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Model Year Start: 2023	**Model:** Prius Prime	**Prod Date Range:** [12/2022 -]
Title: BRAKE (REAR): REAR BRAKE: INSTALLATION; 2023 - 2024 MY Prius Prius Prime [12/2022 -]		

INSTALLATION

CAUTION / NOTICE / HINT

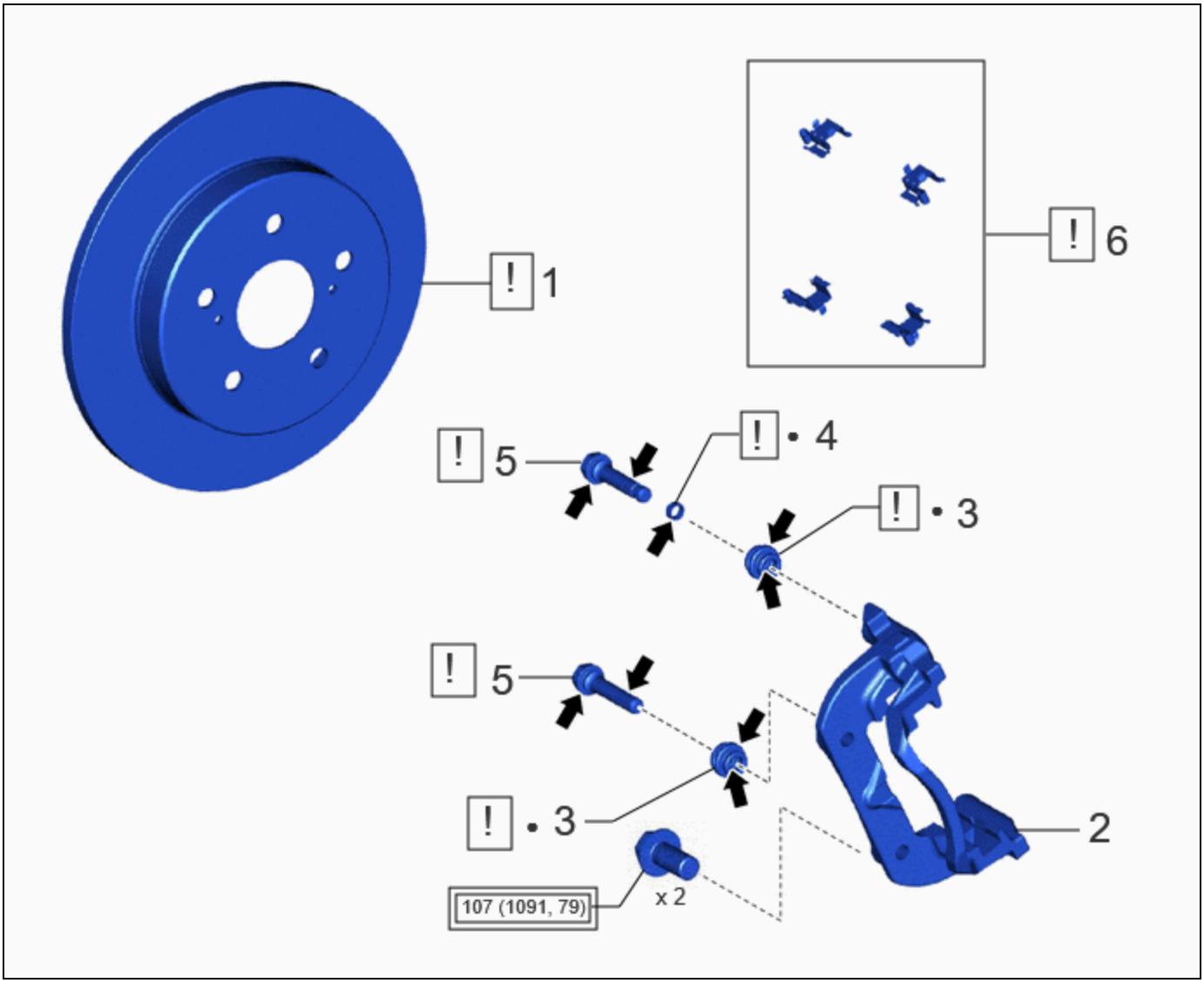
NOTICE:

- Immediately after installing the brake pads, the braking performance may be reduced. Always perform a road test in a safe place while paying attention to the surroundings.
- After replacing the rear disc brake pads, the brake pedal may feel soft due to clearance between the rear disc brake pads and rear disc. Depress the brake pedal several times until the brake pedal feels firm.
- After replacing the rear disc brake pads, always perform a road test to check the braking performance and check for vibrations.
- While the auxiliary battery is connected, even if the ignition switch is off, the brake control system activates when the brake pedal is depressed or any door courtesy switch turns on. Therefore, when servicing the brake system components, do not operate the brake pedal or open/close the doors while the auxiliary battery is connected.
- When the brake pedal is first depressed after replacing the brake pads or pushing back the disc brake piston, DTCs may be stored. As there is no malfunction, clear the DTC.

