DTC	B1830/57	SHORT IN CURTAIN SHIELD AIRBAG (D SEAT SIDE) SQUIB CIRCUIT

DTC	B1831/57	OPEN IN CURTAIN SHIELD AIRBAG (D SEAT SIDE) SQUIB CIRCUIT

DTC	B1832/57	SHORT IN CURTAIN SHIELD AIRBAG (D SEAT SIDE) SQUIB CIRCUIT (TO GROUND)

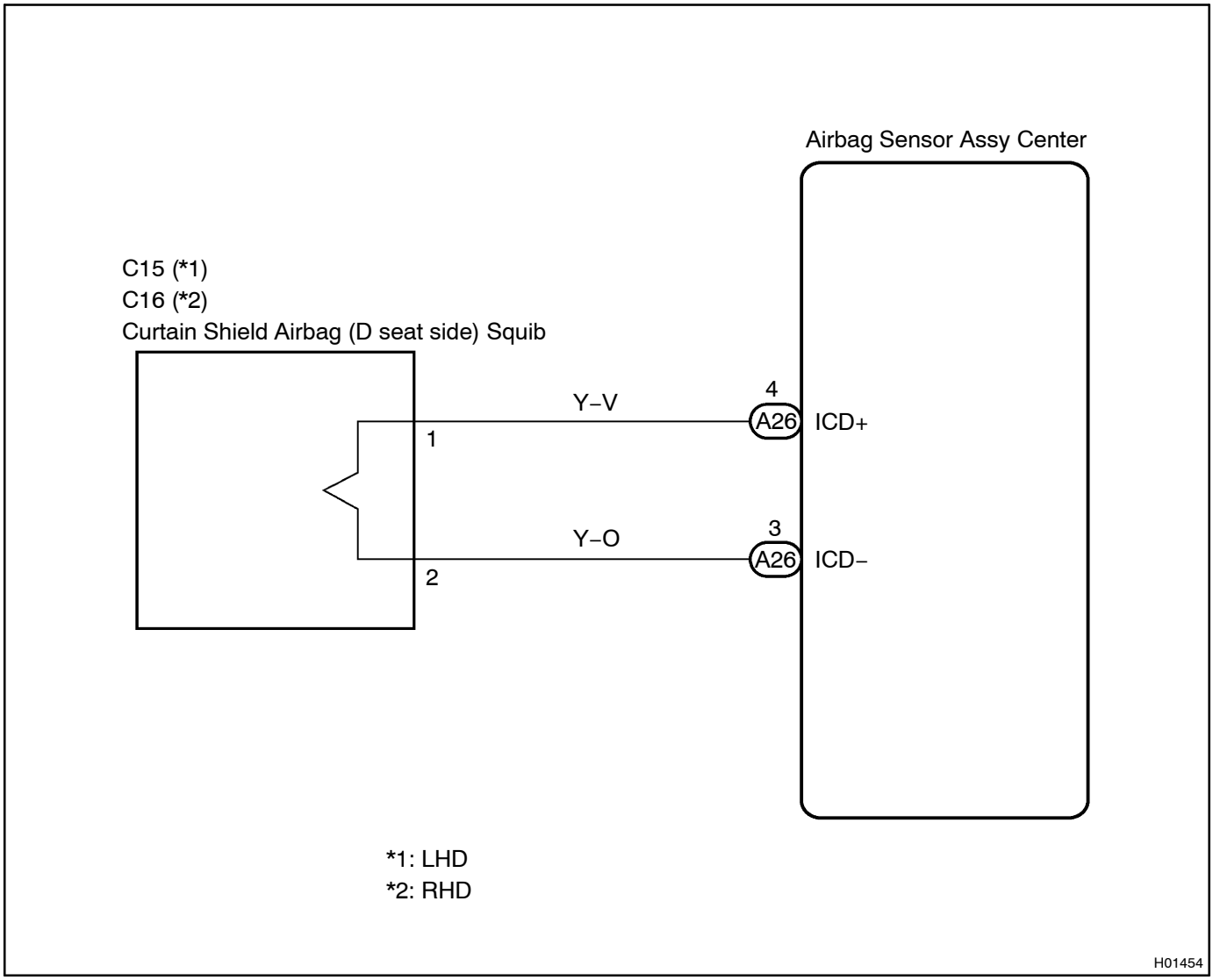
DTC	B1833/57	SHORT IN CURTAIN SHIELD AIRBAG (D SEAT SIDE) SQUIB CIRCUIT (TO B+)

CIRCUIT DESCRIPTION

The curtain shield airbag (D seat side) squib circuit consists of the airbag sensor assy center and the curtain shield airbag assy LH (LHD) or curtain shield airbag assy RH (RHD).
The circuit instructs the SRS to deploy when deployment conditions are met.
These DTCs are recorded when a malfunction is detected in the curtain shield airbag (D seat side) squib circuit.

