

Diagnostic Procedure with Diagnostic Trouble Code (DTC)

OCCUPANT DETECTION SYSTEM (DIAGNOSTICS)

13. Diagnostic Procedure with Diagnostic Trouble Code (DTC)

A: DTC 28 ADJUSTMENT/INSPECTION HALT

DETECTING CONDITION:

- Seat calibration is incomplete.
- A problem has occurred in the sensor or control module.
- Malfunction occurs on harness.

CAUTION:

If the system calibration or inspection service has been interrupted before completing, the indicator light of airbag system will come on and the DTC will be input.

| Step | Check | Yes | No |
|---|---|---|---|
| 1 PERFORM SYSTEM CALIBRATION. Perform the system calibration for system using the Subaru Select Monitor. NOTE: For detailed procedure, refer to "System Calibration". <Ref. to OD(diag)-13, SYSTEM CALIBRATION, OPERATION, Subaru Select Monitor.> | Is the system calibration completed correctly? | Perform the Clear Memory Mode. <Ref. to OD(diag)-12, Subaru Select Monitor.> Using the Subaru Select Monitor, check that DTC 28 is not displayed. | Go to step 2. |
| 2 CHECK DTC. Connect the Subaru Select Monitor to data link connector, and read the DTC. | Is DTC except "DTC 28 Adjustment / Inspection halt" displayed on Subaru Select Monitor? | Perform the inspection using "Diagnostic Procedure with Diagnostic Trouble Code (DTC)". <Ref. to OD(diag)-25, Diagnostic Procedure with Diagnostic Trouble Code (DTC).> | Go to step 3. |
| 3 CHECK SEAT. NOTE: Remove materials interrupting seat slide or heavy materials in back pocket. | Is there a problem on each part of seat? / Reclining and slide mechanisms work smoothly, and the lock operates properly. / No deformation, cracks or leaning of the seat. | Go to step 4. | Replace problem parts. <Ref. to SE-8, Front Seat.> |
| 4 CHECK SEAT POSITION. | Is the seat set in the same position as the system calibration procedure? | Go to step 5. | Adjust the seat position according to system calibration procedure. <Ref. to OD(diag)-13, SYSTEM CALIBRATION, OPERATION, Subaru Select Monitor.> |
| 5 CHECK WEIGHT FOR SYSTEM CALIBRATION. | Is the weight designated for system calibration as special tool used? | Go to step 6. | Use the designated weight for system calibration as special tool and perform the system calibration. |
| 6 CHECK SERVICE ENVIRONMENT. Check that the service environment (compartment temperature) is within 0 to 40°C (32 to 104°F). | Is the compartment temperature within specifications? | Go to step 7. | Perform the system calibration after setting the compartment temperature within specifications. |

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| Step | Check | Yes | No |
|---|---|-----------------------|--|
| 7 CHECK FLOOR PANEL. Check that floor panel at the seat installation has no distortion or damage. | Is there serious distortion or damage on the floor panel? | Go to step 8. | Perform the system calibration after repairing distortion or damage. |
| 8 PERFORM SYSTEM CALIBRATION. Perform the system calibration. <Ref. to OD(diag)-13, SYSTEM CALIBRATION, OPERATION, Subaru Select Monitor.> | Is the system calibration completed correctly? | Finish the diagnosis. | Go to step 9. |
| 9 REPLACE SEAT CUSHION FRAME ASSEMBLY. Replace backrest frame assembly and perform the system calibration. <Ref. to OD(diag)-13, SYSTEM CALIBRATION, OPERATION, Subaru Select Monitor.> | Is the system calibration completed correctly? | Finish the diagnosis. | Go to step 10. |
| 10 REPLACE BACKREST FRAME ASSEMBLY. Replace backrest frame assembly and perform the system calibration. <Ref. to OD(diag)-13, SYSTEM CALIBRATION, OPERATION, Subaru Select Monitor.> | Is the system calibration completed correctly? | Finish the diagnosis. | Go to step 11. |
| 11 INSTALL SPACER KIT. 1) Remove the mounting bolt for seat cushion frame assembly. 2) Install the spacer between seat cushion frame assembly RH and chassis. 3) Using the bolts supplied, tighten the bolts for seat cushion frame assembly to specified torque. <Ref. to SE-8, Front Seat.> 4) Perform the system calibration. | Is the system calibration completed correctly? | Finish the diagnosis. | Go to step 12. |
| 12 INSTALL SPACER KIT. 1) Remove spacer and bolt installed in RH side. 2) Install the spacer between seat cushion frame assembly LH and chassis. 3) Using the bolts supplied, tighten the bolts for seat cushion frame assembly to specified torque. <Ref. to SE-8, Front Seat.> 4) Perform the system calibration. | Is the system calibration completed correctly? | Finish the diagnosis. | Perform diagnosis from step 1. |

