DTC	B1771	Passenger Side Buckle Switch Circuit Malfunction

DESCRIPTION

The passenger side buckle switch circuit consists of the occupant classification ECU and the front seat inner belt assembly RH.

DTC B1771 is recorded when a malfunction is detected in the passenger side buckle switch circuit.

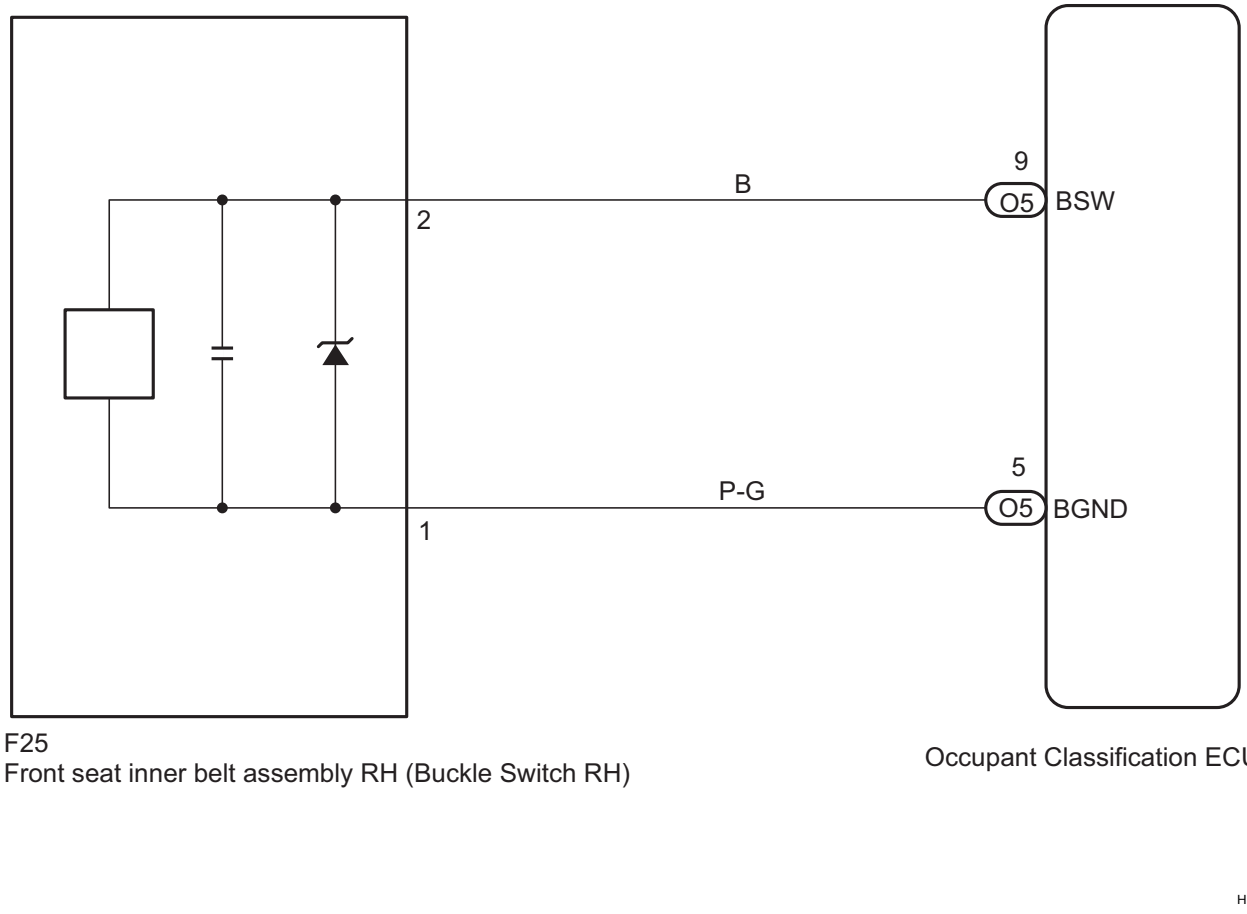
Troubleshoot DTC B1771 first when DTCs B1771 and B1795 are output simultaneously.

