

DTC	B1815/54	Short in Front Passenger Side Squib 2nd Step Circuit
DTC	B1816/54	Open in Front Passenger Side Squib 2nd Step Circuit
DTC	B1817/54	Short to GND in Front Passenger Side Squib 2nd Step Circuit
DTC	B1818/54	Short to B+ in Front Passenger Side Squib 2nd Step Circuit

DESCRIPTION

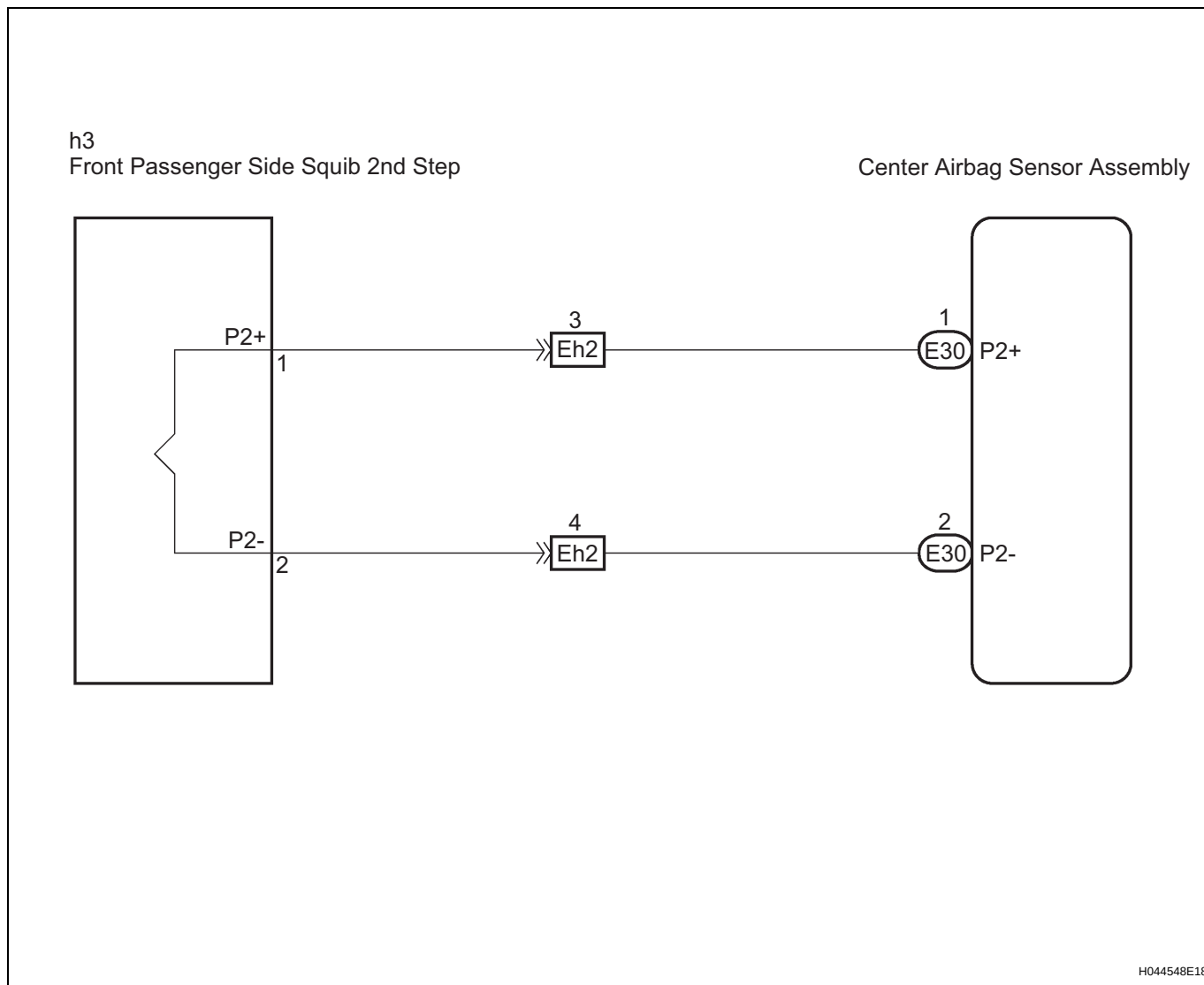
The front passenger side squib 2nd step circuit consists of the center airbag sensor assembly and the front passenger airbag assembly.

