Part Number: PTR07-74110

Kit Contents:

Item #	Quantity Reqd.	Description
1	2	Front Spring
2	2	Rear Spring
3	2	Jounce Bumper, Front

Hardware Bag Contents

Item #	Quantity Reqd.	Description

Additional Items Required For Installation

Item #	Quantity Reqd.	Description
1		
2		
3		

Conflicts

None

Recommended Tools

Personal & Vehicle Protection	**Notes**
Fender Cover	
Special Tools	**Notes**
Spring Compressor	
Installation Tools	**Notes**
Special Chemicals	**Notes**

General Applicability

SCION iQ (Gas Powered Car)

Recommended Sequence of Application

Item #	Accessory
1	TRD Springs
2	TRD Sway Bar Kit

* Mandatory

Vehicle Service Parts (may be required for reassembly)

Item #	Quantity Reqd.	Description
1	90468-16022	Clip, Rod End
2	90171-12002	Castle Nut
3		

Legend

STOP: Damage to the vehicle may occur. Do not proceed until process has been complied with.

OPERATOR SAFETY: Use caution to avoid risk of injury.

CAUTION: A process that must be carefully observed in order to reduce the risk of damage to the accessory/vehicle and to ensure a quality installation.

TOOLS & EQUIPMENT: Used in Figures calls out the specific tools and equipment recommended for this process.

REVISION MARK: This mark highlights a change in installation with respect to previous issue.

SAFETY TORQUE: This mark indicates that torque is related to safety.

Care must be taken when installing this accessory to ensure damage does not occur to the vehicle. The installation of this accessory should follow approved guidelines to ensure a quality installation

These guidelines can be found in the "Accessory Installation Practices" document.

This document covers such items as:

- Vehicle Protection (use of covers and blankets, cleaning chemicals, etc.).
- Safety (eye protection, rechecking torque procedure, etc.).
- Vehicle Disassembly/Reassembly (panel removal, part storage, etc.).
- Electrical Component Disassembly/Reassembly (battery disconnection, connector removal, etc.).

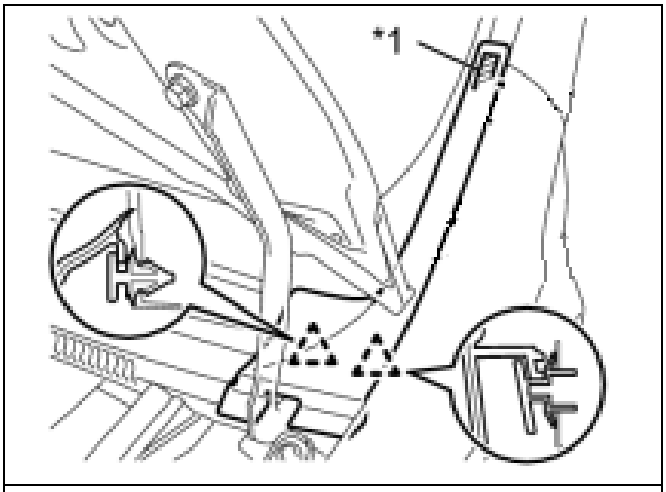
1. Put Fender Covers In Place.

2. Remove Cowl Pan.

(a) Remove front wiper arm head caps.

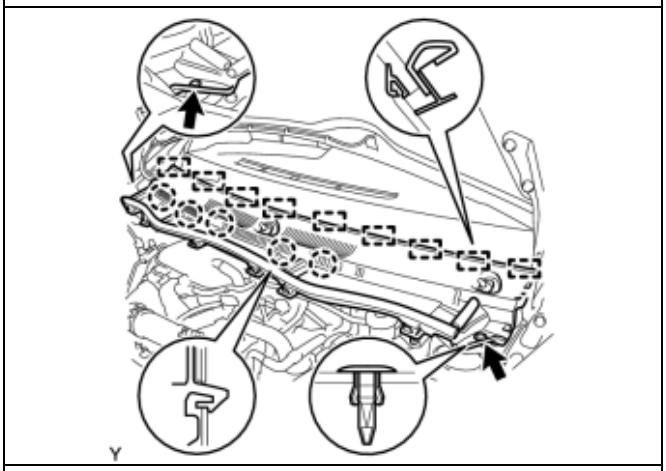
(b) Remove front wiper arm and blade assemblies left and right.

