



SME FAULT CODE 21F21F

MODEL

F15 PHEV (X5 xDrive40e)	F30 PHEV (330e)	G12 PHEV (740e xDrive iPerformance)
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Produced from 5/16/16 to 9/11/16

SITUATION

The fault code (FC) “21F21F - High-voltage system: Monitoring of insulation resistance deactivated due to fault of the safety box” is stored in the battery management electronics (SME). The fault does not set any CCM's, is not perceivable to the customer and has no effect on the complete vehicle operation.

CAUSE

Safety box malfunction

CORRECTION

Replace safety box (S-Box)

PROCEDURE

If, while troubleshooting an unrelated fault, the fault memory of the vehicle was read out with ISTA and the specified fault code is stored in the SME fault memory, proceed as follows:

Check the fault history.

Was fault code 21F21F previously entered and currently present?

YES- Replace safety box according to repair instruction.

NO – Continue diagnosis with ISTA.



Warning – **Do not** replace the safety box (S-Box) before performing an End of Service

(EoS) test on the high-voltage (HV) battery! Refer to [SI B04 09 14](#) regarding the EoS tester.

If the HV battery passes the EoS test, continue with the replacement of the S-Box.

If the HV battery does not pass the EoS test, **do not** continue with S-Box replacement! Submit a TeileClearing PuMA case titled “B61 24 16 – EoS Failed”. Please attach the failed EoS test file to

the TC case. Information regarding how to find and download the file is described in the EoS Tester Instruction Manual, which can be found in the EoS tester case.

PARTS INFORMATION

F15 PHEV (X5 xDrive40e)

Part number	Description	Quantity
61 27 8 681 536	Safety Box	1
07 12 9 908 570	ISA screw	13
07 11 9 905 949	Self-locking hex nut	4
61 27 8 614 090	Seal for HV battery	1
61 27 7 643 663	Hexagon bolt with inside Torx	28
61 27 8 614 091	Seal, service cover, HV battery	1

F30 PHEV (330e)

Part number	Description	Quantity
61 27 8 681 536	Safety box	1
07 11 9 905 949	Self-locking hex nut	6
07 12 9 908 570	ISA screw	4
61 27 8 626 650	Sealing screw	6
61 27 8 626 643	Seal, high-voltage battery unit	1
61 27 8 625 078	Hexagon screw with torx socket	36

G12 PHEV (740e xDrive iPerformance)

Part number	Description	Quantity
61 27 8 681 536	Safety box	1
07 11 9 909 322	Self-locking hex nut	4
07 12 9 908 570	ISA screw	4
61 27 8 620 917	Seal, high-voltage battery unit	1

61 27 7 643 663	Hexagon bolt with inside Torx	51
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Bulk Materials

83 19 2 221 349	R134a (Gas 1 oz units)	As needed
83 19 2 287 039	R1234YF (Gas 1 oz units)	As needed

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	6127041200	
Labor Operation:	Labor Allowance:	Description:
00 00 006	Refer to KSD2	Performing "vehicle test" (with vehicle diagnosis system – checking faults) (Main work)
Or:		
00 00 556	Refer to KSD2	Performing "vehicle test" (with vehicle diagnosis system – checking faults) (Plus work)
And:		
61 21 528	Refer to KSD2	Connect an approved battery charger/power supply (indicated in KSD 2 as Charging battery)
And, as necessary:		
61 00 006	Work time (WT)	Performing vehicle diagnosis – test module
And:		
61 25 510	Refer to KSD2	Removing and installing the high voltage battery unit (Includes discharging, evacuating and filling-back air conditioner)
And:		
61 72 551	Refer to KSD2	Replace the contactor (safety) box

(High-voltage battery unit remove)

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 on the repair order and in the claim comments section.

And, as necessary:

Sublet – Bulk Materials (excluding R134a or R1234YF)

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 additional work is performed as a result of performing the ISTA diagnostics and related test plans:

- When covered under an applicable limited warranty, claim these repairs using the applicable defect code and labor operations in KSD2.

Overlapping Labor – Associated and/or Other Repairs

If invoicing KSD2 flat rate labor operation codes for the additional repair work results in overlapping labor being claimed, invoice work time labor operation 00 50 000 for the additional time (FRU) minus the overlap instead.

On the repair order and in the claim comment section, please identify the labor operations that labor operation code 00 50 000 replaces and itemize the claimed FRU amount.

Work time labor operation code 00 50 000 is not considered a Main labor operation.

Associated Repairs: When work time labor operation 00 50 000 is used as an extension of the repair outlined in this bulletin, a separate defect code and punch time(s) are not required.

Other Repairs: When work time labor operation 00 50 000 is used for work that will be claimed under a different defect code, separate punch time(s) are required.

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