

DTC	B1642/81	Lost Communication with Driver Side Satellite Sensor Bus
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DESCRIPTION

The side airbag sensor LH and the rear airbag sensor LH consist of parts including the diagnostic circuit and the lateral deceleration sensor.

When the center airbag sensor assembly receives signals from the lateral deceleration sensor, it determines whether or not the SRS should be activated.

DTC B1642/81 is set when a malfunction is detected in the side airbag sensor LH or rear airbag sensor LH circuit.

DTC No.	DTC Detection Condition	Trouble Area
B1642/81	<ul style="list-style-type: none"> • Center airbag sensor assembly detects open circuit signal in side airbag sensor LH circuit or rear airbag sensor LH circuit for 2 seconds. • Side airbag sensor LH malfunction • Rear airbag sensor LH malfunction • Center airbag sensor assembly malfunction 	<ul style="list-style-type: none"> • Floor wire No.2 • Side airbag sensor LH • Rear airbag sensor LH • Center airbag sensor assembly

RS

WIRING DIAGRAM

[RS-72](#)

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 off.
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 airbags 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.

1	CHECK CONNECTORS (CENTER AIRBAG SENSOR ASSEMBLY - SIDE AIRBAG SENSOR LH)
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- (a) Turn the ignition switch off.
- (b) Disconnect the negative (-) terminal cable from the battery, and wait for at least 90 seconds.
- (c) Disconnect the floor wire No.2 connectors from the center airbag sensor assembly and the side airbag sensor LH.

- (d) Check the floor wire No.2 connectors and terminals (on the center airbag sensor assembly and the side airbag sensor LH sides) and check that the connectors are properly connected.

Result

Result	Proceed to
No problem.	A
Connectors or terminals incorrect.	B
Connector connected improperly.	C

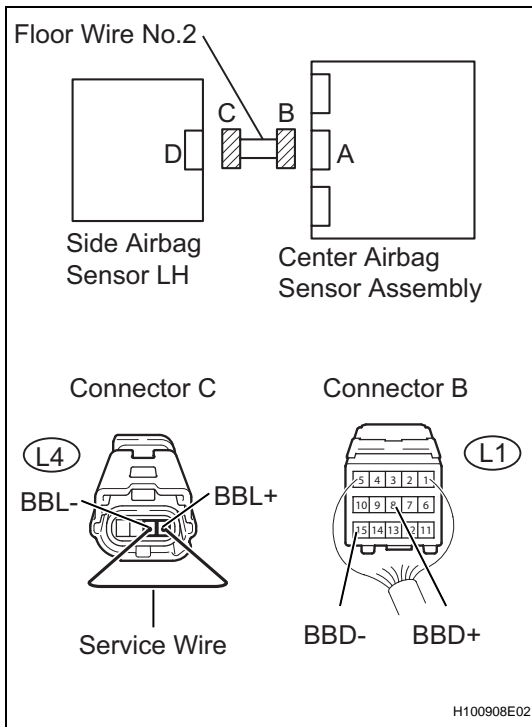
B → REPAIR OR REPLACE FLOOR WIRE NO.2

C → CONNECT CONNECTORS PROPERLY

A

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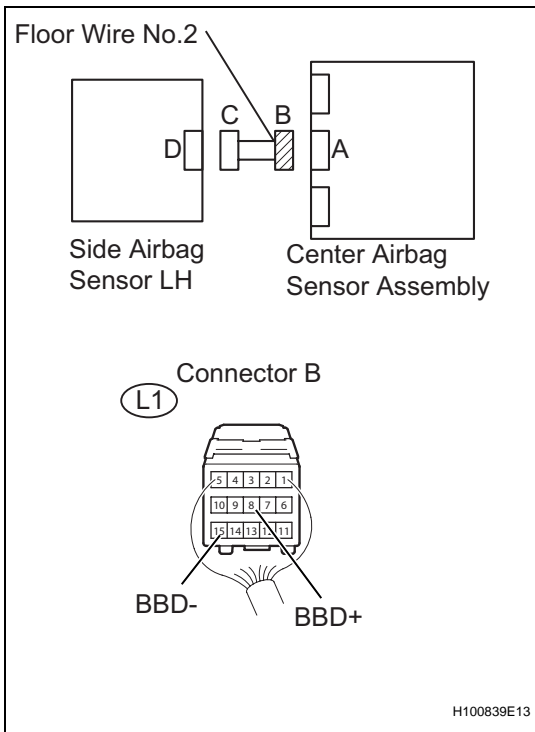
2 CHECK FLOOR WIRE NO.2 (CENTER AIRBAG SENSOR ASSEMBLY - SIDE AIRBAG SENSOR LH)



- (a) Check for open in the circuit.
 - (1) Using a service wire, connect L4-4 (BBL+) and L4-3 (BBL-) of connector C.
 - NOTICE:**
Do not forcibly insert the service wire into the terminals of the connector when connecting.
 - (2) Measure the resistance.
- Standard resistance**

