



U.S. Department of Transportation  
**National Highway Traffic Safety  
Administration**

1200 New Jersey Avenue SE  
Washington, DC 20590

March 20, 2024

Ms. Stacey Morrow  
Hyundai Motor America  
10550 Talbert Ave  
Fountain Valley, CA 92708

NEF-107ES  
24V-204

**Subject:** Loss of Drive Power from Damaged Charging Unit

Dear Ms. Morrow:

This letter serves to acknowledge Hyundai Motor America's notification to the National Highway Traffic Safety Administration (NHTSA) of a safety recall which will be conducted pursuant to Federal law for the product(s) listed below. Please review the following information to ensure that it conforms to your records as this information is being made available to the public. If the information does not agree with your records, please contact us immediately to discuss your concerns.

**Makes/Models/Model Years:**

GENESIS/GV60/2023-2024  
GENESIS/GV70 EV/2023-2024  
GENESIS/GV80 EV/2023-2024  
HYUNDAI/IONIQ 5/2022-2024  
HYUNDAI/IONIQ 6/2023-2024

**Mfr's Report Date:** March 15, 2024

**NHTSA Campaign Number:** 24V-204

**Components:**

ELECTRICAL SYSTEM:12V/24V/48V BATTERY

**Potential Number of Units Affected:** 98,878

**Problem Description:**

Hyundai Motor America (Hyundai) is recalling certain 2022-2024 IONIQ 5, 2023-2024 IONIQ 6, Genesis GV60, Genesis GV70 "Electrified," and Genesis GV80 "Electrified" vehicles. The Integrated Charging Control Unit (ICCU) may become damaged and stop charging the 12-Volt battery, which can result in a loss of drive power.

**Consequence:**

A loss of drive power increases the risk of a crash.

**Remedy:**

Dealers will inspect and replace the ICCU and its fuse, as necessary. In addition, dealers will update the ICCU software. All repairs will be performed free of charge. Owner notification letters are expected to be mailed May 14, 2024. Owners may contact Hyundai customer service at 1-855-371-9460. Hyundai's number for this recall is 257/021G.

**Notes:**

Owners may also contact the National Highway Traffic Safety Administration Vehicle Safety Hotline at 1-888-327-4236 (TTY 1-800-424-9153), or go to [www.nhtsa.gov](http://www.nhtsa.gov).



Please be reminded of the following requirements:

You are required to submit a draft owner notification letter to this office no less than five days prior to mailing it to the customers. Also, copies of all notices, bulletins, dealer notifications, and other communications that relate to this recall, including a copy of the final owner notification letter and any subsequent owner follow-up notification letter(s), are required to be submitted to this office no later than 5 days after they are originally sent (if they are sent to more than one manufacturer, distributor, dealer, or purchaser/owner).

Please be reminded that under 49 U.S.C. § 30112(a)(3), it is illegal for a manufacturer, to sell, offer for sale, import, or introduce or deliver into interstate commerce, a motor vehicle or item of motor vehicle equipment that contains a safety defect once the manufacturer has notified NHTSA about that safety defect. This prohibition does not apply once the motor vehicle or motor vehicle equipment has been remedied according to the manufacturer's instructions.

As stated in 49 U.S.C. § 30118(f), submission of eight consecutive quarterly reports followed by three annual reports is required. As described in 573.7, submission of the first of eight consecutive quarterly status reports is required within one month after the close of the calendar quarter in which notification to purchasers occurs. Therefore, the first quarterly report will be due on, or before, 30 days after the close of the calendar quarter. The first of three consecutive annual status reports will be due on, or before, 1 year after the eighth quarterly report was submitted.

Hyundai Motor America's contact for this recall will be Emily C. Smith who may be reached by email at [emily.c.smith@dot.gov](mailto:emily.c.smith@dot.gov). We look forward to working with you.

Sincerely,



Alex Ansley  
Chief, Recall Management Division  
Office of Defects Investigation  
Enforcement



# Technical Service Bulletin

GROUP	NUMBER
RECALL	24-01-023H
DATE	MODEL(S)
MARCH 2024	IONIQ 5 (NE1) IONIQ 6 (CE1) IONIQ 5 (NER) ROBOTAXI

**SUBJECT:** DTC P1A9096 CHECK FOR ICCU & FUSE REPLACEMENT & ICCU SOFTWARE UPDATE (RECALL 257)

## ★ 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 2022-2024MY IONIQ 5 (NE1) & 2023-2024MY IONIQ 6 (CE1) & IONIQ 5 RoboTaxi (NER) vehicles may have a condition where low 12V auxiliary battery charging occurs due to an ICCU (Intelligent Charging Control Unit) fault and may set the following DTC P1A9096 – “DC/DC Converter Input Voltage Sensor Fault”.

When a fault occurs, the vehicle may enter a reduced power mode while various warning lights, an audible chime will sound, and large messaging in the vehicle’s instrument cluster will appear and instruct the driver to stop the vehicle.

The Service Procedure flow to be followed is outlined by the flowchart on Page-3. The ICCU system is to be checked by GDS for DTC P1A9096 and depending on the result, will involve either an ICCU software update, or ICCU and potential fuse replacement. Only replace the fuse after it is inspected to confirm to be blown/open.

### Applicable Vehicles (Certain):

- 2022-2024MY IONIQ 5 (NE1)
- 2023-2024MY IONIQ 6 (CE1)
- IONIQ 5 ROBOTAXI (NER)

## NOTICE

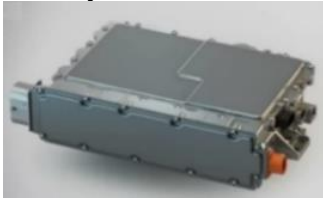
To avoid any potential damage to IONIQ vehicles, this recall can only be performed at IONIQ certified dealers. certified Genesis retailers.

### GDS Information:

System	Event #	Description
ICCU	1093*	NE1 ICCU SOFTWARE UPDATE, AND ICCU AND FUSE REPLACEMENT (Secondary)
ICCU	1094*	CE1 ICCU SOFTWARE UPDATE, AND ICCU AND FUSE REPLACEMENT (Secondary)
ICCU	1095*	NER ICCU SOFTWARE UPDATE, AND ICCU AND FUSE REPLACEMENT (Secondary)

(\*or use a later available event as listed in the GDS for ECM Update screen if one is available.)

### Parts Information:

Part Name	Model	Part Number	Remark
Integrated Charge Control Unit (ICCU)	IONIQ 5 (NE1) 22-24MY	36400-1XAA0QQH	As needed only if DTC P1A9096 stored: 
	IONIQ 6 (CE1) 23-24MY	36400-1XEA0QQH	
	IONIQ 5 ROBOTAXI (NER)	36400-1XMA0QQH	
Fuse**	Both	375F2-GI040QQH	Order High Voltage Fuse in Conjunction with the ICCU
<b>**CAUTION: Do not install fuse before ICCU replacement.</b> DTC P1B77 Battery PRA damage will occur.			
Coolant	Both	00232-19098	Pink coolant. Up to 1 Gallon.

### Warranty Information:

MODEL	OP CODE	OP NAME	CAUSAL PART	OP TIME	NATURE	CAUSE
IONIQ 5 (NE1) & IONIQ 6 (CE1) & IONIQ 5 RoboTaxi (NER)	41D043R0	DTC CHECK AND ICCU SOFTWARE UPDATE	36400-1XAA0QQH (IONIQ 5)	0.4 M/H	W11	ZZ3
	41D043R1	DTC CHECK, ICCU REPLACE AND FUSE INSPECTION	36400-1XEA0QQH (IONIQ 6)	2.1 M/H		
	41D043R2	DTC CHECK, ICCU REPLACE AND FUSE INSPECTION AND ICCU SOFTWARE UPDATE	364600-1XMA0QQH (IONIQ 5 ROBOTAXI) (NER)	2.4 M/H		

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

**NOTE 2:** If a part is found in need of replacement while performing this recall and the affected part is still under warranty, submit a separate claim using the same repair order. If the affected part is out of warranty, submit a Prior Approval request for goodwill consideration prior to performing the work.

**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.

**Service Procedure:**

**STUI**

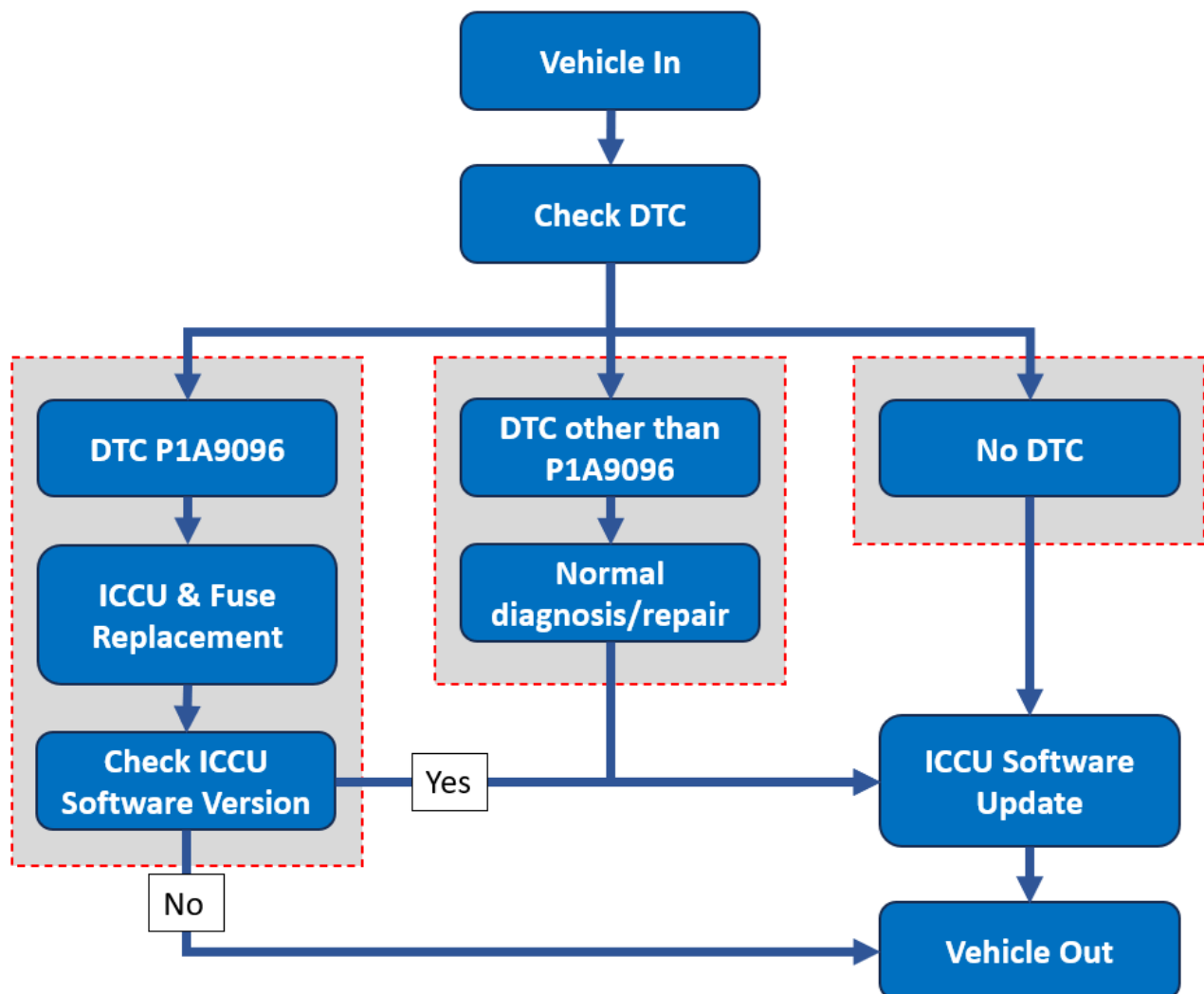


This TSB includes Repair validation photos. Refer to the latest Warranty Digital Documentation Policy for requirements.

