



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

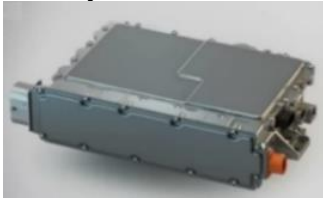
To avoid any potential damage to IONIQ vehicles, this recall can only be performed at IONIQ certified dealers. certified Genesis retailers.

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
**CAUTION: Do not install fuse before ICCU replacement. 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

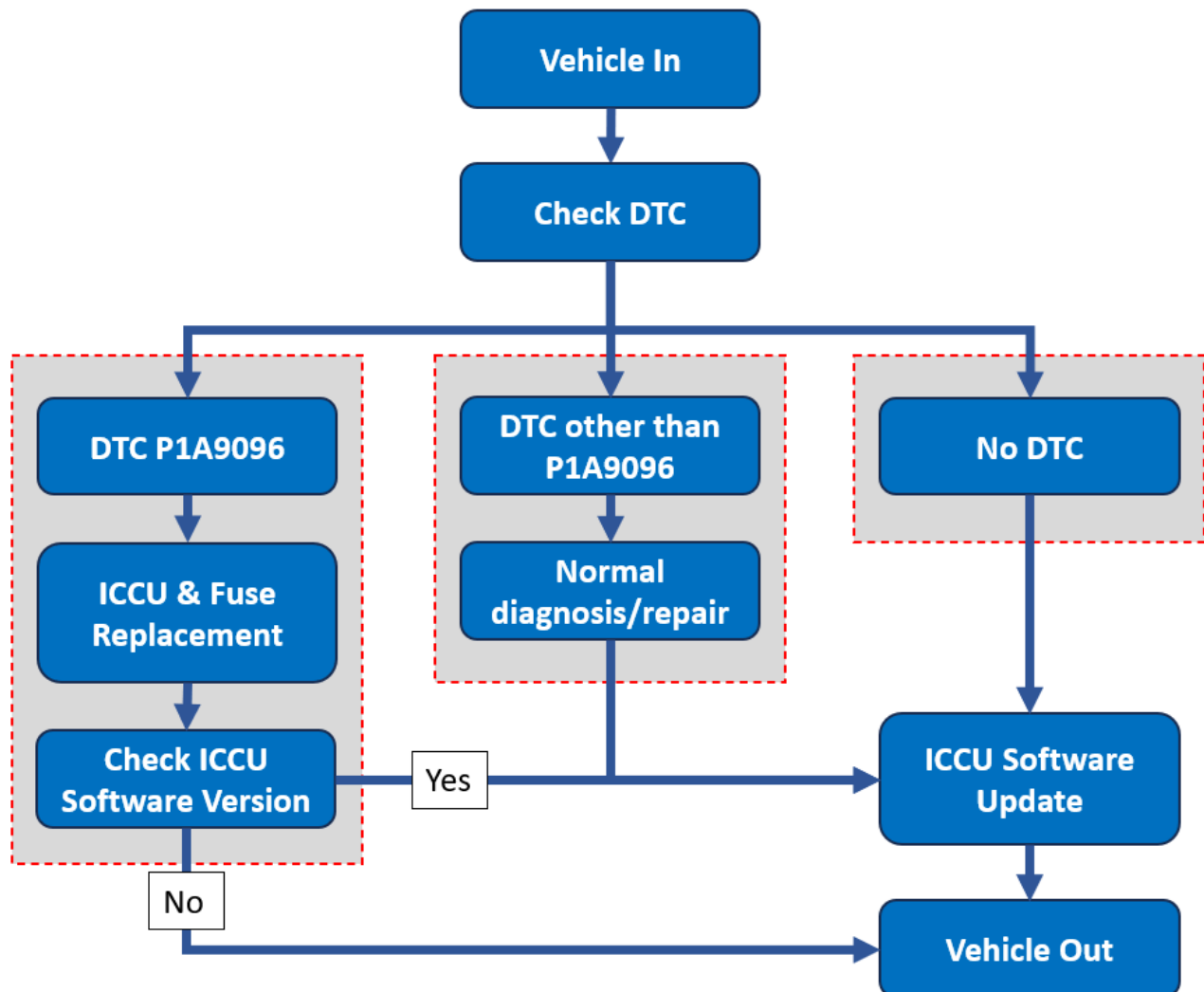


This TSB includes Repair validation photos. Refer to the latest Warranty Digital Documentation Policy for requirements.

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.

