



GROUP	MODEL
Safety Recall Campaign	2020-2021MY Soul (SK3) 2021MY Seltos (SP2)
NUMBER	DATE
SC209A (Rev 1, 04/06/2022)	December 2021

SAFETY RECALL CAMPAIGN

SUBJECT:

ECM LOGIC IMPROVEMENT FOR PISTON RING NOISE SENSING SYSTEM (SC209A)

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 update the Piston Ring Noise Sensing System software logic of the Engine Control Module (ECM) system on some 2020-2021MY Soul (SK3) produced from November 24, 2018 through October 24, 2020 and some 2021MY Seltos (SP2) vehicles produced from November 20, 2019 through October 15, 2020 equipped with 2.0L Nu MPI (Atkinson) engines.

This software update is a preventative measure to alert the driver of potential damage to the piston oil ring. As described in this bulletin, follow the procedure outlined below to apply the improved logic for the Piston Ring Noise Sensing System (PNSS) to the 'Engine' system using the KDS ECU Upgrade function. To confirm that the latest reflash has been applied to a vehicle you are working on, verify the ROM ID using the table on page 4. Before conducting the procedure, verify that the vehicle is included in the list of affected VINs.

NOTICE

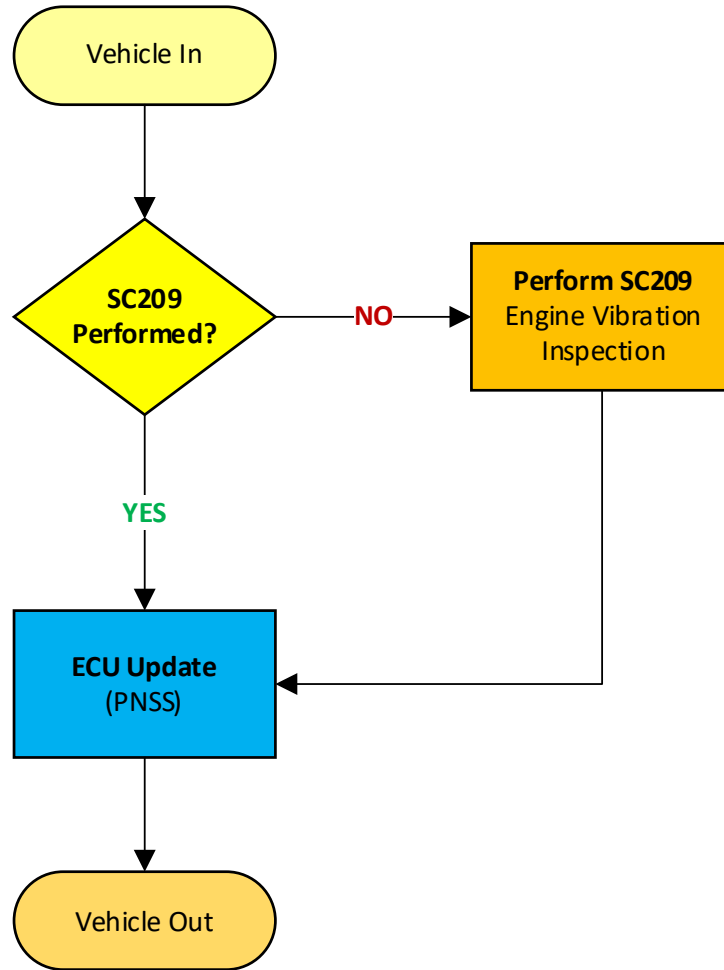
There is no charge to the vehicle owner for this repair. Under applicable law, you may not sell or otherwise deliver any affected vehicle until it has been repaired pursuant to the procedures set forth in this bulletin.

NOTICE

To assure complete customer satisfaction, always remember to refer to 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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Flowchart:



NOTE: Piston Ring Noise Sensing Software (ECU Update, PNSS) enables DTC P1327/P132700 - Piston Noise Detection, in the event that the ECU detects Piston Ring Noise from the engine.



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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
576. SK3 NU 2.0ATK ENGINE ECU UPGRADE (PISTON-RING NOISE SENSING SYSTEM)
577. SP2 NU 2.0ATK ENGINE ECU UPGRADE (PISTON-RING NOISE SENSING SYSTEM)

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.

