		GROUP	NUMBER			
C HYL		CAMPAIGN	13-01-002-1			
Technical Service Bulletin		DATE	MODEL(S)			
		MARCH 2013	SANTA FE (AN)			
SUBJECT SANTA FE MDPS UPDATE						
(SERVICE CAMPAIGN TN8)						
THIS TSB SUPERSEDES TSB 13-01-002 TO INCLUDE RETAIL VEHICLES.						
	т					

Dealers must perform this Service 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.

Description: This bulletin describes the procedure to update the MDPS (motor driven power steering) software on some 2013MY Santa Fe (AN) vehicles.



Applicable Vehicles: Santa Fe (AN) vehicles produced from June 28, 2012 through December 13, 2012

GDS Information:

EVENT #	DESCRIPTION	
301	DMA EPS ECU UPDATE	

ROM ID Information Table:

			ROM ID		
Model	System	EPS ECU P/N	Previous	New	
SANTA FE (AN)	EPS(MDPS)	56300-4Z000	56300-4Z0001.05	56300-4Z0001.06	

Circulate To: General Manager, Service Manager, Parts Manager, Warranty Manager, Service Advisors, Technicians, Body Shop Manager, Fleet Repair

Warranty Information:

OP CODE	OPERATION	OP TIME
20CG06R0	EPS ECU UPGRADE	0.3 M/H

NOTE: Submit Claim on Campaign Claim Entry Screen

Service Procedure:

A Cautions during ECM update

1) Make sure the vehicle's battery has reasonable charge. If the vehicle has been in storage for days, run the engine to ensure an adequate battery charge state for reliable update results.

2) Turn off all lamps (do not leave head lamp switch in auto mode) and all accessories (including heater, A/C, blower, radio, seat warmer, defroster, etc.) so that the battery will not be discharged during update.

3) Perform update with the ignition switch in the ON position.

4) Connect the USB cable between the VCI and the GDS when performing the update.

5) Be careful not to disconnect any cables connected to the vehicle or scan tool during update.

6) Do not start the engine during update.

7) Do not turn off the ignition switch during update.

1. GDS INSTALLATION PROCEDURE



SUBJECT:

1.

SANTA FE MDPS UPDATE (SERVICE CAMPAIGN TN8)

Connect the power supply cable to the diagnostic terminal.

* NOTE

If attempting to perform the update with the power supply cable disconnected from the diagnostic terminal, make certain that the diagnostic terminal is charged enough for the update. If not, the update may fail in progress. Therefore, it is strongly recommended to connect the power supply cable to the diagnostic terminal during the update procedure.

2. Connect the USB cable between the VCI and the diagnostic terminal.

* NOTE

When performing the update using the GDS, wireless communication between the VCI and the diagnostic terminal is NOT available. Therefore, be sure to connect the USB cable between the VCI and the diagnostic terminal.

- 3. Connect the 16-pin DLC cable from the VCI into the vehicle's 16-pin connector under the driver side instrument panel.
- 4. Set the ignition to the ON position.

* NOTE

For push-button start vehicles, <u>without depressing the brake pedal</u> push the start button twice.

For standard start vehicles, insert the key into the ignition and turn to the ON position.

For all vehicles, do not start the engine.

Turn the VCI and diagnostic terminal ON.

2. AUTOMATIC UPDATE PROCEDURE USING THE GDS

- 1. Choose **VIN** or **ECU Upgrade** on the initial screen.
- 2. Enter the vehicle information by pressing the VIN Auto Detect button, entering the vehicle's VIN or selecting the vehicle model, model year, engine/fuel type and EPS (MDPS, Motor Driven Power Steering) as the system and then click OK.