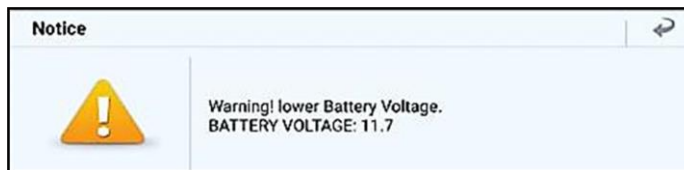
NOTICE

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.

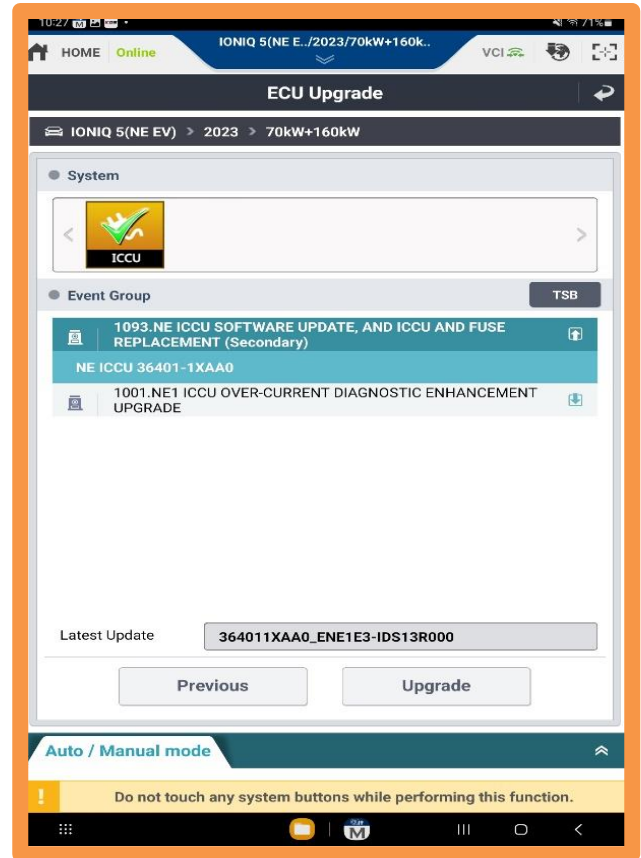


B1. Perform the ICCU Update in Auto Mode.

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

i Information

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



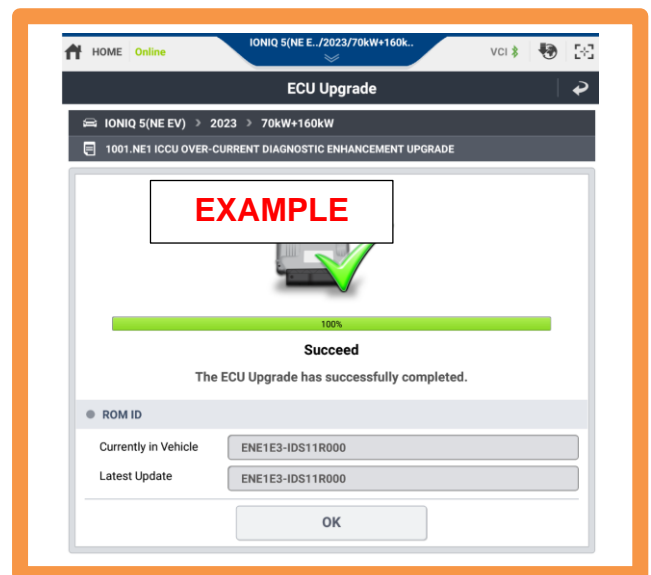
B2. After the ECU Upgrade process shows 100% complete, cycle the ignition key to OFF for at least 10 seconds to reset the control unit.

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)

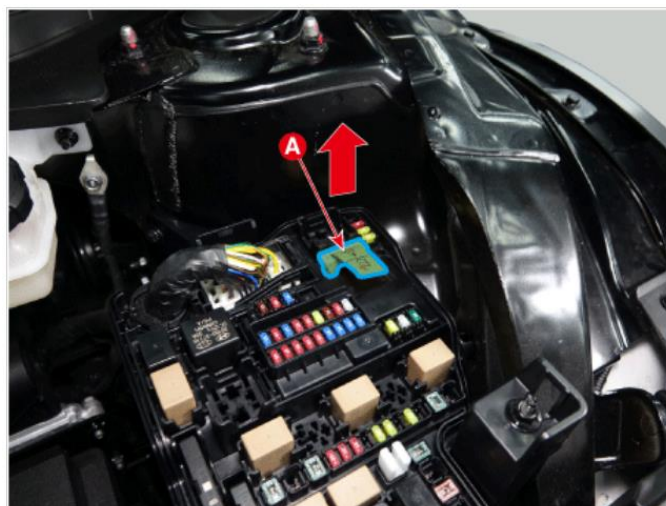
⚠ WARNING

- 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.

