

<b>DTC</b>	<b>P0335</b>	<b>Crankshaft Position Sensor "A" Circuit</b>
------------	--------------	---

<b>DTC</b>	<b>P0339</b>	<b>Crankshaft Position Sensor "A" Circuit</b>
------------	--------------	---

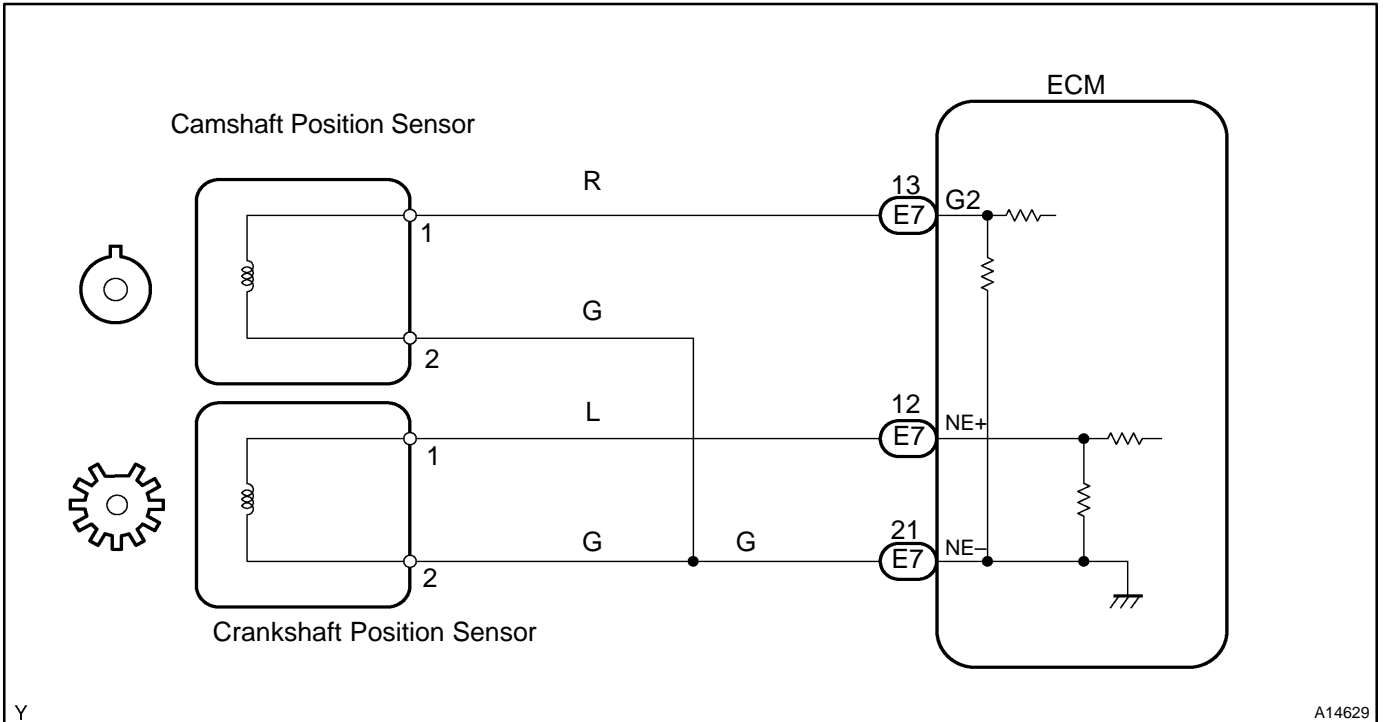
**CIRCUIT DESCRIPTION**

The crankshaft position sensor, which detects the engine speed and crankshaft angle signal (NE signal), has been installed on the oil pump body.

The NE signal plate has 34 teeth. The NE signal sensor generates 34 signals at every engine revolution. The engine ECM detects the crankshaft angle and the engine speed based on the NE signals, and identify the cylinder on the G2 (Camshaft position sensor) and NE signals.

DTC No.	DTC Detecting Condition	Trouble Area
P0335	No crankshaft position sensor signal to ECM during cranking (2 trip detection logic)	<ul style="list-style-type: none"> <li>• Open or short in crankshaft position sensor circuit</li> <li>• Crankshaft position sensor</li> <li>• Crankshaft timing pulley</li> <li>• ECM</li> </ul>
	No crankshaft position sensor signal to ECM with engine speed 600 rpm or more (2 trip detection logic)	
P0339	In condition (a), (b) and (c), when no crankshaft position sensor (NE) signal is input for 0.05 sec. or more. (a) Engine revolution 1,000 rpm or more (b) STA signal is OFF (c) 3 sec. or more has been lapsed after STA signal is switched from ON to OFF.	<ul style="list-style-type: none"> <li>• Open or short in crankshaft position sensor circuit</li> <li>• Crankshaft position sensor</li> <li>• Crankshaft timing pulley</li> <li>• ECM</li> </ul>

**WIRING DIAGRAM**



Y

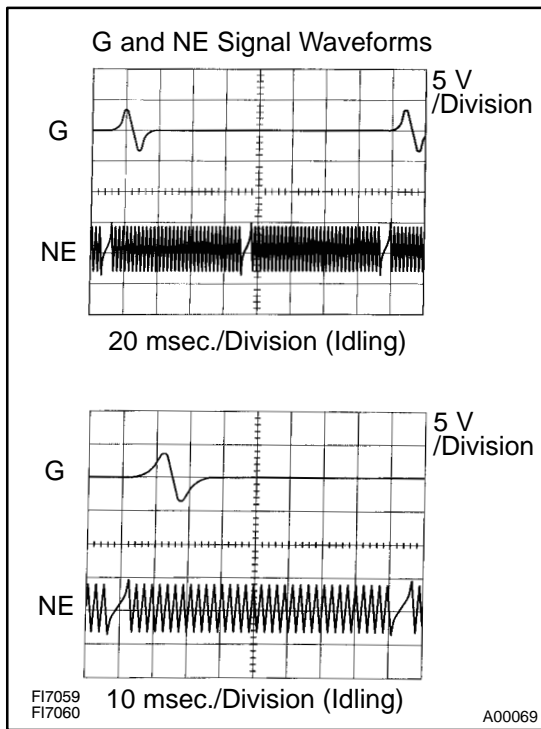
A14629

## INSPECTION PROCEDURE

**HINT:**

- Perform a troubleshooting of DTC P0335 first. If no trouble is found, troubleshoot the following mechanical systems.
- Read freeze frame data using the hand-held tester or the OBD II scan tool, as freeze frame data records the engine conditions when a 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 crankshaft position sensor (See page IG-1).**



**Reference: INSPECTION USING OSCILLOSCOPE**

During cranking or idling, check the waveforms between terminals G2 and NE-, and NE+ and NE- of the ECM connector.

**HINT:**

The correct waveforms are as shown.

**OK**

**NG** Replace crankshaft position sensor.

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

**OK**

**NG** Repair or replace harness or connector.

<b>3</b>	<b>Inspect sensor installation and teeth of crankshaft timing pulley.</b>
----------	---

<b>NG</b>	<b>Tighten the sensor. Replace crankshaft timing pulley.</b>
-----------	--

<b>OK</b>
-----------

<b>Check and replace ECM (See page <a href="#">IN-28</a>).</b>
--