

RESTRAINTS

Occupant Classification System (Diagnostic Codes & Symptom Tests) - Sienna

OCCUPANT CLASSIFICATION SYSTEM

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 stored when a malfunction is detected in the passenger side buckle switch circuit.

DTC Code	DTC Detection Condition	Trouble Area
B1771	One of following conditions is met: • Occupant classification ECU detects line short circuit signal, open circuit signal, short circuit to ground signal or short circuit to +B signal in passenger side buckle switch circuit for 2 seconds • Passenger side buckle switch malfunction • Occupant classification ECU malfunction	• Front seat wire RH • Front seat inner belt assembly RH (Passenger side buckle switch) • Occupant classification ECU

HINT:

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

WIRING DIAGRAM

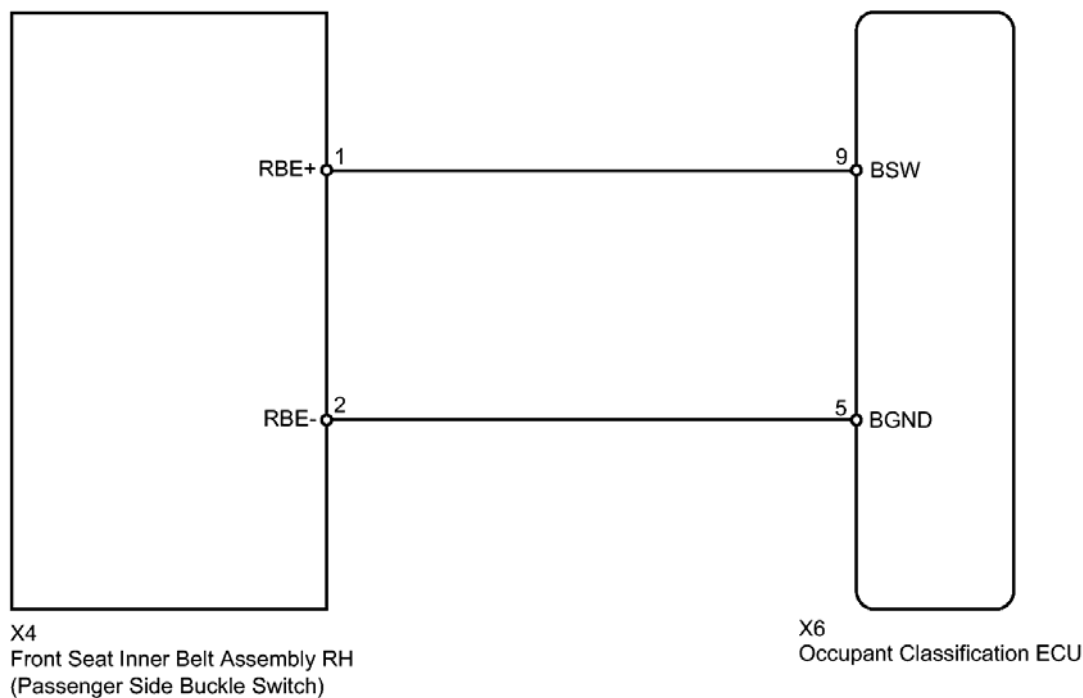


Fig. 1: Passenger Side Buckle Switch Circuit - Wiring Diagram
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

INSPECTION PROCEDURE

HINT:

- If troubleshooting (wire harness inspection) is difficult to perform, remove the front seat RH installation bolts to see the undersurface of the seat cushion.
- In the above case, hold the seat so that it does not fall down. 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.

PROCEDURE

1. CHECK FOR DTC

- a. Turn the ignition switch to ON, and wait for at least 60 seconds.
- b. Clear the DTCs stored in the memory. Refer to **DTC CHECK / CLEAR**.

HINT:

- First clear DTCs stored in the occupant classification ECU and then in the center airbag

sensor assembly.

- Use the Techstream to clear the DTCs of the occupant classification ECU, otherwise the DTCs cannot be cleared.
- c. Turn the ignition switch off.
- d. Turn the ignition switch to ON, and wait for at least 60 seconds.
- e. Check for DTCs. Refer to **DTC CHECK / CLEAR** .

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.

NG --> See step 2

OK --> See step 11

2. CHECK CONNECTION OF CONNECTOR

- a. Turn the ignition switch off.
- b. Disconnect the cable from the negative (-) battery terminal, 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

Connectors are properly connected.

NG --> CONNECT CONNECTORS PROPERLY

OK: Go to next step

3. CHECK CONNECTOR

- a. Disconnect the connectors from the occupant classification ECU and the front seat inner belt assembly RH.
- b. Check that the connectors (on the occupant classification ECU side and front seat inner belt assembly RH side) are not damaged.

OK

Connectors are not deformed or damaged.

NG --> REPLACE FRONT SEAT WIRE RH

OK: Go to next step

4. CHECK FRONT SEAT WIRE RH

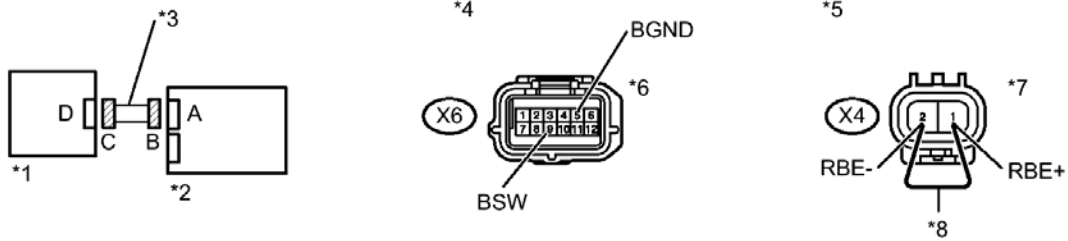


Fig. 2: Checking Front Seat Wire RH
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

TEXT IN ILLUSTRATION

*1	Front Seat Inner Belt Assembly RH	*2	Occupant Classification ECU
*3	Front Seat Wire RH	*4	Front view of wire harness connector (to Occupant Classification ECU)
*5	Front view of wire harness connector (to Front Seat Inner Belt Assembly RH)	*6	Connector B
*7	Connector C	*8	Service Wire

- Connect the cable to the negative (-) battery terminal, and wait for at least 2 seconds.
- Turn the ignition switch to ON, and wait for at least 60 seconds.
- Measure the voltage according to the value(s) in the table below.

Standard Voltage

Tester Connection	Switch Condition	Specified Condition
X6-9 (BSW) - Body ground	Ignition switch ON	Below 1 V
X6-5 (BGND) - Body ground		

- d. Turn the ignition switch off.
- e. Disconnect the cable from the negative (-) battery terminal, and wait for at least 90 seconds.
- f. Using a service wire, connect terminals 1 (RBE+) and 2 (RBE-) of connector C.

NOTE: Do not forcibly insert the service wire into the terminals of the connector.

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

Standard Resistance

Tester Connection	Condition	Specified Condition
X6-9 (BSW) - X6-5 (BGND)	Always	Below 1 ohms

- h. Disconnect the service wire from connector C.
- i. Measure the resistance according to the value(s) in the table below.

Standard Resistance

Tester Connection	Condition	Specified Condition
X6-9 (BSW) - Body ground	Always	1 Mohms or higher
X6-5 (BGND) - Body		

ground		
X6-9 (BSW) - X6-5 (BGND)		

NG --> REPLACE FRONT SEAT WIRE RH

OK: Go to next step

5. CHECK FOR DTC

- Connect the connectors to the occupant classification ECU and the front seat inner belt assembly RH.
- Connect the cable to the negative (-) battery terminal, and wait for at least 2 seconds.
- Turn the ignition switch to ON, and wait for at least 60 seconds.
- Clear the DTCs stored in the memory. Refer to **DTC CHECK / CLEAR**.

HINT:

- First clear DTCs stored in the occupant classification ECU and then in the center airbag sensor assembly.
 - Use the Techstream to clear the DTCs of the occupant classification ECU, otherwise the DTCs cannot be cleared.
- Turn the ignition switch off.
 - Turn the ignition switch to ON, and wait for at least 60 seconds.
 - Using the Techstream, check for DTCs of the occupant classification ECU. Refer to **DTC CHECK / CLEAR**.

OK

DTC B1771 is not output.

HINT:

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

NG --> See step 6

OK --> See step 11

6. REPLACE FRONT SEAT INNER BELT ASSEMBLY RH (PASSENGER SIDE BUCKLE SWITCH)

- Turn the ignition switch off.
- Disconnect the cable from the negative (-) battery terminal, and wait for at least 90 seconds.

- c. Replace the front seat inner belt assembly RH. Refer to **REMOVAL** .

HINT:

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

- d. Connect the cable to the negative (-) battery terminal, and wait for at least 2 seconds.

NEXT: Go to next step

7. CHECK FOR DTC

- a. Turn the ignition switch to ON, and wait for at least 60 seconds.
- b. Clear the DTCs stored in the memory. Refer to **DTC CHECK / CLEAR** .

HINT:

- First clear DTCs stored in the occupant classification ECU and then in the center airbag sensor assembly.
 - Use the Techstream to clear the DTCs of the occupant classification ECU, otherwise the DTCs cannot be cleared.
- c. Turn the ignition switch off.
 - d. Turn the ignition switch to ON, and wait for at least 60 seconds.
 - e. Using the Techstream, check for DTCs of the occupant classification ECU. Refer to **DTC CHECK / CLEAR** .

OK

DTC B1771 is not output.

HINT:

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

NG --> See step 8

OK --> END

8. REPLACE OCCUPANT CLASSIFICATION ECU

- a. Turn the ignition switch off.
- b. Disconnect the cable from the negative (-) battery terminal, and wait for at least 90 seconds.
- c. Replace the occupant classification ECU. Refer to **REMOVAL** .

HINT:

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

- d. Connect the cable to the negative (-) battery terminal, and wait for at least 2 seconds.
- e. Turn the ignition switch to ON, and wait for at least 60 seconds.
- f. Clear the DTCs stored in the memory. Refer to **DTC CHECK / CLEAR** .

HINT:

If the DTCs are not cleared at this time, past DTCs will remain.

NEXT: Go to next step

9. PERFORM ZERO POINT CALIBRATION

- a. Connect the Techstream to the DLC3.
- b. Turn the ignition switch to ON, and wait for at least 60 seconds.
- c. Using the Techstream, perform the zero point calibration. Refer to **INITIALIZATION** .

NEXT: Go to next step

10. PERFORM SENSITIVITY CHECK

- a. Using the Techstream, perform the sensitivity check. Refer to **INITIALIZATION** .

Standard range

27 to 33 kg (59.5 to 72.8 lb)

NEXT --> END

11. USE SIMULATION METHOD TO CHECK. Refer to DIAGNOSIS SYSTEM

DTC B1780: FRONT OCCUPANT CLASSIFICATION SENSOR LH CIRCUIT MALFUNCTION

DESCRIPTION

The front occupant classification sensor LH circuit consists of the occupant classification ECU and the front occupant classification sensor LH.

DTC B1780 is stored when a malfunction is detected in the front occupant classification sensor LH circuit.

DTC Code	DTC Detection Condition	Trouble Area
B1780	One of following conditions is met: Occupant classification ECU receives line short circuit signal, open circuit signal, short circuit to ground signal or short circuit to +B signal in front occupant classification sensor LH	Front seat cushion spring assembly RH (Front occupant classification sensor LH)

	circuit for 2 seconds • Front occupant classification sensor LH malfunction • Occupant classification ECU malfunction	• Front seat wire RH • Occupant classification ECU
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HINT:

- When DTC B1650/32 is detected as a result of troubleshooting the airbag system, perform troubleshooting for DTC B1780 of the occupant classification system.
- Use the Techstream to check for DTCs of the occupant classification ECU, otherwise the DTC cannot be read.

WIRING DIAGRAM

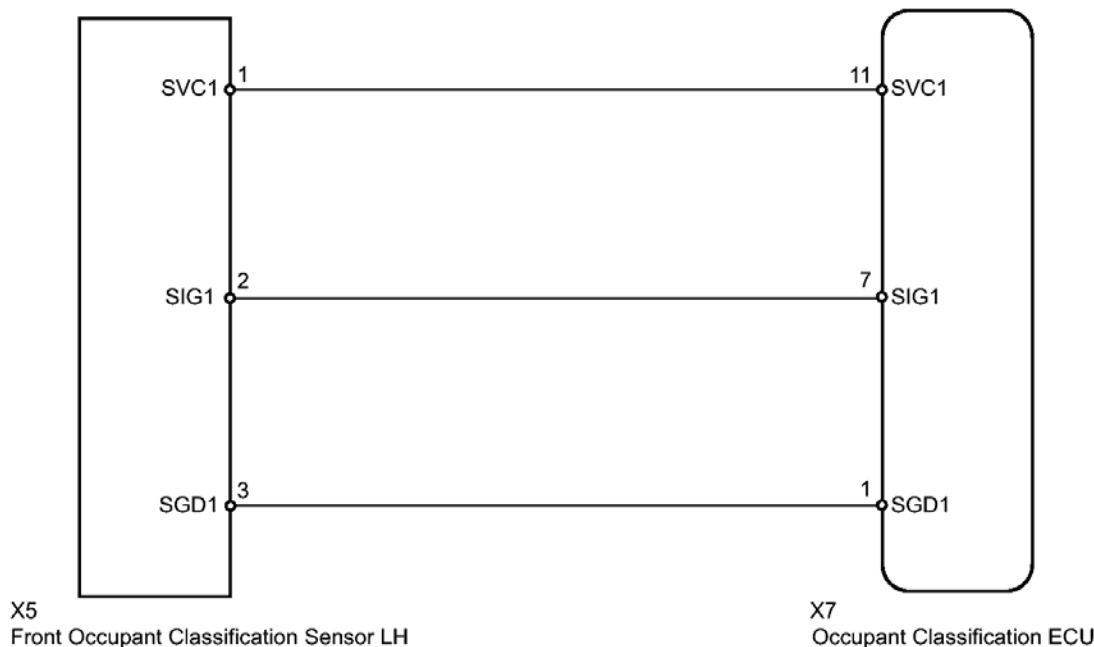


Fig. 3: Front Occupant Classification Sensor LH Circuit - Wiring Diagram
 Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

INSPECTION PROCEDURE

HINT:

- If troubleshooting (wire harness inspection) is difficult to perform, remove the front seat RH installation bolts to see the undersurface of the seat cushion.
- In the above case, hold the seat so that it does not fall down. Holding the seat for a long period of time

may cause problems, such as seat rail deformation. Hold the seat up only for as long as necessary.

PROCEDURE

1. CHECK FOR DTC

- a. Turn the ignition switch to ON, and wait for at least 60 seconds.
- b. Clear any DTCs stored in the memory. Refer to **DTC CHECK / CLEAR** .

HINT:

- First clear DTCs stored in the occupant classification ECU and then in the center airbag sensor assembly.
 - Use the Techstream to clear the DTCs of the occupant classification ECU, otherwise the DTCs cannot be cleared.
- c. Turn the ignition switch off.
 - d. Turn the ignition switch to ON, and wait for at least 60 seconds.
 - e. Using the Techstream, check for DTCs of the occupant classification ECU. Refer to **DTC CHECK / CLEAR** .

OK

DTC B1780 is not output.

HINT:

DTCs other than DTC B1780 may be output at this time, but they are not related to this check.

NG --> See step 2

OK --> See step 13

2. CHECK CONNECTION OF CONNECTOR

- a. Turn the ignition switch off.
- b. Disconnect the cable from the negative (-) battery terminal, and wait for at least 90 seconds.
- c. Check that the connectors are properly connected to the occupant classification ECU and the front occupant classification sensor LH.

OK

Connectors are properly connected.

NG --> CONNECT CONNECTORS PROPERLY

OK: Go to next step

3. CHECK CONNECTOR

- a. Check that the connectors (on the occupant classification ECU side and front occupant classification sensor LH side) are not damaged.

OK

Connectors are not deformed or damaged.

NG --> REPLACE FRONT SEAT WIRE RH

OK: Go to next step

4. CHECK FRONT SEAT WIRE RH

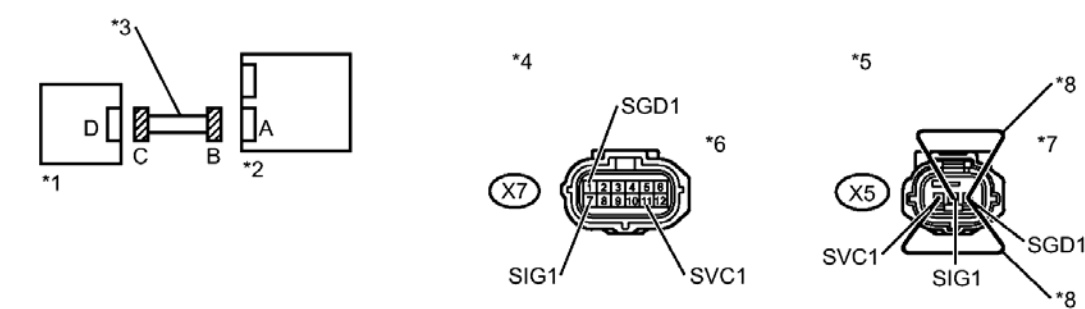


Fig. 4: Checking Front Seat Wire RH
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

TEXT IN ILLUSTRATION

*1	Front Occupant Classification Sensor LH	*2	Occupant Classification ECU
*3	Front Seat Wire RH	*4	Front view of wire harness connector (to Occupant Classification ECU)
*5	Front view of wire harness connector (to Front Occupant Classification	*6	Connector B

	Sensor LH)		
*7	Connector C	*8	Service Wire

- Disconnect the connectors from the occupant classification ECU and the front occupant classification sensor LH.
- Connect the cable to the negative (-) battery terminal, and wait for at least 2 seconds.
- Turn the ignition switch to ON, and wait for at least 60 seconds.
- Measure the voltage according to the value(s) in the table below.

Standard Voltage

Tester Connection	Switch Condition	Specified Condition
X7-1 (SGD1) - Body ground	Ignition switch ON	Below 1 V
X7-7 (SIG1) - Body ground		
X7-11 (SVC1) - Body ground		

- Turn the ignition switch off.
- Disconnect the cable from the negative (-) battery terminal, and wait for at least 90 seconds.
- Using service wires, connect terminals 1 (SVC1) and 3 (SGD1), and connect terminals 2 (SIG1) and 3 (SGD1) of connector C.

NOTE: Do not forcibly insert the service wires into the terminals of the connector.

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

Standard Resistance

Tester Connection	Condition	Specified Condition
X7-7 (SIG1) - X7-1 (SGD1)	Always	Below 1

X7-11 (SVC1) - X7-1 (SGD1)		ohms
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- i. Disconnect the service wires from connector C.
- j. Measure the resistance according to the value(s) in the table below.

Standard Resistance

Tester Connection	Condition	Specified Condition
X7-7 (SIG1) - X7-1 (SGD1)	Always	1 Mohms or higher
X7-11 (SVC1) - X7-1 (SGD1)		
X7-1 (SGD1) - Body ground		
X7-7 (SIG1) - Body ground		
X7-11 (SVC1) - Body ground		
X7-7 (SIG1) - X7-11 (SVC1)		

NG --> REPLACE FRONT SEAT WIRE RH

OK: Go to next step

5. CHECK FOR DTC

- a. Connect the connectors to the occupant classification ECU and the front occupant classification sensor LH.
- b. Connect the cable to the negative (-) battery terminal, and wait for at least 2 seconds.

- c. Turn the ignition switch to ON, and wait for at least 60 seconds.
- d. Clear any DTCs stored in the memory. Refer to **DTC CHECK / CLEAR** .

HINT:

- First clear DTCs stored in the occupant classification ECU and then in the center airbag sensor assembly.
 - Use the Techstream to clear the DTCs of the occupant classification ECU, otherwise the DTCs cannot be cleared.
- e. Turn the ignition switch off.
 - f. Turn the ignition switch to ON, and wait for at least 60 seconds.
 - g. Using the Techstream, check for DTCs of the occupant classification ECU. Refer to **DTC CHECK / CLEAR** .

OK

DTC B1780 is not output.

HINT:

DTCs other than DTC B1780 may be output at this time, but they are not related to this check.

NG --> See step 6

OK --> See step 14

6. REPLACE OCCUPANT CLASSIFICATION ECU

- a. Turn the ignition switch off.
- b. Disconnect the cable from the negative (-) battery terminal, and wait for at least 90 seconds.
- c. Replace the occupant classification ECU. Refer to **REMOVAL** .

HINT:

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

NEXT: Go to next step

7. PERFORM ZERO POINT CALIBRATION

- a. Connect the cable to the negative (-) battery terminal, and wait for at least 2 seconds.
- b. Connect the Techstream to the DLC3.
- c. Turn the ignition switch to ON, and wait for at least 60 seconds.
- d. Using the Techstream, perform the zero point calibration. Refer to **INITIALIZATION** .

NG --> See step 10

OK: Go to next step

8. PERFORM SENSITIVITY CHECK

- a. Using the Techstream, perform the sensitivity check. Refer to **INITIALIZATION** .

Standard range

27 to 33 kg (59.5 to 72.8 lb)

NG --> See step 10

OK: Go to next step

9. CHECK FOR DTC

- a. Turn the ignition switch to ON, and wait for at least 60 seconds.
- b. Clear any DTCs stored in the memory. Refer to **DTC CHECK / CLEAR** .

HINT:

- First clear DTCs stored in the occupant classification ECU and then in the center airbag sensor assembly.
 - Use the Techstream to clear the DTCs of the occupant classification ECU, otherwise the DTCs cannot be cleared.
- c. Turn the ignition switch off.
 - d. Turn the ignition switch to ON, and wait for at least 60 seconds.
 - e. Using the Techstream, check for DTCs of the occupant classification ECU. Refer to **DTC CHECK / CLEAR** .