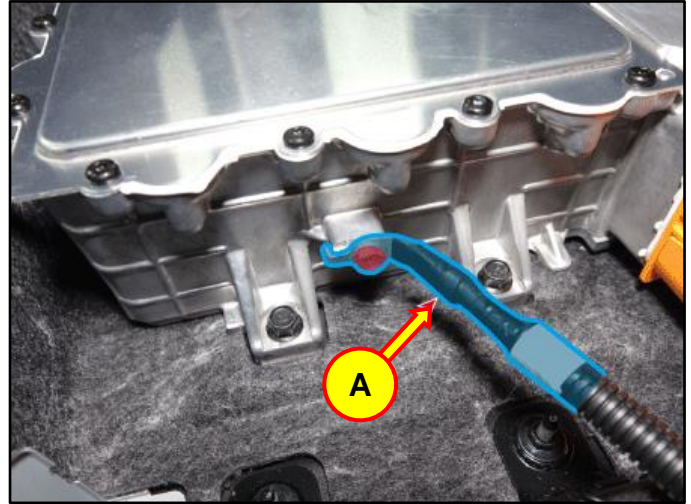
i Information

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

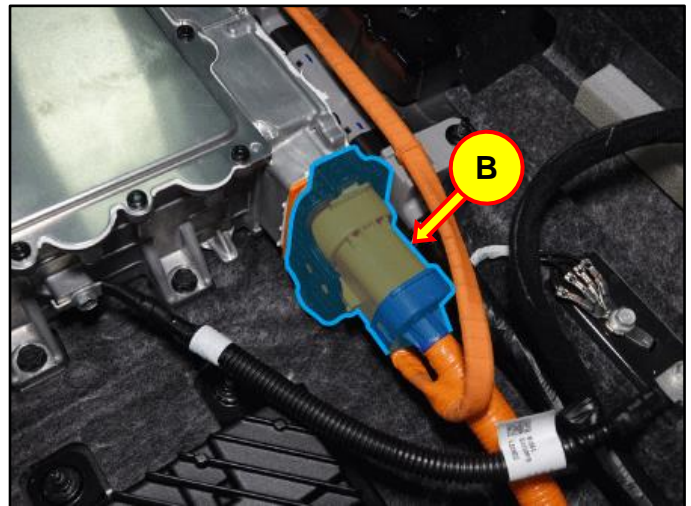
C5. Remove the ground (A) after removing the mounting bolt.

Tightening Torque:

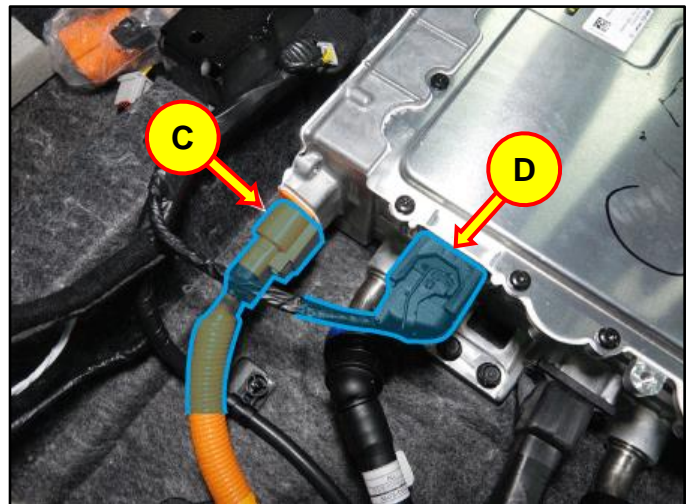
lb-ft	7
lb-in	84
N.m	9



C6. Disconnect the ICCU AC connector (B).



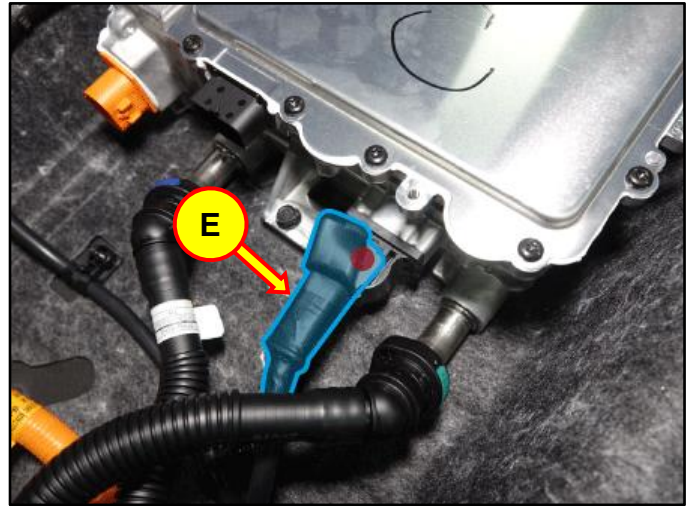
C7. Disconnect the ICCU DC connector (C) and ICCU signal connector (D).



