



HYUNDAI

Technical Service Bulletin

GROUP	NUMBER
ENGINE MECHANICAL	26-EM-009H
DATE	MODEL(S)
MARCH 2026	SEE BELOW

SUBJECT: ECM SOFTWARE UPDATE FOR ITM LOGIC IMPROVEMENT – DTC P2B59F0

★ IMPORTANT

This field action requires justification in the form of a customer concern, and a confirmed case for the related symptom outlined in the TSB, prior to any repair work. If justification requirements are not met, any submitted claims are subject to debit. 8 / 80,000 Emissions Warranty applies. See Warranty Information section for more details.

Description: Some Sonata (DN8) and Tucson (NX4/NX4A/NX4M) vehicles equipped with the 2.5L Theta III GDI engine may display a warning lamp and store Diagnostic Trouble Code (DTC) P2B59F0, which relates to the Integrated Thermal Management Module (ITM) circuit due to a logic error. This bulletin provides instructions to update the Engine Control Module (ECM) logic to correct this condition.

- **DTC P2B59F0** – Engine Coolant Flow Control Valve Control Circuit/Open

Applicable Vehicles:

Model Year	Model	Engine	Production Dates
2024 – 2025	Sonata (DN8)	2.5L GDI	10/18/2023 – 06/02/2025
	Tucson (NX4)		01/27/2024 – 09/05/2024
	Tucson (NX4A)		06/22/2023 – 02/20/2025
2025	Tucson (NX4M)		06/05/2024 – 03/31/2025

SST Information:

Tool Name	Tool Number	Figure	Ordering Information
VCI 3	G0VHNNN06		Website: https://hyundaiaessentialtools.com/ Email: Hyundaitools@snapon.com Phone: 1-855-763-9199 Hours: 7 AM – 7 PM CST
VCI 2	G1XDDMN001		

NOTE: VCI 2 can **NO** longer be ordered but can be used for the updates in this TSB.

GDS Information:

Model	System	Event Number*	Description
Tucson (NX4)	ENGINE	1255	NX4 (PE) THETA3 2.5GDI FF DTC P2B59 IMPROVEMENT
Tucson (NX4A)		1256	NX4a (PE) THETA3 2.5GDI FF DTC P2B59 IMPROVEMENT
Tucson (NX4M)		1257	NX4m PE THETA3 2.5GDI FF DTC P2B59 IMPROVEMENT
Sonata (DN8)		1270	DN8 PE THETA3 2.5GDI FF DTC P2B59 IMPROVEMENT
		1294	DN8 PE THETA3 2.5T-GDI FF DTC P2B59 IMPROVEMENT

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

Warranty Information:

Model	Op. Code	Operation	Op. Time	Causal Part	Nature Code	Cause Code
Sonata (DN8)	50D084R0	ECM Software Update	0.3 M/H	39104-2S205	I11	ZZ3
Tucson (NX4)	50D084R0			39110-2S356		
Tucson (NX4A)	50D084R1			39110-2S364		
Tucson (NX4M)	50D084R2			39104-2S440		

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

NOTE 2: 8 / 80,000 Emissions Warranty applies to the part(s) and repair procedure(s) outlined in this TSB. Prior to beginning any repair work, ensure the part(s) associated with the repair procedure are within Emissions Warranty, observing mileage and Warranty Start Date or date of first use. If the subject part(s) are out of warranty coverage, the retailer has the option to submit a PA Request for goodwill consideration on a case-by-case basis.

NOTE 3: If any part(s) not subject to this TSB are found in need of replacement while performing the repair procedure, and the affected part(s) are still under warranty, the retailer may submit a separate claim using the same repair order. If the part(s) not subject to this TSB are out of warranty coverage, the retailer has the option to submit a PA Request for goodwill consideration on a case-by-case basis.

Service Procedure:

DIGITAL DOCUMENTATION



This TSB includes repair justification in the form of automatically uploaded DTC(s) via GDS e-Report at the time of diagnosis. To ensure adherence to the Digital Documentation Policy before claim submission, DTC history can be reviewed via the e-Report function within the GDS. Additionally, required photos include a capture of the ECU Update "Success" screen for the associated update event(s).



Information

Perform the **ECM** software Update in **Manual Mode**.

NOTICE

Ensure the vehicle's battery charge is **above 11.0 Volts** and the tablet's battery charge is **above 30%** before performing a software update to avoid update failure.



