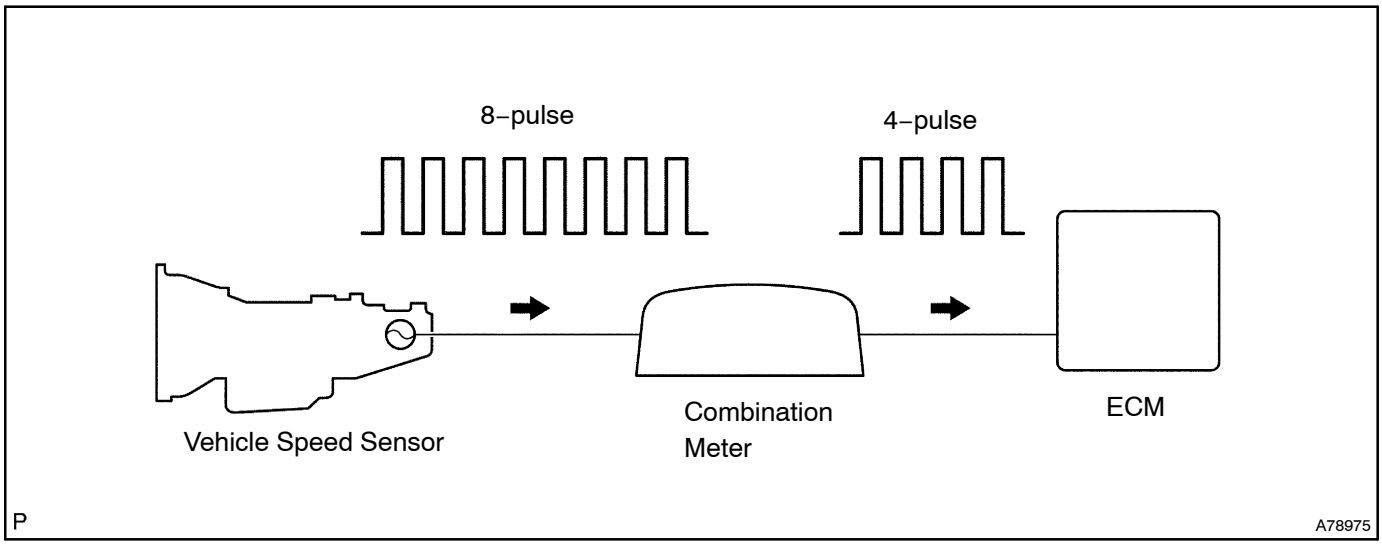
DTC	42	VEHICLE SPEED SENSOR SIGNAL CIRCUIT MALFUNCTION

