


HYUNDAI
Technical Service Bulletin

GROUP	NUMBER
CAMPAIGN	22-01-028H
DATE	MODEL(S)
MARCH 2022	APPLICABLE VEHICLES BELOW

SUBJECT: ENGINE MONITORING LOGIC (SERVICE CAMPAIGN 966)

This TSB supersedes TSB# 21-01-023H-4 to add the 2019MY Sonata Hybrid/Plug-In (LF HEV/PHEV) to the Applicable Vehicles list. In addition, the latest GDS ECU Update Events are available for 2017-2018MY Sonata Hybrid/Plug-In (LF HEV/PHEV) and 2014-2015 Tucson (LM) 2.0L vehicles.

*** IMPORTANT**
***** Retail Vehicles *****

Dealers must perform this Service Campaign whenever an affected vehicle is in the shop for any maintenance or repair.

When a vehicle arrives at the Service Department, access Hyundai Motor America's "Warranty Vehicle Information Screen (VIS)" via WEBDCS to identify open campaigns.

Description:

Hyundai is conducting a campaign to enhance the knock sensor software to detect abnormal engine bearing noise before potentially severe engine damage occurs. If abnormal engine bearing noise is detected, the Malfunction Indicator Lamp (MIL) will blink continuously, and the vehicle will be placed in Engine Protection Mode allowing the customer to drive to the nearest Hyundai dealer for diagnosis and repair. In addition, DTC P132600 will be recorded in the ECM. The vehicle can continue to be operated for a limited time in Engine Protection Mode, but it will accelerate slower and have a reduced maximum speed. Engine RPMs will be limited to approximately 1800-2000 RPM.

Applicable Vehicles:

- Certain 2010-2012 MY Santa Fe (CM) vehicles with Theta II 2.4L MPI engines
- Certain 2010-2013 MY Tucson (LM) vehicles with Theta II 2.4L MPI engines
- Certain 2014-2015 MY Tucson (LM) vehicles with Nu 2.0L GDI engines
- Certain 2016-2018 MY Tucson (TL) vehicles with Nu 2.0L GDI engines
- Certain 2011-2015 MY Sonata Hybrid (YF HEV) vehicles with Theta II 2.4L MPI Atkinson engines
- Certain 2016-2019 MY Sonata Hybrid/Plug-In (LF HEV/PHEV) vehicles with Nu 2.0L GDI engines
- Certain 2012-2017 MY Veloster (FS) vehicles with Gamma 1.6L GDI engines
- Certain 2014MY Elantra Coupe (JK) vehicles with Nu 2.0L GDI engines
- Certain 2014-2016 MY Elantra (MD) vehicles with Nu 2.0L GDI engines
- Certain 2014-2017 MY Elantra GT (GD) vehicles with Nu 2.0L GDI engines
- Certain 2018-2019 MY Elantra GT (PD) vehicles with Nu 2.0L GDI engines

GDS Information:

Event #	Description
644	CMA 2.4MPI - IMPROVED KSDS LOGIC APPLICATION
690	LM 2.4MPI - IMPROVED KSDS LOGIC APPLICATION
806	LM 2.0GDI - IMPROVED KSDS LOGIC APPLICATION (BASE)
739	TL Nu 2.0 GDI (16~17MY) - IMPROVED KSDS LOGIC APPLICATION (BASE)
756	TL 2.0GDI (18MY) - IMPROVED KSDS LOGIC APPLICATION (BASE)
713	YF HEV 2.4 MPI - IMPROVED KSDS LOGIC APPLICATION
733	LF HEV/PHEV 2.0GDI (16MY) - IMPROVED KSDS LOGIC APPLICATION
797	LF HEV/PHEV 2.0GDI (17-19MY) - IMPROVED KSDS LOGIC APPLICATION (BASE)
663	FS 1.6 GDI - IMPROVED KSDS LOGIC APPLICATION
717	JK Nu 2.0 GDI - IMPROVED KSDS LOGIC APPLICATION (BASE)
715	MD Nu 2.0 GDI - IMPROVED KSDS LOGIC APPLICATION (BASE)
730	GD Nu 2.0 GDI - IMPROVED KSDS LOGIC APPLICATION (BASE)
754	PD 2.0GDI (18-19MY) - IMPROVED KSDS LOGIC APPLICATION (BASE)

NOTES:

- Refer to TSB 15-GI-001 for additional tablet-based Mobile GDS ECU update information.
- After the ECU Upgrade process shows 100% complete, **cycle the ignition key to OFF for at least 30 seconds to reset the control unit.** This step is important for establishing normal powertrain communication and to prevent system errors.
- Clear DTC(s) present after the ECU update.
- Start engine to confirm proper operation of the vehicle.



GDS Vehicle Battery Voltage Warning:



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

Warranty Information:

MY / Engine / Model	Op Code	Operation	Op Time	Causal P/N	Nature	Cause
10-12MY Theta II 2.4L MPI Santa Fe (CM)	10D021R0	ECM UPGRADE	0.3 M/H	39104-2G341	E13	ZZ3
12-17MY Gamma 1.6L GDI Veloster (FS)	10D021R1			39110-2BBH3		
10-13MY Theta II 2.4L MPI Tucson (LM)	10D021R2			39106-2G800		
11-15MY Theta II 2.4L MPI Sonata Hybrid (YF HEV)	10D021R3			39105-2G910		
14MY Nu 2.0L GDI Elantra Coupe (JK)	10D021R4			39137-2EJA0		
14-16MY Nu 2.0L GDI Elantra (MD)	10D021R5			39135-2EMA0		
14-15MY Nu 2.0L GDI Tucson (LM)	10D021RD			39137-2ELC0		
14-17MY Nu 2.0L GDI Elantra GT (GD)	10D021R7			39137-2EGB0		
16MY Nu 2.0L GDI Sonata Hybrid/Plug-In (LF HEV/PHEV)	10D021R8			39161-2EEB0		
17-19MY Nu 2.0L GDI Sonata Hybrid/Plug-In (LF HEV/PHEV)	10D021RB			39161-2EEB1		
16-18 MY Nu 2.0L GDI Tucson (TL)	10D021R9			39133-2ETA0		
18-19MY Nu 2.0L GDI Elantra GT (PD)	10D021RA			39131-2EPE0		

NOTE 1: Submit claim on Campaign Claim Entry Screen

NOTE 2: If a part that is not covered by this campaign 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.

