DI179–04

CIRCUIT INSPECTION

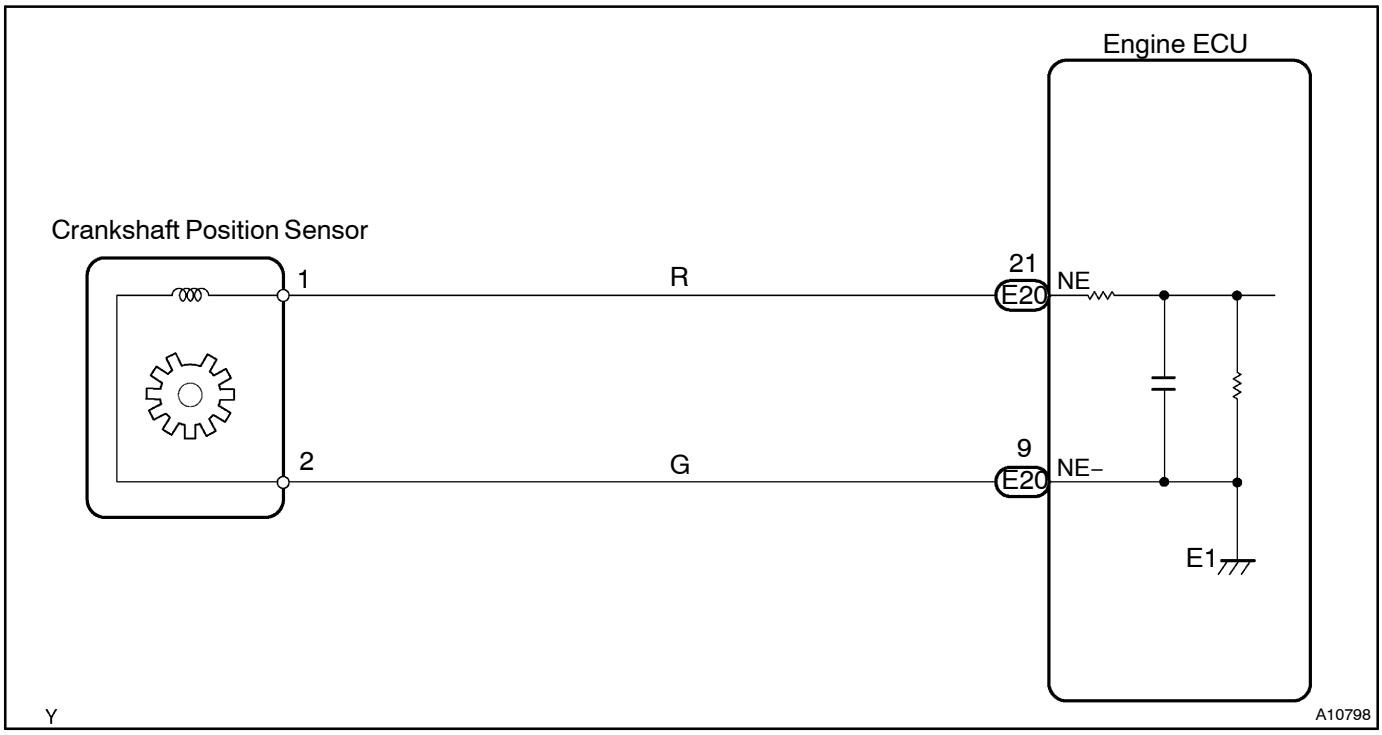
DTC	12	NE Signal Circuit

CIRCUIT DESCRIPTION

Crankshaft position sensor (NE signal) consists of a magnet, iron core and pickup coil.
The NE signal plate has 34 teeth on its outer circumference. The NE signal sensor generates 34 signals for every engine revolution. The ECU detects the engine speed by the NE signal.

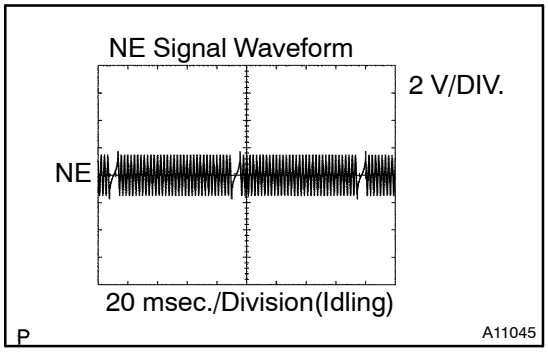
DTC No.	DTC Detection Condition	Trouble Area
12	No NE signal to ECU during cranking	• Open or short in NE circuit • Crankshaft position sensor • Signal plate (Crankshaft position sensor rotor) • Engine ECU

WIRING DIAGRAM



INSPECTION PROCEDURE

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



Reference: INSPECTION USING OSILLOSCOPE
During cranking or idling, check the waveform between terminals NE+ and NE– of the engine ECU connector.
HINT:
The correct waveform is as shown.

NG	**Replace crankshaft position sensor.**

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	Check crankshaft position sensor installation and teeth of signal plate.

NG → Tighten sensor. Replace signal plate.

OK

Check and replace engine ECU (See page FI–37).