

DTC	B1810/53	Short in Driver Side Squib 2nd Step Circuit
DTC	B1811/53	Open in Driver Side Squib 2nd Step Circuit
DTC	B1812/53	Short to GND in Driver Side Squib 2nd Step Circuit
DTC	B1813/53	Short to B+ in Driver Side Squib 2nd Step Circuit

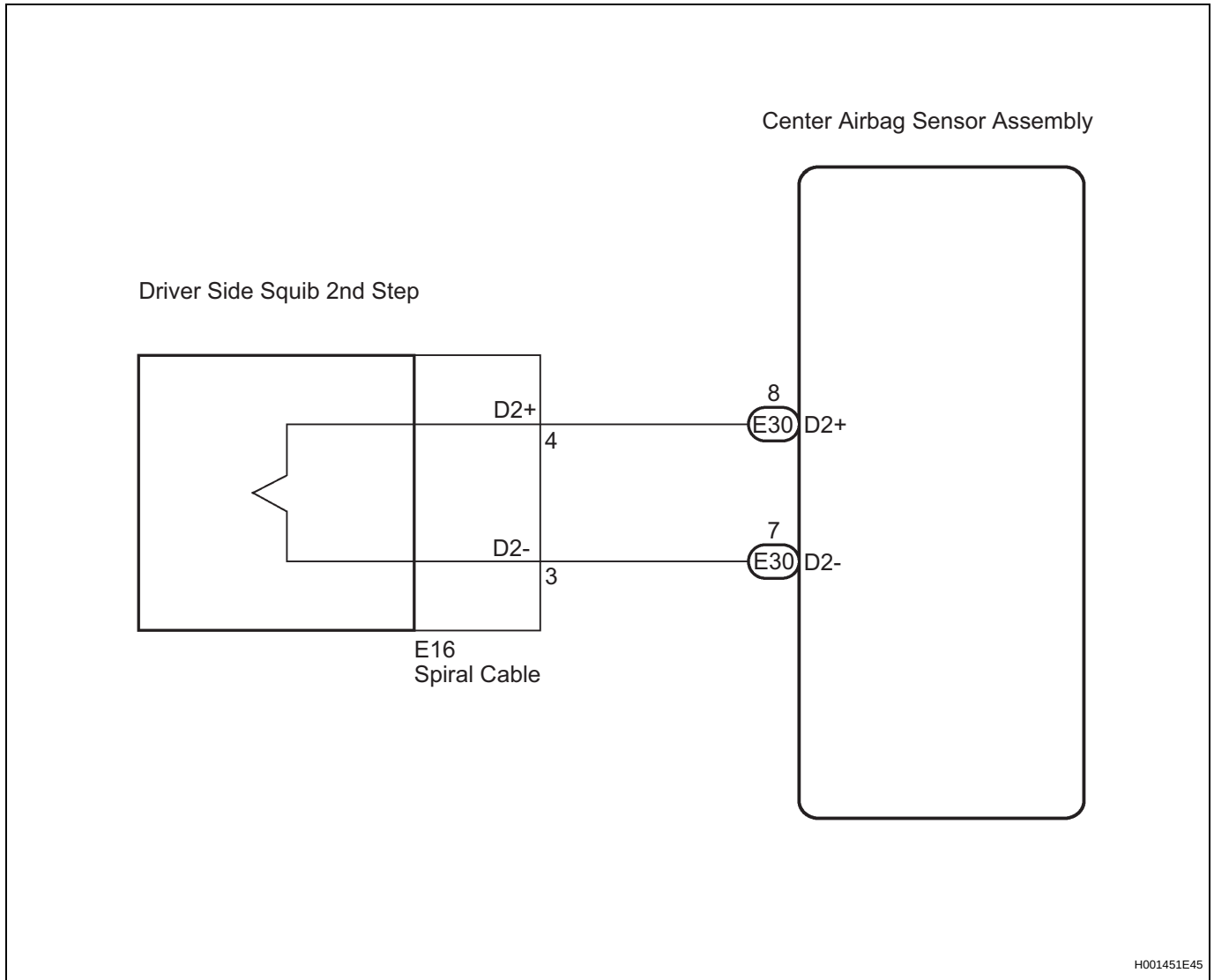
DESCRIPTION

The driver side squib 2nd step circuit consists of the center airbag sensor assembly, the spiral cable, and the steering pad.

