

## Computers and Control Systems: Diagnostic Trouble Code Tests and Associated Procedures P0340

### CIRCUIT DESCRIPTION

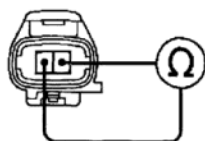
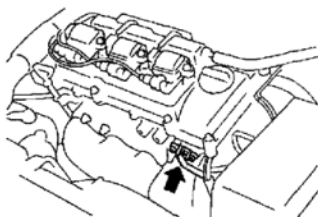
Camshaft position sensor (G22 signal) consist of a signal plate and pick up coil.  
The G22 signal plate has one tooth on its outer circumference and is mounted on the left bank camshafts. When the camshafts rotate, the protrusion on the signal plate and the air gap on the pick up coil change, causing fluctuations in the magnetic field and generating an electromotive force in the pick up 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 G22 signals 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)	<ul style="list-style-type: none"> <li>• Open or short in camshaft position sensor circuit</li> <li>• Camshaft position sensor</li> <li>• Starter</li> <li>• ECM</li> </ul>
	No camshaft position sensor signal to ECM during engine running	

### DETECTING CONDITION

<b>1</b>	<b>Check resistance of camshaft position sensor.</b>
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Camshaft Position Sensor



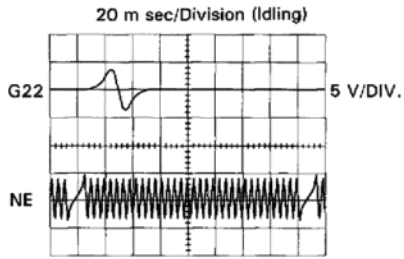
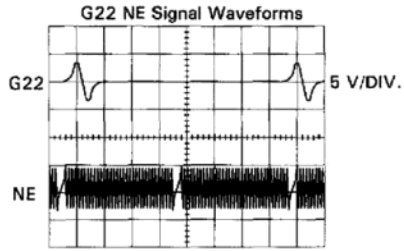
**P** Disconnect camshaft position sensor connector.

**C** Measure resistance of camshaft position sensor.

OK	Resistance
Cold	835 ~ 1,400 Ω
Hot	1,060 ~ 1,645 Ω

“Cold” is from -10°C (14°F) to 50°C (122°F) and “Hot” is from 50°C (122°F) to 100°C (212°F).

**Reference INSPECTION USING OSCILLOSCOPE**



F17059  
F17060

**OK**

**NG** Replace camshaft position sensor.

**2** Check for open and short in harness and connector between ECM and camshaft position sensor.

**OK**

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

**3** Inspect sensor installation.

**OK**

**NG** Tighten the sensor.

Check and replace ECM.

**INSPECTION PROCEDURE**