 HYUNDAI Technical Service Bulletin	GROUP CAMPAIGN	NUMBER 22-01-021H
	DATE FEBRUARY, 2022	MODEL(S) Tucson (NX4), Tucson (NX4A), Tucson Hybrid (NX4 HEV), Tucson Plugin (NX4 PHEV)
SUBJECT: LANE KEEP ASSIST SOFTWARE UPDATE (SERVICE CAMPAIGN T7X)		

*** IMPORTANT**

*******Dealer Stock ONLY*******

Dealers must perform this Service Campaign on all affected vehicles prior to customer retail delivery.

When a vehicle arrives at the Service Department, access the "Vehicle Information" screen via WEBDCS to identify open Campaign/Recalls.

Description: This bulletin provides information related to Lane Keep Assist (LKA) software update, logic revision for Tucson (NX4, NX4A, NX4 HEV, NX4 PHEV) vehicles. Update will reduce sensitivity of LKA warning and misrecognition of missing lanes when entering the interstate.

Applicable Vehicles: Certain 2022MY Tucson (NX4), 2022MY Tucson (NX4A), 2022MY Tucson Hybrid (NX4 HEV), 2022MY Tucson Plug-in (NX4 PHEV).

Warranty Information:

Model	Op. Code	Operation	Op. Time	Causal Part	Nature Code	Cause Code
Tucson (NX4A)	20D003R3	LKA UPGRADE	0.4 M/H	99211-N9200	I3T	ZZ3
Tucson (NX4), Tucson Hybrid/Tucson Plug-in (NX4 HEV/NX4 PHEV)	20D003R2			99211-N9100		

LANE KEEP ASSIST LOGIC IMPROVEMENT PROCEDURE

NOTICE

Check if the vehicle’s software version is affected:

- Check the current version of the ICU ROM ID and compare it to the ROM ID information table listed below before attempting to perform the software update.

NOTICE

If any test shows “Failed”:

- Check for DTC in all modules and erase any DTC.
- Turn off the ignition and GDS. Turn on the ignition and GDS and perform the test.
- Attempt Capacitive Discharge and re-attempt the Event.

GDS Information:

EVENT INFORMATION	
MODEL	EVENT DESCRIPTION
Tucson (NX4/NX4A/NX4 HEV/NX4 PHEV)	“795.NX4, NX4 HEV/PHEV, NX4A, NX4AT LKA LOGIC IMPROVEMENT”

ROM ID Information Table:

MODEL	OLD		NEW	
	P/NO	ROM ID	P/NO	ROM ID
NX4/NX4A/NX4 HEV/NX4 PHEV	99211-N9000	1.03	99211-N9240	1.00
	99211-N9100	1.00/1.01		
	99211-N9200	1.00/1.01		
	99211-N9210	1.00		
	99211-N9220	1.00		

SERVICE PROCEDURE:



Cautions During Control Unit Upgrade

- Confirm the vehicle's battery is above 12 volts. If the vehicle has been in storage for days, run the engine to assure an adequate battery charge state for reliable upgrade results.
- Turn off all lamps (Do not leave head lamp switch in auto mode) and all accessories (heater, A/C, blower, radio, seat warmer, defroster, etc.); do not allow the battery to be discharged during upgrade.
- Perform upgrade with the ignition switch in the ON position.
- Be careful not to disconnect any cables connected to the vehicle or scan tool during upgrade.
- Do not start the engine during upgrade.
- Do not turn off the ignition switch during upgrade.
- Do not touch the systems buttons (like 'BACK', 'HOME', 'etc.')

