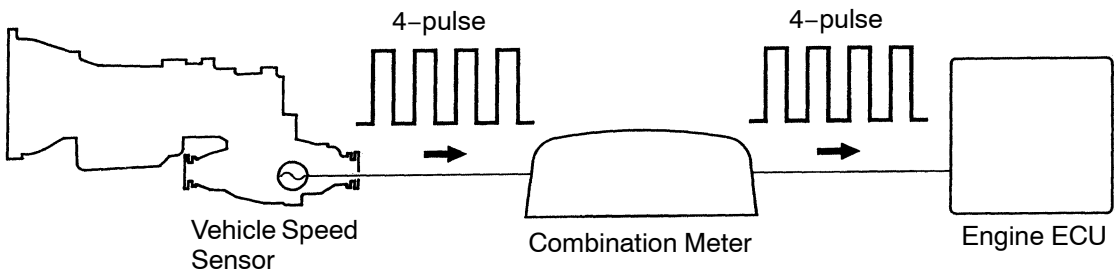
DI1IM–08

DTC	P0500/42	Vehicle Speed Sensor Malfunction

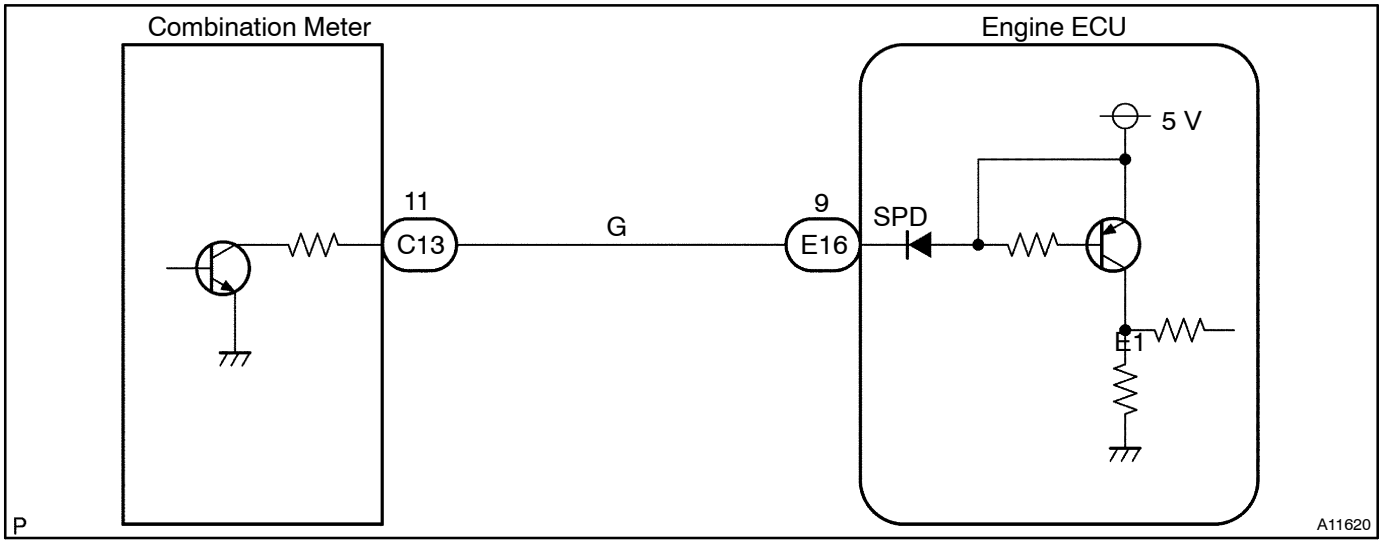
CIRCUIT DESCRIPTION

The vehicle speed sensor outputs a 4–pulse signal for every revolution of the rotor shaft, which is rotated by the transmission output shaft via the driven gear. 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 engine ECU. The engine ECU determines the vehicle speed based on the frequency of these pulse signals.



DTC No.	DTC Detection Condition	Trouble Area
P0500/42	No vehicle speed sensor signal to engine ECU under conditions (a) and (b): (a) Neutral start switch is OFF (b) Vehicle is being driven	• Combination meter • Open or short in vehicle speed sensor circuit • Vehicle speed sensor • Engine ECU

WIRING DIAGRAM



INSPECTION PROCEDURE

HINT:

Read freeze frame data using hand–held tester. 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.

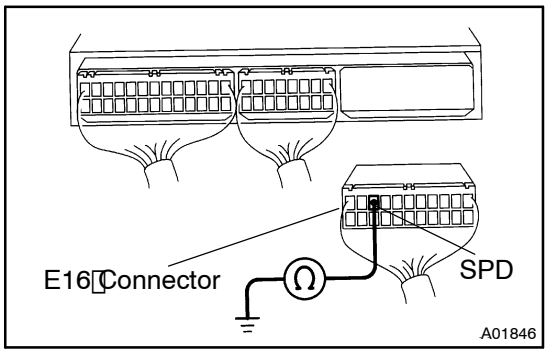
HINT:

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

NG → **Check speedometer circuit.**

OK

2	**Check continuity between terminal SPD of engine ECU connector and body ground.**



PREPARATION:

(a) Remove the glove compartment (See page FI–56).

(b) Disconnect the E16 connector from the engine ECU.

CHECK:

Check the continuity between terminal SPD of the engine ECU connector and body ground.

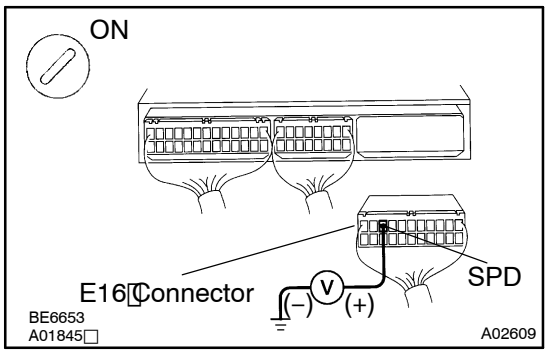
OK:

No continuity (1MΩ or higher)

NG → **Repair or replace harness or connector.**

OK

3	**Check voltage between terminal SPD of engine ECU connector and body ground.**



PREPARATION:

(a) Remove the glove compartment (See page FI–56).

(b) Disconnect the E16 connector from the engine ECU.

(c) Turn the ignition switch ON.

CHECK:

Measure the voltage between terminal SPD of the engine ECU connector and body ground.

OK:

Voltage: 9 – 14 V

NG → **Check for open in harness and connector between combination meter and engine ECU (See page IN–19).**

OK

Check and replace engine ECU (See page IN–19).