



## Technical Service Bulletin

<b>GROUP</b>	<b>NUMBER</b>
<b>RECALL</b>	<b>24-01-023G</b>
<b>DATE</b>	<b>MODEL(S)</b>
<b>MARCH 2024</b>	<b>GV60 (JW1 EV) GV70 ELECTRIFIED (JK1a EV) G80 ELECTRIFIED (RG3 EV)</b>

**SUBJECT:** 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:**

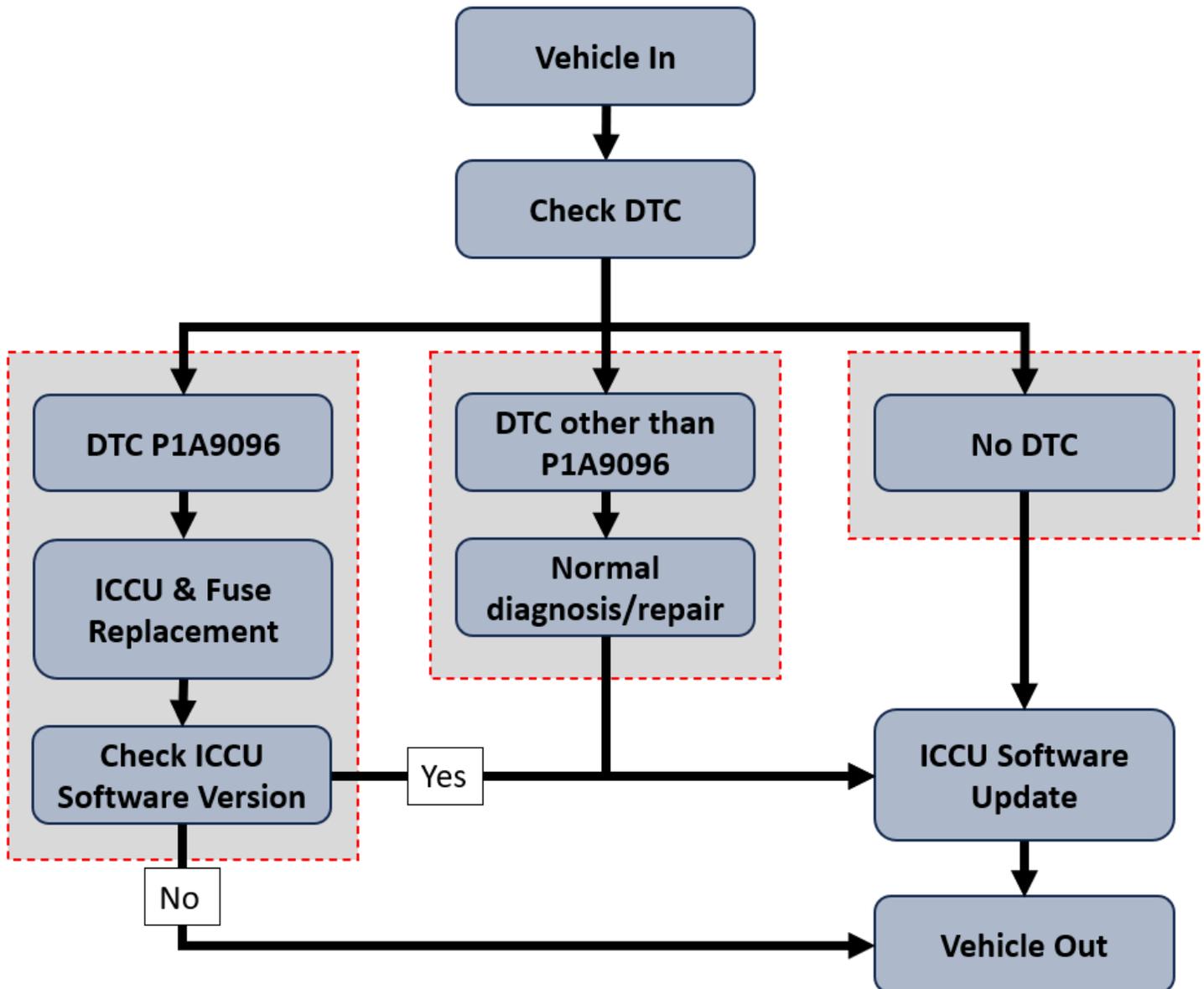
**STUI**



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

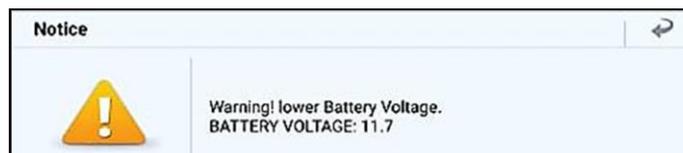
**You must initially perform the GDS ECU Update in Auto Mode.**

- 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.



