

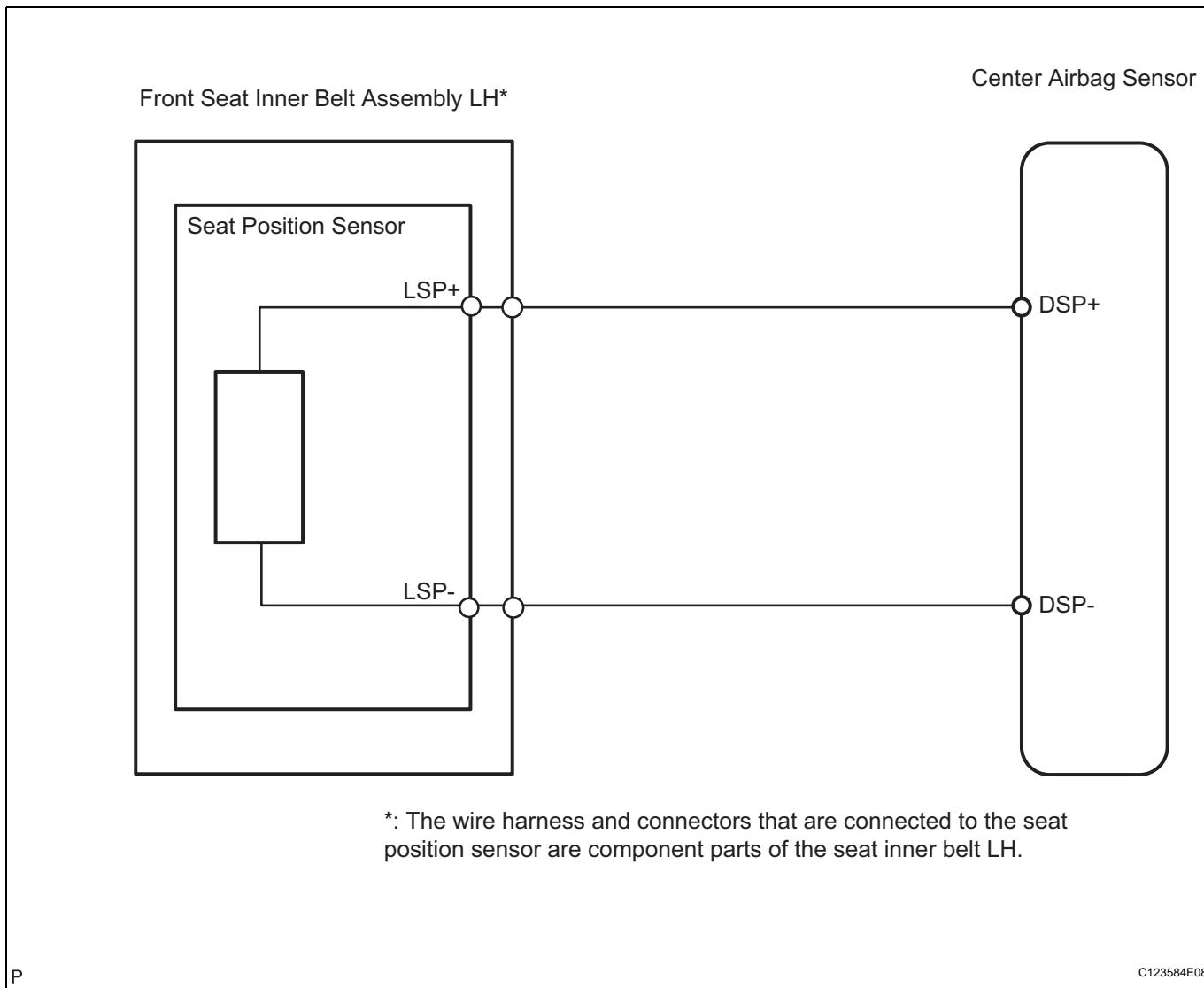
DTC

B1653/35

**Seat Position Airbag Sensor Circuit Malfunction****DESCRIPTION**

The seat position sensor circuit consists of the center airbag sensor and the seat position sensor. DTC B1653/35 is recorded when a malfunction is detected in the seat position sensor circuit.

