

DTC	P0340	Camshaft Position Sensor Circuit Malfunction
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CIRCUIT DESCRIPTION

Camshaft position sensor (G2 signal) consist of a signal plate and pickup coil.

The G2 signal plate has 1 tooth, on its outer circumference and is mounted on the left bank camshafts.

When the camshafts rotate, the protrusion on the signal plate and the air gap on the pickup coil change, causing fluctuations in the magnetic field and generating an electromotive force in the pickup coil.

The NE signal plate has 34 teeth and is mounted on the crankshaft. The NE signal sensor generates 34 signals for every engine revolution. The ECM detects the standard crankshaft angle based on the G2 signal and the actual crankshaft angle and the engine speed by the NE signals.

DTC No.	DTC Detecting Condition	Trouble Area
P0340	No camshaft position sensor signal to ECM during cranking. (2 trip detection logic)	• Open or short in camshaft position sensor circuit • Camshaft position sensor • Starter • ECM
	No camshaft position sensor signal to ECM with engine speed 600 rpm or more	

WIRING DIAGRAM

Refer to DTC P0335 (Crankshaft Position Sensor "A" Circuit Malfunction) on page [DI-71](#) for the WIRING DIAGRAM.

INSPECTION PROCEDURE

HINT:

Read freeze frame data using TOYOTA hand-held tester or OBD II scan tool. Because freeze frame records the engine conditions when the malfunction is detected, when troubleshooting it is useful for determining whether the vehicle was running or stopped, the engine warmed up or not, the air-fuel ratio lean or rich, etc. at the time of the malfunction.

1	Check resistance of camshaft position sensor (See page IG-1).
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Reference: INSPECTION USING OSCILLOSCOPE

Refer to DTC P0335 (Crankshaft Position Sensor "A" Circuit Malfunction) on page [DI-71](#) for the Reference: INSPECTION USING OSCILLOSCOPE.

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Replace camshaft position sensor.

OK

2	Check for open and short in harness and connector between ECM and camshaft position sensor (See page IN-34).
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Repair or replace harness or connector.

OK

3	Inspect sensor installation.
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Tighten sensor.

OK

Check and replace ECM (See page [IN-34](#)).