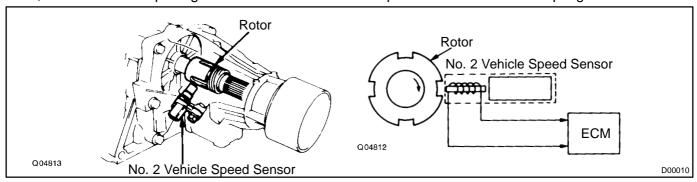
DIB1G-01

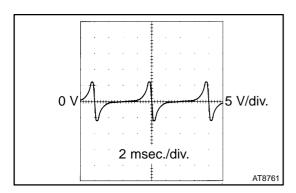
DTC P0722 Output Speed Sensor

## CIRCUIT DESCRIPTION

The No. 2 vehicle speed sensor 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 No. 2 vehicle speed sensor 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 vehicle speed sensor and the throttle position sensor. If the No. 2 vehicle speed sensor malfunctions, the ECM uses input signals from the No. 1 vehicle speed sensor as a back—up signal.



DTC No.	DTC Detection Condition	Trouble Area
P0722	All conditions below are detected 500 times or more continuously (2–trip detection logic)  (a) No signal is input to ECM from No. 2 vehicle speed sensor 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 No. 2 vehicle speed sensor circuit  No. 2 vehicle speed sensor  ECM



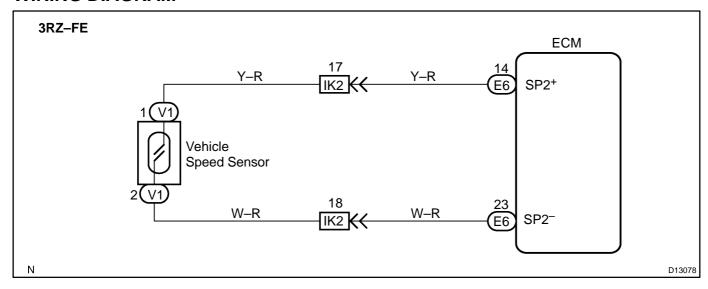
#### HINT:

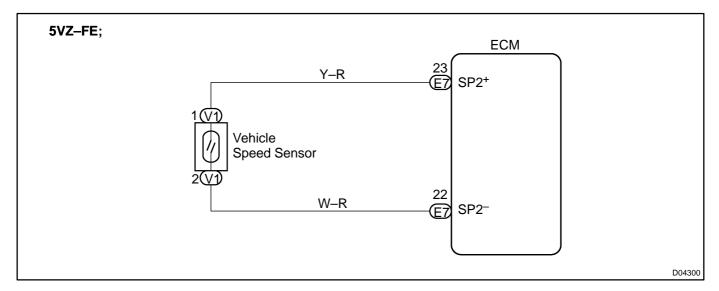
The waveform between terminals SP2<sup>+</sup> and SP2<sup>-</sup> when vehicle speed is approx. 60 km/h (37 mph) is shown on the left.

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## **WIRING DIAGRAM**





# **INSPECTION PROCEDURE**

HINT:

When using the hand-held tester, start the inspection from step 1. When not using the hand-held tester, start from step 2.

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1 Read value of SPD (SP2) on hand-held tester.

### **PREPARATION:**

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

#### **CHECK:**

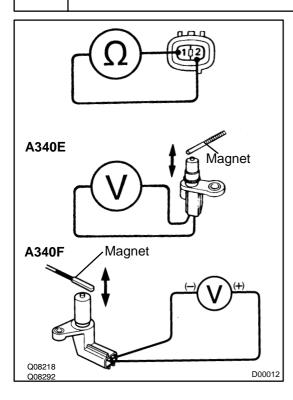
Drive the vehicle and read the SPD value.

#### OK:

Vehicle speed matches SPD value.



2 Check No. 2 vehicle speed sensor.



#### PREPARATION:

Remove the No. 2 vehicle speed sensor.

## **CHECK:**

(a) Measure the resistance between the sensor terminals.

Standard: 560 – 680  $\Omega$  at 20 °C (68 °F)

(b) Measure the voltage between the sensor terminals when a magnet is put close to the front end of the sensor then taken away quickly.

Standard: Sensor generates voltage intermittently.

#### HINT:

The generated voltage is extremely low.

#### OK:

Standard.



NG

Replace No. 2 vehicle speed sensor.

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3 Check harness and connector between ECM and No. 2 vehicle speed sensor.

NG

Repair or replace harness and connector.

OK

Check and replace the ECM (See page IN-28).

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