Technical Service Bulletin	GROUP CAMPAIGN	NUMBER 23-01-069G-1
	DATE SEPTEMBER 2023	MODEL(S) G80 Electrified (RG3 EV) GV60 Electric (JW1 EV) GV70 Electrified (JK1a EV)

SUBJECT: DTC P1A9096 CHECK FOR ICCU & FUSE REPLACEMENT AND ICCU SOFTWARE UPDATE (SERVICE CAMPAIGN 907G)

This bulletin supersedes 23-01-069G to add 2023-24MY GV70 Electrified (JK1a EV) vehicles.

★ IMPORTANT

Dealers must perform this service campaign 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 2023MY G80 Electrified (RG3 EV), 2023-24MY GV60 (JW1 EV), and 2023-24MY GV70 Electrified (JK1a 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-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 fuse replacement.

Applicable Vehicles (Certain):

- 2023MY G80 Electrified (RG3 EV)
- 2023-24MY GV60 (JW1 EV)
- 2023-24MY GV70 Electrified (JK1a EV)

NOTICE

This service campaign can only be performed by EV certified Genesis retailers.

GDS Information:

System	Event #	Description
ICCU	1002*	RG3 EV ICCU OVER-CURRENT DIAGNOSTIC ENHANCEMENT UPGRADE
	1003*	JW ICCU OVER-CURRENT DIAGNOSTIC ENHANCEMENT UPGRADE
	1004*	JK(a) EV ICCU OVER-CURRENT DIAGNOSTIC ENHANCEMENT UPGRADE

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

Circulate To: General Manager, Service Manager, Parts Manager, Warranty Manager, Service Advisors, Technicians, Body Shop Manager, Fleet Repair

Parts Information:

Part Name	Model	Part Number	Remarks
Integrated Charge Control Unit (ICCU)*	GV60 (JW1 EV)	36400-1XCA0QQH	
	G80 Electrified (RG3 EV)	36401-1XBA0QQH	
	GV70 Electrified (JK1a EV)	36401-1XDA0QQH	
ICCU Fuse*	GV60 Electric (JW1 EV)	375F2-GI040QQH	Order this fuse with an ICCU.
	G80 Electrified (RG3 EV)	18790-00728QQH	
	GV70 Electrified (JK1a EV)		
Coolant (LLC-10)	All	00232-19098	Pink coolant. Up to 1 Gallon each.

*As needed, only if DTC P1A9096 stored.

NOTICE

Do not install fuse alone without ICCU replacement. If "Ready On" occurs after replacing only the fuse without replacing the 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	30D074R0	DTC Check and ICCU Software Update	0.4 M/H	36400-1XCA0QQH (GV60) 36401-1XBA0QQH (G80 Electrified) 36401-1XDA0QQH (GV70 Electrified)	W11	ZZ3
GV60 (JW1 EV)	30D074R1	DTC Check, and ICCU and Fuse Replacement	2.1 M/H	36400-1XCA0QQH		
G80 Electrified (RG3 EV)	30D074R2		3.3 M/H	36401-1XBA0QQH		
GV70 Electrified (JK1a EV)				36401-1XDA0QQH		

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 campaign 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 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.

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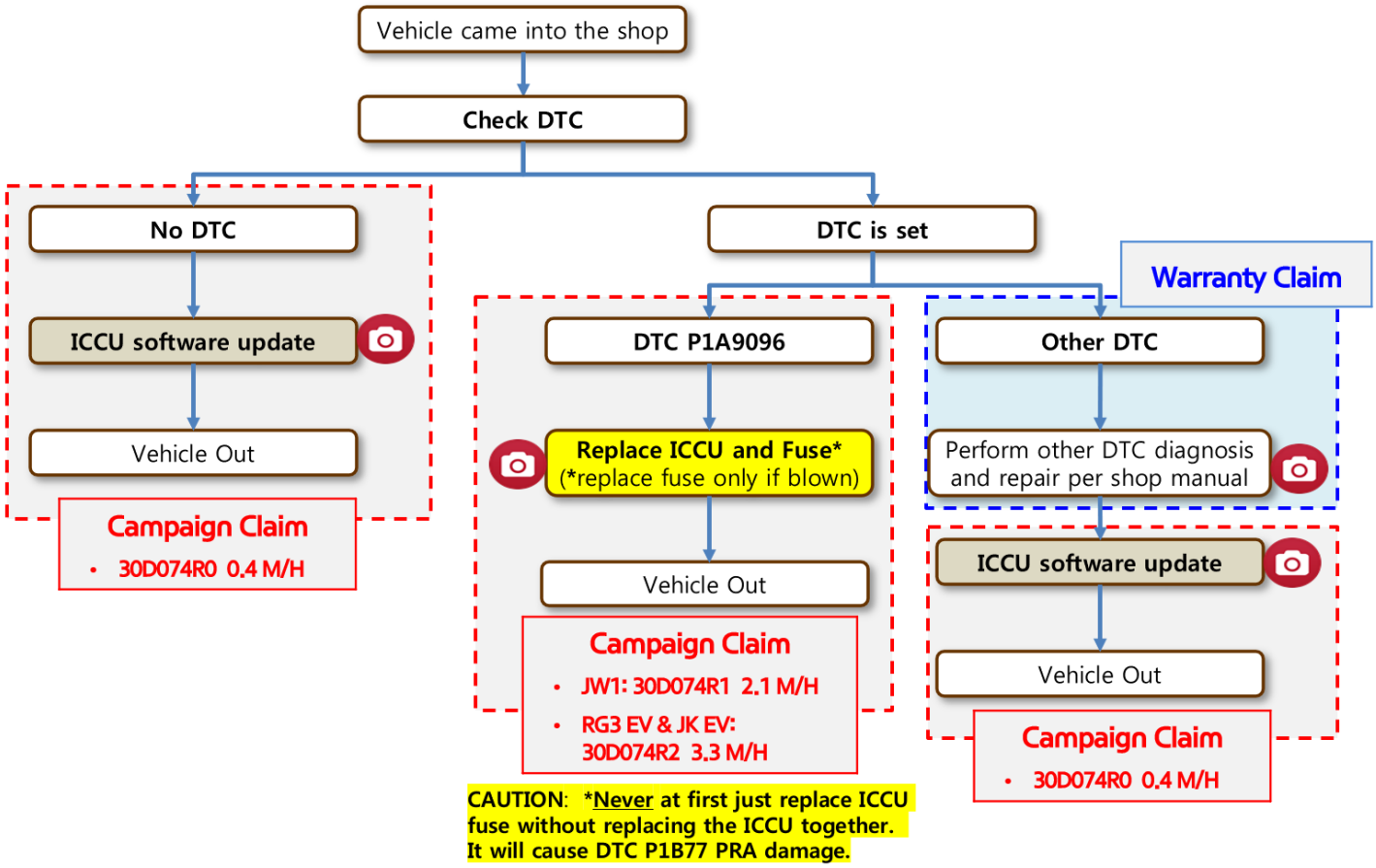
Summary of Service Procedure Flow:



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) – see section C**
    - **G80 Electrified (RG3 EV) – see section D**
    - **GV70 Electrified (JK1a EV) – see section E**
  - **Replace the ICCU Fuse.**
    (WARNING: Do NOT only replace fuse only at first without replacing ICCU, it will cause PRA damage)

  (Campaign Claim:
  - **2.1 M/H for JW1**
  - **3.3 M/H for RG3 and JK1a)**

B. ICCU Software Update

NOTICE

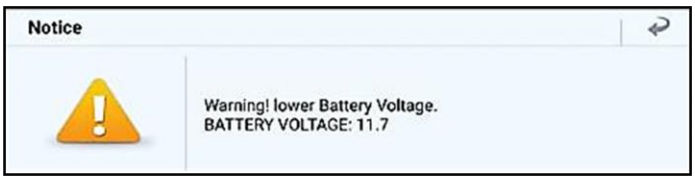
You must initially perform the GDS ECU Update in Auto Mode.
- If the ECU Update starts but then fails in Auto Mode, perform the update in Manual Mode to recover.

WARNING

<u>In Stock Vehicles:</u> Turn OFF Shipping Mode to prevent vehicle automatic shutdown that may result in an update failure.

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.

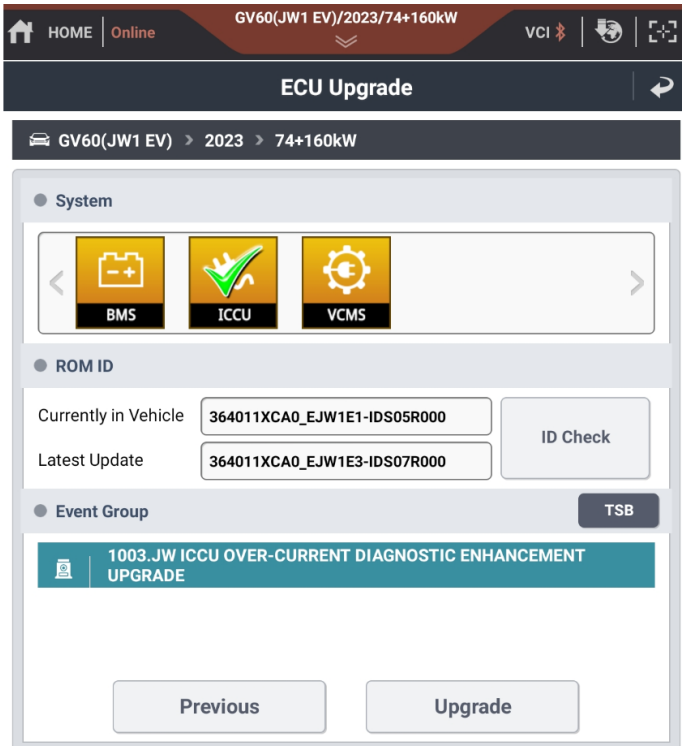


B1. Perform the ECU Update in Auto Mode.

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

Information

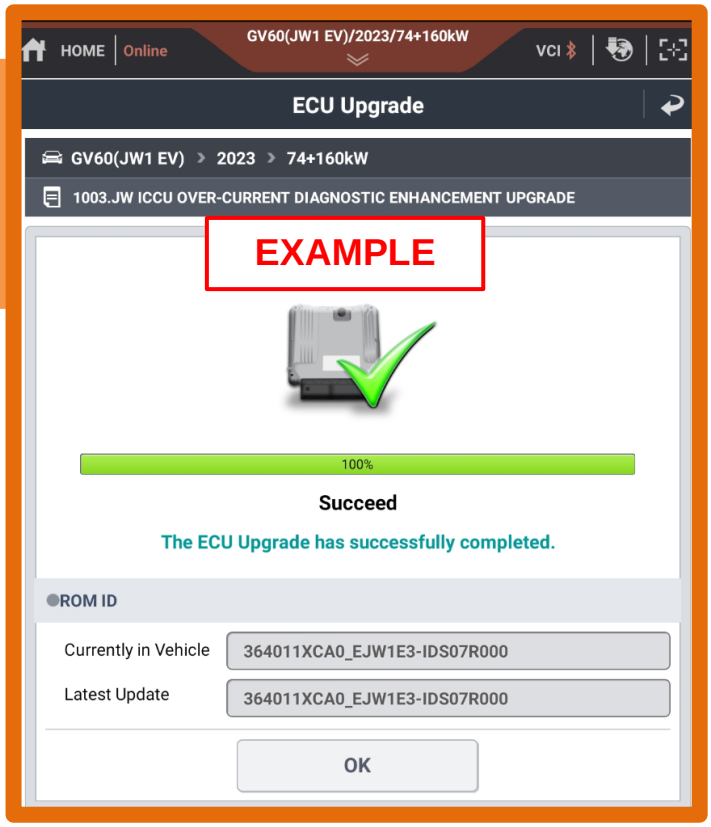
Refer to TSB 15-GI-001 for additional tablet-based Mobile GDS ECU update information.



B2.

STUI

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



B3. After the ECU Upgrade process shows 100% complete, cycle the ignition key to OFF for at least 10 seconds to reset the control unit.

B4. Perform an All Systems Fault Code search and erase the history of the DTC that had incidentally occurred from the ECU update.

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

ROM ID Information Table: Event #1002.

Model	System	ECU Part Number	ROM ID	
			OLD	NEW
RG3 EV	ICCU	36401-1XBA0	ERG3E1-IDS01R000	ERG3E3-IDS07R000
			ERG3E1-IDS02R000	
			ERG3E1-IDS51R000	
			ERG3E1-IDS04R000	
			ERG3E1-IDS05R000	
			ERG3E3-IDS06R000	

ROM ID Information Table: Event #1003.

Model	System	ECU Part Number	ROM ID	
			OLD	NEW
JW1 EV	ICCU	36401-1XCA0	EJW1E1-IDS02R000	EJW1E3-IDS07R000
			EJW1E1-IDS03R000	
			EJW1E1-IDS04R000	
			EJW1E1-IDS05R000	
			EJW1E3-IDS06R000	

ROM ID Information Table: Event #1004.