The circuit instructs the SRS to deploy when deployment conditions are met.

These DTCs are recorded when a malfunction is detected in the front passenger side squib 2nd step circuit.

DTC No.	DTC Detecting Condition	Trouble Area
B1815/54	- The center airbag sensor assembly receives a line short circuit signal 5 times in the front passenger side squib 2nd step circuit during primary check. - Front passenger side squib 2nd step malfunction - Center airbag sensor assembly malfunction	- Instrument panel wire - Instrument panel wire assembly - Front passenger airbag assembly (Front passenger side squib 2nd step) - Center airbag sensor assembly
B1816/54	- The center airbag sensor assembly receives an open circuit signal in the front passenger side squib 2nd step circuit for 2 seconds. - Front passenger side squib 2nd step malfunction - Center airbag sensor assembly malfunction	- Instrument panel wire - Instrument panel wire assembly - Front passenger airbag assembly (Front passenger side squib 2nd step) - Center airbag sensor assembly
B1817/54	- The center airbag sensor assembly receives a short circuit to ground signal in the front passenger side squib 2nd step circuit for 0.5 seconds. - Front passenger side squib 2nd step malfunction - Center airbag sensor assembly malfunction	- Instrument panel wire - Instrument panel wire assembly - Front passenger airbag assembly (Front passenger side squib 2nd step) - Center airbag sensor assembly
B1818/54	- The center airbag sensor assembly receives a short circuit to B+ signal in the front passenger side squib 2nd step circuit for 0.5 seconds. - Front passenger side squib 2nd step malfunction - Center airbag sensor assembly malfunction	- Instrument panel wire - Instrument panel wire assembly - Front passenger airbag assembly (Front passenger side squib 2nd step) - Center airbag sensor assembly

WIRING DIAGRAM

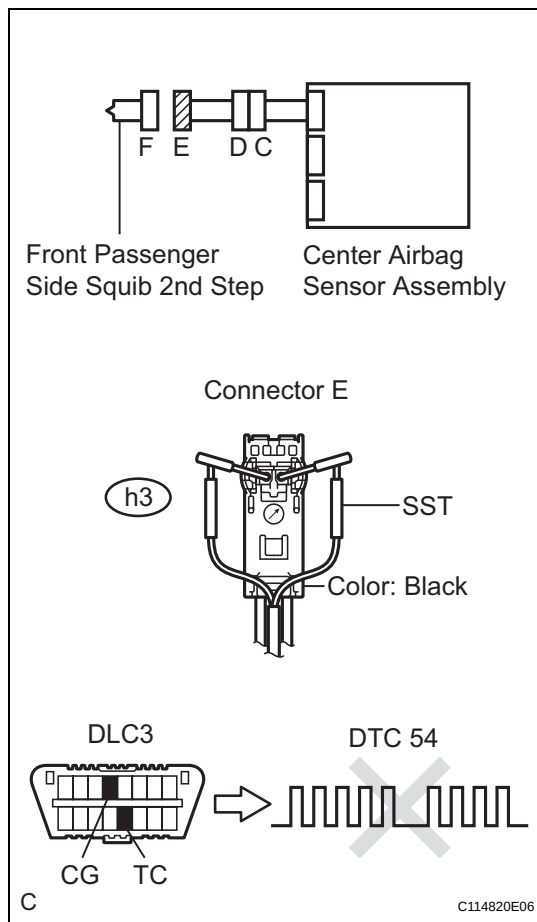


INSPECTION PROCEDURE

HINT:

- Perform the simulation method by selecting "check mode" (signal check) with the intelligent tester (See page [RS-44](#)).
- After selecting "check mode" (signal check), perform the simulation method by wiggling each connector of the airbag system or driving the vehicle on a city or rough road (See page [RS-44](#)).

