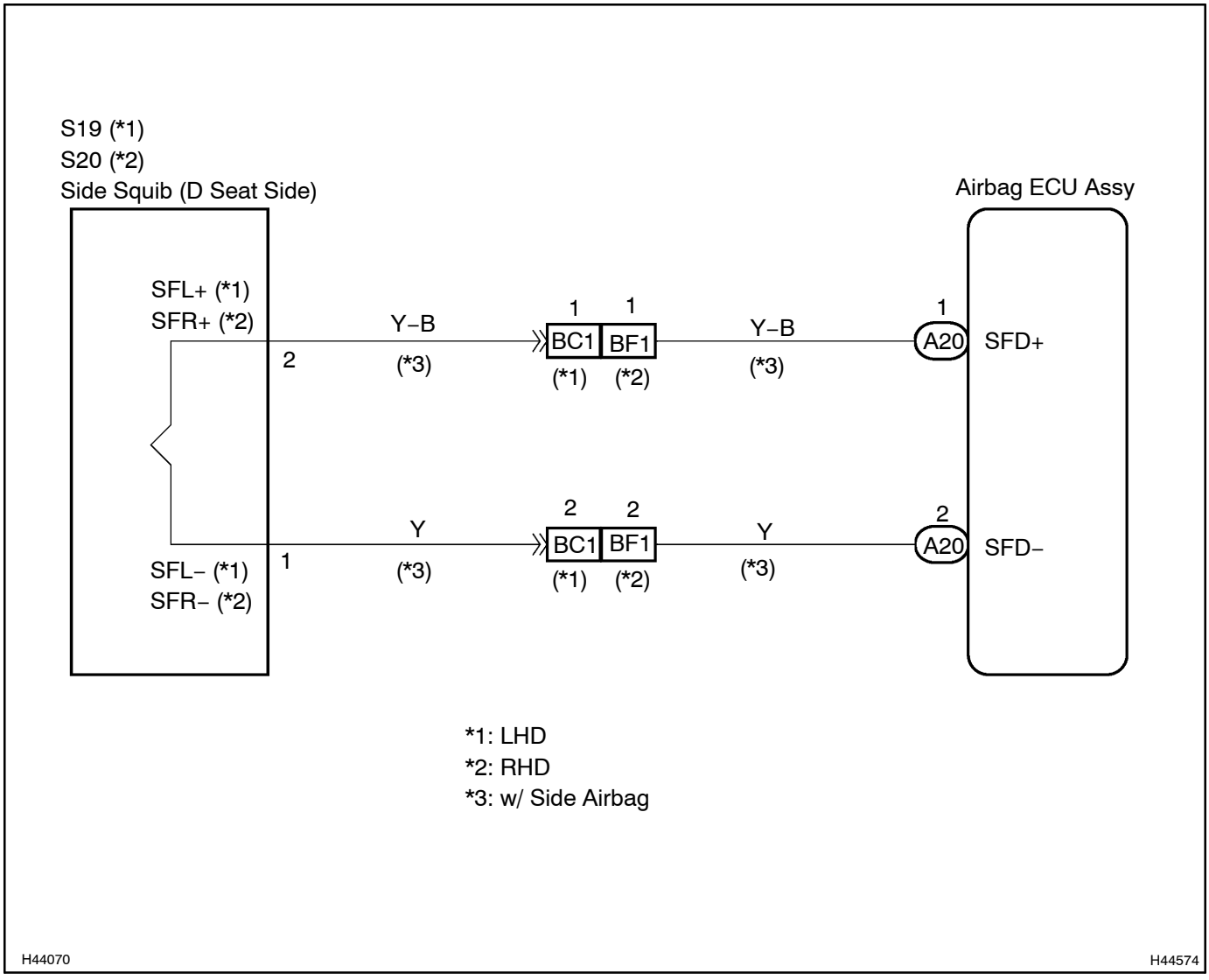
DTC	B1820	SHORT IN SIDE SQUIB (D SEAT SIDE) CIRCUIT

CIRCUIT DESCRIPTION

The side squib (D seat side) circuit consists of the airbag ECU assy and the front seat w/ adjuster frame assy LH (LHD) or front seat w/ adjuster frame assy RH (RHD).
This circuit instructs the SRS to deploy when deployment conditions are met.
DTC B1820 is recorded when a short circuit is detected in the side squib (D seat side) circuit.