3. Select **ECU Upgrade** on the initial screen after entering the vehicle information.

CDS		User's Guide Notice 0 Configuration Search			
Vehicle SANTAFES	PORT(DMA)/2013/G 2.0 T-GDI	System > Steering/Motor driven Power Steering			
Preparation	Diagnosis	Vehicle S/W Management	Repair		
Vehicle Info 0	Basic Inspection	ECU Upgrade	Parts Catalog		
Hot Fix	DTC Analysis	ID Register	Replacement		
By DTC	Data Analysis	Option Treatment	Component Info		
By Symptom	E Flight Record	Data Treatment			
•By Model	Oscilloscope	Inspection / Test			
•Campaign III Hyundai Tech SS III	CARB OBD-II	ECU Mapping Verification			
Tryindatechinto.com		Artuko	Similario Parat		

4.

SANTA FE MDPS UPDATE (SERVICE CAMPAIGN TN8)

Select Auto Mode then click Next.



5. Select **EPS**, then read the **Preparation** and click **OK**.

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CDS	Preparation	Diagnosis	Vehicle S/W Management	Repair	0
VARAN SANTAFE	SPORT(DMA)/2013/G 2.0	T-GDI	Steering/Motor driven	Power Steering	
Vehicle S/W Management	ECU Upgrade			TATION AND THE REAL	
ECU Upgrade	- System	Event List			
• Mode Auto Mode		EPS			
		Previcu	s OK		
	Preparation				*
	1) Connect the Di side.	LC(Data Link Conr	nector) of VCI to the OBD-	I connector of V	lehicle
	The state	4 00	E.		
ID Register	E 22, 222 2	1.	E		
Option Treatment	2) Turn on VCLuni				
Data Treatment	3) Check the syste	em then, Click the (OK button to continue.		
Inspection / Test ECU Mapping Verification II		ennes en littinistiandy novae			×
Mariual	TSB Case Analysis DTC	Current Data Tes	tion Hight Record DVQM Oscill	oscope Test	Internet Update

6. The GDS will read the vehicle's ROM ID.

7.

SANTA FE MDPS UPDATE (SERVICE CAMPAIGN TN8)

After the Current ROM ID is displayed, select the upgrade event, "301.DMA EPS ECU UPDATE."

Click Upgrade.

	VCI	USB On 6 VMI :	Dr/ Dinternet : Of	Tradition a submer of the second	
CDS	Preparation	Diagnosis	Vehicle S/W Managem	ent Repair	0
SANTAFE SANTAFE	SPORT(DMA)/2013/G 2.01	r-GDI S	Steering/Motor	driven Power Steering	
Vehicle S/W Management	ECU Upgrade	and the second second			SPHILLS IN MAL
ECU Upgrade 🕑	+ Event Group	Event List		7740-724M	T\$B
• Mode Auto Mode	 Current ROM ID Latest ROM ID 	56300-4200 56300-4200	101.05 101.06		
• System EPS	301.DMA EPS ECU UP	DATE			
		Previou	s Upgrad	le	2
	 Event selection Review and under Select reprogram Click the Upgrad 	erstand related TSB nming event from L e button to begin l	for vehicle reprogram Ipgrade Event pull dov ECU upgrade.	nming. Mi menu above.	
ID Register					
Option Treatment					
Data Treatment					
Inspection / Test					-
ECU Mapping Verification II	L				
Setto Manual 1	SB Case Analysis DTC	Current Data Actual Tes	tion Flight Record DVOM	Oscilloscope Simulaçon Test	Internet Update

8. The vehicle battery voltage is checked to make sure it is at least 12 volts to ensure reliable update results. Click **OK** if the results indicate **Voltage is OK**.

* NOTE	
lf voltage is below adequate battery cl	12 volts, click Cancel and then run the engine to ensure an harge state for reliable update results.

9. Cycle the ignition OFF, then ON again to begin the update.

Check	the GDS connection
and turn OF	F and ON the ignition key.

SUBJECT:

10.

Update will begin and the progress of the update will appear on the bar graph.



11. Update will occur until 100% is reached on the bar graph. Turn the ignition OFF for 10 seconds, and then back ON again. Click **OK** to continue.



12. Click **OK** on the final screen, which indicates update is complete.

Informa	ion
	The ECU Upgrade is successfully finished. ROM ID : 56300-4Z0001.06
	οκ

- Check if any incidental Diagnostic Trouble Codes (DTC) has been created by the update and clear the DTC (s) present.
- 14. Start the engine to confirm proper operation of the vehicle.

