

DTC	B1627/82	Lost Communication with Front Passenger Side - Side Airbag Sensor Assembly
DTC	B1628/82	Front Passenger Side - Side Airbag Sensor Assembly Initialization Incomplete
DTC	B1637/82	Lost Communication with Passenger Side Rear Airbag Sensor
DTC	B1638/82	Passenger Side Rear Airbag Sensor Initialization Incomplete
DTC	B1647/82	Lost Communication with Front Passenger Side Satellite Sensor Bus
DTC	B1648/82	Front Passenger Side Satellite Sensor Bus Initialization Incomplete

DESCRIPTION

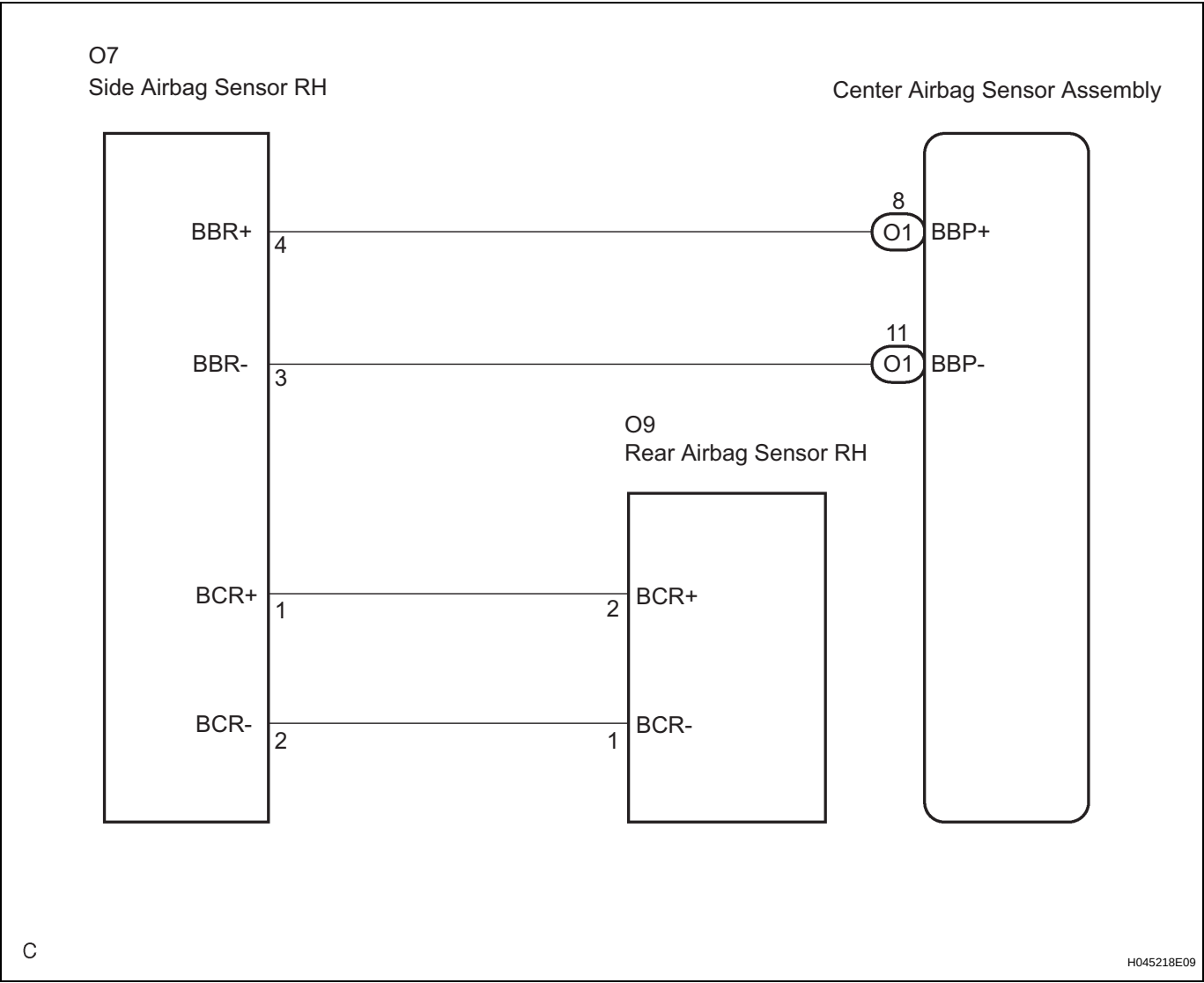
The circuit for the side collision sensor RH (to determine deployment of the front seat side airbag assembly RH and curtain shield airbag assembly RH) is composed of the center airbag sensor assembly, side airbag sensor RH, and rear airbag sensor RH.

The side airbag sensor RH and rear airbag sensor RH detect impacts to the vehicle and send signals to the center airbag sensor assembly to determine if the airbag should be deployed.