DTC No.	DTC Detecting Condition	Trouble Area
B1820	• When the airbag ECU assy receives a line short signal 5 times in the side squib (D seat side) circuit during primary check. • Side squib (D seat side) malfunction • Airbag ECU assy malfunction	• Floor wire • Seat airbag No.1 wire • Front seat w/ adjuster frame assy LH (LHD) (Side squib (D seat side)) • Front seat w/ adjuster frame assy RH (RHD) (Side squib (D seat side)) • Airbag ECU assy

WIRING DIAGRAM



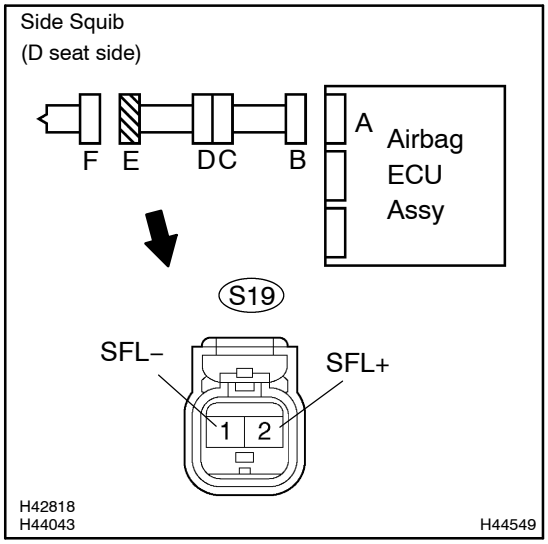
INSPECTION PROCEDURE

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.

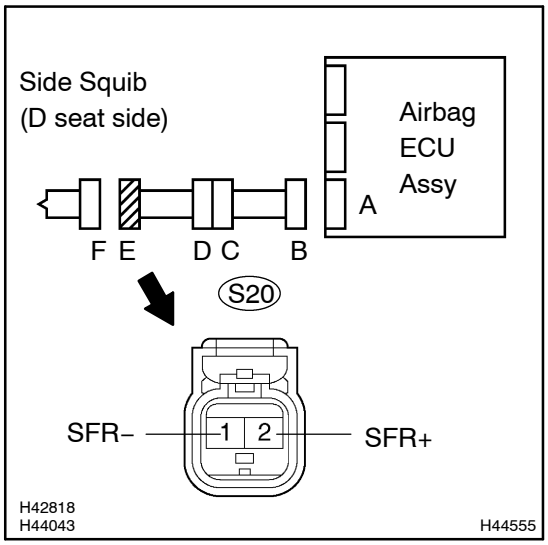
1	CHECK SIDE SQUIB (D SEAT SIDE) CIRCUIT



(a) LHD:
(1) Release the activation prevention mechanism built into connector "B" (see page 05–1165).
(2) Measure the resistance according to the value(s) in the table below.

Standard:

Tester connection	Condition	Specified condition
S19–2 (SFL+) – S19–1 (SFL–)	Always	1 MΩ or Higher



(b) RHD:
(1) Release the activation prevention mechanism built into connector "B" (see page 05–1165).
(2) Measure the resistance according to the value(s) in the table below.

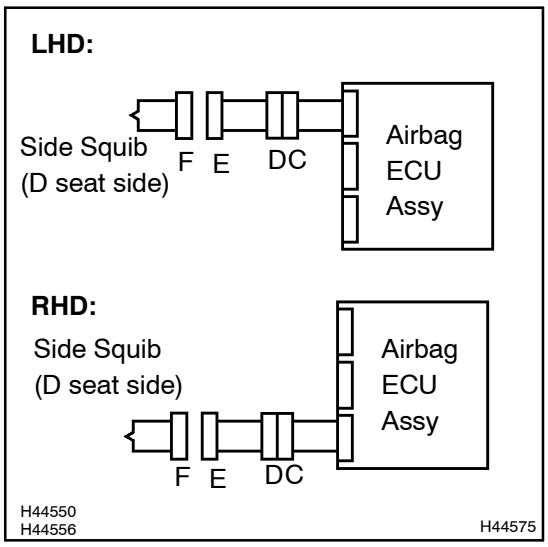
Standard:

Tester connection	Condition	Specified condition
S20–2 (SFR+) – S20–1 (SFR–)	Always	1 MΩ or Higher

NG	Go to step 4

OK

2	CHECK AIR BAG ECU ASSY



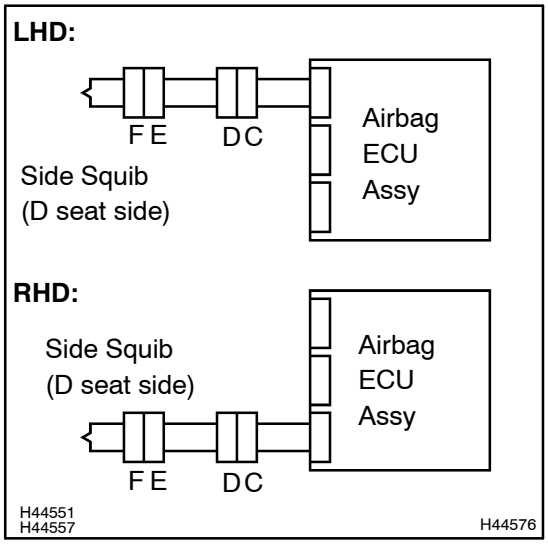
(a) Connect the connectors to the airbag ECU assy.
(b) Connect the negative (–) terminal cable to the battery, and wait for at least 2 seconds.
(c) Turn the power switch on (IG), and wait for at least 60 seconds.
(d) Clear the DTCs stored in memory (see page 05–1170).
(e) Turn the power switch off.
(f) Turn the power switch on (IG), and wait for at least 60 seconds.
(g) Check the DTCs (see page 05–1170).
OK:
DTC B1820 is not output.

HINT:
Codes other than code B1820 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 DTC(SIDE SQUIB (D SEAT SIDE))



(a) Turn the power switch off.
(b) Disconnect the negative (–) terminal cable from the battery, and wait for at least 90 seconds.
(c) LHD:
Connect the connector to the front seat w/ adjuster frame assy LH (side squib (D seat side)).
(d) RHD:
Connect the connector to the front seat w/ adjuster frame assy RH (side squib (D seat side)).
(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).

Result:

DTC B1820 is not output.	A
DTC B1820 is output (LHD).	B
DTC B1820 is output (RHD).	C

HINT:
Codes other than code B1820 may be output at this time, but they are not related to this check.

B → **REPLACE FRONT SEAT W/ADJUSTER FRAME ASSY LH (SEE PAGE 72–2)**

C → **REPLACE FRONT SEAT W/ADJUSTER FRAME ASSY RH (SEE PAGE 72–2)**

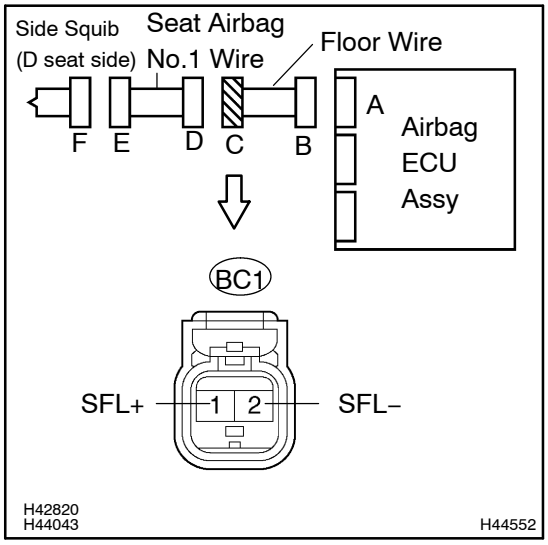
A

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 FLOOR WIRE



(a) LHD:

(1) Disconnect the floor wire connector from the seat airbag No.1 wire.

