

DTC	P0340	Camshaft Position Sensor Circuit Malfunction
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CIRCUIT DESCRIPTION

Camshaft position sensor (G signal) consists of a magnet, iron core and pickup coil.

The G 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 at every engine revolution. The ECM detects the standard crankshaft angle based on the G signal and the actual crankshaft angle and the engine speed by the NE signal.

DTC No.	DTC Detecting Condition	Trouble Area
P0340	No camshaft position sensor signal to ECM during cranking (2 trip detection logic)	<ul style="list-style-type: none"> • Open or short in camshaft position sensor circuit • Camshaft position sensor • ECM
	No camshaft position sensor signal to ECM with engine speed 600 rpm or more	

WIRING DIAGRAM

Refer to DTC P0335 on page [DI-64](#).

INSPECTION PROCEDURE

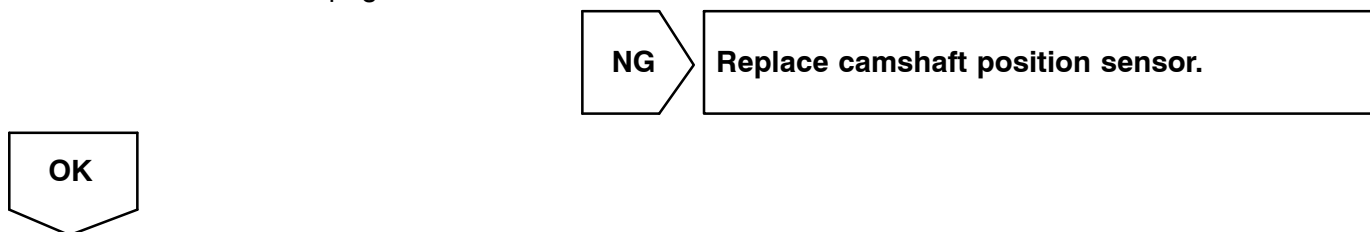
HINT:

Read freeze frame data using TOYOTA hand-held tester or OBDII 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 was warmed up or not, the air-fuel ratio was 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 on page [DI-64](#).



2	Check for open and short in harness and connector between ECM and camshaft position sensor (See page IN-28).
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OK

3 **Inspect sensor installation and tooth of RH camshaft timing pulley.**

NG

Tighten sensor. Replace RH camshaft timing pulley

OK

Check and replace ECM (See page [IN-28](#)).