HINT:

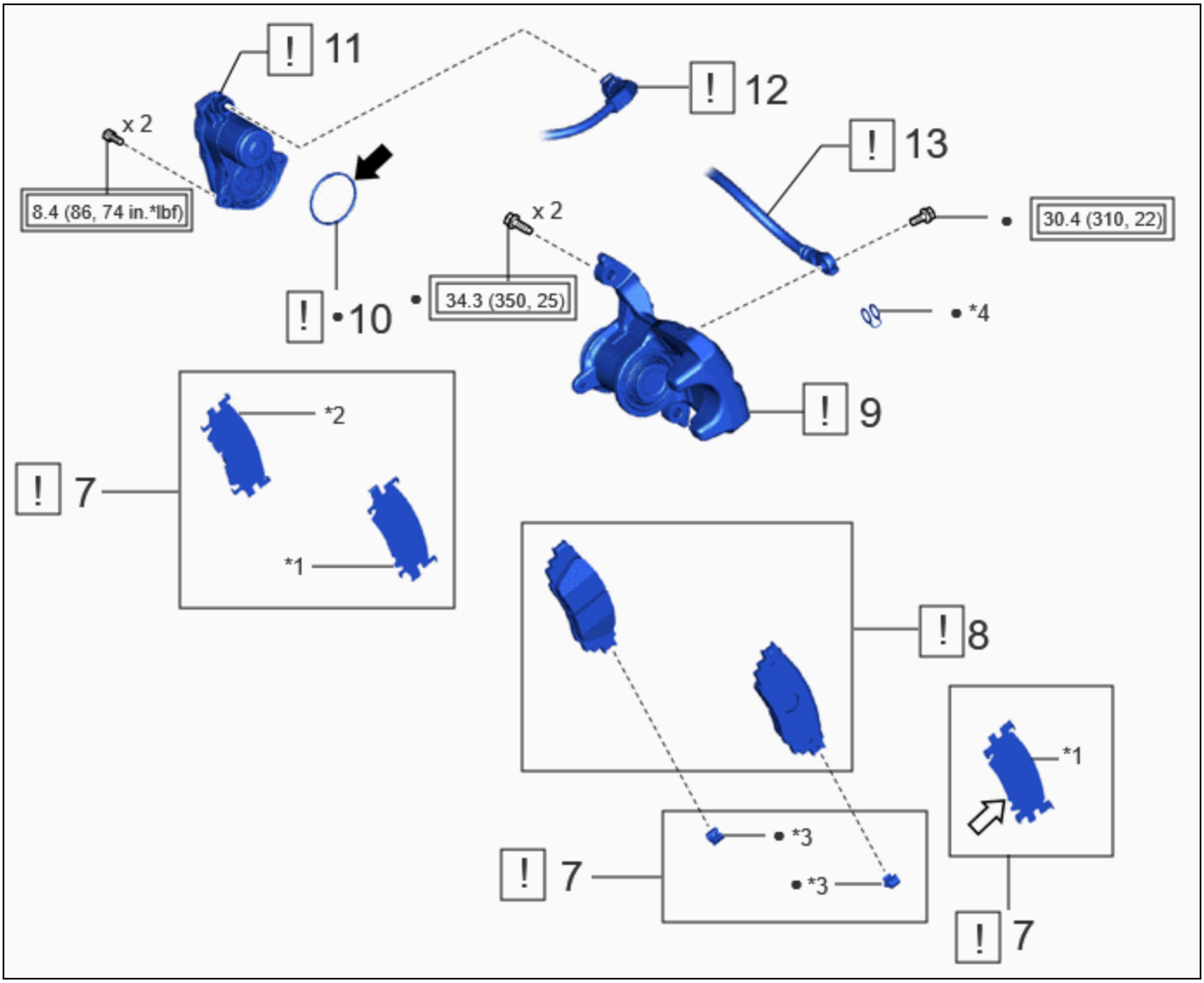
- Use the same procedure for the RH side and LH side.
- The following procedure is for the LH side.

COMPONENTS (INSTALLATION)



	PROCEDURE	PART NAME CODE	!		
1	REAR DISC	42431	INFO	-	-
2	REAR DISC BRAKE CYLINDER MOUNTING	47822	-	-	-
3	REAR DISC BRAKE BUSHING DUST BOOT	-	INFO	-	-
4	REAR DISC BRAKE CYLINDER SLIDE BUSHING	-	INFO	-	-
5	REAR DISC BRAKE CYLINDER SLIDE PIN	-	INFO	-	-
6	REAR DISC BRAKE PAD SUPPORT PLATE	-	INFO	-	-

