

### SIB 12 12 19

RECALL CAMPAIGN 19V-310: REPLACING THE ELECTRIC MACHINE ELECTRONICS (EME) 2019-05-24

Please perform the procedure outlined in this Service Information on all affected vehicles before customer delivery. In the event the customer has already taken delivery of the vehicle, please perform the procedure the next time the vehicle is in the shop.

This Service Information bulletin replaces SI B12 12 19 dated April 2019.

#### What's New:

• Entire content

## **Model**

I01 (i3 and i3S Battery Electric Vehicle; i3 and i3S with Range Extender)

## **Affected Vehicles**

This Recall Campaign involves 159 I01 vehicles (BEV and REx) produced from January 13, 2018 to February 19, 2018.

Vehicles which require this Recall Campaign to be completed will show it as Open when checked either in AIR, or the Service Menu of DCSnet (Dealer Communication System).

# **Situation**

The electrical machine electronics (EME) Printed Circuit Board (PCB) may not have been produced to specifications.

In the event that the EME detects this condition, it will shut down high-voltage electrical power. A shut down of high-voltage electrical power would result in a loss of propulsion, increasing the risk of a crash. However, the 12-volt electrical power remains functional to support power steering and braking.

Note: The electric drive function may be restored by switching the drive-readiness state off and on again.

## **Correction**

Replace the electrical machine electronics (EME).

## **Procedure**

Replace the electrical machine electronics as per **REP 12 36 610** – "Replacing electrical machine electronics (EME)".



Version 3 of the repair instructions should be used in ISTA / AIR.

M Important warning for working on the high-voltage systems on the I01 (i3 BEV and REX):

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 is found in Repair Instruction 61 00... Observe safety instructions when handling electric vehicles.

## **Parts Information**

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



The electrical machine electronics (aka electrical motor electronics) should be selected based on specific vehicle type from the Electronic Parts Catalogue.

| Part Number     | Description   | Quantity |  |
|-----------------|---|----------|--|
| 12 36 9 895 328 | Electrical motor electronics (BEV without option 408) | 1        |  |
| Or:             |   |          |  |
| 12 36 9 895 329 | Electrical motor electronics (REX without option 408) | 1        |  |
| Or:             |   |          |  |
| 12 36 9 895 326 | Electrical motor electronics (BEV with option 408)    | 1        |  |
| Or:             |   |          |  |
| 12 36 9 895 327 | Electrical motor electronics (REX with option 408)    | 1        |  |
| Or:             |   |          |  |
| 12 36 8 688 838 | Electrical motor electronics (REX 60AH)               | 1        |  |
| Or:             |   |          |  |
| 12 36 8 688 837 | Electrical motor electronics (BEV 60AH)               | 1        |  |
| And:            |   |          |  |
| 61 27 7 629 345 | Torx socket screw (M6x16-10.9)                        | 10       |  |
| 12 37 8 605 128 | Hexagon screw (M6x18)                                 | 6        |  |
| 24 14 7 605 027 | Spring nut  | 8        |  |
| 22 11 6 879 664 | External Torx (M14x90-10.9ZNS3)                       | 2        |  |
| 07 11 9 905 433 | Hexagon screw with washer (M6x95-U1)                  | 3        |  |
| 33 30 6 854 285 | Torx screw (AM10GFx60)                                | 4        |  |
| 31 10 6 783 907 | Self-tapping screw (M8x33-10.9 ZNS3)                  | 10       |  |
| 18 30 8 614 953 | Clamping collar (D=37.1mm)                            | 1        |  |
| 33 30 6 859 119 | Hexagon screw (M10x40)                                | 2        |  |

#### **Bulk Materials**

| Part Number     | Description    | Quantity         |
|-----------------|----------------|------------------|
| 82 14 1 467 704 | BMW Antifreeze | Sublet as needed |

Note: Other small parts such as screws, nuts and seals, which must be replaced according to

the ISTA repair instructions, must be selected from the Electronic Parts Catalogue according to the respective vehicle type and invoiced under the special defect code.