**Table Of Contents:**

Section	Pages	Description
A	4	DTC CHECK
B	5-7	ICCU SOFTWARE UPDATE
C	8-11	ICCU REPLACEMENT FOR THE IONIQ 5 (NE1) & IONIQ 5 ROBOTAXI (NER)
D	11-15	ICCU REPLACEMENT FOR THE IONIQ 6 (CE1)
E	16-18	EV BATTERY ICCU FUSE INSPECTION

**Service Procedure Flow:**



**A. DTC CHECK**

- A1. Perform All Fault Search by GDS.
- A2. Check the ICCU system for DTC P1A9096 either found as an active or history DTC?
- **No – (DTC P1A9096 is not found stored):**
    - **Perform ICCU Software Update – see section B. (Campaign Claim 0.4 M/H)**
    - NOTE: If any other DTC or symptom is found stored, diagnose and repair per shop manual before performing the ICCU Update. **(Warranty Claim)**
  - **Yes – (DTC P1A9096 is found stored):**
    - **Replace ICCU:**
      - IONIQ 5 (NE1) 2022-2024MY– see section C
      - IONIQ 5 ROBOTAXI (NER) – see section C (Contact Techline for Info)
      - IONIQ 6 (CE1) 2023-2024MY– see section D
    - **Replace the Fuse – see section E.**  
**(Notice: Replace the High Voltage Fuse in conjunction with the ICCU. Failure to do so may result in PRA damage.)**  
**(Campaign Claim 2.1 M/H)**

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

**CAUTION**

It is critical when performing repairs to ensure the ICCU and High Voltage Fuse are replaced simultaneously. Damage to the PRA can occur if the High Voltage Fuse is replaced and the vehicle is placed in "Ready Mode" without the replacement ICCU part.

**B. ICCU SOFTWARE UPDATE****NOTICE**

- Remember the current ROM ID before upgrade just in case manual ECU upgrade would be performed.
- To verify the vehicle is affected, be sure to check the version of the vehicle's control unit ROM ID with reference to the ROM ID Information Table mentioned below before attempting to upgrade the control unit software.
- After upgrade, remove power connector of indoor fuse box, and reconnect it after 5 seconds. Alternatively remove the battery negative terminal and reconnect it 5 seconds later. Afterwards, search DTC and clear them.

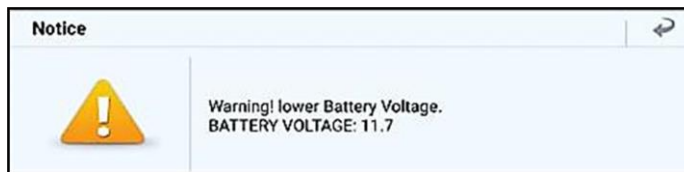
**NOTICE**

**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****GDS Vehicle Battery Low Voltage Warning:**

The ICCU Update is a long ECU Update. If voltage is below 12 volts as per the below GDS warning, then select **Back** and connect a battery charger to ensure an adequate battery state of charge for reliable update results. Turn ignition back on, and then retry the ECU update again.



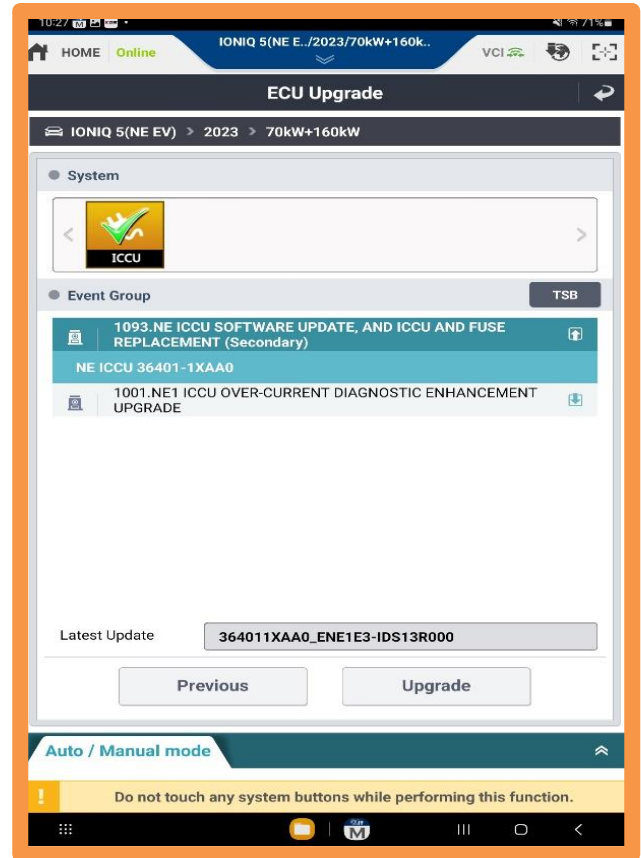
**B1. Perform the ICCU Update in Auto Mode.**

Use the Auto Mode ID Check to verify the ICCU ROM ID before updating the software.



**Information**

Refer to TSB 15-GI-001 for additional tablet-based Mobile GDS ECU update information.



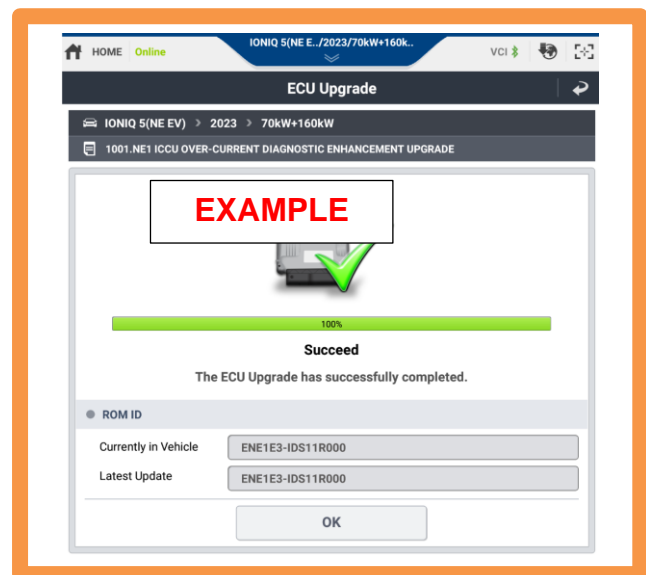
**B2. After the ECU Upgrade process shows 100% complete, cycle the ignition key to OFF for at least 10 seconds to reset the control unit.**

**B3.**

**STUI**



Take a screenshot of the ECU Update Complete screen using your particular tablet's screenshot save method and upload to STUI.



**B4. Perform "Fault Code Search" for all systems/modules and clear any DTCs that may have resulted from the software upgrade.**

**B5. Start the vehicle in Ready Mode to confirm proper operation of the vehicle.**



## ROM ID Information table:

VEHICLE	SYSTEM	ICCU P/No.	ROM ID	
			OLD	NEW
Ioniq 5 (NE1 EV) 22-24MY	ICCU	36401-1XAA0	ENE1E1-IDS02R000 ENE1E1-IDS51R000 ENE1E1-IDS03R000 ENE1E1-IDS05R000 ENE1E1-IDS07R000 ENE1E1-IDS08R000 ENE1E1-IDS09R000 ENE1E3-IDS10R000 ENE1E3-IDS11R000	ENE1E3-IDS13R000
Ioniq 6 (CE1 EV) 23-24MY	ICCU	36401-1XEA0	ECE1E3-IDS02R000 ECE1E3-IDS03R000	ECE1E3-IDS06R000
Ioniq 5 RoboTaxi (NER)	ICCU	36401-1XMA0	ENE1E3RIDS01R000 ENE1E3RIDS02R000	ENE1E3RIDS04R000

## Manual Mode Password Information:

## ICCU Event 1093:

MENU	PASSWORD
NE1 EV ICCU 36401-1XAA0	1313

## ICCU Event 1094:

MENU	PASSWORD
CE1 ICCU 36401-1XEA0	1314

## ICCU Event 1095:

MENU	PASSWORD
NER ICCU 36401-1XMA0	7788

## C. ICCU REPLACEMENT FOR THE IONIQ 5 (NE1) & IONIQ 5 ROBOTAXI (NER)

### ⚠ WARNING

- Be sure to read and follow the "Safety and Precautions" before doing any work related with the high voltage system. Failure to follow the safety instructions may result in serious electrical injuries.
- Be sure to read and follow the "High Voltage Shut-off Procedures" before doing any work related with the high voltage system. Failure to follow the safety instructions may result in serious electrical injuries
- While working on and around the HV components, follow the relevant regulations and guidelines in your country/region.

- C1. Shut off the high voltage circuit and wait 5 minutes for capacitors to discharge.

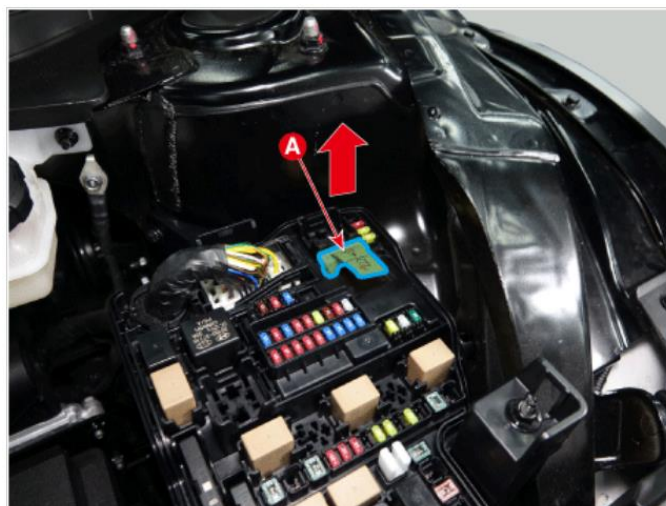
### CAUTION

Wait for more than 5 minutes so that the capacitor in the high voltage system will be fully discharged.  
Battery Control System > High Voltage Shut-off Procedures

- C2. Drain the motor coolant.

### *i* Information

Refer to the shop manual:  
Cooling System > Motor Cooling System > Coolant



- C3. Remove the rear seat assembly.

### *i* Information

Refer to the shop manual:  
Body (Interior and Exterior) > Rear Seat > Rear Seat Assembly

- C4. Remove the luggage side trim.

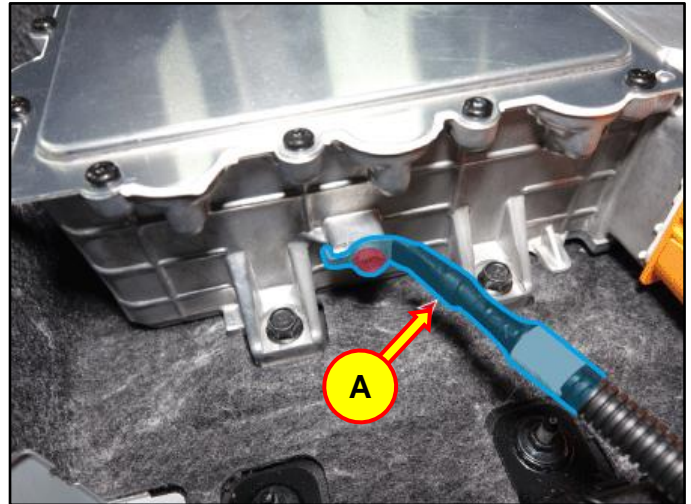
### *i* Information

Refer to the shop manual:  
Body (Interior and Exterior) > Trunk Trim > Luggage Side Trim

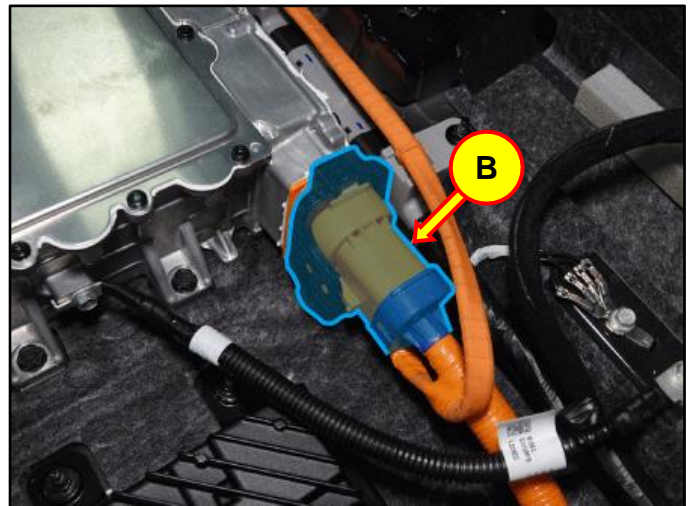
- C5. Remove the ground (A) after removing the mounting bolt.

**Tightening Torque:**

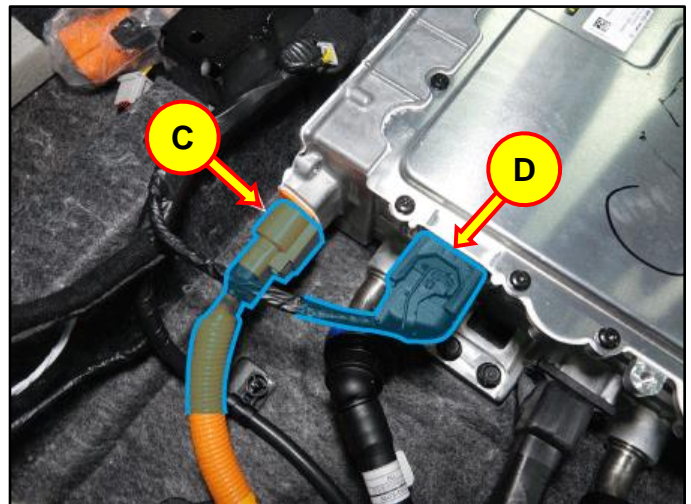
lb-ft	7
lb-in	84
N.m	9



- C6. Disconnect the ICCU AC connector (B).



