

<b>DTC</b>	<b>B1650/32</b>	<b>Occupant Classification System Malfunction</b>
------------	-----------------	---------------------------------------------------

**DESCRIPTION**

The occupant classification system circuit consists of the center airbag sensor assembly and the occupant classification system.

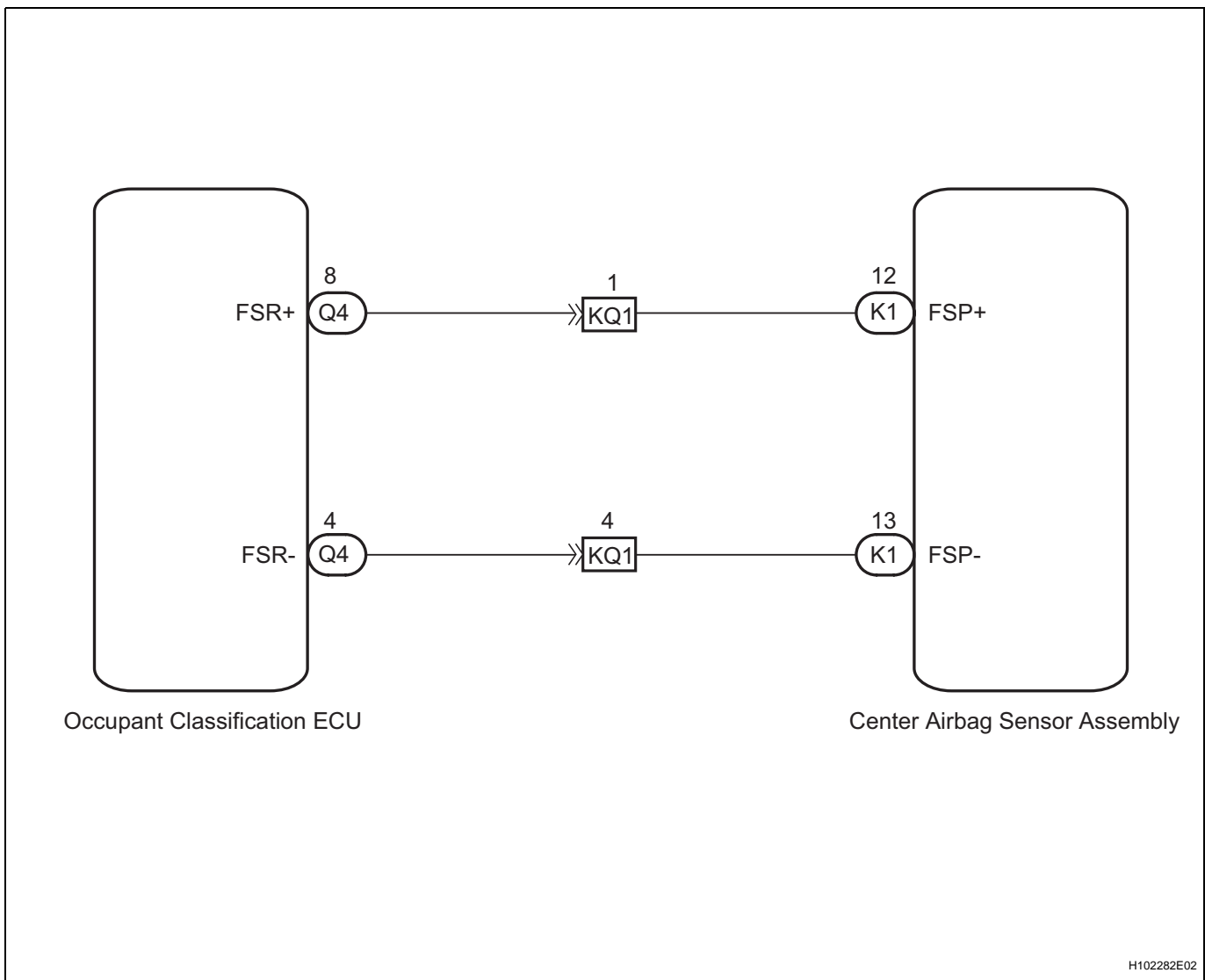
When the center airbag sensor assembly receives signals from the occupant classification ECU, it determines whether or not the front passenger airbag, front seat side airbag assembly RH and seat belt pretensioner RH should be operated.