NOTICE

You must initially perform all GDS ECU Updates in Auto Mode.

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

ROM ID Information Table:

- Perform the ECM Update.
- Verify the ECM ROM ID before updating the software. Refer to the table below.
- **IMMO (O)** = Start Stop Button
- **NON IMMO (X)** = Key Start

MODEL	TM	IMMO	ECM P/N	ECM ROM ID	
				OLD	NEW (EVENT #644)
Santa Fe (CM) 2.4L MPI (10MY)	AT	O	39104-2G330	FAC4RLKA	FAC4RLKB
		X	39104-2G340	FAC4MLKA	FAC4MLKB
	MT	O	39114-2G330	FAC4RL1K	FAC4RL2K
		X	39114-2G340	FAC4ML1K	FAC4ML2K
Santa Fe (CM) 2.4L MPI (11MY)	AT	O	39104-2G331	FBC4RM2A FBC4RM2B FBC4RQ0A	FBC4RQKA
		X	39104-2G341	FBC4MM2A FBC4MM2B FBC4MQ0A	FBC4MQKA
	MT	O	39114-2G331	FBC4RM2A FBC4RM2B FBC4RQ0A	FBC4RQ1K
		X	39114-2G341	FBC4MM2A FBC4MM2B FBC4MQ0A	FBC4MQ1K
Santa Fe (CM) 2.4L MPI (12MY)	AT	O	39104-2G332	FCC4RQ0A FCC4RR1A	FCC4RRKA
		X	39104-2G342	FCC4MQ0A FCC4MR1A	FCC4MRKA
	MT	O	39114-2G332	FCC4RQ0A FCC4RR1A	FCC4RR1K
		X	39114-2G342	FCC4MQ0A FCC4MR1A	FCC4MR1K

MODEL	TM	IMMO	ECM P/N	ECM ROM ID	
				OLD	NEW (EVENT #663)
Veloster (FS) 1.6L GDI	DCT	X	39110-2BBH3 39110-2BBC7 39110-2BBR3	GGFS-BFU6ES00H00 GGFS-BFU6ES01H00 GGFS-BFU6ES02H00 GGFS-BFU6ES03H00 GGFS-BFU6ES04H00 GGFS-BFU6ES05H00 GGFS-BFU6ES06H00 GGFS-BFU6EF00H00 GGFS-DFU6ES00H00 GGFS-DFU6ES01H00 GGFS-DFU6ES02H00 GGFS-DFU6ES03H00	GGFS-EFU6EK33H00

				GGFS-DFU6ES04H00 GGFS-DFU6ES05H00 GGFS-EFU6ES00H00 GGFS-EFU6ES01H00 GGFS-EFU6EF01H00 GGFS-EFU6EF02H00 GGFS-EFU6EF03H00	
		O	39110-2BBH0 39110-2BBB7 39110-2BBR0	GGFS-BFU6FS00H00 GGFS-BFU6FS01H00 GGFS-BFU6FS02H00 GGFS-BFU6FS03H00 GGFS-BFU6FS04H00 GGFS-BFU6FS05H00 GGFS-BFU6FS06H00 GGFS-BFU6FF00H00 GGFS-DFU6FS00H00 GGFS-DFU6FS01H00 GGFS-DFU6FS02H00 GGFS-DFU6FS03H00 GGFS-DFU6FS04H00 GGFS-DFU6FS05H00 GGFS-EFU6FS00H00 GGFS-EFU6FS01H00 GGFS-EFU6FF01H00 GGFS-EFU6FF02H00 GGFS-EFU6FF03H00	GGFS-EFU6FK33H00
Veloster (FS) 1.6L GDI	MT	X	39110-2BBF3 39110-2BBN9 39110-2BBR9	GGFS-BFU6ES00600 GGFS-BFU6ES01600 GGFS-BFU6ES02600 GGFS-BFU6ES03600 GGFS-BFU6ES04600 GGFS-BFU6ES05600 GGFS-DFU6ES00600 GGFS-DFU6ES01600 GGFS-DFU6ES02600 GGFS-DFU6ES03600 GGFS-EFU6ES01600 GGFS-EFU6EF01600 GGFS-EFU6EF02600 GGFS-EFU6EF03600	GGFS-EFU6EK33600
		O	39110-2BBF0 39110-2BBN6 39110-2BBR6	GGFS-BFU6FS00600 GGFS-BFU6FS01600 GGFS-BFU6FS02600 GGFS-BFU6FS03600 GGFS-BFU6FS04600 GGFS-BFU6FS05600 GGFS-DFU6FS00600 GGFS-DFU6FS01600 GGFS-DFU6FS02600 GGFS-DFU6FS03600 GGFS-EFU6FS01600	GGFS-EFU6FK33600

