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

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QUALITY DRIVEN® SERVICE

SERVICE BULLETIN

APPLICABILITY: 2014-18MY Forester

NUMBER: 17-19-24

SUBJECT: DTC B1760 Occupant Detection Sensor Mat /
Diagnosis & Repair Procedures

DATE: 03/28/24

INTRODUCTION:

This bulletin announces the diagnostic and repair procedures to be used when DTC B1760 (Occupant Detection Sensor Mat). Due to limited part supply, the availability of passenger front seat cushion assembly (p.n. 64139SG***) may not be sufficient to satisfy demand. To reduce extended vehicle down time, Subaru of America is introducing an alternative diagnostic and repair procedure. This procedure requires the use WUM-98 Sensor Harness Kit (p.n. 64084SG23A) to be used in place of the passenger front seat cushion assembly. If DTC B1760 is detected by the airbag control module, follow the diagnosis and repair procedures outlined in this bulletin.

PART INFORMATION:

Part Description	Part Number
WUM-98 SENSOR HARN KIT	64084SG23A



<p>CAUTION: VEHICLE SERVICING PERFORMED BY UNTRAINED PERSONS COULD RESULT IN SERIOUS INJURY TO THOSE PERSONS OR TO OTHERS.</p> <p>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.</p>	<p style="text-align: center;">Subaru of America, Inc. is ISO 14001 Compliant</p> <p>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.</p>
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DIAGNOSTIC PROCEDURE:

The diagnostic Steps below have been taken from the Subaru Service Manual. Step 5 has been updated with the new part information (outlined in **RED**.)

Step	CHECK AIRBAG WARNING LIGHT.	
1	Work	Check whether or not the airbag warning light is illuminated.
	Check	Is it illuminated?
	Yes	Go to 2.
	No	Read the DTC, and if DTC B1760 is recorded as a past malfunction, proceed to Step 3.

Step	CHECK STATUS OF PASSENGER'S SEAT.	
2	Work	Check if the passenger's seat cushion is wet.
	Check	Is it wet?
	Yes	Go to 3.
	No	Go to 4.

Step	DRY PASSENGER'S SEAT.	
3	Work	Dry the passenger's seat well using clean towels and/fan.
	Check	Is the seat completely dry?
	Yes	Go to 4.
	No	Thoroughly dry the seat and proceed to Step 4.

Step	CHECK DTC.	
4	Work	Read the DTC status of the occupant detection system. Refer to <u>OCCUPANT DETECTION SYSTEM (DIAGNOSTICS)>Read Diagnostic Trouble Code (DTC)</u> .
	Check	Is DTC B1760 (current malfunction) displayed again?
	Yes	When DTC B1760 is displayed, go to Step 5.
	No	Clear the DTC memory. Refer to <u>OCCUPANT DETECTION SYSTEM (DIAGNOSTICS)>Clear Memory Mode</u> .

Step	CHECK POOR CONTACT OF CONNECTORS.	
5	Work	Check for poor contact of connectors between the occupant detection control module and the occupant detection sensor.
	Check	Is there poor contact of connector?
	Yes	When the connector is not fully connected, reconnect the connector correctly. Replace the faulty harness if the connector is faulty. (Replace the occupant detection harness or replace the occupant detection system (passenger's & frame assembly)). Refer to <u>SEATS>Front Seat>DISASSEMBLY > PASSENGER'S SEAT</u> .
	No	Replace the ODS sensor mat harness (WUM-98 SENSOR HARN KIT p.n. 64084SG23A). See the service procedures outline below. If the problem still persists, replace occupant detection sensor.

