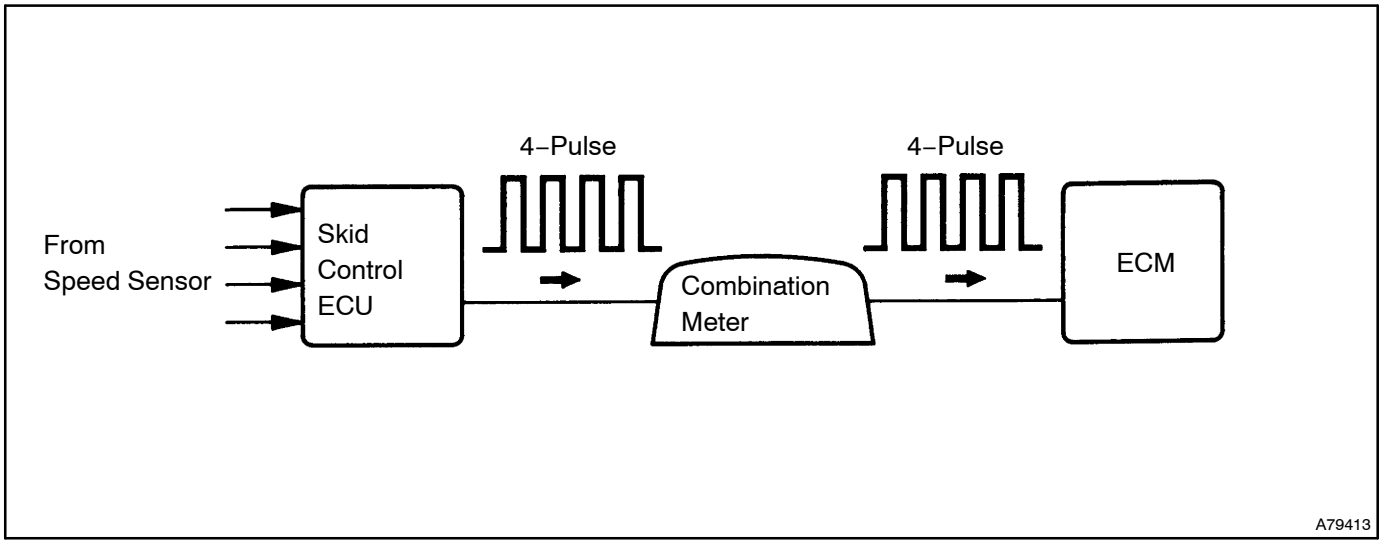
DTC	P0500	VEHICLE SPEED SENSOR ”A”

