



AIR BAG LAMP ILLUMINATED. FAULT CODE 9309A0

MODEL

F15 (X5 40e)

PHEV vehicles with N20 engine

SITUATION

The red air bag warning light is illuminated (check-control message: restraint system, CCM-ID: 97)

The following fault memory is entered in the ACSM4 (Advanced Crash Safety Module):

- 9309A0 - Safety battery terminal 3: Resistance too big

CAUSE

Contact problem with connector A190*1B at the EME (Electrical Machine Electronics).

The wires going to pins 7 (CRASH +) and 20 (CRASH-) in connector A190*1B are under tension. Vibrations may sporadically increase the resistance values of these connections outside of the acceptable range leading to an air bag warning light being illuminated.

CORRECTION

1. If only fault code 9309A0 is set, do not run the corresponding test module (ABL-DIT-AT6577_ACSM31). This test plan is currently incorrect and may recommend other repairs that would not fix this vehicle.



Note: **Replacing the battery cable plus (BST), the ACSM control module or the EME will not**

correct this situation.

2. Replace pins 7 and 20 at the EME connector.
3. Change harness routing/taping to allow some slack at the EME connector
4. Change zip tie direction on EME connector

PROCEDURE




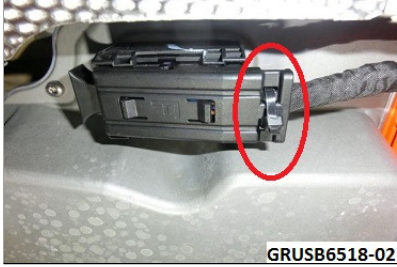
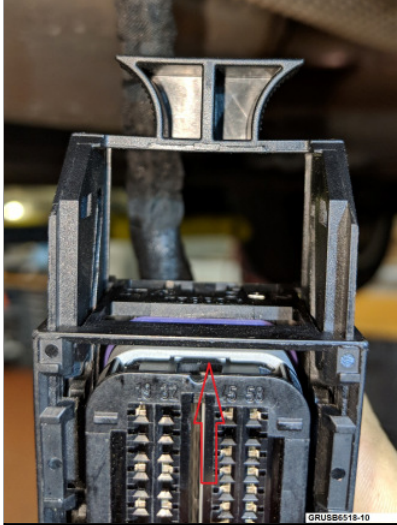
Special Tools Required:

To remove the electrical pins use pin release tool

- 611102 from tool kit 611100 or its supersession

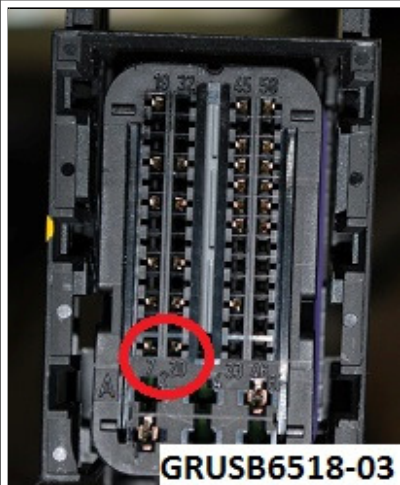
- 610322 from tool kit 610300 (83 30 0 495 382)

When installing new electrical pins use Crimp Tool head 614328 (83 30 0 495 555). See SI [B04 32 06](#) for details on this tool.

(repair instructions 61 25 900)	1. De-energize high-voltage system
(repair instructions 61 20 900)	2. Disconnect the battery
(repair instructions 51 71 016)	3. Remove underbody paneling on the right side
 <p>GRUSB6518-01</p>	4. Perform a visual inspection of connector A190*1B on the bottom of the EME
 <p>GRUSB6518-02</p>	5. Remove connector A190*1B from the EME. Cut the cable tie holding the harness to the EME connector.
 <p>GRUSB6518-10</p>	6. Disassemble connector A190*1B lock mechanism as shown



7. The lock on only one side needs to be removed. This is the lock for the small pin side of the connector.

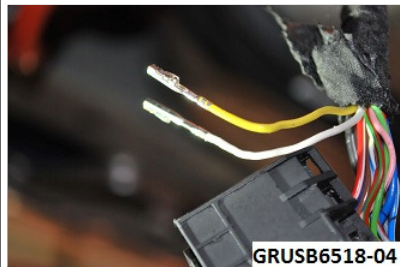


8. Replace pins 7 and 20 (use Part Number 12-52-7-560-889) at the EME connector.

To remove the pins use pin release tool 611102 from tool kit 611100 or its supersession 610322 from tool kit 610300.

Notify technical support via a PuMA case if there is visual/water damage to these pins.

Replacing these pins will shorten each wire by about 5 mm in overall length.



