DTC	B1813	SHORT IN D SQUIB (DUAL STAGE – 2ND STEP) CIRCUIT (TO B+)

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 B1813 is recorded when a short to B+ is detected in the D squib (Dual stage – 2nd step) circuit.

DTC No.	DTC Detecting Condition	Trouble Area
B1813	• When the airbag ECU assy receives a B+ short signal in the D squib (Dual stage – 2nd step) circuit for 0.5 seconds. • D squib (Dual stage – 2nd step) malfunction • Spiral cable sub–assy malfunction • Airbag ECU assy malfunction	• Instrument panel wire • Spiral cable sub–assy • Horn button assy (D squib, Dual stage – 2nd step) • Airbag ECU assy

WIRING DIAGRAM

See page 05–1239.

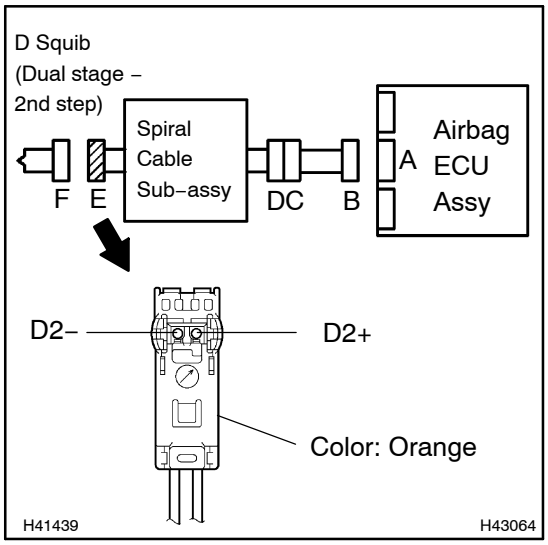
CIRCUIT INSPECTION

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



(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.

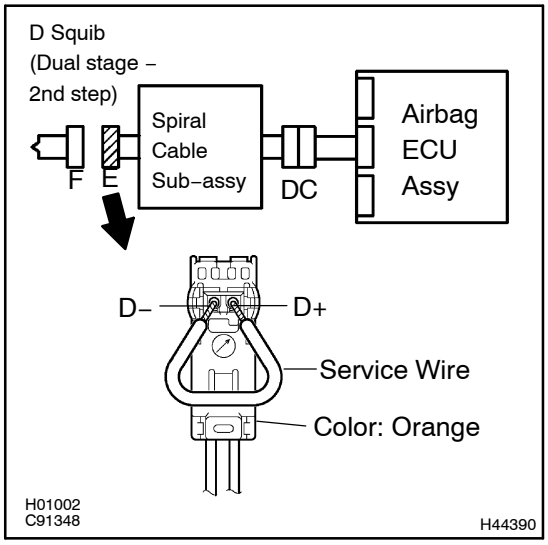
Standard:

Tester connection	Condition	Specified condition
D2+ – Body ground	Power switch is on (IG)	Below 1 V
D2– – Body ground	Power switch is on (IG)	Below 1 V

NG → **Go to step 4**

OK

2	CHECK AIR BAG ECU ASSY



(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 airbag ECU assy.
(d) Using a service wire, connect D2+ and D2– of connector "E".

NOTICE:

- **Twist the end of the service wire in order to insert it into the connector.**
- **Do not forcibly insert the twisted service wire into the terminals of the connector when connecting.**

(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 memory (see page 05–1170).
(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 05–1170).

OK:

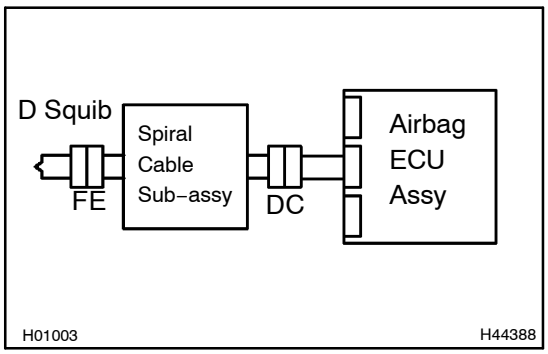
DTC B1813 is not output.

