



Technical Service Bulletin

GROUP RECALL	NUMBER 26-01-025H
DATE MARCH 2026	MODEL(S) SEE BELOW

SUBJECT: DTC P1A9096 CHECK FOR ICCU & FUSE REPLACEMENT & ICCU SOFTWARE UPDATE (RECALL 272)

This TSB supersedes TSB 24-01-086H-1 to update additional ICCU part numbers on page 2 and Op codes on page 4. ICCU “QQH”, and “AQQH” parts are to be used interchangeably until “QQH” stock is depleted.

★ IMPORTANT

Vehicle repairs related to safety recalls are critically important and must be performed properly in accordance with TSB procedures. Review this bulletin in its entirety prior to beginning any repair work.

As required by federal law, dealers must not deliver new vehicles for sale or for lease to customers until all open recalls have been performed. Dealers must also perform all open recalls on used vehicles, demo, and rental vehicles prior to placing them into customer use and whenever an affected vehicle is in the shop for any maintenance or repair.

Access the “Vehicle Information” screen via WebDCS to identify open recalls.

Description: Certain IONIQ 5 (NE EV), IONIQ 6 (CE EV), and IONIQ 5 ROBOTAXI (NER) vehicles are equipped with an Integrated Charge Control Unit (ICCU) which charges the vehicle’s 12-volt auxiliary battery and powers low-voltage vehicle accessory equipment. The ICCU may be subject to certain electrical load conditions that can cause the internal metal-oxide semiconductor field-effect transistor (MOSFET) to fail, potentially resulting in an open ICCU fuse. An open ICCU fuse results in an inability to charge the 12-volt battery. Upon fault detection, and accompanied by a series of driver warnings, the vehicle will enter a design-intended “fail-safe” driving mode that allows immediate full propulsion while gradually reducing motive power over time as the vehicle’s battery is discharged. If the vehicle is driven until the 12-volt battery state-of-charge is fully depleted, the vehicle will lose all motive power, potentially increasing the risk of a crash. Vehicle systems such as air bags, braking, and powered steering remain operational.

The Service Procedure Flowchart is outlined on page 6. The ICCU system is to be checked by GDS for DTC P1A9096 and depending on the result, will first involve an ICCU software update and, based on inspection results, either an ICCU and/or potential fuse replacement.




SUBJECT:DTC P1A9096 CHECK FOR ICCU & FUSE REPLACEMENT
& ICCU SOFTWARE UPDATE (RECALL 272)**Applicable Vehicles (Certain):**

Model Year	Model	Production Dates
2022 – 2024	IONIQ 5 (NE EV)	10/04/2021 – 10/09/2024
2023 – 2025	IONIQ 6 (CE EV)	12/14/2022 – 10/09/2024
2024	IONIQ 5 ROBOTAXI (NER)	10/09/2023 – 10/29/2024

NOTICE

To avoid any potential damage to IONIQ vehicles, this recall can only be performed at IONIQ certified dealers.

Parts Information:

Model	Part Name	Part Number	Remarks
IONIQ 5 (NE EV)	ICCU Assy (Integrated Charge Control Unit)*	36400-1XAA0QQH	
		36400-1XAA0AQQH	
IONIQ 6 (CE EV)		36400-1XEA0QQH	
		36400-1XEA0AQQH	
IONIQ 5 ROBOTAXI (NER)		36400-1XMA0QQH	
		36400-1XMA0AQQH	
All	Fuse – High Voltage	375F2-GI040QQH	Order High-Voltage Fuse in Conjunction with the ICCU
All	Pink, Antifreeze / Coolant	00232-19098	Up to 3.7 liters (1 gallon)

*As needed, only if DTC is stored



NOTICE

Do **NOT** install the fuse alone without ICCU replacement. If vehicle is placed in **Ready Mode** after replacing only the fuse and not the replacement ICCU, there is a possibility of DTC **P1B77** Battery PRA damage.

SUBJECT:DTC P1A9096 CHECK FOR ICCU & FUSE REPLACEMENT
& ICCU SOFTWARE UPDATE (RECALL 272)**Information**

Use ICCU's ending in "QQH" first if stock is available. If **NO** is available, use ICCU ending in "AQQH." "QQH" and "AQQH" parts are to be used interchangeably until stock of "QQH" is depleted.

SST Information:

Tool Name	Tool Number	Figure	Ordering Information
VCI 3	G0VHNNN06		Website: https://hyundaiesentialtools.com/ Email: Hyundaitools@snapon.com
VCI 2	G1XDDMN001		Phone: 1-855-763-9199 Hours: 7 AM – 7 PM CST

NOTE: VCI 2 can **NO** longer be ordered but can be used for the updates in this TSB.

GDS Information:

Model	System	Event Number*	Description
IONIQ 5 (NE EV)	ICCU	1154*	ICCU SOFTWARE UPDATE, AND ICCU AND FUSE REPLACEMENT (Secondary)
IONIQ 6 (CE EV)		1155*	ICCU SOFTWARE UPDATE, AND ICCU AND FUSE REPLACEMENT (Secondary)
IONIQ 5 ROBOTAXI (NER)		1156*	ICCU SOFTWARE UPDATE, AND ICCU AND FUSE REPLACEMENT (Secondary)

(*or use a later available event listed in the GDS **ICCU** Update screen if one is available.)

SUBJECT:DTC P1A9096 CHECK FOR ICCU & FUSE REPLACEMENT
& ICCU SOFTWARE UPDATE (RECALL 272)**Warranty Information:**

Model	Op. Code	Operation	Op. Time	ICCU Installed	Nature Code	Cause Code
IONIQ 5 (NE EV) & IONIQ 6 (CE EV) & IONIQ 5 ROBOTAXI (NER)	41D225R0	DTC Check (NO P1A9096) and ICCU Software Update	0.4 M/H		W11	ZZ3
	41D225R1	DTC Check (YES P1A9096), ICCU & Fuse Replacement and Replaced ICCU (Latest Software Version (YES))	2.1 M/H	36400-1XAA0QQH (IONIQ 5)		
	41D225R2	DTC Check (YES P1A9096), ICCU & Fuse Replacement, Replaced ICCU (Does NOT have Latest Software Version), and ICCU Software Update	2.4 M/H	36400-1XEA0QQH (IONIQ 6) 36400-1XMA0QQH (IONIQ 5 ROBOTAXI)		
Use with superseded AQQH Parts						
IONIQ 5 (NE EV) & IONIQ 6 (CE EV) & IONIQ 5 ROBOTAXI (NER)	41D225R3	DTC Check (YES P1A9096), ICCU & Fuse Replacement and Replaced ICCU (Latest Software Version (YES))	2.1 M/H	36400-1XAA0AQQH (IONIQ 5)	W11	ZZ3
	41D225R4	DTC Check (YES P1A9096), ICCU & Fuse Replacement, Replaced ICCU (Does NOT have Latest Software Version), and ICCU Software Update	2.4 M/H	36400-1XEA0AQQH (IONIQ 6) 36400-1XMA0AQQH (IONIQ 5 ROBOTAXI)		

NOTE 1: Submit claim on Claim Entry Screen as "Campaign" type.

