DI4EB–20

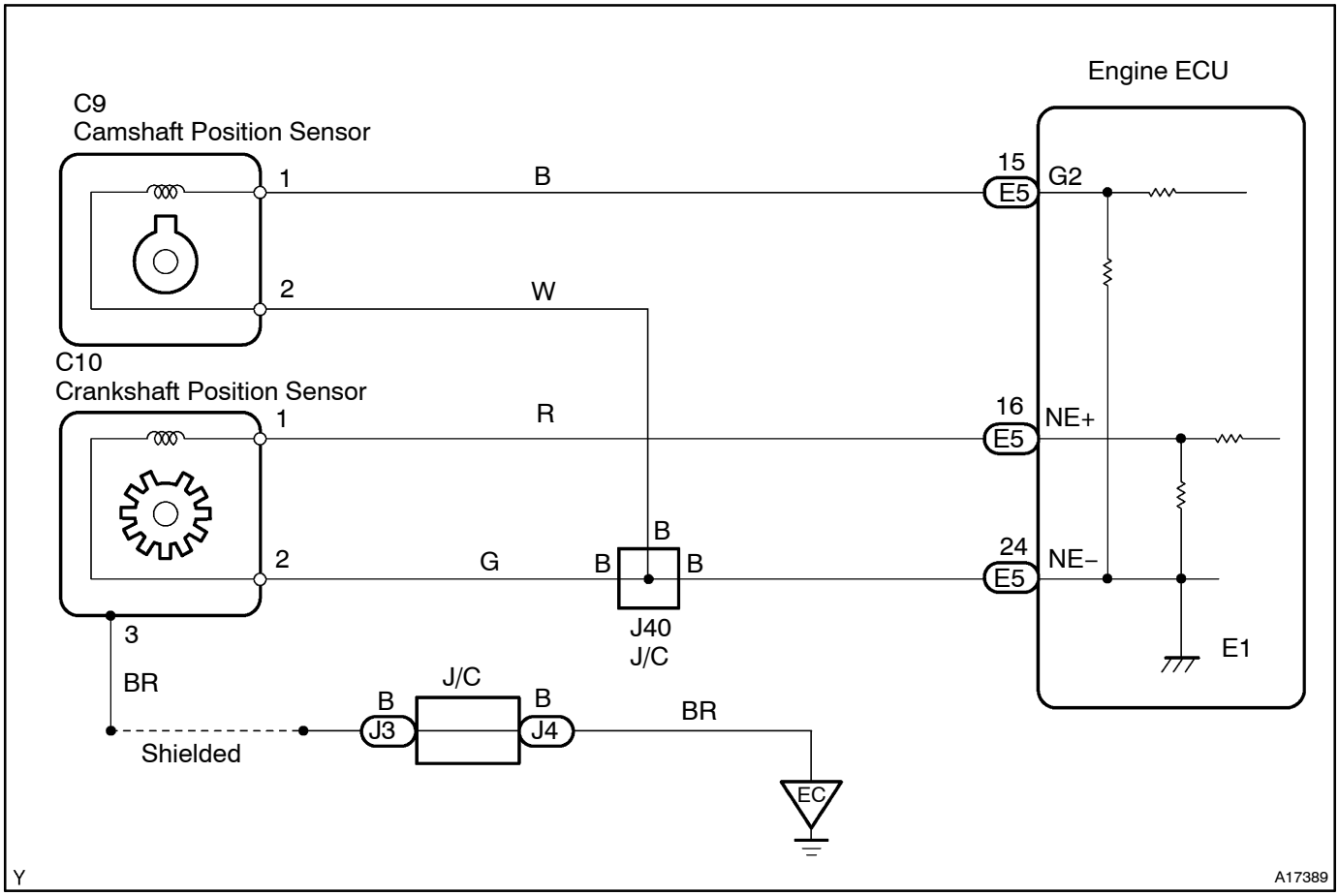
DTC	P0335	Crankshaft Position Sensor Circuit Malfunction

CIRCUIT DESCRIPTION

the crankshaft position sensor (NE signal) consists of a signal plate and 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 engine ECU detects the standard crankshaft angle based on the 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 engine ECU during cranking (2 trip detection logic)	• Open or short in crankshaft position sensor circuit • Crankshaft position sensor • Starter • Engine ECU
	Open in NE– circuit	

WIRING DIAGRAM



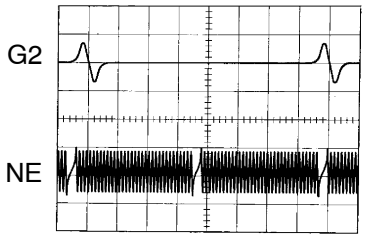
INSPECTION PROCEDURE

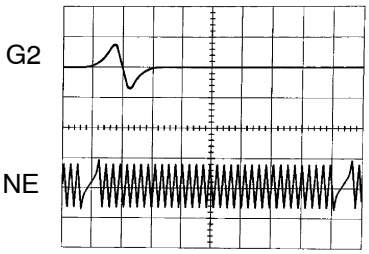
HINT:

- Read freeze frame data using the hand–held tester. Because freeze frame data 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.
- Perform troubleshooting of DTC P0335 first. If no trouble is found, troubleshoot the following mechanical system.

1	**Check resistance of crankshaft position sensor (See page IG–1).**

G2, NE Signal Waveforms





A01991
A01992

Reference: INSPECTION USING OSCILLOSCOPE

During cranking or idling, check the waveform between terminals G2 and NE–, and NE+ and NE– of the engine ECU.

HINT:

The correct waveforms are shown in the illustration.

A02359

NG → **Replace crankshaft position sensor (See page IG–6).**

OK

2	**Check for open and short in harness and connector between engine ECU and crankshaft position sensor (See page IN–19).**

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

OK

3	**Inspect sensor installation and teeth of signal plate.**

NG → **Tighten the sensor. Replace signal plate.**

OK

Check and replace engine ECU (See page IN–19).