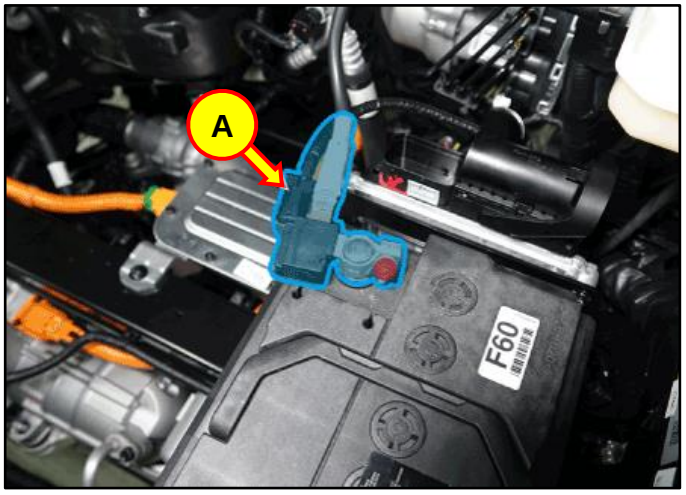
Model	System	ECU Part Number	ROM ID	
			OLD	NEW
JK1a EV	ICCU	36401-1XDA0	EJK1E1-IDS02R000	EJK1E3-IDS04R000
			EJK1E3-IDS03R000	

Manual Mode Passwords:

Event	ECM Menu	Password
1002	RG3 EV ICCU 36401-1XBA0	1381
1003	JW ICCU 36401-1XCA0	1371
1004	JK(a) EV ICCU 36401-1XDA0	1386

C. ICCU Replacement for GV60 (JW1 EV)

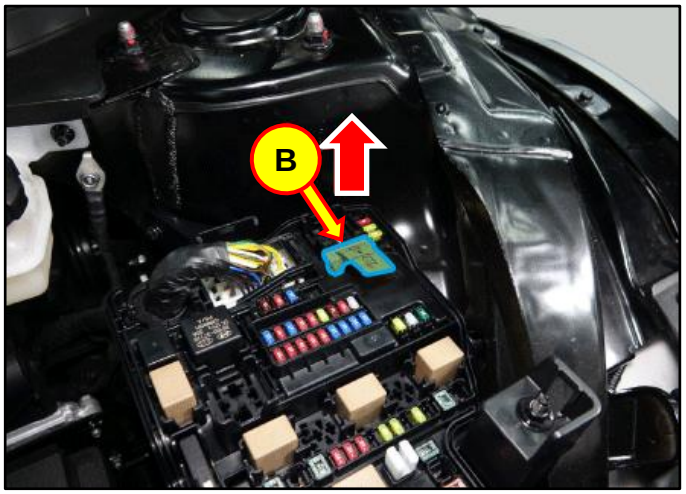
C1. Disconnect the auxiliary 12V battery negative (–) terminal (A).



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.



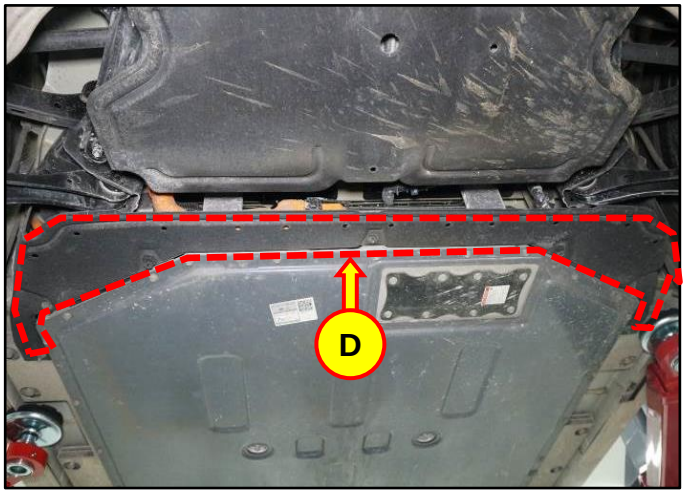
C3. Open the coolant reservoir tank cap (C) to release pressure.

C4. Raise the vehicle on a lift.

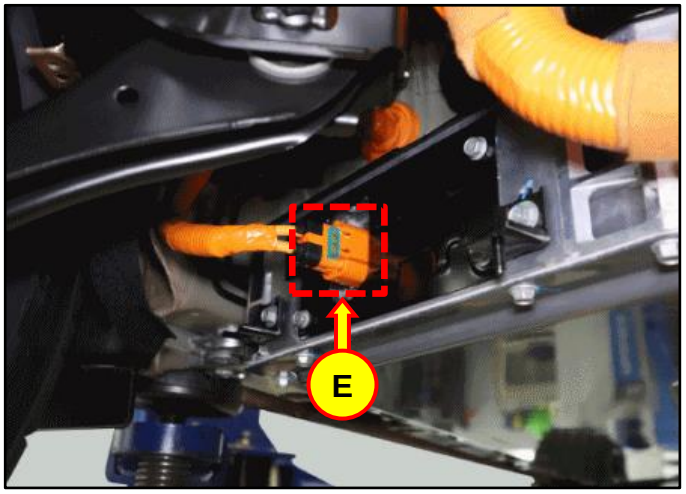
Loosen the rear undercover bolts and remove the cover (D).

Tightening Torque:

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



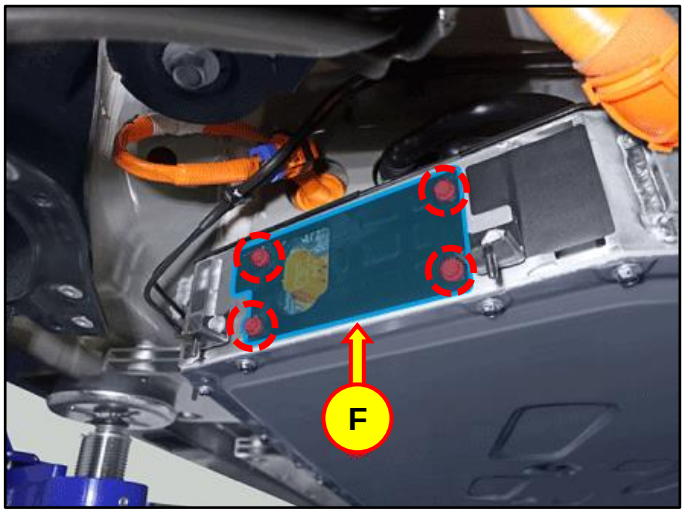
C5. Disconnect the ICCU high voltage connector (E).



