

GROUP	NUMBER			
CAMPAIGN	13-01-015			
DATE	MODEL			
MARCH 2013	TUCSON (LM)			

Technical Service Bulletin

TUCSON (LM) ECM & TCM UPDATE (SERVICE CAMPAIGN TM9)

GDS CON Disposite System ECU Update

Description: This bulletin provides a procedure to update the ECM and TCM software for 2013 Tucson (LM) 2.4L vehicles to revise the shift feeling in ECO mode.

This TSB supersedes TSB 12-01-042 to include retail vehicles.

***** IMPORTANT

*** DEALER STOCK AND RETAIL VEHICLES ***

Dealers must perform this Campaign on all affected vehicles prior to customer retail delivery and 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.

Applicable Vehicles: 2013 MY Tucson (LM) 2.4L with automatic transaxles Applicable Production Date Range: From May 24, 2012 through October 4, 2012

GDS INFORMATION:

Event #	Description
EVENT #286	286.13MY LM 2.4 ACTIVE ECO ACCELERATION LOGIC IMPROVEMENT - ECM
EVENT #287	287.13MY LM 2.4 ACTIVE ECO ACCELERATION LOGIC IMPROVEMENT - TCM

WARRANTY INFORMATION:

MODEL	OP CODE	OPERATION	OP TIME
TUCSON (LM)	20C105R1	ECM & TCM UPGRADE	0.5

NOTE: Submit claim on Campaign Claim Entry Screen

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

MODEL	ECM PART	EMISSION	IGNITION	IMMO	ECM ROM ID		
	NUMBER	EIVIISSION			PREVIOUS	NEW	
	39106-2G803	ULEV	KEY	NO	LDC4MS0A	LDC4MT0B	
TUCSON (LM) 2.4L	39106-2G813	ULEV	SSB	YES	LDC4RS0A	LDC4RT0B	
	39106-2G823	SULEV	KEY	NO	LDS4MS0A LDS4MT0A	LDS4MT0B	
	39106-2G883	SULEV	SSB	YES	LDS4RS0A LDS4RT0A	LDS4RT0B	

SUBJECT: TUCSON (LM) ECM & TCM UPDATE (SERVICE CAMPAIGN TM9)

-					
CM (TCM) PART	TCM ROM ID				
NUMBER	PREVIOUS	NEW			
39106-2G803					
39106-2G813	TLM0C24NA6	TI M00040140			
39106-2G823	TLM0C24NA7	TLMUC24N10			
39106-2G883					
	CM (TCM) PART NUMBER 39106-2G803 39106-2G813 39106-2G823 39106-2G883	CM (TCM) PART NUMBER TCM R 39106-2G803 PREVIOUS 39106-2G813 TLM0C24NA6 39106-2G823 TLM0C24NA7 39106-2G883 TLM0C24NA7			

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

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.



* NOTE

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.

* NOTE

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

TSB #: 13-01-015

ECM UPDATE

GDS AUTO 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.
- From the System tab, select Engine and then select OK. The GDS will read the ROM ID. Confirm the ROM is applicable as shown on Page 1, "ECM ROM ID Information". NOTE: Record the ROM ID in case the auto update fails and a manual update is needed.
- 5. Update event **286.13MY LM 2.4 ACTIVE ECO ACCELERATION LOGIC IMPROVEMENT ECM** will display. Select **Upgrade**.

Administration of some of the state of the source of the		/CI : USB On 🏾 🌒	110 : IMV	Internet	. Off		STREET STREET		X
GD	Preparation	Diagnos	sis	Vehicle S/W I	Management	R	Repair	C	,
Vehicle > TUCSON	(LM)/2013/G 2.4 DOHC	States of party of the states of the	System	Engine	e/Engine Cont	rol		۲	間
Vehicle S/W Managemer	ECU Upgrade		TO DURANT	and the second second				MANY CRIMEN	THE S
ECU Upgrade 🌙	• Event Group	Event	List	3			CHARLEN A	TSB	
→Mode	Current ROM ID	LDS4	RTOA						
Auto Mode	Latest ROM ID	LDS4	IRT0B		9				
System	286.13MY LM 2.4 A	CTIVE ECO ACC	ELERATIO	N LOGIĆ IM	PROVEMEN	T-ECM			
		Pr	evious		Upgrade				
	Event selection 1. Review and ur 2. Select reprogram 3. Click the Upgram	on nderstand relate ramming event f rade button to b	d TSB for rom Upgr egin ECU	vehicle re ade Event upgrade.	programmir pull down n	ig. ienu abo	ve.		
ID Register									
Option Treatment									
Data Treatment									
Inspection / Test									
ECU Mapping Verification I									1
Setup Manual	TSB Case Analysis D	TC Current Data	Actuation Test	Flight Record	DVOM 0	scilloscope	Simulation Test	Internet Update	•
🕼 Start 🛛 🔛 GDS				0200		5 製品長		15 A CB *:	23 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 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

* NOTE

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

- 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. Update event **286.LM 2.4 ACTIVE ECO ACCELERATION LOGIC IMPROVEMENT ECM** will display. Select **Next**.
- 6. Select the correct ROM according to ECM part number on the ECM label. Select Upgrade.



