

<b>DTC</b>	<b>B1780</b>	<b>Front Occupant Classification Sensor LH Circuit Malfunction</b>
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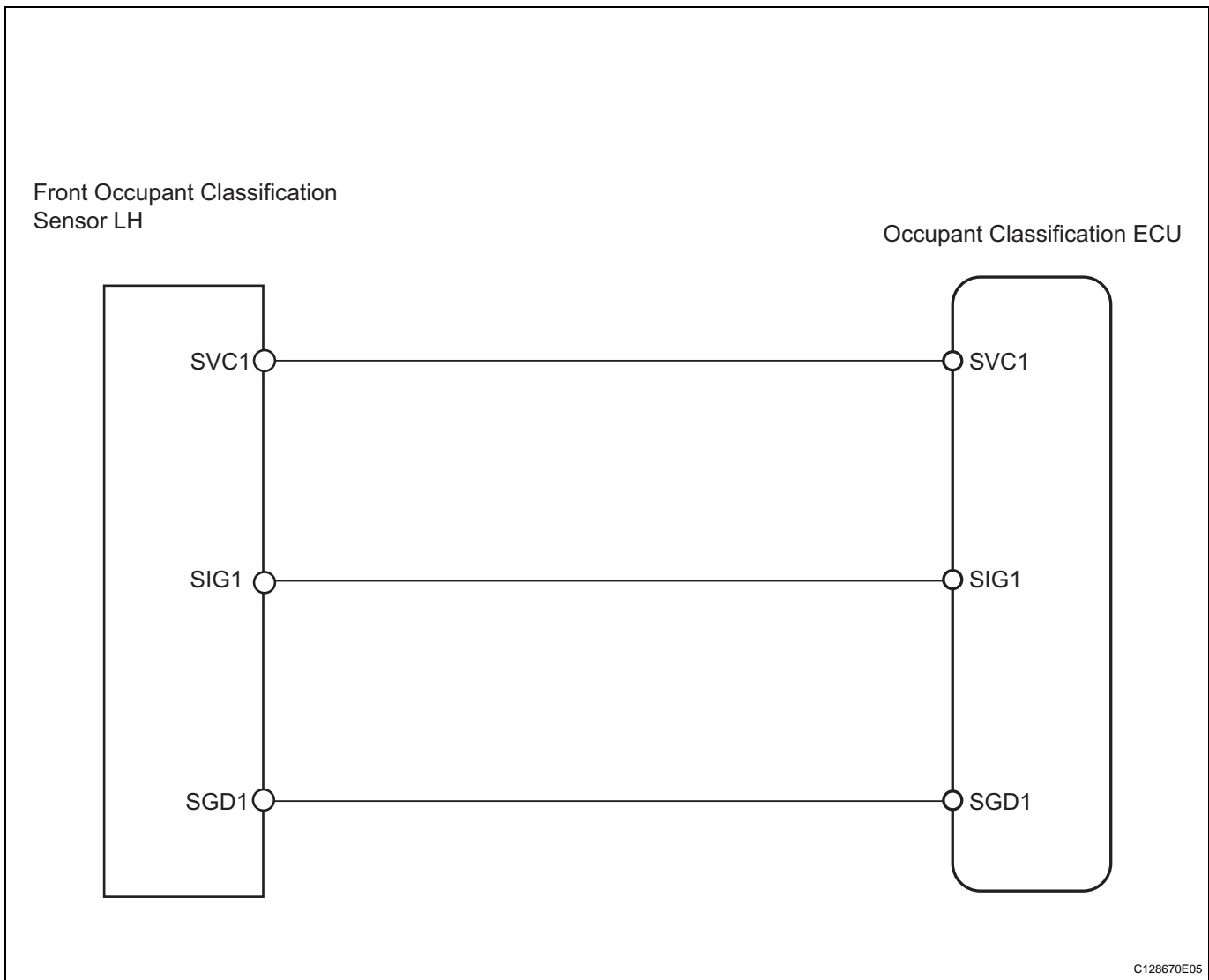
**DESCRIPTION**

The front occupant classification sensor LH circuit consists of the occupant classification ECU and the front occupant classification sensor LH.

DTC B1780 is recorded when a malfunction is detected in the front occupant classification sensor LH circuit.

DTC No.	DTC Detection Condition	Trouble Area
B1780	When one of following conditions is met: <ul style="list-style-type: none"> <li>• Occupant classification ECU detects line short signal, open signal, short to ground signal or short to B+ signal in the front occupant classification sensor LH circuit for 2 seconds</li> <li>• Front occupant classification sensor LH malfunction</li> <li>• Occupant classification ECU malfunction</li> </ul>	<ul style="list-style-type: none"> <li>• Front seat wire RH</li> <li>• Front seat RH (Front occupant classification sensor LH)</li> <li>• Occupant classification ECU</li> </ul>

**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

- Turn the ignition switch ON.
- Clear the DTCs (see page [RS-249](#)).  
HINT:  
First clear DTCs stored in the occupant classification ECU and then in the center airbag sensor.
- Turn the ignition switch OFF.
- Turn the ignition switch ON.
- Check the DTCs (see page [RS-249](#)).

