

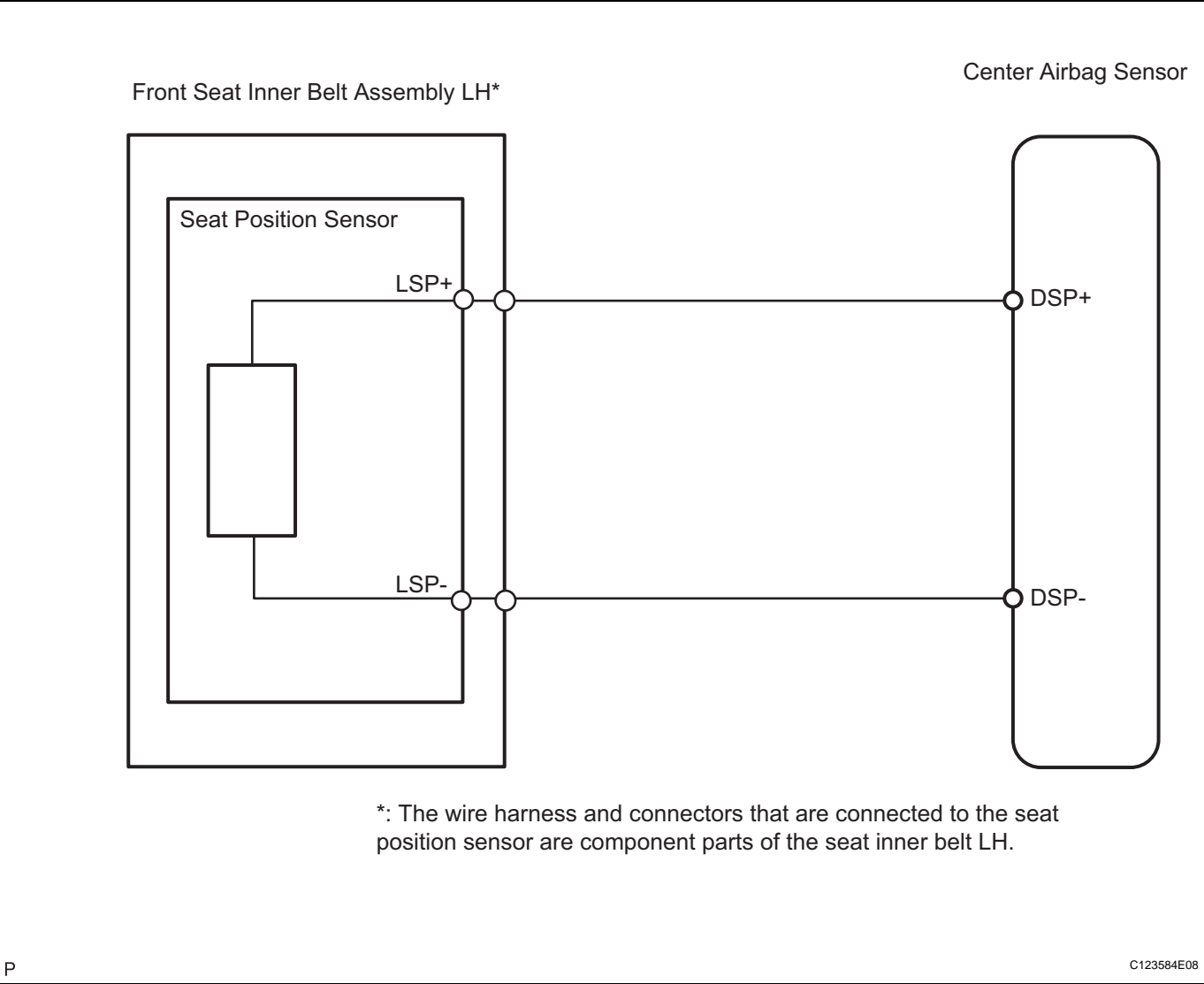
DTC	B1653/35	Seat Position Airbag Sensor Circuit Malfunction
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**DESCRIPTION**