NOTE 2: If any part(s) not subject to this TSB are found in need of replacement while performing the repair procedure, and the affected part(s) are still under warranty, the retailer may submit a separate claim using the same repair order. If the part(s) not subject to this TSB are out of warranty coverage, the retailer has the option to submit a PA Request for goodwill consideration on a case-by-case basis

NOTE 3: This TSB includes repair validation photos. Op times include VIN, Mileage, and repair validation photos, as outlined in the Digital Documentation Policy.

NOTE 4: The incident parts are subject to callback through the normal Warranty Technical Center (WTC) parts return process. **Claim is subject to debit if the part is not returned.**

NOTE 5: Op Codes 41D225R1 through 41D225R4 includes reimbursement of coolant (up to 3.7 liters/1 gallon).

ROM ID Information:

Model	System	ICCU Part Number	ROM ID	
			Current	Latest
IONIQ 5 (NE EV)	ICCU	36401-1XAA0	ENE1E1-IDS02R000 ENE1E1-IDS51R000 ENE1E1-IDS03R000 ENE1E1-IDS05R000 ENE1E1-IDS07R000 ENE1E1-IDS08R000 ENE1E1-IDS09R000 ENE1E3-IDS10R000 ENE1E3-IDS11R000 ENE1E3-IDS13R000	ENE1E3-IDS14R000
IONIQ 6 (CE EV)		36401-1XEA0	ECE1E3-IDS02R000 ECE1E3-IDS03R000 ECE1E3-IDS06R000	ECE1E3-IDS07R000
IONIQ 5 ROBOTAXI (NER)		36401-1XMA0	ENE1E3RIDS01R000 ENE1E3RIDS02R000 ENE1E3RIDS04R000	ENE1E3-RIDS05R000

Service Procedure:

DIGITAL DOCUMENTATION



This TSB includes repair validation photos. Refer to the latest Warranty Digital Documentation Policy for requirements.

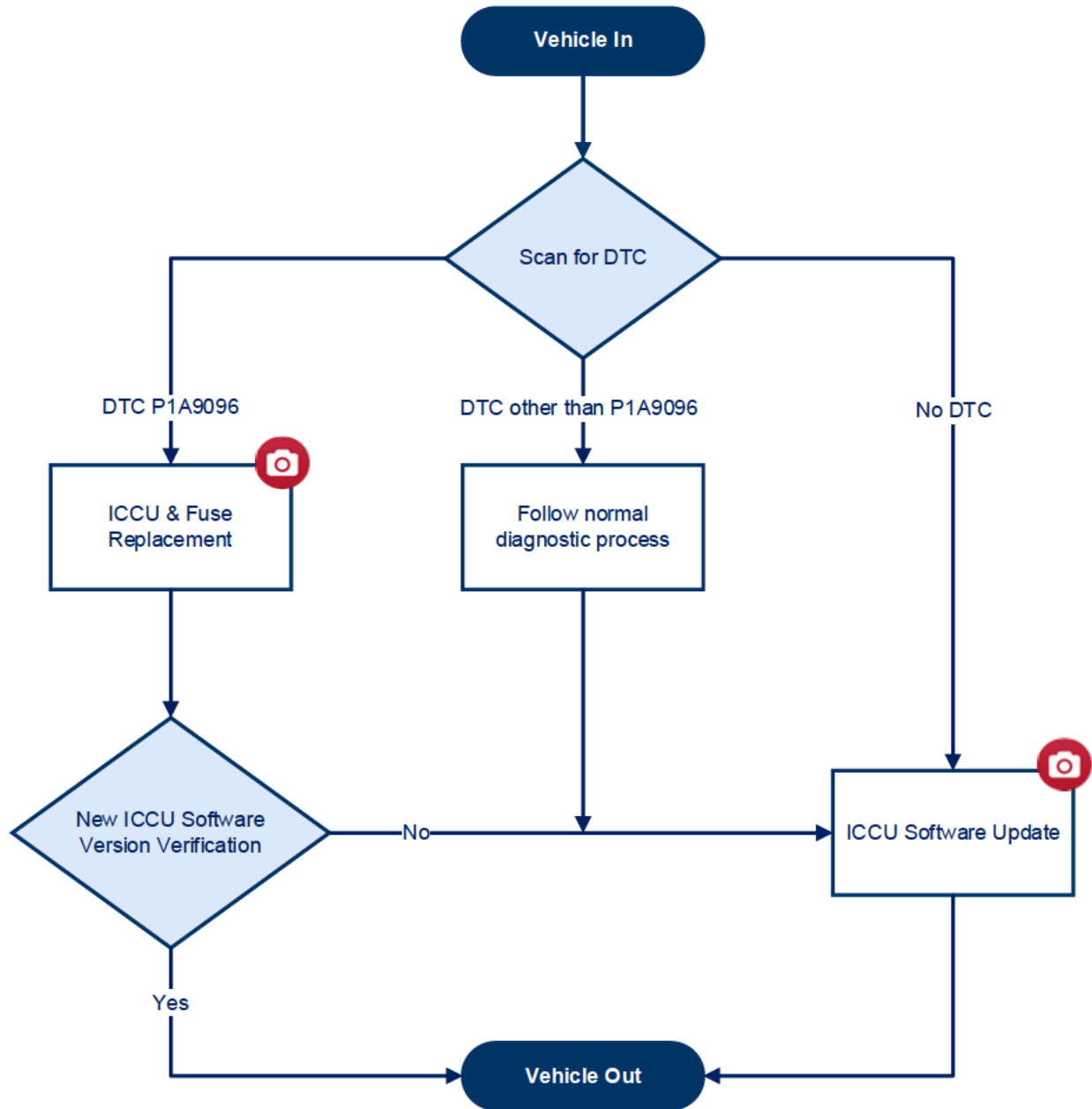
NOTICE

Applying the recommended torque to all fasteners is essential to reduce potential issues from occurring after the service procedure.

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A. Flowchart



B. DTC Check

Use GDS to perform **All Fault Search** on the ICCU system for **DTC P1A9096** for either active or stored DTC within the history.

- **NOT DETECTED** – (DTC P1A9096 is **NOT** found stored):
 - Perform ICCU software update – see **Section C**, **Submit 41D225R0, 0.4 M/H**

i Information

If any other DTC or symptom is found stored, diagnose and repair per shop manual **before** performing the ICCU Update (Warranty claim).

- **DETECTED** – (DTC P1A9096 is found stored):
 - Replace ICCU:
 - IONIQ 5 (NE EV) & IONIQ 5 ROBOTAXI (NER) – see **Section D**
 - IONIQ 6 (CE EV) – see **Section E**
 - Replace the Fuse – see **Section F**
 - Check if replaced ICCU has latest software version.
 - **NOT** latest software – Update ICCU software.
For QQH: Submit 41D225R2, 2.4 M/H
For AQQH: Submit 41D225R4, 2.4 M/H
 - **LATEST SOFTWARE** – The service procedure is now complete.
For QQH: Submit 41D225R1, 2.1 M/H
For AQQH: Submit 41D225R3, 2.1 M/H

1.

NOTICE

Replace the high-voltage fuse in conjunction with the ICCU. Failure to do so may result in PRA damage.

