 HYUNDAI Technical Service Bulletin	GROUP CAMPAIGN	NUMBER 23-01-072H
	DATE AUGUST 2023	MODEL(S) IONIQ HYBRID (AE HEV), IONIQ PLUG-IN (AE PHEV)
SUBJECT: HCULDC SOFTWARE UPDATE FOR P-DTC (SERVICE CAMPAIGN TAQ)		

★ IMPORTANT

Dealers must perform this service campaign on all affected vehicles prior to customer retail delivery and whenever an affected vehicle is in the shop for any maintenance or repair.

Access the “Vehicle Information” screen via WEBDCS to identify open campaigns.

Description: This bulletin provides the procedure to update the Hybrid Control Unit (HCU) / Low DC/DC Converter (LDC) software logic to eliminate internal P-DTCs (that are not viewable) in certain 2019-2021MY IONIQ Hybrid (AE HEV) and 2021MY IONIQ Plug-in Hybrid (AE PHEV) vehicles.

Applicable Vehicles (Certain):

- 2019MY IONIQ Hybrid (AE HEV) produced from 12/4/2018 to 12/8/2018
- 2020-2021MY IONIQ Hybrid (AE HEV) produced from 9/28/2020 to 2/5/2021
- 2021MY IONIQ Plug-in (AE PHEV) produced from 12/4/2020 to 2/5/2021

GDS Information:

System	Event #	Description
HCUDLC	681	AE HEV - HCULDC P-DTC IMPROVEMENT
	682	AE PE HEV - HCULDC P-DTC IMPROVEMENT
	689	AE PHEV - HCULDC P-DTC IMPROVEMENT

(*or use a later available event as listed in the GDS HCU Update screen if one is available.)

Warranty Information:

Model	Op. Code	Operation	Op. Time	Causal Part	Nature Code	Cause Code
IONIQ Hybrid (AE HEV)	10D038R0	Check Target Vehicle (HCULDC Update not required)	0.4 M/H	36600-2B133	I14	ZZ3
	10D038R1	Check Target Vehicle + HCULDC Update	0.5 M/H		I14	ZZ3
IONIQ Plug-in (AE PHEV)	10D038R2	Check Target Vehicle (HCULDC Update not required)	0.4 M/H	36600-2B183	I14	ZZ3
	10D038R3	Check Target Vehicle + HCULDC Update	0.5 M/H		I14	ZZ3

NOTE 1: Submit claim on Claim Entry Screen as “Campaign” type.

NOTE 2: If a part is found in need of replacement while performing this campaign and the affected part is still under warranty, submit a separate claim using the same repair order. If the affected part is out of warranty, submit a Prior Approval request for goodwill consideration prior to performing the work.

NOTE 3: This TSB includes Repair validation photos. OP times includes VIN, Mileage, and Repair validation photos as outlined in the Digital Documentation Policy.

ROM ID Information:

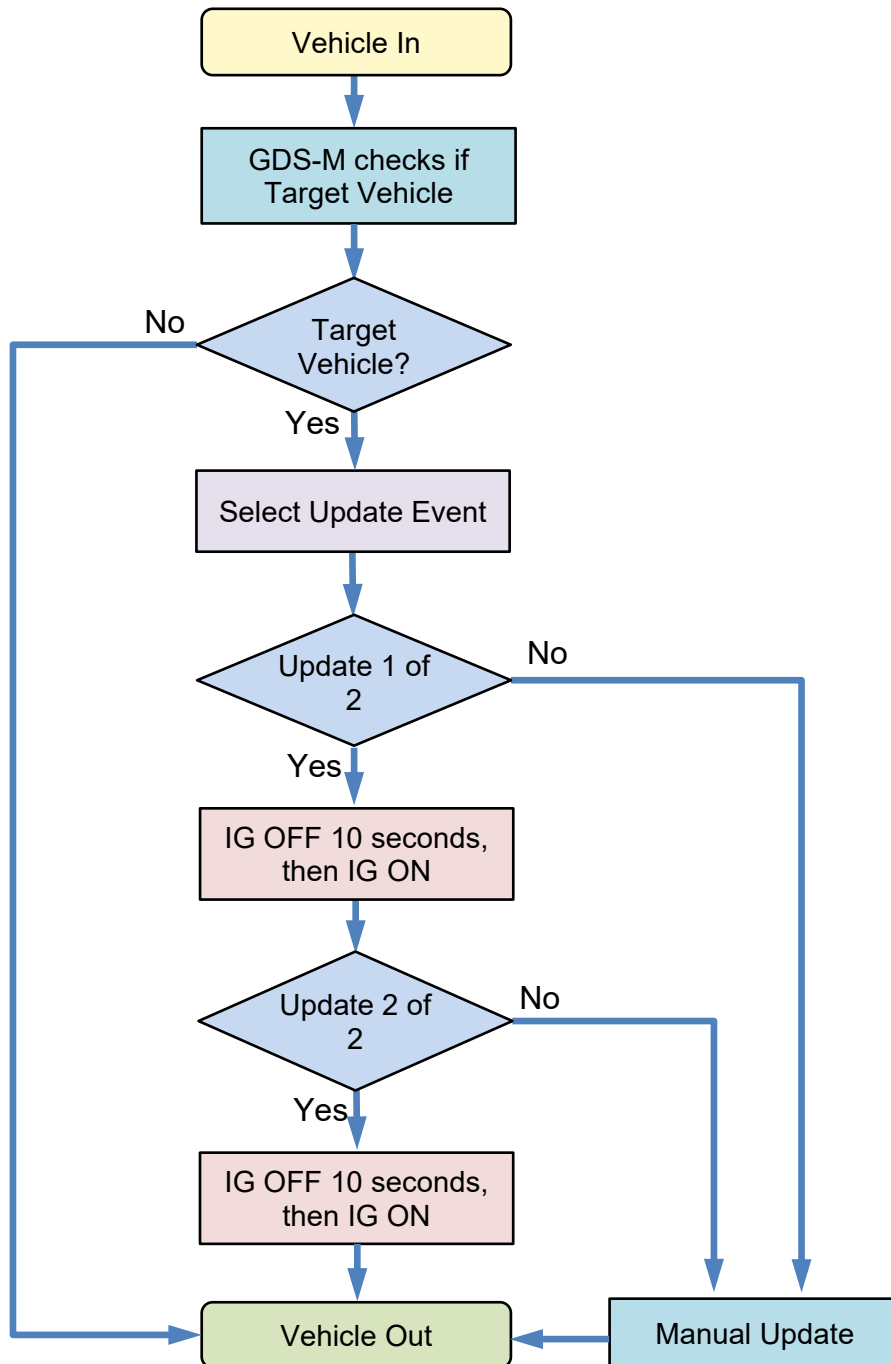
Model	System	Year	HCULDC Part Number	ROM ID		
				Old	New	
IONIQ Hybrid (AE HEV)	HCUDLC	2019	36600-2B133	GAEHKN6HNS1-K7D0	GAEHKN6HNS1-K7D0	
IONIQ Hybrid PE (AE PE HEV)		2020	36600-2B180	GAEH0N6HNS0-K5D0	GAEH0N6HNS0-K5D0	
			36600-2B181	GAEH0N6HNS0-K7D0	GAEH0N6HNS0-K7D0	
			36600-2B580	GAEH0N6HNS0-K5N0	GAEH0N6HNS0-K5N0	
		2021	36600-2B183	GAEH1N6HNS0-K7D0	GAEH1N6HNS0-K7D0	
36600-2B582			GAEH1N6HNS0-K5N0	GAEH1N6HNS0-K5N0		
IONIQ Hybrid PE PHEV (AE PE PHEV)				36600-2B186	GAEP1N6PNS0-K600	GAEP1N6PNS0-K600

Service Procedure:

STUI



This TSB includes Repair validation photos. Refer to the latest Warranty Digital Documentation Policy for requirements.



Information

To verify the vehicle is affected, be sure to check the version of the vehicle's control unit ROM ID with reference to the ROM ID Information table before attempting to update the control unit software.

Automatic Upgrade Procedure With GDS-M

NOTICE

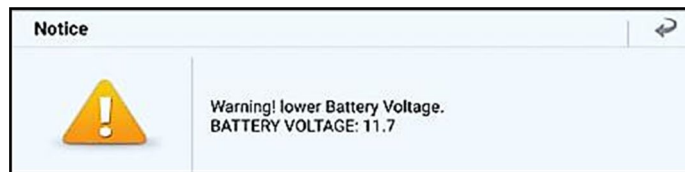
You must initially perform the GDS ECU Update in Auto Mode.