(c) Disengage front fender to cowl side seals, LH and RH so that the center portion can be removed from the vehicle.



(1) Do NOT remove the side seals. *1 area is double sided sticky tape and should not be removed.

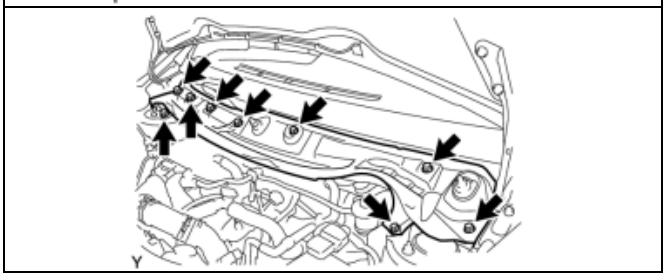
(d) Remove cowl top vent louver sub-assembly.



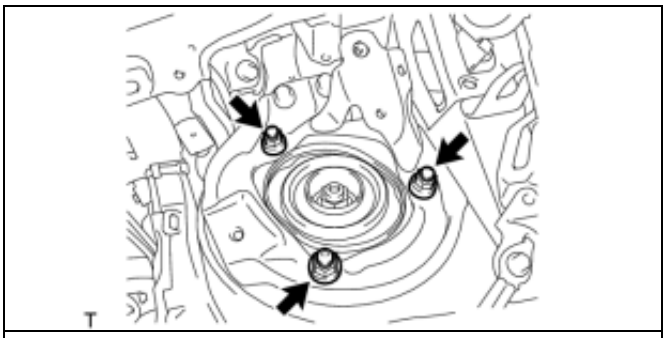
(1) Remove the 2 clips (arrow).

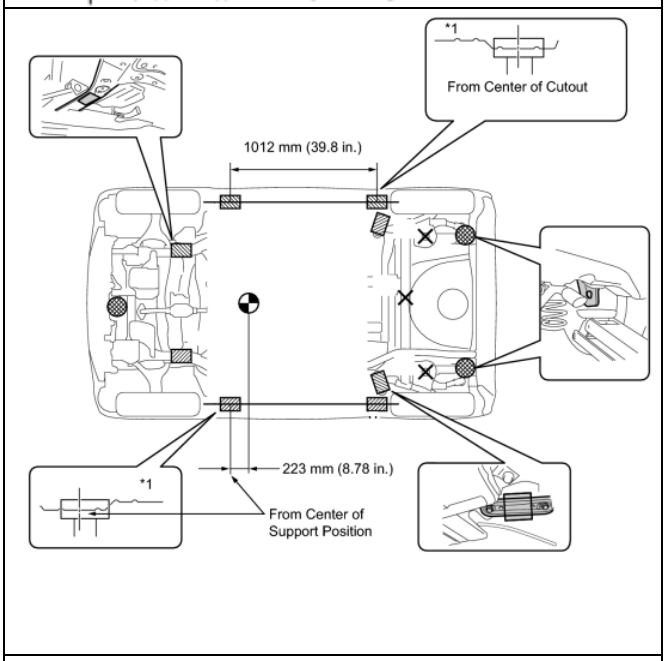
(2) Disengage the 5 claws and pull assembly forward remove the cowl top ventilator louver.

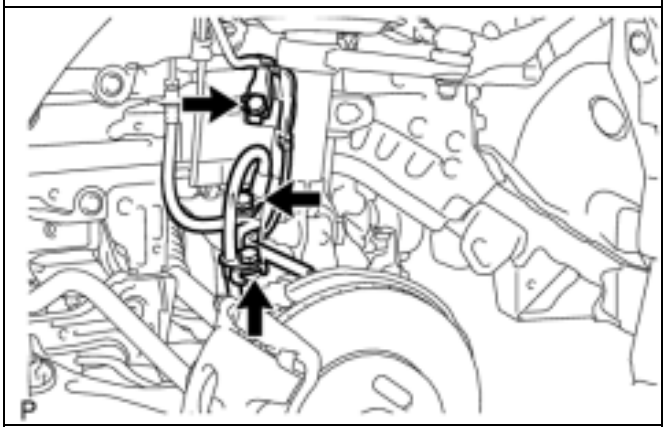
(e) Remove cowl panel sub-assembly.

