

<b>Last Modified:</b> 12-04-2024	6.11:8.1.0	<b>Doc ID:</b> RM10000002BNLJ
<b>Model Year Start:</b> 2023	<b>Model:</b> Prius Prime	<b>Prod Date Range:</b> [03/2023 - ]
<b>Title:</b> FRONT SUSPENSION: FRONT SUSPENSION MEMBER: REMOVAL; 2023 - 2024 MY Prius Prius Prime [03/2023 - ]		

## 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 suspension crossmember sub-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"> <li>• DTCs are stored</li> <li>• ABS warning light illuminates</li> <li>• Brake system warning light (yellow indicator) illuminates</li> <li>• Slip indicator light illuminates</li> <li>• Electronically controlled brake system disabled or malfunctions</li> </ul>	<a href="#">INFO</a>
Suspension parts	Rear television camera assembly optical axis (Back camera position setting)	Parking Assist Monitor System	<a href="#">INFO</a>
	Parking assist ECU initialization	Panoramic View Monitor System	<a href="#">INFO</a>
		Advanced Park	<a href="#">INFO</a>
Tires	<ul style="list-style-type: none"> <li>• Initialization*1*2</li> </ul>	Tire Pressure Warning System	Refer to Procedures Necessary When

\*: Even when not replacing the part, it is necessary to perform the specified necessary procedures after installation.

\*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.

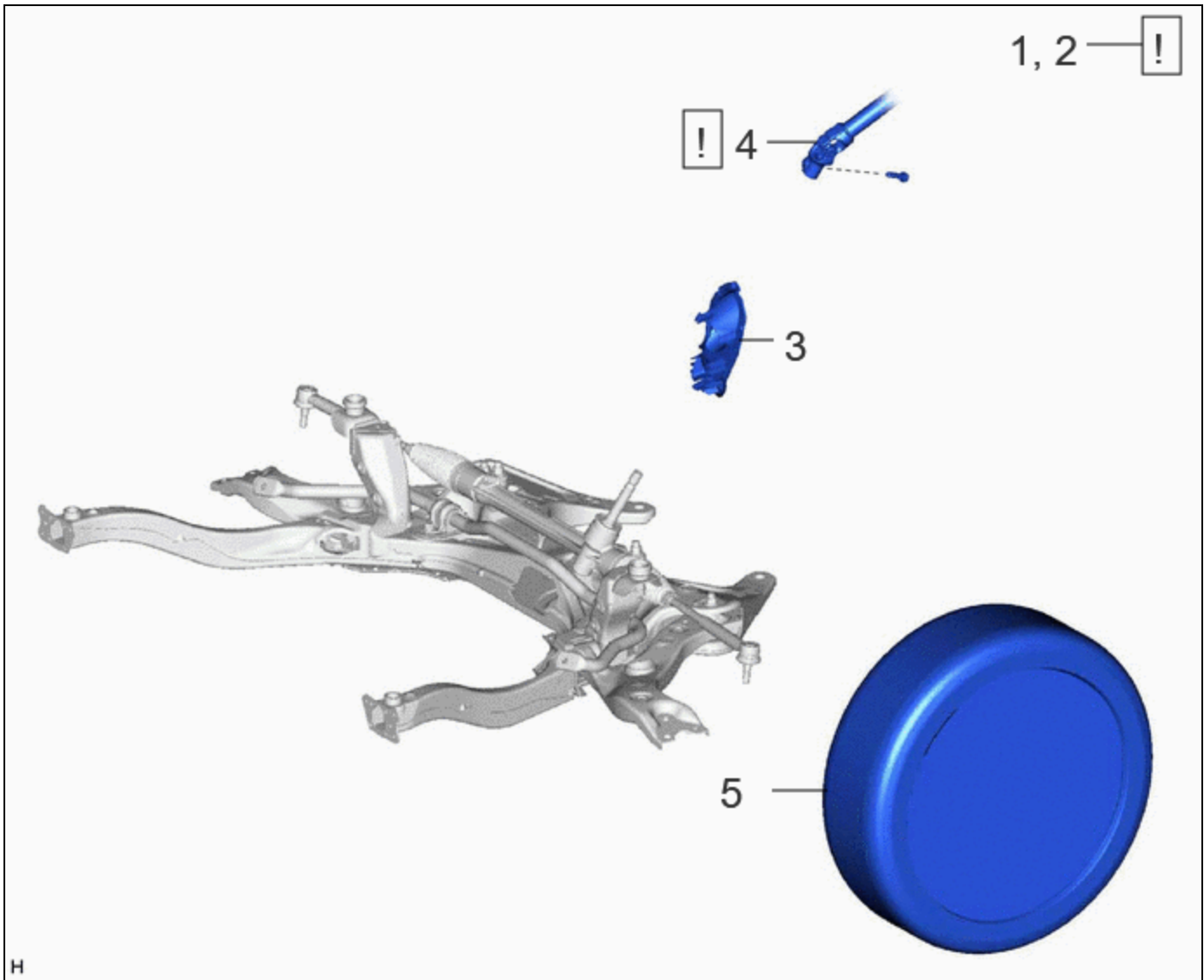
\*3: The vehicle height changes because of tire replacement.




\*4: If matchmarks were not placed when removing parts related to steering operation, perform end position initial setting.

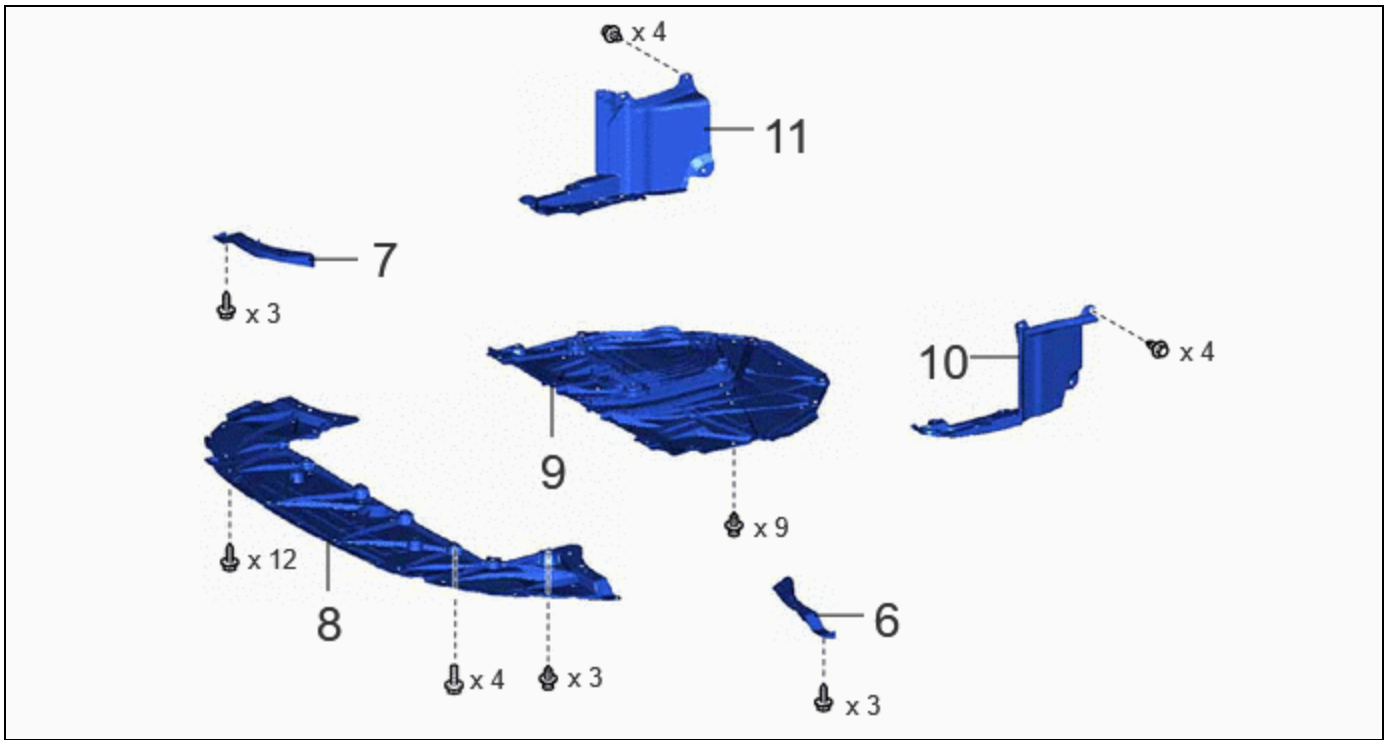
REPLACED PART OR PERFORMED PROCEDURE	NECESSARY PROCEDURE	EFFECT/INOPERATIVE FUNCTION WHEN NECESSARY PROCEDURE NOT PERFORMED	LINK
	<ul style="list-style-type: none"> <li>Tire Position Identification*1*2</li> </ul>		Replacing Parts (for Tire Pressure Warning System) <a href="#">INFO</a>
	Rear television camera assembly optical axis (Back camera position setting)	Parking Assist Monitor System	<a href="#">INFO</a>
	Parking assist ECU initialization*3	Panoramic View Monitor System	<a href="#">INFO</a>
Advanced Park		<a href="#">INFO</a>	
<ul style="list-style-type: none"> <li>Steering gear assembly*4</li> <li>No. 2 steering intermediate shaft assembly*4</li> </ul>	End position initial setting	-	<a href="#">INFO</a>
Front bumper assembly*	Front television camera view adjustment	Panoramic View Monitor System	<a href="#">INFO</a>
		Advanced Park	<a href="#">INFO</a>
<p>*: Even when not replacing the part, it is necessary to perform the specified necessary procedures after installation.</p> <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> <p>*4: If matchmarks were not placed when removing parts related to steering operation, perform end position initial setting.</p>			