CONTROL UNIT UPGRADE PROCEDURE USING THE GDS-Mobile

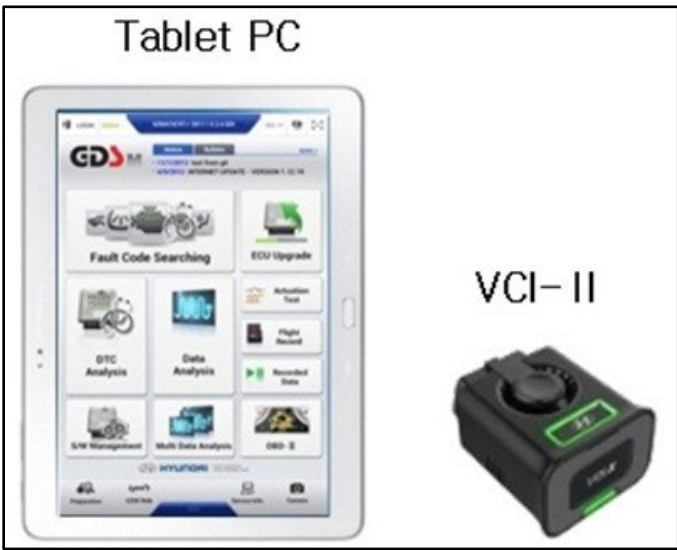
1. GDS (Global Diagnostic System)-Mobile INSTALLATION PROCEDURE

1. Connect the VCI-II into the vehicle's DLC connector under the driver side instrument panel and check to turn the VCI-II on.

Before starting the update, make certain that the battery of the Table PC is sufficiently charged.



ECU upgrade function on GDS-Mobile is basically operating in wireless communication and Wi-Fi direct. Also, it's possible to be performing via USB cable between Tablet PC and VCI-II.



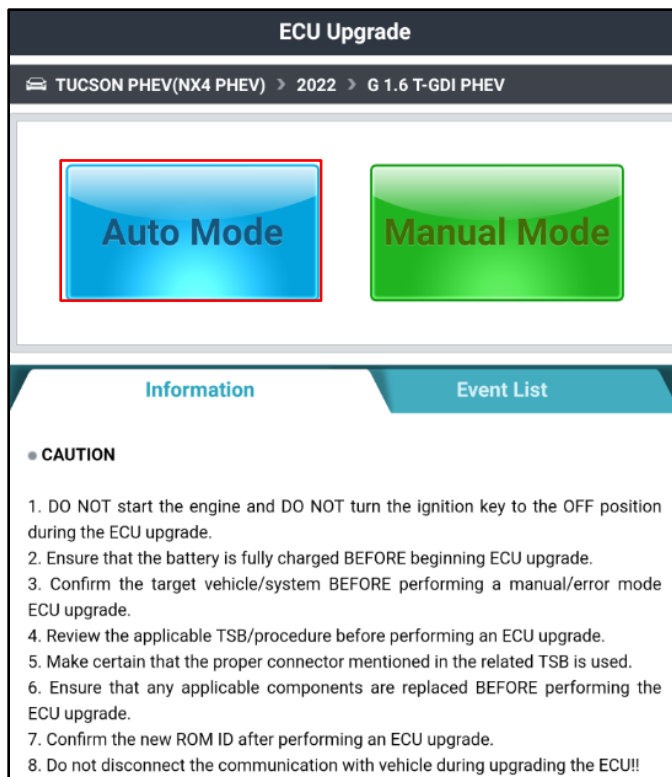
2. AUTOMATIC UPGRADE PROCEDURE USING THE GDS-MOBILE

1. Select ECU Upgrade on the initial screen after entering the vehicle information.

Select **Auto Mode**.

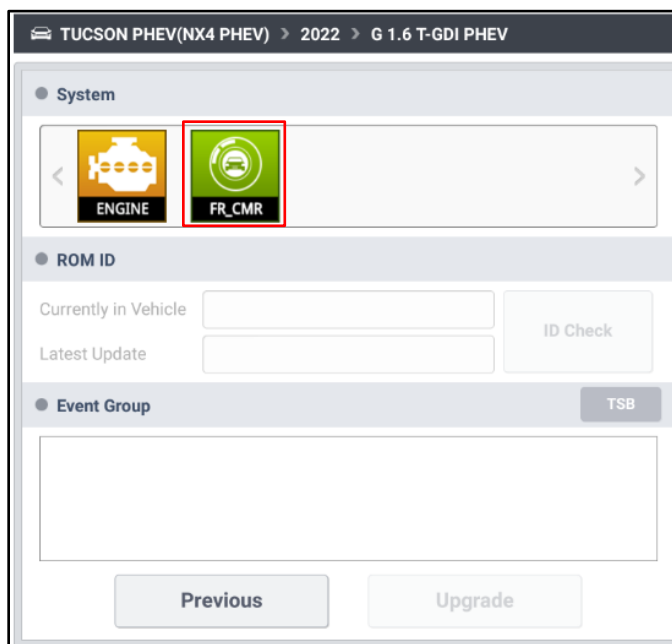
NOTICE

Read the "Information" and tab ID check.