OK

DTC B1780 is not output.

HINT:

DTCs other than DTC B1780 may be output at this time, but they are not related to this check.

NG --> See step 10

OK --> END

10. REPLACE FRONT SEAT CUSHION SPRING ASSEMBLY RH

- a. Turn the ignition switch off.
- b. Disconnect the cable from the negative (-) battery terminal, and wait for at least 90 seconds.
- c. Replace the front seat cushion spring assembly RH.

- For Manual seat. Refer to **REMOVAL** .
- For Power seat. Refer to **REMOVAL** .

HINT:

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

NEXT: Go to next step

11. PERFORM ZERO POINT CALIBRATION

- Connect the cable to the negative (-) battery terminal, and wait for at least 2 seconds.
- Connect the Techstream to the DLC3.
- Turn the ignition switch to ON, and wait for at least 60 seconds.
- Using the Techstream, perform the zero point calibration. Refer to **INITIALIZATION** .

NEXT: Go to next step

12. PERFORM SENSITIVITY CHECK

- Using the Techstream, perform the sensitivity check. Refer to **INITIALIZATION** .

Standard range

27 to 33 kg (59.5 to 72.8 lb)

NEXT --> END

13. USE SIMULATION METHOD TO CHECK. Refer to DIAGNOSIS SYSTEM

14. USE SIMULATION METHOD TO CHECK. Refer to DIAGNOSIS SYSTEM

DTC B1781: FRONT OCCUPANT CLASSIFICATION SENSOR RH CIRCUIT MALFUNCTION

DESCRIPTION

The front occupant classification sensor RH circuit consists of the occupant classification ECU and the front occupant classification sensor RH.

DTC B1781 is stored when a malfunction is detected in the front occupant classification sensor RH circuit.

DTC Code	DTC Detection Condition	Trouble Area
	One of following conditions is met: • Occupant classification ECU receives line short circuit signal, open circuit signal, short circuit to ground signal or short circuit to +B signal in front	• Front seat cushion spring assembly RH (Front occupant classification

B1781	occupant classification sensor RH circuit for 2 seconds • Front occupant classification sensor RH malfunction • Occupant classification ECU malfunction	sensor RH) • Front seat wire RH • Occupant classification ECU
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HINT:

- When DTC B1650/32 is detected as a result of troubleshooting the airbag system, perform troubleshooting for DTC B1781 of the occupant classification system.
- Use the Techstream to check for DTCs of the occupant classification ECU, otherwise the DTC cannot be read.

WIRING DIAGRAM

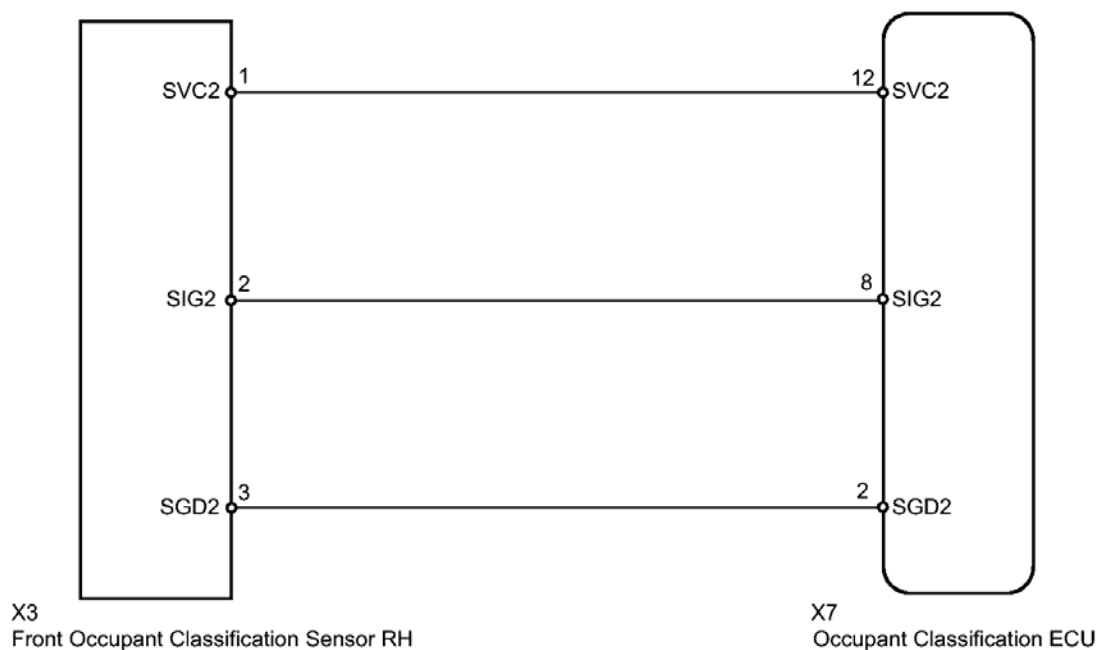


Fig. 5: Front Occupant Classification Sensor RH Circuit - Wiring Diagram
 Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

INSPECTION PROCEDURE

HINT:

- If troubleshooting (wire harness inspection) is difficult to perform, remove the front seat RH installation bolts to see the undersurface of the seat cushion.

- In the above case, hold the seat so that it does not fall down. Holding the seat for a long period of time may cause problems, such as seat rail deformation. Hold the seat up only for as long as necessary.

PROCEDURE

1. CHECK FOR DTC

- a. Turn the ignition switch to ON, and wait for at least 60 seconds.
- b. Clear any DTCs stored in the memory. Refer to **DTC CHECK / CLEAR** .

HINT:

- First clear DTCs stored in the occupant classification ECU and then in the center airbag sensor assembly.
 - Use the Techstream to clear the DTCs of the occupant classification ECU, otherwise the DTCs cannot be cleared.
- c. Turn the ignition switch off.
 - d. Turn the ignition switch to ON, and wait for at least 60 seconds.
 - e. Using the Techstream, check for DTCs of the occupant classification ECU. Refer to **DTC CHECK / CLEAR** .

OK

DTC B1781 is not output.

HINT:

DTCs other than DTC B1781 may be output at this time, but they are not related to this check.

NG --> See step 2

OK --> See step 13

2. CHECK CONNECTION OF CONNECTOR

- a. Turn the ignition switch off.
- b. Disconnect the cable from the negative (-) battery terminal, and wait for at least 90 seconds.
- c. Check that the connectors are properly connected to the occupant classification ECU and the front occupant classification sensor RH.

OK

Connectors are properly connected.

NG --> CONNECT CONNECTORS PROPERLY

OK: Go to next step

3. CHECK CONNECTOR

- a. Check that the connectors (on the occupant classification ECU side and front occupant classification sensor RH side) are not damaged.

OK

Connectors are not deformed or damaged.

NG --> REPLACE FRONT SEAT WIRE RH

OK: Go to next step

4. CHECK FRONT SEAT WIRE RH

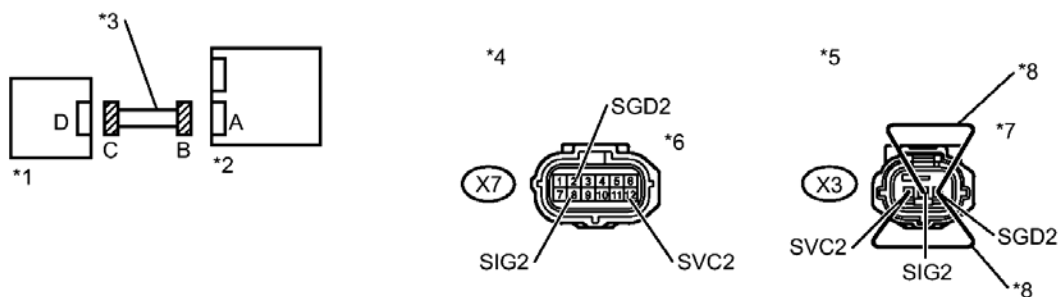


Fig. 6: Checking Front Seat Wire RH
 Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

TEXT IN ILLUSTRATION

*1	Front Occupant Classification Sensor RH	*2	Occupant Classification ECU
*3	Front Seat Wire RH	*4	Front view of wire harness connector (to Occupant Classification ECU)
*5	Front view of wire harness connector (to Front Occupant Classification	*6	Connector B

	Sensor RH)		
*7	Connector C	*8	Service Wire

- Disconnect the connectors from the occupant classification ECU and the front occupant classification sensor RH.
- Connect the cable to the negative (-) battery terminal, and wait for at least 2 seconds.
- Turn the ignition switch to ON, and wait for at least 60 seconds.
- Measure the voltage according to the value(s) in the table below.

Standard Voltage

Tester Connection	Switch Condition	Specified Condition
X7-2 (SGD2) - Body ground	Ignition switch ON	Below 1 V
X7-8 (SIG2) - Body ground		
X7-12 (SVC2) - Body ground		

- Turn the ignition switch off.
- Disconnect the cable from the negative (-) battery terminal, and wait for at least 90 seconds.
- Using service wires, connect terminals 1 (SVC2) and 3 (SGD2), and connect terminals 2 (SIG2) and 3 (SGD2) of connector C.

NOTE: Do not forcibly insert the service wires into the terminals of the connector.

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

Standard Resistance

Tester Connection	Condition	Specified Condition
X7-8 (SIG2) - X7-2 (SGD2)	Always	Below 1

X7-12 (SVC2) - X7-2 (SGD2)		ohms
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- i. Disconnect the service wires from connector C.
- j. Measure the resistance according to the value(s) in the table below.

Standard Resistance

Tester Connection	Condition	Specified Condition
X7-8 (SIG2) - X7-2 (SGD2)	Always	1 Mohms or higher
X7-12 (SVC2) - X7-2 (SGD2)		
X7-8 (SIG2) - X7-12 (SVC2)		
X7-2 (SGD2) - Body ground		
X7-8 (SIG2) - Body ground		
X7-12 (SVC2) - Body ground		

NG --> REPLACE FRONT SEAT WIRE RH

OK: Go to next step

5. CHECK FOR DTC

- a. Connect the connectors to the occupant classification ECU and the front occupant classification sensor RH.
- b. Connect the cable to the negative (-) battery terminal, and wait for at least 2 seconds.

- c. Turn the ignition switch to ON, and wait for at least 60 seconds.
- d. Clear any DTCs stored in the memory. Refer to **DTC CHECK / CLEAR** .

HINT:

- First clear DTCs stored in the occupant classification ECU and then in the center airbag sensor assembly.
 - Use the Techstream to clear the DTCs of the occupant classification ECU, otherwise the DTCs cannot be cleared.
- e. Turn the ignition switch off.
 - f. Turn the ignition switch to ON, and wait for at least 60 seconds.
 - g. Using the Techstream, check for DTCs of the occupant classification ECU. Refer to **DTC CHECK / CLEAR** .

OK

DTC B1781 is not output.

HINT:

DTCs other than DTC B1781 may be output at this time, but they are not related to this check.

NG --> See step 6

OK --> See step 13

6. REPLACE OCCUPANT CLASSIFICATION ECU

- a. Turn the ignition switch off.
- b. Disconnect the cable from the negative (-) battery terminal, and wait for at least 90 seconds.
- c. Replace the occupant classification ECU. Refer to **REMOVAL** .

HINT:

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

NEXT: Go to next step

7. PERFORM ZERO POINT CALIBRATION

- a. Connect the cable to the negative (-) battery terminal, and wait for at least 2 seconds.
- b. Connect the Techstream to the DLC3.
- c. Turn the ignition switch to ON, and wait for at least 60 seconds.
- d. Using the Techstream, perform the zero point calibration. Refer to **INITIALIZATION** .

NG --> See step 10

OK: Go to next step

8. PERFORM SENSITIVITY CHECK

- a. Using the Techstream, perform the sensitivity check. Refer to **INITIALIZATION** .

Standard range

27 to 33 kg (59.5 to 72.8 lb)

NG --> See step 10

OK: Go to next step

9. CHECK FOR DTC

- a. Turn the ignition switch to ON, and wait for at least 60 seconds.
- b. Clear any DTCs stored in the memory. Refer to **DTC CHECK / CLEAR** .

HINT:

- First clear DTCs stored in the occupant classification ECU and then in the center airbag sensor assembly.
 - Use the Techstream to clear the DTCs of the occupant classification ECU, otherwise the DTCs cannot be cleared.
- c. Turn the ignition switch off.
 - d. Turn the ignition switch to ON, and wait for at least 60 seconds.
 - e. Using the Techstream, check for DTCs of the occupant classification ECU. Refer to **DTC CHECK / CLEAR** .

OK

DTC B1781 is not output.

HINT:

DTCs other than DTC B1781 may be output at this time, but they are not related to this check.

NG --> See step 10

OK --> END

10. REPLACE FRONT SEAT CUSHION SPRING ASSEMBLY RH

- a. Turn the ignition switch off.
- b. Disconnect the cable from the negative (-) battery terminal, and wait for at least 90 seconds.
- c. Replace the front seat cushion spring assembly RH.

- For Manual seat. Refer to **REMOVAL** .
- For Power seat. Refer to **REMOVAL** .

HINT:

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

NEXT: Go to next step

11. PERFORM ZERO POINT CALIBRATION

- Connect the cable to the negative (-) battery terminal, and wait for at least 2 seconds.
- Connect the Techstream to the DLC3.
- Turn the ignition switch to ON, and wait for at least 60 seconds.
- Using the Techstream, perform the zero point calibration. Refer to **INITIALIZATION** .

NEXT: Go to next step

12. PERFORM SENSITIVITY CHECK

- Using the Techstream, perform the sensitivity check. Refer to **INITIALIZATION** .

Standard range

27 to 33 kg (59.5 to 72.8 lb)

NEXT --> END

13. USE SIMULATION METHOD TO CHECK. Refer to DIAGNOSIS SYSTEM

DTC B1782: REAR OCCUPANT CLASSIFICATION SENSOR LH CIRCUIT MALFUNCTION

DESCRIPTION

The rear occupant classification sensor LH circuit consists of the occupant classification ECU and the rear occupant classification sensor LH.

DTC B1782 is stored when a malfunction is detected in the rear occupant classification sensor LH circuit.

DTC Code	DTC Detection Condition	Trouble Area
B1782	One of following conditions is met: • Occupant classification ECU receives line short circuit signal, open circuit signal, short circuit to ground signal or short circuit to B+ signal in rear occupant classification sensor LH	• Front seat cushion spring assembly RH (Rear occupant classification sensor LH)

	circuit for 2 seconds • Rear occupant classification sensor LH malfunction • Occupant classification ECU malfunction	• Front seat wire RH • Occupant classification ECU
--	---	---

HINT:

- When DTC B1650/32 is detected as a result of troubleshooting the airbag system, perform troubleshooting for DTC B1782 of the occupant classification system.
- Use the Techstream to check for DTCs of the occupant classification ECU, otherwise the DTCs cannot be read.

WIRING DIAGRAM

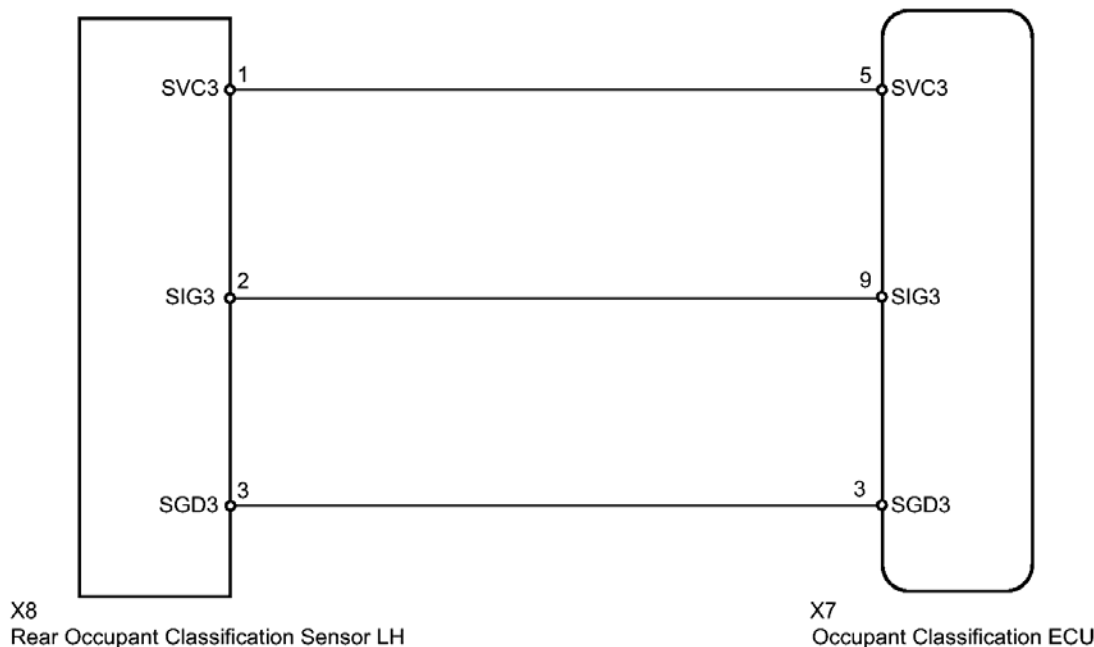


Fig. 7: Rear Occupant Classification Sensor LH Circuit - Wiring Diagram
 Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

INSPECTION PROCEDURE

HINT:

- If troubleshooting (wire harness inspection) is difficult to perform, remove the front seat RH installation bolts to see the undersurface of the seat cushion.
- In the above case, hold the seat so that it does not fall down. Holding the seat for a long period of time

may cause problems, such as seat rail deformation. Hold the seat up only for as long as necessary.

PROCEDURE

1. CHECK FOR DTC

- a. Turn the ignition switch to ON, and wait for at least 60 seconds.
- b. Clear any DTCs stored in the memory. Refer to **DTC CHECK / CLEAR** .

HINT:

- First clear DTCs stored in the occupant classification ECU and then in the center airbag sensor assembly.
 - Use the Techstream to clear the DTCs of the occupant classification ECU, otherwise the DTCs cannot be cleared.
- c. Turn the ignition switch off.
 - d. Turn the ignition switch to ON, and wait for at least 60 seconds.
 - e. Using the Techstream, check for DTCs of the occupant classification ECU. Refer to **DTC CHECK / CLEAR** .

OK

DTC B1782 is not output.

HINT:

DTCs other than DTC B1782 may be output at this time, but they are not related to this check.

NG --> See step 2

OK --> See step 13

2. CHECK CONNECTION OF CONNECTOR

- a. Turn the ignition switch off.
- b. Disconnect the cable from the negative (-) battery terminal, and wait for at least 90 seconds.
- c. Check that the connectors are properly connected to the occupant classification ECU and the rear occupant classification sensor LH.

OK

Connectors are properly connected.

NG --> CONNECT CONNECTORS PROPERLY

OK: Go to next step

3. CHECK CONNECTOR

- a. Check that the connectors (on the occupant classification ECU side and rear occupant classification sensor LH side) are not damaged.

OK

Connectors are not deformed or damaged.

NG --> REPLACE FRONT SEAT WIRE RH

OK: Go to next step

4. CHECK FRONT SEAT WIRE RH

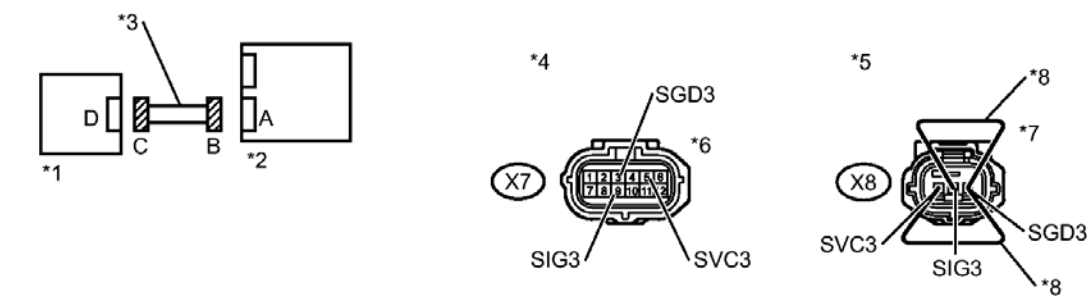


Fig. 8: Checking Front Seat Wire RH
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

TEXT IN ILLUSTRATION

*1	Rear Occupant Classification Sensor LH	*2	Occupant Classification ECU
*3	Front Seat Wire RH	*4	Front view of wire harness connector (to Occupant Classification ECU)
*5	Front view of wire harness connector (to Rear Occupant Classification	*6	Connector B

	Sensor LH)		
*7	Connector C	*8	Service Wire

- Disconnect the connectors from the occupant classification ECU and the rear occupant classification sensor LH.
- Connect the cable to the negative (-) battery terminal, and wait for at least 2 seconds.
- Turn the ignition switch to ON, and wait for at least 60 seconds.
- Measure the voltage according to the value(s) in the table below.

Standard Voltage

Tester Connection	Switch Condition	Specified Condition
X7-3 (SGD3) - Body ground	Ignition switch ON	Below 1 V
X7-5 (SVC3) - Body ground		
X7-9 (SIG3) - Body ground		

- Turn the ignition switch off.
- Disconnect the cable from the negative (-) battery terminal, and wait for at least 90 seconds.
- Using service wires, connect terminals 1 (SVC3) and 3 (SGD3), and connect terminals 2 (SIG3) and 3 (SGD3) of connector C.

NOTE: Do not forcibly insert the service wires into the terminals of the connector.

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

Standard Resistance

Tester Connection	Condition	Specified Condition
X7-5 (SVC3) - X7-3 (SGD3)	Always	Below 1

X7-9 (SIG3) - X7-3 (SGD3)		ohms
------------------------------------	--	------

- i. Disconnect the service wires from connector C.
- j. Measure the resistance according to the value(s) in the table below.

