

- ATTENTION:**
- GENERAL MANAGER
 - PARTS MANAGER
 - CLAIMS PERSONNEL
 - SERVICE MANAGER

IMPORTANT - All Service Personnel Should Read and Initial in the boxes provided, right.

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QUALITY DRIVEN® SERVICE

SERVICE INFORMATION BULLETIN

APPLICABILITY: 2014-2018MY Forester

NUMBER: 07-108-16R

SUBJECT: Revised Diagnostic Procedure for DTC B1650

DATE: 12/06/17

REVISED: 12/07/17

INTRODUCTION:

This Service Information Bulletin provides a revised troubleshooting procedure and tips to follow when diagnosing a DTC B1650- “Occupant Classification System Malfunction”. This DTC may also be accompanied by B1760, B1761, B1771 or B1795 as found in the Occupant Detection control module. The new procedure is designed to help avoid unnecessary part (seat cushion assembly) replacements.

SERVICE PROCEDURE / INFORMATION:

IMPORTANT NOTES:

- The SSMIII (NOT SM4) must be used to diagnose the Occupant Detection System (ODS) . This requirement will remain until the January 2018 SM4 update is released. See table below.

Control Unit	DTC	DTC Timing	SSM4 (DTC display-capable)	SSM3 (DTC display-capable)
Air Bag	B1650	Current	Yes	Yes
		Past	Yes	Yes
ODS	B1760	Current	Yes	Yes
		Past	No	Yes
ODS	B1771	Current	Yes	Yes
		Past	No	Yes
ODS	B1795	Current	Yes	Yes
		Past	No	Yes

- BEFORE** proceeding with diagnosis of any ODS-related DTC. Always check to see if the passenger seat cushion is wet, contains moisture or has been exposed to excessively humid conditions for some time.

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CAUTION: VEHICLE SERVICING PERFORMED BY UNTRAINED PERSONS COULD RESULT IN SERIOUS INJURY TO THOSE PERSONS OR TO OTHERS.

Subaru Service Bulletins are intended for use by professional technicians ONLY. They are written to inform those technicians of conditions that may occur in some vehicles, or to provide information that could assist in the proper servicing of the vehicle. Properly trained technicians have the equipment, tools, safety instructions, and know-how to do the job correctly and safely. If a condition is described, DO NOT assume that this Service Bulletin applies to your vehicle, or that your vehicle will have that condition.

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ISO 14001 is the international standard for excellence in Environmental Management Systems. Please recycle or dispose of automotive products in a manner that is friendly to our environment and in accordance with all local, state and federal laws and regulations.

- If any moisture is confirmed, the cushion must be **completely** dried See procedures supplied later in this bulletin.
- It is VERY IMPORTANT to understand the occupant detection sensor mat is a sensitive component. For that reason, **NEVER** use a heat gun or a hair dryer in an attempt to “force dry” the seat cushion.

A “temporarily” wet seat cushion resulting from (as examples) a window being inadvertently left open during rainfall or possibly spilled food / drink possibly with a resulting clean-up using water and / or cleaning liquids can cause moisture to be left behind and B1650 (or a related DTC) to set. **This is the most common scenario and what can easily lead to an unnecessary seat cushion replacement.**

It is **VERY IMPORTANT** to thoroughly review this information with the customer during the Service write-up interview. Attempt to determine if this is an actual concern with the system or if outside influence (moisture) may well be the root cause of the condition BEFORE proceeding with further diagnosis or ordering any parts. Use the Owner’s Manual wording as an additional reference for any discussions with the customer. If the memory is cleared and the seat cushion is not thoroughly dry, the code will likely reset once someone sits in the seat again. In this case, the system is operating as designed. If the seat is dry and the code is still current (not past), there may be a damaged component or connection causing the DTC.