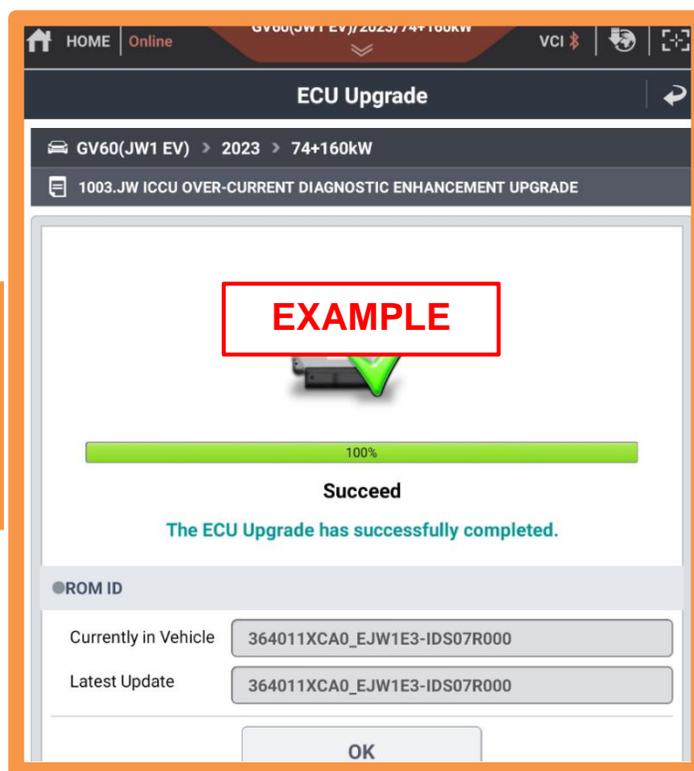
B2. After the ECU Upgrade process shows 100% complete, cycle the ignition key to OFF for at least 10 seconds to reset the control unit.

**STUI**



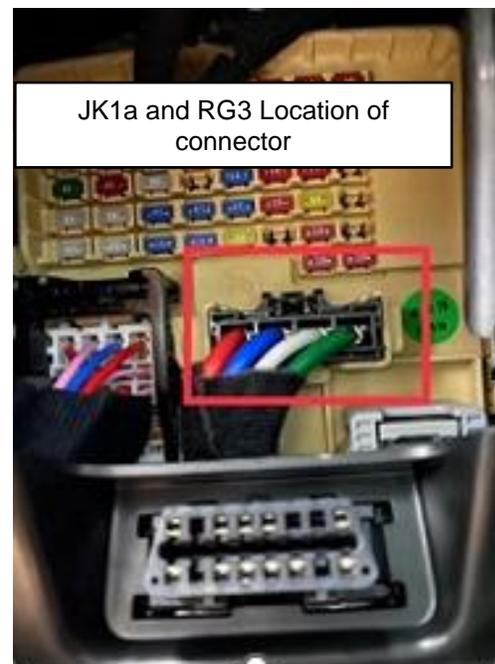
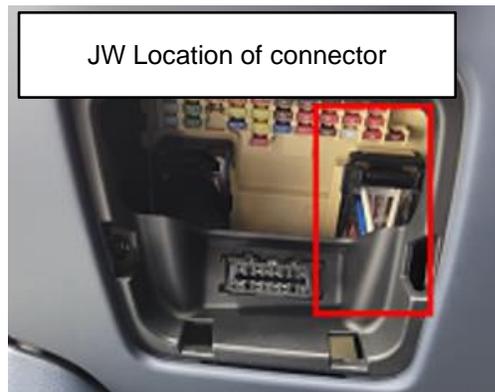
Take a screenshot of the ECU Update Complete screen using your particular tablet's screenshot save method and upload to STUI.