Standard Resistance

Tester Connection	Condition	Specified Condition
X7-5 (SVC3) - X7-3 (SGD3)	Always	1 Mohms or higher
X7-9 (SIG3) - X7-3 (SGD3)		
X7-5 (SVC3) - X7-9 (SIG3)		
X7-3 (SGD3) - Body ground		
X7-5 (SVC3) - Body ground		
X7-9 (SIG3) - Body ground		

NG --> REPLACE FRONT SEAT WIRE RH

OK: Go to next step

5. CHECK FOR DTC

- a. Connect the connectors to the occupant classification ECU and the rear occupant classification sensor LH.
- b. Connect the cable to the negative (-) battery terminal, and wait for at least 2 seconds.

- c. Turn the ignition switch to ON, and wait for at least 60 seconds.
- d. Clear any DTCs stored in the memory. Refer to **DTC CHECK / CLEAR** .

HINT:

- First clear DTCs stored in the occupant classification ECU and then in the center airbag sensor assembly.
 - Use the Techstream to clear the DTCs of the occupant classification ECU, otherwise the DTCs cannot be cleared.
- e. Turn the ignition switch off.
 - f. Turn the ignition switch to ON, and wait for at least 60 seconds.
 - g. Using the Techstream, check for DTCs of the occupant classification ECU. Refer to **DTC CHECK / CLEAR** .

OK

DTC B1782 is not output.

HINT:

DTCs other than DTC B1782 may be output at this time, but they are not related to this check.

NG --> See step 6

OK --> See step 13

6. REPLACE OCCUPANT CLASSIFICATION ECU

- a. Turn the ignition switch off.
- b. Disconnect the cable from the negative (-) battery terminal, and wait for at least 90 seconds.
- c. Replace the occupant classification ECU. Refer to **REMOVAL** .

HINT:

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

NEXT: Go to next step

7. PERFORM ZERO POINT CALIBRATION

- a. Connect the cable to the negative (-) battery terminal, and wait for at least 2 seconds.
- b. Connect the Techstream to the DLC3.
- c. Turn the ignition switch to ON, and wait for at least 60 seconds.
- d. Using the Techstream, perform the zero point calibration. Refer to **INITIALIZATION** .

NG --> See step 10

OK: Go to next step

8. PERFORM SENSITIVITY CHECK

- a. Using the Techstream, perform the sensitivity check. Refer to **INITIALIZATION** .

Standard range

27 to 33 kg (59.5 to 72.8 lb)

NG --> See step 10

OK: Go to next step

9. CHECK FOR DTC

- a. Turn the ignition switch to ON, and wait for at least 60 seconds.
- b. Clear the DTCs stored in the memory. Refer to **DTC CHECK / CLEAR** .

HINT:

- First clear DTCs stored in the occupant classification ECU and then in the center airbag sensor assembly.
 - Use the Techstream to clear the DTCs of the occupant classification ECU, otherwise the DTCs cannot be cleared.
- c. Turn the ignition switch off.
 - d. Turn the ignition switch to ON, and wait for at least 60 seconds.
 - e. Using the Techstream, check for DTCs of the occupant classification ECU. Refer to **DTC CHECK / CLEAR** .

OK

DTC B1782 is not output.

HINT:

DTCs other than DTC B1782 may be output at this time, but they are not related to this check.

NG --> See step 10

OK --> END

10. REPLACE FRONT SEAT CUSHION SPRING ASSEMBLY RH

- a. Turn the ignition switch off.
- b. Disconnect the cable from the negative (-) battery terminal, and wait for at least 90 seconds.
- c. Replace the front seat cushion spring assembly RH.

- For Manual seat. Refer to **REMOVAL** .
- For Power seat. Refer to **REMOVAL** .

HINT:

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

NEXT: Go to next step

11. PERFORM ZERO POINT CALIBRATION

- Connect the cable to the negative (-) battery terminal, and wait for at least 2 seconds.
- Connect the Techstream to the DLC3.
- Turn the ignition switch to ON, and wait for at least 60 seconds.
- Using the Techstream, perform the zero point calibration. Refer to **INITIALIZATION** .

NEXT: Go to next step

12. PERFORM SENSITIVITY CHECK

- Using the Techstream, perform the sensitivity check. Refer to **INITIALIZATION** .

Standard range

27 to 33 kg (59.5 to 72.8 lb)

NEXT --> END

13. USE SIMULATION METHOD TO CHECK. Refer to DIAGNOSIS SYSTEM

DTC B1783: REAR OCCUPANT CLASSIFICATION SENSOR RH CIRCUIT MALFUNCTION

DESCRIPTION

The rear occupant classification sensor RH circuit consists of the occupant classification ECU and the rear occupant classification sensor RH.

DTC B1783 is stored when a malfunction is detected in the rear occupant classification sensor RH circuit.

DTC Code	DTC Detection Condition	Trouble Area
B1783	One of following conditions is met: Occupant classification ECU receives line short circuit signal, open circuit signal, short circuit to ground signal or short circuit to +B signal in rear occupant classification sensor RH	Front seat cushion spring assembly RH (Rear occupant classification sensor RH)

	circuit for 2 seconds • Rear occupant classification sensor RH malfunction • Occupant classification ECU malfunction	• Front seat wire RH • Occupant classification ECU
--	---	---

HINT:

- When DTC B1650/32 is detected as a result of troubleshooting the airbag system, perform troubleshooting for DTC B1783 of the occupant classification system.
- Use the Techstream to check for DTCs of the occupant classification ECU, otherwise the DTCs cannot be read.

WIRING DIAGRAM

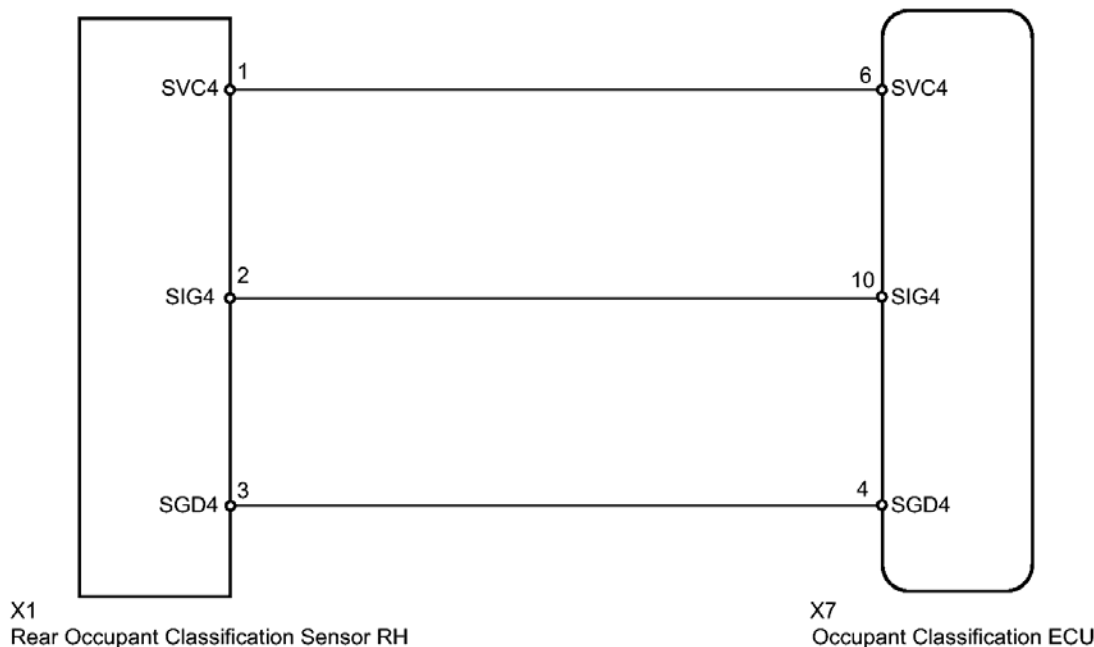


Fig. 9: Rear Occupant Classification Sensor RH Circuit - Wiring Diagram
 Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

INSPECTION PROCEDURE

HINT:

- If troubleshooting (wire harness inspection) is difficult to perform, remove the front seat RH installation bolts to see the undersurface of the seat cushion.
- In the above case, hold the seat so that it does not fall down. Holding the seat for a long period of time

may cause problems, such as seat rail deformation. Hold the seat up only for as long as necessary.

PROCEDURE

1. CHECK FOR DTC

- a. Turn the ignition switch to ON, and wait for at least 60 seconds.
- b. Clear any DTCs stored in the memory. Refer to **DTC CHECK / CLEAR** .

HINT:

- First clear DTCs stored in the occupant classification ECU and then in the center airbag sensor assembly.
 - Use the Techstream to clear the DTCs of the occupant classification ECU, otherwise the DTCs cannot be cleared.
- c. Turn the ignition switch off.
 - d. Turn the ignition switch to ON, and wait for at least 60 seconds.
 - e. Using the Techstream, check for DTCs of the occupant classification ECU. Refer to **DTC CHECK / CLEAR** .

OK

DTC B1783 is not output.

HINT:

DTCs other than DTC B1783 may be output at this time, but they are not related to this check.

NG --> See step 2

OK --> See step 13

2. CHECK CONNECTION OF CONNECTOR

- a. Turn the ignition switch off.
- b. Disconnect the cable from the negative (-) battery terminal, and wait for at least 90 seconds.
- c. Check that the connectors are properly connected to the occupant classification ECU and the rear occupant classification sensor RH.

OK

Connectors are properly connected.

NG --> CONNECT CONNECTORS PROPERLY

OK: Go to next step

3. CHECK CONNECTOR

- a. Check that the connectors (on the occupant classification ECU side and rear occupant classification sensor RH side) are not damaged.

OK

Connectors are not deformed or damaged.

NG --> REPLACE FRONT SEAT WIRE RH

OK: Go to next step

4. CHECK FRONT SEAT WIRE RH

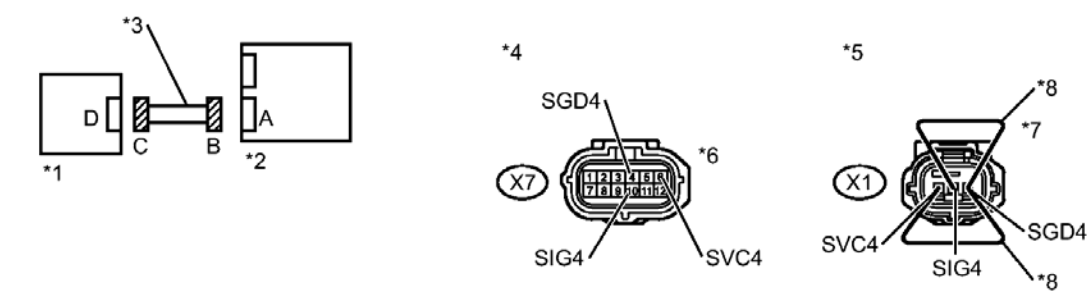


Fig. 10: Checking Front Seat Wire RH
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

TEXT IN ILLUSTRATION

*1	Rear Occupant Classification Sensor RH	*2	Occupant Classification ECU
*3	Front Seat Wire RH	*4	Front view of wire harness connector (to Occupant Classification ECU)
*5	Front view of wire harness connector (to Rear Occupant Classification	*6	Connector B

	Sensor RH)		
*7	Connector C	*8	Service Wire

- Disconnect the connectors from the occupant classification ECU and the rear occupant classification sensor RH.
- Connect the cable to the negative (-) battery terminal, and wait for at least 2 seconds.
- Turn the ignition switch to ON, and wait for at least 60 seconds.
- Measure the voltage according to the value(s) in the table below.

Standard Voltage

Tester Connection	Switch Condition	Specified Condition
X7-4 (SGD4) - Body ground	Ignition switch ON	Below 1 V
X7-6 (SVC4) - Body ground		
X7-10 (SIG4) - Body ground		

- Turn the ignition switch off.
- Disconnect the cable from the negative (-) battery terminal, and wait for at least 90 seconds.
- Using service wires, connect terminals 1 (SVC4) and 3 (SGD4), and connect terminals 2 (SIG4) and 3 (SGD4) of connector C.

NOTE: Do not forcibly insert the service wires into the terminals of the connector.

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

Standard Resistance

Tester Connection	Condition	Specified Condition
X7-6 (SVC4) - X7-4 (SGD4)	Always	Below 1

X7-10 (SIG4) - X7-4 (SGD4)		ohms
-------------------------------------	--	------

- i. Disconnect the service wires from connector C.
- j. Measure the resistance according to the value(s) in the table below.

Standard Resistance

Tester Connection	Condition	Specified Condition
X7-6 (SVC4) - X7-4 (SGD4)	Always	1 Mohms or higher
X7-10 (SIG4) - X7-4 (SGD4)		
X7-6 (SVC4) - X7-10 (SIG4)		
X7-4 (SGD4) - Body ground		
X7-6 (SVC4) - Body ground		
X7-10 (SIG4) - Body ground		

NG --> REPLACE FRONT SEAT WIRE RH

OK: Go to next step

5. CHECK FOR DTC

- a. Connect the connectors to the occupant classification ECU and the rear occupant classification sensor RH.
- b. Connect the cable to the negative (-) battery terminal, and wait for at least 2 seconds.

- c. Turn the ignition switch to ON, and wait for at least 60 seconds.
- d. Clear any DTCs stored in the memory. Refer to **DTC CHECK / CLEAR** .

HINT:

- First clear DTCs stored in the occupant classification ECU and then in the center airbag sensor assembly.
 - Use the Techstream to clear the DTCs of the occupant classification ECU, otherwise the DTCs cannot be cleared.
- e. Turn the ignition switch off.
 - f. Turn the ignition switch to ON, and wait for at least 60 seconds.
 - g. Using the Techstream, check for DTCs of the occupant classification ECU. Refer to **DTC CHECK / CLEAR** .

OK

DTC B1783 is not output.

HINT:

DTCs other than DTC B1783 may be output at this time, but they are not related to this check.

NG --> See step 6

OK --> See step 13

6. REPLACE OCCUPANT CLASSIFICATION ECU

- a. Turn the ignition switch off.
- b. Disconnect the cable from the negative (-) battery terminal, and wait for at least 90 seconds.
- c. Replace the occupant classification ECU. Refer to **REMOVAL** .

HINT:

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

NEXT: Go to next step

7. PERFORM ZERO POINT CALIBRATION

- a. Connect the cable to the negative (-) battery terminal, and wait for at least 2 seconds.
- b. Connect the Techstream to the DLC3.
- c. Turn the ignition switch to ON, and wait for at least 60 seconds.
- d. Using the Techstream, perform the zero point calibration. Refer to **INITIALIZATION** .

NG --> See step 10

OK: Go to next step

8. PERFORM SENSITIVITY CHECK

- a. Using the Techstream, perform the sensitivity check. Refer to **INITIALIZATION** .

Standard range

27 to 33 kg (59.5 to 72.8 lb)

NG --> See step 10

OK: Go to next step

9. CHECK FOR DTC

- a. Turn the ignition switch to ON, and wait for at least 60 seconds.
- b. Clear any DTCs stored in the memory. Refer to **DTC CHECK / CLEAR** .

HINT:

- First clear DTCs stored in the occupant classification ECU and then in the center airbag sensor assembly.
 - Use the Techstream to clear the DTCs of the occupant classification ECU, otherwise the DTCs cannot be cleared.
- c. Turn the ignition switch off.
 - d. Turn the ignition switch to ON, and wait for at least 60 seconds.
 - e. Using the Techstream, check for DTCs of the occupant classification ECU. Refer to **DTC CHECK / CLEAR** .

OK

DTC B1783 is not output.

HINT:

DTCs other than DTC B1783 may be output at this time, but they are not related to this check.

NG --> See step 10

OK --> END

10. REPLACE FRONT SEAT CUSHION SPRING ASSEMBLY RH

- a. Turn the ignition switch off.
- b. Disconnect the cable from the negative (-) battery terminal, and wait for at least 90 seconds.
- c. Replace the front seat cushion spring assembly RH.

- For Manual seat. Refer to **REMOVAL** .
- For Power seat. Refer to **REMOVAL** .

HINT:

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

NEXT: Go to next step

11. PERFORM ZERO POINT CALIBRATION

- Connect the cable to the negative (-) battery terminal, and wait for at least 2 seconds.
- Connect the Techstream to the DLC3.
- Turn the ignition switch to ON, and wait for at least 60 seconds.
- Using the Techstream, perform the zero point calibration. Refer to **INITIALIZATION** .

NEXT: Go to next step

12. PERFORM SENSITIVITY CHECK

- Using the Techstream, perform the sensitivity check. Refer to **INITIALIZATION** .

Standard range

27 to 33 kg (59.5 to 72.8 lb)

NEXT --> END

13. USE SIMULATION METHOD TO CHECK. Refer to DIAGNOSIS SYSTEM

DTC B1785: FRONT OCCUPANT CLASSIFICATION SENSOR LH COLLISION DETECTION

DESCRIPTION

DTC B1785 is stored when the occupant classification ECU receives a collision detection signal, which is sent by the front occupant classification sensor LH when an accident occurs.

DTC B1785 is also stored when the front seat assembly RH is subjected to a strong impact, even if an actual accident has not occurred.

However, when the occupant classification ECU outputs a collision detection signal, even if the vehicle is not in a collision, DTC B1785 can be cleared by conducting the zero point calibration and sensitivity check.

Therefore, if DTC B1785 is stored, first perform the zero point calibration and sensitivity check.

DTC Code	DTC Detection Condition	Trouble Area
	Either of following conditions is met:	

B1785	- Occupant classification ECU receives collision detection signal, which is sent by front occupant classification sensor LH when accident occurs - Front seat assembly RH is subjected to strong impact, even if actual accident has not occurred	Front seat cushion spring assembly RH (Front occupant classification sensor LH)
-------	--	---

HINT:

- When DTC B1650/32 is stored as a result of troubleshooting the airbag system, perform troubleshooting for DTC B1785 of the occupant classification system.
- Use the Techstream to check for DTCs of the occupant classification ECU, otherwise the DTCs cannot be read.

WIRING DIAGRAM

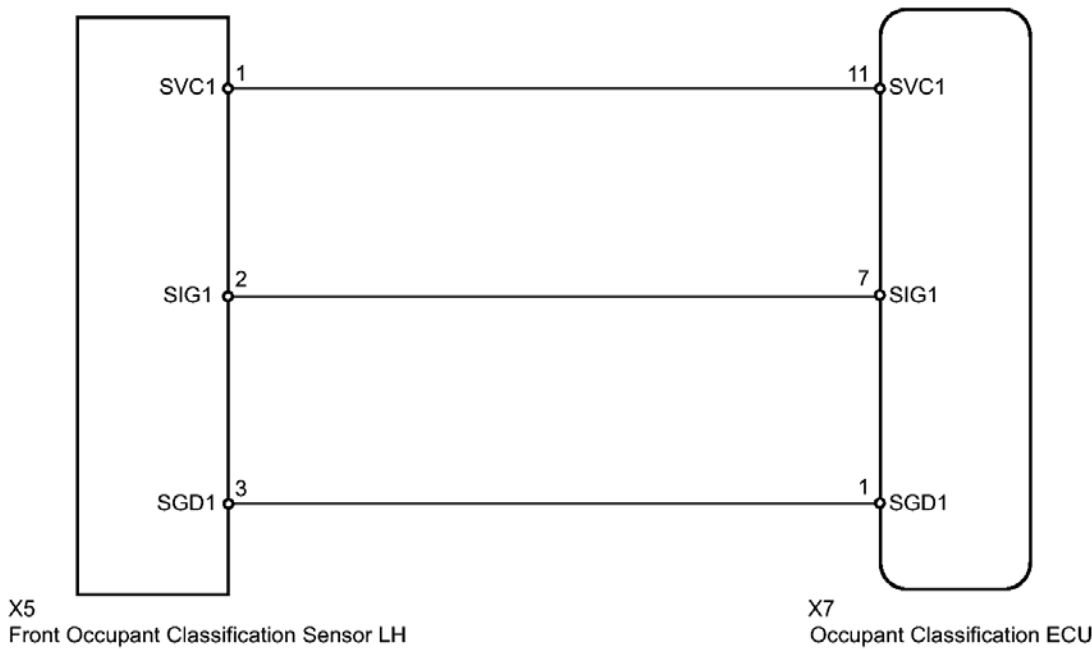


Fig. 11: Front Occupant Classification Sensor LH Circuit - Wiring Diagram
 Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

INSPECTION PROCEDURE

PROCEDURE

- PERFORM ZERO POINT CALIBRATION**

- a. Connect the Techstream to the DLC3.
- b. Turn the ignition switch to ON, and wait for at least 60 seconds.
- c. Using the Techstream, perform the zero point calibration. Refer to **INITIALIZATION** .

NG --> See step 3

OK: Go to next step

2. CHECK FOR DTC

- a. Turn the ignition switch to ON, and wait for at least 60 seconds.
- b. Clear any DTCs stored in the memory. Refer to **DTC CHECK / CLEAR** .

HINT:

- First clear DTCs stored in the occupant classification ECU and then in the center airbag sensor assembly.
 - Use the Techstream to clear the DTCs of the occupant classification ECU, otherwise the DTCs cannot be cleared.
- c. Turn the ignition switch off.
 - d. Turn the ignition switch to ON, and wait for at least 60 seconds.
 - e. Using the Techstream, check for DTCs of the occupant classification ECU. Refer to **DTC CHECK / CLEAR** .

OK

DTC B1785 is not output.

HINT:

DTCs other than DTC B1785 may be output at this time, but they are not related to this check.

