DTC	C2191/91	Vehicle Speed Signal Error (Test Mode DTC)

DESCRIPTION

The tire pressure warning ECU receives a speed signal from the combination meter. This DTC is stored upon entering test mode, and cleared when a vehicle speed signal of 12 mph (20 km/h) is detected for 3 seconds or more. The DTC is output only in test mode.

DTC No.	DTC Detection Condition	Trouble Area
C2191/91	Speed sensor circuit malfunction	• Vehicle speed sensor • Tire pressure warning ECU • Combination meter • Wire harness

WIRING DIAGRAM

TW

INSPECTION PROCEDURE

NOTICE:

It is necessary to register an ID code after replacing the tire pressure warning valve and transmitter and/or the tire pressure warning ECU (see page TW-9).

1	READ VALUE OF INTELLIGENT TESTER (VEHICLE SPEED)

(a) Check the DATA LIST for proper functioning of the vehicle speed signal.

Tire pressure warning ECU

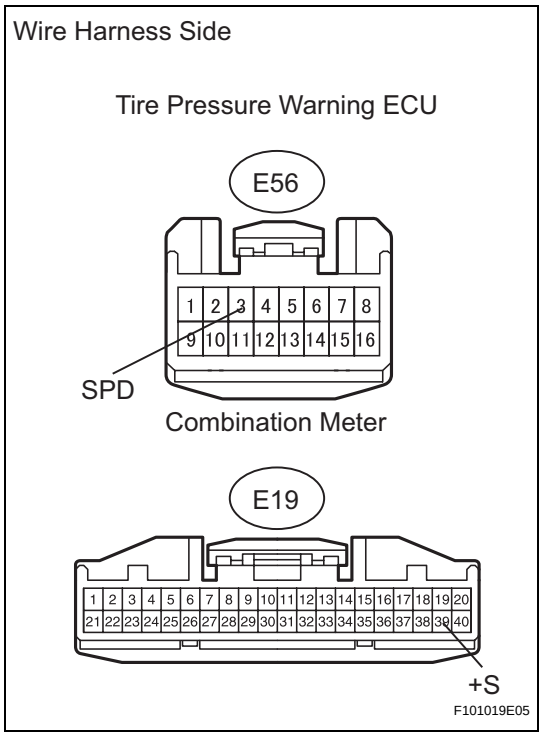
Item	Measurement item / Range(Display)	Normal Condition	Diagnostic Note
VEHICLE SPEED	Vehicle speed reading / Min.: 0 km/h (0 mph) Max.: 255 km/h (158 mph)	Actual vehicle speed	Speed indicated on the combination meter

OK:
Indicates actual speed.

OK → **REPLACE TIRE PRESSURE WARNING ECU**

NG

2 CHECK WIRE HARNESS (ECU - METER)



(a) Disconnect the E56 ECU connector.
(b) Disconnect the E19 meter connector.
(c) Measure the resistance of the wire harness side connectors.

Standard resistance

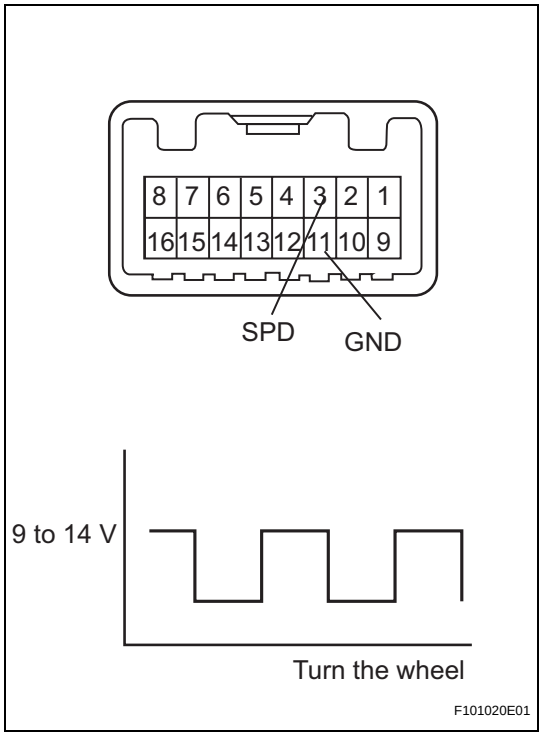
Tester Connection	Specified Condition
E56-3 (SPD) - E19-39 (+S)	Below 1 Ω
E56-3 (SPD) - Body ground	10 kΩ or higher

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

OK

TW

3	CHECK TIRE PRESSURE WARNING ECU



(a) Measure the voltage of the connector.
Standard voltage

Tester Connection	Condition	Specified Condition
E56-3 (SPD) - E56-11 (GND)	While driving vehicle	Pulse generation

HINT:
As the vehicle speed (wheel revolution speed) increases, a cycle of the waveform narrows.

NG → **GO TO METER / GAUGE SYSTEM**

OK

REPLACE TIRE PRESSURE WARNING ECU