

DTC	P0340	Camshaft Position Sensor "A" Circuit (Bank 1 or Single Sensor)
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DTC	P0341	Camshaft Position Sensor "A" Circuit Range/Performance (Single Sensor)
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CIRCUIT DESCRIPTION

The 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 installed on the LH camshaft timing pulley. When the camshafts rotate, protrusion on the signal plate and 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 angle of the crankshaft based on the G signal, the angle of the crankshaft and the engine speed by the NE signal.

DTC No.	DTC Detection Condition	Trouble Area
P0340	No signal of camshaft to ECM during cranking (2 trip detection logic)	• Open or short in camshaft position sensor circuit • Camshaft position sensor • LH camshaft timing pulley • ECM
P0341	No signal of camshaft to ECM with engine speed 600 rpm or more	

WIRING DIAGRAM

Refer to DTC P0335 on page [DI-112](#).

INSPECTION PROCEDURE

HINT:

Read freeze frame data using hand-held tester or the OBD II scan tool, as freeze frame data records the engine conditions when a malfunction is detected. When troubleshooting, this 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 SF-1).
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Reference: INSPECTION USING OSCILLOSCOPE

Refer to DTC P0335 on page [DI-112](#).

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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-36).
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Repair or replace harness or connector.

OK

3	Inspect sensor installation and tooth of LH camshaft timing pulley.
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Tighten sensor. Replace LH camshaft timing pulley.

OK

Check and replace ECM (See page [IN-36](#)).