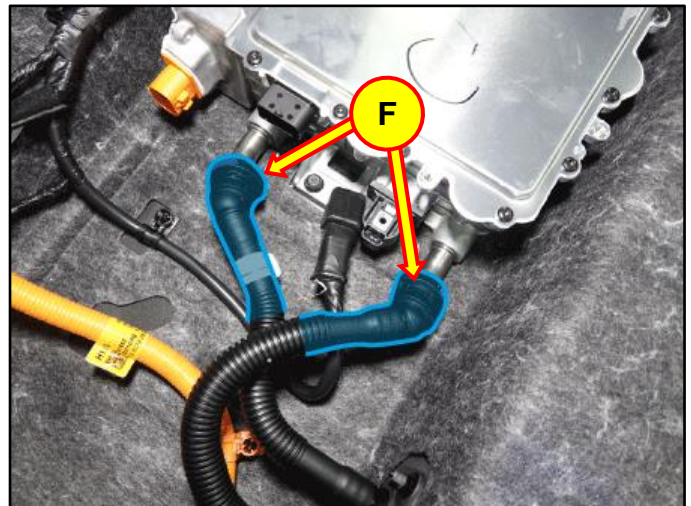
C8. After loosening the mounting bolts, remove the LDC plus (E).

Tightening Torque:

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



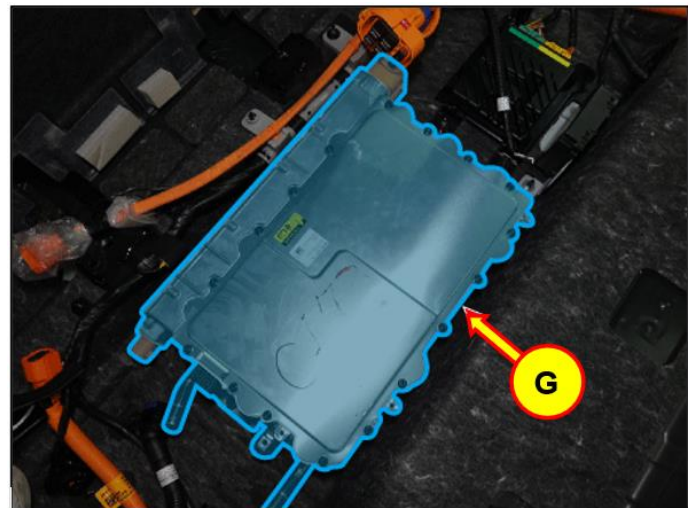
C9. Place absorbent mat under coolant tube connectors and disconnect the coolant tube quick connectors (F).



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.

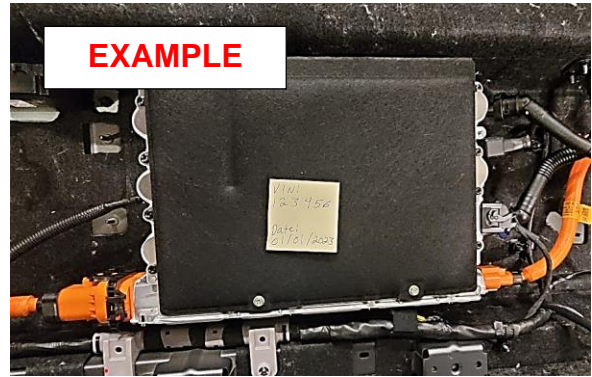
Refill the motor cooling system with coolant and then fully bleed out air using the GDS diagnostic tool.

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

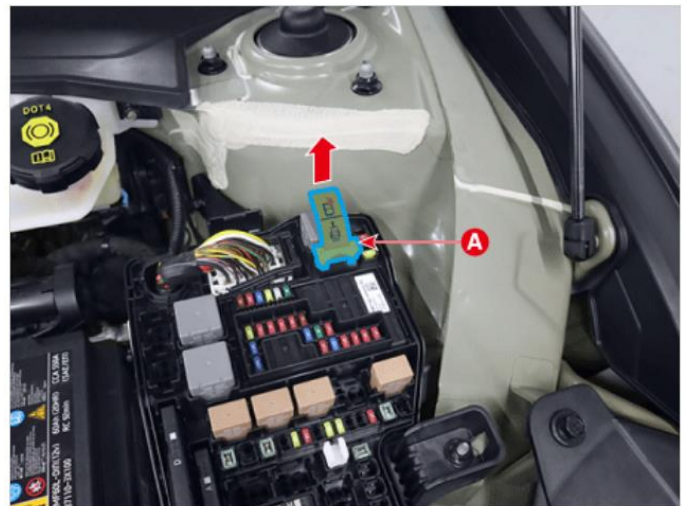
- Be sure to read and follow the "Safety and Precautions" before doing any work related with the high voltage system. Failure to follow the safety instructions may result in serious electrical injuries.
- Be sure to read and follow the "High Voltage Shut-off Procedures" before doing any work related 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