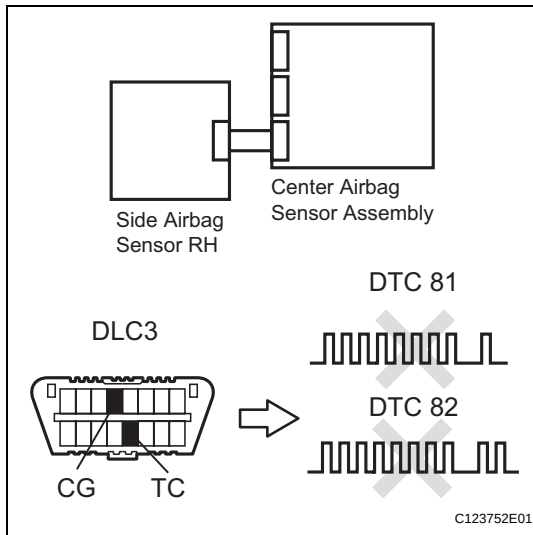
DTC B1627/82, B1628/82, B1637/82, B1638/82, B1647/82, or B1648/82 is recorded when a malfunction is detected in the circuit for the side collision sensor RH (to determine deployment of the front seat side airbag assembly RH and curtain shield airbag assembly RH).

DTC No.	DTC Detecting Condition	Trouble Area
B1627/82 B1628/82 B1637/82 B1638/82 B1647/82 B1648/82	- The center airbag sensor assembly receives a line short circuit signal, an open circuit signal, a short circuit to ground signal or a short circuit to B+ signal in the circuit for the side collision sensor RH (to determine deployment of the front seat side airbag assembly RH and curtain shield airbag assembly RH) for 2 seconds. - Side airbag sensor RH malfunction - Rear airbag sensor RH malfunction - Center airbag sensor assembly malfunction	- Floor wire No. 2 - Side airbag sensor RH - Rear airbag sensor RH - Center airbag sensor assembly

WIRING DIAGRAM



INSPECTION PROCEDURE

1 CHECK DTC

(a) Turn the power switch on (IG), and wait for at least 60 seconds.

(b) Turn the power switch off.

HINT:

If a communication error occurs, DTCs for both the LH and RH sides will be stored simultaneously. To identify the malfunctioning area, turn the power switch off and then on (IG) again.

(c) Turn the power switch on (IG), and wait for at least 60 seconds.

(d) Check the present DTCs (See page RS-41).

Result

Result	Proceed to
Present DTC B1628, B1638, B1648, or 82 is output.	A
Present DTC B1623, B1633, B1643, or 81 is output.	B
Present DTC B1623, B1633, B1643, or 81 and B1628, B1638, B1648, or 82 are not output.	C

HINT:

- DTCs indicating communication errors will be changed to DTCs indicating errors in initialization by turning the power switch off and then on (IG) again.
- Codes other than present DTC B1623, B1633, B1643, or 81 and B1628, B1638, B1648, or 82 may be output at this time, but they are not related to this check.

B

REPAIR CIRCUITS INDICATED BY OUTPUT DTCs

C

USE SIMULATION METHOD TO CHECK (See page RS-33)

A

2 CHECK PAST DTC

(a) Check the past DTCs (See page RS-41).

Result

Result	Proceed to
• Past DTC B1637, B1647, or 82 is output. • Past DTC B1627, B1637, B1647, or 82 is not output.	A
Past DTC B1627 is output.	B

HINT:

Codes other than past DTC B1627, B1637, B1647, or 82 may be output at this time, but they are not related to this check.

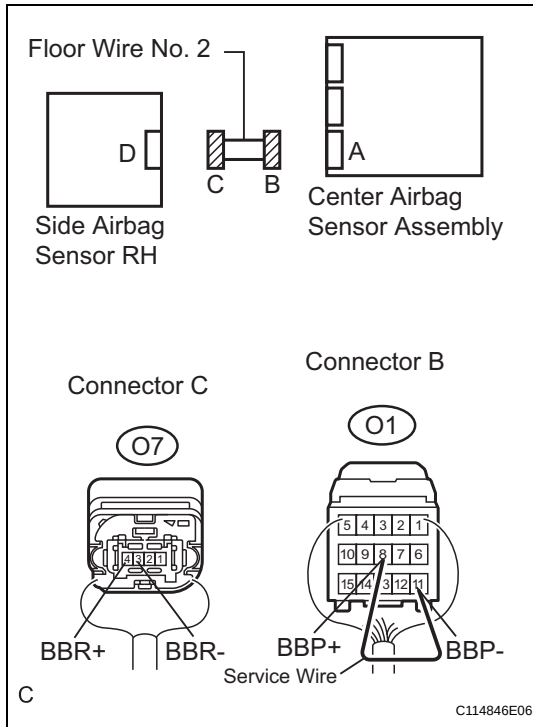
B**Go to step 20****A****3****CHECK CONNECTION OF CONNECTORS**

- (a) Turn the power switch off.
- (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 side airbag sensor RH.

OK:**The connectors are properly connected.****NG****CONNECT CONNECTORS PROPERLY****OK****4****CHECK CONNECTORS**

- (a) Disconnect the connectors from the center airbag sensor assembly and side airbag sensor RH.
- (b) Check that the connectors (on the center airbag sensor assembly side and side airbag sensor RH side) are not damaged.