Tester Connection	Condition	Specified Condition
L1-8 (BBD+) - L1-15 (BBD-)	Always	Below 1Ω

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

Standard resistance

Tester Connection	Condition	Specified Condition
L1-8 (BBD+) - L1-15 (BBD-)	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
L1-8 (BBD+) - Body ground	Always	1 MΩ or higher
L1-15 (BBD-) - 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

Tester Connection	Condition	Specified Condition
L1-8 (BBD+) - Body ground	Ignition switch on	Below 1 V
L1-15 (BBD-) - Body ground	Ignition switch on	Below 1 V

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

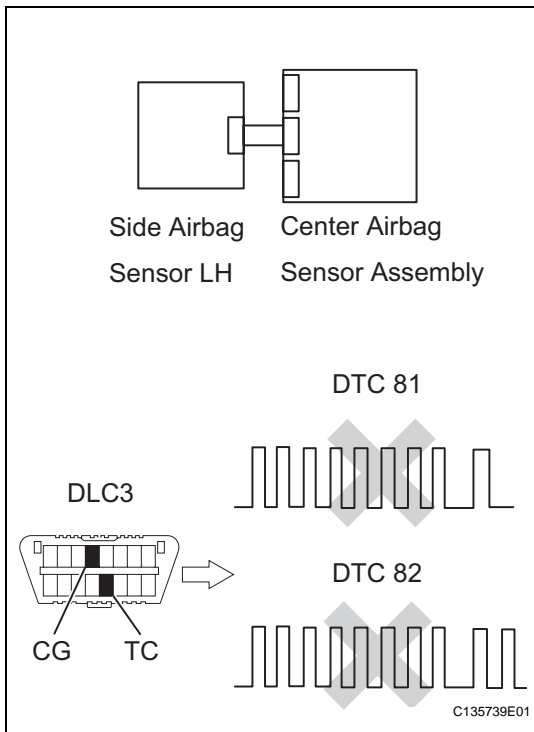
NG REPAIR OR REPLACE FLOOR WIRE NO.2

OK

3 CHECK SIDE AIRBAG SENSOR LH

- (a) Connect the connector to the center airbag sensor assembly.

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- (b) Interchange the side airbag sensor LH with the side airbag sensor RH and connect the connectors to them.
- (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 the memory (See page RS-36).
- (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 for DTCs (See page RS-36).

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Result

Result	Proceed to
DTC B1642/81 is output.	A
DTC B1647/82 is output.	B
DTC B1642/81 or B1647/82 is not output.	C

HINT:

DTCs other than DTC B1642/81 and B1647/82 may be output at this time, but they are not related to this check.

B → REPLACE SIDE AIRBAG SENSOR LH

C → USE SIMULATION METHOD TO CHECK

A

4 CHECK CONNECTORS (SIDE AIRBAG SENSOR LH - REAR AIRBAG SENSOR LH)

- (a) Turn the ignition switch off.
- (b) Disconnect the negative (-) terminal cable from the battery, and wait for at least 90 seconds.
- (c) Disconnect the floor wire No.2 connectors from the side airbag sensor LH and the rear airbag sensor LH.
- (d) Check the floor wire No.2 connectors and terminals (on the side airbag sensor LH and the rear airbag sensor LH sides) and check that the connectors are properly connected.

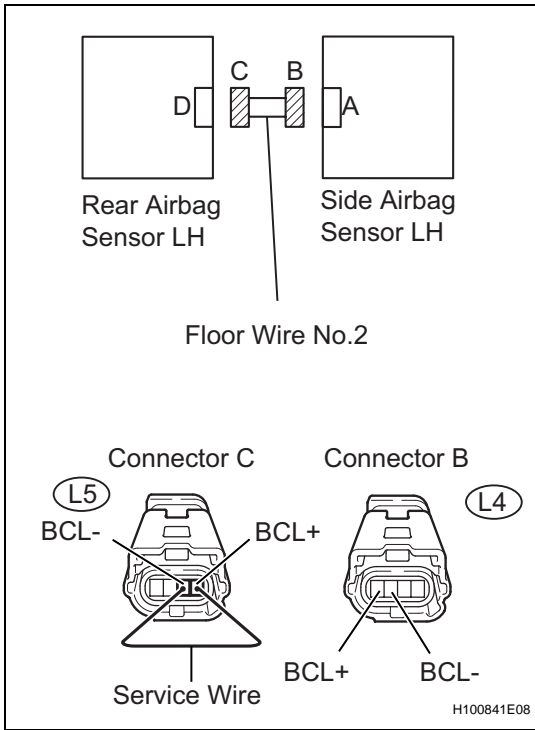
Result

Result	Proceed to
No problem.	A
Connectors or terminals incorrect.	B
Connector connected improperly.	C

