

Last Modified: 12-04-2024	6.11:8.1.0	Doc ID: RM1000000029PNJ
Model Year Start: 2023	Model: Prius Prime	Prod Date Range: [12/2022 -]
Title: FRONT SUSPENSION: FRONT SHOCK ABSORBER: REMOVAL; 2023 - 2024 MY Prius Prius Prime [12/2022 -]		

REMOVAL

CAUTION / NOTICE / HINT

The necessary procedures (adjustment, calibration, initialization, or registration) that must be performed after parts are removed and installed, or replaced during front shock absorber assembly removal/installation are shown below.

Necessary Procedures After Parts Removed/Installed/Replaced

REPLACED PART OR PERFORMED PROCEDURE	NECESSARY PROCEDURE	EFFECT/INOPERATIVE FUNCTION WHEN NECESSARY PROCEDURE NOT PERFORMED	LINK
Front wheel alignment adjustment	Perform "Calibration"	<ul style="list-style-type: none"> • DTCs are stored • ABS warning light illuminates • Brake system warning light (yellow indicator) illuminates • Slip indicator light illuminates • Electronically controlled brake system disabled or malfunctions 	INFO
Suspension parts	Rear television camera assembly optical axis (Back camera position setting)	Parking Assist Monitor System	INFO
	Parking assist ECU initialization	Panoramic View Monitor System	INFO
		Advanced Park	INFO
Tires	<ul style="list-style-type: none"> • Initialization*1*2 • Tire Position Identification*1*2 	Tire Pressure Warning System	Refer to Procedures Necessary When Replacing Parts (for Tire Pressure Warning System) INFO
	Rear television camera assembly optical axis (Back camera position	Parking Assist Monitor System	INFO
<p>*1: Also necessary after performing a tire rotation.</p> <p>*2: It is not necessary to perform this procedure if the tire pressure warning valve and transmitters are installed to the same location.</p> <p>*3: The vehicle height changes because of tire replacement.</p>			

REPLACED PART OR PERFORMED PROCEDURE	NECESSARY PROCEDURE	EFFECT/INOPERATIVE FUNCTION WHEN NECESSARY PROCEDURE NOT PERFORMED	LINK
	setting)		
	Parking assist ECU initialization*3	Panoramic View Monitor System	INFO
		Advanced Park	INFO

*1: Also necessary after performing a tire rotation.

*2: It is not necessary to perform this procedure if the tire pressure warning valve and transmitters are installed to the same location.

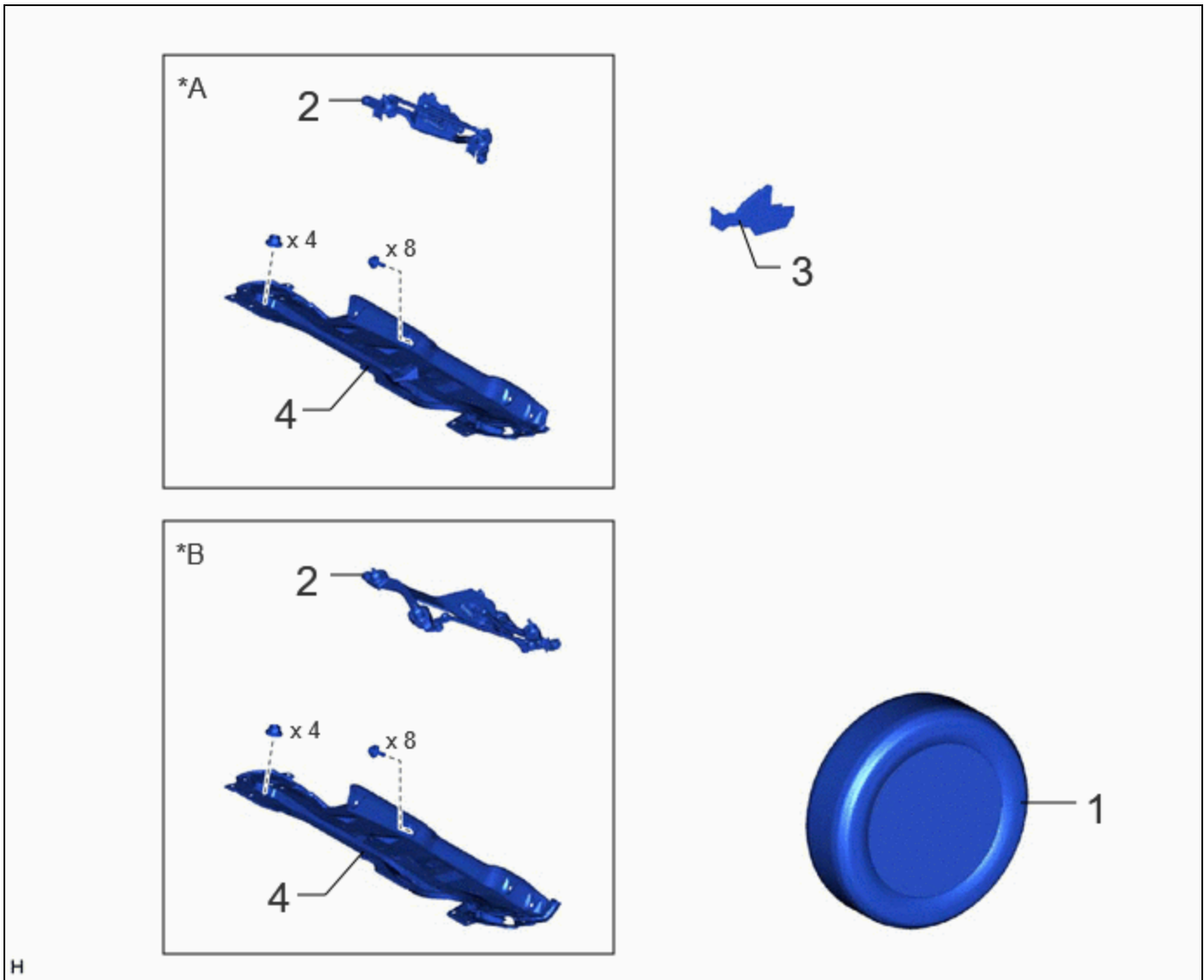
*3: The vehicle height changes because of tire replacement.

HINT:




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

CAUTION / NOTICE / HINT

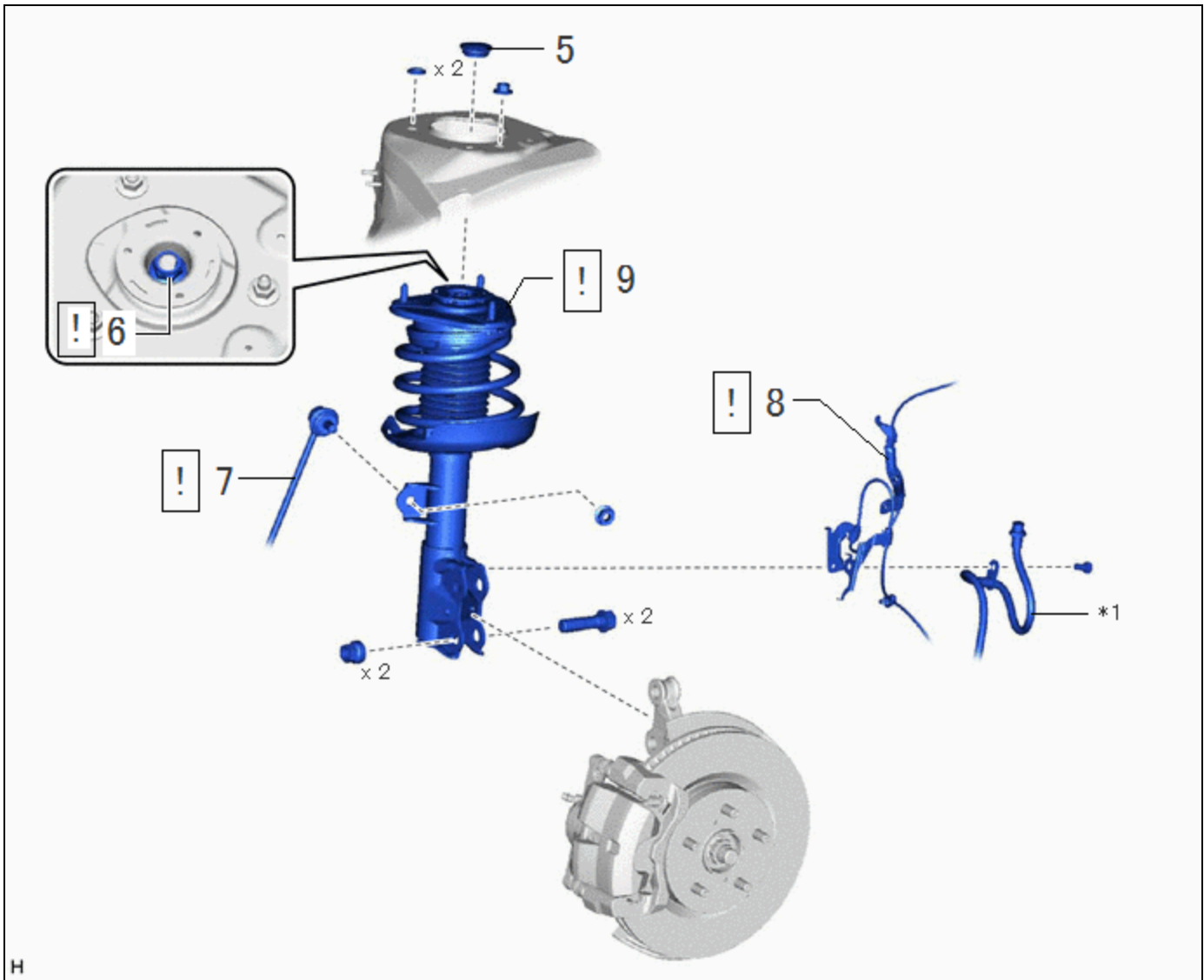
COMPONENTS (REMOVAL)



H

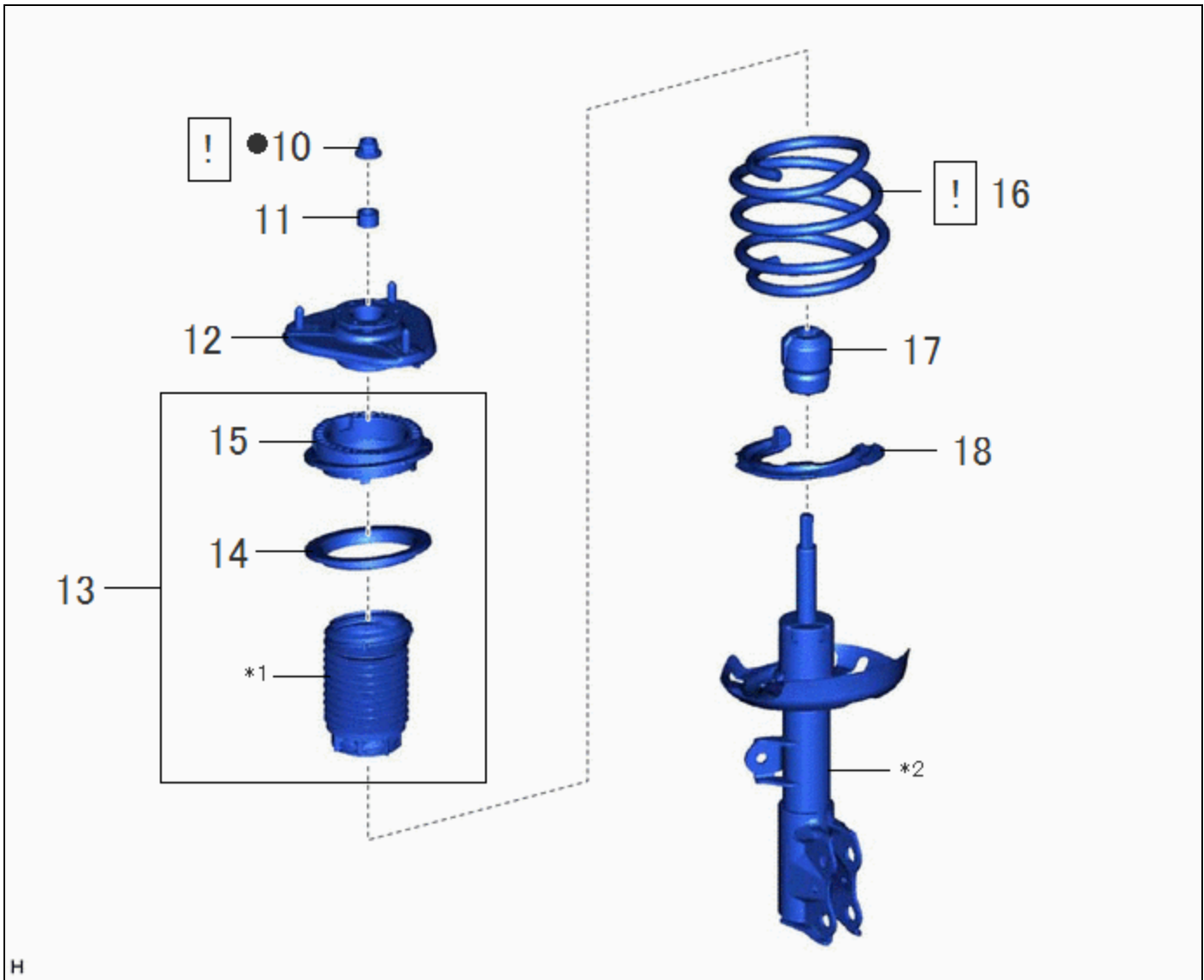
PROCEDURE		PART NAME CODE			
1	FRONT WHEEL	-	-	-	-
2	WINDSHIELD WIPER MOTOR AND LINK ASSEMBLY	-	-	-	-
3	WATER GUARD PLATE	55734D	-	-	-
4	OUTER COWL TOP PANEL SUB-ASSEMBLY	55701J	-	-	-

*A	for 2ZR-FXE	*B	for M20A-FXS
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PROCEDURE		PART NAME CODE			
5	FRONT SUSPENSION SUPPORT DUST COVER	48684B	-	-	-
6	FRONT SUPPORT TO FRONT SHOCK ABSORBER NUT	48609E	INFO	-	-
7	FRONT STABILIZER LINK ASSEMBLY	48810	INFO	-	-
8	FRONT SPEED SENSOR	89543	INFO	-	-
9	FRONT SHOCK ABSORBER WITH COIL SPRING	-	INFO	-	-

*1	FRONT FLEXIBLE HOSE	-	-
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PROCEDURE		PART NAME CODE			
10	FRONT SUPPORT TO FRONT SHOCK ABSORBER NUT	48609E	INFO	-	-
11	COLLAR	-	-	-	-
12	FRONT SUSPENSION SUPPORT SUB-ASSEMBLY	48609	-	-	-
13	STRUT MOUNTING BEARING WITH DUST COVER	-	-	-	-
14	FRONT UPPER COIL SPRING INSULATOR	48157C	-	-	-
15	STRUT MOUNTING BEARING	48619A	-	-	-
16	FRONT COIL SPRING	48132	INFO	-	-
17	FRONT SPRING BUMPER	48331C	-	-	-
18	FRONT LOWER COIL SPRING INSULATOR	48158C	-	-	-

*1	FRONT NO. 1 SHOCK ABSORBER DUST COVER	*2	FRONT SHOCK ABSORBER ASSEMBLY
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• Non-reusable part	-	-
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PROCEDURE