Updated Information

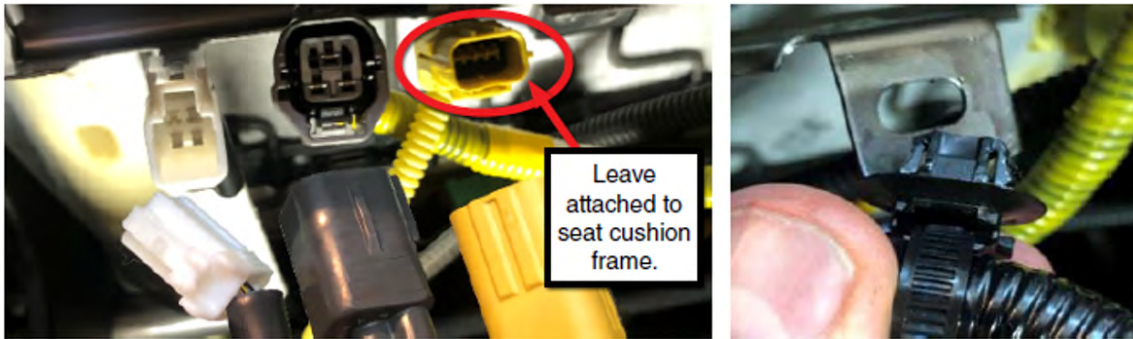
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SERVICE PROCEDURE / INFORMATION:

PREPARATION:

- Record the customer's radio station presets (and Navigation favorites where applicable).
- Put the seat at the front-to-back midpoint on the slide rails.
- **CAREFULLY** disconnect the negative (-) cable from the battery sensor and wait at least 60 seconds before proceeding further.

STEP 1: **CAREFULLY** disconnect the three (3) seat harness connectors and the harness retaining clip. Leave the yellow Airbag harness connector attached to the seat cushion frame.



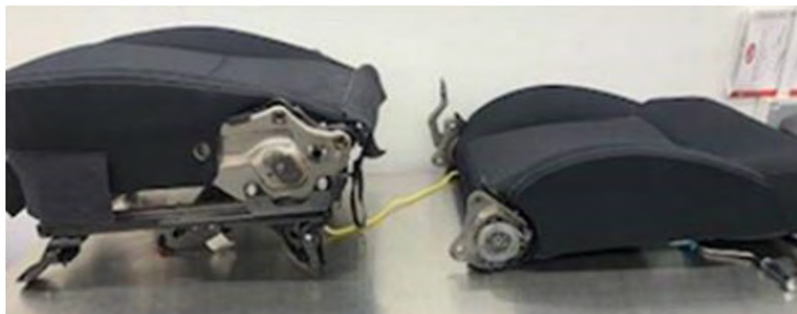
STEP 2: **CAREFULLY** remove the passenger seat assembly following the applicable Service Manual procedure.

IMPORTANT: When removing (and reinstalling) the seat assembly, always use **CAUTION** to protect the door opening area painted and surrounding trim surfaces from coming in contact with and possibly being scratched by the seat mounting brackets.

STEP 3: **CAREFULLY** remove the backrest reclining lever then both the outer and inner hinge cover trim panels and the inner seat belt buckle assembly following applicable Service Manual procedures.

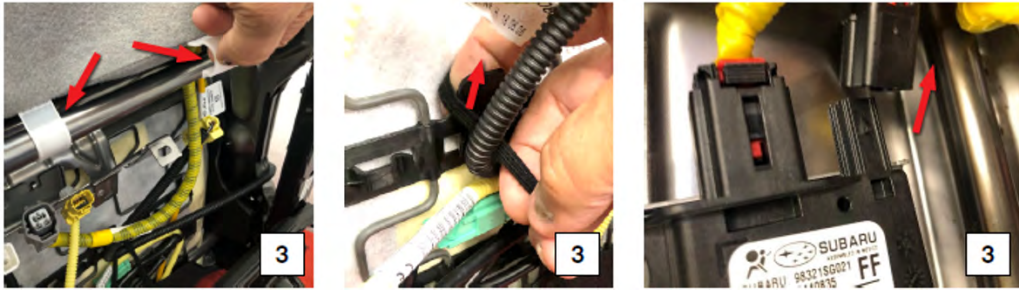
TIP: Pay close attention to all the wiring harness securing points, clips, etc. to assure their proper reassembly. Taking a photo(s) to use for reference at reassembly is recommended.

STEP 4: Disconnect the seat heater harness connector. Remove the bolts (2 inner and 2 outer), then **CAREFULLY** separate the backrest assembly and set it aside as shown in the photo below.

