

DTC	B1820/55	SHORT IN SIDE SQUIB (D SEAT SIDE) CIRCUIT
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DTC	B1821/55	OPEN IN SIDE SQUIB (D SEAT SIDE) CIRCUIT
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DTC	B1822/55	SHORT IN SIDE SQUIB (D SEAT SIDE) CIRCUIT (TO GROUND)
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DTC	B1823/55	SHORT IN SIDE SQUIB (D SEAT SIDE) CIRCUIT (TO B+)
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CIRCUIT DESCRIPTION

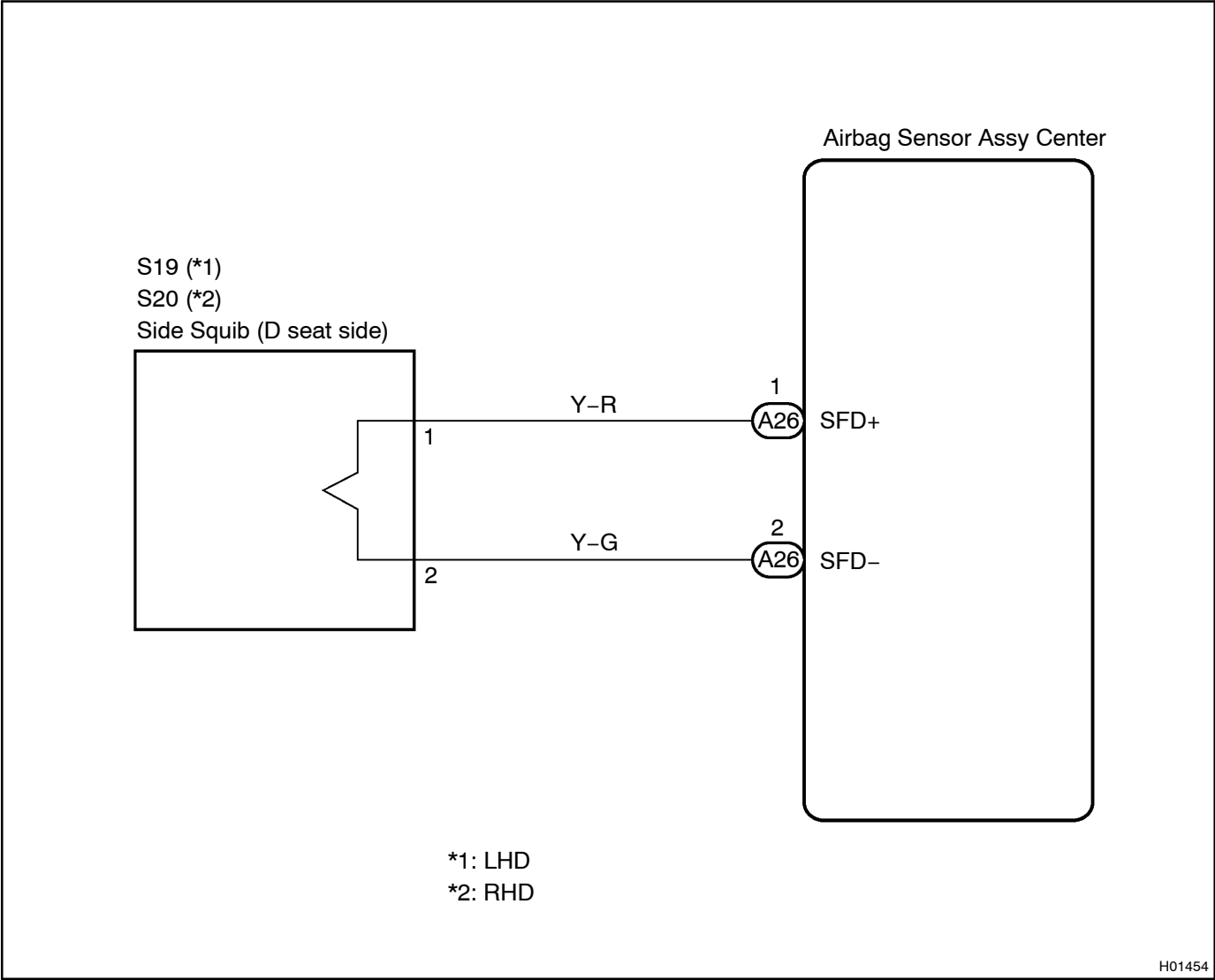
The side squib (D seat side) circuit consists of the airbag sensor assy center and the front LH seat assy (LHD) or front RH seat assy (RHD).