3. MANUAL UPDATE PROCEDURE USING THE GDS



1. Within the ECU Upgrade screen, select Manual Mode, and then click Next.



2. Select **EPS**, then read the **Preparation** and click **Next**.



3.

Select the upgrade event, "301.DMA EPS ECU UPDATE" and click Next.

	S VCI	USB On S VMI . C	off 🔹 Internet : Off	ala su	- ×
CD	Preparation	Diagnosis	Vehicle S/W Management	Repair	0
SANTAFE	SPORT(DMA)/2013/G 2.0 T	i-GDI	stem D Steering/Motor driven	Power Steering	02
Vehicle S/W Management	ECU Upgrade				TO CALE TO CONT
ECU Upgrade	* Event Group	Event List		TS	Barrena
Mode Manual Mode	301 DMA EPS ECU UP	DATE CARE		ting af Defaite.	
System					
EPS	1	Previous	Next		
	Preparation Connect the DL side.	.C(Data Link Conn	ector) of VCI to the OBD	-II connector of V	'ehicle
ID Register	Le the state	2.00			
Option Treatment	2) Turn on VCI unit	m than Click the C	K button to continue		2
Data Treatment	3) CHECK the syste	II then, once the o	K button to continue.		
ECU Mapping Verification II					+
X A Manual	TSB Case Analysis DTC	Current Data Actuat	ion Flight Record DVDM Osc	dioscope Simulation	Internet

4. Latest ROM ID will be displayed as "56300-4Z0001.06." Click Upgrade to continue.

۲	Preparation	Diagnosis	Vehicle S/W Management	Repair	0
SANTAFE	SPORT(DMA)/2013/G 2 0 T	-GDI	seem > Steering/Motor driven F	Power Steering	ØR
ehicle S/W Management	ECU Upgrade			And the second second second	
ECU Upgrade 🛛 🚹	- Event	Event List			SB
Mode Manual Mode	 	56300-420	001.06		
System EPS	DMA EPS 56340-4200	0			
Event Group 301.DMA EPS ECU UP		Previou	s Upgrade	1	
	CAUTION During the ECU U Failure to follow the	ograde, observe t se precautions m	hé following precautions. ay result in ECU damage.		1
ID Register	1) DO NOT operate ar 2) DO NOT disturb or 3) DO NOT turn off the 4) DO NOT start the v	iy other computer pr disconnect the DLCi a VCI or DO NOT dis ehicle or turn the IG	ogram. Data Link Connector). connect VCI USB Connector. key off.		
Option Treatment	5) DO NOT operate a audio, etc.)	any of the vehicles	other systems(climate control.	lighting,	1
Data Treatment					
Inspection / Test					
ECU Mapping Verification (*
1000 A	NAMES NUMBER OF OCCUPANTING	anna ann	n entry state a	Elmidation	- 0

5. Enter the appropriate password from the below table then click **OK**.

MENU	PASSWORD
DMA EPS : 56300-4Z000	4000

6. The vehicle battery voltage is checked to make sure it is at least 12 volts to ensure reliable update results. Click **OK** if the results indicate **Voltage is OK**.

* NOTE	

If voltage is below 12 volts, click Cancel and then run the engine to ensure an adequate battery charge state for reliable update results.

7. Cycle the ignition OFF, then ON again to begin the update.



8. Update will begin and the progress of the update will appear on the bar graph.



9. Update will occur until 100% is reached on the bar graph. Turn the ignition OFF for 10 seconds, and then back ON again. Click **OK** to continue.



10. Click **OK** on the final screen, which indicates update is complete.

The ECU Upgrade is successfully finished. ROM ID : 56300-4Z0001.06

- 11. Check if any incidental Diagnostic Trouble Codes (DTC) has been created by the update and clear the DTC (s) present.
- 12. Start the engine to confirm proper operation of the vehicle.