BMW

SI B61 46 17
General Electrical Systems

December 2017
Technical Service

LACK OF POWER OR DRIVING READINESS CANNOT BE ESTABLISHED

MODEL

F15 PHEV (X5)	I01 (i3 & i3 REx)

SITUATION

Drive parameters (speed and torque) may be restricted.

Drive mode may not be possible.

One or more of the following CC messages are displayed:

- Engine fault. Full engine performance no longer available. Drive with care. Have this checked by nearest BMW service workshop. (29)

- Drivetrain malfunction. Stop carefully and turn off vehicle. (791)

- Drivetrain malfunction. Limited Range and drive power. Engine restart may not be possible. Please drive to the nearest BMW Workshop. (633)

- Gearbox malfunction. Gearbox position P might not be possible. Apply parking brake with vehicle in standstill. Have this checked by nearest BMW service workshop. (175)

One or more of the following fault codes are stored in the electrical machine electronics (EME):

- 222851 – Internal transmission monitoring – parking position currently not detected

- 2228C0 – SbW-Lev2: Not switching P detected

- 222761 – NV data corruption on MC2

- 222011 – Electrical machine angle sensor adjustment not carried out or rotor position sensor deviation not in tolerance band.

- 22230E – EME, plausibility check of controller voltages.

- 222D27 (I01 only) – parking lock Init: No data for parking lock open/closed in NV RAM available

CAUSE
EME Software.

CORRECTION
Reprogram the vehicle and carry out the necessary service functions.

PROCEDURE
For conditions that are similar to the situation described:

1. Perform diagnosis with the latest version of ISTA.

2. Check the I-level of the installed software.

Model	Target integration level	ISTA version required
F15PHEV	F025-17-07-503	4.06.3x or higher
I01	I001-17-11-520	4.08.1x or higher

Is the I-level of the installed software below the target level shown in the table?
YES – go to next step.
NO – continue with instructions contained in ISTA diagnosis.

3. Using the ISTA version indicated in the table above, program the vehicle.

   Note that ISTA 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, refer to CenterNet / TIS / Technical Documentation / Diagnostics and Programming / Programming Documentation.

4. Follow the specified path to get to the appropriate service function in ISTA:

   Service Functions – Drive – Hybrid Vehicle – Electrical Machine Electronics – Rotor Position Sensor Adjustment

5. Carry out the service function:

   "EME: Rotor Position Sensor Adjustment"

6. **(For the I01 only)** Additionally, carry out service function – **"EME: Teach in Parking Lock Module"**

PARTS INFORMATION
Parts replacement will not provide a solution to this situation.

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:	1236000200	
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)
And:		
61 00 730	Refer to KSD2	Programming / encoding control unit(s)
And, as applicable:		
61 00 006	2 FRU	Performing vehicle diagnosis – test module/service functions as noted in the Procedure

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.

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

Work time labor operation code 61 00 006 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.

During the same workshop visit, if a vehicle also requires another Technical Campaign or repair that also includes programming and encoding the control units, the programming procedure may only be invoiced one time.

Vehicle Programming and Encoding

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

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

B. For control module failures that occurred "prior" to performing this programming procedure:

   o When "covered" under an applicable limited warranty, claim this control module-related repair work using the applicable defect code and labor operations in KSD2/AIR.