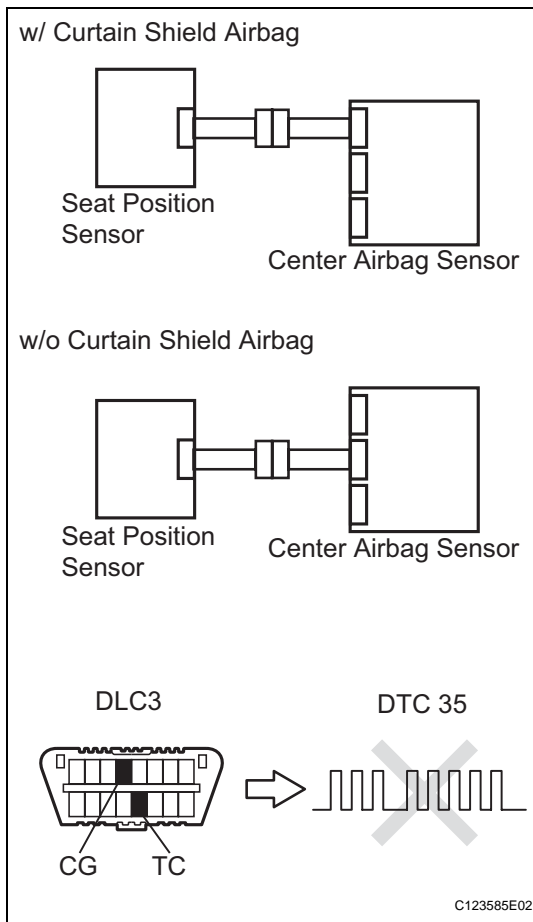
The seat position sensor circuit consists of the center airbag sensor and the seat position sensor. DTC B1653/35 is recorded when a malfunction is detected in the seat position sensor circuit.

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**

- (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.

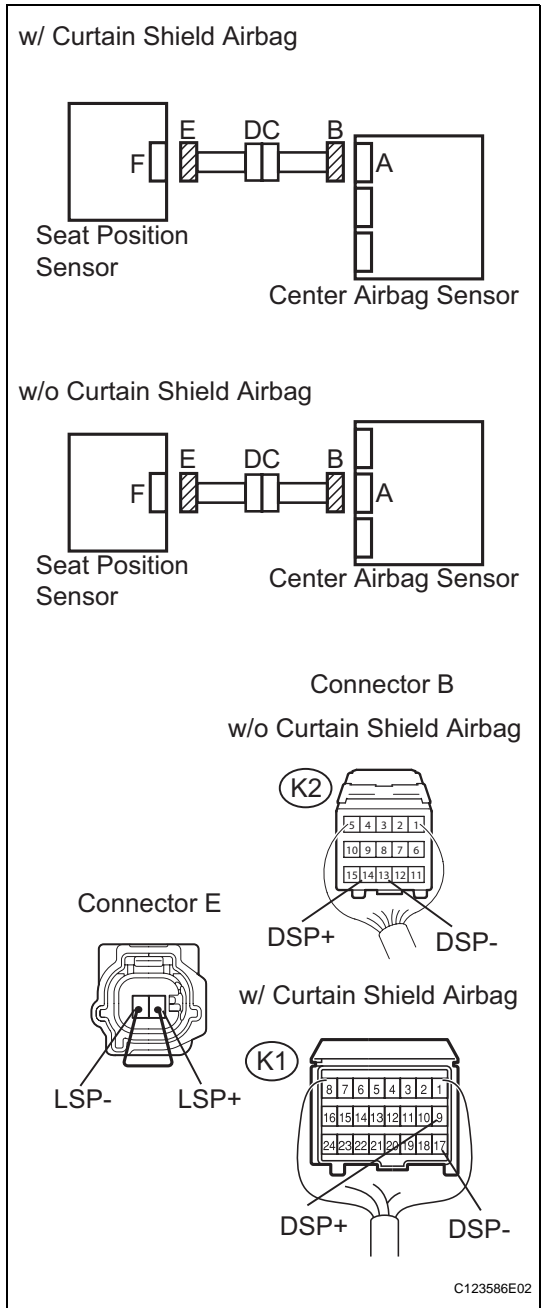
**OK****USE SIMULATION METHOD TO CHECK****NG****RS****2 CHECK CONNECTION OF CONNECTOR**

