	GROUP	MODEL
	TRA	2023MY Niro P/HEV (SG2 P/HEV)
	NUMBER	DATE
	106	February 2023

TECHNICAL SERVICE BULLETIN

**SUBJECT: 6-SPEED DCT JUDGEMENT LOGIC IMPROVEMENT /
GROUND BOLT TIGHTENING (P074A73)**

This bulletin provides information to tighten both the clutch actuator and transmission control unit (TCU) grounding bolts then, upgrade the software logic of the 6-speed dual clutch transmission (DCT) on some 2023MY Niro P/HEV vehicles produced from June 14, 2022 through December 12, 2022, which may exhibit a poor shift quality concern and MIL 'ON' with DTC P074A73 stored. Follow the procedure outlined in this publication to tighten both the clutch actuator and TCU grounds, then upgrade the software logic of the 'A/T' 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 4 and 5 of this bulletin.

DTC Description:

P074A73: Unable to Engage (Shift) Gear 2



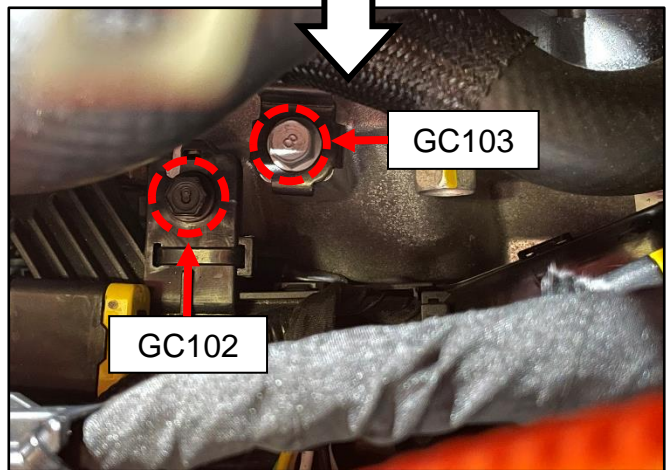
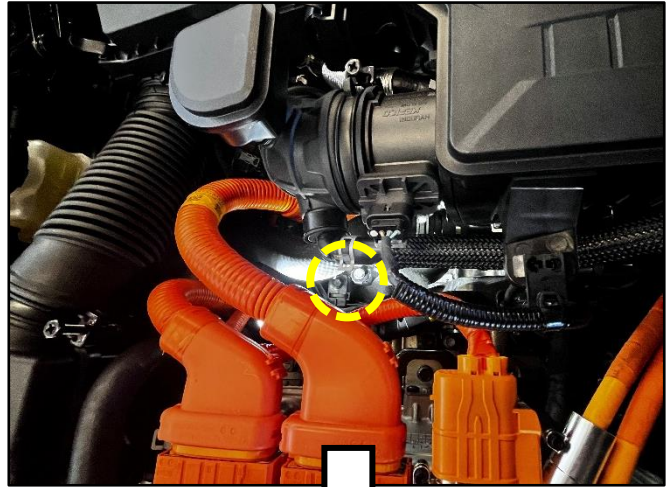
Kia Diagnostic System (KDS)

6-SPEED DCT JUDGEMENT LOGIC IMPROVEMENT / GROUND BOLT TIGHTENING (P074A73)

SUBJECT:

Repair Procedure:

1. Using a 10mm socket with an extension, tighten the clutch actuator ground bolt (GC103) and TCU ground bolt (GC102).



Tightening torque for GC102:
5.8 - 7.2 lb.ft (7.8 - 9.8 N.m)

Tightening torque for GC103:
7.2 - 8.7 lb.ft (9.8 - 11.8 N.m)

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SUBJECT:

ECU Upgrade Procedure:

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

Upgrade Event Name
646.SG2 HEV/PHEV 6DCT MIL ON DTC JUDGMENT LOGIC IMPROVEMENT (P074A73)

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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SUBJECT:

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 #646

Model	EM	TM	Type	ECU P/No.	ROM ID	
					Previous	New
SG2 HEV	1.6T	DCT	SBC	95441-2BGJ0	DSG2G16XXH955NS0 DSG2G16XXH967NS1 DSG2G16XXH967NS2 DSG2G16XXH974NS3 DSG2G16XXH015NS4 DSG2G16XXH015NS5 DSG2G16XXH049NS6	DSG2G16XXH092NS7
			SBW	95441-2BGK0	BSG2G16XXH955NS0 BSG2G16XXH967NS1 BSG2G16XXH967NS2 BSG2G16XXH974NS3 BSG2G16XXH015NS4 BSG2G16XXH015NS5 BSG2G16XXH049NS6	BSG2G16XXH092NS7
			SBC	95441-2BGL0	DSG2G16XXH967SS1 DSG2G16XXH967SS2 DSG2G16XXH974SS3 DSG2G16XXH015SS4 DSG2G16XXH015SS5 DSG2G16XXH049SS6	DSG2G16XXH092SS7
			SBW	95441-2BGM0	BSG2G16XXH967SS1 BSG2G16XXH967SS2 BSG2G16XXH974SS3 BSG2G16XXH015SS4 BSG2G16XXH015SS5 BSG2G16XXH049SS6	BSG2G16XXH092SS7

Continued on page 5...

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SUBJECT:

Upgrade Event #646 *(continued)*

Model	EM	TM	Type	ECU P/No.	ROM ID	
					Previous	New
SG2 PHEV	1.6T	DCT	SBC	95441-2BGTO	DSG2G16XXP967NS1 DSG2G16XXP967NS2 DSG2G16XXP974NS3 DSG2G16XXP015NS4 DSG2G16XXP015NS5 DSG2G16XXP049NS6	DSG2G16XXP092NS7
			SBW	95441-2BGVO	BSG2G16XXP967NS1 BSG2G16XXP967NS2 BSG2G16XXP974NS3 BSG2G16XXP015NS4 BSG2G16XXP015NS5 BSG2G16XXP049NS6	BSG2G16XXP092NS7

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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SUBJECT:

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

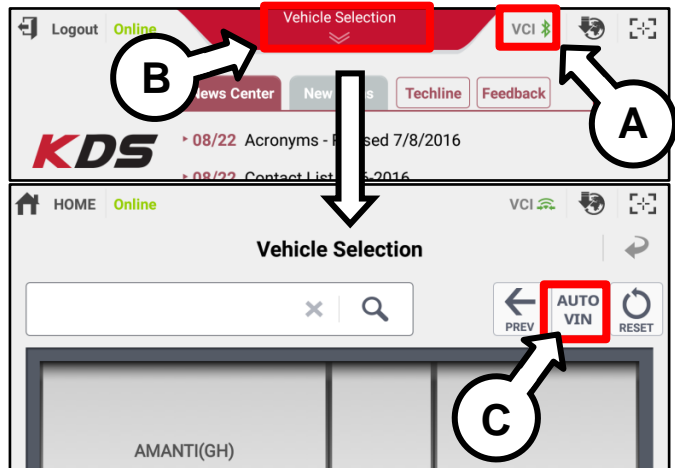
The ECU upgrade function on KDS operates wirelessly. It is not necessary to perform the upgrade via USB cable.



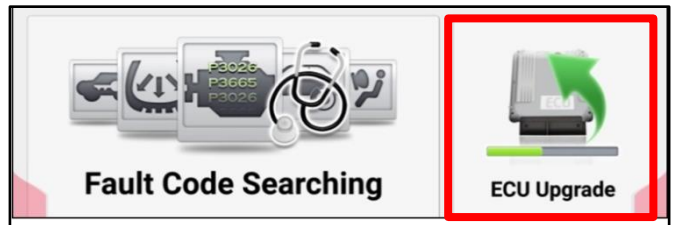
2. With the ignition ON, turn ON the KDS tablet. Select 'KDS' from the home screen.



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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SUBJECT:

- The KDS will check the server for recently uploaded Events and then automatically download Upgrade Event #646.

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%

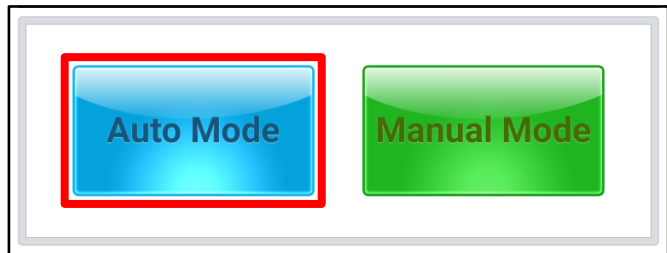
Do not touch any system buttons while performing this function.