## **CAUTION / NOTICE / HINT**

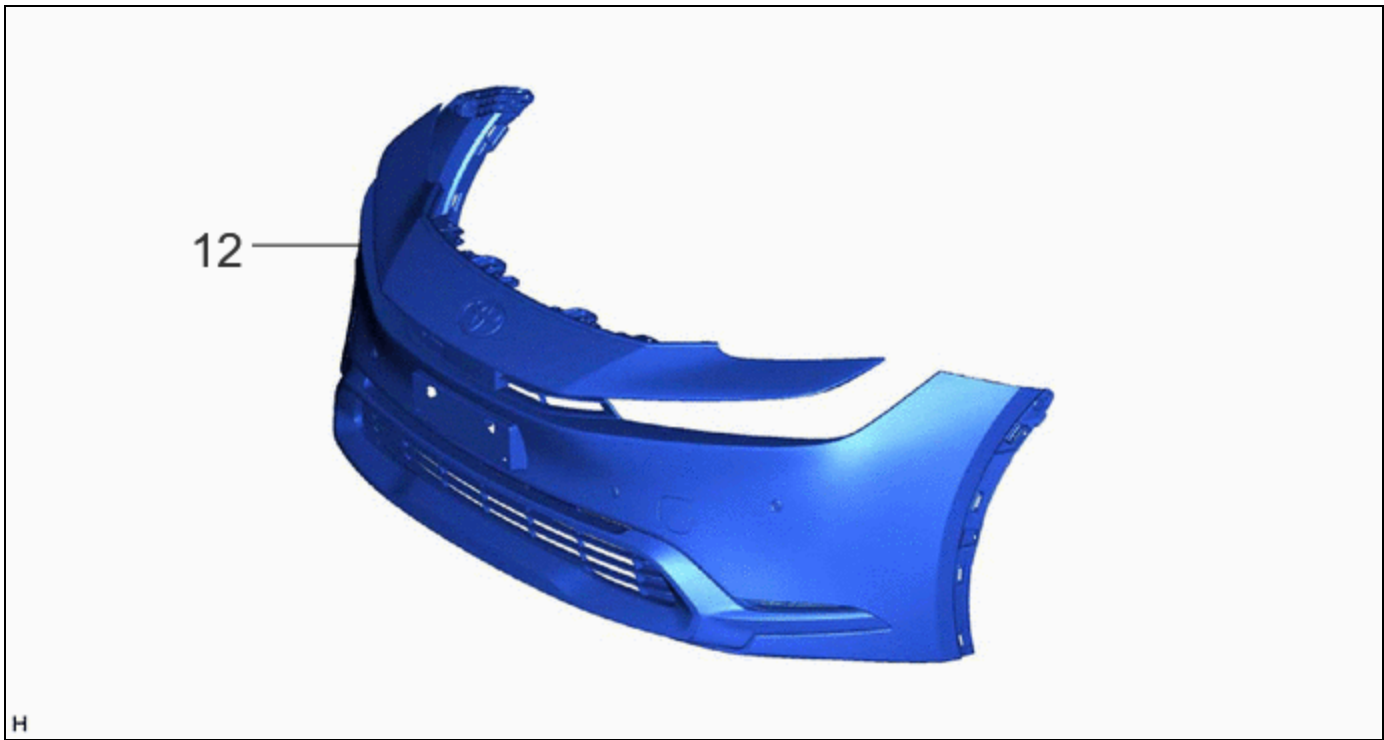
### **COMPONENTS (REMOVAL)**



	PROCEDURE	PART NAME CODE			
1	ALIGN FRONT WHEELS FACING STRAIGHT AHEAD	-	<a href="#">INFO</a>	-	-
2	SECURE STEERING WHEEL	-	<a href="#">INFO</a>	-	-
3	COLUMN HOLE COVER SILENCER SHEET	45259A	-	-	-
4	NO. 2 STEERING INTERMEDIATE SHAFT ASSEMBLY	45260	<a href="#">INFO</a>	-	-
5	FRONT WHEELS	-	-	-	-

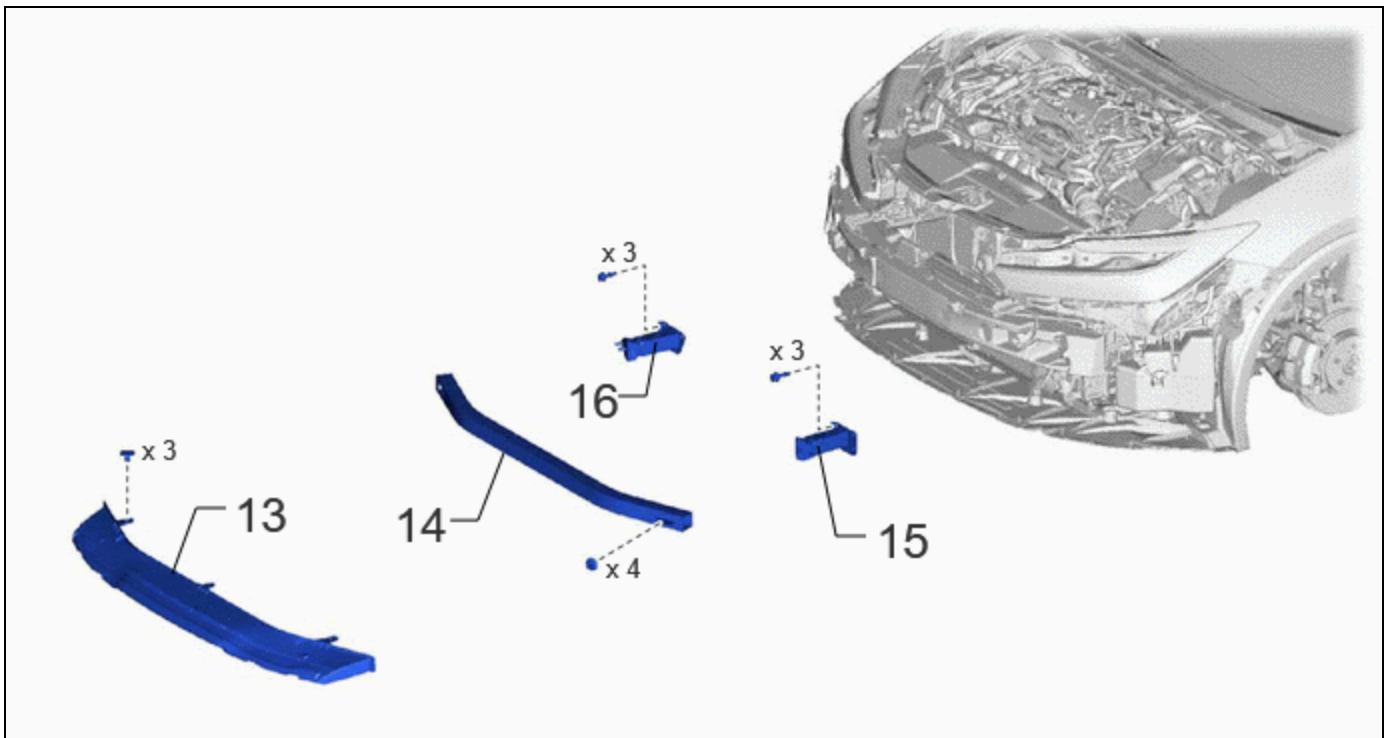





PROCEDURE		PART NAME CODE			
6	FRONT WHEEL OPENING EXTENSION PAD LH	53852B	-	-	-
7	FRONT WHEEL OPENING EXTENSION PAD RH	53851D	-	-	-
8	CENTER ENGINE UNDER COVER	51451A	-	-	-
9	NO. 1 ENGINE UNDER COVER ASSEMBLY	51410	-	-	-
10	REAR ENGINE UNDER COVER LH	51444A	-	-	-
11	REAR ENGINE UNDER COVER RH	51443C	-	-	-

