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Model Year Start: 2023	**Model:** Prius Prime	**Prod Date Range:** [12/2022 -]
Title: M20A-FXS (ENGINE CONTROL): CAMSHAFT TIMING CONTROL MOTOR: INSPECTION; 2023 - 2024 MY Prius Prius Prime [12/2022 -]		

INSPECTION

CAUTION / NOTICE / HINT

NOTICE:

- Make sure the contact surface of the cam timing control motor with EDU assembly (the surface that contacts the No. 2 timing chain cover assembly) is free of foreign matter.
- If the cam timing control motor with EDU assembly has been struck or dropped, replace it.
- Do not disassemble the cam timing control motor with EDU assembly. If disassembled, replace it.

PROCEDURE

1. INSPECT CAM TIMING CONTROL MOTOR WITH EDU ASSEMBLY

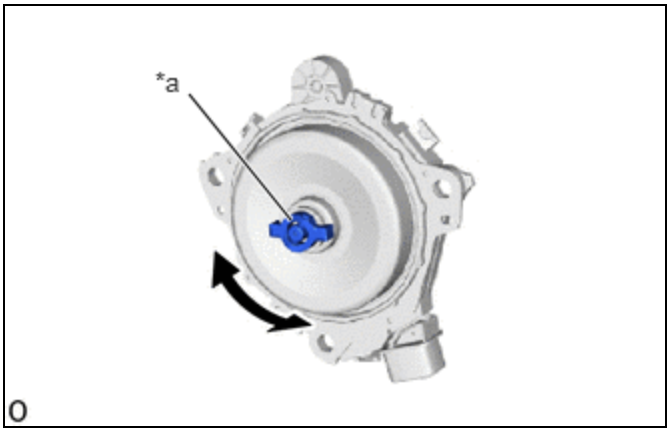
(a) Rotate the joint of the cam timing control motor with EDU assembly by hand and check that it rotates smoothly.

Standard Condition:
The joint rotates smoothly.

HINT:

Due to the magnetic force of the cam timing control motor with EDU assembly the joint may feel as if it is sticking when turning it.

If the result is not as specified, replace the cam timing control motor with EDU assembly.



*a	Joint

2. INSPECT CAMSHAFT TIMING GEAR ASSEMBLY

NOTICE:

- If the camshaft timing gear assembly has been struck or dropped, replace it.
- Do not disassemble the camshaft timing gear assembly. If disassembled, replace it.

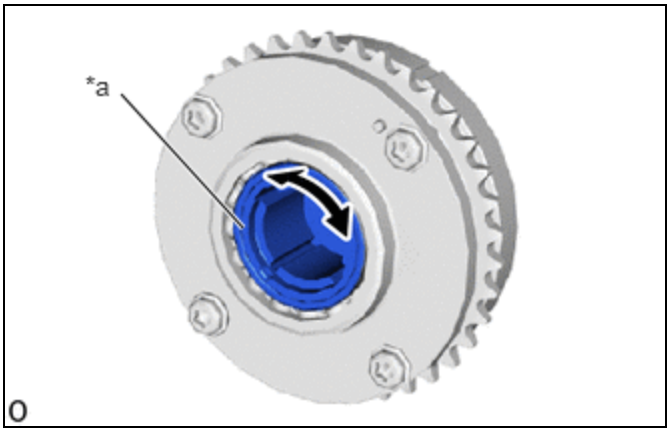
(a) Rotate the camshaft timing gear assembly eccentric shaft by hand.

Standard Condition:
The shaft rotates smoothly.

HINT:

The eccentric shaft may feel difficult to rotate due to the spring inside the camshaft timing gear assembly.

If the result is not as specified, replace the camshaft timing gear assembly.



*a	Eccentric Shaft

(b) Inspect the joint clearance.

(1) Using a vernier caliper, measure the width (A) of the cutout of the camshaft timing gear assembly eccentric shaft.

Standard Width:

SPECIFIED CONDITION	RESULT
5.98 to 6.05 mm 0.235 to 0.238 in.	mm in.

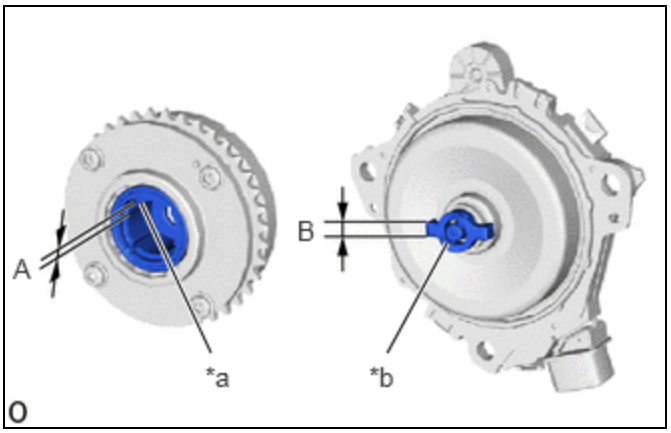
(2) Using a vernier caliper, measure the width (B) of the joint of the cam timing control motor with EDU assembly.

Standard Width:

SPECIFIED CONDITION	RESULT
5.90 to 5.95 mm 0.232 to 0.234 in.	mm in.

(3) Calculate the clearance by subtracting the width (B) of the joint of the cam timing control motor with EDU assembly from the width (A) of the cutout of the camshaft timing gear assembly eccentric shaft.

Standard Clearance:



*a	Cutout
*b	Joint

Maximum Clearance	SPECIFIED CONDITION	RESULT
0.7 mm 0.0276 in.	0.03 to 0.15 mm 0.00118 to 0.00591 in.	mm in.

If the clearance is more than the maximum, replace the camshaft timing gear assembly or cam timing control motor with EDU assembly.