DTC B1650/32 is set when a malfunction is detected in the occupant classification system circuit.

DTC No.	DTC Detecting Conditions	Trouble Areas
B1650/32	<ul style="list-style-type: none"> <li>Occupant classification system malfunction</li> <li>Center airbag sensor assembly detects line short circuit signal, open circuit signal, short circuit to ground signal or short circuit to B+ signal in occupant classification system circuit for 2 seconds</li> <li>Center airbag sensor assembly malfunction</li> </ul>	<ul style="list-style-type: none"> <li>No.1 seat wire</li> <li>Floor wire</li> <li>Occupant classification system</li> <li>Center airbag sensor assembly</li> </ul>

**RS**

**WIRING DIAGRAM**



## INSPECTION PROCEDURE

### NOTICE:

In order to prevent unexpected airbag deployment, disconnect the following connectors before inspecting parts such as wire harnesses, if the application of tester probes to the center airbag sensor assembly connector is necessary.

1. Turn the ignition switch to the lock position.
2. Disconnect the negative (-) terminal cable from the battery, and wait for at least 90 seconds.
3. Disconnect the connector from the center airbag sensor assembly.
4. Disconnect the connectors from the steering pad.
5. Disconnect the connectors from the front passenger airbag assembly.
6. Disconnect the connector from the front seat outer belt assembly LH.
7. Disconnect the connector from the front seat outer belt assembly RH.

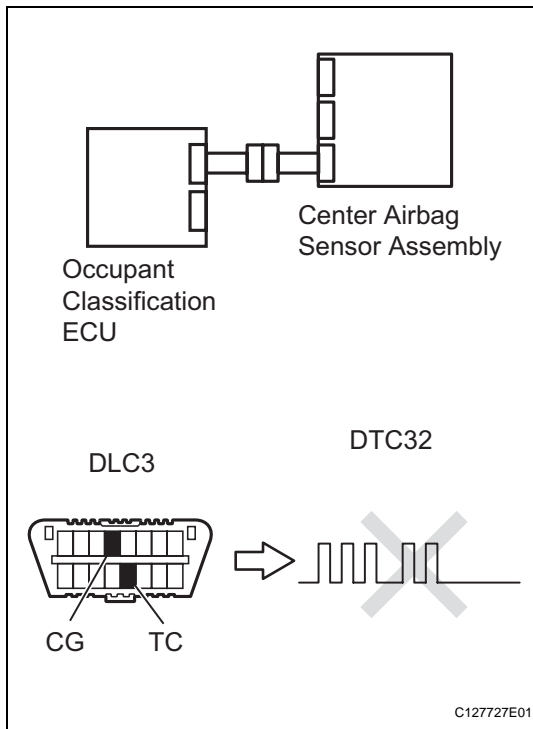
### HINT:

Skip the following steps if side and curtain shield airbags are not fitted.

8. Disconnect the connector from the front seat side airbag assembly LH.
9. Disconnect the connector from the front seat side airbag assembly RH.
10. Disconnect the connector from the curtain shield airbag assembly LH.
11. Disconnect the connector from the curtain shield airbag assembly RH.

RS

## 1 CHECK DTC (CENTER AIRBAG SENSOR ASSEMBLY)



- (a) Turn the ignition switch to the on position, and wait for at least 60 seconds.
- (b) Clear the DTCs stored in the memory (See page RS-36).
- (c) Turn the ignition switch to the lock position.
- (d) Turn the ignition switch to the on position, and wait for at least 60 seconds.
- (e) Check for DTCs (See page RS-36).

### OK:

**DTC B1650/32 is not output.**

### HINT:

DTCs other than B1650/32 may be output at this time, but they are not related to this check.

OK

**USE SIMULATION METHOD TO CHECK**

NG

## 2 CHECK DTC (OCCUPANT CLASSIFICATION ECU)

- (a) Turn the ignition switch to the on position, and wait for at least 10 seconds.
- (b) Using the intelligent tester, check for DTCs of the occupant classification ECU (See page RS-254).

### OK:

**DTC is not output.**

NG **GO TO DTC CHART**

OK

**3 CHECK CONNECTION OF CONNECTORS (CENTER AIRBAG SENSOR AND 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) Check that the connectors are properly connected to the center airbag sensor assembly and the occupant classification ECU.