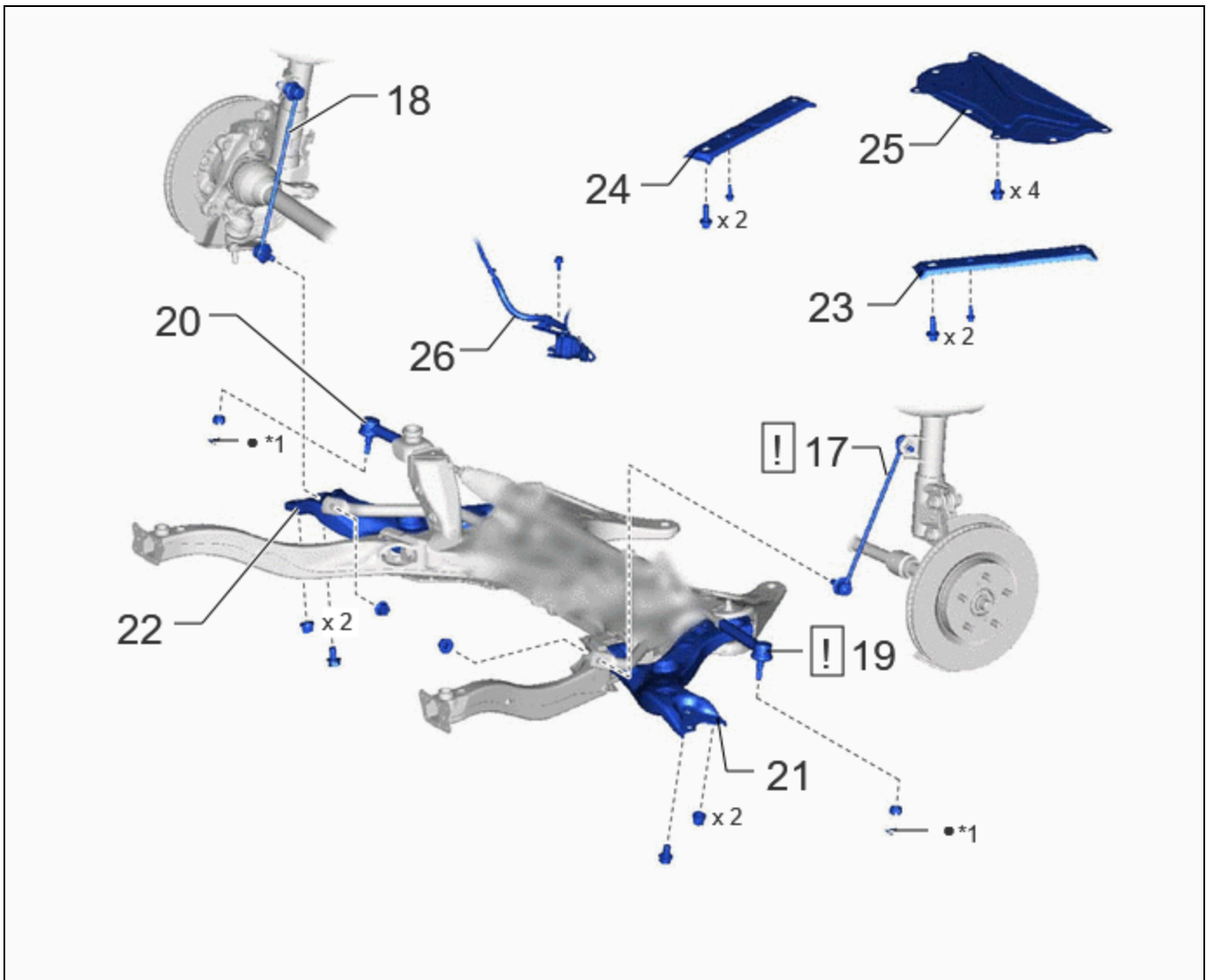





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PROCEDURE	PART NAME CODE	!	📄	⚙️
12 FRONT BUMPER ASSEMBLY	-	-	-	-



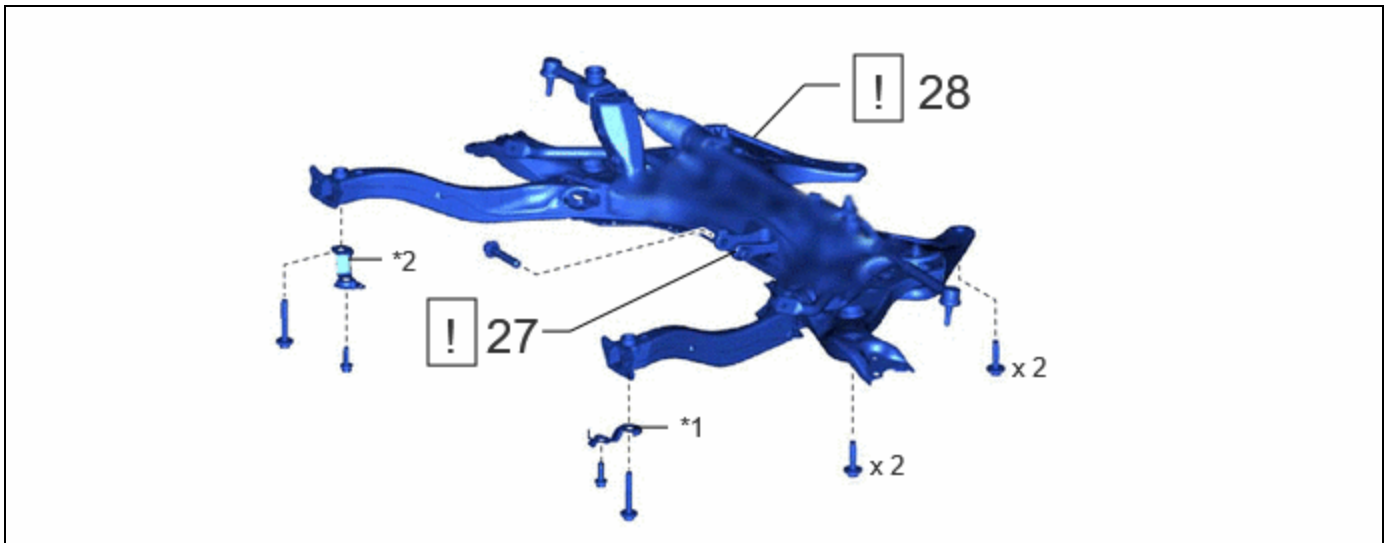
PROCEDURE		PART NAME CODE			
13	FRONT BUMPER LOWER ABSORBER	52618	-	-	-
14	NO. 2 FRONT BUMPER REINFORCEMENT	52132A	-	-	-
15	FRONT BUMPER EXTENSION SUB-ASSEMBLY LH	52103A	-	-	-
16	FRONT BUMPER EXTENSION SUB-ASSEMBLY RH	52102B	-	-	-






