

# Subaru Select Monitor

## OCCUPANT DETECTION SYSTEM (DIAGNOSTICS)

### 7. Subaru Select Monitor

#### A: OPERATION

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

#### B: INSPECTION

##### 1. COMMUNICATION FOR INITIALIZING THE AIRBAG SYSTEM IS IMPOSSIBLE

###### NOTE:

The occupant detection system communicates with the Subaru Select Monitor via the airbag control module.

###### DETECTING CONDITION:

Defective harness connector

###### TROUBLE SYMPTOM:

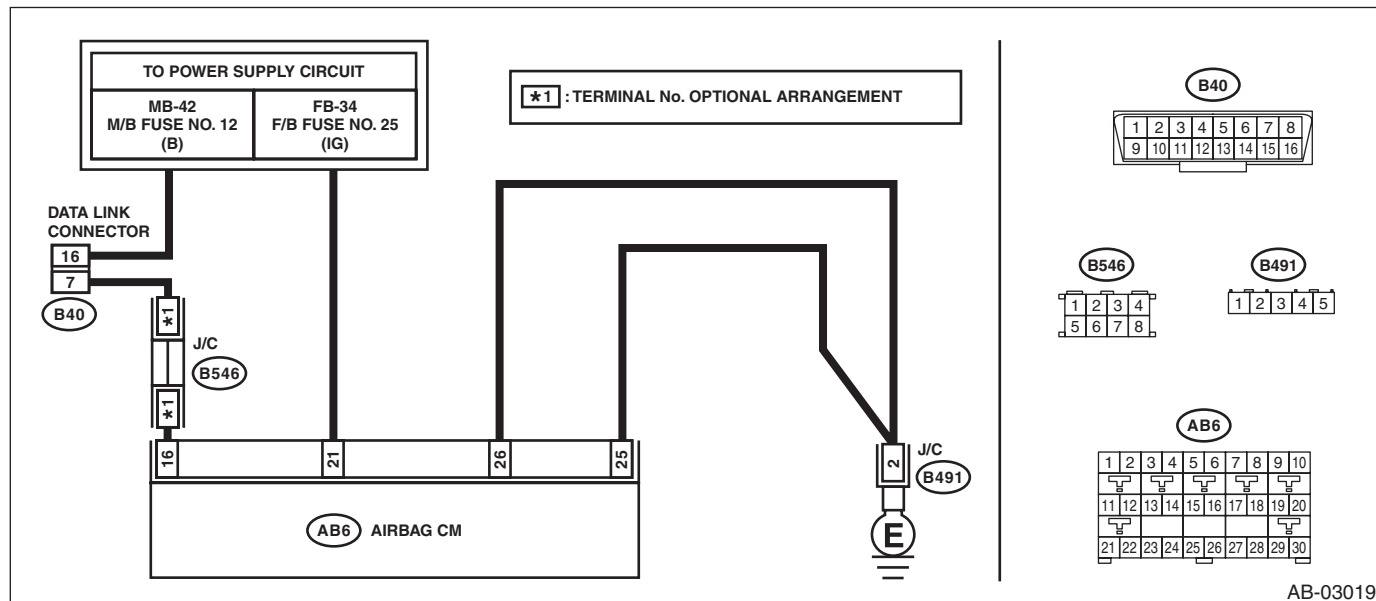
Communication is impossible between the airbag control module and the Subaru Select Monitor.

###### CAUTION:

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

###### WIRING DIAGRAM:

Airbag system <Ref. to WI-46, WIRING DIAGRAM, Airbag System.>



Step	Check	Yes	No
1 <b>CHECK IGNITION SWITCH.</b>	Is the ignition switch ON?	Go to step 2.	Turn the ignition switch to ON, and select the airbag mode using the Subaru Select Monitor.
2 <b>CHECK BATTERY.</b> 1) Turn the ignition switch to OFF. 2) Measure the battery voltage.	Is the voltage 11 V or more?	Go to step 3.	Charge or replace the battery.
3 <b>CHECK BATTERY TERMINAL.</b>	Is there poor contact at battery terminal?	Repair or tighten the battery terminal.	Go to step 4.

