# DTC B1650 OCCUPANT DETECTION SENSOR CIRCUIT MALFUNCTION

## CIRCUIT DESCRIPTION

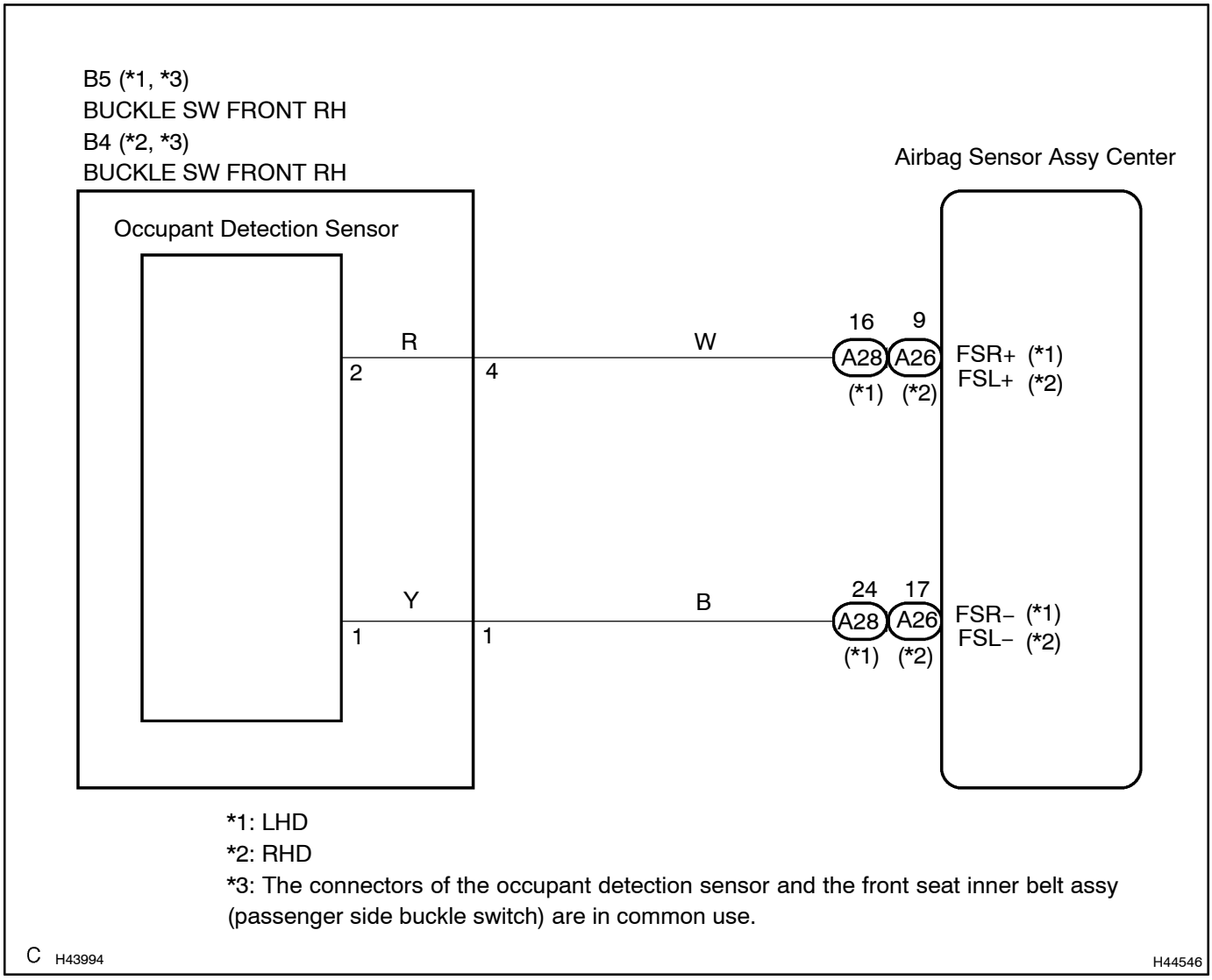
The occupant detection sensor circuit consists of the airbag sensor assy center and the occupant detection sensor.