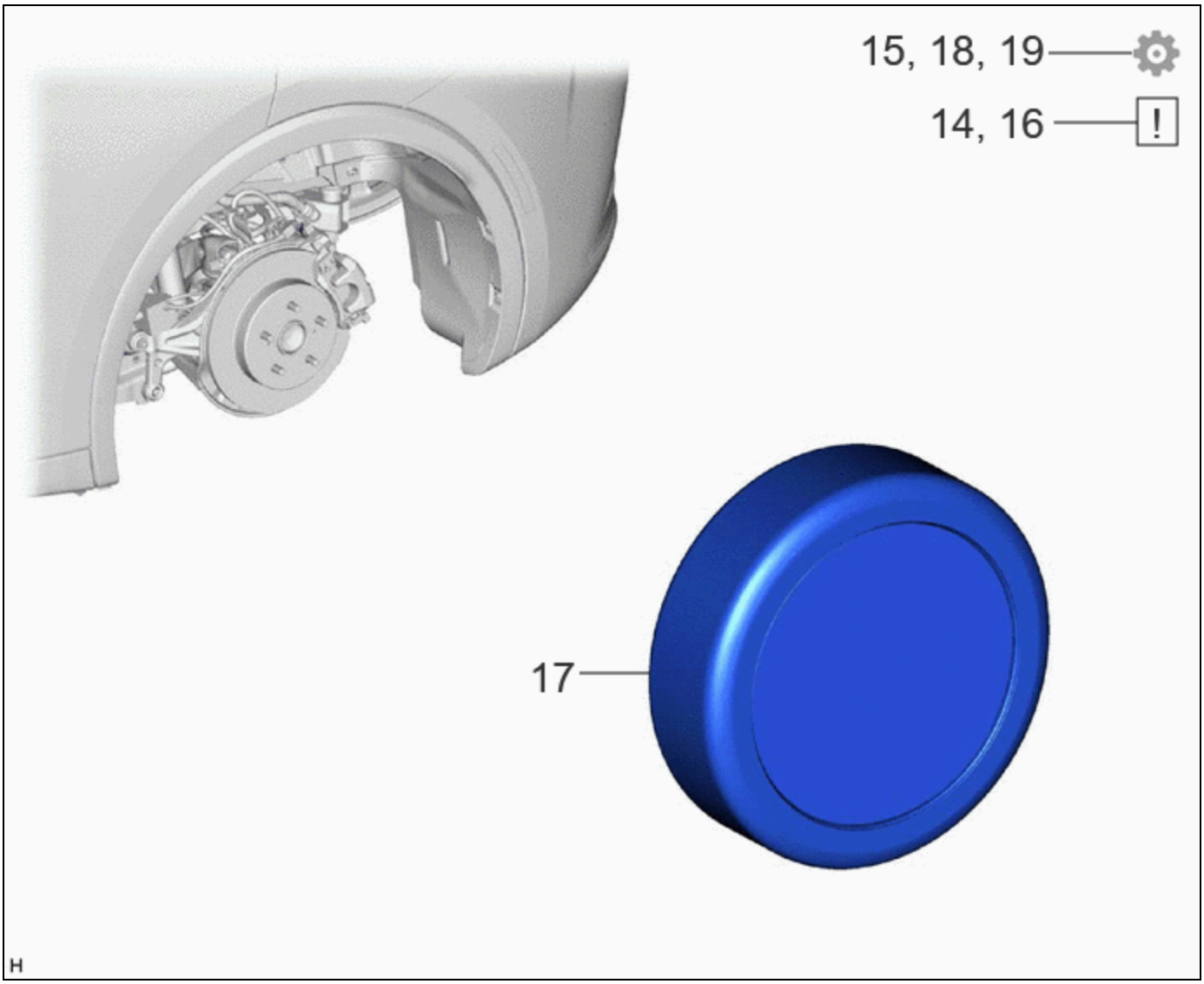
	Tightening torque for "Major areas involving basic vehicle performance such as moving/turning/stopping": N*m (kgf*cm, ft.*lbf)		Lithium soap base glycol grease
•	Non-reusable part	-	-



	PROCEDURE	PART NAME CODE	!		
7	REAR DISC BRAKE ANTI SQUEAL SHIM KIT	04946	INFO	-	-
8	REAR DISC BRAKE PAD KIT	04466	INFO	-	-
9	REAR DISC BRAKE CYLINDER ASSEMBLY	47850	INFO	-	-
10	PARKING BRAKE ACTUATOR SEAL	46310C	INFO	-	-
11	PARKING BRAKE ACTUATOR ASSEMBLY	46310B	INFO	-	-
12	NO.2 PARKING BRAKE WIRE ASSEMBLY	890C0A	INFO	-	-
13	REAR FLEXIBLE HOSE	47319F	INFO	-	-

*1	REAR NO. 1 DISC BRAKE ANTI-SQUEAL SHIM	*2	REAR NO. 2 DISC BRAKE ANTI-SQUEAL SHIM
*3	REAR DISC BRAKE PAD WEAR INDICATOR PLATE	*4	GASKET

▭	Tightening torque for "Major areas involving basic vehicle performance such as moving/turning/stopping": N*m (kgf*cm, ft.*lbf)	•	Non-reusable part
➡	Lithium soap base glycol grease	⇨	Brake shim grease (Part No. 08887-80409)