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 A/T system under the System selection menu. Touch ID Check (D) and confirm that the latest update is available. Select Upgrade Event #646.SG2 HEV/PHEV 6DCT MIL ON DTC JUDGMENT LOGIC IMPROVEMENT (P074A73) and select Upgrade to continue.

System

A/T

ROM ID

Currently in Vehicle: #####

Latest Update: #####

ID Check (D)

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.

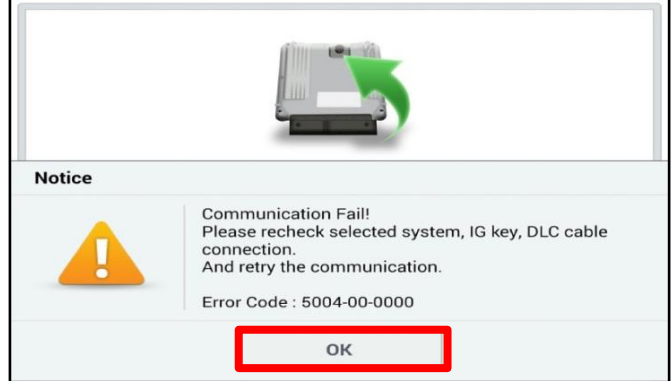
6-SPEED DCT JUDGEMENT LOGIC IMPROVEMENT / GROUND BOLT TIGHTENING (P074A73)

SUBJECT:

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

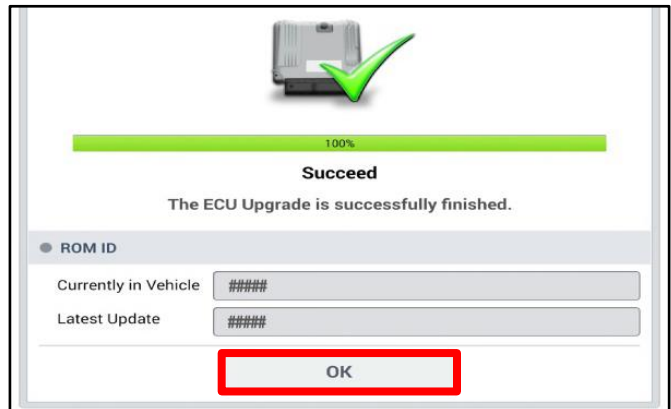
If an error notice continues to appear or if the upgrade cannot be performed, DO NOT disconnect the KDS/VCI-II. Contact GIT America Help Desk at (888) 542-4371 or Techline.



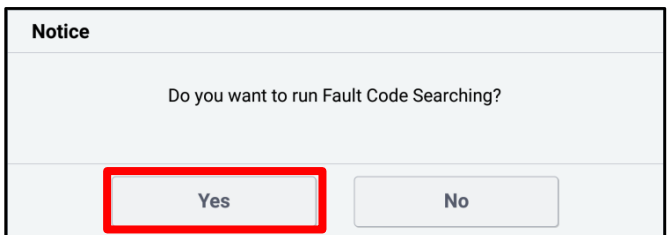
10. When instructed on the KDS, turn the ignition OFF for ten (10) seconds then back on. Select 'OK' to continue.



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.



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SUBJECT:

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
SG2 HEV 6DCT SBC : 95441-2BGJ0	4120
SG2 HEV 6DCT SBW : 95441-2BGK0	4121
SG2 HEV 6DCT SBC : 95441-2BGL0	4122
SG2 HEV 6DCT SBW : 95441-2BGM0	4123
SG2 PHEV 6DCT SBC : 95441-2BGT0	4124
SG2 PHEV 6DCT SBW : 95441-2BGV0	4125

1. Within the ECU Upgrade screen displayed, select **Manual Mode**.
2. Select the **A/T** system under the System selection menu. Select **Upgrade Event #646** 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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SUBJECT:

AFFECTED VEHICLE RANGE:

Model	Production Date Range
Niro P/HEV (SG2 P/HEV)	June 14, 2022 to December 12, 2022

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.
W	95441 2BGJ0	0	6DCT Judgement Logic Improvement + Tightening of Two Ground Bolts	95441F00	0.4 M/H	N/A	0