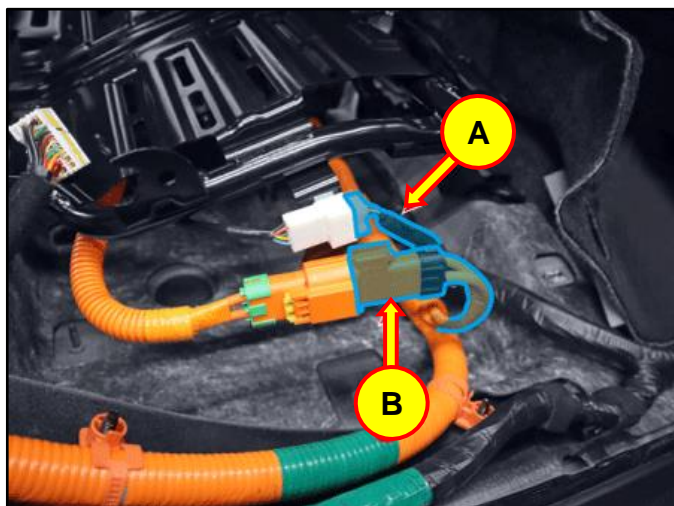
Remove the rear wheel house trim.

i Information

Refer to the shop manual:

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

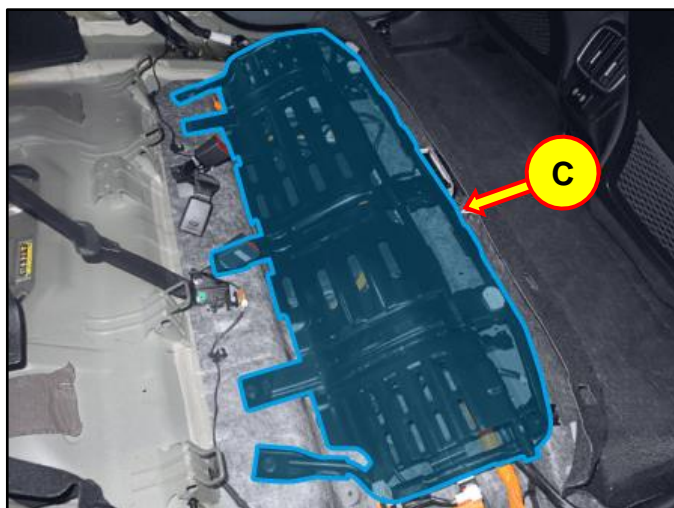
Disconnect the V2L signal connector (A).and
V2L extension connector (B).



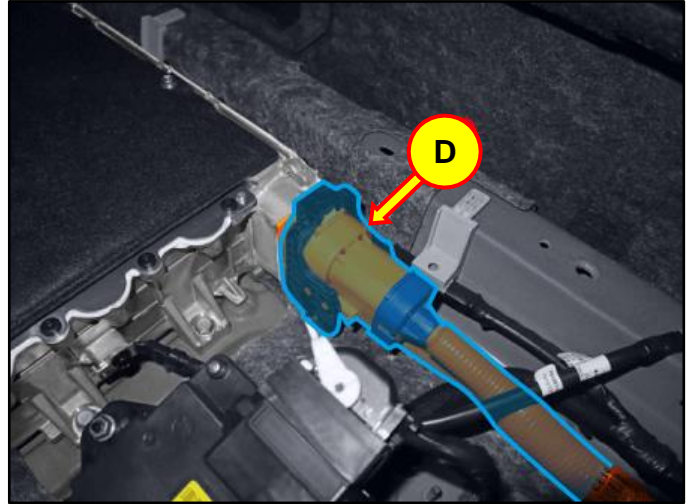
D2. After removing the bolts and nuts, remove the
upper frame (C).