If the airbag sensor assy center receives signals from the occupant detection sensor, it determines whether or not the front passenger airbag assy and the front seat airbag assy (passenger side) should be operated.

DTC B1650 is recorded when a malfunction is detected in the occupant detection sensor circuit.

| DTC No. | DTC Detecting Condition | Trouble Area |
|---|---|---|
| B1650 | • When the airbag sensor assy center receives a line short signal, open signal, short to ground signal or B+ short signal in the occupant detection sensor circuit for 2 seconds.<br>• Occupant detection sensor malfunction<br>• Airbag sensor assy center malfunction | • Floor wire<br>• Occupant detection sensor<br>• Airbag sensor assy center |

## WIRING DIAGRAM




*1: LHD
*2: RHD
*3: The connectors of the occupant detection sensor and the front seat inner belt assy (passenger side buckle switch) are in common use.

C H43994

H44546

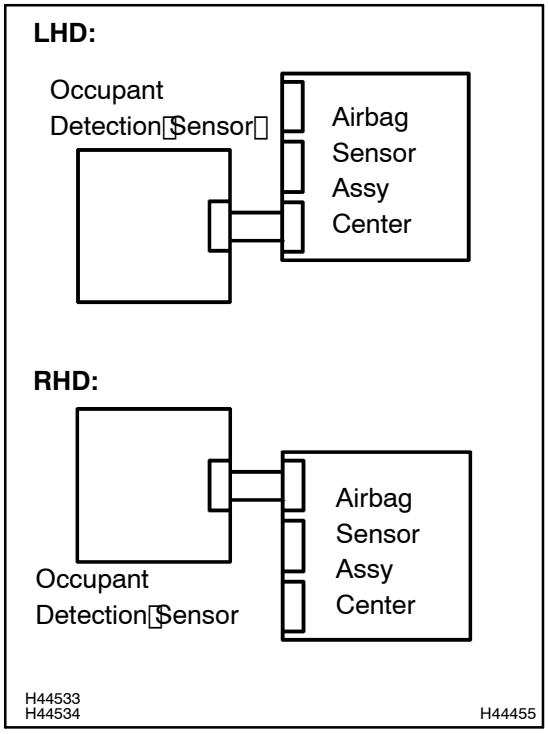
## INSPECTION PROCEDURE

**CAUTION:**

**Be sure to perform the following procedures before troubleshooting to avoid unexpected airbag deployment.**

(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) Disconnect the connectors from the airbag sensor assy center.
(d) Disconnect the connectors from the horn button assy.
(e) Disconnect the connector from the front passenger airbag assy.
(f) Disconnect the connector from the instrument panel airbag assy lower No.1.
(g) Disconnect the connector from the instrument panel airbag assy lower No.2.
(h) Disconnect the connector from the front seat airbag assy LH.
(i) Disconnect the connector from the front seat airbag assy RH.
(j) Disconnect the connector from the curtain shield airbag assy LH.
(k) Disconnect the connector from the curtain shield airbag assy RH.
(l) Disconnect the connector from the front seat outer belt assy LH.
(m) Disconnect the connector from the front seat outer belt assy RH.
(n) Disconnect the connectors from the rear seat 3 point type outer belt assy.

| 1 | CHECK DTC |
|---|---|




(a) Connect the connectors to the airbag sensor assy center.
(b) Connect the negative (–) terminal cable to the battery, and wait for at least 2 seconds.
(c) Turn the ignition switch to the ON position, and wait for at least 60 seconds.
(d) Clear the DTCs stored in memory (see page 05–959).
(e) Turn the ignition switch to the LOCK position.
(f) Turn the ignition switch to the ON position, and wait for at least 60 seconds.
(g) Check the DTCs (see page 05–959).
**OK:**
**DTC B1650 is not output.**

HINT:
Codes other than code B1650 may be output at this time, but they are not related to this check.

