TECHNICAL SERVICE BULLETIN

SERVICE ACTION: POWER SEAT MODULE OPERATION LOGIC IMPROVEMENT (SA557)

This bulletin provides the procedure to update the software logic of the Power Seat Module (PSM) system on certain 2024MY EV9 (MV) vehicles produced from September 24, 2023 through November 6, 2023 to improve the front seat Easy Assist and Leg Rest operation, preventing the driver's leg rest from extending while driving. In addition, the software also improves the logic of the cargo area power folding seat buttons, so that the left seat will fold partially if the front row seat is too far back, which is the existing logic for the right seat. Follow the procedure outlined in this publication to apply the improved logic to the 'PSM' system using the KDS ECU Upgrade function as described in this bulletin. For confirmation that the latest reflash has been applied to a vehicle you are working on, verify the ROM ID using the table on page 6 of this bulletin.

> 📄 **NOTICE**
>
> **A Service Action is a repair program without customer notification that is performed during the warranty period. Any dealer requesting to perform this repair outside the warranty period will require DPSM approval.**
>
> **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.**
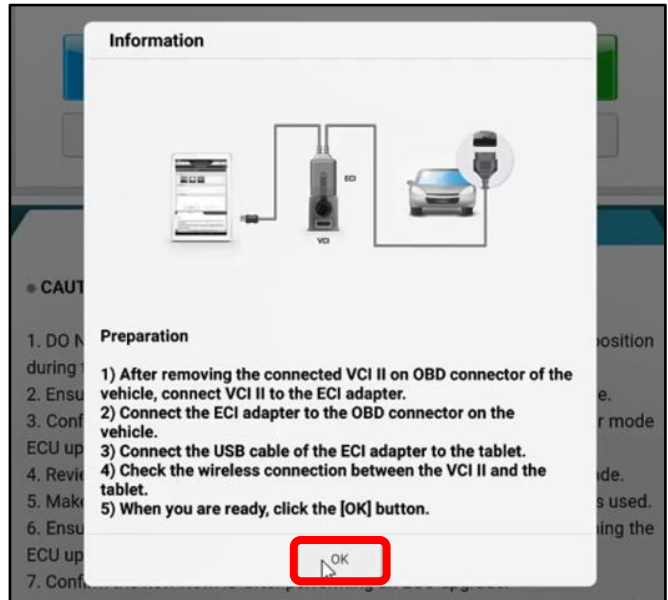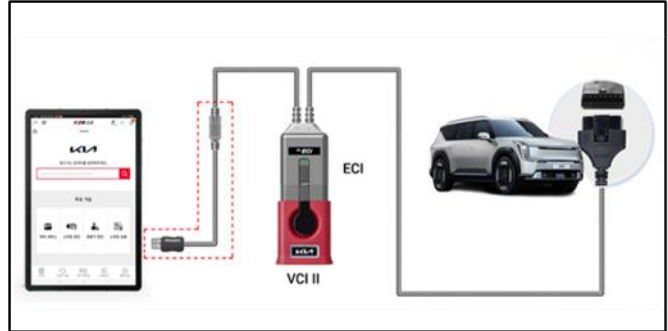>
> **This issue number is <u>SA557</u>.**

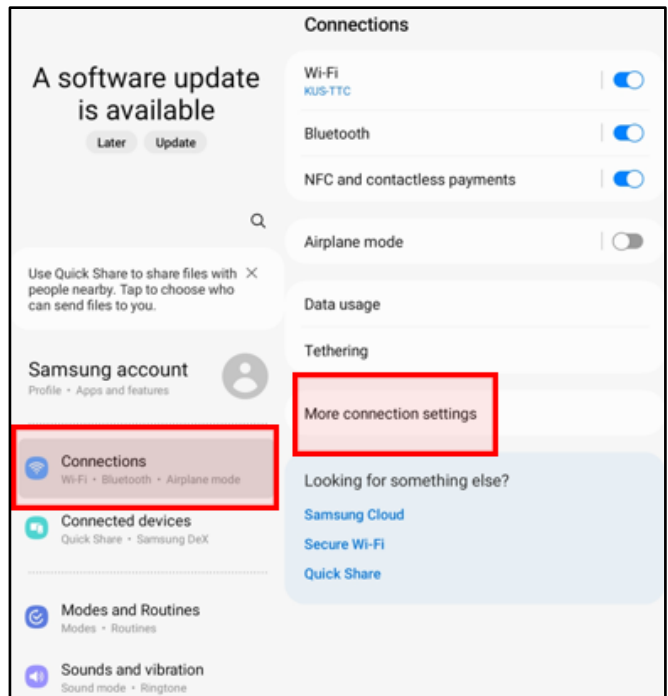| SUBJECT:	SERVICE ACTION: POWER SEAT MODULE OPERATION LOGIC IMPROVEMENT (SA557)

