



GROUP

Safety Recall Campaign

NUMBER

SC314 (Rev 2, 9/25/2024)

MODEL

2022MY
Niro EV (DE EV)

DATE

July 2024

SAFETY RECALL CAMPAIGN

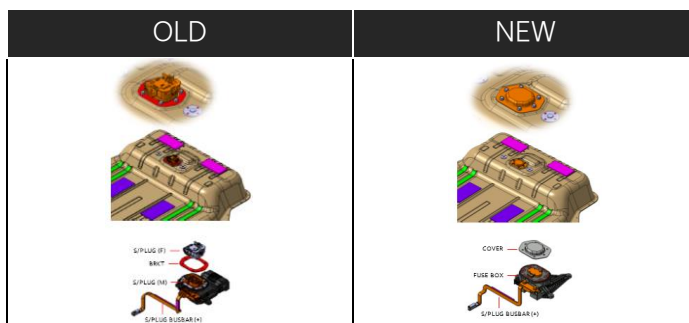
SUBJECT:

HIGH VOLTAGE BATTERY
SAFETY PLUG REPLACEMENT (SC314)

NOTICE

This bulletin has been revised to include additional information. New/revised sections of this bulletin are indicated by a black bar in the margin area.

This bulletin provides information to replace the High Voltage Battery (HVB) safety plug on certain 2022MY Niro EV (DE EV) vehicles produced from July 21, 2021 through December 2, 2021. Over time, the contact surfaces of the HVB safety plug may develop high electrical resistance which is suspected to be caused due to a supplier deviation in the manufacturing of the Female-Female (F-F) terminal. If high electrical resistance occurs while driving or during HVB charging, the safety plug may melt, thereby increasing the risk of loss of motive power and/or fire. A loss of motive power increases the risk of a crash. A fire increases the risk of injury. Follow the procedure outlined in this publication to replace the HVB safety plug with a new one on. Before conducting the procedure, verify that the vehicle is included in the list of affected VINs.



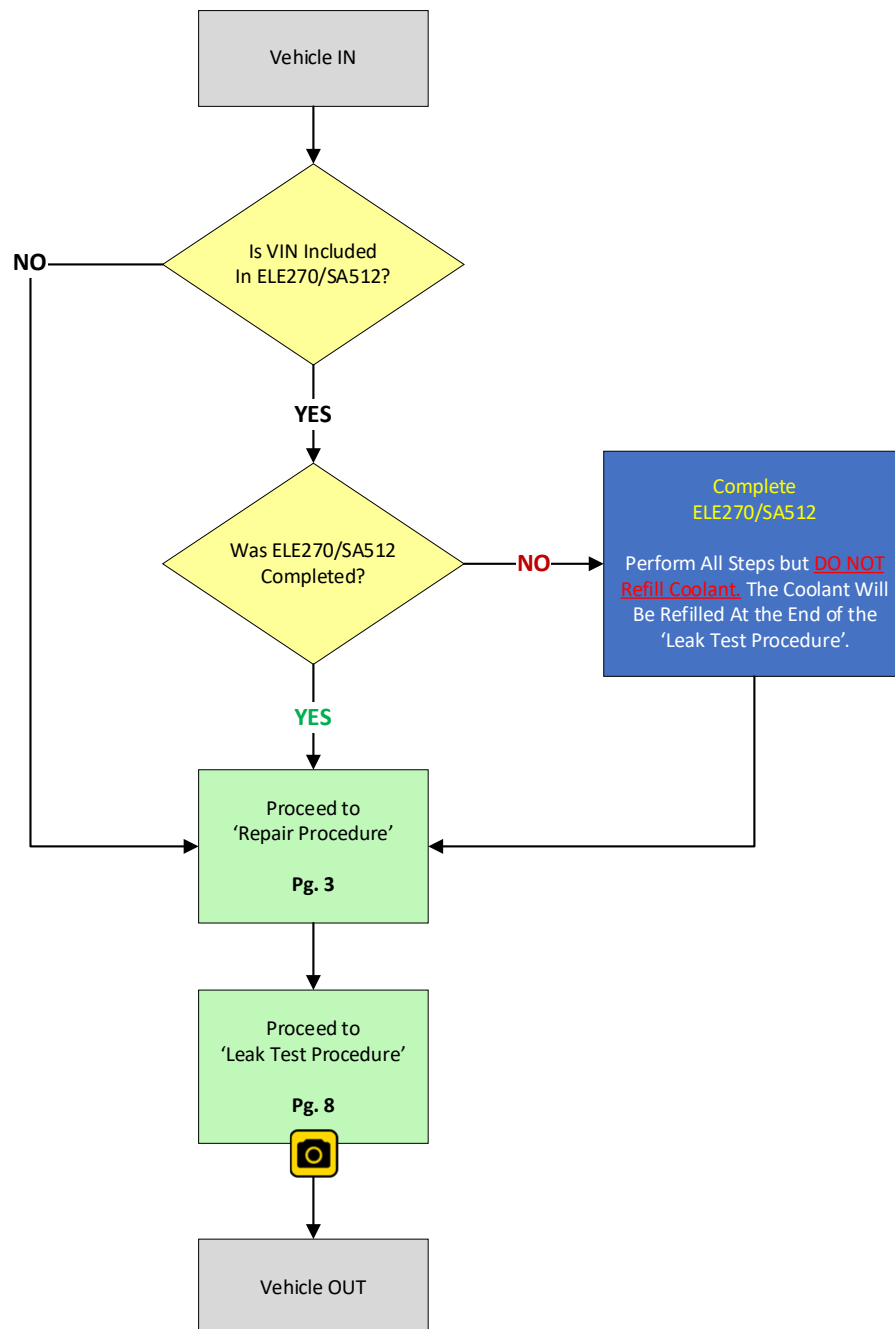
NOTICE

There is no charge to the vehicle owner for this repair. Under applicable law, you may not sell or otherwise deliver any affected vehicle until it has been repaired pursuant to the procedures set forth in this bulletin.