- (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)



- (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

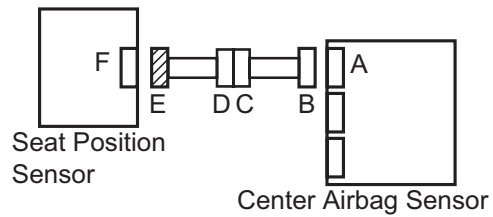
Go to step 10

OK

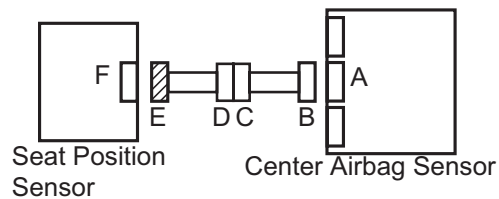
## 4

## CHECK SEAT POSITION SENSOR CIRCUIT (SHORT)

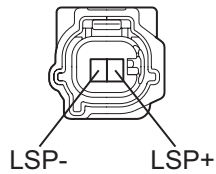
w/ Curtain Shield Airbag



w/o Curtain Shield Airbag



Connector E



C123587E03

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

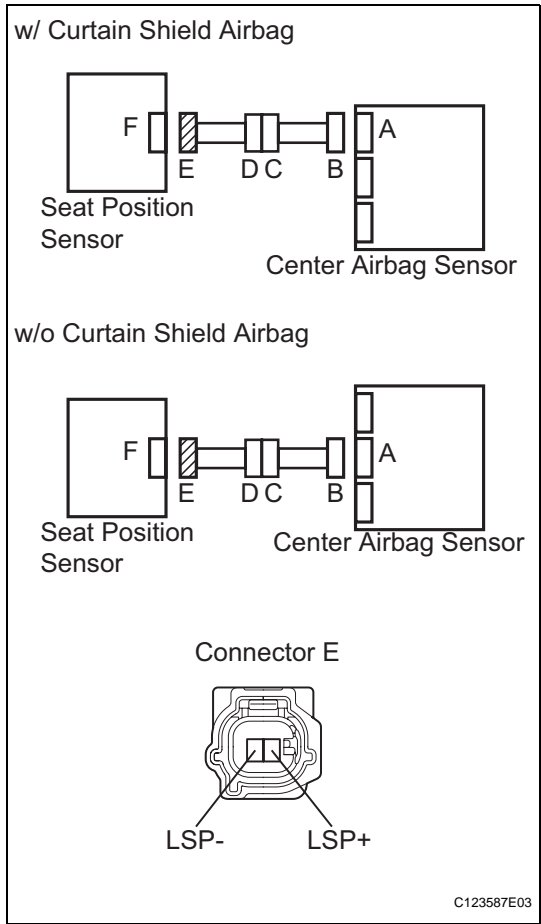
**Standard resistance**

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+)



- (a) Connect the cable to the negative (-) battery terminal, and wait for at least 2 seconds.
- (b) Turn the ignition switch ON.
- (c) 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

