



GROUP	MODEL
Safety Recall Campaign	2023MY Multiple Models Listed on Page 9.
NUMBER	DATE
SC270 (Rev 1, 08/07/2023)	May 2023

SAFTEY RECALL CAMPAIGN

CLUSTER DISPLAY LOGIC IMPROVEMENT (SC270)

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 the procedure to inspect and, if necessary, upgrade the software logic of the cluster (CLU) system on certain 2023MY vehicles listed in the table on page 9, which may exhibit cluster booting errors. Such booting errors can cause the instrument cluster screen to become blank resulting in the driver's inability to see the telltales and indicators required by certain Federal Motor Vehicle Safety Standards (FMVSS). As a result, the subject vehicles fail to comply with the visibility and illumination requirements of FMVSS No. 101, "Controls and Displays", and other illumination requirements of FMVSS No. 138, "Tire Pressure Monitoring Systems" and FMVSS No. 208, "Occupant Crash Protection". The failure to illuminate certain telltales and indicators may increase the risk of a crash. Follow the procedure outlined in this publication to apply the improved logic to the 'Cluster' 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(s) 3-4 of this bulletin. 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.

NOTICE

To assure complete customer satisfaction, always remember to refer to KDealer+ 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.

ECU Upgrade Procedure:

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

Upgrade Event Name
668. SK3 PE CLU BOOT LOGIC IMPROVEMENT
670. SG2 HEV/PHEV CLU BOOT LOGIC IMPROVEMENT
673. NQ5, NQ5 HEV CLU BOOT LOGIC IMPROVEMENT
675. NQ5, NQ5 PHEV CLU BOOT LOGIC IMPROVEMENT
672. ON PE CLU BOOT LOGIC IMPROVEMENT

Note: Some of the affected vehicles included in the VIN list may NOT REQUIRE the S/W upgrade. If so, only claim the 'Cluster Display Inspection' Op Code if the message below (or similar) is displayed during the software upgrade procedure on KDS.

**NOTICE**

- Confirm a fully charged battery (12.3 volts or higher is necessary) is used or 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 not 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' or 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.

SUBJECT:

CLUSTER DISPLAY LOGIC IMPROVEMENT (SC270)**ROM ID INFORMATION TABLE:**

Upgrade Event #668 (SK3)

Model	System	ECU P/No.	ROM ID	
			Previous	New
SK3	CLU	94023 K0000 94023 K0010	1.04	1.05

Upgrade Event #670 (SG2 P/HEV)

Model	System	ECU P/No.	ROM ID	
			Previous	New
SG2 HEV	CLU	94003 AT000 94003 AT010 94003 AT020 94003 AT030 94001 AT000 94001 AT010 94001 AT020 94001 AT030	1.08	1.09
SG2 PHEV		94003 AT100 94003 AT110 94003 AT120 94003 AT130 94001 AT100 94001 AT110 94001 AT120 94001 AT130	1.03	1.04

Continued on page 4...

Upgrade Event #673 (NQ5, NQ5 HEV)

Model	System	ECU P/No.	ROM ID	
			Previous	New
NQ5	CLU	94003 P1000 94003 P1010 94003 P1500 94003 P1510 94003 P1600 94003 P1610	1.10 1.11	1.12
NQ5 HEV		94003 CH000 94003 CH500 94003 CH510		

Upgrade Event #675 (NQ5a, NQ5 PHEV)

Model	System	ECU P/No.	ROM ID	
			Previous	New
NQ5a	CLU	94003 DW000 94003 DW500	1.10 1.11	1.12
NQ5 PHEV		94003 CJ100 94003 CJ510 94003 CJ610 94003 CH100 94003 CH600		

Upgrade Event #672 (ON)

Model	System	ECU P/No.	ROM ID	
			Previous	New
ON	CLU	94051 S9000	1.01	1.02

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:

CLUSTER DISPLAY LOGIC IMPROVEMENT (SC270)

NOTICE

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

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

NOTICE

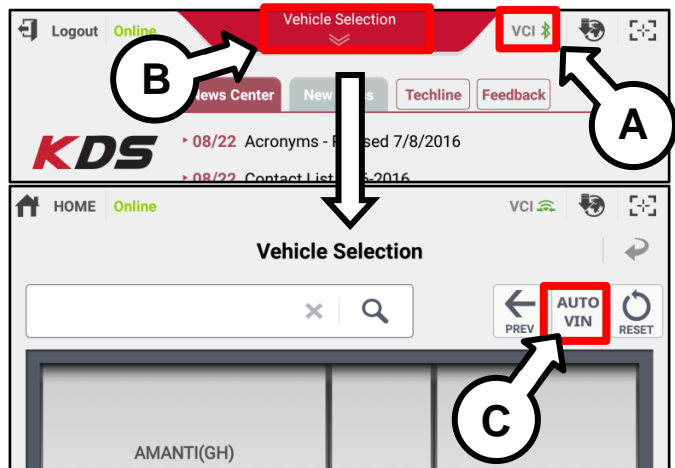
The ECU upgrade function on KDS operates wirelessly. It is not necessary to perform the upgrade via USB cable.



