	GROUP	NUMBER
	CAMPAIGN	14-01-008
Technical Service Pulletin	DATE	MODEL
reclinical Service Dulletin	JANUARY 2014	ELANTRA (MD)

SUBJECT: 2013 MY ELANTRA (MD) ECM & TCM UPDATE (SERVICE CAMPAIGN TS4)



* IMPORTANT

*** Retail Vehicles Only ***

Dealers must perform this 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 via WEBDCS to identify open Campaigns.

Description: This bulletin provides a procedure to update the ECM and TCM software for 2013 Elantra (MD) vehicles with the latest update to:

- Revise the shift feeling in ECO mode.
- Revise logic for P2096: Post Catalyst Fuel Trim System too Lean (Bank 1).

Applicable Vehicles: 2013 MY Elantra (MD) 1.8L vehicles with automatic transmission (KMHDH***) **Applicable Production Date Range**: From March 8, 2012 through August 16, 2012

GDS Information:

EVENT #	DESCRIPTION
306	306.UD/MD 1.8 P2096 DTC LOGIC IMPROVEMENT
290	290.13MY MD 1.8 ACTIVE ECO ACCELERATION LOGIC IMPROVEMENT-TCM

Warranty Information:

MODEL	OP CODE	OPERATION	OP TIME
Elantra (MD)	30C082R0	ECM & TCM UPGRADE	0.5

NOTE: Submit claim on Campaign Claim Entry Screen

ECM ROM ID INFORMATION TABLE: Verify the ECM ROM ID before updating vehicle software.

				ECM RC	MID
MODEL	EMISSION	ECM P/N	ІММО	PREVIOUS	NEW
	SULEV	39101-2EMN3	YES	MD3SP1MS2D2A MD3SP1MS2D2B MD3SP1MS2D8A	MD3SP1MS2E3A
MD 1.8L	MD 1.8L	39103-2EMN3	NO	MD3SP1NS2D2A MD3SP1NS2D2B MD3SP1NS2D8A	MD3SP1NS2E3A
13MY ULEV	39101-2EMP3	YES	MD3UP1MS2D2A MD3UP1MS2D2B MD3UP1MS2D8A	MD3UP1MS2E3A	
		ULEV	39103-2EMP3	NO	MD3UP1NS2D2A MD3UP1NS2D2B MD3UP1NS2D8A

TCM ROM ID TABLE: Verify the TCM ROM ID before updating vehicle software.

			TCM R	OM ID
MODEL	MY	TCM P/N	PREVIOUS	NEW
ELANTRA (MD) 1.8L	13MY	39101-2EMN3 39103-2EMN3 39101-2EMP3 39103-2EMP3	TMD0C18NA8	TMD0C18NA9

GENERAL PRECAUTIONS

- Connect the USB cable between the GDS and the VCI.
- Connect the 16-pin DLC connector from the VCI into the DLC located under the driver's side dash.



NOTICE

Make sure the battery icon at the bottom right of the GDS laptop shows at least 50%; if not, charge the GDS or attach a battery charger.

- Turn off all lights (Do not leave the headlight switch in auto mode) and all accessories (including heater/air conditioner/fan, audio, heated seats, rear defroster, etc) to ensure the battery will not be discharged during the update.
- Perform the update with the ignition key in the ON position. (Turn the ignition key to the ON position or press the Start-Stop Button two times without depressing the brake pedal).
- Do not disconnect any cables connected to the vehicle or the GDS during the update.
- Do not start the engine or turn the ignition switch OFF during the update.

NOTICE

Confirm your GDS has the most recent version. If not, connect the GDS to an Internet port, open the GDS home page and select "Update". Refer to instructions on hmaservice.com if necessary.

NOTICE

If you encounter GDS related problems, call the GIT Helpline at 888-437-0308.

ECM UPDATE

GDS <u>AUTO</u> MODE ECM UPDATE PROCEDURE

- 1. From the GDS home page, select ECU Upgrade. If necessary, select the VIN.
- 2. Select **Engine** as the system and then select **OK**.
- 3. Select Auto Mode and then select Next.
- 4. From the System tab, select Engine and then select OK. The GDS will read the ROM ID. Confirm the ROM ID is applicable as shown on Page 2, "ECM ROM ID Information". NOTE: <u>Record the ROM ID in case the auto update fails and a manual update is needed.</u>
- 5. Update event 306.UD/MD 1.8 P2096 DTC LOGIC IMPROVEMENT will display. Select Upgrade.