OK:**The connectors are not deformed or damaged.****NG****REPAIR OR REPLACE FLOOR WIRE NO. 2****OK**

5 CHECK FLOOR WIRE NO. 2 (OPEN)

- (a) Using a service wire, connect terminals 8 (BBP+) and 11 (BBP-) of connector B.

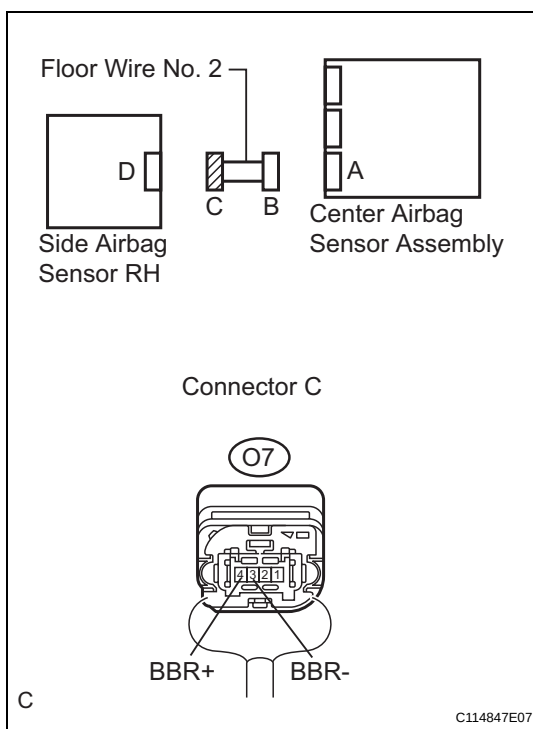
NOTICE:

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 resistance

Tester connection	Condition	Specified condition
O7-4 (BBR+) - O7-3 (BBR-)	Always	Below 1 Ω

NG**REPAIR OR REPLACE FLOOR WIRE NO. 2****OK****6 CHECK FLOOR WIRE NO. 2 (SHORT)**

- (a) Disconnect the service wire from connector B.
- (b) Measure the resistance according to the value(s) in the table below.

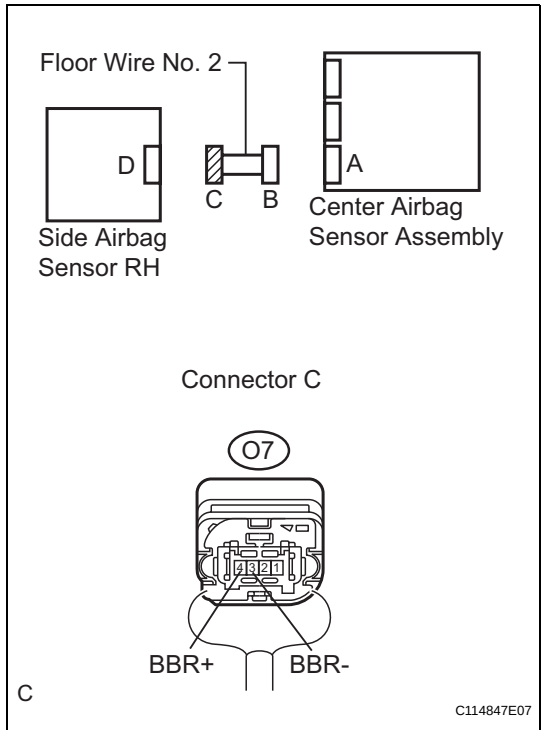
Standard resistance

Tester connection	Condition	Specified condition
O7-4 (BBR+) - O7-3 (BBR-)	Always	1 M Ω or higher

NG**REPAIR OR REPLACE FLOOR WIRE NO. 2****OK**

7

CHECK FLOOR WIRE NO. 2 (SHORT TO B+)



- (a) Connect the negative (-) terminal cable to the battery, and wait for at least 2 seconds.
- (b) Turn the power switch on (IG).
- (c) Measure the voltage according to the value(s) in the table below.

Standard voltage

Tester connection	Condition	Specified condition
O7-4 (BBR+) - Body ground	Power switch on (IG)	Below 1 V
O7-3 (BBR-) - Body ground	Power switch on (IG)	Below 1 V

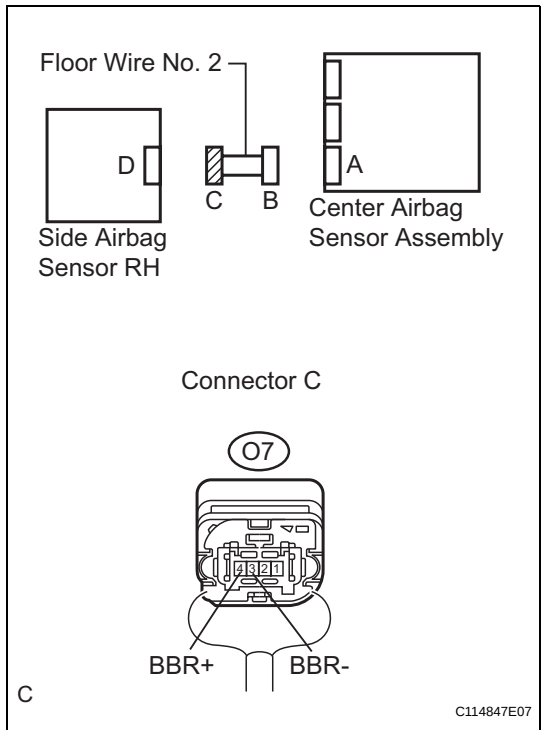
NG

REPAIR OR REPLACE FLOOR WIRE NO. 2

OK

8

CHECK FLOOR WIRE NO. 2 (SHORT TO GROUND)