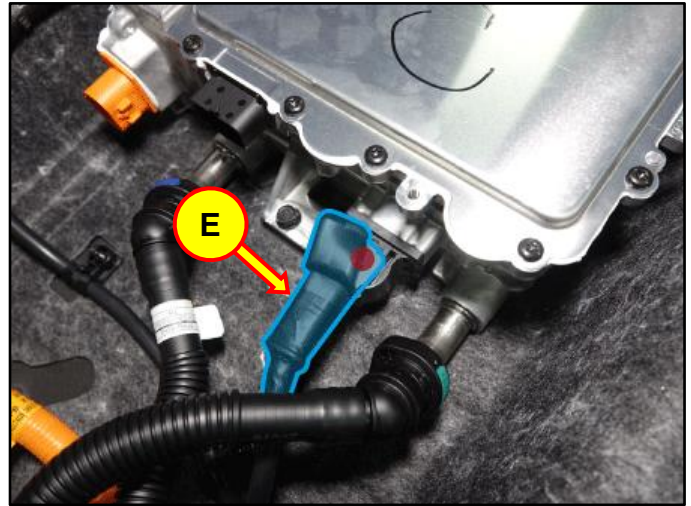
- C7. Disconnect the ICCU DC connector (C) and ICCU signal connector (D).



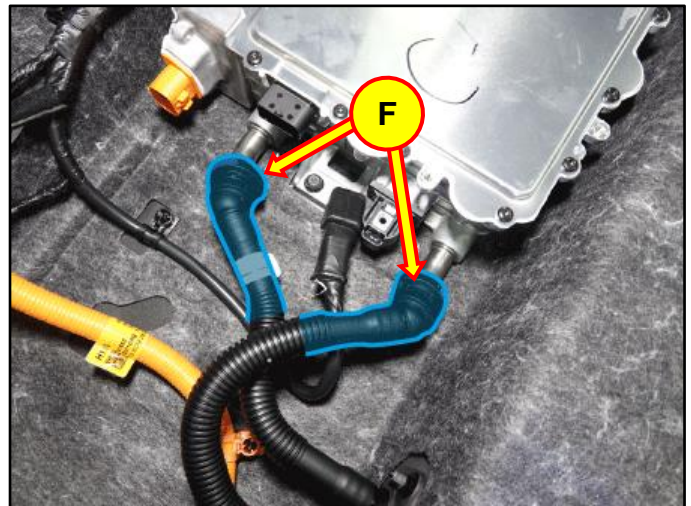
C8. After loosening the mounting bolts, remove the LDC plus (E).

**Tightening Torque:**

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



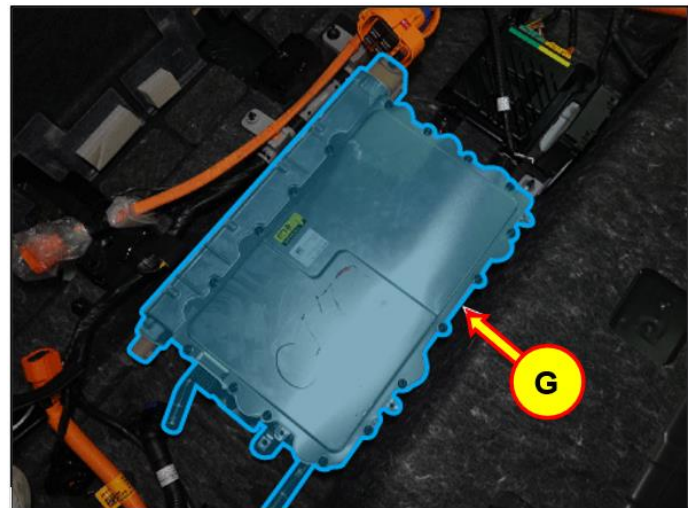
C9. Place absorbent mat under coolant tube connectors and disconnect the coolant tube quick connectors (F).



C10. After removing the mounting bolts, remove the ICCU (G).

**Torque Tightening:**

lb-ft	19
N.m	25



C11. Install the replacement part and take STUI photo for upload once installed.

Install in the reverse order of the removal.

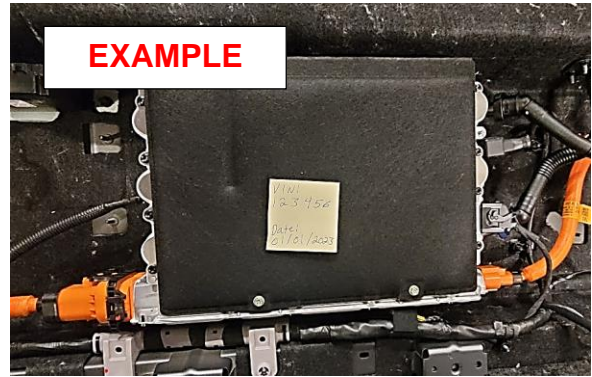
Refill the motor cooling system with coolant and then fully bleed out air using the GDS diagnostic tool.

**STUI**



Using STUI, take a photo of the new ICCU with the last 6 digits of the VIN and the date of repair on a piece of paper. Upload the photo to STUI.

**EXAMPLE**



**⚠ WARNING**

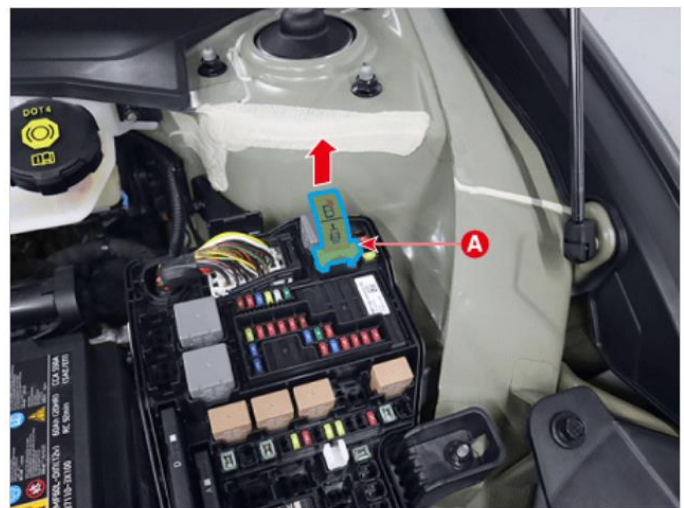
- Be sure to read and follow the "Safety and Precautions" before doing any work related with the high voltage system. Failure to follow the safety instructions may result in serious electrical injuries.
- Be sure to read and follow the "High Voltage Shut-off Procedures" before doing any work related with the high voltage system. Failure to follow the safety instructions may result in serious electrical injuries
- While working on and around the HV components, follow the relevant regulations and guidelines in your country/region.

**D. ICCU REPLACEMENT FOR THE IONIQ 6 (CE1)**

D1. Shut off the high voltage circuit.

**i Information**

Refer to the shop manual:  
Battery Control System > High Voltage Shut-off Procedures



Drain the motor coolant.

**i Information**

Refer to the shop manual:  
Cooling System > Motor Cooling System > Coolant

Remove the rear seat cushion cover assembly.

**i Information**

Refer to the shop manual:

Body (Interior / Exterior / Electrical) >  
Rear Seat > Rear Seat Cushion Cover  
Assembly

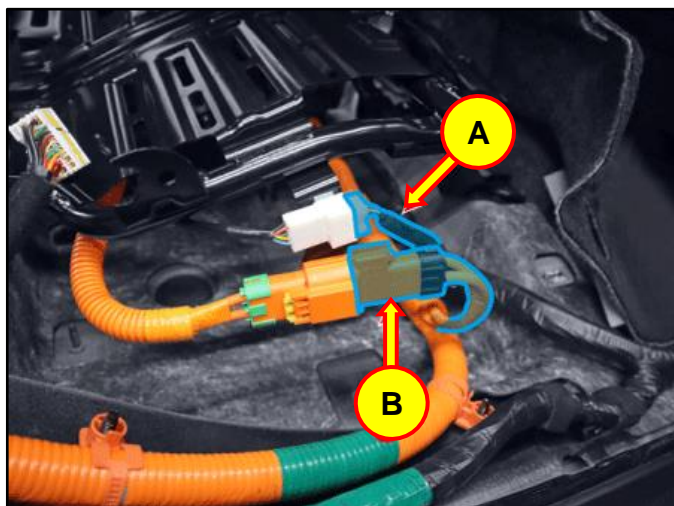
Remove the rear wheel house trim.

**i Information**

Refer to the shop manual:

Body (Interior / Exterior / Electrical) >  
Interior Trim > Rear Wheel House Trim

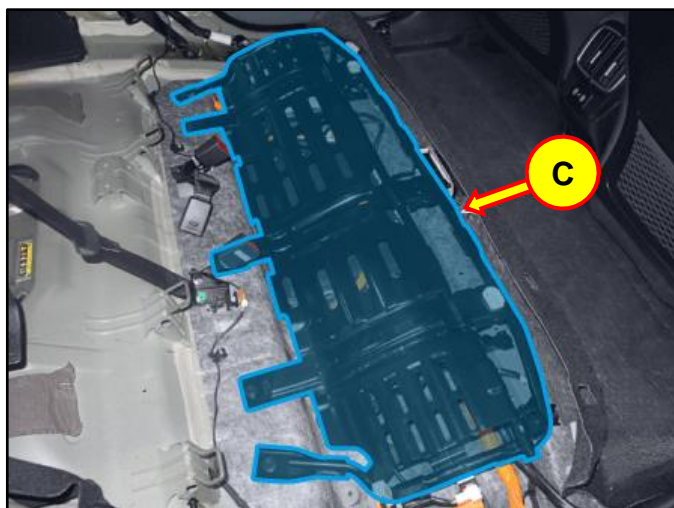
Disconnect the V2L signal connector (A).and  
V2L extension connector (B).



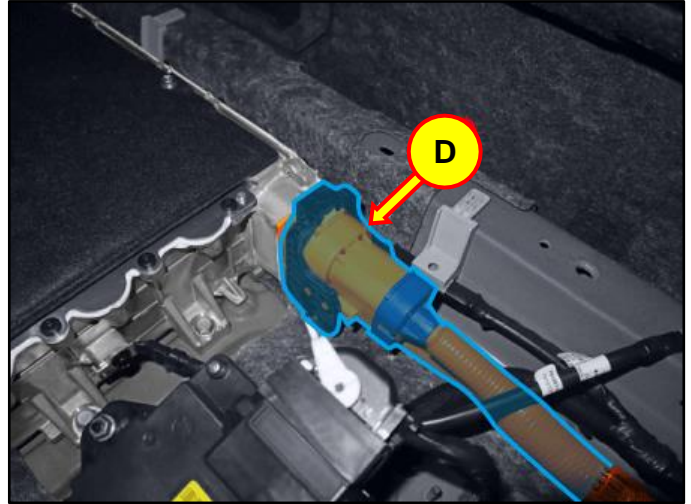
D2. After removing the bolts and nuts, remove the  
upper frame (C).

**Torque Tightening:**

lb-ft	19
N.m	25



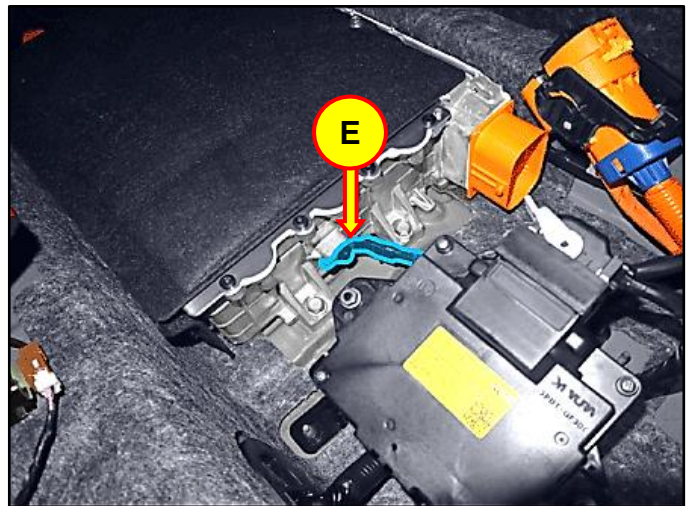
D3. Disconnect the ICCU AC connector (D).