When performing repairs, it is **critical** to ensure the ICCU and high-voltage fuse are replaced simultaneously. Damage to the PRA may occur if the vehicle is in **Ready Mode** without the replacement ICCU part installed.

i Information

If any other DTC or symptoms are found, diagnose and repair them per the shop manual before performing the ICCU update.

C. ICCU Software Update

NOTICE

You must initially perform the GDS ECU update in Auto Mode.

- If the ECU update starts but then fails in Auto Mode, perform the update in Manual Mode to recover.

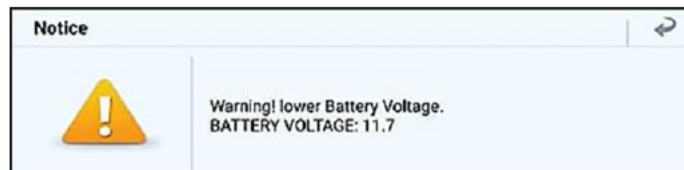
NOTICE

Ensure the vehicle's battery charge is **above 11.0 Volts** and the tablet's battery charge is **above 30%** before performing a software update to avoid update failure.

NOTICE

GDS Vehicle Battery Low Voltage Warning:

If voltage is below 12 volts per the GDS warning, then select **Back** and attach a battery charger to ensure an adequate battery charge for reliable update results. Turn ignition back **ON**, and then retry the ECU update again.



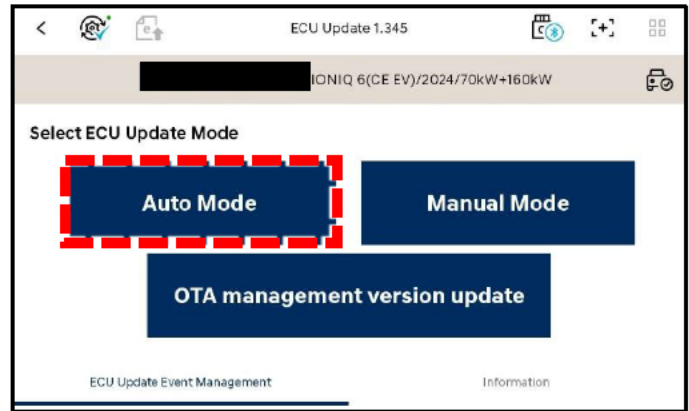
Information

- Turn **OFF** all lamps (do **NOT** leave head lamp switch in auto mode) and all accessories.
- Perform update with the ignition switch in the **ON** position.
- Do **NOT** disconnect any cables connected to the vehicle or scan tool during the update.
- Do **NOT** start the engine OR place in **Ready** mode during the update.
- Do **NOT** turn **OFF** the ignition switch during the update.

1. Perform the ICCU update in **Auto Mode**.

i Information

Refer to **TSB # 25-GI-011H**, “**ECU Update Procedure for Tablet-Based GDS-Smart**”, for additional information.



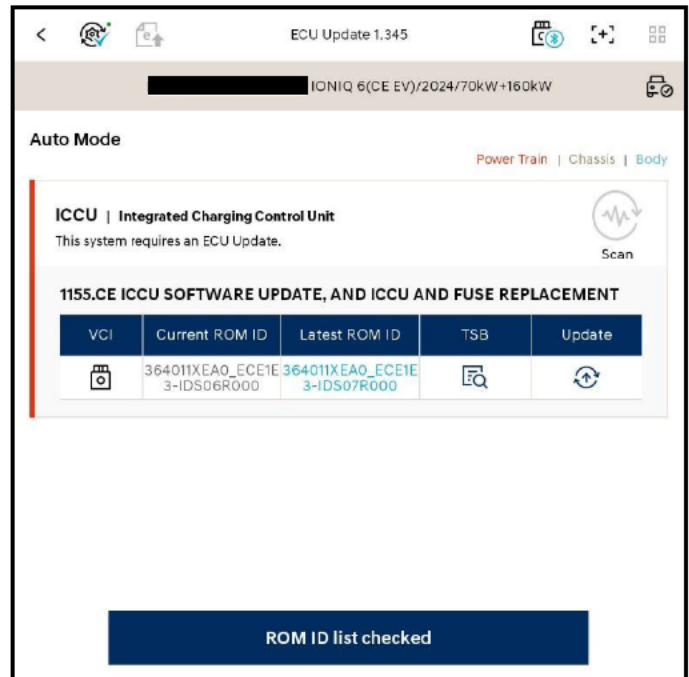
2. Verify the ROM ID by selecting the **ICCU** system to scan the vehicle’s current ROM ID.

NOTICE

Check the current ROM ID version and compare it to the ROM ID Information table before attempting to perform the software update.

NOTICE

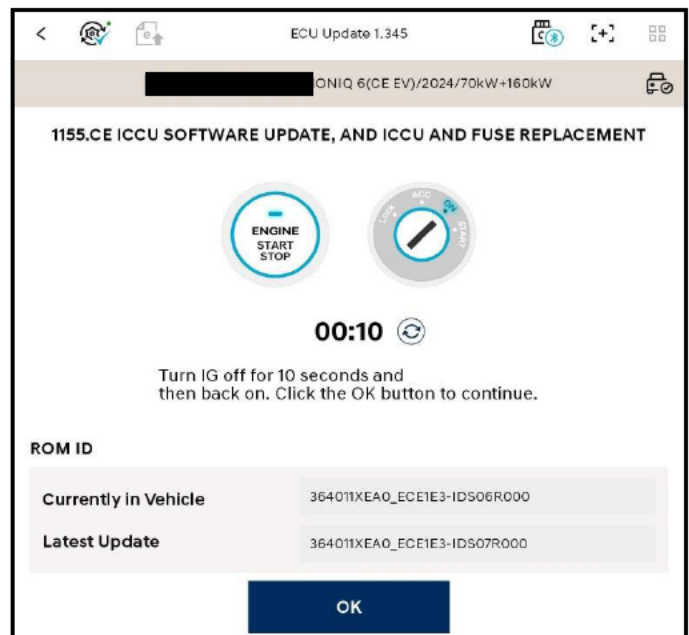
If the update fails, remove the power connector from the in-cabin fuse box for at least **5 seconds**. Alternatively, disconnect the negative (–) **12V** battery terminal and wait at least **5 seconds**. Reassemble and retry the update.



3. After the ICCU update process shows 100% complete, follow the prompts on the screen to cycle the ignition **OFF** for at least **10 seconds** to reset the control unit (certain models may take up to **30 seconds**).

i Information

Use the **Refresh** button to reset the timer.



4.