PROCEDURE		PART NAME CODE			
17	FRONT STABILIZER LINK ASSEMBLY LH	48810	<a href="#">INFO</a>	-	-
18	FRONT STABILIZER LINK ASSEMBLY RH	48820B	-	-	-
19	TIE ROD END SUB-ASSEMBLY LH	45047	<a href="#">INFO</a>	-	-

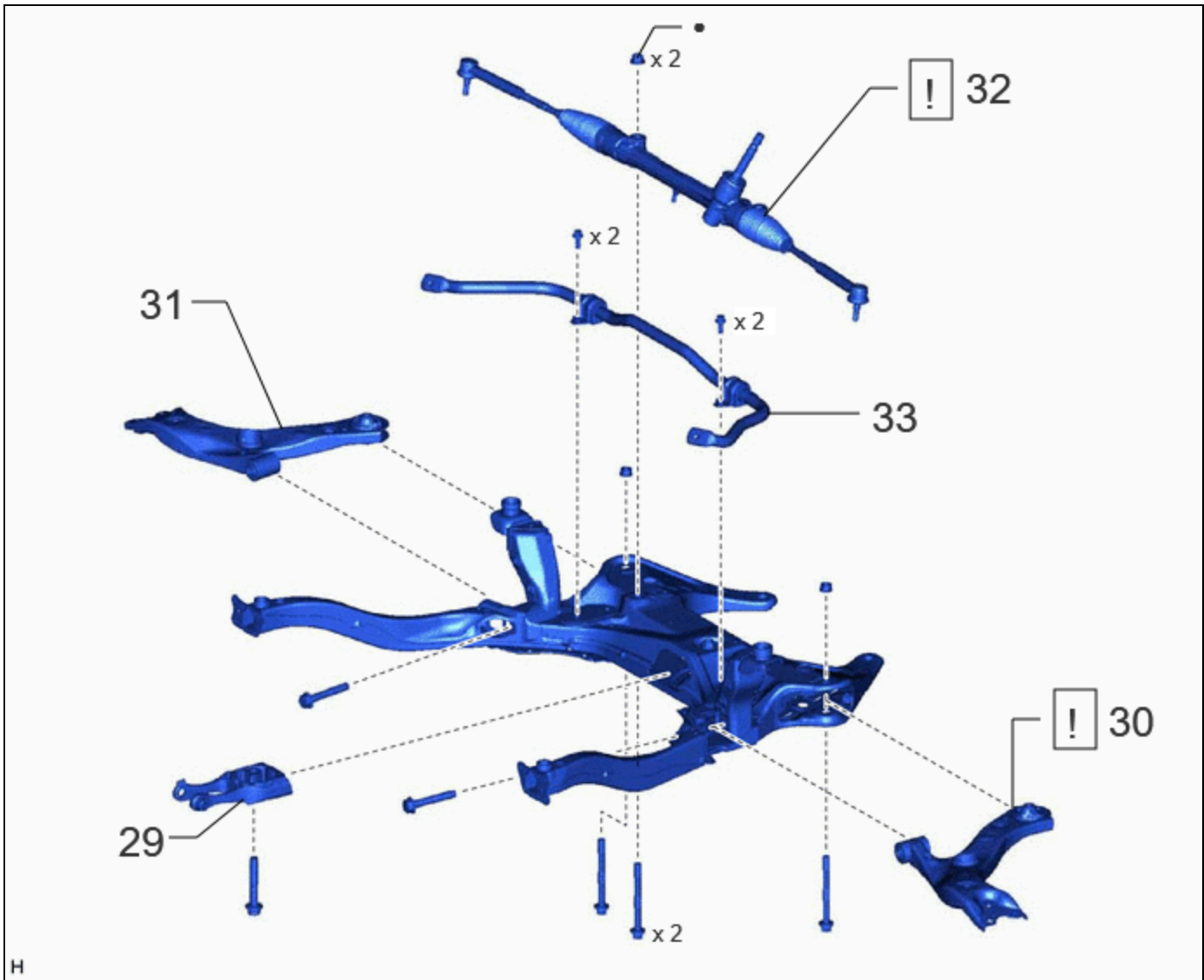
	PROCEDURE	PART NAME CODE			
20	TIE ROD END SUB-ASSEMBLY RH	45046	-	-	-
21	FRONT LOWER NO. 1 SUSPENSION ARM SUB-ASSEMBLY LH	48069	-	-	-
22	FRONT LOWER NO. 1 SUSPENSION ARM SUB-ASSEMBLY RH	48068	-	-	-
23	NO. 2 CROSSMEMBER GUSSET LH	51322	-	-	-
24	NO. 2 CROSSMEMBER GUSSET RH	51321	-	-	-
25	NO. 2 ENGINE UNDER COVER	51442	-	-	-
26	WIRE HARNESS CLAMP BRACKET	-	-	-	-

*1	COTTER PIN	-	-
•	Non-reusable part	-	-



	PROCEDURE	PART NAME CODE			
27	ENGINE MOVING CONTROL ROD	12363A	<a href="#">INFO</a>	-	-
28	FRONT SUSPENSION CROSSMEMBER SUB-ASSEMBLY	51201	<a href="#">INFO</a>	-	-

*1	CENTER RADIATOR SUPPORT LH	*2	CENTER RADIATOR SUPPORT RH
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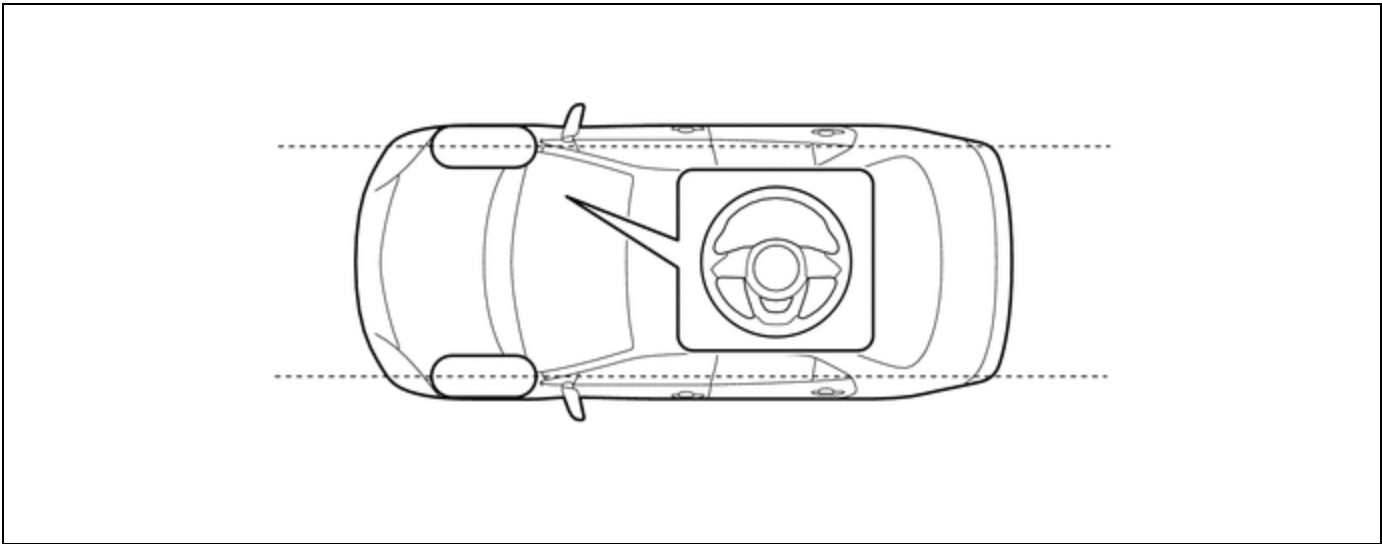
PROCEDURE		PART NAME CODE			
29	ENGINE MOVING CONTROL ROD	12363A	-	-	-
30	FRONT LOWER NO. 1 SUSPENSION ARM SUB-ASSEMBLY LH	48069	INFO	-	-
31	FRONT LOWER NO. 1 SUSPENSION ARM SUB-ASSEMBLY RH	48068	-	-	-
32	STEERING LINK ASSEMBLY	-	INFO	-	-
33	FRONT STABILIZER BAR	48811	-	-	-