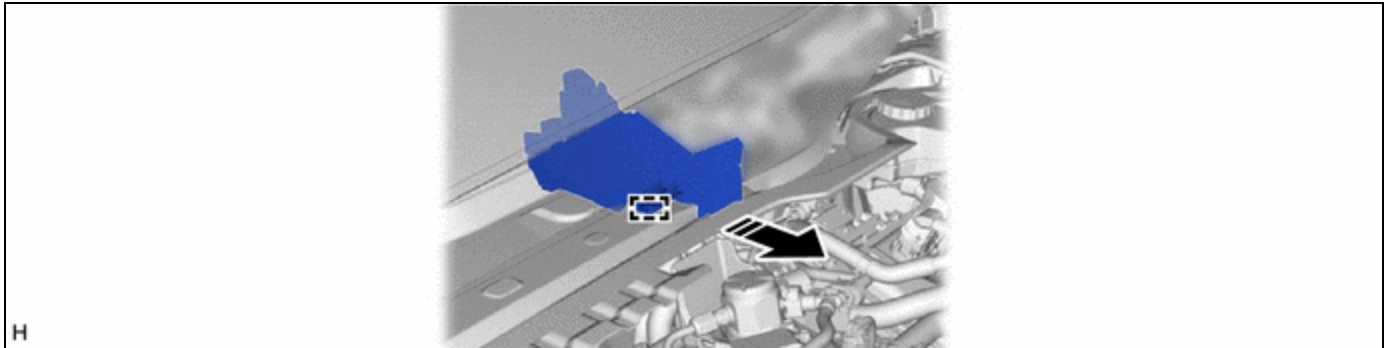
1. REMOVE FRONT WHEEL

Click here [INFO](#)

2. REMOVE WINDSHIELD WIPER MOTOR AND LINK ASSEMBLY

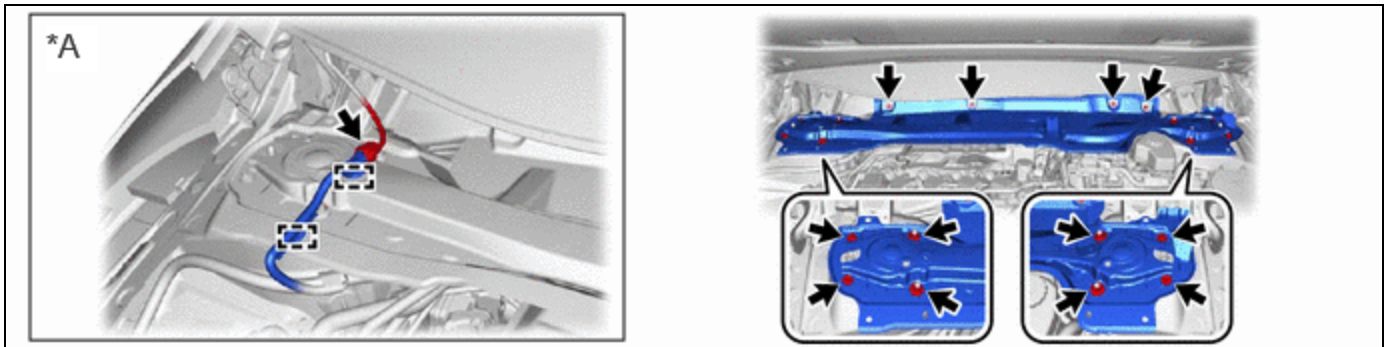
Click here [INFO](#)

3. REMOVE WATER GUARD PLATE



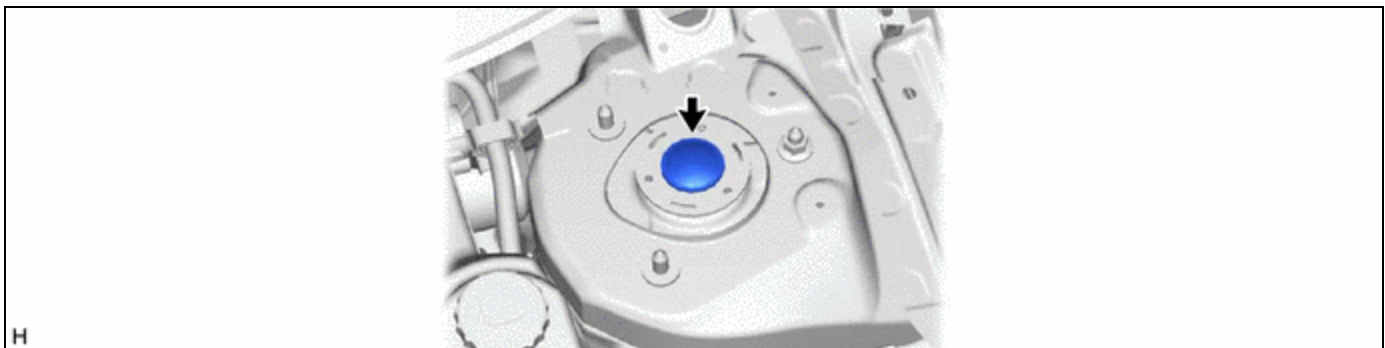
	Remove in this Direction	-	-
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4. REMOVE OUTER COWL TOP PANEL SUB-ASSEMBLY

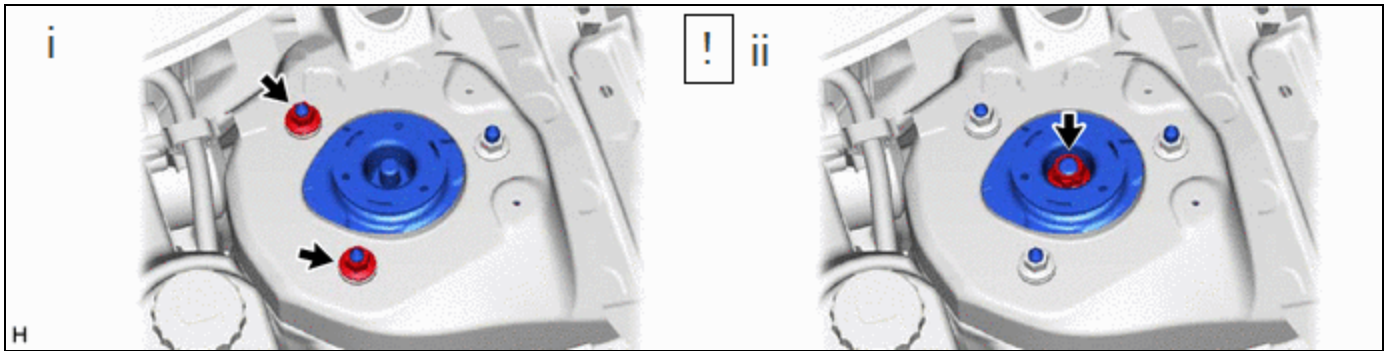


*A	w/ Windshield Deicer	-	-
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5. REMOVE FRONT SUSPENSION SUPPORT DUST COVER



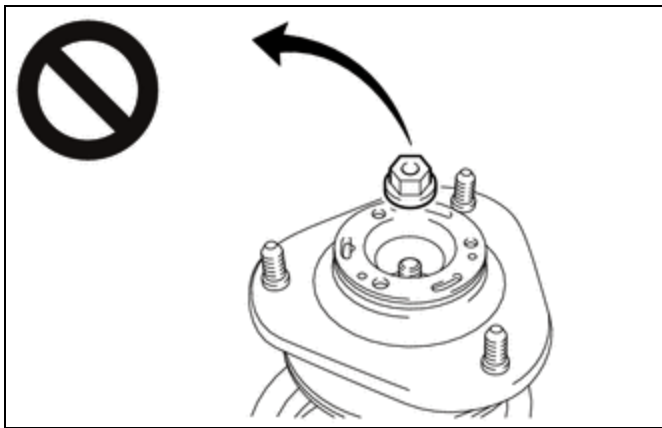
6. LOOSEN FRONT SUPPORT TO FRONT SHOCK ABSORBER NUT