**NG** → **Go to step 2**

**OK**

**USE SIMULATION METHOD TO CHECK (SEE PAGE 05–954)**

## 2 CHECK CONNECTION OF 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 airbag sensor assy center and the occupant detection sensor.
**OK:**
**The connectors are connected.**

**NG** → **CONNECT CONNECTORS, THEN GO TO STEP 1**

**OK**

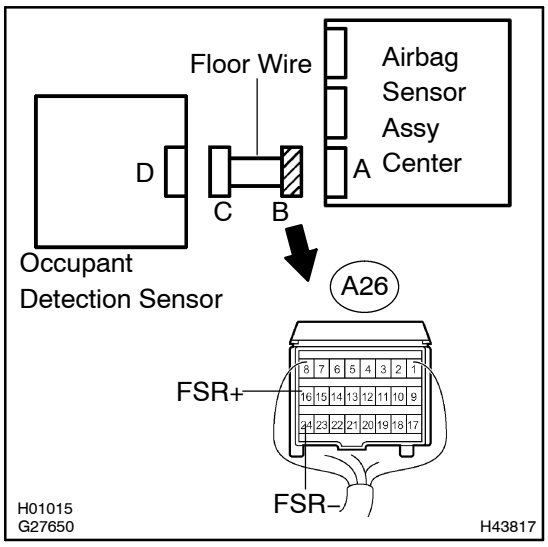
## 3 CHECK VEHICLE

(a) Check that the steering position of the vehicle.
**Result:**
**A: LHD**
**B: RHD**

**B** → **Go to step 10**

**A**

## 4 CHECK FLOOR WIRE(TO B+)



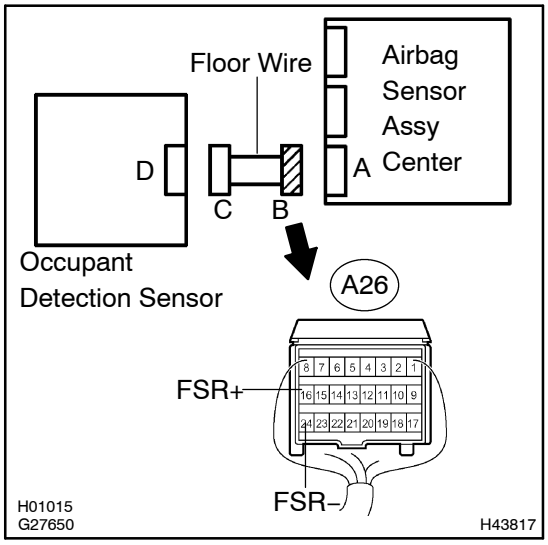

(a) Disconnect the connectors from the airbag sensor assy center and the occupant detection sensor.
(b) Connect the negative (–) terminal cable to the battery, and wait for at least 2 seconds.
(c) Turn the ignition switch to the ON position.
(d) Measure the voltage according to the value(s) in the table below.
**Standard:**

| Tester connection | Condition | Specified condition |
|---|---|---|
| A26–16 (FSR+) – Body ground | Ignition switch ON | Below 1 V |
| A26–24 (FSR–) – Body ground | Ignition switch ON | Below 1 V |

