



Technical Service Bulletin

GROUP ENGINE ELECTRICAL SYSTEMS	NUMBER 23-EE-004H
DATE MARCH, 2023	MODEL(S) SANTA FE PLUG-IN HYBRID (TM PHEV)

SUBJECT: HCU UPGRADE – G2T-GDI OIL DILUTION IMPROVEMENT

DESCRIPTION: This bulletin provides information related to the Hybrid Control Unit (HCU) software update for Santa Fe Plug-in Hybrid (TM PHEV) vehicles to improve the following symptom:

1. Oil Dilution: Some vehicles may experience increased oil consumption and white smoke due to the diluting of engine oil with fuel because of the frequent transition between EV ↔ Engine mode during the winter season
 - a. Modify fuel injection strategy below 10°C and add oil heating function based on the driving pattern.

APPLICABLE VEHICLES: All 21-23MY Santa Fe Plug-in Hybrid (TM PHEV) equipped with 1.6L Gamma II turbocharged engines

GDS INFORMATION: System Selection: **HCU/LDC:**

Event #	Description
#929	TM PE PHEV 1.6T-GDI OIL DILUTION IMPROVEMENT [HCU]

WARRANTY INFORMATION:

Model	Op Code	Operation	Op Time	Causal Part	Nature Code	Cause Code
Santa Fe Plug-in Hybrid (TM PHEV)	36600F12	HCU UPGRADE	0.5 M/H	36600-3DBH5	I14	ZZ3

NOTE 1: Normal Warranty Applies

SERVICE PROCEDURE:

NOTICE

To verify the vehicle is affected, be sure to check the version of the vehicle’s HCU ROM ID with reference to the HCU ROM ID TABLE below before attempting to upgrade the control unit software.

You must attach a 12V battery charger to the vehicle before performing GDS HCU Update. This is to prevent a battery saver condition from occurring since Santa Fe Plug-in Hybrid use a smaller battery.

You must initially perform GDS HCU Update in Auto Mode.

- If the HCU Update starts but then fails in Auto Mode, disconnect the battery cables and touch the cables together for one minute. Reconnect the battery cables, attach the battery charger and perform the update in Manual Mode to recover.
- Refer to the General Instructions found in TSB 15-GI-001 (GDS Mobile).

1. After the HCU Update is completed, check for Diagnostic Trouble Codes and erase any DTC.

HCU ROM ID TABLE:

Event	Model	Part Number	ROM ID	
			Old	New
Santa Fe Plug-in Hybrid (TM PHEV)	#929 (HCU)	391312MNC0	GTMC2N6PNS1-C940	GTMC2N6PNS2-C940

MANUAL UPDATE: If the HCU Update starts but then fails in Auto Mode, perform the update in Manual Mode to recover.

Model	Event	Menu	Password
Santa Fe Plug-in Hybrid (TM PHEV)	#929 (HCU)	TM PE PHEV 1.6T-GDI 4WD 19inch 36600-3DBH5	3575