•	Non-reusable part	-	-
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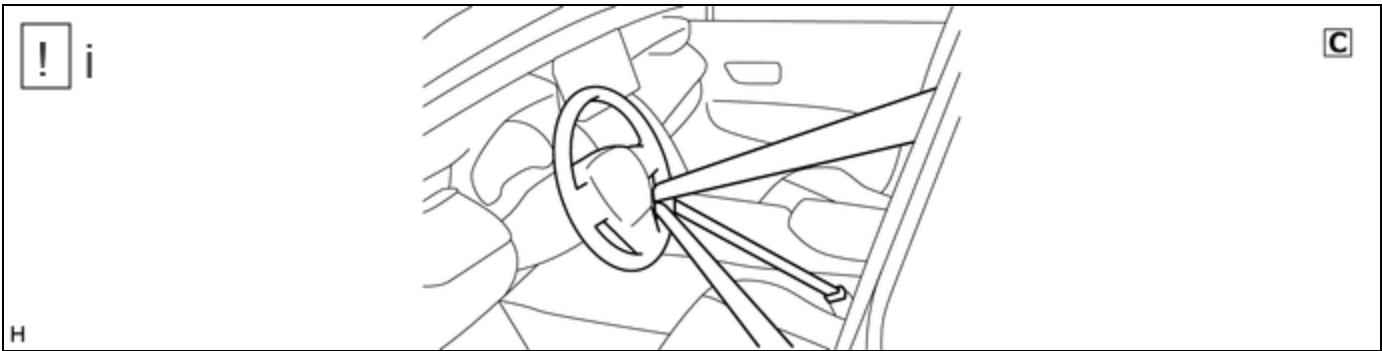
## PROCEDURE

### 1. ALIGN FRONT WHEELS FACING STRAIGHT AHEAD





## 2. SECURE STEERING WHEEL



(1) Secure the steering wheel with the seat belt in order to prevent rotation.


### HINT:

This operation is useful to prevent damage to the spiral cable.

## 3. REMOVE COLUMN HOLE COVER SILENCER SHEET

Click here [INFO](#)

## 4. DISCONNECT NO. 2 STEERING INTERMEDIATE SHAFT ASSEMBLY

	Click here <a href="#">INFO</a>
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## 5. REMOVE FRONT WHEELS

Click here [INFO](#)

## 6. REMOVE FRONT WHEEL OPENING EXTENSION PAD LH

for M20A-FXS HEV Model: Click here [INFO](#)

for M20A-FXS PHEV Model: Click here [INFO](#)

for 2ZR-FXE: Click here [INFO](#)

## 7. REMOVE FRONT WHEEL OPENING EXTENSION PAD RH

for M20A-FXS HEV Model: Click here [INFO](#)

for M20A-FXS PHEV Model: Click here [INFO](#)

for 2ZR-FXE: Click here [INFO](#)

## 8. REMOVE CENTER ENGINE UNDER COVER

for M20A-FXS HEV Model: Click here [INFO](#)

for M20A-FXS PHEV Model: Click here [INFO](#)

for 2ZR-FXE: Click here [INFO](#)

## 9. REMOVE NO. 1 ENGINE UNDER COVER ASSEMBLY

for M20A-FXS HEV Model: Click here [INFO](#)

for M20A-FXS PHEV Model: Click here [INFO](#)

for 2ZR-FXE: Click here [INFO](#)

## 10. REMOVE REAR ENGINE UNDER COVER LH

for M20A-FXS HEV Model: Click here [INFO](#)

for M20A-FXS PHEV Model: Click here [INFO](#)

for 2ZR-FXE: Click here [INFO](#)

## 11. REMOVE REAR ENGINE UNDER COVER RH

for M20A-FXS HEV Model: Click here [INFO](#)

for M20A-FXS PHEV Model: Click here [INFO](#)

for 2ZR-FXE: Click here [INFO](#)

## 12. REMOVE FRONT BUMPER ASSEMBLY

Click here [INFO](#)

## 13. REMOVE FRONT BUMPER LOWER ABSORBER

Click here [INFO](#)

## 14. REMOVE NO. 2 FRONT BUMPER REINFORCEMENT

Click here [INFO](#)

## 15. REMOVE FRONT BUMPER EXTENSION SUB-ASSEMBLY LH

for M20A-FXS HEV Model: Click here [INFO](#)

for M20A-FXS PHEV Model: Click here [INFO](#)

for 2ZR-FXE: Click here [INFO](#)

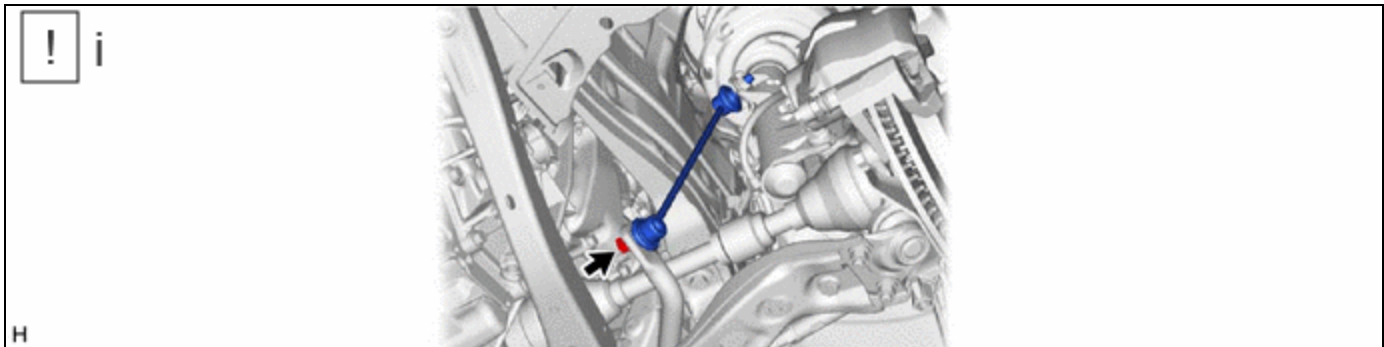
## 16. REMOVE FRONT BUMPER EXTENSION SUB-ASSEMBLY RH

for M20A-FXS HEV Model: Click here [INFO](#)

for M20A-FXS PHEV Model: Click here [INFO](#)

for 2ZR-FXE: Click here [INFO](#)

## 17. SEPARATE FRONT STABILIZER LINK ASSEMBLY LH



(1) Remove the nut and separate the front stabilizer link assembly LH from the front stabilizer bar.

### NOTICE:

Do not damage the boot of the ball joint.