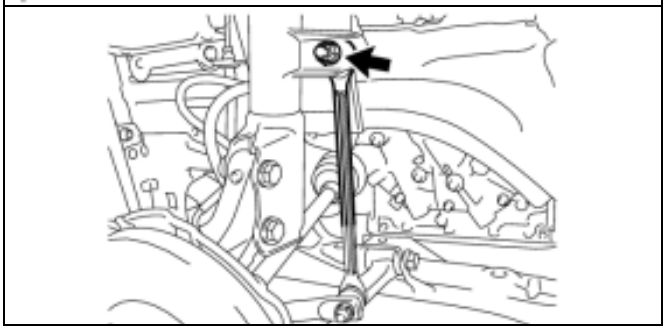


(1) Remove the 9 bolts and remove the cowl panel.









3. Remove Strut Assembly

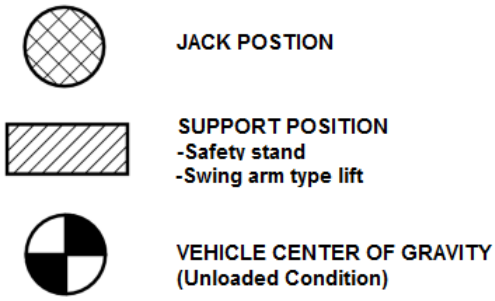
(a) Remove the two rearward strut support nuts and loosen the front nut. (Do not remove the front nut.)

(b) Loosen the shock nut. (Do not remove this nut.)

(1) Remove strut support dust cover.

(c) Raise vehicle and remove front wheels.

NOTE: TRD Strongly recommends you either place additional weight in the trunk OR place a safety stand under the front "jack position" while the vehicle is supported off the ground at the pinch seam vehicle support positions.



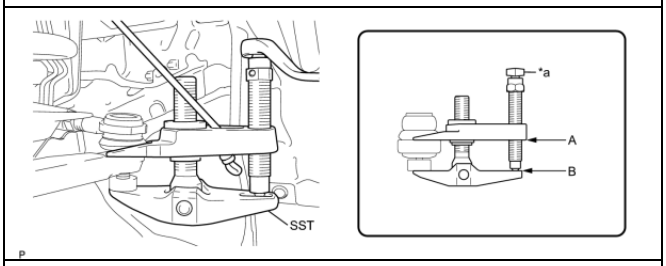
(d) Separate front speed sensor wire and flexible brake line.

(1) Remove the 3 bolts and separate the front speed sensor wire and front flexible hose.

(e) Separate front stabilizer link assembly.

(1) Remove the nut and separate the stabilizer link assembly from the front shock absorber.

HINT: If the ball joint turns together with the nut,



use a wrench to hold the stud bolt.

(f) Separate tie rod end sub-assembly.

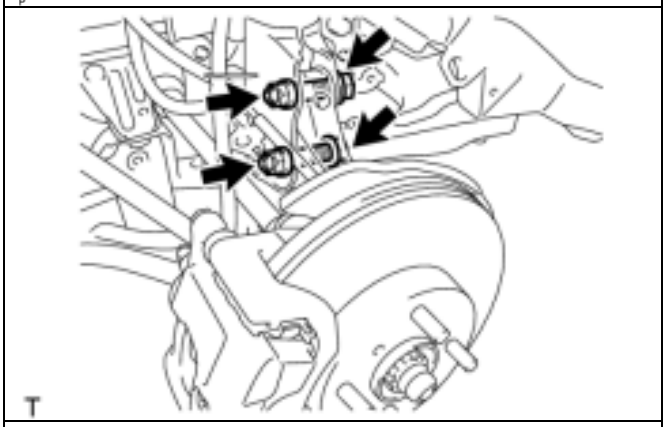
(1) Remove the spring clip and castle nut.

(2) Using SST, separate the tie rod end from the front axle assembly.