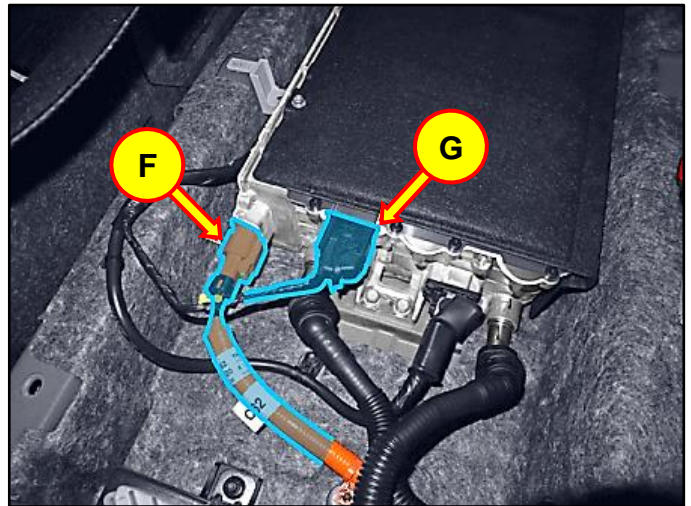
D4. After removing the bolt, Remove the LDC ground (E).

**Torque Tightening:**

lb-ft	10
N.m	13



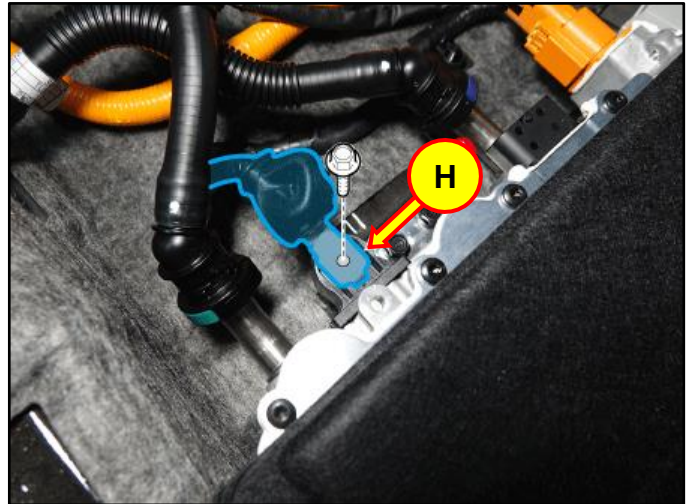
D5. Disconnect the ICCU DC connector (F) and ICCU signal connector (G).



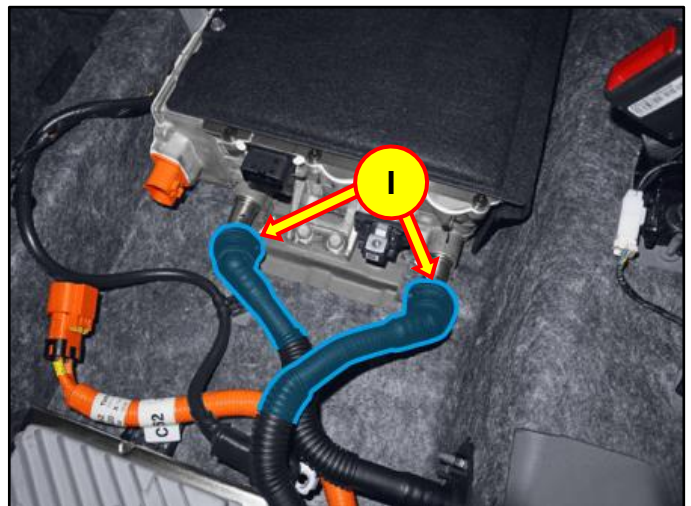
D6. After removing the bolt, remove the LDC (+) (H).

**Tightening Torque:**

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



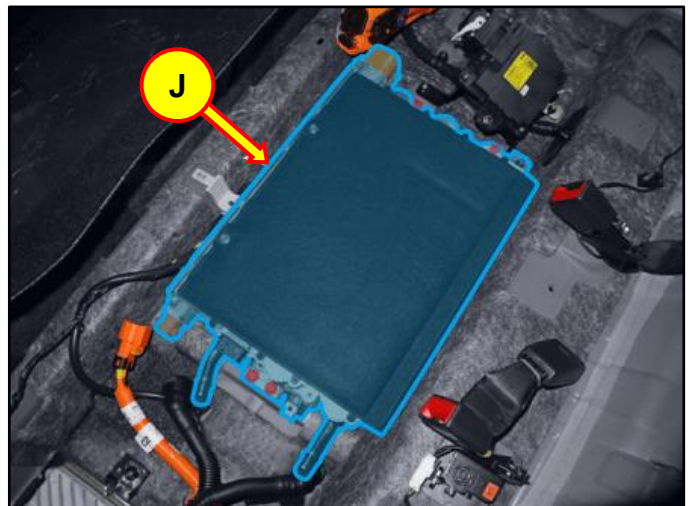
D7. Place absorbent mat under the coolant tubes then disconnect the coolant quick connector (I).



D8. After removing the bolt, remove the ICCU (J).

**Torque Tightening:**

lb-ft	19
N.m	25





- D9. Install the replacement part and take STUI photo for upload once installed.

Install in the reverse order of the removal.

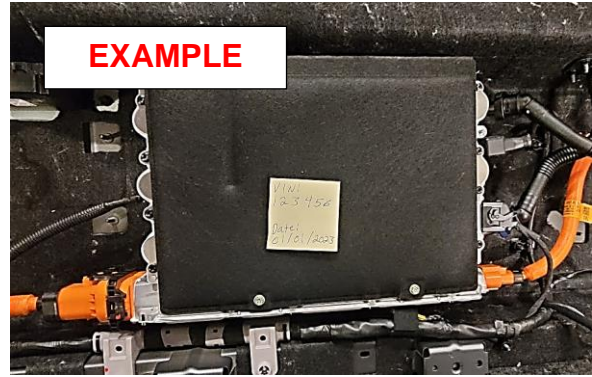
Refill the motor cooling system with coolant and then fully bleed out air using the GDS diagnostic tool.

**STUI**



Using STUI, take a photo of the new ICCU with the last 6 digits of the VIN and the date of repair on a piece of paper. Upload the photo to STUI.

**EXAMPLE**



**WARNING**

- Be sure to read and follow the "Safety and Precautions" before doing any work related with the high voltage system. Failure to follow the safety instructions may result in serious electrical injuries.
- Be sure to read and follow the "High Voltage Shut-off Procedures" before doing any work related with the high voltage system. Failure to follow the safety instructions may result in serious electrical injuries
- While working on and around the HV components, follow the relevant regulations and guidelines in your country/region.

**E. EV BATTERY ICCU FUSE INSPECTION (Only applies after ICCU was replaced)**

**CAUTION**

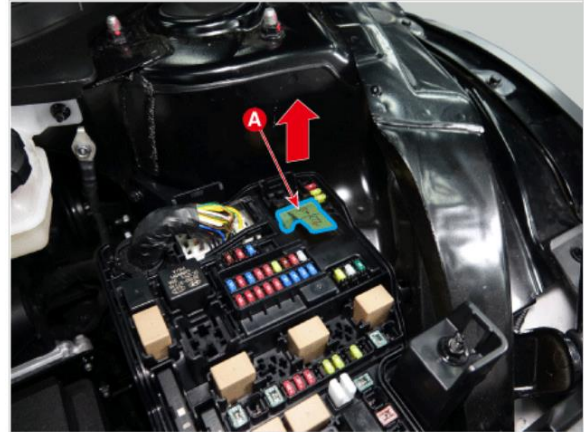
**ONLY PERFORM THIS SECTION AFTER REPLACING THE ICCU.**

**Do not install fuse before the ICCU.** DTC P1B77 EV Battery PRA damage will occur.

E1. Shut off the high voltage circuit and wait 5 minutes for capacitors to discharge.

**i Information**

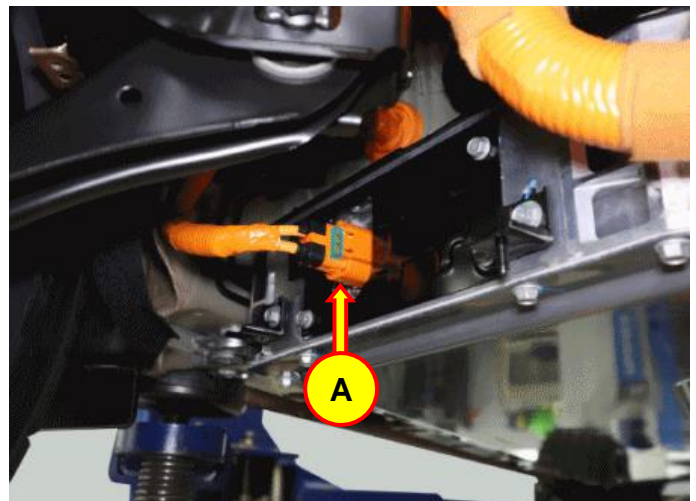
Refer to the shop manual:  
 Battery Control System > High Voltage Shut-off Procedures



E2. Remove the rear under cover.

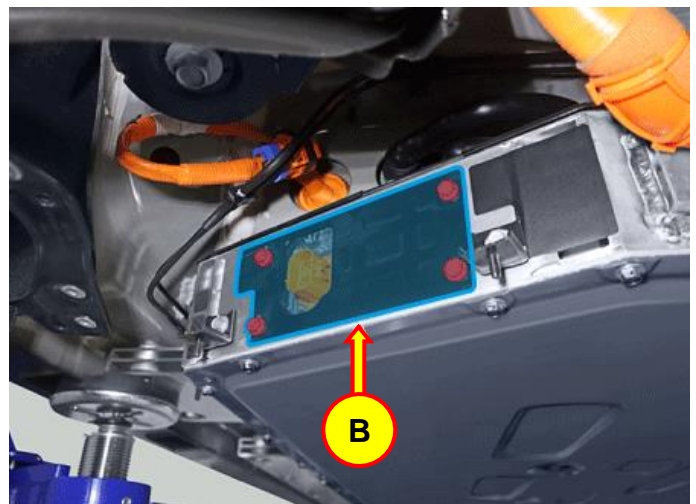
**i Information**

Refer to the shop manual:  
 Motor and Reduction Gear System > Rear Motor and Reduction Gear System > Rear Under Cover



E3. Disconnect the ICCU high voltage connector (A).

E4. Remove the ICCU high voltage connector assembly cover (B).



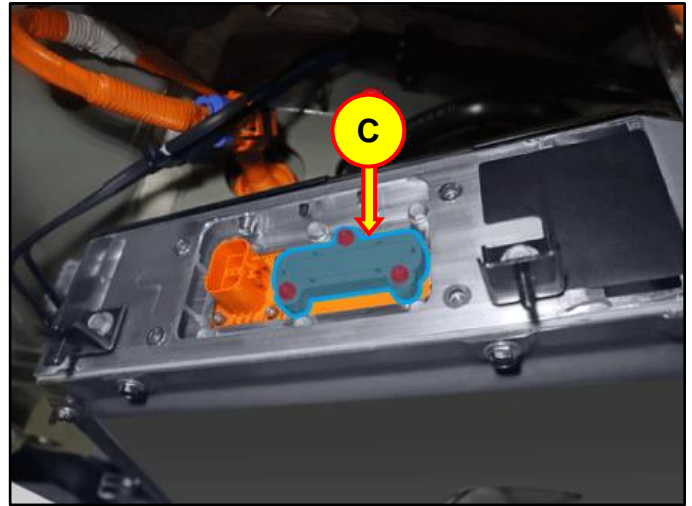
**Tightening Torque:**

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

E5. Remove the ICCU fuse cover (C).

**Tightening Torque:**

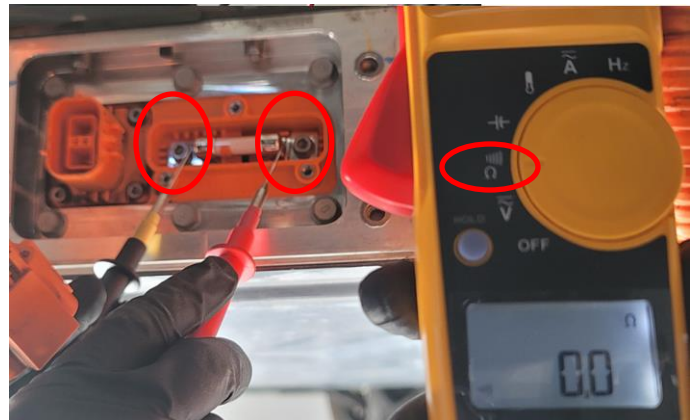
lb-ft	3.7
lb-in	44.4
N.m	5.0



E6. Using a commonly available multimeter. Set at the ohmmeter measuring mode and inspect the fuse condition by checking the fuse's resistance value:

- **Fuse is Good:** Less than 1.0 ohm.