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.**

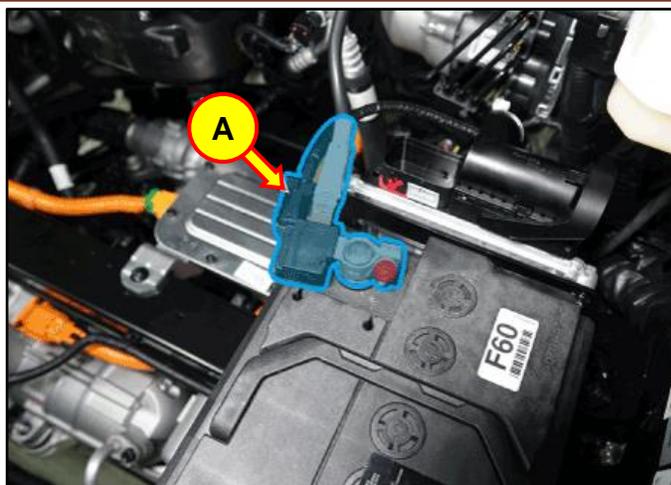
Model	System	ECU Part Number	ROM ID	
			OLD	NEW
RG3 EV	ICCU	36401-1XBAA0	ERG3E1-IDS01R000	ERG3E3-IDS09R000
			ERG3E1-IDS02R000	
			ERG3E1-IDS51R000	
			ERG3E1-IDS04R000	
			ERG3E1-IDS05R000	
			ERG3E3-IDS06R000	
			ERG3E3-IDS07R000	

**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).



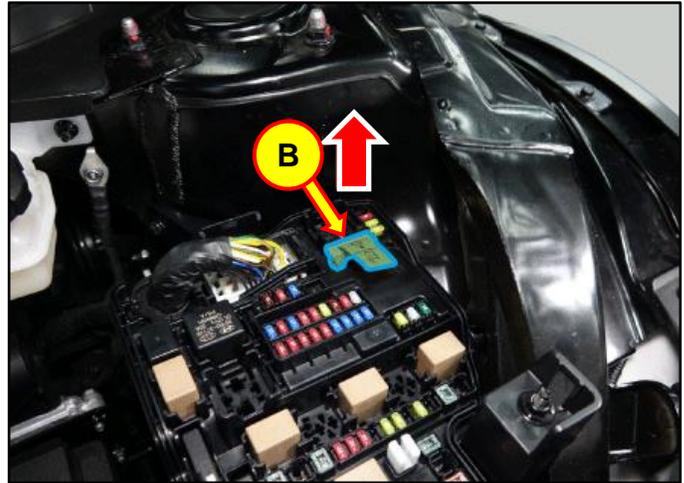
**⚠ WARNING**

- 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.

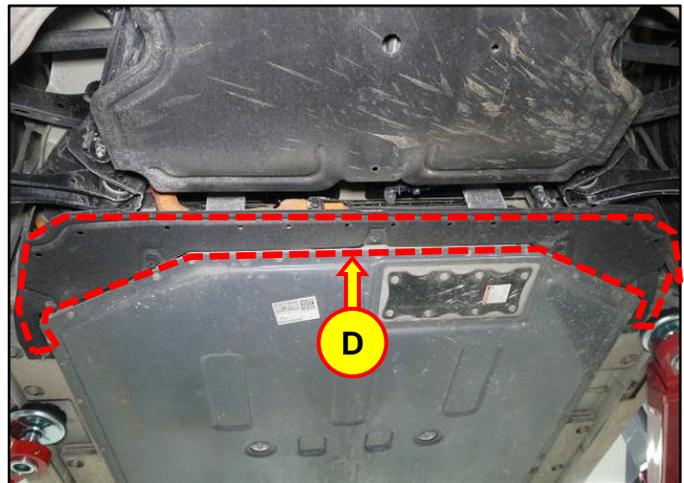


- C4. Raise the vehicle on a lift.

