BMW   SI B61 20 16   January 2017
        General Electrical Systems   Technical Service

POWER LOSS AT VERY LOW SOC OF HV BATTERY

This Service Information bulletin supersedes SI B61 20 16 **dated December 2016.**

MODEL

I01 (i3 & i3 REx)

SITUATION

The vehicle may exhibit any of the following at very low State of Charge (SOC) – less than 8%:

- Power loss or high voltage system shutdown while running range extender (REx).

- Inconsistent performance of the REx.

- High voltage system shutdown in vehicles without REx.

- Excessively high range displayed in instrument cluster.

- The following fault codes may be stored in the battery management electronics (SME):

  21F13D - High-voltage battery, switch contactors: Switch-off after a fault

  21F241 - High-voltage battery, cell supervision circuit 1: Undervoltage (at least one cell)

  21F242 - High-voltage battery, cell supervision circuit 2: Undervoltage (at least one cell)

  21F243 - High-voltage battery, cell supervision circuit 3: Undervoltage (at least one cell)

  21F244 - High-voltage battery, cell supervision circuit 4: Undervoltage (at least one cell)

  21F245 - High-voltage battery, cell supervision circuit 5: Undervoltage (at least one cell)

  21F246 - High-voltage battery, cell supervision circuit 6: Undervoltage (at least one cell)

  21F247 - High-voltage battery, cell supervision circuit 7: Undervoltage (at least one cell)

  21F248 - High-voltage battery, cell supervision circuit 8: Undervoltage (at least one cell)

  22283B - High-voltage power management: Switch-off of the high-voltage system to protect against discharge of the high-voltage battery

- If you encounter a vehicle that exhibits the same customer complaints but does not have any of the SME fault codes listed above, please proceed to step 2 of the procedure below.

CAUSE

Ineffective SME software

CORRECTION
Reprogram the vehicle.

UPDATE! PROCEDURE

For conditions that are similar to the situation described:

1. Run diagnosis with ISTA/D and work through the corresponding test module.

2. Check the current I-Level of the vehicle.

   Is the current I-Level below I001-16-07-501?

   YES- program the vehicle with ISTA/P 3.59.0 (Target I-Level I001-16-07-501) or higher.

   NO- follow instructions from the ISTA diagnosis or proceed to step 4 if no SME fault codes are present.

3. Once the vehicle has been programmed the test plan will perform a Service Function to re-initialize the adaption values of the high voltage battery. Note: Once you have programmed the vehicle you must continue the initial test plan so the service function will be performed. Do not start a new ISTA session.

4. If the issue described above is still present after programming or performing the test plan, please submit a TeileClearing PuMA case for further diagnosis via IRAP.

Note that ISTA/P will automatically reprogram and code all programmable control modules that do not have the latest software.

Always connect a BMW approved battery charger/power supply (SI B04 23 10).

For information on programming and coding with ISTA/P, refer to: **CenterNet / TIS / Technical Documentation / Diagnostics and Programming / Programming Documentation.**

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:	61 27 05 02 00	
Labor Operation:	Labor Allowance:	Description:
00 00 006	Refer to KSD2	Performing "vehicle test" (with vehicle diagnosis system – checking faults)
And:		
		Recharging high-voltage battery unit

61 25 910	Refer to KSD2	(to high voltage charging unit)
And, as necessary:		
61 00 006	Work time (WT)	Performing vehicle diagnosis – test module
And:		
61 00 730	Refer to KSD2	Programming / encoding control unit (s)
And:		
61 21 528	Refer to KSD2	Connect an approved battery charger/power supply (indicated in KSD2 as "Charging battery to EME")
Or:		
61 21 529	Refer to KSD2	Connect an approved battery charger/power supply (luggage compartment service cap removed)

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) allowance.

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.

Vehicle Programming and Coding

Control module failures that occur during programming:

- Please claim these consequential repairs under the defect code listed in this bulletin and use the applicable KSD2 labor operations.

Other Repairs

Control module failures that occur prior to programming:

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