**DO NOT REPLACE THE FUSE.  
Do not follow the remaining steps to  
replace the fuse.**



- **Fuse is Bad (Blown/Open):**  
Resistance greater than 1.0 ohm or OL.

**CAUTION**

**ONLY REPLACE THE FUSE IF  
FOUND TO BE BAD  
(BLOWN/OPEN).**

It can be difficult or with complication removing the Fuse, which may include the nuts holding the fuse holder falling back into the battery.



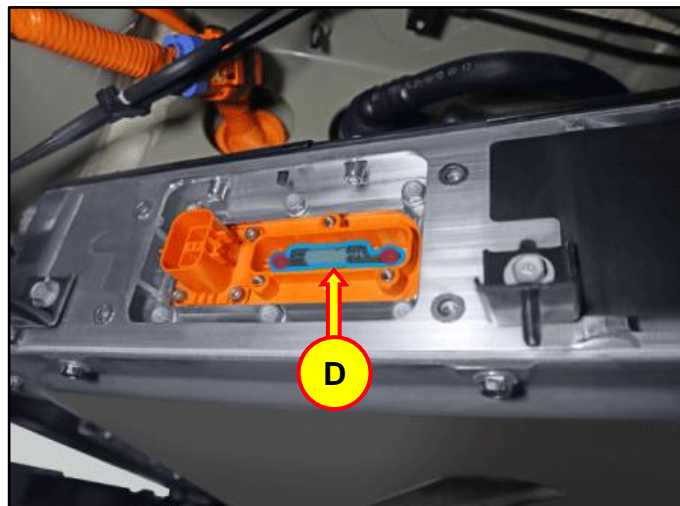
E7. Remove the ICCU fuse (D).

**▲ CAUTION**

Avoid using power driver to remove and install the bolts. Use a hand tool only.

There can be difficulty removing the fuse, which may include the nuts of the at the back of the fuse holder falling back into the battery.

See the below special instruction should this occur.



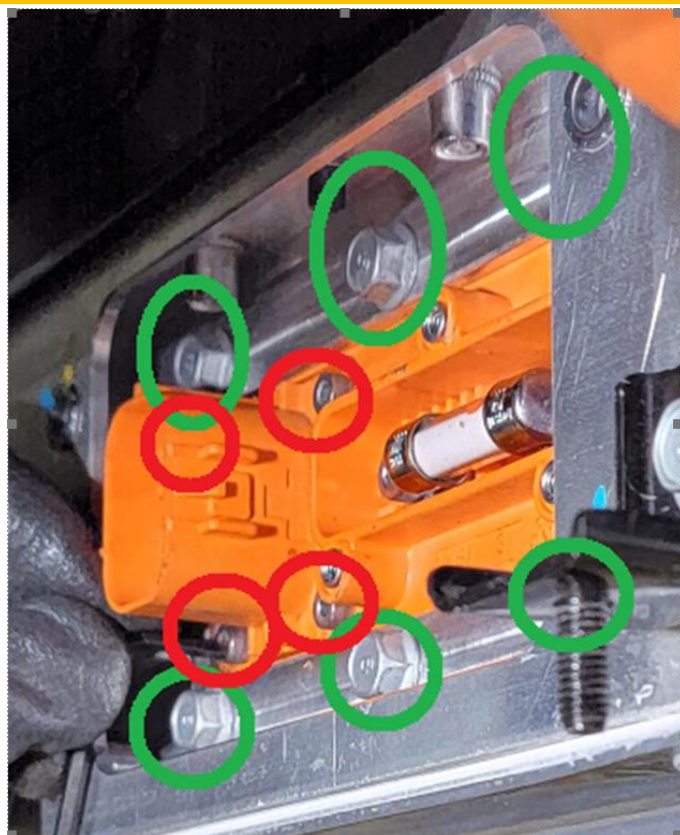
E8. Install the supplied replacement part ICCU Fuse.


Install back in the reverse order of removal.

**SPECIAL INSTRUCTION: Only applies when ICCU Fuse rear nut(s) falls back into the battery.**

1. Remove:
  - 6 qty. 10mm bolts (Green marked),
  - 4 qty. bolts by Allen wrench (Red marked).
2. Push in bottom area. Pull out top area.
3. Reach in and 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 place that the nut had dropped.
6. Install all the other bolts in reverse order of removal.
7. Install the rest of the fuse bolts.

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



 <p><b>Technical Service Bulletin</b></p>	<b>GROUP</b> <b>RECALL</b>	<b>NUMBER</b> <b>24-01-023G</b>
	<b>DATE</b> <b>MARCH 2024</b>	<b>MODEL(S)</b> <b>GV60 (JW1 EV)</b> <b>GV70 ELECTRIFIED (JK1a EV)</b> <b>G80 ELECTRIFIED (RG3 EV)</b>
<b>SUBJECT:</b> DTC P1A9096 CHECK FOR ICCU & FUSE REPLACEMENT & ICCU SOFTWARE UPDATE (RECALL 021G)		

**\* IMPORTANT**

Retailer must perform this Recall 021G on all affected vehicles prior to customer retail delivery and whenever an affected vehicle is in the shop for any maintenance or repair.

Access the "Vehicle Information" screen via WebDCS to identify open campaigns.

**Description:** Certain 2023-2024MY GV60 (JW1 EV), 2023-2024MY GV70 Electrified (JK1a EV), and 2023-2024MY G80 Electrified (RG3 EV) vehicles may have a condition where low 12V auxiliary battery charging occurs due to an ICCU (Integrated Charge Control Unit) fault and may set the following DTC P1A9096 – "DC/DC Converter Input Voltage Sensor Fault".

When a fault occurs, the vehicle may enter a reduced power mode while various warning lights, an audible chime will sound, and large messaging in the vehicle's instrument cluster will appear and instruct the driver to stop the vehicle.

The Service Procedure flow to be followed is outlined by the flowchart on Page-5. The ICCU system is to be checked via GDS for DTC P1A9096 and depending on the result, will involve either an ICCU software update, or ICCU and High Voltage Fuse replacement.

**Applicable Vehicles (Certain):**

- 2023-2024MY GV60 (JW1 EV)
- 2023-2024MY GV70 Electrified (JK1a EV)
- 2023-2024MY G80 Electrified (RG3 EV)

**NOTICE**


To avoid potential damage to Genesis EVs, Genesis EV repairs can only be performed by EV certified Genesis retailers.

**GDS Information:**

System	Event #	Description
ICCU	1096	JW ICCU SOFTWARE UPDATE, AND ICCU AND FUSE REPLACEMENT (Secondary)
	1097	JK EV ICCU SOFTWARE UPDATE, AND ICCU AND FUSE REPLACEMENT (Secondary)
	1098	RG3 EV ICCU SOFTWARE UPDATE, AND ICCU AND FUSE REPLACEMENT (Secondary)

(\*or use a later available event as listed in the GDS for ECM Update screen if one is available.)

**Parts Information:**

Part Name	Model	Part Number	Remarks
Integrated Charge Control Unit (ICCU)*	GV60 (JW1 EV) 2023MY	36400-1XCA0QQH	
	GV60 (JWI EV) 2024MY	36400-1XCA1QQH	
	GV70 ELECTRIFIED (JK1a EV)	36401-1XDA0QQH	
	G80 ELECTRIFIED (RG3 EV)	36401-1XBA0QQH	
High Voltage Fuse*	GV60 (JW1 EV)	375F2-GI040QQH	Order High Voltage Fuse in Conjunction with the ICCU
	GV70 ELECTRIFIED, G80 ELECTRIFIED (JK1a, RG3) EV	18790-00728QQH	
Pink Coolant	All	00232-19098	QTY. 1

\*As needed, only if DTC is stored.

**NOTICE**

**Do not install 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.

**Warranty Information:**

Model	Op. Code	Operation	Op. Time	Causal Part	Nature Code	Cause Code
ALL	41D044R0	DTC Check and ICCU Software Update	0.4 M/H	36400-1XCA0QQH (GV60) 36401-1XBA0QQH (GV70 EV, G80 EV)	W11	ZZ3
GV60 (JW1 EV)	41D044R1	DTC Check, and ICCU and Fuse Replacement	2.1 M/H	36400-1XCA0QQH		
	41D044R2	DTC Check, and ICCU and Fuse Replacement and software update	2.4 M/H	36400-1XCA0QQH		
GV70, GV80 Electrified (JK1a EV, RG3 EV)	41D044R3	DTC Check, and ICCU and Fuse Replacement	3.3 M/H	36401-1XDA0QQH		
	41D044R4	DTC Check, and ICCU and Fuse Replacement and software update	3.6M/H	36401-1XBA0QQH		

**NOTE 1:** Submit claim on Claim Entry Screen as “Campaign” type.

**NOTE 2:** If a part is found in need of replacement while performing this recall and the affected part is still under warranty, submit a separate claim using the same repair order. If the affected part is out of warranty, submit a Prior Approval request for goodwill consideration prior to performing the work.

**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.**

**Service Procedure:**

**STUI**

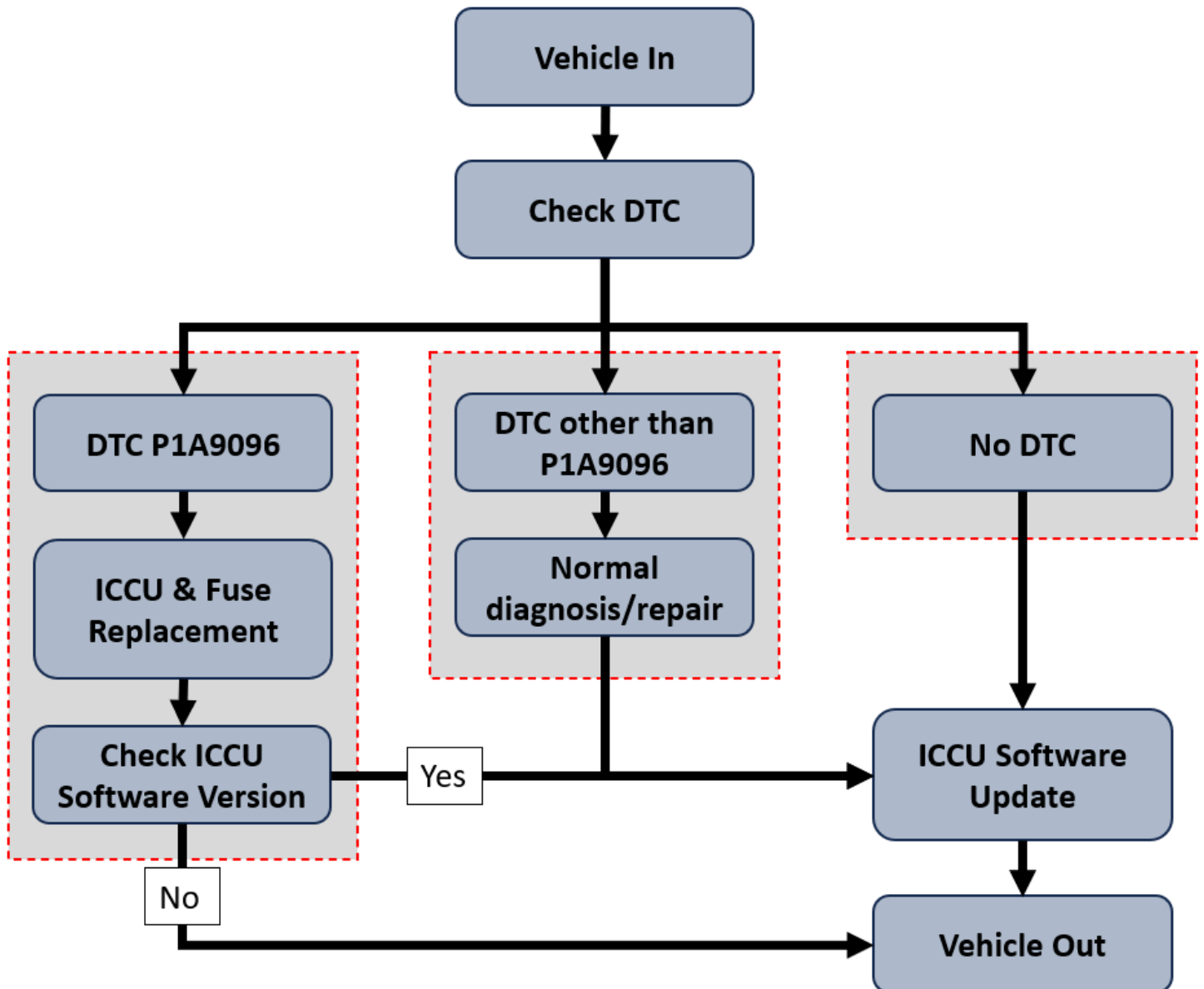


This TSB includes Repair validation photos. Refer to the latest Warranty Digital Documentation Policy for requirements.