- (a) Turn the power switch off.
- (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 resistance

Tester connection	Condition	Specified condition
O7-4 (BBR+) - Body ground	Always	1 MΩ or higher
O7-3 (BBR-) - Body ground	Always	1 MΩ or higher

NG

REPAIR OR REPLACE FLOOR WIRE NO. 2

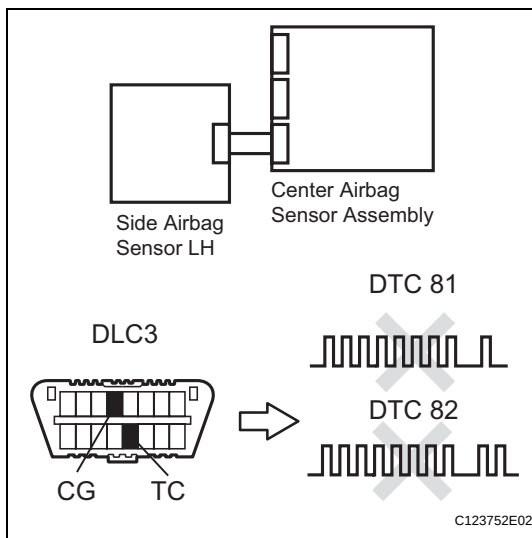
OK

9**CONFIRM PART NUMBER OF SIDE AIRBAG SENSOR**

- (a) Check that the part number of the side airbag sensor RH is equal to the number of the other side.

OK:**Those numbers are the same.**

- (b) Connect the connectors to the center airbag sensor assembly and the side airbag sensor RH.

NG**Go to step 11****OK****10****CHECK SIDE AIRBAG SENSOR RH**

- (a) Interchange the side airbag sensor LH with RH and connect the connectors to them.
 (b) Connect the negative (-) terminal cable to the battery, and wait for at least 2 seconds.
 (c) Turn the power switch on (IG), and wait for at least 60 seconds.
 (d) Clear the DTCs stored in the memory (See page RS-41).
 (e) Turn the power switch off.
 (f) Turn the power switch on (IG), and wait for at least 60 seconds.
 (g) Check the DTCs (See page RS-41).

Result

Result	Proceed to
DTC B1628, B1638, B1648, or 82 is output.	A
DTC B1623, B1633, B1643, or 81 is output.	B
DTC B1623, B1633, B1643, or 81 and B1628, B1638, B1648, or 82 are not output.	C

HINT:

Codes other than DTC B1623, B1633, B1643, or 81 and B1628, B1638, B1648, or 82 may be output at this time, but they are not related to this check.

- (h) Turn the power switch off.
 (i) Disconnect the negative (-) terminal cable from the battery, and wait for at least 90 seconds.
 (j) Return the side airbag sensor LH and RH to their original positions and connect the connectors to them.

B**REPLACE SIDE AIRBAG SENSOR RH (See page RS-431)****C****USE SIMULATION METHOD TO CHECK (See page RS-33)****A**

11 CHECK CONNECTION OF CONNECTOR

- (a) Check that the connector is properly connected to the rear airbag sensor RH.

OK:

The connector is properly connected.

NG

CONNECT CONNECTOR PROPERLY

OK

12 CHECK CONNECTOR

- (a) Disconnect the connectors from the rear airbag sensor RH.
 (b) Check that the connector (on the rear airbag sensor RH side) is not damaged.

OK:

The connector is not deformed or damaged.

NG

REPAIR OR REPLACE FLOOR WIRE NO. 2

OK

13 CHECK FLOOR WIRE NO. 2 (OPEN)

- (a) Disconnect the connectors from the side airbag sensor RH.
 (b) Using a service wire, connect terminals 2 (BCR+) and 1 (BCR-) of connector C.

NOTICE:

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

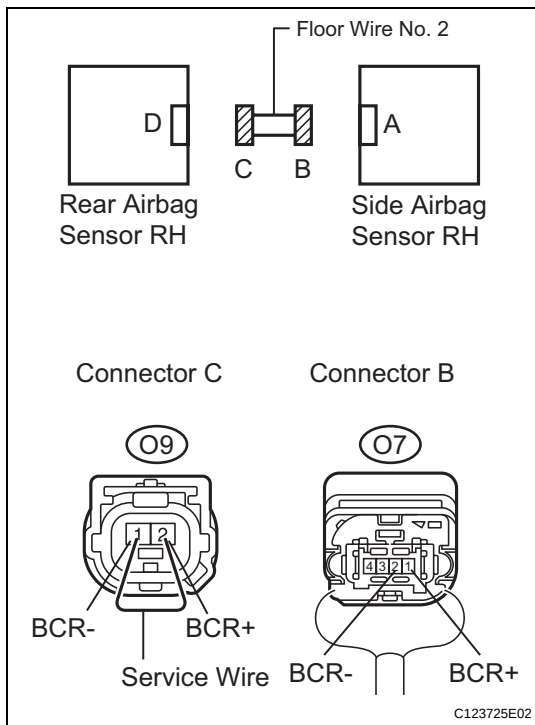
- (c) Measure the resistance according to the value(s) in the table below.