DTC No.	DTC Detecting Condition	Trouble Area
B1771	• Occupant classification ECU detects line short circuit signal, open circuit signal, short circuit to ground signal or short circuit to B+ signal in the passenger side buckle switch circuit for 2 seconds • Passenger side buckle switch malfunction • Occupant classification ECU malfunction	• No .1 seat wire • Floor wire • Front seat inner belt assembly RH (Buckle switch RH) • Occupant classification ECU

HINT:

- When DTC B1650/32 is detected as a result of troubleshooting the supplemental restraint system, perform troubleshooting for DTC B1771 of the occupant classification system.
- Use the intelligent tester to check for DTCs of the occupant classification ECU, otherwise the DTC cannot be read.

WIRING DIAGRAM



HINT:

- If troubleshooting (wire harness inspection) is difficult to perform, remove the front passenger seat installation bolts to see the under surface of the seat cushion.
- In the above case, hold the seat so that it does not tip over. Holding the seat for a long period of time may cause a problem, such as seat rail deformation. Hold the seat up only for as long as necessary.

RS

1	CHECK DTC

(a) Turn the ignition switch to the on position.
(b) Clear the DTCs stored in the memory (See page RS-365).
HINT:
First clear DTCs stored in the occupant classification ECU and then in the center airbag sensor assembly.
(c) Turn the ignition switch to the lock position.
(d) Turn the ignition switch to the on position.
(e) Check the DTCs (See page RS-365).
OK:
DTC B1771 is not output.

HINT:
Codes other than DTC B1771 may be output at this time, but they are not related to this check.

OK → **USE SIMULATION METHOD TO CHECK**

NG

2	CHECK CONNECTION OF CONNECTORS

(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) Check that the connectors are properly connected to the occupant classification ECU and the front seat inner belt assembly RH.
OK:
The connectors are properly connected.

NG → **CONNECT CONNECTORS**

OK

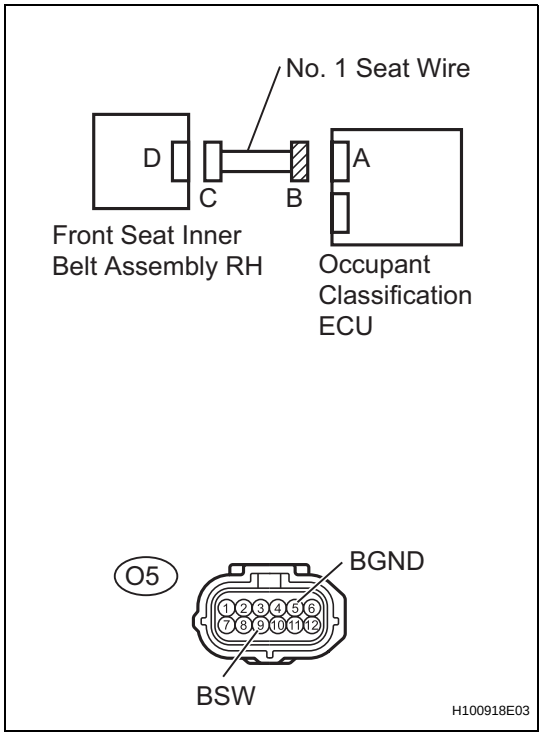
3	CHECK CONNECTORS

(a) Check that the connectors (on the occupant classification ECU side and buckle switch RH side) are not damaged (See page IN-34).
OK:
The connectors are not deformed or damaged.