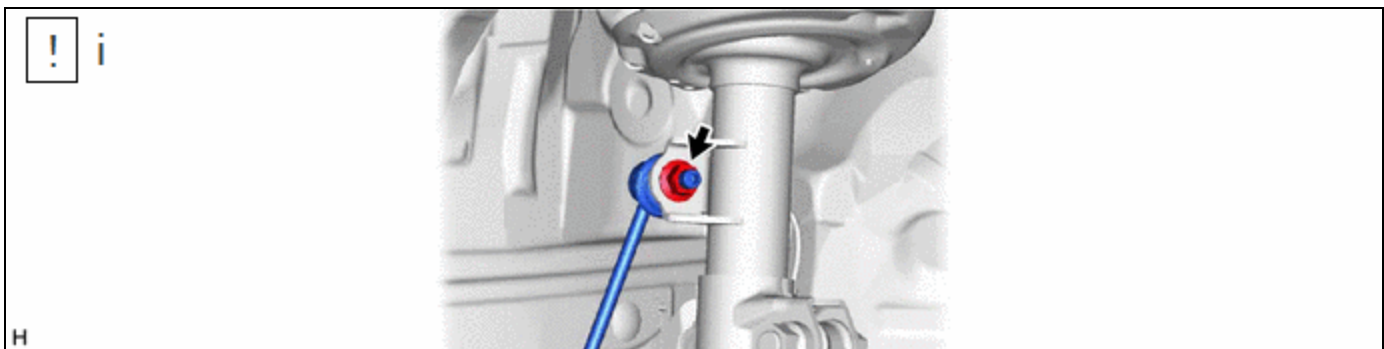
- (1) Temporarily install the 2 nuts to the front shock absorber assembly.
- (2) Loosen the front support to front shock absorber nut.

CAUTION:

- Only loosen the front support to front shock absorber nut if the front shock absorber with coil spring needs to be disassembled.
- Only loosen the front support to front shock absorber nut, do not remove it.
- If the front support to front shock absorber nut is removed with the front coil spring under tension, components of the front shock absorber with coil spring may fly off.



7. SEPARATE FRONT STABILIZER LINK ASSEMBLY



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


NOTICE:

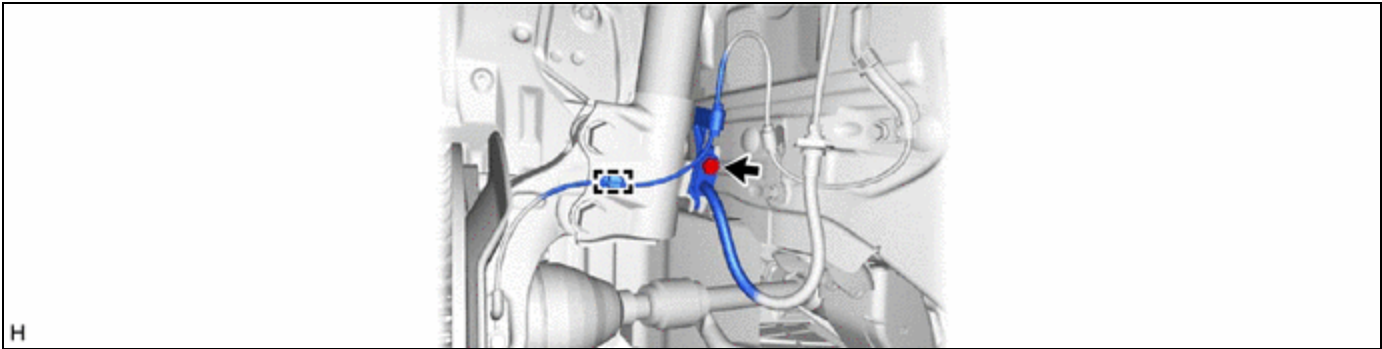
Do not damage the boot of the ball joint.

HINT:


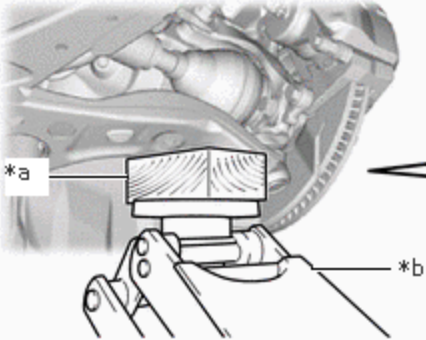
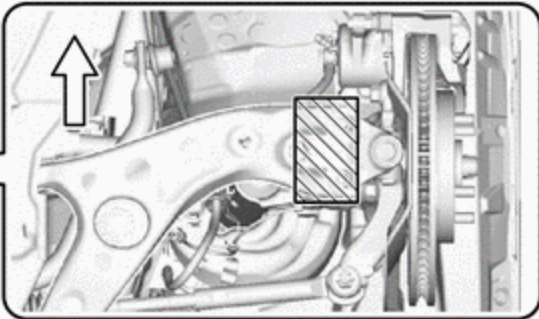

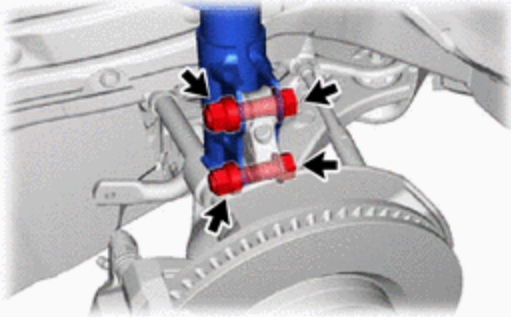

If the ball joint turns together with the nut, use a 6 mm hexagon socket wrench to hold the stud bolt.



8. SEPARATE FRONT SPEED SENSOR

	<p>NOTICE:</p> <p>Be sure to separate the front speed sensor and front flexible hose from the front shock absorber assembly completely.</p>
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9. REMOVE FRONT SHOCK ABSORBER WITH COIL SPRING

	<p>i</p> 	
	<p>ii</p> 	<p>iii</p> 

*a	Wooden Block	*b	Jack
	Front of the Vehicle		Wooden Block Placement Location

(1) Support the front lower No. 1 suspension arm sub-assembly using a jack and wooden block.

NOTICE:

Keep the front lower No. 1 suspension arm sub-assembly supported until installation of the front shock absorber with coil spring is complete.

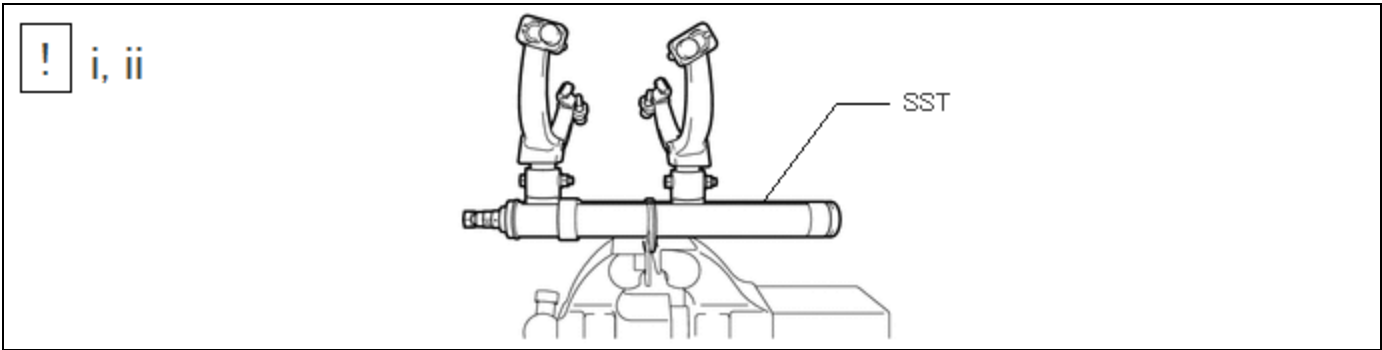
(2) Remove the 2 bolts and 2 nuts, and separate the front shock absorber with coil spring (lower side) from the steering knuckle.

