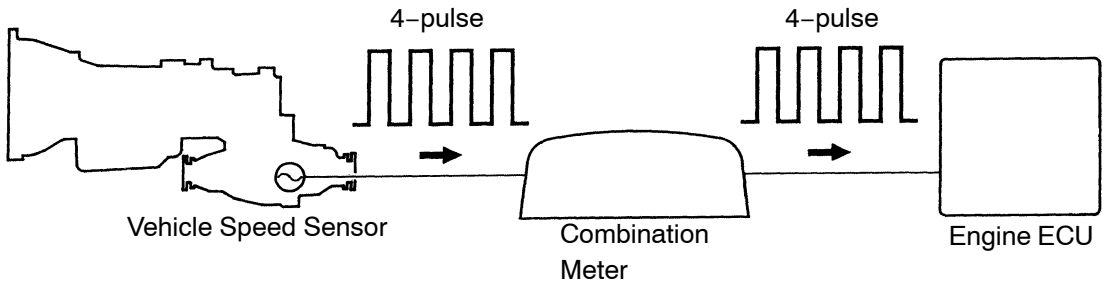
DI9S8–01

DTC	42	Vehicle Speed Sensor Signal Circuit Malfunction

CIRCUIT DESCRIPTION

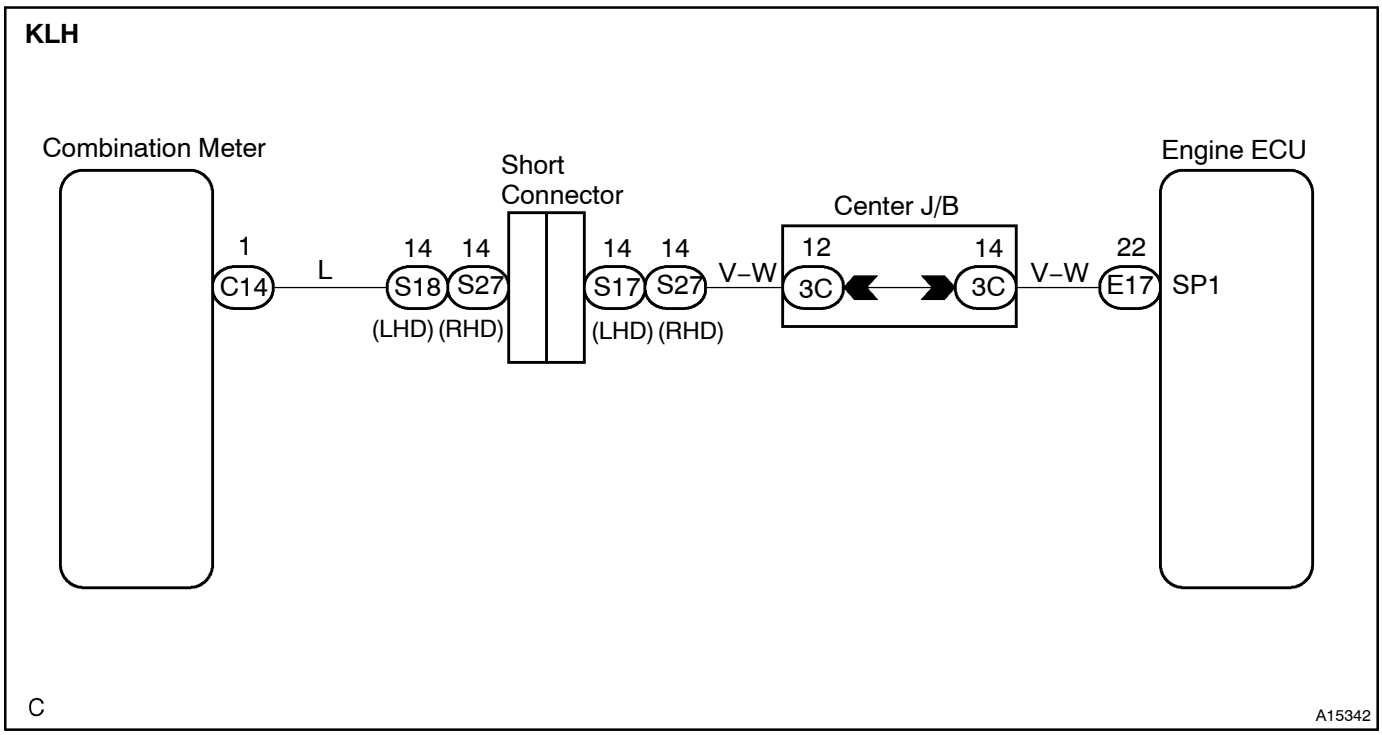
The vehicle speed sensor outputs a 4–pulse signal for every revolution of the rotor shaft, which is rotated by the transmission output shaft via the driven gear. After this signal is converted into a more precise rectangular waveform by the waveform shaping circuit inside the combination meter, it is then transmitted to the engine ECU. The engine ECU determines the vehicle speed based on the frequency of these pulse signals.