2. From the System, select **FR_CMR**.

ROM ID will generate after selecting FR_CMR.

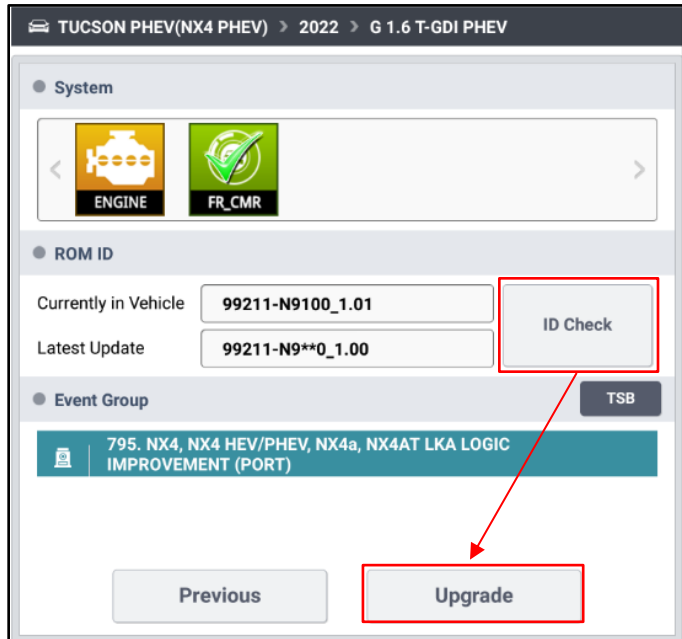


3. Select **ID Check**.

The GDS-Mobile will read the current ROM ID in vehicle and check the newest upgrade event.

Choose – “795.NX4, NX4 HEV/PHEV, NX4A, NX4AT LKA LOGIC IMPROVEMENT”.

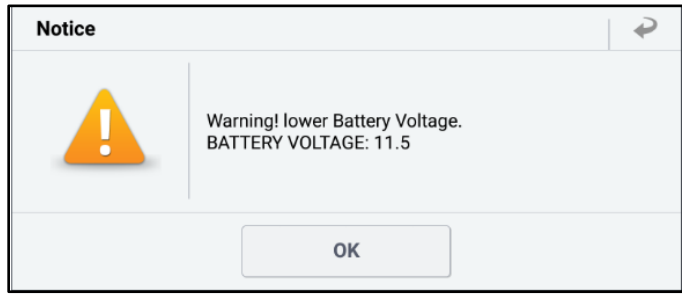
Select **Upgrade**.



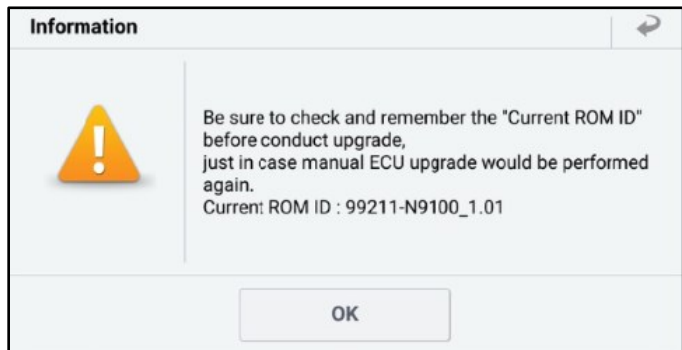
4. The vehicle battery voltage is checked to make sure it is at least 12 volts to ensure reliable upgrade results. Click **OK** if the results indicate voltage is OK.