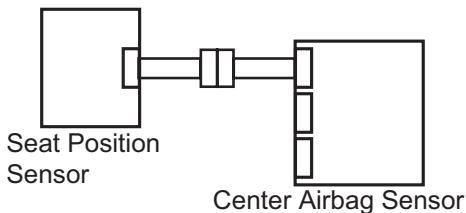
DTC No.	DTC Detection Condition	Trouble Area
B1653/35	When one of following conditions is met: <ul style="list-style-type: none"> <li>Center airbag sensor detects line short signal, open signal, short to ground signal or short to B+ signal in seat position sensor circuit for 2 seconds.</li> <li>Seat position sensor malfunction</li> <li>Center airbag sensor malfunction</li> </ul>	<ul style="list-style-type: none"> <li>Floor wire</li> <li>Front seat inner belt LH</li> <li>Seat position sensor</li> <li>Center airbag sensor</li> </ul>

**WIRING DIAGRAM**

## INSPECTION PROCEDURE

## 1 CHECK FOR DTC

w/ Curtain Shield Airbag



(a) Turn the ignition switch ON, and wait for at least 60 seconds.

(b) Clear the DTCs (see page RS-49).

(c) Turn the ignition switch OFF.

(d) Turn the ignition switch ON, and wait for at least 60 seconds.

(e) Check the DTCs (see page RS-49).

**OK:**

**DTC B1653/35 is not output.**

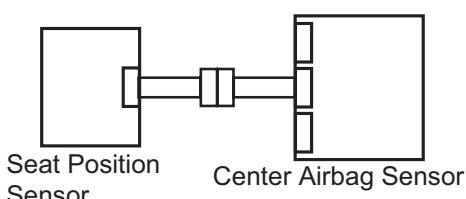
**HINT:**

DTCs other than DTC B1653/35 may be output at this time, but they are not related to this check.

OK

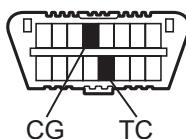
**USE SIMULATION METHOD TO CHECK**

w/o Curtain Shield Airbag



DLC3

DTC 35



C123585E02

NG

RS

## 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 center airbag sensor and the seat position sensor.

**OK:**

**The connectors are properly connected.**

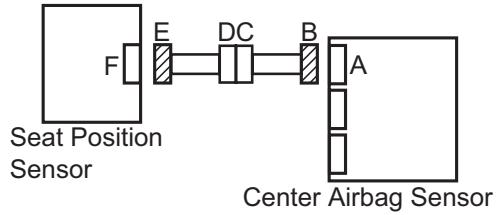
NG

**CONNECT CONNECTOR**

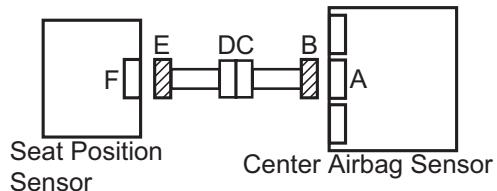
OK

### 3 CHECK SEAT POSITION SENSOR CIRCUIT (OPEN)

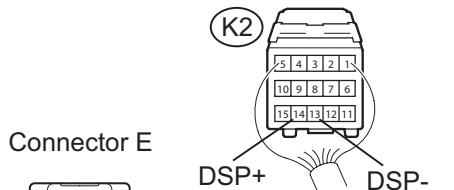
w/ Curtain Shield Airbag



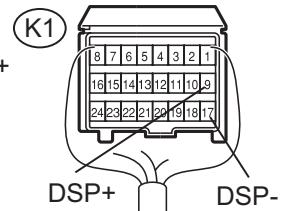
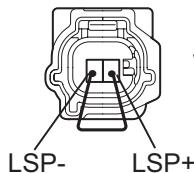
w/o Curtain Shield Airbag



Connector B  
w/o Curtain Shield Airbag



Connector E



C123586E02

(a) Disconnect the connectors from the center airbag sensor and the seat position sensor.

(b) Using a service wire, connect 2 and 1 of connector E.

