DTC	B1793	Occupant Classification Sensor Power Supply Circuit Malfunction

DESCRIPTION

The occupant classification sensor power supply circuit consists of the occupant classification ECU and the occupant classification sensors.

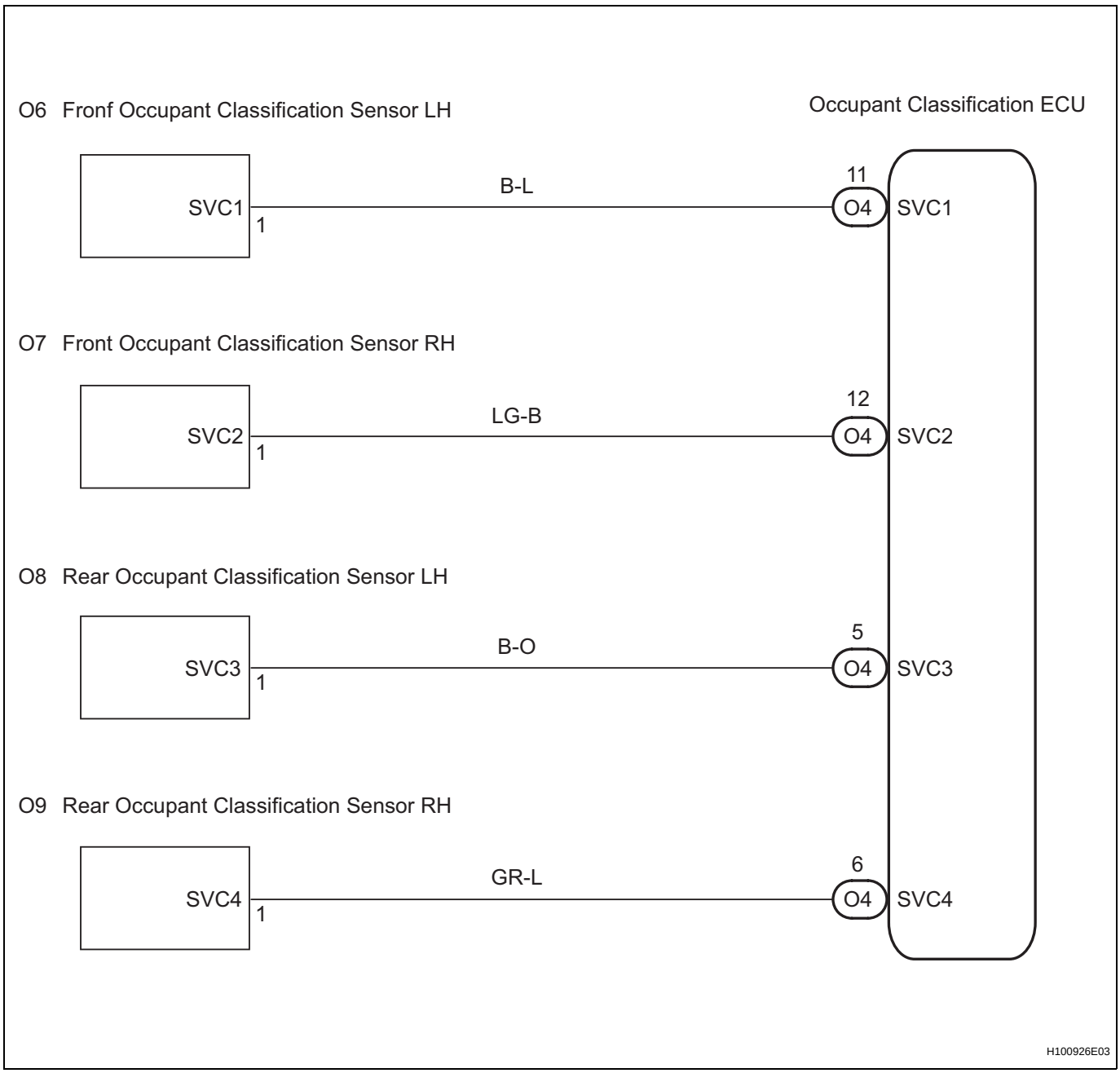
DTC B1793 is set when a malfunction is detected in the occupant classification sensor power supply circuit.

DTC No.	DTC Detecting Conditions	Trouble Areas
B1793	• The occupant classification ECU receives a line short circuit signal, an open circuit signal, a short circuit to ground signal or a short circuit to B+ signal in the occupant clarification sensor power supply circuit for 2 seconds • Open circuit in occupant classification sensor wire harness • Occupant classification ECU malfunction	• Front seat with adjuster frame assembly RH (Occupant classification sensors) • No. 1 seat wire • Occupant classification ECU

HINT:

- When DTC B1650/32 is detected as a result of troubleshooting the supplemental restraint system, perform troubleshooting for DTC B1793 of the occupant classification system.
- Use the intelligent tester to check for DTCs of the occupant classification ECU, otherwise the DTCs cannot be read.

