DTC	B1772	Seat Position Sensor Circuit Malfunction

DESCRIPTION

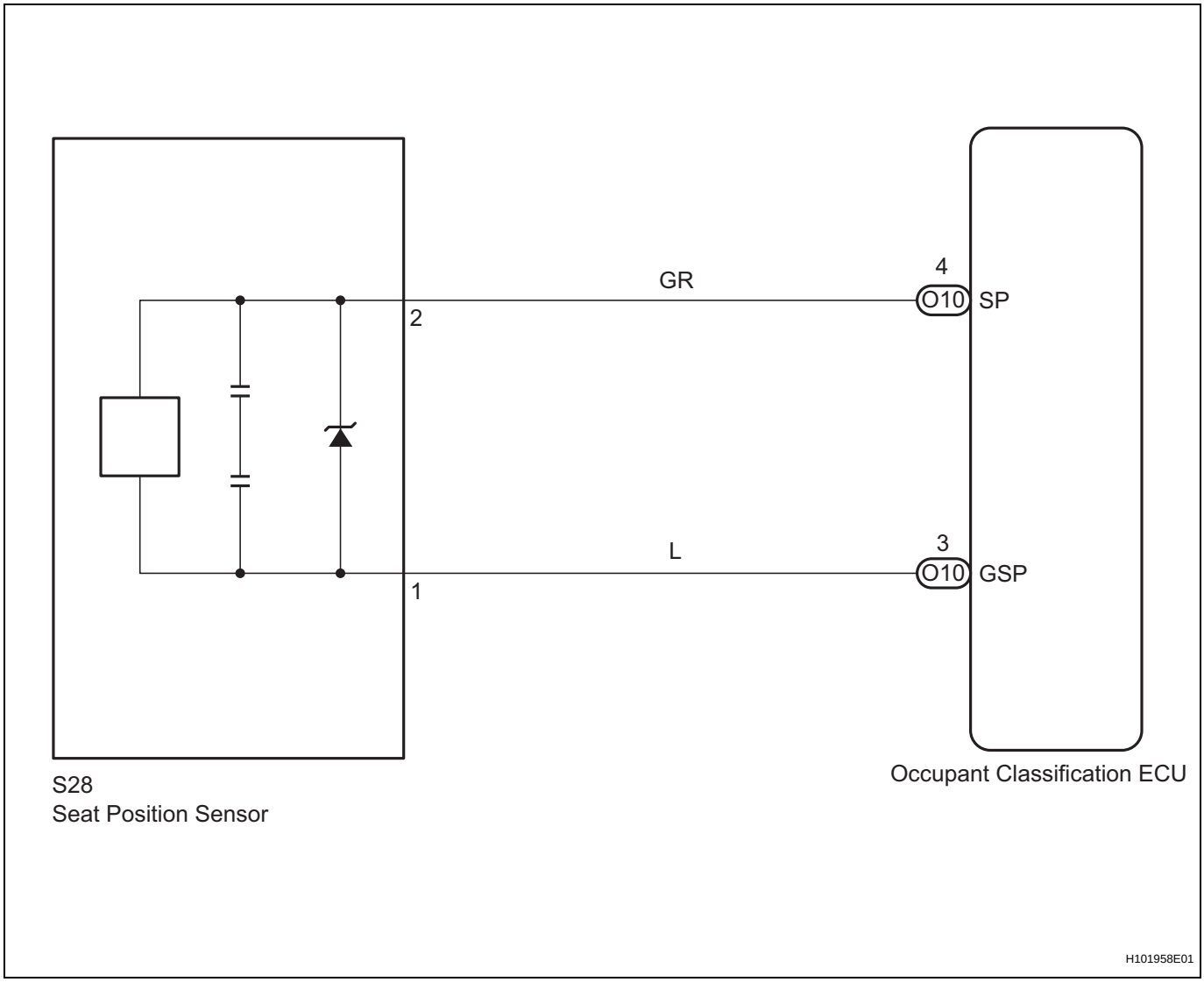
The seat position sensor circuit consists of the occupant classification ECU and the seat position sensor. The seat position sensor sends the seat position signal to the occupant classification ECU to control the dual stage deployment of the front passenger airbag assembly.
DTC B1772 is recorded when a malfunction is detected in the seat position sensor circuit.

DTC No.	DTC Detecting Condition	Trouble Area
B1772	• Occupant classification ECU receives line short circuit signal, open circuit signal, short circuit to ground signal or short circuit to B+ signal in seat position sensor circuit for 2 seconds. • Seat position sensor malfunction • Occupant classification ECU malfunction	• No. 1 seat wire • Seat position sensor • Occupant classification ECU

HINT:

- When DTC B1650/32 is detected as a result of troubleshooting the supplemental restraint system, check the DTCs stored in the occupant classification ECU, and perform troubleshooting for those DTCs first.
- 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 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 up for a long period of time may cause problems, 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-487).
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-487).

