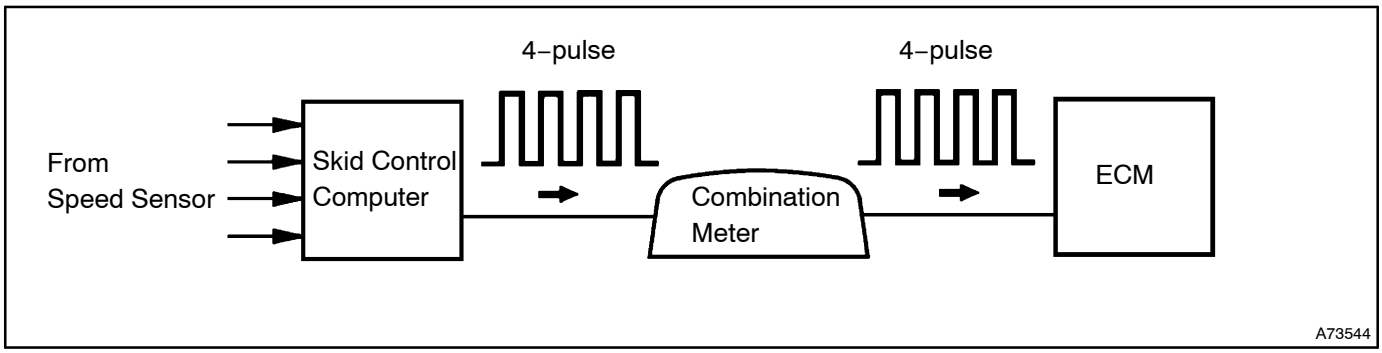
DTC P0500/42 VEHICLE SPEED SENSOR ”A”

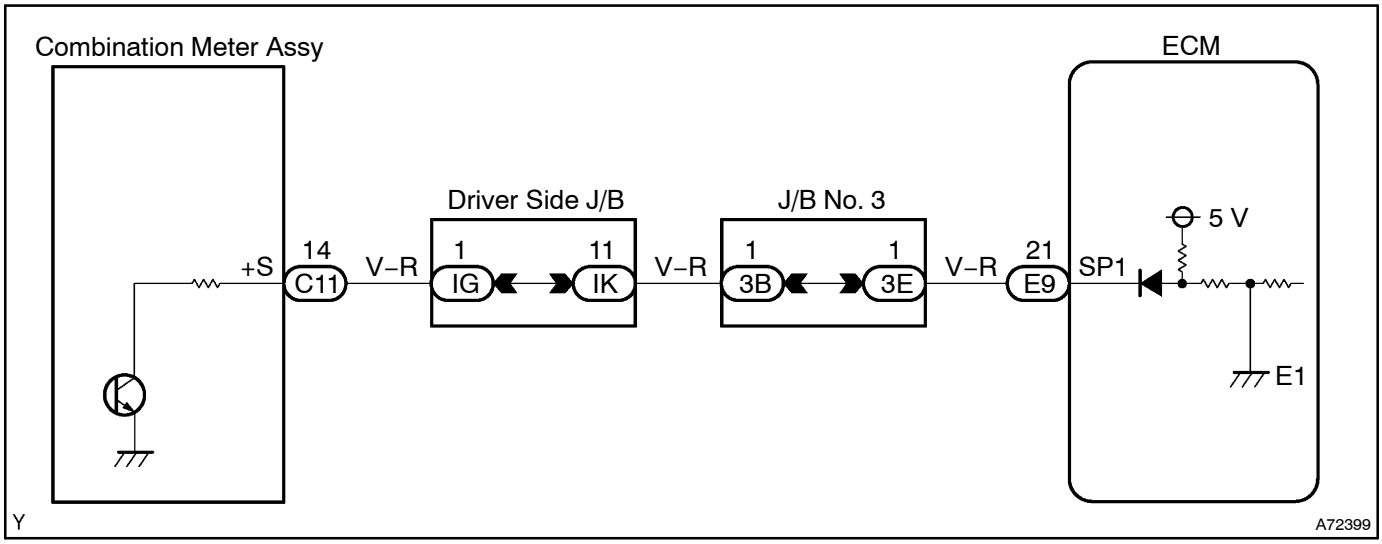
CIRCUIT DESCRIPTION

The speed sensor for skid control computer detects the wheel speed and sends the appropriate signals to the skid control computer.
The ECM 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
P0500/42	During vehicle is being driven, no vehicle speed sensor signal to ECM (2 trip detection logic)	• Combination meter assy • Open or short in speed sensor circuit • Speed sensor • ECM • Skid control computer assy