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Step	Check	Yes	No
<b>4 CHECK SUBARU SELECT MONITOR COMMUNICATION.</b> 1) Turn the ignition switch to ON. 2) Using the Subaru Select Monitor, check whether communication to other systems can be executed normally.	Is the system name displayed on Subaru Select Monitor?	Go to step 11.	Go to step 5.
<b>5 CHECK SUBARU SELECT MONITOR.</b>	Is Subaru Select Monitor powered on?	Go to step 7.	Go to step 6.
<b>6 CHECK FUSE.</b> Remove fuse No. 12 from the fuse & relay box, and perform visual inspection.	Is the fuse OK?	Repair the harness between the battery and the data link connector.	Replace the fuse. If the fuse is blown out again, check the power supply circuit.
<b>7 CHECK AIRBAG CONTROL MODULE CONNECTOR.</b> 1) Turn the ignition switch to OFF, disconnect the battery ground cable, and wait for 60 seconds or more. 2) Confirm that the connectors of airbag control module (AB6, AB17, AB18) are securely connected.	Is the connector of the airbag control module securely connected?	Go to step 8.	Connect the connector of the airbag control module.
<b>8 CHECK SUBARU SELECT MONITOR COMMUNICATION.</b> 1) Disconnect the airbag control module connector. 2) Connect the battery ground terminal. 3) Turn the ignition switch to ON. 4) Check whether communication to other systems can be executed normally.	Is the system name displayed on Subaru Select Monitor?	Replace the airbag control module. <Ref. to AB-71, Airbag Control Module.>	Go to step 9.
<b>9 CHECK HARNESS CONNECTOR BETWEEN EACH CONTROL MODULE AND DATA LINK CONNECTOR.</b> 1) Turn the ignition switch to OFF. 2) Disconnect the airbag control module, VDCCM&H/U, body integrated unit, impact sensor, TPMS CM, power steering CM, ECM and TCM. 3) Measure the resistance between data link connector and chassis ground. <b>Connector &amp; terminal</b> <b>(B40) No. 7 — Chassis ground:</b>	Is the resistance 1 MΩ or more?	Go to step 10.	Repair the harness and connector between each control module and data link connector. (Replace the entire harness if repair is necessary for airbag harness.)
<b>10 CHECK OUTPUT SIGNAL TO THE AIRBAG CONTROL MODULE.</b> 1) Turn the ignition switch to ON in the condition of step 9. 2) Measure the voltage between data link connector and chassis ground. <b>Connector &amp; terminal</b> <b>(B40) No. 7 (+) — Chassis ground (–):</b>	Is the voltage less than 1 V?	Repair each control module.	Repair the harness and connector between each control module and data link connector. (Replace the entire harness if repair is necessary for airbag harness.)
<b>11 CHECK FUSE.</b> Remove fuse No. 25 from the fuse & relay box, and perform visual inspection.	Is the fuse OK?	Go to step 12.	Replace the fuse. If the fuse is blown out again, check the power supply circuit.

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Step	Check	Yes	No
<b>12 CHECK AIRBAG CONTROL MODULE CONNECTOR.</b> 1) Turn the ignition switch to OFF, disconnect the battery ground cable, and wait for 60 seconds or more. 2) Confirm that the connectors of airbag control module (AB6, AB17, AB18) are securely connected.	Is the connector of the airbag control module securely connected?	Go to step 13.	Connect the connector of the airbag control module.
<b>13 CHECK THE HARNESS BETWEEN THE AIRBAG CONTROL MODULE AND DATA LINK CONNECTOR.</b> 1) Disconnect the connectors (AB6, AB17, AB18) from airbag control module. 2) Connect the connector (1AG) in the test harness AG to the connectors (AB6, AB17, AB18). NOTE: For sedan models, connect test harness AH between the connectors (AB6, AB17, AB18) and (1AG). 3) Measure the resistance between connector (4AG) in the test harness AG and the data link connector. <b>Connector &amp; terminal</b> <b>(4AG) No. 1 — (B40) No. 7:</b>	Is the resistance less than 10 $\Omega$ ?	Go to step 14.	Repair the harness between the airbag control module and the data link connector. Or replace the airbag main harness along with the bulkhead harness.
<b>14 CHECK POWER SUPPLY CIRCUIT.</b> 1) Turn the ignition switch to ON. 2) Measure the voltage between connector (2AG) in the test harness AG and chassis ground. <b>Connector &amp; terminal</b> <b>(2AG) No. 1 (+) — Chassis ground (-):</b>	Is the voltage 10 V or more?	Go to step 15.	Repair the harness between the airbag control module and the battery. Or replace the airbag main harness along with the bulkhead harness.
<b>15 CHECK BETWEEN AIRBAG CONTROL MODULE AND CHASSIS GROUND.</b> 1) Turn the ignition switch to OFF. 2) Measure the resistance between connector (2AG) in the test harness AG and chassis ground. <b>Connector &amp; terminal</b> <b>(2AG) No. 4 — Chassis ground:</b> <b>(2AG) No. 3 — Chassis ground:</b>	Is the resistance less than 10 $\Omega$ ?	Go to step 16.	Repair the harness between the airbag control module and the chassis ground. Or replace the airbag main harness along with the bulkhead harness.
<b>16 CHECK POOR CONTACT OF CONNECTOR.</b>	Is there poor contact of the control module power supply, ground circuit and data link connector?	Repair the connector. (Replace the harness instead of repairing the airbag system connector.)	Replace the airbag control module. <Ref. to AB-71, REMOVAL, Airbag Control Module.>

## **2. COMMUNICATION FOR INITIALIZING ONLY THE OCCUPANT DETECTION SYSTEM IS IMPOSSIBLE**

### **NOTE:**

The occupant detection system communicates with the Subaru Select Monitor via the airbag control module.

### **DETECTING CONDITION:**

Defective harness connector between airbag control module and occupant detection control module

### **TROUBLE SYMPTOM:**

Communication is impossible between the airbag control module and the occupant detection control module. Perform the diagnosis from step 2 in "DTC B1650 OCCUPANT CLASSIFICATION SYSTEM MALFUNCTION". <Ref. to OD(diag)-22, DTC B1650 OCCUPANT CLASSIFICATION SYSTEM MALFUNCTION, Diagnostic Procedure with Diagnostic Trouble Code (DTC).>