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ECM LOGIC IMPROVEMENT FOR PISTON RING NOISE SENSING SYSTEM (SC209A)

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 #576 (SK3)

Model	EM	TM	IMMO 	ECU P/No.	ROM ID		
					Previous	New	
SK3 (20MY)	Nu 2.0L MPI	CVT	Yes	39171 2ELCO	SKASP2KS6BOA SKASP2KS6B1A SKASP2KF6B7A	SKASP2KF6B9A	
			No	39173 2ELCO	SKASP2JS6BOA SKASP2JS6B1A SKASP2JF6B7A	SKASP2JF6B9A	
		6MT	Yes	39171 2ELDO	SKAUP2AS6BOA SKAUP2AS6B1A SKAUP2AS6B1B SKAUP2AF6B7A	SKAUP2AF6B9A	
			No	39173 2ELDO	SKAUP2US6BOA SKAUP2VS6B1A SKAUP2VS6B1B SKAUP2UF6B7A	SKAUP2UF6B9A	
SK3 (21MY)		Nu 2.0L MPI	CVT	Yes	39171 2ELC1	SKBSP2KS6B2A SKBSP2KS6B7A	SKBSP2KF6B9A
				No	39173 2ELC1	SKBSP2JS6B2A SKBSP2JS6B7A	SKBSP2JF6B9A
			6MT	Yes	39171 2ELD1	SKBUP2AS6B2A SKBUP2CS6B7A	SKBUP2CF6B9A
				No	39173 2ELD1	SKBUP2VS6B2A SKBUP2VS6B7A	SKBUP2VF6B9A

Upgrade Event #577 (SP2)

Model	EM	TM	IMMO 	ECU P/No.	ROM ID	
					Previous	New
SP2 (21MY)	Nu 2.0L MPI	CVT	Yes	39171 2EPTO 39171 2EPVO	SPCUP2KS6D2A SPAUP2KS6D2A SPAUP2KS6D5A	SPAUP2KF6D7A
			No	39173 2EPTO 39173 2EPVO	SPCUP2JS6D2A SPAUP2JS6D2A SPAUP2JS6D5A	SPAUP2JF6D7A

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.

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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

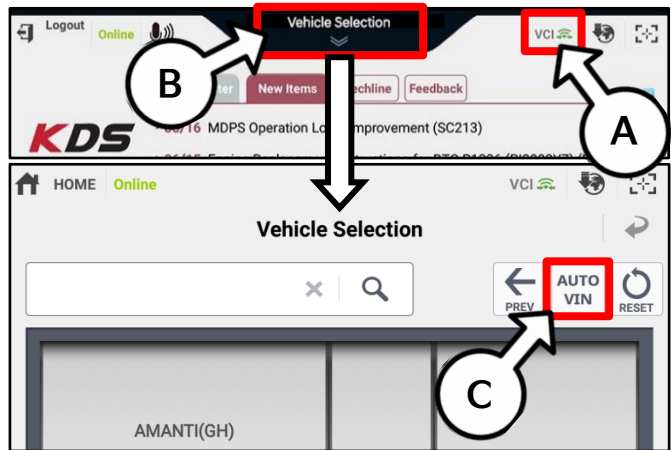
The ECU upgrade function on KDS operates wirelessly. It is not necessary to perform the upgrade via USB cable.



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'.



ECM LOGIC IMPROVEMENT FOR PISTON RING NOISE SENSING SYSTEM (SC209A)

SUBJECT:

- The KDS will check the server for recently uploaded Events and then automatically download Upgrade Event #576 (SK3) or #577 (SP2).

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.

Auto Mode

Manual Mode

- Select the Engine system under the System selection menu.
Touch ID Check (D) and confirm that the latest update is available.
Select Upgrade Event #576 (SK3) or #577 (SP2), and select Upgrade to continue.

System

ROM ID

Currently in Vehicle: #####

Latest Update: #####

D → ID Check

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

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

ECU Upgrading...(1/2)

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

F

ECU Upgrading...(2/2)

