



DRIVE WARNING CCM MESSAGES

MODEL

F15 PHEV (X5 xDrive40e)	F30 PHEV (330e iPerformance)	G12 PHEV (740e xDrive iPerformance)	G30 PHEV (530e iPerformance)
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SITUATION

Check Control Messages (CCM) displayed:

- “Engine fault! Power loss” (CCM-ID: 29)
- “Powertrain malfunction!” (CCM ID: 633)

Fault codes stored in Battery Management Electronics (SME) Control unit:

- 21F116- High-voltage battery unit, negative terminal: Switching contactor, contact stuck open
- 21F1F8- High-voltage battery, preloading: blocked due to exceeding of maximum number of failed attempts

CAUSE

Safety box malfunction. The SME prevents activation of the high-voltage system due to a mismatch between the hardware version of the SME and the safety box.

CORRECTION

Replace safety box, and, if necessary, SME depending upon production date of vehicle and /or safety box.

PROCEDURE

For conditions that are similar to the situation described:

1. With the latest version of ISTA, verify that the fault codes specified are entered into the fault memory.
2. Check the production date of the vehicle.

Is the production date of the vehicle before May 26, 2017?

YES- go to next step.

NO – go to step 5.

3. Check the production date of the SME (the production date can be found in ISTA by choosing the SME at the control unit tree and then choose "Call up control unit functions")

Is the production date of the SME before March 15, 2017?

YES- go to next step

NO – go to step 5.

4. Replace SME as per the repair instructions. Then go to next step.
5. Replace safety box as per the repair instructions.

Repair is complete.

PARTS INFORMATION

F15 PHEV (X5 xDrive40e)

Part number	Description	Quantity
61 27 8 686 021	Electronic memory management	1
61 27 8 686 893	Safety Box	1
07 12 9 908 570	ISA screw	13
07 11 9 909 322	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 7 536 512	Electronic memory management	1
61 27 8 686 893	Safety box	1
07 11 9 909 322	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 7 536 514	Electronic memory management	1
61 27 8 686 893	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

G30 PHEV (530e iPerformance)

Part number	Description	Quantity
61 27 7 536 514	Electronic memory management	1
61 27 8 686 893	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	49

Bulk Materials

Part number	Description	Quantity
83 19 2 221 349	R134a (Gas 1 oz units)	As needed
Or:		
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	6127040200	
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 KSD2 as Charging battery)
And:		
61 25 910	Refer to KSD2	Recharging high-voltage battery unit (to high voltage charging socket)

If you are using a Main labor code for another repair, use the Plus code labor operation 00 00 556 instead of 00 00 006.

And:

Replacing the Safety Box only

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Labor Operation:	Labor Allowance:	Description:
61 25 510	Refer to KSD2	Removing and installing the high voltage battery unit (Includes discharging, evacuating and filling-back air conditioner)
And:		
61 27 551	Refer to KSD2	Replace the safety box (High-voltage battery unit remove) (Includes final test of the high-voltage battery unit)

And when required, as outlined in the procedure:

Replacing the SME (In conjunction with replacing the Safety Box)

For the F15, G12 and G30

Labor Operation:	Labor Allowance:	Description:
61 25 000	2 FRU	Work time to replace the battery management electronics (SME) (lid for the high-voltage unit removed)

Work time labor operation code 61 25 000 is not considered a Main labor operation. Also, since the “work time” FRU allowance to be claimed is specified, a separate punch time is not required. However, it still requires an explanation on the repair order and in the claim comments section.

Note for the F30: Removing and installing the battery management electronics (SME) is required to access the safety box, this is included in labor operation 61 27 551.

And, for:

All Models when applicable

A programming and encoding procedure is required when the SME is replaced.

Labor Operation:	Labor Allowance:	Description:
61 00 730	Refer to KSD2	Programming/encoding control unit(s)

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

And, as needed:

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.

Overlapping Labor Procedure – Other Repairs

If invoicing the KSD2 flat rate labor operation codes for other repair work results in overlapping labor, for those flat rate labor operations that are affected, you can now:

- Replace the stated KSD2 “FRU allowance” with a “reduced FRU value” to eliminate the overlapping labor.

For help in identifying the overlapping labor, please refer to the AIR FRU Plausibility Check (Overlapping Labor Tool) that is located in the AIR Client.

Eligible other repair work being claimed under a different defect code will require separate punch times.

On the repair order and in the claim comment section, please identify and itemize those labor operations being claimed with a “reduced FRU value.”

Vehicle Programming and Encoding

- A. The programming procedure automatically reprograms and encodes all vehicle control modules which do not have the latest software i-level. If one or more control module failures occur “during” this programming procedure:

- Please claim this “consequential” control module-related repair work under the defect code listed in this bulletin with the applicable KSD2/AIR labor operations.

Please explain this additional work (The why and what) on the repair order in the claim comments section.

- B. For control module failures that occurred “prior” to performing this programming procedure:

- When “covered” under an applicable limited warranty, claim this control module-related repair work using the applicable defect code and labor operations (including diagnosis) in KSD2/AIR.

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