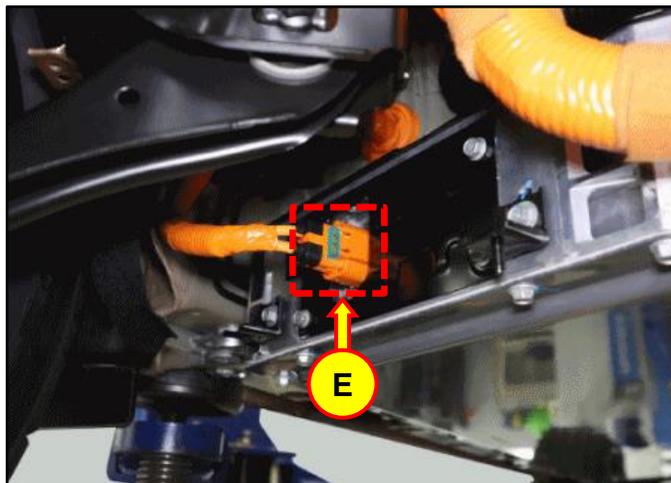
Loosen the rear undercover bolts and remove the cover (D).

**Tightening Torque:**

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



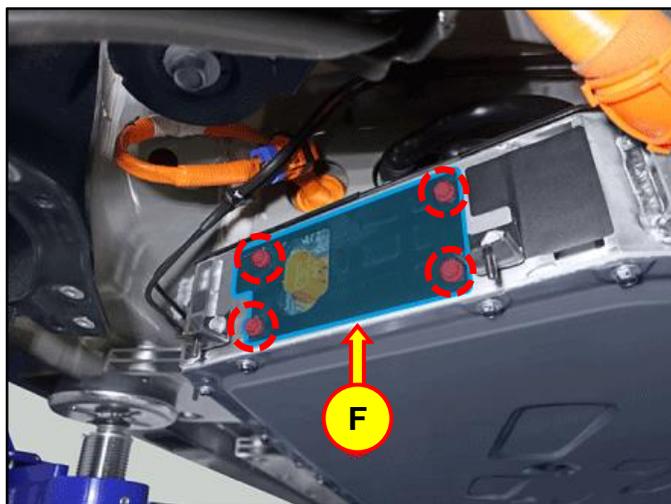
C5. Disconnect the ICCU high voltage connector (E).



