

# Diagnostic Procedure with Diagnostic Trouble Code (DTC)

## OCCUPANT DETECTION SYSTEM (DIAGNOSTICS)

### 16. Diagnostic Procedure with Diagnostic Trouble Code (DTC)

#### A: DTC B1650 OCCUPANT CLASSIFICATION SYSTEM MALFUNCTION

##### DTC DETECTING CONDITION:

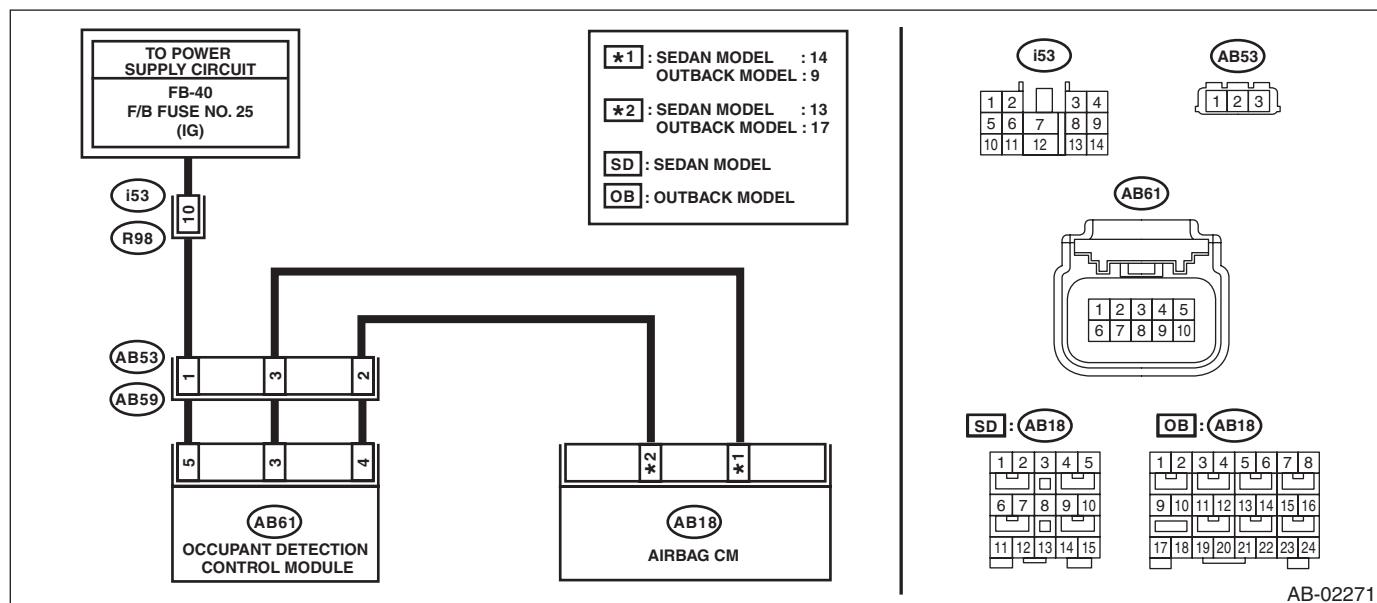
- Occupant detection sensor is faulty.
- Occupant detection control module is faulty.
- Occupant detection harness is faulty.
- Rear airbag harness is faulty.
- Communication to occupant detection control module and airbag control module is faulty.
- Airbag control module is faulty.

##### CAUTION:

Before performing diagnosis, refer to "CAUTION" in "General Description". <Ref. to AB(diag)-4, CAUTION, General Description.>

##### WIRING DIAGRAM:

Occupant Detection System <Ref. to WI-224, WIRING DIAGRAM, Occupant Detection System.>



Step	Check	Yes	No
1 <b>CHECK DTC.</b> Read diagnostic trouble code (DTC) for the airbag system.	Is another DTC detected?	Perform the diagnosis according to DTC.	Go to step 2.
2 <b>CHECK POOR CONTACT OF CONNECTORS.</b> Check for poor contact of the connectors between the occupant detection control module and airbag control module.	Is there poor contact?	Reconnect the connector. If defective is not improved, replace the airbag rear harness along with the body harness or the occupant detection harness (seat harness).	Go to step 3.

