

DTC	B1810/53	SHORT IN D SQUIB (DUAL STAGE – 2ND STEP) CIRCUIT
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CIRCUIT DESCRIPTION

The D squib (Dual stage – 2nd step) circuit consists of the airbag ECU Assy, the spiral cable sub-assy and the horn button Assy.

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

DTC B1810 is recorded when a short circuit is detected in the D squib (Dual stage – 2nd step) circuit.

DTC No.	DTC Detecting Condition	Trouble Area
B1810	<ul style="list-style-type: none"> • When the airbag ECU Assy receives a line short signal 5 times in the D squib (Dual stage – 2nd step) circuit during primary check. • D squib (Dual stage – 2nd step) malfunction • Spiral cable sub-assy malfunction • Airbag ECU Assy malfunction 	<ul style="list-style-type: none"> • Instrument panel wire • Spiral cable sub-assy • Horn button Assy (D squib, Dual stage – 2nd step) • Airbag ECU Assy

WIRING DIAGRAM

See page [05-1461](#).

INSPECTION PROCEDURE

CAUTION:

Be sure to perform the following procedures before troubleshooting to avoid unexpected airbag deployment.

- (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 airbag ECU assy.
- (d) Disconnect the connectors from the horn button assy.
- (e) Disconnect the connectors from the front passenger airbag assy.
- (f) Disconnect the connector from the front seat airbag assy LH.
- (g) Disconnect the connector from the front seat airbag assy RH.
- (h) Disconnect the connector from the curtain shield airbag assy LH.
- (i) Disconnect the connector from the curtain shield airbag assy RH.
- (j) Disconnect the connector from the front seat outer belt assy LH.
- (k) Disconnect the connector from the front seat outer belt assy RH.

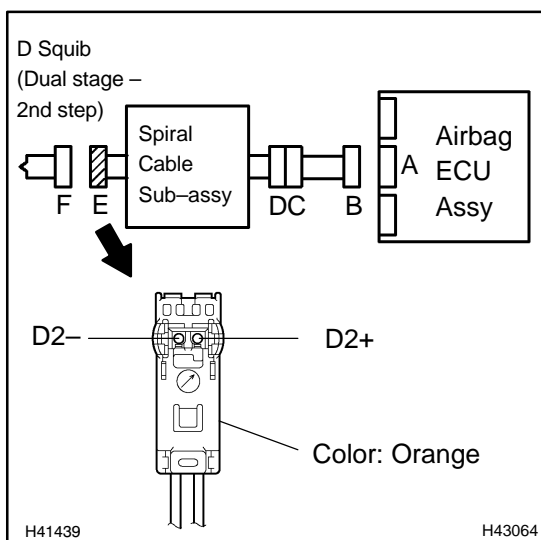
1 CHECK CONNECTOR

- (a) Check that the spiral cable sub-assy connectors (on the horn button assy side) are not damaged.
OK:
 The lock button is not disengaged, or the claw of the lock is not deformed or damaged.

NG → REPLACE SPIRAL CABLE SUB-ASSY (SEE PAGE 60-29)

OK

2 CHECK D SQUIB (DUAL STAGE – 2ND STEP) CIRCUIT(AIRBAG ECU ASSY – HORN BUTTON ASSY)



- (a) Release the activation prevention mechanism built into connector "B" (see page 05-1397).
- (b) Measure the resistance according to the value(s) in the table below.

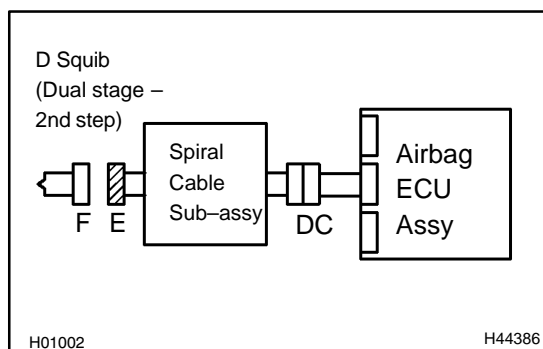
Standard:

Tester connection	Condition	Specified condition
D2+ – D2–	Always	1 MΩ or Higher

NG → Go to step 5

OK

3 CHECK AIR BAG ECU ASSY



- (a) Connect the connectors to the airbag ECU assy.
- (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 memory (see page 05-1402).
- (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 05-1402).

OK:

DTC B1810 is not output.

HINT:

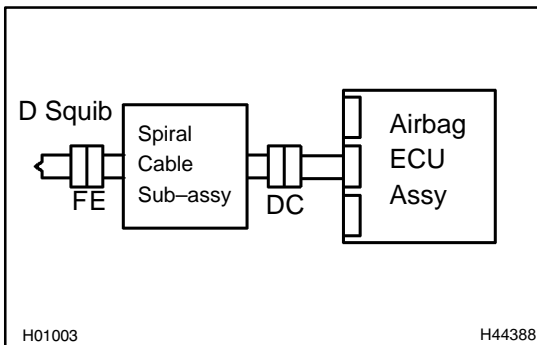
Codes other than code B1810 may be output at this time, but they are not related to this check.