NG → **REPAIR OR REPLACE WIRE HARNESS**

OK

4 CHECK NO. 1 SEAT WIRE (TO B+)



(a) Disconnect the connectors from the occupant classification ECU and the front seat inner belt assembly RH.
(b) Connect the negative (-) terminal cable to the battery.
(c) Turn the ignition switch to the on position.
(d) Measure the voltage.

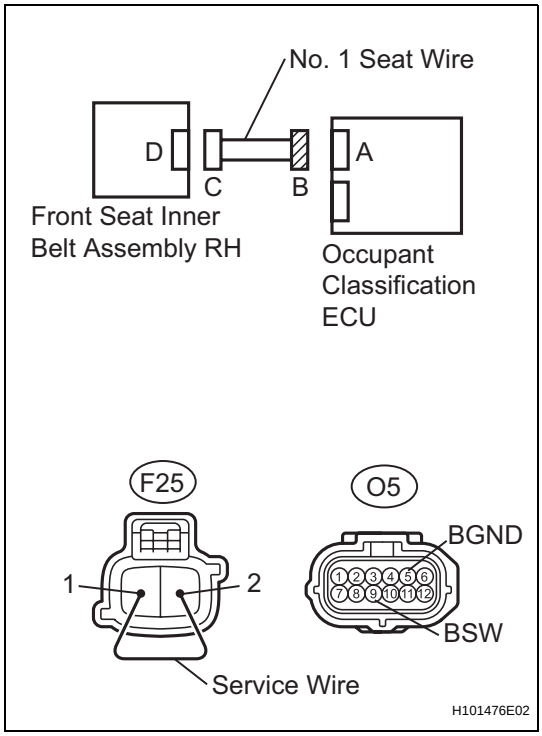
Standard voltage

Tester connection	Condition	Specified condition
O5-9 (BSW) - Body ground	Ignition switch on	Below 1 V
O5-5 (BGND) - Body ground	Ignition switch on	Below 1 V

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

OK

5 CHECK NO. 1 SEAT WIRE (FOR OPEN)



(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) Using a service wire, connect J11-2 and J11-1 of connector C.

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

(d) Measure the resistance.

Standard resistance

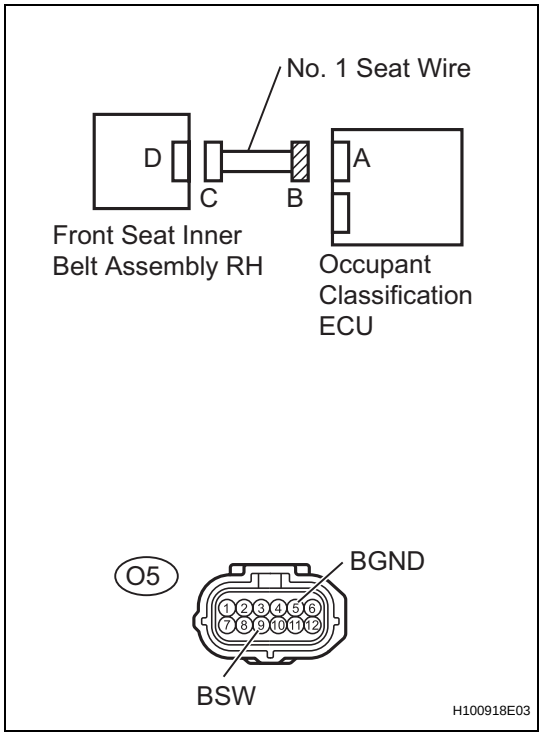
Tester connection	Condition	Specified condition
O5-9 (BSW) - O5-5 (BGND)	Always	Below 1 Ω

