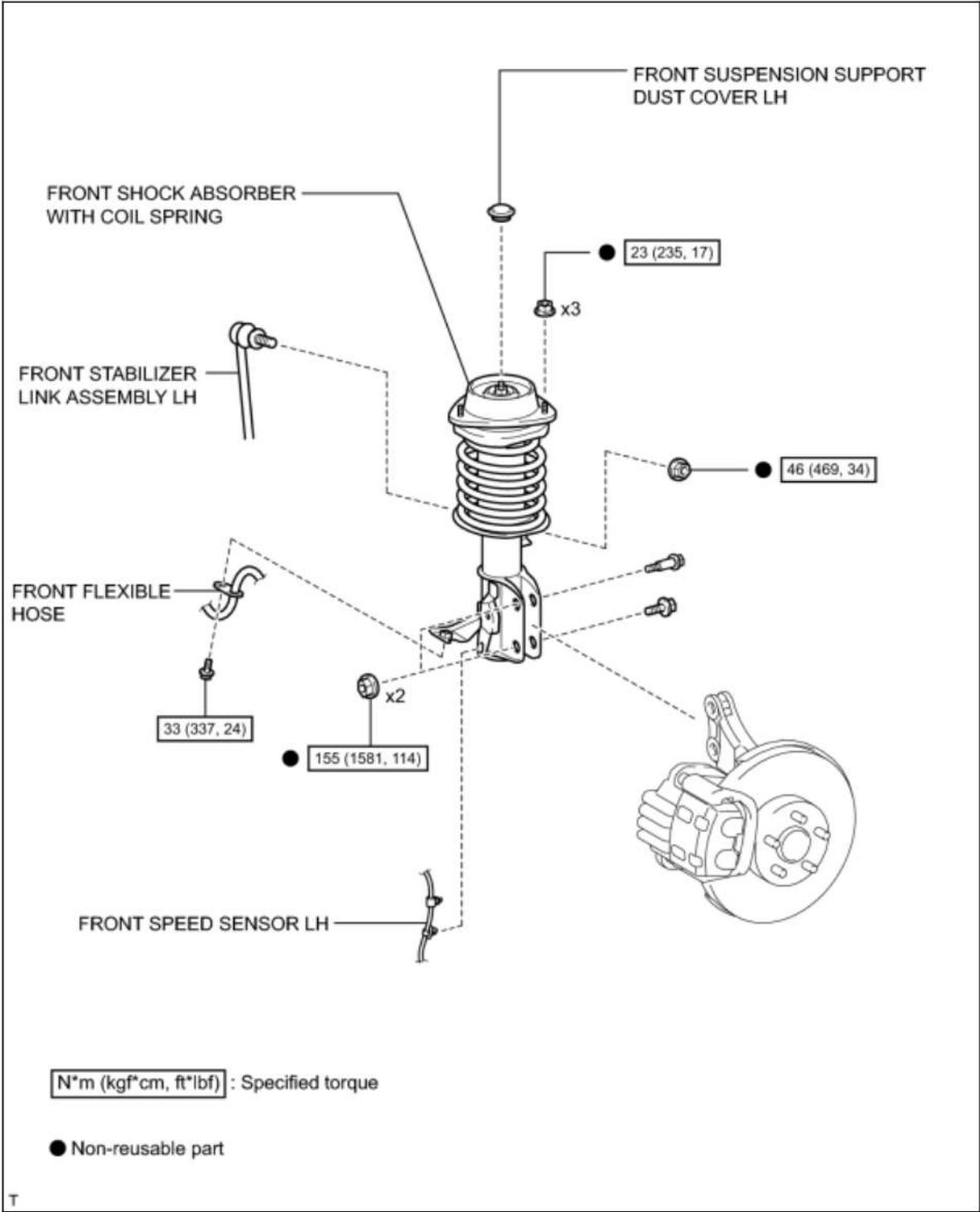
SST: 09726-18010



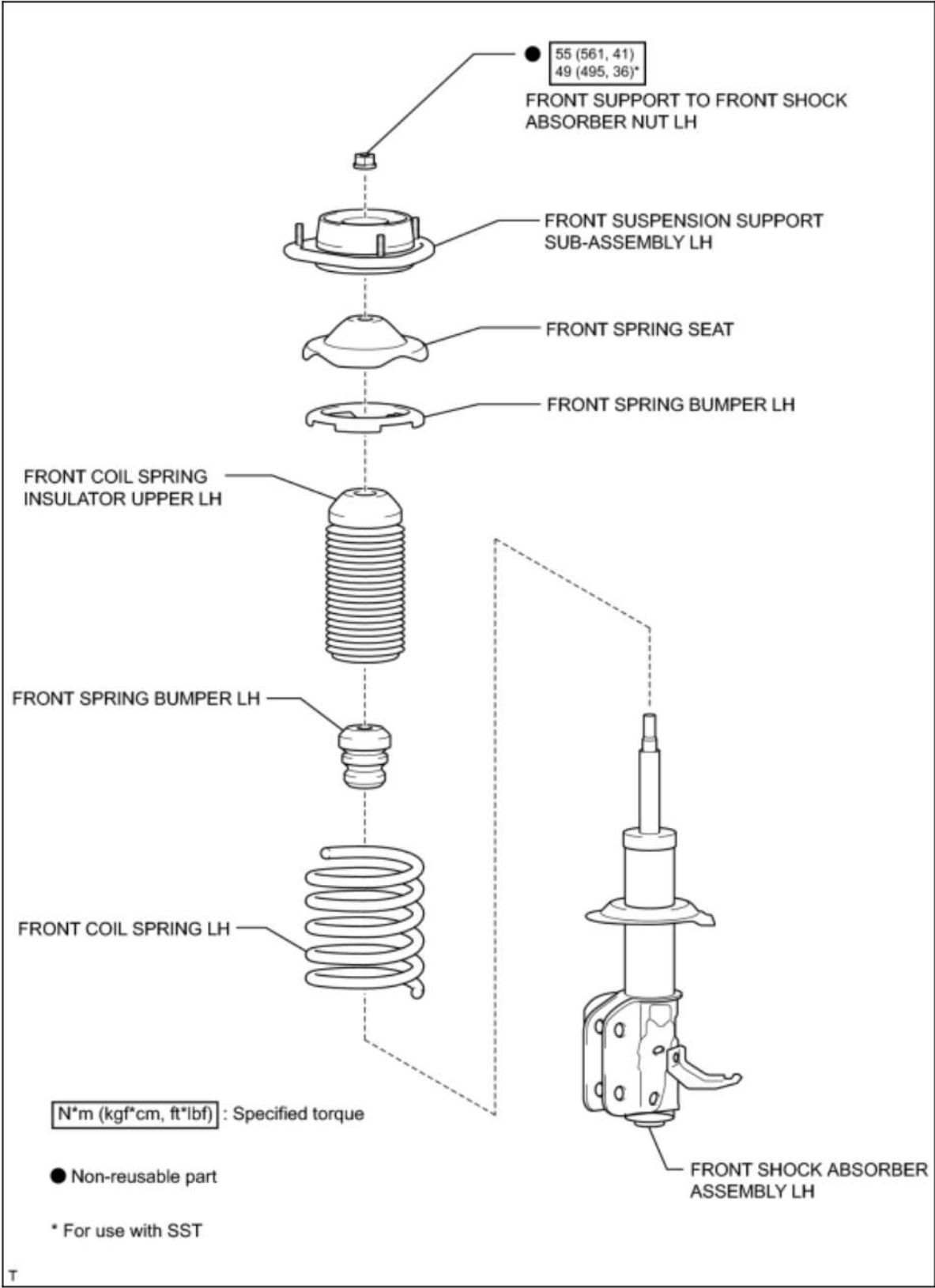
Last Modified: 3-27-2012	6.4 K	From: 201203
Model Year: 2013	Model: FR-S	Doc ID: RM0000011DE02HX
Title: FRONT SUSPENSION: FRONT SHOCK ABSORBER: COMPONENTS (2013 FR-S)		