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

These DTCs are recorded when a malfunction is detected in the side squib (D seat side) circuit.

DTC No.	DTC Detecting Condition	Trouble Area
B1820/55	<ul style="list-style-type: none"> • The airbag sensor assy center receives a line short circuit signal 5 times in the side squib (D seat side) circuit during primary check. • Side squib (D seat side) malfunction • Airbag sensor assy center malfunction 	<ul style="list-style-type: none"> • Front LH seat assy (Side squib (D seat side)) (LHD) • Front RH seat assy (Side squib (D seat side)) (RHD) • Airbag sensor assy center • Floor wire
B1821/55	<ul style="list-style-type: none"> • The airbag sensor assy center receives an open circuit signal in the side squib (D seat side) circuit for 2 seconds. • Side squib (D seat side) malfunction • Airbag sensor assy center malfunction 	<ul style="list-style-type: none"> • Front LH seat assy (Side squib (D seat side)) (LHD) • Front RH seat assy (Side squib (D seat side)) (RHD) • Airbag sensor assy center • Floor wire
B1822/55	<ul style="list-style-type: none"> • The airbag sensor assy center receives a short circuit to ground signal in the side squib (D seat side) circuit for 0.5 second. • Side squib (D seat side) malfunction • Airbag sensor assy center malfunction 	<ul style="list-style-type: none"> • Front LH seat assy (Side squib (D seat side)) (LHD) • Front RH seat assy (Side squib (D seat side)) (RHD) • Airbag sensor assy center • Floor wire
B1823/55	<ul style="list-style-type: none"> • The airbag sensor assy center receives a short circuit to B+ signal in the side squib (D seat side) circuit for 0.5 second. • Side squib (D seat side) malfunction • Airbag sensor assy center malfunction 	<ul style="list-style-type: none"> • Front LH seat assy (Side squib (D seat side)) (LHD) • Front RH seat assy (Side squib (D seat side)) (RHD) • Airbag sensor assy center • Floor wire

WIRING DIAGRAM



INSPECTION PROCEDURE

CAUTION:

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

- (a) Turn the ignition switch to the LOCK position.
- (b) Disconnect the negative (-) terminal cable from the battery, and wait for at least 90 seconds.
- (c) Disconnect the connectors from the airbag sensor assy center.
- (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) w/ Curtain shield airbag:
Disconnect the connector from the curtain shield airbag assy LH.
- (i) w/ Curtain shield airbag:
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 READ METHOD OF DTC

- (a) Proceed to each step according to DTC readings.
 - (1) If using the intelligent tester II (read the 5-digit of DTC):
Using the intelligent tester II, check the DTCs (see page 05-16).

Result:

DTC B1820 is output.	A
DTC B1821 is output.	B
DTC B1822 is output.	C
DTC B1823 is output.	D

- (2) If not using the intelligent tester II (read the 2-digit of DTC):
Check the DTCs (see page 05-16).

Result:

DTC 55 is output.	E
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B

Go to step 3

C

Go to step 4

D

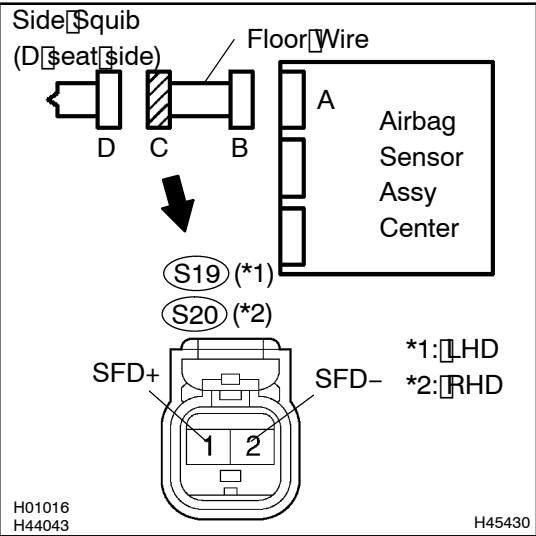
Go to step 5

E

Go to step 6

A

2 CHECK FLOOR WIRE (SHORT)



- (a) Release the activation prevention mechanism built into connector B (see page 05-10)
- (b) Measure the resistance according to the value(s) in the table below.