- B** REPAIR OR REPLACE FLOOR WIRE NO.2
- C** CONNECT CONNECTORS PROPERLY

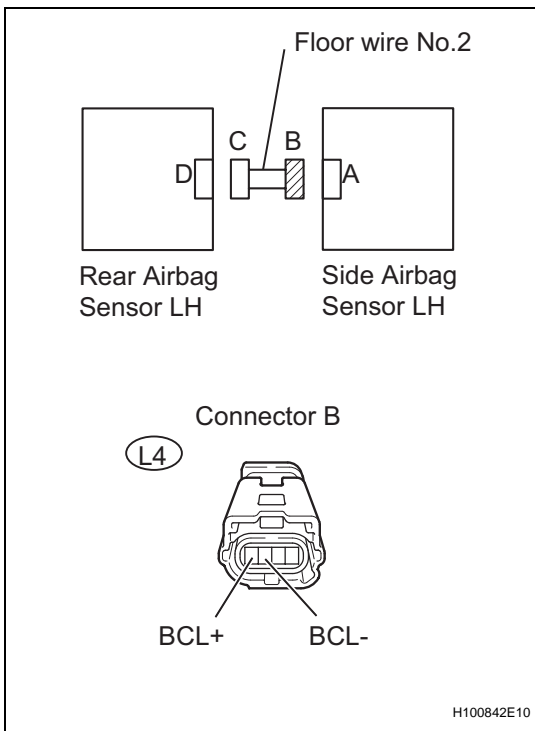
A

5 CHECK FLOOR WIRE NO.2 (SIDE AIRBAG SENSOR LH - REAR AIRBAG SENSOR LH)



- (a) Check for open in the circuit.
- Using a service wire, connect L5-1 (BCL-) and L5-2 (BCL+) of connector C.
- NOTICE:**
Do not forcibly insert the service wire into the terminals of the connector when connecting.
- Measure the resistance.
- Standard resistance**

Tester Connection	Condition	Specified Condition
L4-1 (BCL+) - L4-2 (BCL-)	Always	Below 1Ω



- (b) Check for short in the circuit.
- Disconnect the service wire from connector C.
 - Measure the resistance.
- Standard resistance**

Tester Connection	Condition	Specified Condition
L4-1 (BCL+) - L4-2 (BCL-)	Always	1 MΩ or higher

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

Tester Connection	Condition	Specified Condition
L4-1 (BCL+) - Body ground	Always	1 MΩ or higher
L4-2 (BCL-) - Body ground	Always	1 MΩ or higher

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

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Standard voltage

Tester Connection	Condition	Specified Condition
L4-1 (BCL+) - Body ground	Ignition switch on	Below 1 V
L4-2 (BCL-) - Body ground	Ignition switch on	Below 1 V

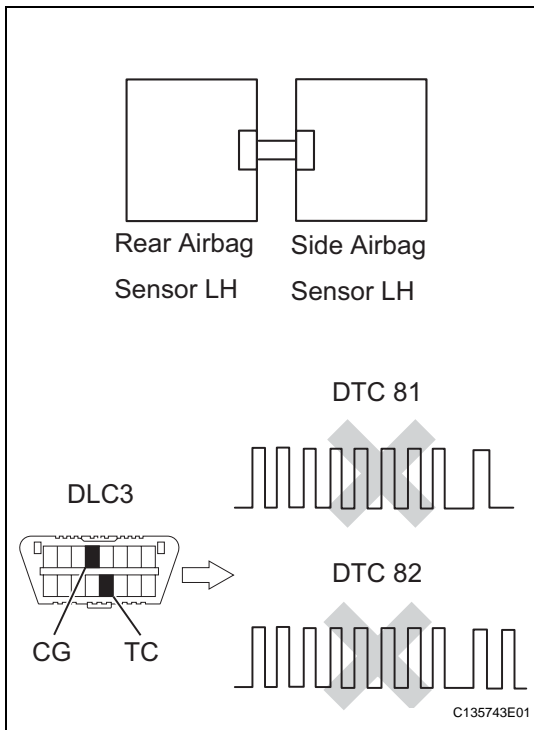
- (4) Turn the ignition switch off.
- (5) Disconnect the negative (-) terminal cable from the battery, and wait for at least 90 seconds.

NG REPAIR OR REPLACE FLOOR WIRE NO.2

OK

6 CHECK REAR AIRBAG SENSOR LH

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- (a) Connect the connector to the side airbag sensor LH.
- (b) Interchange the rear airbag sensor LH with the rear airbag sensor RH and connect the connectors to them.
- (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 the memory (See page RS-36).
- (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 for DTCs (See page RS-36).

Result

Result	Proceed to
DTC B1642/81 or B1647/82 is not output.	A
DTC B1642/81 is output.	B
DTC B1647/82 is output.	C

HINT:

DTCs other than DTC B1642/81 and B1647/82 may be output at this time, but they are not related to this check.

B REPLACE CENTER AIRBAG SENSOR ASSEMBLY

C REPLACE REAR AIRBAG SENSOR LH



USE SIMULATION METHOD TO CHECK