Veloster (FS) 1.6L GDI	DCT	X	39110-2BBR4	GGFS-EFU6FF01600 GGFS-EFU6FF02600 GGFS-EFU6FF03600	
		O	39110-2BBR1	GGFS-FFU6ES00H00 GGFS-FFU6ES01H00 GGFS-FFU6EF01H00 GGFS-FFU6EF02H00	GGFS-FFU6EK32H00
	MT	X	39110-2BBR8	GGFS-FFU6FS00H00 GGFS-FFU6FS01H00 GGFS-FFU6FF01H00 GGFS-FFU6FF02H00	GGFS-FFU6FK32H00
		O	39110-2BBR5	GGFS-FFU6ES00600 GGFS-FFU6ES01600 GGFS-FFU6ES02600 GGFS-FFU6EF02600 GGFS-FFU6EF03600	GGFS-FFU6EK33600
	DCT	X	39125-2BFK5	GGFS-FFU6FS00600 GGFS-FFU6FS01600 GGFS-FFU6FS02600 GGFS-FFU6FF02600 GGFS-FFU6FF03600	GGFS-FFU6FK33600
		O	39125-2BFK0	GGFS-GFU6ES00H00 GGFS-GFU6ES01H00 GGFS-GFU6ES02H00	GGFS-GFU6EK32H00
	MT	X	39125-2BFK0	GGFS-GFU6FS00H00 GGFS-GFU6FS01H00 GGFS-GFU6FS02H00	GGFS-GFU6FK32H00
		O	39121-2BFK5	GGFS-GFU6ES00600 GGFS-GFU6ES01600 GGFS-GFU6ES02600	GGFS-GFU6EK32600
	MT	X	39121-2BFK0	GGFS-GFU6ES00600 GGFS-GFU6ES01600 GGFS-GFU6ES02600	GGFS-GFU6EK32600
		O	39121-2BFK0	GGFS-GFU6FS00600 GGFS-GFU6FS01600 GGFS-GFU6FS02600	GGFS-GFU6FK32600

MODEL		IMMO	ECU P/N	OLD ROM ID	NEW ROM ID (Event #690)	
Tucson (LM) 2.4L MPI (10MY)	AT	ULEV	-IMMO	39106-2G800	LAC4MK3A	LAC4MQKA
					LAC4MK3B	
					LAC4MQ0B	
		+IMMO	39106-2G810	LAC4RK3A	LAC4RQKA	
				LAC4RK3B		
				LAC4RQ0B		
	SULEV	-IMMO	39106-2G820	LAS4MK3A	LAS4MQKA	
				LAS4MK3B		
				LAS4MQ0B		

			+IMMO	39106-2G880	LAS4RK3A	LAS4RQKA		
					LAS4RK3B			
					LAS4RQ0B			
			MT	ULEV	-IMMO	39116-2G800	LAC4MK3A	LAC4MQ1K
							LAC4MK3B	
							LAC4MQ0B	
+IMMO	39116-2G810	LAC4RK3A			LAC4RQ1K			
		LAC4RK3B						
		LAC4RQ0B						
Tucson (LM) 2.4L MPI (11MY)	AT	ULEV	-IMMO	39106-2G801	LAC4ML0A	LBC4MQKA		
					LBC4MM2A			
					LBC4MQ0A			
					LBC4MQ0B			
					LBC4MQ0C			
					LAC4RL0A			
		+IMMO	39106-2G811	LBC4RM2A	LBC4RQKA			
				LBC4RM2B				
				LBC4RQ0A				
				LBC4RQ0B				
				LBC4RQ0C				
				LAC4RL0A				
		SULEV	-IMMO	39106-2G821	LAS4ML0A	LBS4MQKA		
					LBS4MM2A			
					LBS4MQ0A			
					LBS4MQ0B			
					LBS4MQ0C			
					LAS4RL0A			
+IMMO	39106-2G881	LBS4RM2A	LBS4RQKA					
		LBS4RQ0A						
		LBS4RQ0B						
		LBS4RQ0C						
		LAC4ML0A						
		Tucson (LM) 2.4L MPI (11MY)		MT	ULEV	-IMMO	39116-2G801	LAC4ML0A
LBC4MM2A								
LBC4MQ0A								
LBC4MQ0B								
LBC4MQ0C								
LAC4RL0A								
+IMMO	39116-2G811		LBC4RM2A		LBC4RQ1K			
			LBC4RM2B					
			LBC4RQ0A					
			LBC4RQ0B					
			LAC4ML0A					
			LBC4MM2A					

					LBC4RQ0C			
Tucson (LM) 2.4L MPI (12MY)	AT	ULEV	-IMMO	39106-2G802	LCC4MP4A	LCC4MRKA		
					LCC4MQ0A			
					LCC4MQ0B			
					LCC4MR1A			
							LCC4MR1B	
		+IMMO	39106-2G812	LCC4RP4A	LCC4RRKA			
				LCC4RQ0A				
				LCC4RR1A				
	LCC4RR1B							
					LCC4RR1C			
	SULEV	-IMMO	39106-2G822	LCS4MP4A	LCS4MRKA			
				LCS4MQ0A				
				LCS4MQ0B				
				LCS4MR1A				
						LCS4MR1B		
		+IMMO	39106-2G882	LCS4RP4A	LCS4RRKA			
LCS4RQ0A								
LCS4RQ0B								
LCS4RR1A								
				LCS4RR1B				
Tucson (LM) 2.4L MPI (12MY)	MT	ULEV	-IMMO	39116-2G802	LCC4MP4A	LCC4MR1K		
					LCC4MQ0A			
					LCC4MQ0B			
					LCC4MR1A			
						LCC4MR1B		
		+IMMO	39116-2G812	LCC4RP4A	LCC4RR1K			
				LCC4RQ0A				
				LCC4RR1A				
LCC4RR1B								
				LCC4RR1C				
Tucson (LM) 2.4L MPI (13MY)	AT	ULEV	-IMMO	39106-2G803	LDC4MS0A	LDC4MTKC		
					LDC4MT0A			
					LDC4MT0B			
					LDC4MT1B			
		+IMMO	39106-2G813	LDC4RS0A	LDC4RTKC			
				LDC4RT0A				
				LDC4RT0B				
				LDC4RT1B				
				LDC4RT1C				