NOTICE:

- When removing the nuts, keep the bolts from rotating.
- Use wire or an equivalent tool to hang the separated steering knuckle.

(3) Remove the 3 nuts, 2 spacers and front shock absorber with coil spring from the vehicle.

10. REMOVE FRONT SUPPORT TO FRONT SHOCK ABSORBER NUT



(1) Secure SST in a vise.

SST: 09727-00051

SST: 09727-30022

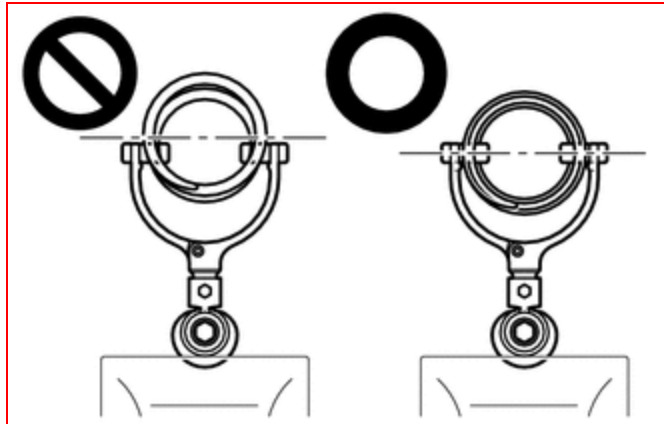
09727-00010

09727-00031

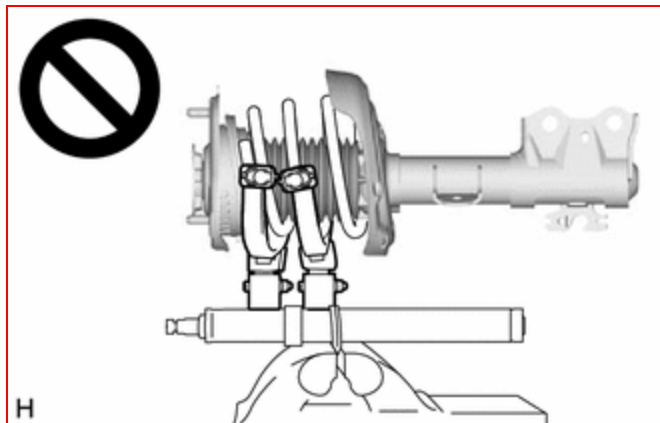
(2) Attach the hooks of each SST arm across the diameter of the coil spring.

CAUTION:

- Make sure that the hooks are securely attached to the coil spring.



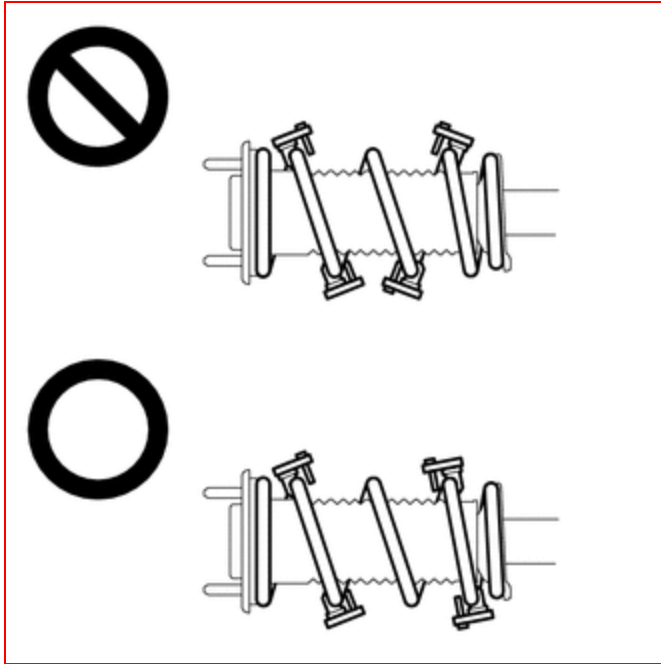
- If a hook disengages from the coil spring, the coil spring may fly out, resulting in injury.
- Make sure that the hooks of the upper and lower SST arms are attached to the coil spring so that the distance



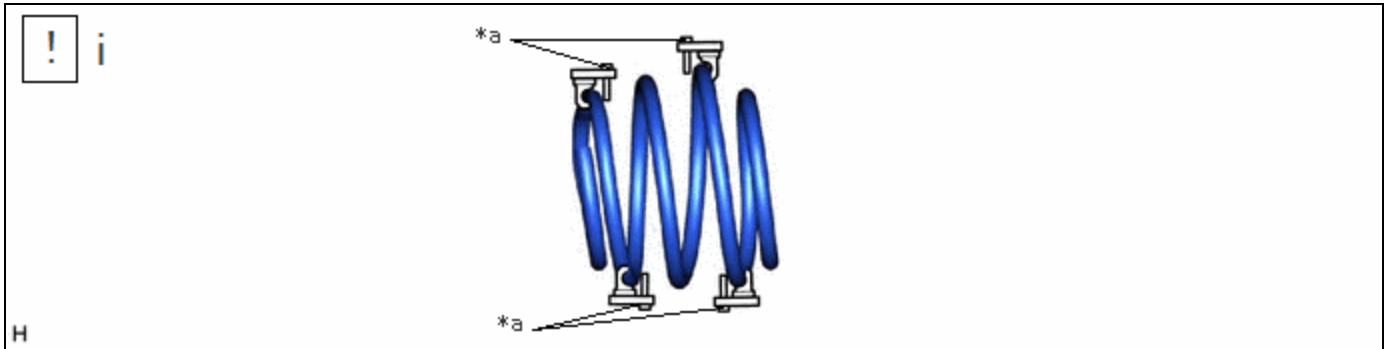
between the hooks is as large as possible.

- If a hook disengages from the coil spring, the coil spring may fly out, resulting in injury.

- Make sure that the arms of SST are parallel and the number of coils between the arms is the same on each side.



- If a hook disengages from the coil spring, the coil spring may fly out, resulting in injury.

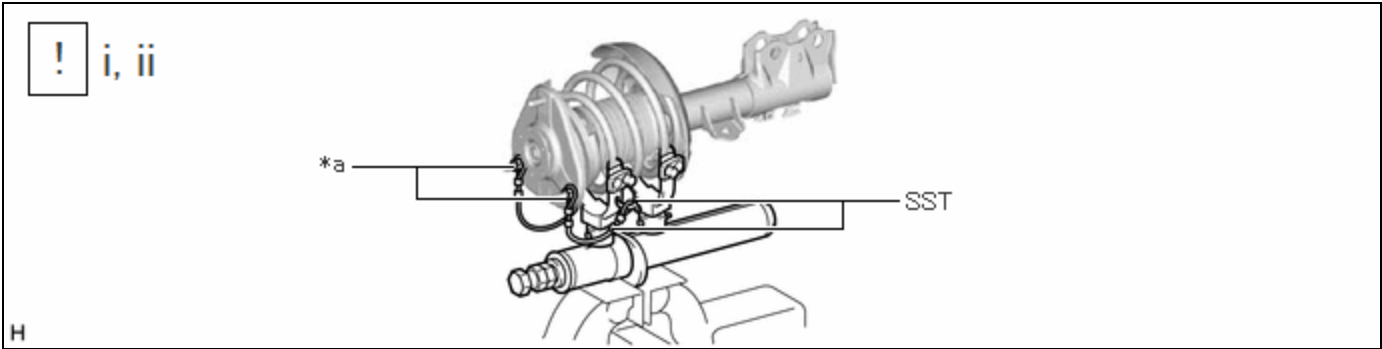
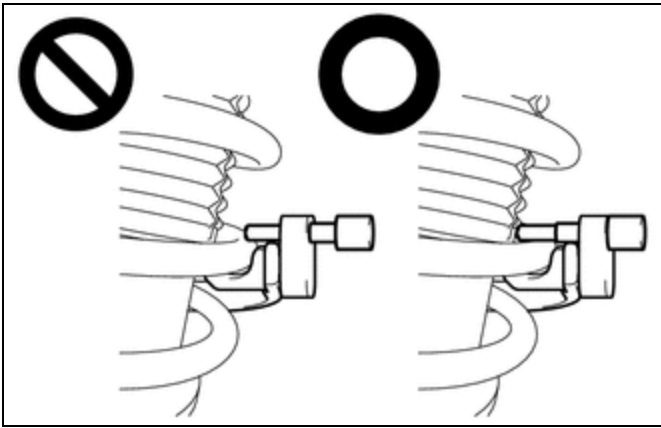


*a	Stopper Pin	-	-
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(1) Install the stopper pins to the hooks of SST.