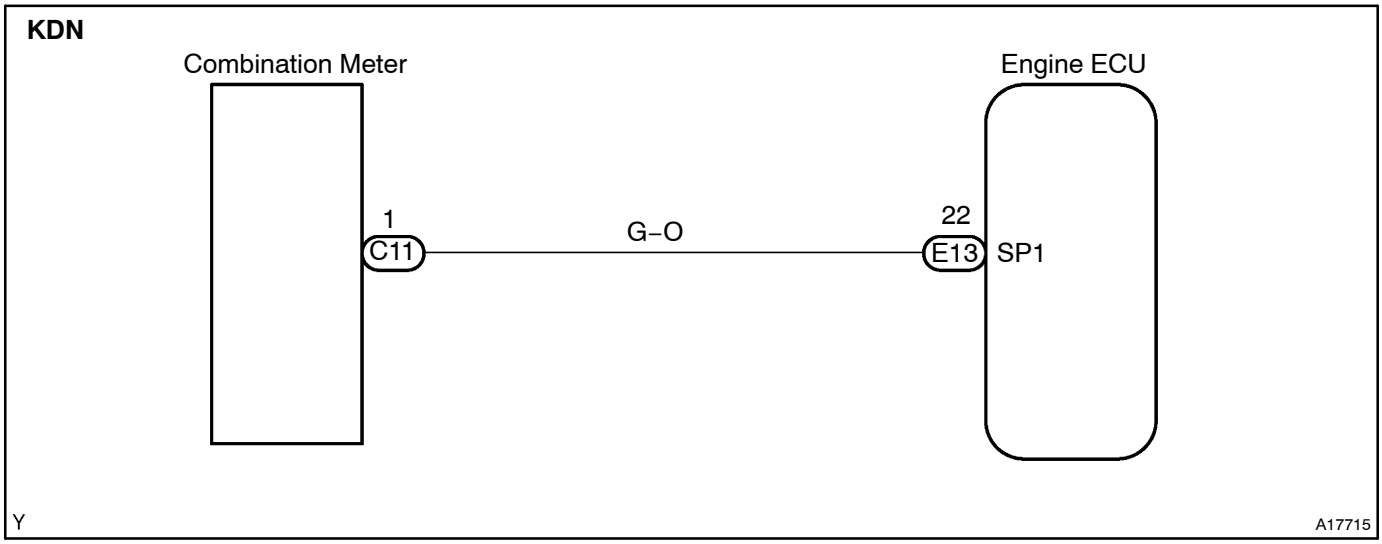


P22487

DTC No.	DTC Detecting Condition	Trouble Area
42	All conditions below are detected continuously for 8 sec. or more: (a) Vehicle speed signal is 0 km/h (b) Engine speed is 2,000 – 3,500 rpm (c) Engine coolant temp. is 70°C (158°F) or more (d) Accelerator pedal opening angle is 50 % or more (e) Throttle valve opening angle is 60 step or less (f) Water temp. sensor is not fail (g) Accelerator pedal sensor is not fail (h) Throttle valve control motor is not fail	• Open or short in vehicle speed sensor circuit • Vehicle speed sensor • Combination meter • Engine ECU

WIRING DIAGRAM





INSPECTION PROCEDURE

HINT:

Read freeze frame data on the hand–held tester. Because freeze frame data 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, 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.

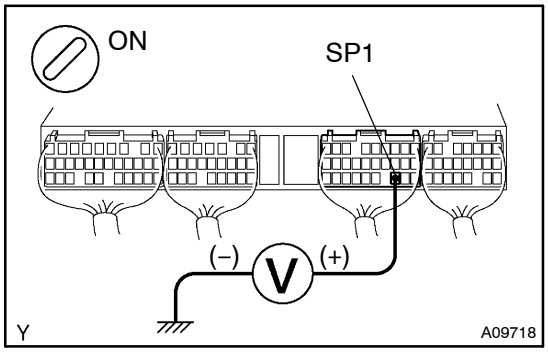
HINT:

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

NG → **Check speedometer.**

OK

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

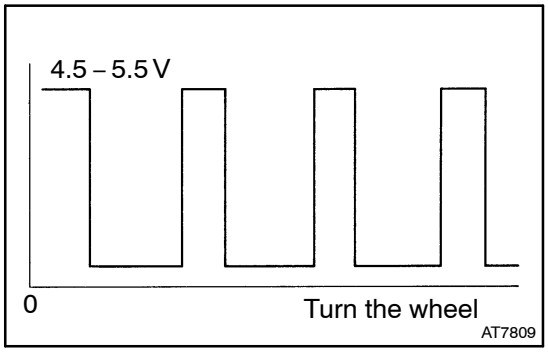


PREPARATION:

(a) Remove the glove compartment box.
(b) Shift the shift lever to the neutral.
(c) Jack up one of the front wheels.
(d) Turn the ignition switch ON.

CHECK:

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



OK:

Voltage is generated intermittently.

NG → **Check and repair harness and connector between combination meter and engine ECU (See page IN–20).**

OK

Check and replace engine ECU (See page IN–20).