**NG** → **REPAIR OR REPLACE FLOOR WIRE**

**OK**

## 5 CHECK FLOOR 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 according to the value(s) in the table below.

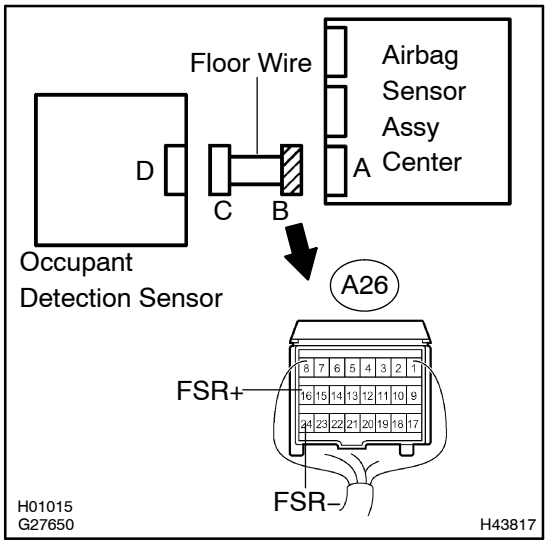
**Standard:**

| Tester connection | Condition | Specified condition |
|---|---|---|
| A26–16 (FSR+) – Body ground | Always | 1 MΩ or Higher |
| A26–24 (FSR–) – Body ground | Always | 1 MΩ or Higher |

**NG** → **REPAIR OR REPLACE FLOOR WIRE**

**OK**

## 6 CHECK FLOOR WIRE(SHORT)




(a) Measure the resistance according to the value(s) in the table below.

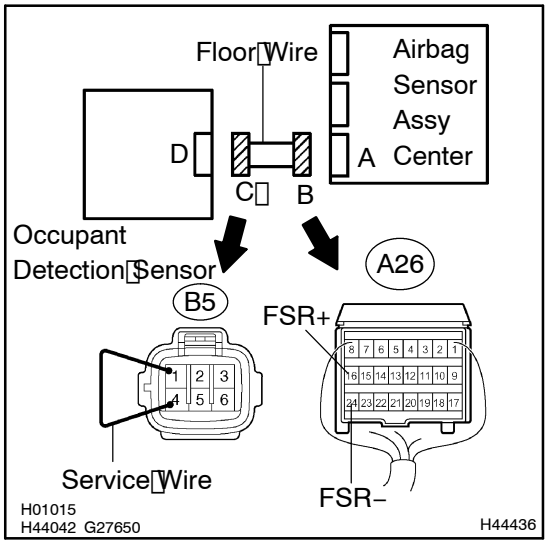
**Standard:**

| Tester connection | Condition | Specified condition |
|---|---|---|
| A26–16 (FSR+) – A26–24 (FSR–) | Always | 1 MΩ or Higher |

**NG** → **REPAIR OR REPLACE FLOOR WIRE**

**OK**

## 7 CHECK FLOOR WIRE(OPEN)




(a) Using a service wire, connect B5–4 and B5–1 of connector "C".

**NOTICE:**

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

(b) Measure the resistance according to the value(s) in the table below.

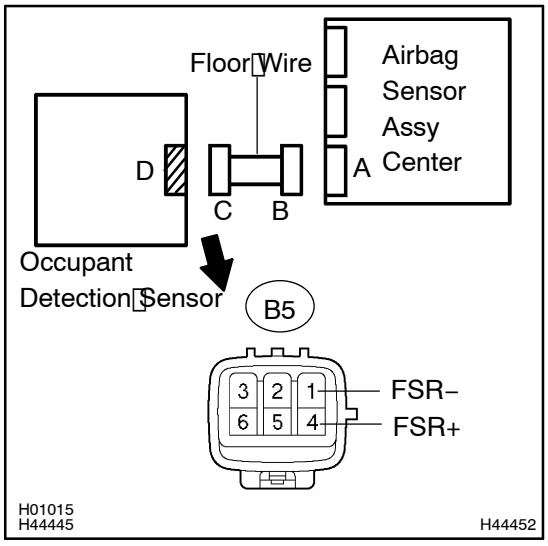
**Standard:**

| Tester connection | Condition | Specified condition |
|---|---|---|
| A26–16 (FSR+) – A26–24 (FSR–) | Always | Below 1 Ω |

**NG** → **REPAIR OR REPLACE FLOOR WIRE**

**OK**

## 8 CHECK OCCUPANT DETECTION SENSOR




(a) Disconnect the service wire from connector "C".