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

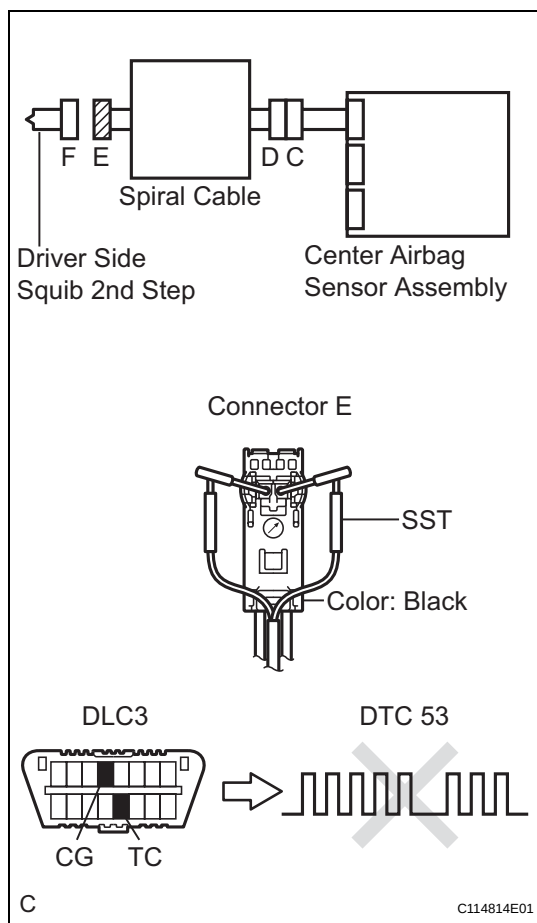
These DTCs are recorded when a malfunction is detected in the driver side squib 2nd step circuit.

DTC No.	DTC Detecting Condition	Trouble Area
B1810/53	- The center airbag sensor assembly receives a line short circuit signal 5 times in the driver side squib 2nd step circuit during primary check. - Driver side squib 2nd step malfunction - Spiral cable malfunction - Center airbag sensor assembly malfunction	- Instrument panel wire - Spiral cable - Steering pad (Driver side squib 2nd step) - Center airbag sensor assembly
B1811/53	- The center airbag sensor assembly receives an open circuit signal in the driver side squib 2nd step circuit for 2 seconds. - Driver side squib 2nd step malfunction - Spiral cable malfunction - Center airbag sensor assembly malfunction	- Instrument panel wire - Spiral cable - Steering pad (Driver side squib 2nd step) - Center airbag sensor assembly
B1812/53	- The center airbag sensor assembly receives a short circuit to ground signal in the driver side 2nd step circuit for 0.5 seconds. - Driver side squib 2nd step malfunction - Spiral cable malfunction - Center airbag sensor assembly malfunction	- Instrument panel wire - Spiral cable - Steering pad (Driver side squib 2nd step) - Center airbag sensor assembly
B1813/53	- The center airbag sensor assembly receives a short circuit to B+ signal in the driver side squib 2nd step circuit for 0.5 seconds. - Driver side squib 2nd step malfunction - Spiral cable malfunction - Center airbag sensor assembly malfunction	- Instrument panel wire - Spiral cable - Steering pad (Driver 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 STEERING PAD (DRIVER 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 steering pad.
- (d) Connect the white wire side of SST (resistance 2.1Ω) to connector E (black connector).