DTC No.	DTC Detecting Condition	Trouble Area
B1830/57	• The airbag sensor assy center receives a line short circuit signal 5 times in the curtain shield airbag (D seat side) squib circuit during primary check. • Curtain shield airbag (D seat side) squib malfunction • Airbag sensor assy center malfunction	• Curtain shield airbag assy LH (Curtain shield airbag (D seat side) squib) (LHD) • Curtain shield airbag assy RH (Curtain shield airbag (D seat side) squib) (RHD) • Airbag sensor assy center • Floor wire
B1831/57	• The airbag sensor assy center receives an open circuit signal in the curtain shield airbag (D seat side) squib circuit for 2 seconds. • Curtain shield airbag (D seat side) squib malfunction • Airbag sensor assy center malfunction	• Curtain shield airbag assy LH (Curtain shield airbag (D seat side) squib) (LHD) • Curtain shield airbag assy RH (Curtain shield airbag (D seat side) squib) (RHD) • Airbag sensor assy center • Floor wire
B1832/57	• The airbag sensor assy center receives a short to ground circuit signal in the curtain shield airbag (D seat side) squib circuit for 0.5 second. • Curtain shield airbag (D seat side) squib malfunction • Airbag sensor assy center malfunction	• Curtain shield airbag assy LH (Curtain shield airbag (D seat side) squib) (LHD) • Curtain shield airbag assy RH (Curtain shield airbag (D seat side) squib) (RHD) • Airbag sensor assy center • Floor wire
B1833/57	• The airbag sensor assy center receives a short circuit to B+ signal in the curtain shield airbag (D seat side) squib circuit for 0.5 second. • Curtain shield airbag (D seat side) squib malfunction • Airbag sensor assy center malfunction	• Curtain shield airbag assy LH (Curtain shield airbag (D seat side) squib) (LHD) • Curtain shield airbag assy RH (Curtain shield airbag (D seat side) squib) (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 B1830 is output.	A
DTC B1831 is output.	B
DTC B1832 is output.	C
DTC B1833 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 57 is output.	E

B → **Go to step 4**

C → **Go to step 5**

D → **Go to step 6**

E → **Go to step 7**

A

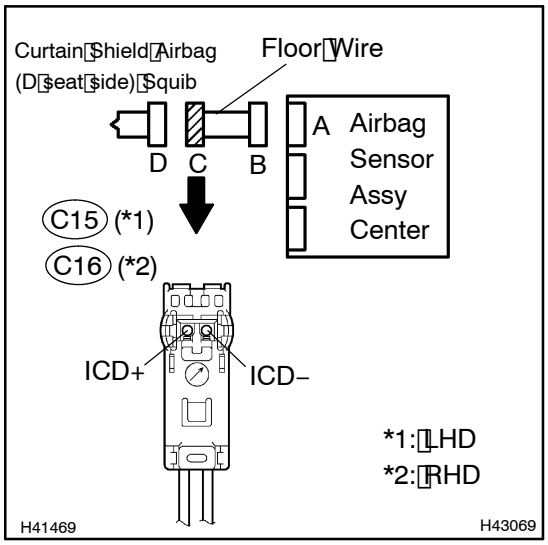
2 CHECK CONNECTOR

(a) Check that the floor wire connector (on the curtain shield airbag (D seat side) squib side) is not damaged.
OK:
The lock button is not disengaged, or the claw of the lock is not deformed or damaged.

