



SIB 61 24 23

2023-10-12

SERVICE ACTION: REPLACING THE CELL MODULE OF THE HIGH-VOLTAGE BATTERY

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.

MODEL

E-Series	Model Description	Production Date
i20	iX Sports Activity Vehicle (SAV)	March 29, 2022 – June 3, 2022

AFFECTED VEHICLES

Vehicles which require this Service Action to be completed will show it as “Open” when checked either in AIR, the "Service Menu" of DCSnet (Dealer Communication System), ISPA Next or Warranty Vehicle Inquiry.

SITUATION

BMW AG has issued a Service Action on certain Model Year 2022 BMW iX Sports Activity vehicles that were produced between March 29, 2022 – June 3, 2022.

CAUSE

As part of the quality controls carried out on an ongoing basis at the BMW Group, it was found that, in very rare cases, the production process of cells of the high-voltage battery did not meet BMW standards.

CORRECTION

Removal and replacement of affected high-voltage cell modules.

Note: Only one of the vehicle’s high-voltage battery cells should be affected.

PROCEDURE**Important Warning for Working on the High-Voltage (HV) systems on BMW Group vehicles:**

Only properly trained personnel, who passed all applicable HV Technical Training Courses, should perform repairs which require disconnecting, or removal of High Voltage battery components on any Hybrid or Electric Vehicle. Work performed on High Voltage systems by unqualified persons may result in severe injury or damage to the vehicle. Additional safety information is found in Repair Instruction 61 00... “Observe safety instructions when handling electric vehicles”.

Prior to disconnecting, or the removal of any HV component, the HV system needs to be disabled and secured (by means of the HV Service Disconnect Switch and lock out) by a properly trained HV technician, who has a minimum HV Qualification level after completing the Technical Training Course “ST2324 High Voltage Drivetrain Systems” which as of 1/2023* includes ST1824 Alternative Drive Part 1.

*** Note: As of January 2023, the HV component portion of the “ST2205 Generation 5 High-voltage class” (except for the High Voltage Battery) has been merged into “ST2324 High Voltage Drivetrain Systems”.**

Up to Generation 4 Vehicles: Once the vehicle’s HV system is disabled (the “Blitz” - lightning bolt icon is displayed in instrument cluster, see below), a technician without HV Certification may remove a HV component (e.g., EH Heater, EKK Compressor, EME Control Unit, et.), except for the High Voltage Battery.

For Generation 5 Vehicles however, the specific vehicle training is required to diagnose, remove and service any HV component and it is NOT allowed for non HV certified technicians to work on the high voltage system.



High Voltage Battery removal and rework can ONLY be performed by a High-voltage Certified Technician with a HV Battery Certification level corresponding to a specific Electric or Hybrid vehicle, for example:

To repair GEN4 HV battery of G05 PHEV a certification from Technical Training Course “ST2006 – SP44 HV Battery” or equivalent ST1825 – Alternative Drive Part 2 is required (or as of 1/2023 the equivalent “ST 2325 for High Voltage Battery Systems”).

And
To repair A GEN5 HV battery the Technical Training Course “ST2205 Generation 5 High-voltage class” is required or as of 1/2023* the equivalent “ST 2325 for High Voltage Battery Systems”.
BMW recommends NOT to drive the vehicle NOR charge the high-voltage battery until all repair work below to remedy the fault has been completed.

Caution:

Please create a TSARA case for ALL vehicles prior to any disassembly.

The steps below must be followed precisely:

1. Please perform the **cell module read out** test plan in ISTA to determine the serial numbers and locations of the high-voltage cell modules installed in the vehicle.

Diagnostic path:

Vehicle management > Service function > Electric drive > High-voltage battery unit >

High-voltage battery unit: Read out stored serial numbers ABL.

The “**High-voltage battery unit: Read out stored serial numbers**” test plan has been updated to identify the high-voltage cell modules affected by this campaign and their location in the high-voltage battery.

Note:

Once the Cell module read out test plan has been performed, please submit a TSARA case titled “B61 24 23 HV Battery cell module ID process” for assistance in identifying the affected modules (attach the module serial number read out to the case).

It is imperative that once the new replacement cell module arrives, you attach that module serial number to the TSARA case for approval.

Only when TSARA approves the replacement module you have clearance to install it in the HV battery and continue the repair.

2. The high-voltage battery must be discharged prior to removal to an average **cell voltage** of 3.51V using the ISTA test plan below, **before** the high-voltage battery is opened and the defective modules are removed.