Torque Tightening:

lb-ft	19
N.m	25



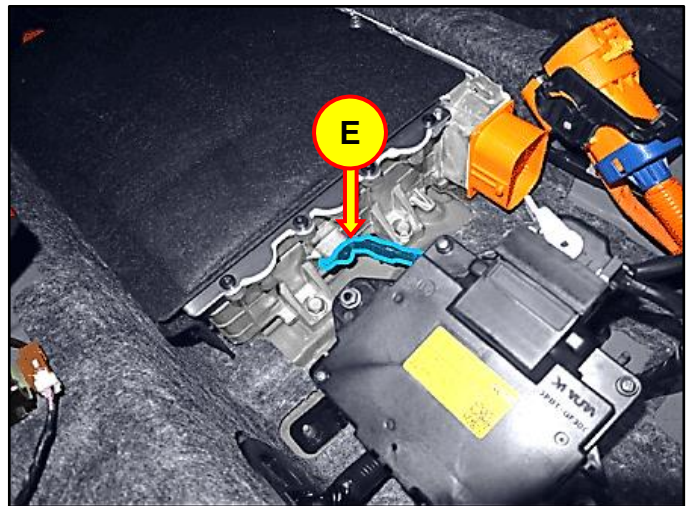
D3. Disconnect the ICCU AC connector (D).



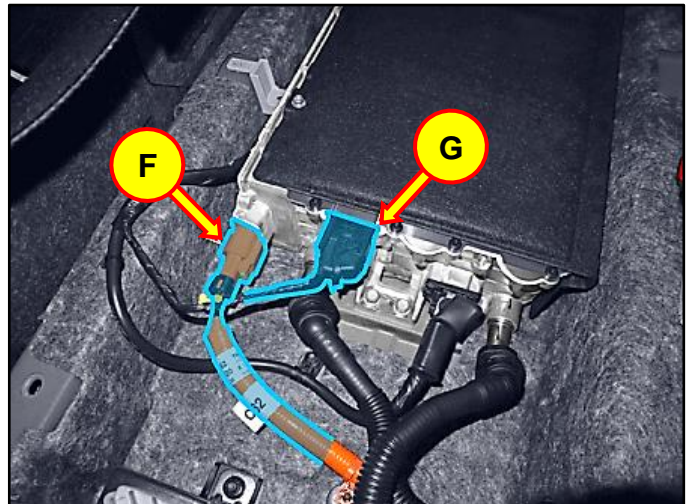
D4. After removing the bolt, Remove the LDC ground (E).

Torque Tightening:

lb-ft	10
N.m	13



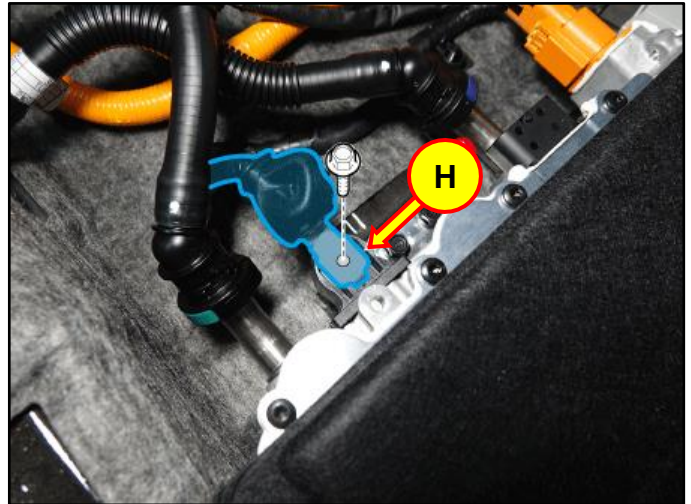
D5. Disconnect the ICCU DC connector (F) and ICCU signal connector (G).



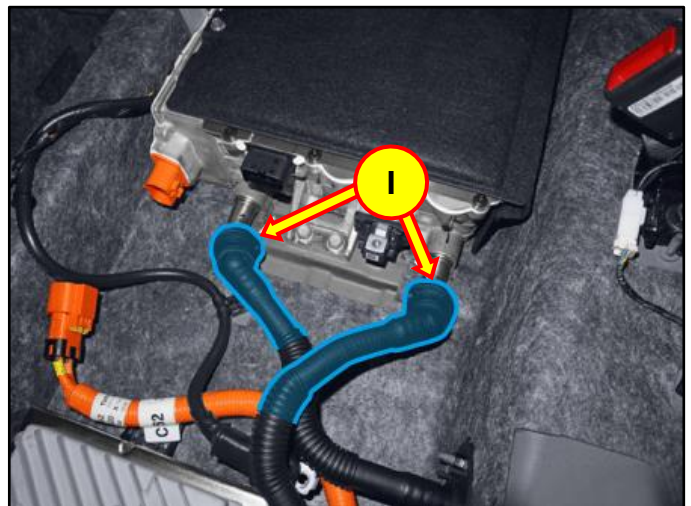
D6. After removing the bolt, remove the LDC (+) (H).

