



MODEL

I01 (i3 and i3 REx)	I12 (i8)	Vehicles produced from 12/16/13 to 10/15/14
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SITUATION

The vehicle cannot be put into drive readiness or the high voltage system could automatically deactivate during driving.

CAUSE

Failure of communication on the CAN bus due to one or more faulty cell supervision circuits (CSC). As a result, the switch contactor in the high-voltage battery opens.

CORRECTION

Replace all CSCs if affected device has specified production codes and diagnostics indicate replacement.

PROCEDURE

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. Perform a vehicle test with ISTA/D and check to see if the battery management electronics (SME) contains any of the following fault codes:
 - 21F0EE - High-voltage battery, cell supervision circuit: One or more voltages invalid
 - 21F0BC - High-voltage battery, cell supervision circuit: Communication to SME failed
 - 21F13C - High-voltage battery: at least one battery cell is completely discharged
 - 21F0F3 - High-voltage battery, cell supervision circuit 1: Voltage measurement of the cell block, measured value implausible
 - 21F0F4 - High-voltage battery, cell supervision circuit 2: Voltage measurement of the cell block, measured value implausible
 - 21F0F5 - High-voltage battery, cell supervision circuit 3: Voltage measurement of the cell block, measured value implausible
 - 21F0F6 - High-voltage battery, cell supervision circuit 4: Voltage measurement of the cell block, measured value implausible
 - 21F0F7 - High-voltage battery, cell supervision circuit 5: Voltage measurement of the cell block, measured value implausible
 - 21F0F8 - High-voltage battery, cell supervision circuit 6: Voltage measurement of the cell block, measured value implausible
 - 21F0F9 - High-voltage battery, cell supervision circuit 7: Voltage measurement of the cell block, measured value implausible

21F0FA - High-voltage battery, cell supervision circuit 8: Voltage measurement of the cell block, measured value implausible

21F0FB - High-voltage battery, cell supervision circuit 9: Voltage measurement of the cell block, measured value implausible

21F0FC - High-voltage battery, cell supervision circuit 10: Voltage measurement of the cell block, measured value implausible

21F0FD - High-voltage battery, cell supervision circuit 11: Voltage measurement of the cell block, measured value implausible

21F0FE - High-voltage battery, cell supervision circuit 12: Voltage measurement of the cell block, measured value implausible

Does the associated test plan in ISTA/D instruct that any CSC's must be replaced?

YES– go to step 2.

NO - go to step 3.



2. Check the production date on the diagnosed CSC (1) to see if it falls within the following production period:

I01 - 12.13.13 to 09.22.14

I12 - 01.20.14 to 04.30.14

Does the production date on the affected CSC(s) fall within the range specified above?

YES- ignore the instructions of the test plan and **replace all CSC's** per repair instructions:

I01 - 61 27 540 - Removing and installing/ replacing cell supervision circuit.

I12 - 61 27 540 - Removing and installing/ replacing cell supervision circuit (top) & 61 27 542 - Removing and installing/replacing cell supervision circuit (bottom)

NO- continue on to Step 3.

3. Continue diagnosis per the associated test plan.

Note: Prior to replacing any parts, refer to SI B00 03 06 to determine if a TC PuMA case is required.

PARTS INFORMATION

I01

Part number	Description	Quantity
61 27 7 648 785	Cell monitoring circuit	8
61 27 7 625 062	Cover for high-voltage battery	1
61 27 7 622 121	Seal screw	4
61 27 7 625 086	Warning sticker for HV storage medium	1

I12

Part number	Description	Quantity
61 27 7 648 787	Cell monitoring circuit	12
61 27 8 610 481	Seal for HV battery	1
61 27 8 610 482	Seal, service cover, HV battery	1
07 12 9 908 570	ISA screw	6
61 27 7 643 663	Hexagon bolt with inside Torx	37

Bulk Materials

83 19 2 221 349	R134a (Gas 1 oz units)	As needed
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WARRANTY INFORMATION

Covered under the terms of the BMW New Vehicle Limited Warranty for Passenger Cars and Light Trucks.

Defect Code:	61 27 90 02 00	
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I01 (i3 and i3 REx)

Labor Operation:	Labor Allowance:	Description:
00 63 336	48 FRU	Check the production date of the cell supervision circuits and replace all of them (Main work)
Or:		
00 63 984	47 FRU	Check the production date of the cell supervision circuits and replace all of them (Plus work)

Or, for the:

I12 (i8)

Labor Operation:	Labor Allowance:	Description:
00 63 336	86 FRU	Check the production date of the cell supervision circuits and replace all of them (Main work)
Or:		
00 63 984	85 FRU	Check the production date of the cell supervision circuits and replace all of them (Plus work)

And, as needed:

Sublet – Bulk Materials (excluding R134a)

Sublet Code 4	See sublet reimbursement calculation below	Reimbursement for the repair-related bulk materials (Please do not use the part numbers for claim submission)
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Sublet reimbursement calculation for claiming the “used quantities” of repair-related bulk materials (BMW part numbers) is at dealer net plus your center’s handling.

Enter this material cost in sublet and itemize the amount in the claim comment section

Other Repairs

If other eligible and covered work is performed as a result of performing the ISTA diagnostics and related test plans results, claim this work with the applicable defect code and labor operations listed in KSD2.