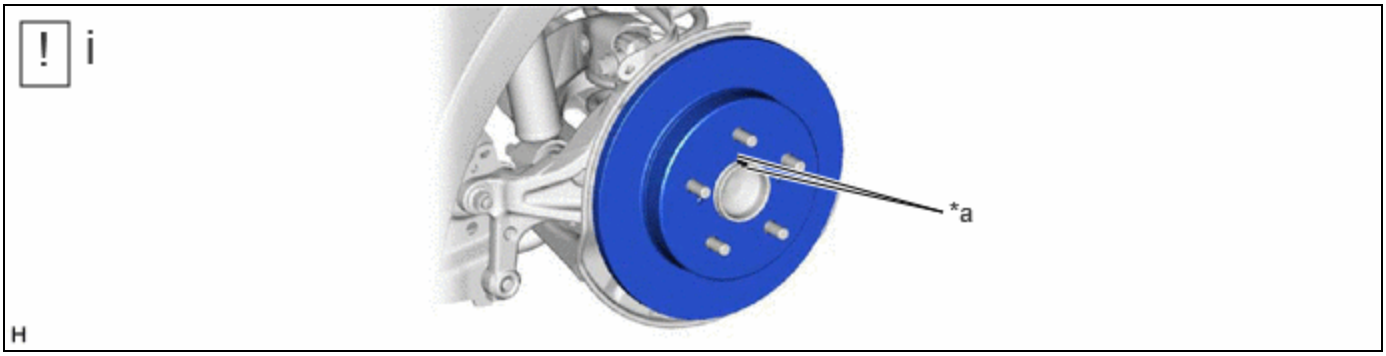


	PROCEDURE	PART NAME CODE	!		⚙
14	CABLE TO NEGATIVE AUXILIARY BATTERY TERMINAL	-	INFO	-	-
15	BLEED BRAKE LINE	-	-	-	INFO
16	BLEED REAR DISC BRAKE CYLINDER ASSEMBLY	47850	INFO	-	-
17	REAR WHEEL	-	-	-	-

	PROCEDURE	PART NAME CODE	!		
18	NORMAL CONDITION RECOVERY	-	-	-	INFO
19	INITIALIZATION AFTER RECONNECTING AUXILIARY BATTERY TERMINAL	-	-	-	INFO

PROCEDURE

1. INSTALL REAR DISC



*a	Matchmark	-	-

(1) Align the matchmarks of the rear disc and rear axle hub and bearing assembly, and install the rear disc.

NOTICE:

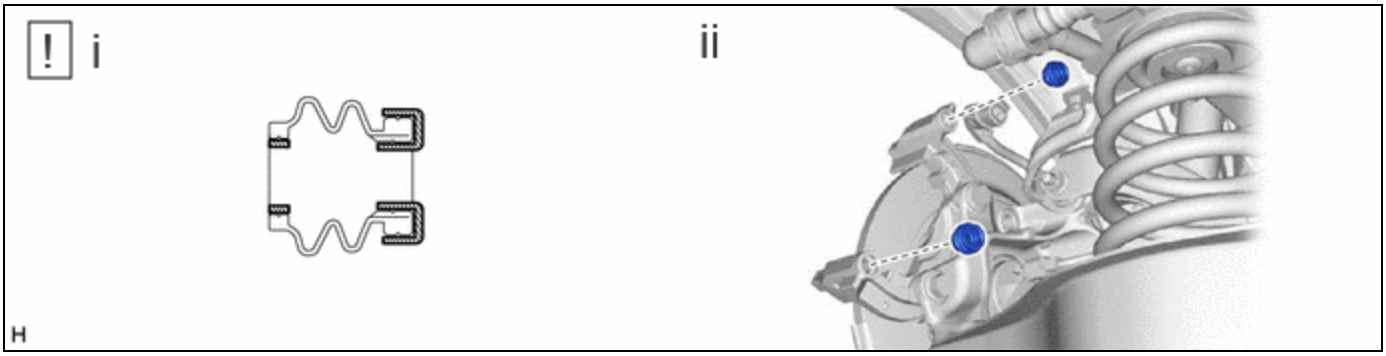
When replacing the rear disc with a new one, select the installation position where the rear disc has minimal runout.

2. INSTALL REAR DISC BRAKE CYLINDER MOUNTING

Torque:

107 N·m {1091 kgf·cm, 79 ft·lbf}

3. INSTALL REAR DISC BRAKE BUSHING DUST BOOT



	Lithium Soap Base Glycol Grease	-	-

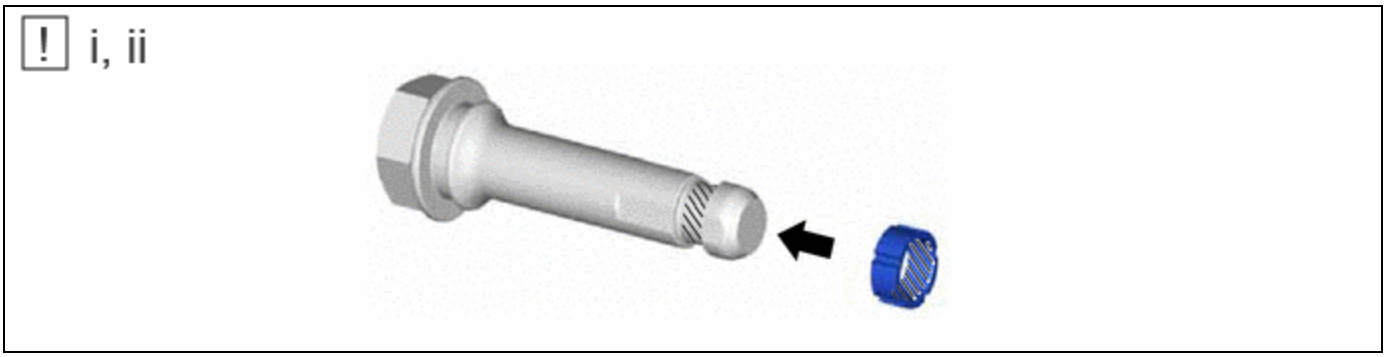
(1) Apply a light layer of lithium soap base glycol grease to the entire circumference of 2 new rear disc brake bushing dust boots.

HINT:

Apply more than 0.3 g (0.01 oz) of lithium soap base glycol grease to each rear disc brake bushing dust boot.