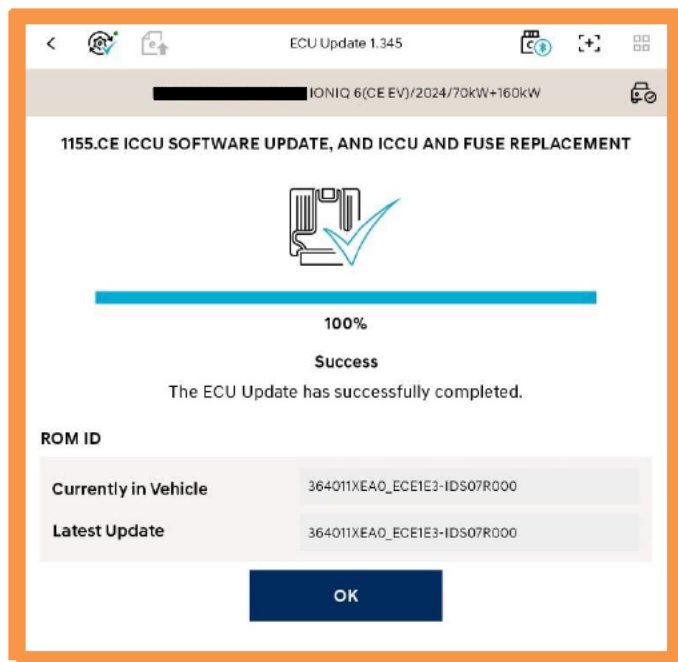
DIGITAL DOCUMENTATION



Using the tablet or GDS screen capture function, take a screenshot of the ICCU Update “Success” result screen.

Upload the photo to STUI.

NOTE: The VIN/Date/Time/Mileage photo imprint is **NOT** required for GDS screenshots.



5. Perform an **All Systems Fault Code** search and erase DTC history that had incidentally occurred from the ICCU update.
6. Place the vehicle in **Ready** mode to confirm proper operations.



Information

For multiple ECU updates, go back to the Auto Mode screen to view all updates available in one screen.

NOTICE

If the ECU update fails in Auto Mode, perform the update in Manual Mode using the password(s) below.

Manual Mode Password Information:

ICCU Event	Menu	Password
1154	NE1 EV ICCU 36401-1XAA0	4832
1155	CE1 ICCU 36401-1XEA0	2323
1156	NER ICCU 36401-1XMA0	6789

D. ICCU Replacement for IONIQ 5 (NE EV) and IONIQ 5 ROBOTAXI (NER)

⚠ WARNING

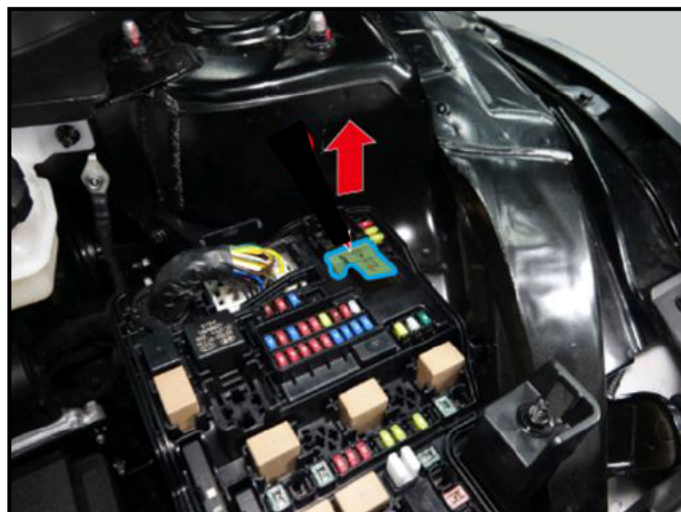
Read the **Safety and Precautions** and **High Voltage Shut-Off Procedures** sections of the shop manual before performing work related to high-voltage systems. Failure to do so may result in serious electrical injuries.

Be sure to follow your country's/region's regulations when performing work on or around HV components.

1. Shut **OFF** the high-voltage circuit by referring to the shop manual:
 - **Battery Control System > High Voltage Shut-off Procedures**

⚠ CAUTION

Wait for more than **5 minutes** so that the capacitor in the high voltage system will be fully discharged.

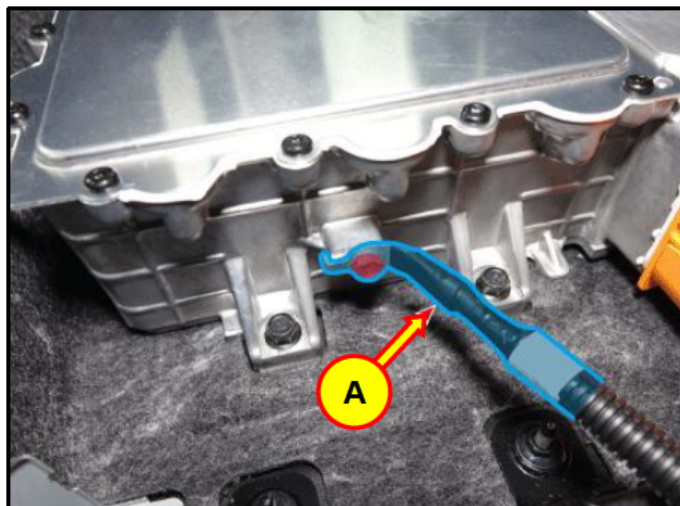


2. Drain the motor coolant by referring to the shop manual:
 - **Cooling System > Motor Cooling System > Coolant > Coolant Refilling and Bleeding**
3. Remove the rear seat assembly by referring to the shop manual:
 - **Body (Interior and Exterior) > Rear Seat > Rear Seat Assembly > Replacement**
4. Remove the luggage side trim by referring to the shop manual:
 - **Body (Interior and Exterior) > Trunk Trim > Luggage Side Trim > Replacement**

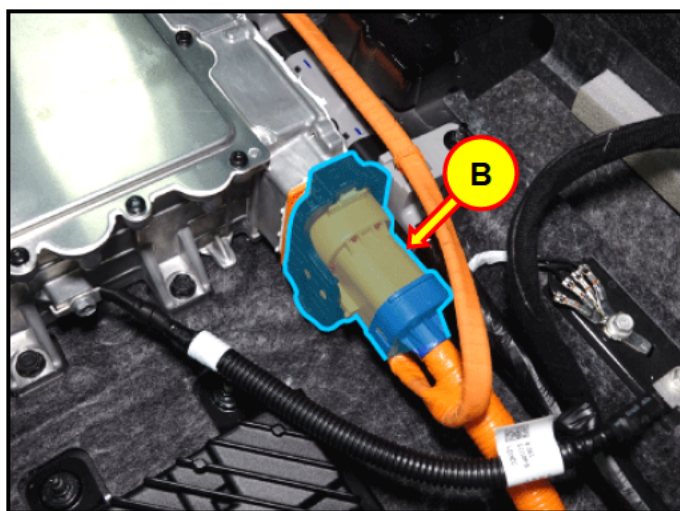
- Remove the mounting bolt, then remove the ground (A).

Tightening Torque:

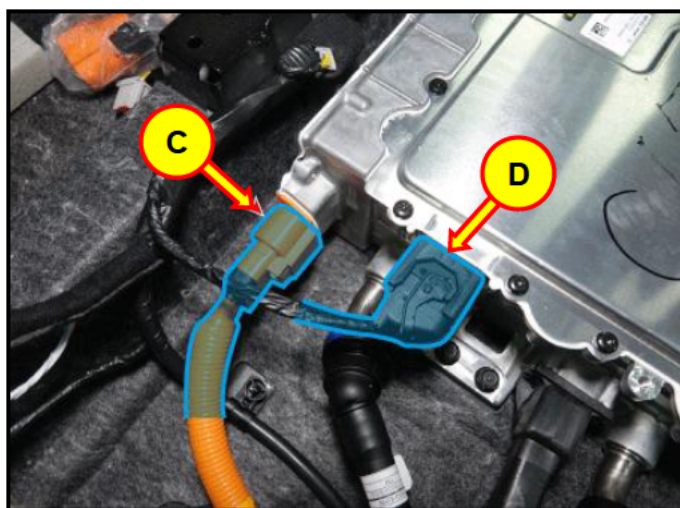
lb-ft	7
lb-in	84
N.m	9



- Disconnect the ICCU AC connector (B).