Standard:

Tester connection	Condition	Specified condition
S19-1 (SFD+) - S19-2 (SFD-) (*1)	Always	1 MΩ or Higher
S20-1 (SFD+) - S20-2 (SFD-) (*2)	Always	1 MΩ or Higher

*1: LHD

*2: RHD

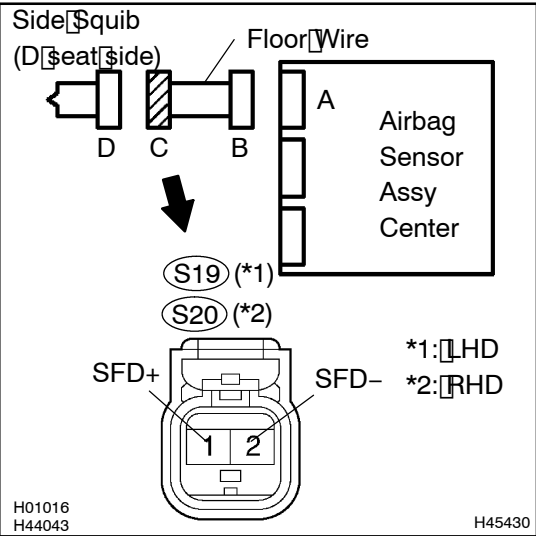
NG

REPAIR OR REPLACE FLOOR WIRE

OK

GO TO STEP 8

3 CHECK FLOOR WIRE (OPEN)



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

Standard:

Tester connection	Condition	Specified condition
S19-1 (SFD+) - S19-2 (SFD-) (*1)	Always	Below 1 Ω
S20-1 (SFD+) - S20-2 (SFD-) (*2)	Always	Below 1 Ω

*1: LHD

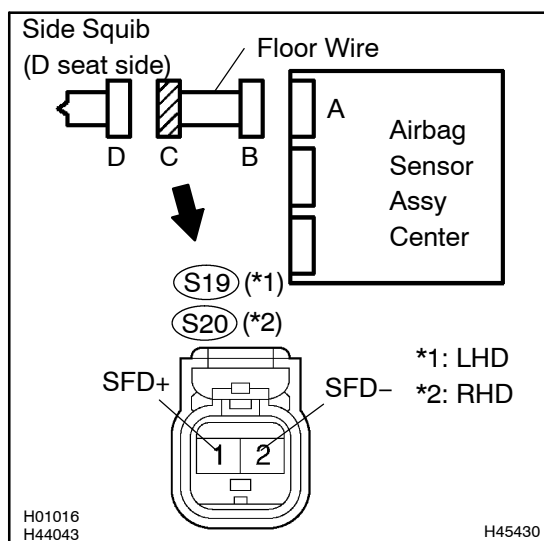
*2: RHD

NG

REPAIR OR REPLACE FLOOR WIRE

OK

GO TO STEP 9

4 CHECK FLOOR WIRE (TO GROUND)

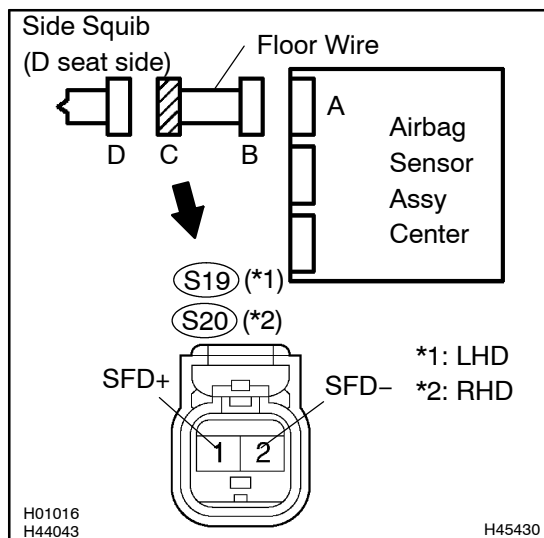
- (a) Measure the resistance according to the value(s) in the table below.