NOTICE

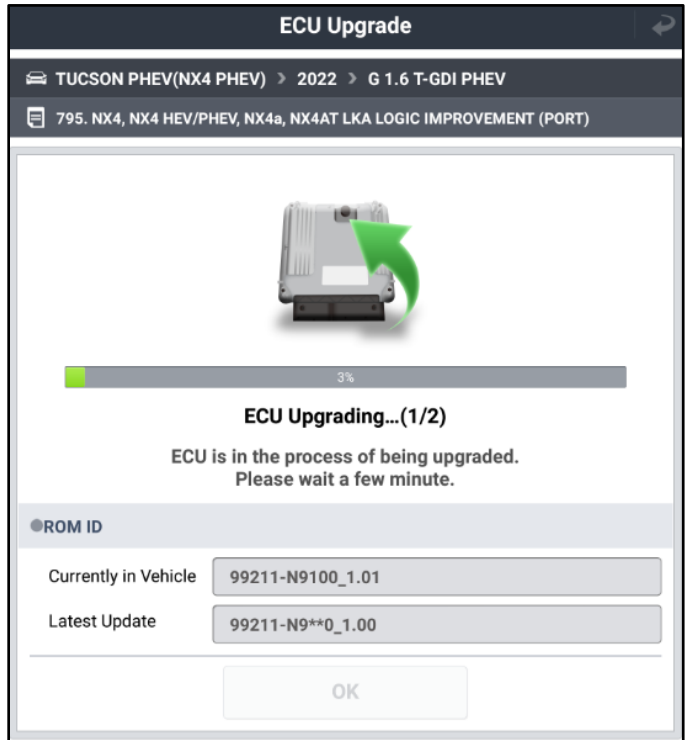
If battery voltage is below 12 voltages as below, click BACK and then run the engine to assure an adequate battery charge state for reliable upgrade results.



5. Pop-up may generate to check “Current ROM ID”. Select **OK** and continue with update.



- 6. Upgrade (1/2) will begin, and the progress of the upgrade will appear on the bar graph. Upgrade (1/2) will occur until 100% is reached on the bar graph.



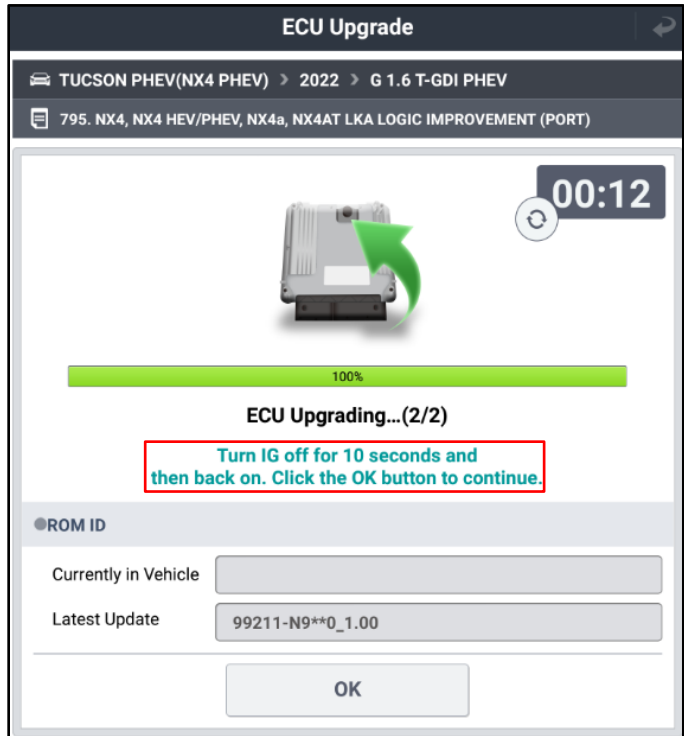
- 7. Upgrade (2/2) will begin, and the progress of the upgrade will appear in the bar graph.

Upgrade (2/2) will occur until 100% is reached on the bar graph.

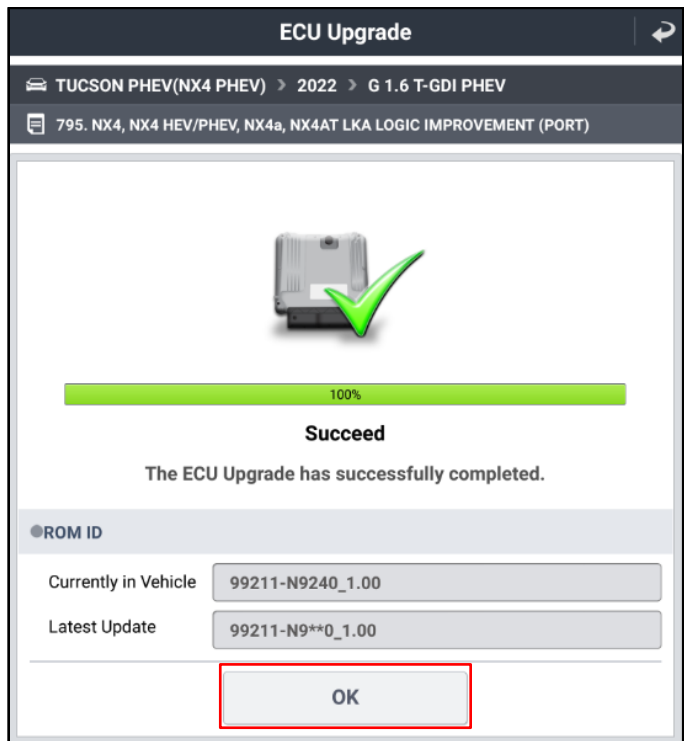
After progress bar reaches 100%, turn the ignition key off for 10 seconds. Turn the ignition back to the on position, and then click OK to continue according to information displayed on the screen.



