



Technical Service Bulletin

GROUP CAMPAIGN	NUMBER 23-01-017H-1
DATE JUNE 2023	MODEL(S) Ioniq 5 Electric (NE1)

SUBJECT: IONIQ 5 EV BATTERY CONDITIONING TO OPTIMIZE COLD DC CHARGING (SERVICE CAMPAIGN T9Q)

This bulletin revises 23-01-017H to remove the VCU Update portion that was required to add Battery Conditioning and BMS Update event is revised to latest event 1000. The VCU Update is now performed by campaign TAF of TSB 23-01-039H. Warranty Information notes and op codes has been revised.

* 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.

Applicable Vehicles:

- Certain 2022MY IONIQ 5 Electric (NE1) – **All Wheel Drive (AWD/4WD) Model Only**

NOTICE

This service campaign can only be performed at certified IONIQ 5 Hyundai dealers.

Description: This bulletin provides the information to inspect and add the Battery Conditioning function as necessary. Some late 2022MY vehicles may already have the function. The Battery Conditioning function optimizes the DC charging performance of the EV battery when the temperature of the battery is below 68°F (20°C). This function allows the EV battery to preheat prior to arriving at a DC charger site. Once software has been updated, it requires the owner of the vehicle to select a DC charger site as a POI (point of interest) in the vehicle’s navigation system to enable the battery conditioning heating when EV battery is below 68°F. Battery heating impact on DC charging will vary depending on the initial battery temperature and the estimated time to arrive at the POI. If it is possible to enable battery conditioning for longer time prior to departure, it can help to achieve the longer battery heating time needed at very low temperatures, but will temporarily reduce range. Enabling the battery conditioning will use battery power and temporarily reduce the driving range until charging.

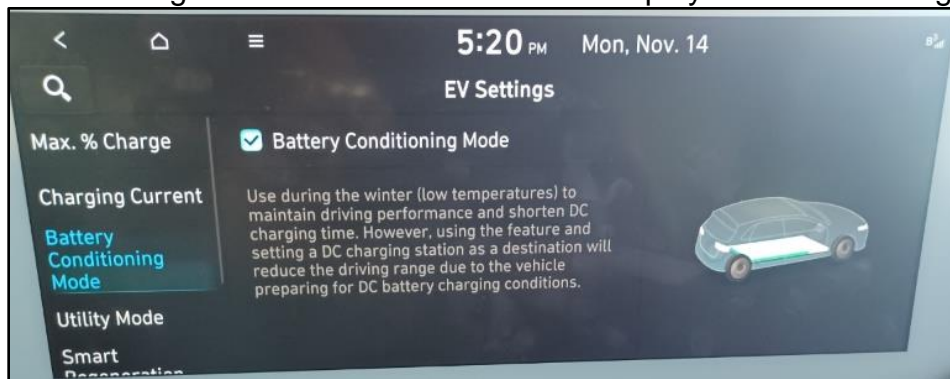
The following vehicle updates need to be performed to add the Battery Conditioning function:

- BMS (Battery Management System) Software Update
- AVN Map Software Update (only applies to certain earlier vehicles produced before Oct 2021)

NOTE: Battery Conditioning also requires performing Campaign TAF TSB 23-01-039H to include VCU software Update.

Battery Conditioning Operation (once installed in vehicle):

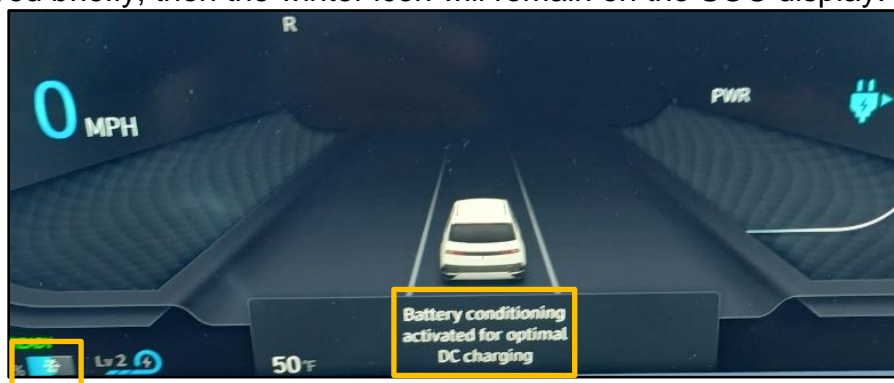
1. The Battery Conditioning must be enabled in the AVN display at the EV Settings Screen:



2. The Navigation System POI is set to a DC Charger Site.



3. When the Battery Module Temperature is below 68°F (20°C), then the Battery Conditioning will activate after 1 - 2 min of heating system checks and preparation. The following splash screen will be displayed briefly, then the winter icon will remain on the SOC display.



Parts Information:

Parts	Type	Size	Description
USB	A	64 GB	THE UPDATER APPLICATION WILL AUTOMATICALLY FORMAT AND COPY THE DOWNLOADED FILES TO THE DRIVE USING VISUAL PROMPTS AS NEEDED. LOCALLY AVAILABLE.

GDS Information:

System	Event #	Description
BMS	1000*	NE EV BMS IMPROVEMENT

* or select the latest available Event # that displays in GDS.

AVN Update:

***i* Information**

Certain IONIQ 5 vehicles with software versions older than October 2021 (211001) must be updated.

Warranty Information:

VEHICLE	OP CODE	OP NAME	OP TIME	CAUSAL PART	NATURE	CAUSE
Ioniq 5 Electric (NE1)	IONIQCHI	INSPECTION ONLY FOR BATTERY CONDITIONING	0.3 M/H	39751-1XNN1	D21	ZZ6
	IONIQCHB	BATTERY CONDITIONING UPDATE	0.4 M/H	39751-1XNN1	D21	ZZ6
	IONIQCHC	BATTERY CONDITIONING UPDATE WITH AVN MAP UPDATE	0.8 M/H	39751-1XNN1	D21	ZZ6

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: Op times include VIN, Mileage and photo capture of the "ECU Update Complete" screen and that Battery Conditioning function is present.

All claims submitted that have incomplete, illegible, or missing documentation are subject to debit.

Service Procedure:

STUI



As outlined in the Digital Documentation Policy, all claims require VIN and Mileage validation through VCI connection or photo capture, AND photo capture of the “ECU Update Complete” screen. **All claims submitted that have incomplete, illegible, or missing documentation are subject to debit.**

i Information

GDS ECU Updates must be performed in Auto Mode.

- If ECU Update starts but then fails in Auto Mode, perform the update in Manual Mode to recover.
- Turn off ignition for 30 seconds and try Manual Mode recovery.
- If unsuccessful, re-attempt Manual Mode after disconnecting the cables from the 12V battery terminals and performing cap discharge (connecting bar or heavy wire between “+” to “-” cables).

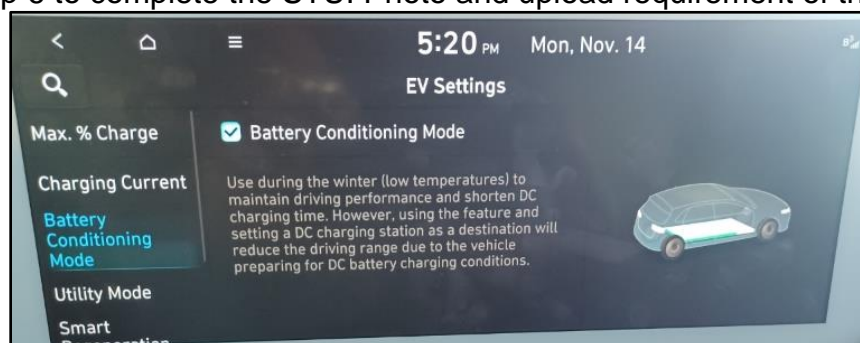
! WARNING

GDS Vehicle Battery Voltage:

- If the voltage is below 12 volts as per the GDS warning, then select **Back** and run the vehicle at least 15 minutes to reach an adequate battery state of charge to prevent an ECU Update failure. Cycle the ignition **OFF/ON** before retrying ECU update again.



