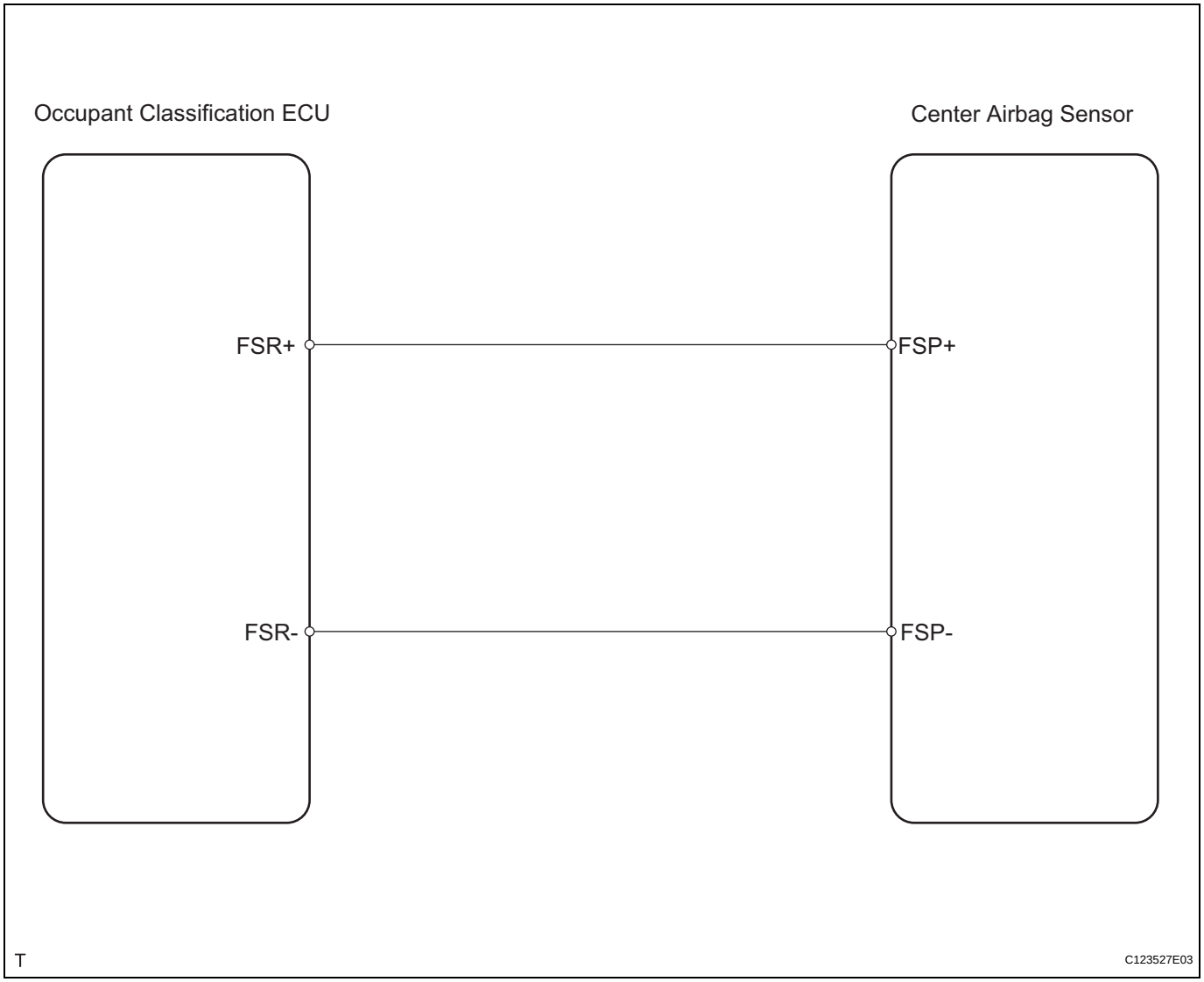
DTC	B1790	Center Airbag Sensor Assembly Communication Circuit Malfunction

DESCRIPTION

The center airbag sensor communication circuit consists of the occupant classification ECU and the center airbag sensor.
DTC B1790 is recorded when a malfunction is detected in the center airbag sensor communication circuit.