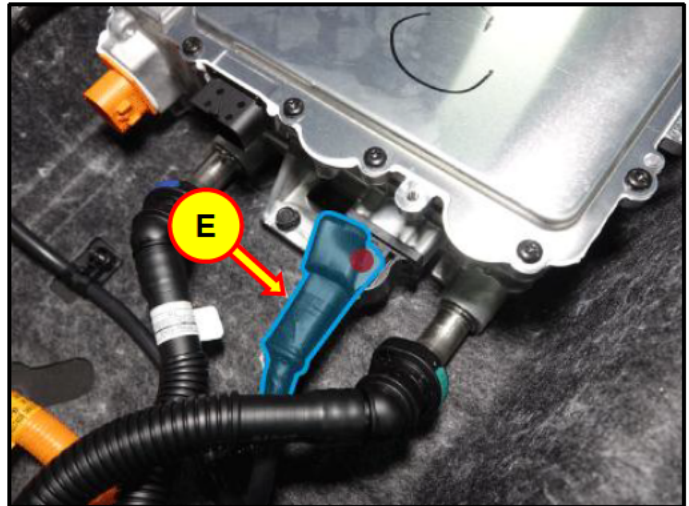
- Disconnect the ICCU DC connector (C) and ICCU signal connector (D).



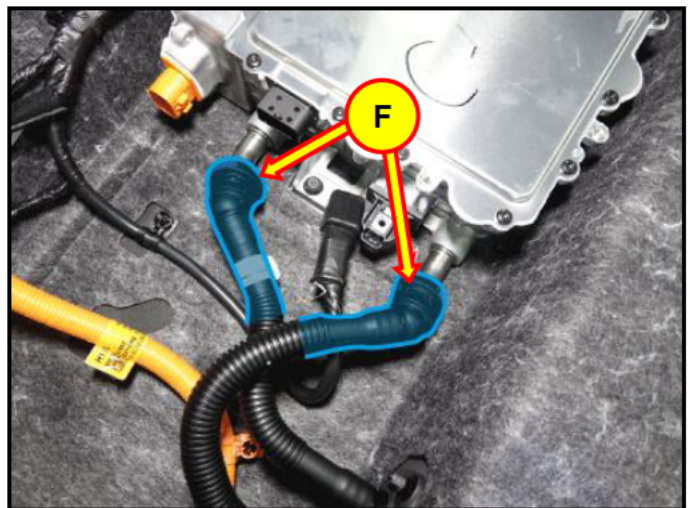
8. Remove the mounting bolts, then remove the LDC plus (E).

Tightening Torque:

lb-ft	7
lb-in	84
N.m	9



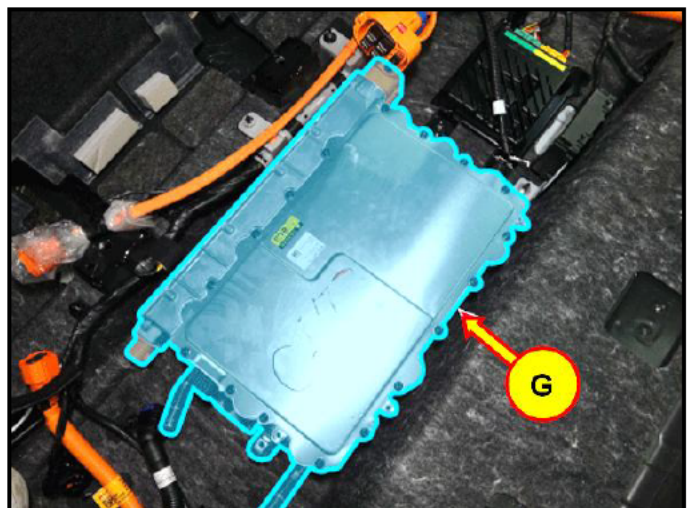
9. Place an absorbent mat under the coolant tube quick connectors (F), then disconnect the coolant tube connectors (F).



10. Remove the mounting bolts, then remove the ICCU (G).

Tightening Torque:

lb-ft	19
N.m	25



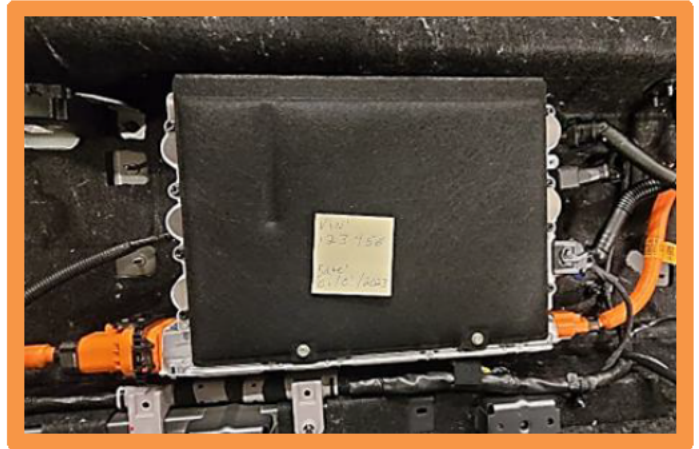
11.

**DIGITAL
DOCUMENTATION**

Using the STUI camera function, take a photo of the new ICCU.

Upload the photo to STUI.

NOTE: If the STUI camera function is **NOT** used, write the last 6 digits of the VIN and date of repair on a piece of paper to include in the photo.



12. Reinstall all parts in the reverse order of the removal process.
13. Refill the motor cooling system with coolant, then use the GDS to fully bleed out the air by referring to the shop manual:
- **Cooling System > Motor Cooling System > Coolant > Coolant Refilling and Bleeding**

E. ICCU Replacement for IONIQ 6 (CE EV)

⚠ WARNING

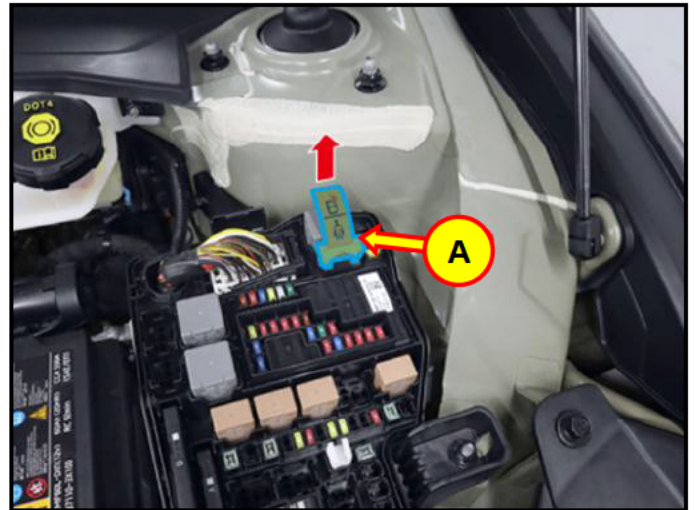
Read the **Safety and Precautions** and **High Voltage Shut-Off Procedures** section of the shop manual before performing work related to high-voltage systems. Failure to do so may result in serious electrical injuries.