	SULEV	-IMMO	39106-2G823	LDS4MS0A	LDS4MTKC		
				LDS4MT0A			
				LDS4MT0B			
		LDS4MT1B					
		+IMMO	39106-2G883	LDS4RS0A		LDS4RTKC	
				LDS4RT0A			
	LDS4RT0B						
	MT	ULEV	-IMMO	39116-2G803	LDC4MS0A		LDC4MT3K
					LDC4MT0A		
					LDC4MT0B		
			+IMMO	39116-2G813	LDC4MT1B	LDC4RT3K	
					LDC4RS0A		
LDC4RT0A							
				LDC4RT0B			
				LDC4RT1B			
				LDC4RT1C			

MODEL	MY	IMMO	ECU P/N	ROM ID	
				OLD	NEW (Event #713)
Sonta Hybrid (YF HEV) 2.4L MPI	11MY	IMMO	39105-2G910	YBY4RAAC YBY4RABA YBY4RC0A YBY4RG2A	YBY4RGKA
	12MY	IMMO	39105-2G911	YCY4RC1A YCY4RG2A	YCY4RGKA
	13MY	IMMO	39105-2G912 39105-2G915	YDY4RE1A YDY4RF3A YDY4RG1A YDY4RG2A	YDY4RGKA
	14MY	IMMO	39105-2G913	YFY4RG2A	YFY4RGKA
	15MY	IMMO	39105-2G916 39105-2G917	YFY4RG3A	YFY4RGKA

MODEL	MY / EMISSION	TM	IMMO	ECU P/N	ROM ID	
					OLD	NEW (Event #717)
Elantra Coupe (JK) 2.0L GDI	14MY ULEV	MT	O	39135-2EJA0	GGJK-ENUAFS00600	GGJK-ENUAFK00600
			X	39137-2EJA0	GGJK-ENUAES00600	GGJK-ENUAEK00600
		AT	O	39131-2EJA0	GGJK-ENUAQS00C00	GGJK-ENUAQK00C00
			X	39133-2EJA0	GGJK-ENUAPS00C00	GGJK-ENUAPK00C00
	14MY SULEV	AT	O	39131-2EJC0	GGJK-ENSAQS00C00	GGJK-ENSAQK00C00
			X	39133-2EJC0	GGJK-ENSAPS00C00	GGJK-ENSAPK00C00

MODEL	MY / EMISSION	TM	IMMO	ECU P/N	ROM ID	
					OLD	NEW (Event #715)
Elantra (MD) 2.0L GDI	14MY ULEV	MT	O	39135-2EMA0	GGMD-ENUAFS00600	GGMD-ENUAFK00600
			X	39137-2EMA0	GGMD-ENUAES00600	GGMD-ENUAEK00600
		AT	O	39131-2EMA0	GGMD-ENUAQS00C00	GGMD-ENUAQK00C00
			X	39133-2EMA0	GGMD-ENUAPS00C00	GGMD-ENUAPK00C00
	14MY SULEV	AT	O	39131-2EMB0	GGMD-ENSAQS00C00	GGMD-ENSAQK00C00
			X	39133-2EMB0	GGMD-ENSAPS00C00	GGMD-ENSAPK00C00
	15MY ULEV	MT	O	39135-2EMA1	GGMD-FNUAFS00600 GGMD-FNUAFS02600	GGMD-FNUAFK02600
			X	39137-2EMA1	GGMD-FNUAES00600 GGMD-FNUAES02600	GGMD-FNUAEK02600
		AT	O	39131-2EMA1 39131-2EMA2	GGMD-FNUAQS00C00 GGMD-FNUAQS02C00	GGMD-FNUAQK02C00
			X	39133-2EMA1 39133-2EMA2	GGMD-FNUAPS00C00 GGMD-FNUAPS02C00	GGMD-FNUAPK02C00
	15MY SULEV	AT	O	39131-2EMB1 39131-2EMB2	GGMD-FNSAQS00C00 GGMD-FNSAQS02C00	GGMD-FNSAQK02C00
			X	39133-2EMB1 39133-2EMB2	GGMD-FNSAPS00C00 GGMD-FNSAPS02C00	GGMD-FNSAPK02C00
	16MY ULEV	MT	O	39135-2EMA2	GGMD-GNUAFS00600 GGMD-GNUAFS01600	GGMD-GNUAFK01600
			X	39137-2EMA2	GGMD-GNUAES00600 GGMD-GNUAES01600	GGMD-GNUAEK01600
		AT	O	39131-2EMA3	GGMD-GNUAQS00C00 GGMD-GNUAQS01C00	GGMD-GNUAQK01C00
			X	39133-2EMA3	GGMD-GNUAPS00C00 GGMD-GNUAPS01C00	GGMD-GNUAPK01C00
	16MY SULEV	AT	O	39131-2EMB3	GGMD-GNSAQS00C00 GGMD-GNSAQS01C00	GGMD-GNSAQK01C00
			X	39133-2EMB3	GGMD-GNSAPS00C00 GGMD-GNSAPS01C00	GGMD-GNSAPK01C00

MODEL	MY	TM	IMMO	ECU P/N	ROM ID	
					OLD	NEW (Event #806)
Tucson (LM) 2.0L GDI	14MY	MT (2WD)	O	39135-2ELC0	GGLM-ENUAFS00600	GGLM-ENUAFK33600
					GGLM-ENUAFS01600	
					GGLM-ENUAFS02600	
					GGLM-ENUAFS03600	
					GGLM-ENUAFK13600	
			X	39137-2ELC0	GGLM-ENUAES00600	GGLM-ENUAEK33600
					GGLM-ENUAES01600	
					GGLM-ENUAES02600	
					GGLM-ENUAES03600	
					GGLM-ENUAEK13600	
O	39131-2ELC0	GGLM-ENUAQS00C00	GGLM-ENUAQK33C00			