**NOTICE:**

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

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

**Standard resistance:**

**w/o Curtain shield airbag**

Tester Connection	Specified Condition
K2-14 (DSP+) - K2-13 (DSP-)	Below 1 Ω

**w/ Curtain shield airbag**

Tester Connection	Specified Condition
K1-9 (DSP+) - K1-17 (LSP-)	Below 1 Ω

NG

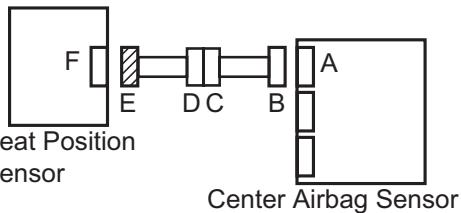
Go to step 10

OK

RS

**4 CHECK SEAT POSITION SENSOR CIRCUIT (SHORT)**

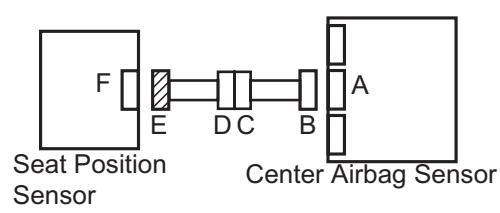
w/ Curtain Shield Airbag



Seat Position Sensor

Center Airbag Sensor

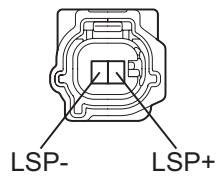
w/o Curtain Shield Airbag



Seat Position Sensor

Center Airbag Sensor

Connector E



C123587E03

- Disconnect the service wire from connector E.
- Measure the resistance of the wire harness side connector.

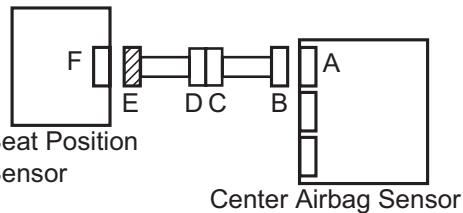
**Standard resistance**

Tester Connection	Specified Condition
2 (LSP+) - 1 (LSP-)	1 MΩ or higher

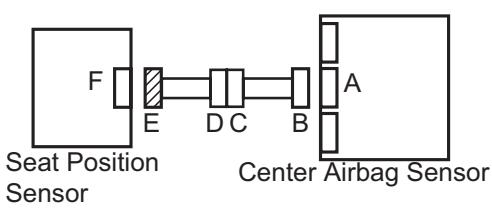
**NG****Go to step 11****OK****RS**

## 5 CHECK SEAT POSITION SENSOR CIRCUIT (TO B+)

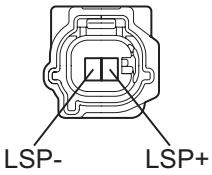
w/ Curtain Shield Airbag



w/o Curtain Shield Airbag



Connector E



C123587E03

- 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
2 (LSP+) - Body ground	Below 1 V
1 (LSP-) - Body ground	Below 1 V

NG

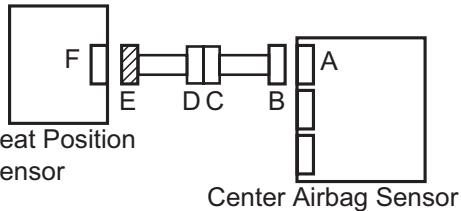
Go to step 12

RS

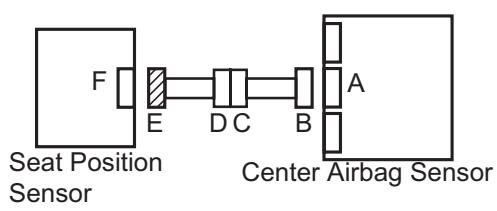
OK

**6 CHECK SEAT POSITION SENSOR CIRCUIT (TO GROUND)**

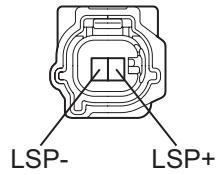
w/ Curtain Shield Airbag



w/o Curtain Shield Airbag



Connector E



- Turn the ignition switch OFF.
- Disconnect the cable from the negative (-) battery terminal, and wait for at least 90 seconds.
- Measure the voltage of the wire harness side connector.