Repair status for a VIN is provided on KDealer+ (Service → Warranty Coverage → Warranty Coverage Inquiry → Campaign Information). Not completed Recall / Service Action reports are available on KDealer+ (Consumer Affairs → Not Completed Recall → Recall VIN → Select Report), which includes a list of affected vehicles.

A printed copy is for reference only; publication information can be updated at any time. Always refer to KGIS for the latest information. After logging in kdealer.com, the newest technical publications are listed in 'Service Releases' and has the latest service information that has been released.

Flowchart:



Path 1: Vehicle IN → VIN Not Included in ELE270/SA512 → 'Repair Procedure' → 'Leak Test Procedure' → Vehicle OUT

Path 2: Vehicle IN → VIN Included in ELE270/SA512 → ELE270/SA512 Completed → 'Repair Procedure' → 'Leak Test Procedure' → Vehicle OUT

Path 3: Vehicle IN → VIN Included in ELE270/SA512 → ELE270/SA512 NOT Completed → ELE270/SA512 Completed FIRST → 'Repair Procedure' → 'Leak Test Procedure' → Vehicle OUT

SUBJECT:

HIGH VOLTAGE BATTERY SAFETY PLUG REPLACEMENT (SC314)**Repair Procedure:**

1. Confirm [ELE270/SA512](#) has been completed.
 - If [ELE270/SA512](#) has been **completed**, proceed to step 2.
 - If the affected vehicle is **not included** in [ELE270/SA512](#), proceed to step 2.
 - If [ELE270/SA512](#) has **NOT** been completed, proceed to [ELE270/SA512](#) and perform steps 1 - 30 first. **DO NOT** complete steps 31 - 37.

❗ IMPORTANT

ELE270/SA512 **MUST** be completed prior to proceeding with SC314 'Replacement Procedure'. If ELE270/SA512 has **NOT** been completed, perform all steps but **DO NOT refill the coolant** as this will be done at the end of the 'Leak Test Procedure'.

2. Perform the '**High Voltage Shut-Off Procedure**' (A) by referring to "Body Electrical System → High Voltage Shut-Off Procedures → High Voltage Shut-Off Procedures (Steps 1-4 Only)" in the applicable Shop Manual on KGIS.

📄 NOTICE

It takes at least five (5) minutes for capacitor of the high voltage battery system to discharge completely.

**⚠ WARNING**

Failure to follow the High Voltage Shut-off Procedure may result in serious electrical injuries.

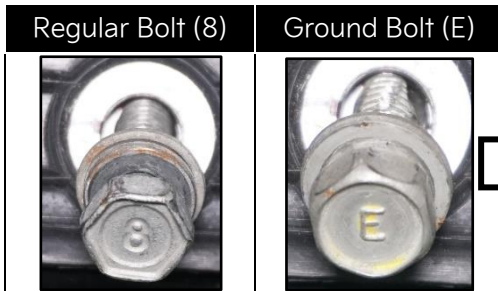
SUBJECT:

HIGH VOLTAGE BATTERY SAFETY PLUG REPLACEMENT (SC314)

3. Remove the HVB upper case (B) by referring to “EV Battery System → High Voltage Battery System → Case → Repair procedures (Removal)” in the applicable Shop Manual on KGIS. Refer to KGIS for bolt/nut torque specs.

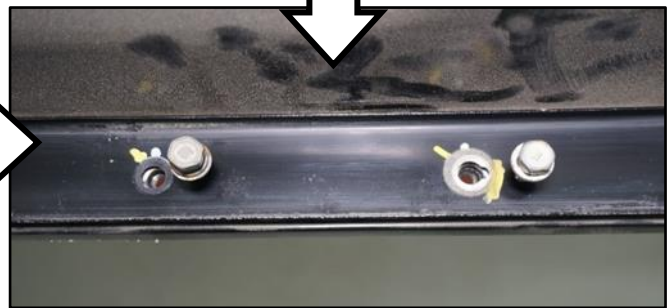
**TECH TIP**

Mark the six (6) ‘ground (earth)’ bolts and their location to prevent mixing with regular bolt prior to reassembly.



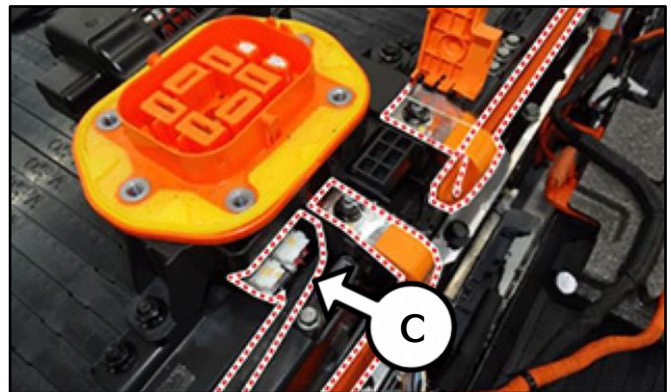
Ground Bolt (E): 6 ea.

Regular Bolt (8): 34 ea.