ECI Cable Configuration Procedure:

1a.   Connect the ECI DLC connector to the OBD-II connector, located under the driver's side of the instrument panel.

1b.   Connect the ECI USB C connector to the KDS tablet.

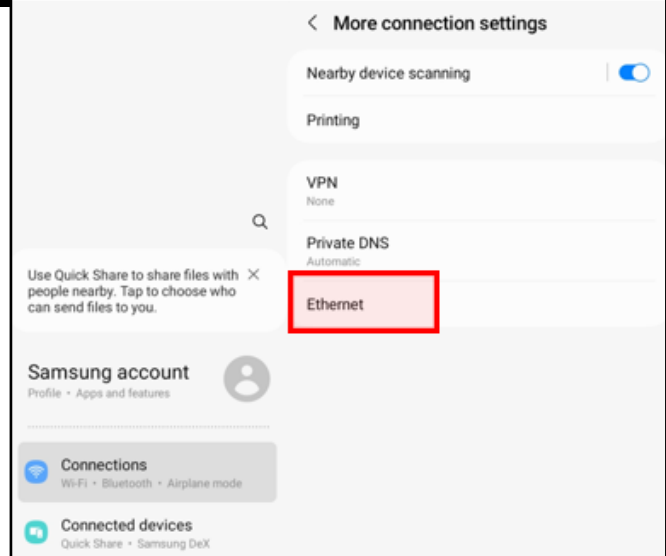1c.   Connect the VCI II to the ECI OBD-II connector

2.   Select '**OK**'.

Information

Preparation

1) After removing the connected VCI II on OBD connector of the vehicle, connect VCI II to the ECI adapter.
2) Connect the ECI adapter to the OBD connector on the vehicle.
3) Connect the USB cable of the ECI adapter to the tablet.
4) Check the wireless connection between the VCI II and the tablet.
5) When you are ready, click the [OK] button.

OK

3a.   Select '**Settings**' on the KDS tablet.

3b.   Select '**Connections**'.

3c.   Select '**More connection settings**'.

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TSB: SA557 EV9 (MV) January 2024

4. Select 'Ethernet'.

5. Select 'Configure Ethernet device'.

6. Select 'Static IP'.
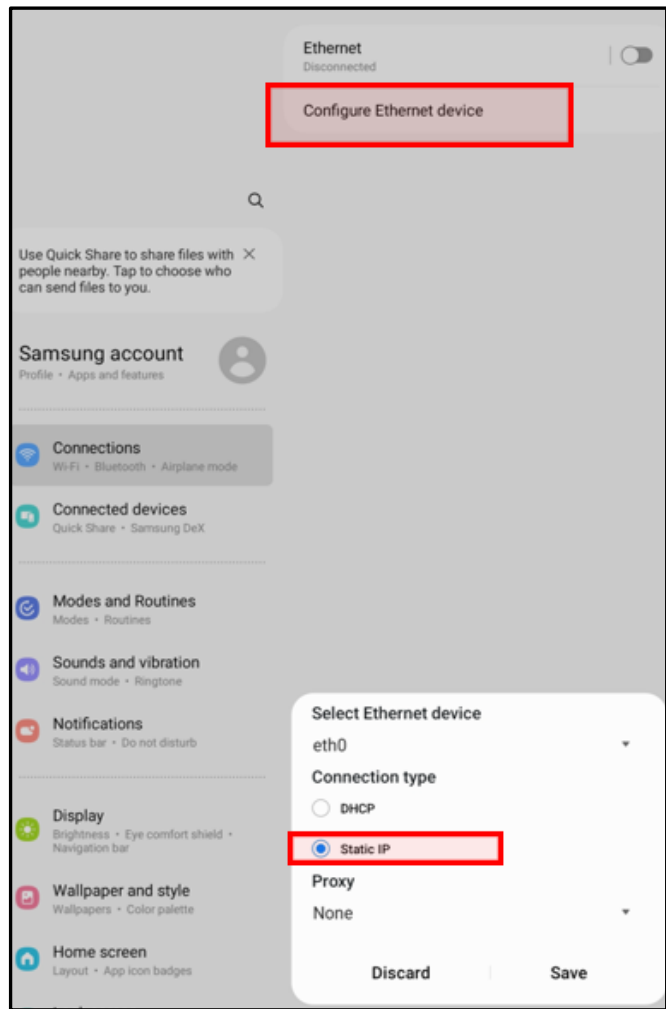
Printed TSB copy is for reference only; information may be updated at any time. Always refer to KGIS for the latest information.