Information

- Turn **OFF** all lamps (do **NOT** leave head lamp switch in auto mode) and all accessories.
- Perform update with the ignition switch in the **ON** position.
- Do **NOT** disconnect any cables connected to the vehicle or scan tool during the update.
- Do **NOT** start the engine OR place in **Ready** mode during the update.
- Do **NOT** turn **OFF** the ignition switch during the update.

Manual Mode Password:

Event	Menu	Password
1255	NX4 THETA3 2.5 ECU 39110-2S356	2356
	NX4 THETA3 2.5 ECU 39110-2S357	2357
	NX4 THETA3 2.5 ECU 39110-2S358	2358
	NX4 THETA3 2.5 ECU 39110-2S361	2361
	NX4 (PE) THETA3 2.5 ECU 39104-2S403	2403
	NX4 (PE) THETA3 2.5 ECU 39104-2S404	2404
	NX4 (PE) THETA3 2.5 ECU 39104-2S405	2405
	NX4 (PE) THETA3 2.5 ECU 39104-2S457	2457
1256	NX4a THETA3 2.5 ECU 39110-2S364	2364
	NX4a THETA3 2.5 ECU 39110-2S365	2365
	NX4a THETA3 2.5 ECU 39110-2S367	2367
	NX4a THETA3 2.5 ECU 39110-2S369	2369
	NX4a THETA3 2.5 ECU 39110-2S370	2370
	NX4a THETA3 2.5 ECU 39110-2S371	2371
	NX4a (PE) THETA3 2.5 ECU 39104-2S436	2436
	NX4a (PE) THETA3 2.5 ECU 39104-2S437	2437
	NX4a (PE) THETA3 2.5 ECU 39104-2S438	2438
	NX4a (PE) THETA3 2.5 ECU 39104-2S459	2459
1257	NX4m PE THETA3 2.5 ECU 39104-2S440	2440
	NX4m PE THETA3 2.5 ECU 39104-2S441	2441
	NX4m PE THETA3 2.5 ECU 39104-2S442	2442
1270	DN8 PE 2.5GDI ECU 39104-2S205	2205
	DN8 PE 2.5GDI ECU 39104-2S206	2206
	DN8 PE 2.5GDI ECU 39104-2S207	2207
	DN8 PE 2.5GDI ECU 39104-2S241	2241
	DN8 PE 2.5GDI ECU 39104-2S242	2242
	DN8 PE 2.5GDI ECU 39104-2S243	2243
1294	DN8 PE 2.5T-GDI ECU 39103-2S202	2202
	DN8 PE 2.5T-GDI ECU 391X3-2S205	2205

ECU Update Procedure

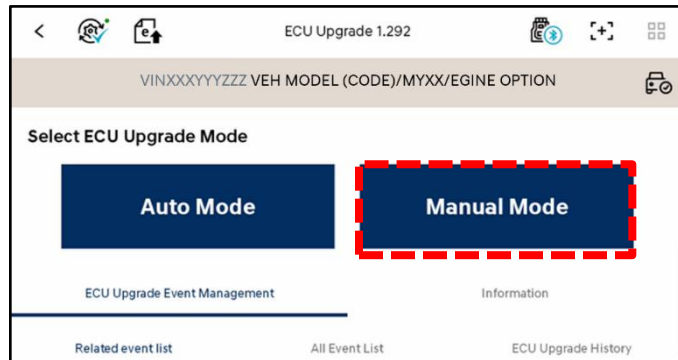
Information

Perform the **ECM** software Update in **Manual Mode**.

1. Perform the ECU update in **Manual Mode**.

Information

Refer to **TSB # 25-GI-011H**, “**ECU Update Procedure for Tablet-Based GDS-Smart**”, for additional information.



