	GROUP	MODEL
	Safety Recall Campaign	2020MY Niro EV (DE EV)
	NUMBER	DATE
	SC258 (Rev 1, 03/14/2023)	March 2023

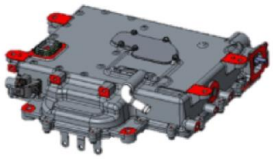
SAFETY RECALLCAMPAIGN

SUBJECT: **EPCU LEAK INSPECTION & REPLACEMENT (SC258)**

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 inspect and, if necessary, replace the Electric Power Control Unit (EPCU) assembly on certain 2020MY Niro EV (DE EV) vehicles produced from June 18, 2020 through September 4, 2020. The EPCU assembly in the subject vehicles may have been produced with improper sealing. Due to this improper sealing, coolant can internally leak in the EPCU and contact the EPCU circuit board. If coolant contacts the EPCU circuit board, the vehicle may stall while driving. A vehicle stall increases the risk of crash. Follow the procedure outlined in this publication to inspect the EPCU for an internal coolant leak and, if needed, replace the EPCU assembly. Before conducting the procedure, verify that the vehicle is included in the list of affected VINs.



IMPORTANT

The use of KVID App is required. A video must be submitted for inspection and replacement claims otherwise, Parts Ordering and Warranty claim submission issues WILL occur. Refer to step 16.

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.

To assure complete customer satisfaction, always remember to refer to WebDCS Warranty Coverage (validation) Inquiry Screen (Service → Warranty Coverage → Warranty Coverage Inquiry) for a list of any additional campaigns that may need to be performed on the vehicle before returning it to the customer.

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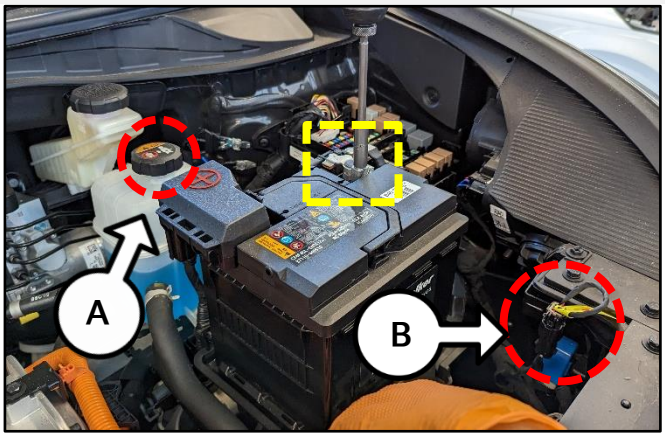
Inspection Procedure:

1. Remove coolant reservoir cap (A).

2. Disconnect negative (-) battery terminal.

3. Shut off the high voltage circuit by referring to the "Hybrid Control System → High Voltage Shut-off Procedures" and remove the Service Interlock connector (B).