TSB: SA557 EV9 (MV) January 2024

7a.   Input 10.0.128.0 under '**IP address**'.

7b.   Input 255.0.0.0 under '**Netmask**'.

7c.   Input 8.8.8.8 under '**DNS address**'.

7d.   Input 10.0.128.0 under '**Default gateway**'.

8.   Select '**Save**'.

Select Ethernet device
eth0

Connection type
○ DHCP
● Static IP

IP address
10.0.128.0

Netmask
255.0.0.0

DNS address
8.8.8.8

Default gateway
10.0.128.0

Proxy
None

Discard   Save

9.   Proceed to 'ECU Upgrade Procedure'.

SUBJECT:

SERVICE ACTION: POWER SEAT MODULE OPERATION LOGIC IMPROVEMENT (SA557)

ECU Upgrade Procedure:

To correct this condition, the ECU should be reprogrammed using the KDS download, as described in this bulletin.

Upgrade Event Name
718.MV1 PSM operation logic improvement

📄 NOTICE

- Confirm a <u>fully charged battery</u> (12.3 volts or higher is necessary) is used <u>or</u> utilize a fully charged jump starter box connected to the battery.
- **Ensure the KDS GDS is sufficiently charged at 60% or higher prior to reflash.**
- All ECU upgrades must be performed with the ignition set to the 'ON' position unless otherwise stated.
- **Damaged VCI II units should <u>not</u> be used and promptly replaced.**
- Be careful not to disconnect the VCI-II connected to the vehicle during the ECU upgrade procedure.
- **DO NOT start the engine during ECU upgrade.**
- DO NOT turn the ignition key 'OFF' <u>or</u> interrupt the power supply during ECU upgrade.
- **When the ECU upgrade is completed, turn the ignition 'OFF' and wait 10 seconds before starting the engine.**
- ONLY use approved ECU upgrade software designated for the correct application.

ⓘ IMPORTANT

It is recommended to ALWAYS check the Electronic Parts Catalog (EPC) to locate the ECU Part Number respective to Auto/Manual Mode ROM IDs. DO NOT reference the parts label affixed to the ECU.

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TSB: SA557 EV9 (MV) January 2024

SUBJECT:

SERVICE ACTION: POWER SEAT MODULE
OPERATION LOGIC IMPROVEMENT (SA557)

> 📄 **NOTICE**
>
> Before attempting an ECU upgrade on any Kia model, make sure to first determine whether the applicable model is equipped with an immobilizer 🚗 security system. Failure to follow proper procedures may cause the PCM to become inoperative after the upgrade and any claims associated with this repair may be subject to chargeback.

ROM ID INFORMATION TABLE:

Upgrade Event #718

Event No.	System	ECU P/No.	ROM ID	
			Previous	New
719	PSM	95450 DO000	1.0 1.1 1.2 1.3 1.4 1.5	1.6

To verify the vehicle is affected, be sure to check the Calibration Identification of the vehicle's ECM ROM ID and reference the Information Table as necessary.