**Standard resistance**

Tester Connection	Specified Condition
2 (LSP+) - Body ground	1 MΩ or higher
1 (LSP-) - Body ground	1 MΩ or higher

NG

Go to step 13

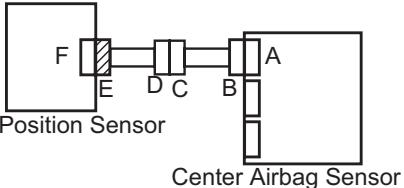
OK

RS

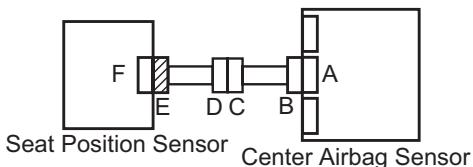
C123587E03

## 7 CHECK SEAT POSITION SENSOR

w/ Curtain Shield Airbag

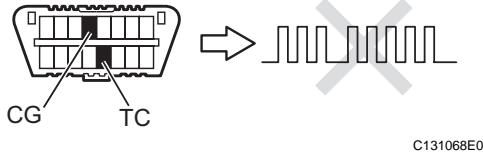


w/o Curtain Shield Airbag



DLC 3

DTC 35



- Connect the connectors to the center airbag sensor and the seat position sensor.
- Connect the cable to the negative (-) battery terminal, and wait for at least 2 seconds.
- Turn the ignition switch ON, and wait for at least 60 seconds.
- Clear the DTCs (see page [RS-49](#)).
- Turn the ignition switch OFF.
- Turn the ignition switch ON, and wait for at least 60 seconds.
- Check the DTCs (see page [RS-49](#)).

**OK:**

**DTC B1653/35 is not output.**

**HINT:**

DTCs other than DTC B1653/35 may be output at this time, but they are not related to this check.

**OK**

**USE SIMULATION METHOD TO CHECK**

**NG**

## 8 REPLACE SEAT POSITION SENSOR

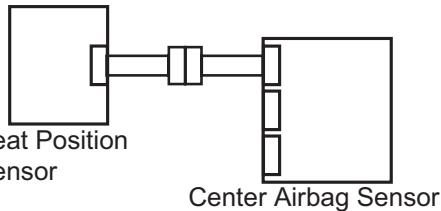
- Turn the ignition switch OFF.
- Disconnect the cable from the negative (-) battery terminal, and wait for at least 90 seconds.
- Replace the seat position sensor (see page [RS-389](#)).

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

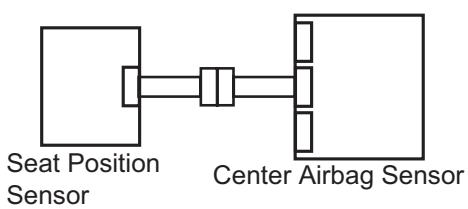
**NEXT**

**9 CHECK CENTER AIRBAG SENSOR ASSEMBLY**

w/ Curtain Shield Airbag

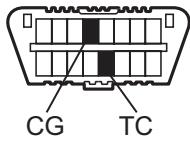


w/o Curtain Shield Airbag



DLC3

DTC 35



C123585E03

- (a) Connect the cable to the negative (-) battery terminal, and wait for at least 2 seconds.
- (b) Turn the ignition switch ON, and wait for at least 60 seconds.
- (c) Clear the DTCs (see page RS-49).
- (d) Turn the ignition switch OFF.
- (e) Turn the ignition switch ON, and wait for at least 60 seconds.
- (f) Check the DTCs (see page RS-49).

**OK:****DTC B1653/35 is not output.****HINT:**

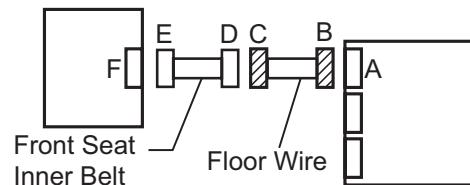
DTCs other than DTC B1653/35 may be output at this time, but they are not related to this check.