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

**Tightening Torque:**

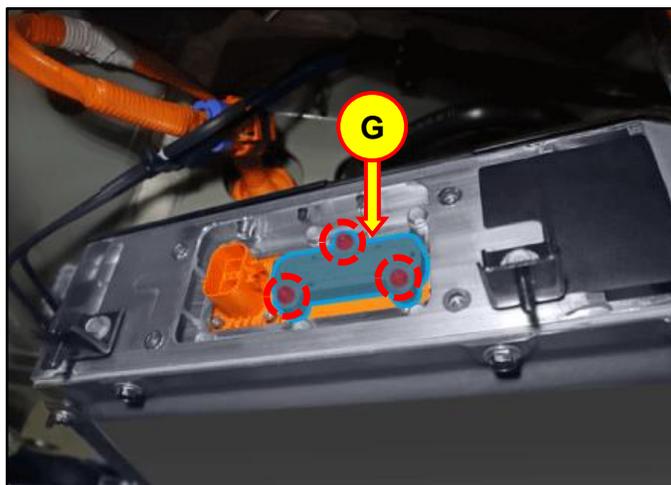
lb-ft	7.3
lb-in	87
N.m	9.8



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

**Tightening Torque:**

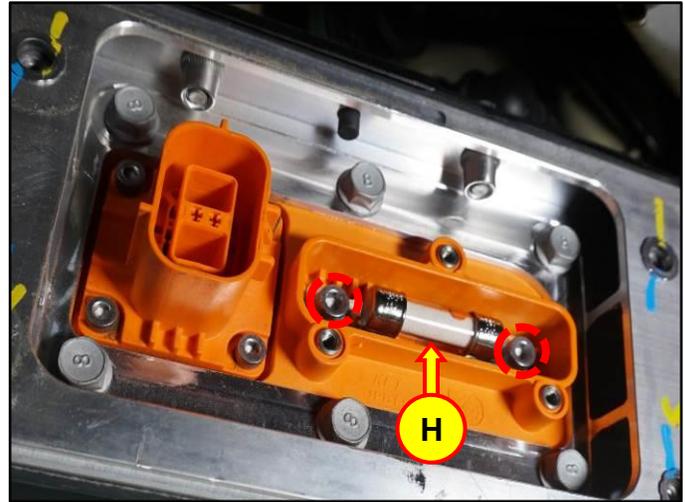
lb-ft	2.2
lb-in	26
N.m	2.9



- 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:**

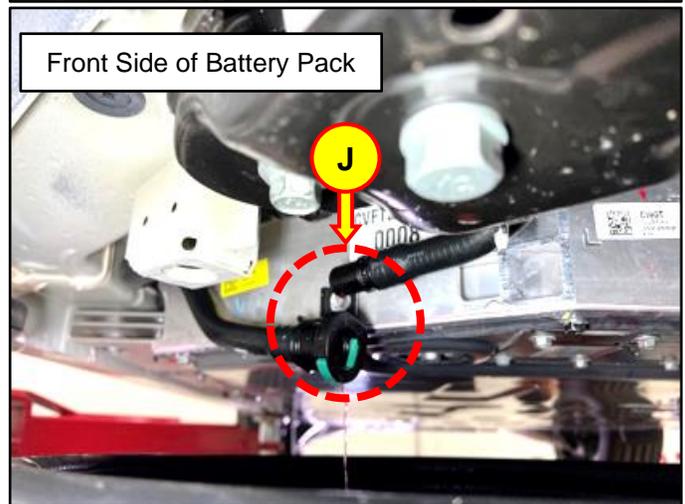
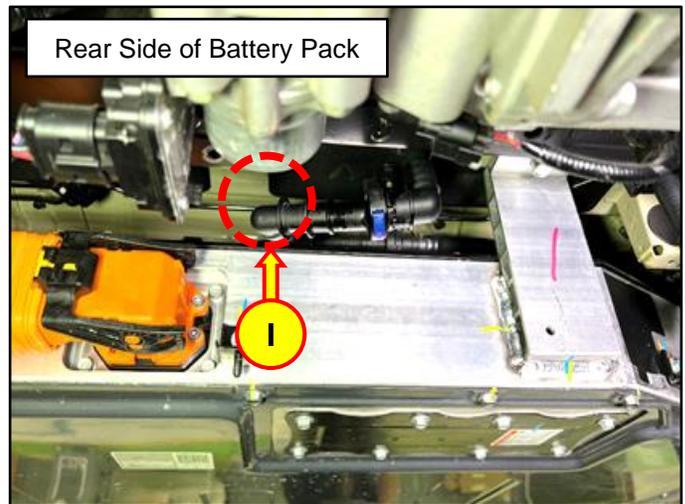
lb-ft	3.7
lb-in	44
N.m	4.9



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

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).