CAUTION:

- Make sure that the stopper pins are installed securely.
- If a hook disengages from the coil spring, the coil spring may fly out, resulting in injury.



*a	Vehicle Nut	-	-
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(1) Install SST and 2 vehicle nuts to the upper support as shown in the illustration.

SST: 09727-30022

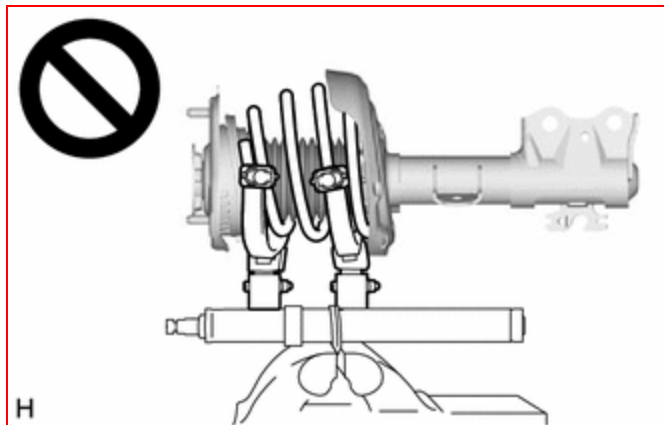
09727-00090

09727-00100

(2) Using SST, compress the coil spring.

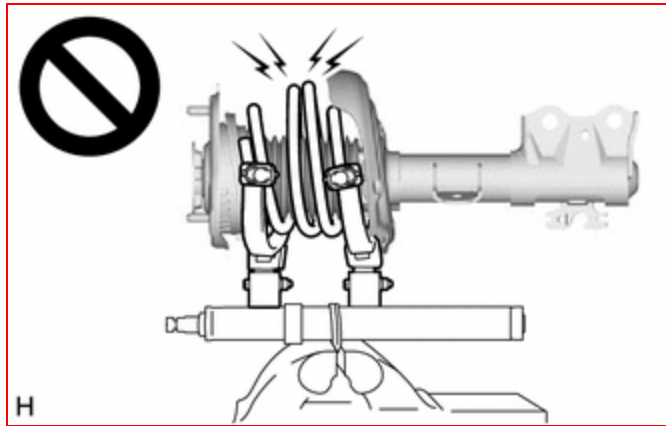
CAUTION:

- If the coil spring starts to bow out while using SST, stop immediately and reattach SST correctly.

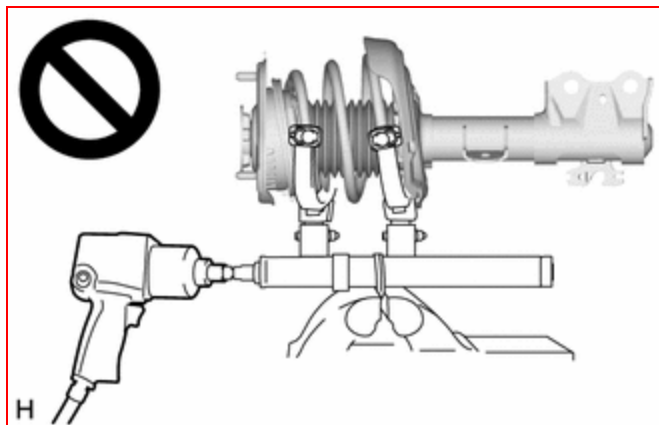


- If a hook disengages from the coil spring, the coil spring may fly out, resulting in injury.

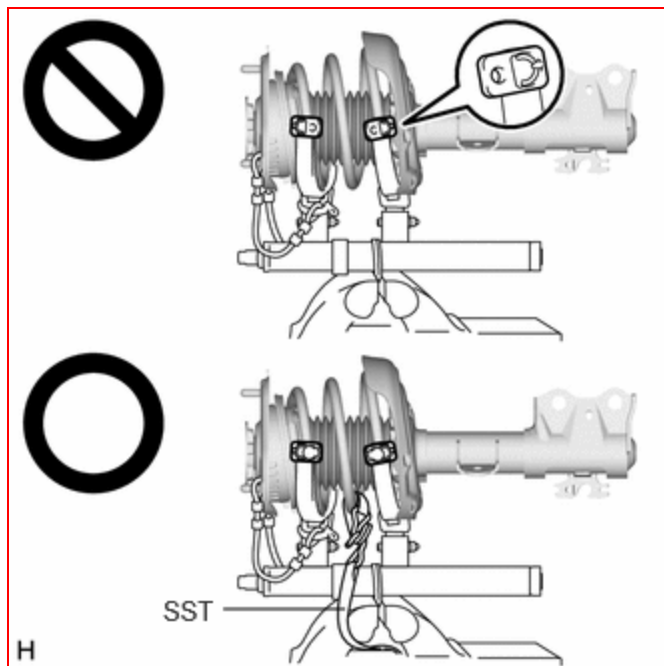
- Do not compress the coil spring to the point where the coils touch each other.



- If a hook disengages from the coil spring, the coil spring may fly out, resulting in injury.



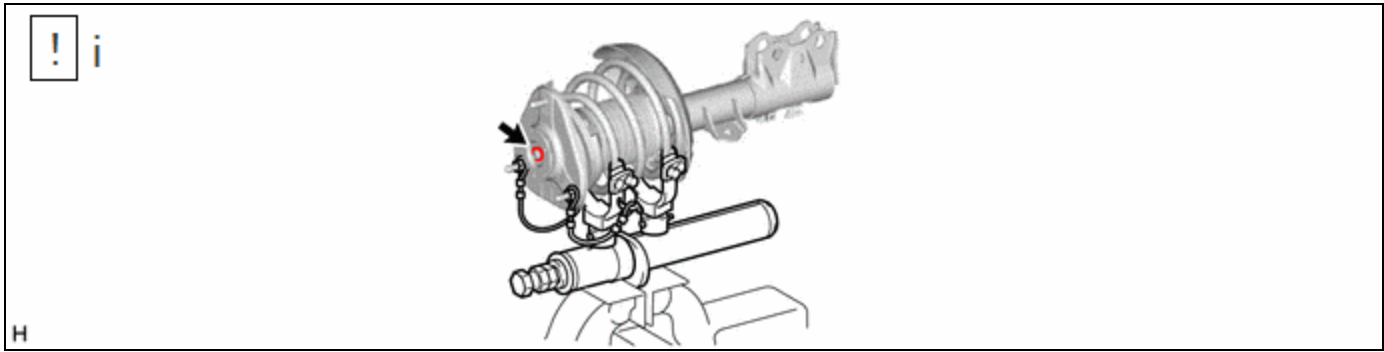
- Do not use an impact wrench.
- If an impact wrench is used, the threads of SST may be damaged, or sudden compression of the coil spring may cause a hook to disengage and the coil spring to fly out, resulting in injury.
- If a stopper pin touches the coil spring while using SST, remove the stopper pin and continue with the



procedure.

- If a stopper pin is removed, install a coil spring stopper belt as shown in the illustration.
- If a hook disengages from the coil spring, the coil spring may fly out, resulting in injury.