Standard resistance

Tester connection	Condition	Specified condition
O7-2 (BCR-) - O7-1 (BCR+)	Always	Below 1 Ω

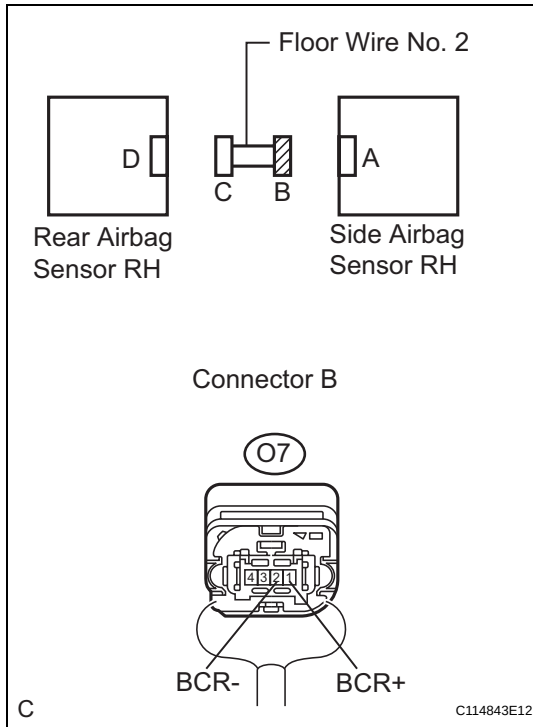
NG

REPAIR OR REPLACE FLOOR WIRE NO. 2



RS

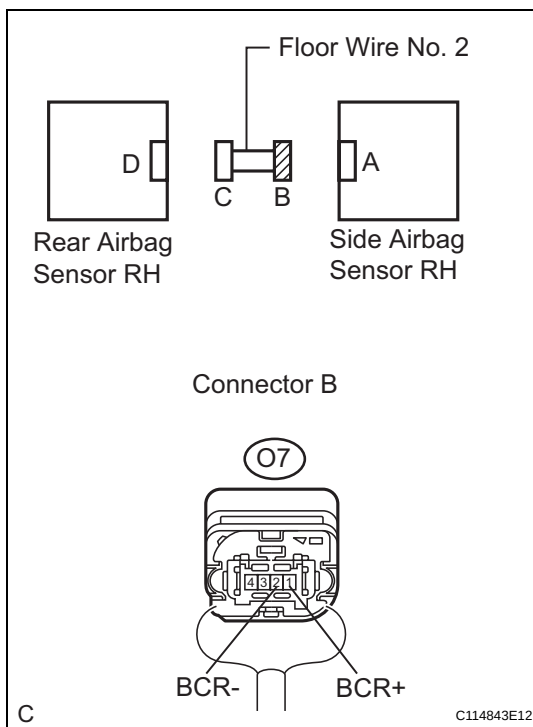
OK

14 CHECK FLOOR WIRE NO. 2 (SHORT)

- (a) Disconnect the service wire from connector C.
 (b) Measure the resistance according to the value(s) in the table below.

Standard resistance

Tester connection	Condition	Specified condition
O7-1 (BCR+) - O7-2 (BCR-)	Always	1 MΩ or higher

NG**REPAIR OR REPLACE FLOOR WIRE NO. 2****OK****15 CHECK FLOOR WIRE NO. 2 (SHORT TO B+)**

- (a) Connect the negative (-) terminal cable to the battery, and wait for at least 2 seconds.
 (b) Turn the power switch on (IG).
 (c) Measure the voltage according to the value(s) in the table below.

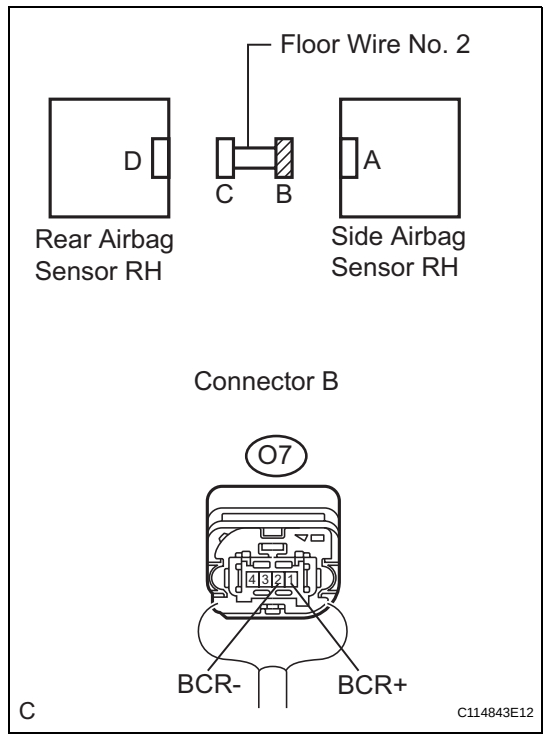
Standard voltage

Tester connection	Condition	Specified condition
O7-1 (BCR+) - Body ground	Power switch on (IG)	Below 1 V
O7-2 (BCR-) - Body ground	Power switch on (IG)	Below 1 V