CAUTION:

Never connect the tester to the steering pad (driver 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 B1810, B1811, B1812, B1813, or 53 is not output.

HINT:

Codes other than DTC B1810, B1811, B1812, B1813, and 53 may be output at this time, but they are not related to this check.

OK

REPLACE STEERING PAD (See page RS-344)

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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 spiral cable connectors (on the steering pad side) are not damaged.

OK:

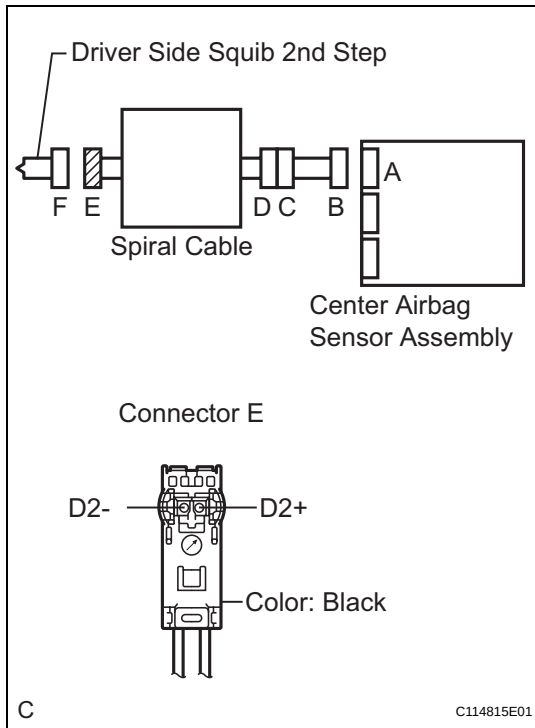
The lock button is not disengaged, or the claw of the lock is not deformed or damaged.

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REPLACE SPIRAL CABLE (See page [RS-357](#))

OK

3 CHECK DRIVER SIDE SQUIB 2ND STEP CIRCUIT



- (a) Disconnect the connectors from the center airbag sensor assembly.
- (b) 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
D2+ - Body ground	Power switch on (IG)	Below 1 V
D2- - Body ground	Power switch on (IG)	Below 1 V

- (c) 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
D2+ - D2-	Always	Below 1 Ω

- (d) 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
D2+ - Body ground	Always	1 M Ω or higher
D2- - Body ground	Always	1 M Ω or higher

- (e) 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

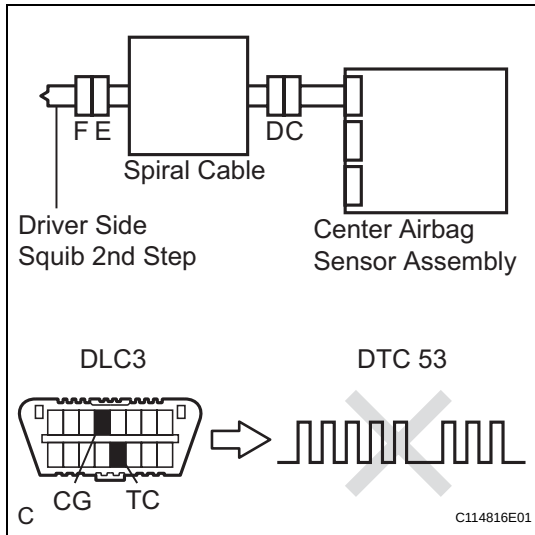
Tester Connection	Condition	Specified Condition
D2+ - D2-	Always	1 M Ω or higher

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Go to step 5

OK

4 CHECK CENTER AIRBAG SENSOR ASSEMBLY



- Connect the connectors to the steering pad 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 B1810, B1811, B1812, B1813, or 53 is not output.

HINT:

Codes other than DTC B1810, B1811, B1812, B1813, and 53 may be output at this time, but they are not related to this check.