COMPONENTS

ILLUSTRATION



ILLUSTRATION



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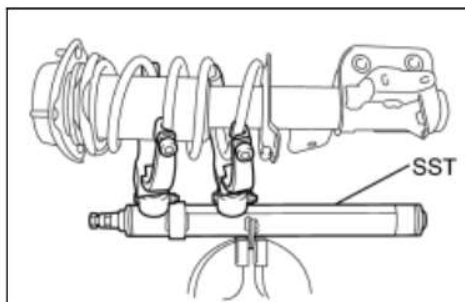
Last Modified: 3-27-2012	6.4 A	From: 201203
Model Year: 2013	Model: FR-S	Doc ID: RM0000058PO000X
Title: FRONT SUSPENSION: FRONT SHOCK ABSORBER: DISASSEMBLY (2013 FR-S)		

DISASSEMBLY

HINT:

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

1. REMOVE FRONT SUPPORT TO FRONT SHOCK ABSORBER NUT LH



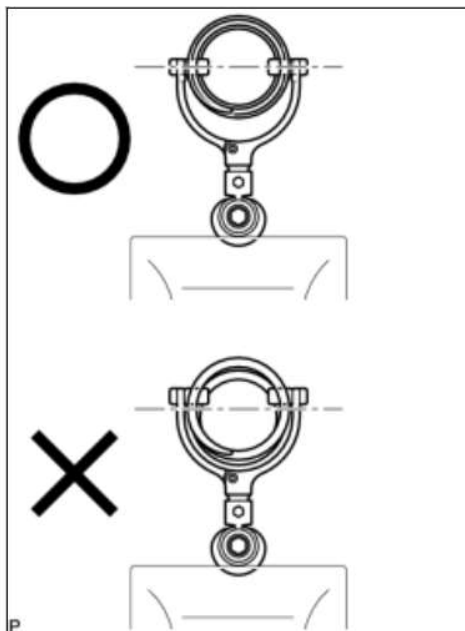
(a) Secure the SST in a vise.

SST: 09727-30021

09727-00010

09727-00021

09727-00031



(b) Attach the arm of SST to the diameter of the front coil spring LH.

CAUTION:

- Make sure that the front coil spring LH is installed so that the distance between the upper and lower hooks of SST is at the maximum.
- Make sure that the claws on the hooks are securely engaged.

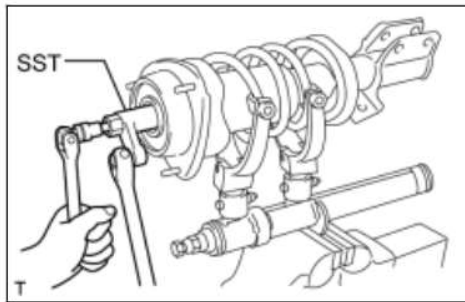
(c) Using SST, compress the front coil spring LH.

CAUTION:

- If the front coil spring LH bends during the compression, immediately stop the compression and reinstall SST.
- Do not compress the spring until the front coil spring LH contact each other.

- Do not use an impact wrench.

(d) Using a long socket hexagon wrench 6mm, fix the shock absorber rod.



(e) Confirm that the front coil spring LH becomes free and remove the lock nut.

SST: 09729-97202

CAUTION:

Do not remove the lock nut when the front coil spring LH is not free.

NOTICE:

- Be careful not to damage or deform the threaded section.
- Fully insert a long socket hexagon wrench 6mm.

2. REMOVE FRONT SUSPENSION SUPPORT SUB-ASSEMBLY LH

(a) Remove the front suspension support sub-assembly LH.

3. REMOVE FRONT SPRING SEAT

(a) Remove the front spring seat.

4. REMOVE FRONT SPRING BUMPER LH

(a) Remove the front spring bumper.

5. REMOVE FRONT COIL SPRING INSULATOR UPPER LH

(a) Remove the front coil spring upper insulator LH.

6. REMOVE FRONT SPRING BUMPER LH

(a) Remove the front spring bumper LH.

7. REMOVE FRONT COIL SPRING LH

(a) Release the SST and remove the front coil spring LH.

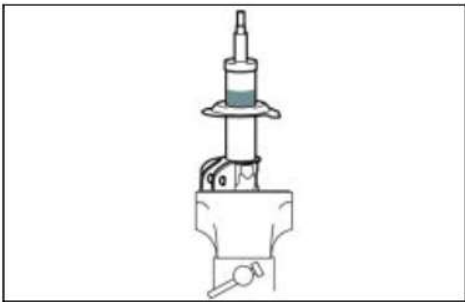


Last Modified: 3-27-2012	6.4 N	From: 201203
Model Year: 2013	Model: FR-S	Doc ID: RM0000011DB02IX
Title: FRONT SUSPENSION: FRONT SHOCK ABSORBER: DISPOSAL (2013 FR-S)		

DISPOSAL

1. DISPOSE OF FRONT SHOCK ABSORBER ASSEMBLY LH

- (a) Affix the front shock absorber assembly LH perpendicularly.
- (b) Push the piston rod down approximately 70 mm (2.756 in.) by hand.
- (c) Using a metal saw or the like, slowly cut a hole in the location shown in the illustration and let the gas out.



Text in Illustration

	Area to cut a hole
---	--------------------

NOTICE:

- Wear protective glasses.
- Since the discharging gas may cause chips to scatter, cover the metal saw with a piece of cloth when making the hole.

HINT:

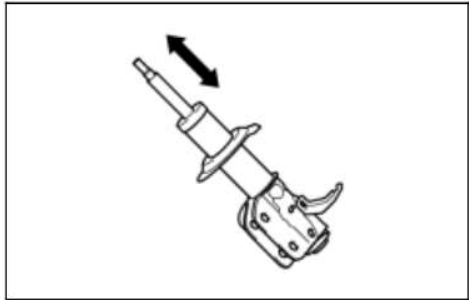
The gas is colorless, odorless and non-poisonous.



Last Modified: 3-27-2012	6.4 G	From: 201203
Model Year: 2013	Model: FR-S	Doc ID: RM0000011DD02JX
Title: FRONT SUSPENSION: FRONT SHOCK ABSORBER: INSPECTION (2013 FR-S)		

INSPECTION

1. INSPECT FRONT SHOCK ABSORBER ASSEMBLY LH



- (a) Compress and extend the shock absorber rod 4 or more times.
- Standard:
- There is no abnormal resistance or sound and operation resistance is normal.
- If there is any abnormality, replace the front shock absorber assembly with a new one.



Last Modified: 3-27-2012	6.4 A	From: 201203
Model Year: 2013	Model: FR-S	Doc ID: RM0000011DC03FX
Title: FRONT SUSPENSION: FRONT SHOCK ABSORBER: INSTALLATION (2013 FR-S)		

INSTALLATION

HINT:

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

1. INSTALL FRONT SHOCK ABSORBER WITH COIL SPRING

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

Torque: 23 N·m (235 kgf·cm, 17ft·lbf)

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

NOTICE:

Insert the bolt from the rear of the vehicle.

Torque: 155 N·m (1581 kgf·cm, 114ft·lbf)

NOTICE:

While keeping the bolts from rotating, tighten the nuts.