#### OK:

**DTC B1780 is not output.**

#### HINT:

DTCs other than DTC B1780 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

- Turn the ignition switch OFF.
- Disconnect the cable from the negative (-) battery terminal, and wait for at least 90 seconds.
- Check that the connectors are properly connected to the occupant classification ECU and the front occupant classification sensor LH.

#### OK:

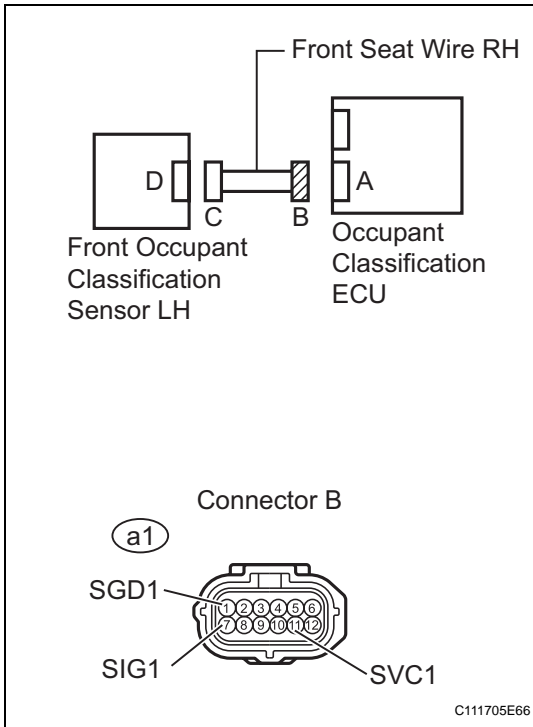
**The connectors are properly connected.**

NG

CONNECT CONNECTOR

OK

**3 CHECK FRONT SEAT WIRE RH (TO B+)**



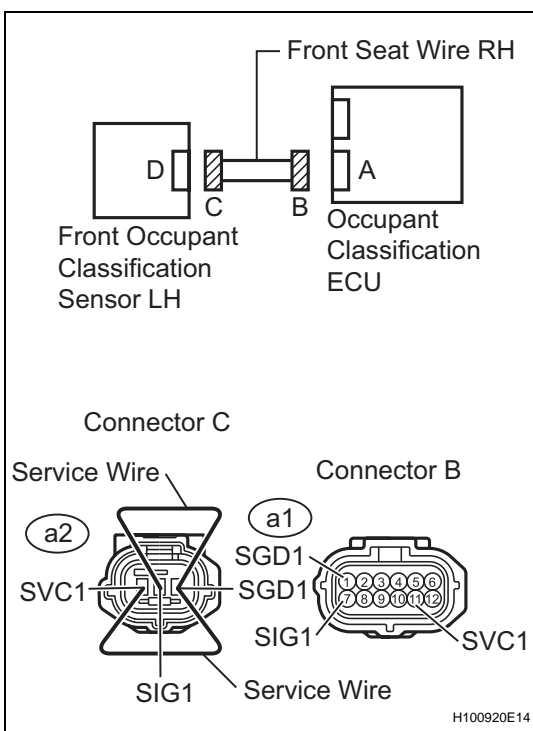
- Disconnect the connectors from the occupant classification ECU and the front occupant classification sensor LH.
  - Connect the cable to the negative (-) battery terminal, and wait for at least 2 seconds.
  - Turn the ignition switch ON.
  - Measure the voltage of the wire harness side connector.
- Standard voltage**

Tester Connection	Specified Condition
a1-1 (SGD1) - Body ground	Below 1 V
a1-7 (SIG1) - Body ground	Below 1 V
a1-11 (SVC1) - Body ground	Below 1 V

**NG** REPAIR OR REPLACE FRONT SEAT WIRE RH

**OK**

**4 CHECK FRONT SEAT WIRE RH (FOR OPEN)**



- Turn the ignition switch OFF.
  - Disconnect the cable from the negative (-) battery terminal, and wait for at least 90 seconds.
  - Using a service wire, connect terminals a2-1 (SVC1) and a2-3 (SIG1), and connect terminals a2-2 (SIG1) and a2-3 (SGD1) of connector C.
- NOTICE:**  
Do not forcibly insert a service wire into the terminals of the connector when connecting them.
- Measure the resistance of the wire harness side connector.