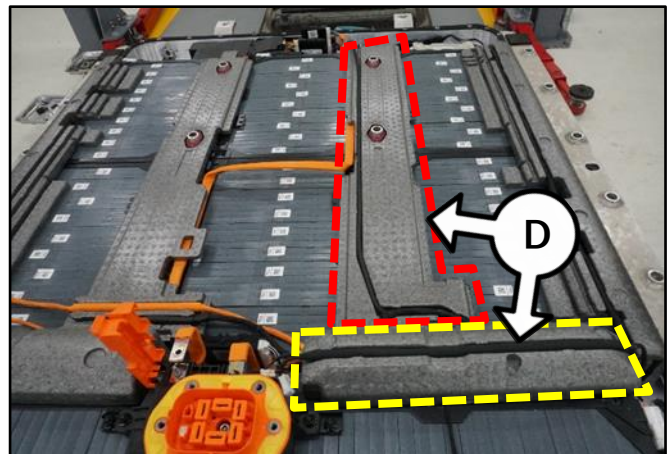
Note: DO NOT REUSE the bolts or nuts.

- 4.. Disconnect the service plug cable connectors (C).



5. Remove the right battery pads (D).

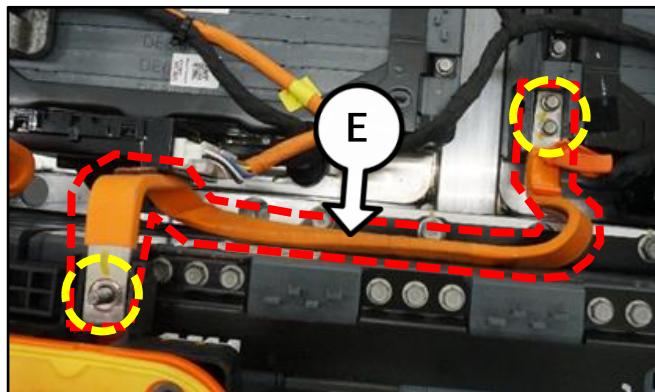
Note: The left battery pads do NOT need to be removed.



SUBJECT:

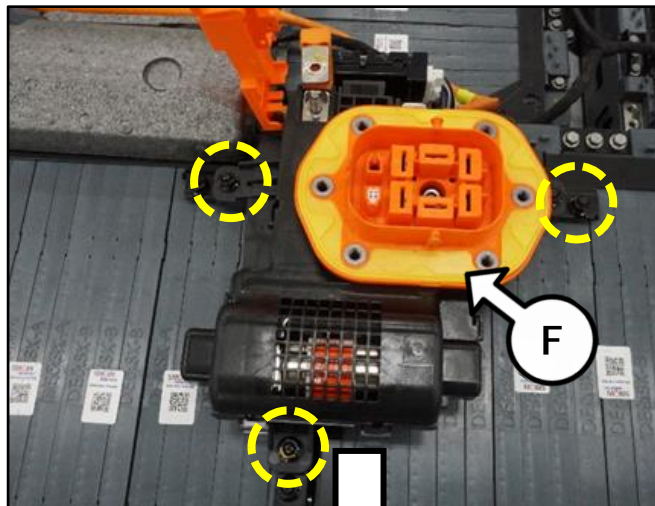
HIGH VOLTAGE BATTERY SAFETY PLUG REPLACEMENT (SC314)

6. Loosen the two (2) bolts and one (1) nut to remove and discard the bus bar (E).



7. Loosen the three (3) nuts to remove the service plug assembly (F).

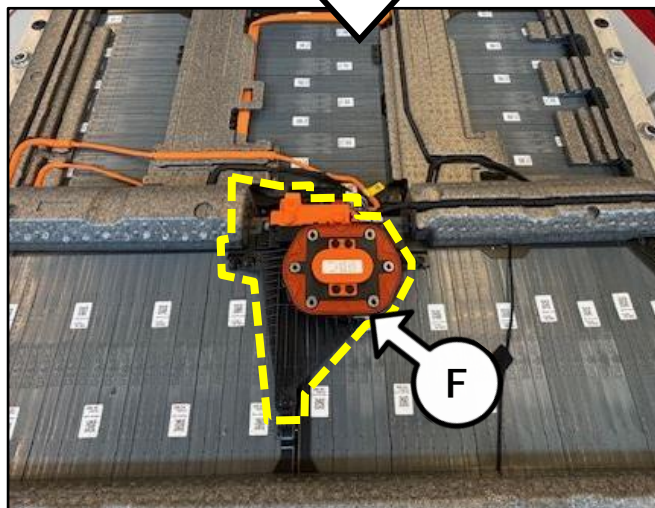
Note: The subject parts may be requested for evaluation by Kia US. Please retain the warranty replacement parts in accordance with Kia Warranty Policies and Procedures.



8. Install the new safety plug (F).



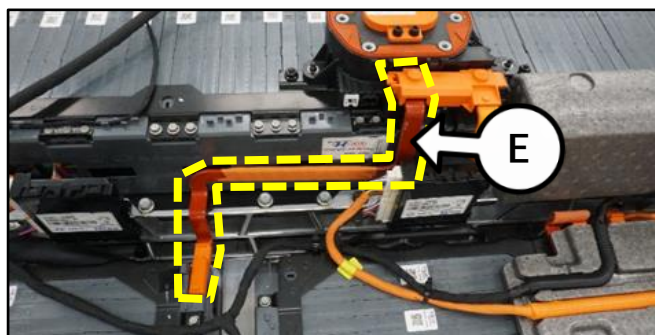
Tightening torque for Safety Plug Nuts:
7.2 - 8.7 lb.ft (9.8 - 11.8 N.m)



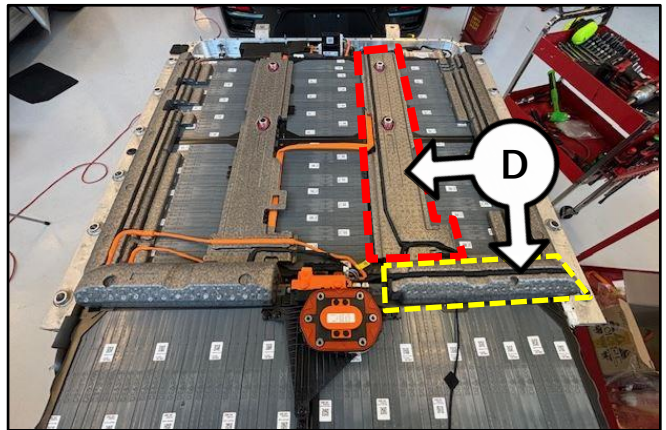
9. Install NEW bus bar (E).