RESULT

Result	Proceed to
NG	A
OK	B

B --> See step 5

A: Go to next step

3. REPLACE FRONT SEAT CUSHION SPRING ASSEMBLY RH

- a. Turn the ignition switch off.
- b. Disconnect the cable from the negative (-) battery terminal, and wait for at least 90 seconds.

c. Replace the front seat cushion spring assembly RH.

- For Manual seat. Refer to **REMOVAL** .
- For Power seat. Refer to **REMOVAL** .

HINT:

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

NEXT: Go to next step

4. PERFORM ZERO POINT CALIBRATION

- Connect the cable to the negative (-) battery terminal, and wait for at least 2 seconds.
- Connect the Techstream to the DLC3.
- Turn the ignition switch to ON, and wait for at least 60 seconds.
- Using the Techstream, perform the zero point calibration. Refer to **INITIALIZATION** .

NEXT: Go to next step

5. PERFORM SENSITIVITY CHECK

- Using the Techstream, perform the sensitivity check. Refer to **INITIALIZATION** .

Standard range

27 to 33 kg (59.5 to 72.8 lb)

NEXT --> END

DTC B1786: FRONT OCCUPANT CLASSIFICATION SENSOR RH COLLISION DETECTION

DESCRIPTION

DTC B1786 is stored when the occupant classification ECU receives a collision detection signal, which is sent by the front occupant classification sensor RH when an accident occurs.

DTC B1786 is also stored when the front seat assembly RH is subjected to a strong impact, even if an actual accident has not occurred.

However, when the occupant classification ECU outputs a collision detection signal, even if the vehicle is not in a collision, DTC B1786 can be cleared by conducting the zero point calibration and sensitivity check.

Therefore, if DTC B1786 is stored, first perform the zero point calibration and sensitivity check.

DTC Code	DTC Detection Condition	Trouble Area
	Either of following conditions is met:	

B1786	- Occupant classification ECU receives collision detection signal, which is sent by front occupant classification sensor RH when accident occurs - Front seat assembly RH is subjected to strong impact, even if actual accident has not occurred	Front seat cushion spring assembly RH (Front occupant classification sensor RH)
-------	--	---

HINT:

- When DTC B1650/32 is stored as a result of troubleshooting the airbag system, perform troubleshooting for DTC B1786 of the occupant classification system.
- Use the Techstream to check for DTCs of the occupant classification ECU, otherwise the DTCs cannot be read.

WIRING DIAGRAM

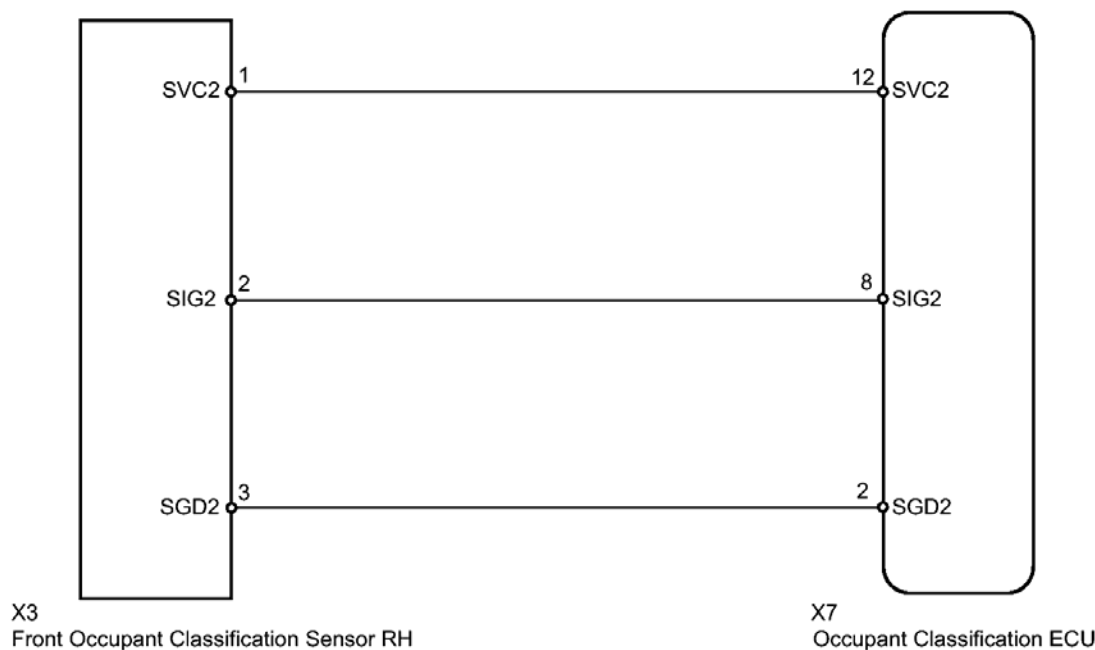


Fig. 12: Front Occupant Classification Sensor RH Circuit - Wiring Diagram
 Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

INSPECTION PROCEDURE

PROCEDURE

1. PERFORM ZERO POINT CALIBRATION

- a. Connect the Techstream to the DLC3.
- b. Turn the ignition switch to ON, and wait for at least 60 seconds.
- c. Using the Techstream, perform the zero point calibration. Refer to **INITIALIZATION** .

NG --> See step 3

OK: Go to next step

2. CHECK FOR DTC

- a. Turn the ignition switch to ON, and wait for at least 60 seconds.
- b. Clear any DTCs stored in the memory. Refer to **DTC CHECK / CLEAR** .

HINT:

- First clear DTCs stored in the occupant classification ECU and then in the center airbag sensor assembly.
 - Use the Techstream to clear the DTCs of the occupant classification ECU, otherwise the DTCs cannot be cleared.
- c. Turn the ignition switch off.
 - d. Turn the ignition switch to ON, and wait for at least 60 seconds.
 - e. Using the Techstream, check for DTCs of the occupant classification ECU. Refer to **DTC CHECK / CLEAR** .

OK

DTC B1786 is not output.

HINT:

DTCs other than DTC B1786 may be output at this time, but they are not related to this check.

RESULT

Result	Proceed to
NG	A
OK	B

B --> See step 5

A: Go to next step

3. REPLACE FRONT SEAT CUSHION SPRING ASSEMBLY RH

- a. Turn the ignition switch off.
- b. Disconnect the cable from the negative (-) battery terminal, and wait for at least 90 seconds.

- c. Replace the front seat cushion spring assembly RH.
 - For Manual seat. Refer to **REMOVAL** .
 - For Power seat. Refer to **REMOVAL** .

HINT:

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

NEXT: Go to next step

4. PERFORM ZERO POINT CALIBRATION

- a. Connect the cable to the negative (-) battery terminal, and wait for at least 2 seconds.
- b. Connect the Techstream to the DLC3.
- c. Turn the ignition switch to ON, and wait for at least 60 seconds.
- d. Using the Techstream, perform the zero point calibration. Refer to **INITIALIZATION** .

NEXT: Go to next step

5. PERFORM SENSITIVITY CHECK

- a. Using the Techstream, perform the sensitivity check. Refer to **INITIALIZATION** .

Standard range

27 to 33 kg (59.5 to 72.8 lb)

NEXT --> END

DTC B1787: REAR OCCUPANT CLASSIFICATION SENSOR LH COLLISION DETECTION

DESCRIPTION

DTC B1787 is stored when the occupant classification ECU receives a collision detection signal, which is sent by the rear occupant classification sensor LH when an accident occurs.

DTC B1787 is also stored when the front seat assembly RH is subjected to a strong impact, even if an actual accident has not occurred.

However, when the occupant classification ECU outputs a collision detection signal, even if the vehicle is not in a collision, DTC B1787 can be cleared by conducting the zero point calibration and sensitivity check.

Therefore, if DTC B1787 is stored, first perform the zero point calibration and sensitivity check.

DTC Code	DTC Detection Condition	Trouble Area
	Either of following conditions is met:	

B1787	- Occupant classification ECU receives collision detection signal, which is sent by rear occupant classification sensor LH when accident occurs - Front seat assembly RH is subjected to strong impact, even if actual accident has not occurred	Front seat cushion spring assembly RH (Rear occupant classification sensor LH)
-------	---	--

HINT:

- When DTC B1650/32 is stored as a result of troubleshooting the airbag system, perform troubleshooting for DTC B1787 of the occupant classification system.
- Use the Techstream to check for DTCs of the occupant classification ECU, otherwise the DTCs cannot be read.

WIRING DIAGRAM

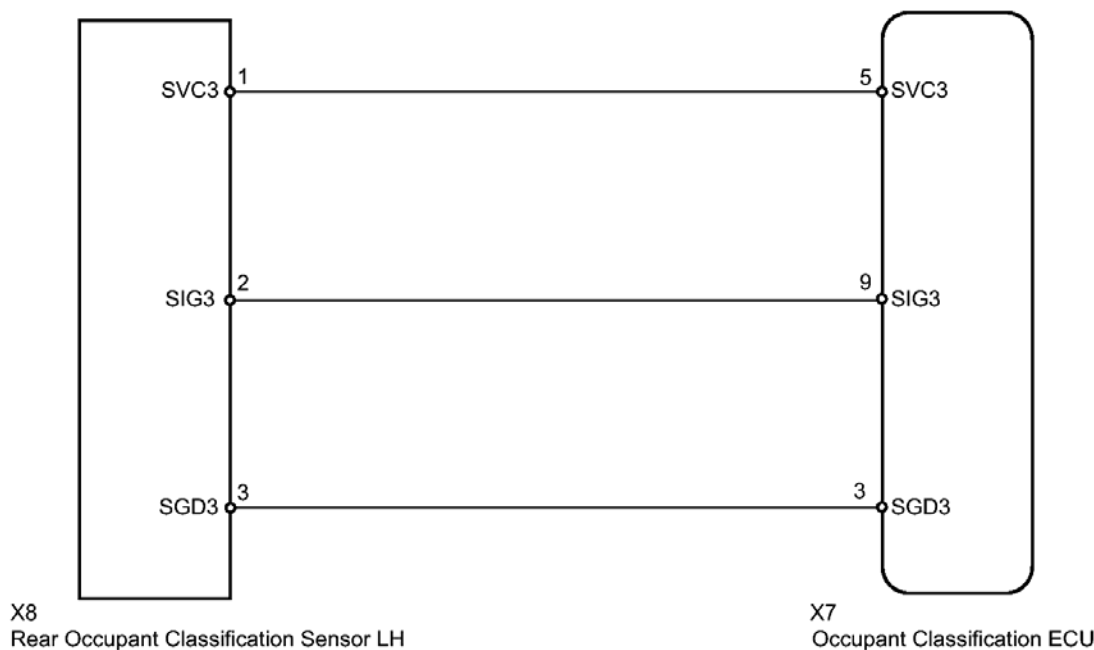


Fig. 13: Rear Occupant Classification Sensor LH Circuit - Wiring Diagram
 Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

INSPECTION PROCEDURE

PROCEDURE

1. PERFORM ZERO POINT CALIBRATION

- a. Connect the Techstream to the DLC3.
- b. Turn the ignition switch to ON, and wait for at least 60 seconds.
- c. Using the Techstream, perform the zero point calibration. Refer to **INITIALIZATION** .

NG --> See step 3

OK: Go to next step

2. CHECK FOR DTC

- a. Turn the ignition switch to ON, and wait for at least 60 seconds.
- b. Clear any DTCs stored in the memory. Refer to **DTC CHECK / CLEAR** .

HINT:

- First clear DTCs stored in the occupant classification ECU and then in the center airbag sensor assembly.
 - Use the Techstream to clear the DTCs of the occupant classification ECU, otherwise the DTCs cannot be cleared.
- c. Turn the ignition switch off.
 - d. Turn the ignition switch to ON, and wait for at least 60 seconds.
 - e. Using the Techstream, check for DTCs of the occupant classification ECU. Refer to **DTC CHECK / CLEAR** .

OK

DTC B1787 is not output.

HINT:

DTCs other than DTC B1787 may be output at this time, but they are not related to this check.

RESULT

Result	Proceed to
NG	A
OK	B

B --> See step 5

A: Go to next step

3. REPLACE FRONT SEAT CUSHION SPRING ASSEMBLY RH

- a. Turn the ignition switch off.
- b. Disconnect the cable from the negative (-) battery terminal, and wait for at least 90 seconds.

c. Replace the front seat cushion spring assembly RH.

- For Manual seat. Refer to **REMOVAL** .
- For Power seat. Refer to **REMOVAL** .

HINT:

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

NEXT: Go to next step

4. PERFORM ZERO POINT CALIBRATION

- Connect the cable to the negative (-) battery terminal, and wait for at least 2 seconds.
- Connect the Techstream to the DLC3.
- Turn the ignition switch to ON, and wait for at least 60 seconds.
- Using the Techstream, perform the zero point calibration. Refer to **INITIALIZATION** .

NEXT: Go to next step

5. PERFORM SENSITIVITY CHECK

- Using the Techstream, perform the sensitivity check. Refer to **INITIALIZATION** .

Standard range

27 to 33 kg (59.5 to 72.8 lb)

NEXT --> END

DTC B1788: REAR OCCUPANT CLASSIFICATION SENSOR RH COLLISION DETECTION

DESCRIPTION

DTC B1788 is stored when the occupant classification ECU receives a collision detection signal, which is sent by the occupant classification sensor rear RH when an accident occurs.

DTC B1788 is also stored when the front seat assembly RH is subjected to a strong impact, even if an actual accident has not occurred.

However, when the occupant classification ECU outputs a collision detection signal, even if the vehicle is not in a collision, DTC B1788 can be cleared by conducting the zero point calibration and sensitivity check.

Therefore, if DTC B1788 is stored, first perform the zero point calibration and sensitivity check.

DTC Code	DTC Detection Condition	Trouble Area
	Either of following conditions is met:	

B1788	• Occupant classification ECU receives collision detection signal, which is sent by occupant classification sensor rear RH when accident occurs • Front seat assembly RH is subjected to strong impact, even if actual accident has not occurred	Front seat cushion spring assembly RH (Rear occupant classification sensor RH)
-------	--	--

HINT:

- When DTC B1650/32 is stored as a result of troubleshooting the airbag system, perform troubleshooting for DTC B1788 of the occupant classification system.
- Use the Techstream to check for DTCs of the occupant classification ECU, otherwise the DTCs cannot be read.

WIRING DIAGRAM

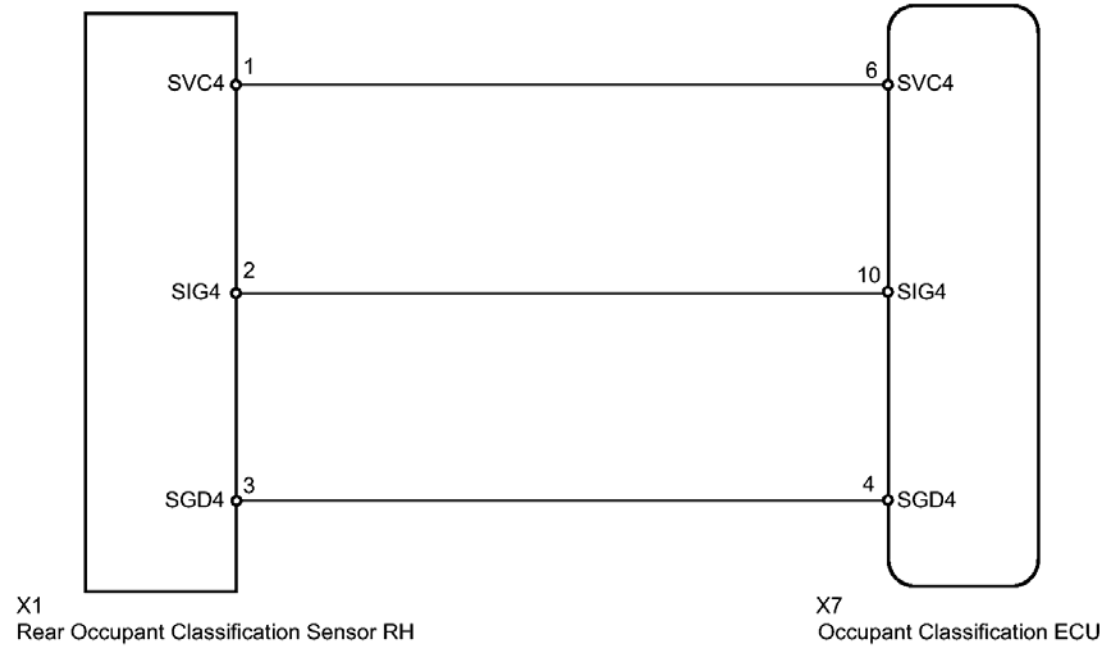


Fig. 14: Rear Occupant Classification Sensor RH Circuit - Wiring Diagram
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

INSPECTION PROCEDURE

PROCEDURE

1. **PERFORM ZERO POINT CALIBRATION**

- a. Connect the Techstream to the DLC3.
- b. Turn the ignition switch to ON, and wait for at least 60 seconds.
- c. Using the Techstream, perform the zero point calibration. Refer to **INITIALIZATION** .

NG --> See step 3

OK: Go to next step

2. CHECK FOR DTC

- a. Turn the ignition switch to ON, and wait for at least 60 seconds.
- b. Clear any DTCs stored in the memory. Refer to **DTC CHECK / CLEAR** .

HINT:

- First clear DTCs stored in the occupant classification ECU and then in the center airbag sensor assembly.
 - Use the Techstream to clear the DTCs of the occupant classification ECU, otherwise the DTCs cannot be cleared.
- c. Turn the ignition switch off.
 - d. Turn the ignition switch to ON, and wait for at least 60 seconds.
 - e. Using the Techstream, check for DTCs of the occupant classification ECU. Refer to **DTC CHECK / CLEAR** .

OK

DTC B1788 is not output.

HINT:

DTCs other than DTC B1788 may be output at this time, but they are not related to this check.

RESULT

Result	Proceed to
NG	A
OK	B

B --> See step 5

A: Go to next step

3. REPLACE FRONT SEAT CUSHION SPRING ASSEMBLY RH

- a. Turn the ignition switch off.
- b. Disconnect the cable from the negative (-) battery terminal, and wait for at least 90 seconds.

c. Replace the front seat cushion spring assembly RH.

- For Manual seat. Refer to **REMOVAL** .
- For Power seat. Refer to **REMOVAL** .

HINT:

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

NEXT: Go to next step

4. PERFORM ZERO POINT CALIBRATION

- Connect the cable to the negative (-) battery terminal, and wait for at least 2 seconds.
- Connect the Techstream to the DLC3.
- Turn the ignition switch to ON, and wait for at least 60 seconds.
- Using the Techstream, perform the zero point calibration. Refer to **INITIALIZATION** .

NEXT: Go to next step

5. PERFORM SENSITIVITY CHECK

- Using the Techstream, perform the sensitivity check. Refer to **INITIALIZATION** .

Standard range

27 to 33 kg (59.5 to 72.8 lb)

NEXT --> END

DTC B1790: CENTER AIRBAG SENSOR ASSEMBLY COMMUNICATION CIRCUIT MALFUNCTION

DESCRIPTION

The center airbag sensor assembly communication circuit consists of the occupant classification ECU and the center airbag sensor assembly.

DTC B1790 is stored when a malfunction is detected in the center airbag sensor assembly communication circuit.

DTC Code	DTC Detection Condition	Trouble Area
	One of following conditions is met: • Occupant classification ECU receives line short circuit signal, open circuit signal, short circuit to ground signal or short circuit to +B signal in center airbag	• No. 2 floor wire • Front seat wire RH

B1790	sensor assembly communication circuit for 2 seconds - Center airbag sensor assembly malfunction - Occupant classification ECU malfunction	- Occupant classification ECU - Center airbag sensor assembly
-------	--	--

HINT:

- When DTC B1650/32 is detected as a result of troubleshooting the airbag system, perform troubleshooting for DTC B1790 of the occupant classification system.
- Use the Techstream to check for DTCs of the occupant classification ECU, otherwise the DTCs cannot be read.

WIRING DIAGRAM

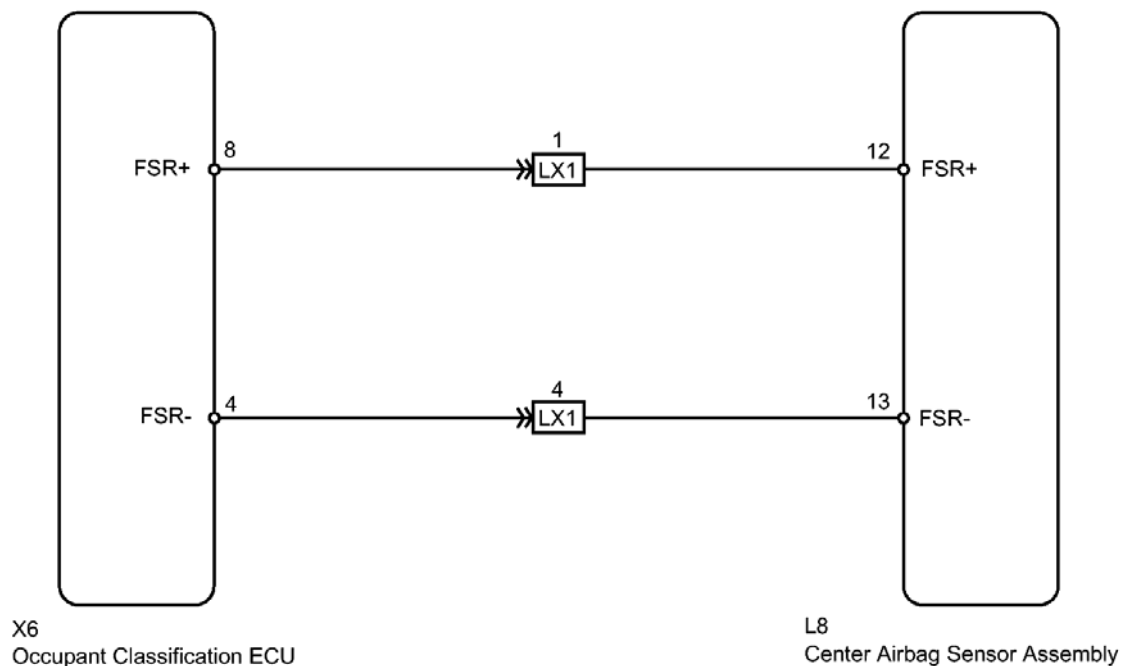


Fig. 15: Occupant Classification System - Wiring Diagram
 Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

INSPECTION PROCEDURE

HINT:

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

PROCEDURE**1. CHECK FOR DTC**

- a. Turn the ignition switch to ON, and wait for at least 60 seconds.
- b. Clear any DTCs stored in the memory. Refer to **DTC CHECK / CLEAR** .