(2) Install the 2 rear disc brake bushing dust boots to the rear disc brake cylinder mounting.

4. INSTALL REAR DISC BRAKE CYLINDER SLIDE BUSHING

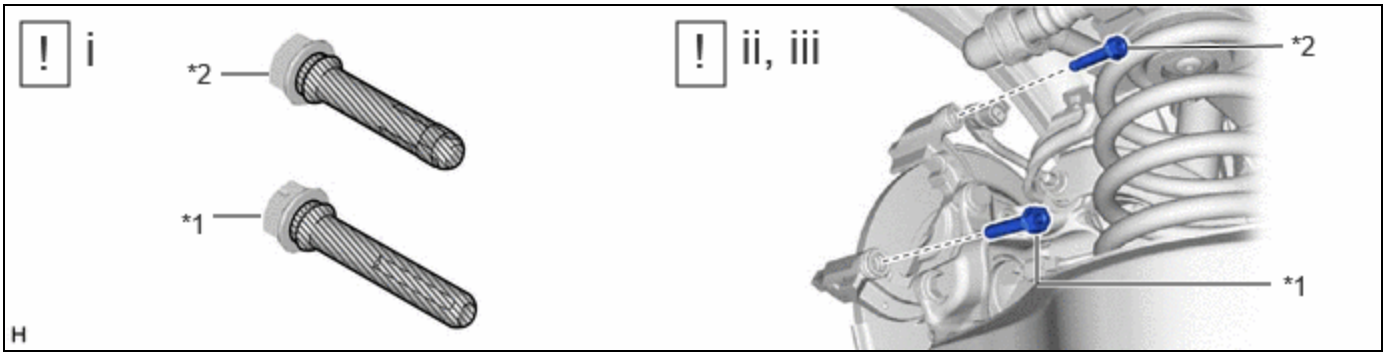


	Lithium Soap Base Glycol Grease	-	-

(1) Apply a light layer of lithium soap base glycol grease to the contact surface of the rear disc brake cylinder slide pin (upper side).

(2) Install a new rear disc brake cylinder slide bushing to the rear disc brake cylinder slide pin (upper side).

5. INSTALL REAR DISC BRAKE CYLINDER SLIDE PIN



*1	Rear Disc Brake Cylinder Slide Pin (Upper Side)	*2	Rear Disc Brake Cylinder Slide Pin (Lower Side)
	Lithium Soap Base Glycol Grease	-	-

(1) Apply a light layer of lithium soap base glycol grease to the sliding part and the sealing surfaces of the rear disc brake cylinder slide pin (upper side) and rear disc brake cylinder slide pin (lower side).

(2) Install the rear disc brake cylinder slide pin (upper side) and rear disc brake cylinder slide pin (lower side) to the rear disc brake cylinder mounting.

(3) Push the rear disc brake cylinder slide pin (upper side) and rear disc brake cylinder slide pin (lower side) into each rear disc brake bushing dust boot to engage the pins to the boots.

6. INSTALL REAR DISC BRAKE PAD SUPPORT PLATE

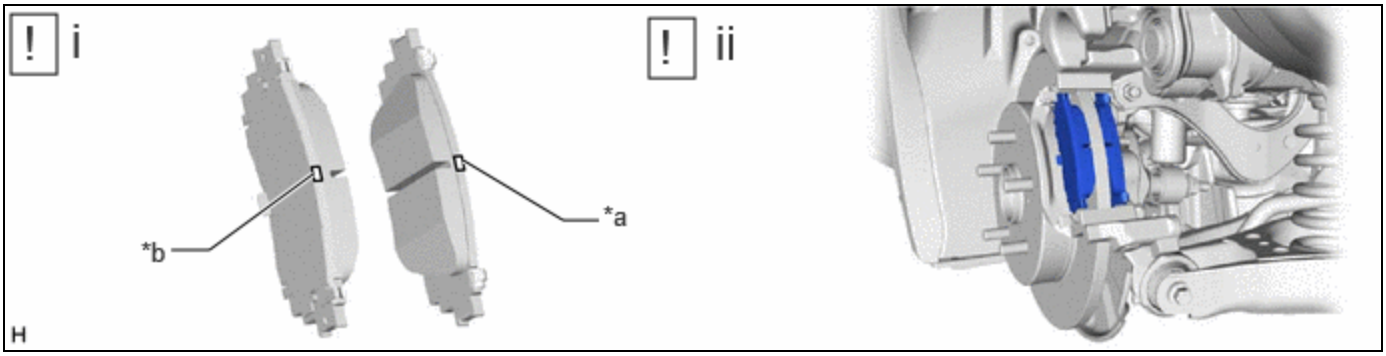
NOTICE:

Be sure to install each rear disc brake pad support plate in the correct position and direction.

7. INSTALL REAR DISC BRAKE ANTI SQUEAL SHIM KIT

Click here INFO

8. INSTALL REAR DISC BRAKE PAD KIT



*a	Inner Side (Orange)	*b	Outer Side (Yellow Green)

(1) Check the rear disc brake pad.

