

**SUBJECT****CCM "Engine fault! Power loss" and/or "Battery charging fault!"****MODEL**

F15 PHEV (X5 xDrive40e)

F30 PHEV (330e)

Produced up to 11/10/2015

**SITUATION**

Upon unlocking or starting the vehicle, one or both of the following Check Control messages (CCM) are displayed to the customer:

- "Engine fault! Power loss" (CCM-ID: 29)
- "Battery charging fault!" (CCM-ID: 213).

**CAUSE**

Faults from Safety box (S-Box) in the high-voltage battery.

**CORRECTION**

Replace Safety box (S-Box).

**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.**

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

1. Perform a vehicle test with ISTA/D and check to see if the battery management electronics (SME) contains one or more of the following fault codes:

21F10A - High-voltage safety switch (Service Disconnect): Evaluation implausible

21F159 - High-voltage battery: Current implausible

21F15B - High-voltage electrical system: Voltage implausible, no substitute value

21F15D - High-voltage electrical system: Voltage implausible, substitute value

21F144 - High-voltage battery unit: Internal CAN bus between SME and voltage and current sensor, communication fault

**Were one or more of the fault codes stored in the SME?**

YES – go to step 2.

NO- follow the instruction from ISTA/D diagnosis.

2. Allow the vehicle to enter sleep mode and delete the fault memory with ISTA/D.
3. Replace the S-Box per repair instructions:

F15 PHEV - 61 27 551 - Replace safety box

F30 PHEV - 61 27 551 – Replacing the safety box

4. Perform another vehicle test with ISTA/D.

**Were one or more of the fault codes again stored in the SME?**

YES – follow the instruction from ISTA/D diagnosis.

NO- Reinstall all removed parts. Repair is complete.

**PARTS INFORMATION**

**F15 PHEV (X5 xDrive40e)**

| Part number     | Description                     | Quantity |
|-----------------|---------------------------------|----------|
| 61 27 8 651 068 | 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 8 651 068 | 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 |

### Bulk Materials

|                 |                        |           |
|-----------------|------------------------|-----------|
| 83 19 2 221 349 | R134a (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.

For the models listed in this bulletin, the High-Voltage Lithium-Ion Battery (Component-specific) Limited Warranty is 8 years/80,000 miles, whichever occurs first.

| <b>Defect Code:</b>     | <b>61 27 04 12 00</b>   |  |
|-------------------------|-------------------------|--|
|                         |                         |  |
| <b>Labor Operation:</b> | <b>Labor Allowance:</b> | <b>Description:</b>  |
| 00 00 006               | Refer to KSD2           | Performing “vehicle test” (with vehicle diagnosis system – checking faults)  |
| And:                    |                         |  |
| 61 21 528               | Refer to KSD2           | Connect an approved battery charger/power supply(indicated in KSD2 as “Charging battery”)                          |
| And:                    |                         |  |
| 61 25 510               | Refer to KSD2           | Removing and installing high voltage battery unit (includes discharging, evacuating and refilling air conditioner) |
| And:                    |                         |  |
| 61 27 551               | Refer to KSD2           | Remove and install the contactor box (after vehicle diagnosis)   |

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.

And, as necessary:

**Sublet – Bulk Materials**

|               |  |   |
|---------------|--|---|
| Sublet Code 4 | See sublet reimbursement calculation below | Reimbursement for the repair-related bulk materials (excluding R134a)<br>Please, do not use these part numbers for claim submission |
|---------------|--|---|

Sublet reimbursement calculation for claiming the used quantities of repair-related bulk materials (BMW part numbers) is at dealer net plus 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, claim this work with the applicable defect code and labor operations listed in KSD2.

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