**Table of Contents:**

Section	Pages	Description
<b>A</b>	7	<a href="#">DTC Check</a>
<b>B</b>	7 - 11	<a href="#">ICCU Software Update</a>
<b>C</b>	11 - 19	<a href="#">ICCU Replacement for GV60 (JW1 EV)</a>
<b>D</b>	20 - 21	<a href="#">ICCU Replacement for GV70 Electrified (JK1a EV) and G80 Electrified (RG3 EV)</a>





1. Turn ignition switch on and check for DTC's using the GDS.

- 1) No DTC Found. Proceed with ICCU software upgrade for the applicable model following TSB.
- 2) DTC P1A9096 Confirmed. Follow the outline procedure in TSB to replace the ICCU & High Voltage Fuse. Complete ICCU software upgrade if applicable for replacement ICCU.

**i** Information

Some replacement ICCU modules have been updated with improved logic prior to Dealer delivery. The ICCU software update may, or may not, apply upon replacement. Dealer must confirm the status of the replacement ICCU after installation.

**CAUTION**

It is critical when performing repairs to ensure the ICCU and High Voltage Fuse are replaced simultaneously. Damage to the PRA can occur if the High Voltage Fuse is replaced and the vehicle is placed in "Ready Mode" without the remedy ICCU part.

**NOTICE**

- Remember the current ROM ID before upgrade just in case manual ECU upgrade would be performed.
- To verify the vehicle is affected, be sure to check the version of the vehicle's control unit ROM ID with reference to the ROM ID Information Table mentioned below before attempting to upgrade the control unit software.
- After upgrade, remove power connector of indoor fuse box, and reconnect it after 5 seconds. Alternatively remove the battery negative terminal and reconnect it 5 seconds later. Afterwards, search DTC and clear them.

## A. DTC Check

A1. Perform All Fault Search by GDS.

A2. Check the ICCU system for DTC P1A9096. Is it either found as an active or history DTC?

➤ **No – (DTC P1A9096 is not found stored):**

- Perform ICCU Software Update – see section B. **(Campaign Claim 0.4 M/H)**
- NOTE: If any other DTC or symptom is found stored, diagnose and repair per shop manual before performing the ICCU Update. **(Warranty Claim)**

➤ **Yes – (DTC P1A9096 is found stored):**

• **Replace ICCU:**

- **GV60 (JW1 EV) 2023-2024MY – see section C**
- **GV70 Electrified (JK1 EV) 2023-2024MY – see section D**
- **G80 Electrified (RG3 EV) 2023-2024MY – see section D**

• **Replace the Fuse – see section E.**

**(Notice: Replace the High Voltage Fuse in conjunction with the ICCU. Failure to do so may result in the PRA damage.)**

**(Campaign Claim 2.1M/H for JW1 2023MY, JW1 2024MY or 3.3 M/H for JK1 EV, RG3 EV)**

## B. ICCU Software Update

### NOTICE

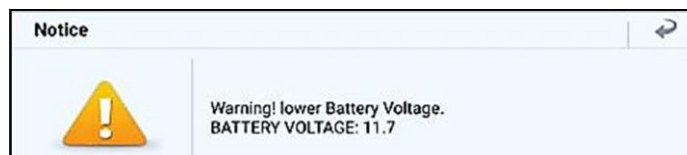
**You must initially perform the GDS ECU Update in Auto Mode.**

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

### NOTICE

**GDS Vehicle Battery Low Voltage Warning:**

The ICCU Update is a long ECU Update. If voltage is below 12 volts as per the below GDS warning, then select **Back** and run the vehicle for at least 30 minutes to ensure an adequate battery state of charge for reliable update results. Turn ignition back on, and then retry the ECU update again.



B1. Perform the ECU Update in Auto Mode.

Use the Auto Mode ID Check to verify the ICCU ROM ID before updating the software.

**i Information**

Refer to TSB 15-GI-001 for additional tablet-based Mobile GDS ECU update information.



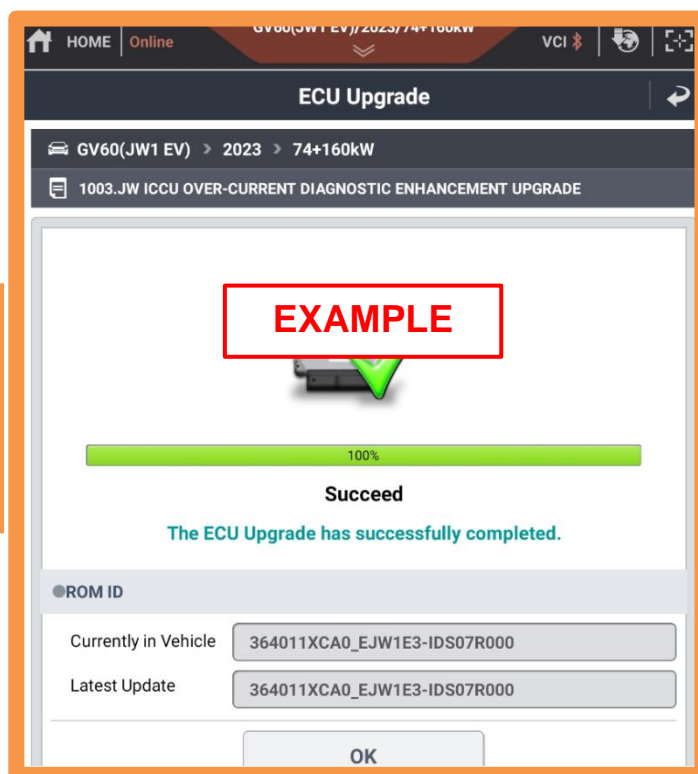
B2. After the ECU Upgrade process shows 100% complete, cycle the ignition key to OFF for at least 10 seconds to reset the control unit.

**STUI**



Take a screenshot of the ECU Update Complete screen using your particular tablet's screenshot save method and upload to STUI.

B3.



**EXAMPLE**

- B4. After upgrade, remove power connector of indoor fuse box, and reconnect it after 5 seconds. Alternately remove the battery negative from the terminal and reconnect it after 5 seconds, retightening.



- B5. Perform "Fault Code Search" for all systems/modules and clear any DTCs that may have resulted from the software upgrade.
- B6. Start the vehicle in **Ready** mode to confirm proper operation of the vehicle.

**ROM ID Information Table: Event #1096**

Model	System	ECU Part Number	ROM ID	
			OLD	NEW
JW1 (23MY)	ICCU	36401-1XCA0	EJW1E1-IDS02R000	EJW1E3-IDS09R000
			EJW1E1-IDS03R000	
			EJW1E1-IDS04R000	
			EJW1E1-IDS05R000	
			EJW1E3-IDS06R000	
			EJW1E3-IDS07R000	
JW1 (24MY)		36401-1XCA1	EJW1E4-IDS03R000	EJW1E4-IDS05R000

**ROM ID Information Table: Event #1097**

Model	System	ECU Part Number	ROM ID	
			OLD	NEW
JK1a EV	ICCU	36401-1XDA0	EJK1E1-IDS01R000	EJK1E3-IDS06R000
			EJK1E1-IDS02R000	
			EJK1E3-IDS03R000	
			EJK1E3-IDS04R000	

**ROM ID Information Table: Event #1098.**

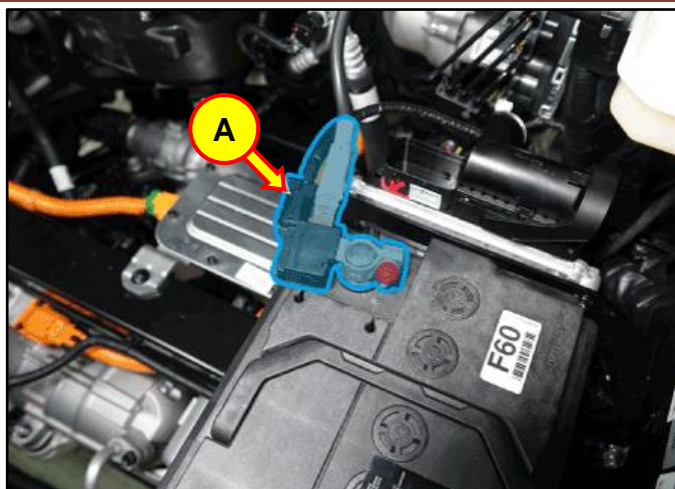
Model	System	ECU Part Number	ROM ID	
			OLD	NEW
RG3 EV	ICCU	36401-1XBAA0	ERG3E1-IDS01R000	ERG3E3-IDS09R000
			ERG3E1-IDS02R000	
			ERG3E1-IDS51R000	
			ERG3E1-IDS04R000	
			ERG3E1-IDS05R000	
			ERG3E3-IDS06R000	
			ERG3E3-IDS07R000	

**Manual Mode Passwords:**

Event	ECM Menu	Password
1096	JW ICCU 36401-1XCA0 (23MY)	<b>1316</b>
	JW ICCU 36401-1XCA1 (24MY)	<b>1326</b>
1097	JK EV ICCU 36401-1XDA0 (23-24MY)	<b>1317</b>
1098	RG3 EV ICCU 36401-1XBA0 (23-24MY)	<b>1318</b>

**C. ICCU Replacement for GV60 (JW1 EV 23-24MY)**

C1. Disconnect the auxiliary 12V battery negative (-) terminal (A).



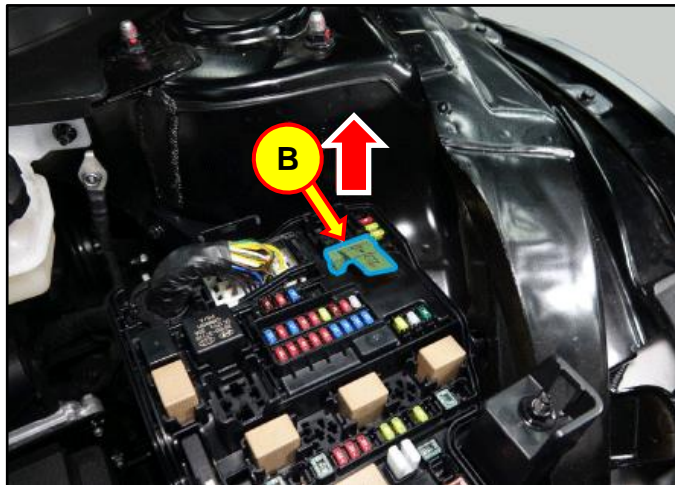
**⚠ WARNING**

- Be sure to read and follow the "Safety and Precautions" before doing any work related with the high voltage system. Failure to follow the safety instructions may result in serious electrical injuries.
- Be sure to read and follow the "High Voltage Shut-off Procedures" before doing any work related with the high voltage system. Failure to follow the safety instructions may result in serious electrical injuries
- While working on and around the HV components, follow the relevant regulations and guidelines in your country/region.

C2. Disconnect the high voltage cut-off switch (B) in the direction of the arrow.

**CAUTION**

Wait for more than 5 minutes so that the capacitor in the high voltage system will be fully discharged.  
 Battery Control System > High Voltage Shut-off Procedures



C3. Open the coolant reservoir tank cap (C) to release pressure.

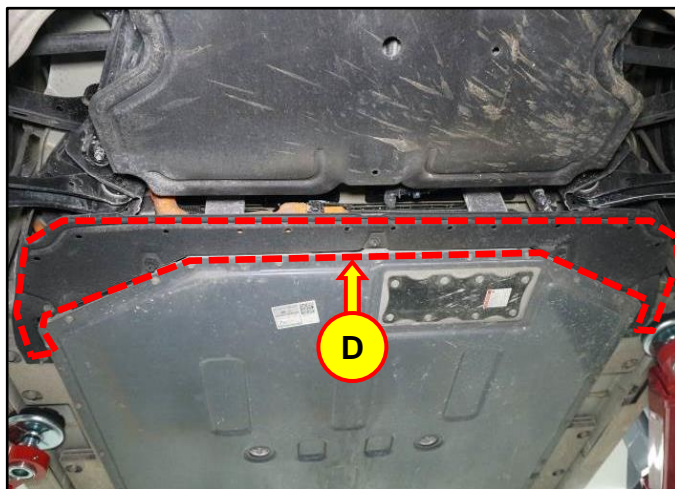


C4. Raise the vehicle on a lift.

Loosen the rear undercover bolts and remove the cover (D).