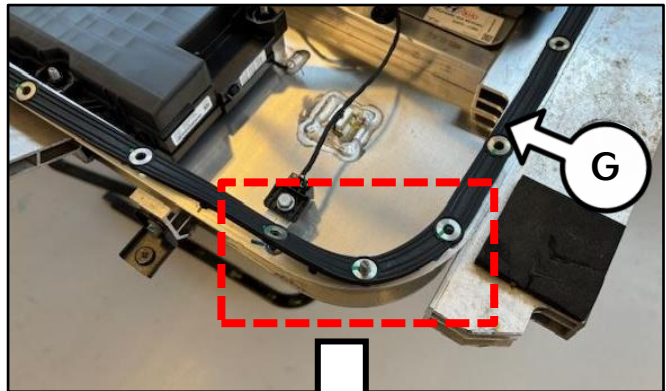
Tightening torque for Bus Bar Nut and Bolts:
7.2 - 8.7 lb.ft (9.8 - 11.8 N.m)



10. Reinstall the right battery pads (D).

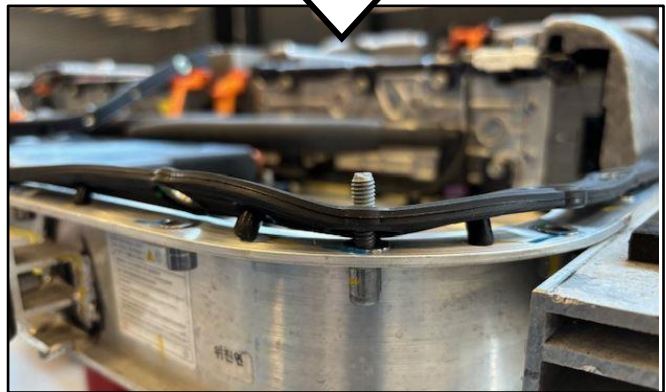


11. Install the NEW case gasket (G).



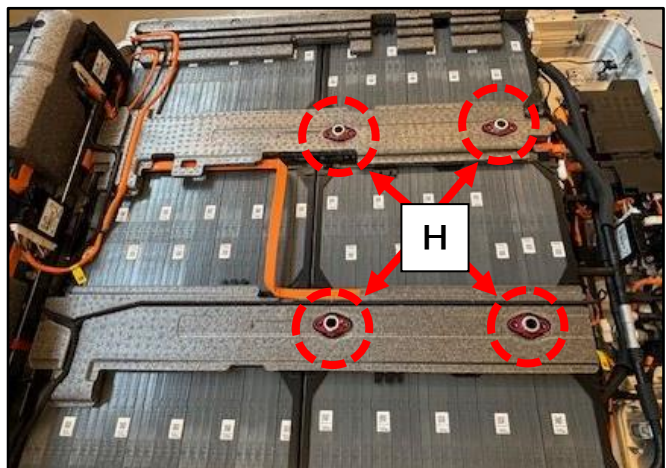
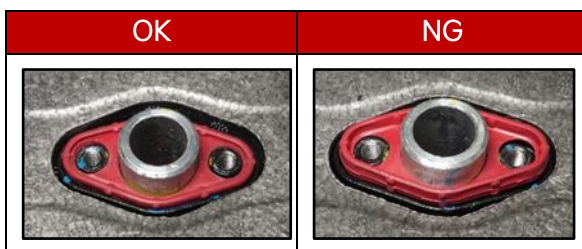
TECH TIP

When assembling the new gasket, locate the two (2) tabs shown to the right and align them with the holes on the HVB lower case, as shown.



12. Install the four (4) NEW reinforcement bar gaskets (H).

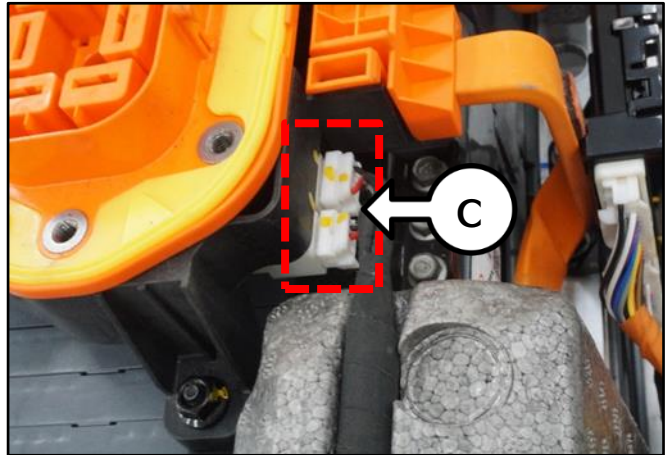
Note: Ensure the gaskets are assembled correctly, as shown below.



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13. Reconnect the service plug cable connectors (C).