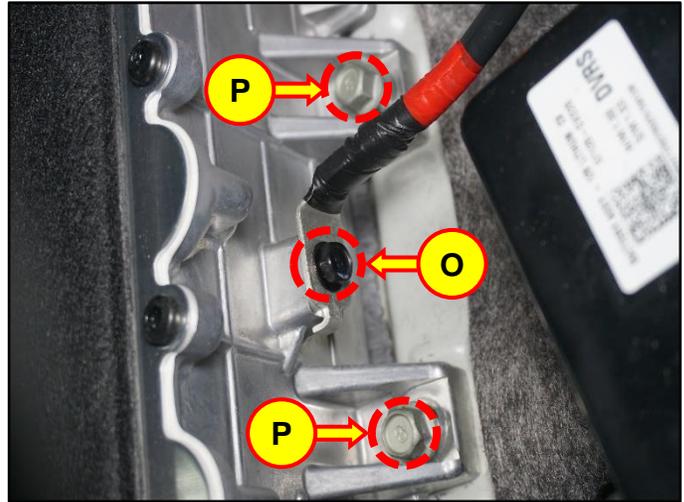
**Tightening Torque:**

**Bolt O:**

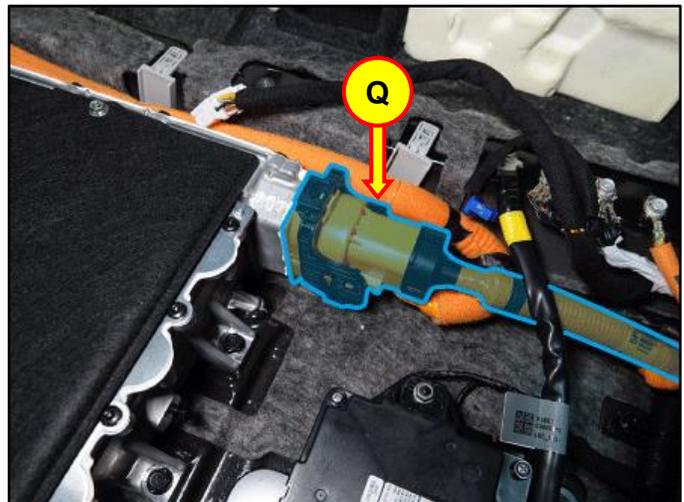
lb-ft	6.5
lb-in	78
N.m	8.8

**Bolt P:**

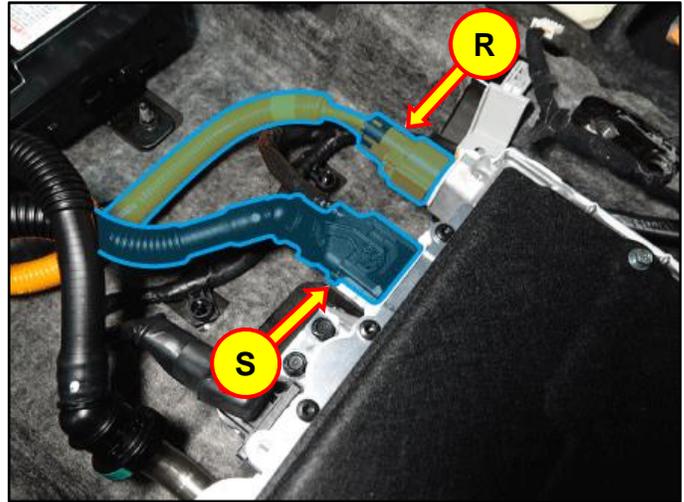
lb-ft	7.3
lb-in	87
N.m	9.8



C14. Disconnect the ICCU AC connector (Q).



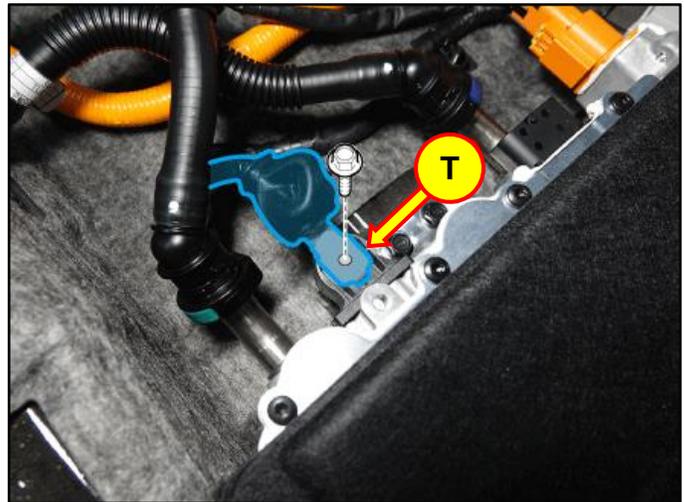
- C15. Disconnect the ICCU DC connector (R).  
 Disconnect the ICCU signal connector (S).



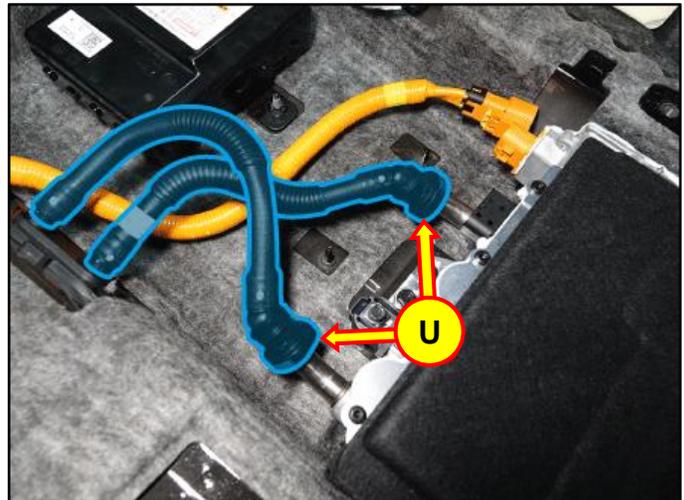
- C16. Remove bolt (T) securing the LDC to the ICCU.

