

CIRCUIT INSPECTION

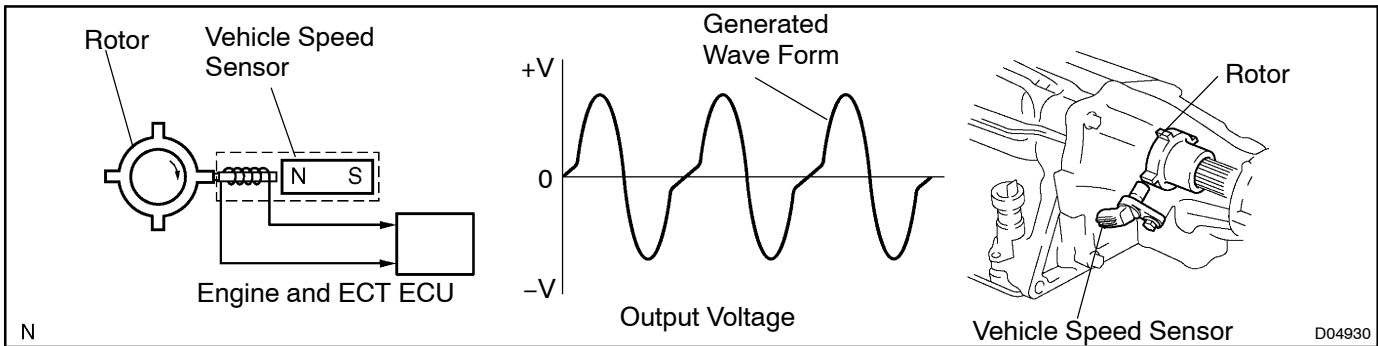
DTC	P0500/61	Vehicle Speed Sensor Malfunction
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CIRCUIT DESCRIPTION

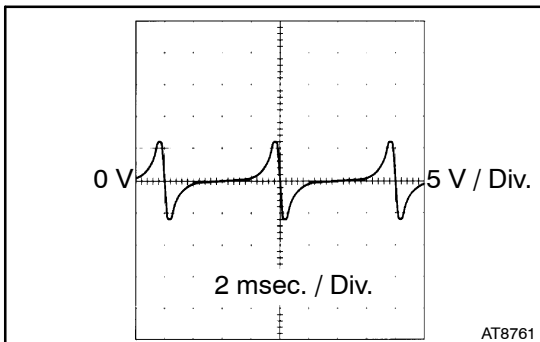
The vehicle speed sensor detects the rotation speed of the transmission output shaft and sends signals to the Engine and ECT ECU. The Engine and ECT ECU determines the vehicle speed based on these signals. An AC voltage is generated in the vehicle speed sensor coil as the rotor mounted on the output shaft rotates, and this voltage is sent to the Engine and ECT ECU.

The gear shift point and lock-up timing are controlled by the Engine and ECT ECU based on the signals from this vehicle speed sensor and the throttle position sensor signal.

If the vehicle speed sensor malfunctions, the Engine and ECT ECU uses input signals from the direct clutch speed sensor as a back-up signal.



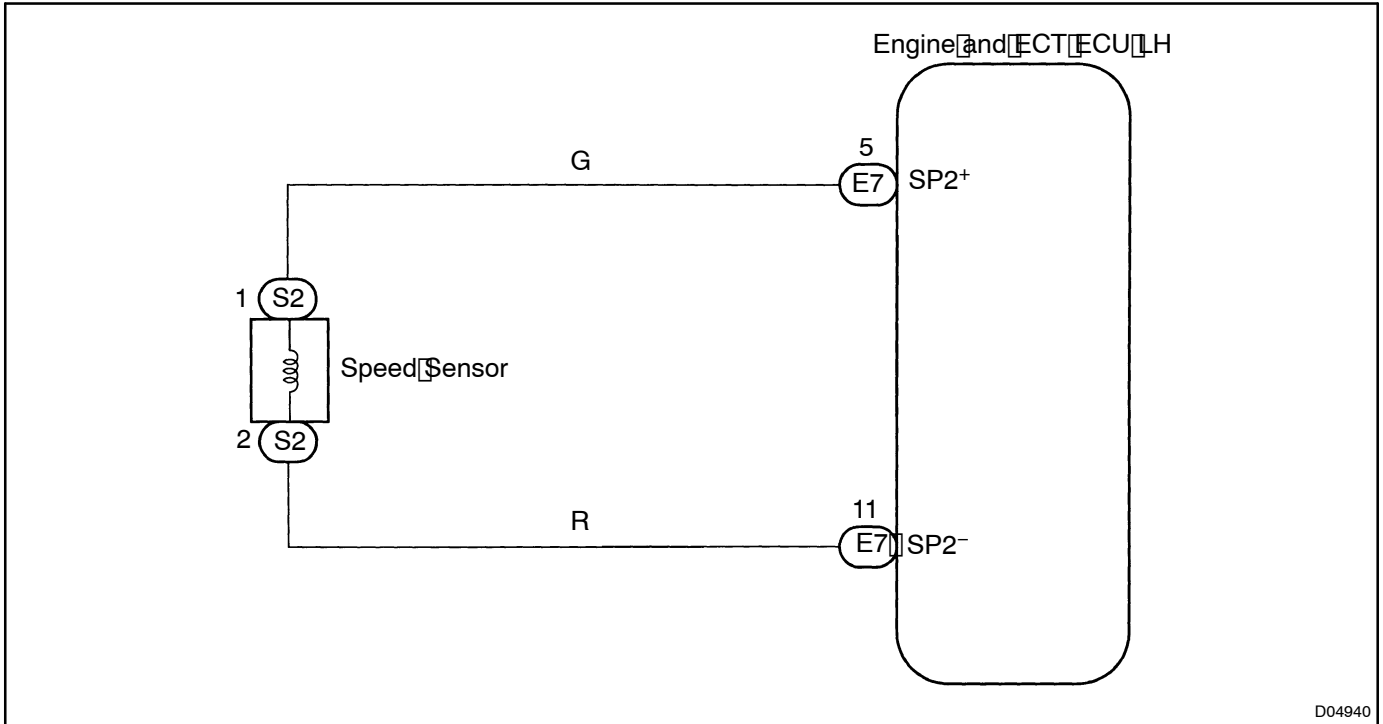
DTC No.	DTC Detecting Condition	Trouble Area
P0500/61	All conditions below are detected for 1 sec. or more . (1-trip detection logic) (a) No signal from vehicle speed sensor is input to Engine and ECT ECU. (b) Neutral start switch: OFF (Other than P or N)	<ul style="list-style-type: none"> • Open or short in vehicle speed sensor circuit • Vehicle speed sensor • Engine and ECT ECU • Automatic transmission (clutch, brake or gear etc.)
	Clutch or brake slips or gear is broken	