HINT:

- c. Turn the ignition switch off.
 - d. Turn the ignition switch to ON, and wait for at least 60 seconds.
 - e. Using the Techstream, check for DTCs of the occupant classification ECU. Refer to **DTC CHECK / CLEAR** .
- First clear DTCs stored in the occupant classification ECU and then in the center airbag sensor assembly.
 - Use the Techstream to clear the DTCs of the occupant classification ECU, otherwise the DTCs cannot be cleared.

OK

DTC B1790 is not output.

HINT:

DTCs other than DTC B1790 may be output at this time, but they are not related to this check.

NG --> See step 2

OK --> See step 11

2. CHECK CONNECTION OF CONNECTOR

- a. Turn the ignition switch off.
- b. Disconnect the cable from the negative (-) battery terminal, and wait for at least 90 seconds.
- c. Check that the connectors are properly connected to the occupant classification ECU and center airbag sensor assembly. Also check that the connectors that link the front seat wire RH and No. 2 floor wire are properly connected.

OK

Connectors are properly connected.

NG --> CONNECT CONNECTORS PROPERLY

OK: Go to next step

3. CHECK CONNECTOR

- a. Check that the connectors (on the center airbag sensor assembly side, occupant classification ECU side, front seat wire RH side and No. 2 floor wire side) are not damaged.

OK

Connectors are not deformed or damaged.

NG --> REPLACE HARNESS OR CONNECTOR

OK: Go to next step

4. CHECK OCCUPANT CLASSIFICATION SYSTEM CIRCUIT

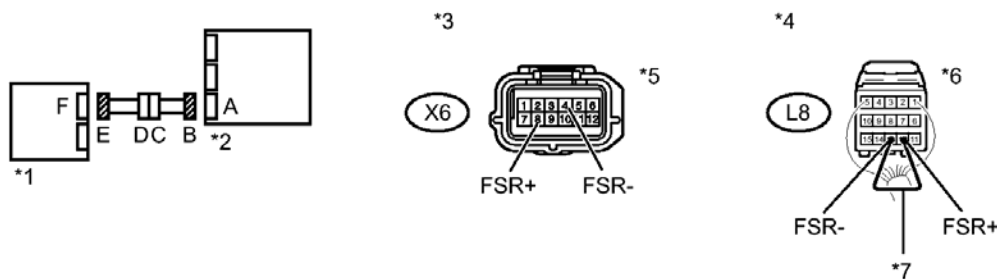


Fig. 16: Checking Occupant Classification System Circuit

Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

TEXT IN ILLUSTRATION

*1	Occupant Classification ECU	*2	Center Airbag Sensor Assembly
*3	Front view of wire harness connector (to Occupant Classification)	*4	Front view of wire harness connector (to Center

	ECU)		Airbag Sensor Assembly)
*5	Connector E	*6	Connector B
*7	Service Wire	-	-

- Connect the cable to the negative (-) battery terminal, and wait for at least 2 seconds.
- Turn the ignition switch to ON, and wait for at least 60 seconds.
- Measure the voltage according to the value(s) in the table below.

Standard Voltage

Tester Connection	Switch Condition	Specified Condition
X6-8 (FSR+) - Body ground	Ignition switch ON	Below 1 V
X6-4 (FSR-) - Body ground		

- Turn the ignition switch off.
- Disconnect the cable from the negative (-) battery terminal, and wait for at least 90 seconds.
- Using a service wire, connect terminals 12 (FSR+) and 13 (FSR-) of connector B.

NOTE: **Do not forcibly insert the service wire into the terminals of the connector.**

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

Standard Resistance

Tester Connection	Condition	Specified Condition
X6-8 (FSR+) - X6-4 (FSR-)	Always	Below 1 ohms

- Disconnect the service wire from connector B.
- Measure the resistance according to the value(s) in the table below.

Standard Resistance

Tester Connection	Condition	Specified Condition
X6-8 (FSR+) - X6-4 (FSR-)	Always	1 Mohms or higher
X6-8 (FSR+) - Body ground		
X6-4 (FSR-) - Body ground		

NG --> See step 10

OK: Go to next step

5. CHECK FOR DTC

- Connect the connectors to the occupant classification ECU and the center airbag sensor assembly.
- Connect the cable to the negative (-) battery terminal, and wait for at least 2 seconds.
- Turn the ignition switch to ON, and wait for at least 60 seconds.
- Clear any DTCs stored in the memory. Refer to **DTC CHECK / CLEAR** .

HINT:

- First clear any DTCs stored in the occupant classification ECU and then in the center airbag sensor assembly.
 - Use the Techstream to clear the DTCs of the occupant classification ECU, otherwise the DTCs cannot be cleared.
- Turn the ignition switch off.
 - Turn the ignition switch to ON, and wait for at least 60 seconds.
 - Using the Techstream, check for DTCs of the occupant classification ECU. Refer to **DTC CHECK / CLEAR** .

OK

DTC B1790 is not output.

HINT:

DTCs other than DTC B1790 may be output at this time, but they are not related to this check.

NG --> See step 6

OK --> See step 12

6. REPLACE OCCUPANT CLASSIFICATION ECU

- a. Turn the ignition switch off.
- b. Disconnect the cable from the negative (-) battery terminal, and wait for at least 90 seconds.
- c. Replace the occupant classification ECU. Refer to **REMOVAL** .

HINT:

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

NEXT: Go to next step

7. REPLACE CENTER AIRBAG SENSOR ASSEMBLY

- a. Turn the ignition switch off.
- b. Disconnect the cable from the negative (-) battery terminal, and wait for at least 90 seconds.
- c. Replace the center airbag sensor assembly. Refer to **REMOVAL** .

HINT:

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

NEXT: Go to next step

8. PERFORM ZERO POINT CALIBRATION

- a. Connect the cable to the negative (-) battery terminal, and wait for at least 2 seconds.
- b. Connect the Techstream to the DLC3.
- c. Turn the ignition switch to ON, and wait for at least 60 seconds.
- d. Using the Techstream, perform the zero point calibration. Refer to **INITIALIZATION** .

NEXT: Go to next step

9. PERFORM SENSITIVITY CHECK

- a. Using the Techstream, perform the sensitivity check. Refer to **INITIALIZATION** .

Standard range

27 to 33 kg (59.5 to 72.8 lb)

NEXT --> END

10. CHECK FRONT SEAT WIRE RH

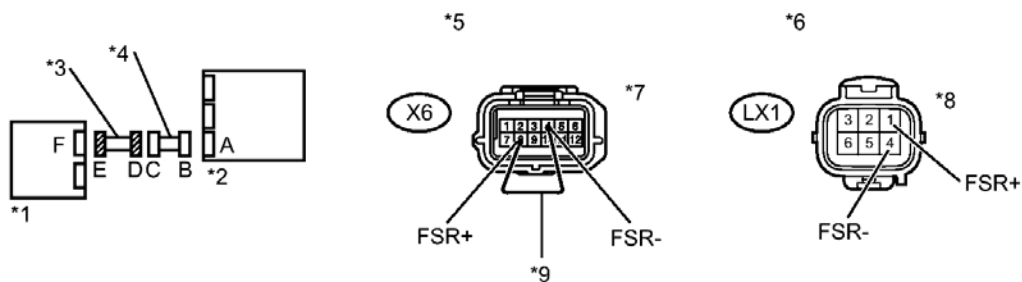


Fig. 17: Checking Front Seat Wire RH
 Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

TEXT IN ILLUSTRATION

*1	Occupant Classification ECU	*2	Center Airbag Sensor Assembly
*3	Front Seat Wire RH	*4	No. 2 Floor Wire
*5	Front view of wire harness connector (to Occupant Classification ECU)	*6	Front view of wire harness connector (to Front Seat Wire RH)
*7	Connector E	*8	Connector D
*9	Service Wire	-	-

- Disconnect the front seat wire RH connector from the No. 2 floor wire.
- Connect the cable to the negative (-) battery terminal, and wait for at least 2 seconds.
- Turn the ignition switch to ON, and wait for at least 60 seconds.
- Measure the voltage according to the value(s) in the table below.

Standard Voltage

Tester Connection	Switch Condition	Specified Condition
LX1-1		

(FSR+) - Body ground	Ignition switch ON	Below 1 V
LX1-4 (FSR-) - Body ground		

- e. Turn the ignition switch off.
- f. Disconnect the connector from the occupant classification ECU.
- g. Using a service wire, connect terminals 8 (FSR+) and 4 (FSR-) of connector E.

NOTE: Do not forcibly insert the service wire into the terminals of connector.

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

Standard Resistance

Tester Connection	Condition	Specified Condition
LX1-1 (FSR+) - LX1-4 (FSR-)	Always	Below 1 ohms

- i. Disconnect the service wire from connector E.
- j. Measure the resistance according to the value(s) in the table below.

Standard Resistance

Tester Connection	Condition	Specified Condition
LX1-1 (FSR+) - LX1-4 (FSR-)	Always	1 Mohms or higher
LX1-1 (FSR+) - Body ground		
LX1-4 (FSR-) - Body ground		

NG --> REPLACE FRONT SEAT WIRE RH

OK --> REPLACE NO. 2 FLOOR WIRE

11. USE SIMULATION METHOD TO CHECK. Refer to DIAGNOSIS SYSTEM

12. USE SIMULATION METHOD TO CHECK. Refer to DIAGNOSIS SYSTEM

DTC B1793: OCCUPANT CLASSIFICATION SENSOR POWER SUPPLY CIRCUIT MALFUNCTION

DESCRIPTION

The occupant classification sensor power supply circuit consists of the occupant classification ECU and the occupant classification sensors.

DTC B1793 is stored when a malfunction is detected in the occupant classification sensor power supply circuit.

DTC Code	DTC Detection Condition	Trouble Area
B1793	One of following conditions is met: • Occupant classification ECU receives line short circuit signal, open circuit signal, short circuit to ground signal or short circuit to +B signal in occupant classification sensor power supply circuit for 2 seconds • Open circuit in occupant classification sensor wire harness • Occupant classification ECU malfunction	• Front seat cushion spring assembly RH (Occupant classification sensors) • Front seat wire RH

HINT:

- When DTC B1650/32 is detected as a result of troubleshooting the airbag system, perform troubleshooting for DTC B1793 of the occupant classification system.
- Use the Techstream to check for DTCs of the occupant classification ECU, otherwise the DTCs cannot be read.

WIRING DIAGRAM

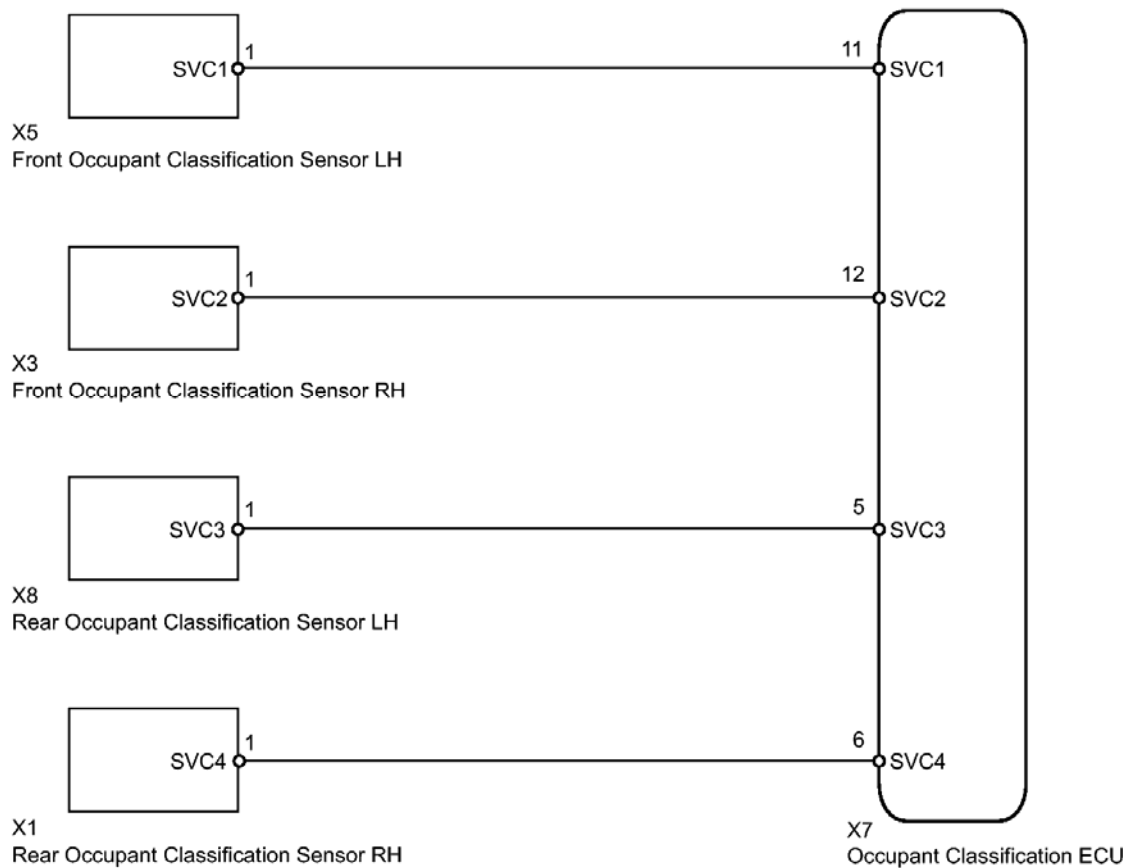


Fig. 18: Occupant Classification Sensor Power Supply Circuit - Wiring Diagram
 Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

INSPECTION PROCEDURE

HINT:

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

PROCEDURE

1. CHECK FOR DTC

- Turn the ignition switch to ON, and wait for at least 60 seconds.
- Clear any DTCs stored in the memory. Refer to **DTC CHECK / CLEAR** .

HINT:

- First clear DTCs stored in the occupant classification ECU and then in the center airbag sensor assembly.
 - Use the Techstream to clear the DTCs of the occupant classification ECU, otherwise the DTCs cannot be cleared.
- c. Turn the ignition switch off.
 - d. Turn the ignition switch to ON, and wait for at least 60 seconds.
 - e. Using the Techstream, check for DTCs of the occupant classification ECU. Refer to **DTC CHECK / CLEAR** .

OK

DTC B1793 is not output.

HINT:

DTCs other than DTC B1793 may be output at this time, but they are not related to this check.

NG --> See step 2

OK --> See step 9

2. CHECK CONNECTION OF CONNECTOR

- a. Turn the ignition switch off.
- b. Disconnect the cable from the negative (-) battery terminal, and wait for at least 90 seconds.
- c. Check that the connectors are properly connected to the occupant classification ECU and the occupant classification sensors.

OK

Connectors are properly connected.

NG --> CONNECT CONNECTORS PROPERLY

OK: Go to next step

3. CHECK CONNECTOR

- a. Check that the connectors (on the occupant classification ECU side and the occupant classification sensors side) are not damaged.

OK

Connectors are not deformed or damaged.

NG --> REPLACE FRONT SEAT WIRE RH

OK: Go to next step

4. CHECK FRONT SEAT WIRE RH

- a. Disconnect the connectors from the occupant classification ECU and the 4 occupant classification sensors.

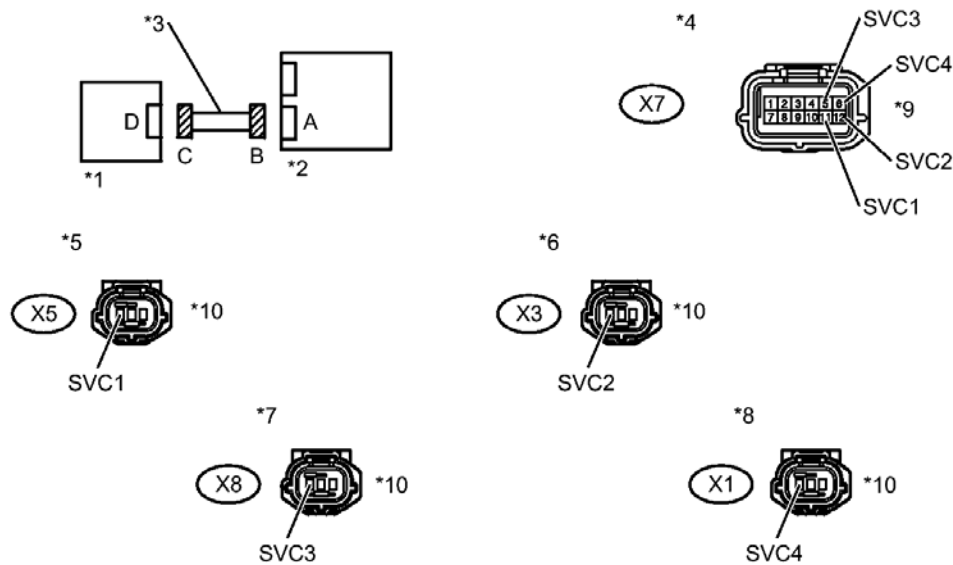


Fig. 19: Checking Front Seat Wire RH
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

TEXT IN ILLUSTRATION

*1	Occupant Classification Sensor	*2	Occupant Classification ECU
*3	Front Seat Wire RH	*4	Front view of wire harness connector (to Occupant Classification ECU)
*5	Front view of wire harness connector (to Front Occupant Classification Sensor LH)	*6	Front view of wire harness connector (to Front Occupant Classification Sensor RH)
	Front view of wire harness		Front view of wire harness

*7	connector (to Rear Occupant Classification Sensor LH)	*8	connector (to Rear Occupant Classification Sensor RH)
*9	Connector B	*10	Connector C

- b. Connect the cable to the negative (-) battery terminal, and wait for at least 2 seconds.
- c. Turn the ignition switch to ON, and wait for at least 60 seconds.
- d. Measure the voltage according to the value(s) in the table below.

Standard Voltage

Tester Connection	Switch Condition	Specified Condition
X7-11 (SVC1) - Body ground	Ignition switch ON	Below 1 V
X7-12 (SVC2) - Body ground		
X7-5 (SVC3) - Body ground		
X7-6 (SVC4) - Body ground		

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

Standard Resistance

Tester Connection	Condition	Specified Condition
X7-11 (SVC1) - X5-1 (SVC1)		
X7-12 (SVC2) - X3-1		

(SVC2)	Always	Below 1 ohms
X7-5		
(SVC3) - X8-1		
(SVC3)		
X7-6	Always	Below 1 ohms
(SVC4) - X1-1		
(SVC4)		

- f. Turn the ignition switch off.
- g. Disconnect the cable from the negative (-) battery terminal, and wait for at least 90 seconds.
- h. Measure the resistance according the value(s) in the table below.

Standard Resistance

Tester Connection	Condition	Specified Condition
X7-11 (SVC1) - Body ground	Always	1 Mohms or higher
X7-12 (SVC2) - Body ground		
X7-5 (SVC3) - Body ground		
X7-6 (SVC4) - Body ground		
X7-11 (SVC1) - X7-12 (SVC2)		
X7-12 (SVC2) - X7-5 (SVC3)		
X7-12 (SVC2) - X7-6		

(SVC4)		
X7-11 (SVC1) - X7-5 (SVC3)		
X7-11 (SVC1) - X7-6 (SVC4)		
X7-5 (SVC3) - X7-6 (SVC4)		

NG --> REPLACE FRONT SEAT WIRE RH

OK: Go to next step

5. CHECK FOR DTC

- Connect the connectors to the occupant classification ECU and the 4 occupant classification sensors.
- Connect the cable to the negative (-) battery terminal, and wait for at least 2 seconds.
- Turn the ignition switch to ON, and wait for at least 60 seconds.
- Clear any DTCs stored in the memory. Refer to **DTC CHECK / CLEAR** .

HINT:

- First clear DTCs stored in the occupant classification ECU and then in the center airbag sensor assembly.
 - Use the Techstream to clear the DTCs of the occupant classification ECU, otherwise the DTCs cannot be cleared.
- Turn the ignition switch off.
 - Turn the ignition switch to ON, and wait for at least 60 seconds.
 - Using the Techstream, check for DTCs of the occupant classification ECU. Refer to **DTC CHECK / CLEAR** .

OK

DTC B1793 is not output.

HINT:

DTCs other than DTC B1793 may be output at this time, but they are not related to this check.

NG --> See step 6

OK --> See step 9

6. REPLACE FRONT SEAT CUSHION SPRING ASSEMBLY RH

- a. Turn the ignition switch off.
- b. Disconnect the cable from the negative (-) battery terminal, and wait for at least 90 seconds.
- c. Replace the front seat cushion spring assembly RH.
 - For Manual seat. Refer to **REMOVAL** .
 - For Power seat. Refer to **REMOVAL** .