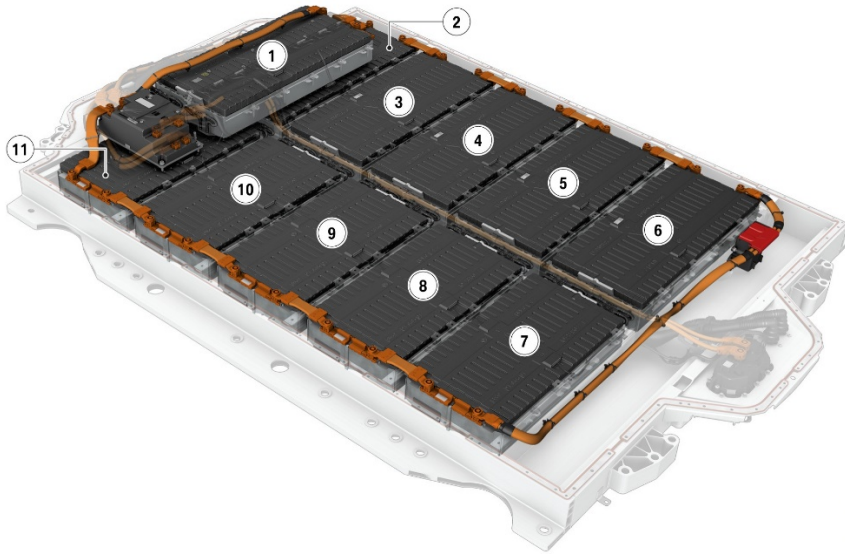
Vehicle management > Service function > Electric drive > High-voltage battery unit >
High-voltage battery unit discharged to a defined state of charge (SOC) ABL.

Note:

The High-voltage battery unit discharged to a defined state of charge (ABL) service function is ONLY available if the high-voltage battery temperature is between 59 to 95 °F (15°C and 35°C).

3. Replace the defective high-voltage cell modules using repair instructions **61 27 703** to **61 27 877** depending on the affected cell module location.

I20 xDrive50/xDrive60 - SE10 HV Battery module locations shown below-



PARTS INFORMATION

Only use and invoice the applicable part listed number below.

Note: Please order the “as required” hardware based on the module you are replacing.

Part Number	Description	Quantity
61 27 8846469	Double cell module for high-voltage battery	Up to 5
61 27 8846470	Double cell module for high-voltage battery	Up to 6
07 14 9487466	Screw (12x1.5x50 10.9)	18
61 27 9487465	Screw (12x1.5x100 10.9)	10
31 11 6899302	Multi-purpose bolt (10x45 ZNS3)	14
61 27 9487464	Screw	8
51 16 1881149	Expanding rivet	6
61 27 9468425	Screw	94
07 14 8838288	Sealing screw (M8x28)	Order as required
61 27 9468423	Housing seal	1
61 27 9454855	Screw	Order as required
33 32 6775040	Hex bolt with washer (M14x1.5x148)	2
61 27 9893951	Screw (M8GFX46-10.9)	Order as required
61 27 9454854	Screw	Order as required
61 27 9893948	ASA combination bolt (M8x84-10.9)	Order as required

Additionally, other small parts that are not specified above, such as one-time use screws, nuts,

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from the Electronic Parts Catalog according to the respective vehicle type and invoiced under the special defect code.

Part Retention

Parts that are removed from BMW vehicles cannot be used for resale! The parts are the property of BMW NA.

Your center is responsible for the proper identification, storage, and documentation of these parts. They must be held in a secure retention area until notification of claim payment is made by BMW NA through DCSnet.

Please DO NOT return these recalled High Voltage (HV) battery modules directly to the WPRC. You must use the Gen 5 HV battery recall return process.

The Gen 5 high-voltage cell module return process is different than the Gen 4, for the Gen 5 battery cell module return process, refer to aftersales bulletin:

- **Bulletin #: C-2-0323-0606 Gen 5 HV Battery Recall Return Process.pdf**

For more information refer to CenterNet: "Menu>BMW>Aftersales>Business Development & Marketing Portal>Batteries>Bulletins".

HV Battery Return Packaging - Bulk Payment

For this Service Action, to help offset the time to properly package the lithium-ion batteries for return, a bulk payment of \$20.00 per battery module will be made through monthly miscellaneous billing credit.

Payments will be identified as "Parts-\$20 credit/HV battery recall returns to ITAP".

Payment will not be issued for any lithium-ion batteries that were improperly packaged or shipped.

Hazardous materials or dangerous goods are defined as substances and articles that when offered for transportation in commerce pose an unreasonable risk to health, safety, property, and the environment.

Therefore, BMW of North America would like to remind you all applicable regulatory requirements must be followed when transporting hazardous materials. Your center is responsible for ensuring that your procedures are in compliance with all current D.O.T. regulations.

CLAIM INFORMATION

Reimbursement for this Service Action will be via normal claim entry utilizing the relevant work package (WP 1 or WP 2), the additional work labor operation code (00 75 567) for the applicable total FRU allowance, and the part numbers listed above that apply.

Plus work (+)	Completion before the first vehicle delivery to a customer or the vehicle is already in the workshop
Main work	The vehicle arrives at your center and this service action shows open (No other Main work will be performed or claimed during this workshop visit)

Defect Code:	0061090800	I20 Replacing cell module, high-voltage battery
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A. **Below are the special flat rate labor operation code choices for this action.**

Work Pkg	Labor Operation	Description	Labor Allowance
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# 1	00 75 566	Removing and installing high-voltage battery unit (Plusposition work)	50 FRU
Or:			
# 2	00 75 049	Removing and installing high-voltage battery unit (Main work)	52 FRU

Only one Main work flat rate labor operation code can be claimed per workshop visit.