NG → **REPAIR OR REPLACE FLOOR WIRE**

OK

3 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
C15–1 (ICD+) – C15–2 (ICD–) (*1)	Always	1 MΩ or Higher
C16–1 (ICD+) – C16–2 (ICD–) (*2)	Always	1 MΩ or Higher

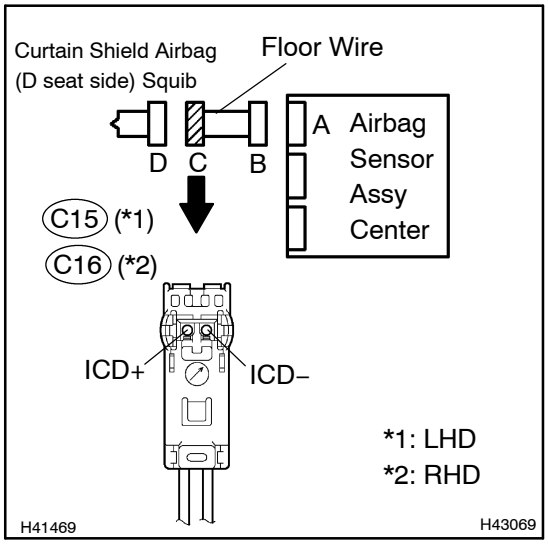
*1: LHD
*2: RHD

NG → **REPAIR OR REPLACE FLOOR WIRE**

OK

GO TO STEP 10

4 CHECK FLOOR WIRE (OPEN)



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

Standard:

Tester connection	Condition	Specified condition
C15–1 (ICD+) – C15–2 (ICD–) (*1)	Always	Below 1 Ω
C16–1 (ICD+) – C16–2 (ICD–) (*2)	Always	Below 1 Ω

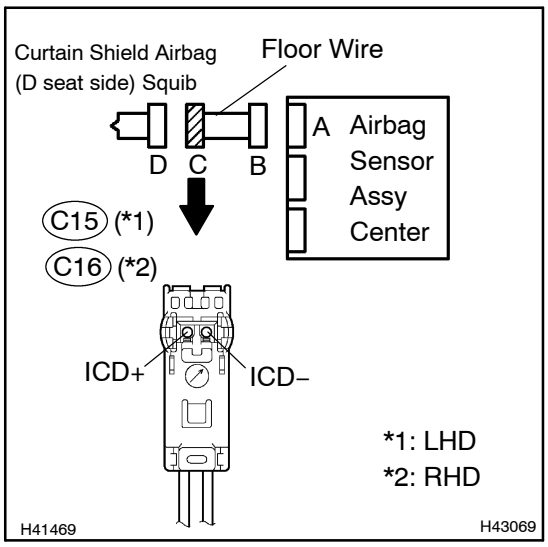
*1: LHD
*2: RHD

NG → **REPAIR OR REPLACE FLOOR WIRE**

OK

GO TO STEP 11

5 CHECK FLOOR WIRE (TO GROUND)



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

Standard:

Tester connection	Condition	Specified condition
C15–1 (ICD+) – Body ground (*1)	Always	1 MΩ or Higher
C15–2 (ICD–) – Body ground (*1)	Always	1 MΩ or Higher
C16–1 (ICD+) – Body ground (*2)	Always	1 MΩ or Higher
C16–2 (ICD–) – Body ground (*2)	Always	1 MΩ or Higher

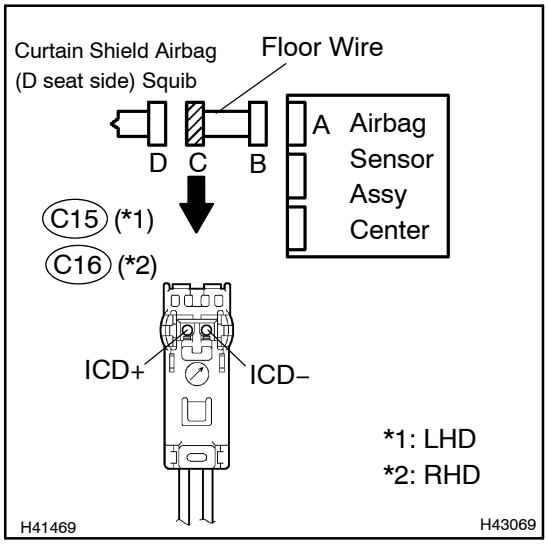
*1: LHD
*2: RHD

NG → **REPAIR OR REPLACE FLOOR WIRE**

OK

GO TO STEP 11

6	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
C15–1 (ICD+) – Body ground (*1)	Ignition switch ON	Below 1 V
C15–2 (ICD–) – Body ground (*1)	Ignition switch ON	Below 1 V
C16–1 (ICD+) – Body ground (*2)	Ignition switch ON	Below 1 V
C16–2 (ICD–) – Body ground (*2)	Ignition switch ON	Below 1 V