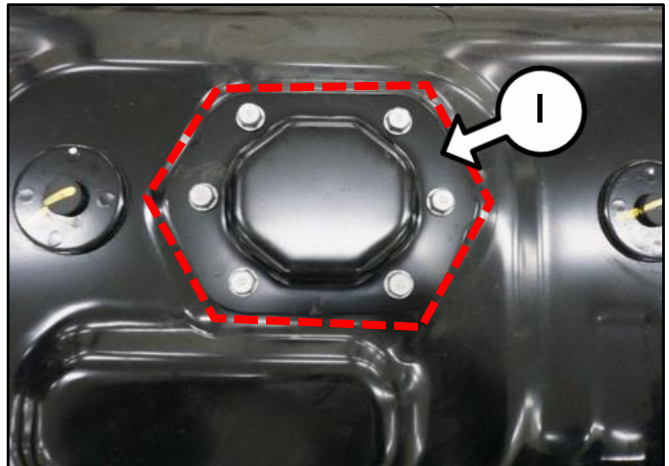
14. Reinstall the HVB upper case (B).



15. Install the new safety plug cover (I).



Tightening torque for Safety Plug Cover Bolts:
7.2 - 8.7 lb.ft (9.8 - 11.8 N.m)



16. Proceed to the 'Leak Test Procedure' on page 8.

Leak Test Procedure:

1. Install the sealing connectors onto the HVB, as shown.

SST GITG7XKDNN001

❗ IMPORTANT

Make sure to clean the HVB top case before attaching the low and high pressure hoses to ensure an air tight seal.

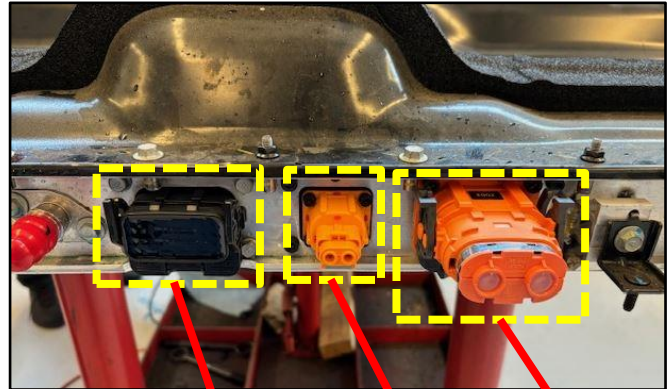


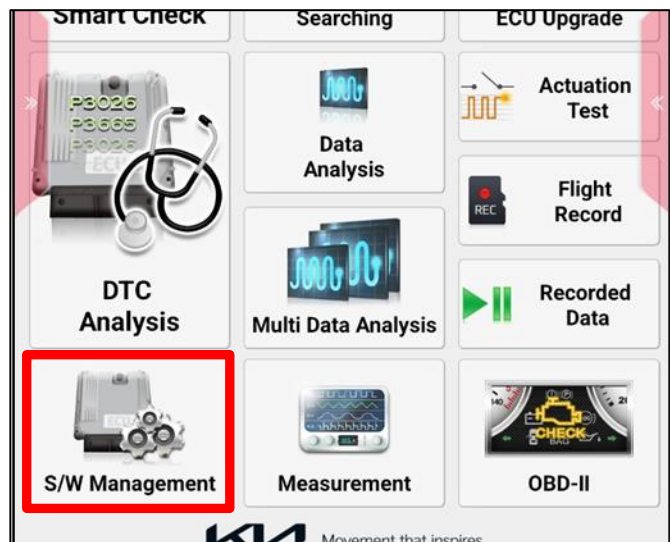
Figure			
Name	BMS Connector	Heater Connector	HV Connector
Part No.	E004	E003	E002

- 2a. Attach the 12V power cord to the leak tester (A), as shown.

- 2b. Press the 'POWER ON/OFF' button.



- 3a. Using the KDS, select 'S/W Management'.



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- 3b. Select 'EV Battery System'.
- 3c. Select 'High Voltage System: Coolant Line Leak Test & Air Tightness Check'.
- 4a. Select 'High Voltage Battery Pack'.
- 4b. Select 'Next'.

Systems Components Unfold All

- EV Motor Control System
- EV Battery System**
 - System Identification
 - Isolation Breakdown Detection function
 - SOC Calibration
 - SOH Reset
 - High voltage battery pack diagnosis
 - Inspection of insulation resistance of high voltage parts in EV
 - High Voltage System: Coolant Line Leak Test & Air Tightness Check**
- On Board Charger
- Charging Control Module
- VCULDC
- E-Shifter(SBW)
- ABS/ESC(+EPB)
- Forward Collision-Avoidance Assist(FCA/SCC)
- Airbag(Event #1)
- Airbag(Event #2)

! Do not touch any system buttons while performing this function.

High Voltage System: Coolant Line Leak Test & Air Tightness Check

[Function selection]

Select the function to proceed.

Coolant Dispose

☐ Coolant Dispose

Leak Test

☐ Coolant Line Leak Test

☒ High Voltage Battery Pack

☐ ALL(Coolant Line Leak Test + High Voltage Battery Pack)

Self Test(Refer to User Guide)

☐ CoolantLine Fitting(Test Using Self test adapter)

☐ Air Injection Adapter(Begin the test after attach on a flat iron plate.)

Prev **Next**

! Do not touch any system buttons while performing this function.