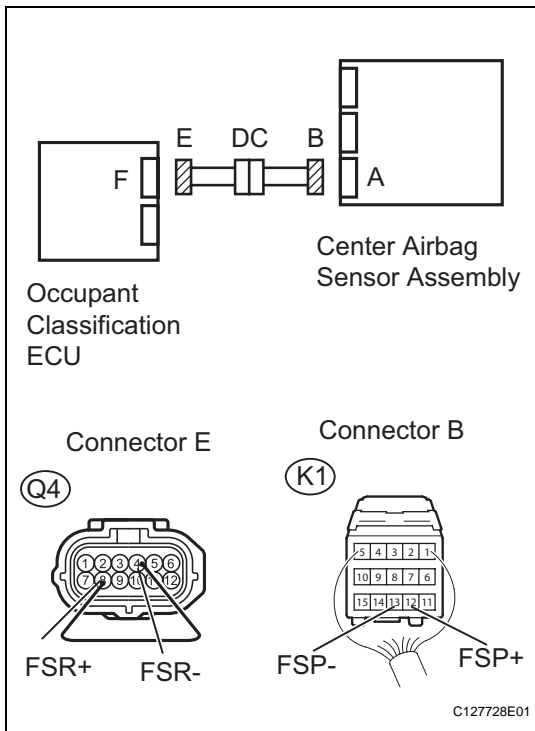
**OK:**

The connectors are properly connected.

NG **CONNECT CONNECTORS**

OK

**4 CHECK OCCUPANT CLASSIFICATION ECU CIRCUIT**



- (a) Check for open in the circuit.
  - (1) Disconnect the connectors from the center airbag sensor assembly and the occupant classification ECU.
  - (2) Using a service wire, connect Q4-8 (FSR+) and Q4-4 (FSR-) of connector E.

**NOTICE:**

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

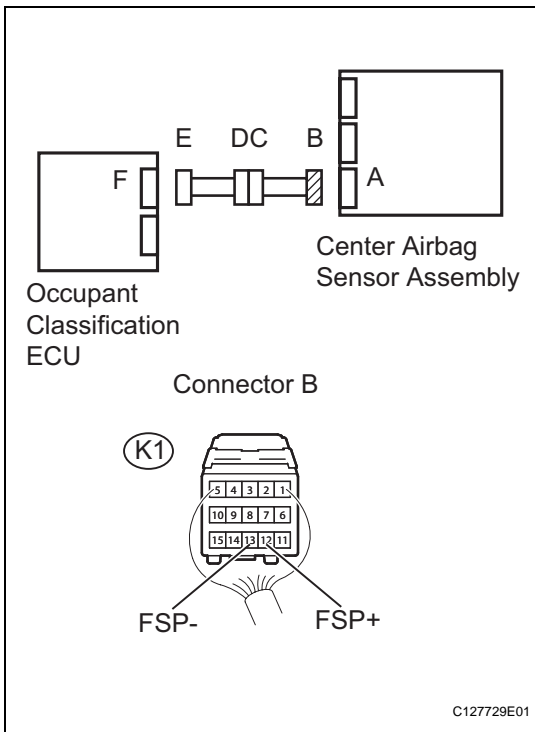
- (3) Measure the resistance.

**Standard resistance**

Terminal Connection	Condition	Specified Condition
K1-12 (FSP+) - K1-13 (FSP-)	Always	Below 1 Ω

C127728E01

RS



- (b) Check for short in the circuit.
  - (1) Disconnect the service wire from connector E.
  - (2) Measure the resistance.

**Standard resistance**

Terminal Connection	Condition	Specified Condition
K1-12 (FSP+) - K1-13 (FSP-)	Always	1 MΩ or higher

- (c) Check for short to ground in the circuit.
  - (1) Measure the resistance.

**Standard resistance**

Terminal Connection	Condition	Specified Condition
K1-12 (FSP+) - Body ground	Always	1 MΩ or higher
K1-13 (FSP-) - Body ground	Always	1 MΩ or higher

- (d) Check for short to B+ in the circuit.
  - (1) Connect the negative (-) terminal cable to the battery, and wait for at least 2 seconds.
  - (2) Turn the ignition switch to the on position.
  - (3) Measure the voltage.