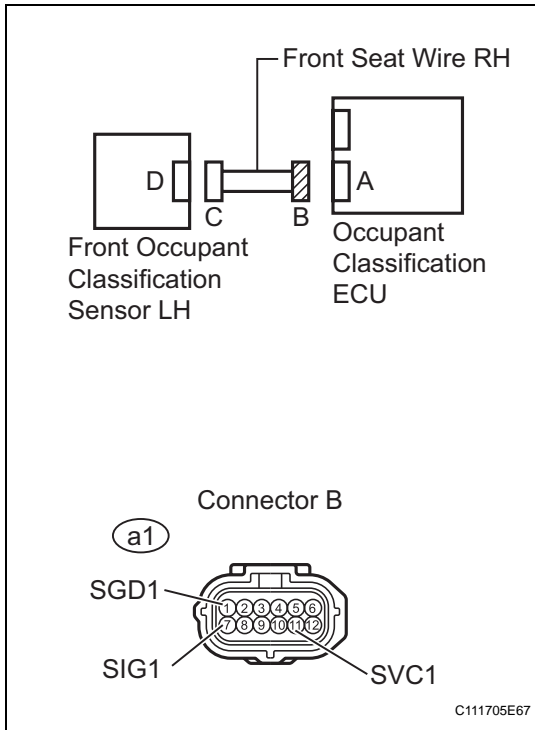
**Standard resistance**

Tester Connection	Specified Condition
a1-7 (SIG1) - a1-1 (SGD1)	Below 1 Ω
a1-11 (SVC1) - a1-1 (SGD1)	Below 1 Ω

**NG** REPAIR OR REPLACE FRONT SEAT WIRE RH

**OK**

**5 CHECK FRONT SEAT WIRE RH (FOR SHORT)**



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

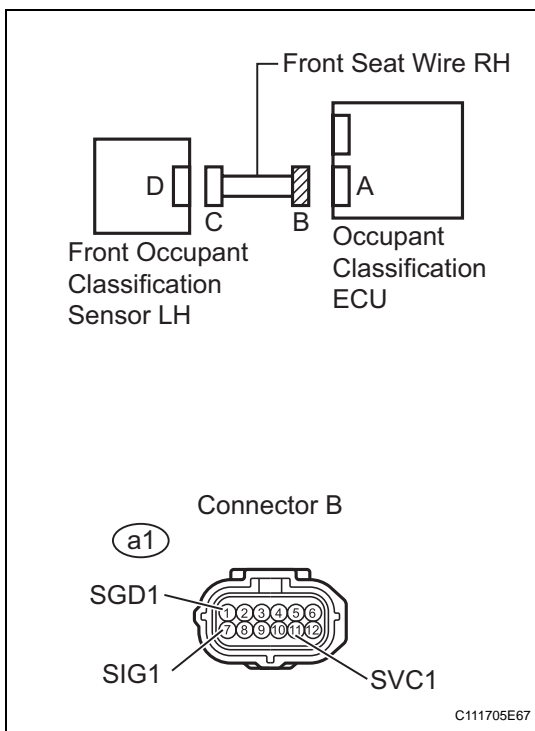
**Standard resistance**

Tester Connection	Specified Condition
a1-7 (SIG1) - a1-1 (SGD1)	1 MΩ or higher
a1-11 (SVC1) - a1-1 (SGD1)	1 MΩ or higher
a1-7 (SIG1) - a1-11 (SVC1)	1 MΩ or higher

**NG** REPAIR OR REPLACE FRONT SEAT WIRE RH

**OK**

**6 CHECK FRONT SEAT WIRE RH (TO GROUND)**



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

**Standard resistance**

Tester Connection	Specified Condition
a1-1 (SGD1) - Body ground	1 MΩ or higher
a1-7 (SIG1) - Body ground	1 MΩ or higher
a1-11 (SVC1) - Body ground	1 MΩ or higher

**NG** REPAIR OR REPLACE FRONT SEAT WIRE RH

**OK**

**RS**

**7 CHECK FOR DTC**

- (a) Connect the connectors to the occupant classification ECU and the front occupant classification sensor LH.
- (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 B1780 is not output.**

**HINT:**

DTCs other than DTC B1780 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.**

**NG****Go to step 12****OK****RS**

**10 PERFORM SENSITIVITY CHECK**

- (a) Using the intelligent tester, perform the sensitivity check (see page [RS-241](#)).

**Standard values:**

**27 to 33 kg (59.52 to 72.75 lb)**

NG

Go to step 12

OK

**11 CHECK FOR DTC**

- (a) Connect the cable to the negative (-) battery terminal, and wait for at least 2 seconds.  
 (b) Turn the ignition switch ON.  
 (c) Clear the DTCs (see page [RS-249](#)).

**HINT:**

First clear DTCs stored in the occupant classification ECU and then in the center airbag sensor.

- (d) Turn the ignition switch OFF.  
 (e) Turn the ignition switch ON.  
 (f) Check the DTCs (see page [RS-249](#)).

**OK:**

**DTC B1780 is not output.**

**HINT:**

Codes other than DTC B1780 may be output at this time, but they are not related to this check.

OK

END

RS

NG

**12 REPLACE FRONT SEAT ASSEMBLY RH**

- (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 front seat RH (see page [SE-11](#)).

NEXT

**13 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 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

**14** | **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

END