

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 DTC readout of airbag system (diagnosis). <Ref. to AB(diag)-24, READ DIAGNOSTIC TROUBLE CODE (DTC), OPERATION, Subaru Select Monitor.>

NOTE:

- For details concerning operation procedure, refer to the “PC application help for Subaru Select Monitor”.
- For details concerning DTCs, refer to the List of Diagnostic Trouble Code (Airbag system, Occupant detection system). <Ref. to AB(diag)-37, 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, select {Each System Check}.
- 2) Select {Airbag System} in «System Selection Menu» display screen,
- 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	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: 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 airbag operating state

*11: Passenger's airbag non-operating state

NOTE:

For details concerning the operation procedure, refer to the “PC application help for Subaru Select Monitor”.

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

NOTE:

For details concerning the operation procedure, refer to the “PC application help for Subaru Select Monitor”.

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:

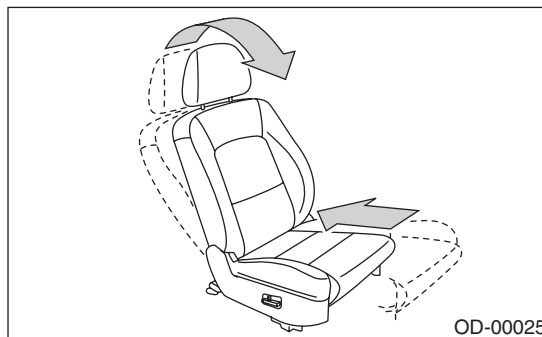
When the trouble occurs in the system during calibration process, “Occupant detection calibration failure” is detected in the DTC 2A of the airbag system and the airbag warning light lights. In this case, after turning the ignition switch to OFF once, redo the system calibration (Rezeroing), or after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

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 Unbelt 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], «In process.... Please wait for a while.. without touching vehicle» 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).

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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.

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)-24, READ DIAGNOSTIC TROUBLE CODE (DTC), 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 the airbag system, and perform the diagnosis while referring to List of Diagnostic Trouble Code. <Ref. to AB(diag)-24, READ DIAGNOSTIC TROUBLE CODE (DTC), OPERATION, Subaru Select Monitor.> <Ref. to AB(diag)-37, 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)-26, 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 diagnostic Code Present” will be displayed on the Subaru Select Monitor.

For detailed operation procedures, refer to “Airbag Warning Light Failure”. <Ref. to AB(diag)-33, Airbag Warning Light Failure.>

NOTE:

When the airbag warning light is OFF and “No diagnostic Code Present” is displayed on Subaru Select Monitor, the system is operating properly.