

Last Modified: 12-04-2024	6.11:8.1.0	Doc ID: RM100000002ALBN
Model Year Start: 2023	Model: Prius Prime	Prod Date Range: [03/2023 -]
Title: M20A-FXS (ENGINE CONTROL): CAMSHAFT OIL CONTROL SOLENOID: INSTALLATION; 2023 - 2024 MY Prius Prius Prime [03/2023 -]		

INSTALLATION

CAUTION / NOTICE / HINT

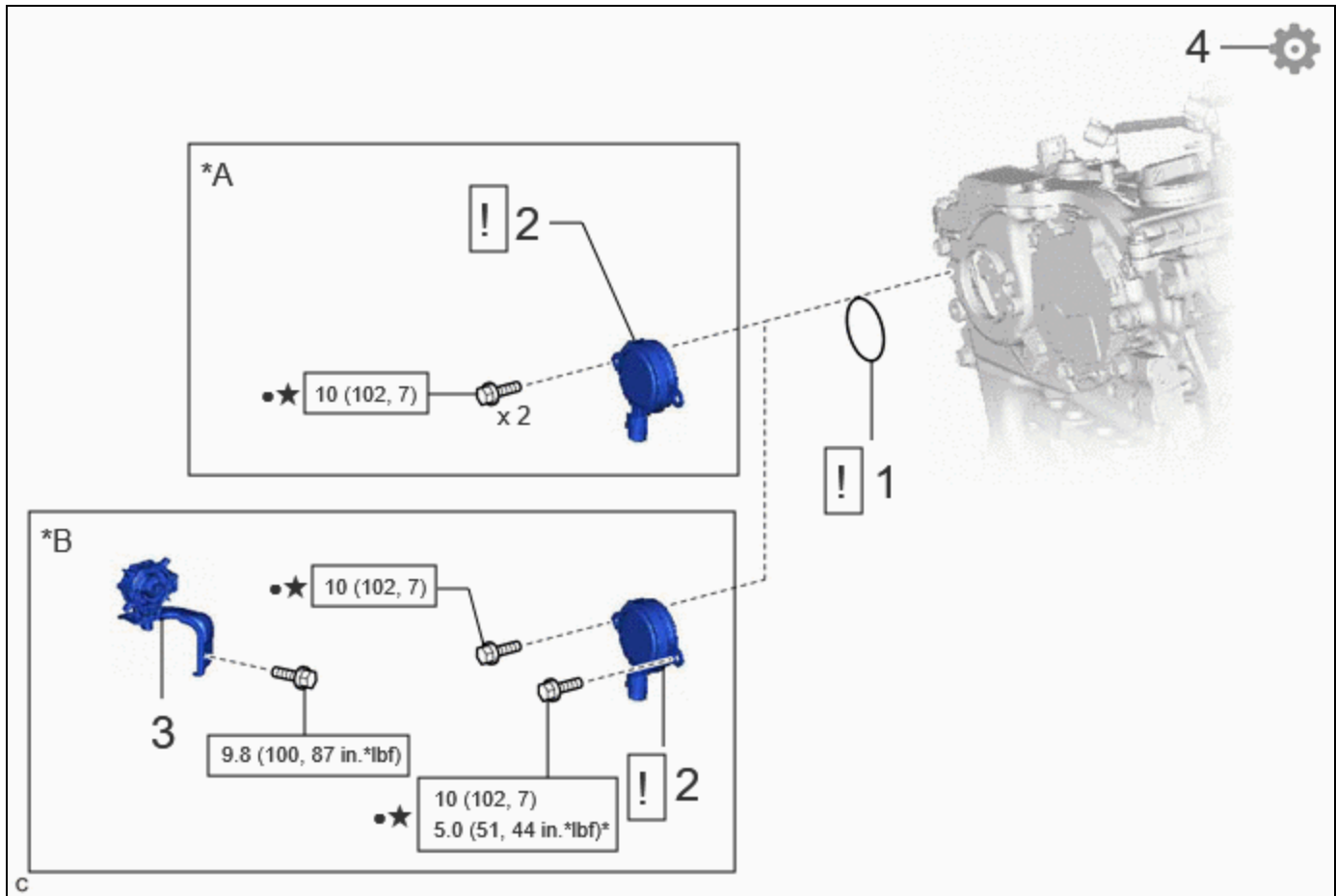
NOTICE:

This procedure includes the installation of small-head bolts. Refer to Small-Head Bolts of Basic Repair Hint to identify the small-head bolts.




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CAUTION / NOTICE / HINT

COMPONENTS (INSTALLATION)



PROCEDURE		PART NAME CODE			
1	CAM TIMING OIL CONTROL SOLENOID O-RING	15370A	INFO	-	-

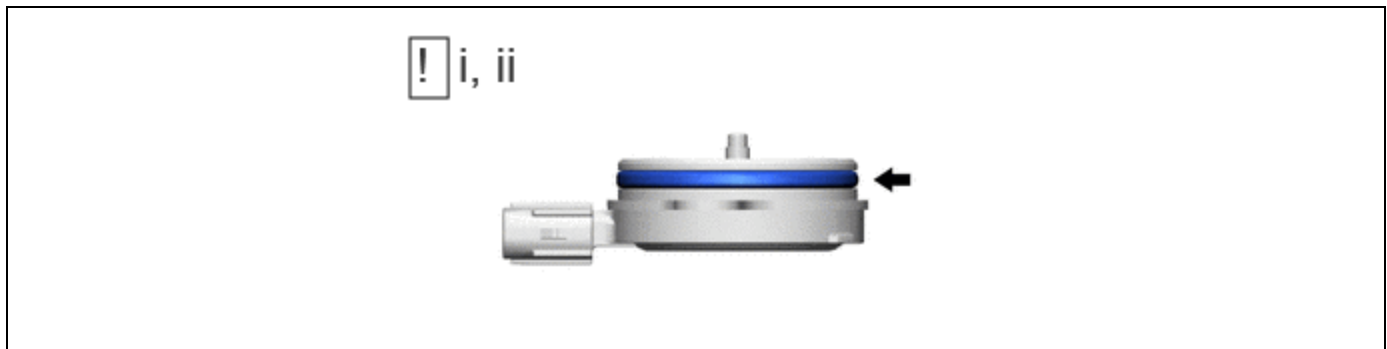
	PROCEDURE	PART NAME CODE			
2	CAM TIMING OIL CONTROL SOLENOID ASSEMBLY	15370	INFO	-	-
3	NO. 2 COOLER BRACKET	88689F	-	-	-
4	INSPECT FOR ENGINE OIL LEAK	-	-	-	INFO

*A	for HEV Model	*B	for PHEV Model
	N*m (kgf*cm, ft.*lbf): Specified torque	*	For use with an offset long wrench
•	Non-reusable part	★	Precoated part

PROCEDURE

1. INSTALL CAM TIMING OIL CONTROL SOLENOID O-RING

	<p>HINT:</p> <p>Perform this procedure only when replacement of the cam timing oil control solenoid O-ring is necessary.</p>
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(1) Clean the O-ring groove of the cam timing oil control solenoid assembly.

NOTICE:

Make sure the O-ring groove is free of foreign matter.

