

GROUP	MODEL
TRA	2021MY
	Seltos (SP2)
	1.6L T-GDI w/7DCT
NUMBER	DATE
094	December 2020

## TECHNICAL SERVICE BULLETIN

SUBJECT:

# SERVICE ACTION: DUAL CLUTCH TRANSMISSION (DCT) DTC P060194 LOGIC IMPROVEMENT (SA454)

This bulletin provides the procedure to improve the logic of the Dual Clutch Transmission (DCT) on some 2021MY Seltos (SP2) vehicles, produced from November 20, 2019 through October 14, 2020, equipped with Gamma 1.6L T-GDI engine and 7-speed DCT. These vehicles may experience limp-home mode driving with a check engine light (DTC P060194) due to limited gear shifting. To prevent this concern, apply the improved logic to 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 page 3 of this bulletin. Before conducting the procedure, verify that the vehicle is included in the list of affected VINs.

### **DTC Description:**

P060194: Internal Control Module Memory Sum Error



Kia Diagnostic System

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

This issue number is SA454.

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

Circulate To: 

General Manager

Service Manager

Parts Manager

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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**

513. SP2 GAMMA 1.6TGDI 7DCT SOFTWARE LOGIC IMPROVEMENT

### \* NOTICE

- A fully charged battery is necessary before ECU upgrade can take place. It is recommended that a battery charger is used in ECU mode during reflashing or the use of a fully charged jump starter box connected to the battery.
- DO NOT connect any other battery charger to the vehicle during ECU upgrade.
- Ensure the KDS or GDS is sufficiently charged prior to reflash.
- All ECU upgrades must be done with the ignition key in the 'ON' position.
- 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 model and model year.

### (i) 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 #513**

Model	EM	TM	IMMO 🔼	ECU P/No.	ROM ID		
Model	⊏IVI	I IVI	IIVIIVIO 🔛	ECO P/NO.	Previous	New	
Seltos (SP2) AWD	Gamma 1.6L T-GDI	7DCT	Yes	954A1 2D390	DSP2T16X4X910NS0 DSP2T16X4X910NS1 DSP2T16X4X920NS2 DSP2T16X4X930NS3 DSP2T16X4X940NS4 DSP2T16X4X940NS5 DSP2T16X4X940NS6 DSP2T16X4X950NS7	DSP2T16X4X950NS8	

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

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

 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.

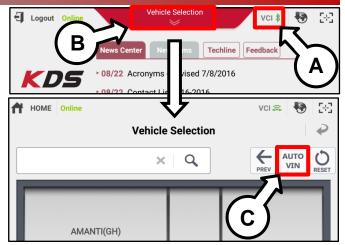
2. With the ignition ON, turn ON the KDS tablet. Select **KDS** from the home screen.



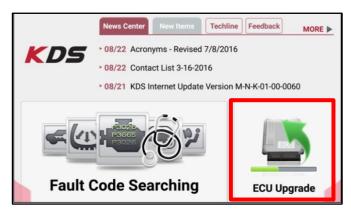


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3. Confirm communication with VCI (A) and then configure the vehicle (B) using the **AUTO VIN** (C) feature.



Select ECU Upgrade.



The KDS will check the server for recently uploaded Events and then automatically download **Upgrade Event #513.** 

### \* 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

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

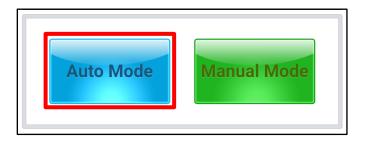
KDS screenshot shown above is for demonstration purposes only. Events shown in screenshot are not applicable to this bulletin.

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

6. Select Auto Mode.



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





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7. 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 #513** and select **Upgrade** to continue.



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-II. Upgrade part (2/2) (F) will upgrade the ECU.

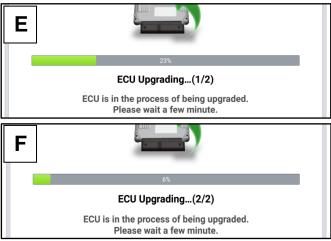


Do not touch the system buttons (like 'Back', 'Home', 'etc.') while performing ECU Upgrade.

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

### \* NOTICE

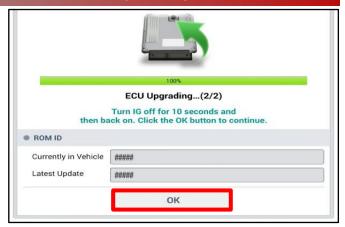
If an error notice continues to appear or if the upgrade cannot be performed, DO NOT disconnect the KDS/VCI-II. Contact GIT America Help Desk at (888) 542-4371 or Techline.



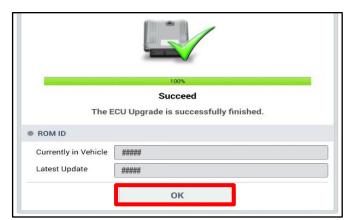


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10. When instructed on the KDS, turn the ignition **OFF** for ten (10) seconds then back on. Touch **OK** to continue.



11. Once the upgrade is complete, touch **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 proper 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
SP2 7DCT Gamma 1.6T 4WD: 954A1-2D390	2390

- 1. Within the ECU Upgrade screen displayed, select **Manual Mode**.
- Select the A/T system under the System selection menu. Select Upgrade Event #513 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. Touch **OK** to continue.
- 7. Once the upgrade is complete, touch **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		
Seltos (SP2)	November 20, 2019 to October 14, 2020		

#### 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	954A1 2D390	0	(SA454) 7DCT Logic Improvement	200125R0	0.3 M/H	N/A	0

### \* NOTICE

VIN inquiry data for this repair is provided for tracking purposes only. Kia retailers should reference <u>SA454</u> when accessing the WebDCS system.