DTC No.	DTC Detection Condition	Trouble Area
B1790	When one of following conditions is met: • Occupant classification ECU detects line short circuit signal, open circuit signal, short circuit to ground signal or short circuit to B+ signal in the center airbag sensor assembly communication circuit for 2 seconds • Center airbag sensor malfunction • Occupant classification ECU malfunction	• Floor wire • Occupant classification ECU • Center airbag sensor

WIRING DIAGRAM



RS

INSPECTION PROCEDURE

HINT:

- If troubleshooting (wire harness inspection) is difficult to perform, remove the front passenger seat installation bolts to see the undersurface of the seat cushion.
- In the above case, hold the seat so that it does not tip over. Holding the seat for a long period of time may cause a problem, such as seat rail deformation. Hold the seat up only for as long as necessary.

1	CHECK FOR DTC

(a) Turn the ignition switch ON.
(b) Clear the DTCs (see page RS-249).
HINT:
First clear DTCs stored in the occupant classification ECU and then in the center airbag sensor.
(c) Turn the ignition switch OFF.
(d) Turn the ignition switch ON.
(e) Check the DTCs (see page RS-249).
OK:
DTC B1790 is not output.
HINT:
DTCs other than DTC B1790 may be output at this time, but they are not related to this check.

OK → **USE SIMULATION METHOD TO CHECK**

NG

2	CHECK CONNECTION OF CONNECTOR

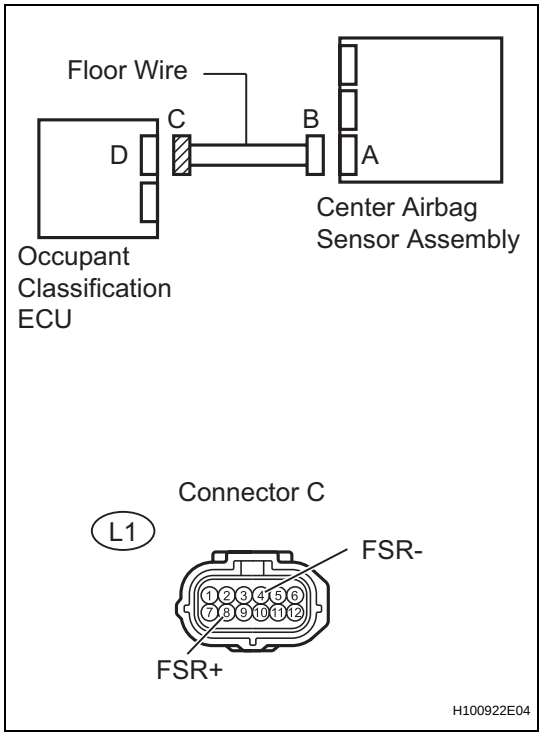
(a) Turn the ignition switch OFF.
(b) Disconnect the cable from the negative (-) battery terminal, and wait for at least 90 seconds.
(c) Check that the connectors are properly connected to the occupant classification ECU and the center airbag sensor.
OK:
The connectors are properly connected.

NG → **CONNECT CONNECTOR**

OK

RS

3	CHECK FLOOR WIRE (TO B+)



(a) Disconnect the connectors from the occupant classification ECU and the center airbag sensor.
(b) Connect the cable to the negative (-) battery terminal, and wait for at least 2 seconds.
(c) Turn the ignition switch ON.
(d) Measure the voltage of the wire harness side connector.