**NG****REPLACE CENTER AIRBAG SENSOR ASSEMBLY****OK****RS****END**

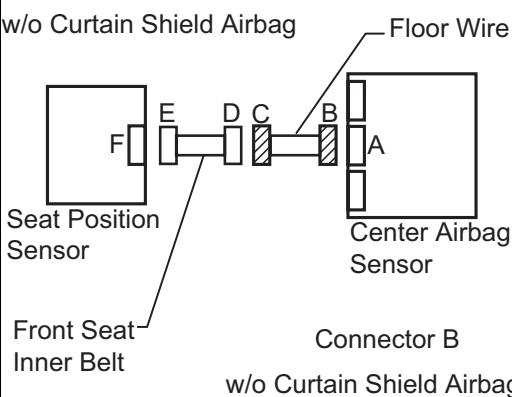
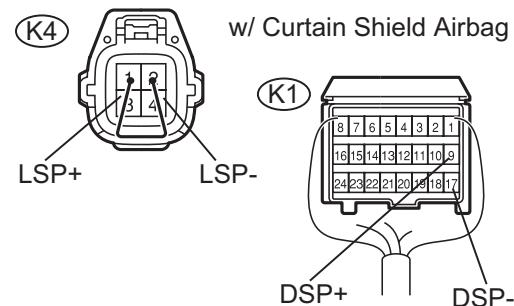
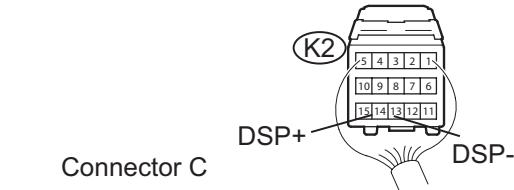
## 10 CHECK FLOOR WIRE (OPEN)

w/ Curtain Shield Airbag

Seat Position Sensor      Center Airbag Sensor



w/o Curtain Shield Airbag

Front Seat Inner Belt      Connector B  
w/o Curtain Shield Airbag

C132190E01

- Disconnect the front seat inner belt connector from the flow wire.
- Using a service wire, connect K4-1 (LSP+) and K4-2 (LSP-) of connector C.

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

- Measure the resistance of the wire harness side connectors.

**Standard resistance:**  
**w/o Curtain shield airbag**

Tester Connection	Specified Condition
K2-14 (DSP+) - K2-13 (DSP-)	Below 1 Ω

**w/ Curtain shield airbag**

Tester Connection	Specified Condition
K1-9 (DSP+) - K1-17 (DSP-)	Below 1 Ω

NG

**REPAIR OR REPLACE FLOOR WIRE**

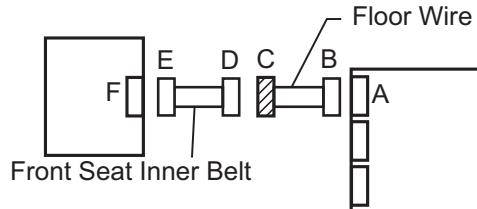
OK

**REPLACE FRONT SEAT INNER BELT ASSEMBLY LH**

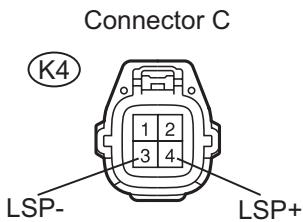
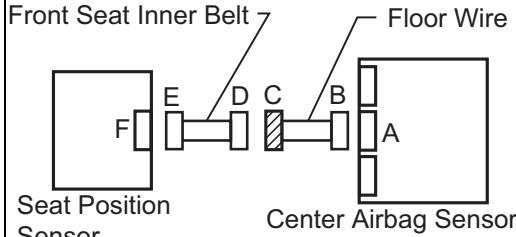
## 11 CHECK FLOOR WIRE (SHORT)

w/o Curtain Shield Airbag

Seat Position Sensor      Center Airbag Sensor



w/ Curtain Shield Airbag



- Disconnect the front seat inner belt connector from the floor wire.
- Measure the resistance of the wire harness side connector.