Standard:

Tester connection	Condition	Specified condition
S19-1 (SFD+) - Body ground (*1)	Always	1 MΩ or Higher
S19-2 (SFD-) - Body ground (*1)	Always	1 MΩ or Higher
S20-1 (SFD+) - Body ground (*2)	Always	1 MΩ or Higher
S20-2 (SFD-) - Body ground (*2)	Always	1 MΩ or Higher

*1: LHD

*2: RHD

NG**REPAIR OR REPLACE FLOOR WIRE****OK****GO TO STEP 9****5 CHECK FLOOR WIRE (TO B+)**

- (a) Connect the negative (-) terminal cable to the battery, and wait for at least 2 seconds.
 (b) Turn the ignition switch to the ON position.
 (c) Measure the voltage according to the value(s) in the table below.

Standard:

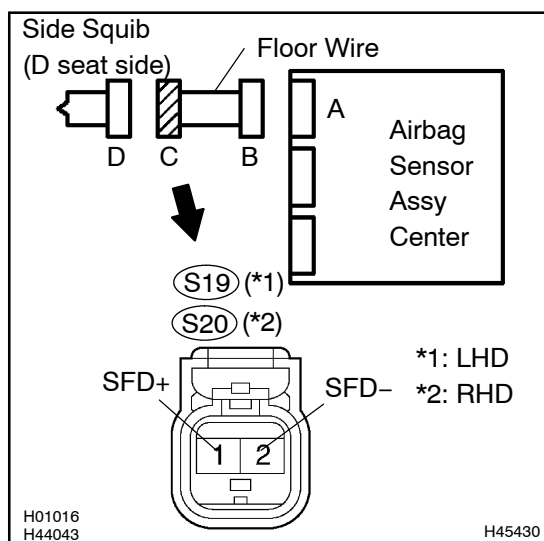
Tester connection	Condition	Specified condition
S19-1 (SFD+) - Body ground (*1)	Ignition switch ON	Below 1 V
S19-2 (SFD-) - Body ground (*1)	Ignition switch ON	Below 1 V
S20-1 (SFD+) - Body ground (*2)	Ignition switch ON	Below 1 V
S20-2 (SFD-) - Body ground (*2)	Ignition switch ON	Below 1 V

*1: LHD

*2: RHD

NG**REPAIR OR REPLACE FLOOR WIRE****OK****GO TO STEP 9**

6 CHECK FLOOR WIRE (SIDE SQUIB (D SEAT SIDE) CIRCUIT)



- Connect the negative (–) terminal cable to the battery, and wait for at least 2 seconds.
- Turn the ignition switch to the ON position.
- Measure the voltage according to the value(s) in the table below.

Standard:

Tester connection	Condition	Specified condition
S19-1 (SFD+) – Body ground (*1)	Ignition switch ON	Below 1 V
S19-2 (SFD-) – Body ground (*1)	Ignition switch ON	Below 1 V
S20-1 (SFD+) – Body ground (*2)	Ignition switch ON	Below 1 V
S20-2 (SFD-) – Body ground (*2)	Ignition switch ON	Below 1 V

*1: LHD

*2: RHD

- Turn the ignition switch to the LOCK position.
- 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:

Tester connection	Condition	Specified condition
S19-1 (SFD+) – S19-2 (SFD-) (*1)	Always	Below 1 Ω
S19-1 (SFD+) – Body ground (*1)	Always	1 MΩ or Higher
S19-2 (SFD-) – Body ground (*1)	Always	1 MΩ or Higher
S20-1 (SFD+) – S20-2 (SFD-) (*2)	Always	Below 1 Ω
S20-1 (SFD+) – Body ground (*2)	Always	1 MΩ or Higher
S20-2 (SFD-) – Body ground (*2)	Always	1 MΩ or Higher