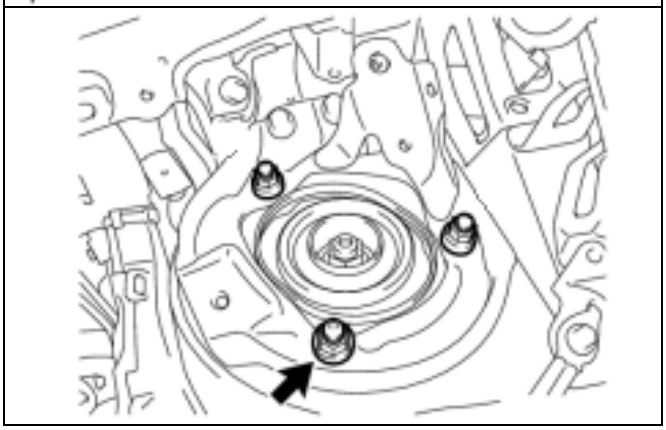
(g) Remove front shock absorber with coil spring.

(1) Remove the 2 nuts and 2 bolts and separate the front shock absorber with coil spring from the steering knuckle.

HINT: Keep the bolt from rotating while loosening and removing the nuts.

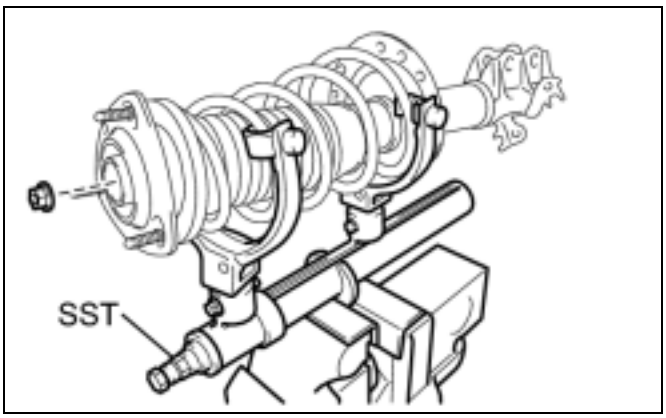


(2) Remove the last nut and the front shock absorber with coil spring.

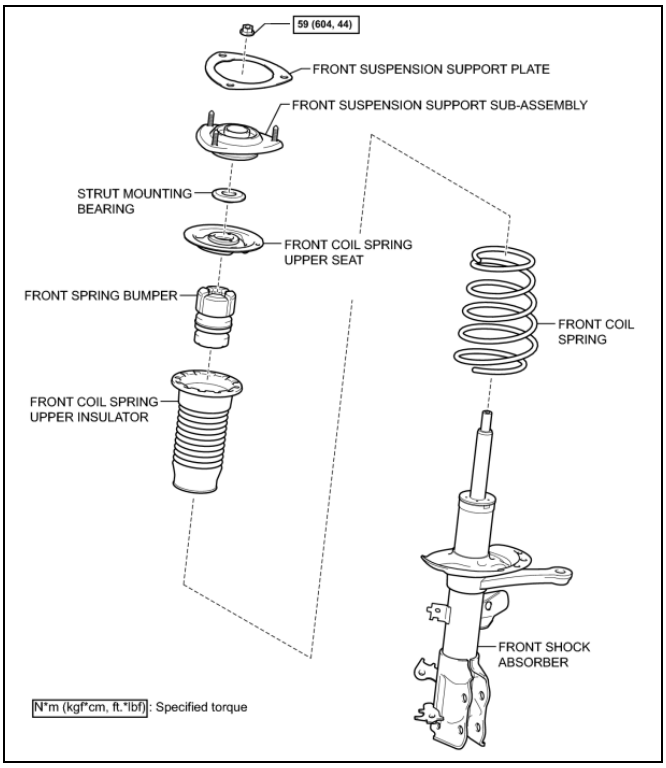


4. Disassemble Strut Assembly

(a) Using a quality spring compressor, compress the coil spring.



(b) Remove the front shock absorber nut and front suspension support sub-assembly.



(c) Remove front spring bumper and discard.

(d) Remove front coil spring and discard.