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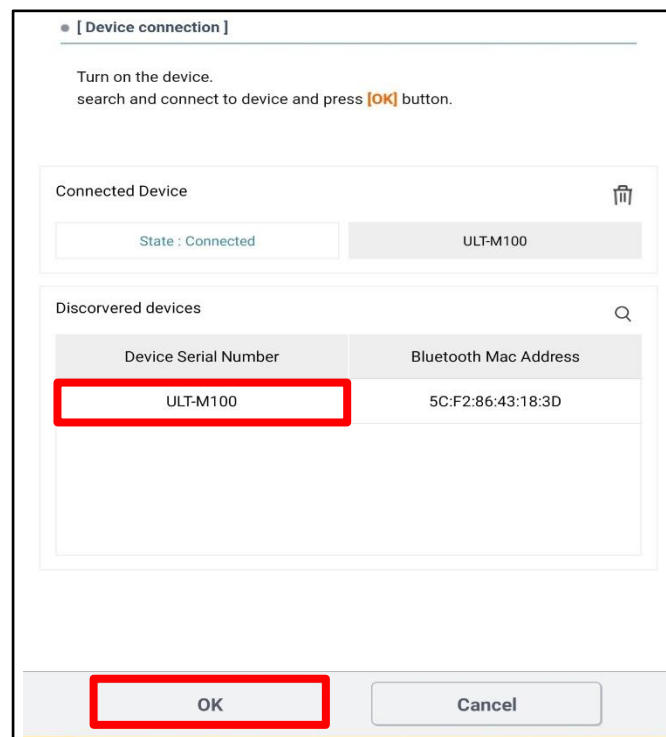
5a. Using the KDS, scan the QR Code located on the top HVB case.

5b. Select 'OK'.



6a. Select 'ULT-M100'.

6b. Select 'OK'.



Note: The blue light above 'BLE' on the leak tester (A) will illuminate once the KDS has successfully synced via Bluetooth.



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7a. Ensure the sealing connectors E002, E003, and E004 are properly installed.

7b. Select 'OK'.



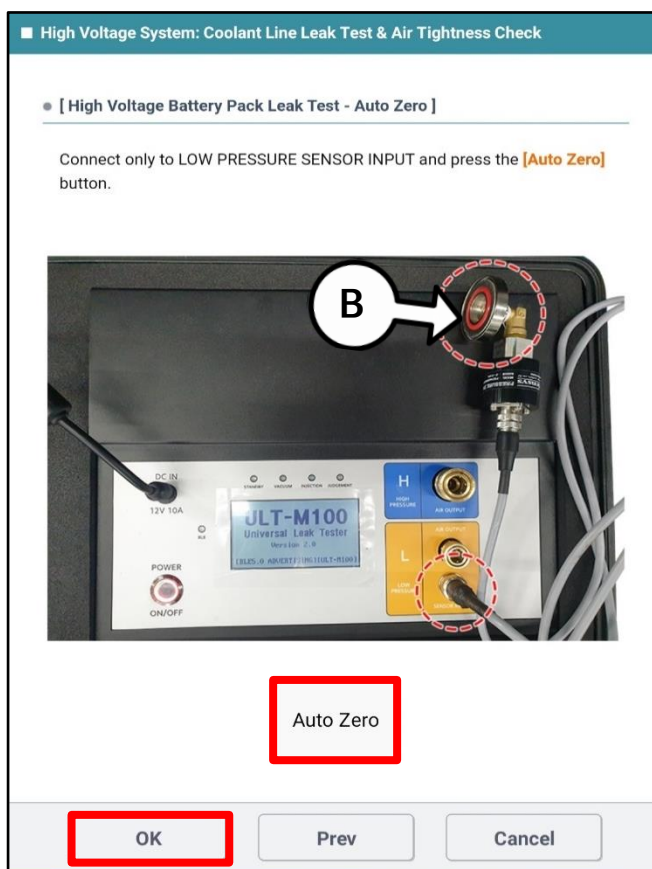
Note: The HVB displayed above is a default image from An EV6 (CV) for display purposes ONLY. Refer to step 1 for proper sealing connector location.

8a. Connect ONLY the 'Pressure Sensor Module' (B) 'L - Low Pressure Sensor Input', as shown.

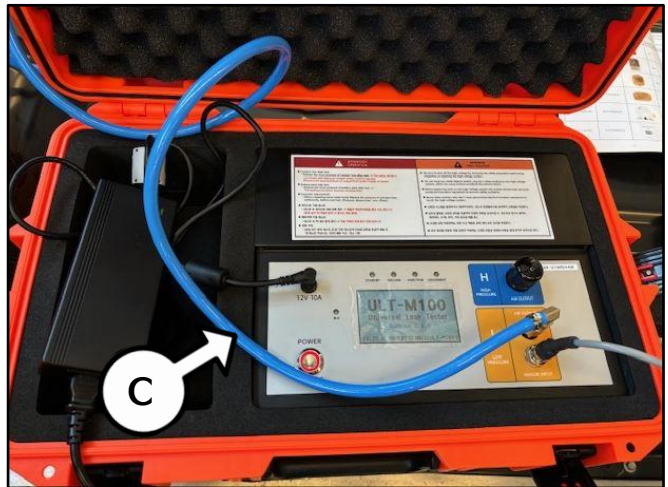


8b. Select 'Auto Zero' from the KDS.

8c. Select 'OK'.