- If the ECU Update starts but then fails in Auto Mode, perform the update in Manual Mode to recover.

NOTICE

GDS Vehicle Battery Low Voltage Warning:

If voltage is below 12 volts as per the below GDS warning, then select **Back** and run the vehicle for at least 20 minutes to ensure an adequate battery state of charge for reliable update results. Turn ignition back on, and then retry the ECU update again.

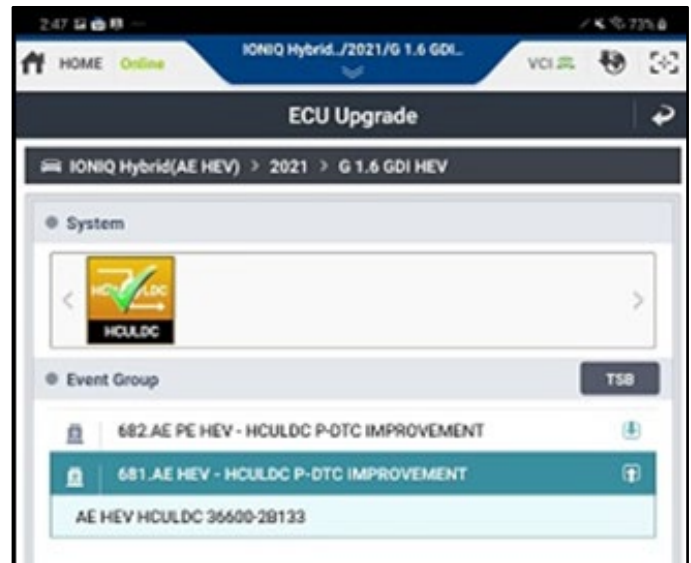


1. Perform the ECU Update in Auto Mode following the steps below.

Use the Auto Mode ID Check to verify the ECU ROM ID before updating the software.

i Information

Refer to TSB 15-GI-001 for additional tablet-based Mobile GDS ECU update information.



- 2.

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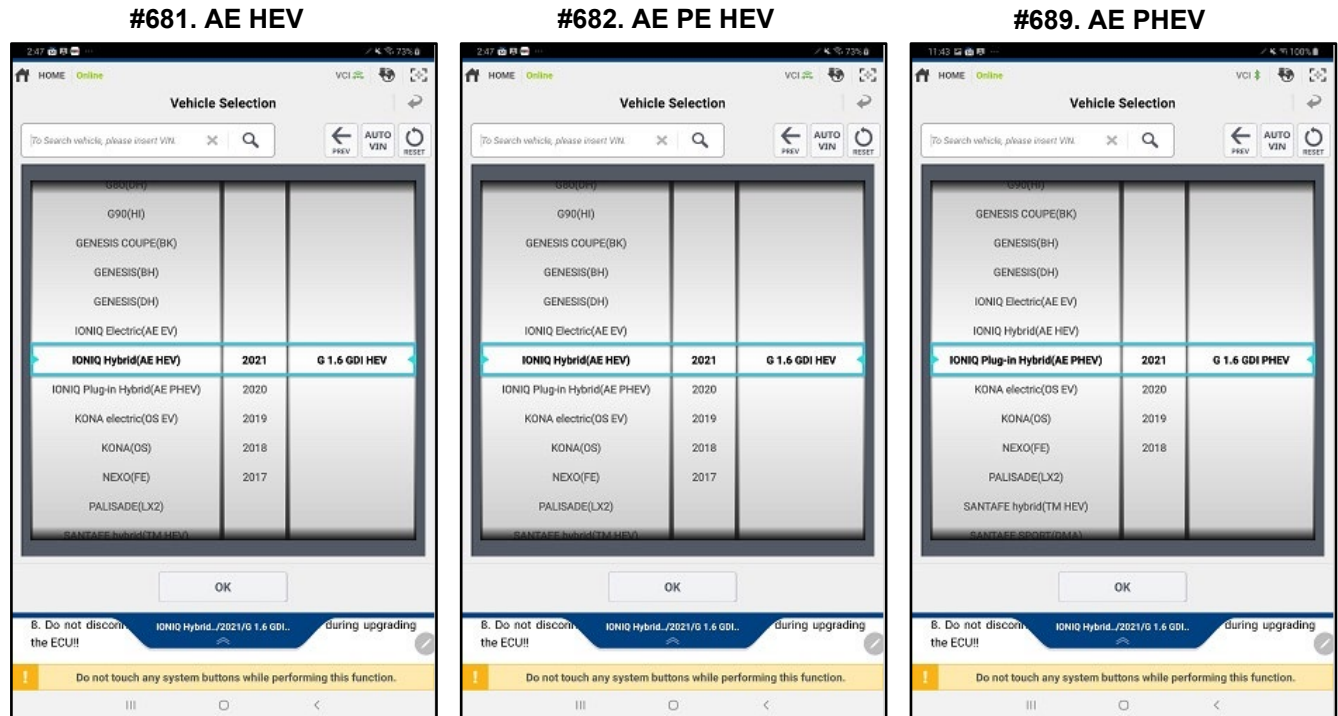