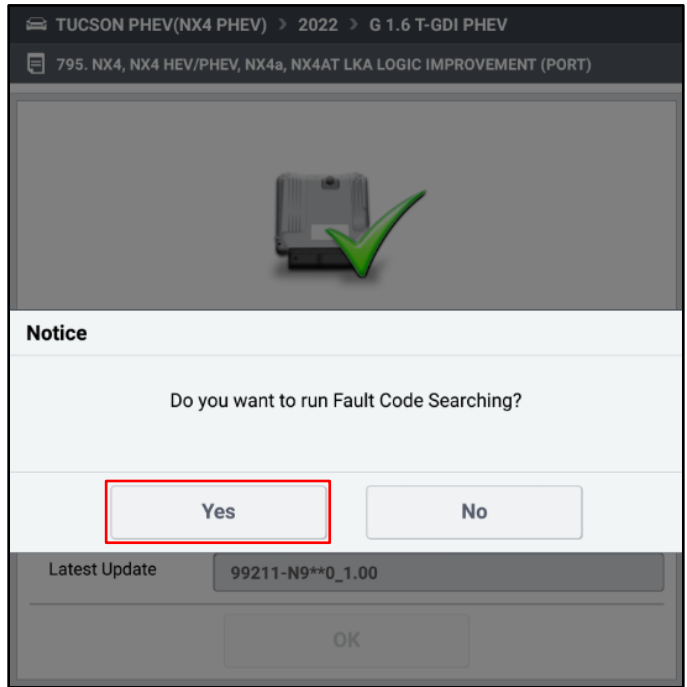
- 8. When upgrade reaches 100%, Tablet will direct Technician to “Turn IG off for 10 seconds and then back on. Click the OK button to continue.”



- 9. Click **OK** on the final screen, which indicates upgrade is complete.



- 10. Check if any incidental Diagnostic Trouble Codes (DTC) have been created by the upgrade and clear the DTC(s) present.



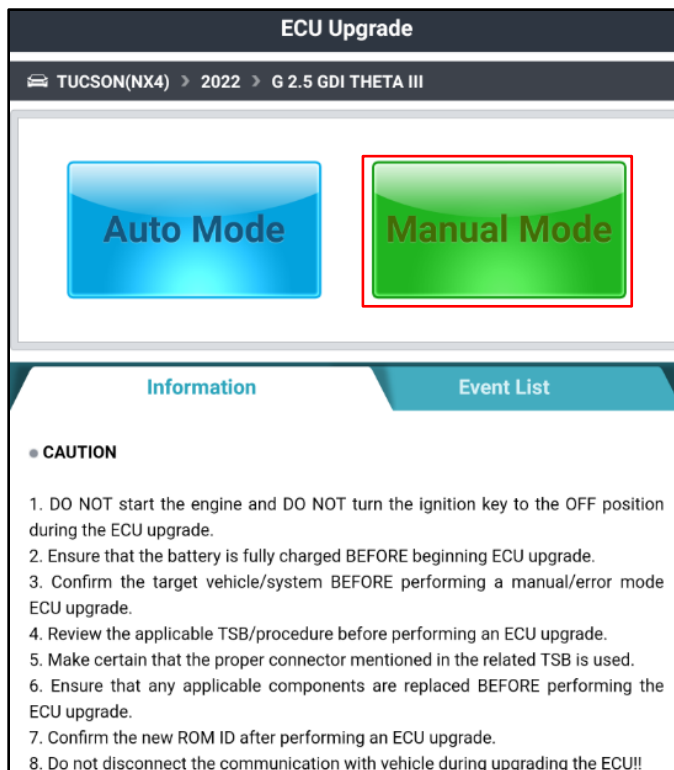
- 11. Start the engine to confirm proper operation of the vehicle.