SUBJECT:

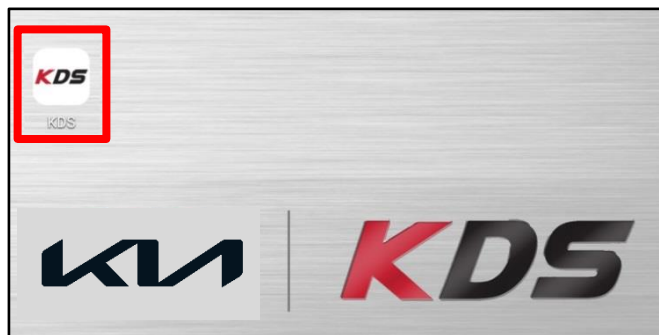# SERVICE ACTION: POWER SEAT MODULE OPERATION LOGIC IMPROVEMENT (SA557)

📄 **NOTICE**

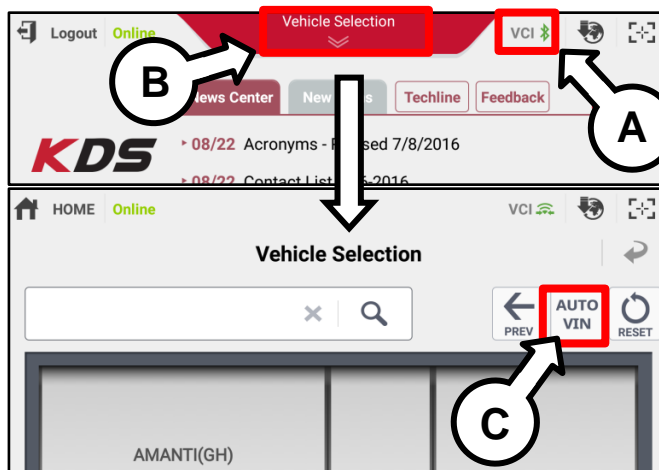**Prior to performing the ECU upgrade, be sure to check that the KDS is fully charged.**

1a. Connect the ECI DLC connector to the OBD-II connector, located under the driver's side of the instrument panel.

1b. Connect the ECI USB C connector to the KDS tablet.

1c. Connect the VCI II to the ECI OBD-II connector
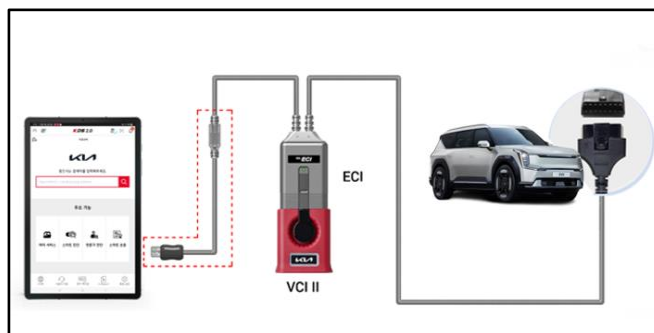
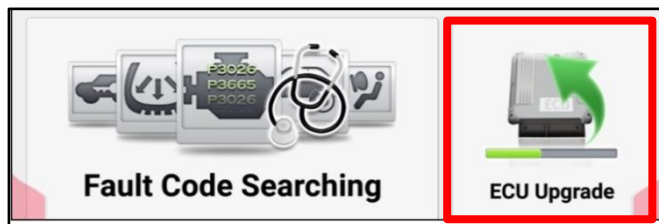2. With the ignition **ON**, turn ON the KDS tablet. Select **'KDS'** from the home screen.

3. Confirm communication with VCI (A) and then configure the vehicle (B) using the **'AUTO VIN'** (C) feature.

4. Select **'ECU Upgrade'**.

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TSB: SA557 EV9 (MV) January 2024

	SERVICE ACTION: POWER SEAT MODULE
SUBJECT:	OPERATION LOGIC IMPROVEMENT (SA557)

5. The KDS will check the server for recently uploaded Events and then automatically download **Upgrade Event #718**.

> 📄 **NOTICE**
>
> **The vehicle must be identified in Vehicle Selection to download an Event for that vehicle.**

After the download is complete, the program will shut down to install.
Please wait until the program restarts.

Event	Status
271.QF 2.4GDI DTC P0171,P0420 LOGIC IMPROVEMENT	Downloading
273.TF 2.4GDI DTC P0171,P0420 LOGIC IMPROVEMENT	Ready

36%

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

KDS screenshot shown above is for demonstration purposes only. Events shown in screenshot are not applicable to this bulletin.