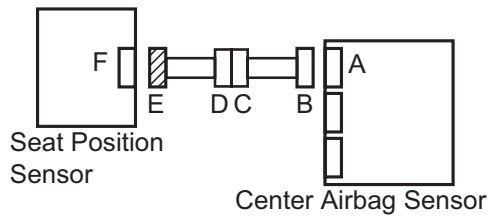
NG

Go to step 12

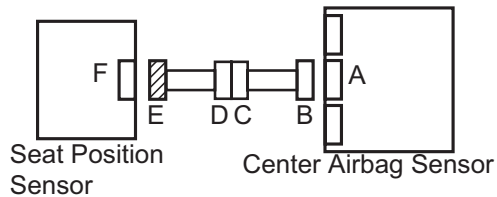
OK

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

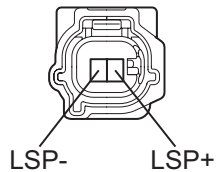
w/ Curtain Shield Airbag



w/o Curtain Shield Airbag



Connector E



C123587E03

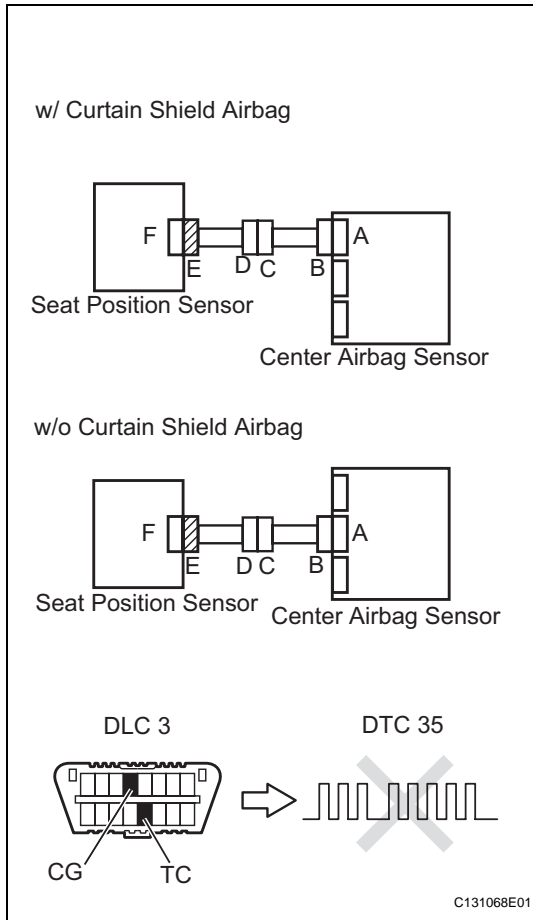
- (a) Turn the ignition switch OFF.
- (b) Disconnect the cable from the negative (-) battery terminal, and wait for at least 90 seconds.
- (c) Measure the voltage of the wire harness side connector.

**Standard resistance**

Tester Connection	Specified Condition
2 (LSP+) - Body ground	1 M $\Omega$ or higher
1 (LSP-) - Body ground	1 M $\Omega$ or higher