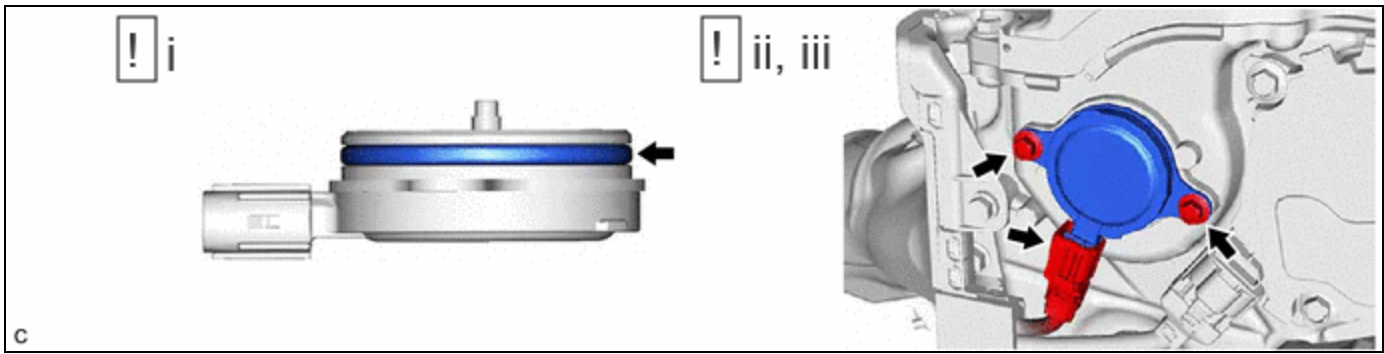
(2) Install a new cam timing oil control solenoid O-ring to the cam timing oil control solenoid assembly.

NOTICE:

Do not damage the cam timing oil control solenoid O-ring when installing it.

2. INSTALL CAM TIMING OIL CONTROL SOLENOID ASSEMBLY

(a) for HEV Model:



(1) Apply a light coat of engine oil to the cam timing oil control solenoid O-ring.

NOTICE:

If reusing the cam timing oil control solenoid assembly, be sure to inspect the cam timing oil control solenoid O-ring.

(2) Using an 8 mm socket wrench, install the cam timing oil control solenoid assembly to the No. 2 timing chain cover assembly with 2 new bolts.

Torque:

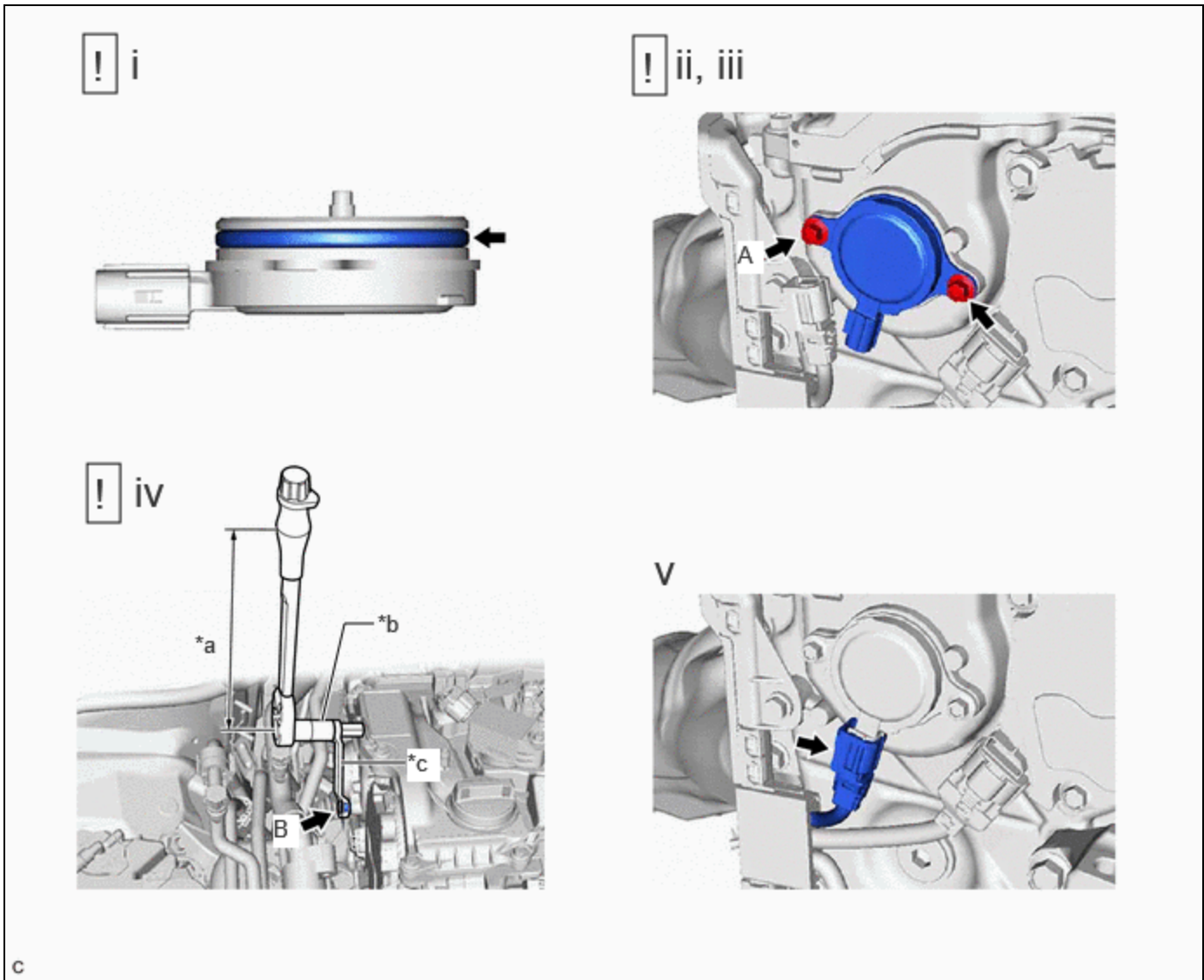
10 N·m {102 kgf·cm, 7 ft·lbf}

NOTICE:

- If the cam timing oil control solenoid assembly has been struck or dropped, replace it.
- Make sure that the cam timing oil control solenoid O-ring is not cracked or moved out of place when installing the cam timing oil control solenoid assembly.

(3) Connect the cam timing oil control solenoid assembly connector.

(b) for PHEV Model:



*a	Torque Wrench Fulcrum Length	*b	10 mm Hexagon Socket Wrench
*c	8 x 10 mm Offset Long Wrench	-	-

(1) Apply a light coat of engine oil to the cam timing oil control solenoid O-ring.

NOTICE:

If reusing the cam timing oil control solenoid assembly, be sure to inspect the cam timing oil control solenoid O-ring.

(2) Using an 8 mm socket wrench and 8 x 10 mm offset long wrench, temporarily install the cam timing oil control solenoid assembly to the No. 2 timing chain cover assembly with 2 new bolts.

NOTICE:

- If the cam timing oil control solenoid assembly has been struck or dropped, replace it.
- Make sure that the cam timing oil control solenoid O-ring is not cracked or moved out of place when installing the cam timing oil control solenoid assembly.

(3) Using an 8 mm socket wrench, tighten the bolt (A).

Torque:

10 N·m {102 kgf·cm, 7 ft·lbf}

(4) Using an 8 x 10 mm offset long wrench and 10 mm hexagon socket wrench, tighten the bolt (B).

Torque:

Specified tightening torque :

10 N·m {102 kgf·cm, 7 ft·lbf}

HINT:

- Calculate the torque wrench reading when changing the fulcrum length of the torque wrench.

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- When using an 8 x 10 mm offset long wrench (fulcrum length of 164.5 mm (6.48 in.)) + torque wrench (fulcrum length of 162 mm (6.38 in.)):

5.0 N·m (51 kgf·cm, 44 in·lbf)

(5) Connect the cam timing oil control solenoid assembly connector.

3. INSTALL NO. 2 COOLER BRACKET (for PHEV Model)

Torque:

9.8 N·m {100 kgf·cm, 87 in·lbf}

4. INSPECT FOR ENGINE OIL LEAK

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