RECALL H441 - BATTERY ENERGY CONTROL MODULE (BECM) SOFTWARE UPDATE

SAFETY RECALL H441 – I-PACE BECM SOFTWARE UPDATE		
AFFECTED MODELS	19-24 MY I-PACE	
VOLUME AFFECTED	US 6422 CAN 648	
REPAIR	Vehicles may experience thermal overload which may show as smoke or fire, that may occur underneath the vehicle where high-voltage battery is located. An update to the BECM is required to provide enhanced diagnostics software that will monitor the battery pack assembly operational status that indicates where the battery contains conditions which may lead to overheating. A warning message will be displayed to the driver should these battery conditions be detected. All affected vehicles can be updated by a wired update using TOPIx Cloud. 21-24MY vehicles will also be subject to an update via Software over the air (SOTA) as part of the 4.0.0.	
REPAIR TIME	TOPIx cloud wired update - 0.2Hrs + DIDO	
CAMPAIGN LAUNCH	Retailer Admin Bulletin notification : June 8th, 2023 TOPIx Cloud Repair Launched June 19 th , 2023, with a Technical Q & A. SOTA deployment to all eligible 21-24MY vehicles has commenced.	
Notes	Clients will be notified via mail on or before July 21st , 2023. Clients will be advised that prior to the recall software update and for the following 30 days, they should park away from structures, charge outside where possible and to charge their vehicle to a maximum of 75%. Once the new software is installed it could take up to 30 days to identify if the battery shows any conditions which may lead to thermal overload.	

BECM ENHANCED BATTERY DIAGNOSTICS 19-24 MY I-PACE

- Completion of the H441 recall will install new BECM software that will monitor the battery pack assembly operational status that indicates where the battery contains conditions which may lead to overheating.
- This software provides an enhanced level of detection in relation to battery condition and where the software determines a risk exists, the vehicle sets DTC P1B48-00 Hybrid/EV Battery Voltage Deviation, and the High Voltage battery charging capacity will be automatically limited to up to 75%.
- If this risk is detected by the new software, customers will see a warning message "OK to drive with caution Traction battery fault detected' and the customer should then seek Retailer assistance for diagnosis and repair.



• To assist retailers with diagnostics, new workflows are being created in TOPIx cloud. An expected outcome is that a need for a replacement EV battery will be diagnosed. The initial phase 1 release of new BECM diagnostic software released or the recall will not be capable of diagnosing individual defective battery modules.

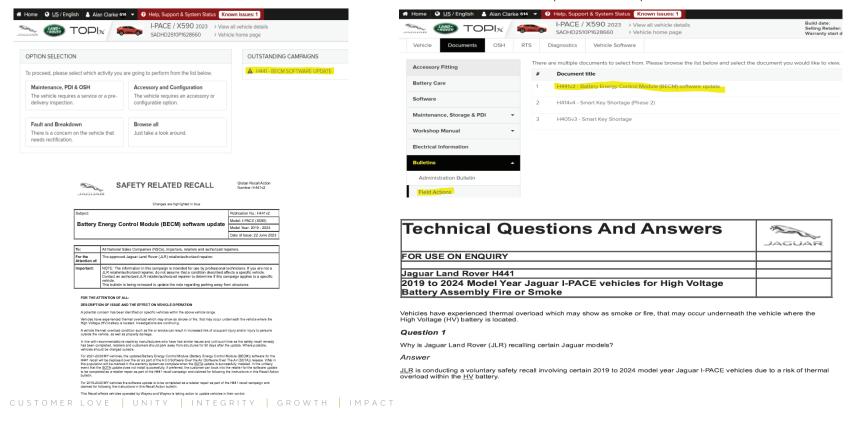
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BECM ENHANCED BATTERY DIAGNOSTICS 19-24 MY I-PACE

- Replacement EV batteries and modules currently have very limited availability. When a thermal overload condition has been reported by a customer, Retailers are requested to submit an EPQR to flag each new case. JLR is operating a daily cross functional "Triage" process to review each case and to assist the retailer and client. Following completion of the vehicle diagnostics, please also submit a TA case which will be escalated to engineering for a repair solution.
- A Phase 2 BECM software release is planned to be deployed commencing with 19-20MY vehicles late July 2023. In cases of thermal overload, this software will enhance the BECM diagnostic capability to identify any defective individual battery modules. This will enable battery lid off repairs to be performed with resulting replacement of one or more individual modules and not the complete battery assembly.
- Further details on this enhanced diagnostic process will be provided in due course.
- Retailers are also requested to review the HV training status of their technicians and ensure they are responding to certification and re-certification invitations issued by the JLRNA Training team.