2. INSTALL FRONT STABILIZER LINK ASSEMBLY LH

- (a) Install the front stabilizer link assembly to the front shock absorber assembly with a new nut.
- (b) Using a socket hexagon wrench 6 mm, fix the stud bolt and install the front stabilizer link assembly LH with a new nut.

Torque: 46 N·m (469 kgf·cm, 34ft·lbf)

3. INSTALL FRONT FLEXIBLE HOSE

- (a) Install the front flexible hose to the front shock absorber assembly with the bolt.

Torque: 33 N·m (337 kgf·cm, 24ft·lbf)

4. INSTALL FRONT SUSPENSION SUPPORT DUST COVER LH

- (a) Install the front suspension support dust cover LH to the front shock absorber with coil spring.

5. INSTALL FRONT SPEED SENSOR LH

- (a) Install the front speed sensor LH to the front shock absorber assembly with the 2 clamps.

NOTICE:

Do not twist the front speed sensor when installing it.

6. INSTALL FRONT WHEEL

Torque: 120 N·m (1224 kgf·cm, 89ft·lbf)

7. STABILIZE SUSPENSION

- (a) Lower the vehicle and bounce it up and down several times to stabilize the front suspension.

8. INSPECT STEERING WHEEL CENTER POINT

9. INSPECT AND ADJUST FRONT WHEEL ALIGNMENT

INFO

10. VSC SENSOR NEUTRAL MEMORIZATION

INFO



Last Modified: 3-27-2012	6.4 A	From: 201203
Model Year: 2013	Model: FR-S	Doc ID: RM0000058PP000X
Title: FRONT SUSPENSION: FRONT SHOCK ABSORBER: REASSEMBLY (2013 FR-S)		

REASSEMBLY

HINT:

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

1. INSTALL FRONT SPRING BUMPER LH

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

2. INSTALL FRONT COIL SPRING INSULATOR UPPER LH

- (a) Install the front coil spring insulator upper LH to the front shock absorber assembly LH.

3. INSTALL FRONT COIL SPRING LH

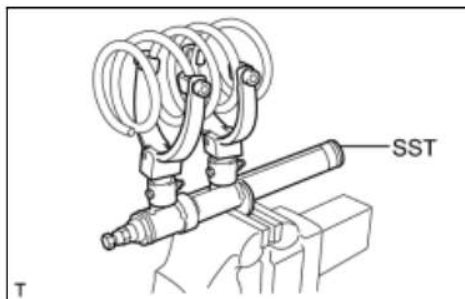
- (a) Secure the SST in a vise.

SST: 09727-30021

09727-00010

09727-00021

09727-00031

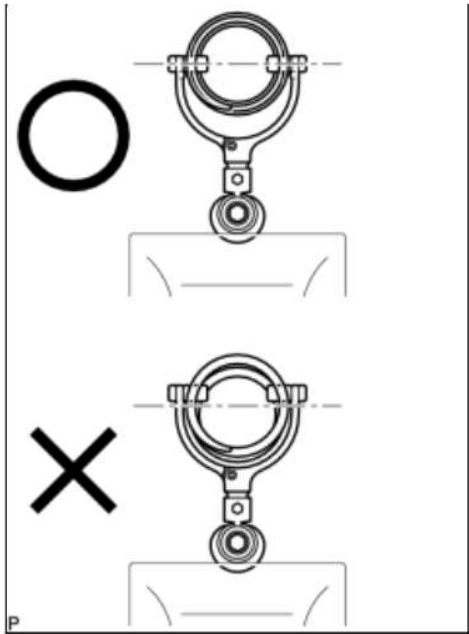


- (b) Install SST to the front coil spring LH with the hooks spread as far apart as possible from each other.

- (c) Attach the arm of SST to the diameter of the coil spring.

CAUTION:

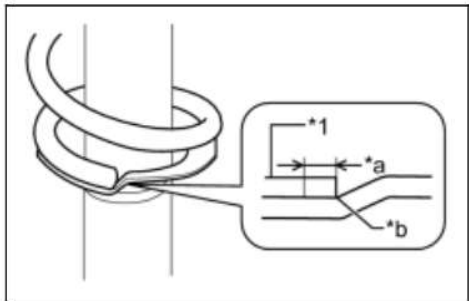
- Make sure that the front coil spring LH is installed so that the distance between the upper and lower hooks of SST is at the maximum.
- Make sure that the claws on the hooks are securely engaged.



(d) Using SST, compress the front coil spring LH.

CAUTION:

- If the front coil spring LH bends during the compression, immediately stop the compression and reinstall SST.
- Do not compress the spring until the coil springs contact each other.
- Do not use an impact wrench.



(e) Install the front coil spring LH so that the lower end of the spring and lower side spring seat stopper are aligned.

Text in Illustration

*1	Front Coil Spring LH
*a	0 to 10 mm (0 to 0.397 in.)
*b	Spring seat stopper

4. INSTALL FRONT SPRING BUMPER LH

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

5. INSTALL FRONT SPRING SEAT

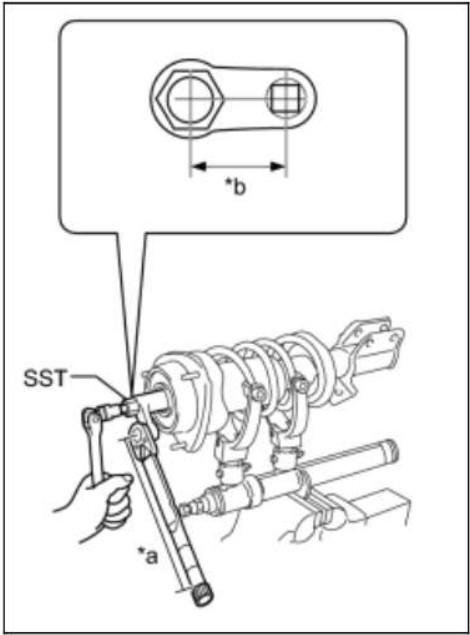
(a) Install the front spring seat to the front shock absorber assembly LH.

6. INSTALL FRONT SUSPENSION SUPPORT SUB-ASSEMBLY LH

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

7. INSTALL FRONT SUPPORT TO FRONT SHOCK ABSORBER NUT LH

(a) Long socket hexagon wrench 6, fix the shock absorber rod.



(b) Using SST, install a new front support to front shock absorber nut LH to the front shock absorber assembly LH.

SST: 09729-97202

Text in Illustration

*a	Fulcrum Length
*b	40 mm (1.575 in.)

without SST - Torque: 55 N·m (561 kgf·cm, 41ft·lbf)
with SST - Torque: 49 N·m (495 kgf·cm, 36ft·lbf)

NOTICE:

- Use a torque wrench wiht a fulcrum length of 300 mm (11.81 in.)
- Be careful not to damage or deform the threaded section.
- Securely set the long socket hexagon wrench 6.



Last Modified: 3-27-2012	6.4 A	From: 201203
Model Year: 2013	Model: FR-S	Doc ID: RM0000011DF02NX
Title: FRONT SUSPENSION: FRONT SHOCK ABSORBER: REMOVAL (2013 FR-S)		

REMOVAL

HINT:

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

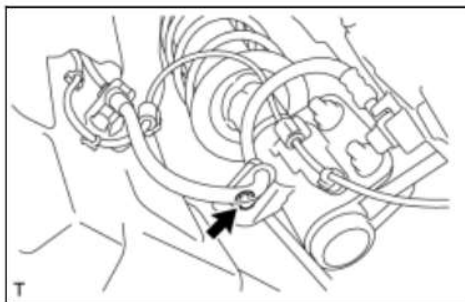
1. REMOVE FRONT WHEEL

2. SEPARATE FRONT SPEED SENSOR LH



- (a) Remove the 2 clamps and separate the front speed sensor LH from the front shock absorber with coil spring.