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

Tightening Torque:

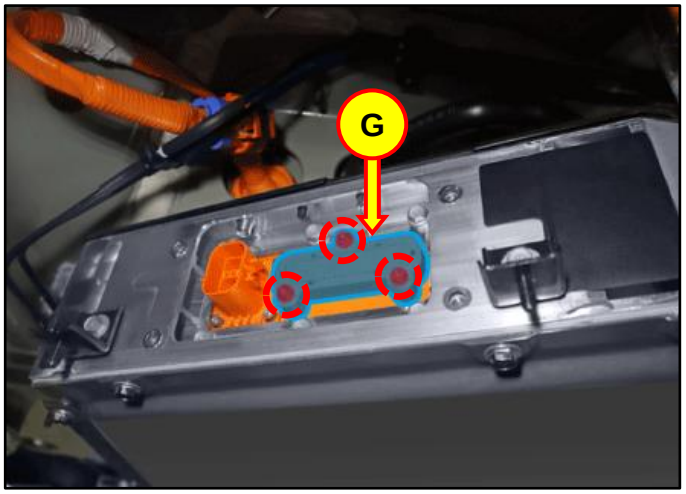
lb-ft	7.3
lb-in	87
N.m	9.8



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

Tightening Torque:

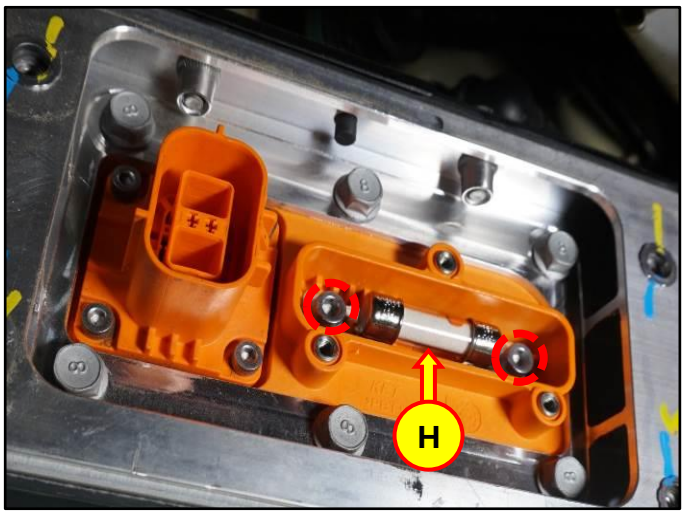
lb-ft	2.2
lb-in	26
N.m	2.9



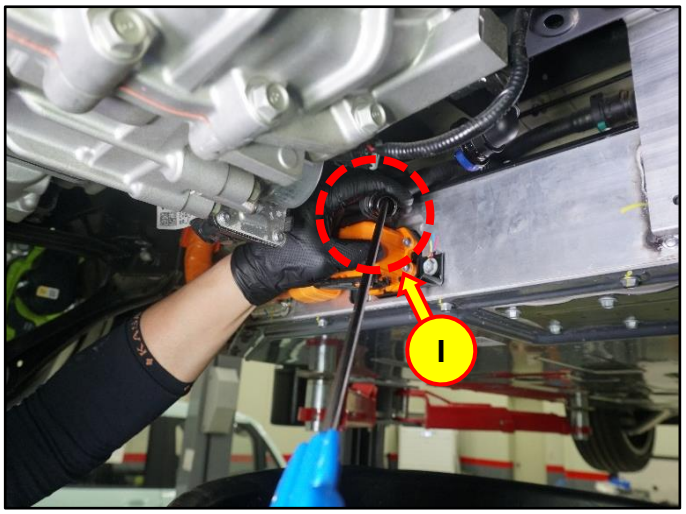
C8. Using a T5 Hex bolt wrench, loosen the hex bolts fixed by fuses (2 each) and remove the ICCU fuse (H). Replace the fuse with the newly provided one.
Reinstall all removed parts in reverse order of disassembly.

Tightening Torque:

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

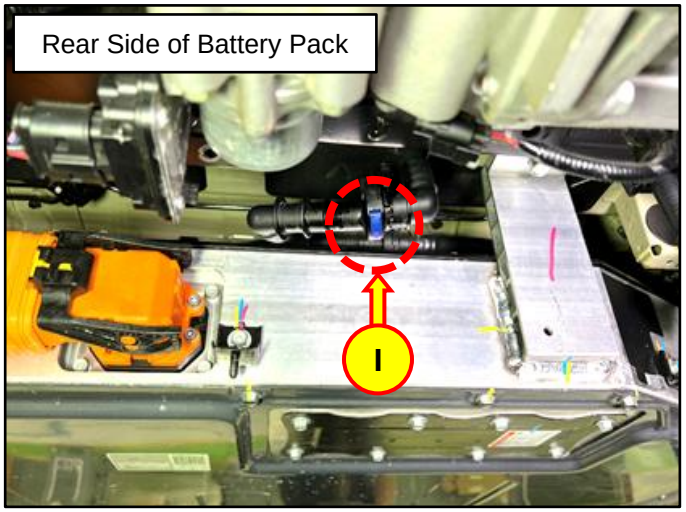


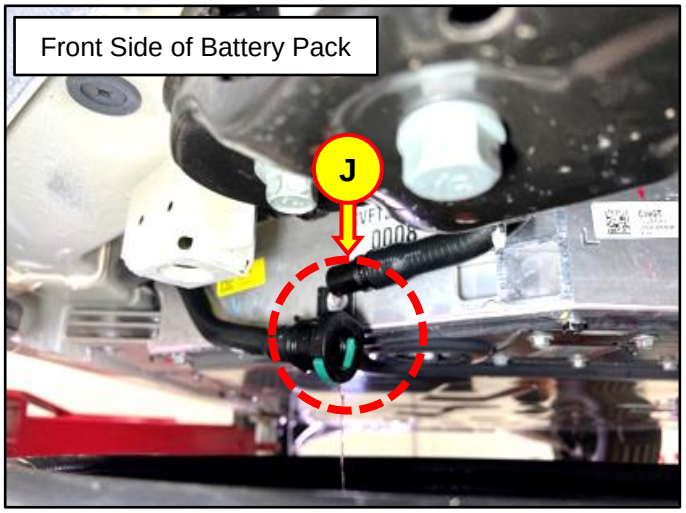
C9. Disconnect the rear coolant hose (I) and front coolant hose (J).



C10. 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).