H441 I-PACE RECALL - TECHNICAL QUESTIONS AND ANSWERS

Please refer to the Technical Question and Answer section of the H441v2 Repair Bulletin posted on TOPIx



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SERVICE ADVISOR CONFERENCE CALL JUNE 28^{TH} , 2023

H441 ADDITIONAL Q & A

	QUESTION	ANSWER
1	How do I know if my I-PACE is affected by Recall H441?	Service Advisors should confirm the open campaign status by VIN in the warranty portal. Affected customers are being mailed a notification letter and may also check their 17-digit VIN for any open Safety Recalls on the NHTSA or JaguarUSA.com websites.
2	My I-PACE is open in Recall H441. Is it safe to drive?	Clients can continue to drive their vehicle and make a service appointment with their Jaguar retailer as soon as possible to have H441 Recall completed. For retailed 21- 24MY vehicles, clients should check the Software Updates status on their touch screen display and accept all updates without delay, until OS 4.0.0 is confirmed as installed which, closes the recall. Some vehicles may have prior SOTA updates that first need to be completed before 4.0.0 can be installed.
3	My I-PACE is open in Recall H441. Are their any precautions I should take before it is repaired?	Clients should park away from structures charge outside where possible and charge their vehicle to a maximum of 75% .
	MY I-PACE had recall H441 performed. Is it now safe to drive and can I now charge it fully and park	For 30 days after the recall software update, clients are advised to continue to observe the following precautionary measures: Clients should park away from structures , charge outside where possible and charge their vehicle to a maximum of 75% . .After 30 days, clients may resume normal charging and parking.
5	I have had the recall performed and now my I-PACE is displaying a message "OK to drive with Caution, Traction Battery Fault Detected". What do I do and is it safe to drive?	Clients should make an appointment as soon as possible to have the battery fault diagnosed. The vehicle is OK to drive with caution and the charging level will automatically be restricted to 75%
6	Will the client notice any changes, for example in vehicle's driving range?	Prior to the recall being performed and for 30 days after recall closure, clients are advised to charge their vehicle to a maximum of 75%. There will be a corresponding reduction in vehicle range. After the recall has been performed and if a battery detects a thermal overload condition, a warning message is displayed, and charging is automatically limited to 75% with a corresponding reduction in range. Beyond 30 days after recall completion customers may charge to 100%

H441 ADDITIONAL Q & A

	QUESTION	ANSWER
7	My I-PACE is displaying a message "OK to drive with Caution, Traction Battery Fault Detected". What will you do to repair my car?	The vehicle battery fault will be diagnosed, and the battery repaired or replaced.
8	Does Jaguar have the parts to fix my I-PACE	Batteries and battery modules are available, but currently in limited quantities
9	How long does it take to complete the H441 BECM software update on my I-PACE?	A wired update by TOPIx cloud is expected to take less than 15 minutes. However, Service Advisors should respond to clients with an overall time based their stores specific situation and processes. A SOTA software installation takes approx. 30 minutes after it is accepted and the vehicle locked.
10	How do I set the I-PACE HV battery charging limit to 75%?	On 21-24MY PIVI vehicles, charging levels can be preset on the vehicle touch screen touchscreen. From the charging screen, select charging limit and move the green bar slider to the left to lower charging limit to 75%. Do not click the 'Only Once' button
11	How do I use the Jaguar Remote App to monitor the battery charging level?	Check that an InControl account has been created to connect a client's vehicle to their Jaguar Remote App. During charging, the Jaguar Remote App will show battery percentage levels on the home screen to allow for continuous monitoring.

H441 ADDITIONAL Q & A

	QUESTION	ANSWER
12	How do I install the H441 SOTA update on my I-PACE	Refer the client to the following steps on the vehicle touch screen to check if OS 4.0.0 is available for installation, then follow the on-screen instructions.
13	How do I know when the H441 Software-over-the-air update has been installed on my vehicle?	Refer the client to the vehicle touch screen under 'Software Updates' The latest installed software is displayed
14	H441 has been completed on my vehicle but it still shows open in the NHTSA/Jaguar web based Recall search tool ?	After a recall repair is completed and the warranty claim submitted there can be a short delay before the data is updated on the NHTSA.gov and Jaguar Product Recall Search tools. Vehicles updated via SOTA will show as completed in the warranty portal.

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H441 ADDITIONAL Q & A

	QUESTION	ANSWER
15		When encountering issues wihen installing the related recall software, as per normal process, please raise a Technical Assistance (TA) request for support. Our local engineering team are on standby to assist.
16	Customer is wondering if they are traveling with the vehicle and this notification pops up, what do they do?	If after the installation of the software a customer then encounters the pop-up warning message shown above, they may continue to drive with caution, but they should contact their retailer as soon as possible and make a service appointment to diagnose the battery fault.
17	How can we fast track new Technicians to be able to perform Recall if we only have one EV Certified Master Tech?	There is a formal Fast Track program for Technicians (people with past experience at other retailers can go through an accelerated training program), but that does not apply for EV training. There is not currently a way to fast track or skip any steps with EV training, but if a retailer has someone they want to get EV Certified as a priority, they should contact Kelsey Fleming (kflemin1@jaguarlandrover.com) and she can try to get them scheduled sooner.
18	Is there a way for the customer to set up the vehicle so it will only charge to 75% or do they need to manually check it and turn off the charging?	As detailed above, for 21-24MY vehicles, customers will be able to set limits on their battery charging level using the EV Charging menu in the vehicle touch screen. Instructions are provided in the owner's manual. For 19-20MY vehicles, customers will be unable to set a charging limit, but it is recommended they connect their vehicle to an active InControl account and using the Remote App, customers can monitor charging rate and stop the charging when it reaches 75%.
19	If we ask a client to try and charge away from structures after the software update is there any kind of extension cord to give some distance from the structures that can be recommended?	Please review the Owner's Manual under the Vehicle Charging section. Jaguar does not approve the use of extension cables when charging I-PACE EV batteries.