3. MANUAL UPGRADE PROCEDURE USING THE GDS-MOBILE

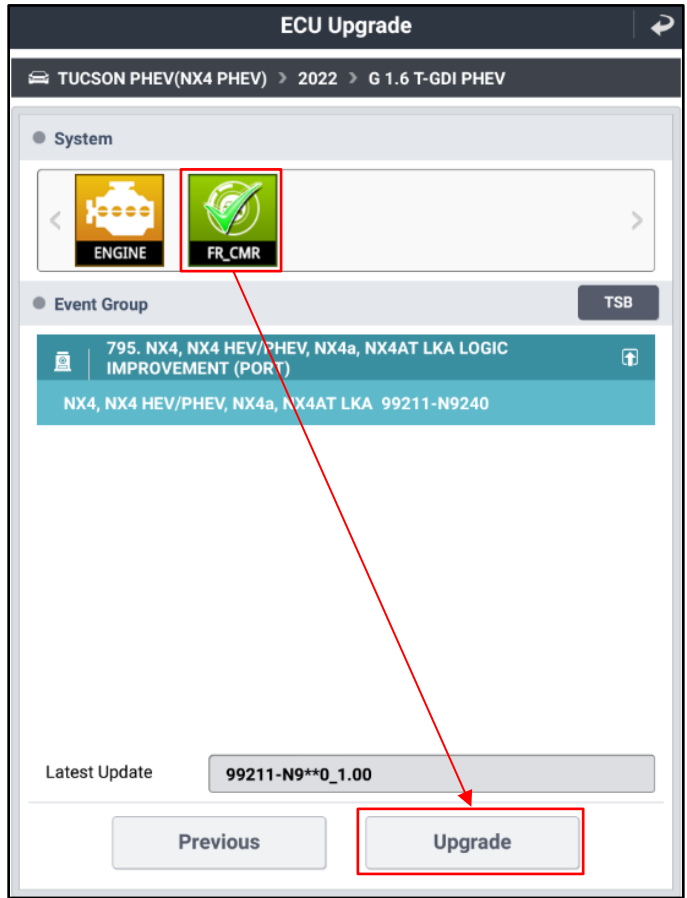
NOTE:

- The manual upgrade should be performed only when the automatic upgrade fails.
- If automatic upgrade fails, turn the ignition key off for about 10 seconds, place it back in the on position to reset the control unit before performing manual upgrade.

1. Within the upgrade screen, select Manual Mode, then select upgrade event.



- From the System, select **FR_CM**.
ROM ID will generate after selecting **FR_CM**.
Select **Upgrade**.



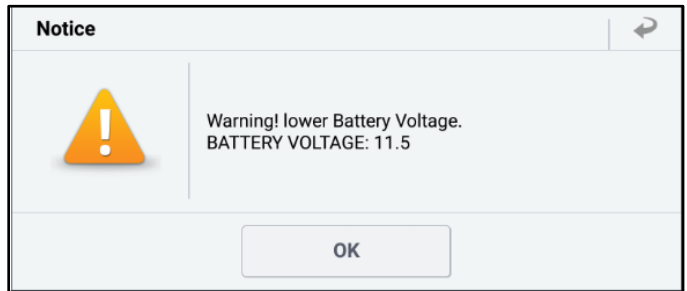
- Enter the password from the below table then click OK.
#795

Menu	Password
NX4(HEV), NX4a, NX4 AT LKA 99211-N9240	0429

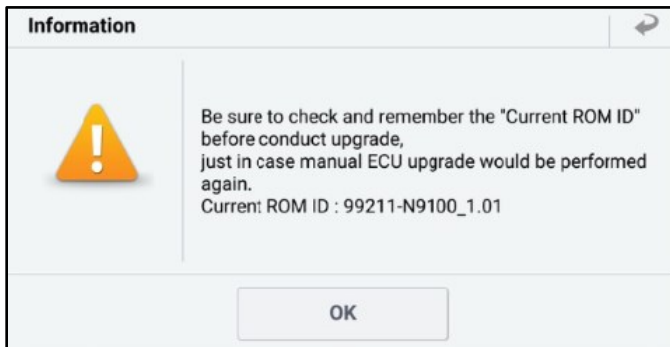
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NOTICE