WIRING DIAGRAM



RS

HINT:

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

1	**CHECK DTC**

(a) Turn the ignition switch to the ON position.
(b) Clear any DTCs stored in the memory (See page RS-365).

HINT:

- First clear DTCs stored in the occupant classification ECU and then in the center airbag sensor assembly.
- Use the intelligent tester to clear the DTCs of the occupant classification ECU, otherwise the DTCs cannot be cleared.

(c) Turn the ignition switch to the LOCK position.
(d) Turn the ignition switch to the ON position.
(e) Using the intelligent tester, check for DTCs of the occupant classification ECU (See page RS-365).
OK:
DTC B1793 is not output.

HINT:
DTCs other than B1793 may be output at this time, but they are not related to this check.

OK → **USE SIMULATION METHOD TO CHECK**

NG

2	CHECK CONNECT CONNECTORS

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

NG → **CONNECT CONNECTORS**

OK

3	CHECK CONNECTORS

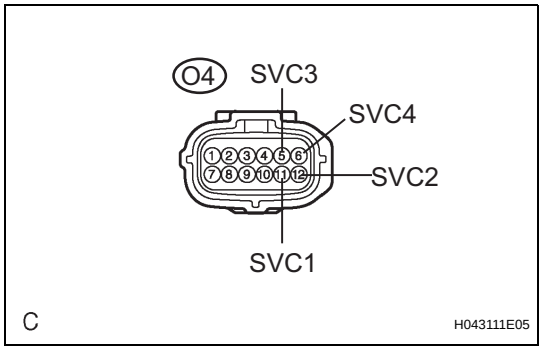
(a) Check that the connectors (on the occupant classification ECU side and the occupant classification sensors side) are not damaged (See page IN-34).
OK:
The connectors are not deformed or damaged.

NG → **REPAIR OR REPLACE WIRE HARNESS**

OK

RS

4	CHECK NO. 1 SEAT WIRE (TO B+)



(a) Disconnect the connectors from the occupant classification ECU and the 4 occupant classification sensors.
(b) Connect the negative (-) terminal cable to the battery.
(c) Turn the ignition switch to the ON position.
(d) Measure the voltage.

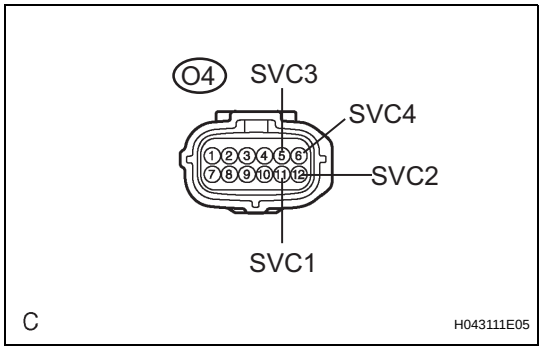
Standard voltage

Tester Connection	Condition	Specified Condition
O4-11 (SVC1) - Body ground	Ignition switch ON	Below 1 Ω
O4-12 (SVC2) - Body ground	Ignition switch ON	Below 1 Ω
O4-5 (SVC3) - Body ground	Ignition switch ON	Below 1 Ω
O4-6 (SVC4) - Body ground	Ignition switch ON	Below 1 Ω

NG → REPAIR OR REPLACE NO. 1 SEAT WIRE

OK

5	CHECK NO. 1 SEAT WIRE (TO GROUND)



(a) Turn the ignition switch to the LOCK position.
(b) Disconnect the negative (-) terminal cable from the battery, and wait for at least 90 seconds.
(c) Measure the resistance.

Standard resistance

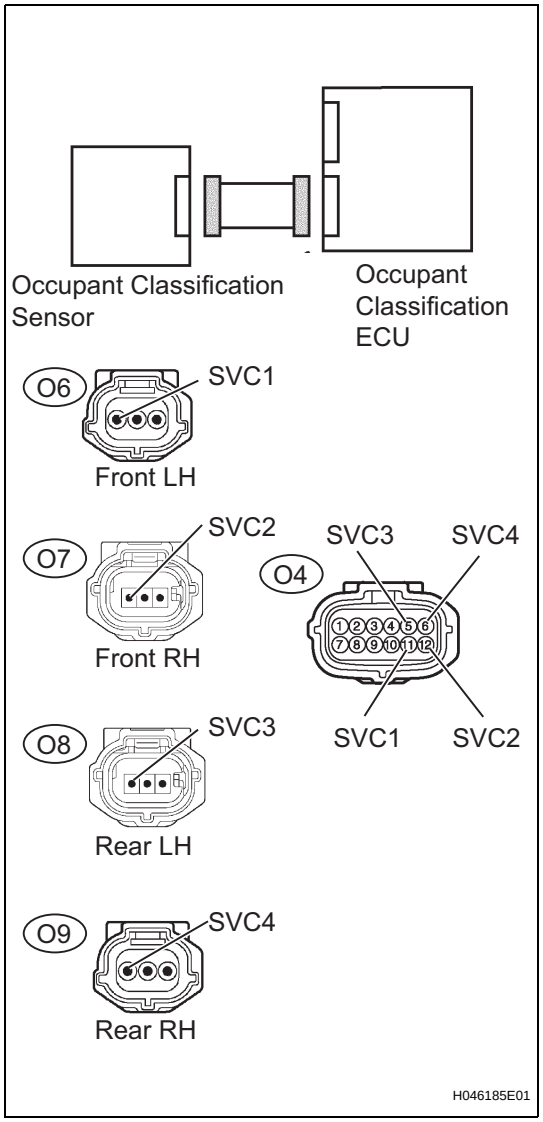
Tester Connection	Condition	Specified Condition
O4-11 (SVC1) - Body ground	Always	1 MΩ or higher
O4-12 (SVC2) - Body ground	Always	1 MΩ or higher
O4-5 (SVC3) - Body ground	Always	1 MΩ or higher
O4-6 (SVC4) - Body ground	Always	1 MΩ or higher

