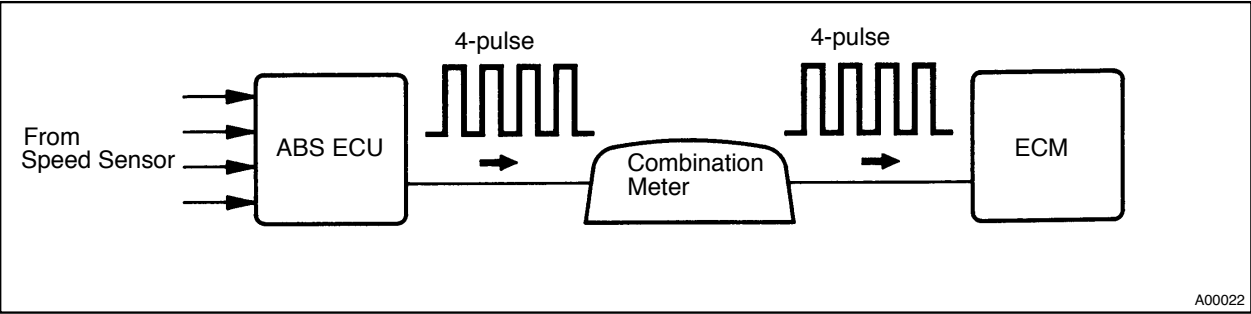


DTC	P0500	Vehicle Speed Sensor Malfunction
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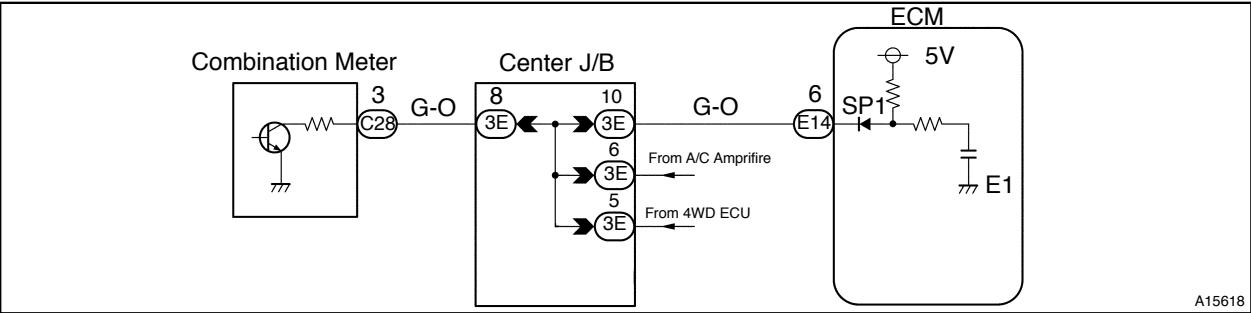
CIRCUIT DESCRIPTION

The speed sensor for ABS detects the wheel speed and sends the appropriate signals to the ABS ECU. The ECU converts these signals into a 4-pulse signal and outputs it to the combination meter. After this signal is converted into a more precise rectangular waveform by the waveform shaping circuit inside the combination meter, it is then transmitted to the ECM. The ECM determines the vehicle speed based on the frequency of these pulse signals.



DTC No.	DTC Detecting Condition	Trouble Area
P0500	No vehicle speed sensor signal to ECM under following conditions: (2 trip detection logic) For A/T: (a) Park/neutral position switch is OFF (b) Vehicle is being driven For M/T: (a) Engine speed is between 1,800 rpm and 3,500 rpm	• Speedometer cable • Open or short in speed signal circuit • ECM

WIRING DIAGRAM



INSPECTION PROCEDURE

HINT:

Read freeze frame data using TOYOTA hand-held tester or OBD II scan tool. Because freeze frame records the engine conditions when the malfunction is detected. When troubleshooting, it is useful for determining whether the vehicle was running or stopped, the engine was warmed up or not, the air-fuel ratio was lean or rich, etc. at the time of the malfunction.

1 Check operation of speedometer.

CHECK:

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

HINT:

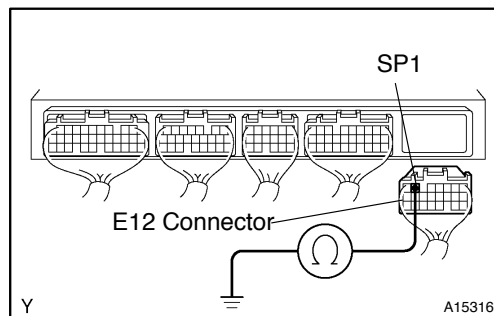
The vehicle speed is operating normally if the speedometer display is normal.

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Check speedometer circuit (See page [BE-40](#)).

OK

2 Check voltage between terminal SP1 of ECM connector and body ground.

**PREPARATION:**

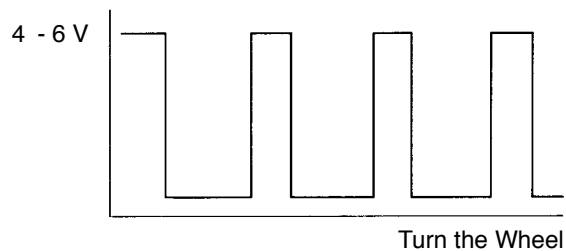
- Remove the glove compartment (See page [SF-54](#)).
- Disconnect the E12 connector from the ECM.
- Shift the shift lever to the neutral.
- Jack up a rear wheel on one side.
- Turn the ignition switch ON.

CHECK:

Measure the voltage between terminal SP1 of the ECM connector and body ground when the wheel is turned slowly.

OK:

Voltage is generated intermittently.



AT7809

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Check and repair harness and connector between combination meter and ECM.

OK

Check and replace ECM (See page [IN-28](#)).