(b) Measure the resistance according to the value(s) in the table below.

**NOTICE:**

**Connect the positive tester lead to terminal FSR+, and the negative tester lead to terminal FSR–.**

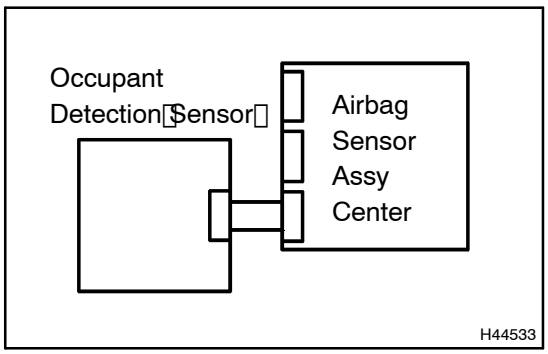
**Standard:**

| Tester connection | Condition | Specified condition |
|---|---|---|
| B5–4 (FSR+) – B5–1 (FSR–) | Passenger is not seated | Below 50 kΩ |
| B5–4 (FSR+) – B5–1 (FSR–) | Passenger is seated | 50 kΩ or Higher |

**NG** → **REPLACE OCCUPANT DETECTION SENSOR (SEE PAGE 72–3)**

**OK**

## 9 CHECK AIR BAG SENSOR ASSY CENTER




(a) Connect the connectors to the airbag sensor assy center and the occupant detection sensor.
(b) Connect the negative (–) terminal cable to the battery, and wait for at least 2 seconds.
(c) Turn the ignition switch to the ON position, and wait for at least 60 seconds.
(d) Clear the DTCs stored in memory (see page 05–959).
(e) Turn the ignition switch to the LOCK position.
(f) Turn the ignition switch to the ON position, and wait for at least 60 seconds.
(g) Check the DTCs (see page 05–959).

**OK:**

**DTC B1650 is not output.**

HINT:

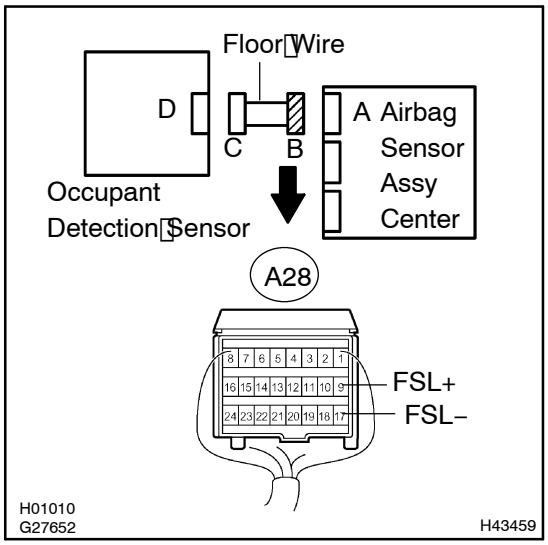
Codes other than code B1650 may be output at this time, but they are not related to this check.

**NG** → **REPLACE AIR BAG SENSOR ASSY CENTER (SEE PAGE 60–74)**

**OK**

**USE SIMULATION METHOD TO CHECK (SEE PAGE 05–954)**

## 10 CHECK FLOOR WIRE(TO B+)




(a) Disconnect the connectors from the airbag sensor assy center and the occupant detection sensor.
(b) Connect the negative (–) terminal cable to the battery, and wait for at least 2 seconds.
(c) Turn the ignition switch to the ON position.
(d) Measure the voltage according to the value(s) in the table below.