**Standard voltage**

Terminal Connection	Condition	Specified Condition
K1-12 (FSP+) - Body ground	Ignition switch on	Below 1 V
K1-13 (FSP-) - Body ground	Ignition switch on	Below 1 V

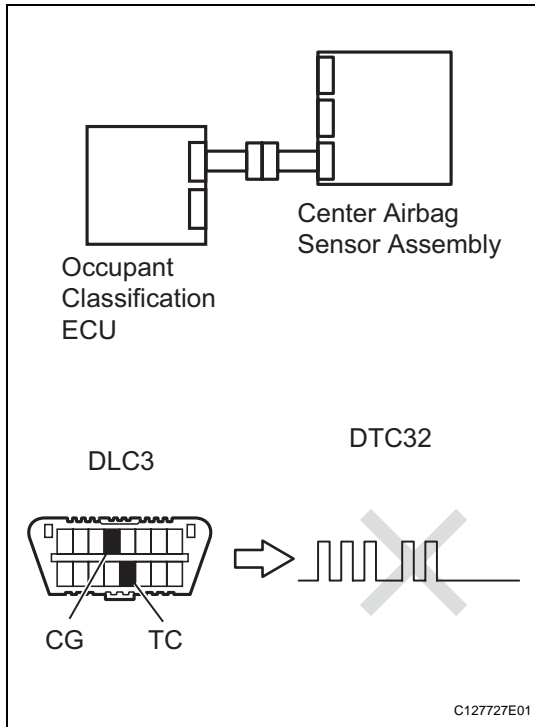
- (e) Turn the ignition switch to the lock position.
- (f) Disconnect the negative (-) terminal cable from the battery, and wait for at least 90 seconds.

**RS**

**NG** → **Go to step 9**

**OK**

## 5 CHECK CENTER AIRBAG SENSOR ASSEMBLY



- (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 center airbag sensor assembly (See page [RS-390](#)).
- HINT:**  
Perform the inspection using parts from a normal vehicle when possible.
- (d) Connect the connectors to the center airbag sensor assembly and the occupant classification ECU.
  - (e) Connect the negative (-) terminal cable to the battery, and wait for at least 2 seconds.
  - (f) Turn the ignition switch to the on position, and wait for at least 60 seconds.
  - (g) Clear the DTCs stored in the memory (See page [RS-36](#)).
  - (h) Turn the ignition switch to the lock position.
  - (i) Turn the ignition switch to the on position, and wait for at least 60 seconds.
  - (j) Check for DTCs (See page [RS-36](#)).

**OK:**

**DTC B1650/32 is not output.**

**HINT:**

DTCs other than B1650/32 may be output at this time, but they are not related to this check.

**OK** →

**USE SIMULATION METHOD TO CHECK**

**NG**

## 6 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-412](#)).

**NEXT**

## 7 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.
- (d) Using the intelligent tester, perform the zero point calibration (See page [RS-246](#)).

**OK:**

**COMPLETED is displayed on the tester.**

**NEXT**

**8 PERFORM SENSITIVITY CHECK**

- (a) Using the intelligent tester, perform the sensitivity check (See page RS-246).
  - (1) Confirm that nothing is placed on the passenger seat.
  - (2) Confirm that the beginning sensor reading is within the standard range.
 

**Standard range:**  
**-3.2 to 3.2 kg (-7 to 7 lb)**
  - (3) Place a 30 kg (66.14 lb) weight (e.g. a lead mass) onto the front passenger seat.
  - (4) Confirm that the sensitivity is within the standard range.
 

