

DTC	P0335	Crankshaft Position Sensor "A" Circuit Malfunction
------------	--------------	---

CIRCUIT DESCRIPTION

Camshaft position sensor (G1 and G2 signals) and crankshaft position sensor (NE signal) consist of a signal plate and a pick up coil.

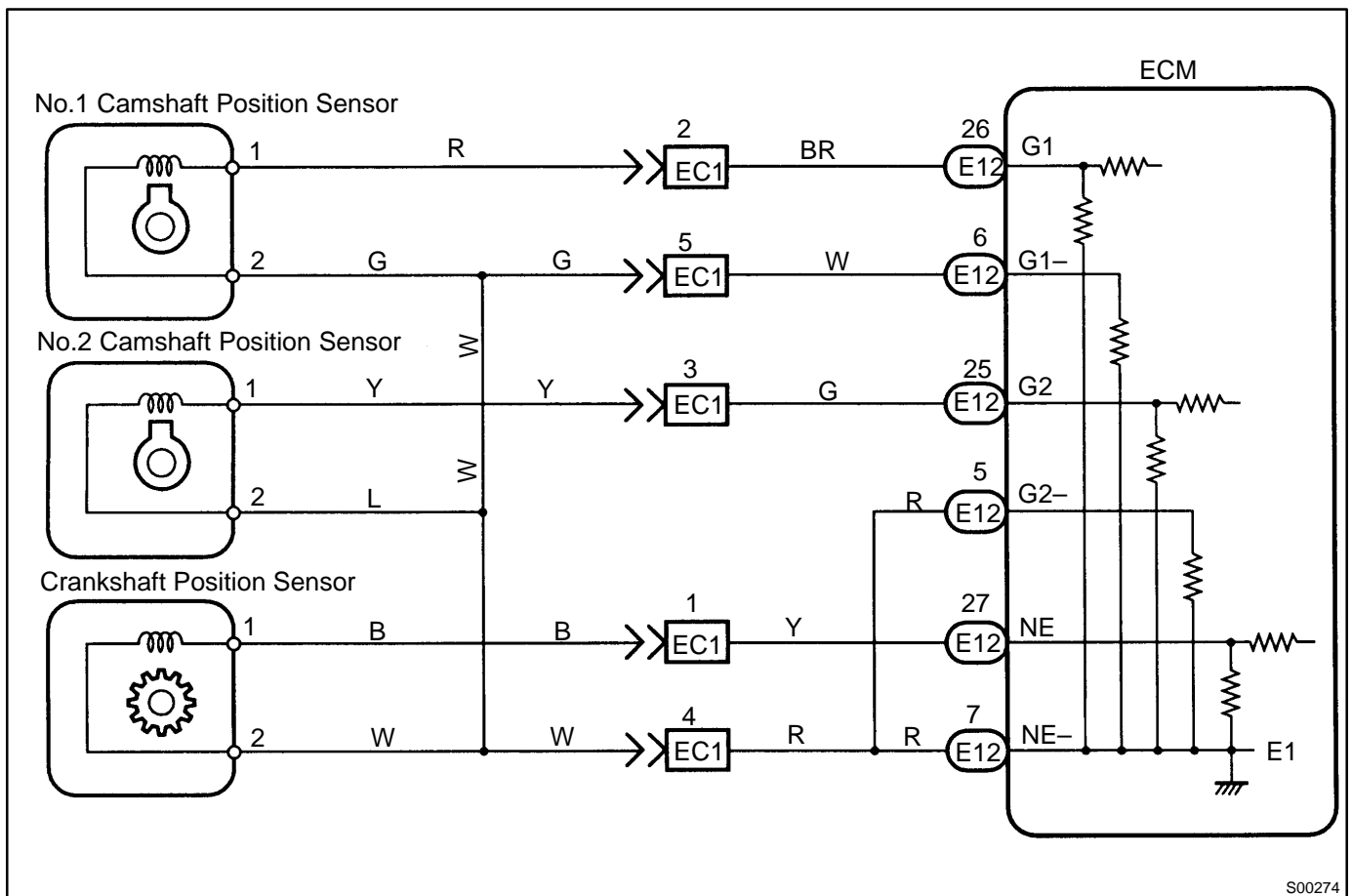
The G1, G2 signal plates have one tooth each on its outer circumference and are mounted on the left and right bank camshafts.

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 12 teeth and is mounted on the crankshaft. The NE signal sensor generates 12 NE signals per engine revolution. The ECM detects the standard crankshaft angle based on the G1, G2 signals, and the actual crankshaft angle and the engine speed by the NE signals.

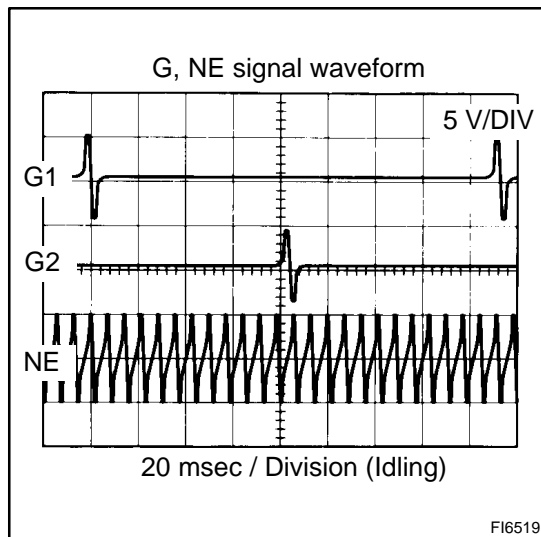
DTC No.	DTC Detecting Condition	Trouble Area
P0335	No crankshaft position sensor signal to ECM during cranking (2 trip detection logic)	<ul style="list-style-type: none"> • Open or short in crankshaft position sensor circuit • Crankshaft position sensor • Starter • ECM
	No crankshaft position sensor signal to ECM with engine speed 500 rpm or more (2 trip detection logic)	

WIRING DIAGRAM



INSPECTION PROCEDURE

- 1 Check resistance of crankshaft position sensor (See page IG-23).



Reference: INSPECTION USING OSCILLOSCOPE

During cranking or idling, check waveforms between terminals G1, G2 and G-, NE and NE- of engine control module.

HINT:

The correct waveforms are as shown.

NG

Replace crankshaft position sensor.

OK

- 2 Check for open and short in harness and connector between ECM and crankshaft position sensor (See page IN-29).

NG

Repair or replace harness or connector.

OK

- 3 Inspect sensor installation and teethe of signal plate.

NG

Tighten the sensor.
Replace signal plate.

OK

Check and replace ECM (See page IN-29).