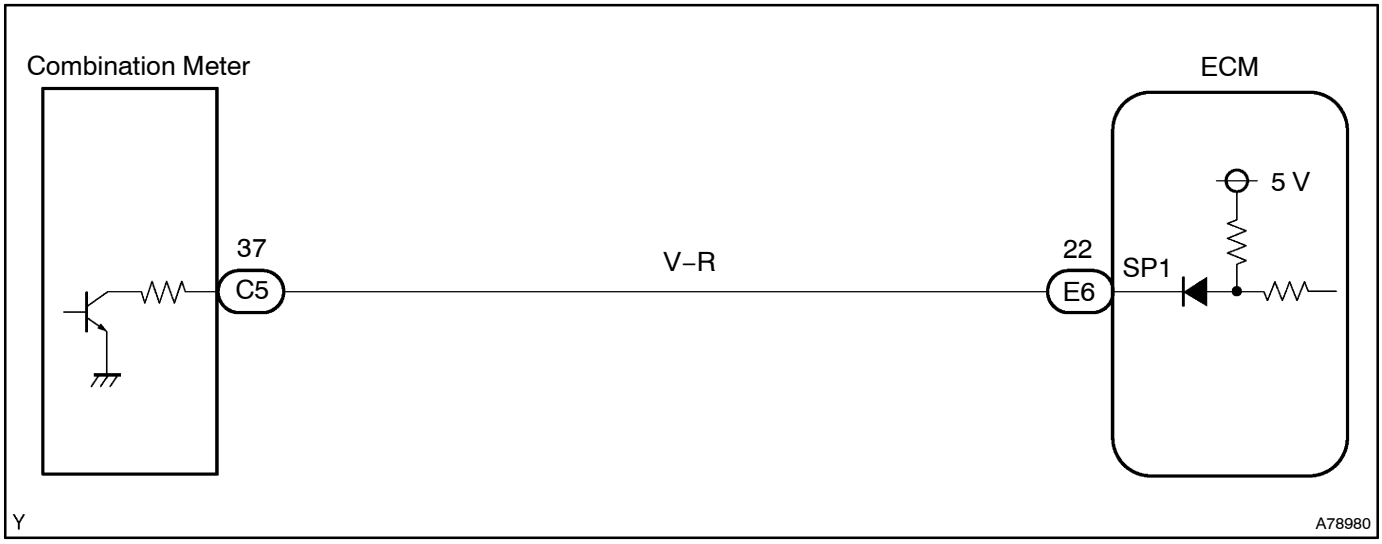
CIRCUIT DESCRIPTION

The vehicle speed sensor outputs a 8–pulse signal 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 ECM. The ECM determines the vehicle speed, based on the frequency of these pulse signals.



DTC No.	DTC Detection Condition	Trouble Area
42	All conditions below are detected continuously for 8 sec. or more: (a) Vehicle speed signal: 0 km/h (0 mph) (b) Engine speed: 1,500 – 2,500 rpm (c) Engine coolant temp.: 80°C (176°F) or more (d) Accelerator pedal opening angle: 50 % or more	• Combination meter • Open or short in vehicle speed sensor circuit • Vehicle speed sensor • ECM

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.

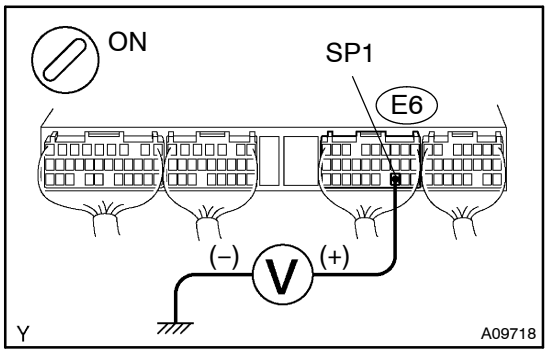
1	CHECK OPERATION OF SPEEDOMETER

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

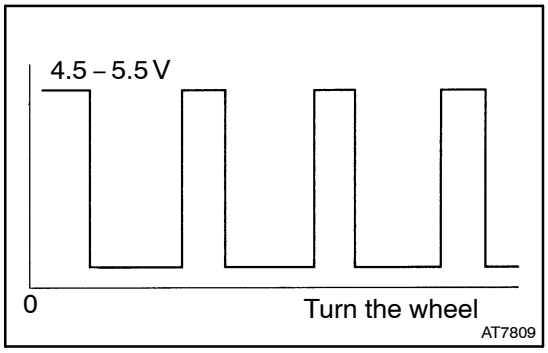
NG → **CHECK SPEEDOMETER**

OK

2	CHECK ECM



(a) Shift the shift lever into the neutral position.
(b) Jack up one of the front wheels.
(c) Turn the ignition switch ON.
(d) Measure the voltage between terminal SP1 of the E6 ECM connector and the body ground when the wheel is turned slowly.



Standard: Voltage is generated intermittently.

NG → **CHECK AND REPLACE HARNESS AND CONNECTOR (ECM ⇔ COMBINATION METER) (See page 01–27)**

OK

CHECK AND REPLACE ECM (See page 01–27)