NG → **REPAIR OR REPLACE FLOOR WIRE**

OK

GO TO STEP 11

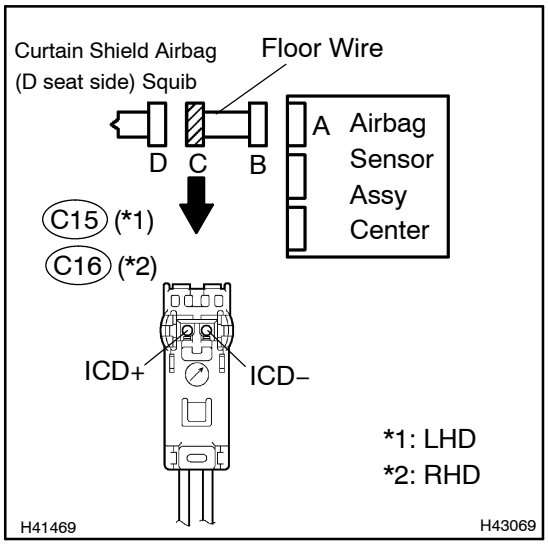
7	CHECK CONNECTOR

(a) Check that the floor wire connector (on the curtain shield airbag (D seat side) squib side) is not damaged.
OK:
The lock button is not disengaged, or the claw of the lock is not deformed or damaged.

NG → **REPAIR OR REPLACE FLOOR WIRE**

OK

8	CHECK FLOOR WIRE (CURTAIN SHIELD AIRBAG (D SEAT SIDE) SQUIB CIRCUIT)



(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
C15–1 (ICD+) – Body ground (*1)	Ignition switch ON	Below 1 V
C15–2 (ICD–) – Body ground (*1)	Ignition switch ON	Below 1 V
C16–1 (ICD+) – Body ground (*2)	Ignition switch ON	Below 1 V
C16–2 (ICD–) – Body ground (*2)	Ignition switch ON	Below 1 V

*1: LHD
*2: RHD

(d) Turn the ignition switch to the LOCK position.
(e) Disconnect the negative (–) terminal cable from the battery, and wait for at least 90 seconds.
(f) Measure the resistance according to the value(s) in the table below.
Standard:

Tester connection	Condition	Specified condition
C15–1 (ICD+) – C15–2 (ICD–) (*1)	Always	Below 1 Ω
C15–1 (ICD+) – Body ground (*1)	Always	Below 1 Ω
C15–2 (ICD–) – Body ground (*1)	Always	Below 1 Ω
C16–1 (ICD+) – C16–2 (ICD–) (*2)	Always	Below 1 Ω
C16–1 (ICD+) – Body ground (*2)	Always	1 MΩ or Higher
C16–2 (ICD–) – 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
C15–1 (ICD+) – C15–2 (ICD–) (*1)	Always	1 MΩ or Higher
C16–1 (ICD+) – C16–2 (ICD–) (*2)	Always	1 MΩ or Higher

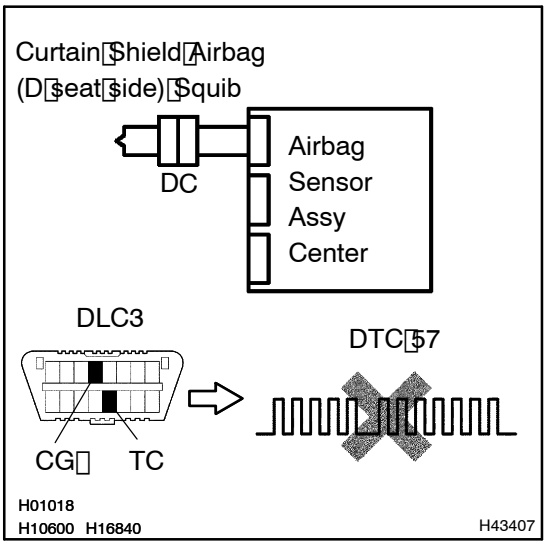
*1: LHD

*2: RHD

NG → **REPAIR OR REPLACE FLOOR WIRE**

OK

9 REPLACE CURTAIN SHIELD AIRBAG (D SEAT SIDE) SQUIB



(a) LHD:
Replace the curtain shield airbag assy LH (see Pub. No. RM915E, page 60–38).

(b) RHD:
Replace the curtain shield airbag assy RH (see Pub. No. RM915E, page 60–38).

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 05–15).