OK:

DTC B1772 is not output.

HINT:

DTCs other than B1772 may be output at this time, but they are not related to this check.

OK → **USE SIMULATION METHOD TO CHECK**

NG

2	CHECK 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 seat position sensor.

OK:

The connectors are properly connected.

(d) Disconnect the connectors from the occupant classification ECU and the seat position sensor.

(e) Check that the terminals of the connectors are not damaged.

OK:

The terminals are not deformed or damaged.

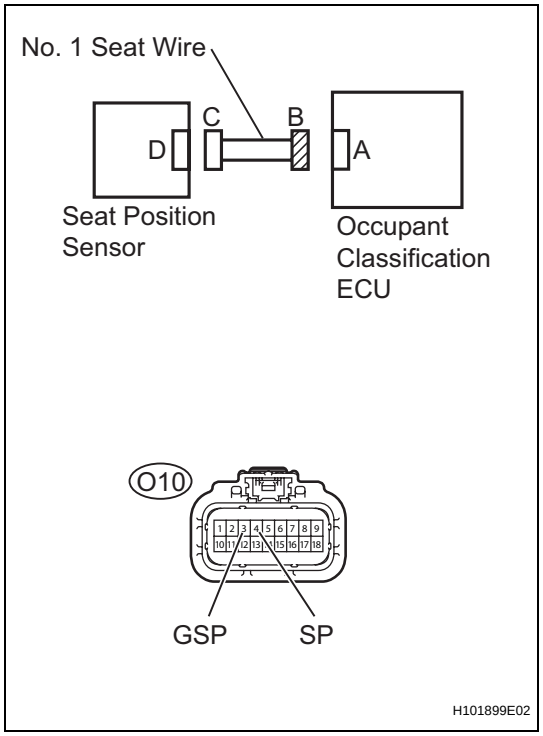
HINT:

If the connectors are not connected securely, reconnect the connectors and proceed to the next inspection.

NG → **REPAIR OR REPLACE WIRE HARNESS OR CONNECTOR**

OK

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



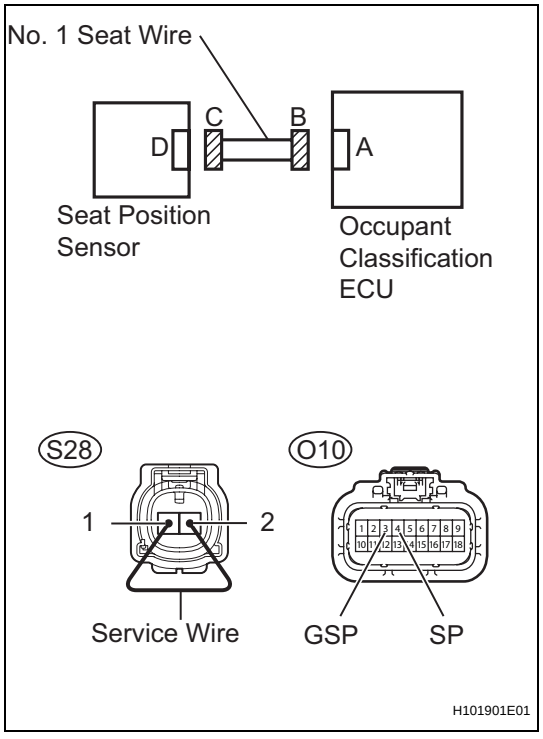
(a) Disconnect the connectors from the occupant classification ECU and the seat position sensor.
(b) Connect the negative (-) terminal cable to the battery.
(c) Turn the ignition switch to the ON position.
(d) Measure the voltage.
Standard voltage

Tester Connection	Condition	Specified Condition
O10-4 (SP) - Body ground	Ignition switch ON	Below 1 V
O10-3 (GSP) - Body ground	Ignition switch ON	Below 1 V

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

OK

4 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 S28-2 (SP) and S28-1 (GSP) of connector C.
NOTICE:
Do not forcibly insert the service wire into the terminals of the connector when connecting.
(d) Measure the resistance.
Standard resistance