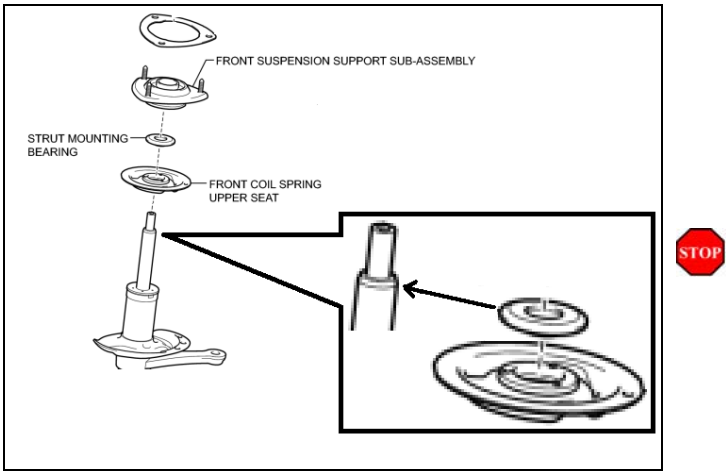
5. Reassemble Strut Assembly

(a) Install front coil spring.

(1) Using a spring compressor, compress the front spring.

(2) Install the front coil spring onto the front shock absorber. The lower spring end will fit into the channel on the lower spring seat.

NOTE: The smaller-diameter end of the spring is the upper end.



(b) Install front coil spring upper insulator.

(c) Install supplied front spring bumper.

(1) Larger opening will face downward.

(d) Install front spring coil spring upper seat.

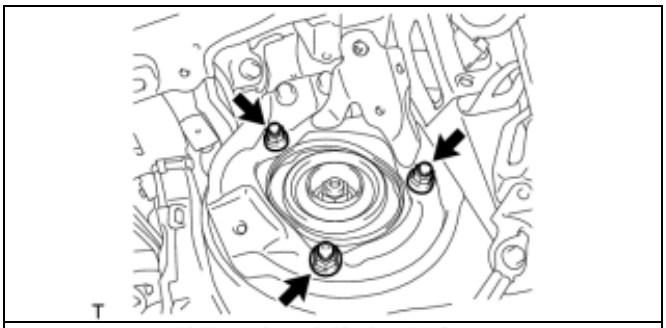
(e) Install strut mounting bearing.

NOTE: Confirm that strut bearing is supported by the large diameter of the shock shaft before tightening down the support sub-assembly.

(f) Install front suspension support sub-assembly.

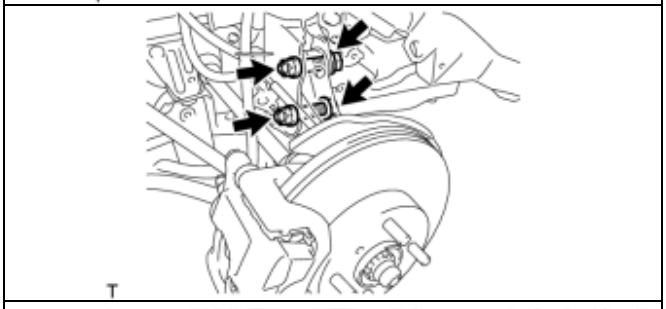
(1) Temporarily tighten shock absorber nut.

6. Install Strut Assembly



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

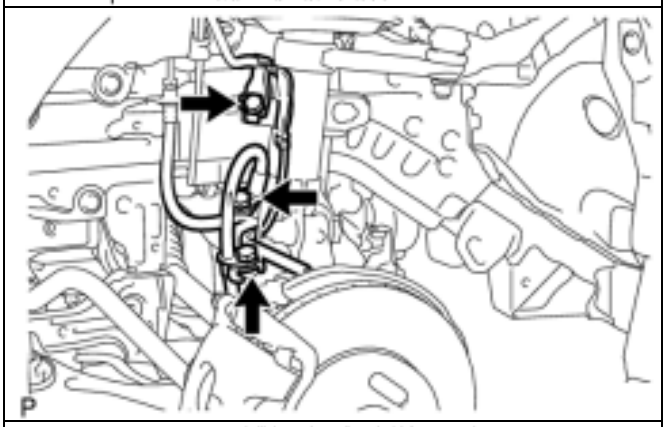
Torque: 39 N·m (398 kgf·cm, 29ft·lbf)



(b) Install the front shock absorber with coil spring onto the steering knuckle.