HINT:

Refer to the chart for the wave form between terminals SP2⁺ and SP2⁻ when vehicle speed is approx. 60 km/h (37 mph).

WIRING DIAGRAM



INSPECTION PROCEDURE

1	Check operation of speedometer.
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PREPARATION:

- (a) Connect hand-held tester to DLC3.
- (b) Start engine and turn the hand-held tester main switch ON.

CHECK:

HINT:

Drive the vehicle and check if the operation of the speedometer in the combination meter is normal.

OK:

Vehicle speed matches tester speed value.

OK	Check and replace Engine and ECT ECU (See page IN-30).
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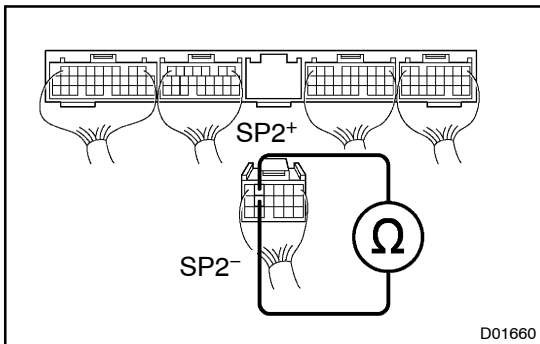
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2	Check speedometer circuit (See page BE-2)
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NG	Repair or replace speedometer circuit.
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OK

3 Check resistance between terminals SP2⁺ and SP2⁻ of Engine and ECT ECU.



PREPARATION:

Disconnect the connector from Engine and ECT ECU.

CHECK:

Check resistance between terminals SP2⁺ and SP2⁻ of Engine and ECT ECU.

OK:

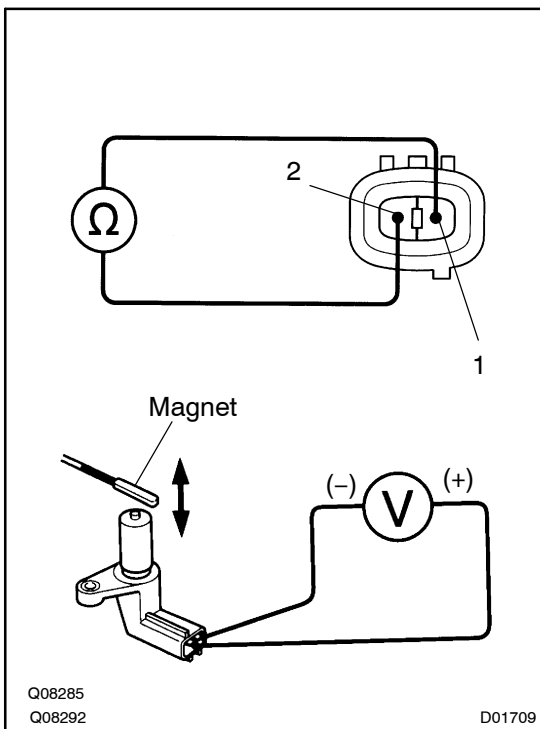
Resistance: 560 - 680 Ω at 20 °C (68 °F)

OK

Check and replace the Engine and ECT ECU (See page IN-30).

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4 Check vehicle speed sensor.



PREPARATION:

Remove the vehicle speed sensor from the transmission.

CHECK:

- Measure resistance between terminals 1 and 2 of vehicle speed sensor.
- Check voltage between terminals 1 and 2 of vehicle speed sensor when a magnet is put close to the front end of the vehicle speed sensor then taken away quickly.

OK:

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

(b) Voltage is generated intermittently.

HINT:

The generated voltage is extremely low.

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Replace the vehicle speed sensor.

OK

Check and repair the harness and connector between Engine and ECT ECU and vehicle speed sensor (See page IN-30).