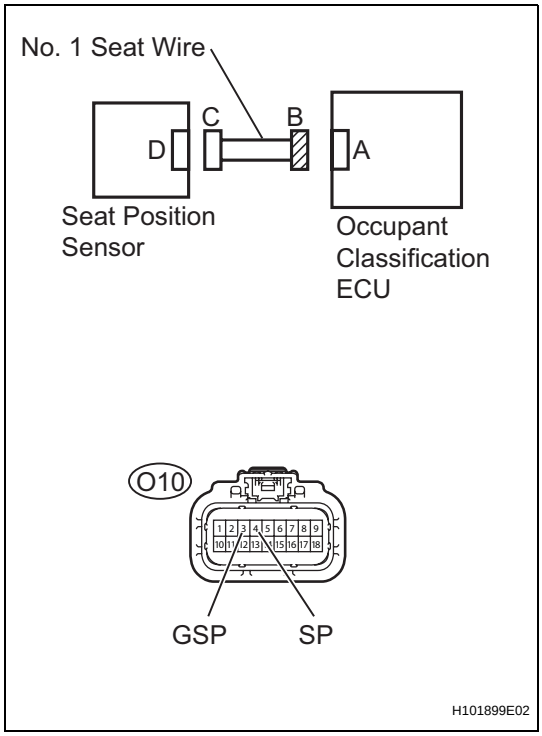
Tester Connection	Condition	Specified Condition
O10-4 (SP) - O10-3 (GSP)	Always	Below 1 Ω

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

OK

RS

5 CHECK NO. 1 SEAT WIRE (TO GROUND)



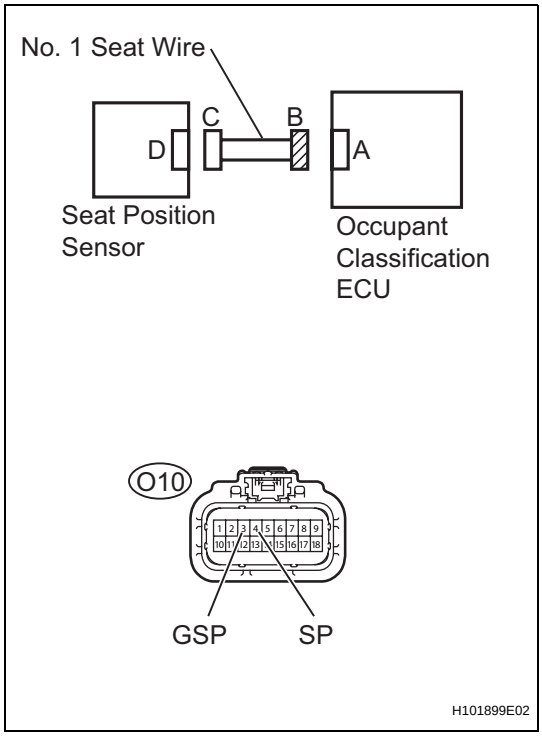
(a) Disconnect the service wire from connector C.
(b) Measure the resistance.
Standard resistance

Tester Connection	Condition	Specified Condition
O10-4 (SP) - Body ground	Always	1 MΩ or higher
O10-3 (GSP) - Body ground	Always	1 MΩ or higher

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

OK

6 CHECK NO. 1 SEAT WIRE (FOR SHORT)



(a) Measure the resistance.
Standard resistance

Tester Connection	Condition	Specified Condition
O10-4 (SP) - O10-3 (GSP)	Always	1 MΩ or higher

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

OK

RS

7	CHECK DTC

(a) Connect the connectors to the occupant classification ECU and the seat position sensor.
(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-487).
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-487).
OK:
DTC B1772 is not output.
HINT:
DTCs other than B1772 may be output at this time, but they are not related to this check.

OK	USE SIMULATION METHOD TO CHECK

NG

8	REPLACE SEAT POSITION SENSOR

(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 seat position sensor (See page RS-480).
HINT:
- Perform the inspection using parts from a normal vehicle if possible.
- The seat position sensor is installed on the driver side.

(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-487).
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-487).
OK:
DTC B1772 is not output.
HINT:
DTCs other than B1772 may be output at this time, but they are not related to this check.

OK	END

NG

9	REPLACE OCCUPANT CLASSIFICATION ECU

(a) Connect the intelligent tester to the DLC3.
(b) Turn the ignition switch to the ON position.
(c) Store the occupant classification ECU data into the intelligent tester (See page RS-476).
HINT:
If the ECU data cannot be stored in the intelligent tester, replace the front seat cushion assembly (with occupant classification ECU and occupant classification sensor).
(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) Replace the occupant classification ECU (See page RS-634).
(g) Connect the negative (-) terminal cable to the battery.
(h) Turn the ignition switch to the ON position.
(i) Load the data from the previous ECU stored in the tester, into the newly installed ECU (See page RS-476).
(j) Turn the ignition switch to the LOCK position.
(k) Turn the ignition switch to the ON position.
(l) Clear the DTCs stored in the memory (See page RS-487).
HINT:
If DTC is not cleared at this time, past DTC will remain.

NEXT

10	PERFORM SENSITIVITY CHECK

(a) Perform the sensitivity check (See page RS-480).

NEXT

END