

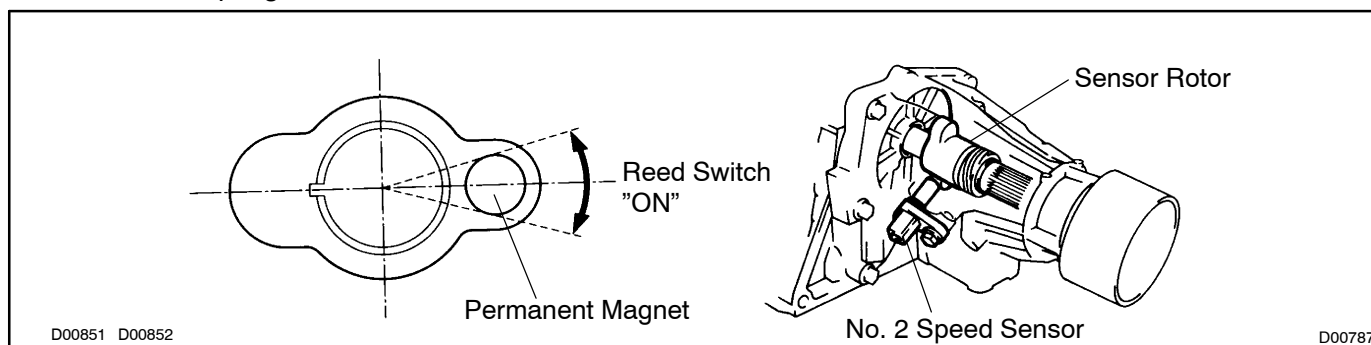
DTC	61	No. 2 Speed Sensor Circuit Malfunction
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CIRCUIT DESCRIPTION

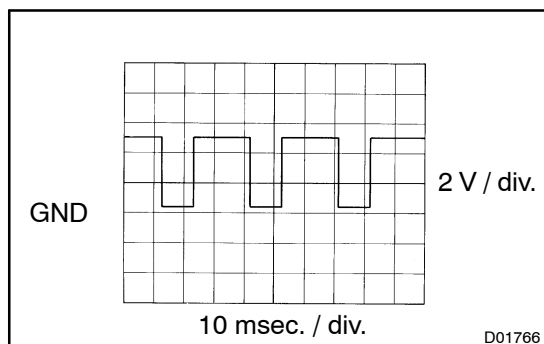
A rotor with built in permanent magnet is mounted on the output shaft. Every time the output shaft (and thus the rotor) makes one complete revolution, the permanent magnet activates the reed switch, which is built into the No. 2 speed sensor, causing it to generate signal. This signal, which corresponds to the governor pressure in a conventional automatic transmission, is sent to the Engine & ECT ECU, which uses it in controlling the shift points and operation of the lock-up clutch.

This sensor outputs one pulse for every one revolution of the output shaft.

If the No. 2 speed sensor malfunctions, the Engine & ECT ECU uses input signals from the No.1 speed sensor as a back-up signal.