1 CHECK FRONT PASSENGER AIRBAG ASSEMBLY (FRONT PASSENGER SIDE SQUIB 2ND STEP)



- (a) Turn the power switch off.
- (b) Disconnect the negative (-) terminal cable from the battery, and wait for at least 90 seconds.
- (c) Disconnect the connectors from the front passenger airbag assembly.
- (d) Connect the white wire side of SST (resistance 2.1 Ω) to connector E (black connector).

CAUTION:

Never connect the tester to the front passenger airbag assembly (front passenger side squib 2nd step) for measurement, as this may lead to a serious injury due to airbag deployment.

NOTICE:

- Do not forcibly insert the SST into the terminals of the connector when connecting.
- Insert straight the SST into the terminals of the connector.

SST 09843-18060

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

OK:

DTC B1815, B1816, B1817, B1818, or 54 is not output.

HINT:

Codes other than DTC B1815, B1816, B1817, B1818, and 54 may be output at this time, but they are not related to this check.

OK

REPLACE FRONT PASSENGER AIRBAG ASSEMBLY (See page RS-379)

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2 CHECK CONNECTOR

- (a) Turn the power switch off.
- (b) Disconnect the negative (-) terminal cable from the battery, and wait for at least 90 seconds.
- (c) Disconnect the SST from connector E.
- (d) Check that the instrument panel wire assembly connectors (on the front passenger airbag assembly side) are not damaged.

OK:

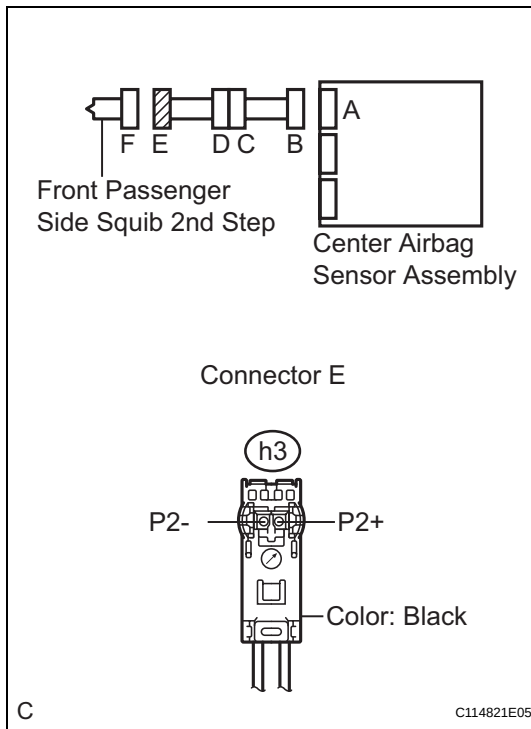
The lock button is not disengaged, or the claw of the lock is not damaged or deformed.

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REPAIR OR REPLACE INSTRUMENT PANEL WIRE ASSEMBLY

OK

3 CHECK FRONT PASSENGER SIDE SQUIB 2ND STEP CIRCUIT



- Disconnect the connectors from the center airbag sensor assembly.
- Check for a short to B+ in the circuit.
 - Connect the negative (-) terminal cable to the battery, and wait for at least 2 seconds.
 - Turn the power switch on (IG).
 - Measure the voltage according to the value(s) in the table below.

Standard voltage

Tester Connection	Condition	Specified Condition
c1-1 (P2+) - Body ground	Power switch on (IG)	Below 1 V
c1-2 (P2-) - Body ground	Power switch on (IG)	Below 1 V

- Check for an open in the circuit.
 - Turn the power switch off.
 - Disconnect the negative (-) terminal cable from the battery, and wait for at least 90 seconds.
 - Measure the resistance according to the value(s) in the table below.

Standard resistance

Tester Connection	Condition	Specified Condition
c1-1 (P2+) - c1-2 (P2-)	Always	Below 1 Ω

- Check for a short to ground in the circuit.
 - Measure the resistance according to the value(s) in the table below.