**Standard range:**  
**27 to 33 kg (59.52 to 72.75 lb)**

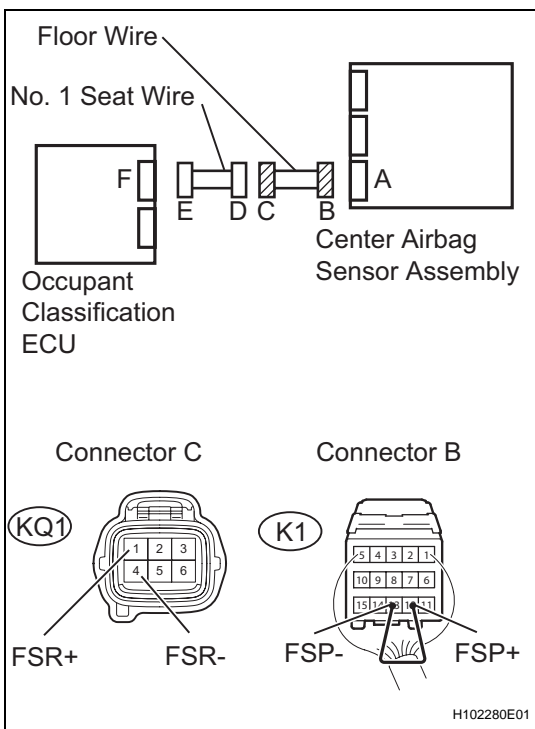
HINT:  
When performing the sensitivity check, use a solid metal weight (the check result may not be accurate if a liquid weight is used).

**RS**

**NEXT**

**END**

**9 CHECK FLOOR WIRE**

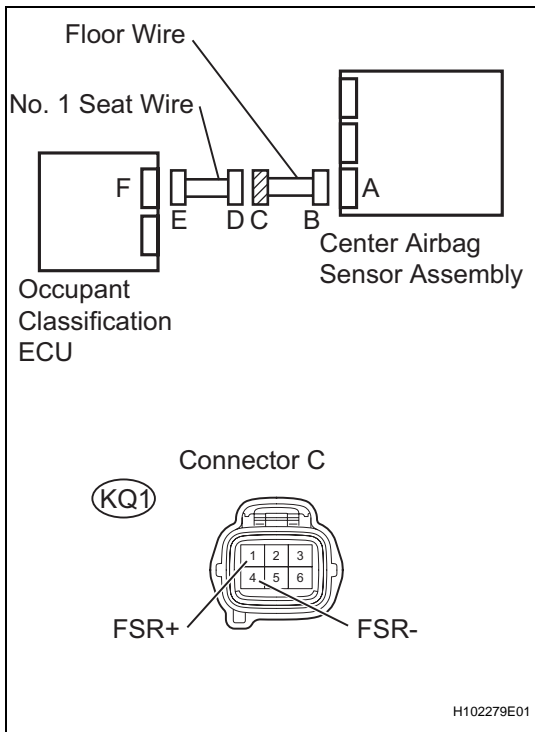


- (a) Check for open in the circuit.
  - (1) Disconnect the connectors from the floor wire and the No. 1 seat wire.
  - (2) Using a service wire, connect K1-12 (FSP+) and K1-13 (FSP-) of connector B.
 

**NOTICE:**  
**Do not forcibly insert a service wire into the terminals of the connector when connecting.**
  - (3) Measure the resistance.
 

**Standard resistance**

Tester Connection	Condition	Specified Condition
KQ1-1 (FSR+) - KQ1-4 (FSR-)	Always	Below 1 Ω



RS

- (b) Check for short in the circuit.
  - (1) Disconnect the service wire from connector B.
  - (2) Measure the resistance.

**Standard resistance**

Tester Connection	Condition	Specified Condition
KQ1-1 (FSR+) - KQ1-4 (FSR-)	Always	1 MΩ or higher

- (c) Check for short to ground in the circuit.
  - (1) Measure the resistance.

**Standard resistance**

Tester Connection	Condition	Specified Condition
KQ1-1 (FSR+) - Body ground	Always	1 MΩ or higher
KQ1-1 (FSR-) - Body ground	Always	1 MΩ or higher

- (d) Check for short to B+ in the circuit.
  - (1) Connect the negative (-) terminal cable to the battery.
  - (2) Turn the ignition switch to the on position.
  - (3) Measure the voltage.

**Standard voltage**

Tester Connection	Condition	Specified Condition
KQ1-1 (FSR+) - Body ground	Ignition switch on	Below 1 V
KQ1-1 (FSR-) - Body ground	Ignition switch on	Below 1 V

- (4) Turn the ignition switch to the lock position.
- (5) Disconnect the negative (-) terminal cable from the battery, and wait for at least 90 seconds.

NG REPAIR OR REPLACE FLOOR WIRE

OK

REPAIR OR REPLACE SEAT WIRE NO.1