**Tightening Torque:**

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



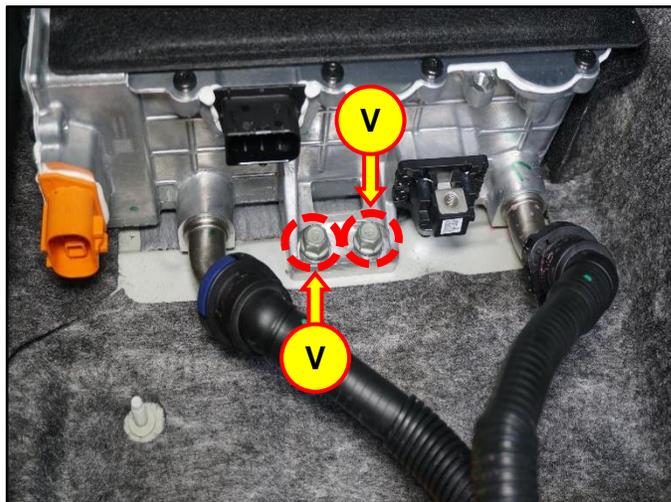
- C17. Place absorbent mat prior to disconnecting the coolant tube quick connectors (U).



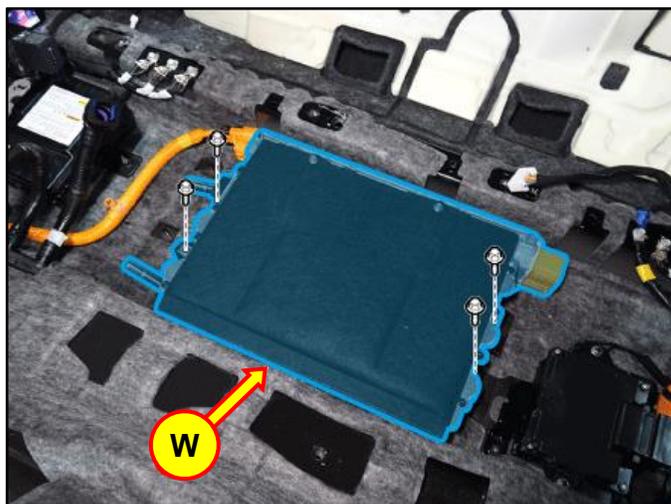
C18. Loosen the two (2) ICCU mounting bolts (V).

**Tightening Torque:**

lb-ft	18
N.m	25



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



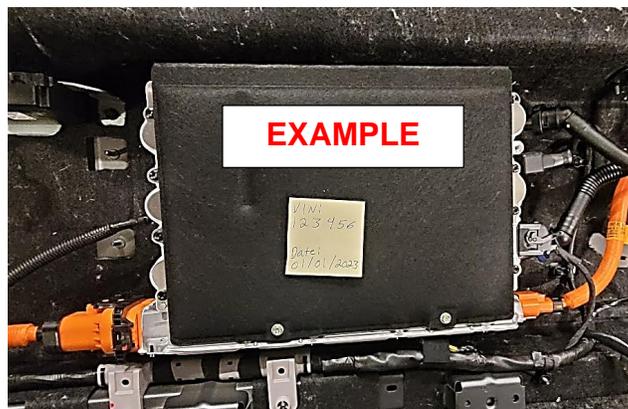
C20.

**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**

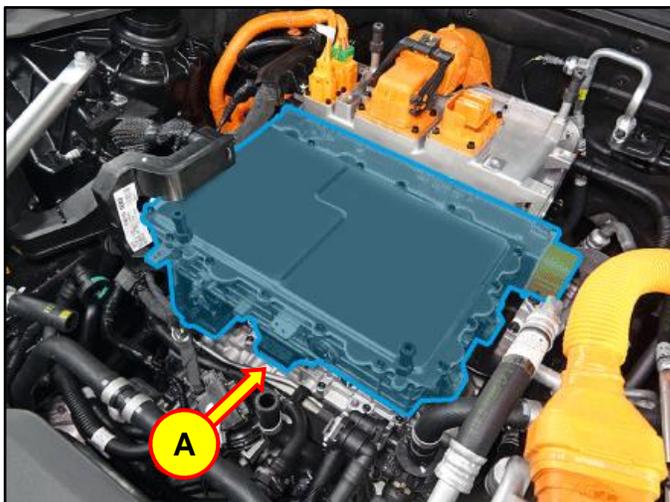
Do NOT reuse coolant that was drained from the vehicle. Doing this may bring foreign substances and impurities into the coolant system.