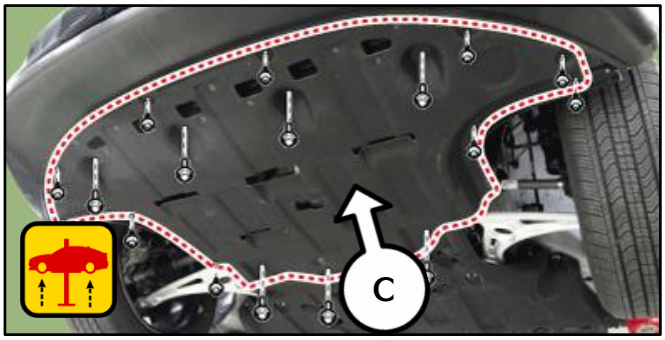


DANGER

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

4. Raise the vehicle on a lift and remove the undercover (C).

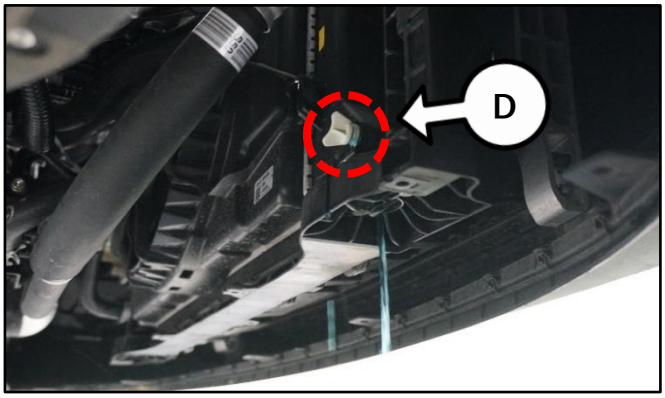
Tightening torque for undercover bolts:
2.9 - 4.3 lb.ft (3.9 - 5.9 N.m)



5. Drain coolant onto a drain pan by loosening coolant drain plug (D).

NOTICE

Do Not reuse coolant. Capture the drained coolant into a drain pan and dispose according to Federal, State or local law.



6. Lower the vehicle and keep the drain pan underneath the front of the vehicle.

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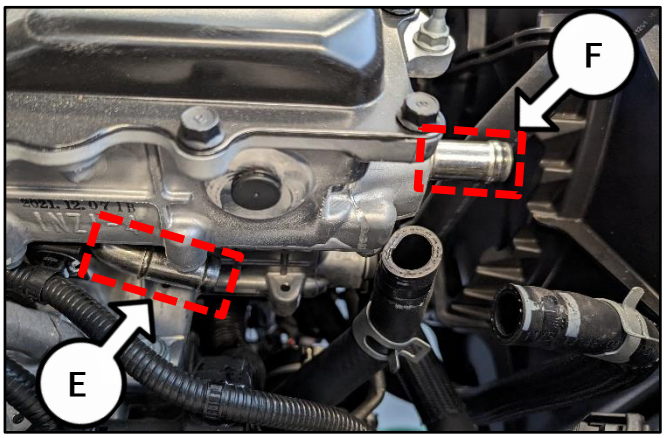
7a. Disconnect the EPCU coolant hose from the EPCU discharge outlet (E).

7b. Disconnect the coolant hose from the on-board charger (OBC) outlet (F).



NOTICE

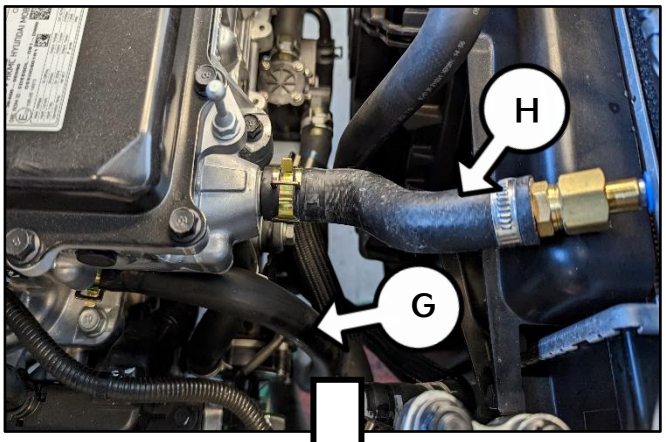
Capture the drained coolant into the drain pan.

8. Connect the SST coolant 'discharge hose' (G) to the EPCU outlet (E).

SST Discharge Hose PN: KQ366 EV001QQK

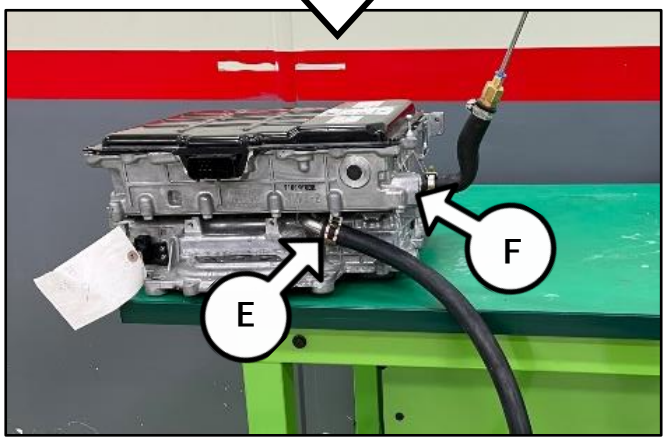
9. Connect the SST 'pressure hose' (H) to the OBC outlet (F).