Ensure to follow your country's/region's regulations when performing work on or around HV components.

1. Shut **OFF** the high-voltage circuit (A) by referring to the shop manual:
 - **Battery Control System > High Voltage Shut-off Procedures**

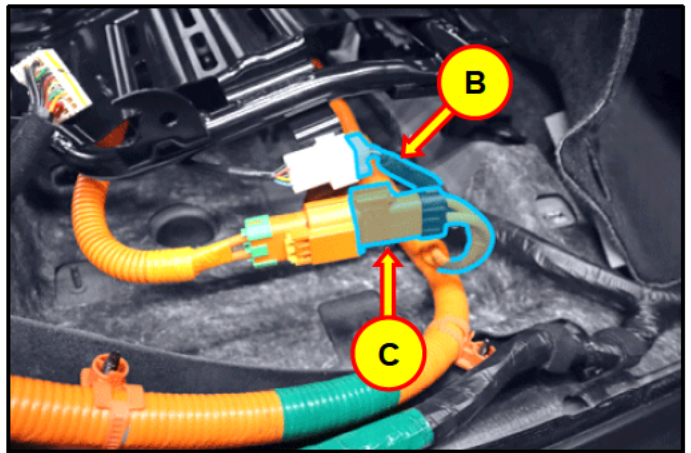
⚠ CAUTION

Wait for more than **5 minutes** so that the capacitor in the high voltage system will be fully discharged.



2. Drain the motor coolant by referring to the shop manual:
 - **Cooling System > Motor Cooling System > Motor Coolant > Coolant Refilling and Bleeding**
3. Remove the rear seat cushion cover assembly by referring to the shop manual:
 - **Body (Interior / Exterior / Electrical) > Rear Seat > Rear Seat Cushion Cover Assembly > Removal**
4. Remove the rear wheel-house trim by referring to the shop manual:
 - **Body (Interior / Exterior / Electrical) > Interior Trim > Rear Wheel House Trim > Removal**

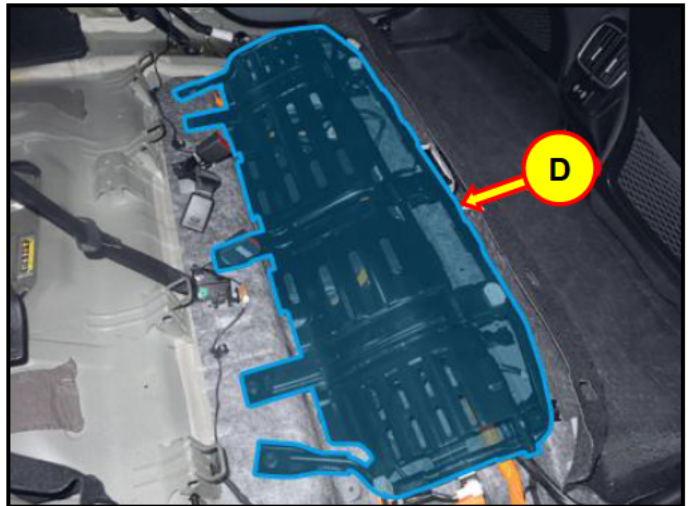
5. Disconnect the V2L signal connector (B) and V2L extension connector (C).



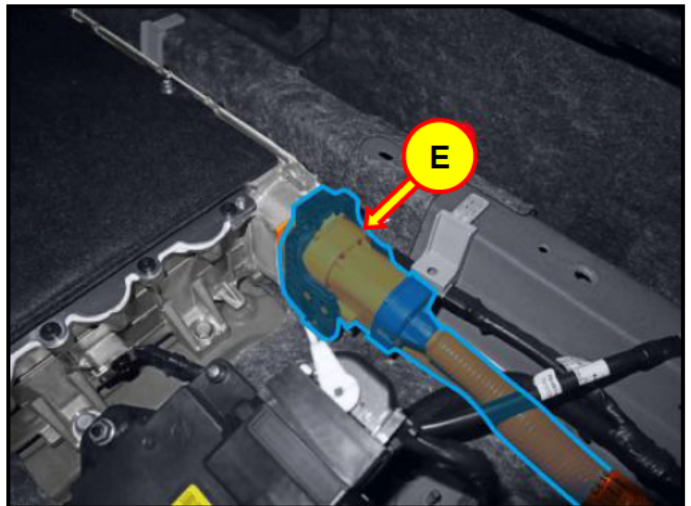
6. Remove the bolts and nuts, then remove the upper frame (D).

Tightening Torque:

lb-ft	19
N.m	25



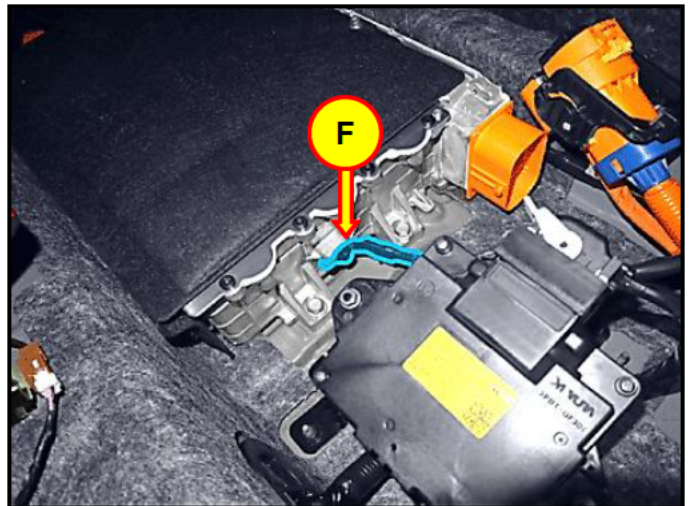
7. Disconnect the ICCU AC connector (E).



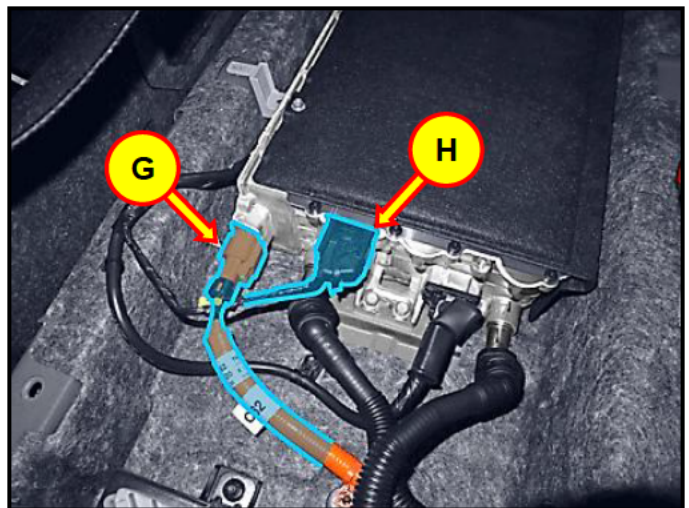
8. After removing the bolt, remove the LDC ground (F).

