

Subaru Select Monitor

OCCUPANT DETECTION SYSTEM (DIAGNOSTICS)

7. Subaru Select Monitor

A: OPERATION

1. READ DIAGNOSTIC TROUBLE CODE (DTC)

When malfunction of the airbag system and the occupant detection system occur, the DTC stored in airbag control module will be read out.

Refer to the DTC readout of the airbag system (diagnosis). <Ref. to AB(diag)-32, READ DIAGNOSTIC TROUBLE CODE (DTC), OPERATION, Subaru Select Monitor.>

NOTE:

- For details concerning operation procedure, refer to the “SUBARU SELECT MONITOR OPERATION MANUAL”.
- For details concerning DTCs, refer to the “List of Diagnostic Trouble Code (Airbag system, Occupant detection system).” <Ref. to AB(diag)-47, List of Diagnostic Trouble Code (DTC).> <Ref. to OD(diag)-24, List of Diagnostic Trouble Code (DTC).>

2. DISPLAY OF STATUS INFORMATION

Check the operating condition of each sensor in the event of malfunction in seat belt buckle switch and seat position sensor, or when the seat belt buckle switch and seat position sensor has been replaced.

- 1) On the «Main Menu» display screen, select the {Each System Check}.
- 2) On the «System Selection Menu» display screen, select the {Airbag System}.
- 3) On the «Airbag System» display screen, select the {Status Data}.

The following table is for support data.

Item	Display contents
Seat position sensor LH	Front position ^{*1} /Rear position ^{*2} /Other ^{*3} /Initial Setting ^{*3} /— ^{*5}
Seat position sensor RH	— ^{*5}
Seat belt buckle switch LH	Buckled ^{*6} /Unbuckled ^{*7} /Other ^{*8} /Initial Setting ^{*4} /— ^{*9}
Seat belt buckle switch RH	Buckled ^{*6} /Unbuckled ^{*7} /Other ^{*8} /Initial Setting ^{*4} /— ^{*9}
Passenger's airbag control status	ON ^{*10} /OFF ^{*11} /Initial Setting ^{*4}

*1: The seat position is forward.

*2: The seat position is rearward.

*3: Displayed when data other than before and behind the seat, such as the breakdown etc, is input.

*4: Displayed when it is initial.

*5: Seat position sensor not supported

*6: Seat belt fastened

*7: Seat belt not fastened

*8: Displayed when data other than belt fastened or not fastened, such as breakdowns is input.

*9: Seat belt buckle switch not supported

*10: Passenger's seat airbag operating state

*11: Passenger's seat airbag non-operating state

NOTE:

For details concerning operation procedure, refer to the “SUBARU SELECT MONITOR OPERATION MANUAL”.

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3. CLEAR MEMORY MODE

Clear the DTC stored in the airbag control module after repairing the airbag system and occupant detection system. (After the breakdown is recovered, the breakdown code for completed recoveries are read out when the next breakdown occurs if the memory clear work is not performed.)

- 1) On the «Main Menu» display screen, select the {Each System Check}.
- 2) On the «System Selection Menu» display screen, select the {Airbag System}.
- 3) On the {Airbag System} menu screen, select the {Clear Memory}.
- 4) When the “Clear Memory?” is shown on the screen, select the [OK].
- 5) When Done is displayed, close the Subaru Select Monitor.

NOTE:

For details concerning operation procedure, refer to the “SUBARU SELECT MONITOR OPERATION MANUAL”.

4. SYSTEM CALIBRATION (REZEROING)

NOTE:

When replacing the occupant detection system, or removing and disassembling the passenger's seat, always perform the system calibration after installing a seat in the vehicle.

CAUTION:

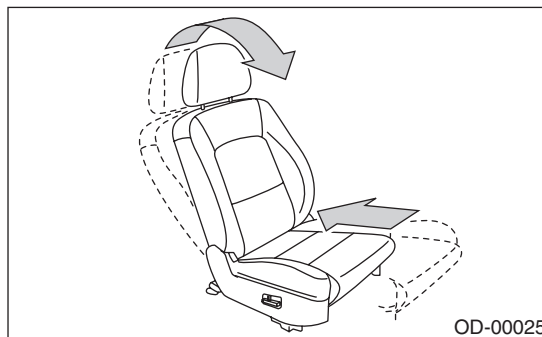
When the trouble occurs in the system during calibration process, “Occupant detection calibration failure” is detected in the DTC 2A of the airbag system and the airbag warning light lights. In this case, after turning the ignition switch to OFF once, redo the system calibration (Rezeroing), or after clearing the cause of the failure, perform the system calibration again.