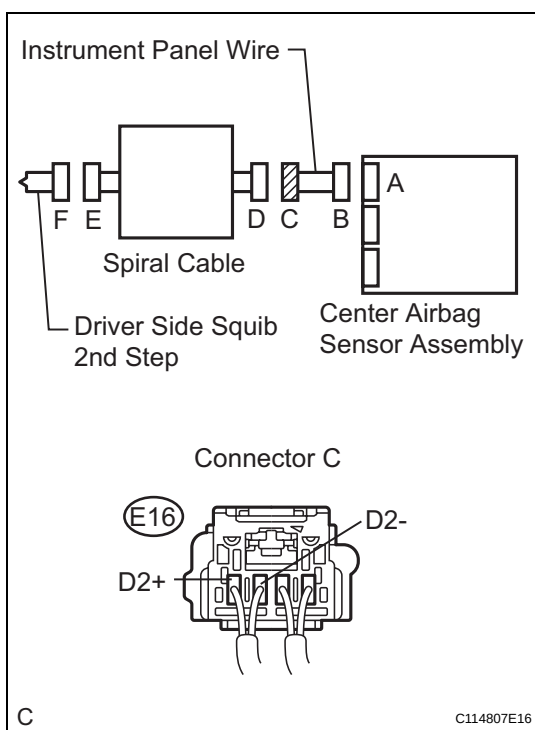
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REPLACE CENTER AIRBAG SENSOR ASSEMBLY (See page RS-423)

OK

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

5 CHECK INSTRUMENT PANEL WIRE



- Check for a short to B+ in the circuit.
 - Restore the released activation prevention mechanism of connector B to the original condition.
 - Disconnect the instrument panel wire connector from the spiral cable.
 - 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
E16-4 (D2+) - Body ground	Power switch on (IG)	Below 1 V
E16-3 (D2-) - 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.

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

Standard resistance

Tester Connection	Condition	Specified Condition
E16-4 (D2+) - E16-3 (D2-)	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
E16-4 (D2+) - Body ground	Always	1 M Ω or higher
E16-3 (D2-) - 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
E16-4 (D2+) - E16-3 (D2-)	Always	1 M Ω or higher

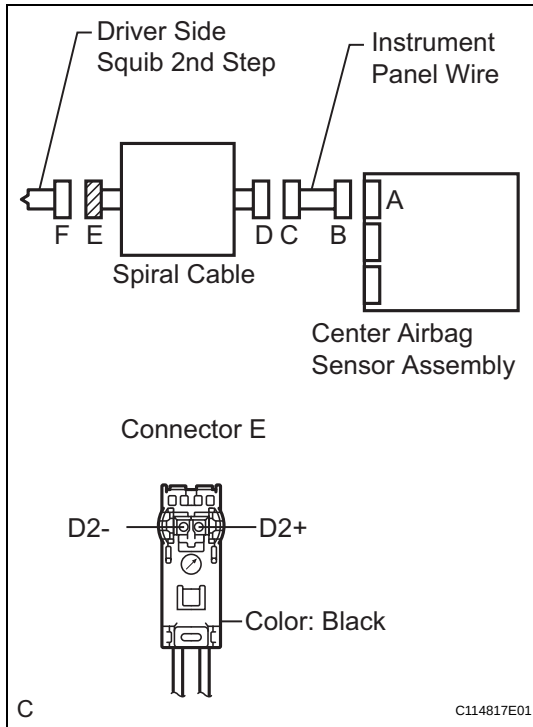
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REPAIR OR REPLACE INSTRUMENT PANEL WIRE ASSEMBLY

OK

6

CHECK SPIRAL CABLE



(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
D2+ - Body ground	Power switch on (IG)	Below 1 V
D2- - 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
D2+ - D2-	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
D2+ - Body ground	Always	1 M Ω or higher
D2- - 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
D2+ - D2-	Always	1 M Ω or higher

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REPLACE SPIRAL CABLE (See page [RS-357](#))

OK

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