Standard voltage

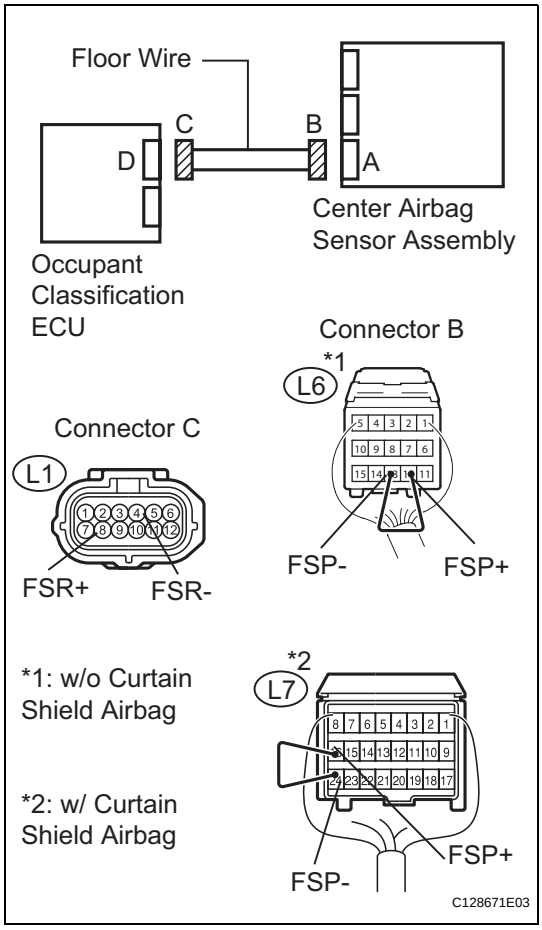
Tester Connection	Specified Condition
L1-8 (FSR+) - Body ground	Below 1 V
L1-4 (FSR-) - Body ground	Below 1 V

NG → **REPAIR OR REPLACE FLOOR WIRE**

OK

RS

4	CHECK FLOOR WIRE (FOR OPEN)



(a) Turn the ignition switch OFF.

(b) Disconnect the cable from the negative (-) battery terminal, and wait for at least 90 seconds.

(c) Using a service wire, connect terminals L6-12 (FSP+) *1 and L6-13 (FSP-) *1 or L7-16 (FSP+) *2 and L7-24 (FSP-) *2 of connector B.

NOTICE:

Do not forcibly insert a service wire into the terminals of the connector when connecting them.

(d) Measure the resistance of the wire harness side connector.

Standard resistance

Tester Connection	Specified Condition
L1-8 (FSR+) - L1-4 (FSR-)	Below 1 Ω

HINT:

*1: w/o Curtain shield airbag

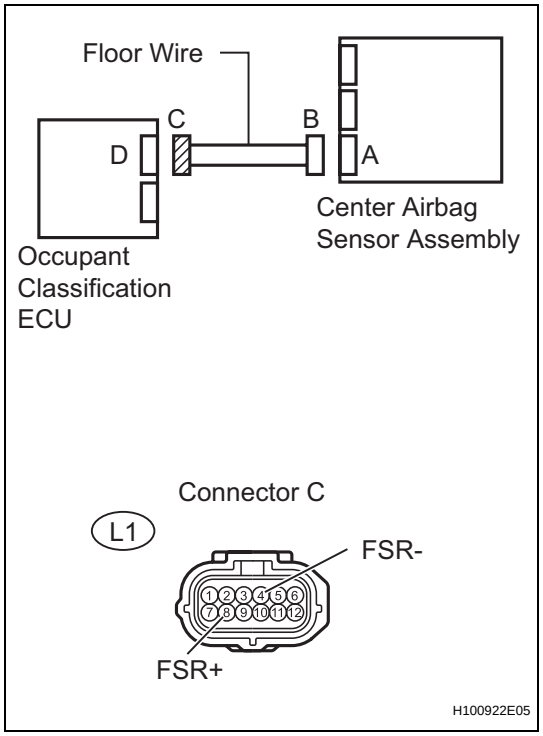
*2: w/ Curtain shield airbag

NG → **REPAIR OR REPLACE FLOOR WIRE**

OK

RS

5 CHECK FLOOR WIRE (FOR SHORT)



(a) Disconnect the service wire from connector B.
(b) Measure the resistance of the wire harness side connector.