- 1) Park empty vehicle on a level surface.
- 2) On the «Main Menu» display screen, select the {Each System Check}.
- 3) On the «System Selection Menu» display screen, select the {Occupant Detection System}.
- 4) On the Occupant Detection System display screen, select the {Zero Point Adjustment}.

5) “See service manual. And check vehicle condition for successfully completing the rezeroing.” is displayed. Check the following to adjust the condition of the vehicle.

- Adjust the seat backrest to be vertical. (Press the power seat switch to put the seat in a position where it will not move.)
- Adjust the seat sliding position to all the way back. (Press the power seat switch to put the seat in a position where it will not move.)
- Do not place anything on the top of the seat cushion.
- Sit on the seat cushion to smooth the seat surface.
- Check that the passenger's seat belt is not inserted into the buckle, not tense or not stuck.
- Check that ambient temperature is in a range from 0 to 40°C.

6) When the «Re-zeroing Adjust the passenger seat to the condition shown in service manual» is displayed, slide the passenger seat all the way to the back, check that the backrest is adjusted to all the way up, and select the [OK].



7) When the «Re-zeroing Unbuckle the Passenger seatbelt Continue: OK, Quit: NO» is displayed, make sure the passenger's seatbelt is disconnected from the buckle and select the [OK].

8) When the Re-zeroing Empty the passenger seat Continue: OK, Quit: NO is displayed, make sure that the passenger's seat is empty, airbag OFF indicator illuminates and airbag ON indicator does not illuminate, and select the [OK].

NOTE:

- After selecting the [OK], «Now processing.... Wait for a while. Do not touch or give impact to vehicle and seat» is displayed. Do not touch or rock the vehicle while the message is displayed.
 - During the system calibration process, if the «Re-zeroing is unsuccessful See service manual Press OK to END» is displayed, go to step 10).
- 9) When the re-zeroing is ended normally, the «Re-zeroing is successfully completed Press OK to END» is displayed. Select the [OK] and turn the ignition switch to OFF to finish the diagnosis.

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10) During the system calibration process, if the «Re-zeroing is unsuccessful See service manual Press OK to END» is displayed, turn the ignition switch to OFF once and turn it to ON again, and then read the DTC of airbag system. <Ref. to AB(diag)-32, OPERATION, Subaru Select Monitor.>

When DTC is input, fix the fault and then perform the system calibration. When DTC is not input, check the seat and vehicle status and then perform the system calibration again. <Ref. to OD(diag)-17, SYSTEM CALIBRATION (REZEROING), OPERATION, Subaru Select Monitor.>

NOTE:

When the re-zeroing is unsuccessful, there could be occupant detection system failure or improper seat and vehicle status. When the airbag warning light illuminates, read the DTC of airbag system, and perform the diagnosis referring to “List of Diagnostic Trouble Code.” <Ref. to AB(diag)-32, OPERATION, Subaru Select Monitor.> <Ref. to AB(diag)-47, LIST, List of Diagnostic Trouble Code (DTC).>

B: INSPECTION

1. COMMUNICATION FOR INITIALIZING IMPOSSIBLE

DETECTING CONDITION:

Defective harness connector

TROUBLE SYMPTOM:

Communication is impossible between the airbag control module and the Subaru Select Monitor.

Refer to “Initial Communication Impossible” in the DTC of the airbag system (diagnosis). <Ref. to AB(diag)-34, COMMUNICATION FOR INITIALIZING IMPOSSIBLE, INSPECTION, Subaru Select Monitor.>

2. WITHOUT DTC

DETECTING CONDITION:

- Defective combination meter
- Open circuit of harness

TROUBLE SYMPTOM:

- Airbag warning light remains on.
- “NO TROUBLE CODE” will be displayed on the Subaru Select Monitor.

For detailed operation procedure, refer to “Airbag Warning Light Failure”. <Ref. to AB(diag)-42, Airbag Warning Light Failure.>

NOTE:

When the airbag warning light is OFF and “NO TROUBLE CODE” is displayed on Subaru Select Monitor, the system is in normal condition.