SST Pressure Hose PN: 1K373 G5100QQK



IMPORTANT

The image shown of the removed EPCU is for reference use only. Removal of the EPCU or OBC assembly is not required.



10. Turn the regulator knob (I) completely clockwise on the SST air bleeding device (J).

    SST Air Bleed Device PN: 09580 3D100QQK

11. Connect the SST air bleeding device (J) blue air line to the OBC pressure hose adapter (H).

12. Connect the shop air supply hose to the air supply valve (K).

13. Open shop air supply valve (K).

14. Slowly rotate the regulator knob (I) counterclockwise to set the air pressure between 2-2.5 bar (29-36 psi) and wait for thirty (30) seconds to drain residual coolant inside the OBC and EPCU.

    Note: Capture the drained coolant into the drain pan.

15. Close the air supply valve (K).

16. Remove the coolant 'discharge hose' (G) from step 8, after completing residual draining of coolant.

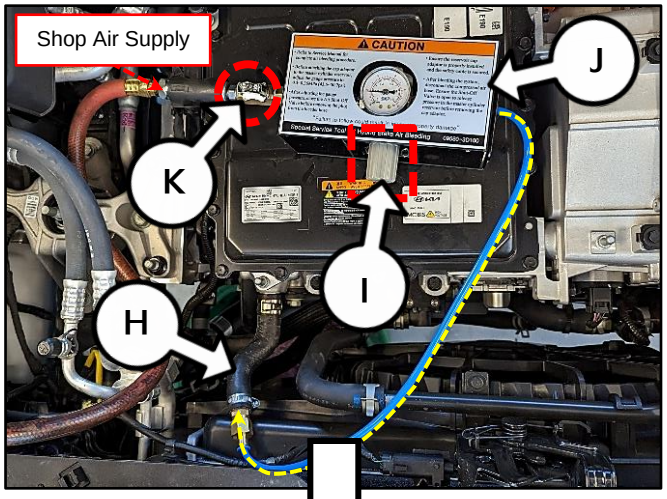
    NOTICE

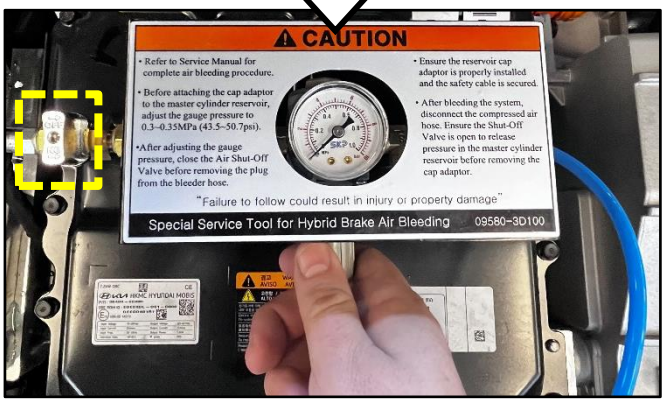
    Capture the drained coolant into the drain pan.

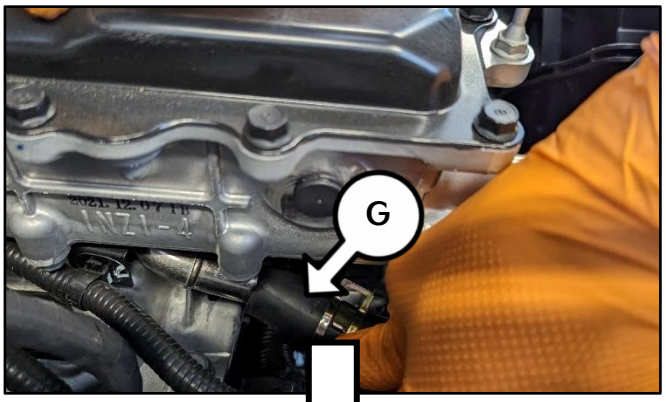
17. Connect the SST 'differential pressure hose' (L) to the EPCU outlet (E).