6. Select **Auto Mode**.

> ⚠**CAUTION**
>
> **Do NOT attempt to perform a Manual Mode upgrade UNLESS Auto Mode fails. Always follow the instructions given on the KDS in either Auto or Manual mode.**

Auto Mode   **Manual Mode**

7. Select the '**PSM**' and applicable '**Event Group**' (D):

   718.MV1 PSM operation logic improvement

🚘 EV9(MV) > 2024 > 160kW (2WD) / 160kW+160kW (4WD)

● System

ADAS_PRK_MCU   ADAS_PRK_VPU   **PSM**   **D**

● Event Group   TSB

🗎 718.MV1 PSM operation logic improvement

MV1 PSM : 95450-DO000

8. The ECU upgrade will begin, and the progress of the upgrade will appear on the bar graph. Upgrade part (1/2) (E) will download the upgrade event to the VCI-ll. Upgrade part (2/2) (F) will upgrade the ECU.

> ⚠**CAUTION**
>
> **Do not touch the system buttons (like 'Back', 'Home', 'etc.') while performing ECU Upgrade.**

E

23%

ECU Upgrading...(1/2)
ECU is in the process of being upgraded.
Please wait a few minute.

F

6%

ECU Upgrading...(2/2)
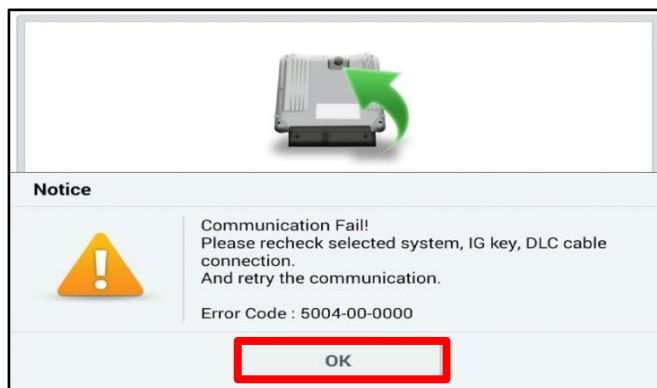ECU is in the process of being upgraded.
Please wait a few minute.

SUBJECT:

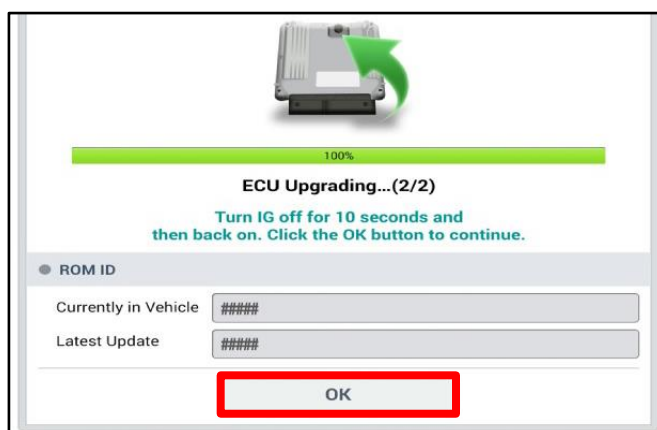# SERVICE ACTION: POWER SEAT MODULE
OPERATION LOGIC IMPROVEMENT (SA557)

9. If a "Communication Fail" screen appears, verify that the VCI-II and KDS are communicating properly. Select **'OK'** and go back to step 4.
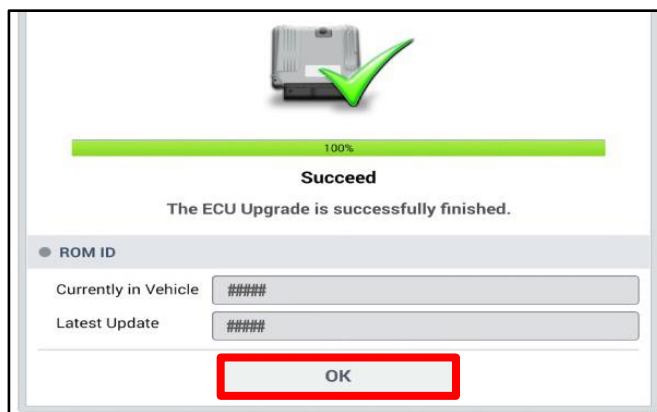
> 📄 **NOTICE**
>
> **If an error notice continues to appear or if the upgrade cannot be performed, DO NOT disconnect the KDS/VCI-II. Contact GIT America Help Desk at (888) 542-4371 or Techline.**
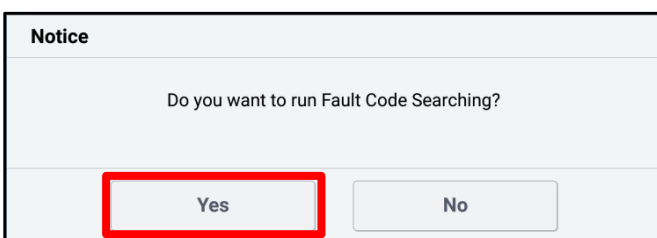
Notice