If the vehicle already has the latest software, take a screenshot of the latest/current ROM ID of the vehicle using your particular tablet's screenshot save method and upload to STUI.

3. Select **ECU Upgrade** on the initial screen after entering the vehicle information.
4. Read information and tab to **ID check**.
5. Select **Auto Mode** and then tab to the system.

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

6. Select the upgrade event:
 - 681.AE HEV - HCULDC P-DTC IMPROVEMENT
 - 682.AE PE HEV - HCULDC P-DTC IMPROVEMENT
 - 689.AE PHEV - HCULDC P-DTC IMPROVEMENT



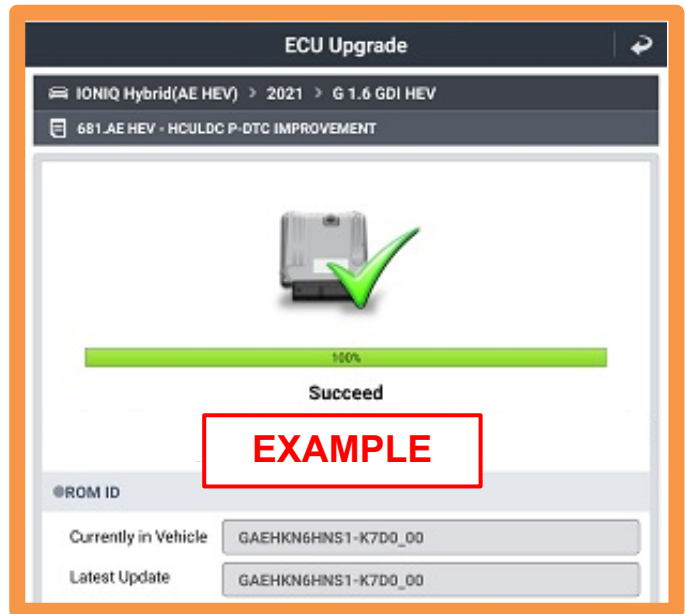
7. The vehicle battery voltage is checked to make sure it is at least 12 volts to assure reliable upgrade results. Click **OK** if the results indicate voltage is ok.
8. Upgrade (1/2) will begin and the progress of the upgrade will appear on the bar graph.
9. Upgrade (1/2) will occur until 100% is reached on the bar graph. Turn the ignition key OFF for 10 seconds, place it back in the key ON position and then tab **OK** to continue according to information displayed on the screen.
10. Upgrade (2/2) will begin and the progress of the upgrade will appear in the bar graph.
11. Upgrade (2/2) will occur until 100% is reached on the bar graph. Turn the ignition key OFF for 10 seconds, place it back in the key ON position and then tab **OK** to continue according to information displayed on the screen.

12.

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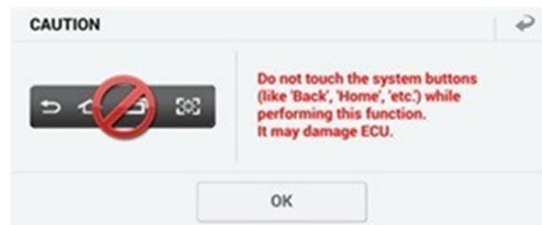
Take a screenshot of the ECU Update Complete screen using your particular tablet's screenshot save method and upload to STUI.



13. After the ECU Upgrade process shows 100% complete, cycle the ignition key to OFF for at least 10 seconds to reset the control unit.
14. Perform an All Systems Fault Code search and erase the history of the DTC that had incidentally occurred from the ECU update.
15. Start the engine to confirm proper operation of the vehicle.