WIRING DIAGRAM



INSPECTION PROCEDURE

HINT:
Read freeze frame data using the hand–held tester, as freeze frame data records the engine conditions when a 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.

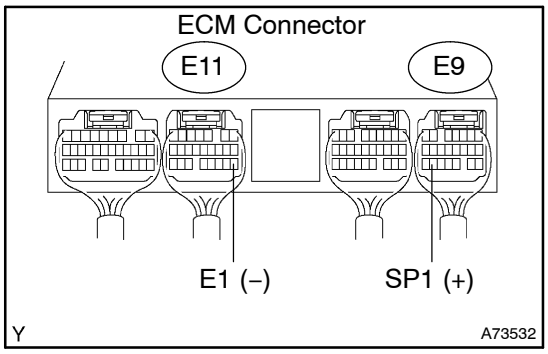
1 CHECK COMBINATION METER ASSY (SPEED METER)

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

NG → **CHECK SPEEDOMETER CIRCUIT** (See page 05–1560)

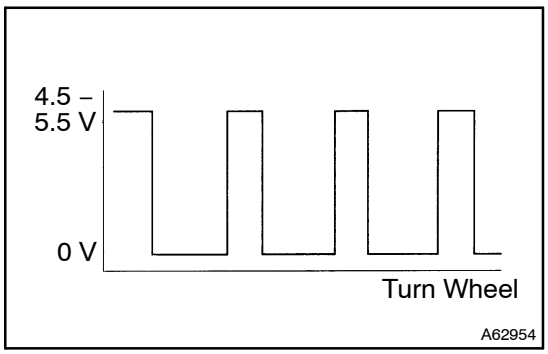
OK

2 CHECK ECM (CHECK VOLTAGE)



(a) Shift the lever to the neutral position.
(b) Jack up the vehicle.
(c) Turn the ignition switch ON.
(d) Measure the voltage between the terminals E9 and E11 ECM connectors with the turning the wheel slowly.
Voltage:

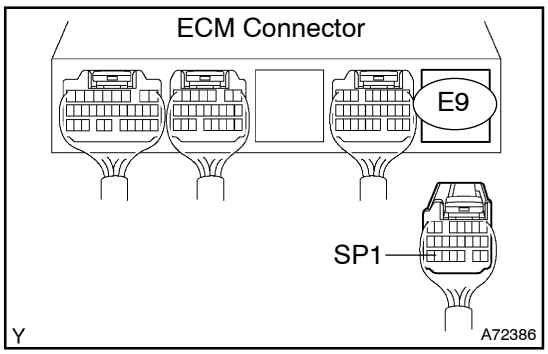
Symbols (Terminal No.)	Specified condition
SP1 (E9–21) ⇔ E1 (E11–17)	Generated intermittently



NG → **CHECK AND REPLACE ECM** (See page 01–36)

OK

3	CHECK HARNESS AND CONNECTOR (ECM ⇔ COMBINATION METER ASSY)



(a) Disconnect the E9 ECM connector.
(b) Check the continuity between the wire harness side connector.

Standard (Check for open):

Symbols (Terminal No.)	Specified condition
SP1 (E9–21) ⇔ +S (Terminal arrangement on 05–1554)	Continuity

Standard (Check for short):

Symbols (Terminal No.)	Specified condition
SP1 (E9–21) or +S (Terminal arrangement on 05–1554) ⇔ Other terminals and body ground	No continuity

NG → **REPAIR OR REPLACE HARNESS OR CONNECTOR**

OK

CHECK AND REPLACE ECM (See page 01–36)