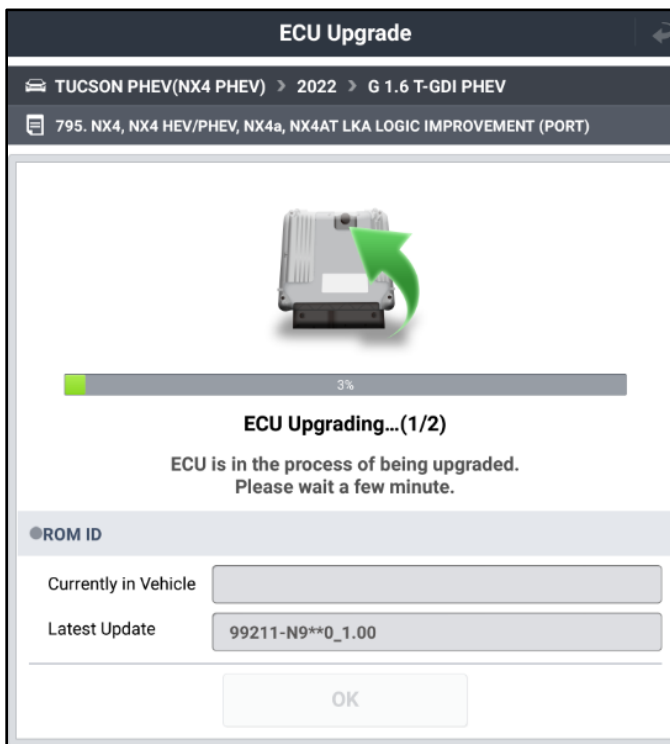
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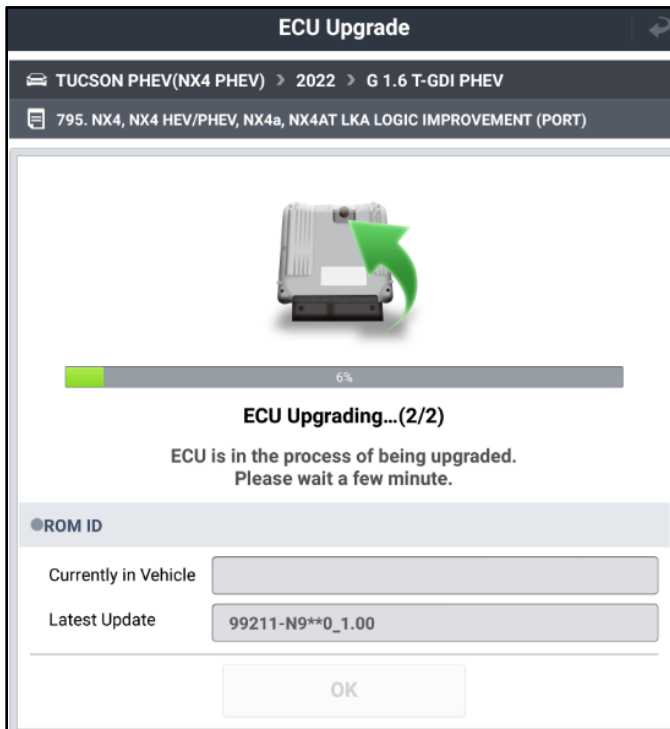
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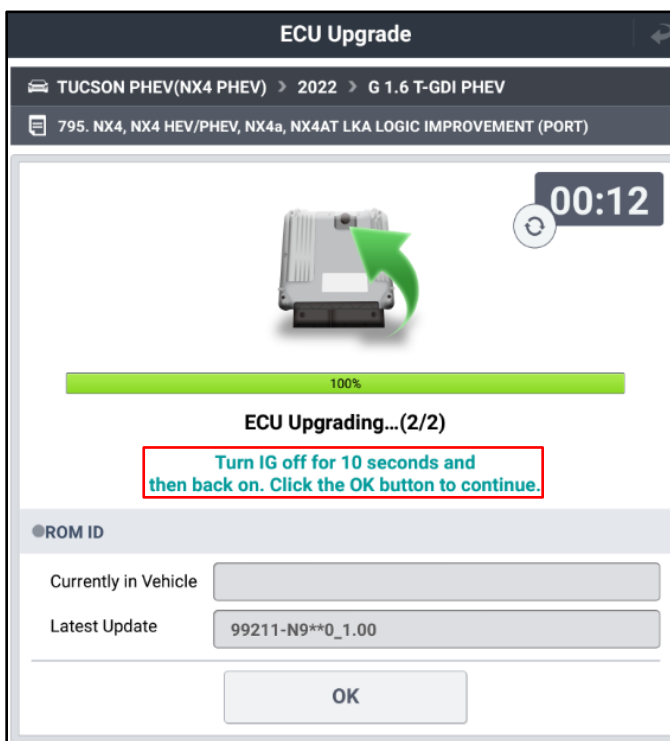
- 6. Upgrade (2/2) will begin, and the progress of the upgrade will appear in the bar graph.