NOTICE

- Do not touch the system buttons (like 'BACK', 'HOME', 'etc.') while performing the upgrade.
- Do not start the engine.



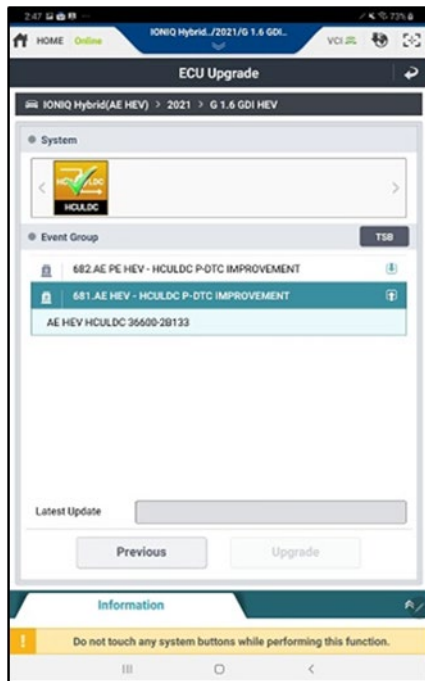
Manual Upgrade Procedure With GDS-M

i Information

- 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. On the upgrade screen, select **Manual Mode**, then select the upgrade event.
2. Select the control unit part number with reference to the ROM ID Information Table and tab **OK**.