(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 05–15).

OK:

DTC 57 is not output.

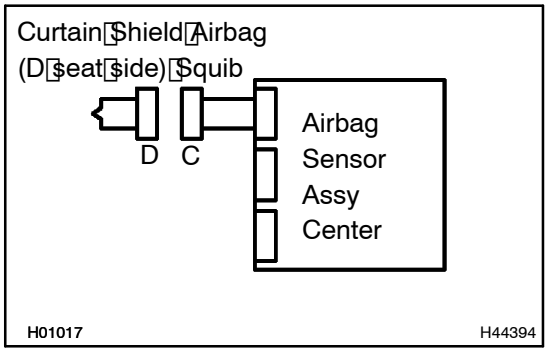
HINT:
Codes other than code 57 may be output at this time, but they are not related to this check.

NG → **REPLACE AIR BAG SENSOR ASSY CENTER (SEE PAGE 60–40)**

OK

END

10	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 05–15).
(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 05–15).

OK:

DTC B1830 is not output.

HINT:

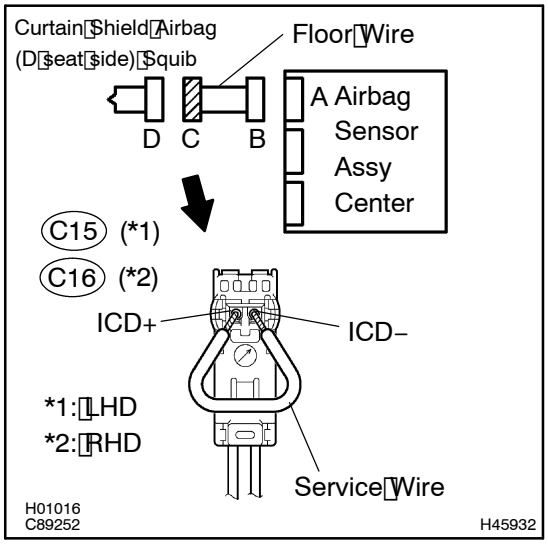
Codes other than code B1830 may be output at this time, but they are not related to this check.

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

OK

GO TO STEP 12

11 CHECK AIR BAG SENSOR ASSY CENTER



(a) From the step 6:
Turn the ignition switch to the LOCK position.

(b) From the step 6:
Disconnect the negative (–) terminal cable from the battery, and wait for at least 90 seconds.

(c) Connect the connector to the airbag sensor assy center.

(d) LHD:
Using a service wire, connect C15–1 (ICD+) and C15–2 (ICD–) of connector "C".

(e) RHD:
Using a service wire, connect C16–1 (ICD+) and C16–2 (ICD–) of connector "C".

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.**

(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.

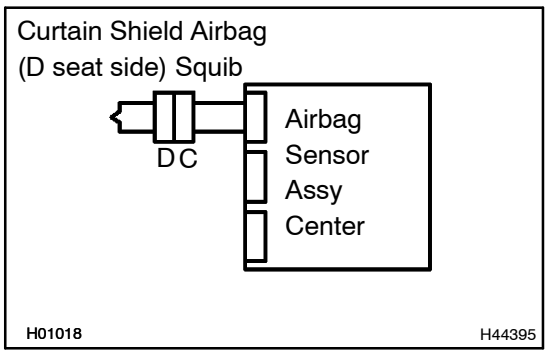
(k) Check the DTCs (see page 05–16).
OK:
DTC B1831, B1832 or B1833 is not output.

HINT:
Codes other than code B1831, B1832 and B1833 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

12 CHECK CURTAIN SHIELD AIRBAG (D SEAT SIDE) SQUIB



(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 11:
Disconnect the service wire from connector "C".
(d) LHD:
Connect the connector to the curtain shield airbag assy LH.
(e) RHD:
Connect the connector to the curtain shield airbag assy RH.
(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 B1830, B1831, B1832 or B1833 is not output.

HINT:
Codes other than code B1830, B1831, B1832 and B1833 may be output at this time, but they are not related to this check.

NG → **REPLACE CURTAIN SHIELD AIR BAG ASSY LH (LHD) (SEE PUB. NO. RM915E, PAGE 60–38)**

NG → **REPLACE CURTAIN SHIELD AIR BAG ASSY RH (RHD) (SEE PUB. NO. RM915E, PAGE 60–38)**

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 airbag system or driving the vehicle on a city or rough road (see page 05–19).