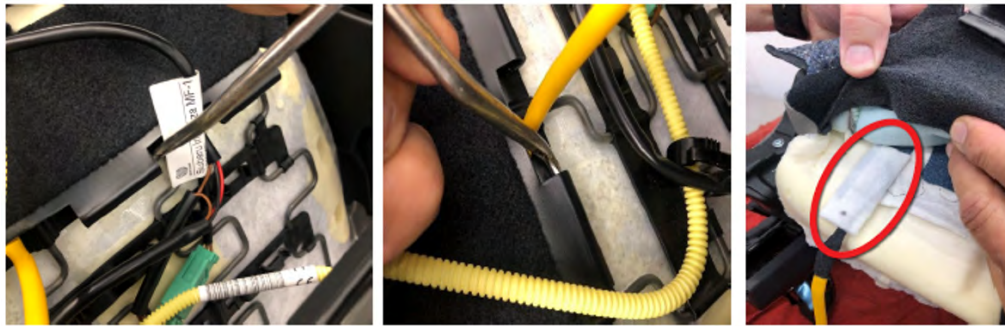


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STEP 5: Unclip the two retaining loop / clips from the seat cushion front frame, unhook the elastic loop with a finger and unplug the ODS mat harness from the ODS module as shown in the sequence below.



STEP 6: From the rear of the cushion (a cotter pin extractor works well), **CAREFULLY** release the plastic seat cover trim retainers as shown below and pull the back of the cover up as needed to access the harness to ODS sensor mat connection point (tail) circled below. The tail is covered in a self-adhesive fabric padding.



VERY IMPORTANT CAUTIONS:

- It is **IMPERATIVE** to read through and understand all the following **CAUTIONS** before proceeding with **Steps 7-10** below to avoid possible damage to the sensor mat harness connection point.
- Always be **EXTRA CAREFUL** when peeling the super-sticky adhesive / fabric cover back and removing it from the sensor mat harness connection point. Take your time and be patient.
- Concentrate on separating the flaps of the cover from themselves first and **THEN**, when the cover is opened up to the point where it **CAREFULLY** be peeled away from the harness, squeeze the riveted connection point between a thumb and forefinger to support it as that is the strongest part of the area in question.
- It is also **IMPERATIVE** to prevent sensor mat damage, always **FIRMLY** squeeze the riveted connection point between a thumb and forefinger when disconnecting **AND** reconnecting the harness from / to the sensor mat's flat, male spade connectors.
- Because the female connectors on the harness have strong clamping power, supporting the male connectors as described is mandatory to prevent any excessive bending of the sensor mat connectors and **CRITICAL** to preventing sensor mat damage as shown in the photos below.
- **NEVER** bend or twist the sensor mat connection point, especially while disconnecting or reconnecting the harness connectors as doing so will damage it.

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These three photos are examples of a sensor mat connection point damaged due to overly-aggressive disassembly. This **MUST** be avoided.



STEP 7: **CAREFULLY** peel the padding back to expose the tail and connections. Be advised, the adhesive used has a very strong grip. Hold the blue wire and **CAREFULLY** peel the padding in a direction parallel to the tail and discard. A new piece of self-adhesive fabric padding is included in the new replacement harness kit.



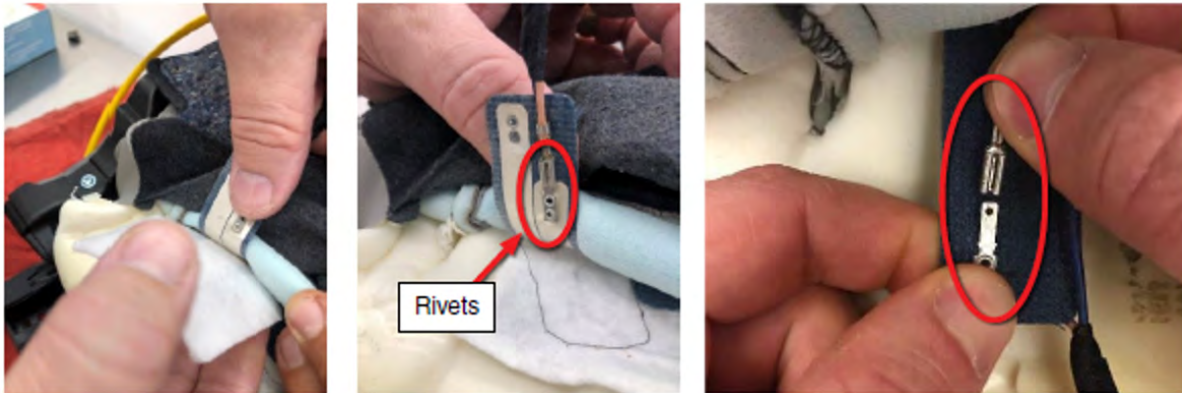
STEP 8: **IMPORTANT:** Before connecting the new harness, inspect the tail and sensor mat connectors to confirm they are tight on the 2 metal bands of the mat. Inspect closely for any breakages, cracks or other damages to the visible components of the sensor mat. If any damage is identified, the complete seat cushion assembly must be replaced as the sensor mat is not a serviceable component.