DRYING PROCEDURES:

If the passengers’ seat cushion is found wet or displays any staining, dry the seat cushion completely using natural air. Parking the vehicle in a sunny spot with windows slightly open is recommended. If necessary to speed the drying time, it is recommended to use the vehicle’s Air Conditioner function:

- Park the vehicle in open area or use exhaust ventilation equipment
- Set the parking brake and start the engine
- Turn the A/C ON, set the blower fan to MAX, then direct airflow from the vents at the seat cushion
- Set A/C temperature to a comfortable room temperature (full heat is not required).
- Check the seat after some time to confirm it is fully dried.

REMINDER: The occupant detection sensor mat is a sensitive part. Use of a Hair Dryer or Heat Gun to dry the seat cushion is not allowed.

The following screen shot samples show the REVISED diagnostics which will be incorporated into the 2014MY and later Forester Service Manuals soon. The revised text is in red. This diagnostic flow must be followed anytime the above listed vehicles present with B1650, B1760, B1761, B1771, B1795 or any combination of these codes. Always record the step by step results for this diagnosis.

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Step	Check	Yes	No
1. CHECK DTC. Read the DTC of the occupant detection system.	Are any of DTC B1760, B1761, B1771 and B1795 detected?	Perform the diagnosis according to DTC.	Go to step 2.
2. CHECK POOR CONTACT OF CONNECTORS. Check for poor contact of the connectors between the occupant detection control module and airbag control module.	Is there poor contact?	Reconnect the connector. If condition is not improved, replace the rear body harness or the occupant detection system (passenger side cushion & frame assembly).	Go to step 3.
3. CHECK AIRBAG REAR HARNESS. 1) Turn the ignition switch to OFF, disconnect the battery ground cable, and wait for 60 seconds or more. 2) Disconnect the connectors (AB59) and (AB53) under the passenger's seat. 3) Disconnect the connectors (AB6, AB17, AB18) from the airbag control module, and connect the connector (1AG) in the test harness AG to connectors (AB6, AB17, AB18). 4) Connect the connector (1AP) in the test harness AP to the connector (AB53). 5) Measure the resistance between connector (6AG) in the test harness AG and connector (2AP) in the test harness AP. Connector & terminal (6AG) No. 9 — (2AP) No. 1: (6AG) No. 11 — (2AP) No. 2:	Is the resistance less than 10 Ω?	Go to step 4.	Replace the rear body harness.
4. CHECK AIRBAG REAR HARNESS. Measure the resistance between connector (6AG) in the test harness AG and chassis ground. Connector & terminal (6AG) No. 9 — Chassis ground: (6AG) No. 11 — Chassis ground: (6AG) No. 9 — (6AG) No. 11:	Is the resistance 1 MΩ or more?	Go to step 5.	Replace the rear body harness.
5. CHECK OCCUPANT DETECTION HARNESS. 1) Turn the ignition switch to ON. 2) Measure the voltage between connector(2AB) in the test harness AB and chassis ground. Connector & terminal (2AP) No. 3 (+) — Chassis ground (-):	Is the voltage 10 V or more?	Go to step 6.	Check the battery voltage and fuse. If there is no fault, replace the rear body harness.

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Step	Check	Yes	No
6. CHECK AIRBAG SYSTEM DTC. 1) Turn the ignition switch to OFF. 2) Reconnect the disconnected connector. 3) Turn the ignition switch to ON. 4) Read Airbag System current DTC.	Is DTC B1650 detected?	If the condition is not improved, replace the occupant detection system (passenger side cushion & frame assembly). If the condition is still not improved, then replace the airbag control module.	The system is currently normal. Check if any other DTC is detected. If there is no current DTC, perform Clear memory.

REFER TO THE LABOR TIME GUIDE ON SUBARUNET FOR APPLICABLE CLAIM CODING INFORMATION.

IMPORTANT REMINDERS:

- SOA strongly discourages the printing and/or local storage of service information as previously released information and electronic publications may be updated at any time.
- Always check for any open recalls or campaigns anytime a vehicle is in for servicing.
- Always refer to STIS for the latest service information before performing any repairs.