*1: LHD

*2: RHD

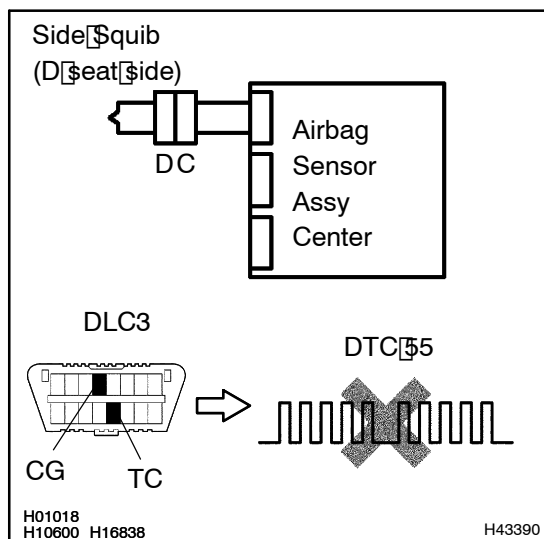
- (g) Release the activation prevention mechanism built into connector "B" (see page 05-10).
- (h) Measure the resistance according to the value(s) in the table below.

Standard:

Tester connection	Condition	Specified condition
S19-1 (SFD+) - S19-2 (SFD-) (*1)	Always	1 MΩ or Higher
S20-1 (SFD+) - S20-2 (SFD-) (*2)	Always	1 MΩ or Higher

*1: LHD

*2: RHD

NG**REPAIR OR REPLACE FLOOR WIRE****OK****7 REPLACE SIDE SQUIB (D SEAT SIDE)**

- (a) LHD:
Replace the front LH seat Assy (see page 72-4 and 72-18).
- (b) RHD:
Replace the front RH seat Assy (see page 72-4 and 72-18).

HINT:

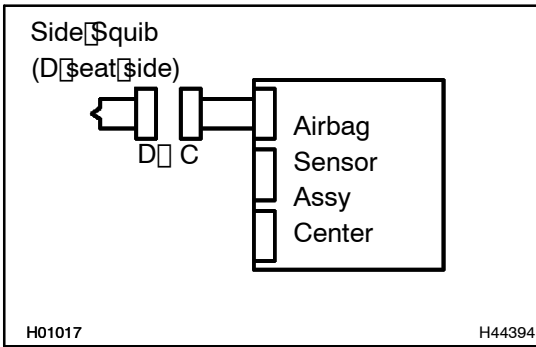
Perform the inspection using parts from a normal vehicle if possible.

- (c) Connect the connectors to the airbag sensor Assy center.
- (d) Connect the negative (-) terminal cable to the battery, and wait for at least 2 seconds.
- (e) Turn the ignition switch to the ON position, and wait for at least 60 seconds.
- (f) Clear the DTCs stored in memory (see page 05-16).
- (g) Turn the ignition switch to the LOCK position.
- (h) Turn the ignition switch to the ON position, and wait for at least 60 seconds.
- (i) Check the DTCs (see page 05-16).

OK:**DTC 55 is not output.****HINT:**

Codes other than code 55 may be output at this time, but they are not related to this check.

NG**REPLACE AIR BAG SENSOR ASSY CENTER (SEE PAGE 60-40)****OK****END**

8 CHECK AIR BAG SENSOR ASSY CENTER

- (a) Connect the connectors to the airbag sensor assy center.
- (b) Connect the negative (-) terminal cable to the battery, and wait for at least 2 seconds.
- (c) Turn the ignition switch to the ON position, and wait for at least 60 seconds.
- (d) Clear the DTCs stored in memory (see page 05-16).
- (e) Turn the ignition switch to the LOCK position.
- (f) Turn the ignition switch to the ON position, and wait for at least 60 seconds.
- (g) Check the DTCs (see page 05-16).

OK:**DTC B1820 is not output.****HINT:**

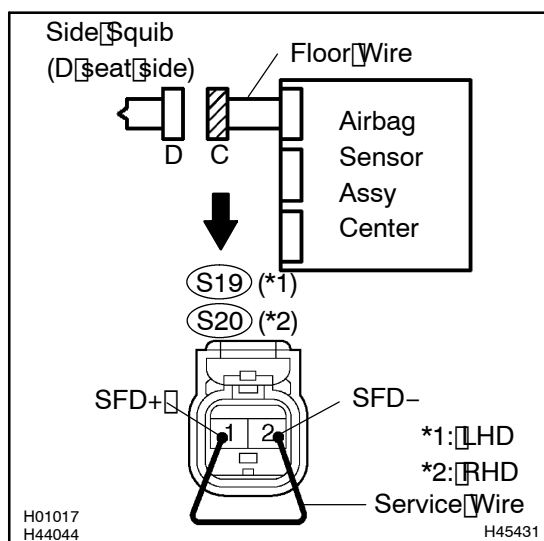
Codes other than code B1820 may be output at this time, but they are not related to this check.