Communication Fail!
Please recheck selected system, IG key, DLC cable connection.
And retry the communication.

Error Code : 5004-00-0000

OK

10. When instructed on the KDS, turn the ignition **OFF** for ten (10) seconds then back on. Select **'OK'** to continue.

100%

ECU Upgrading...(2/2)

Turn IG off for 10 seconds and then back on. Click the OK button to continue.

● ROM ID

| Currently in Vehicle | #### |
| Latest Update | #### |

OK

11. Once the upgrade is complete, select **'OK'** to finalize the procedure.

100%

Succeed

The ECU Upgrade is successfully finished.

● ROM ID

| Currently in Vehicle | #### |
| Latest Update | #### |

OK

12. When prompted, select **'YES'** to check for Diagnostic Trouble Codes (DTC) and erase any DTCs stored such as EPS, ESC, and TPMS that may have been set during the upgrade.

Notice

Do you want to run Fault Code Searching?

Yes   No

13. Start the engine to confirm normal operation of the vehicle.

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TSB: SA557 EV9 (MV) January 2024

SUBJECT:	SERVICE ACTION: POWER SEAT MODULE OPERATION LOGIC IMPROVEMENT (SA557)

Manual Upgrade Procedure:

> 📄 **NOTICE**
>
> **The manual upgrade should ONLY be performed if the automatic upgrade fails.**
>
> **If the automatic upgrade fails, turn the ignition 'OFF' for about 10 seconds then place it back in the 'ON' position to reset the control unit BEFORE performing manual upgrade.**
>
> **See table below for 'Manual Mode' passwords.**

Manual Mode ECU Upgrade Passwords

Menu	Password
MV1 PSM : 95450-DO000	9550

1. Within the ECU Upgrade screen displayed, select **Manual Mode**.

2. Select the **'PSM'** system under the System selection menu. Select **Upgrade Event #718** and select **Upgrade** to continue.

3. Select the appropriate control unit part number with reference to the ROM ID Information Table on page 3, and select **OK**.

4. Enter the appropriate password from the Manual Mode password table above and select **OK**.

5. The upgrade will begin and the progress of the upgrade will appear on the bar graph.

6. When instructed on the KDS, turn the ignition **OFF** for ten (10) seconds then back on. Select **OK**.

7. Once the upgrade is complete, select **OK** to finalize the procedure.

8. When prompted, select **YES** to check for Diagnostic Trouble Codes (DTC) and erase any DTCs stored such as EPS, ESC, and TPMS that may have been set during the upgrade.

9. Start the engine to confirm proper operation of the vehicle.

SUBJECT:

SERVICE ACTION: POWER SEAT MODULE OPERATION LOGIC IMPROVEMENT (SA557)

AFFECTED VEHICLE RANGE:

Model	Production Date Range
EV9 (MV)	September 24, 2023 to November 6, 2023

REQUIRED TOOL:

Tool Name	Figure	Comments
KDS		Kia Diagnostic System

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.
V	95450 DO000	0	(SA558) Power Seat Module Operation Logic Improvement	230141R0	0.4 M/H	N/A	0

> 📄 **NOTICE**
>
> **VIN inquiry data for this repair is provided for tracking purposes only. Kia retailers should reference SA557 when accessing the KDealer+ system.**

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TSB: SA557 EV9 (MV) January 2024