Note for 00 75 567: Claim labor operation code 00 75 567 one-time only for the applicable total FRU allowance that applies. Itemize the total work time (WT) FRU allowed claimed on the RO and in the claim comments.

Work time labor operation code 00 75 567 is not considered a Main labor operation.

1.	Additional Work with Labor Operation 00 75 566 (WP 1) or 00 75 049 (WP 2)	Labor Allowance
00 75 567	Perform the cell module read out test plan in ISTA to determine the serial numbers and locations of the high-voltage cell modules affected by this Service Action (Includes 00 00 556/61 21 528), run the HV battery discharge procedure, and submit a TSARA case titled "Gen 5 HV Battery cell module ID process" for the final confirmation of the high-voltage cell location.	5 FRU

Note: The following HV cell module replacement procedure includes completing and attaching the required Battery Condition Certification form for each HV cell module replaced.

And for access to perform the repair as instructed by the above (B):

1.	Removing/installing lid for high-voltage battery unit	Labor Allowance
00 75 567	Removing/installing lid for high-voltage battery unit (Includes 61 27 900 - High-voltage battery unit final test, draining and topping up the coolant circuit)	29 FRU

With B and C, together with the repair item below that applies:

1.	00 75 567– Cell Module 1 Only	Labor Allowance
	Replacing cell module 1	11 FRU
And:		
	Additional work with pressure test cooling system high-voltage battery unit Associated work (coolant drained) (to high-voltage battery unit) (One-time)	4 FRU
	Total labor allowance (D)	15 FRU

Or:

1.	00 75 567– Cell Modules	Labor Allowance
	Replacing cell module 1	11 FRU
Or:		
	Removing and installing cell module 1	10 FRU

Additional Work (F) FRU Allowance to be added as noted (Cell modules 2, 3 10 and 11).

1.	Preliminary Work (Cell modules 2, 3 10 and 11)	Labor Allowance
	Preliminary work of removing and installing the retaining frame for cell module 1 and SME (Associated work) (One-time)	9 FRU

And as applicable:

Labor Description - Replace	Labor Allowance	Labor Description - Replace	Labor Allowance	LA - Both
Cell module 2	7 FRU	Cell module 11	7 FRU	14 FRU
And/or:				
Cell module 3	9 FRU	Cell module 10	9 FRU	18 FRU

And:

Labor Description (Additional after work)	Labor Allowance
Additional work with pressure test cooling system high-voltage battery unit Associated work (coolant drained) (to high-voltage battery unit) (One-time)	4 FRU
Total labor allowance range (F)	30 FRU to 58 FRU

Or:

1.	00 75 567– Cell Modules 4, 9, 5, 8, 6, 7			
Labor Description - Replace	Labor Allowance	Labor Description - Replace	Labor Allowance	Both
Cell module 4	14 FRU	Cell module 9	14 FRU	28 FRU
And/or:				
Cell module 5	15 FRU	Cell module 8	14 FRU	29 FRU
And/or:				
Cell module 6	14 FRU	Cell module 7	14 FRU	28 FRU

And:

Labor Description (Additional after work)	Labor Allowance
Additional work with pressure test cooling system high-voltage battery unit Associated work (coolant drained) (to high-voltage battery unit) (One-time)	4 FRU
Total labor allowance range (G)	18 FRU to 89 FRU

Or:

1.	00 75 567– F and G, up to 10 Cell Modules as applicable	Labor Allowance
	Claim the sum of the FRU amounts that apply to the cell modules replaced along with the required additional after work (4 FRU for the Pressure Test, one-time).	As noted left (H)

Or:

I.	00 75 567– All Cell Modules (11)	Labor Allowance
	Replacing all cell modules	104 FRU
	And:	

Additional work with pressure test cooling system high-voltage battery unit Associated work (coolant drained) (to high-voltage battery unit)	4 FRU
Total labor allowance (I)	108 FRU

Claim Repair Comments

Only reference this SIB number, the work package (Pkg) number performed, and cell modules replaced by their reference number in the RO technician notes and the claim comments (For example: B61 24 23 WP 1, Cell module 6), unless otherwise required by State law.

Sublet – Bulk Materials (RO and Claim Comments Required)

Sublet Code 4	Up to \$100.00	Reimbursement for the repair-related bulk materials (Do not use the BMW part numbers for claim submission)
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Sublet reimbursement calculation for claiming the applicable repair-related bulk materials (BMW part numbers) is at the dealer net price amount for the quantities used plus your center's handling.

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

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.

FEEDBACK REGARDING THIS BULLETIN

Technical Feedback	To submit feedback for the technical topics of this bulletin: Submit your feedback in the rating box at the top of this bulletin
Warranty Feedback	To submit feedback for the CLAIMS section of this bulletin: Submit an IDS ticket to the Warranty Department, or use the chat available in the Warranty Documentation Portal
Parts Feedback	To submit feedback for the PARTS section of this bulletin: Submit an IDS ticket to the Parts Department