3. SEPARATE FRONT FLEXIBLE HOSE

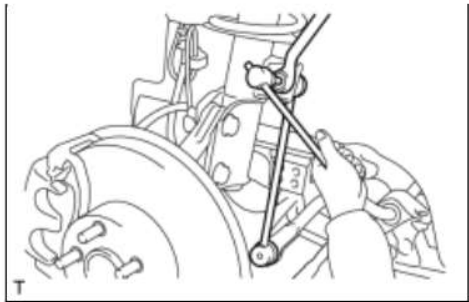


- (a) Remove the bolt and separate the front flexible hose from the front shock absorber with coil spring.

4. SEPARATE FRONT STABILIZER LINK ASSEMBLY LH

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

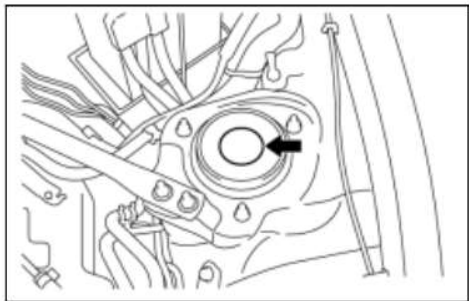
If the ball joint turns together with the nut, use a hexagon wrench to hold the stud bolt.



5. REMOVE FRONT SUSPENSION SUPPORT DUST COVER LH

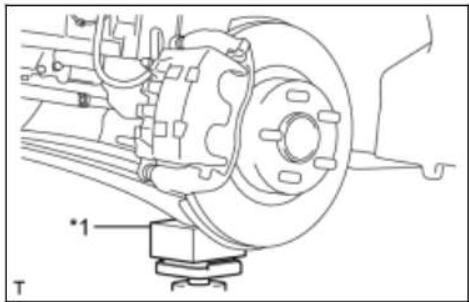
HINT:

If it is necessary to disassemble the front shock absorber with coil spring, remove the front suspension support dust cover LH.



(a) Remove the front suspension support dust cover LH.

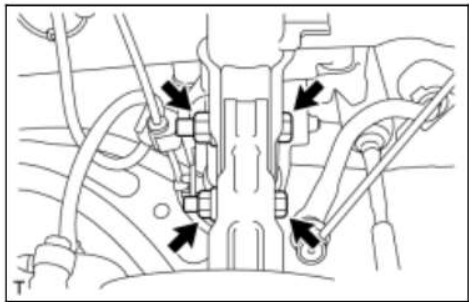
6. REMOVE FRONT SHOCK ABSORBER WITH COIL SPRING



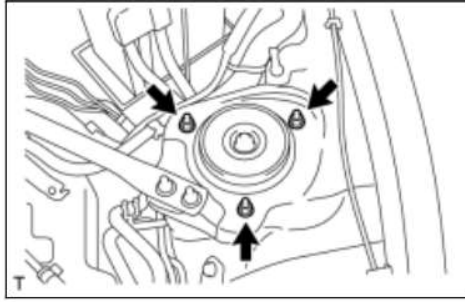
(a) Support the front axle using a jack and wooden block.

Text in Illustration

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



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



(c) Remove the 3 nuts from the front upper coil spring insulator LH.

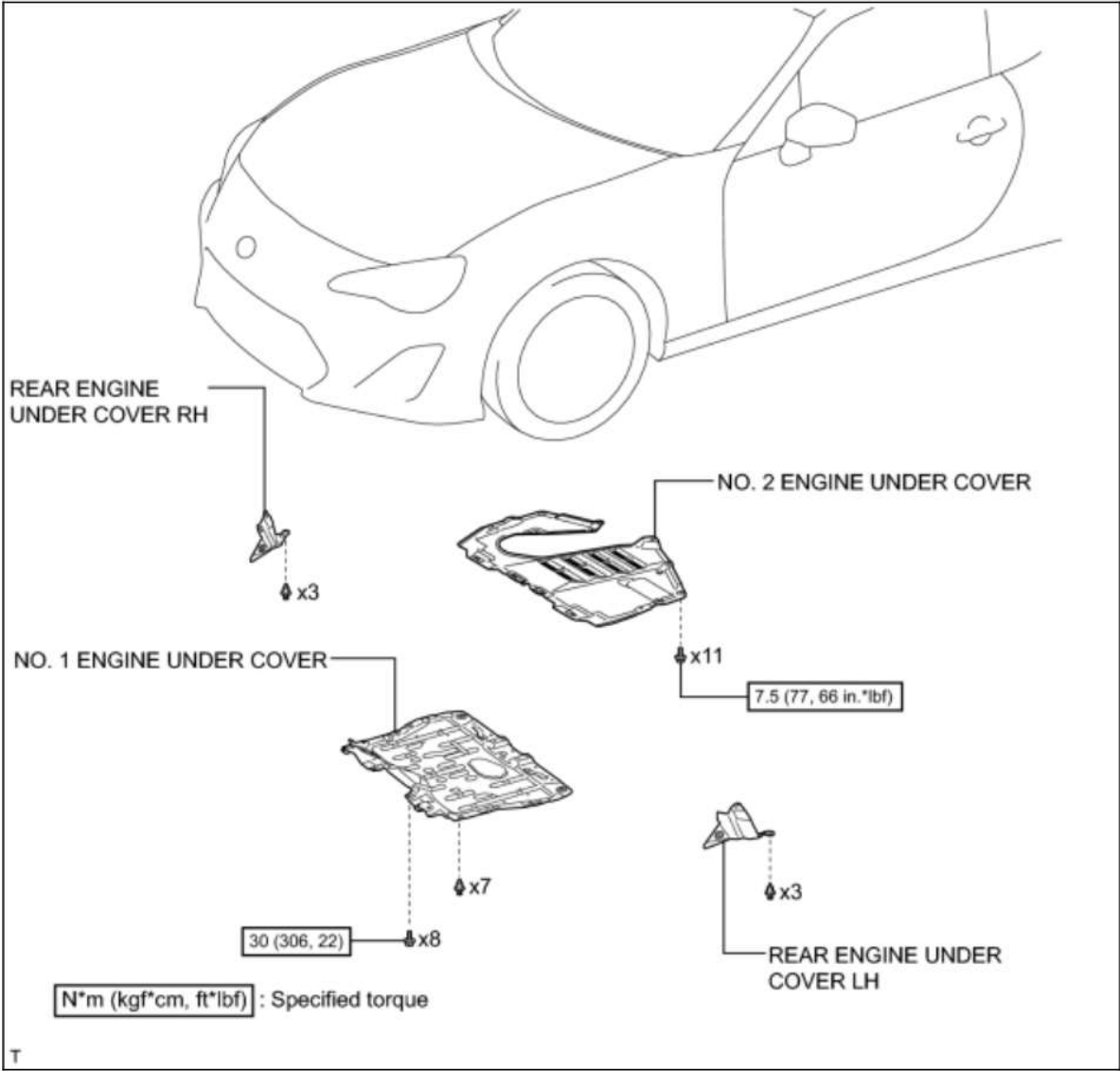
(d) Remove the front shock absorber with coil spring.