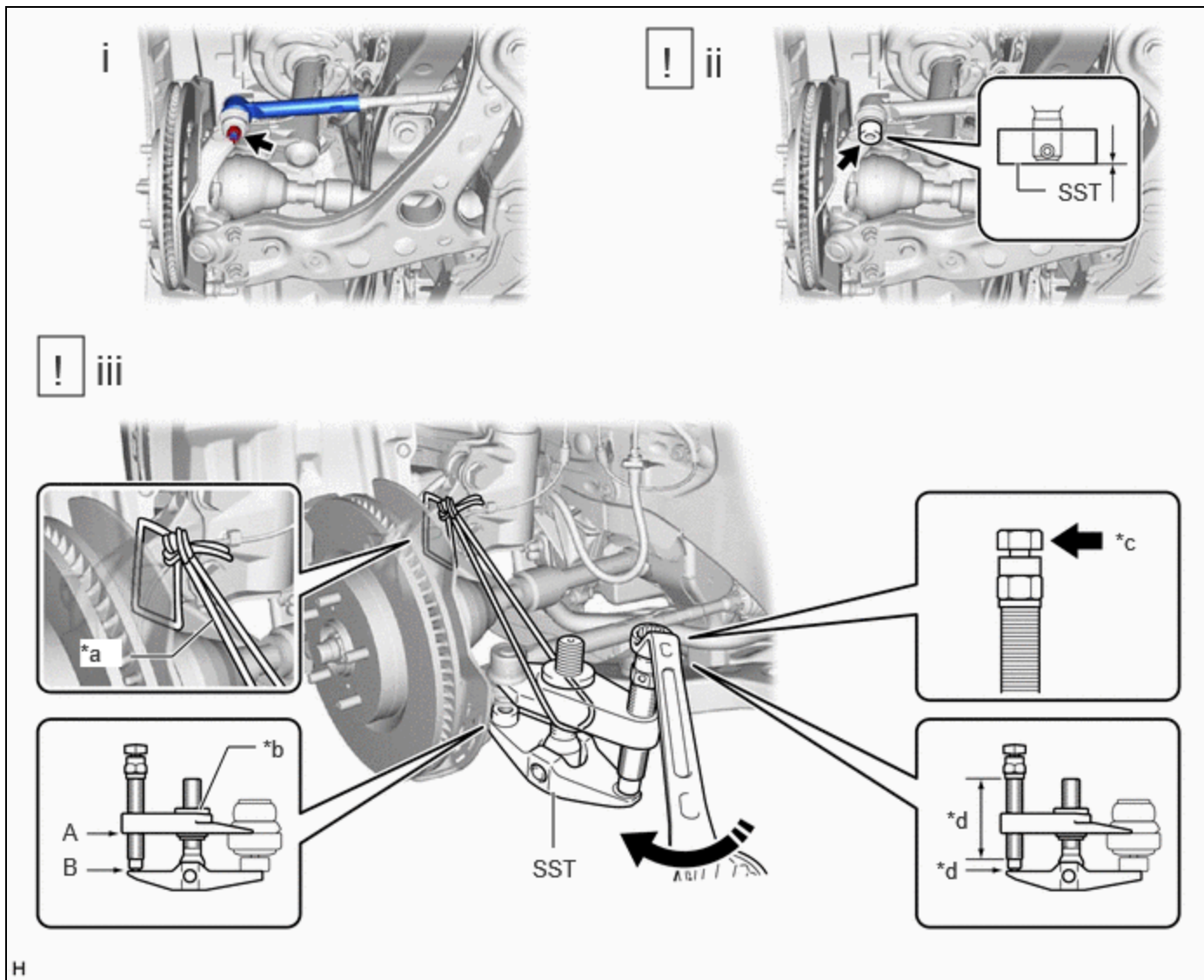
### HINT:

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

## 18. SEPARATE FRONT STABILIZER LINK ASSEMBLY RH

(a) Perform the same procedure as for the LH side.

## 19. SEPARATE TIE ROD END SUB-ASSEMBLY LH



*a	String	*b	Center Nut
*c	Place wrench here	*d	Molybdenum Grease Application Area
	Turn	-	-

(1) Remove the cotter pin and nut.

(2) Install SST to the tie rod end sub-assembly LH as shown in the illustration.

**SST: 09960-20010**

09961-02060

**NOTICE:**

Make sure that the lower ends of the tie rod end sub-assembly LH and SST are aligned.

(3) Using SST, separate the tie rod end sub-assembly LH from the steering knuckle LH as shown in the illustration.

**SST: 09960-20010**

09961-02010

09961-02060

**CAUTION:**

Apply molybdenum grease to the threads and end of the SST bolt.

**NOTICE:**

- Be sure to tighten the string firmly to secure SST to the steering knuckle LH to prevent SST from falling off.
- Install SST with the center nut so that (A) and (B) shown in the illustration are parallel. Otherwise, the ball joint dust cover may be damaged.
- Be sure to place the wrench on the part shown in the illustration.
- Do not damage the front disc brake dust cover.
- Do not damage the ball joint dust cover.
- Do not damage the steering knuckle LH.

**20. SEPARATE TIE ROD END SUB-ASSEMBLY RH**

(a) Perform the same procedure as for the LH side.

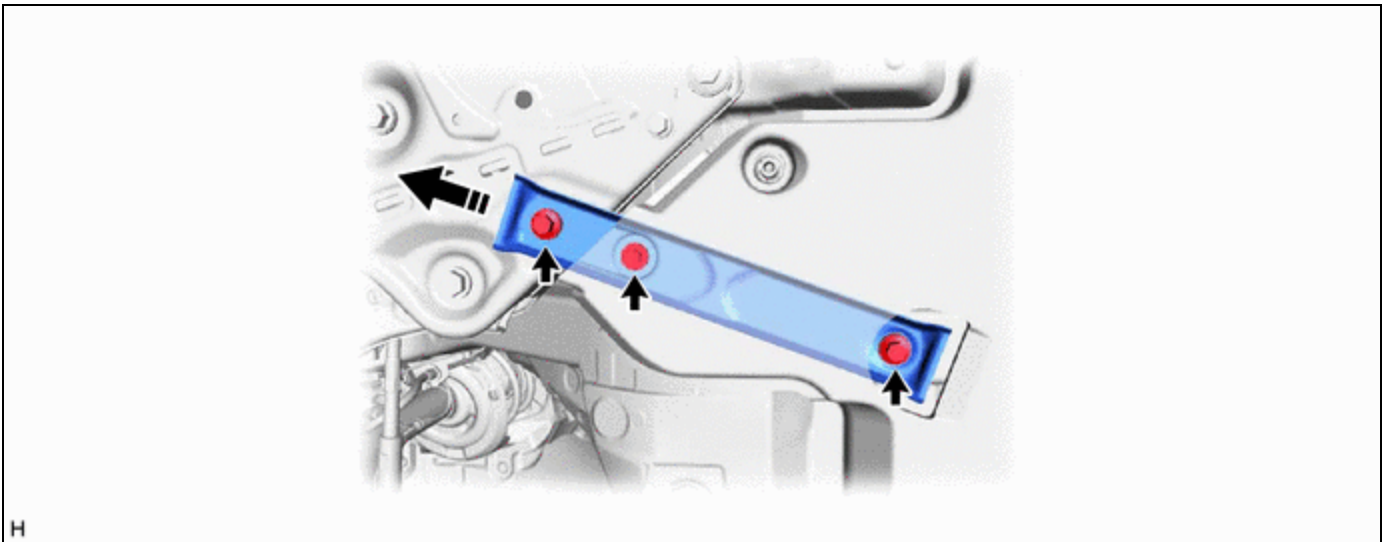
**21. SEPARATE FRONT LOWER NO. 1 SUSPENSION ARM SUB-ASSEMBLY LH**


Click here [INFO](#)

**22. SEPARATE FRONT LOWER NO. 1 SUSPENSION ARM SUB-ASSEMBLY RH**

(a) Perform the same procedure as for the LH side.