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

OK

RS

6 CHECK NO. 1 SEAT WIRE (FOR SHORT)



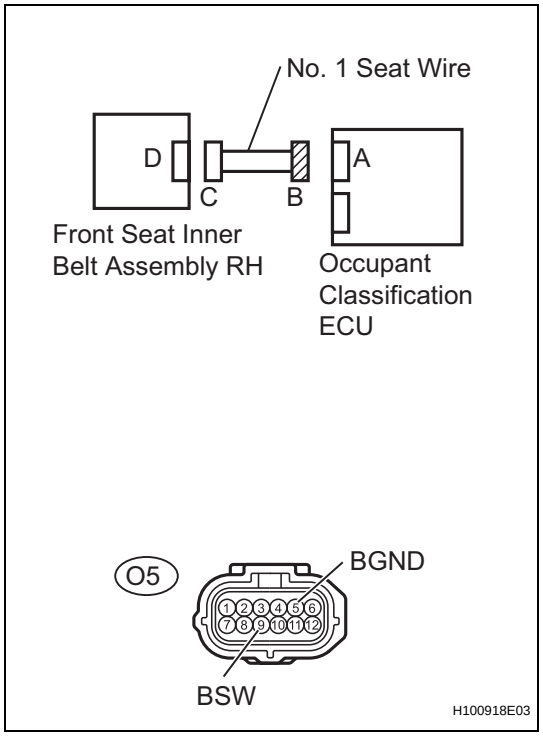
(a) Disconnect the service wire from connector C.
(b) Measure the resistance.
Standard resistance

Tester connection	Condition	Specified condition
O5-9 (BSW) - O5-5 (BGND)	Always	1 MΩ or higher

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

OK

7 CHECK NO. 1 SEAT WIRE (TO GROUND)



(a) Measure the resistance.
Standard resistance

Tester connection	Condition	Specified condition
O5-9 (BSW) - Body ground	Always	1 MΩ or higher
O5-5 (BGND) - Body ground	Always	1 MΩ or higher

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

OK

8	CHECK DTC

(a) Connect the connectors to the occupant classification ECU and the front seat inner belt assembly RH.
(b) Connect the negative (-) terminal cable to the battery.
(c) Turn the ignition switch to the on position.
(d) Clear the DTCs stored in the memory (See page RS-365).
HINT:
First clear DTCs stored in the occupant classification ECU and then in the center airbag sensor assembly.
(e) Turn the ignition switch to the lock position.
(f) Turn the ignition switch to the on position.
(g) Check the DTCs (See page RS-365).
OK:
DTC B1771 is not output.
HINT:
Codes other than DTC B1771 may be output at this time, but they are not related to this check.

OK	USE SIMULATION METHOD TO CHECK

NG

9	REPLACE FRONT SEAT INNER BELT ASSEMBLY RH

(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) Replace the front seat inner belt assembly RH (See page SB-8).
HINT:
Perform the inspection using parts from a normal vehicle if possible.
(d) Connect the negative (-) terminal cable to the battery.
(e) Turn the ignition switch to the on position.
(f) Clear the DTCs stored in the memory (See page RS-365).
HINT:
First clear DTCs stored in the occupant classification ECU and then in the center airbag sensor assembly.
(g) Turn the ignition switch to the lock position.
(h) Turn the ignition switch to the on position.
(i) Check the DTCs (See page RS-365).
OK:
DTC B1771 is not output.
HINT:
Codes other than DTC B1771 may be output at this time, but they are not related to this check.

OK	END

RS

NG

10	REPLACE OCCUPANT CLASSIFICATION ECU

(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) Replace the occupant classification ECU (See page RS-631).

NEXT

11	PERFORM ZERO POINT CALIBRATION

(a) Connect the negative (-) terminal cable to the battery.
(b) Connect the intelligent tester to the DLC3.
(c) Turn the ignition switch to the on position.
(d) Using the intelligent tester, perform the zero point calibration (See page RS-357).
OK:
COMPLETED is displayed on the tester.

NEXT

12	PERFORM SENSITIVITY CHECK

(a) Using the intelligent tester, perform the sensitivity check (See page RS-357).
Standard values:
27 to 33 kg (59.52 to 72.75 lb)

NEXT

END

RS