HINT:

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

NEXT: Go to next step

7. PERFORM ZERO POINT CALIBRATION

- a. Connect the cable to the negative (-) battery terminal, and wait for at least 2 seconds.
- b. Connect the Techstream to the DLC3.
- c. Turn the ignition switch to ON, and wait for at least 60 seconds.
- d. Using the Techstream, perform the zero point calibration. Refer to **INITIALIZATION** .

NEXT: Go to next step

8. PERFORM SENSITIVITY CHECK

- a. Using the Techstream, perform the sensitivity check. Refer to **INITIALIZATION** .

Standard range

27 to 33 kg (59.5 to 72.8 lb)

NEXT --> END

9. USE SIMULATION METHOD TO CHECK. Refer to DIAGNOSIS SYSTEM

DTC B1794: OPEN IN OCCUPANT CLASSIFICATION ECU BATTERY POSITIVE LINE

DESCRIPTION

DTC B1794 is stored when a malfunction is detected in the occupant classification ECU.

DTC Code	DTC Detection Condition	Trouble Area
	One of following conditions is met: • Occupant classification ECU circuit	

B1794	malfunction • Occupant classification ECU malfunction • Occupant classification ECU receives short circuit to ground signal in passenger side buckle switch circuit for 2 seconds	• Front seat wire RH • Harness or connector • Occupant classification ECU
-------	---	---

HINT:

- When DTC B1650/32 is detected as a result of troubleshooting the airbag system, perform troubleshooting for DTC B1794 of the occupant classification system.
- Use the Techstream to check for DTCs of the occupant classification ECU, otherwise the DTCs cannot be read.

WIRING DIAGRAM

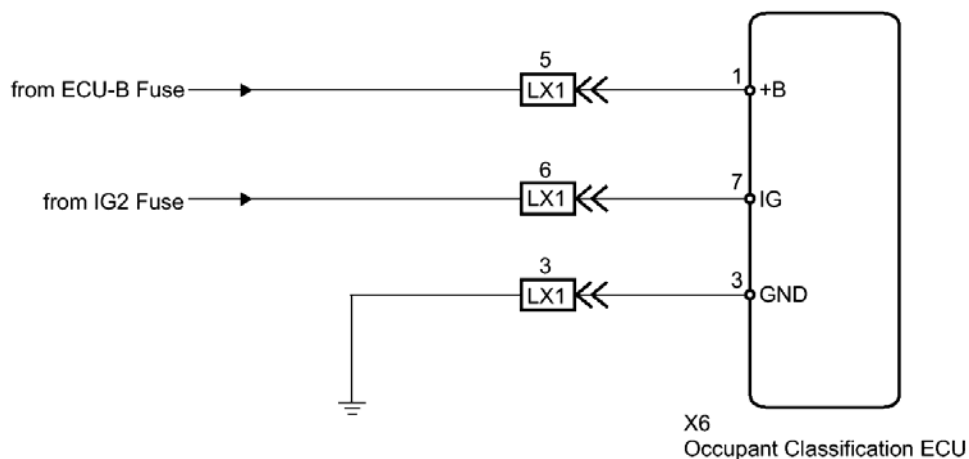


Fig. 20: Occupant Classification ECU Power Supply Wiring Diagram
 Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

INSPECTION PROCEDURE

NOTE: Inspect the fuses for circuits related to this system before performing the following inspection procedure.

PROCEDURE

1. CHECK FOR DTC

- Turn the ignition switch to ON, and wait for at least 60 seconds.

- b. Clear any DTCs stored in the memory. Refer to **DTC CHECK / CLEAR** .

HINT:

- First clear DTCs stored in the occupant classification ECU and then in the center airbag sensor assembly.
 - Use the Techstream to clear the DTCs of the occupant classification ECU, otherwise the DTCs cannot be cleared.
- c. Turn the ignition switch off.
- d. Turn the ignition switch to ON, and wait for at least 60 seconds.
- e. Using the Techstream, check for DTCs of the occupant classification ECU. Refer to **DTC CHECK / CLEAR** .

OK

DTC B1794 is not output.

HINT:

DTCs other than DTC B1794 may be output at this time, but they are not related to this check.

NG --> See step 2

OK --> See step 10

2. CHECK CONNECTION OF CONNECTOR

- a. Turn the ignition switch off.
- b. Disconnect the cable from the negative (-) battery terminal, and wait for at least 90 seconds.
- c. Check that the connector are properly connected to the occupant classification ECU. Also check that the connectors that link the front seat wire RH and No. 2 floor wire are properly connected.

OK

Connectors are properly connected.

NG --> CONNECT CONNECTORS PROPERLY

OK: Go to next step

3. CHECK CONNECTOR

- a. Check that the connectors (on the occupant classification ECU side, front seat wire RH side and No. 2 floor wire side) are not damaged.

OK

Connectors are not deformed or damaged.

NG --> REPLACE HARNESS OR CONNECTOR

OK: Go to next step

4. CHECK HARNESS AND CONNECTOR (SOURCE VOLTAGE)

- a. Turn the ignition switch off.

***1**

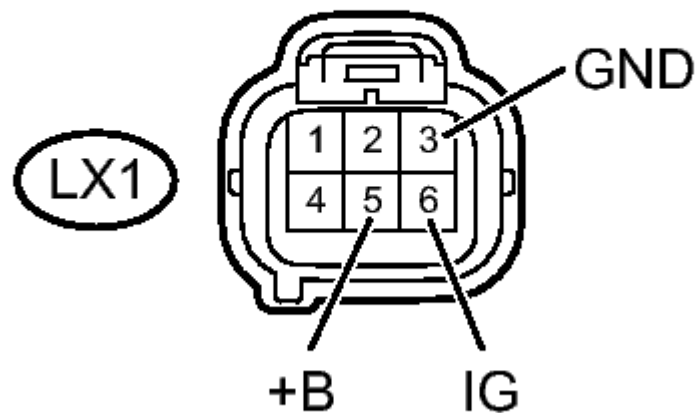


Fig. 21: Checking Harness And Connector (Source Voltage)

Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

- b. Disconnect the cable from the negative (-) battery terminal, and wait for at least 90 seconds.
- c. Disconnect the front seat wire RH connector from the No. 2 floor wire.
- d. Connect the cable to the negative (-) battery terminal, and wait for at least 2 seconds.
- e. Turn the ignition switch to ON, and wait for at least 60 seconds.
- f. Measure the resistance and voltage according to the value(s) in the table below.

Standard Resistance

Tester Connection	Condition	Specified Condition
LX1-3 (GND) - Body ground	Always	Below 1 ohms

Standard Voltage

Tester Connection	Switch Condition	Specified Condition
LX1-5 (+B) - Body ground	Ignition switch ON	11 to 14 V
LX1-6 (IG) - Body ground		

TEXT IN ILLUSTRATION

	Front view of wire harness
*1	connector (to Front Seat Wire RH)

NG --> REPLACE HARNESS OR CONNECTOR

OK: Go to next step

5. CHECK FRONT SEAT WIRE RH (SOURCE VOLTAGE)

- Turn the ignition switch off.

*1

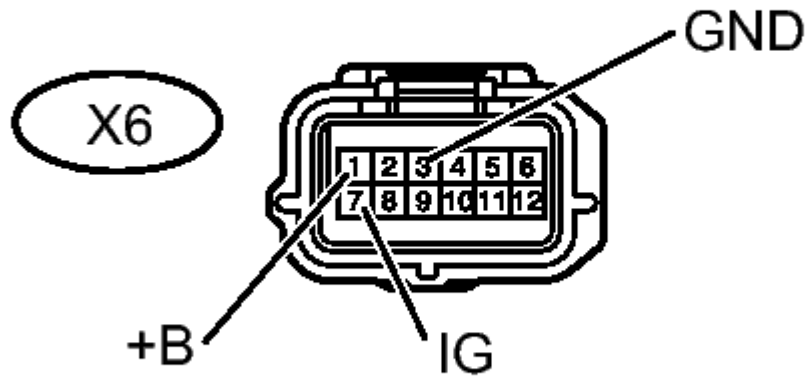


Fig. 22: Checking Front Seat Wire RH (Source Voltage)
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

- b. Disconnect the cable from the negative (-) battery terminal, and wait for at least 90 seconds.
- c. Connect the front seat wire RH connector from the No. 2 floor wire.
- d. Disconnect the X6 occupant classification ECU connector.
- e. Connect the cable to the negative (-) battery terminal, and wait for at least 2 seconds.
- f. Turn the ignition switch to ON, and wait for at least 60 seconds.
- g. Measure the resistance and voltage according to the value(s) in the table below.

Standard Resistance

Tester Connection	Condition	Specified Condition
X6-3 (GND) - Body ground	Always	Below 1 ohms

Standard Voltage

Tester Connection	Switch Condition	Specified Condition
X6-1 (+B) - Body	Ignition	

ground	switch	
X6-7 (IG) - Body ground	ON	11 to 14 V

TEXT IN ILLUSTRATION

*1	Front view of wire harness connector (to Occupant Classification ECU)
----	--

NG --> **REPLACE FRONT SEAT WIRE RH**

OK: Go to next step

6. CHECK FOR DTC

- Turn the ignition switch off.
- Disconnect the cable from the negative (-) battery terminal, and wait for at least 90 seconds.
- Connect the connectors to the occupant classification ECU.
- Connect the cable to the negative (-) battery terminal, and wait for at least 2 seconds.
- Turn the ignition switch to ON, and wait for at least 60 seconds.
- Clear any DTCs stored in the memory. Refer to **DTC CHECK / CLEAR** .

HINT:

- First clear DTCs stored in the occupant classification ECU and then in the center airbag sensor assembly.
 - Use the Techstream to clear the DTCs of the occupant classification ECU, otherwise the DTCs cannot be cleared.
- Turn the ignition switch off.
 - Turn the ignition switch to ON, and wait for at least 60 seconds.
 - Using the Techstream, check for DTCs of the occupant classification ECU. Refer to **DTC CHECK / CLEAR** .

OK

DTC B1794 is not output.

HINT:

DTCs other than DTC B1794 may be output at this time, but they are not related to this check.

NG --> See step 7

OK --> See step 10

7. REPLACE OCCUPANT CLASSIFICATION ECU

- a. Turn the ignition switch off.
- b. Disconnect the cable from the negative (-) battery terminal, and wait for at least 90 seconds.
- c. Replace the occupant classification ECU. Refer to REMOVAL .

HINT:

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

NEXT: Go to next step

8. PERFORM ZERO POINT CALIBRATION

- a. Connect the cable to the negative (-) battery terminal, and wait for at least 2 seconds.
- b. Connect the Techstream to the DLC3.
- c. Turn the ignition switch to ON, and wait for at least 60 seconds.
- d. Using the Techstream, perform the zero point calibration. Refer to INITIALIZATION .

NEXT: Go to next step

9. PERFORM SENSITIVITY CHECK

- a. Using the Techstream, perform the sensitivity check. Refer to INITIALIZATION .

Standard range

27 to 33 kg (59.5 to 72.8 lb)

NEXT --> END

10. USE SIMULATION METHOD TO CHECK. Refer to DIAGNOSIS SYSTEM

DTC B1795: OCCUPANT CLASSIFICATION ECU MALFUNCTION

DESCRIPTION

DTC B1795 is stored when a malfunction is detected in the occupant classification ECU.

Troubleshoot DTC B1771 first when both DTCs B1771 and B1795 are present.

DTC Code	DTC Detection Condition	Trouble Area
B1795	Occupant classification ECU malfunction	Occupant classification ECU

HINT:

- When DTC B1650/32 is detected as a result of troubleshooting the airbag system, perform troubleshooting for DTC B1795 of the occupant classification system.
- Use the Techstream to check for DTCs of the occupant classification ECU, otherwise the DTCs cannot be read.

INSPECTION PROCEDURE**PROCEDURE****1. CHECK FOR DTC**

- a. Turn the ignition switch to ON, and wait for at least 60 seconds.
- b. Clear any DTCs stored in the memory. Refer to **DTC CHECK / CLEAR** .

HINT:

- c. Turn the ignition switch off.
 - d. Turn the ignition switch to ON, and wait for at least 60 seconds.
 - e. Using the Techstream, check for DTCs of the occupant classification ECU. Refer to **DTC CHECK / CLEAR** .
- First clear DTCs stored in the occupant classification ECU and then in the center airbag sensor assembly.
 - Use the Techstream to clear the DTCs of the occupant classification ECU, otherwise the DTCs cannot be cleared.

OK

DTC B1795 is not output.

HINT:

DTCs other than DTC B1795 may be output at this time, but they are not related to this check.

NG --> See step 2

OK --> See step 5

2. REPLACE OCCUPANT CLASSIFICATION ECU

- a. Turn the ignition switch off.
- b. Disconnect the cable from the negative (-) battery terminal, and wait for at least 90 seconds.
- c. Replace the occupant classification ECU. Refer to **REMOVAL** .

HINT:

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

NEXT: Go to next step

3. PERFORM ZERO POINT CALIBRATION

- a. Connect the cable to the negative (-) battery terminal, and wait for at least 2 seconds.
- b. Connect the Techstream to the DLC3.
- c. Turn the ignition switch to ON, and wait for at least 60 seconds.
- d. Using the Techstream, perform the zero point calibration. Refer to **INITIALIZATION** .

NEXT: Go to next step

4. PERFORM SENSITIVITY CHECK

- a. Using the Techstream, perform the sensitivity check. Refer to **INITIALIZATION** .

Standard range

27 to 33 kg (59.5 to 72.8 lb)

NEXT --> END

5. USE SIMULATION METHOD TO CHECK. Refer to **DIAGNOSIS SYSTEM**

DTC B1796: SLEEP OPERATION FAILURE OF OCCUPANT CLASSIFICATION ECU

DESCRIPTION

During sleep mode, the occupant classification ECU monitors the condition of each sensor while the ignition switch is off. In this mode, if the occupant classification ECU detects an internal malfunction, DTC B1796 is stored.

DTC Code	DTC Detection Condition	Trouble Area
B1796	Occupant classification ECU malfunction	Occupant classification ECU

HINT:

- When DTC B1650/32 is detected as a result of troubleshooting the airbag system, perform troubleshooting for DTC B1796 of the occupant classification system.
- Use the Techstream to check for DTCs of the occupant classification ECU, otherwise the DTCs cannot be read.

INSPECTION PROCEDURE

PROCEDURE

1. CHECK FOR DTC

- a. Turn the ignition switch to ON, and wait for at least 60 seconds.
- b. Clear any DTCs stored in the memory. Refer to **DTC CHECK / CLEAR** .

HINT:

- First clear DTCs stored in the occupant classification ECU and then in the center airbag sensor assembly.
 - Use the Techstream to clear the DTCs of the occupant classification ECU, otherwise the DTCs cannot be cleared.
- c. Turn the ignition switch off.
 - d. Turn the ignition switch to ON, and wait for at least 60 seconds.
 - e. Using the Techstream, check for DTCs of the occupant classification ECU. Refer to **DTC CHECK / CLEAR** .

OK

DTC B1796 is not output.

HINT:

DTCs other than DTC B1796 may be output at this time, but they are not related to this check.

NG --> See step 2

OK --> See step 5

2. REPLACE OCCUPANT CLASSIFICATION ECU

- a. Turn the ignition switch off.
- b. Disconnect the cable from the negative (-) battery terminal, and wait for at least 90 seconds.
- c. Replace the occupant classification ECU. Refer to **REMOVAL** .

HINT:

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

NEXT: Go to next step

3. PERFORM ZERO POINT CALIBRATION

- a. Connect the cable to the negative (-) battery terminal, and wait for at least 2 seconds.
- b. Connect the Techstream to the DLC3.
- c. Turn the ignition switch to ON, and wait for at least 60 seconds.
- d. Using the Techstream, perform the zero point calibration. Refer to **INITIALIZATION** .

NEXT: Go to next step

4. PERFORM SENSITIVITY CHECK

- a. Using the Techstream, perform the sensitivity check. Refer to **INITIALIZATION** .

Standard range

27 to 33 kg (59.5 to 72.8 lb)

NEXT --> END

5. USE SIMULATION METHOD TO CHECK. Refer to **DIAGNOSIS SYSTEM**

SYMPTOM TESTS

Trouble in Passenger Airbag ON/OFF Indicator

DESCRIPTION

The occupant classification system detects the front passenger seat condition. It then informs a passenger of the front passenger airbag assembly and front seat side airbag assembly condition (activated/not activated) with the passenger airbag ON/OFF indicator.

HINT:

Approximately 6 seconds after the ignition switch is turned ON, the passenger airbag ON/OFF indicator will be on/off depending on the conditions listed below.

Front Passenger Seat Condition	Passenger Airbag ON/OFF Indicator		SRS Warning Light
	ON Indicator	OFF Indicator	
Vacant	OFF	OFF	OFF
Adult is seated.	ON	OFF	OFF
Child is seated.	OFF	ON	OFF
Child restraint system is set.	OFF	ON	OFF
Occupant classification system failure	OFF	ON	ON

INSPECTION PROCEDURE

HINT:

When the indicator is malfunctioning, if the SRS warning light is off, follow the procedures below as a DTC is not output. If the SRS warning light is on, a DTC is output. Troubleshoot for the output DTC.

PROCEDURE

1. CHECK SRS WARNING LIGHT

- a. Turn the ignition switch to ON, and check the SRS warning light condition.

HINT:

If this trouble occurs, the SRS warning light is off. If the light is on, a DTC is output. Troubleshoot for the output DTC.

OK

After the primary check period, the SRS warning light goes off.

HINT:

The primary check is performed for approximately 6 seconds after the ignition switch is turned ON.

NG --> See step 16

OK: Go to next step

2. PERFORM ZERO POINT CALIBRATION

- a. Turn the ignition switch off.
- b. Connect the Techstream to the DLC3.
- c. Turn the ignition switch to ON, and wait for at least 60 seconds.
- d. Using the Techstream, perform the zero point calibration. Refer to **INITIALIZATION** .

OK

Zero point calibration is completed using the Techstream.

NG --> See step 4

OK: Go to next step

3. PERFORM SENSITIVITY CHECK

- a. Using the Techstream, perform the sensitivity check. Refer to **INITIALIZATION** .

Standard range

27 to 33 kg (59.5 to 72.8 lb)

NG --> See step 4

OK --> END

4. RETIGHTEN FRONT SEAT ASSEMBLY RH BOLT

- a. Turn the ignition switch off.
- b. Loosen the 4 installation bolts of the front seat assembly RH.

- c. Tighten the 4 installation bolts of the front seat assembly RH to the specified torque.

Torque: 37 N*m (374 kgf*cm, 27 ft.*lbf)

NEXT: Go to next step

5. PERFORM ZERO POINT CALIBRATION

- a. Connect the cable to the negative (-) battery terminal, and wait for at least 2 seconds.
- b. Connect the Techstream to the DLC3.
- c. Turn the ignition switch to ON, and wait for at least 60 seconds.
- d. Using the Techstream, perform the zero point calibration. Refer to **INITIALIZATION** .

OK

Zero point calibration is completed using the Techstream.

NG --> See step 7

OK: Go to next step

6. PERFORM SENSITIVITY CHECK

- a. Using the Techstream, perform the sensitivity check. Refer to **INITIALIZATION** .

Standard range

27 to 33 kg (59.5 to 72.8 lb)

NG --> See step 7

OK --> END

7. READ VALUE USING TECHSTREAM (PASSENGER SIDE BUCKLE SWITCH)

- a. Turn the ignition switch to ON, and wait for at least 60 seconds.
- b. Using the Techstream, read the Data List. Refer to **DATA LIST / ACTIVE TEST** .
 1. Read the display when the passenger side buckle switch is operated.

OCCUPANT DETECTION

Tester Display	Measure Item/Range	Normal Condition	Diagnostic Note
Passenger Buckle	Passenger side buckle switch / Set,	Unset: Passenger side seat belt is unfastened Set: Passenger	-

SW	Unset or NG	side seat belt is fastened NG: Passenger side seat belt is malfunctioning	
----	----------------	---	--

OK

The Techstream display changed correctly according to the operation of buckle switch.

NG --> See step 12

OK: Go to next step

8. CHECK CONNECTOR

- Turn the ignition switch off.
- Disconnect the cable from the negative (-) battery terminal.
- Disconnect the connectors from the occupant classification ECU and the 4 occupant classification sensors.
- Check that the connectors (on the occupant classification ECU side and 4 occupant classification sensors side) are not damaged.

OK

Connectors are not deformed or damaged.

NG --> REPLACE FRONT SEAT WIRE RH

OK: Go to next step

9. REPLACE OCCUPANT CLASSIFICATION ECU

- Replace the occupant classification ECU. Refer to **REMOVAL** .

NEXT: Go to next step

10. PERFORM ZERO POINT CALIBRATION

- Connect the cable to the negative (-) battery terminal, and wait for at least 2 seconds.
- Connect the Techstream to the DLC3.
- Turn the ignition switch to ON, and wait for at least 60 seconds.
- Using the Techstream, perform the zero point calibration. Refer to **INITIALIZATION** .

OK

Zero point calibration is completed using the Techstream.

NEXT: Go to next step

11. PERFORM SENSITIVITY CHECK

- a. Using the Techstream, perform the sensitivity check. Refer to **INITIALIZATION** .

Standard range

27 to 33 kg (59.5 to 72.8 lb)

NEXT --> END

12. CHECK CONNECTOR

- a. Turn the ignition switch off.
- b. Disconnect the cable from the negative (-) battery terminal, and wait for at least 90 seconds.
- c. Disconnect the connectors from the occupant classification ECU and front seat inner belt RH.
- d. Check that the connectors (on the occupant classification ECU side and front seat inner belt RH side) are not damaged.

OK

Connectors are not deformed or damaged.

NG --> REPLACE FRONT SEAT WIRE RH

OK: Go to next step

13. REPLACE FRONT SEAT INNER BELT ASSEMBLY RH

- a. Replace the front seat inner belt RH. Refer to **REMOVAL** .