1. Check at the AVN EV settings screen. If the Battery Conditioning function already exists in the vehicle this screen will be displayed.
 - a. If not confirmed, go to next step 2.
 - b. If confirmed, claim opcode IONIQCHI INSPECTION ONLY FOR BATTERY CONDITIONING.
 - c. Go to Step 6 to complete the STUI Photo and upload requirement of this screen.




2. Perform the BMS Update in Auto Mode.

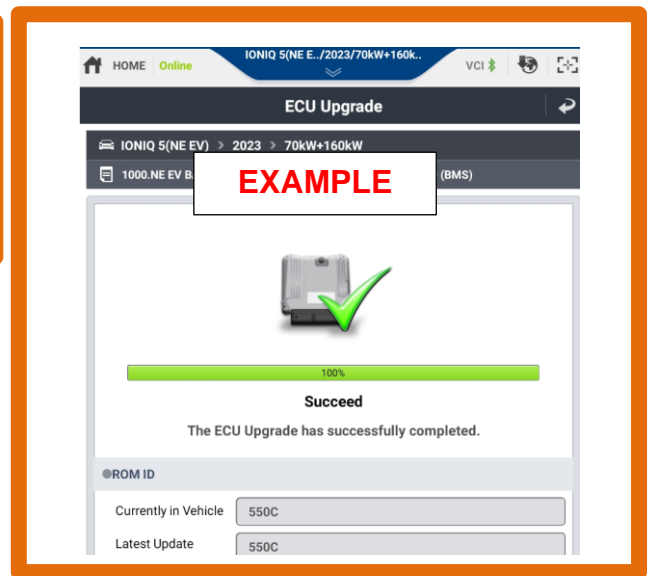
- a. Use the Auto Mode ID Check to verify the BMS ROM ID before updating the software.



- b. After the ECU Upgrade process shows 100% complete, cycle the ignition key to OFF for at least 10 seconds to reset the control unit.
c. Take a screenshot of the ECU Update complete screen and upload to STUI.

STUI 

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



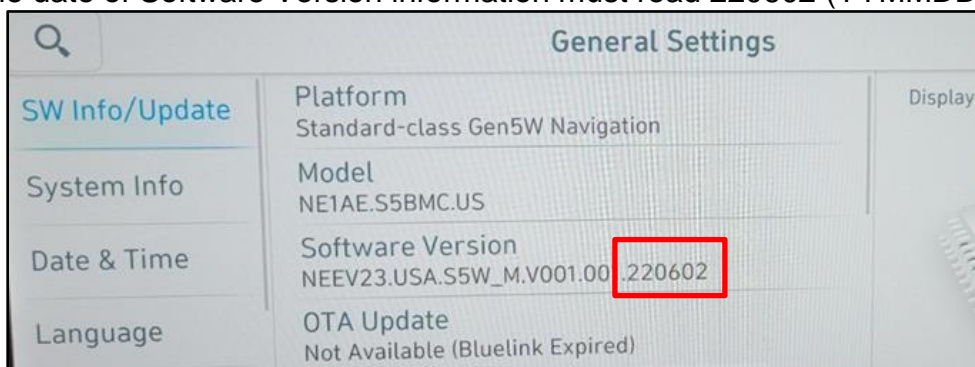
3. Perform an All Systems Fault Code search and erase the history of the DTC that had incidentally occurred from the ECU update.
4. Start the vehicle in Ready mode to confirm a proper operation of the vehicle.

5. Check and perform the AVN Map Update if required. Insert STUI photo if required. If not required, then skip to step 6.