Note: In principle, parts requiring replacement as part of a Technical Campaign are not subject

to the TeileClearing process.

## Warranty Information

Reimbursement for this Recall Campaign will be via normal claim entry utilizing the following information:

# Completion before the first vehicle delivery to a customer or the vehicle is already in the workshop.

| Work<br>Pkg | Labor Operation: | Labor<br>Allowance:                   | Description (Plus work):  |
|-------------|------------------|---------------------------------------|---|
| # 1         | 00 67 545        | 116 FRU (i3 BEv);<br>138 FRU (i3 REx) | Replacing the electrical machine electronics<br>(EME), programming and encoding control<br>units (includes connecting an approved<br>battery charger/power supply and performing<br>a vehicle test), checking wheel alignment<br>(without load) and adjusting as necessary. |
| Or:         |                  |                                       |   |
| #2          | 00 67 546        | 106 FRU (i3 BEv);<br>128 FRU (i3 REx) | Replacing the electrical machine electronics<br>(EME), (programming and encoding control<br>units was performed in conjunction with<br>another campaign or repair during the same<br>workshop visit), checking wheel alignment<br>(without load) and adjusting as necessary |

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.

Or:

# The vehicle arrives at your center and this Recall Campaign shows open (No other Main work will be performed/claimed during this workshop visit)

| Work<br>Pkg | Labor Operation: | Labor<br>Allowance:                   | Description (Main work):  |
|-------------|------------------|---------------------------------------|---|
| #3          | 00 67 035        | 117 FRU (i3 BEv);<br>139 FRU (i3 REx) | Replacing the electrical machine electronics<br>(EME), programming and encoding control<br>units (includes connecting an approved<br>battery charger/power supply and performing<br>a vehicle test), checking wheel alignment<br>(without load) and adjusting as necessary. |

# And, as needed: **Sublet – Bulk Materials**

| Sublet Code 4 | Up to \$15.00 | Reimbursement for the repair-related bulk material (Do not use the BMW part number for claim submission) |
|---------------|---------------|--|
|---------------|---------------|--|

Sublet reimbursement calculation for claiming the applicable repair-related bulk material (BMW part numbers) is at the dealer net price amount for the quantity used plus your center's handling.

BMW Antifreeze/Coolant: Claim the corresponding dollar amount for the quantity needed to replace what was drained with a 50/50 coolant/water solution.

Enter this material cost in sublet and itemize the amount on the repair order and in claim comment section.

#### **Claim Repair Comments**

Unless additional related/in conjunction work was required (not addressed or an option in the above information), then only reference the SIB number and the work package (Pkg) number performed in the RO technician notes and the claim comments (For example: B12 12 19 WP 1 with a sublet explanation).

#### 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 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 this control module-related repair work using the applicable defect code and labor operations (including diagnosis) in AIR.

And, as applicable:

#### Alternative Mobility Solution (AMS) for Vehicle Owners (RO and Claim Comments Required)

This Recall repair qualifies for Alternative Mobility Solution (AMS) expense reimbursement, claim this item under the Defect Code noted above as follows:

Sublet Code 2 - Itemize the AMS sublet amount on the repair order and in the claim comment section.

Please refer to SI B01 29 16 for additional information. Supporting Materials *picture as pdf* Attachment 1\_2019-I01-EME-QA-6May2019.pdf *picture as pdf* B121219 Recall Notice.pdf

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# SAFETY RECALL NOTICE

To: All Center Operators, Sales Managers, Service Manager, Parts Manager and Warranty Processor

RE: Recall 19V-XXX: Electric Motor Electronics (EME) - B12 12 19

BMW of North America, LLC is conducting a Voluntary Safety Recall (effective April 17, 2019) on certain Model Year 2018 BMW i3 vehicles that have been produced from January 13, 2018 through February 19, 2018.