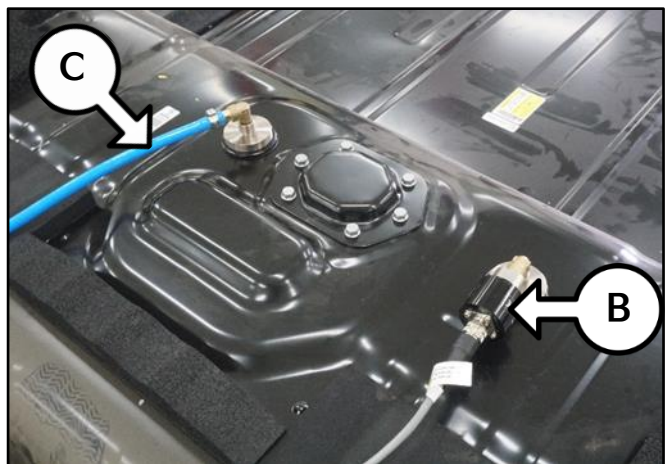


9. Connect 'Air Injection Hose' (C) to the 'L - Low Pressure Air Output', as shown.



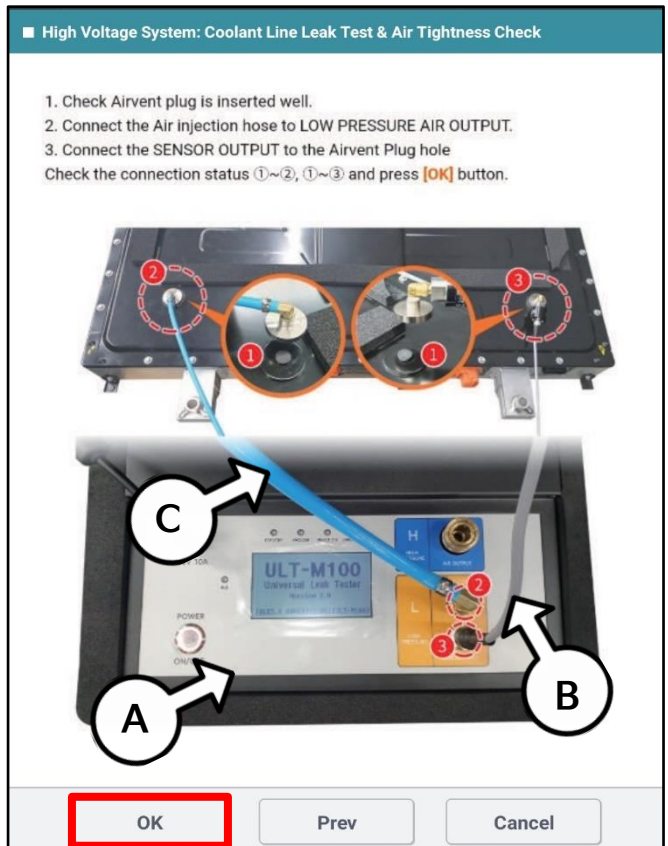
10. Connect the Pressure Sensor Module (B) and Air Injection Hose (C) to the HVB case, as shown.

Note: Ensure the HVB case is clean and free of debris to ensure an airtight seal.



Ensure the Pressure Sensor Module (B) and Air Injection Hose (C) are properly connected to the leak tester (A) and HVB case.

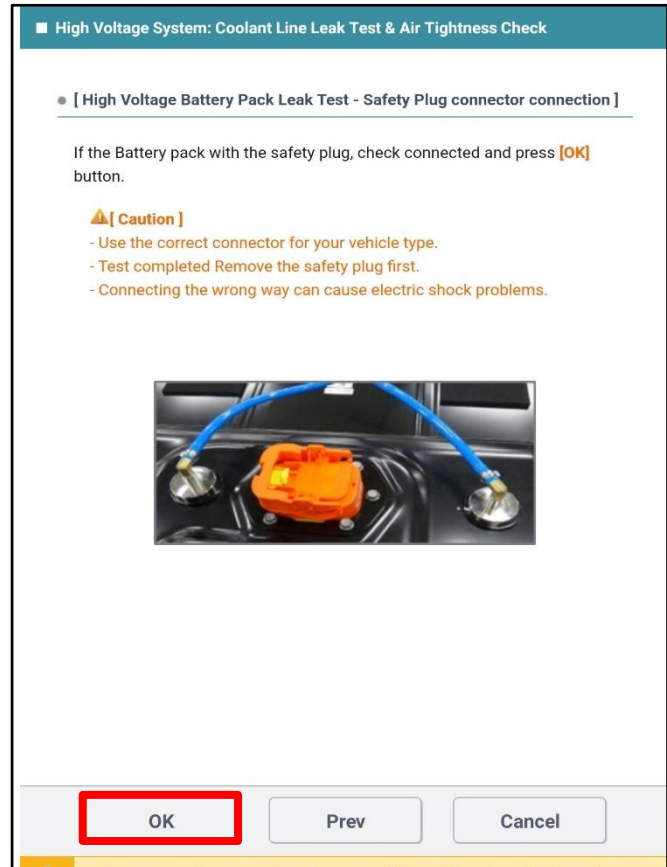
11. Select 'OK'.



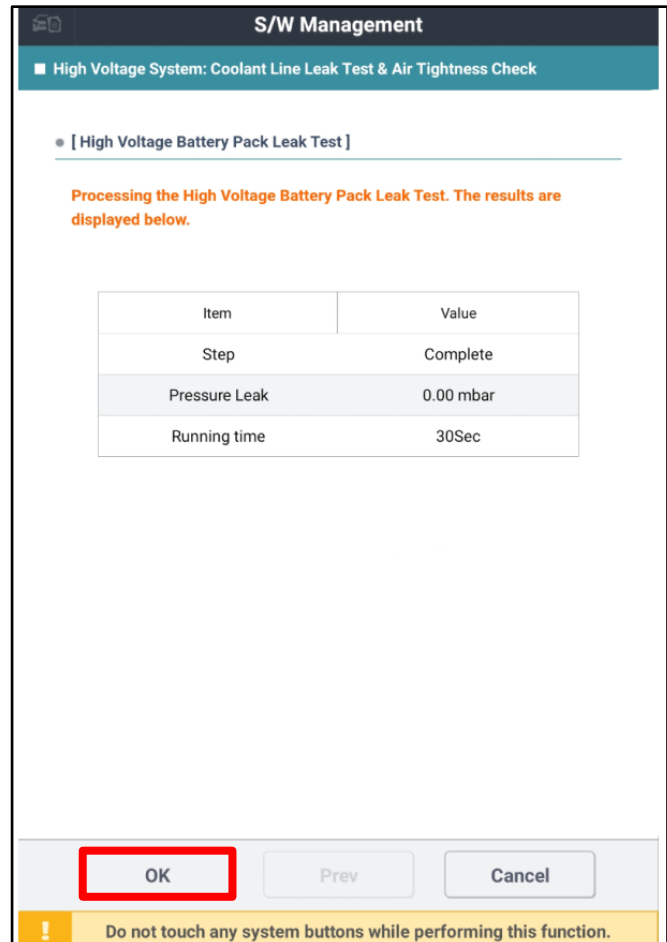
SUBJECT:

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12. Select 'OK'.