B: DTC 29 ODS FAILURE

DETECTING CONDITION:

- Malfunction is occurred in load cell sensor.
- Malfunction is occurred in occupant detection control module.
- Malfunction is occurred in occupant detection system harness.

CAUTION:

Seat cushion frame assembly is a non-disassemble part.

| Step | Check | Yes | No |
|---|--|-----------------------|--|
| 1 CHECK INSTALLATION OF CONNECTOR. | Are connectors of occupant detection control module and load cell sensor fit perfectly? | Go to step 2. | Fit the connector. |
| 2 INSPECT THE OCCUPANT DETECTION CONTROL MODULE, LOAD CELL SENSOR AND SEAT HARNESS. | Is there damage on occupant detection control module, load cell sensor and seat harness? | Go to step 3. | Replace the seat cushion frame assembly. |
| 3 PERFORM SYSTEM CALIBRATION. Perform the system calibration for system using the Subaru Select Monitor. <Ref. to OD(diag)-13, SYSTEM CALIBRATION, OPERATION, Subaru Select Monitor.> | Is the system calibration completed correctly? | Finish the diagnosis. | Replace the seat cushion frame assembly. |

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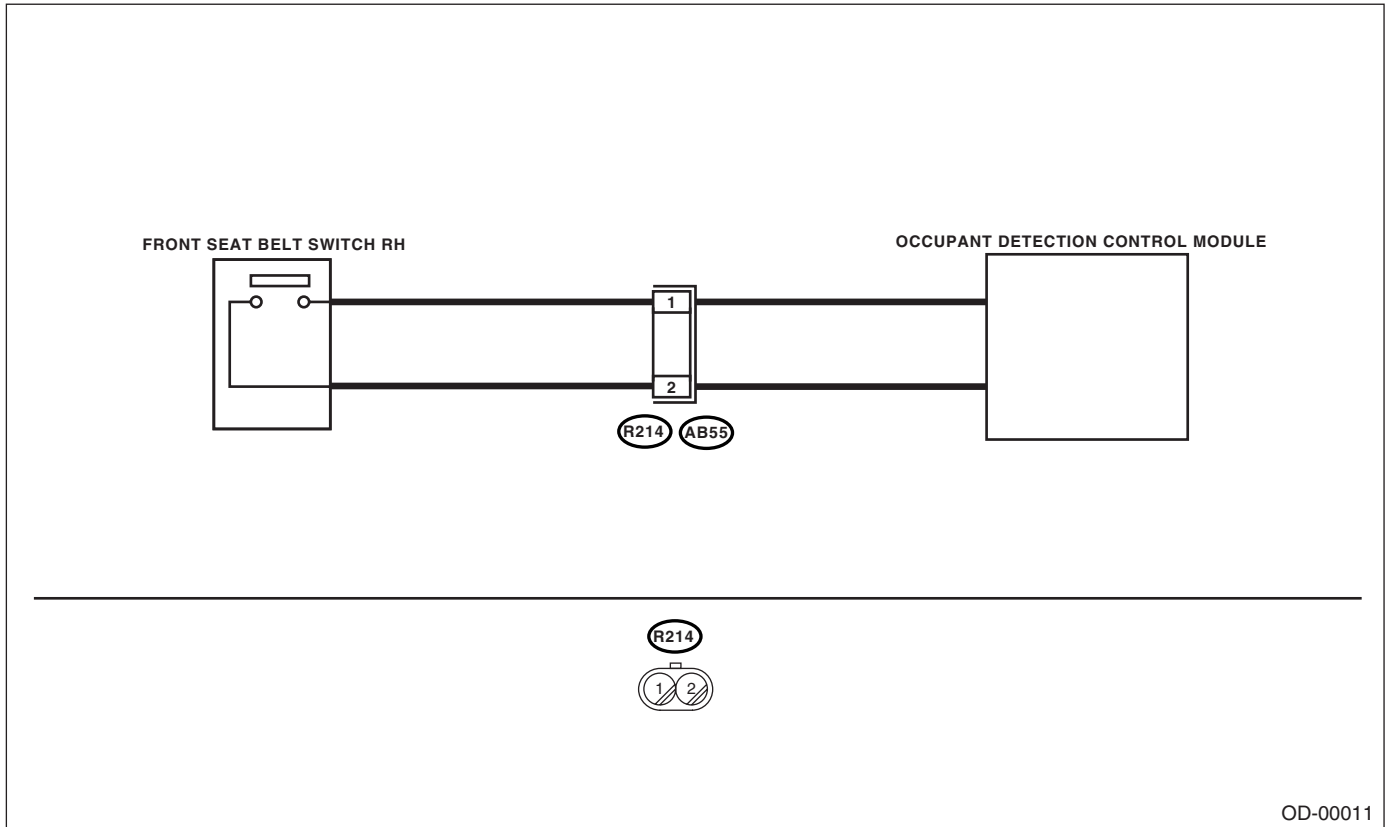
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C: DTC 37 BUCKLE SWITCH RH FAILURE