(1) Install the 2 bolts and 2 nuts.

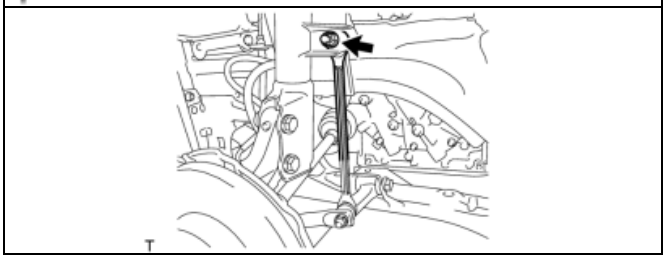
Torque: 164 N·m (1672 kgf·cm, 121ft·lbf)



(c) Install the front flexible hose and front speed sensor with the 3 bolts.

Torque: 29 N·m (300 kgf·cm, 22ft·lbf)

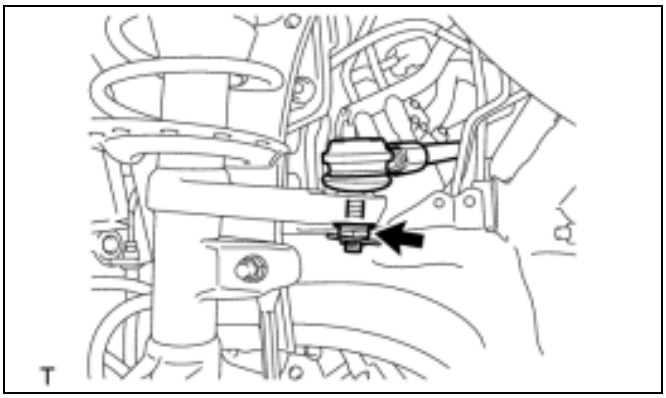
NOTE: Install the flexible hose and speed sensor without twisting them.



(d) Attach the front stabilizer link with the nut.

Torque: 74 N·m (755 kgf·cm, 55ft·lbf)

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



(e) Install the tie rod sub-assembly end onto the steering knuckle with a the castle nut.

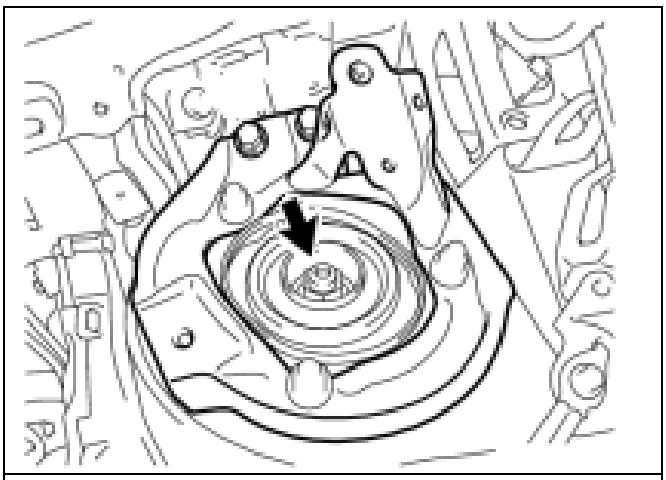
Torque: 59 N·m (600 kgf·cm, 43ft·lbf)

NOTE: If the holes for the clip are not aligned, tighten the nut by a further turn of up to 60°.

WARNING: If the castle nut is damaged, replace it with a new one.

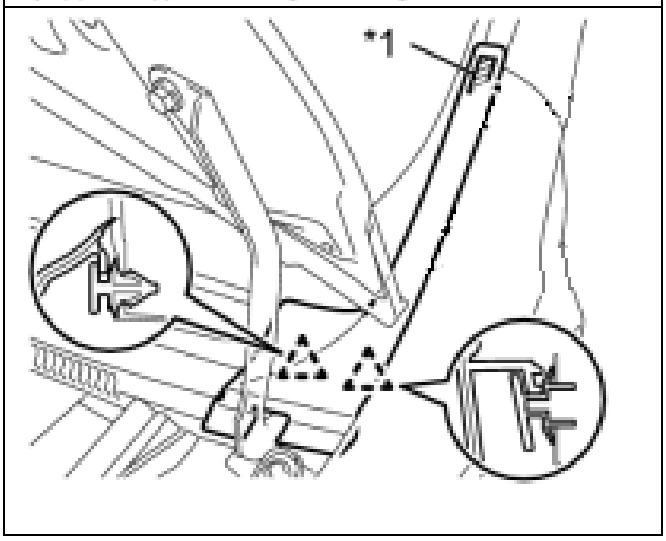
(f) Install front wheel.