NG

**REPLACE AIR BAG ECU ASSY
(SEE PAGE 60-54)**

OK

4	CHECK HORN BUTTON ASSY(D SQUIB (DUAL STAGE – 2ND STEP))
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- (a) Turn the power switch off.
- (b) Disconnect the negative (–) terminal cable from the battery, and wait for at least 90 seconds.
- (c) Connect the connectors to the horn button assy.
- (d) Connect the negative (–) terminal cable to the battery, and wait for at least 2 seconds.
- (e) Turn the power switch on (IG), and wait for at least 60 seconds.
- (f) Clear the DTCs stored in memory (see page 05-1402).
- (g) Turn the power switch off.
- (h) Turn the power switch on (IG), and wait for at least 60 seconds.
- (i) Check the DTCs (see page 05-1402).

OK:

DTC B1810 is not output.

HINT:

Codes other than code B1810 may be output at this time, but they are not related to this check.

NG

**REPLACE HORN BUTTON ASSY
(SEE PAGE 60-20)**

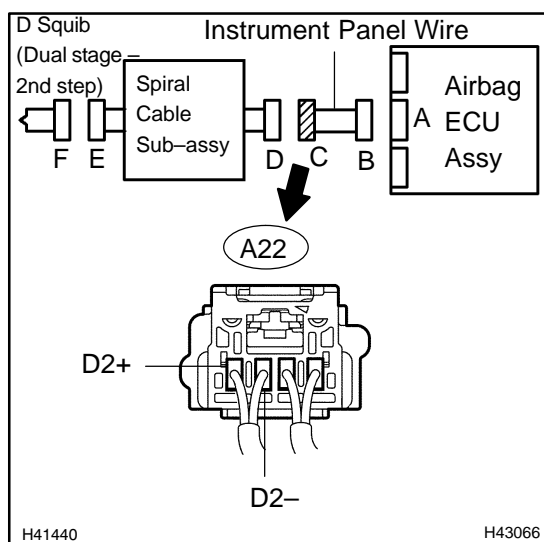
OK

USE SIMULATION METHOD TO CHECK (SEE PAGE 05-1397)
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HINT:

- Perform the simulation method by selecting the check mode with the hand-held tester (see page 05-1405).
- After selecting the check mode, perform the simulation method by wiggling each connector of the airbag system or driving the vehicle on a city or rough road (see page 05-1405).

5 CHECK INSTRUMENT PANEL WIRE



- (a) Disconnect the instrument panel wire connector from the spiral cable sub-assy.

HINT:

The activation prevention mechanism of connector "B" has already been released.

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

Standard:

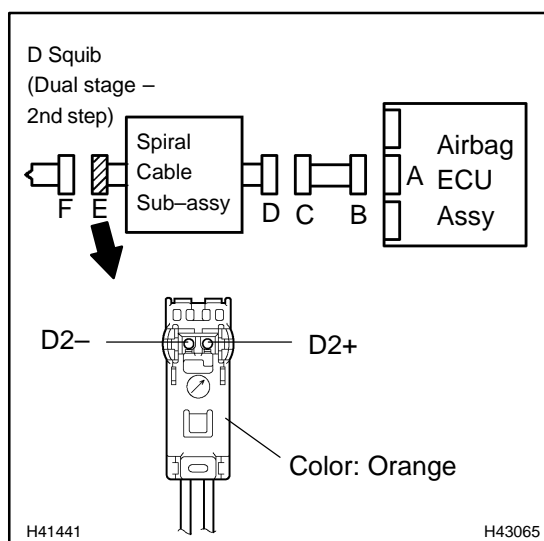
Tester connection	Condition	Specified condition
A22-4 (D2+) - A22-3 (D2-)	Always	1 MΩ or Higher

NG

REPAIR OR REPLACE INSTRUMENT PANEL WIRE

OK

6 CHECK SPIRAL CABLE SUB-ASSY



- (a) Release the activation prevention mechanism built into connector "D" (see page 05-1397).

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

Standard:

Tester connection	Condition	Specified condition
D2+ - D2-	Always	1 MΩ or Higher

NG

REPLACE SPIRAL CABLE SUB-ASSY (SEE PAGE 60-29)

OK

USE SIMULATION METHOD TO CHECK (SEE PAGE 05-1397)

HINT:

- Perform the simulation method by selecting the check mode with the hand-held tester (see page 05-1405).
- After selecting the check mode, perform the simulation method by wiggling each connector of the airbag system or driving the vehicle on a city or rough road (see page 05-1405).