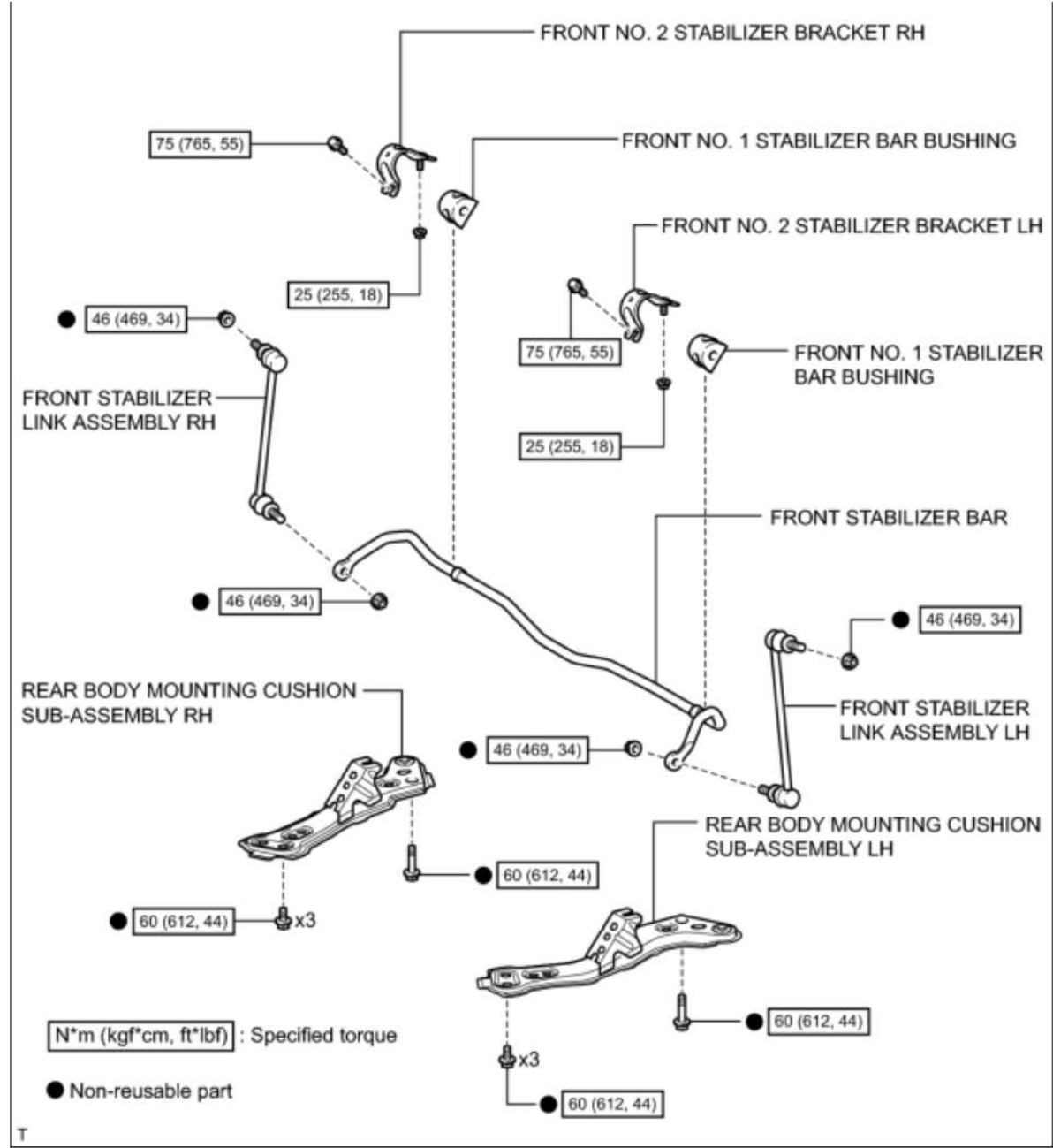
Last Modified: 3-27-2012	6.4 K	From: 201203
Model Year: 2013	Model: FR-S	Doc ID: RM0000011I6031X
Title: FRONT SUSPENSION: FRONT STABILIZER BAR: COMPONENTS (2013 FR-S)		

COMPONENTS

ILLUSTRATION



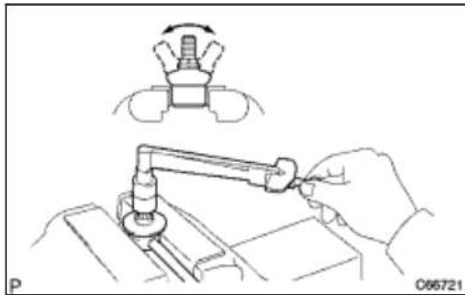
ILLUSTRATION



Last Modified: 3-27-2012	6.4 G	From: 201203
Model Year: 2013	Model: FR-S	Doc ID: RM0000011DO051X
Title: FRONT SUSPENSION: FRONT STABILIZER BAR: INSPECTION (2013 FR-S)		

INSPECTION

1. INSPECT FRONT STABILIZER LINK ASSEMBLY



(a) Inspect the ball joint.

- (1) Secure the front stabilizer link assembly in a vise using aluminum plates.
- (2) Install the nut to the front stabilizer link assembly stud.
- (3) Turn the stud back and forth.

Standard:

There is no unusual resistance or play.

- (4) If there is any unusual resistance or play, replace the front stabilizer link assembly with a new one.

(b) Inspect the dust cover.

- (1) Check that the dust cover is not cracked and that there is no grease on it.
- (2) If the dust cover is cracked or there is grease on it, replace the front stabilizer link assembly with a new one.

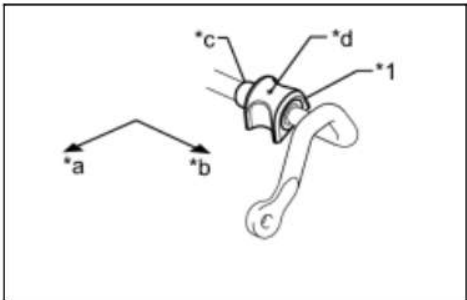


Last Modified: 3-27-2012	6.4 A	From: 201203
Model Year: 2013	Model: FR-S	Doc ID: RM0000011DN03YX
Title: FRONT SUSPENSION: FRONT STABILIZER BAR: INSTALLATION (2013 FR-S)		

INSTALLATION

1. INSTALL FRONT NO. 1 STABILIZER BAR BUSHING (for LH Side)

- (a) Install the front No. 1 stabilizer bar bushing so that it is positioned closer to the outside of the vehicle than the front stabilizer bar stopper ring.



NOTICE:
Install the front No. 1 stabilizer bar bushing so that the arrow mark is facing towards the front of the vehicle.

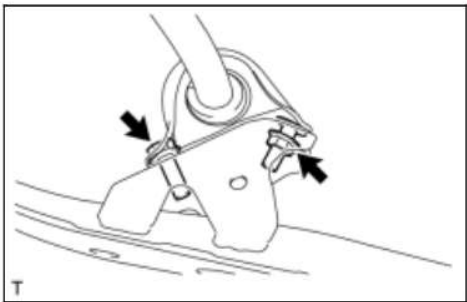
Text in Illustration

*a	Front of the Vehicle
*b	Outside of the Vehicle
*c	Stopper Ring
*d	Arrow
*1	Front No. 1 Stabilizer Bar Bushing

2. INSTALL FRONT NO. 1 STABILIZER BAR BUSHING (for RH Side)

HINT:
Perform the same procedure as the LH side.

3. INSTALL FRONT NO. 2 STABILIZER BRACKET LH



- (a) Install the front No. 2 stabilizer bracket LH to the rear body mounting cushion sub-assembly with the bolt and nut.