NEXT: Go to next step

14. PERFORM ZERO POINT CALIBRATION

- a. Connect the cable to the negative (-) battery terminal, and wait for at least 2 seconds.
- b. Connect the Techstream to the DLC3.
- c. Turn the ignition switch to ON, and wait for at least 60 seconds.
- d. Using the Techstream, perform zero point calibration. Refer to **INITIALIZATION** .

OK

Zero point calibration is completed using the Techstream.

NEXT: Go to next step

15. PERFORM SENSITIVITY CHECK

- a. Using the Techstream, perform the sensitivity check. Refer to **INITIALIZATION** .

Standard range

27 to 33 kg (59.5 to 72.8 lb)

NEXT --> END

16. **GO TO DTC CHART. Refer to DIAGNOSTIC TROUBLE CODE CHART**

RESTRAINTS

Occupant Classification System (Diagnostics - Introduction) - Sienna

OCCUPANT CLASSIFICATION SYSTEM

PRECAUTION

PRECAUTION

WARNING: Do not use seat accessories (such as cushions or covers) that cover the front seat. Also, do not modify or replace the upholstery of the front seat. Doing so may prevent the front passenger airbag system from activating correctly, disable the system or cause the front passenger airbag to inflate accidentally, and result in death or serious injury.

NOTE: Replace the occupant classification ECU, occupant classification sensor, seat cushion cover pad and seat cushion cover as a 4 part set (see supply set part No.).

1. INSPECTION PROCEDURE FOR VEHICLE INVOLVED IN ACCIDENT

- a. Perform the zero point calibration and sensitivity check if any of the following conditions apply. Refer to **INITIALIZATION**.
 - The occupant classification ECU is replaced.
 - Accessories (seatback tray and seat cover, etc.) are installed.
 - The front passenger seat is removed from the vehicle.
 - The passenger airbag ON/OFF indicator (OFF) comes on when the front passenger seat is not occupied.
 - The vehicle is brought to the workshop for repair due to an accident or a collision.

NOTE: When a vehicle that has been in an accident is brought into the workshop for repair, check the flatness of the floor where the front seat RH is mounted. If the flatness is not within ± 3.0 mm (0.118 in.), adjust it to the specified range.

2. IGNITION SWITCH EXPRESSIONS

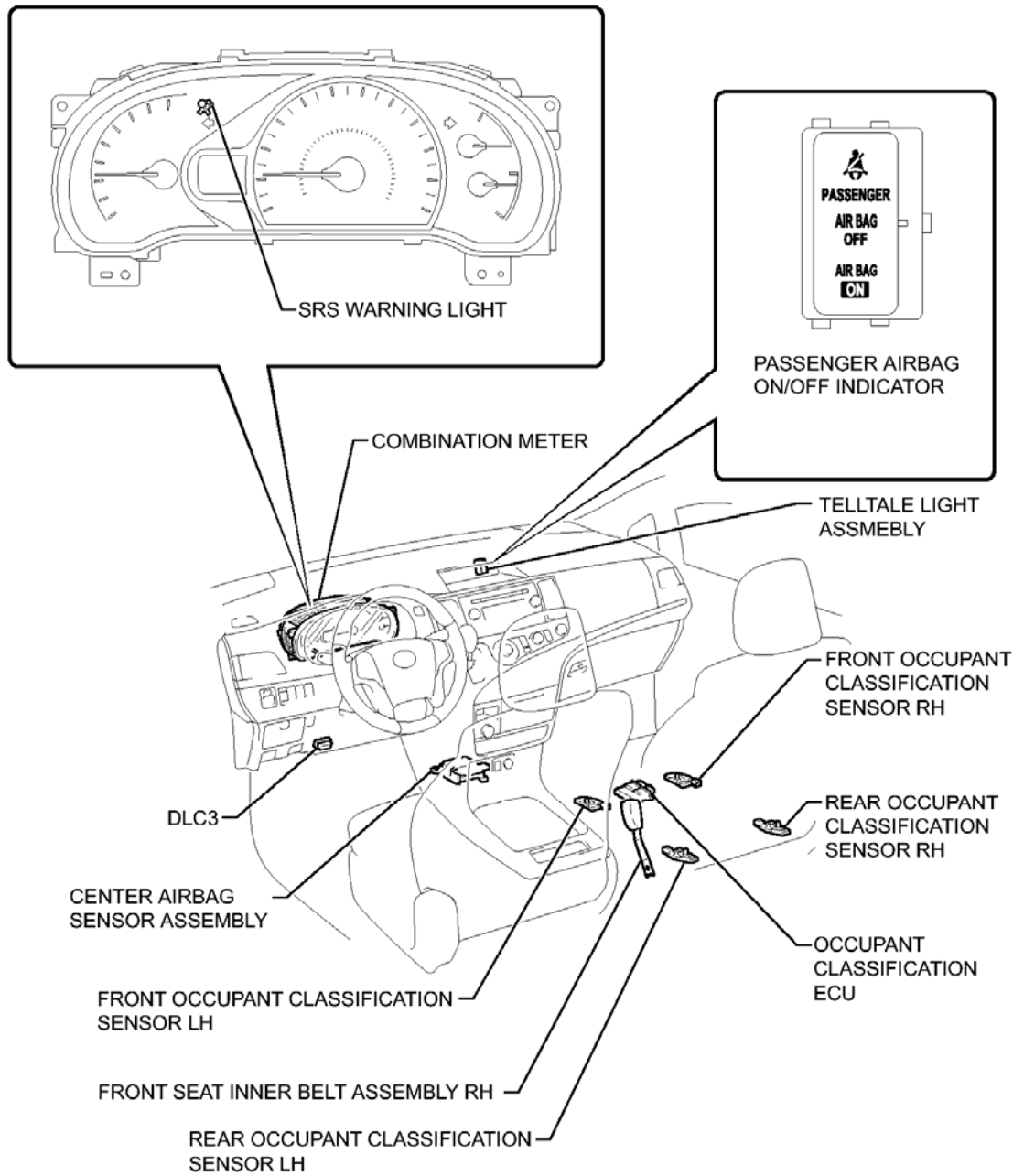
- a. The type of ignition switch used on this model differs according to the specifications of the vehicle. The expressions listed in the table below are used in this information.

Expression	Ignition Switch (Position)	Engine Switch (Condition)
Ignition switch off	LOCK	Off

Ignition switch ACC	ACC	On (ACC)
Ignition switch ON	ON	On (IG)
Engine start	START	Start

PARTS LOCATION

ILLUSTRATION



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Fig. 1: Occupant Classification System Components Location
 Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

SYSTEM DIAGRAM

SYSTEM DIAGRAM

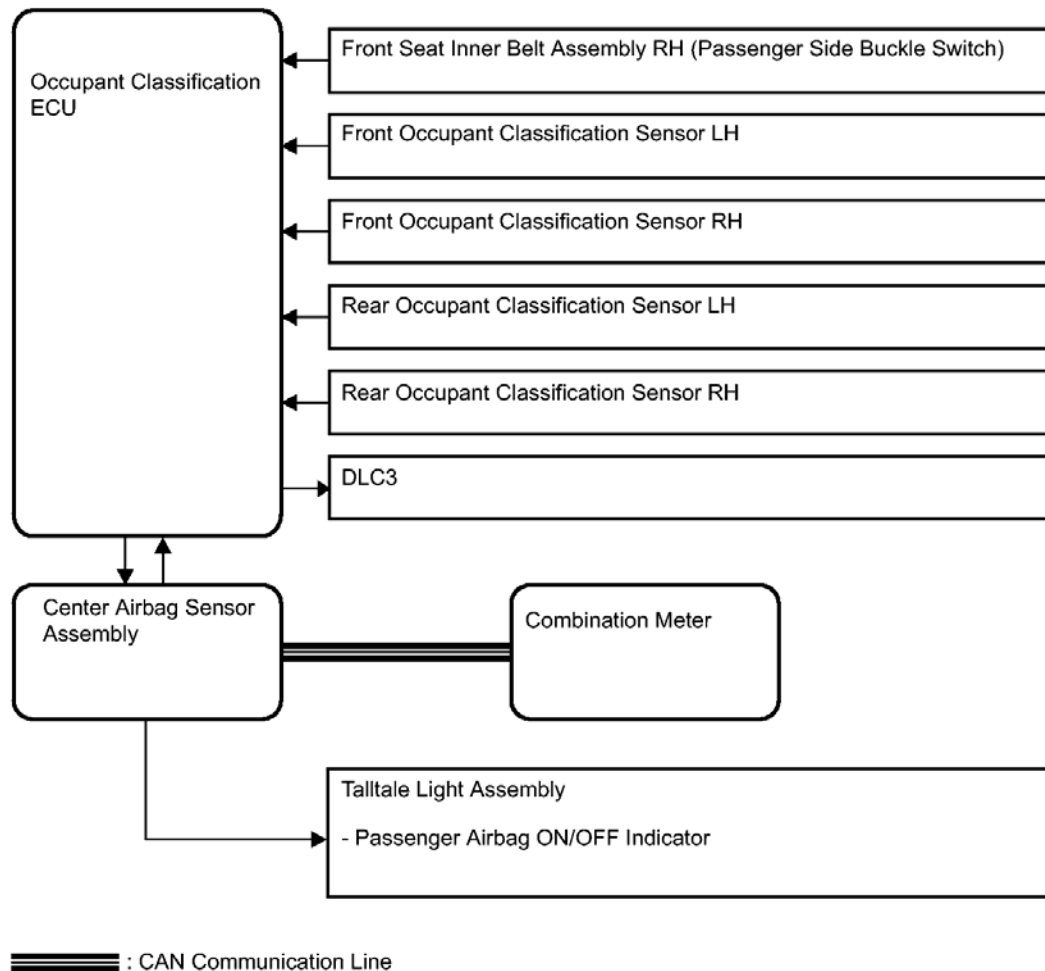


Fig. 2: Occupant Classification ECU System Diagram
 Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

SYSTEM DESCRIPTION

SYSTEM DESCRIPTION

1. GENERATION DESCRIPTION

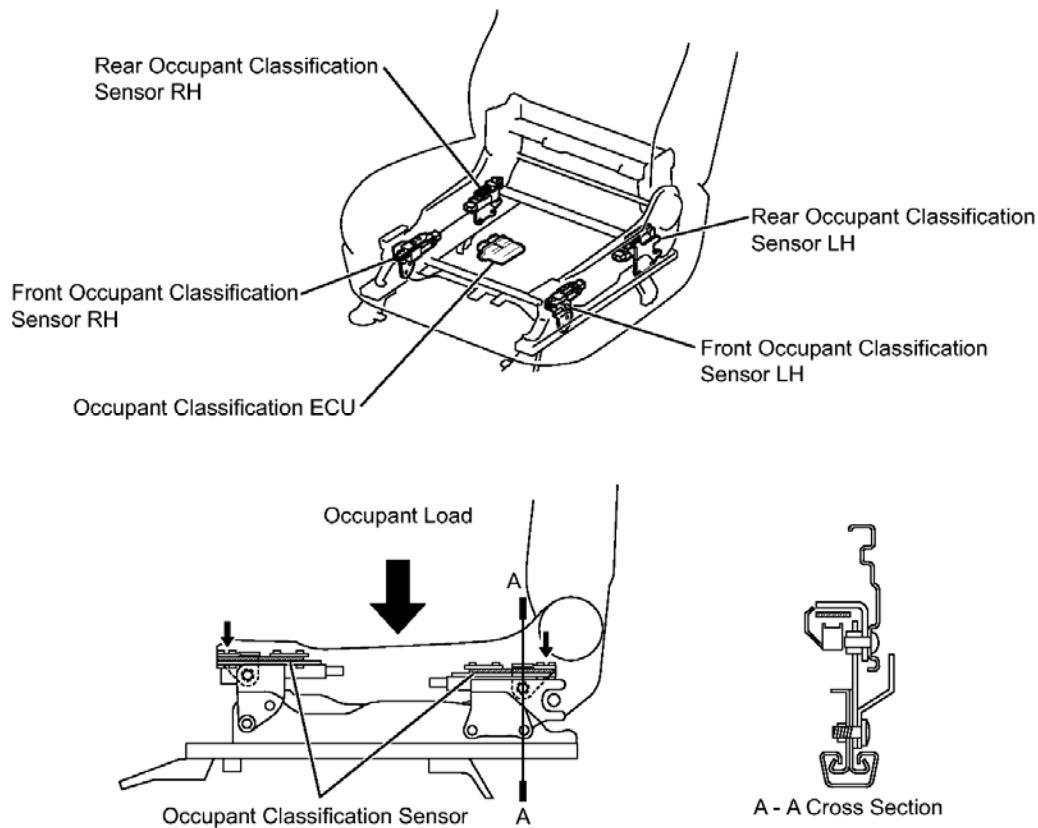
- The occupant classification system determines whether the front passenger seat is occupied by an adult or child (with child seat) or is unoccupied, based on the load that is applied to the front passenger seat and whether the seat belt is buckled. The system restricts the deployment of the front passenger airbag, front passenger side airbag, and front passenger seat belt pretensioner in accordance with this judgment. The result is informed to the driver through the airbag ON/OFF indicator illumination.

2. SYSTEM CONFIGURATION

- This system consists of the occupant classification ECU, occupant classification sensors, airbag ON/OFF indicator, passenger side seat belt buckle switches, and center airbag sensor assembly.

3. OCCUPANT CLASSIFICATION SENSOR

- a. The occupant classification sensors are installed on 4 brackets, which connect the seat rail and the seat frame. The resistance values of these sensors, which vary in accordance with the load that acts on the brackets, are transmitted to the occupant classification ECU as signals. Upon receipt of the signals, the ECU determines the front passenger seat occupant conditions.



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Fig. 3: Identifying Occupant Classification Sensor
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

HOW TO PROCEED WITH TROUBLESHOOTING

HOW TO PROCEED WITH TROUBLESHOOTING

HINT:

- Use these procedures to troubleshoot the occupant classification system.
- *: Use the Techstream.

1. VEHICLE BROUGHT TO WORKSHOP

NEXT: Go to next step

2. CUSTOMER PROBLEM ANALYSIS

- Confirm customer problem symptoms. Refer to HOW TO PROCEED WITH TROUBLESHOOTING.

NEXT: Go to next step

3. PASSENGER AIRBAG ON/OFF INDICATOR CHECK

NEXT: Go to next step

4. CHECK FOR DTC (Present and Past DTC)*

- Check for DTCs and note any codes that are output. Refer to DTC CHECK / CLEAR.
- Clear for DTCs. Refer to DTC CHECK / CLEAR.
- Recheck for DTCs. Refer to DTC CHECK / CLEAR. Based on the DTCs output above, try to force output of the same CAN communication system DTC or occupant classification system DTC by simulating the symptoms indicated by the DTC.

RESULT

Result	Proceed to
DTC is output	A
DTC is not output	B

B --> GO TO PROBLEM SYMPTOMS TABLE. Refer to PROBLEM SYMPTOMS TABLE

A: Go to next step

5. DTC CHART

NEXT: Go to next step

6. CIRCUIT INSPECTION*

NEXT: Go to next step

7. REPAIR

NEXT: Go to next step

8. CLEAR DTC (Present and Past DTCs)*

- Clear DTCs. Refer to DTC CHECK / CLEAR.

NEXT: Go to next step

9. DTC CHECK (Present and Past DTC)*

- a. Check for DTCs. Refer to **DTC CHECK / CLEAR.**

RESULT

Result	Proceed to
DTC is not output	A
DTC is output	B

B --> GO TO DIAGNOSTIC TROUBLE CODE CHART. Refer to DIAGNOSTIC TROUBLE CODE CHART

A: Go to next step

10. SYMPTOM SIMULATION

- a. Check the passenger airbag ON/OFF indicator condition. Refer to **DIAGNOSIS SYSTEM.**

RESULT

Result	Proceed to
Passenger airbag ON/OFF indicator operates normally	A
Passenger airbag ON/OFF indicator ("OFF") and SRS warning light come on	B

B --> GO TO DIAGNOSTIC TROUBLE CODE CHART. Refer to DIAGNOSTIC TROUBLE CODE CHART

A: Go to next step

11. CONFIRMATION TEST*

NEXT --> END

INITIALIZATION

INITIALIZATION

NOTE: Make sure that the front passenger seat is not occupied before performing the operation.

HINT:

Perform the zero point calibration and sensitivity check if any of the following conditions apply.

- The occupant classification ECU is replaced.
- Accessories (seatback tray and seat cover, etc.) are installed.
- The front passenger seat is removed from the vehicle.
- The passenger airbag ON/OFF indicator (OFF) comes on when the front passenger seat is not occupied.
- The vehicle is brought to the workshop for repair due to an accident or a collision.

1. ZERO POINT CALIBRATION

- a. Zero point calibration procedures:

HINT:

Make sure that the zero point calibration has finished normally, and then perform the sensitivity check.

1. Check that all of the following conditions are met:
 - The vehicle is parked on a level surface.
 - No objects are placed on the front passenger seat.
 - The front seat inner belt RH (passenger side buckle switch) is off.
2. Adjust the seat position in accordance with the table below.

Adjustment Item	Position
Slide Direction	Rearmost position
Reclining Angle	Upright position
Headrest Height	Lowest position
Lifter	Lowest

Height | position |

3. Turn the ignition switch off.
4. Connect the Techstream to the DLC3.
5. Turn the ignition switch to ON and turn the Techstream on.
6. Enter the following menus: Body Electrical / Occupant Detection / Utility / Zero Point Calibration.
7. Perform the zero point calibration by following the prompts on the Techstream screen.

HINT:

- Refer to the Techstream operator's manual for further details.
- If the zero point calibration has not finished normally, replace the front seat cushion spring assembly RH.

OK

"Zero Point calibration is complete." is displayed.

2. SENSITIVITY CHECK

a. Sensitivity check procedures:

1. Turn the ignition switch off.
2. Connect the Techstream to the DLC3.
3. Turn the ignition switch to ON and turn the Techstream on.
4. Enter the following menus: Body Electrical / Occupant Detection / Utility / Sensitivity Check.
5. Perform the sensitivity check by following the prompts on the Techstream screen.

HINT:

Refer to the Techstream operator's manual for further details.

6. Confirm that the beginning sensor reading is within the standard range.

Standard range

-3.2 to 3.2 kg (-7.0 to 7.0 lb)

7. Place a 30 kg (66.2 lb) weight (e.g. a lead mass) onto the front passenger seat.
8. Confirm that the sensitivity is within the standard range.

Standard range

27 to 33 kg (59.5 to 72.8 lb)

HINT:

- When performing the sensitivity check, use a solid metal weight (the check result may not be accurate if a liquid weight is used).
- If the sensitivity deviates from the standard range, retighten the bolts of the front passenger seat taking care not to deform the seat rail. After performing this procedure, if the sensitivity is not within the standard range, replace the front seat cushion spring assembly RH.

PROBLEM SYMPTOMS TABLE

PROBLEM SYMPTOMS TABLE

HINT:

- Use the table below to help determine the cause of problem symptoms. If multiple suspected areas are listed, the potential causes of the symptoms are listed in order of probability in the "Suspected Area" column of the table. Check each symptom by checking the suspected areas in the order they are listed. Replace parts as necessary.
- Inspect the fuses and relays related to this system before inspecting the suspected areas below.

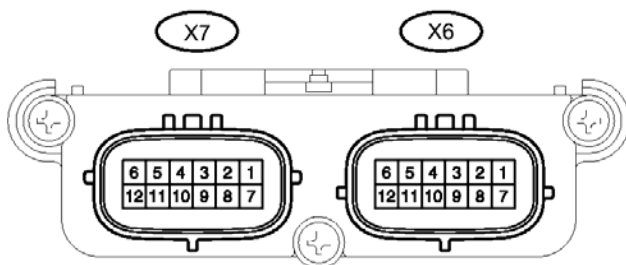
OCCUPANT CLASSIFICATION SYSTEM

Symptom	Suspected Area	See
The front passenger seat condition differs from the indication by the passenger airbag ON/OFF indicator (DTC is not output).	Passenger airbag ON/OFF indicator circuit	Refer to <u>Trouble in Passenger Airbag ON/OFF Indicator</u>

TERMINALS OF ECU

TERMINALS OF ECU

1. CHECK OCCUPANT CLASSIFICATION ECU



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Fig. 4: Occupant Classification ECU Connector Terminal Identification
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

STANDARD

Terminal No. (Symbol)	Wiring Color	Terminal Description	Condition	Specified Condition
X6-1 (+B) - X6-3 (GND)	W - W- B	Battery	Ignition switch ON	11 to 14 V
X6-2 (DIA) - X6-3 (GND)	GR - W-B	Diagnosis (DLC3)	Ignition switch ON	Pulse generation
X6-3 (GND) - Body ground	W-B - Body ground	Ground	Always	Below 1 ohms
X6-4 (FSR-) - X6-3 (GND)	LG - W-B	Center airbag sensor assembly communication ground line	Always	Below 1 ohms
X6-5 (BGND) - X6-3 (GND)	P - W- B	Passenger side buckle switch ground line	Always	Below 1 ohms
X6-7 (IG) - X6-3 (GND)	B - W- B	Power source	Ignition switch ON	11 to 14 V
X6-8 (FSR+) - X6-4 (FSR-)	L - LG	Center airbag sensor assembly communication line	Ignition switch ON	Pulse generation
X6-9 (BSW) - X6-5 (BGND)	G - P	Passenger side buckle switch line	Buckle switch ON	12 to 18 mA
			Buckle switch OFF	4 to 7 mA
X7-1 (SGD1) - X6-3 (GND)	G - W- B	Front occupant classification sensor LH ground line	Always	Below 1 ohms
X7-2 (SGD2) - X6-3 (GND)	LG - W-B	Front occupant classification sensor RH ground line	Always	Below 1 ohms
X7-3		Rear occupant		

(SGD3) - X6-3 (GND)	W - W- B	classification sensor LH ground line	Always	Below 1 ohms
X7-4 (SGD4) - X6-3 (GND)	BR - W-B	Rear occupant classification sensor RH ground line	Always	Below 1 ohms
X7-11 (SVC1) - X7-1 (SGD1)	R - G	Front occupant classification sensor LH power supply line	Ignition switch ON, load is applied to front occupant classification sensor LH	4.9 to 5.1 V
X7-12 (SVC2) - X7-2 (SGD2)	W - LG	Front occupant classification sensor RH power supply line	Ignition switch ON, load is applied to front occupant classification sensor RH	4.9 to 5.1 V
X7-5 (SVC3) - X7-3 (SGD3)	GR - W	Rear occupant classification sensor LH power supply line	Ignition switch ON, load is applied to rear occupant classification sensor LH	4.9 to 5.1 V
X7-6 (SVC4) - X7-4 (SGD4)	V - BR	Rear occupant classification sensor RH power supply line	Ignition switch ON, load is applied to rear occupant classification sensor RH	4.9 to 5.1 V
X7-7 (SIG1) - X7-1 (SGD1)	P - G	Front occupant classification sensor LH signal line	Ignition switch ON, load is applied to front occupant classification sensor LH	0 to 5.1 V

X7-8 (SIG2) - X7-2 (SGD2)	L - LG	Front occupant classification sensor RH signal line	Ignition switch ON, load is applied to front occupant classification sensor RH	0 to 5.1 V
X7-9 (SIG3) - X7-3 (SGD3)	SB - W	Rear occupant classification sensor LH signal line	Ignition switch ON, load is applied to rear occupant classification sensor LH	0 to 5.1 V
X7-10 (SIG4) - X7-4 (SGD4)	B - BR	Rear occupant classification sensor RH signal line	Ignition switch ON, load is applied to rear occupant classification sensor RH	0 to 5.1 V

DIAGNOSIS SYSTEM

DIAGNOSIS SYSTEM

1. CHECK DLC3

- Check the DLC3. Refer to **GENERAL INFORMATION** .