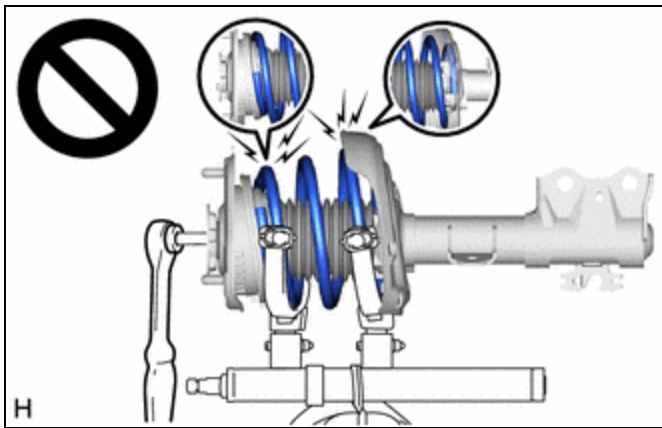
SST: 09727-00110



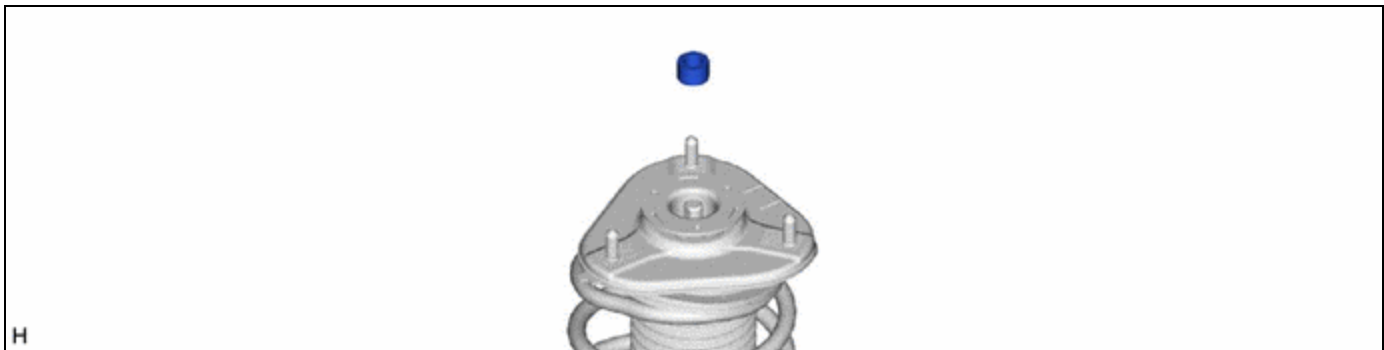
(1) Check that the coil spring has become detached, and then remove the front support to front shock absorber nut.

CAUTION:

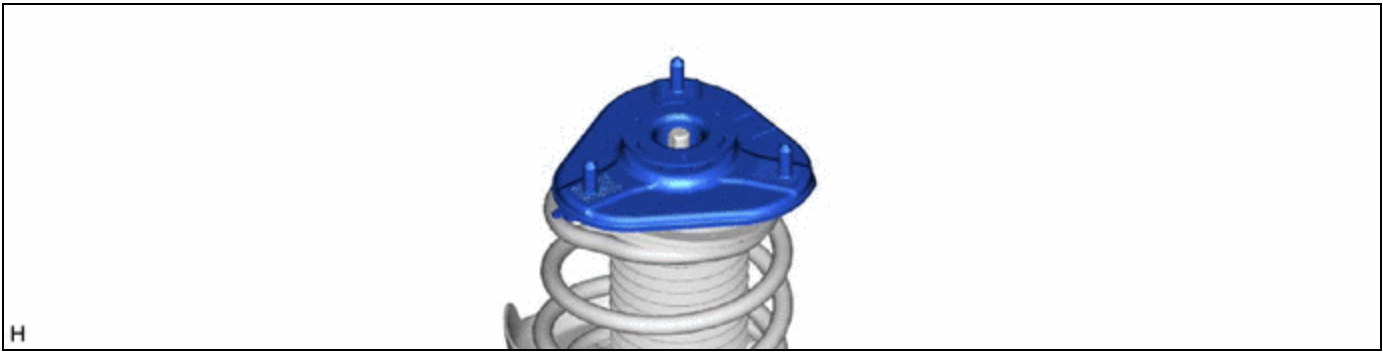
- Do not remove the front support to front shock absorber nut while the coil spring is under tension.
- If the front support to front shock absorber nut is removed with the coil spring under tension, components of the front shock absorber with coil spring may fly off, resulting in injury.