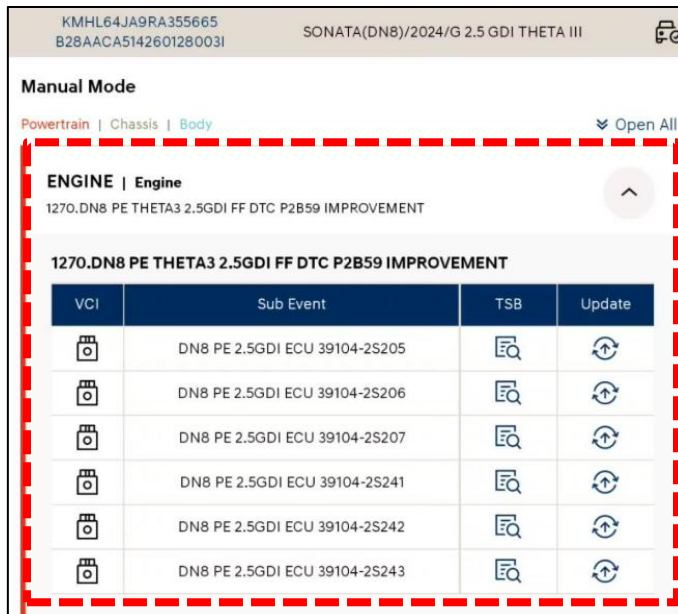
2. Verify the ROM ID by selecting the **ENGINE** system to scan the vehicle's current ROM ID.

NOTICE

Check the current ROM ID version and compare it to the [ROM ID Information](#) table before attempting to perform the software update.

NOTICE

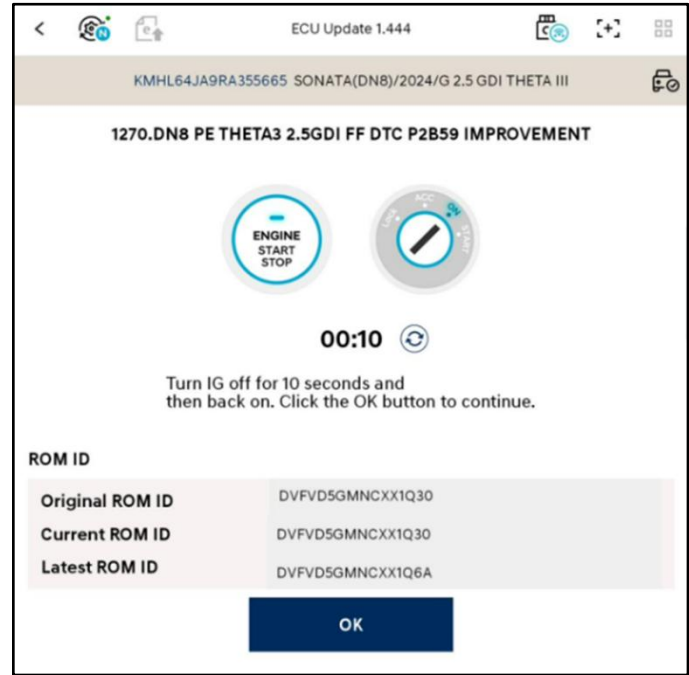
If the update fails, remove the power connector from the in-cabin fuse box for at least **5 seconds**. Reassemble and retry the update.



3. After the ECU update process shows 100% complete, follow the prompts on the screen to cycle the ignition **OFF** for at least **10 seconds** to reset the control unit (certain models may take up to **30 seconds**).

**Information**

Use the **Refresh** button to reset the timer.



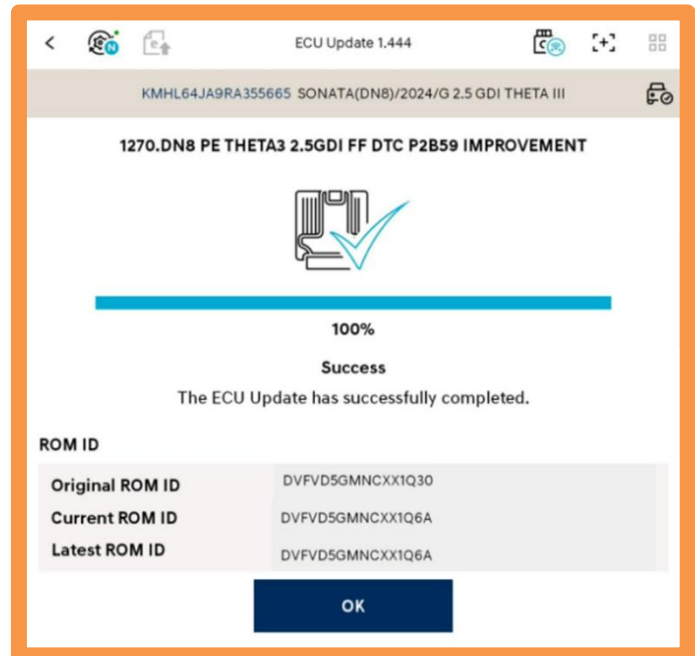
- 4.