**NG****Go to step 13****OK****RS**

## 7 CHECK SEAT POSITION SENSOR



- 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**

**RS**

## 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).

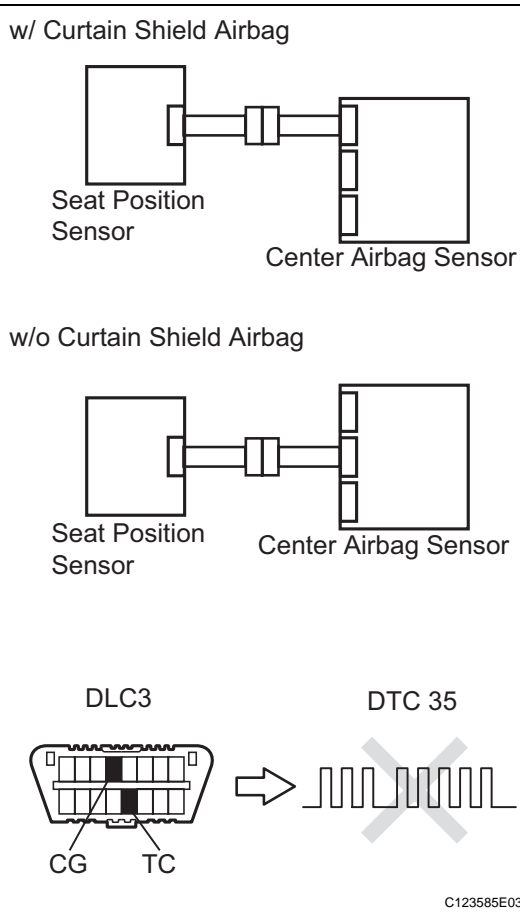
**HINT:**

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

**NEXT**

## 9

## CHECK CENTER AIRBAG SENSOR ASSEMBLY



- 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:**

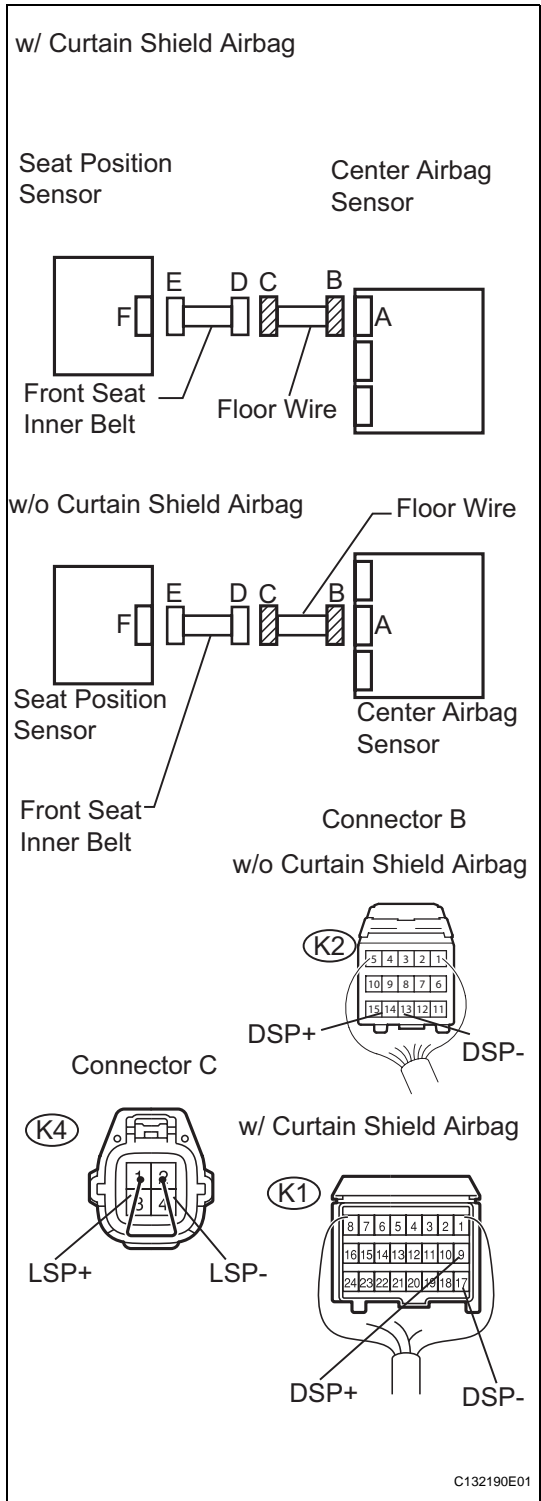
DTCs other than DTC B1653/35 may be output at this time, but they are not related to this check.

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



10

CHECK FLOOR WIRE (OPEN)



- (a) Disconnect the front seat inner belt connector from the flow wire.
- (b) Using a service wire, connect K4-1 (LSP+) and K4-2 (LSP-) of connector C.
- (c) Measure the resistance of the wire harness side connectors.

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

**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

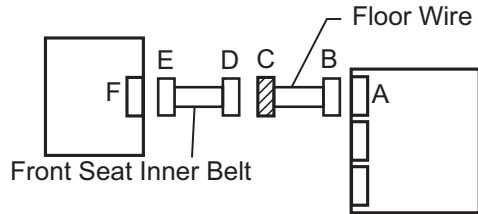
REPLACE FRONT SEAT INNER BELT ASSEMBLY LH