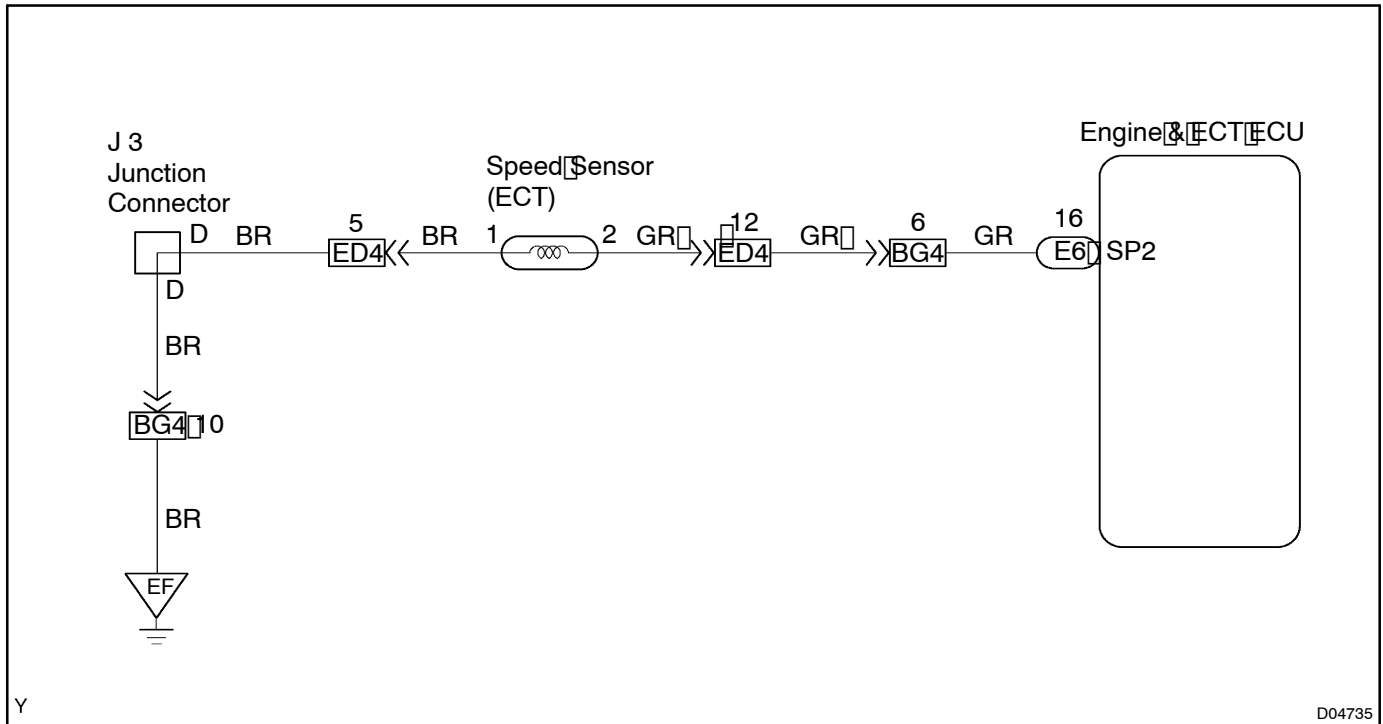
DTC No.	DTC Detecting Condition	Trouble Area
61	<p>All conditions below are detected 500 times or more continuously. (2 trip detection logic)</p> <p>(a) No signal from No. 2 speed sensor is input to Engine & ECT ECU while 4 pulses of the No.1 speed sensor signal is sent.</p> <p>(b) Vehicle speed: 9 km/h (5.6 mph) or more for as least 4 seconds.</p> <p>(c) Neutral start switch: OFF (Other than P or N)</p>	<ul style="list-style-type: none"> • Open or short in No. 2 speed sensor circuit • No. 2 speed sensor • Engine & ECT ECU



HINT:

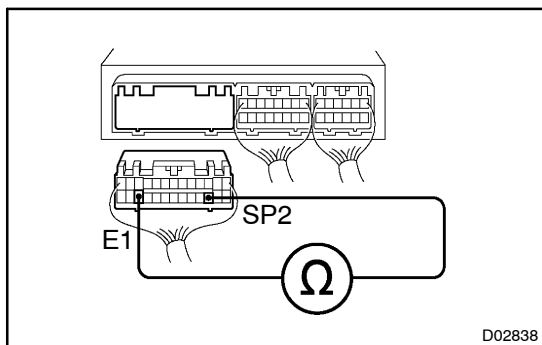
Refer to the chart for the wave from between terminals SP2 and E1 when vehicle speed is approx. 60 km/h (37 mph).

WIRING DIAGRAM



INSPECTION PROCEDURE

- 1 Check vehicle speed value or resistance between terminals SP2 and E1 of Engine & ECT ECU.



PREPARATION:

- (a) Disconnect the connector from the Engine & ECT ECU.
- (b) Shift the shift lever to N range.
- (c) Jack up one of the rear wheels.

CHECK:

Check that there is continuity between terminals SP2 and E1 of the Engine & ECT ECU while slowly turning the jacked-up wheel by hand.

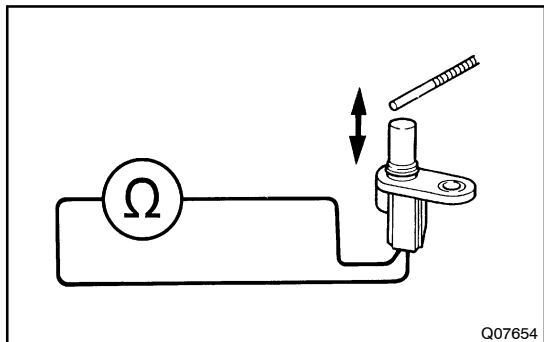
OK:

Resistance changes between $0\ \Omega$ and $\infty\ \Omega$

OK

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

NG

2 Check No. 2 speed sensor.**PREPARATION:**

Remove the No. 2 speed sensor from the transmission.

CHECK:

Check that there is continuity between terminals of the No. 2 speed sensor connector when a magnet is put close to it as shown.

OK:

Resistance changes between $0\ \Omega$ and $\infty\ \Omega$.

HINT:

The generated voltage is extremely low.

NG**Replace the No. 2 speed sensor.****OK**

Check and repair harness and connector between Engine & ECT ECU and No. 2 speed sensor (See page N-30). Check and repair sensor rotor.