**23. REMOVE NO. 2 CROSSMEMBER GUSSET LH**

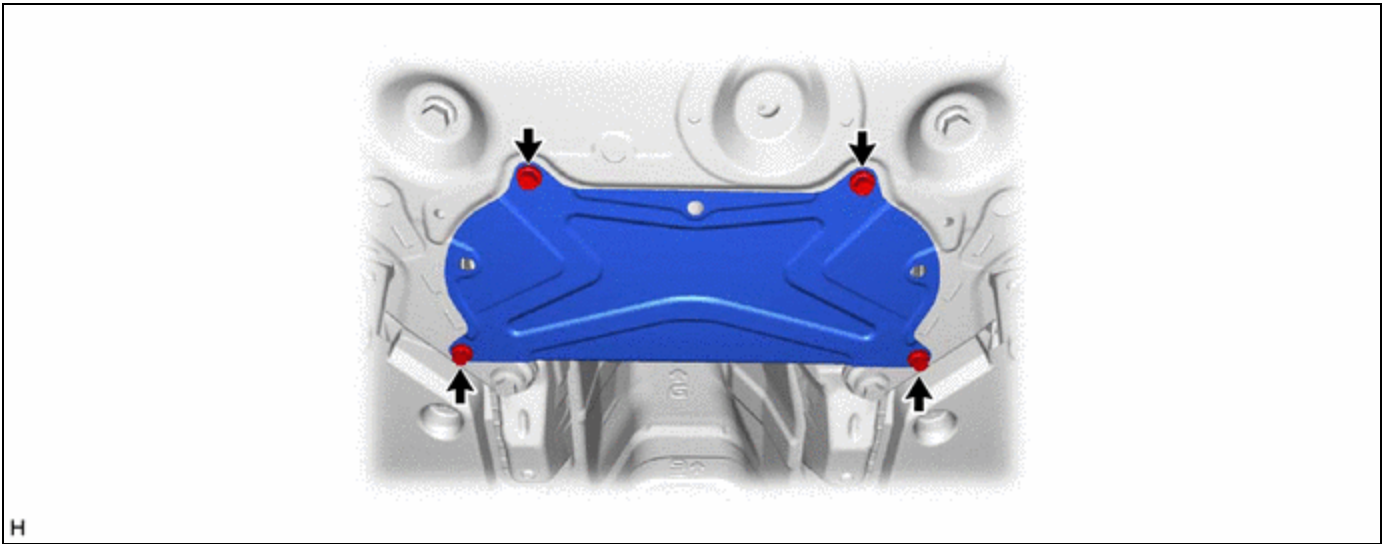


	Remove in this Direction	-	-
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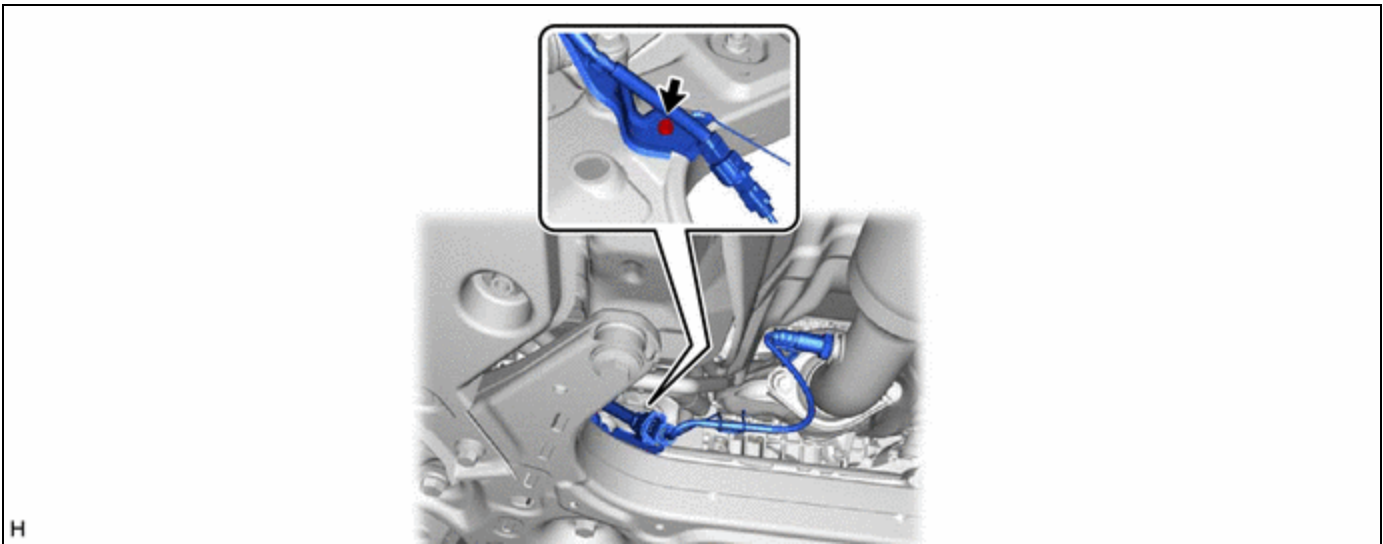
**24. REMOVE NO. 2 CROSSMEMBER GUSSET RH**

(a) Perform the same procedure as for the LH side.

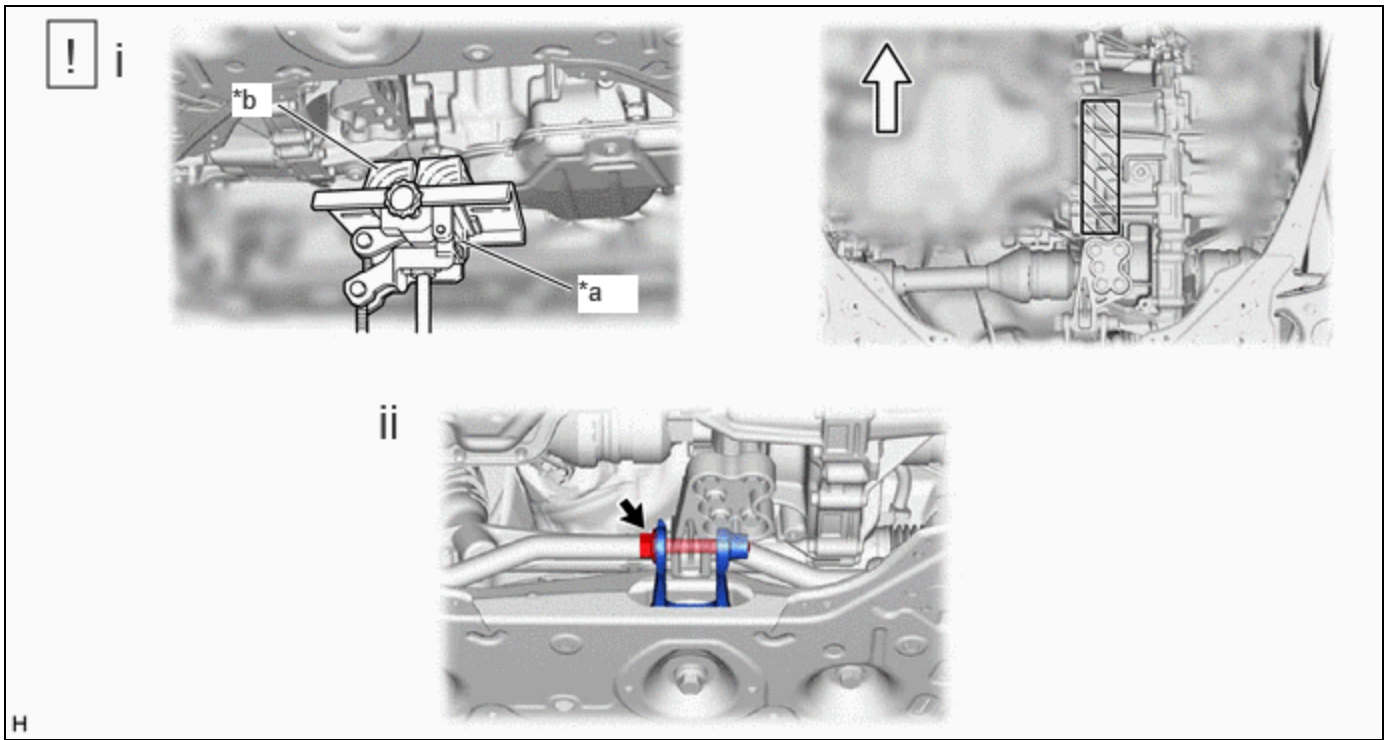
**25. REMOVE NO. 2 ENGINE UNDER COVER**



**26. DISCONNECT WIRE HARNESS CLAMP BRACKET**



**27. DISCONNECT ENGINE MOVING CONTROL ROD**

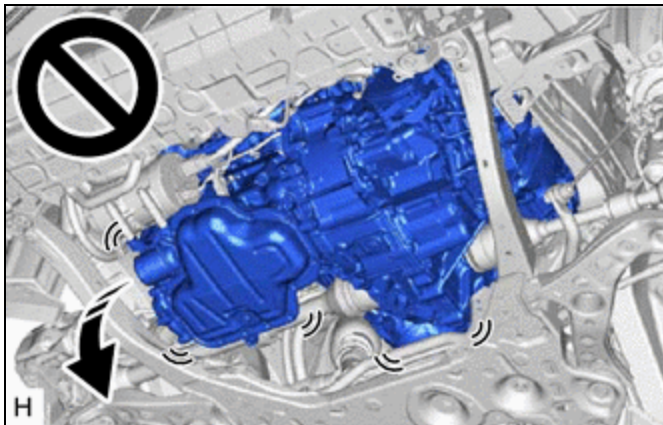


*a	Transmission Jack	*b	Wooden Block
	Front of the Vehicle		Wooden block placement location

(1) Using a transmission jack and a wooden block, support the engine assembly with transaxle.