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Step	Check	Yes	No
<b>3 CHECK AIRBAG REAR HARNESS.</b> 1) Turn the ignition switch to OFF, disconnect the battery ground cable, and wait for 60 seconds or more. 2) Disconnect the connectors (AB6, AB17, AB18) from airbag control module. 3) Disconnect the connectors (AB59) and (AB53) under the passenger's seat. 4) Connect the connector (1AG) in the test harness AG to the connectors (AB6, AB17, AB18). <b>NOTE:</b> For sedan models, connect test harness AH between the connectors (AB6, AB17, AB18) and (1AG). 5) Connect the connector (1AD) in the test harness AD to the connector (AB53). 6) Measure the resistance between connector (6AG) or (5AG) in the test harness AG and connector (2AD) in the test harness AD. <b>Connector &amp; terminal</b> <b>Sedan model</b> (5AG) No. 3 — (2AD) No. 2: (5AG) No. 8 — (2AD) No. 3: <b>OUTBACK model</b> (6AG) No. 10 — (2AD) No. 3: (6AG) No. 12 — (2AD) No. 2:	Is the resistance less than 10 $\Omega$ ?	Go to step 4.	Replace the airbag rear harness along with body harness.
<b>4 CHECK AIRBAG REAR HARNESS.</b> Measure the resistance between connector (2AD) in the test harness AD and chassis ground, and between connector (2AD) terminals. <b>Connector &amp; terminal</b> (2AD) No. 2 — <i>chassis ground</i> : (2AD) No. 3 — <i>chassis ground</i> : (2AD) No. 2 — (2AD) No. 3:	Is the resistance 1 $M\Omega$ or more?	Go to step 5.	Replace the airbag rear harness along with body harness.
<b>5 CHECK OCCUPANT DETECTION HARNESS.</b> 1) Turn the ignition switch to ON. 2) Measure the voltage between connector (2AD) in the test harness AD and chassis ground. <b>Connector &amp; terminal</b> (2AD) No. 1 (+) — <i>Chassis ground</i> (-):	Is the voltage 10 V or more?	Replace the occupant detection harness (seat harness). If defective is not improved, replace the occupant detection system (seat cushion & frame assembly), and then the airbag control module in this order. <Ref. to SE-27, PASSENGER'S SEAT, DISASSEMBLY, Front Seat.>	Check the battery voltage and fuse. If there is no fault, replace the airbag rear harness together with body harness.

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## OCCUPANT DETECTION SYSTEM (DIAGNOSTICS)

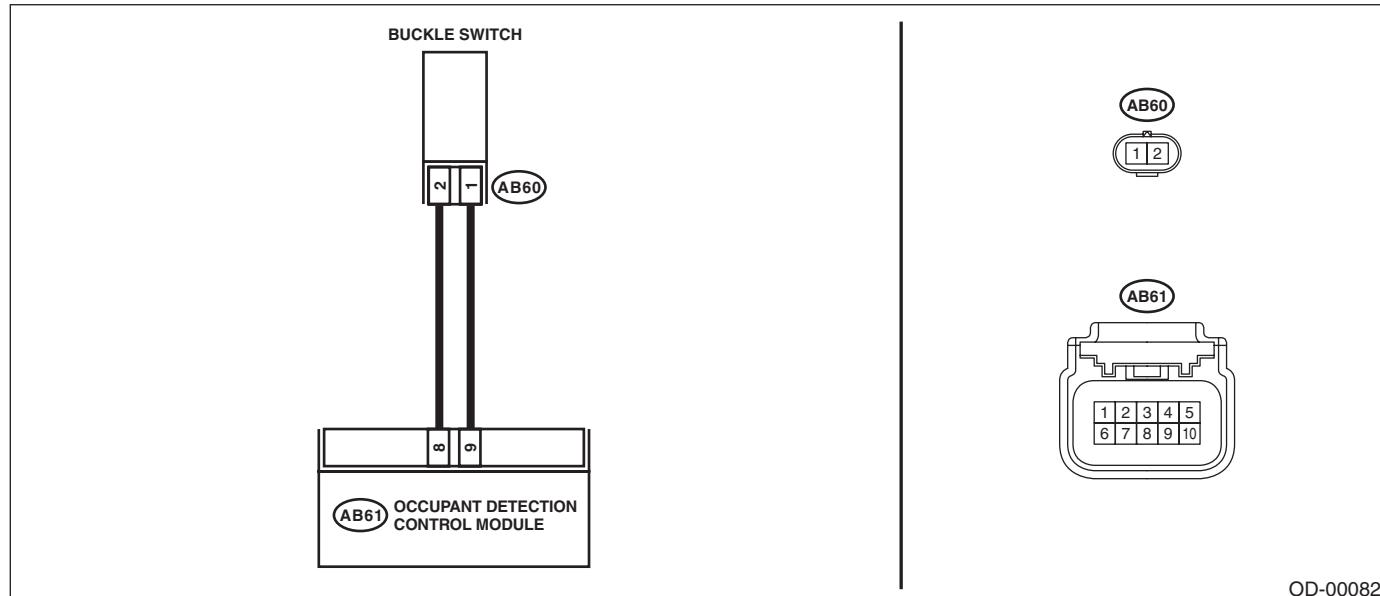
### B: DTC B1655 FRONT BUCKLE SWITCH RH FAILURE