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



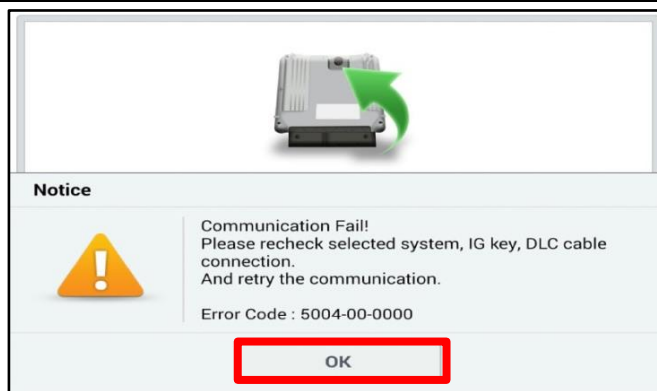
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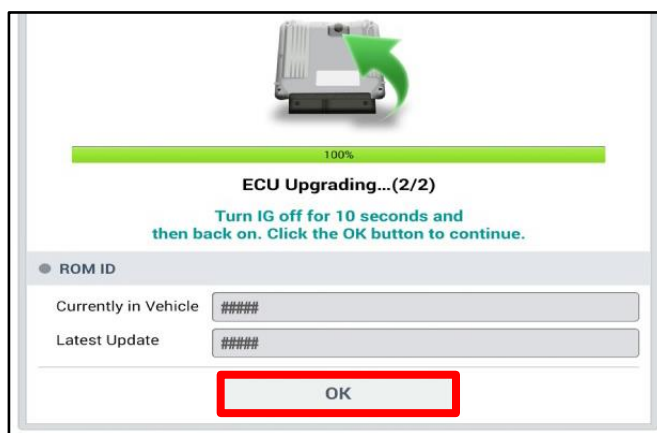
9. If a "Communication Fail" screen appears, verify that the VCI-II and KDS are communicating properly. Select 'OK' and restart the procedure from step 4.

NOTICE

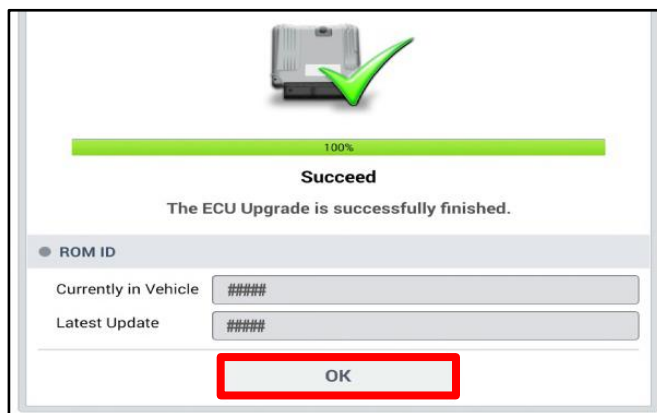
If an error notice continues to appear or if the upgrade cannot be performed, DO NOT disconnect the KDS/VCI-II. Contact GIT America Help Desk at (888) 542-4371 or Techline.



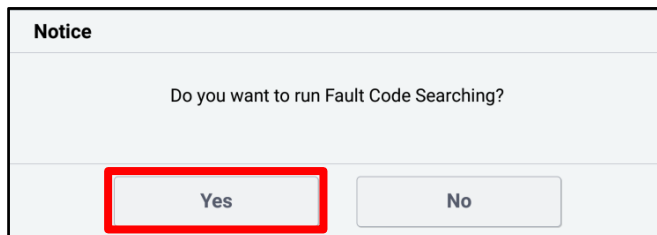
10. When instructed on the KDS, turn the ignition OFF for ten (10) seconds then back on. Select 'OK' to continue.



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.

ECM LOGIC IMPROVEMENT FOR PISTON RING NOISE SENSING SYSTEM (SC209A)

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
SK3 Nu 2.0ATK CVT +IMMO/SMK : 39171-2ELCO	5191
SK3 Nu 2.0ATK CVT -IMMO : 39173-2ELCO	5192
SK3 Nu 2.0ATK 6MT +IMMO/SMK : 39171-2ELD0	5193
SK3 Nu 2.0ATK 6MT -IMMO : 39173-2ELD0	5194
SK3 Nu 2.0ATK CVT +IMMO/SMK : 39171-2ELC1	5195
SK3 Nu 2.0ATK CVT -IMMO : 39173-2ELC1	5196
SK3 Nu 2.0ATK 6MT +IMMO/SMK : 39171-2ELD1	5197
SK3 Nu 2.0ATK 6MT -IMMO : 39173-2ELD1	5198
SP2 Nu 2.0ATK CVT +IMMO/SMK : 39171-2EPTO/VO	5201
SP2 Nu 2.0ATK CVT -IMMO : 39173-2EPTO/VO	5202

1. Within the ECU Upgrade screen displayed, select **Manual Mode**.
2. Select the **Engine** system under the System selection menu. Select **Upgrade Event #576 (SK3) or #577 (SP2)** 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
Soul (SK3)	November 24, 2018 to October 24, 2020
Seltos (SP2)	November 20, 2019 to October 15, 2020

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	39171 2ELCO	0	(SC209A) ECM Upgrade	211162R0	0.3 M/H	N/A	0
SP2		39171 2EPTO			211162R1			

NOTICE

VIN inquiry data for this repair is provided for tracking purposes only. Kia retailers should reference SC209A when accessing the WebDCS system.