Upgrade (2/2) will occur until 100% is reached on the bar graph.

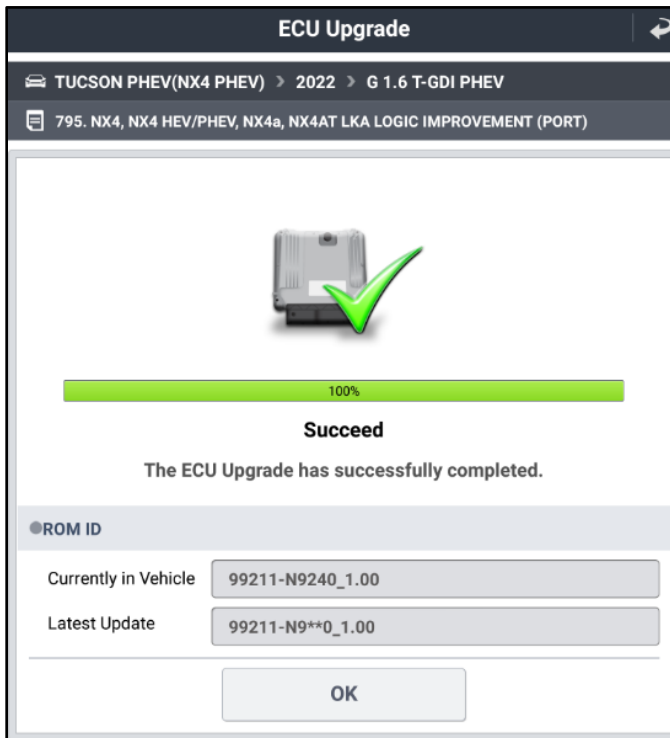
After progress bar reaches 100%, turn the ignition key off for 10 seconds. Turn the key back to the on position, and then click OK to continue according to information displayed on the screen.



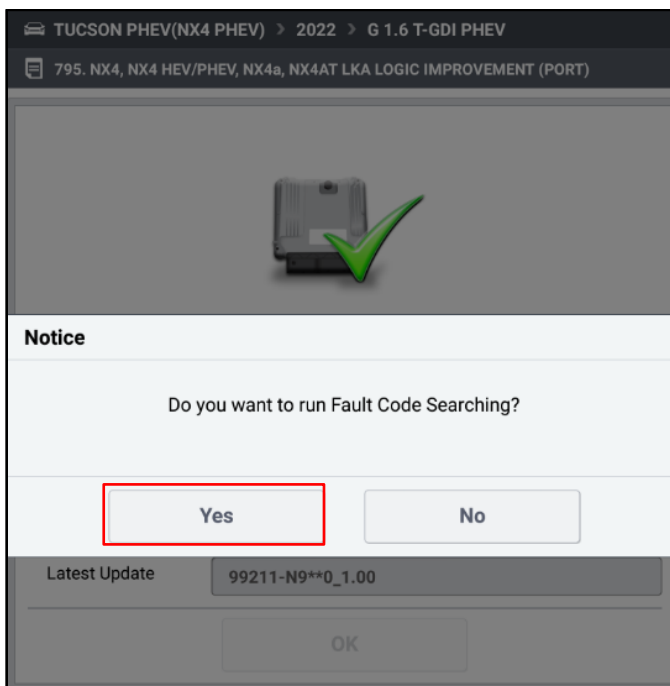
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