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

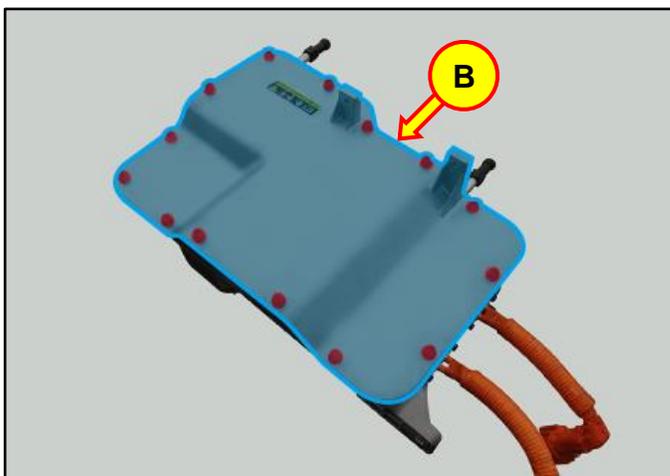
D1. Remove the Integrated Charge Control Unit (ICCU) (A).

Refer to Shop Manual:

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



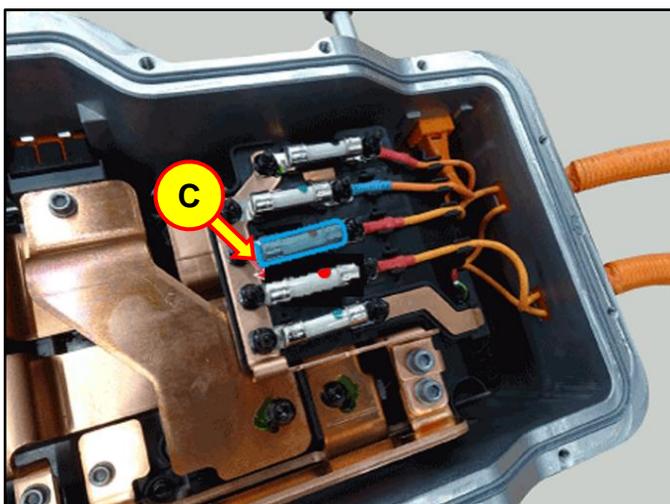
D2. Remove the high voltage junction block upper cover (B).



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

**Tightening Torque:**

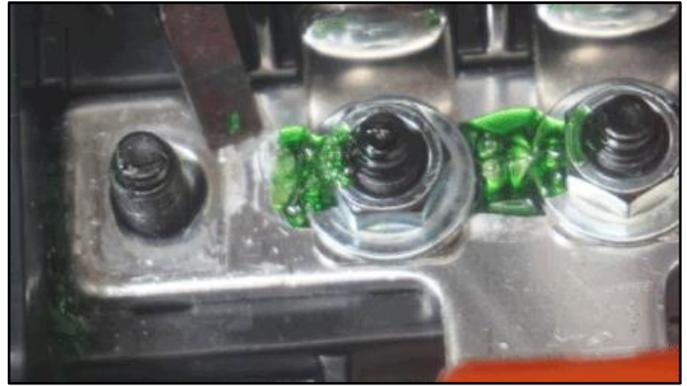
lb-ft	3.6
lb-in	43
N.m	4.9



- 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.

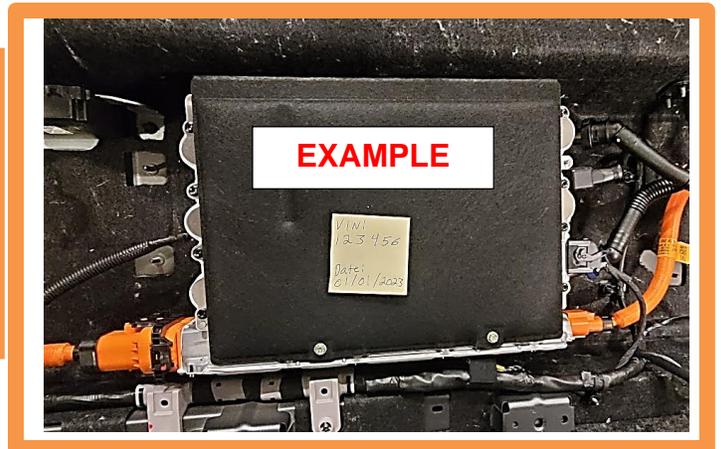
- D6.

### 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.)