		AT (2WD)			GGLM-ENUAQS01C00		
					GGLM-ENUAQS02C00		
					GGLM-ENUAQS03C00		
					GGLM-ENUAQK13C00		
					GGLM-ENUAPS00C00		
		X	39133-2ELC0			GGLM-ENUAPS01C00	GGLM-ENUAPK33C00
						GGLM-ENUAPS02C00	
						GGLM-ENUAPS03C00	
						GGLM-ENUAPK13C00	
						GGLM-ENUAQS00D00	
	AT (4WD)	O	39131-2ELC1			GGLM-ENUAQS01D00	GGLM-ENUAQK33D00
						GGLM-ENUAQS02D00	
						GGLM-ENUAQS03D00	
						GGLM-ENUAQK13D00	
						GGLM-ENUAPS00D00	
	X	39133-2ELC1			GGLM-ENUAPS01D00	GGLM-ENUAPK33D00	
					GGLM-ENUAPS02D00		
					GGLM-ENUAPS03D00		
				GGLM-ENUAPK13D00			
				GGLM-FNUAFS00600			
15MY	MT (2WD)	O	39135-2ELC4		GGLM-FNUAFS01600	GGLM-FNUAFK31600	
					GGLM-FNUAFK11600		
					GGLM-FNUAES00600		
		X	39137-2ELC4			GGLM-FNUAES01600	GGLM-FNUAEK31600
						GGLM-FNUAEK11600	
	AT (2WD)	O	39131-2ELC4			GGLM-FNUAQS00C00	GGLM-FNUAQK31C00
						GGLM-FNUAQS01C00	
		X	39132-2ELC4			GGLM-FNUAQS01C00	GGLM-FNUAPK31C00
						GGLM-FNUAPK11C00	
	AT (4WD)	O	39131-2ELC5			GGLM-FNUAQS00D00	GGLM-FNUAQK31D00
					GGLM-FNUAQS01D00		
X		39133-2ELC5			GGLM-FNUAQS01D00	GGLM-FNUAQK31D00	
					GGLM-FNUAQS01D00		
				GGLM-FNUAPS00D00			
				GGLM-FNUAPS01D00			
				GGLM-FNUAPK11D00			

MODEL	MY	TM	IMMO	ECU P/N	ROM ID
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					OLD	NEW (Event #730)
Elantra GT (GD) 2.0L GDI	14MY	MT	O	39135-2EGB0	GGGD-DNUAFS01600	GGGD-DNUAFK01600
			X	39137-2EGB0	GGGD-DNUAES01600	GGGD-DNUAEK01600
		AT	O	39131-2EGB0 39131-2EGB2	GGGD-DNUAQS01C00	GGGD-DNUAQK01C00
			X	39133-2EGB0 39133-2EGB2	GGGD-DNUAPS01C00	GGGD-DNUAPK01C00
	15MY	MT	O	39135-2EGE0	GGGD-FNUAFS01600	GGGD-FNUAFK01600
			X	39137-2EGE0	GGGD-FNUAES01600	GGGD-FNUAEK01600
		AT	O	39131-2EGE0	GGGD-FNUAQS01C00	GGGD-FNUAQK01C00
			X	39133-2EGE0	GGGD-FNUAPS01C00	GGGD-FNUAPK01C00
	16MY 17MY	MT	O	39135-2EGB1	GGGD-ENUAFS01600	GGGD-ENUAFK01600
			X	39137-2EGB1	GGGD-ENUAES01600	GGGD-ENUAEK01600
		AT	O	39131-2EGB1	GGGD-ENUAQS01C00	GGGD-ENUAQK01C00
			X	39133-2EGB1	GGGD-ENUAPS01C00	GGGD-ENUAPK01C00

MODEL	MY	ENG	ECU P/N	ROM ID	
				OLD	NEW (Event #733)
Sonata Hybrid/Plug-In (LF HEV/PHEV) Nu 2.0L GDI	16MY	HEV	39161-2EEB0	LF6UPHMS65BA LF6UPHMS65CA LF6UPHMS66AA LF6UPHMS673A	LF6UPHMF750K
		PHEV	39161-2EEG0	LF6SPPMS670A LF6SPPMS673A	LF6SPPMF750K

MODEL	MY	ENG	ECU P/N	ROM ID	
				OLD	NEW (Event #797)
Sonata Hybrid/Plug-In (LF HEV/PHEV) Nu 2.0L GDI	17MY	HEV	39161-2EEB1	LF7UPHMS690A LF7UPHMF6A0K	LF7UPHMF6A2K
		PHEV	39161-2EEG1	LF7SPPMS690A LF7SPPMF6A0K	LF7SPPMF6A2K
		HEV	39161-2EEB2	LF7UPHMS6A0A LF7UPHMF6A1K	LF7UPHMF6A3K
		PHEV	39161-2EEG2	LF7SPPMS6A0A LF7SPPMF6A1K	LF7SPPMF6A3K
Sonata Hybrid/Plug-In (LF HEV/PHEV) Nu 2.0L GDI	18MY	HEV	39161-2ELF0	LF8SPHMS6D1A LF8SPHMS6D1B LF8SPHMS6D1C LF8SPHMF6D4K	LF8SPHMF6D5K
		PHEV	39161-2ELH0	LF8SPPMS6D1A LF8SPPMS6D1B LF8SPPMF6D4K	LF8SPPMF6D5K

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Sonata Hybrid/Plug-In (LF HEV/PHEV) Nu 2.0L GDI	19MY	HEV	39161-2ELF1 39161-2ELF2	LF9SPHMS6F2A LF9SPHMS6F2B LF9SPHMS6F4A LF9SPHMS6F4B LF9SPHMF6FAK	LF9SPHMF6FBK
		PHEV	39161-2ELH1 39161-2ELH2	LF9SPPMS6F2A LF9SPPMS6F4A LF9SPPMS6F4B LF9SPPMF6FAK	LF9SPPMF6FBK

