DTC	61(2)	SPEED SENSOR NO. 2 MALFUNCTION

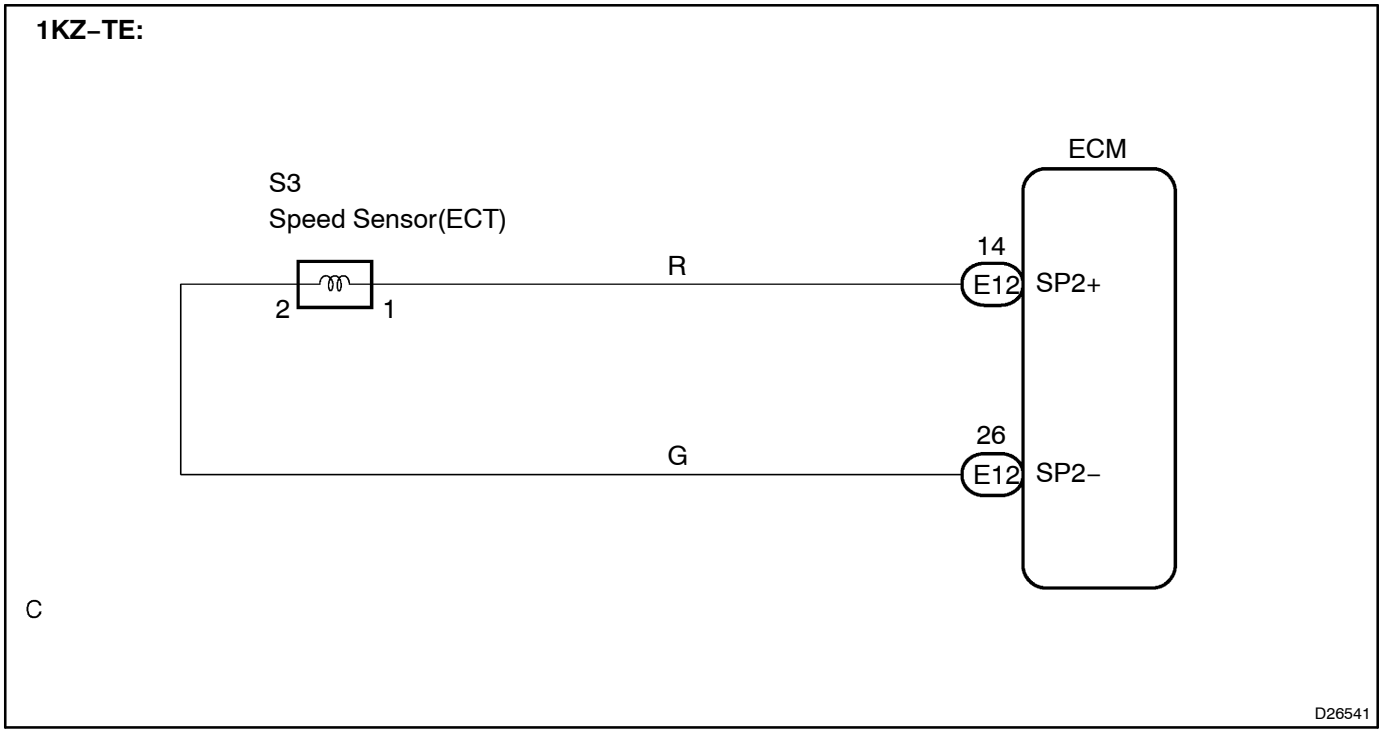
CIRCUIT DESCRIPTION

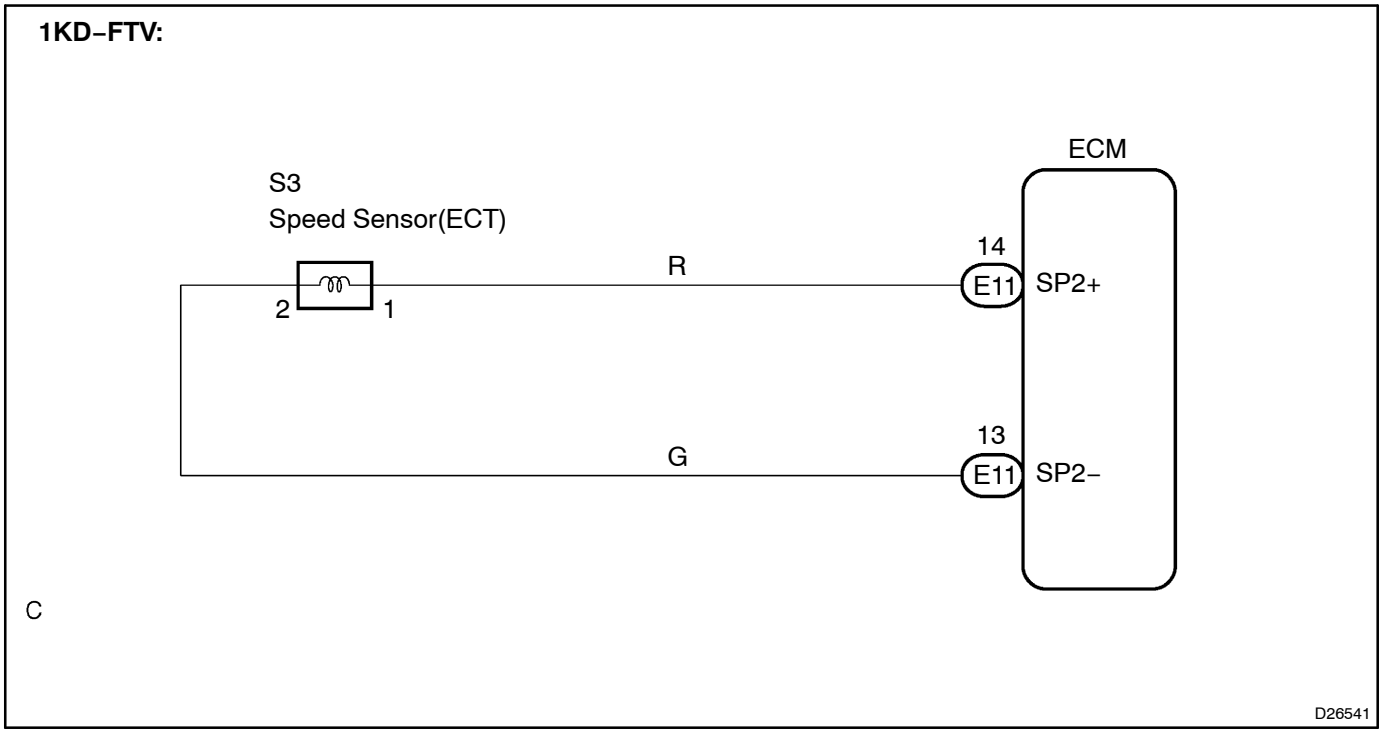
The speed sensor SP2 detects the rotation speed of the transmission output shaft and sends signals to the ECM. The ECM determines the vehicle speed based on these signals.
An AC voltage is generated in the speed sensor SP2 coil as the rotor mounted on the output shaft rotates, and this voltage is sent to the ECM.
The gear shift point and lock–up timing are controlled by the ECM based on the signals from this speed sensor and the throttle position sensor signal.