REMINDER: If a replacement is necessary, always order the most up-to-date seat cushion assembly part number for the VIN being repaired.



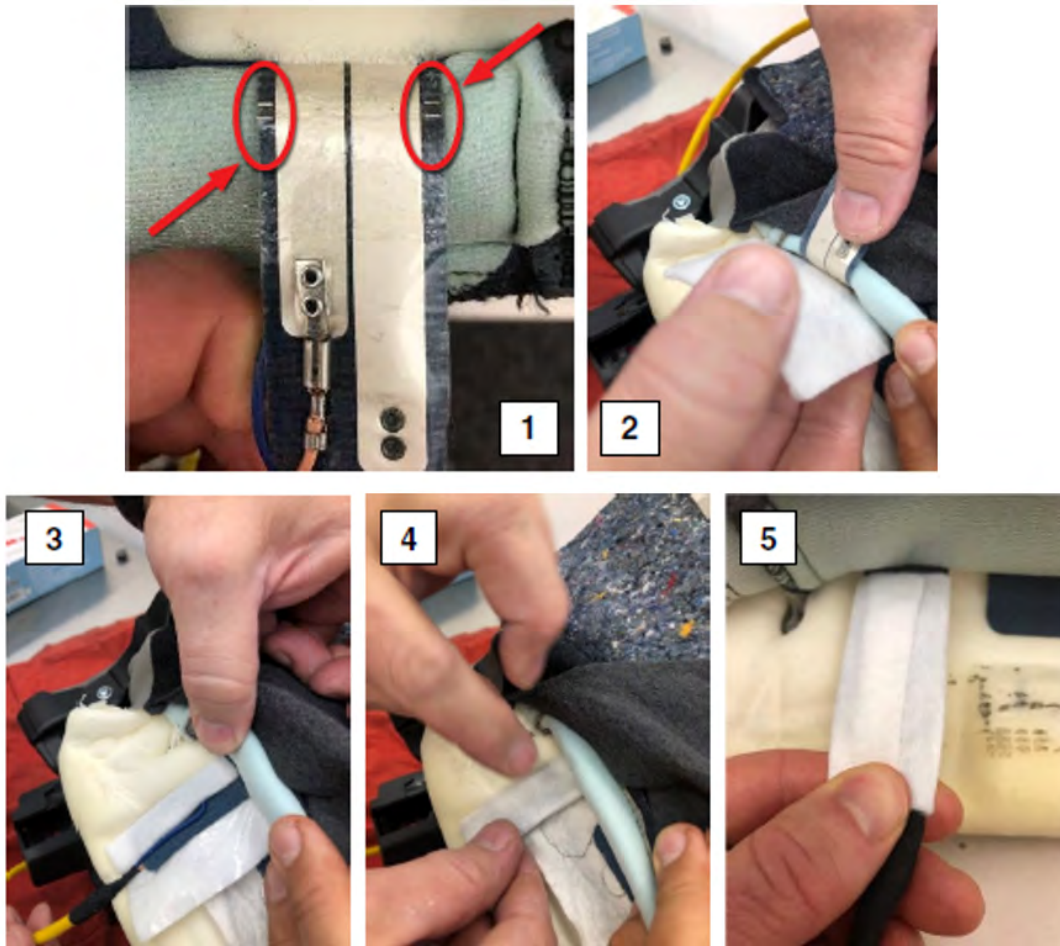
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STEP 9: IMPORTANT: Always squeeze the tail terminals firmly at the rivets when disconnecting / reconnecting the harness terminals. Connect the new harness terminals to the sensor mat removing **ONE CONNECTION AT A TIME** to make sure they are reconnected in the proper configuration.