HINT:
Codes other than code B1813 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

3	CHECK HORN BUTTON ASSY(D SQUIB (DUAL STAGE – 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 service wire from connector "E".
(d) Connect the connectors to the horn button assy.
(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 memory (see page 05–1170).
(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 05–1170).
OK:
DTC B1813 is not output.

HINT:
Codes other than code B1813 may be output at this time, but they are not related to this check.

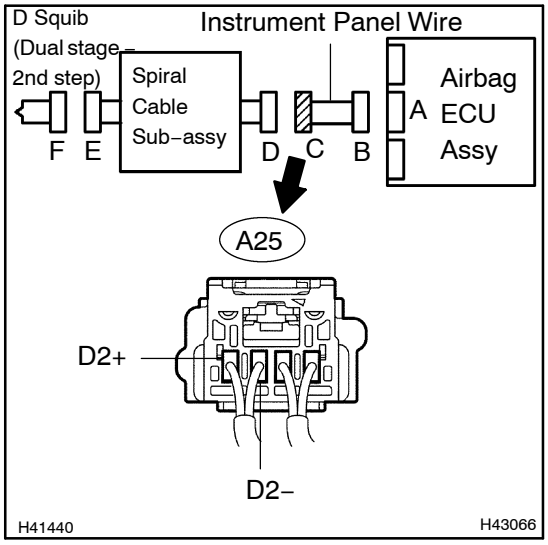
NG → **REPLACE HORN BUTTON ASSY (SEE PAGE 60–20)**

OK

USE SIMULATION METHOD TO CHECK (SEE PAGE 05–1165)

HINT:
- Perform the simulation method by selecting the check mode with the intelligent tester II (see page 05–1171).
- 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 05–1171).

4 CHECK INSTRUMENT PANEL WIRE



(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 instrument panel wire connector from the spiral cable sub–assy.
(d) Connect the negative (–) terminal cable to the battery, and wait for at least 2 seconds.
(e) Turn the power switch on (IG).
(f) Measure the voltage according to the value(s) in the table below.

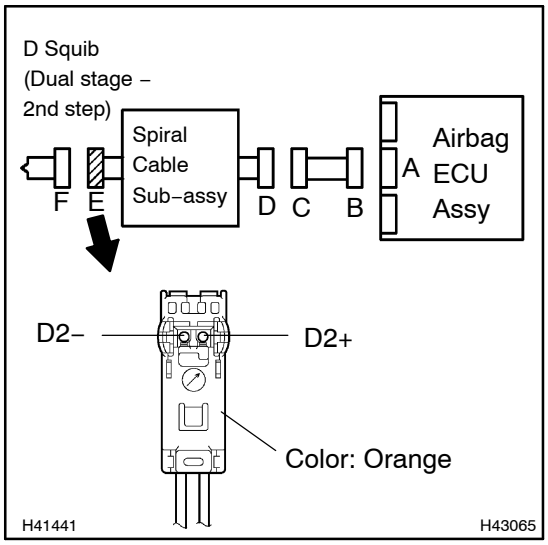
Standard:

Tester connection	Condition	Specified condition
A25–4 (D2+) – Body ground	Power switch is on (IG)	Below 1 V
A25–3 (D2–) – Body ground	Power switch is on (IG)	Below 1 V

NG → **REPAIR OR REPLACE INSTRUMENT PANEL WIRE**

OK

5 CHECK SPIRAL CABLE SUB–ASSY



(a) Measure the voltage according to the value(s) in the table below when the power switch is on (IG).

Standard:

Tester connection	Condition	Specified condition
D2+ – Body ground	Power switch is on (IG)	Below 1 V
D2– – Body ground	Power switch is on (IG)	Below 1 V

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

OK

USE SIMULATION METHOD TO CHECK (SEE PAGE 05–1155)

HINT:

- Perform the simulation method by selecting the check mode with the intelligent tester II (see page 05–1171).
- 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 05–1171).