NG**REPAIR OR REPLACE FLOOR WIRE NO. 2****OK**

16

CHECK FLOOR WIRE NO. 2 (SHORT TO GROUND)



- (a) Turn the power switch off.
- (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 resistance

Tester connection	Condition	Specified condition
07-1 (BCR+) - Body ground	Always	1 MΩ or higher
07-2 (BCR-) - Body ground	Always	1 MΩ or higher

NG

REPAIR OR REPLACE FLOOR WIRE NO. 2

OK

17

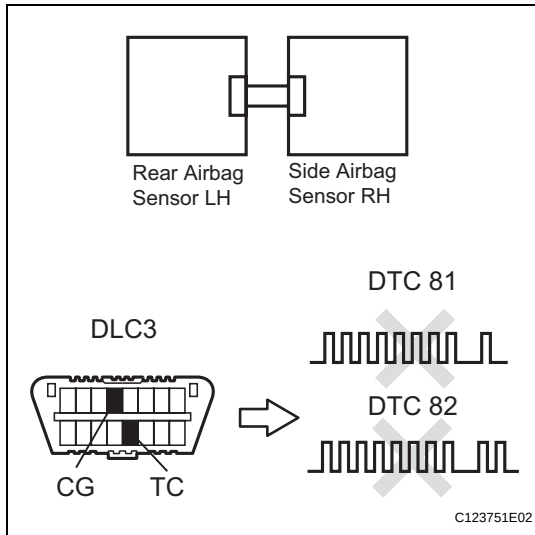
CONFIRM PART NUMBER OF REAR AIRBAG SENSOR

- (a) Check that the part number of the rear airbag sensor RH is equal to the number of the other side.
OK:
Those numbers are the same.
- (b) Connect the connectors to the side airbag sensor RH and the rear airbag sensor RH.

NG

Go to step 19

OK

18 CHECK REAR AIRBAG SENSOR RH

- Interchange the rear airbag sensor LH with RH and connect the connectors to them.
- Connect the negative (-) terminal cable to the battery, and wait for at least 2 seconds.
- Turn the power switch on (IG), and wait for at least 60 seconds.
- Clear the DTCs stored in the memory (See page RS-41).
- Turn the power switch off.
- Turn the power switch on (IG), and wait for at least 60 seconds.
- Check the DTCs (See page RS-41).

Result

Result	Proceed to
DTC B1628, B1638, B1648, or 82 is output.	A
DTC B1623, B1633, B1643, or 81 is output.	B
DTC B1623, B1633, B1643, or 81 and B1628, B1638, B1648, or 82 are not output.	C

HINT:

Codes other than DTC B1623, B1633, B1643, or 81 and B1628, B1638, B1648, or 82 may be output at this time, but they are not related to this check.

- Turn the power switch off.
- Disconnect the negative (-) terminal cable from the battery, and wait for at least 90 seconds.
- Return the rear airbag sensor LH and RH to their original positions and connect the connectors to them.

B

REPLACE REAR AIRBAG SENSOR RH (See page RS-435)

C

USE SIMULATION METHOD TO CHECK (See page RS-33)

A**19 CHECK CENTER AIRBAG SENSOR ASSEMBLY**

- Connect the negative (-) terminal cable to the battery, and wait for at least 2 seconds.
- Turn the power switch on (IG), and wait for at least 60 seconds.
- Clear the DTCs stored in the memory (See page RS-41).
- Turn the power switch off.
- Turn the power switch on (IG), and wait for at least 60 seconds.
- Check the DTCs (See page RS-41).

OK:

DTC B1628, B1638, B1648, or 82 is not output.

HINT:

Codes other than DTC B1628, B1638, B1648, or 82 may be output at this time, but they are not related to this check.

NG

REPLACE CENTER AIRBAG SENSOR ASSEMBLY (See page [RS-423](#))

OK

USE SIMULATION METHOD TO CHECK (See page [RS-33](#))

20 CHECK CONNECTION OF CONNECTORS

- (a) Turn the power switch off.
- (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 side airbag sensor RH.

OK:

The connectors are properly connected.

NG

CONNECT CONNECTORS PROPERLY

OK

21 CHECK CONNECTORS

- (a) Disconnect the connectors from the center airbag sensor assembly and side airbag sensor RH.
- (b) Check that the connectors (on the center airbag sensor assembly side and side airbag sensor RH side) are not damaged.