	VCI	: USB On 💿 VMI : Off	S Internet : Off		
GD	Preparation	Diagnosis	Vehicle S/W Management	Repair	0
VANCE DELANTRA(L	ID/MD//2013/G 1.8 MPI	i Syste	n 🕨 Engine/Engine Control		02
chicle S/W Management	ECU Upgrade			and the second second	and the first
ECU Upgrade 🏾 🛃	• Event Group	Event List		Charles Barriel	SB
Mode Manual Mode	306 UD/MD 1.8 P2096 268 13MY UD/MD 1.8 01 UD/MD 1.8 P2096 [DTC LOGIC IMPROVEM ACTIVE ECO ACCELER DTC LOGIC IMPROVEME	ENT ATION LOGIC IMPROVEME ENT(PORT)	NT	
System ENGINE		Previous	Next		
	Preparation 1) Connect the DL side.	C(Data Link Connect	tor) of VCI to the OBD-	ll connector of	Vehicle
D Register Option Treatment Data Treatment	2) Turn on VCI unit 3) Check the system	m then, Click the OK	button to continue.		
nspection / Test CU Mapping Verification #					*
👌 🔬 Marwai T	SB Case Analysis DTC	Current Data Actuation Test	Flight Record DVOM Oscil	loscope Simulation Test	Internet Update

- 6. If the screen indicates **"Voltage is OK"**, select **OK**. If not, select **CANCEL** and charge the vehicle battery by running the engine for 10 minutes.
- 7. Updating will occur until 100% is reached on the bar graph. At the prompt, turn the ignition key OFF for 10 seconds, then turn it ON and select **OK**.
- 8. The GDS will confirm that ECM reprogramming is successfully finished. Select OK.
- 9. If the ECM update was not successful, go to GDS <u>MANUAL</u> MODE <u>ECM</u> UPDATE PROCEDURE.
- 10. Check for Diagnostic Trouble Codes and erase any DTC.
- 11. Start the engine to confirm proper operation.

GDS MANUAL MODE ECM UPDATE PROCEDURE

NOTICE

In the event of AUTO MODE update failure (after the progress bar was initiated):

- You must attempt MANUAL MODE. Use the ECM P/N from the vehicle's ECM label if the correct ECM P/N is not clear from the ROM ID table.
- Replacing an ECM without carefully documenting that a MANUAL MODE update attempt was made will result in a charge back of your claim.
- 1. From the GDS home page, select ECU Upgrade. If necessary, select the VIN.
- 2. Select Engine as the system and then select OK.
- 3. Select Manual Mode and then select NEXT.
- 4. From the System tab, select Engine and then select NEXT.
- 5. Select Update event 306. Select Next.
- 6. Select the correct ROM according to PCM part number on the PCM label. Select Upgrade.

	Ve Ve	l : USB On 🛛 🕘	VMI : Off	Internet	Off			-	X
GD	Preparation	Diagnos	sis	Vehicle S/W M	lanagement	F	Repair	()
Vehicle 🛌 ELANTRA(L	ID/MD)/2013/G 1.8 MPI		System	Engine	/Engine Co	ntrol		()	
Vehicle S/W Management	📕 ECU Upgrade								
ECU Upgrade	Event	Event	List	3				TSB	
• Mode Manual Mode	 Current ROM ID Latest ROM ID 	MD3	SP1MS2E3	JA					
►System ENGINE	UD/MD 1.8 AT IMMO UD/MD 1.8 AT NON I UD/MD 1.8 AT,MT IM	39101-2EMA3/2 MMO 39103-2EM MO : 39101-2EM	2EMN3 1A3/2EMN3 B3/2EMP3	, 39105-2EN	1B3				-
• Event Group 306.UD/MD 1.8 P2096 D	UDAID 4 A ITATAK	P	evious		Upgrade				_
ID Register	CAUTION During the ECU Failure to follow 1 1) DO NOT operate 2) DO NOT disturb of 3) DO NOT turn off 4) DO NOT start the 5) DO NOT operate	Upgrade, obse hese precautio any other comport of disconnect the the VCI or DO NG evenicle or turn to any of the ve	erve the for ons may re- uter progra DLC(Data DT disconn the IG key of hicles othe	bliowing pre esult in EC m. Link Conne ect VCI USB off. er systems()	ecautions. U damage ctor). Connecto climate cor	itrol, lightin	g,		
Option Treatment Data Treatment Inspection / Test ECU Mapping Verification #	audio, etc.)								*
Setup Manual T	SB Case Analysis DT	C Current Data	Actuation Test	Flight Record	DVOM	Oscilloscope	Simulation Test	Internet Update	•
Start				020	i 🗖 🛅	\$ 32 B 3	9 🖪 🕯 🗉 E	1	1:13 AM

7. Enter the Password and click OK.

MENU	PASSWORD
UD/MD 1.8 AT IMMO : 39101-2EMA3/2EMN3	0123
UD/MD 1.8 AT NON IMMO 39103-2EMA3/2EMN3	0323
UD/MD 1.8 AT,MT IMMO : 39101-2EMB3/2EMP3, 39105-2EMB3	0523
UD/MD 1.8 AT,MT NON IMMO : 39103-2EMB3/2EMP3, 39107-2EMB3	0723

- 8. If the "Voltage is OK", select OK. If not, select CANCEL and charge the vehicle battery.
- 9. The remaining steps are the same as Step 7~11 of the Auto Procedure.