HINT:

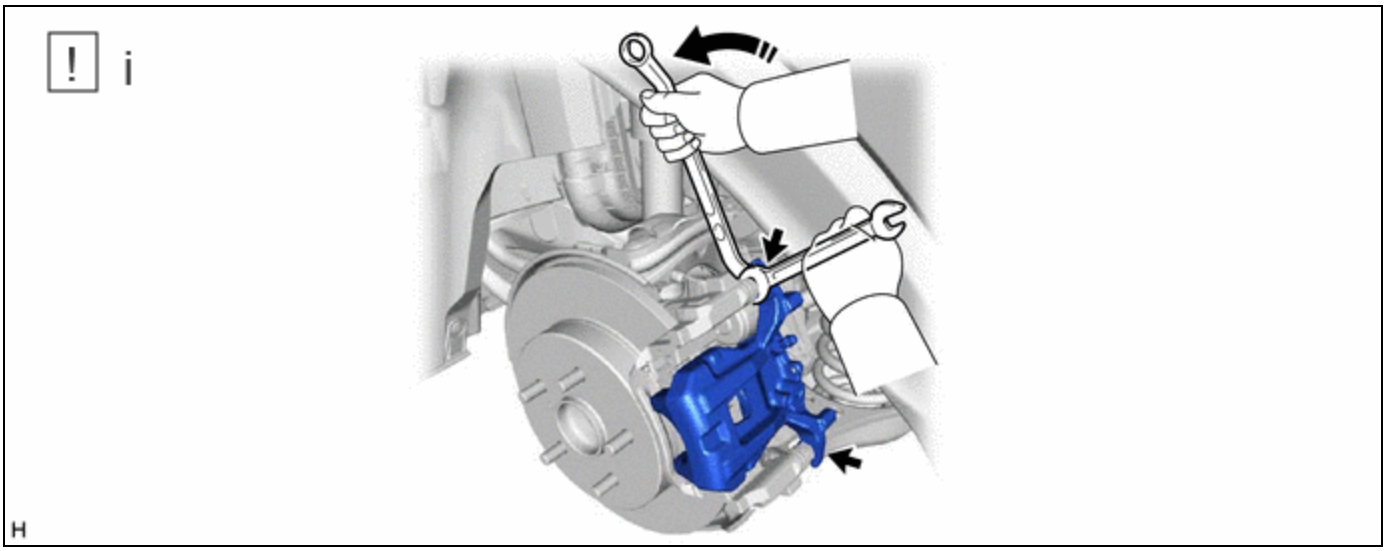
If the rear disc brake pad has an identification mark, be sure to confirm the installation location.

(2) Install the 2 rear disc brake pads to the rear disc brake cylinder mounting.

NOTICE:

- Keep the friction surfaces of the rear disc brake pads and rear disc free from oil and grease.
- Install the rear disc brake pad so that the rear disc brake pad wear indicator plate is mounted on the lower side of the vehicle.

9. INSTALL REAR DISC BRAKE CYLINDER ASSEMBLY



(1) Hold the 2 rear disc brake cylinder slide pins, and install the rear disc brake cylinder assembly to the rear disc brake cylinder mounting with 2 bolts.

Torque:

34.3 N·m {350 kgf·cm, 25 ft·lbf}

10. INSTALL PARKING BRAKE ACTUATOR SEAL

	Click here INFO

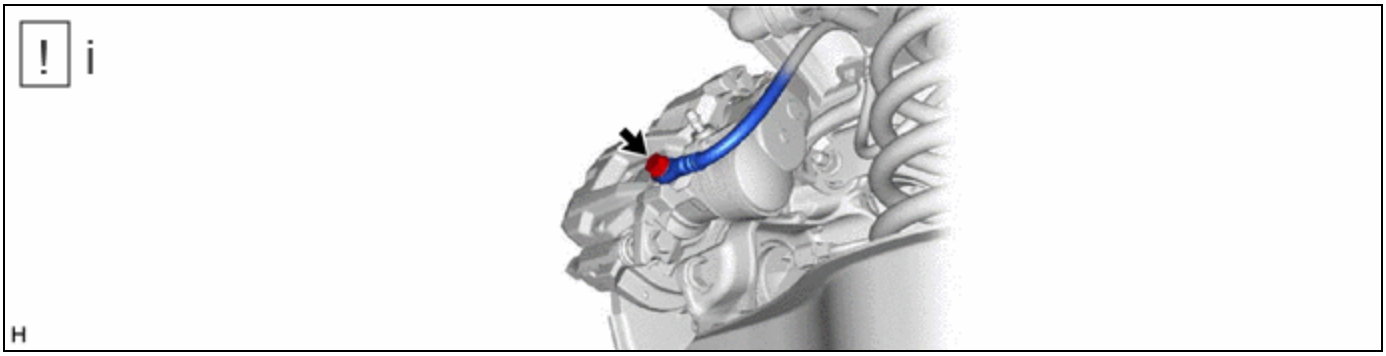
11. INSTALL PARKING BRAKE ACTUATOR ASSEMBLY

	Click here INFO

12. CONNECT NO.2 PARKING BRAKE WIRE ASSEMBLY

	Click here INFO

13. CONNECT REAR FLEXIBLE HOSE



(1) Connect the rear flexible hose to the rear disc brake cylinder assembly with a new union bolt and a new gasket.

