



GROUP	MODEL
ELE	2023MY Multiple Models (See page 10)
NUMBER	DATE
272	December 2022

TECHNICAL SERVICE BULLETIN

SUBJECT:

SERVICE ACTION: CLUSTER LOGIC IMPROVEMENT FOR ADAS ALERT VOLUME CHANGE (SA517)

This bulletin provides the procedure to update the software logic of the Cluster (CLU) system on some 2023MY vehicles to allow the Advanced Driver Assistance System (ADAS) default alert volume to be changed. Kia is requesting the completion of this Service Action on all affected vehicles in dealer stock, prior to delivery. Follow the procedure outlined in this publication to apply the improved logic to the 'CLU' 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 pages 3-5 of this bulletin. Before conducting the procedure, verify that the vehicle is included in the list of affected VINs.



Kia Diagnostic System (KDS)

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

This issue number is SA517.

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ECU Upgrade Procedure:

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

Upgrade Event Name
629. BDM CLU UPGRADE FOR ADAS ALERT VOLUME CHANGE
630. MQ4 HEV/PHEV CLU UPGRADE FOR ADAS ALERT VOLUME CHANGE
631. CV CLU UPGRADE FOR ADAS ALERT VOLUME CHANGE
632. NQ5a/NQ5 HEV CLU UPGRADE FOR ADAS ALERT VOLUME CHANGE (SVC)
633. NQ5/NQ5a/NQ5 HEV/PHEV CLU UPGRADE FOR ADAS ALERT VOLUME CHANGE (STD)
634. SG2 EV/HEV CLU UPGRADE FOR ADAS ALERT VOLUME CHANGE
635. SK3 PE CLU UPGRADE FOR ADAS ALERT VOLUME CHANGE


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.

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.

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ROM ID INFORMATION TABLE:

Upgrade Event #629 (BDm)

Model	System	Type	ECU P/No.	ROM ID	
				Previous	New
BDm	CLU	STD (4.2 inch)	94041 M7041 94042 M7031	1.02	1.03

Upgrade Event #630 (MQ4 P/HEV)

Model	System	Type	ECU P/No.	ROM ID	
				Previous	New
MQ4 HEV	CLU	STD (4.2 inch)	94083 P4060 94083 P4070	7.00	7.01
		SVC (12.3 inch)	94093 P4060 94093 P4070		
MQ4 PHEV		STD (4.2 inch)	94083 P4540 94083 P4550		
		SVC (12.3 inch)	94093 P4540 94093 P4550		

Upgrade Event #631 (CV)

Model	System	Type	ECU P/No.	ROM ID	
				Previous	New
CV	CLU	SVC (12.3 inch)	94003 CV000 94003 CV010 94003 CV020 94003 CV030	1.20	1.21
			94003 CV080 94003 CV090 94003 CV120 94003 CV130 94003 CV140 94003 CV150	4.00	4.01

Upgrade Event #632 (NQ5a/NQ5 HEV)

Model	System	Type	ECU P/No.	ROM ID	
				Previous	New
NQ5a	CLU	SVC (12.3 inch)	94013-DW000 94013-DW010 94013-DW001 94013-DW011	1.16	1.18
NQ5 HEV			94013 CH0XX 94013 CH1XX		



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ROM ID INFORMATION TABLE:

Upgrade Event #633 (NQ5 PHEV, NQ5 HEV, NQ5a, NQ5)

Model	System	Type	ECU P/No.	ROM ID	
				Previous	New
NQ5 PHEV	CLU	STD (4.2 inch)	94003-CH600 94003-CH100	4.46 4.47 4.48 4.49 4.50 4.51 4.52	4.53
NQ5 HEV			94003-CH000 94003-CH500	4.70 4.71 4.72 4.73 4.74 4.75	4.76
NQ5a			94003-DW000 94003-DW500	4.99 5.00 5.01 5.02 5.03 5.04 5.05 5.06 5.07	5.08
NQ5			94003-P1000 94003-P1500 94003-P1600	4.70 4.71 4.72 4.73 4.74 4.75 4.76	4.77



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Upgrade Event #634 (SG2 HEV, PHEV, EV)

Model	System	Type	ECU P/No.	ROM ID	
				Previous	New
SG2 HEV	CLU	SVC (12.3 inch)	94013 AT000 94013 AT010	2.02	2.03
SG2 PHEV			94013 AT100 94013 AT110	1.02	1.03
SG2 EV			94003 AO000 94003 AO010 94013 AO000 94013 AO010	2.02	2.03

Upgrade Event #635 (SK3 PE)

Model	System	Type	ECU P/No.	ROM ID	
				Previous	New
SK3	CLU	STD (4.2 inch)	94023 K0000	1.46 1.47 1.48	1.49

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.