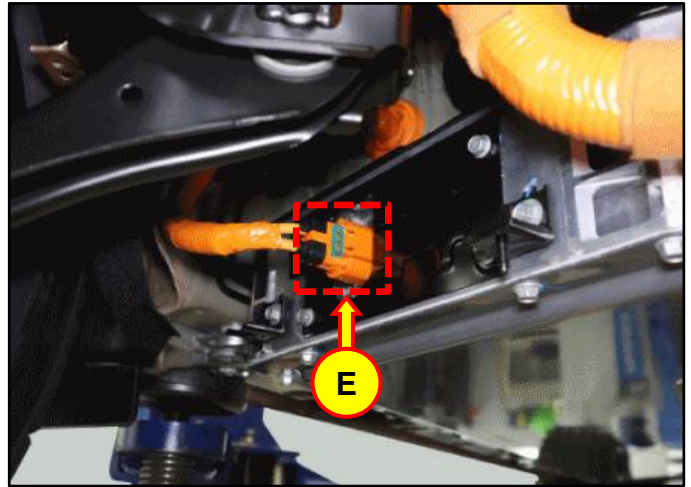
**Tightening Torque:**

lb-ft	6.5
lb-in	78
N.m	8.8





C5. Disconnect the ICCU high voltage connector (E).



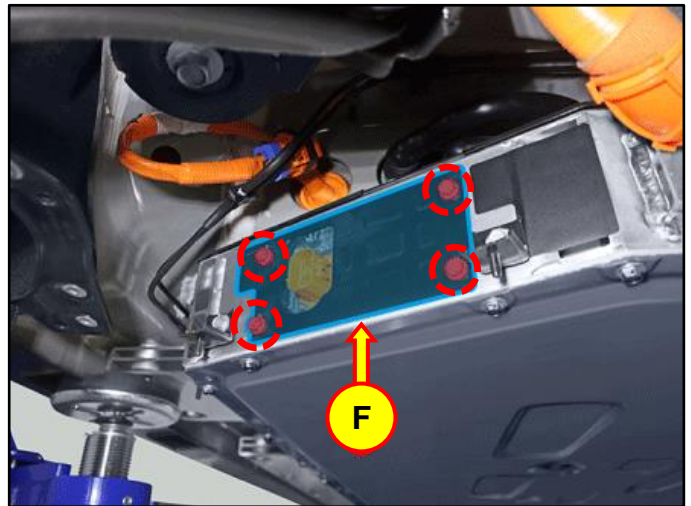
C6. Loosen the 4 bolts and remove the ICCU high voltage connector assembly cover (F).

**Tightening Torque:**

lb-ft	7.3
-------	-----

lb-in	87
-------	----

N.m	9.8
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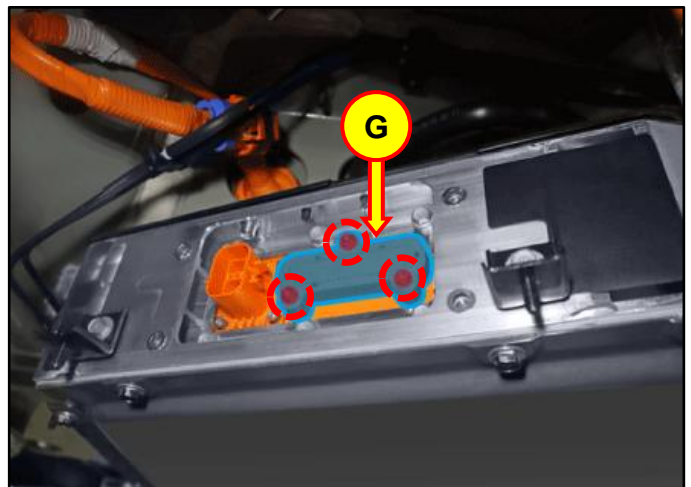
C7. Using a T3 Hex bolt wrench, unscrew the three (3) hex bolts and remove the ICCU fuse cover (G).

**Tightening Torque:**

lb-ft	2.2
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lb-in	26
-------	----

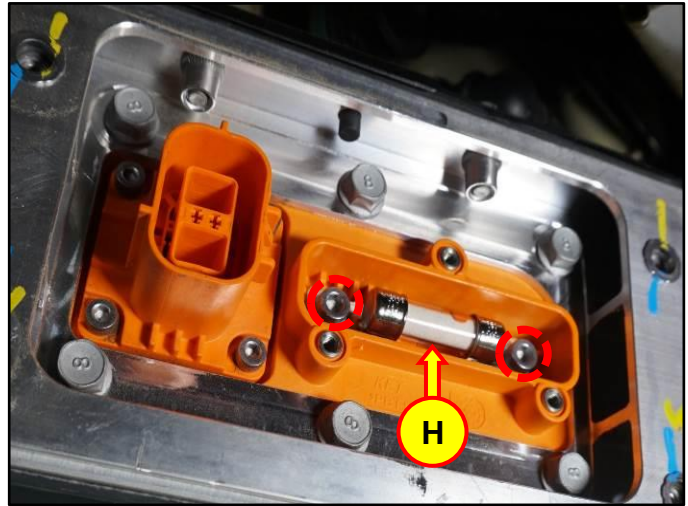
N.m	2.9
-----	-----



- C8. Using a T5 Hex bolt wrench, loosen the hex bolts fixed by fuses (2 each) and remove the ICCU fuse (H). Replace the fuse with the newly provided one. Reinstall all removed parts in reverse order of disassembly.

**Tightening Torque:**

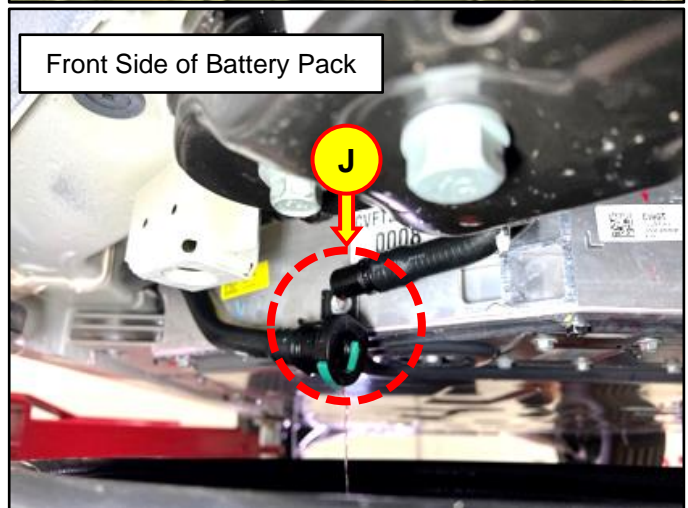
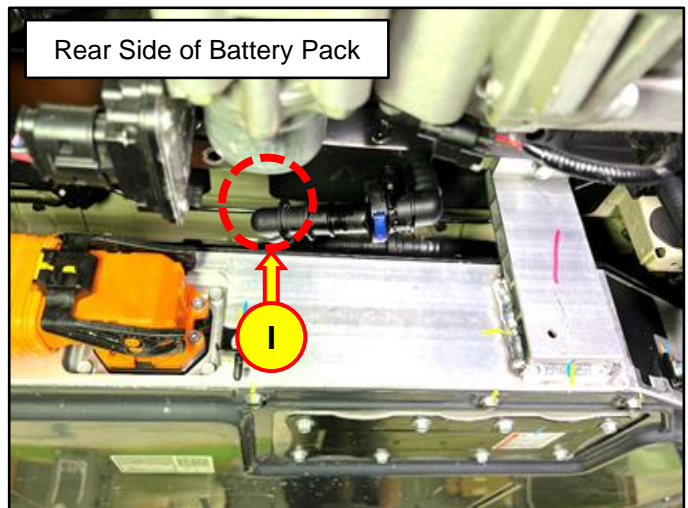
lb-ft	3.7
lb-in	44
N.m	4.9



- C9. Disconnect the rear coolant hose (I) and front coolant hose (J).

Insert an air gun into the rear coolant hose (I) to blow out internal coolant of the ICCU as shown in the photo.

Then, the ICCU coolant will be drained through the front coolant hose (J).



C10. Remove the Rear seat assembly.

Refer to Shop Manual:

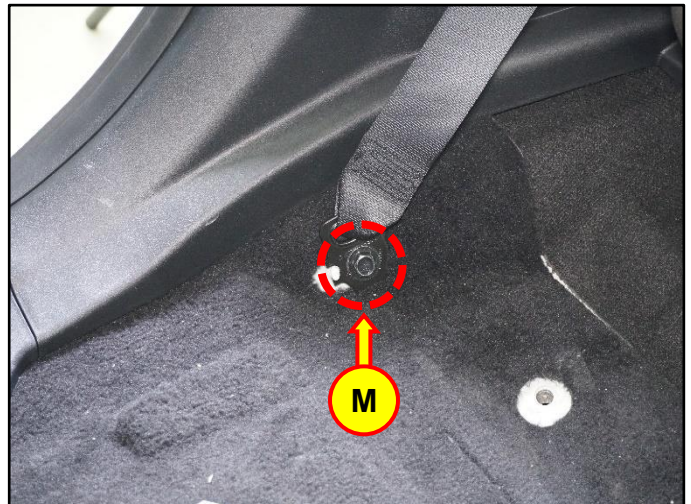
- **Body (Interior / Exterior / Electrical) > Rear Seat > Rear Seat Assembly > Removal and Installation**

C11. Remove the rear door LH/RH scuff trim.

Refer to Shop Manual:

- **Body (Interior / Exterior / Electrical) > Interior Trim > Door Scuff Trim > Removal and Installation**

C12. Loosen the LH/RH bolts (M) and remove the rear seat belt lower anchor.



C13. Remove the LDC cable fixing bolt (O), disconnect the cable, and then loosen the two (2) ICCU bolts (P).

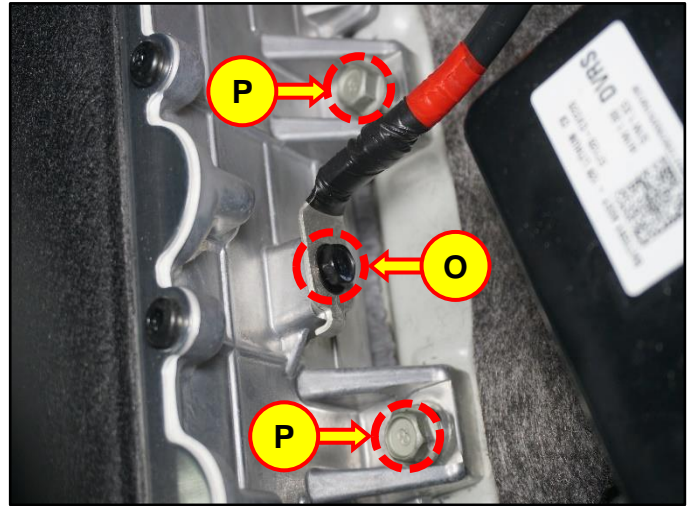
**Tightening Torque:**

**Bolt O:**

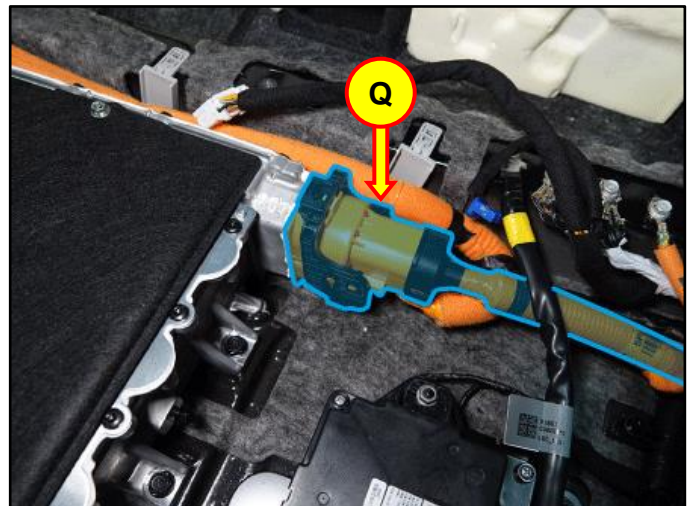
lb-ft	6.5
lb-in	78
N.m	8.8

**Bolt P:**

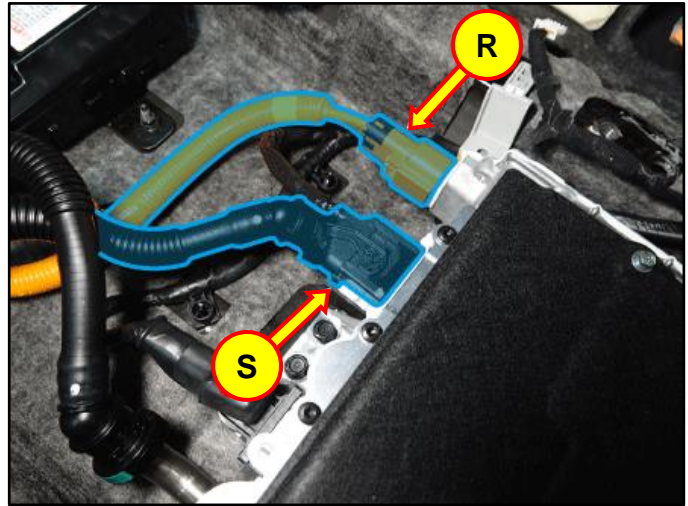
lb-ft	7.3
lb-in	87
N.m	9.8



C14. Disconnect the ICCU AC connector (Q).