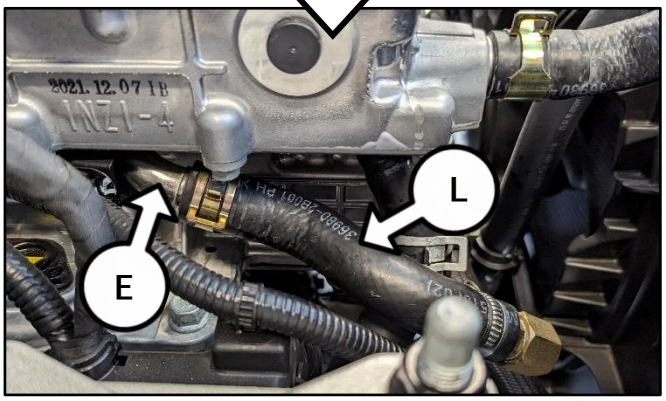
    Note: The end of this SST adapter is capped-off.

    SST Differential Pressure Hose PN: KQ366 EV001QQK









18. Open the air supply valve (K) and set the regulator knob to not to exceed 2 bar (29 psi).

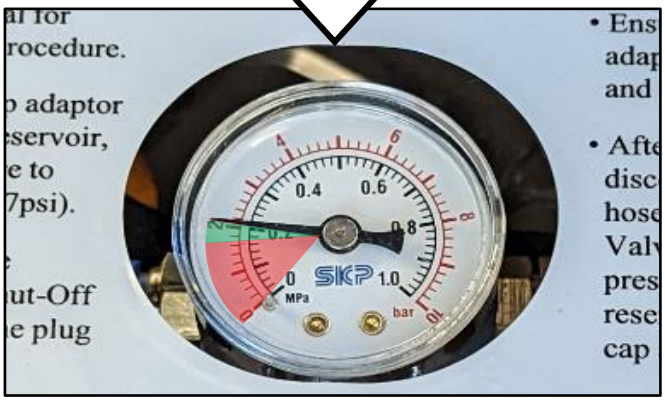
⚠CAUTION

Pressurizing the system over 2 bar (29 psi) of air pressure can cause damage to the OBC and EPCU.

17. Close the air supply valve (J) once air pressure is maintained.

ⓘ IMPORTANT

Confirm no air leaks are present. An airtight seal must be maintained to successfully perform and complete this test.



18. Disconnect the shop air supply hose from the SST air bleeding device.

Begin monitoring the air pressure reading on the SST gauge for up to thirty (30) minutes.

19. Using the KVID app, record a continuous video starting from the VIN tag.

NOTICE

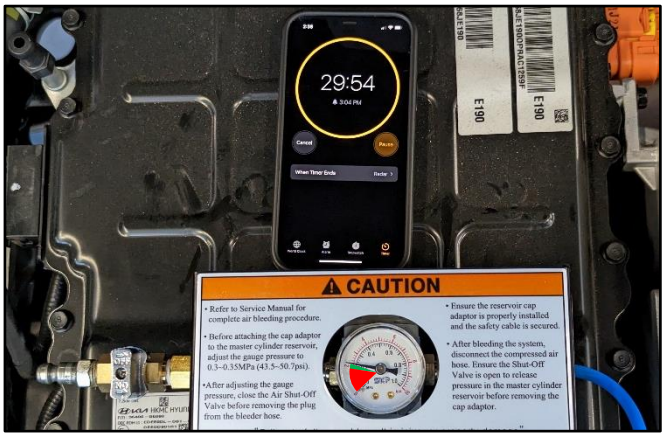
Only twenty-four (24) seconds are allotted for the video length. Ensure the SST is set up and properly pressurized prior to starting the video.

19. Continue recording video while moving towards the front and show the connected SST air bleeding device to the EPCU displaying the gauge reading set to 2 bar (29 psi).

ⓘ IMPORTANT

The VIN and SST pressure gauge must be clear and legible in the video. If they are not clearly read, the warranty claim may be subject to charge back.

