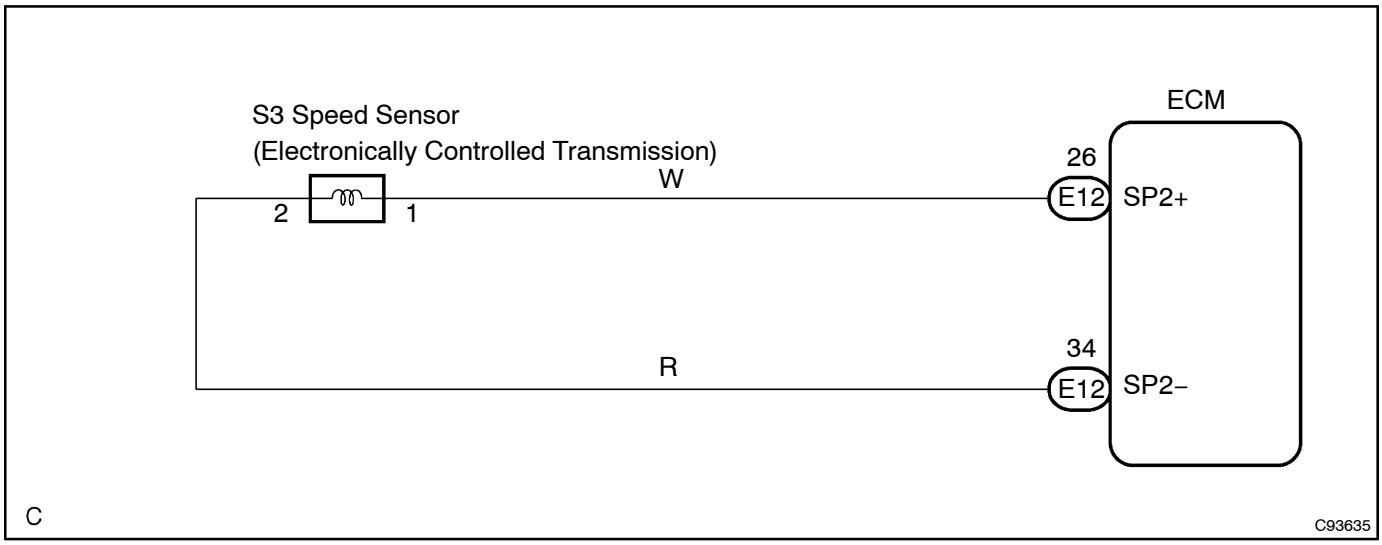
DTC	P0722/61	OUTPUT SPEED SENSOR CIRCUIT NO SIGNAL

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.

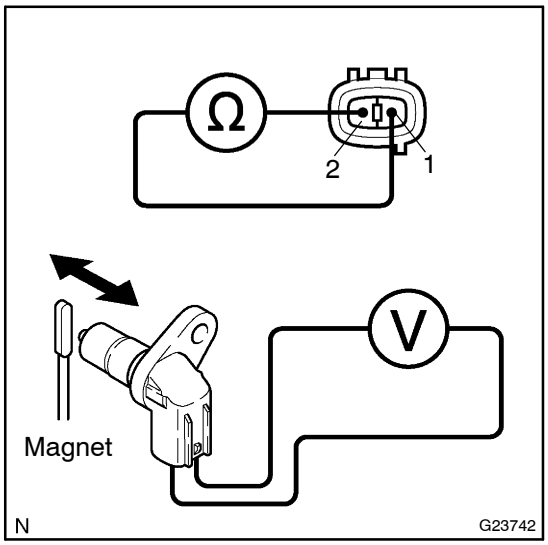
DTC No.	DTC Detection Condition	Trouble Area
P0722/61	All conditions below are detected 500 times or more continuously (2–trip detection logic) (a) No signal from speed sensor (SP2) is input to ECM while 4 pulses of No. 1 vehicle speed sensor signal are sent (b) Vehicle speed is 9 km/h (6 mph) or more for at least 4 sec. (c) Park/neutral position switch is OFF. (d) Transfer position is except neutral (4WD).	• Open or short in speed sensor SP2 (No. 2 vehicle speed sensor) circuit • Speed sensor SP2 (No. 2 vehicle speed sensor) • ECM

WIRING DIAGRAM



INSPECTION PROCEDURE

1 INSPECT SPEED SENSOR (SP2)



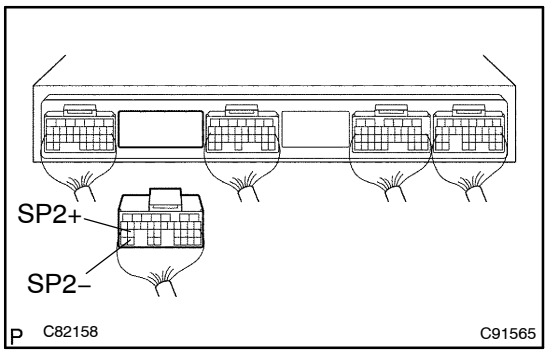
(a) Remove the speed sensor (SP2) from the transmission.
(b) Measure the resistance between terminals of speed sensor.
OK:
Resistance: 560 – 680 Ω at 20°C (68°F)
(c) Measure the voltage between the sensor terminals when a magnet is put close to the front end of the sensor then kept away quickly.
OK:
Sensor generates voltage intermittently

HINT:
The generated voltage is extremely low.

NG → **REPLACE SPEED SENSOR (SP2)**

OK

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



(a) Install the speed sensor (SP2).
(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) Check the continuity between the wire harness side connectors.
OK:
Standard (Check for short):

Symbols	Specified condition
SP2+ ⇔ Body ground	No continuity
SP2– ⇔ Body ground	

NG → **REPAIR OR REPLACE HARNESS OR CONNECTOR (See page 01–35)**

OK

CHECK AND REPLACE ECM (See page 01–35)