**Standard resistance**

Tester Connection	Specified Condition
K4-2 (LSP+) - K4-1 (LSP-)	1 MΩ or higher

NG

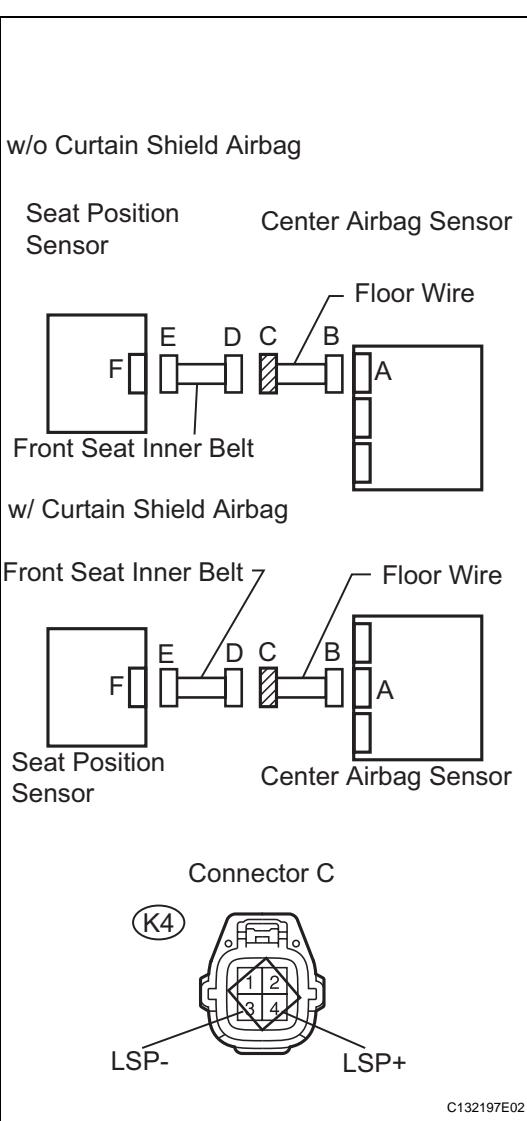
**REPAIR OR REPLACE FLOOR WIRE**

OK

**REPLACE FRONT SEAT INNER BELT ASSEMBLY LH**

RS

## 12 CHECK FLOOR WIRE (TO B+)



- Turn the ignition switch OFF.
- Disconnect the cable from the negative (-) battery terminal, and wait for at least 90 seconds.
- Disconnect the front seat inner belt connector from the floor wire.
- 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 connectors.

**Standard voltage**

Tester Connection	Specified Condition
K4-2 (LSP+) - Body ground	Below 1 V
K4-1 (LSP-) - Body ground	Below 1 V

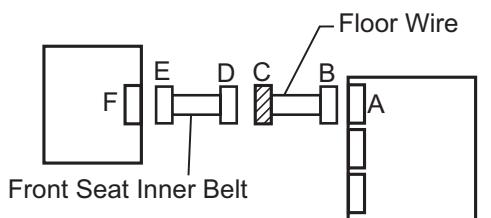
**NG****REPAIR OR REPLACE FLOOR WIRE****OK****REPLACE FRONT SEAT INNER BELT ASSEMBLY LH**

## 13 CHECK FLOOR WIRE (TO GROUND)

w/ Curtain Shield Airbag

Seat Position Sensor

Center Airbag Sensor



(a) Disconnect the front seat inner belt connector from the floor wire.

(b) Measure the resistance of the wire harness side connectors.

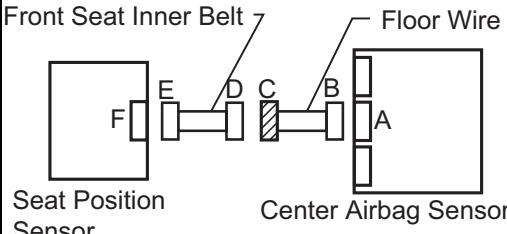
**Standard resistance**

Tester Connection	Specified Condition
K4-2 (LSP+) - Body ground	1 MΩ or higher
K4-1 (LSP-) - Body ground	1 MΩ or higher

NG

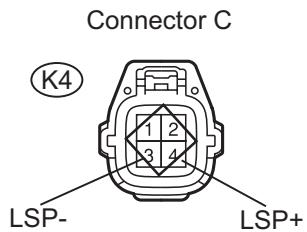
**REPAIR OR REPLACE FLOOR WIRE**

w/o Curtain Shield Airbag



Seat Position Sensor

Center Airbag Sensor



C132197E03

OK

**REPLACE FRONT SEAT INNER BELT ASSEMBLY LH**

RS