Airbag Warning Light ON: Fault 930BE8, High-voltage System Shutdown

This Service Information bulletin supersedes SI B65 07 15 **dated January 2016.**

MODEL

I01 (i3 REx)	I12 (i8)	Vehicles produced up to October 30, 2015

SITUATION

The airbag warning light in the instrument cluster is on, or the check control message (CCM) “Restraint system faulty” is displayed.

The advance crash safety module (ACSM4I) has fault code 930BE8 “High-voltage system switch-off Range extender Electrical Machine Electronics (REME)/battery management electronics: Resistance too high” stored.

CAUSE

A sporadically poor connection causes high resistance in the airbag ignition circuit.

CORRECTION

- Replace the engine harness; or
- Repair the poor connection at the REME and ACSM4I circuit; and
- Update the vehicle’s software with ISTA/P V3.57.1 or higher if vehicle I Level is below:

Vehicle	I-Level
I01 (i3 REx)	I001-15-11-501
I12 (i8)	I001-15-11-502

The appropriate correction will be based on the test plan recommendation.

PROCEDURE

Warning! Only properly trained personnel, who have passed all applicable technical training courses, should perform any maintenance or repairs on any Hybrid or Electric Vehicle. Work performed by unqualified persons may result in severe injury or damage to the vehicle. Additional information may be found in REP 61 00… Observe safety instructions when handling electric vehicles.

1. Diagnose the vehicle with ISTA. Follow the test plan ABL-DIT-Ignition circuits, or follow this path: Function Structure / 03 Body / Safety functions / Ignition circuits. The test plan is for any airbag ignition circuits. The resistance reading will be displayed and shows OK (sporadic fault).
2. The following question should appear in ISTA: **“Has the line between the last intermediate connector and the range extender electric machine (REME) already been replaced?”**

   Follow step 3.

3. Review the repair history and **if the answer is NO, the engine harness needs to be replaced.**

   If the test recommendation is for repairing the connectors. Follow the next steps:

4. Refer to ISTA for repairing the connectors; review the wiring diagram SP0000056895 and check the connections. Check A11*1B, X558*2B, X13*2B, and A274*1B for this circuit, or refer to the wiring

diagram.
5. Refer to REP 1251040 “Removing and installing/replacing wiring harness section for range extender electrical machine electronics (REME) (I01)”
6. ****NOTE** - For vehicles produced up to 8/2015 - once parts stock of the 12 51 7 636 973 harness is depleted, you will use the later production harness 12 51 8 653 789. This harness incorporates an additional white plastic holder which must be bolted to the side of the REME using the heat shield and screw listed below. Torque heatshield screw to 11.8 Nm

For i8 vehicles that have the same fault, perform the following steps:

1. Refer to the ISTA test plan recommendation. Review wiring diagram SP0000057786 and check the connector and connections. Check A11*2B, X558*6B, and A270*1B for this circuit, or refer to the wiring diagram.
2. Refer to REP 1243001 “Removing and installing/replacing the high voltage cable for starter motor generator (I12)”

If the engine harness “has been previously replaced” after performing this bulletin and vehicle returns because this same fault code is stored, please submit a PuMA case for further technical support.

PARTS INFORMATION

The engine harness is requested by the test plan recommendation and review repair history.

For the I01 (i3 Rex):

Part Number	Description	Quantity
12 51 7 636 973	Wiring harness for motor REME vehicles **UP TO 8/2015** production	1
	****NOTE** – This harness is no longer in production and once existing parts stock is NLA will be superseded to the later 8 653 789 design harness	
12 51 8 653 789	Wiring harness for motor REME vehicles **FROM 8/2015** production	1

****NOTE** –If harness 12 51 8 653 789 is used on a pre 8/2015 production vehicle, you will need the additional parts listed below to secure the white plastic harness holder to the side of the REME:

Part Number	Description	Quantity
12 90 7 625 470	Heat Shield	1
07 11 9 907 838	Screw	1

For the I12 (i8):

Part Number	Description	Quantity
12 51 7 641 814	For I12 (i8) Wiring harness for motor REME	1

WARRANTY INFORMATION

The engine harness replacement is 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:	**12 51 12 81 00**	
Labor Operation:	**Labor Allowance:**	**Description:**
00 00 006	Refer to KSD2	Performing “vehicle test” (with vehicle diagnosis system – checking faults)
And:		
61 25 910	Refer to KSD2	Recharging high-voltage battery unit (to high voltage charging unit)
And, as necessary:		
61 00 006	Work time (WT)	Performing vehicle diagnosis – test module
And:		
12 51 540	Refer to KSD	Remove and install/replace wiring harness sections for range extender electrical machine electronics

If you are using a Main labor code for another repair, use the Plus code labor operation 00 00 556 instead.

Refer to KSD2 for the corresponding flat rate unit (FRU) allowances.

Work time labor operation code 61 00 006 is not considered a Main labor operation. However, it does require an individual punch time and an explanation in the claim comments section.

And, if necessary:

Updating the Vehicle’s Software:

Labor Operation:	**Labor Allowance:**	**Description:**
61 00 730	Refer to KSD2	Programming / encoding control unit(s)
And:		
61 21 528	Refer to KSD2	Connect an approved battery charger/power supply(indicated in KSD2 as “Charging battery to EME”)

Or, for the i3 only:

Labor Operation:	**Labor Allowance:**	**Description:**
61 21 529	Refer to KSD2	Connect an approved battery charger/power supply(indicated in KSD2 as “i3) (luggage compartment service cap removed)

Vehicle Programming and Encoding

If a control module was working properly and it fails to program correctly or requires initialization, please claim this additional work with the applicable KSD2 labor operations under the defect code listed above.

The diagnosis and repair of vehicles “arriving” with failed control modules or stored faults which will cause them to fail during programming cannot be claimed under the defect code listed in this bulletin.

Other Repairs

If other eligible and covered work is performed “prior” to programming and coding the vehicle or as a result of a PuMA case that was submitted for further technical support, claim this work with the applicable defect code and labor operations listed in KSD2.

ATTACHMENTS

View PDF attachment **B650715_I01_Repair_Procedure**.

View PDF attachment **B650715_I01_Replace_Engine harness_2**.

View PDF attachment **B650715_I12_Repair_Procedure**.