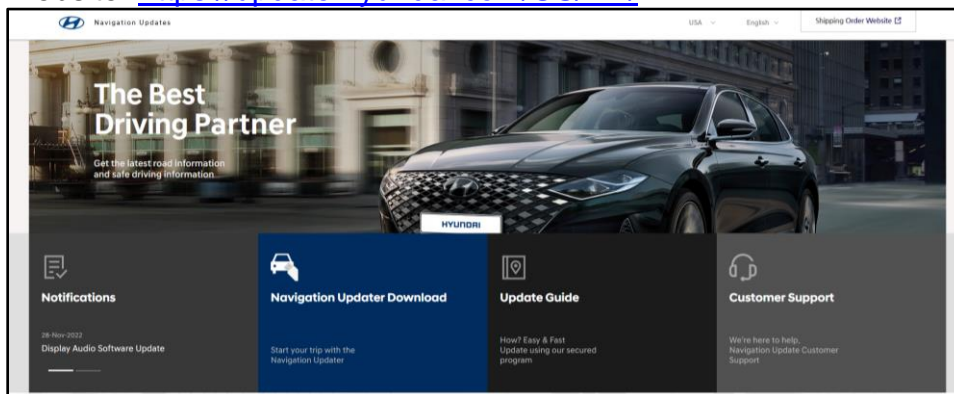
i Information

Certain IONIQ 5 vehicles with software versions older than October 2021 (211001) must be updated.

- Press the SETUP button on the trim below the display screen.
- Press General Settings in the menu displayed on the screen (if not displayed you may need to scroll down)
 - a. The date of Software Version information must read 220602 (YYMMDD)




Hyundai Update Website: <https://update.hyundai.com/US/EN/>

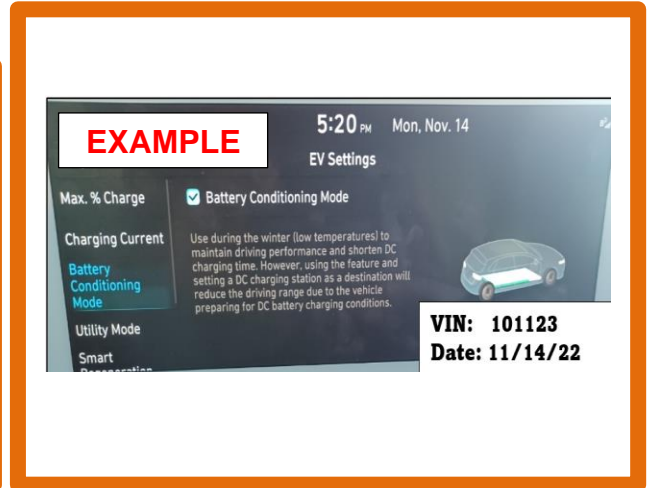


- “Navigation Updater Download” downloads required\
- Application to the computer.
- Update Guide explains how to perform the in-vehicle update steps.
- You may reference “How-to” videos explaining how to navigate the website at the Hyundai “How To” link: <https://hyundaihowtos.com/videos/mapcare-bluelink-hyundai/>
- When using the Update Website you will need to download an Updater application onto the computer being used.
- You will need a Type A USB 3.0 thumb drive minimum 64GB in size, the updater application will automatically format and copy the downloaded files to the drive using visual prompts as needed.
- Download times from the website may vary pending internet connection (30mins – 1.5hours). Recommend the user to download on an administrative computer and save it to drive for future usages.

6. Confirm that the Battery Conditioning function is now present in the AVN EV settings screen.

STUI 

Take photo of the EV Settings screen by STUI to document that the Battery Conditioning function is present in the vehicle. Include piece of paper in the photo writing in the last 6 of VIN and date. Do not cover the AVN screen date/time or the Battery Conditioning portion of the AVN screen display. Upload to STUI.



ROM ID Information Table: Event 1000 (BMS):

VEHICLE	SYSTEM	MY	BMS P/No.	ROM ID	
				OLD	NEW
IONIQ5 (NE)	BMS	22MY	375A0-GI150	5300, 5400	5500
			375A0-GI050	5308, 5408	5508
			375A0-GI350	530C, 540C	550C

Manual Mode Password: Event 1000 (BMS):

MENU	PASSWORD
NE EV BMS 375A0-GI150	4790
NE EV BMS 375A0-GI050	4379
NE EV BMS 375A0-GI350	5239