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



(g) Fully tighten the front support to front shock absorber nut, once vehicle is lowered onto the ground.

Torque: 59 N·m (604 kgf·cm, 44ft·lbf)



(h) Install cowl panel sub-assembly.

(1) Install the cowl panel with 9 bolts.

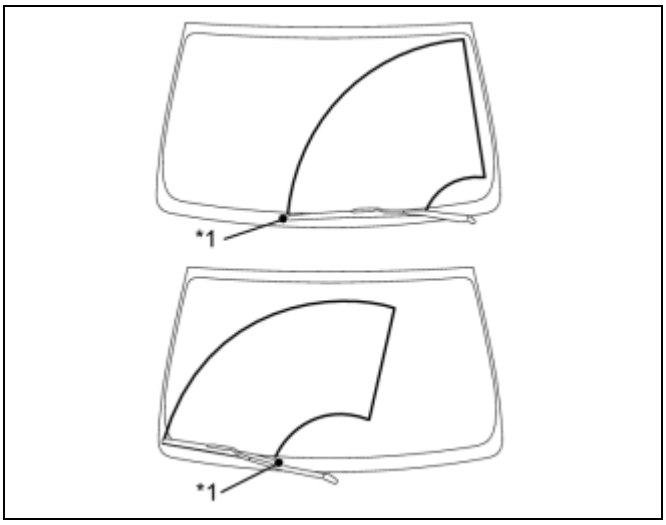
Torque: 5.5 N·m (56 kgf·cm, 49in·lbf)

(i) Install cowl top sub-assembly.

(1) Engage the 9 guides and 5 claws and install the cowl top ventilator louver.

(2) Install the 2 clips.

(3) Engage cowl side seal clips to the cowl top sub-assembly.



(j) Install wiper arms.

(1) Align the blade tips with the mark on the glass, as shown in the illustration.

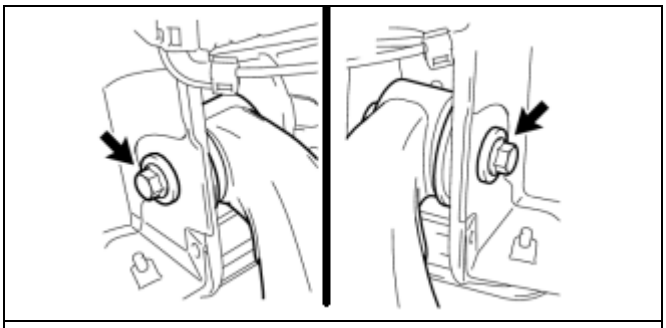
NOTE: There is only 1 dot on the iQ windshield.

(k) Tighten the nuts on the front wiper arms.

Torque: 26 N·m (265 kgf·cm, 19ft·lbf)

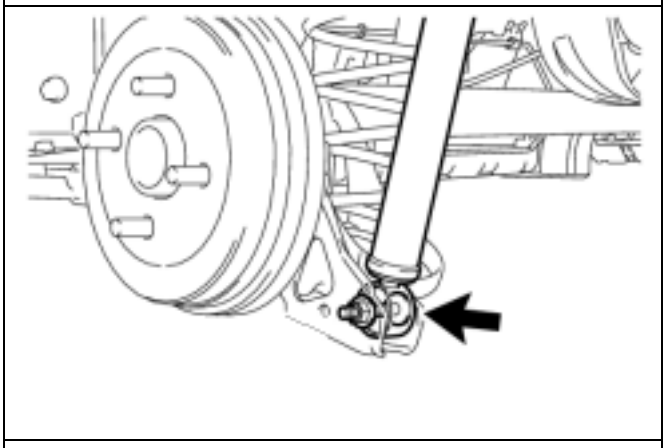
(l) Install the 2 front wiper arm head caps.