#### DTC DETECTING CONDITION:

- Passenger's buckle switch circuit is open, shorted or shorted to ground.
- Seat harness circuit is open, shorted or shorted to ground.
- Occupant detection control module is faulty.

#### WIRING DIAGRAM:

Occupant Detection System <Ref. to WI-224, WIRING DIAGRAM, Occupant Detection System.>



Step	Check	Yes	No
1 <b>CHECK DTC.</b> Read the DTC of the occupant detection system.	Is a DTC other than B1650 and B1655 detected?	Perform the diagnosis according to DTC.	Go to step 2.
2 <b>CHECK POOR CONTACT OF CONNECTORS.</b> Check for poor contact of the connectors between the occupant detection control module and buckle switch.	Is there poor contact?	Reconnect the connector. If the fault is not fixed, replace the occupant detection harness.	Go to step 3.
3 <b>CHECK BUCKLE SWITCH.</b> 1) Turn the ignition switch to OFF, disconnect the battery ground terminal, and wait for 60 seconds. 2) Disconnect the buckle switch connector (AB60). 3) Connect the test harness AE and test harness connector Y to buckle switch connector (AB60). 4) Connect the battery ground terminal and turn the ignition switch to ON.	Does the airbag warning light illuminate for 6 seconds and go off?	Replace the buckle switch. <Ref. to SB-18, OUTER BELT ASSY, REMOVAL, Front Seat Belt.>	Check the occupant detection harness, and if any fault is found, replace the occupant detection harness. If the fault is not fixed, replace the occupant detection system. <Ref. to SE-27, PASSENGER'S SEAT, DISASSEMBLY, Front Seat.>

### C: DTC B16EE ODS CALIBRATION ERROR

#### DTC DETECTING CONDITION:

- Calibration of occupant detection control module is initial setting or faulty.
- Occupant detection control module is faulty.

Step	Check	Yes	No
<b>1</b> <b>CHECK DTC.</b> Read the DTC of the airbag system using the Subaru Select Monitor.	Is another DTC detected?	Perform the diagnosis according to the displayed DTC.	Go to step <b>2</b> .
<b>2</b> <b>PERFORM RE-ZEROING.</b> Perform system calibration using the Subaru Select Monitor. <Ref. to OD(diag)-18, System Calibration (Rezeroing).>	Did the system calibration complete properly?	Go to step <b>3</b> .	Replace the occupant detection system. <Ref. to SE-27, PASSENGER'S SEAT, DISASSEMBLY, Front Seat.>
<b>3</b> <b>CHECK DTC.</b> 1) Turn the ignition switch to OFF and wait for 60 seconds or more. 2) Turn the ignition switch to ON, and then read the DTC of the airbag system.	Is a DTC other than DTC B16EE displayed?	Perform the diagnosis according to the displayed DTC.	When the DTC is B16EE, replace the occupant detection system. <Ref. to SE-27, PASSENGER'S SEAT, DISASSEMBLY, Front Seat.> When DTC is not displayed, end the diagnosis.

#### CAUTION:

When a DTC other than DTC B16EE is present, system calibration (re-zeroing) cannot be completed normally.

When occupant detection system DTC other than DTC B16EE is present, perform the diagnosis of the DTCs other than DTC B16EE.

### D: DTC B16EF ODS SYSTEM WRONG PARTS

#### DTC DETECTING CONDITION:

- Wrong occupant detection control module is installed.
- Occupant detection control module is faulty.

When this DTC is displayed, the occupant detection control module is faulty.

Replace the occupant detection control module with a genuine occupant detection control module.

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OCCUPANT DETECTION SYSTEM (DIAGNOSTICS)

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# SEAT BELT SYSTEM

**SB**

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