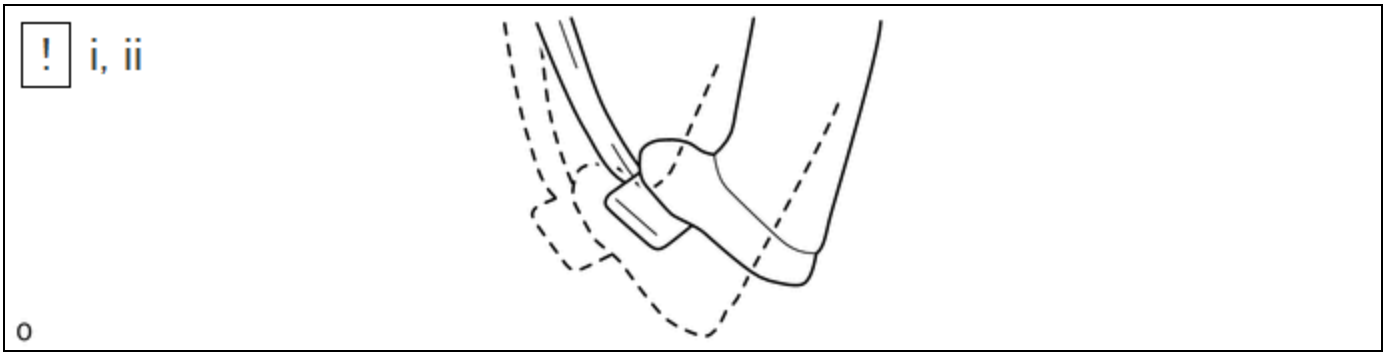
Torque:

30.4 N·m {310 kgf·cm, 22 ft·lbf}

NOTICE:

Install the rear flexible hose lock securely into the lock hole in the rear disc brake cylinder assembly.

14. CONNECT CABLE TO NEGATIVE AUXILIARY BATTERY TERMINAL



(1) Connect the cable to the negative (-) auxiliary battery terminal.

for M20A-FXS: Click here INFO

for 2ZR-FXE: Click here INFO

(2) Perform the following procedure if air bleeding is not necessary:

1. Turn the ignition switch to ON (READY).
2. Depress the brake pedal and release it.
3. Clear the DTCs.

Click here INFO

15. BLEED BRAKE LINE

Click here INFO

16. BLEED REAR DISC BRAKE CYLINDER ASSEMBLY

CAUTION:

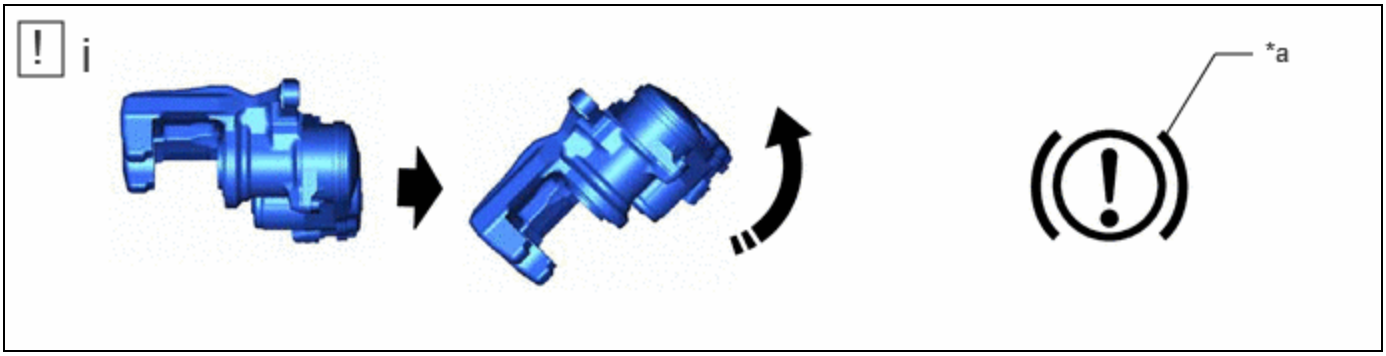
If the rear disc brake cylinder assembly has been disassembled, perform air bleeding for the rear disc brake cylinder assembly.

NOTICE:

- Perform air bleeding while maintaining the brake fluid level between the MAX and MIN lines on the brake fluid reservoir.
- Do not allow brake fluid to contact any painted surface. If brake fluid leaks onto any painted surface, immediately wash it off.

HINT:

- Use the same procedure for the RH side and LH side.
- The following procedure is for the LH side.
- While performing air bleeding of the rear disc brake cylinder assembly, the bolts can be reused during the bleeding procedure. After air bleeding is complete, replace the bolts with new ones.



*a	Brake Warning Light (Yellow)	-	-

(1) Perform the following procedure:

1. Perform the procedure to enter rear disc brake pad replacement mode 5 times.

   Click here INFO

2. Separate the center cowl top ventilator louver.

   a. Separate the center cowl top ventilator louver. (for 2ZR-FXE)

      i. Disengage the 4 claws, 3 guides and 2 hooks, and separate the center cowl top ventilator louver as shown in the illustration.

   b. Separate the center cowl top ventilator louver. (for 2ZR-FXE)

      i. Disengage the 4 claws, 2 guides and 2 hooks, and separate the center cowl top ventilator louver as shown in the illustration.

   c. Separate the center cowl top ventilator louver.

      i. Disengage the 4 claws, clip, 5 guides and 2 hooks, and separate the center cowl top ventilator louver as shown in the illustration.