7. Enter the Password and click OK.

MENU	EMISSION	IGNITION	PASSWORD
LM 2.4 NON IMMO : 39106/39116-2G803	ULEV	KEY	2803
LM 2.4 IMMO : 39106/39116-2G813	ULEV	SSB	2813
LM 2.4 NON IMMO : 39106-2G823	SULEV	KEY	2823
LM 2.4 IMMO : 39106-2G883	SULEV	SSB	2883

- 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.

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 is applicable as shown on Page 1, "ROM ID Information".
- 5. Update event **287.13MYLM 2.4 ACTIVE ECO ACCELERATION LOGIC IMPROVEMENT TCM** will display. Select **Upgrade**.

		VCI : USB On 🛛 🔮	VML. Off 🔮	Internet : Off			
CDS	Preparation	Diagno:	sis Vel	icle S/W Manage	ment	Repair	0
Vehicle Vehicle	(LM)/2013/G 2.4 DOHC		System 1	Engine/Engine	e Control		(i) ==
Vehicle S/W Managemen	ECU Upgrade					I TO STATE OF	
ECU Upgrade	 Event Group 	Event	List				'SB
• Mode Auto Mode	 Current ROM Latest ROM ID 	ID TLMO	DC24NA7 DC24N10				
+ System	287.13MY LM 2.4	ACTIVE ECO ACC	ELERATION	LOGIC IMPROVI	EMENT-TCM		
		P	revious	Upgr	ade		
	Event select 1. Review and 2. Select repro 3. Click the Up	tion understand relate ogramming event f ograde button to b	ed TSB for ve from Upgrad begin ECU up	ehicle reprogra e Event pull do ograde.	imming. own menu ab	ove.	4
ID Register							
Option Treatment							
Data Treatment							
Inspection / Test							
ECU Mapping Verification I							<u>+</u>
Setup	TSB Case Analysis	DTC Current Data	Actuation Test Flig	ahl Record DVOM	M Oscilloscope	Simulation Test	Internet O Update
Start GDS			Je	30225	\$ 33 H	9 1 5 1 5	13 日日 8:33 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 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

* NOTE

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

- You must attempt MANUAL MODE. Use the TCM P/N from the vehicle's TCM label if the correct TCM P/N is not clear from the ROM ID table.
- Replacing a TCM 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 **287.13MYLM 2.4 ACTIVE ECO ACCELERATION LOGIC IMPROVEMENT TCM** will display. Select **Next**.
- 6. LM 2.4L TCM 39106-2G803/13/23/83 will display. Select Upgrade.

🕲 VCI : USB On 🔹 VMI : Off 🔹 Internet : Off						
GD	Preparation	Diagnos	sis Vehicle S/	W Management	Repair	0
Vehicle M TUCSON(LN	/)/2013/G 2.4 DOHC		System 🕨 Eng	ine/Engine Control		02
Vehicle S/W Management	ECU Upgrade	Carl Martin				
ECU Upgrade 🕨	✓ Event	Event	List			TSB
Mode Manual Mode	 Current ROM ID Latest ROM ID 	D []	DC24N10			
∗ System Ατ	LM 2.4 TCM 3910	6-2G803/13/23/83	Kan Bulkin Ko			
* Event Group 287.13MY LM 2.4 ACTIVE ECO ACC		P	revious	Upgrade		
	CAUTION * During the EC Failure to follow	U Upgrade, obse v these precautio	erve the following ons may result in I	precautions. ECU damage.		*
ID Register Option Treatment	1) DO NOT opera 2) DO NOT disturi 3) DO NOT turn o 4) DO NOT start 1 5) DO NOT oper audio, etc.)	te any other comp b or disconnect the ff the VCI or DO NO the vehicle or turn t ate any of the ve	uter program. e DLC(Data Link Cor DT disconnect VCI L the IG key off. hicles other system	inector). ISB Connector. Is(climate control,	lighting,	
Data Treatment Inspection / Test ECU Mapping Verification (B
Setup Manual TS	SB Case Analysis	DTC Current Data	Actuation Test Flight Reco	rd DVOM Oscill	oscope Simulation Test	Internet Update
@Start			030			3157-128 8:32 AM

6. Enter the Password and click **OK**. The part number can be found on the PCM label.



- 7. If the "Voltage is OK", select OK. If not, select CANCEL and charge the vehicle battery.
- 8. The remaining steps are the same as Step 7~12 of the Auto Procedure.
- 9. Check for DCT and erase any DTC. Drive the vehicle to confirm proper operation.