



SIB 12 22 19

2020-08-03

EME GROUND CONNECTION MONITORING FAULTS

This Service Information bulletin (Revision 1) replaces SI B12 22 19 **dated June 2019**.

What's New:

- Models added
- Procedure updated
- Parts updated

MODEL

E-Series	Model Description
F30 PHEV	330e iPerformance Sedan
G01 PHEV	X3 xDrive30e Sports Activity Vehicle (SAV)
G05 PHEV	X5 xDrive45e SAV
G12 PHEV	745e xDrive Sedan
G20 PHEV	330e Sedan
G30 PHEV	530e Sedan

SITUATION

Check Control message (CCM ID 794): "Drive. Check as soon as possible" illuminates.

The following faults are saved:

Fault code	Control module	Text
030FA1	EME	ground connection monitoring: Threshold value 1 exceeded
030FA2	EME	ground connection monitoring: Threshold value 2 exceeded

CAUSE

Increased ground cable contact resistance at Electrical Machine Electronics (EME) due to corrosion/oxidation.

CORRECTION

Diagnosis and as applicable:

- Programming/encoding (for G20, if the I-level is lower than 20-03-510); and/or
- Clean grounding cable mounting surfaces at EME

PROCEDURE

Refer to attachment [B12 22 19_Attachment.pdf](#).

PARTS INFORMATION

Obtain and confirm the part numbers for your specific vehicle by entering the chassis number in either ETK or AIR which takes into account specific equipment and/or options.

Part Number	Description	Quantity
Sourced locally	1200 grit emery cloth (or equivalent)	As needed

WARRANTY INFORMATION

Covered under the terms of the BMW New Vehicle Limited Warranty for Passenger Cars and Light Trucks.

Defect Code:	1236001500	PEB power electronic box / EME electrical machine electronics (hybrid / E-vehicle) Permanent malfunction
:		
Labor Operation	Description	Labor Allowance
00 00 006	Performing vehicle test (with vehicle diagnosis system – checking faults) (Main work)	Refer to AIR
Or:		
00 00 556	Performing vehicle test (with vehicle diagnosis system – checking faults) (Plus work)	Refer to AIR
And:		
61 21 528	Connect an approved battery charger/power supply (indicated in AIR as Charging battery)	Refer to AIR
And, as needed:		
61 00 006	Performing vehicle diagnosis – test module (EME: Check ground connection/functional check and resistance value)	Work time (WT)
And:		
12 99 000	Work time to clean the contact surface of both grounding cables and the ground support point at the EME	3 FRU

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.

Work time labor operation codes 61 00 006 and 12 99 000 are not considered Main labor operations.

For the above and for any addition work that is required, as applicable to your center, please refer to **SI B01 01 20** or **B01 07 20** for claiming your diagnosis work time, job/repair work time (WT), WT and repair-related explanation procedures.

And, additionally, for the:

G20, if the I-level is lower than 20-03-510

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

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

During the workshop visit for this repair procedure, some or all the vehicles listed above may also show one or more programming and encoding Technical Campaign repairs open, the programming and encoding procedure may only be invoiced one time.

If you should have this situation, update the vehicle to the required I-level or higher by performing and submitting for one of these open Technical Campaigns instead.

Please be sure to also perform any additional work the campaign repairs require and/or close the remaining open programming and encoding the Campaign repairs as outlined in the corresponding Service Information Bulletin.

Only if the situation above does not apply, the additional flat rate labor operation code above to perform the programming and encoding procedure is then claimable within the work procedure and coverage guidelines described in this bulletin.

And, as needed:

Sublet – Bulk Materials (RO and Claim Comments Required)

Sublet Code 4	Up to \$1.00	Reimbursement for the repair-related bulk material
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Enter this material cost in sublet and itemize the amount on the repair order and in claim comment section.

Programming and Encoding - Vehicle Control Units (RO and Claim Comments Required)

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 (including performing the IRAP Control Unit Recovery procedure first as required, refer to the SIB in AIR) under the defect code listed in this bulletin with the applicable AIR labor operations.

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

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

When covered under an applicable limited warranty, claim the applicable test plan and the corresponding control module-related repair work using the applicable defect code and labor operations in AIR (including diagnosis).

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 the labor operations that are listed in AIR (including diagnosis).

QUESTIONS REGARDING THIS BULLETIN

Technical inquires	Submit feedback at the top of this bulletin
Warranty inquires	Submit an IDS ticket to the Warranty Department
Parts inquiries	Submit an IDS ticket to the Parts Department

Supporting Materials

[picture_as_pdf B122219_Attachment.pdf](#)

EME GROUND CONNECTION MONITORING FAULTS

PROCEDURE

For **G20/F30**:

Check the following in ISTA;

Function structure > Engine > Hybrid vehicle > Electrical machine electronics >

Ground connection > EME: Check ground connection

Perform the functional check in this test module and compare the result with the values below.

1. If the resistance is less than 0.7 mOhm:

- Program the vehicle with ISTA to I level 20-03-510 (available since March 2020) or a more recent version

2. If the resistance is greater than or equal to 0.7 mOhm:

- Program the vehicle with ISTA to I level 20-03-510 (available since March 2020) or a more recent version. Then remove both grounding cables at the EME (electrical machine electronics), and follow cleaning procedure illustrated below.

For **G01/G12/G05/G30**:

Check the following via diagnosis system.

Function structure > Engine > Hybrid vehicle > Electrical machine electronics >

Ground connection > EME: Check ground connection

Perform the functional check in this test module and compare the result with the values below.

1. If the resistance is lower than 0.7 mOhm:

- Clear faults and retest vehicle.

2. If the resistance is greater than or equal to 0.7 mOhm:

- Remove both grounding cables at the EME (electrical machine electronics), and Follow cleaning procedure illustrated below.



Note: A parts replacement is not necessary and will not correct vehicle concern



GRUSB1219-09

1. Remove both grounding cables at the EME. (G30 shown)



GRUSB1219-10

2. Clean the contact surface of both grounding cables and the ground support point at the EME using 1200 grit emery cloth stainless steel brush or equivalent.

3. Remove residual debris using air and cleaning cloth.

4. Refit both ground cables and tighten to 19Nm