TCM UPDATE

GDS AUTO MODE TCM UPDATE PROCEDURE

- 1. From the GDS home page, select ECU Upgrade. If necessary, select the VIN.
- 2. Select **AT** as the system and then select **OK**.
- 3. Select Auto Mode and then select Next.
- 4. From the **System** tab, select **AT** and then select **OK**. The GDS will read the ROM ID. Confirm the ROM ID is applicable as shown on Page 2, "TCM ROM ID Information".
- Update event 290.13MY UD/MD 1.8 ACTIVE ECO ACCELERATION LOGIC IMPROVE-TCM will display. Select Upgrade.

VCI : USB On VMI : Off Internet : Off				- ×
GD	Preparation	Diagnosis Vehicle S/W Management	Repair	0
Vehicle DELANTRA	JD/MD)/2013/G 1.8 MPI	System Martin Transmission/Autom	atic Transaxle	02
Vehicle S/W Management	ECU Upgrade			
ECU Upgrade 🌗	 Event Group 	Event List	and the second se	SB
• Mode	Current ROM ID			
►System AT	290.13MY UD/MD 1.8 /	ACTIVE ECO ACCELERATION LOGIC IMPROVE-	ICM	
	Event selection 1. Review and unde 2. Select reprogram 3. Click the Upgrad	Previous Upgrade rstand related TSB for vehicle reprogramming ming event from Upgrade Event pull down m a button to begin ECU upgrade.	g. enu above.	N DI LUI DI LUI DI
ID Register Option Treatment Data Treatment Inspection / Test				
ECU Mapping Verification 1 Setup Manual T	SB Case Analysis DTC	Current Data desktop cleanup wizard can help you clean up yo desktop. Click this balloon to start the wizard.	our cope Simulation Test	Internet Update
🐮 Start 🛛 🔤 GDS		0 0 🖄 🔤 🖬 📑		書 10:41 AM

- 6. If the screen indicates "Voltage is OK", select OK. If not, select CANCEL and charge the vehicle battery by running the engine for 10 minutes.
- 7. Updating will occur until 100% is reached on the bar graph. At the prompt, turn the ignition key OFF for 10 seconds, then turn it ON and select **OK**.
- 8. The GDS will confirm that TCM reprogramming is successfully finished. Select OK.
- 9. If the TCM update was not successful, go to GDS <u>MANUAL</u> MODE <u>TCM</u> UPDATE PROCEDURE.
- 10. Check for any Diagnostic Trouble Codes and erase any DTC.
- 11. From the home screen, select Vehicle, **AT** menu and **Option Treatment**. Select **Resetting Auto T/A Values** and follow the prompts on the screen.
- 12. Drive the vehicle to confirm proper operation.

GDS MANUAL MODE TCM UPDATE PROCEDURE

NOTICE

In the event of AUTO MODE update failure (after the progress bar was initiated):

- You must attempt MANUAL MODE. Use the ECM P/N from the vehicle's ECM label if the correct ECM P/N is not clear from the ROM ID table.
- Replacing an ECM without carefully documenting that a MANUAL MODE update attempt was made will result in a charge back of your claim.
- 1. From the GDS home page, select ECU Upgrade. If necessary, select the VIN.
- 2. Select AT as the system and then select OK.
- 3. Select Manual Mode and then select NEXT.
- 4. From the System tab, select AT and then select NEXT.
- 5. Update event 290.13MY UD/MD 1.8 ACTIVE ECO ACCELERATION LOGIC IMPROVE-TCM will display. Select Next.
- 6 Select the ROM according to the part number on the PCM label. Select Upgrade.



7. Enter the Password and click OK.

MENU	PASSWORD
UD/MD 1.8 TCM : 39101-2EMN3/P3, 39103-2EMN3/P3	0323

- 8. If the "Voltage is OK", select OK. If not, select CANCEL and charge the vehicle battery.
- 9. The remaining steps are the same as Step 7~12 of the Auto Procedure.