



This Service Information bulletin supersedes SI B61 38 14 **dated February 2015**.

**NEW** designates changes to this revision

#### SUBJECT

**Drivetrain Malfunction (CCM 794) with Isolation Faults**

#### MODEL

I01 (i3 and i3 REx)

#### SITUATION

The Drivetrain Malfunction check control message (CCM 794) is displayed, either while driving or when starting up. The following faults are stored in the vehicle:

EME: 22280F and/or 222814

SME: 21F0E3 and/or 21F0E4

When the CCM is present, there are no apparent drivability concerns. After allowing the vehicle to rest and then restart, the CCM typically does not reappear.

#### CAUSE

The cause of an isolation fault is generally a resistance between HV+ or HV- and the shield/chassis ground, which is below a predetermined threshold.

The following procedure addresses these faults when caused by a defect in the cable between the HV battery and the EME, as well as when excess moisture is present inside the REx eMachine.

This moisture condenses and triggers the above-mentioned faults after a long REx runtime followed by rapid cooling.

#### PROCEDURE

Perform ISTA test plan ABL\_DIT\_AT6100\_HVISO. If the fault is present, this test plan uses process of elimination to pinpoint the component at fault. If the fault is not currently present, the test plan will state that isolation resistance is okay and then the test plan will end. If this situation occurs, continue with the following procedure.

**All vehicles:** Follow **Procedure A**, described in **SI B61 38 14 Attachment.pdf**, to determine if the cable between the HV battery and the EME needs to be replaced. Replace if necessary.

**REx vehicles only:** Follow both **Procedure A** and **Procedure B**, described in **SI B61 38 14 Attachment.pdf**, to check and replace the HV cable, as well as remove excess moisture from the REx eMachine.

**NEW** If procedure B has been performed for this situation in a previous workshop visit, the REx eMachine must be replaced.

#### PARTS INFORMATION

Part number 12 31 8 628 772 is blocked form ordering and requires a TC PuMA Case.

Part number	Description	Quantity
61 12 9 346 573	HV cable	1

07 12 9 900 395	Bolt – M5x25	2
12 31 8 628 772	REx eMachine	1 (only if required)
<b>NEW</b> 07 11 9 905 543	Hex nut – M6x8	2

**NOTE:** If the REX eMachine must be replaced, refer to SI B00 03 06 to determine if a TC PuMA case is required prior to replacement.

#### WARRANTY INFORMATION

Covered under the terms of the BMW New Vehicle/SAV Limited Warranty.

<b>Defect Code:</b>	<b>12 31 90 82 00</b>	
---------------------	-----------------------	--

#### Main Work

Labor Operation:	Labor Allowance:	Description:
00 62 222	<b>NEW</b> Refer to KSD2	Check and replace the HV cable
Or:		
00 62 221	<b>NEW</b> Refer to KSD2	Check the HV cable; check and dry the REX eMachine
Or:		
00 62 235	<b>NEW</b> Refer to KSD2	Check and replace HV cable; check and dry the REX eMachine
Or:		
00 62 223	<b>NEW</b> Refer to KSD2	Check the HV cable, check and replace the REX eMachine (includes wheel alignment check and adjustment)

#### Plus Work

Labor Operation:	Labor Allowance:	Description:
00 62 896	<b>NEW</b> Refer to KSD2	Check and replace the HV cable
Or:		
00 62 895	<b>NEW</b> Refer to KSD2	Check the HV cable; check and dry the REX eMachine
Or:		
00 62 925	<b>NEW</b> Refer to KSD2	

		Check and replace HV cable; check and dry the REx eMachine
Or:		
00 62 897	<b>NEW</b> Refer to KSD2	Check the HV cable; check and replace the REx eMachine (includes wheel alignment check and adjustment)

**ATTACHMENTS**View PDF attachment [B613814 Attachment](#).

[ Copyright ©2015 BMW of North America, Inc. ]