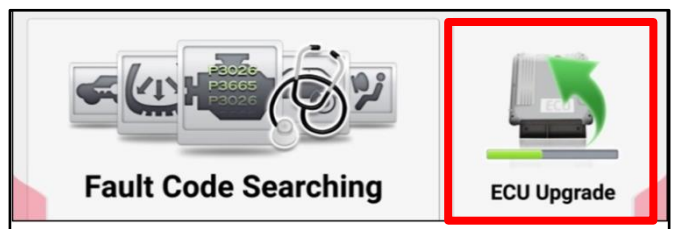
2. With the ignition ON, turn ON the KDS tablet. Select 'KDS' from the home screen.



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



4. Select 'ECU Upgrade'.



- The KDS will check the server for recently uploaded Events and then automatically download Upgrade Event #668, 670, 672, 673, or 675.

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%

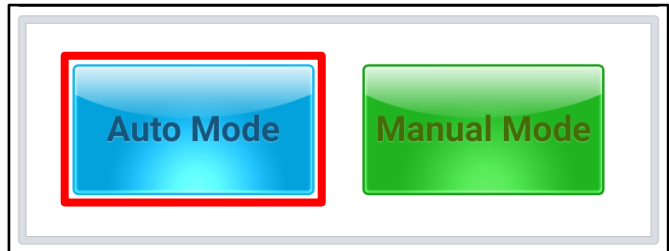
Do not touch any system buttons while performing this function.

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

- 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.



- Select the CLU system under the System selection menu. Touch ID Check (D) and confirm that the latest update is available.

Select Upgrade Event:
#688, 670, 672, 673, or 675 and select 'Upgrade' to continue.

Note: If the S/W upgrade is not required to be installed, only claim the inspection Op Code for the applicable model.

System

CLU

ROM ID

Currently in Vehicle: #####

Latest Update: #####

ID Check

Event Group: ###.XX -----

TSB

Previous Upgrade

- 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-II. 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.

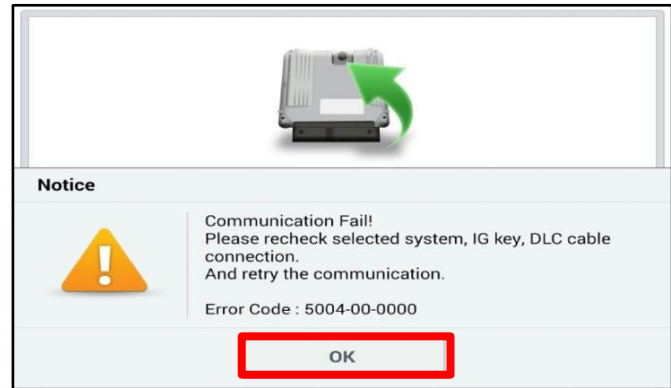
SUBJECT:

CLUSTER DISPLAY LOGIC IMPROVEMENT (SC270)

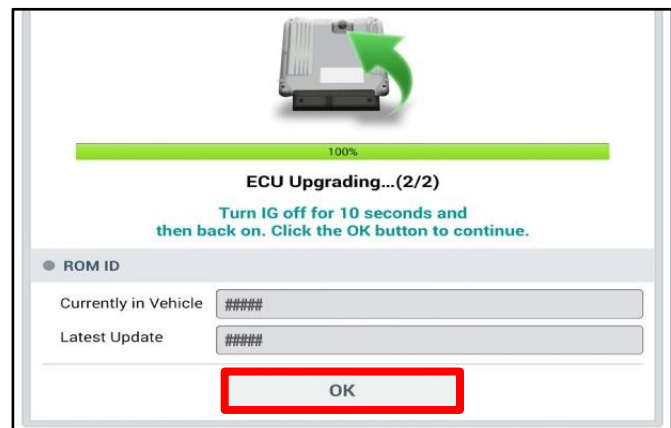
9. If a "Communication Fail" screen appears, verify that the VCI-II and KDS are communicating properly. Select 'OK' and restart the from step 4.