Bolt - Torque: 75 N·m (765 kgf·cm, 55ft·lbf)
Nut - Torque: 25 N·m (255 kgf·cm, 18ft·lbf)

4. INSTALL FRONT NO. 2 STABILIZER BRACKET RH

HINT:
Perform the same procedure as the LH side.

5. INSTALL REAR BODY MOUNTING CUSHION SUB-ASSEMBLY LH

- (a) Install the rear body mounting cushion sub-assembly LH and front stabilizer bar with the 4 new bolts.

Torque: 60 N·m (612 kgf·cm, 44ft·lbf)

6. INSTALL REAR BODY MOUNTING CUSHION SUB-ASSEMBLY RH

HINT:

Perform the same procedure as the LH side.

7. INSTALL FRONT STABILIZER LINK ASSEMBLY LH

- (a) Using a hexagon wrench 6 mm, fix the stud bolt, and install the front stabilizer link assembly LH to the front stabilizer bar with a new nut.

Torque: 46 N·m (469 kgf·cm, 34ft·lbf)

- (b) Using a hexagon wrench 6 mm, fix the stud bolt, and install the front stabilizer link assembly LH to the front shock absorber with coil spring with a new nut.

Torque: 46 N·m (469 kgf·cm, 34ft·lbf)

8. INSTALL FRONT STABILIZER LINK ASSEMBLY RH

HINT:

Perform the same procedure as the LH side.

9. INSTALL REAR ENGINE UNDER COVER LH INFO

10. INSTALL REAR ENGINE UNDER COVER RH

HINT:

Perform the same procedure as the LH side.

11. INSTALL NO. 2 ENGINE UNDER COVER INFO

12. INSTALL NO. 1 ENGINE UNDER COVER INFO

13. INSTALL FRONT WHEEL

Torque: 120 N·m (1224 kgf·cm, 89ft·lbf)

14. STABILIZE SUSPENSION INFO

15. INSPECT STEERING WHEEL CENTER POINT

16. INSPECT AND ADJUST FRONT WHEEL ALIGNMENT

INFO

17. VSC SENSOR NEUTRAL MEMORIZATION

INFO



Last Modified: 3-27-2012	6.4 A	From: 201203
Model Year: 2013	Model: FR-S	Doc ID: RM0000011DP03YX
Title: FRONT SUSPENSION: FRONT STABILIZER BAR: REMOVAL (2013 FR-S)		

REMOVAL

1. REMOVE FRONT WHEEL

2. REMOVE NO. 1 ENGINE UNDER COVER [INFO](#)

3. REMOVE NO. 2 ENGINE UNDER COVER [INFO](#)

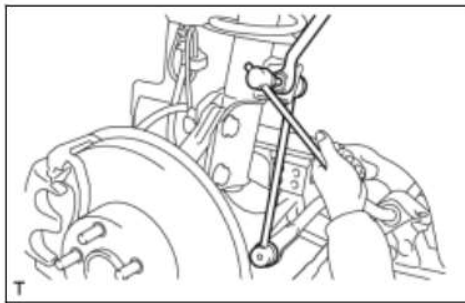
4. REMOVE REAR ENGINE UNDER COVER LH [INFO](#)

5. REMOVE REAR ENGINE UNDER COVER RH

HINT:

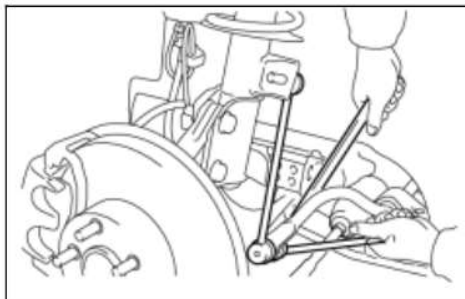
Perform the same procedure as the LH side.

6. REMOVE FRONT STABILIZER LINK ASSEMBLY LH



(a) Using a socket hexagon 6 mm, fix the stud bolt, and remove the nut.

(b) Remove the front stabilizer link assembly LH from the front shock absorber with coil spring.



(c) Using a socket hexagon 6 mm, fix the stud bolt, and remove the nut.

(d) Remove the front stabilizer link assembly LH from the front stabilizer bar.

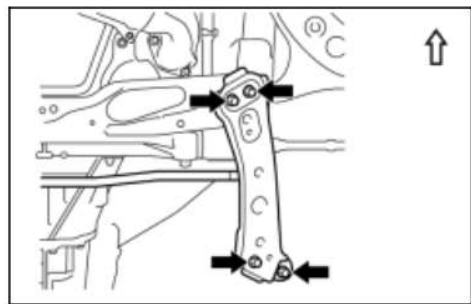
7. REMOVE FRONT STABILIZER LINK ASSEMBLY RH

HINT:

Perform the same procedure as the LH side.

8. REMOVE REAR BODY MOUNTING CUSHION SUB-ASSEMBLY LH

- (a) Remove the 4 bolts, and remove the front stabilizer bar and the body mounting cushion sub-assembly LH together.



Text in Illustration

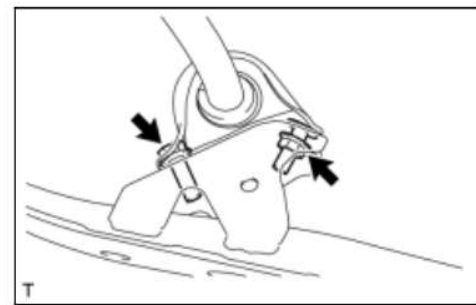
	Bolt
	Vehicle for front side

9. REMOVE REAR BODY MOUNTING CUSHION SUB-ASSEMBLY RH

HINT:

Perform the same procedure as the LH side.

10. REMOVE FRONT NO. 2 STABILIZER BRACKET LH



- (a) Remove the bolt, nut and front No. 2 stabilizer bracket LH from the rear body mounting cushion sub-assembly.

11. REMOVE FRONT NO. 2 STABILIZER BRACKET RH

HINT:

Perform the same procedure as the LH side.

12. REMOVE FRONT STABILIZER BAR

- (a) Remove the front stabilizer bar from the rear body mounting cushion sub-assembly.

13. REMOVE FRONT NO. 1 STABILIZER BAR BUSHING (for LH Side)

- (a) Remove the front No. 1 stabilizer bar bushing from the front stabilizer bar.