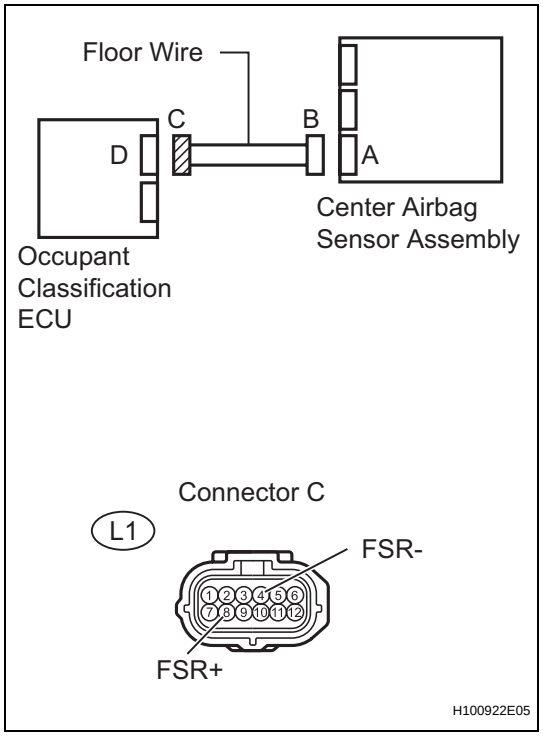
Standard resistance

Tester Connection	Specified Condition
L1-8 (FSR+) - L1-4 (FSR-)	1 MΩ or higher

NG → **REPAIR OR REPLACE FLOOR WIRE**

OK

6 CHECK FLOOR WIRE (TO GROUND)



(a) Measure the resistance of the wire harness side connector.

Standard resistance

Tester Connection	Specified Condition
L1-8 (FSR+) - Body ground	1 MΩ or higher
L1-4 (FSR-) - Body ground	1 MΩ or higher

NG → **REPAIR OR REPLACE FLOOR WIRE**

OK

RS

7	CHECK FOR DTC

(a) Connect the connectors to the occupant classification ECU and the center airbag sensor.
(b) Connect the cable to the negative (-) battery terminal, and wait for at least 2 seconds.
(c) Turn the ignition switch ON.
(d) Clear the DTCs (see page RS-249).
HINT:
First clear DTCs stored in the occupant classification ECU and then in the center airbag sensor.
(e) Turn the ignition switch OFF.
(f) Turn the ignition switch ON.
(g) Check the DTCs (see page RS-249).
OK:
DTC B1790 is not output.
HINT:
DTCs other than DTC B1790 may be output at this time, but they are not related to this check.

OK	USE SIMULATION METHOD TO CHECK

NG

8	REPLACE OCCUPANT CLASSIFICATION ECU

(a) Turn the ignition switch OFF.
(b) Disconnect the cable from the negative (-) battery terminal, and wait for at least 90 seconds.
(c) Replace the occupant classification ECU (see page RS-392).
HINT:
Perform the inspection using parts from a normal vehicle if possible.

NEXT

9	PERFORM ZERO POINT CALIBRATION

(a) Connect the cable to the negative (-) battery terminal, and wait for at least 2 seconds.
(b) Connect the intelligent tester (with CAN VIM) to the DLC3.
(c) Turn the ignition switch ON.
(d) Using the intelligent tester, perform the zero point calibration (see page RS-241).
OK:
COMPLETED is displayed.

NEXT

RS

10	PERFORM SENSITIVITY CHECK

(a) Using the intelligent tester, perform the sensitivity check (see page RS-241).
Standard value:
27 to 33 kg (59.52 to 72.75 lb)

NEXT

11	CHECK FOR DTC

(a) Turn the ignition switch ON.
(b) Clear the DTCs (see page RS-249).
HINT:
First clear DTCs stored in the occupant classification ECU and then in the center airbag sensor.
(c) Turn the ignition switch OFF.
(d) Turn the ignition switch ON.
(e) Check the DTCs (see page RS-249).
OK:
DTC B1790 is not output.
HINT:
DTCs other than DTC B1790 may be output at this time, but they are not related to this check.

NG → **REPLACE CENTER AIRBAG SENSOR ASSEMBLY**

OK

END