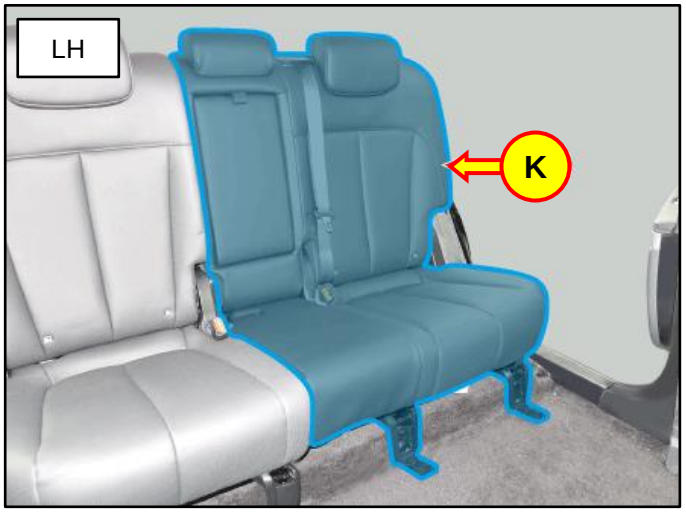


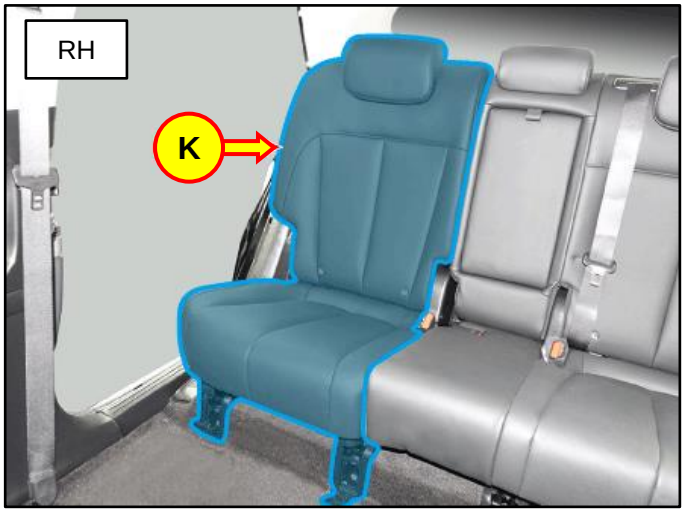


C11. Remove the LH/RH rear seat assembly (K).

Refer to Shop Manual:

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

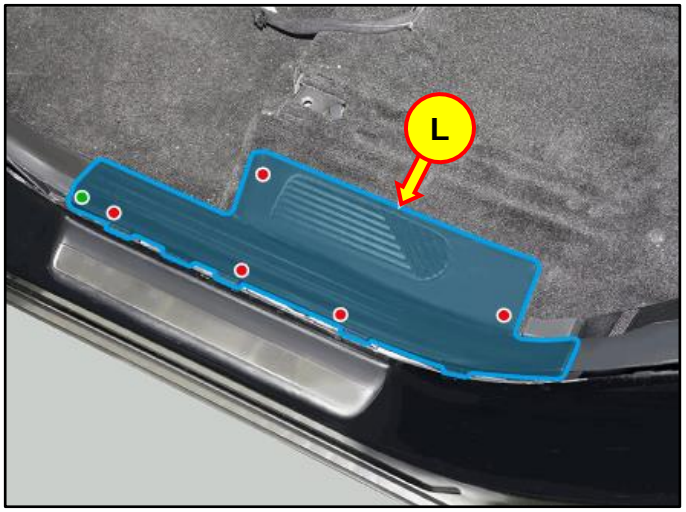




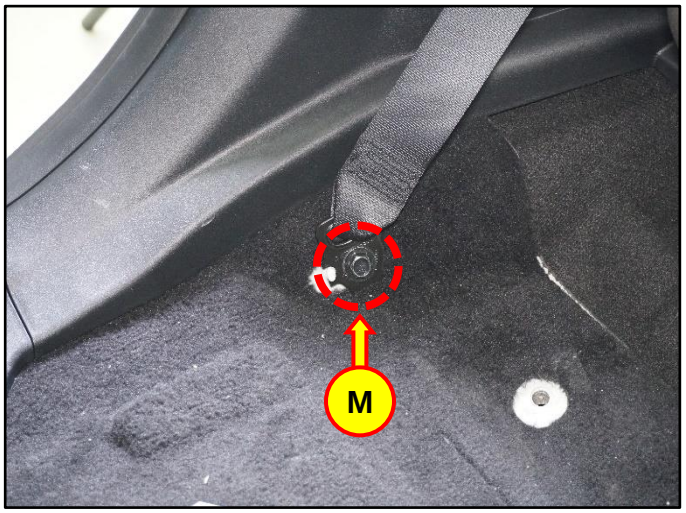
C12. Remove the rear door LH/RH scuff trim (L).

Refer to Shop Manual:

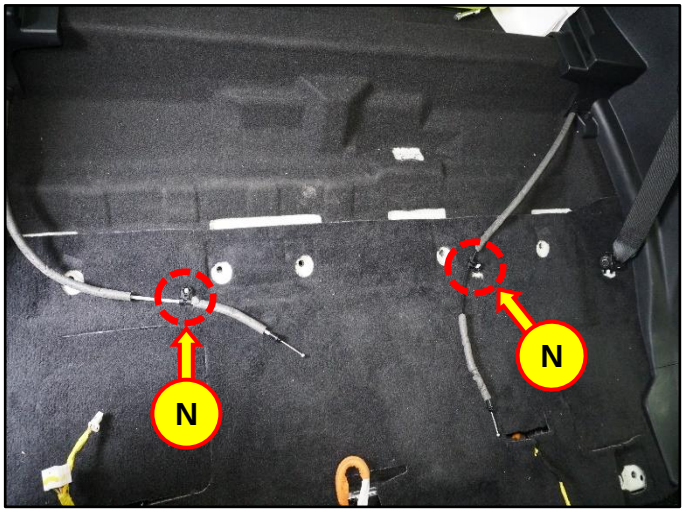
- **Body (Interior / Exterior / Electrical) > Interior Trim > Door Scuff Trim > Removal and Installation**



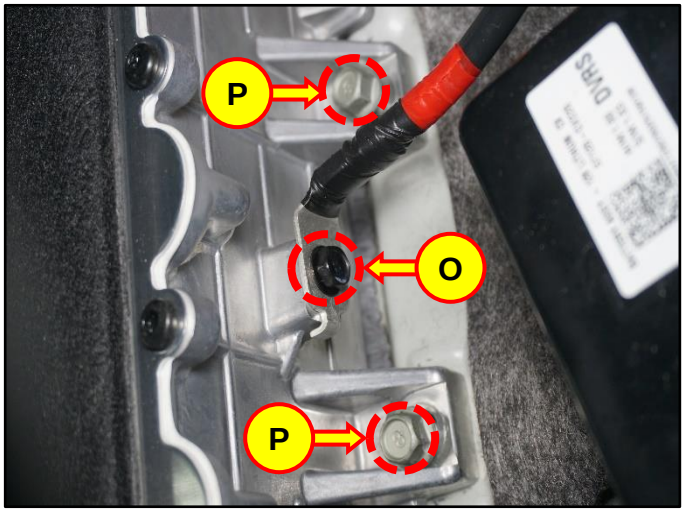
C13. Loosen the LH/RH bolts (M) and remove the rear seat belt lower anchor.



C14. Remove the seatback tilt cables (N) and separate the flow carpet.



C15. Loosen the LDC cable fixing bolt (O), disconnect the cable, and then loosen the two (2) ICCU bolts (P).



