DTC	13	ENGINE SPEED SENSOR CIRCUIT MALFUNCTION2 (NE CIRCUIT)

CIRCUIT DESCRIPTION

Refer to DTC12 on page 05–318

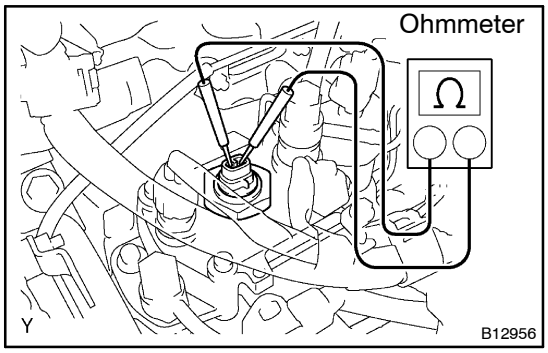
DTC No.	DTC Detection Condition	Trouble Area
13	No NE signal to ECM for 0.5 sec. or more at 580 rpm or more	• Open or short in engine speed sensor circuit • Engine speed sensor • ECM
	No NE signal to ECM for 2.0 sec. or more during cranking	

WIRING DIAGRAM

Refer to DTC12 on page 05–318.

INSPECTION PROCEDURE

1	INSPECT INJECTION OR SUPPLY PUMP ASSY (ENGINE SPEED SENSOR)



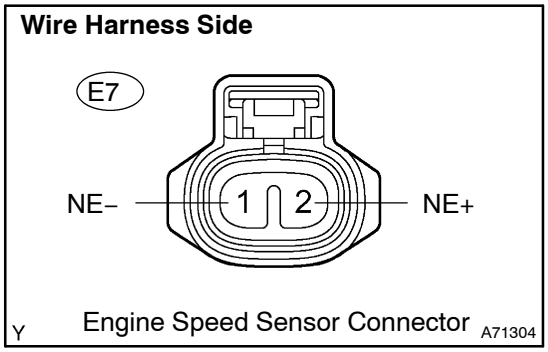
(a) Check the engine speed sensor for resistance.
(1) Using an ohmmeter, measure the resistance between the terminals.
Resistance: 205 – 255 Ω at 20°C (68°F)

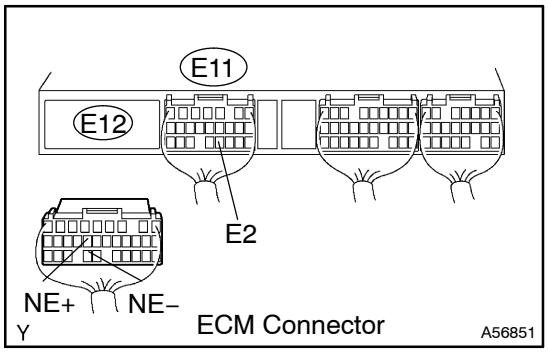
(b) Check the output waveform. (See page 05–318)

NG → **CHECK AND REPLACE INJECTION OR SUPPLY PUMP ASSY (See page 11–81)**

OK →

2 CHECK HARNESS AND CONNECTOR(ECM – ENGINE SPEED SENSOR)





(a) Disconnect the engine speed sensor connector.
(b) Disconnect the ECM E12 connector.
(c) Check the continuity between the wire harness side connector.

Standard (Check for open):

Symbols (Terminal No.)	Specified condition
NE+ (E7 – 2) ⇔ NE+ (E12 – 17)	Continuity
NE– (E7 – 1) ⇔ NE– (E12 – 28)	

Standard (Check for short):

Symbols (Terminal No.)	Specified condition
NE+ (E12 – 17) ⇔ NE– (E12 – 28)	No continuity
NE+ (E12 – 17) ⇔ E2 (E11 – 20)	
NE– (E12 – 28) ⇔ E2 (E11 – 20)	

NG → **REPAIR OR REPLACE HARNESS OR CONNECTOR**

OK

3 CHECK SENSOR INSTALLATION

(a) Check the engine speed sensor installation.

NG → **TIGHTEN SENSOR**

OK

CHECK AND REPLACE ECM