14. REMOVE FRONT NO. 1 STABILIZER BAR BUSHING (for RH Side)**HINT:**

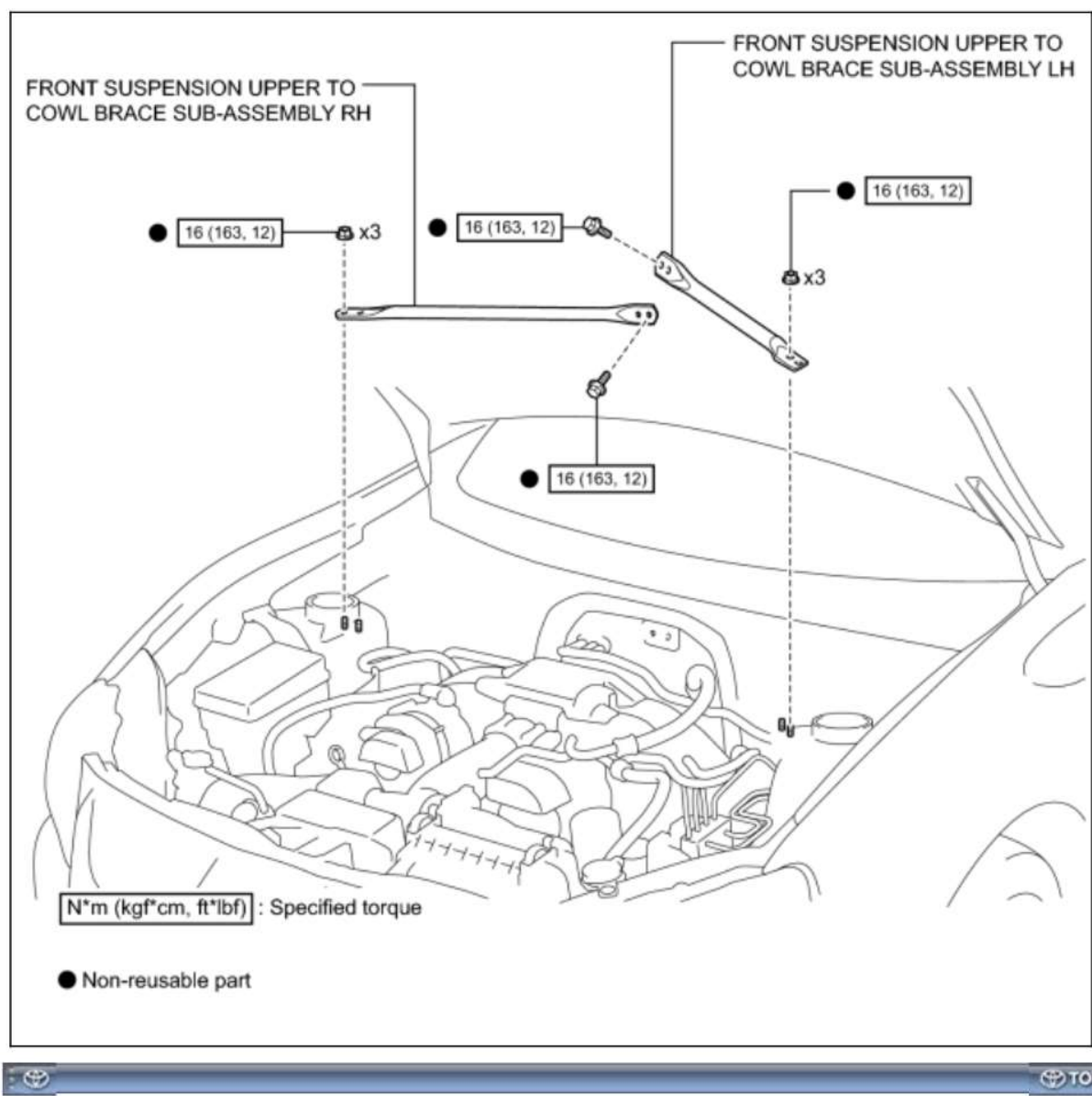
Perform the same procedure as the LH side.



Last Modified: 3-27-2012	6.4 K	From: 201203
Model Year: 2013	Model: FR-S	Doc ID: RM0000058PU000X
Title: FRONT SUSPENSION: FRONT STRUT BAR: COMPONENTS (2013 FR-S)		

COMPONENTS

ILLUSTRATION



Last Modified: 3-27-2012	6.4 A	From: 201203
Model Year: 2013	Model: FR-S	Doc ID: RM0000058PT000X
Title: FRONT SUSPENSION: FRONT STRUT BAR: INSTALLATION (2013 FR-S)		

INSTALLATION

1. INSTALL FRONT SUSPENSION UPPER TO COWL BRACE SUB-ASSEMBLY LH

(a) Install the front suspension upper to cowl brace sub-assembly with the new bolt and 3 new nuts.

Torque: 16 N·m (163 kgf·cm, 12ft·lbf)

2. INSTALL FRONT SUSPENSION UPPER TO COWL BRACE SUB-ASSEMBLY RH

HINT:

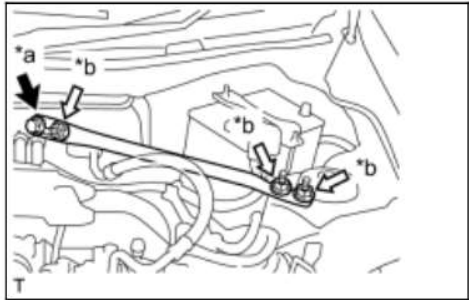
Use the same procedure for the RH side as for the LH side.



Last Modified: 3-27-2012	6.4 A	From: 201203
Model Year: 2013	Model: FR-S	Doc ID: RM0000058PV000X
Title: FRONT SUSPENSION: FRONT STRUT BAR: REMOVAL (2013 FR-S)		

REMOVAL

1. REMOVE FRONT SUSPENSION UPPER TO COWL BRACE SUB-ASSEMBLY LH



(a) Remove the bolt, 3 nuts and the front suspension upper to cowl brace sub-assembly LH

Text in Illustration

*a	Bolt
*b	Nut

2. REMOVE FRONT SUSPENSION UPPER TO COWL BRACE SUB-ASSEMBLY RH

HINT:

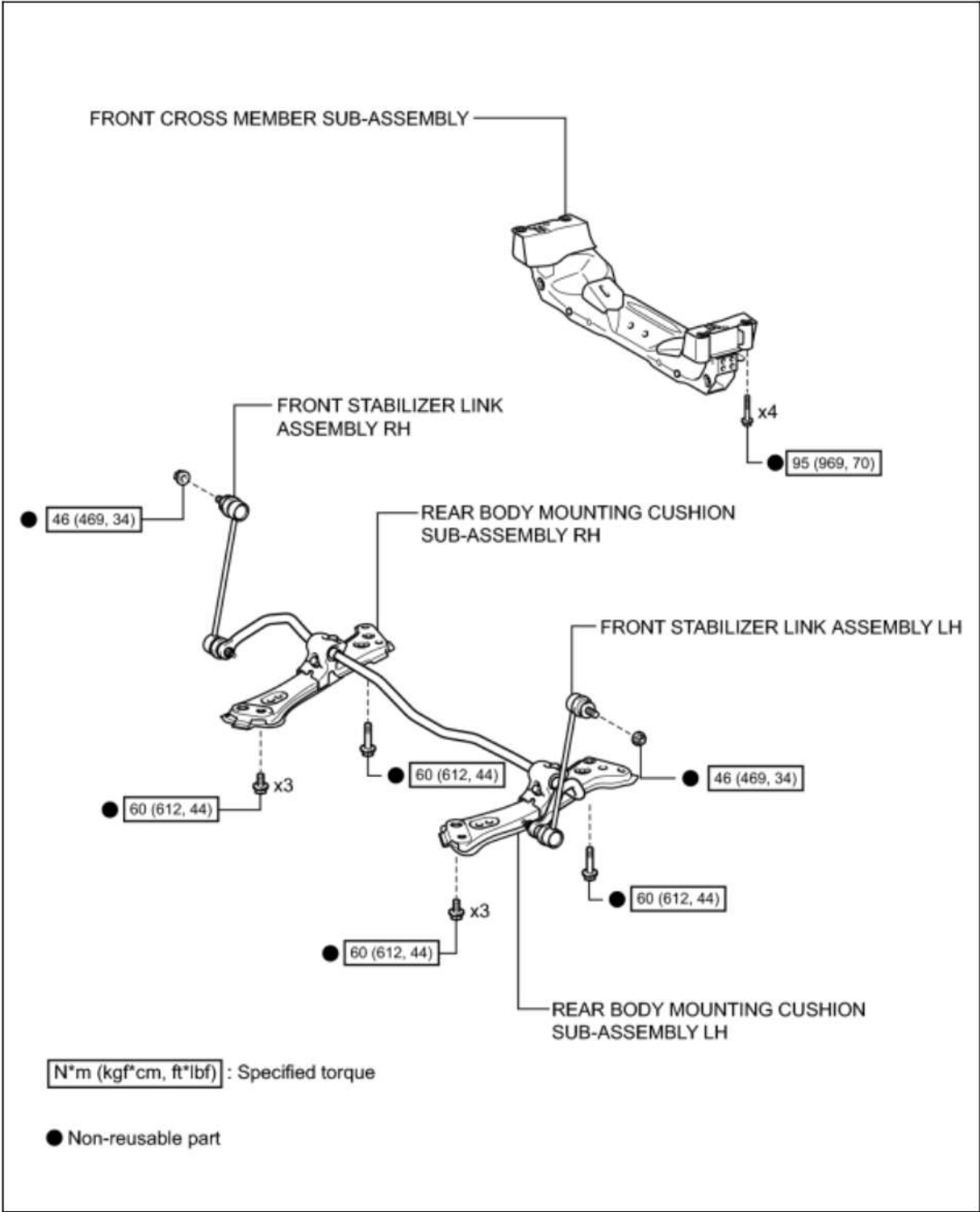
Use the same procedure for the RH side as for the LH side.