Tightening Torque:

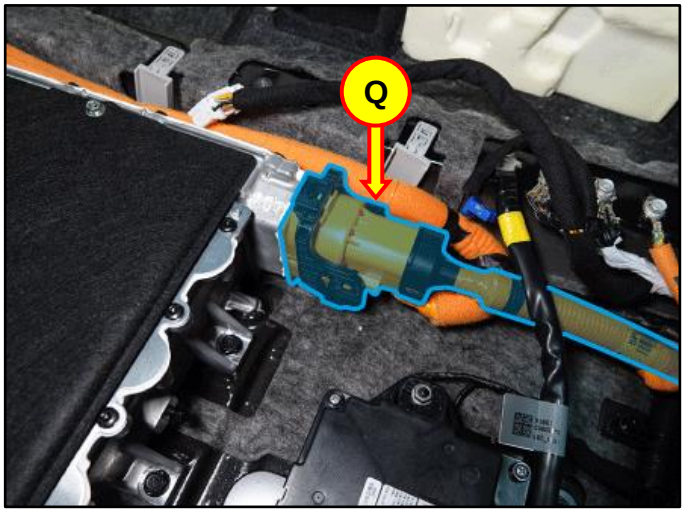
Bolt O:

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

Bolt P:

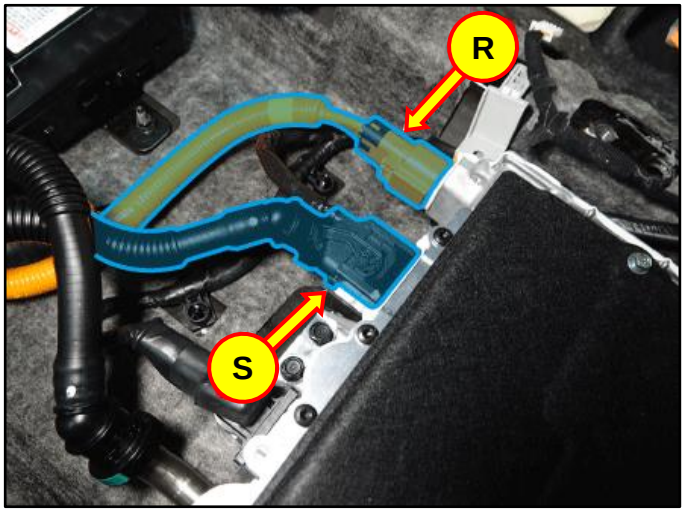
lb-ft	7.3
lb-in	87
N.m	9.8

C16. Disconnect the ICCU AC connector (Q).



C17. Disconnect the ICCU DC connector (R).

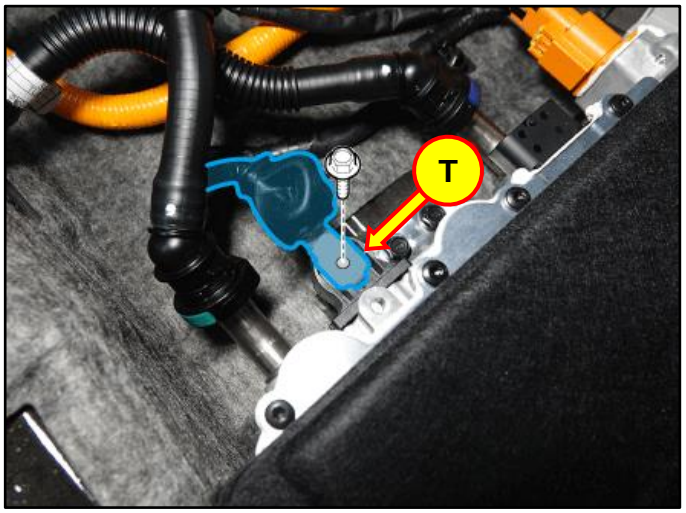
Disconnect the ICCU signal connector (S).



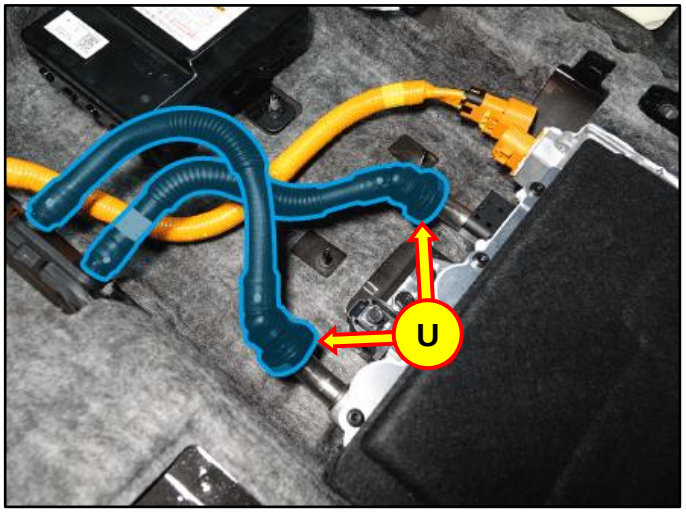
C18. Remove the LDC plus (T) after loosening the mounting bolts.

Tightening Torque:

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



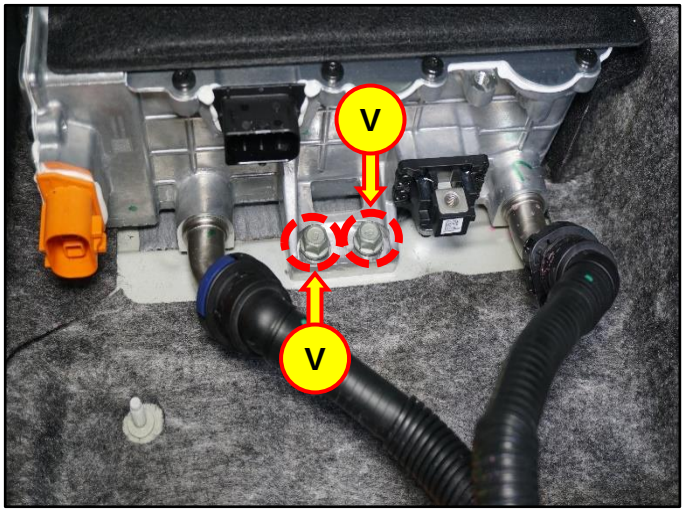
C19. Disconnect the coolant tube quick connectors (U).



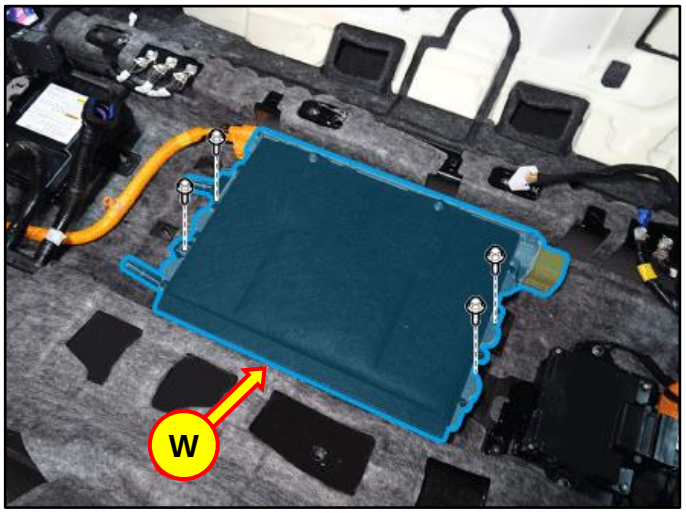
C20. Loosen the two (2) ICCU mounting bolts (V) and disconnect the coolant hoses.