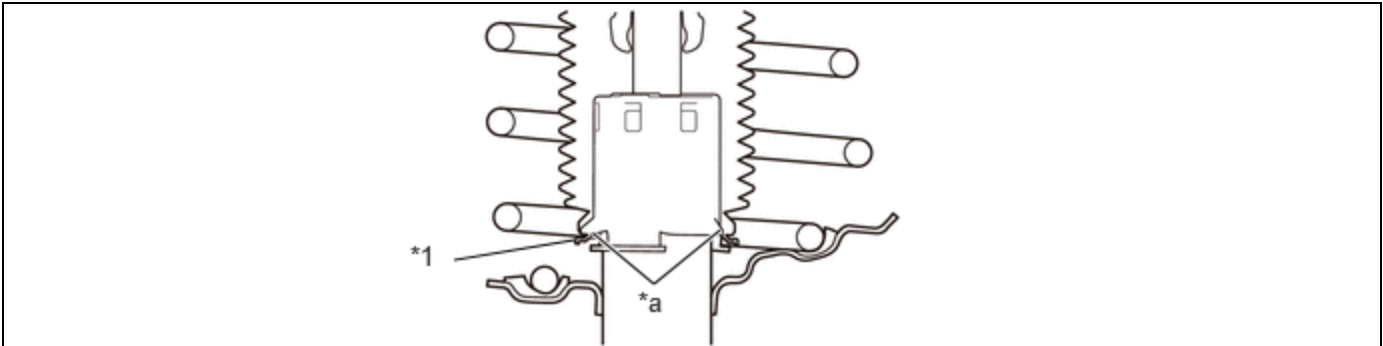
11. REMOVE COLLAR



12. REMOVE FRONT SUSPENSION SUPPORT SUB-ASSEMBLY

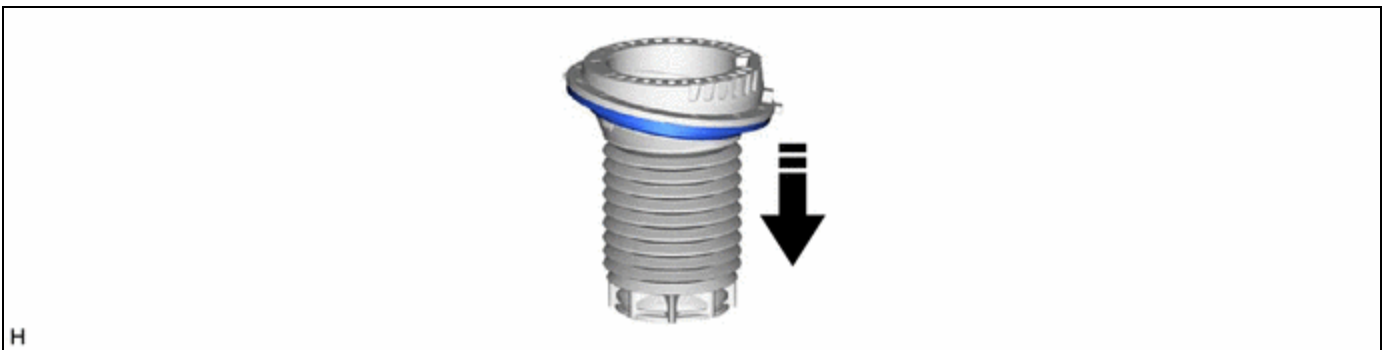



13. REMOVE STRUT MOUNTING BEARING WITH DUST COVER



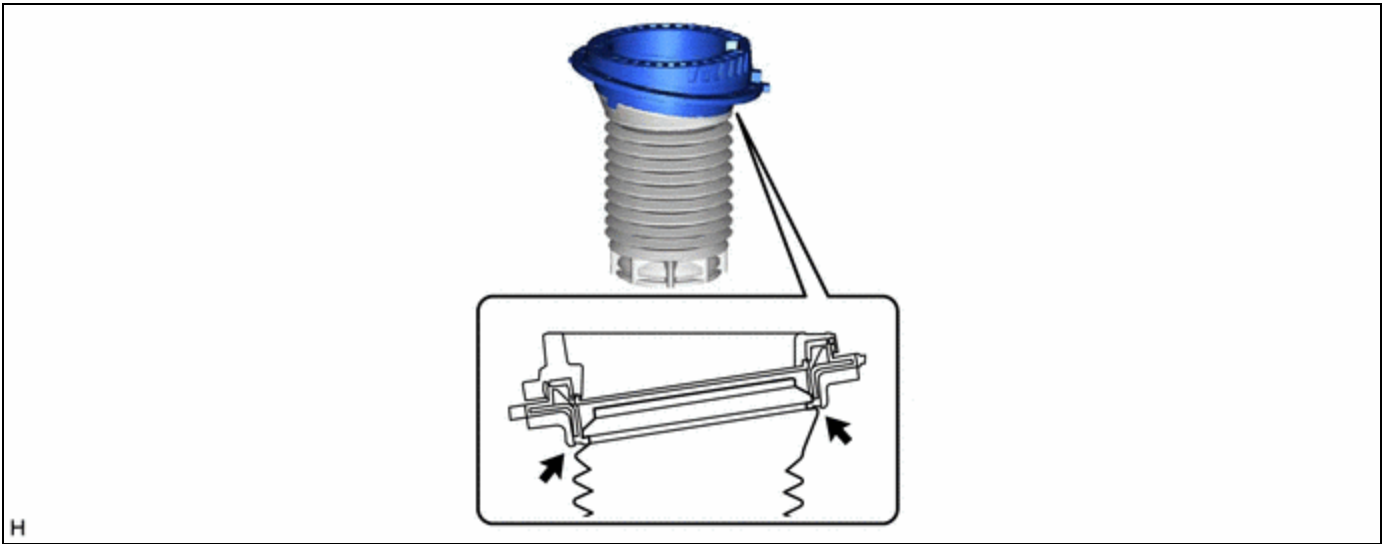
*1	Front No. 1 Shock Absorber Dust Cover	-	-
*a	Claw	-	-

14. REMOVE FRONT UPPER COIL SPRING INSULATOR



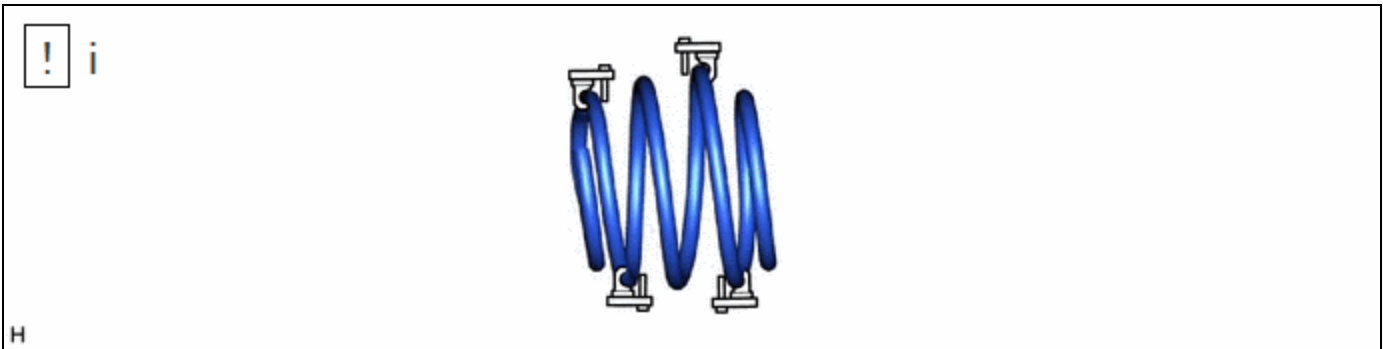
	Remove in this Direction	-	-
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15. REMOVE STRUT MOUNTING BEARING



H

16. REMOVE FRONT COIL SPRING



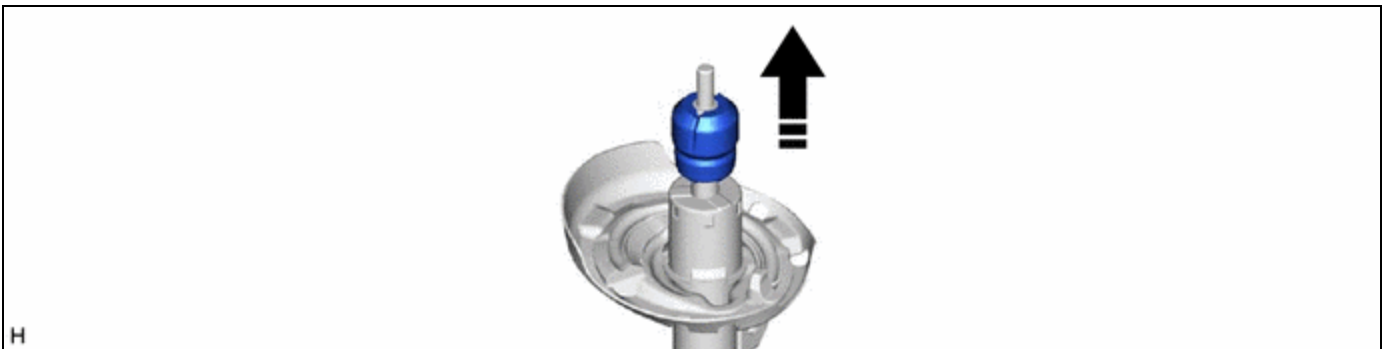
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(1) Remove the front coil spring and SST.

NOTICE:

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

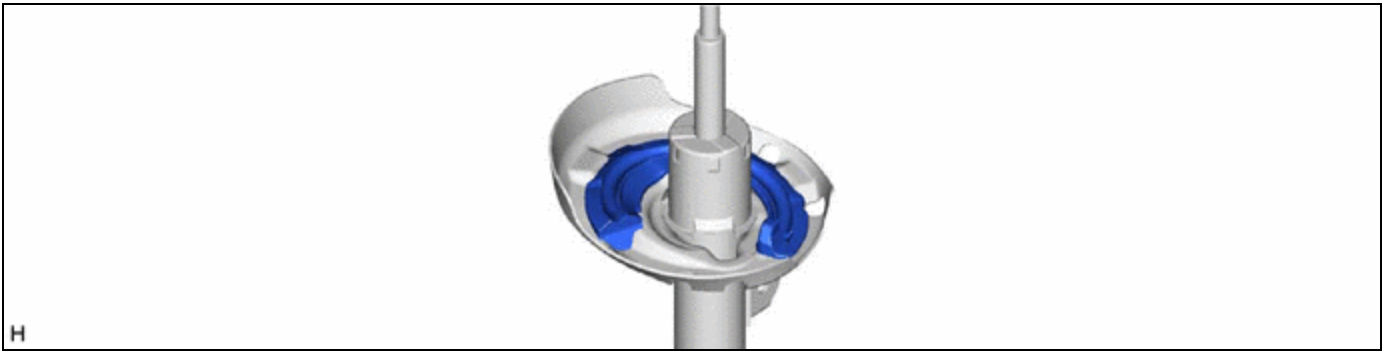
17. REMOVE FRONT SPRING BUMPER



H

	Remove in this Direction	-	-
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18. REMOVE FRONT LOWER COIL SPRING INSULATOR



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