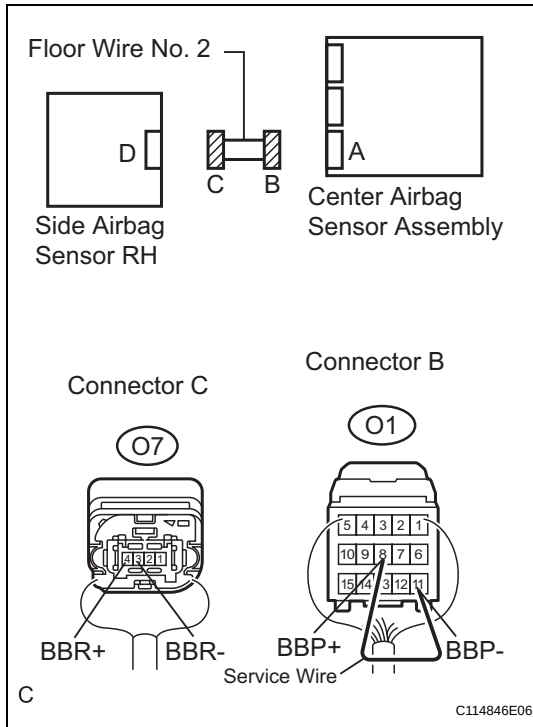
OK:

The connectors are not deformed or damaged.

NG

REPAIR OR REPLACE FLOOR WIRE NO. 2

OK

22 CHECK FLOOR WIRE NO. 2 (OPEN)

- (a) Using a service wire, connect terminals 8 (BBP+) and 11 (BBP-) of connector B.

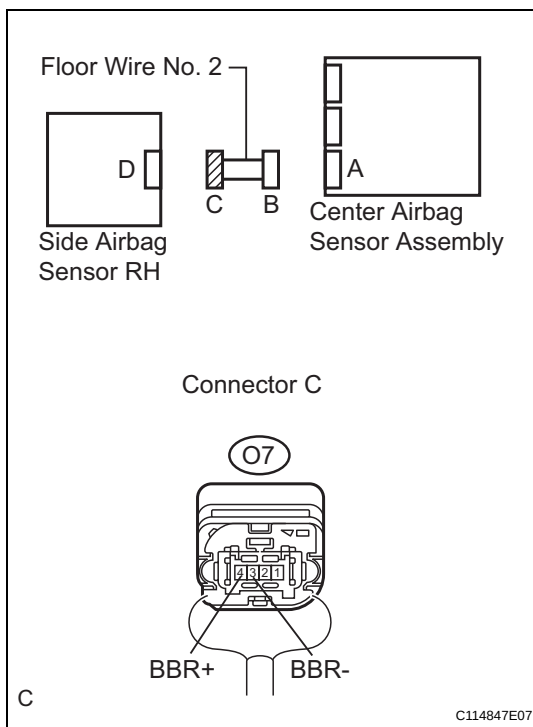
NOTICE:

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 resistance

Tester connection	Condition	Specified condition
O7-4 (BBR+) - O7-3 (BBR-)	Always	Below 1 Ω

NG**REPAIR OR REPLACE FLOOR WIRE NO. 2****OK****23 CHECK FLOOR WIRE NO. 2 (SHORT)**

- (a) Disconnect the service wire from connector B.
(b) Measure the resistance according to the value(s) in the table below.

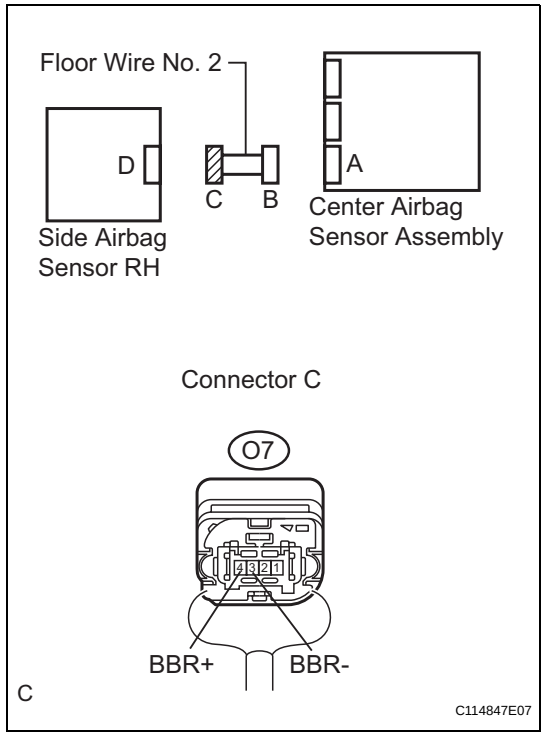
Standard resistance

Tester connection	Condition	Specified condition
O7-4 (BBR+) - O7-3 (BBR-)	Always	1 M Ω or higher

NG**REPAIR OR REPLACE FLOOR WIRE NO. 2****OK**

24

CHECK FLOOR WIRE NO. 2 (SHORT TO B+)



- (a) Connect the negative (-) terminal cable to the battery, and wait for at least 2 seconds.
- (b) Turn the power switch on (IG).
- (c) Measure the voltage according to the value(s) in the table below.

