| DTC | 13 | ENGINE SPEED SENSOR CIRCUIT MALFUNCTION2 (NE CIRCUIT) |
|---|---|---|

## CIRCUIT DESCRIPTION

Refer to DTC12 on page 05–212.

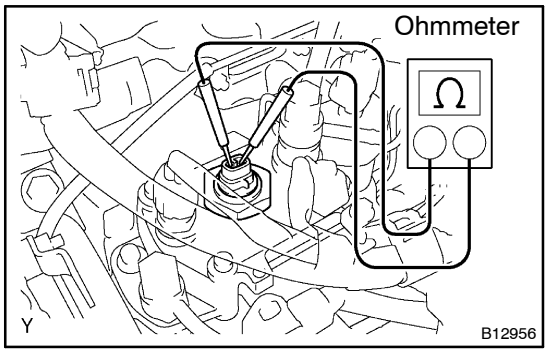
| DTC No. | DTC Detection Condition | Trouble Area |
|---|---|---|
| 13 | No NE signal to ECM for 0.5 sec. or more at 680 rpm or more | • Open or short in engine speed sensor circuit<br>• Engine speed sensor<br>• ECM |
| | No NE signal to ECM for 2.0 sec. or more during cranking | |

## WIRING DIAGRAM

Refer to DTC12 on page 05–212.

## INSPECTION PROCEDURE

| 1 | INSPECT INJECTION OR SUPRY PUMP ASSY(ENGINE SPEED SENSOR) |
|---|---|



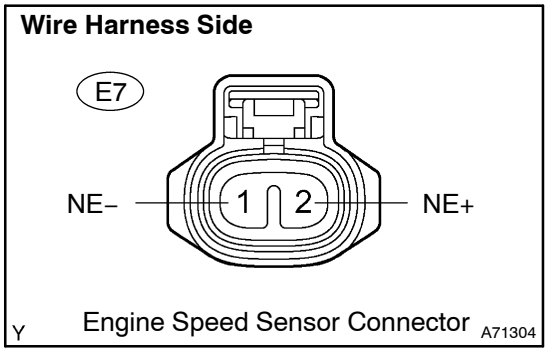

(a) Measure the resistance between the terminals.
**Resistance: 205 – 255 Ω at 20°C (68°F)**

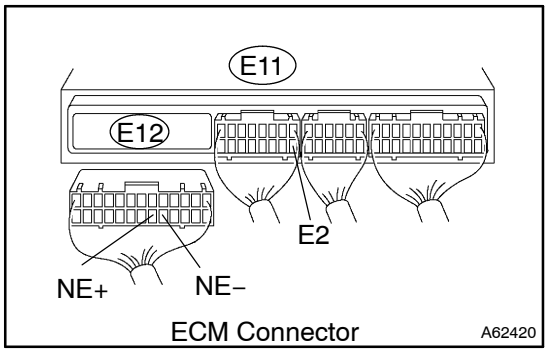
(b) Check the output waveform. (See page 05–212)

**NG** → **CHECK AND REPLACE INJECTION OR SUPRY PUMP ASSY (See page 11–43)**

**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 – 19) | Continuity |
| NE– (E7 – 1) ⇔ NE– (E12 – 18) | |

**Standard (Check for short):**

| Symbols (Terminal No.) | Specified condition |
|---|---|
| NE+ (E12 – 19) ⇔ NE– (E12 – 18) | No continuity |
| NE+ (E12 – 19) ⇔ E2 (E11 – 9) | |
| NE– (E12 – 18) ⇔ E2 (E11 – 9) | |

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**