Tightening Torque:

lb-ft	10
N.m	13



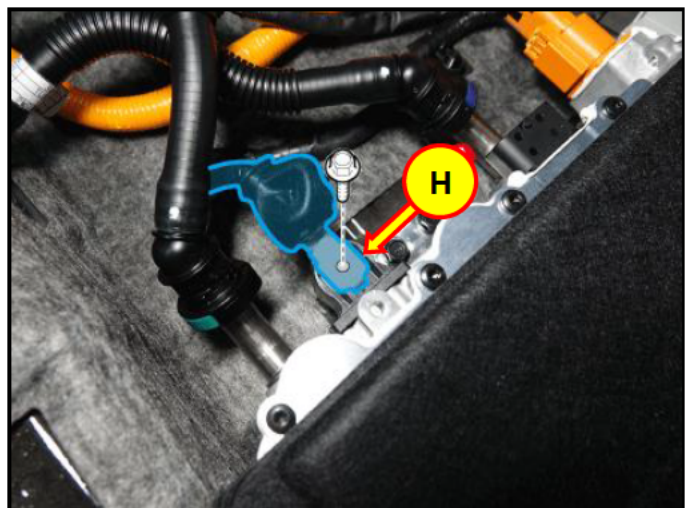
9. Disconnect the ICCU DC connector (G) and ICCU signal connector (H).



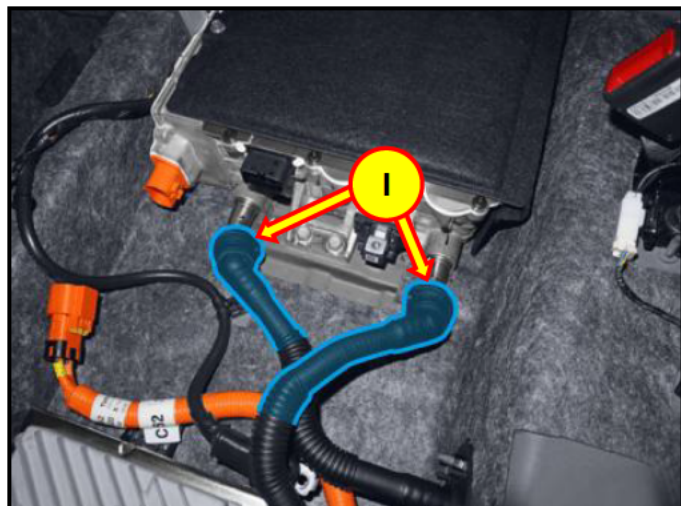
10. Remove the bolt, remove the LDC (+) (H).

Tightening Torque:

lb-ft	7
lb-in	84
N.m	9



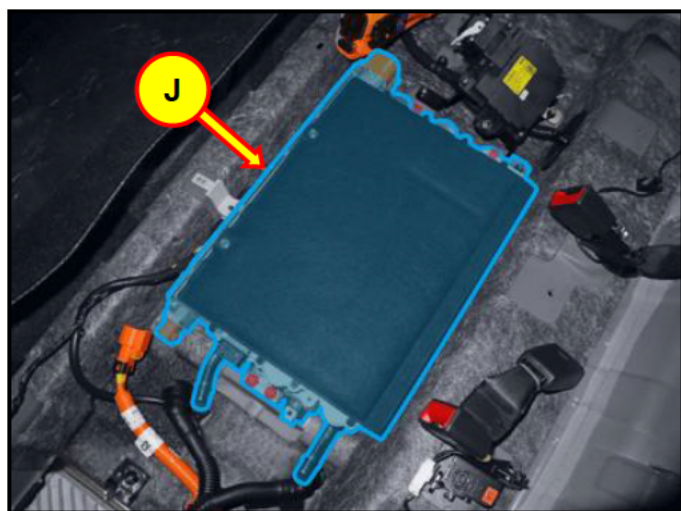
- Place an absorbent mat under the coolant tubes then disconnect the coolant quick connector (I).



- Remove the bolt, then remove the ICCU (J).

Torque Tightening:

lb-ft	19
N.m	25



- DIGITAL DOCUMENTATION

Using the STUI camera function, take a photo of the new ICCU.

Upload the photo to STUI.

NOTE: If the STUI camera function is **NOT** used, write the last 6 digits of the VIN and date of repair on a piece of paper to include in the photo.

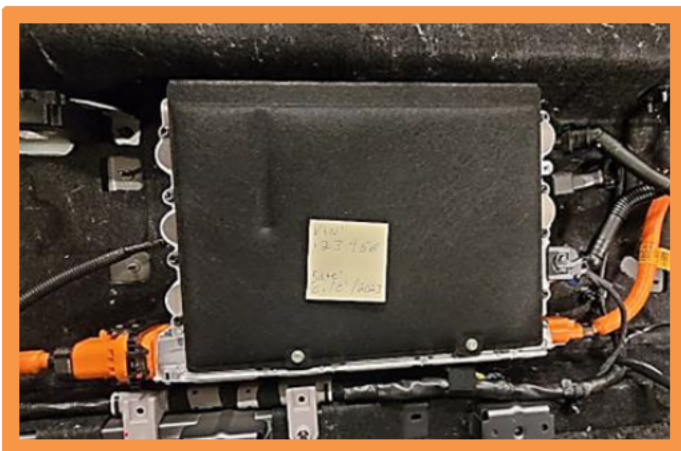
DIGITAL DOCUMENTATION



Using the STUI camera function, take a photo of the new ICCU.

Upload the photo to STUI.

NOTE: If the STUI camera function is **NOT** used, write the last 6 digits of the VIN and date of repair on a piece of paper to include in the photo.



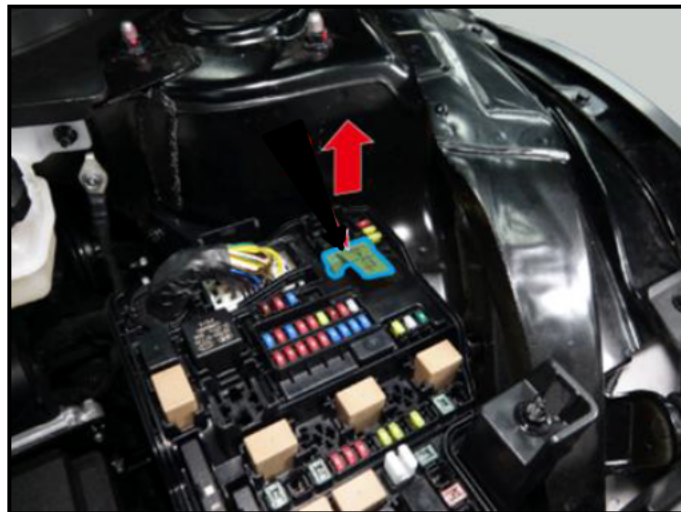
- Reinstall all parts in the reverse order of removal.