7. Install TRD Rear Springs



(a) Loosen 2 rear beam axle assembly bolts.

NOTE: DO NOT REMOVE THEM.

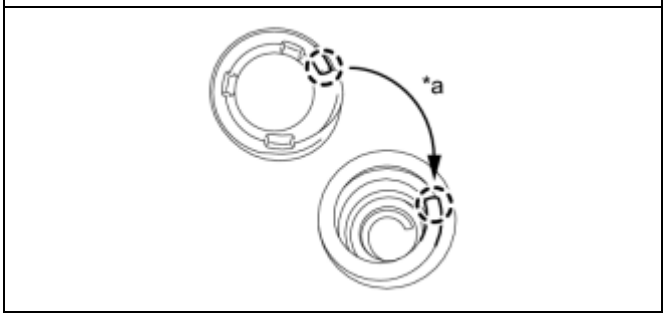


NOTE: Perform the following procedures one side at a time so that the beam axle does not swing down.

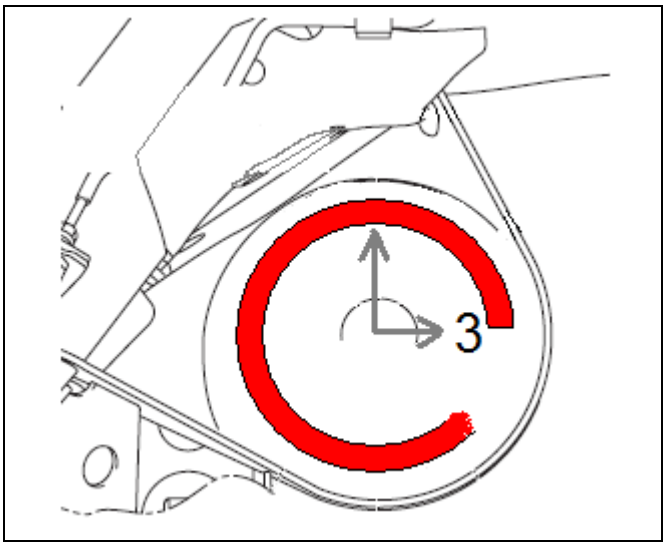
(b) Separate lower end of shock absorber from beam axle.

(1) Turn bolt head, not the nut.

(c) Pull down on beam axle and remove original spring.



(d) Transfer upper spring insulator to TRD Spring.



(e) Install TRD rear spring.

(1) Lower end of coil spring should be placed in the 3 o'clock position on the beam axle spring seat.

HINT: Both lower spring ends should be lined up with the passenger rear wheel.

(f) Provisionally install the shock absorber (lower side) with the bolt and nut to the axle beam.

(g) Tighten beam axle bolts and shock bolts.

(1) Lower vehicle so weight is supported by the tires.

Beam Axle:

Torque: 90 N·m (918 kgf·cm, 67ft·lbf)

Shock:

Torque: 49 N·m (500 kgf·cm, 36ft·lbf)

Torque beam axle bolts and shock bolts.

(h) Align vehicle.

(1) Specs below are correctly modified for a TRD lowered SCION iQ.

Front:

Camber: -0°26' +/- 45' (-0.43° +/- 0.75°)

Caster: 7°27' +/- 45' (7.45° +/- 0.75°)

Total Toe: 1.7 +/- 1.0 mm (0.0669 +/- 0.0394 in.)

Rear:

Camber: -1°15' +/- 30' (-1.25°+/- 0.5°)

Total Toe: 5.1 +/- 3.0 mm (0.201 +/- 0.118 in.)

Checklist. These points MUST be checked to ensure a quality installation.

CHECK FOR:	LOOK FOR:
Accessory Function Checks	
☒ Spring Noise	There should be no noise coming from the springs. If you hear noise when driving the vehicle, review the installation.
☐	
☐	
☐	
Vehicle Function Checks	
☒ Wipers	Confirm wipers are operating properly and not contacting the edge of the windshield.
☐	
☐	
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