#681. AE HEV



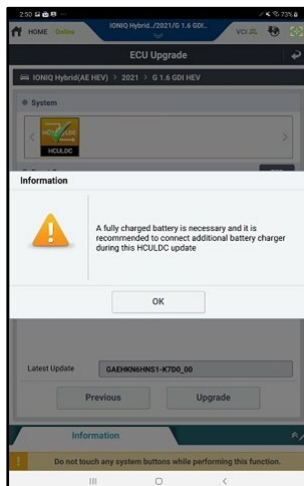
#682. AE PE HEV



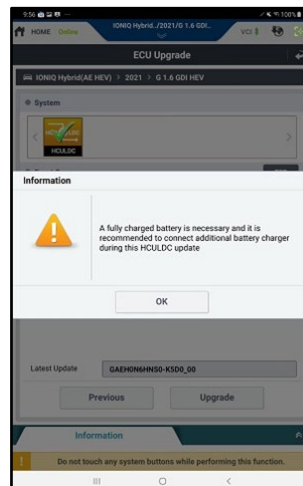
#689. AE PHEV



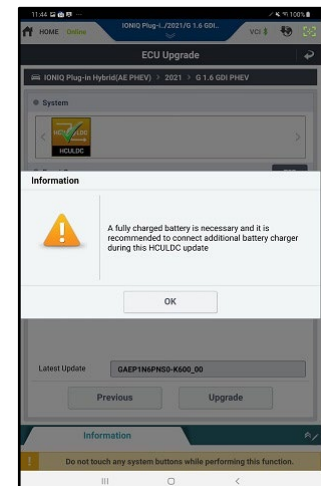
#681. AE HEV



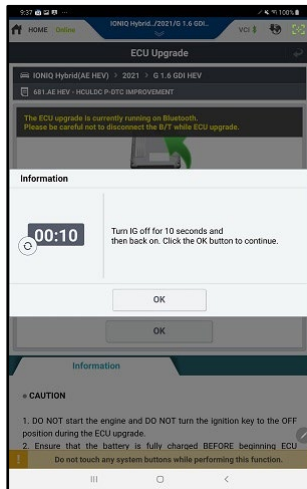
#682. AE PE HEV



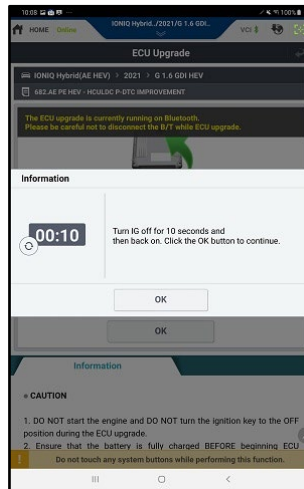
#689. AE PHEV



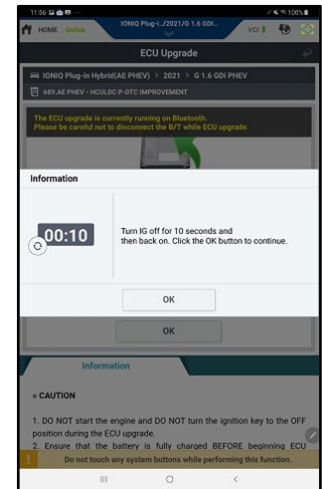
#681. AE HEV



#682. AE PE HEV



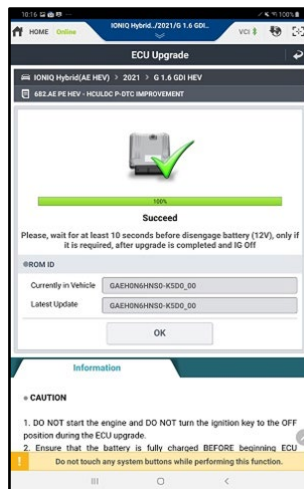
#689. AE PHEV



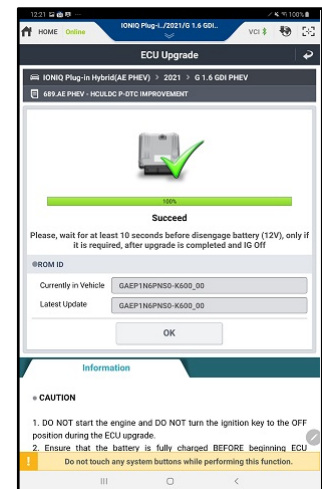
#681. AE HEV



#682. AE PE HEV



#689. AE PHEV



3. A password prompt will appear. Enter the password from the tables below and select **Upgrade**.

#681. AE HEV

MENU	PASSWORD
AE HEV HCULDC 36600-2B133	2133

#682. AE PE HEV

MENU	PASSWORD
AE PE HEV HCULDC 36600-2B180	2180
AE PE HEV HCULDC 36600-2B181	2181
AE PE HEV HCULDC 36600-2B580	2580
AE PE HEV HCULDC 36600-2B183	2183
AE PE HEV HCULDC 36600-2B582	2582

#689. AE HEV

MENU	PASSWORD
AE PHEV HCULDC 36600-2B186	2186

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

***i* Information**

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



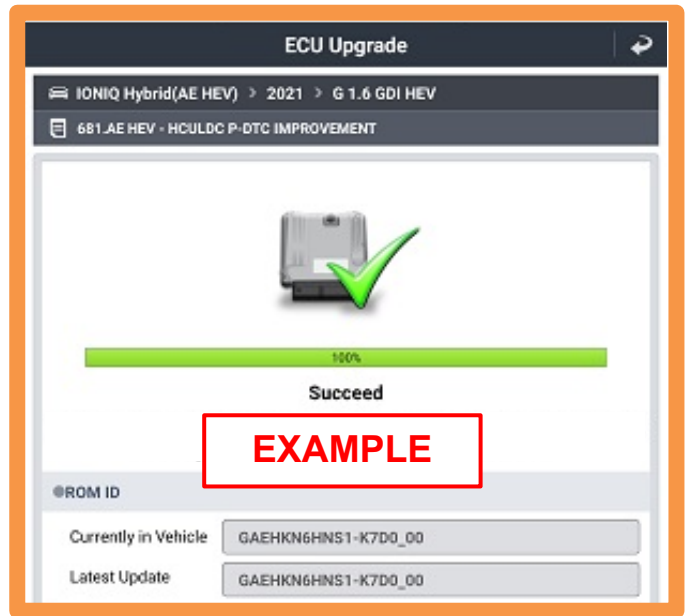
5. Upgrade (1/2) will begin and the progress of the upgrade will appear on the bar graph.
6. Upgrade (1/2) will occur until 100% is reached on the bar graph.
7. Upgrade (2/2) will begin and the progress of the upgrade will appear in the bar graph.
8. Upgrade (2/2) will occur until 100% is reached on the bar graph. Turn the ignition key OFF for 20 seconds, place it back in the key ON position and then tab **OK** to continue according to information displayed on the screen.

9.

STUI



Take a screenshot of the ECU Update Complete screen using your particular tablet's screenshot save method and upload to STUI.



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.