 **NOTICE**

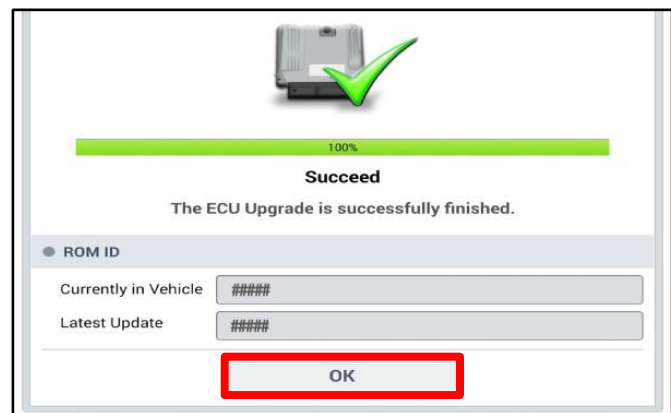
If an error notice continues to appear or if the upgrade cannot be performed, DO NOT disconnect the KDS/VCI-II. Contact GIT America Help Desk at (888) 542-4371 or Techline.



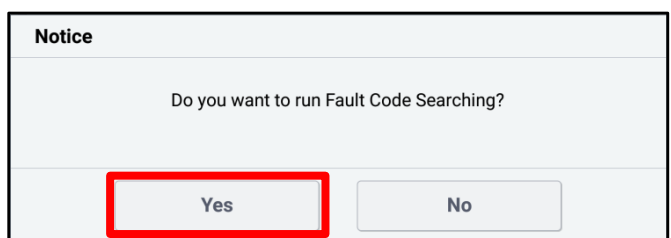
10. When instructed on the KDS, turn the ignition OFF for ten (10) seconds then back on. Select 'OK' to continue.



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



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.



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

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

Event No.	Menu	Password
#668	SK3 PE CLU: 94023-K0000/010	3204
#670	SG2 HEV CLU: 94001/03-AT000/010/020/030	3010
	SG2 PHEV CLU: 94001/03-AT100/110/120/130	3130
#672	ON PE CLU: 94051-S9000	5190
#673	NQ5 CLU: 94003-P1000/010/500/510/600/610	0161
	NQ5 HEV CLU: 94003-CH000/500/510	0153
#675	NQ5a CLU: 94003-DW000/500	0050
	NQ5 PHEV CLU: 94003-CJ100/510/610, CH100/600	0063

1. Within the ECU Upgrade screen displayed, select **Manual Mode**.
2. Select the **CLU** system under the System selection menu. Select **Upgrade Event #668, 670, 672, 673, or 675** 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:

CLUSTER DISPLAY LOGIC IMPROVEMENT (SC270)**AFFECTED VEHICLE RANGE:**

Model	Production Date Range
Soul (SK3)	September 15, 2022 to February 13, 2023
Niro HEV, PHEV (SG2 P/HEV)	September 14, 2022 to March 8, 2023
Sportage (NQ5)	September 16, 2022 to February 13, 2023
Sportage (NQ5a)	September 20, 2022 to February 28, 2023
Sportage HEV, PHEV (NQ5 P/HEV)	September 19, 2022 to February 13, 2023
Telluride (ON)	September 2, 2022 to February 22, 2023

REQUIRED TOOL:

Tool Name	Figure	Comments
KDS		Kia Diagnostic System

WARRANTY INFORMATION:**N Code: N99 C Code: C99**

Model	Claim Type	Causal P/N	Qty.	Repair Description	Labor Op Code	Op Time	Replacement P/N	Qty.
SK3	R	94023 K0000	0	(SC270) Cluster Display Inspection	231031R0	0.2 M/H	N/A	0
SG2 HEV		94001 AT000						
SGE PHEV		94001 AT100						
NQ5		94003 P1000						
NQ5 P/HEV		94003 CH000						

Note: Refer to Warranty Bulletin 2023-13 for claim submission procedures.*Continued on page 10...***NOTICE**

VIN inquiry data for this repair is provided for tracking purposes only. Kia retailers should reference **SC270** when accessing the KDealer+ system.



SUBJECT:

CLUSTER DISPLAY LOGIC IMPROVEMENT (SC270)**WARRANTY INFORMATION:****N Code: N99 C Code: C99**

Model	Claim Type	Causal P/N	Qty.	Repair Description	Labor Op Code	Op Time	Replacement P/N	Qty.
SK3	R	94023 K0000	0	(SC270) Cluster Display Inspection + S/W Upgrade	231031R1	0.4 M/H	N/A	0
SG2 HEV		94001 AT000						
SGE PHEV		94001 AT100						
NQ5		94003 P1000						
NQ5 P/HEV		94003 CH000						

Model	Claim Type	Causal P/N	Qty.	Repair Description	Labor Op Code	Op Time	Replacement P/N	Qty.
NQ5a	R	94003 DW000	0	(SC270) Cluster Display Inspection	231A12R0	0.2 M/H	N/A	0
ON		94051 S9000						
NQ5a		94003 DW000	0	(SC270) Cluster Display Inspection + S/W Upgrade	231A12R1	0.4 M/H	N/A	0
ON		94051 S9000						

Note: Refer to Warranty Bulletin 2023-13 for claim submission procedures.**NOTICE**

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