NG

REPLACE AIR BAG SENSOR ASSY CENTER
(SEE PAGE 60-40)

OK**GO TO STEP 10**

9 CHECK AIR BAG SENSOR ASSY CENTER



- (a) From the step 5:
Turn the ignition switch to the LOCK position.
- (b) From the step 5:
Disconnect the negative (-) terminal cable from the battery, and wait for at least 90 seconds.
- (c) Connect the connectors to the airbag sensor assy center.
- (d) LHD:
Using a service wire, connect S19-1 (SFD+) and S19-2 (SFD-) of connector "C".
- (e) RHD:
Using a service wire, connect S20-1 (SFD+) and S20-2 (SFD-) of connector "C".

NOTICE:

Do not forcibly insert a service wire into the terminals of the connector when connecting.

- (f) Connect the negative (-) terminal cable to the battery, and wait for at least 2 seconds.
- (g) Turn the ignition switch to the ON position, and wait for at least 60 seconds.
- (h) Clear the DTCs stored in memory (see page 05-16).
- (i) Turn the ignition switch to the LOCK position.
- (j) Turn the ignition switch to the ON position, and wait for at least 60 seconds.
- (k) Check the DTCs (see page 05-16).

OK:

DTC B1821, B1822 or B1823 is not output.

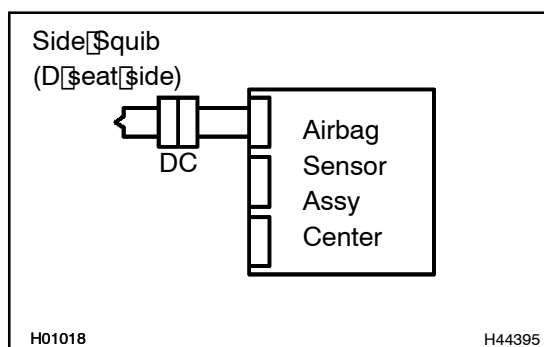
HINT:

Codes other than code B1821, B1822 and B1823 may be output at this time, but they are not related to this check.

NG

REPLACE AIR BAG SENSOR ASSY CENTER
(SEE PAGE 60-40)

OK

10 CHECK SIDE SQUIB (D SEAT SIDE)

- (a) Turn the ignition switch to the LOCK position.
- (b) Disconnect the negative (-) terminal cable from the battery, and wait for at least 90 seconds.
- (c) From the step 9:
Disconnect the service wire from connector "C".
- (d) LHD:
Connect the connector to the front LH seat assy.
- (e) RHD:
Connect the connector to the front RH seat assy.
- (f) Connect the negative (-) terminal cable to the battery, and wait for at least 2 seconds.
- (g) Turn the ignition switch to the ON position, and wait for at least 60 seconds.
- (h) Clear the DTCs stored in memory (see page 05-16).
- (i) Turn the ignition switch to the LOCK position.
- (j) Turn the ignition switch to the ON position, and wait for at least 60 seconds.
- (k) Check the DTCs (see page 05-16).

OK:**DTC B1820, B1821, B1822 or B1823 is not output.****HINT:**

Codes other than code B1820, B1821, B1822 and B1823 may be output at this time, but they are not related to this check.

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REPLACE FRONT LH SEAT ASSY (LHD)
(SEE PAGE 72-4 AND 72-18)

NG

REPLACE FRONT RH SEAT ASSY (RHD)
(SEE PAGE 72-4 AND 72-18)

OK**USE SIMULATION METHOD TO CHECK (SEE PAGE 05-10)****HINT:**

- Perform the simulation method by selecting the check mode with the Intelligent Tester II (see page 05-19).
- After selecting the check mode, perform the simulation method by wiggling each connector of the air-bag system or driving the vehicle on a city or rough road (see page 05-19).