Standard resistance

Tester Connection	Condition	Specified Condition
c1-1 (P2+) - Body ground	Always	1 M Ω or higher
c1-2 (P2-) - Body ground	Always	1 M Ω or higher

- Check for a short in the circuit.
 - Release the activation prevention mechanism built into connector B (See page [RS-33](#)).
 - Measure the resistance according to the value(s) in the table below.

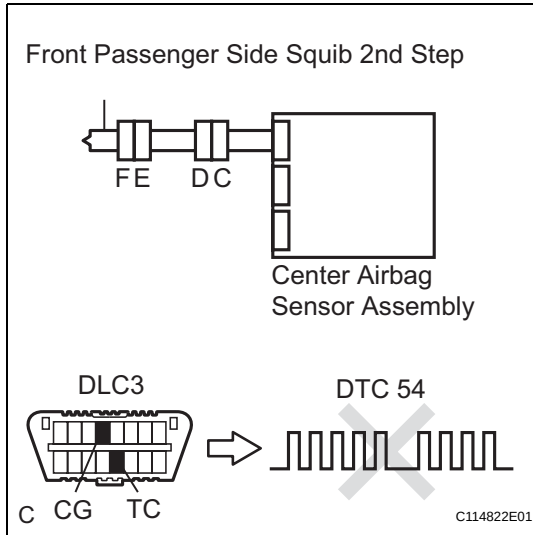
Standard resistance

Tester Connection	Condition	Specified Condition
c1-1 (P2+) - c1-2 (P2-)	Always	1 M Ω or higher

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Go to step 5

OK

4 CHECK CENTER AIRBAG SENSOR ASSEMBLY

- Connect the connectors to the front passenger airbag assembly and the 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 B1815, B1816, B1817, B1818, or 54 is not output.****HINT:**

Codes other than DTC B1815, B1816, B1817, B1818, and 54 may be output at this time, but they are not related to this check.

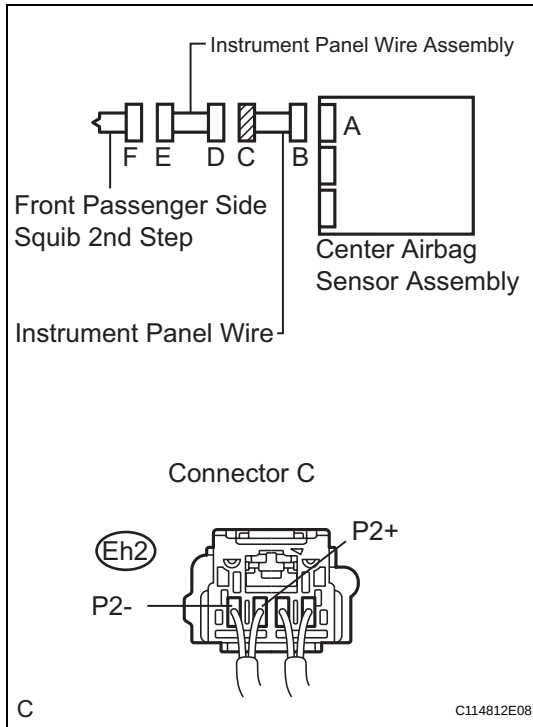
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REPLACE CENTER AIRBAG SENSOR ASSEMBLY (See page [RS-423](#))

OK

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

5 CHECK INSTRUMENT PANEL WIRE



- (a) Check for a short to B+ in the circuit.
- (1) Restore the released activation prevention mechanism of connector B to the original condition.
 - (2) Disconnect the instrument panel wire connector from the instrument panel wire assembly.
 - (3) Connect the negative (-) terminal cable to the battery, and wait for at least 2 seconds.
 - (4) Turn the power switch on (IG).
 - (5) Measure the voltage according to the value(s) in the table below.