Tightening Torque:

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



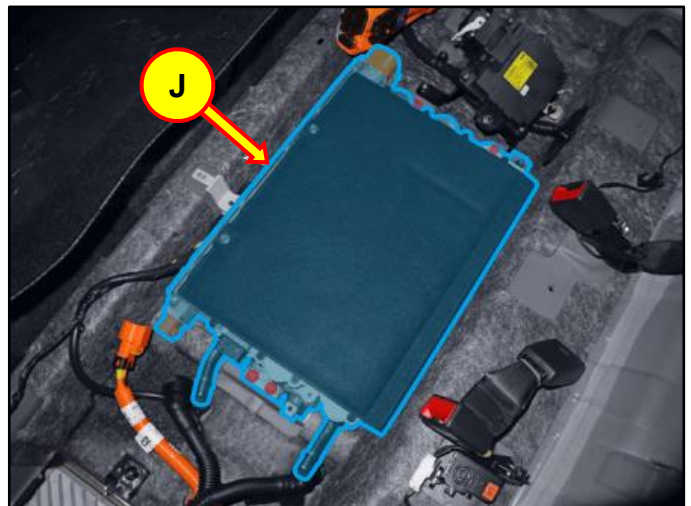
D7. Place absorbent mat under the coolant tubes then disconnect the coolant quick connector (I).



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.

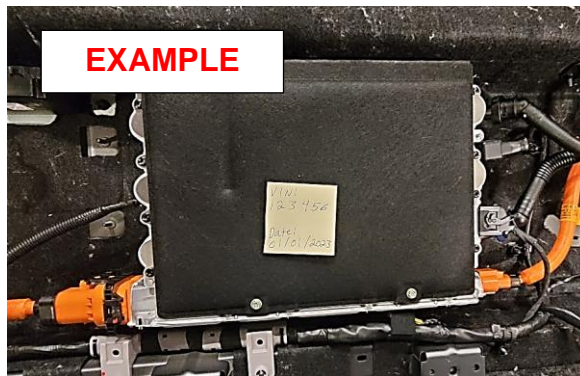
Refill the motor cooling system with coolant and then fully bleed out air using the GDS diagnostic tool.

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

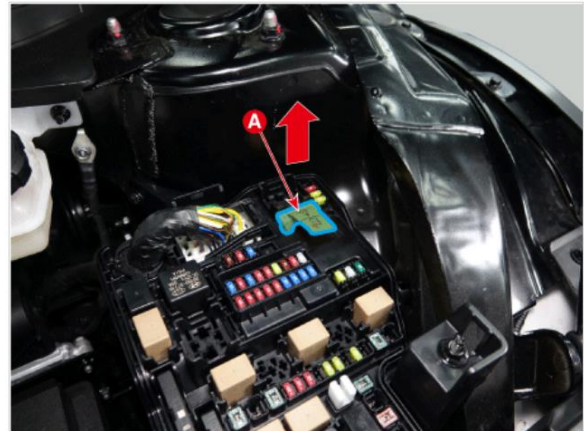
ONLY PERFORM THIS SECTION AFTER REPLACING THE ICCU.

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

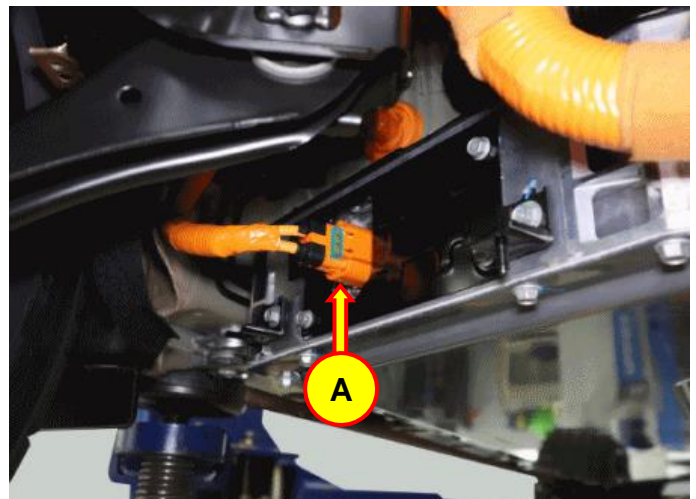
Refer to the shop manual:
 Battery Control System > High Voltage Shut-off Procedures