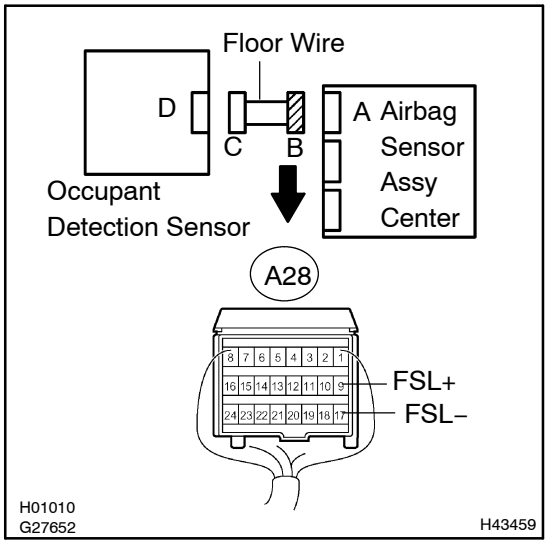
**Standard:**

| Tester connection | Condition | Specified condition |
|---|---|---|
| A28–9 (FSL+) – Body ground | Ignition switch ON | Below 1 V |
| A28–17 (FSL–) – Body ground | Ignition switch ON | Below 1 V |

**NG** → **REPAIR OR REPLACE FLOOR WIRE**

**OK**

## 11 CHECK FLOOR 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 according to the value(s) in the table below.

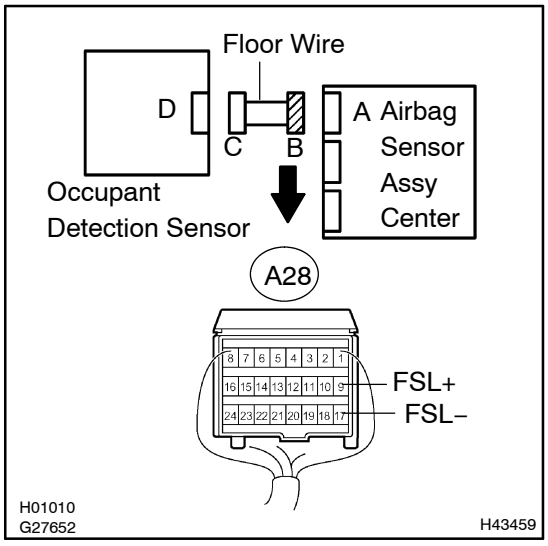
**Standard:**

| Tester connection | Condition | Specified condition |
|---|---|---|
| A28–9 (FSL+) – Body ground | Always | 1 MΩ or Higher |
| A28–17 (FSL–) – Body ground | Always | 1 MΩ or Higher |

**NG** → **REPAIR OR REPLACE FLOOR WIRE**

**OK**

## 12 CHECK FLOOR WIRE(SHORT)




(a) Measure the resistance according to the value(s) in the table below.

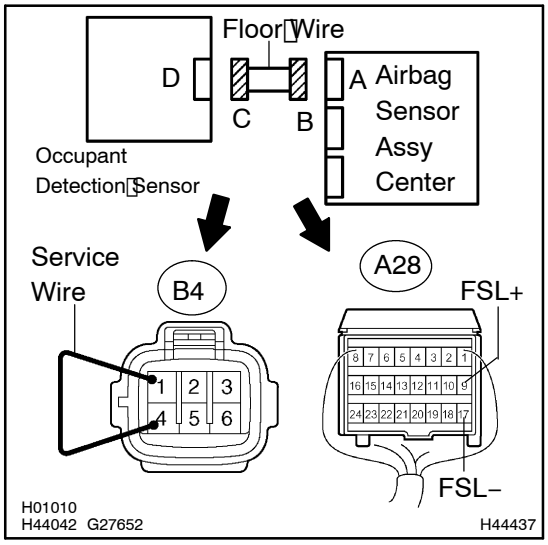
**Standard:**

| Tester connection | Condition | Specified condition |
|---|---|---|
| A28–9 (FSL+) – A28–17 (FSL–) | Always | 1 MΩ or Higher |

**NG** → **REPAIR OR REPLACE FLOOR WIRE**

**OK**

## 13 CHECK FLOOR WIRE(OPEN)




(a) Using a service wire, connect B4–4 and B4–1 of connector "C".