DIGITAL DOCUMENTATION

Using the tablet or GDS screen capture function, take a screenshot of the ECU Update “Success” result screen.

Upload the photo to STUI.

NOTE: The VIN/Date/Time/Mileage photo imprint is **NOT** required for GDS screenshots.



5. Perform an **All Systems Fault Code** search and erase DTC history that had incidentally occurred from the ECU update.



6. Start the engine to confirm proper operation of the vehicle.
7. The service procedure is now complete.

ROM ID Information: Tucson (NX4/NX4A/NX4M)

Model	Event	MY	System	ECU Part Number	ROM ID	
					Current	Latest
Tucson (NX4)	1255	2024	ENGINE	39110-2S356	NXFVD5GMAXXX1Q2A	NXFVD5GMAXXX1Q6A
				39110-2S357	NXFVD5GMCXXX1Q2A	NXFVD5GMCXXX1Q6A
				39110-2S358	NXFVD5GKAXXX1Q2A	NXFVD5GKAXXX1Q6A
				39110-2S361	NXFVD5GMKXXX1Q2A	NXFVD5GMKXXX1Q6A
		2025		39104-2S403	NBGVD5GMFXXX1Q4A	NBGVD5GMFXXX1Q6A
					NBFVD5GMFXXX1Q2A	
				39104-2S404	NBGVD5GMHXXX1Q4A	NBGVD5GMHXXX1Q6A
					NBFVD5GMHXXX1Q2A	
				39104-2S405	NBGVD5GMGXXX1Q4A	NBGVD5GMGXXX1Q6A
					NBFVD5GMGXXX1Q2A	
				39104-2S457	NBGVD5GMKXXX1Q4A	NBGVD5GMKXXX1Q6A
Tucson (NX4A)	1256			2024	39110-2S364	NAFVN5GMFXXX1Q2A
		39110-2S365			NAFVN5GMGXXX1Q2A	NAFVN5GMGXXX1Q6A
		39110-2S367			NAFVN5GMHXXX1Q2A	NAFVN5GMHXXX1Q6A
		39110-2S369			NAFVN5GMKXXX1Q2A	NAFVN5GMKXXX1Q6A
		39110-2S370			NAFVN5GKFXXX1Q2A	NAFVN5GKFXXX1Q6A
		39110-2S371			NAFVN5GKGXXX1Q2A	NAFVN5GKGXXX1Q6A
		2025		39104-2S436	NCGVN5GMFXXX1Q4A	NCGVN5GMFXXX1Q6A
				39104-2S437	NCGVN5GMHXXX1Q4A	NCGVN5GMHXXX1Q6A
				39104-2S438	NCGVN5GMGXXX1Q4A	NCGVN5GMGXXX1Q6A
				39104-2S459	NCGVN5GMKXXX1Q4A	NCGVN5GMKXXX1Q6A
				Tucson (NX4M)	1257	2025
39104-2S441	NMGVM5GMHXXX1Q4A	NMGVM5GMHXXX1Q6A				
39104-2S442	NMGVM5GMGXXX1Q4A	NMGVM5GMGXXX1Q6A				

ROM ID Information: Sonata (DN8)

Model	Event	MY	System	ECU Part Number	ROM ID	
					Current	Latest
Sonata (DN8)	1270	2024	ENGINE	39104-2S205	DVFVD5GMHCXX1Q30	DVFVD5GMHCXX1Q6A
				39104-2S206	DVFVD5GMNCXX1Q30	DVFVD5GMNCXX1Q6A
				39104-2S207	DVFVD5GMF3XX1Q30	DVFVD5GMF3XX1Q6A
					DVFVD5GMF3XX1Q31	
		2025		39104-2S241	DVGVD5GMHCXX1Q40	DVGVD5GMHCXX1Q6A
				39104-2S242	DVGVD5GMNCXX1Q40	DVGVD5GMNCXX1Q6A
				39104-2S243	DVGVD5GMF3XX1Q40	DVGVD5GMF3XX1Q6A
	1294	2024		39103-2S202	DVEWD5TMDCXX1Q2A	DVEWD5TMDCXX1Q6A
		2025		391X3-2S205	DVGWD5TMDCXX1Q4A	DVGWD5TMDCXX1Q6A