20. While monitoring the air pressure reading on the SST gauge for thirty (30) minutes, the 2 bar (29 psi) air pressure reading on the gauge should not decrease:



Note: The front bottom undercover may be reinstalled during the 30-minute waiting period.

- If the air pressure reading remains between 1.8-2.0 bar (26-29 psi) for 30 minutes, then EPCU is (OK). Reinstall all removed parts in the reverse order of removal, refill coolant and follow the 'Refill/Bleeding Procedure' outlined in KGIS.

- If air pressure falls below 1.8 bar (26 psi) within 30 minutes, then the EPCU is (NG) and has an internal leak. Proceed to the 'Repair Procedure' on page 7 to replace the EPCU.

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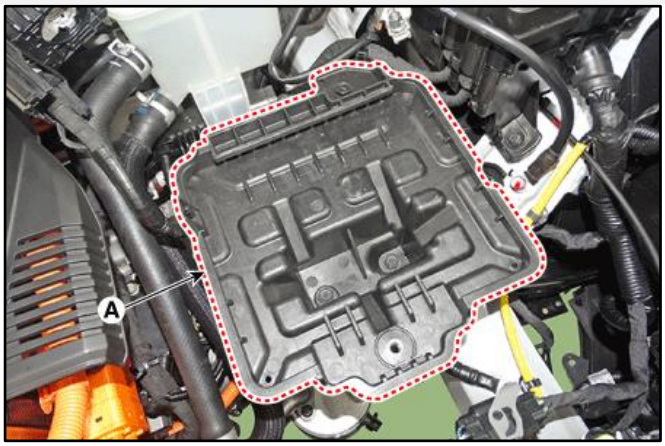
Repair Procedure:

1. Replace the EPCU by referring to the "Vehicle Control System → Electronic Power Control Unit (EPCU) → Repair procedures" chapter in the applicable Shop Manual on KGIS.



2. Perform the air-tight inspection by referring to the "Vehicle Control System → Air Tightness" chapter in the applicable Shop Manual on KGIS.

3. Perform the engine coolant refilling and bleeding by referring to the "Traction Motor System → Motor Cooling System → Coolant → Repair procedures" chapter in the applicable Shop Manual on KGIS.

4. Perform 'Initialization of Automatic Resolver Offset Calibration' by referring to the "Traction Motor System → Motor & Reduction Gear → Motor Position & Temperature Sensor → Repair Procedures → Initialization of Motor/HSG Resolver Calibration" chapter in the applicable Shop Manual on KGIS.

5. Replenish coolant to 'MAX' level.

6. Confirm normal vehicle operation.

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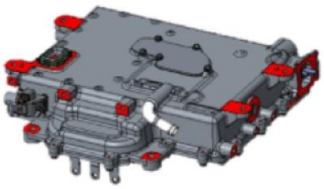
AFFECTED VEHICLE RANGE:

Model	Production Date Range
Niro EV (DE EV)	June 18, 2020 to September 4, 2020

REQUIRED TOOL:

Tool Name	Part Number	Figure	Comments
Air Bleeding Tool	09580 3D100QQK		Auto-shipped to Dealers.
Coolant Discharge Hose	KQ366 EV001QQK		
Adapters (Pressure & Differential Pressure Hoses)	1K373 G5100QQK		Adapters were previously shipped as part of SA304.

REQUIRED PART:

Part Name	Part Number	Figure	Qty.
EPCU	36601 0E190QQK		1
Coolant	UM022 CH270		1 (gallon)

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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	36601 0E190	0	(SC258) EPCU Leak Inspection **(Pass)**	231008R0	1.7 M/H	UM022 CH270	1
			(SC258) EPCU Leak Inspection **(No Pass)** + EPCU Replacement	231008R1	3.2 M/H	36601 0E190QQK	1
						UM022 CH270	

Note: A KVID video recording of the VIN and SST air bleeding device, attached to the EPCU (showing the completed test result) is required for all inspections. For rental expenses, please refer to Warranty Bulletin 2023-07 for claim submission procedures.

NOTICE

VIN inquiry data for this repair is provided for tracking purposes only. Kia retailers should reference SC258 when accessing the WebDCS system.