Last Modified: 3-27-2012	6.4 K	From: 201203
Model Year: 2013	Model: FR-S	Doc ID: RM0000035CJ01DX
Title: FRONT SUSPENSION: FRONT SUSPENSION MEMBER: COMPONENTS (2013 FR-S)		

COMPONENTS

ILLUSTRATION



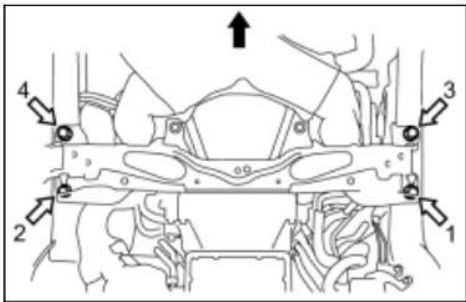
cardiagn.com

Last Modified: 3-27-2012	6.4 A	From: 201203
Model Year: 2013	Model: FR-S	Doc ID: RM0000034GK01OX
Title: FRONT SUSPENSION: FRONT SUSPENSION MEMBER: INSTALLATION (2013 FR-S)		

INSTALLATION

1. INSTALL FRONT CROSS MEMBER SUB-ASSEMBLY

(a) Tighten 4 new bolts in the order shown in the illustration, and temporarily install the front cross member sub-assembly.



Text in Illustration

	Front of vehicle
	Bolt

(b) Tighten the 4 bolts.
Torque: 95 N·m (969 kgf·cm, 70ft·lbf)

2. ADJUST SHIFT LEVER POSITION (for Automatic Transmission)

NOTICE:
If the front cross member sub-assembly mounting bolts are loosened even if only slightly, check adjustment with the shift lever INFO .

3. INSTALL RACK AND PINION POWER STEERING GEAR ASSEMBLY

INFO

4. INSTALL REAR BODY MOUNTING CUSHION SUB-ASSEMBLY LH INFO

5. INSTALL REAR BODY MOUNTING CUSHION SUB-ASSEMBLY RH

HINT:

Perform the same procedure as the LH side.

6. INSTALL FRONT STABILIZER LINK ASSEMBLY LH INFO

7. INSTALL FRONT STABILIZER LINK ASSEMBLY RH**HINT:**

Perform the same procedure as the LH side.

8. INSTALL FRONT LOWER SUSPENSION ARM ASSEMBLY LH

INFO

9. INSTALL FRONT LOWER SUSPENSION ARM ASSEMBLY RH**HINT:**

Perform the same procedure as the LH side.

10. INSTALL ENGINE ASSEMBLY

INFO

11. INSPECT STEERING WHEEL CENTER POINT**12. INSPECT AND ADJUST FRONT WHEEL ALIGNMENT**

INFO

13. VSC SENSOR NEUTRAL MEMORIZATION

INFO



Last Modified: 3-27-2012	6.4 A	From: 201203
Model Year: 2013	Model: FR-S	Doc ID: RM0000034GL01OX
Title: FRONT SUSPENSION: FRONT SUSPENSION MEMBER: REMOVAL (2013 FR-S)		

REMOVAL

1. REMOVE ENGINE ASSEMBLY

INFO

2. REMOVE FRONT LOWER SUSPENSION ARM ASSEMBLY LH

INFO

3. REMOVE FRONT LOWER SUSPENSION ARM ASSEMBLY RH

HINT:

Perform the same procedure as the LH side.

4. SEPARATE FRONT STABILIZER LINK ASSEMBLY LH

INFO

5. SEPARATE FRONT STABILIZER LINK ASSEMBLY RH

HINT:

Perform the same procedure as the LH side.

6. REMOVE REAR BODY MOUNTING CUSHION SUB-ASSEMBLY LH

INFO

7. REMOVE REAR BODY MOUNTING CUSHION SUB-ASSEMBLY RH

HINT:

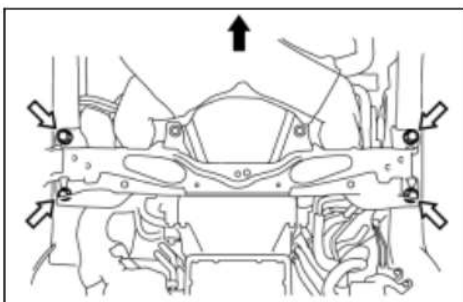
Perform the same procedure as the LH side.

8. REMOVE RACK AND PINION POWER STEERING GEAR ASSEMBLY

INFO

9. REMOVE FRONT CROSS MEMBER SUB-ASSEMBLY

- (a) Remove the 4 bolts and front cross member sub-assembly.



Text in Illustration

	Vehicle of front side
	Bolt

 TOYOTA

Last Modified: 3-27-2012	6.4 T	From: 201203
Model Year: 2013	Model: FR-S	Doc ID: RM000003CRU02CX
Title: FRONT SUSPENSION: FRONT SUSPENSION SYSTEM: PROBLEM SYMPTOMS TABLE (2013 FR-S)		

PROBLEM SYMPTOMS TABLE

HINT:

Use the table below to help determine the cause of problem symptoms. If multiple suspected areas are listed, the potential causes of the symptoms are listed in order of probability in the "Suspected Area" column of the table. Check each symptom by checking the suspected areas in the order they are listed. Replace parts as necessary.

Front Suspension System

SYMPTOM	SUSPECTED AREA	SEE PAGE
Vehicle pulls to one side while driving	Tire (worn or improperly inflated)	INFO
	Front wheel alignment (incorrect)	INFO
	Rear wheel alignment (incorrect)	INFO
	Front hub bearing (worn)	INFO
	Front shock absorber (worn)	INFO
	Rear shock absorber (worn)	INFO
Bottoming	Vehicle (overloaded)	-
	Front shock absorber (worn)	INFO
	Rear shock absorber (worn)	INFO
Sways/pitches	Tire (worn or improperly inflated)	INFO
	Front shock absorber (worn)	INFO
	Rear shock absorber (worn)	INFO
Wheel shimmy	Tire (worn or improperly inflated)	INFO
	Wheel (out of balance)	INFO
	Front wheel alignment (incorrect)	INFO
	Front lower suspension arm (worn)	INFO
	Front shock absorber (worn)	INFO
	Front hub bearing (worn)	INFO
Abnormal tire wear	Tire (worn or improperly inflated)	INFO
	Wheel (out of balance)	INFO
	Front wheel alignment (incorrect)	INFO
	Rear wheel alignment (incorrect)	INFO