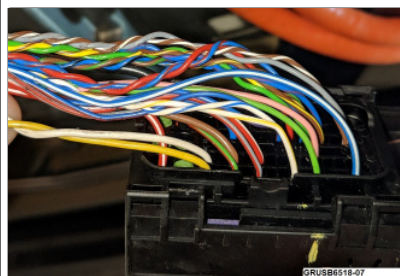
9. The safety instructions on handling cable harnesses and cables must be observed (REP 61 00 ...)

When installing new pins use Crimp Tool head **614328**. See SI [B04 32 06](#) for details on this tool.

Special tools for harness repair (repair instructions 61 13 ...)

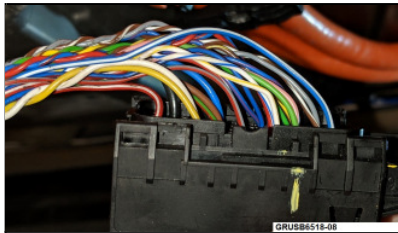
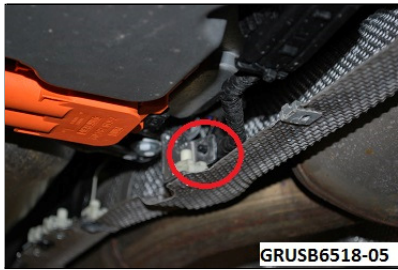
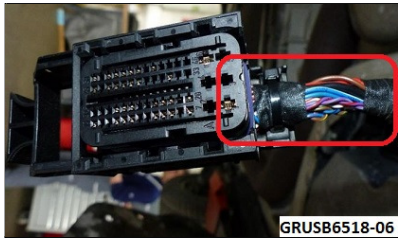
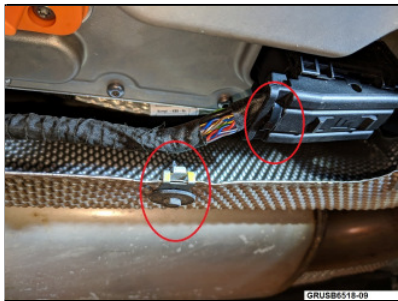
When reinstalling the pins into connector A190*1B: They must push all the way thru the blue weather seal in the connector.

They must lock into the connector housing when fully seated. Use no lubricant when installing these pins as it will contaminate the electrical connection



10. These two wires need to have some tension relieved on them. Remove the last 8" of tape from the harness at the EME connector to introduce some stress relief into this connection at the EME.

Here you can see the two wires white

	<p>and Yellow are under tension</p>
 <p>GRUSB6518-04</p>	<p>11. The wires between the zip tie location and the EME electrical connector/pins should NOT be under tension!</p> <p>Here you can see the wires have a strain relief loop to eliminate tension on the electrical pins</p>
 <p>GRUSB6518-05</p>	<p>12. If you need more slack at the connector you can go back to the last body tie down about 16cm back from this EME connector and steal some slack there.</p>
 <p>GRUSB6518-06</p>	<p>13. Place two wraps of tape around the wiring under where the zip tie will go over the wiring harness. There should be a 2"+ gap between this wrap around the harness and where the harness wrap begins</p>
 <p>GRUSB6518-09</p>	<p>14. When you reinstall the zip tie on the cable on the end of the EME connector, point the end of the tie upwards so it can't rub on the underbody panel of the vehicle. (shown in red)</p> <p>Also check to make sure there is still tension on the harness so that it won't droop and touch the top of the underbody panel hold down screw (shown in red)</p>
	<p>15. Reinstall underbody paneling on the right side</p>
	<p>16. Reconnect vehicle battery</p>
	<p>17. Reconnect high-voltage system</p>
	<p>18. Clear fault memory</p>

PARTS INFORMATION

Part Number	Description	Quantity
12 52 7 560 889	Terminal socket for MLK 1,2	2

WARRANTY INFORMATION

Covered under the terms of the BMW New Vehicle Limited Warranty for Passenger Cars and Light Trucks or the BMW Certified Pre-Owned Program.

Defect Code:	6112900100	
Labor Operation:	Labor Allowance:	Description:
00 66 034	19 FRU	Performing "vehicle test" (with vehicle diagnosis system – checking faults) Perform Repair to EME, Clear faults (Main work)
Or:		
00 66 548	17 FRU	Performing "vehicle test" (with vehicle diagnosis system – checking faults) Perform Repair to EME, Clear faults (Plus work – Vehicle is already in the workshop)

And, as needed:

Sublet – Bulk Materials

Sublet Code 4	Up to \$5.00	Reimbursement for the repair-related bulk materials (Do not use part numbers for claim submission)
----------------------	--------------	--

Sublet reimbursement calculation for claiming the applicable repair-related bulk materials (BMW part numbers) is at the dealer net price for the "quantities used" plus your center's handling.

Enter this material cost in sublet and itemize the amount on the repair order and in claim comment section.

[Copyright ©2018 BMW of North America, Inc.]