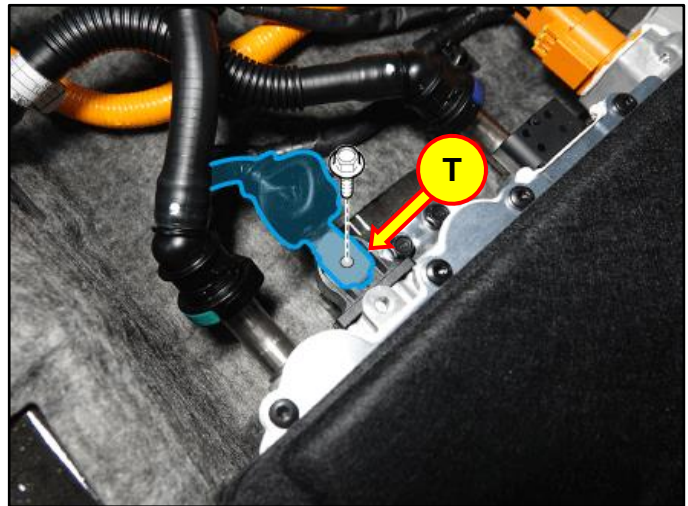
- C15. Disconnect the ICCU DC connector (R).  
 Disconnect the ICCU signal connector (S).



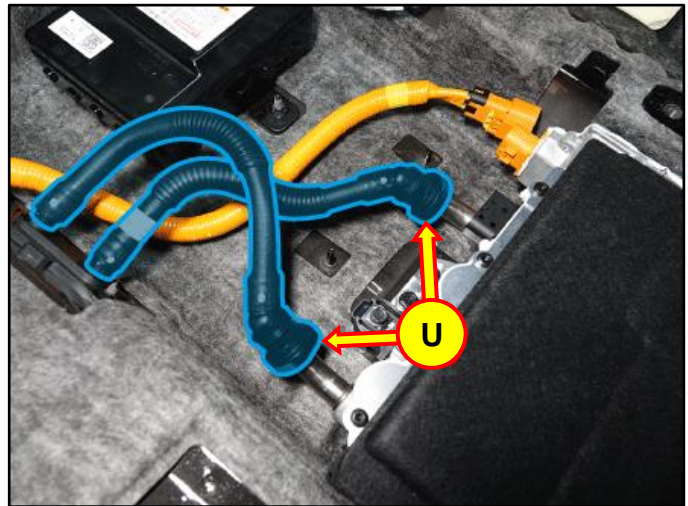
- C16. Remove bolt (T) securing the LDC to the ICCU.

**Tightening Torque:**

lb-ft	6.2
lb-in	74
N.m	8.4



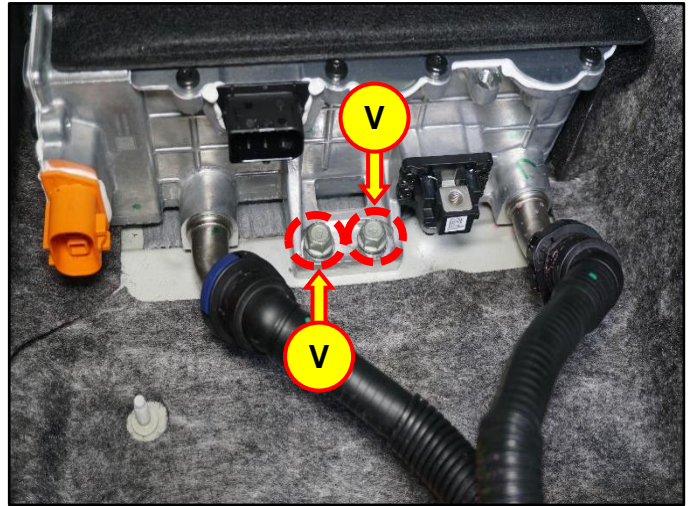
- C17. Place absorbent mat prior to disconnecting the coolant tube quick connectors (U).



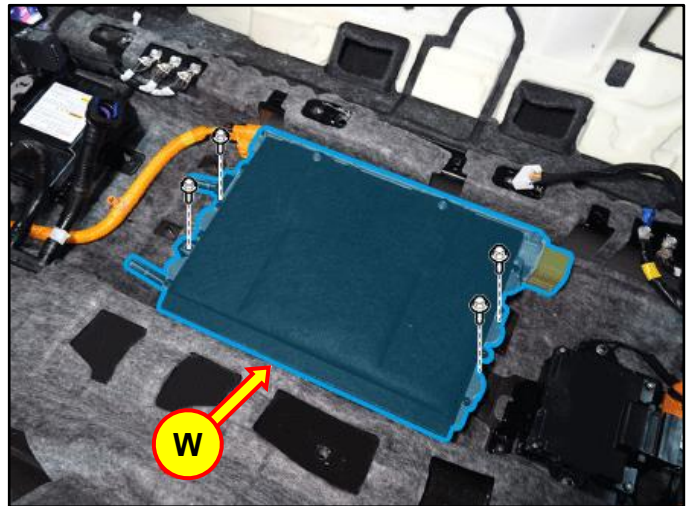
C18. Loosen the two (2) ICCU mounting bolts (V).

**Tightening Torque:**

lb-ft	18
N.m	25



C19. Remove the ICCU assembly (W) and replace with the updated part.

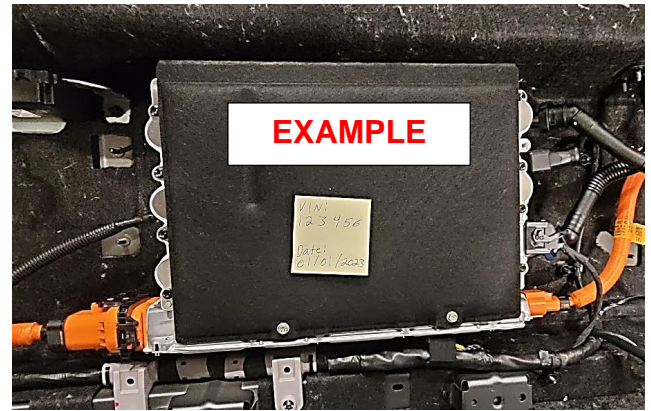


C20.

**STUI**

Using STUI, take a photo of the installed new ICCU with the last 6 digits of the VIN and the date of repair on a piece of paper.

Upload the photo to STUI.



C21. Install all removed parts in the reverse order of removal.

**NOTICE**

- Be sure to install all components according to specified torques.
- Be careful not to drop any components, as this may cause internal damage.

C22. Refill the motor cooling system with coolant and then fully bleed out air using the GDS diagnostic tool.

**NOTICE**

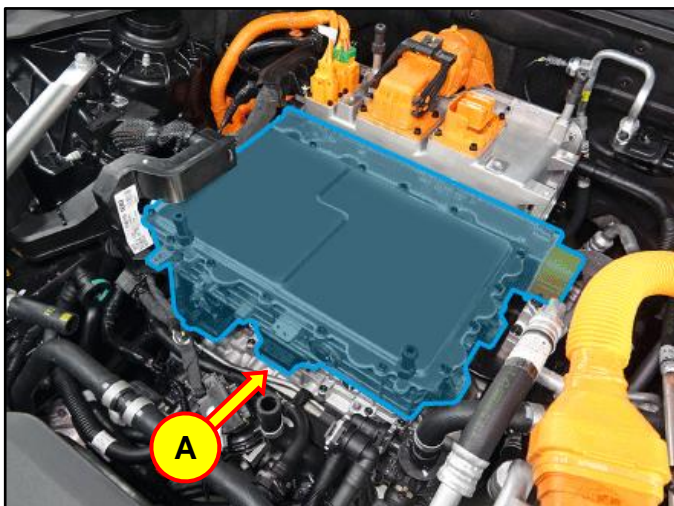
Do NOT reuse coolant that was drained from the vehicle. Doing this may bring foreign substances and impurities into the coolant system.

**D. ICCU Replacement for GV70 Electrified (JK1a EV) and G80 Electrified (RG3 EV)**

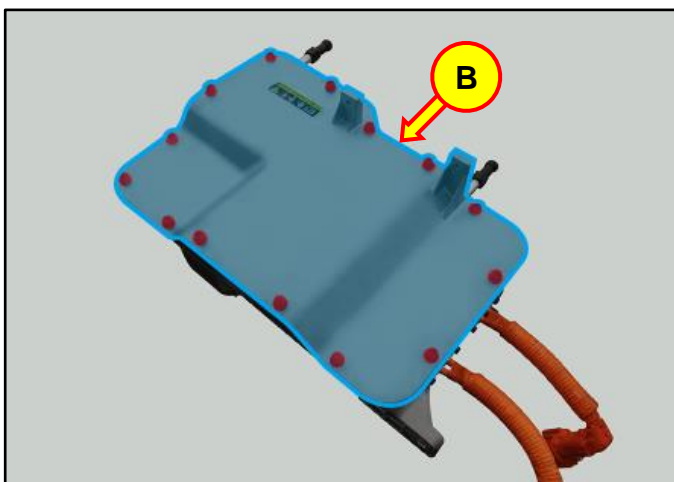
D1. Remove the Integrated Charge Control Unit (ICCU) (A).

Refer to Shop Manual:

- **Battery Control System > High Voltage Charging System > Integrated Charge Control Unit (ICCU) > Removal**



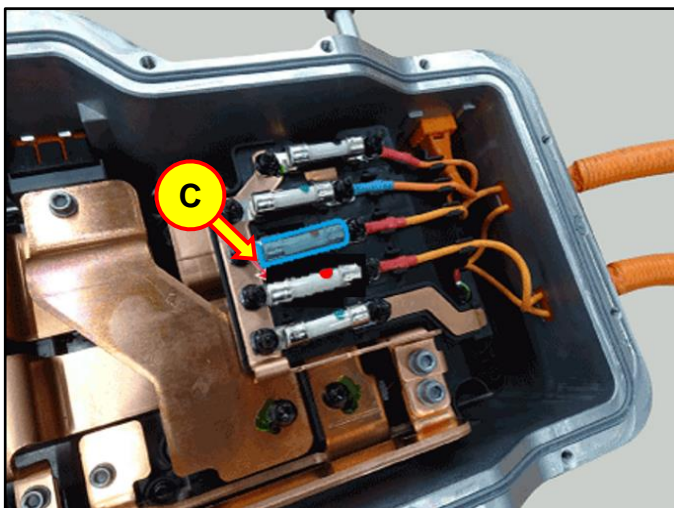
D2. Remove the high voltage junction block upper cover (B).



D3. Loosen the mounting nuts, and remove the ICCU fuse (C).

**Tightening Torque:**

lb-ft	3.6
lb-in	43
N.m	4.9





- D4. After removing the fuse carefully clean the fuse mating surface prior to installation.

### NOTICE

Any foreign substance in this area may cause poor contact between terminals.



- D5. Install the replacement part ICCU.

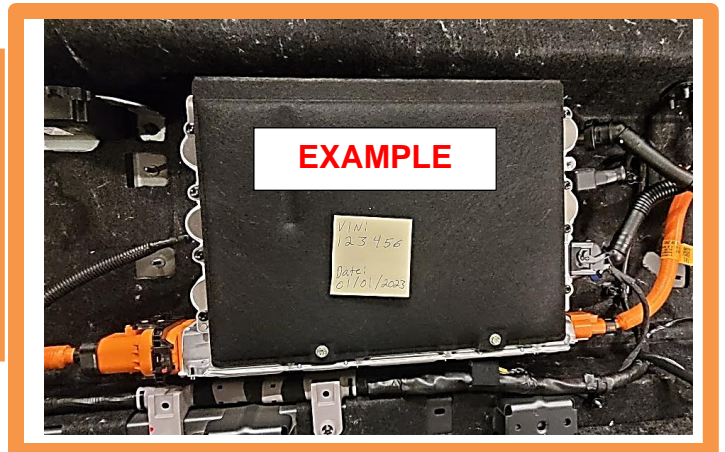
- D6.

### STUI



Using STUI, take a photo of the new ICCU with the last 6 digits of the VIN and the date of repair on a piece of paper.

Upload the photo to STUI.



- D7. Install all removed parts in the reverse order of removal.

### NOTICE

- When installing the fuse apply low strength thread locker.
- Be sure to install all components according to specified torques.
- Be careful not to drop any components, as this may cause internal damage.

- D8. Refill the motor cooling system with new coolant and then fully bleed out air using the GDS diagnostic tool.

### NOTICE

Do not reuse the coolant discharged from the vehicle. (When coolant is reused, foreign substances/impurities may be introduced.)