DTC No.	DTC Detecting Condition	Trouble Area
61(2)	All conditions below are detected 500 times or more continuously. (2 trip detection logic) (a) No signal from speed sensor SP2 is input to ECM while 4 pulses of No.1 speed sensor signal are sent. (b) Vehicle speed: 5 km/h (3.1 mph) or more for at least 4 seconds (c) Park/neutral position switch: OFF (Other than P or N)	• Open or short in speed sensor SP2 (No. 2 vehicle speed sensor) circuit • Speed sensor SP2 (No. 2 vehicle speed sensor) • ECM

WIRING DIAGRAM

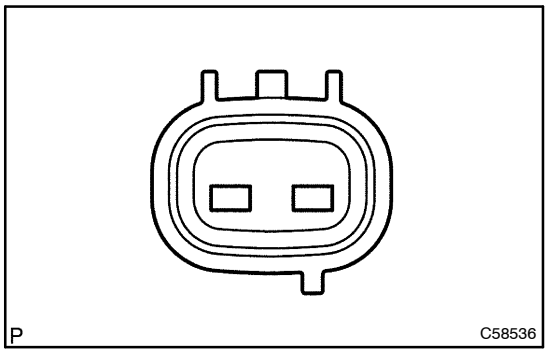
1KZ–TE:





INSPECTION PROCEDURE

1	INSPECT SPEED SENSOR(SP2)



(a) Disconnect the speed sensor connector from the transmission.

(b) Measure the resistance between terminals of speed sensor.

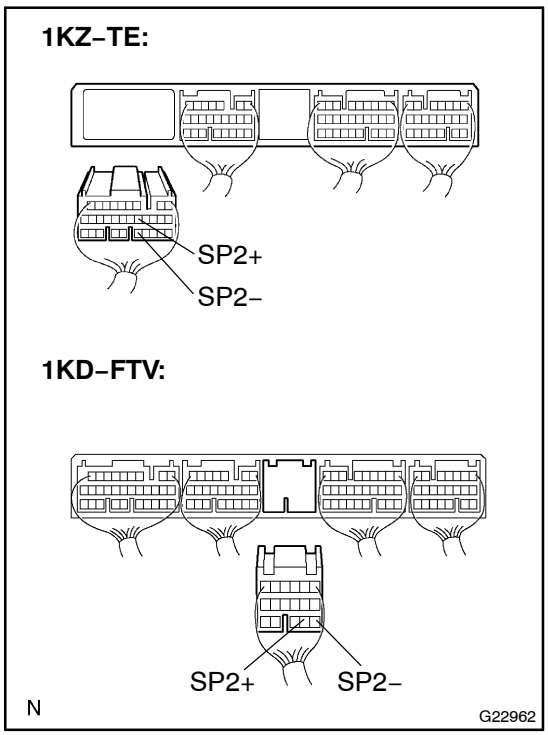
OK:

Resistance: 560 – 680 Ω at 20 °C (68 °F)

NG → **REPLACE SPEED SENSOR(SP2)**

OK

2	CHECK HARNESS AND CONNECTOR(SPEED SENSOR (SP2)–ECM)



(a) Connect the speed sensor connector.
(b) Disconnect the ECM connector.
(c) Measure the resistance between terminals SP2+ and SP2–.
OK:
Resistance: 560 – 680 Ω at 20 °C (68 °F)
(d) Measure resistance between terminals SP2+ and SP2– of the ECM connector and body ground.
OK:
Resistance: 1MΩ or higher

NG → **REPAIR OR REPLACE HARNESS OR CONNECTOR(See page 01–36)**

OK

CHECK AND REPLACE ECM(See page 01–36)