NG → REPAIR OR REPLACE NO. 1 SEAT WIRE

OK

RS

6 CHECK NO. 1 SEAT WIRE (FOR OPEN)



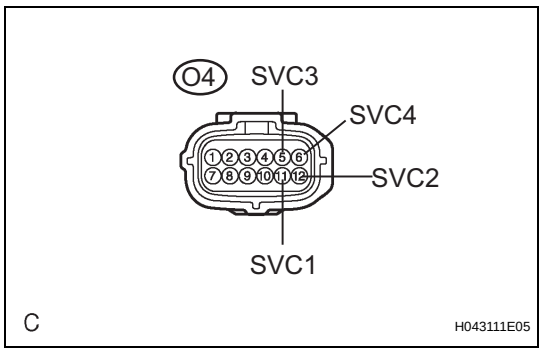
(a) Measure the resistance.
Standard resistance

Tester Connection	Condition	Specified Condition
O4-11 (SVC1) - O6-1 (SVC1)	Always	Below 1 Ω
O4-12 (SVC2) - O7-1 (SVC2)	Always	Below 1 Ω
O4-5 (SVC3) - O8-1 (SVC3)	Always	Below 1 Ω
O4-6 (SVC4) - O9-1 (SVC4)	Always	Below 1 Ω

NG → **REPAIR OR REPLACE NO. 1 SEAT WIRE**

OK

7 CHECK NO. 1 SEAT WIRE (FOR SHORT)



(a) Measure the resistance.
Standard resistance

Tester Connection	Condition	Specified Condition
O4-5 (SVC3) - O4-6 (SVC4)	Always	1 MΩ or higher
O4-6 (SVC4) - O6-11 (SVC1)	Always	1 MΩ or higher
O4-11 (SVC1) - O4-12 (SVC2)	Always	1 MΩ or higher
O4-12 (SVC2) - O4-5 (SVC3)	Always	1 MΩ or higher
O4-12 (SVC2) - O4-6 (SVC4)	Always	1 MΩ or higher

RS

Tester Connection	Condition	Specified Condition
O4-11 (SVC1) - O4-5 (SVC3)	Always	1 MΩ or higher

NG → REPAIR OR REPLACE NO. 1 SEAT WIRE

OK

8 CHECK DTC

(a) Connect the connectors to the occupant classification ECU and the 4 occupant classification sensors.
(b) Connect the negative (-) terminal cable to the battery.
(c) Turn the ignition switch to the ON position.
(d) Clear any DTCs stored in the memory (See page RS-365).

HINT:
- First clear DTCs stored in the occupant classification ECU and then in the center airbag sensor assembly.
- Use the intelligent tester to clear the DTCs of the occupant classification ECU, otherwise the DTCs cannot be cleared.

(e) Turn the ignition switch to the LOCK position.
(f) Turn the ignition switch to the ON position.
(g) Using the intelligent tester, check for DTCs of the occupant classification ECU (See page RS-365).
OK:
DTC B1793 is not output.

HINT:
DTCs other than B1793 may be output at this time, but they are not related to this check.

OK → USE SIMULATION METHOD TO CHECK

NG

9 REPLACE OCCUPANT CLASSIFICATION ECU

(a) Turn the ignition switch to the LOCK position.
(b) Disconnect the negative (-) terminal cable from the battery, and wait for at least 90 seconds.
(c) Replace the occupant classification ECU (See page RS-631).

HINT:
Perform the inspection using parts from a normal vehicle when possible.

NEXT

10 PERFORM ZERO POINT CALIBRATION

(a) Connect the negative (-) terminal cable to the battery.
(b) Connect the intelligent tester to the DLC3.
(c) Turn the ignition switch to the ON position.

RS

(d) Using the intelligent tester, perform the zero point calibration (See page RS-357).
OK:
COMPLETED is displayed on the tester.

NEXT

11	PERFORM SENSITIVITY CHECK

(a) Using the intelligent tester, perform the sensitivity check (See page RS-357).
Standard:
27 to 33 kg (59.52 to 72.75 lb)

NEXT

USE SIMULATION METHOD TO CHECK