NOTICE

If a "No need for S/W update" pop-up window is displayed on KDS in 'Auto Mode', then no software upgrade is required.

IMPORTANT

Some vehicles may not be in the target for this upgrade event even though it is included in the applicable VIN list. Verify ROM ID before performing the update as unnecessarily performing the update can cause damage to the cluster.

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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

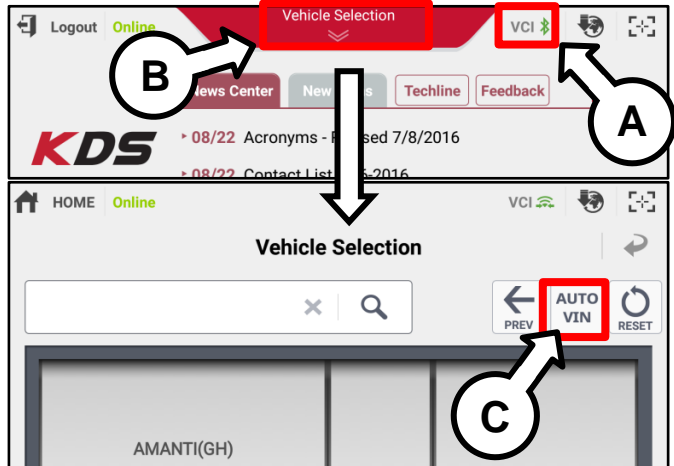
The ECU upgrade function on KDS operates wirelessly. It is not necessary to perform the upgrade via USB cable.



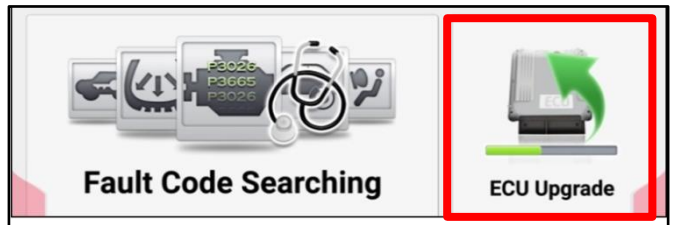
2. With the ignition ON, turn ON the KDS tablet. Select 'KDS' from the home screen.



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



4. Select 'ECU Upgrade'.



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- The KDS will check the server for recently uploaded Events and then automatically download Upgrade Event #629, #630, #631, #632, #633, #634, #635.

NOTICE

The vehicle must be identified in Vehicle Selection to download an Event for that vehicle.

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

36%

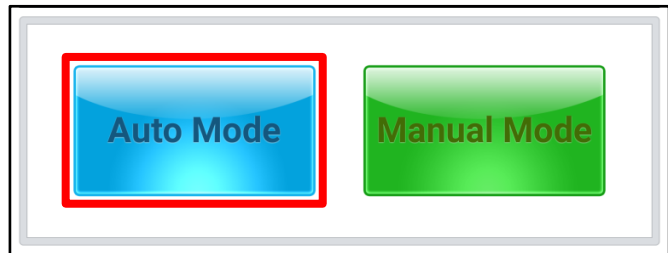
Do not touch any system buttons while performing this function.

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 #629, #630, #631, #632, #633, #634, or #635, and select Upgrade to continue.

- 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)

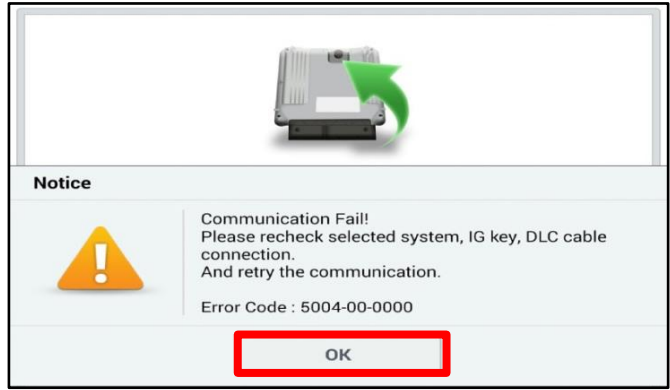
ECU is in the process of being upgraded. Please wait a few minute.



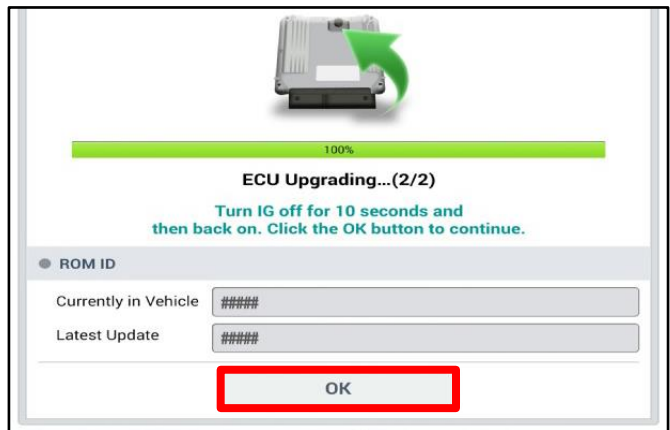
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- If a "Communication Fail" screen appears, verify that the VCI-II and KDS are communicating properly. Select 'OK' and restart the from step 4.