Standard voltage

Tester connection	Condition	Specified condition
O7-4 (BBR+) - Body ground	Power switch on (IG)	Below 1 V
O7-3 (BBR-) - Body ground	Power switch on (IG)	Below 1 V

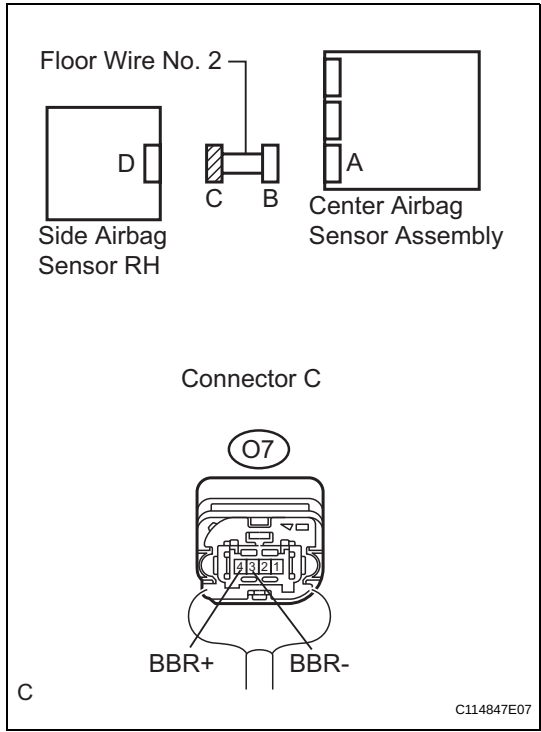
NG

REPAIR OR REPLACE FLOOR WIRE NO. 2

OK

25

CHECK FLOOR WIRE NO. 2 (SHORT TO GROUND)



- (a) Turn the power switch off.
- (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 resistance

Tester connection	Condition	Specified condition
O7-4 (BBR+) - Body ground	Always	1 MΩ or higher
O7-3 (BBR-) - Body ground	Always	1 MΩ or higher

NG

REPAIR OR REPLACE FLOOR WIRE NO. 2

OK

26 CONFIRM PART NUMBER OF SIDE AIRBAG SENSOR

- (a) Check that the part number of the side airbag sensor RH is equal to the number of the other side.

OK:

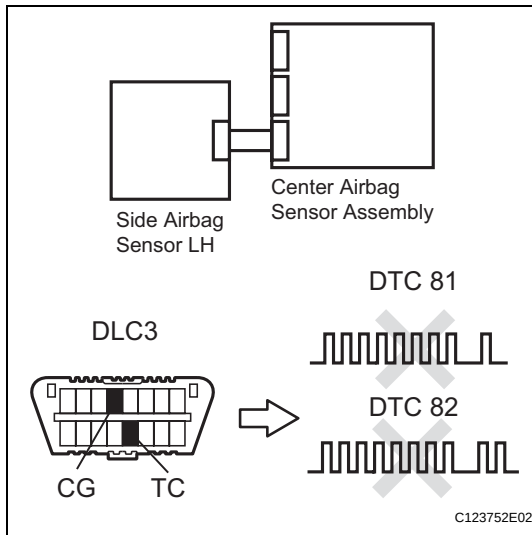
Those numbers are the same.

- (b) Connect the connectors to the center airbag sensor assembly and the side airbag sensor RH.

NG

Go to step 28

OK

27 CHECK SIDE AIRBAG SENSOR RH

- (a) Interchange the side airbag sensor LH with RH and connect the connectors to them.
- (b) Connect the negative (-) terminal cable to the battery, and wait for at least 2 seconds.
- (c) Turn the power switch on (IG), and wait for at least 60 seconds.
- (d) Clear the DTCs stored in the memory (See page RS-41).
- (e) Turn the power switch off.
- (f) Turn the power switch on (IG), and wait for at least 60 seconds.
- (g) Check the DTCs (See page RS-41).

Result

Result	Proceed to
DTC B1628, B1638, B1648, or 82 is output.	A
DTC B1623, B1633, B1643, or 81 is output.	B
DTC B1623, B1633, B1643, or 81 and B1628, B1638, B1648, or 82 are not output.	C

HINT:

Codes other than DTC B1623, B1633, B1643, or 81 and B1628, B1638, B1648, or 82 may be output at this time, but they are not related to this check.

- (h) Turn the power switch off.
- (i) Disconnect the negative (-) terminal cable from the battery, and wait for at least 90 seconds.
- (j) Return the side airbag sensor LH and RH to their original positions and connect the connectors to them.

B

REPLACE SIDE AIRBAG SENSOR RH (See page RS-431)

C

USE SIMULATION METHOD TO CHECK (See page RS-33)

A

28 CHECK CENTER AIRBAG SENSOR ASSEMBLY

- (a) Connect the negative (-) terminal cable to the battery, and wait for at least 2 seconds.
- (b) Turn the power switch on (IG), and wait for at least 60 seconds.
- (c) Clear the DTCs stored in the memory (See page [RS-41](#)).
- (d) Turn the power switch off.
- (e) Turn the power switch on (IG), and wait for at least 60 seconds.
- (f) Check the DTCs (See page [RS-41](#)).

OK:

DTC B1628, B1638, B1648, or 82 is not output.

HINT:

Codes other than DTC B1628, B1638, B1648, or 82 may be output at this time, but they are not related to this check.

NG

REPLACE CENTER AIRBAG SENSOR ASSEMBLY (See page [RS-423](#))

OK

USE SIMULATION METHOD TO CHECK (See page [RS-33](#))