DTC	P0503	VEHICLE SPEED SENSOR ”A” INTERMITTENT/ERRATIC/HIGH

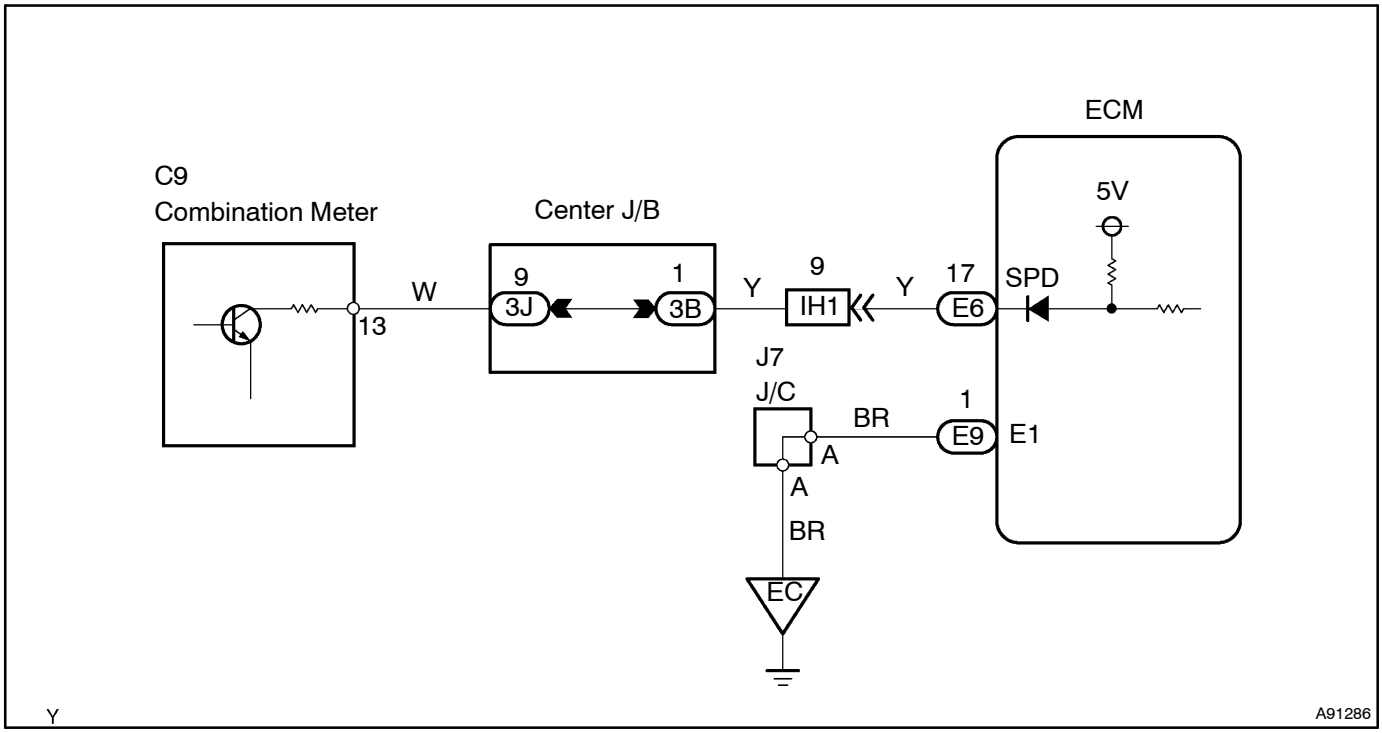
CIRCUIT DESCRIPTION

The speed sensor detects the wheel speed and sends the appropriate signals to the skid control ECU. The skid control ECU converts these wheel speed signals into a 4–pulse signal and outputs it to the ECM via the combination meter. The ECM determines the vehicle speed based on the frequency of these pulse signals.



DTC No.	DTC Detection Condition	Trouble Area
P0500 P0503	The ECM detects following conditions simultaneously for 1 second (1 trip detection logic): • No SPD (speed sensor) signal while ECM detects NC (transmission counter gear) signal is more than 300 RPM. • Park/Neutral position switch is OFF (When shift lever is in other than P and N positions)	• Open or short in speed sensor circuit • Speed sensor • Combination meter • ECM • Skid control ECU

WIRING DIAGRAM



INSPECTION PROCEDURE

HINT:

Read freeze frame data using the hand–held tester. Freeze frame data records the engine conditions when a malfunction is detected. When troubleshooting, freeze frame data can help determine if the vehicle was running or stopped, if the engine was warmed up or not, if the air–fuel ratio was lean or rich, and other data from the time the malfunction occurred.

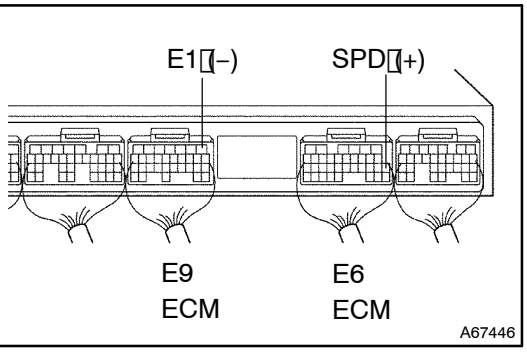
1	CHECK OPERATION OF SPEEDOMETER

(a) Drive the vehicle and check if the operation of the speedometer in the combination meter is normal.
HINT:
The vehicle speed sensor is operating normally if the speedometer display is normal.

NG → CHECK SPEEDOMETER CIRCUIT (See page 05–958)

OK

2	INSPECT ECM (SPD VOLTAGE)

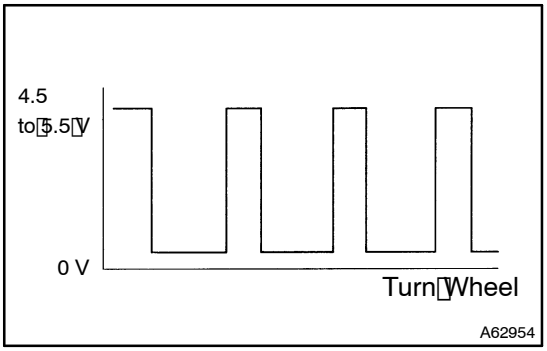


(a) Shift the lever to the neutral position.
(b) Jack up the vehicle.
(c) Turn the ignition switch ON.
(d) Check the voltage of the ECM connectors as the wheel is turned slowly.

Standard:

Tester Connection	Specified Condition
E6–17 (SPD) – E9–1 (E1)	Generated intermittently

HINT:
The output voltage should fluctuate up and down similarly to the diagram on the left when the wheel is turned slowly.



NG → REPAIR OR REPLACE HARNESS OR CONNECTOR

OK

REPLACE ECM (See page 10–13)