MODEL / ENGINE	MY	2WD/ 4WD	IMMO	ECU P/NO	ROM ID	
					OLD	NEW (Event #739)
Tucson (TL) 2.0L GDI	16MY	2WD	O	39131-2ETA0	GGTL-FNUAQS00C00 GGTL-FNUAQS01C00 GGTL-FNUAQS02C00	GGTL-FNUAQK02C00
			X	39133-2ETA0	GGTL-FNUAPS00C00 GGTL-FNUAPS01C00 GGTL-FNUAPS02C00	GGTL-FNUAPK02C00
		4WD	O	39131-2ETA2	GGTL-FNUAQS00D00 GGTL-FNUAQS01D00 GGTL-FNUAQS02D00 GGTL-FNUAQS03D00	GGTL-FNUAQK03D00
			X	39133-2ETA2	GGTL-FNUAPS00D00 GGTL-FNUAPS01D00 GGTL-FNUAPS02D00 GGTL-FNUAPS03D00	GGTL-FNUAPK03D00
	17MY	2WD	O	39131-2ETA4 39131-2ETA6	GGTL-GNUAQS00C00 GGTL-GNUAQS01C00	GGTL-GNUAQK01C00
			X	39133-2ETA4 39133-2ETA6	GGTL-GNUAPS00C00 GGTL-GNUAPS01C00	GGTL-GNUAPK01C00
		4WD	O	39131-2ETA5 39131-2ETA7	GGTL-GNUAQS00D00 GGTL-GNUAQS01D00	GGTL-GNUAQK01D00
			X	39133-2ETA5 39133-2ETA7	GGTL-GNUAPS00D00 GGTL-GNUAPS01D00	GGTL-GNUAPK01D00

MODEL / ENGINE	MY	2WD/ 4WD	ECU P/NO	ROM ID	
				OLD	NEW (Event #756)
Tucson (TL) 2.0L GDI	18MY	2WD	39131-2ETA8	GGTL-HNUAQS00C00 GGTL-HNUAQS01C00 GGTL-HNUAQF01C00	GGTL-HNUAQK01C00
			39133-2ETA8	GGTL-HNUAPS00C00 GGTL-HNUAPS01C00 GGTL-HNUAPF01C00	GGTL-HNUAPK01C00
		4WD	39131-2ETA9	GGTL-HNUAQS00D00 GGTL-HNUAQS01D00 GGTL-HNUAQF01D00	GGTL-HNUAQK01D00
			39133-2ETA9	GGTL-HNUAPS00D00 GGTL-HNUAPS01D00 GGTL-HNUAPF01D00	GGTL-HNUAPK01D00

MODEL	MY	TM	ECU P/NO	ECU ROM ID	
				OLD	NEW (Event #754)
Elantra GT (PD) 2.0L GDI	18MY	AT	39131-2EPE0	GGPD-HNUAQS00C00	GGPD-HNUAQK02C00
				GGPD-HNUAQS01C00	
				GGPD-HNUAQS02C00	
			39133-2EPE0	GGPD-HNUAPS00C00	GGPD-HNUAPK02C00
		GGPD-HNUAPS01C00			
		GGPD-HNUAPS02C00			
		39131-2EPE1	GGPD-HNUAQS03C00	GGPD-HNUAQK03C00	
			39133-2EPE1	GGPD-HNUAPS03C00	GGPD-HNUAPK03C00
	MT	39135-2EPE0	GGPD-HNUAFS00600	GGPD-HNUAFK02600	
			GGPD-HNUAFS01600		
			GGPD-HNUAFS02600		
		39137-2EPE0	GGPD-HNUAES00600	GGPD-HNUAEK02600	
	GGPD-HNUAES01600				
	GGPD-HNUAES02600				
	19MY	AT	39131-2EPE2	GGPD-INU AQS00C00	GGPD-INU A QK01C00
				GGPD-INU A QS01C00	
39133-2EPE2			GGPD-INU APS00C00	GGPD-INU APK01C00	
			GGPD-INU APS01C00		
39131-2EPE3		GGPD-INU A QS00C01	GGPD-INU A QK01C01		
		GGPD-INU A QS01C01			
39133-2EPE3		GGPD-INU APS00C01	GGPD-INU APK01C01		
		GGPD-INU APS01C01			
MT	39135-2EPE2	GGPD-INU AFS00600	GGPD-INU A FK01600		
		GGPD-INU AFS01600			

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			39137-2EPE2	GGPD-INUAES00600	GGPD-INUAEK01600
				GGPD-INUAES01600	

If the Automatic ECU Upgrade process fails, **cycle the ignition key to OFF for at least 30 seconds to reset the control unit.** Then resume programming using the Manual ECU Upgrade processes.

After the ECU Upgrade process shows 100% complete, **cycle the ignition key again to OFF for at least 30 seconds to reset the control unit.** This step is important for establishing normal powertrain communication and to prevent system errors.

MODE PASSWORD INFORMATION TABLE: #644 Santa Fe (CM) 2.4L

ECM MENU (#644)	PASSWORD
CMA 10MY 2.4MPI AT -IMMO 39104-2G340	0340
CMA 10MY 2.4MPI AT +IMMO 39104-2G330	0330
CMA 10MY 2.4MPI MT -IMMO 39114-2G340	1340
CMA 10MY 2.4MPI MT +IMMO 39114-2G330	1330
CMA 11MY 2.4MPI AT -IMMO 39104-2G341	6441
CMA 11MY 2.4MPI AT +IMMO 39104-2G331	6442
CMA 11MY 2.4MPI MT -IMMO 39114-2G341	6443
CMA 11MY 2.4MPI MT +IMMO 39114-2G331	6444
CMA 12MY 2.4MPI AT -IMMO 39104-2G342	6445
CMA 12MY 2.4MPI AT +IMMO 39104-2G332	6446
CMA 12MY 2.4MPI MT -IMMO 39114-2G342	6447
CMA 12MY 2.4MPI MT +IMMO 39114-2G332	6448