DETECTING CONDITION:

- Buckle switch circuit is shorted to ground.
- Buckle switch circuit is shorted to power supply.
- Buckle switch circuit is open.

WIRING DIAGRAM



OD-00011

| Step | Check | Yes | No |
|---|---|---|---|
| 1 CHECK BUCKLE SWITCH (RH). 1) Turn the ignition switch to OFF, disconnect the battery ground cable, and wait for more than 20 seconds. 2) Disconnect the seat belt switch connector (R214) and connect the connector (1Y) in the test harness Y to connector (AB55). 3) Connect the battery ground terminal and turn the ignition switch to ON. | Does the airbag warning light illuminate for approximately 6 seconds then go off? | Replace the buckle switch (RH). <Ref. to SE-11, DISASSEMBLY, Front Seat.> | Replace the seat frame assembly. <Ref. to SE-8, REMOVAL, Front Seat.> |

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OCCUPANT DETECTION SYSTEM (DIAGNOSTICS)

D: DTC 29 POWER SUPPLY FAILURE

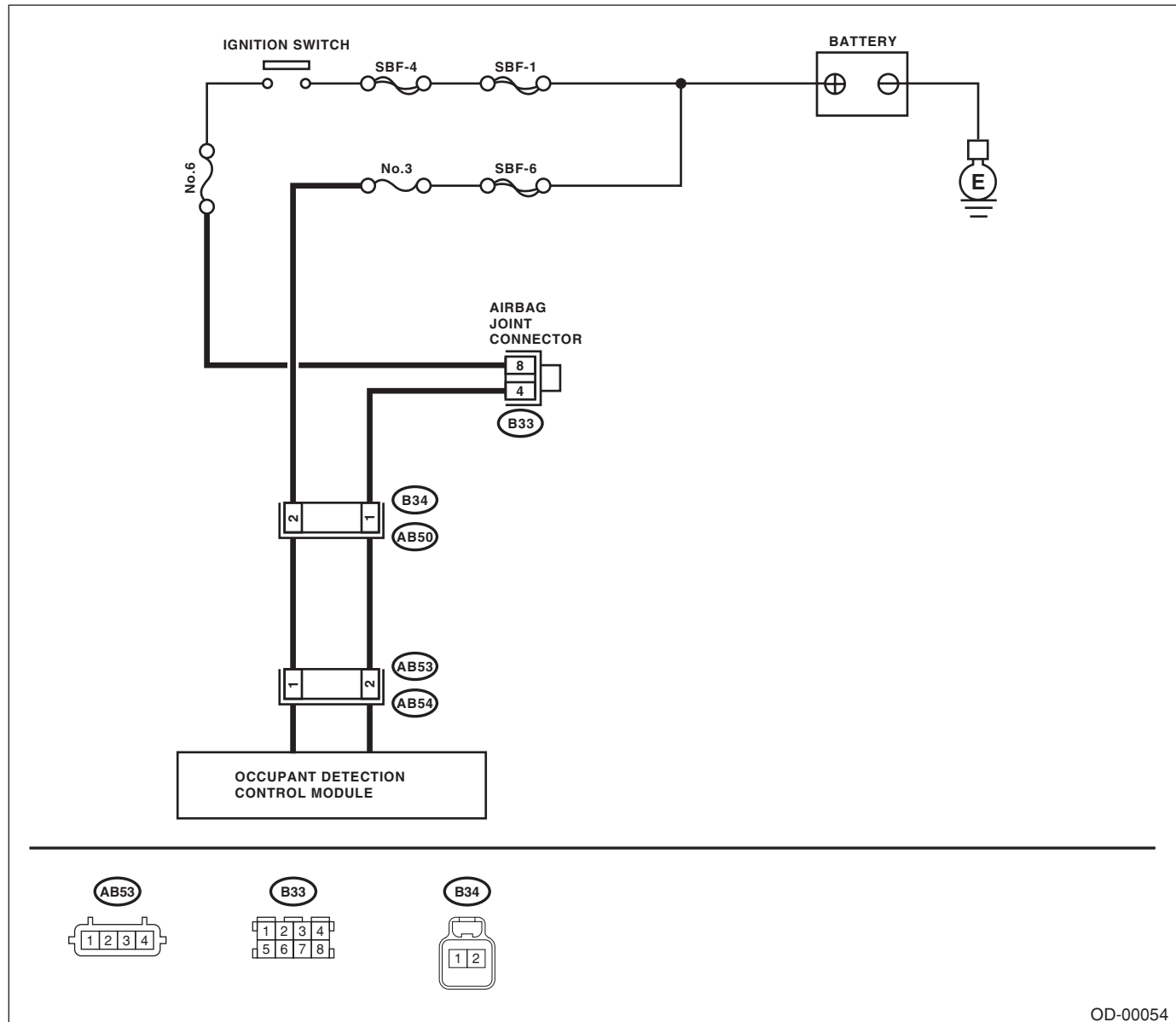
DETECTING CONDITION:

- No power is supplied to occupant detection control module.
- Power supply circuit harness is faulty.
- Battery voltage is reduced.

CAUTION:

Seat cushion frame assembly is a non-disassemble part.

WIRING DIAGRAM



OD-00054

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| Step | Check | Yes | No |
|---|------------------------------|---|-------------------------------------|
| 1 CHECK BATTERY. | Is the voltage 11 V or more? | Go to step 2. | Charge or replace the battery. |
| 2 CHECK HARNESS. 1) Turn the ignition switch to OFF, disconnect the battery ground cable, and wait for more than 20 seconds. 2) Disconnect the connector (AB53) from body harness. 3) Connect the connector (1Z) in the test harness Z to the connector (AB53). 4) Connect the battery ground cable to the battery. 5) Measure the voltage between connector (2Z) in the test harness Z and chassis ground. Connector & terminal (2Z) No. 4 (+) — Chassis ground (-): | Is the voltage 10 V or more? | Replace the seat cushion frame assembly. <Ref. to SE-8, REMOVAL, Front Seat.> | Go to step 3. |
| 3 CHECK FUSE. 1) Turn the ignition switch to OFF. 2) Remove the fuse No. 6 and perform visual inspection. | Is the fuse No. 6 blown out? | Replace the fuse. | Repair or replace the body harness. |