Standard voltage

Tester connection	Condition	Specified condition
Ec1-3 (P2+) - Body ground	Power switch on (IG)	Below 1 V
Ec1-4 (P2-) - Body ground	Power switch on (IG)	Below 1 V

- (b) Check for an open in the circuit.
- (1) Turn the power switch off.
 - (2) Disconnect the negative (-) terminal cable from the battery, and wait for at least 90 seconds.
 - (3) Measure the resistance according to the value(s) in the table below.

Standard resistance

Tester Connection	Condition	Specified Condition
Ec1-3 (P2+) - Ec1-4 (P2-)	Always	Below 1 Ω

- (c) Check for a short to ground in the circuit.
- (1) Measure the resistance according to the value(s) in the table below.

Standard resistance

Tester Connection	Condition	Specified Condition
Ec1-3 (P2+) - Body ground	Always	1 M Ω or higher
Ec1-4 (P2-) - Body ground	Always	1 M Ω or higher

- (d) Check for a short in the circuit.
- (1) Release the activation prevention mechanism built into connector B (See page [RS-33](#)).
 - (2) Measure the resistance according to the value(s) in the table below.

Standard resistance

Tester Connection	Condition	Specified Condition
Ec1-3 (P2+) - Ec1-4 (P2-)	Always	1 M Ω or higher

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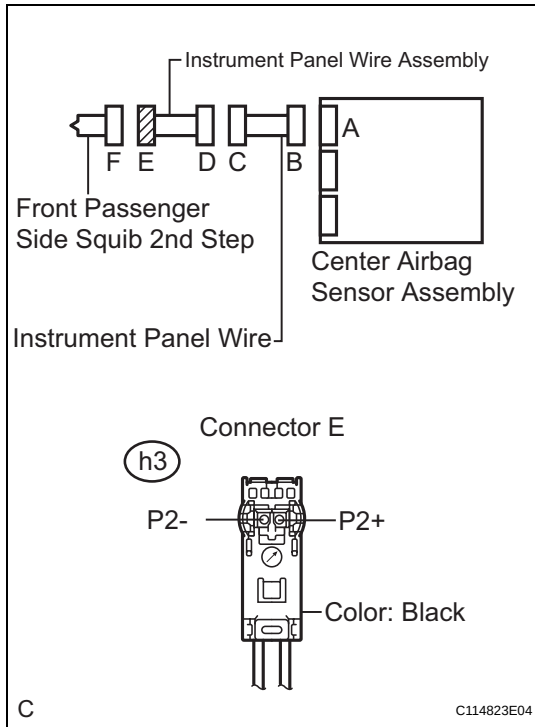
REPAIR OR REPLACE INSTRUMENT PANEL WIRE

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OK

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CHECK INSTRUMENT PANEL WIRE ASSEMBLY



- (a) Check for a 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 power switch on (IG).
 - (3) Measure the voltage according to the value(s) in the table below.

Standard voltage

Tester Connection	Condition	Specified Condition
c1-1 (P2+) - Body ground	Power switch on (IG)	Below 1 V
c1-2 (P2-) - Body ground	Power switch on (IG)	Below 1 V

- (b) Check for an open in the circuit.
- (1) Turn the power switch off.
 - (2) Disconnect the negative (-) terminal cable from the battery, and wait for at least 90 seconds.
 - (3) Measure the resistance according to the value(s) in the table below.

Standard resistance

Tester Connection	Condition	Specified Condition
c1-1 (P2+) - c1-2 (P2-)	Always	Below 1 Ω

- (c) Check for a short to ground in the circuit.
- (1) Measure the resistance according to the value(s) in the table below.

Standard resistance

Tester Connection	Condition	Specified Condition
c1-1 (P2+) - Body ground	Always	1 M Ω or higher
c1-2 (P2-) - Body ground	Always	1 M Ω or higher

- (d) Check for a short in the circuit.
- (1) Release the activation prevention mechanism built into connector D (See page RS-33).
 - (2) Measure the resistance according to the value(s) in the table below.

Standard resistance

Tester Connection	Condition	Specified Condition
c1-1 (P2+) - c1-2 (P2-)	Always	1 M Ω or higher

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REPAIR OR REPLACE INSTRUMENT PANEL WIRE ASSEMBLY

OK

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

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