**NOTICE:**

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

(b) Measure the resistance according to the value(s) in the table below.

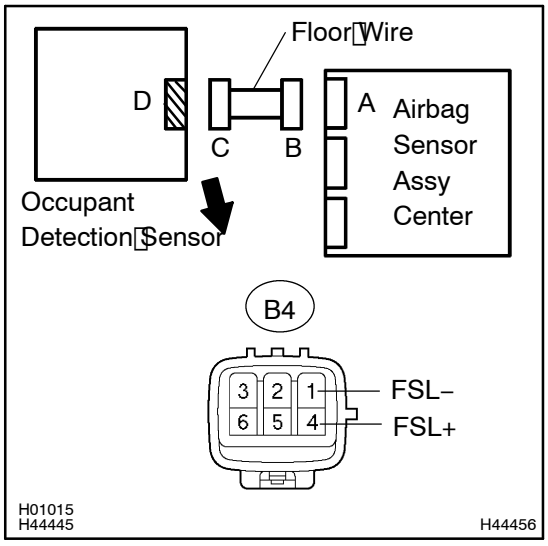
**Standard:**

| Tester connection | Condition | Specified condition |
|---|---|---|
| A28–9 (FSL+) – A28–17 (FSL–) | Always | Below 1 Ω |

**NG** → **REPAIR OR REPLACE FLOOR WIRE**

**OK**

## 14 CHECK OCCUPANT DETECTION SENSOR




(a) Disconnect the service wire from connector "C".

(b) Measure the resistance according to the value(s) in the table below.

**NOTICE:**

**Connect the positive tester lead to terminal FSL+, and the negative tester lead to terminal FSL–.**

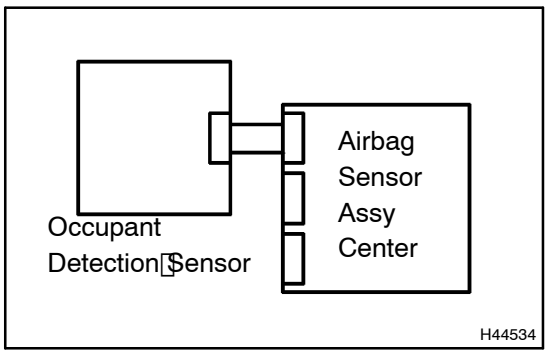
**Standard:**

| Tester connection | Condition | Specified condition |
|---|---|---|
| B4–4 (FSL+) – B4–1 (FSL–) | Passenger is not seated | Below 50 kΩ |
| B4–4 (FSL+) – B4–1 (FSL–) | Passenger is seated | 50 kΩ or Higher |

**NG** → **REPLACE OCCUPANT DETECTION SENSOR (SEE PAGE 72–3)**

**OK**

| 15 | CHECK AIR BAG SENSOR ASSY CENTER |
|---|---|




(a) Connect the connectors to the airbag sensor assy center.
(b) Connect the connector to the occupant detection sensor.
(c) Connect the negative (–) terminal cable to the battery, and wait for at least 2 seconds.
(d) Turn the ignition switch to the ON position, and wait for at least 60 seconds.
(e) Clear the DTCs stored in memory (see page 05–959).
(f) Turn the ignition switch to the LOCK position.
(g) Turn the ignition switch to the ON position, and wait for at least 60 seconds.
(h) Check the DTCs (see page 05–959).
**OK:**
**DTC B1650 is not output.**

HINT:
Codes other than code B1650 may be output at this time, but they are not related to this check.

| NG | REPLACE AIR BAG SENSOR ASSY CENTER (SEE PAGE 60–74) |
|---|---|

OK

| USE SIMULATION METHOD TO CHECK (SEE PAGE 05–954) |
|---|