- 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

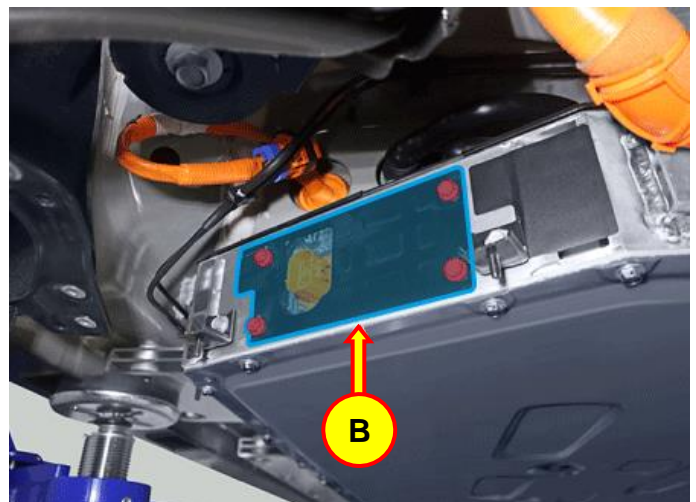


- E3. Disconnect the ICCU high voltage connector (A).

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

Tightening Torque:

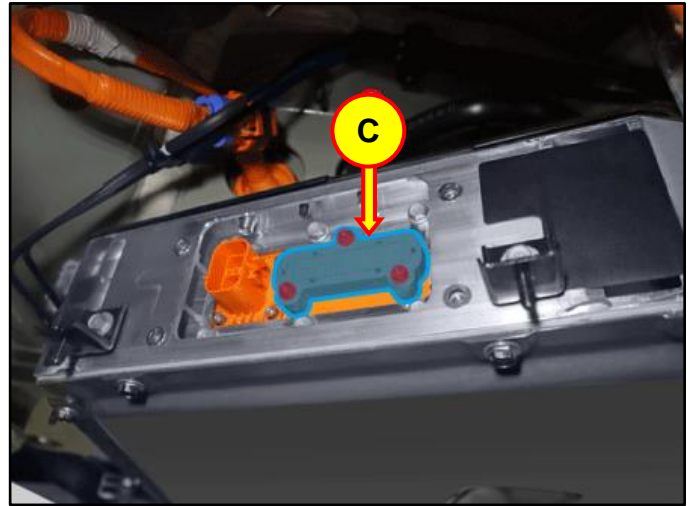
lb-ft	8
lb-in	96
N.m	10



E5. Remove the ICCU fuse cover (C).

Tightening Torque:

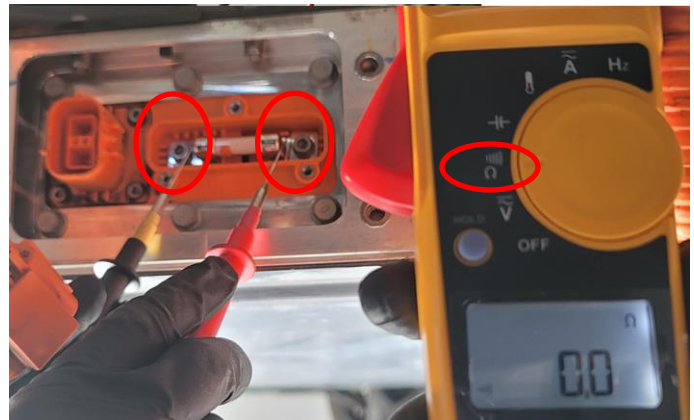
lb-ft	3.7
lb-in	44.4
N.m	5.0



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.



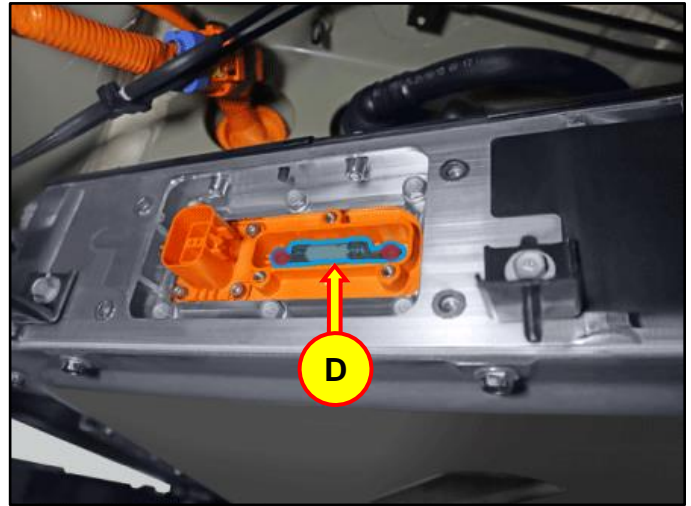
E7. Remove the ICCU fuse (D).

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.