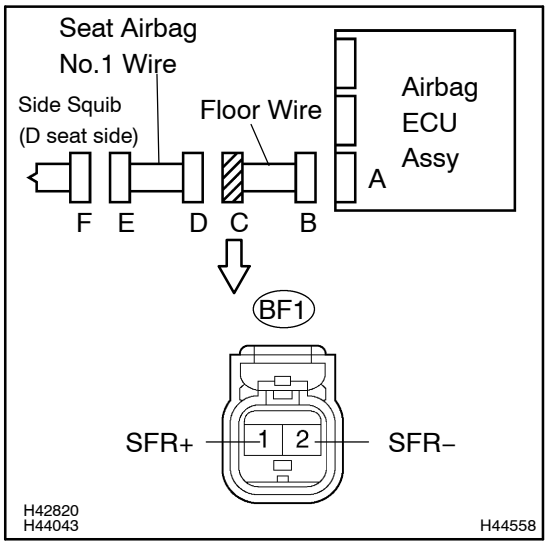
HINT:

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

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

Standard:

Tester connection	Condition	Specified condition
BC1–1 (SFL+) – BC1–2 (SFL–)	Always	1 MΩ or Higher



(b) RHD:

(1) Disconnect the floor wire connector from the seat airbag No.1 wire.

HINT:

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

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

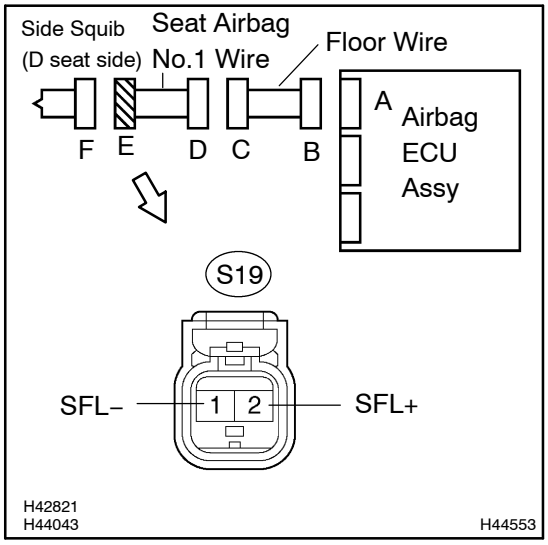
Standard:

Tester connection	Condition	Specified condition
BF1–1 (SFR+) – BF1–2 (SFR–)	Always	1 MΩ or Higher

NG → **REPAIR OR REPLACE FLOOR WIRE**

OK

5 CHECK SEAT AIRBAG NO.1 WIRE



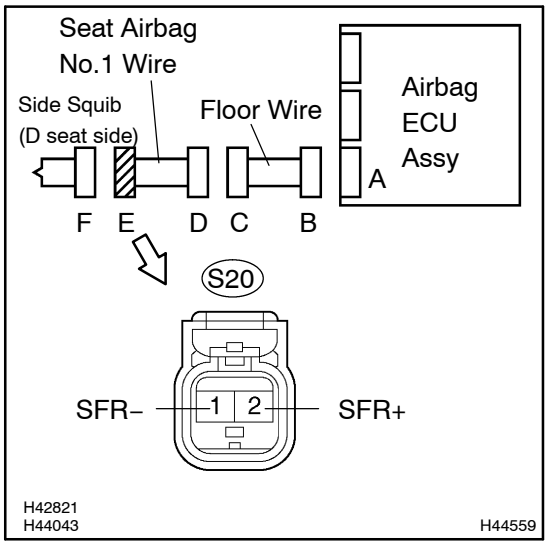
(a) LHD:

(1) Release the activation prevention mechanism built into connector "D" (see page 05–1165).

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

Standard:

Tester connection	Condition	Specified condition
S19–2 (SFL+) – S19–1 (SFL–)	Always	1 MΩ or Higher



(b) RHD:

(1) Release the activation prevention mechanism built into connector "D" (see page 05–1165).

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

Standard:

Tester connection	Condition	Specified condition
S20–2 (SFR+) – S20–1 (SFR–)	Always	1 MΩ or Higher

NG → **REPAIR OR REPLACE SEAT AIRBAG NO.1 WIRE**

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).