**11 CHECK FLOOR WIRE (SHORT)**

w/o Curtain Shield Airbag

Seat Position  
Sensor

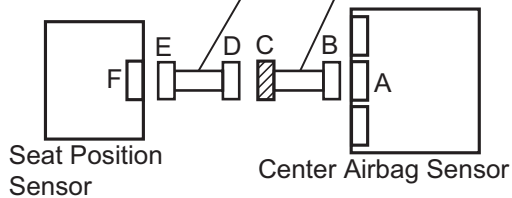
Center Airbag Sensor



w/ Curtain Shield Airbag

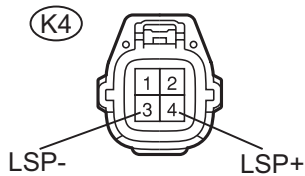
Front Seat Inner Belt

Floor Wire

Seat Position  
Sensor

Center Airbag Sensor

Connector C



C132197E01

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

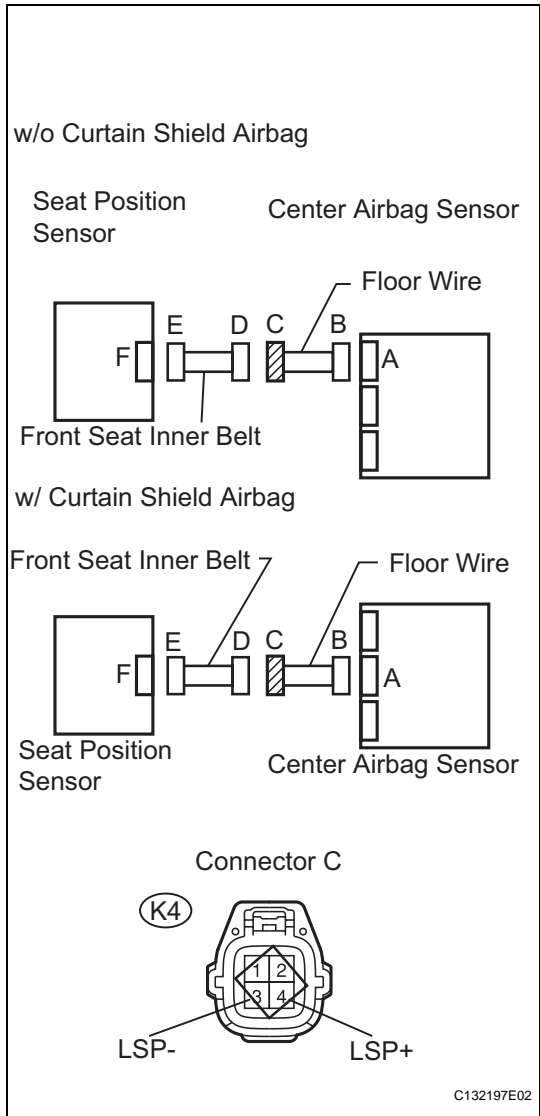
**Standard resistance**

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

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

12

CHECK FLOOR WIRE (TO B+)



- (a) Turn the ignition switch OFF.
- (b) Disconnect the cable from the negative (-) battery terminal, and wait for at least 90 seconds.
- (c) Disconnect the front seat inner belt connector from the floor wire.
- (d) Connect the cable to the negative (-) battery terminal, and wait for at least 2 seconds.
- (e) Turn the ignition switch ON.
- (f) 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

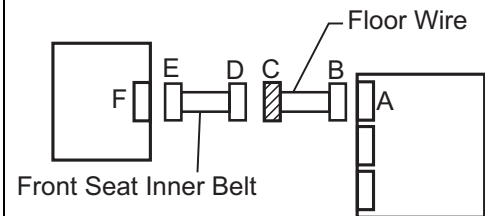
REPLACE FRONT SEAT INNER BELT ASSEMBLY LH

**13 CHECK FLOOR WIRE (TO GROUND)**

w/ Curtain Shield Airbag

Seat Position Sensor

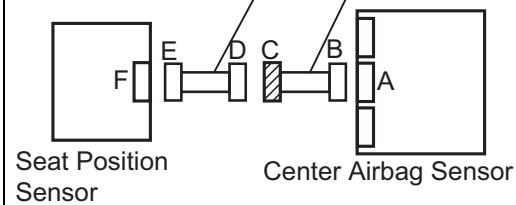
Center Airbag Sensor



w/o Curtain Shield Airbag

Front Seat Inner Belt

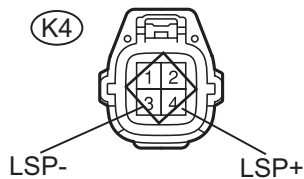
Floor Wire



Seat Position Sensor

Center Airbag Sensor

Connector C



C132197E03

- Disconnect the front seat inner belt connector from the floor wire.
- 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****OK****REPLACE FRONT SEAT INNER BELT ASSEMBLY LH****RS**