Tightening Torque:

lb-ft	18
N.m	25



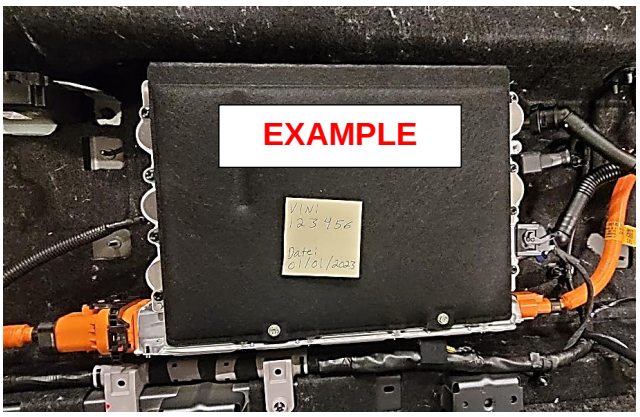
C21. Remove the ICCU assembly (W) and replace it with a new one.



C22. **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.



C23. 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.

C24. Refill the motor cooling system with coolant and then fully bleed out air using the GDS diagnostic tool.

NOTICE

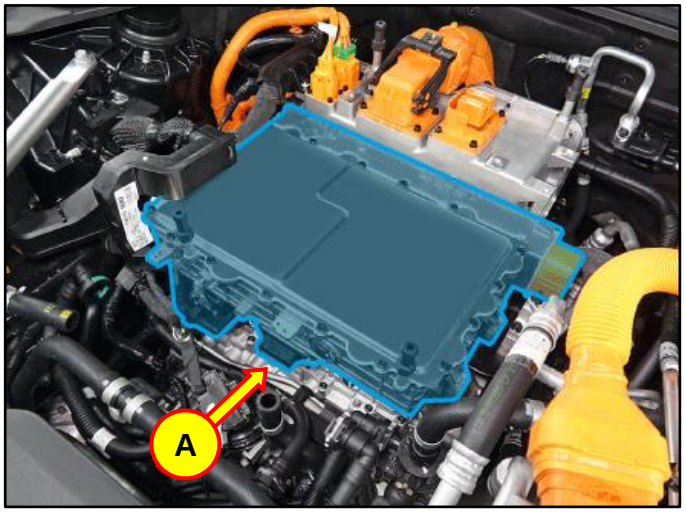
Do NOT reuse coolant that was drained from the vehicle. Doing this may bring foreign substances and impurities into the coolant system.

D. ICCU Replacement for G80 Electrified (RG3 EV)

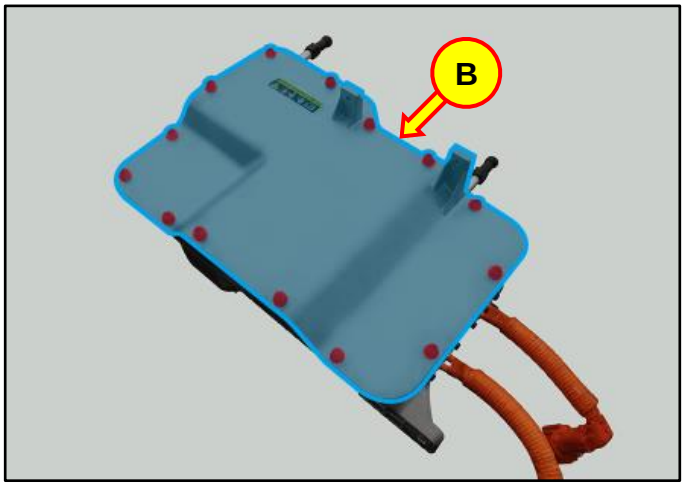
D1. Remove the Integrated Charge Control Unit (ICCU) (A).

Refer to Shop Manual:

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



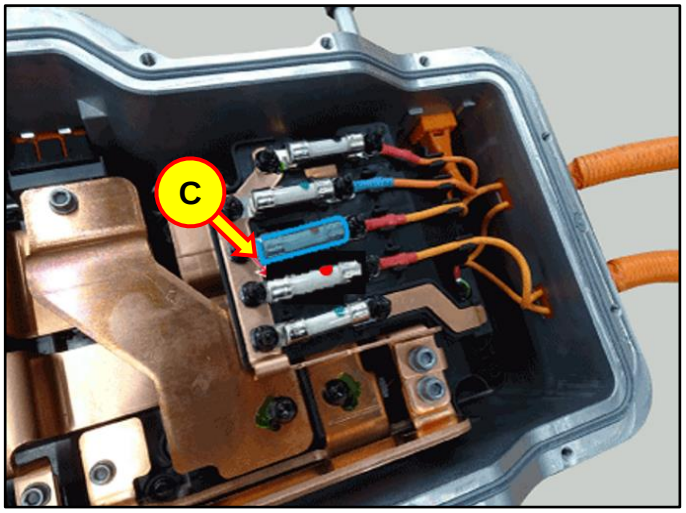
D2. Remove the high voltage junction block upper cover (B).



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

Tightening Torque:

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



D4. After removing the bus bar, remove Loctite residue with a screwdriver or other tool.

NOTICE

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

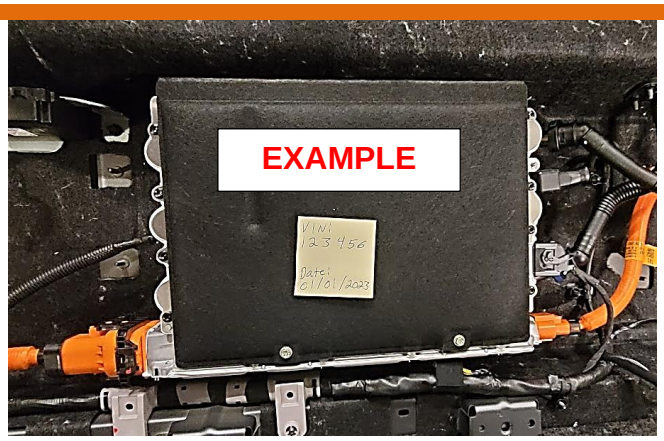
D5. Install the supplied ICCU.