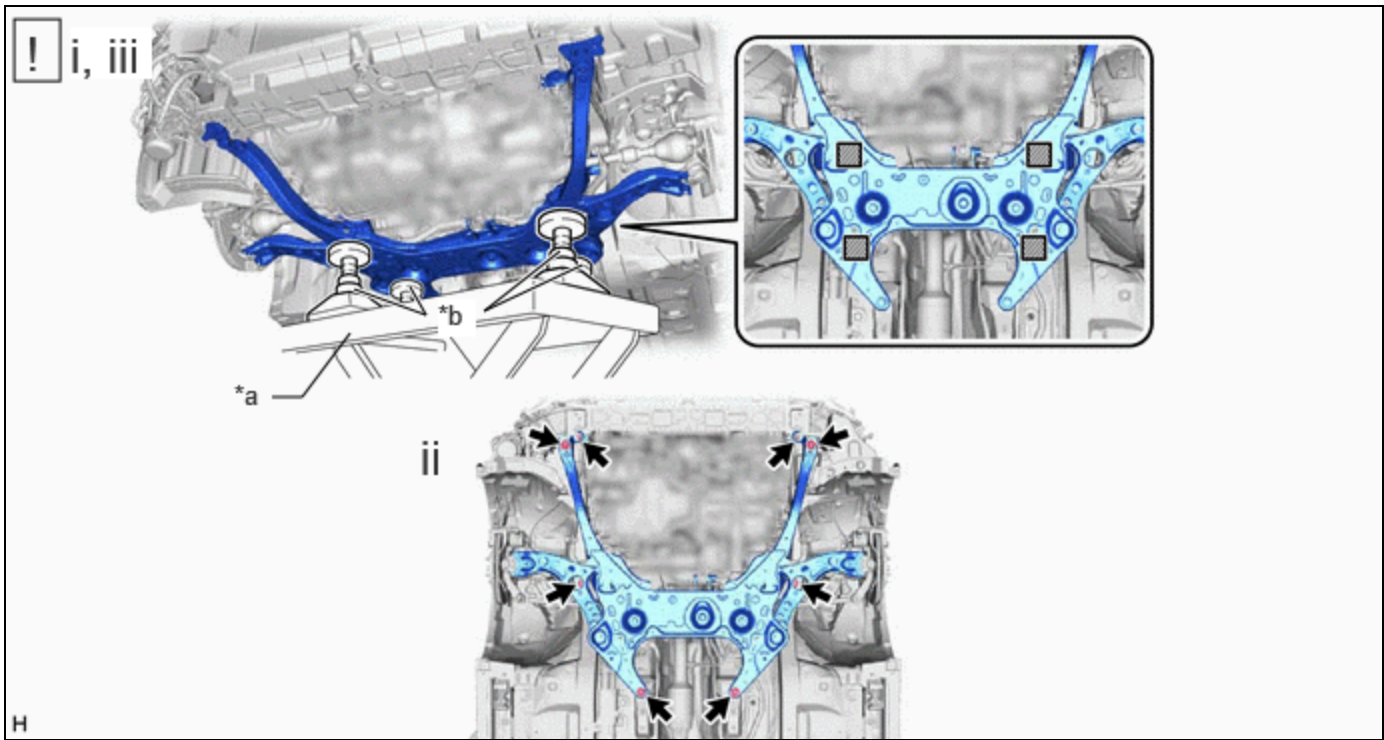
**CAUTION:**

- Support the engine assembly with transaxle until the front suspension crossmember sub-assembly is installed.
- If the support is removed before the front suspension crossmember sub-assembly is installed, the engine assembly with transaxle may drop.



(2) Remove the bolt and separate the engine moving control rod.

**28. REMOVE FRONT SUSPENSION CROSSMEMBER SUB-ASSEMBLY**



*a	Engine Lifter	*b	Attachment
	Attachment placement location	-	-

(1) Support the front suspension crossmember sub-assembly with an engine lifter using 4 attachments or equivalent tools as shown in the illustration.

**CAUTION:**

- The front suspension crossmember sub-assembly is a very heavy component. Make sure that it is supported



securely.

- If the front suspension crossmember sub-assembly is not securely supported, it may drop, resulting in serious injury.

**NOTICE:**

Use attachments to keep the front suspension crossmember sub-assembly level.

(2) Remove the 8 bolts, center radiator support LH, center radiator support RH and front suspension crossmember sub-assembly from the vehicle.

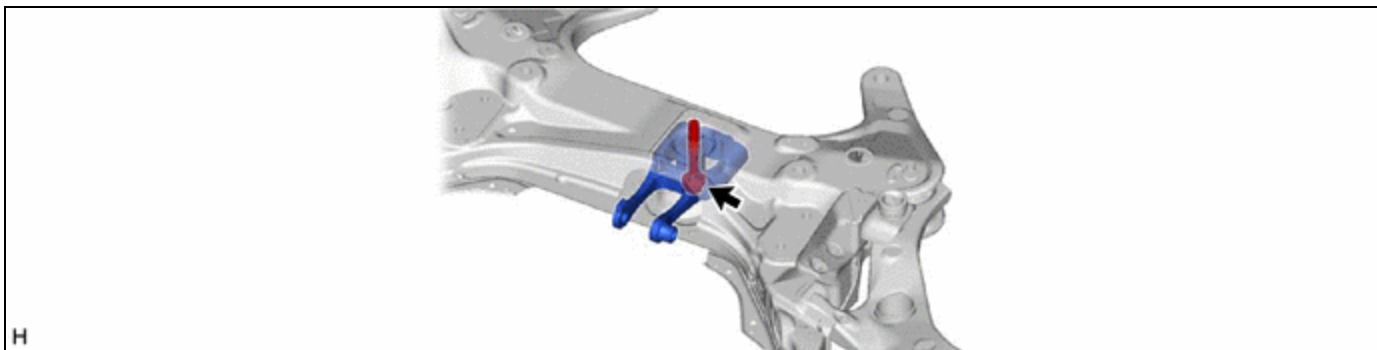
(3) Slowly lower the front suspension crossmember sub-assembly.

**NOTICE:**




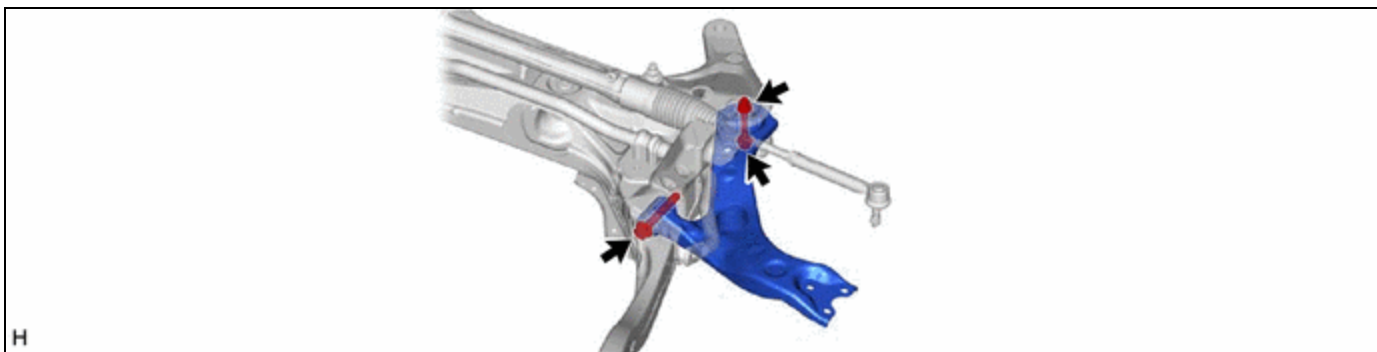
- When lowering the front suspension crossmember sub-assembly, be careful not to damage the vehicle body or other components installed to the vehicle.
- Make sure that the front suspension crossmember sub-assembly not hit the protrusion of the reinforcement.

### 29. REMOVE ENGINE MOVING CONTROL ROD



### 30. REMOVE FRONT LOWER NO. 1 SUSPENSION ARM SUB-ASSEMBLY LH

	<p><b>NOTICE:</b> Because the nut has its own stopper, do not turn the nut. Loosen the bolt with the nut secured.</p>
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### 31. REMOVE FRONT LOWER NO. 1 SUSPENSION ARM SUB-ASSEMBLY RH

(a) Perform the same procedure as for the LH side.

### 32. REMOVE STEERING LINK ASSEMBLY

	<p>Click here <a href="#">INFO</a></p>
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### 33. REMOVE FRONT STABILIZER BAR

Click here [INFO](#)