STEP 10: After connecting the new harness, place the new self-adhesive padding under the tail as shown (adhesive side up). Align the edge of the new padding with the two small, white registration marks on the tail as shown in (1) below. Peel the adhesive backing (2) and **CAREFULLY** apply the tail to the padding. Fold each side over (3) & (4) to recover it while being very careful to not create any wrinkles in the padding material.

When completed, squeeze the padding material (5) from one end to the other between fingers to ensure it is fully adhered.

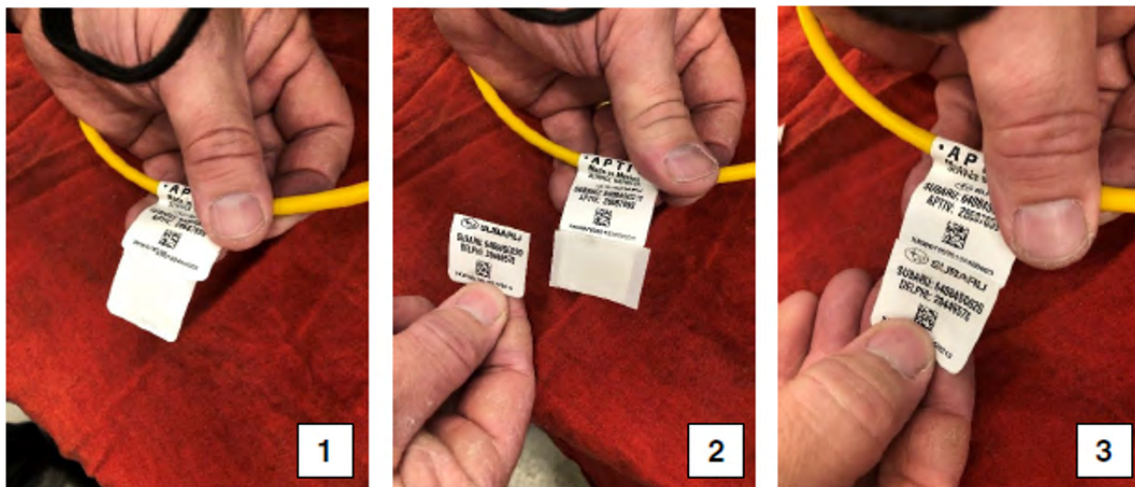


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STEP 11: Use a pair of scissors to cut the harness label from the original (removed) wiring harness.



STEP 12: Remove the adhesive backing and apply the cut off section of the original label to the new replacement harness as shown in the photo sequence below.



STEP 13: Reassemble the seat cushion assembly in reverse order of disassembly. If a photo was taken as recommended in **Step 3**, refer to it to confirm the affected harnesses are properly resecured to the underside of the seat cushion assembly.

STEP 14: Secure the backrest to the cushion with the four (4) mounting bolts. The torque specifications are as follows:

- Backrest to cushion assembly bolts (4): 52 Nm (38.4 ft. lbs.)
- Inner Seat Belt Buckle Nut (1): 38 Nm (28 ft. lbs.)
- **VERY IMPORTANT:** Make sure the seat belt buckle assembly rotates freely on the shoulder of the mounting stud **BEFORE AND AFTER** torquing the retaining nut.
- Seat Assembly to vehicle floor mounting bolts (4): 53 Nm (39.1 ft. lbs.).

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STEP 15: Reconnect the ground cable terminal to the battery sensor, torque to 7.5Nm (5.5ft.-lbs. or 66inch-lbs.) while supporting the sensor with the other hand as outlined in the applicable Service Manual under: STARTING/CHARGING SYSTEMS > Battery Sensor.

Confirm the customer's audio (and Navigation where applicable) presets and proper vehicle operation to complete the procedure.

WARRANTY / CLAIM INFORMATION:

For vehicles covered by an active Subaru Added Security Classic or Gold plan, this repair may be submitted using the following claim information:

Labor Description	Labor Operation #	Labor Time	Fail Code
ODS SEAT WIRE HARNESS R&R	B820-571	1.0	URJ-41

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.