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

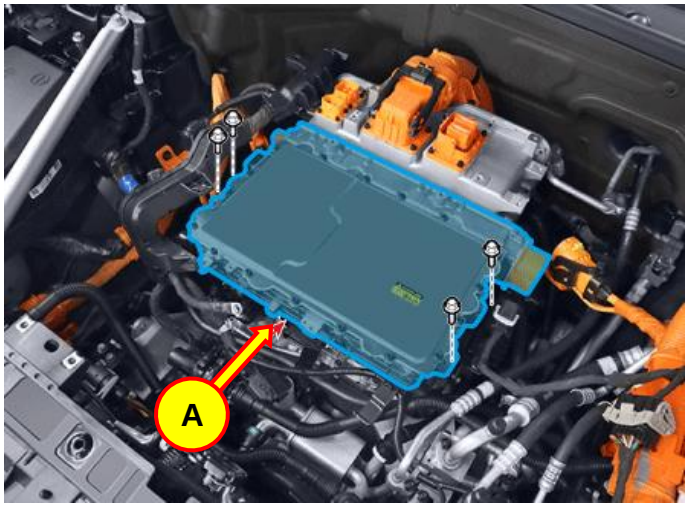
- When installing the bus bar at the fuse, apply Loctite.
- Be sure to install all components according to specified torques.
- Be careful not to drop any components, as this may cause internal damage.

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

E. ICCU Replacement for GV70 Electrified (JK1a EV)

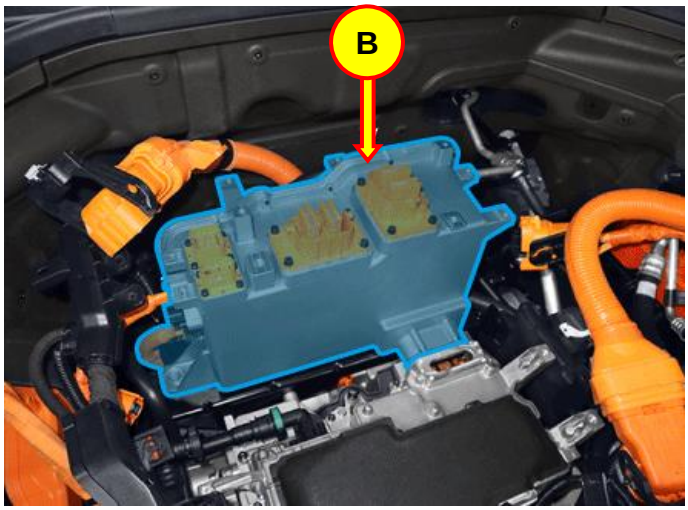
E1. Remove the Integrated Charge Control Unit (ICCU) (A).

Refer to Shop Manual:
Battery Control System > High Voltage Charging System > Integrated Charge Control Unit (ICCU) > Removal



E2. Remove the high voltage junction box (B).

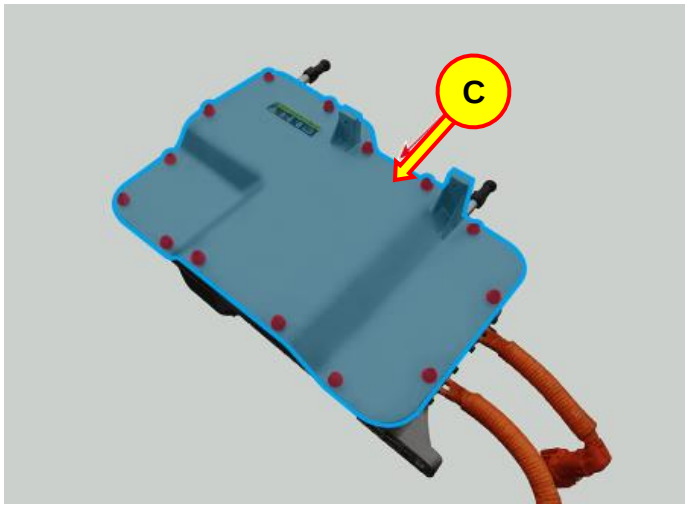
NOTE
Refer to the shop manual.
- Battery Control System > High Voltage Distributing System > High Voltage Junction Block



E3. Remove the high voltage junction block upper cover (C) after removing the bolts.

Tightening Torque:

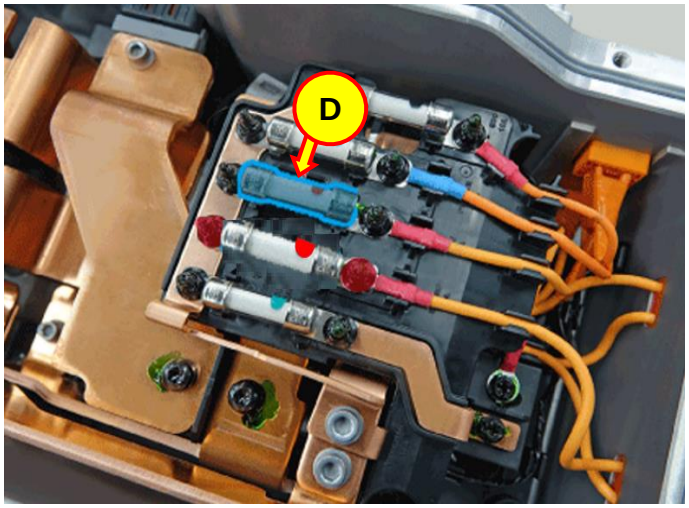
lb-ft	5.8
lb-in	70
N.m	7.8



E4. Remove the ICCU fuse (D) after removing the nuts.

Tightening Torque:

lb-ft	2.9
lb-in	35
N.m	3.9



E5. After removing the bus bar, remove Loctite residue with a screwdriver or other tool.

NOTICE

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

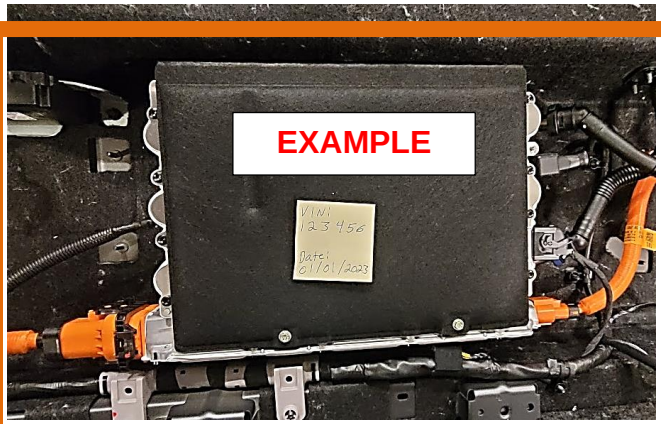
E6. Install the supplied ICCU.

E7.

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.



E8. Install all removed parts in the reverse order of removal.

E9. Refill the motor cooling system with coolant and then fully bleed out air using the GDS diagnostic tool.

NOTICE

- When installing the bus bar at the fuse, apply Loctite.
- Be sure to install all components according to specified torques.
- Be careful not to drop any components, as this may cause internal damage.