3. Remove the brake master cylinder reservoir filler cap assembly.
4. Force air within the rear disc brake cylinder assembly to accumulate at the rear disc brake bleeder plug.(*1)

   a. Disable brake control.

      Click here INFO

   b. Disconnect the No. 2 parking brake wire assembly connector.

      Click here INFO

   c. Remove the bolt, and disconnect the rear flexible hose.

      Click here INFO

   d. Hold the 2 rear disc brake cylinder slide pins and remove the 2 bolts and separate the rear disc brake cylinder assembly from the rear disc brake cylinder mounting.
   e. Hold the rear disc brake cylinder assembly horizontally, then tilt it 45° toward the bleeder plug side as shown in the illustration.
   f. Temporarily install the rear disc brake cylinder assembly to the rear disc brake cylinder mounting with the 2 bolts.
   g. Temporarily install the rear flexible hose with the bolt.

      Click here INFO

   h. Connect the No. 2 parking brake wire assembly connector.

      Click here INFO

   i. Connect the reservoir level switch connector.
   j. Connect the cable to the negative (-) auxiliary battery terminal.

      for M20A-FXS: Click here INFO

      for 2ZR-FXE: Click here INFO

   k. Turn the ignition switch to ON (READY).
   l. Depress the brake pedal and release it.
   m. Apply the parking brake.

5. Enter ECB (Electronically Controlled Brake system) Deactivate Mode.(*2)

NOTICE:

- Performing the following procedure enters ECB (Electronically Controlled Brake system) Deactivate Mode without using the GTS.
- ECB (Electronically Controlled Brake system) Deactivate Mode allows the brake lines to be bled without using the GTS.
- The brake warning light blinks (yellow) to indicate that ECB (Electronically Controlled Brake system) Deactivate Mode is selected.
- Be sure to confirm that the brake warning light is blinking (yellow) throughout the brake line bleeding procedure.
- If any of the following conditions are met, ECB (Electronically Controlled Brake system) Deactivate Mode is canceled and the brake warning light (yellow) turns off. Do not allow ECB (Electronically Controlled Brake system) Deactivate Mode to be canceled while bleeding the brake lines or DTCs may be stored.

A shift state other than park (P) is selected.
The ignition switch is turned to ON (READY).
The ignition switch is turned off.
The parking brake is released.
The vehicle speed is more than 0 km/h (0 mph).

- Do not rotate any brake disc while ECB (Electronically Controlled Brake system) Deactivate Mode is selected.
- Although the brake warning light (yellow) will blink and a buzzer will sound while performing brake line bleeding, this is not a malfunction.

a. Perform the procedure listed below within 1 minute.

i. Turn the ignition switch to ON with park (P) selected and parking brake applied.
ii. Select neutral (N) and then depress the brake pedal more than 8 times within 5 seconds.
iii. Push the P position switch and then depress the brake pedal more than 8 times within 5 seconds.
iv. Select neutral (N) and then depress the brake pedal more than 8 times within 5 seconds.
v. Push the P position switch.

b. Check that the brake warning light is blinking (yellow).

6. Bleed the brake line.(*3)

a. Remove the rear disc brake bleeder plug cap.
b. Connect a vinyl tube to the rear disc brake bleeder plug.
c. Add brake fluid to the reservoir until the fluid level is between the MAX and MIN lines on the brake fluid reservoir.(*a)
d. Depress the brake pedal several times with approximately 1 second between each depression, and then loosen the bleeder plug with the pedal depressed.(*b)
e. When brake fluid stops coming out, tighten the bleeder plug and then release the brake pedal for 1 second or more.(*c)

HINT:

When the brake pedal is released, the piston inside the master cylinder may take longer than the brake pedal to return to its original position. Therefore, make sure to wait for 1 second or more between each depression of the brake pedal.

f. Repeat steps (*a) through (*c) until there are no signs of air in the brake fluid.
g. Release the parking brake.

7. Repeat steps (*1) through (*3) 3 times.

NOTICE:

If there is still air in the system after performing steps (*1) through (*3) 3 times, repeat the steps (*1) through (*3) until the air has been bled.

8. Tighten the rear disc brake bleeder plug completely.

   Torque:

   8.3 N*m (85 kgf*cm, 73 in.*lbf)

9. Install the rear disc brake bleeder plug cap to the rear disc brake bleeder plug.
10. Hold the 2 rear disc brake cylinder slide pins, and install the rear disc brake cylinder assembly to the rear disc brake cylinder mounting with 2 new bolts.

    Torque:

    34.3 N*m (350 kgf*cm, 25 ft.*lbf)

11. Connect the rear flexible hose with the bolt.

    Torque:

    30.4 N*m (310 kgf*cm, 22 ft.*lbf)

12. Inspect for brake fluid leaks.
13. Adjust the brake fluid level in the reservoir.

    Click here INFO

14. Install the brake master cylinder reservoir filler cap assembly.
15. Install the center cowl top ventilator louver.
16. Turn the ignition switch off.
17. Clear the DTCs.

    Click here INFO

17. INSTALL REAR WHEEL

Click here INFO

18. NORMAL CONDITION RECOVERY

Click here INFO

19. INITIALIZATION AFTER RECONNECTING AUXILIARY BATTERY TERMINAL

HINT:

When disconnecting and reconnecting the auxiliary battery, there is an automatic learning function that completes learning when the respective system is used.

Click here INFO