Owners will be notified by First Class mail about the Recall and will be instructed to bring their vehicles in for a free repair when parts are available.

Please be reminded that it is a violation of federal law (The Safety Act) for you to sell, lease or deliver any new motor vehicle covered by this notification until the recall repair has been performed. This means that centers may not legally deliver new motor vehicles to consumers until they are fixed or use/sell replacement equipment/parts subject to this recall. Note also that substantial civil penalties apply to violations of the Safety Act.

Also, you should not sell, lease or deliver any Certified Pre-Owned or used vehicles subject to a safety recall until the repair is completed.

Please follow any special instructions that we provide to you for the return or disposition of recall parts.

We appreciate all your assistance with this Recall.

### Electric Motor Electronics (EME) Safety Recall 19V-310 Model Year 2018 BMW i3 *Last Updated 05/6/2019*

**Q1.** Which BMW Group models in the US are potentially affected by this Safety Recall? Approximately 159 Model Year 2018 BMW i3 vehicles, produced between January 13, 2018 and February 19, 2018, are potentially affected.

#### **Q2.** What is the specific issue? The Electric Motor Electronics (EME) may not have been produced to supplier specifications.

- **Q3.** What can happen as a result of this issue? The EME could shut down electrical power, lead to a loss of propulsion, and increase the risk of a crash.
- **Q4.** Why are other BMW Group vehicles not included in this Safety Recall? The EME on other BMW i3 vehicles was produced to supplier specifications.
- **Q5.** How did BMW Group become aware of this issue? BMW Group became aware of this issue through its quality control procedures.

#### **Q6. Can I determine if this issue exists in my vehicle?** If your vehicle loses electrical power, it may be experiencing this issue.

#### Q7. What should I do if I notice this condition in my vehicle?

If this condition occurs, carefully move away from traffic and pull over to a safe location as soon as possible. All occupants should carefully exit the vehicle and move to a safe location away from traffic. Do not continue to drive the vehicle. **Contact BMW Roadside Assistance at 1-800-332-4269 immediately to have your vehicle brought to the nearest authorized BMW center.** 

If you are not the only driver of this vehicle, please advise all other drivers and passengers of this important information.

#### Q8. Can I continue to drive my vehicle (before I receive my letter)?

Yes. However, when you receive a letter requesting you to make an appointment to have this Safety Recall performed by an authorized BMW center, please do so as soon as possible.

#### Q9. How will my vehicle be repaired?

The EME will be replaced. This will be performed for free and can take up to one hour.

Q10. Is BMW Group aware of any accidents or injuries in the US, involving these BMW Group vehicles associated with this Safety Recall? No.

#### Q11. How will I be informed of this Safety Recall?

You will receive a <u>letter in June</u> via First Class mail advising you of this Safety Recall and requesting you to schedule an appointment with an authorized BMW center to have this Safety Recall performed. You can locate your nearest authorized BMW center at <u>www.bmwusa.com/dealer</u>.

To ensure the BMW Group has your most recent contact and vehicle information, please register your BMW vehicle at <u>www.bmwusa.com/myBMW</u>. Registration is free, and will give you access to factory initiated campaigns and other information specific to your vehicle.

### Electric Motor Electronics (EME) Safety Recall 19V-310 Model Year 2018 BMW i3 *Last Updated 05/6/2019*

#### Q12. How long will the repair take?

This repair could take approximately one hour; however, additional time may be required depending upon your BMW center's schedule. The repair will be performed <u>for free</u> by your authorized BMW center.

#### Q13. Do I have to wait for my letter to have my vehicle serviced?

Yes. We are in the process of implementing this Safety Recall to ensure that the necessary tools, parts, and procedures are available prior to contacting you to schedule an appointment with your authorized BMW center to have this Safety Recall performed. For the latest updates to this Safety Recall, please visit <u>www.bmwusa.com/recall</u>.