MODE PASSWORD INFORMATION TABLE: #663 Veloster (FS) 1.6L

ECM MENU (#663)	PASSWORD
FS 12~14MY -IMMO 39110-2BBH3/C7/R3	6301
FS 12~14MY +IMMO 39110-2BBH0/B7/R0	6302
FS 12~14MY -IMMO 39110-2BBF3/N9/R9	6303
FS 12~14MY +IMMO 39110-2BBF0/N6/R6	6304
FS 15MY -IMMO 39110-2BBR4	6305
FS 15MY +IMMO 39110-2BBR1	6306
FS 15MY -IMMO 39110-2BBR8	6307
FS 15MY +IMMO 39110-2BBR5	6308
FS 16MY-17MY -IMMO 39125-2BFK5	6309
FS 16MY-17MY +IMMO 39125-2BFK0	6310
FS 16MY-17MY -IMMO 39121-2BFK5	6311
FS 16MY-17MY +IMMO 39121-2BFK0	6312

MODE PASSWORD INFORMATION TABLE: #690 Tucson (LM) 2.4L

ECM MENU (#690)	PASSWORD
LM 10MY AT -IMMO 39106-2G800	2800
LM 10MY AT +IMMO 39106-2G810	2810
LM 10MY AT -IMMO 39106-2G820	2820
LM 10MY AT +IMMO 39106-2G880	2880
LM 10MY MT -IMMO 39116-2G800	2800
LM 10MY MT +IMMO 39116-2G810	2810
LM 11MY AT -IMMO 39106-2G801	2801
LM 11MY AT +IMMO 39106-2G811	2811
LM 11MY AT -IMMO 39106-2G821	2821
LM 11MY AT +IMMO 39106-2G881	2881
LM 11MY MT -IMMO 39116-2G801	2801
LM 11MY MT +IMMO 39116-2G811	2811
LM 12MY AT -IMMO 39106-2G802	2802
LM 12MY AT +IMMO 39106-2G812	2812
LM 12MY AT -IMMO 39106-2G822	2822
LM 12MY AT +IMMO 39106-2G882	2882
LM 12MY MT -IMMO 39116-2G802	2802
LM 12MY MT +IMMO 39116-2G812	2812
LM 13MY AT -IMMO 39106-2G803	2803
LM 13MY AT +IMMO 39106-2G813	2813
LM 13MY AT -IMMO 39106-2G823	2823
LM 13MY AT +IMMO 39106-2G883	2883
LM 13MY MT -IMMO 39116-2G803	2803
LM 13MY MT +IMMO 39116-2G813	2813

MODE PASSWORD INFORMATION TABLE: #713 Sonata Hybrid (YF HEV) 2.4L

ECM MENU (#713)	PASSWORD
YF HEV 2.4MPI 11MY +IMMO 39105-2G910	2910
YF HEV 2.4MPI 12MY +IMMO 39105-2G911	2911
YF HEV 2.4MPI 13MY +IMMO 39105-2G912/5	2915
YF HEV 2.4MPI 14MY +IMMO 39105-2G913	2913
YF HEV 2.4MPI 15MY +IMMO 39105-2G916/7	2917

MODE PASSWORD INFORMATION TABLE: #717 Elantra Coupe (JK) 2.0L

ECM MENU (#717)	PASSWORD
JK Nu 2.0 GDI 14MY MT -IMMO 39137-2EJA0	1701
JK Nu 2.0 GDI 14MY MT +IMMO 39135-2EJA0	1702
JK Nu 2.0 GDI 14MY AT -IMMO 39133-2EJA0	1703
JK Nu 2.0 GDI 14MY AT +IMMO 39131-2EJA0	1704
JK Nu 2.0 GDI 14MY AT -IMMO 39133-2EJC0	1705
JK Nu 2.0 GDI 14MY AT +IMMO 39131-2EJC0	1706

MODE PASSWORD INFORMATION TABLE: #715 Elantra (MD) 2.0L

ECM MENU (#715)	PASSWORD
MD Nu 2.0 GDI 14MY MT -IMMO 39137-2EMA0	1501
MD Nu 2.0 GDI 14MY MT +IMMO 39135-2EMA0	1502
MD Nu 2.0 GDI 14MY AT -IMMO 39133-2EMA0	1503
MD Nu 2.0 GDI 14MY AT+IMMO 39131-2EMA0	1504
MD Nu 2.0 GDI 14MY AT -IMMO 39133-2EMB0	1505
MD Nu 2.0 GDI 14MY AT+IMMO 39131-2EMB0	1506
MD Nu 2.0 GDI 15MY MT -IMMO 39137-2EMA1	1507
MD Nu 2.0 GDI 15MY MT +IMMO 39135-2EMA1	1508
MD Nu 2.0 GDI 15MY AT -IMMO 39133-2EMA1/2	1509
MD Nu 2.0 GDI 15MY AT +IMMO 39131-2EMA1/2	1510
MD Nu 2.0 GDI 15MY AT -IMMO 39133-2EMB1/2	1511
MD Nu 2.0 GDI 15MY AT+IMMO 39131-2EMB1/2	1512
MD Nu 2.0 GDI 16MY MT -IMMO 39137-2EMA2	1513
MD Nu 2.0 GDI 16MY MT +IMMO 39135-2EMA2	1514
MD Nu 2.0 GDI 16MY AT -IMMO 39133-2EMA3	1515
MD Nu 2.0 GDI 16MY AT +IMMO 39131-2EMA3	1516
MD Nu 2.0 GDI 16MY AT -IMMO 39133-2EMB3	1517
MD Nu 2.0 GDI 16MY AT +IMMO 39131-2EMB3	1518