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& ICCU SOFTWARE UPDATE (RECALL 272)**

15. Refill the motor cooling system with coolant, then use the GDS to fully bleed out the air by referring to the shop manual:
 - **Cooling System > Motor Cooling System > Coolant > Coolant Refilling and Bleeding**

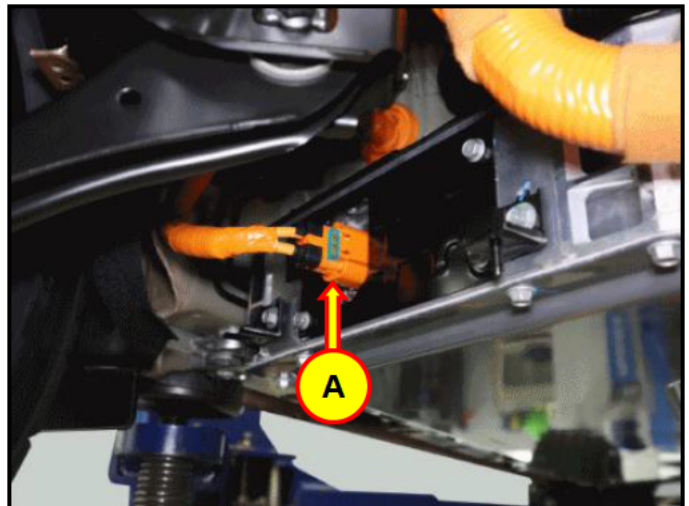
F. EV Battery ICCU Fuse Replacement (perform ONLY after ICCU is replaced)**NOTICE****ONLY PERFORM THIS SECTION AFTER REPLACING THE ICCU.**Do **NOT** install a fuse before installing the ICCU. DTC P1B77 EV Battery PRA damage will occur.

1. Shut **OFF** the high-voltage circuit (A) by referring to the shop manual:
 - **Battery Control System > High Voltage Shut-off Procedures**

CAUTIONWait for more than **5 minutes** so that the capacitor in the high voltage system will be fully discharged.

2. Remove the rear under cover by referring to the shop manual:
 - **Motor and Reduction Gear System > Rear Motor and Reduction Gear System > Rear Under Cover > Removal and Installation**

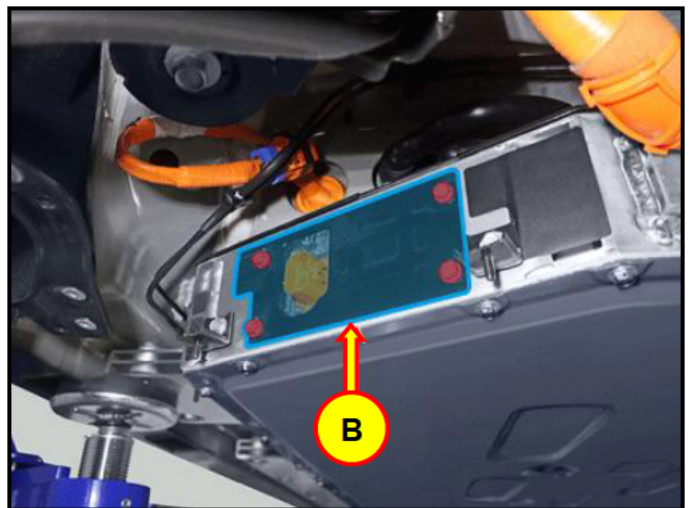
3. Disconnect the ICCU high-voltage connector (A).



4. Remove the ICCU high-voltage connector assembly cover (B).

Tightening Torque:

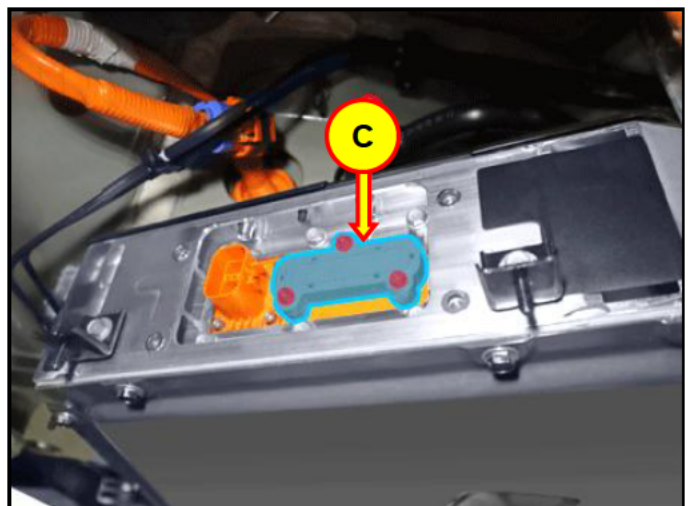
lb-ft	8
lb-in	96
N.m	10



5. Remove the ICCU fuse cover (C).

Tightening Torque:

lb-ft	3.7
lb-in	44
N.m	5



6. Remove the ICCU fuse (D).

NOTICE

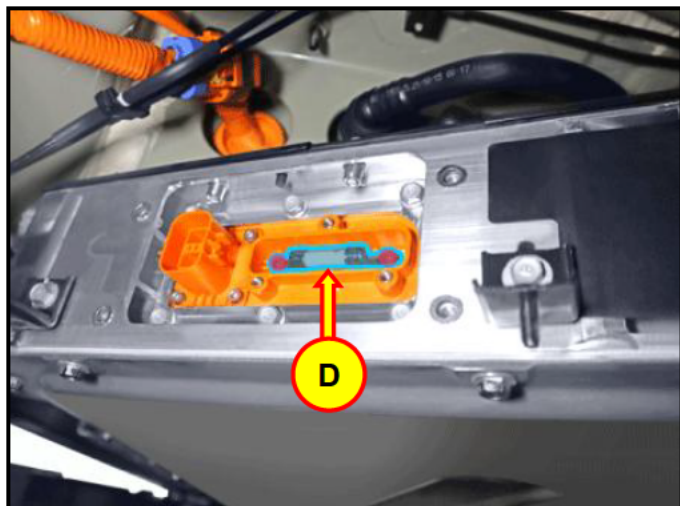
Removing the fuse may be difficult since the nuts holding the fuse holder may fall into the battery.

NOTICE

Avoid using a power driver to remove and install the bolts. **ONLY** use hand tools.

Removing the fuse may be difficult since the nuts holding the fuse holder may fall into the battery.

If this occurs, see below for **SPECIAL INSTRUCTIONS**.



7. Install the supplied replacement part for the ICCU fuse.
8. Reinstall all parts in the reverse order of the removal process.
9. The service procedure is now complete.

G. SPECIAL INSTRUCTIONS (perform ONLY if ICCU fuse rear nut(s) falls into the battery)

1. Remove the following parts:
 - 6 qty. 10mm bolts (green)
 - 4 qty. bolts by Allen wrench (red)
2. Push in bottom area. Pull out top area.
3. Reach in to grab the nut behind the plate on the bottom surface.
4. Hold the nut at the back side.
5. Install the fuse bolt at the location where the nut had fallen.
6. Reinstall all the other bolts in reverse order of removal.
7. Install the rest of the fuse bolts.

**Information**

Contact Techline if the above procedure did not resolve a dropped nut problem.