13. Select 'OK' to start the leak test.

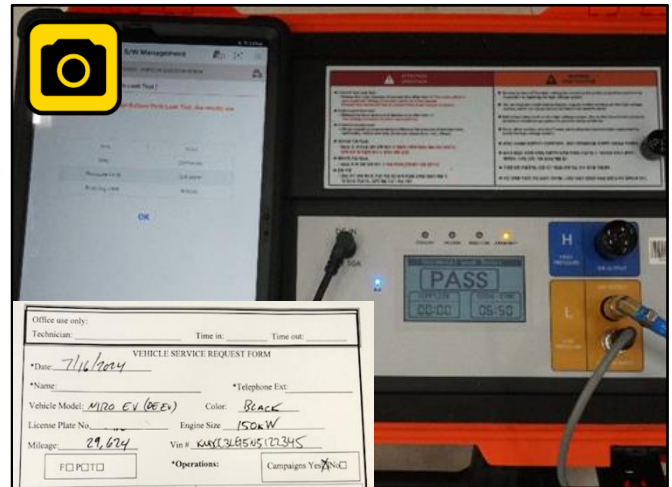


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14. Once the leak test has completed, a 'PASS' result should be displayed on the leak tester (A). Attach one clear KVID photo showing the 'PASS' result and the RO information.

Note: If a 'FAIL' result is displayed, confirm all case nuts and bolts are properly torqued, no gaskets are pinched or there is nothing preventing an airtight seal, and then perform steps 3 - 13. If a 'FAIL' result is still displayed, refer to 5-5. Self Test [Battery Pack Air Injection Adapter] in the Universal Leak Tester User Guide pg. 23.




15. Reinstall all removed parts in reverse order of removal.
16. Confirm normal vehicle operation.

SUBJECT:



HIGH VOLTAGE BATTERY SAFETY PLUG REPLACEMENT (SC314)**AFFECTED VEHICLE RANGE:**

Model	Production Date Range
Niro EV (DE EV)	July 21, 2021 to December 2, 2021

REQUIRED TOOL:

Tool Name	Part Number	Figure	Comments
Leak Tester	GITG7XKDNN001		O/H 2

REQUIRED PART:

Part Name	Part Number	Figure	Qty.	Comment
Safety Plug Service Kit 150kW	37511 Q4002QQK		1	Note: Dealers <u>MUST</u> Order the kit PN 37511 Q4002QQK
<ul style="list-style-type: none"> Fuse Box Assembly Fuse Cover Bus Bar Gasket Nut (M6, 6T) Serrated Nut (M6, 6T) Bolt (C Type) Ground Bolt (Earth) Bolt (M6, 8T) Bolt (M6, 8T) 	375S2 K4000QQK 375S7 K4000QQK 375C6 K4001QQK 37528 K4000QQK 13386 06007KQQK 13396 06007KQQK 375Z2 Q4000QQK 11425 06207PQQK 11408 06186KQQK 11403 06146KQQK	N/A	1 1 1 1 3 22 2 6 42 6	
Reinforcement Gasket	37594 K4100QQK		4	
Coolant	UM022 CH270	N/A	2 Gallons	

Note: The replacement QQK part numbers will require a VIN entry for parts ordering. DO NOT order these parts for stocking purposes, related to this Campaign. Supply is very limited. Until supply stabilizes, please confirm part availability before scheduling customers. Please be sure to expedite warranty claim filing. The subject parts may be requested for evaluation by Kia US. Please retain the warranty replacement parts in accordance with Kia Warranty Policies and Procedures. Parts not returned or claimed in error maybe subject to chargeback or payment reversal.



SUBJECT:

HIGH VOLTAGE BATTERY SAFETY PLUG REPLACEMENT (SC314)**WARRANTY INFORMATION:****N Code: N99 C Code: C99**

Claim Type	Causal P/N	Qty.	Repair Description	Labor Op Code	Op Time	Replacement P/N	Qty.
R	37518 K4000	0	(SC314) Safety Plug Replacement (SA512 Previously Completed)	241123R0	3.1 M/H	37511 Q4002QQK	1
						37594 K4100QQK	4
						UM022 CH270	2
			(SC314) Safety Plug Replacement (SA512 <u>NOT</u> Previously Completed)	241123R1	2.8 M/H	37511 Q4002QQK	1
						37594 K4100QQK	4
			(SC314) Safety Plug Replacement (SA512 <u>Not Affected</u>)	241123R2	3.1 M/H	37511 Q4002QQK	1
						37594 K4100QQK	4
						UM022 CH270	2

Note: Refer to [Warranty Bulletin 2024-48](#) for claim submission procedures. Manually enter sublet code 'X2' for reimbursement of one roundtrip rideshare expense or up to three (3) days of rental expense, with supporting documentation. A KVID photo of the 'PASS' leak test result is required for all labor ops. If a KVID photo of the 'PASS' leak test result is not created as described in this TSB, Warranty claim submission issues will occur. All claims are subject to review and Warranty chargeback.

NOTICE

VIN inquiry data for this repair is provided for tracking purposes only. Kia retailers should reference [SC314](#) when accessing the KDealer+ system.