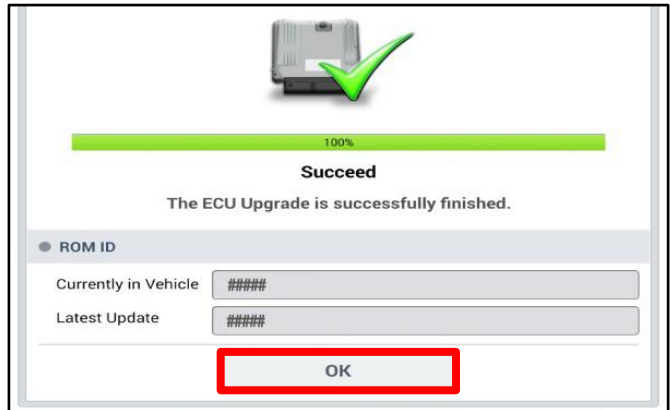
NOTICE
 If an error notice continues to appear or if the upgrade cannot be performed, DO NOT disconnect the KDS/VCI-II. Contact GIT America Help Desk at (888) 542-4371 or Techline.



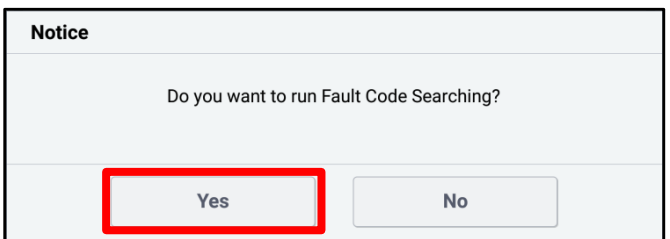
- When instructed on the KDS, turn the ignition OFF for ten (10) seconds then back on. Select 'OK' to continue.



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



- 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.



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



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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
BDm STD : 94041-M7041, 94042-M7031	6291
MQ4 HEV STD : 94083-P4060/70	8340
MQ4 HEV SVC : 94093-P4060/70	9340
MQ4 PHEV STD : 94083-P4540/50	8345
MQ4 PHEV SVC : 94093-P4540/50	9345
CV SVC : 94003-CV000/10/20/30	6311
CV 23MY SVC : 94003-CV080/090/120/130/140/150	6312
NQ5 HEV SVC : 94013-CH0XX/CH1XX	6321
NQ5a SVC : 94013-DW000/01/10/11	6322
NQ5 PHEV STD : 94003-CH100/600	6331
NQ5 HEV STD : 94003-CH000/500	6332
NQ5a STD : 94003-DW000/500	6333
NQ5 STD : 94003-P1000/500/600	6334
SG2 HEV SVC : 94013-AT000/10	6341
SG2 PHEV SVC : 94013-AT100/10	6342
SG2 EV SVC : 94003-AO000/10, 94013-AO000/10	6343
SK3 STD : 94023-K0000	6351

1. Within the ECU Upgrade screen displayed, select **Manual Mode**.
2. Select the **CLU** system under the System selection menu. Select **Upgrade Event #629, #630, #631, #632, #633, #634, or #635** 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.



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AFFECTED VEHICLE RANGE:

Model	Production Date Range
EV6 (CV)	September 1, 2022 to September 30, 2022
Forte (BDm)	June 9, 2022 to November 9, 2022
Niro (SG2 EV)	September 1, 2022 to September 29, 2022
Sorento (MQ4 HEV, PHEV)	September 1, 2022 to October 5, 2022
Soul (SK3)	September 1, 2022 to October 10, 2022
Sportage (NQ5a, NQ5, NQ5 HEV, PHEV)	September 1, 2022 to September 29, 2022

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.
Forte (BDm)	V	94041 M7041	0	(SA517) Cluster Logic Improvement	220M15R0	0.3 M/H	N/A	0
EV6 (CV)		94083 P4070			220137R0			
Niro (SG2 EV, P/HEV)								
Sorento (MQ4 P/HEV)								
Soul (SK3)								
Sportage (NQ5, NQ5 P/HEV)								
Sportage (NQ5a)		94013 DW000			220A23R0			

NOTICE

VIN inquiry data for this repair is provided for tracking purposes only. Kia retailers should reference SA517 when accessing the WebDCS system.