MODE PASSWORD INFORMATION TABLE: #806 Tucson (LM) 2.0L

ECM MENU (#806)	PASSWORD
LM 14MY 2.0GDI MT 2WD -IMMO 39137-2ELC0	3520
LM 14MY 2.0GDI MT 2WD +IMMO 39135-2ELC0	3720
LM 14MY 2.0GDI AT 2WD -IMMO 39133-2ELC0	3120
LM 14MY 2.0GDI AT 2WD +IMMO 39131-2ELC0	3320
LM 14MY 2.0GDI AT 4WD -IMMO 39133-2ELC1	3121
LM 14MY 2.0GDI AT 4WD +IMMO 39131-2ELC1	3321
LM 15MY 2.0GDI MT 2WD -IMMO 39137-2ELC4	3524
LM 15MY 2.0GDI MT 2WD +IMMO 39135-2ELC4	3724
LM 15MY 2.0GDI AT 2WD -IMMO 39132-2ELC4	3124
LM 15MY 2.0GDI AT 2WD +IMMO 39131-2ELC4	3224
LM 15MY 2.0GDI AT 4WD -IMMO 39133-2ELC5	3125
LM 15MY 2.0GDI AT 4WD +IMMO 39131-2ELC5	3325

MODE PASSWORD INFORMATION TABLE: #730 Elantra GT (GD) 2.0L

ECU MENU (#730)	PASSWORD
GD Nu 2.0 GDI 14MY MT -IMMO 39137-2EGB0	9137
GD Nu 2.0 GDI 14MY MT +IMMO 39135-2EGB0	9135
GD Nu 2.0 GDI 14MY AT -IMMO 39133-2EGB0/2	9133
GD Nu 2.0 GDI 14MY AT+IMMO 39131-2EGB0/2	9131
GD Nu 2.0 GDI 15MY MT -IMMO 39137-2EGE0	3720

GD Nu 2.0 GDI 15MY MT +IMMO 39135-2EGE0	3520
GD Nu 2.0 GDI 15MY AT -IMMO 39133-2EGE0	3320
GD Nu 2.0 GDI 15MY AT +IMMO 39131-2EGE0	3120
GD Nu 2.0 GDI 16MY MT -IMMO 39137-2EGB1	3721
GD Nu 2.0 GDI 16MY MT +IMMO 39135-2EGB1	3521
GD Nu 2.0 GDI 16MY AT -IMMO 39133-2EGB1	3321
GD Nu 2.0 GDI 16MY AT +IMMO 39131-2EGB1	3121

MODE PASSWORD INFORMATION TABLE: #733 Sonata Hybrid/Plug-In (LF HEV/PHEV) 2.0L

ECU MENU (#733)	PASSWORD
LF HEV 2.0GDI 39161-2EEB0 (16MY)	0216
LF PHEV 2.0GDI 39161-2EEG0 (16MY)	0217

MODE PASSWORD INFORMATION TABLE: #762 Sonata Hybrid/Plug-In (LF HEV/PHEV) 2.0L

ECU MENU (#797)	PASSWORD
LF HEV 2.0GDI 39161-2EEB1 (17MY)	7971
LF PHEV 2.0GDI 39161-2EEG1 (17MY)	7972
LF HEV 2.0GDI 39161-2EEB2 (17MY)	7973
LF PHEV 2.0GDI 39161-2EEG2 (17MY)	7974
LF HEV 2.0GDI 39161-2ELF0 (18MY)	7975
LF PHEV 2.0GDI 39161-2ELH0 (18MY)	7976
LF HEV 2.0GDI 39161-2ELF1/2 (19MY)	7977
LF PHEV 2.0GDI 39161-2ELH1/2 (19MY)	7978

MODE PASSWORD INFORMATION TABLE: #739 Tucson (TL) 2.0L

ECM MENU (#739)	PASSWORD
TL 2WD -IMMO 39133-2ETA0 (16MY)	3901
TL 2WD +IMMO 39131-2ETA0 (16MY)	3902
TL 4WD -IMMO 39133-2ETA2 (16MY)	3903
TL 4WD +IMMO 39131-2ETA2 (16MY)	3904
TL 2WD -IMMO 39133-2ETA4/6 (17MY)	3905
TL 2WD +IMMO 39131-2ETA4/6 (17MY)	3906
TL 4WD -IMMO 39133-2ETA5/7 (17MY)	3907
TL 4WD +IMMO 39131-2ETA5/7 (17MY)	3908

MODE PASSWORD INFORMATION TABLE: #756 Tucson (TL) 2.0L

ECM MENU (#756)	PASSWORD
TL 2.0GDI AT 2WD 39131-2ETA8 (18MY)	3128
TL 2.0GDI AT 2WD 39133-2ETA8 (18MY)	3328
TL 2.0GDI AT 4WD 39131-2ETA9 (18MY)	3129
TL 2.0GDI AT 4WD 39133-2ETA9 (18MY)	3329

MODE PASSWORD INFORMATION TABLE: #754 Elantra GT (PD) 2.0L

ECU MENU (#754)	PASSWORD
PD 2.0GDI AT 39131-2EPE0 (18MY)	5401
PD 2.0GDI AT 39133-2EPE0 (18MY)	5402
PD 2.0GDI AT 39131-2EPE1 (18MY)	5403
PD 2.0GDI AT 39133-2EPE1 (18MY)	5404
PD 2.0GDI MT 39135-2EPE0 (18MY)	5405
PD 2.0GDI MT 39137-2EPE0 (18MY)	5406
PD 2.0GDI AT 39131-2EPE2 (19MY)	5407
PD 2.0GDI AT 39133-2EPE2 (19MY)	5408
PD 2.0GDI AT 39131-2EPE3 (19MY)	5409
PD 2.0GDI AT 39133-2EPE3 (19MY)	5410
PD 2.0GDI MT 39135-2EPE2 (19MY)	5411
PD 2.0GDI MT 39137-2EPE2 (19MY)	5412

NOTE: After the ECU update has been completed:

- Clear any ECM DTC(s) after the ECU update, if present.
- Start the engine to confirm proper operation of the vehicle.