

Subaru Select Monitor

OCCUPANT DETECTION SYSTEM (DIAGNOSTICS)

6. Subaru Select Monitor

A: OPERATION

1. READ DIAGNOSTIC TROUBLE CODE (DTC)

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

Refer to DTC readout of airbag system (diagnosis). <Ref. to AB(diag)-29, OPERATION, Subaru Select Monitor.>

NOTE:

- For details concerning the operation procedure, refer to the “SUBARU SELECT MONITOR OPERATION MANUAL”.
- For details concerning DTCs, refer to List of Diagnostic Trouble Code (Airbag system, Occupant detection system). <Ref. to AB(diag)-42, 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 the 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}.

A list of the support data is shown in the following table.

Contents	Content of diagnosis
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	Belted ^{*6} /Unbelted ^{*7} /Other ^{*8} /Initial Setting ^{*4} / — ^{*9}
Seat belt buckle switch RH	Belted ^{*6} /Unbelted ^{*7} /Other ^{*8} /Initial Setting ^{*4} / — ^{*9}
Passenger's airbag control status	ON ^{*10} /OFF ^{*11} /Initial Setting ^{*4}

*1: Seat position is at the front end.

*2: Seat position is at the rear end.

*3: Displayed when data other than seat position (forward/rear) is entered (such as breakdown data).

*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 entered.

*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 the operation procedure, refer to the “SUBARU SELECT MONITOR OPERATION MANUAL”.

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

4. SYSTEM CALIBRATION (REZEROING)

NOTE:

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

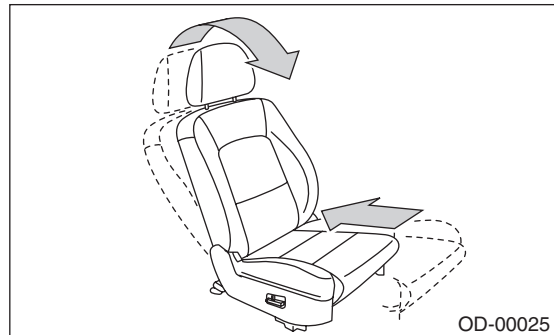
CAUTION:

When trouble occurs in the system during calibration process, DTC 2A “OCCUPANT DETECTION CALIBRATION FAILURE” of the airbag system is detected 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 on the screen. Inspect the following items and adjust the vehicle condition.

- Adjust the seat backrest to the upright position.
 - Adjust the slide to the rear end position.
 - 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 — 40°C (32 — 104°F).
- 6) «Re-zeroing Adjust the passenger seat to the condition shown in service manual» is displayed on the screen. Slide the passenger's seat to the rear end, make sure that the backrest is adjusted to the most upright position, and select the [OK].



7) When the «Re-zeroing Unbelt the Passenger seatbelt Continue: OK, Quit: NO» is displayed, make sure the passenger's seatbelt is disconnected from the buckle, then 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 then 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 normally completed, «Re-zeroing is successfully completed Press OK to END» is displayed. Select the [OK] and turn the ignition switch to OFF to complete.

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10) During the system calibration process, if «Re-zeroing is unsuccessful See service manual Press OK to END» is displayed, turn the ignition switch to OFF once and turn it ON again, then read the DTC of the airbag system. <Ref. to AB(diag)-29, 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 the seat and the vehicle does not match. When the airbag warning light illuminates, read the DTC of the airbag system, and perform the diagnosis while referring to “List of Diagnostic Trouble Code”. <Ref. to AB(diag)-29, OPERATION, Subaru Select Monitor.> <Ref. to AB(diag)-42, 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)-31, 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 procedures, refer to “Airbag Warning Light Failure”. <Ref. to AB(diag)-37, 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 operating properly.