2. SYMPTOM SIMULATION

HINT:

The most difficult case in troubleshooting is when no problem symptoms occur. In such a case, a thorough problem analysis must be carried out. A simulation of the same or similar conditions and environment in which the problem occurred in the customer's vehicle should be carried out. No matter how much skill or experience a technician has, troubleshooting without confirming the problem symptoms will lead to important repairs being overlooked and mistakes or delays.

- Vibration method: When vibration seems to be the major cause.

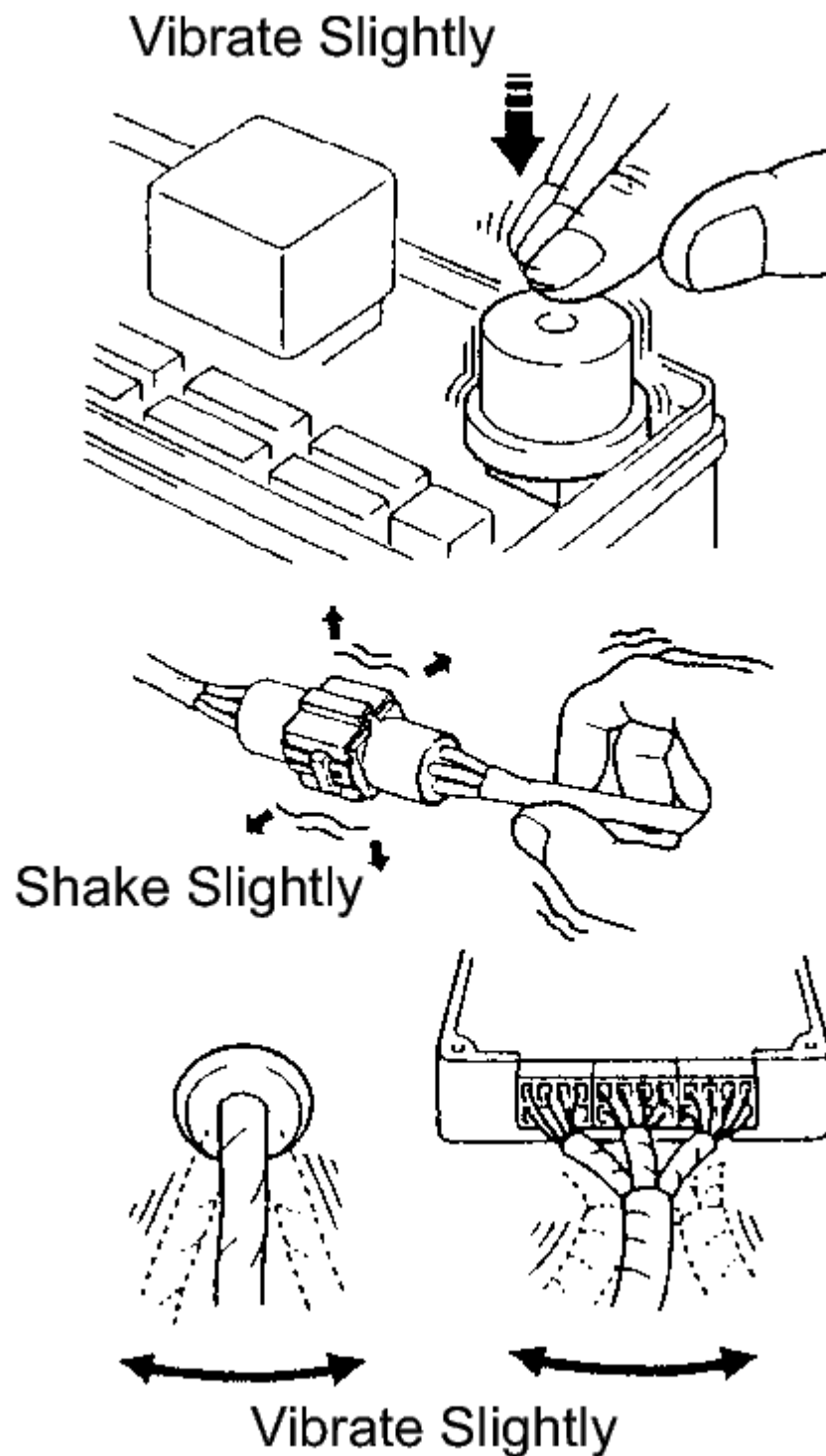


Fig. 5: Symptom Simulation Vibration Method
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

HINT:

Perform the simulation method only during the primary check period (for approximately 6 seconds

after the ignition switch is turned to ON).

1. Slightly vibrate the part of the sensor considered to be the cause of the problem with your fingers and check whether the malfunction occurs.

HINT:

Shaking the relays too strongly may result in open relays.

2. Slightly shake the connector vertically and horizontally.
3. Slightly shake the wire harness vertically and horizontally.

The connector joint and fulcrum of the vibration are the major areas to be checked thoroughly.

- b. Simulation method for DTC B1795: Turn the ignition switch from off to ON, hold it for 10 seconds, and then turn it back to off. Repeat this procedure 50 times in a row.

HINT:

DTC B1795 is output if the occupant classification ECU receives the ignition switch lock-on-lock signal 50 times in a row when a malfunction occurs in the power circuit for the occupant classification system.

3. FUNCTION OF PASSENGER AIRBAG ON/OFF INDICATOR

a. Initial check

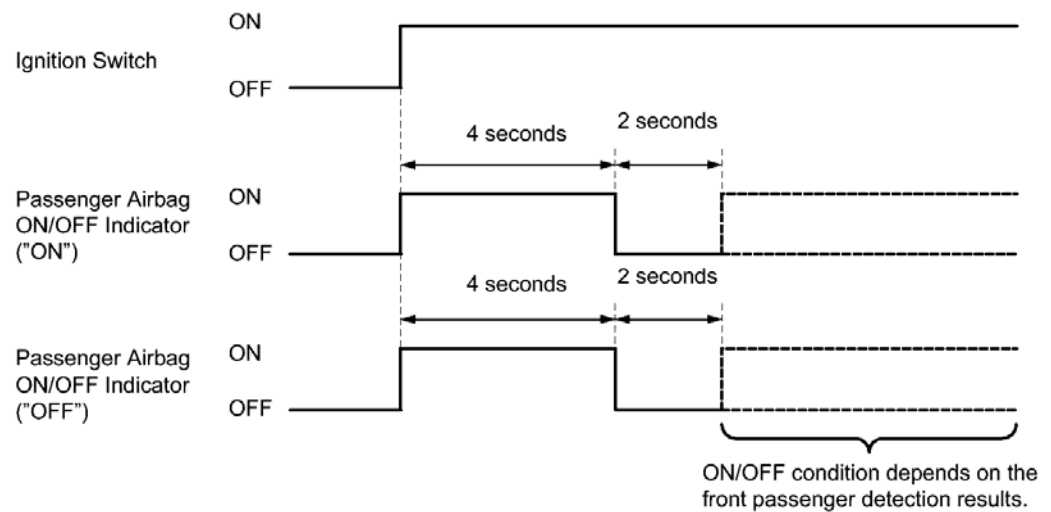
1. Turn the ignition switch to ON.
2. The passenger airbag ON/OFF indicator (ON and OFF) comes on for approximately 4 seconds, and then goes off for approximately 2 seconds.
3. Approximately 6 seconds after the ignition switch is turned to ON, the passenger airbag ON/OFF indicator will be ON/OFF depending on the conditions listed below.

Front Seat Passenger	Passenger Airbag ON/OFF Indicator		SRS Warning Light
	ON Indicator	OFF Indicator	
Adult seated	ON	OFF	OFF
Child seated/Child restraint system set	OFF	ON	OFF
Vacant	OFF	OFF	OFF
Passenger occupant classification	OFF	ON	ON

system failure			
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HINT:

- The passenger airbag ON/OFF indicator operates based on the timing chart below in order to check the indicator light circuit.
- When the occupant classification system has trouble, both the SRS warning light and the passenger airbag ON/OFF indicator (OFF) come on. In this case, check the DTCs in Airbag System first.

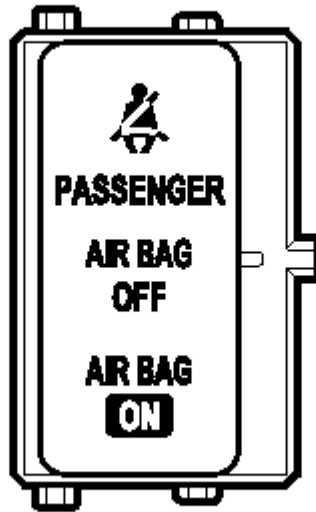


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Fig. 6: Passenger Airbag ON/OFF Indicator Timing Chart
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

4. CHECK PASSENGER AIRBAG ON/OFF INDICATOR

- Turn the ignition switch to ON.



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Fig. 7: Identifying Passenger Airbag On/Off Indicator
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

- b. Check that the passenger airbag ON/OFF indicator (ON and OFF) comes on for approximately 4 seconds, and then goes off for approximately 2 seconds.

HINT:

Refer to the table in the previous step regarding the passenger airbag ON/OFF indicator when approximately 6 seconds have elapsed after the ignition switch is turned to ON.

DTC CHECK / CLEAR

DTC CHECK / CLEAR

1. CHECK DTC

- a. Turn the ignition switch off.
- b. Connect the Techstream to the DLC3.
- c. Turn the ignition switch to ON and turn the Techstream on.
- d. Enter the following menus: Body Electrical / Occupant Detection / Trouble Codes.

HINT:

Refer to Techstream operator's manual for further details.

2. CLEAR DTC

- Turn the ignition switch off.
- Connect the Techstream to the DLC3.
- Turn the ignition switch to ON and turn the Techstream on.
- Enter the following menus: Body Electrical / Occupant Detection / Trouble Codes.
- Clear the DTCs.

HINT:

Refer to Techstream operator's manual for further details.

FAIL-SAFE CHART

FAIL-SAFE CHART

1. FAIL SAFE FUNCTION

- The following chart shows the status of the controls when the system is normal and malfunctioning.
 - The passenger airbag ON/OFF indicator ("ON" and "OFF") comes on for approximately 4 seconds, then goes off for approximately 2 seconds.
 - Approximately 6 seconds after the ignition switch is turned to ON, the passenger airbag ON/OFF indicator will be ON/OFF depending on the conditions listed below.

Condition	ON Indicator	OFF Indicator	Front Passenger Airbag	Front Seat Side Airbag RH	Front Seat Belt Pretensioner RH	Curtain Shield Airbag RH
Adult is seated	ON	OFF	o	o	o	o
Child is seated	OFF	ON	X	o	o	o
Vacant	OFF	OFF	X	o	X	o
Failure	OFF	ON	X	o	o	o

HINT:

o: Deployable

X: Not deployable

DATA LIST / ACTIVE TEST

DATA LIST / ACTIVE TEST

1. READ DATA LIST

HINT:

Using the Techstream to read the Data List allows the values or states of switches, sensors, actuators and other items to be read without removing any parts. This non-intrusive inspection can be very useful because intermittent conditions or signals may be discovered before parts or wiring is disturbed. Reading the Data List information early in troubleshooting is one way to save diagnostic time.

NOTE: In the table below, the values listed under "Normal Condition" are reference values. Do not depend solely on these reference values when deciding whether a part is faulty or not.

- a. Connect the Techstream to the DLC3.
- b. Turn the ignition switch to ON and turn the Techstream on.
- c. Enter the following menus: Body Electrical / Occupant Detection / Data List.
- d. According to the display on the Techstream, read the Data List.

OCCUPANT DETECTION

Tester Display	Measurement Item/Range	Normal Condition	Diagnostic Note
IG Switch	Ignition switch condition/ ON: Ignition switch ON OFF: Ignition switch off	ON/OFF	-
Passenger Buckle SW	Buckle switch (Passenger side)/ Unset: Unfasten the passenger side seat belt Set: Fasten the passenger side seat belt NG: Passenger side seat belt has trouble	Unset/Set	-
	Passenger classification/ AM50: Adult more than 54 kg (119.05 lb) is seated		

Passenger Classification	AF05: Adult (36 to 54 kg (79.37 to 119.05 lb)) is seated CHILD: Child (less than 36 kg (79.37 lb)) is seated CRS: Child restraint system (less than 7 kg (15.43 lb)) and passenger side buckle switch is ON, then 7 to 36 kg (15.43 to 79.37 lb) is set OFF: Vacant	AM50/AF05/CHILD/CRS/OFF	-
Sensor Range Info	Sensor range information/ OK: The value of a sensor is within the range NG: The value of a sensor is over the range	OK	-
FL Sensor Range Info	Front left sensor range information/ OK: Sensor range is -17 to 27 kg (-37.48 to 59.52 lb) Min.: Less than -17 kg (-37.48 lb) Max.: More than 27 kg (59.52 lb)	OK	-
	Front right sensor range		

FR Sensor Range Info	information/ OK: Sensor range is -17 to 27 kg (-37.48 to 59.52 lb) Min.: Less than -17 kg (-37.48 lb) Max.: More than 27 kg (59.52 lb)	OK	-
RL Sensor Range Info	Rear left sensor range information/ OK: Sensor range is -17 to 37 kg (-37.48 to 81.57 lb) Min.: Less than -17 kg (-37.48 lb) Max.: More than 37 kg (81.57 lb)	OK	-
RR Sensor Range Info	Rear right sensor range information/ OK: Sensor range is -17 to 37 kg (-37.48 to 81.57 lb) Min.: Less than -17 kg (-37.48 lb) Max.: More than 37 kg (81.57 lb)	OK	-
FL Sensor Voltage	Front left sensor voltage/ Min.: 0 V Max.: 5 V	0 to 5 V	-
FR Sensor Voltage	Front right sensor voltage/ Min.: 0 V Max.: 5 V	0 to 5 V	-

RL Sensor Voltage	Rear left sensor voltage/ Min.: 0 V Max.: 5 V	0 to 5 V	-
RR Sensor Voltage	Rear right sensor voltage/ Min.: 0 V Max.: 5 V	0 to 5 V	-
FL Sensor Weight Info	Front left sensor weight information/ Min.: -17 kg (-37.48 lb) Max.: 27 kg (59.52 lb)	-17 to 27 kg (-37.48 to 59.52 lb)	-
FR Sensor Weight Info	Front right sensor weight information/ Min.: -17 kg (-37.48 lb) Max.: 27 kg (59.52 lb)	-17 to 27 kg (-37.48 to 59.52 lb)	-
RL Sensor Weight Info	Rear left sensor weight information/ Min.: -17 kg (-37.48 lb) Max.: 37 kg (81.57 lb)	-17 to 37 kg (-37.48 to 81.57 lb)	-
RR Sensor Weight Info	Rear right sensor weight information/ Min.: -17 kg (-37.48 lb) Max.: 37 kg (81.57 lb)	-17 to 37 kg (-37.48 to 81.57 lb)	-
Total Weight Information	Total weight information/ Min.: -68 kg (-149.91 lb) Max.: 128 kg (282.19 lb)	-68 to 128 kg (-149.91 to 282.19 lb)	-
Number of	Number of DTC recorded/	0	-

Present DTC	Min.: 0, Max.: 255		
Number of Past DTC	Number of present trouble codes/ Min.: 0, Max.: 255	0	-

DIAGNOSTIC TROUBLE CODE CHART

DIAGNOSTIC TROUBLE CODE CHART

HINT:

- When DTC B1650/32 is detected as a result of troubleshooting for "Airbag System", perform troubleshooting for "Occupant Classification System" as shown in the chart below.
- Use the Techstream to read and clear the DTC of the occupant classification ECU, otherwise the DTCs cannot be read and cleared.

OCCUPANT CLASSIFICATION SYSTEM

DTC Code	Detection Item	Trouble Area	Passenger Airbag ON/OFF Indicator (OFF)	See
B1771	Passenger Side Buckle Switch Circuit Malfunction	- Front seat wire RH - Front seat inner belt assembly RH (Passenger side buckle switch) - Occupant classification ECU	ON	Refer to <u>DTC B1771: Passenger Side Buckle Switch Circuit Malfunction</u>
B1780	Front Occupant Classification Sensor LH Circuit Malfunction	- Front seat cushion spring assembly RH (Front occupant classification sensor LH) - Front seat wire RH - Occupant classification ECU	ON	Refer to <u>DTC B1780: Front Occupant Classification Sensor LH Circuit Malfunction</u>
B1781	Front Occupant Classification Sensor RH Circuit Malfunction	- Front seat cushion spring assembly RH (Front occupant classification sensor RH) - Front seat wire RH - Occupant	ON	Refer to <u>DTC B1781: Front Occupant Classification Sensor RH Circuit Malfunction</u>

		classification ECU		
B1782	Rear Occupant Classification Sensor LH Circuit Malfunction	- Front seat cushion spring assembly RH (Rear occupant classification sensor LH) - Front seat wire RH - Occupant classification ECU	ON	Refer to <u>DTC B1782:</u> <u>Rear Occupant Classification Sensor LH Circuit Malfunction</u>
B1783	Rear Occupant Classification Sensor RH Circuit Malfunction	- Front seat cushion spring assembly RH (Rear occupant classification sensor RH) - Front seat wire RH - Occupant classification ECU	ON	Refer to <u>DTC B1783:</u> <u>Rear Occupant Classification Sensor RH Circuit Malfunction</u>
B1785	Front Occupant Classification Sensor LH Collision Detection	Front seat cushion spring assembly RH (Front occupant classification sensor LH)	ON	Refer to <u>DTC B1785:</u> <u>Front Occupant Classification Sensor LH Collision Detection</u>
B1786	Front Occupant Classification Sensor RH Collision Detection	Front seat cushion spring assembly RH (Front occupant classification sensor RH)	ON	Refer to <u>DTC B1786:</u> <u>Front Occupant Classification Sensor RH Collision Detection</u>
B1787	Rear Occupant Classification Sensor LH Collision Detection	Front seat cushion spring assembly RH (Rear occupant classification sensor LH)	ON	Refer to <u>DTC B1787:</u> <u>Rear Occupant Classification Sensor LH Collision Detection</u>
B1788	Rear Occupant Classification Sensor RH Collision Detection	Front seat cushion spring assembly RH (Rear occupant classification sensor RH)	ON	Refer to <u>DTC B1788:</u> <u>Rear Occupant Classification Sensor RH Collision Detection</u>
B1790	Center Airbag Sensor Assembly Communication Circuit Malfunction	- No. 2 floor wire - Front seat wire RH - Occupant classification ECU - Center airbag sensor assembly	ON	Refer to <u>DTC B1790:</u> <u>Center Airbag Sensor Assembly Communication Circuit Malfunction</u>
B1793	Occupant Classification Sensor Power Supply	- Front seat cushion spring assembly RH (Occupant classification	ON	Refer to <u>DTC B1793:</u> <u>Occupant Classification Sensor Power Supply</u>

	Circuit Malfunction	sensors) - Front seat wire RH		<u>Circuit Malfunction</u>
B1794	Open in Occupant Classification ECU Battery Positive Line	- Front seat wire RH - Harness or connector - Occupant classification ECU	ON	Refer to <u>DTC B1794:</u> <u>Open in Occupant Classification ECU Battery Positive Line</u>
B1795	Occupant Classification ECU Malfunction	Occupant classification ECU	ON	Refer to <u>DTC B1795:</u> <u>Occupant Classification ECU Malfunction</u>
B1796	Sleep Operation Failure of Occupant Classification ECU	Occupant classification ECU	ON	Refer to <u>DTC B1796:</u> <u>Sleep Operation Failure of Occupant Classification ECU</u>