	GROUP Chassis	MODEL 2010/11MY Forte (TD)
	NUMBER 036	DATE March 2012
TECHNICAL SERVICE BULLETIN		
SUBJECT: (EPS) ELECTRIC POWER STEERING ECM UPGRADE - DTC C1290		

This bulletin provides information related to the EPS ECM software upgrade of some ECO-equipped 2010/2011MY Forte (TD) vehicles produced before June 1, 2011 which may experience a Malfunction Indicator Lamp illuminated with the EPS (Electric Power Steering or Motor Driven Power Steering) system-related DTC C1290.

- **C1290:** Torque Sensor Main Signal Fail



Global Diagnostic System (GDS)

To correct this condition, the ECM should be reprogrammed using the GDS download as described in this bulletin.

UPGRADE EVENT NAME
174.TD EPS C1290 DTC LOGIC IMPROVEMENT


File Under: <Chassis>

- Circulate To: General Manager Service Manager Parts Manager
 Service Advisor(s) Technician(s) Body Shop Manager Fleet Repair

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ECM Upgrade Procedure:
***NOTICE**

- A fully charged battery is necessary before ECM upgrade can take place. It is recommended that the Midtronics GR8-1299 system be used in ECM mode during charging. DO NOT connect any other battery charger to the vehicle during ECM upgrade.
- All ECM upgrades must be done with the ignition key in the 'ON' position.
- Be careful not to disconnect any cables connected to the vehicle or GDS during the ECM upgrade procedure.
- DO NOT start the engine during ECM upgrade.
- DO NOT turn the ignition key 'OFF' or interrupt the power supply during ECM upgrade.
- When the ECM upgrade is completed, turn the ignition 'OFF' and wait 20 seconds before starting the engine.
- ONLY use approved ECM upgrade software designated for the correct model, year.

ROM ID Information Table:
Upgrade Event #174

MODEL	EPS ECM P/N	IMMO	ROM ID	
			PREVIOUS	NEW
TD	56310-1M000	Yes (+) 	4TDA0706	4TDAS107
	56310-1M050		4TDA0802	
	56310-1M100		4TDB0804	
	56310-1M150		4TDC0806	
	56310-1M200		4TDD0807	
	56310-1M300		4TDE0812	
	56310-1M310		4TDF0901	
	56310-1M320		4TDG0903	
	56310-1M410		4TDH0904	
	56310-1M420		4TDI0906	
	56310-1M500	4TDI0909		
	56310-1M550	No (-)	4TDJ0906	4TDP1105
	56310-1M590		4TDK0911	
	56310-1M600		4TDL1006	
	56310-1M650		4TDM1007	
	56310-1M690		4TDN1010	
	56310-1M700			
	56310-1M800			
	56310-1M830			
	56310-1M840			
56310-1M910				
56310-1M920				

To verify the vehicle is affected, be sure to check the Calibration Identification of the vehicle's ECM ROM ID and reference the Information Table as necessary.

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1. Connect the power supply cable to the GDS tool.

***NOTICE**

If attempting to perform the ECM upgrade with the power supply cable disconnected from the GDS tool, be sure to check that the GDS tool is fully charged before ECM upgrade. If the GDS tool is not fully charged, failure to perform the ECM upgrade may occur. Therefore, it is strongly recommended that the power supply be connected to the GDS tool.

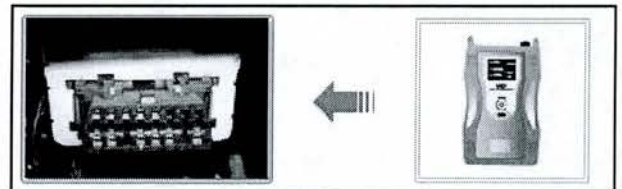
2. Connect the USB cable between the VCI and the GDS tool.

***NOTICE**

When performing the ECM upgrade using the GDS tool, wireless communication between the VCI and GDS tool is not available. Therefore, be sure to connect the USB cable between the VCI and the GDS tool.

3. Connect the Main 16-pin DLC cable (GHDM – 241000) to the VCI.

4. Connect the Main 16-pin DLC cable (GHDM – 241000) between the VCI and the OBD-II connector, located under the driver's side of the instrument panel.

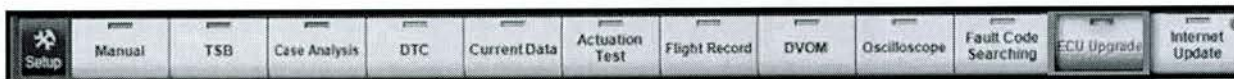


5. With the ignition key ON, turn ON the VCI and GDS tool. Access the GDS vehicle identification number (VIN) screen and configure the vehicle using the VIN Auto Detect function.

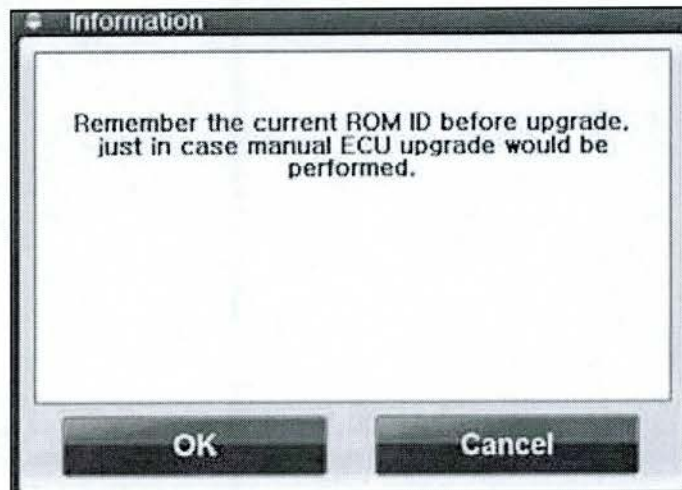


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6. Once back at the GDS Main Screen, select ECU Upgrade from the bottom right-hand corner. Next select Auto Mode, and then EPS as the system. Perform the ECM upgrade in accordance with normal GDS tool ECM upgrade procedures.



7. Be sure to **record the ROM ID before performing EPS upgrade**, just in case manual ECM upgrade needs to be performed later on.



8. When the GDS tool reports that the ECM upgrade has been successfully completed, click OK, turn OFF the ignition key, and wait at least 10 seconds before attempting to start the engine.
9. Check if any incidental Diagnostic Trouble Codes (DTCs) are in the EPS System. If DTC C1261 is detected, **you must do “ASP Calibration” with the GDS.**
- C1261: ASP (Absolute Steering Position) is not calibrated.**
- If there are other DTCs other than C1261, clear the DTCs. **You don't have to do “ASP Calibration.”**
10. Start the engine to confirm proper operation of the vehicle.

MANUAL MODE UPGRADE PROCEDURE:

***NOTICE**

Do NOT attempt to perform a Manual Mode upgrade unless Auto Mode fails. Always follow the instructions given on the GDS tool in either Auto or Manual mode. See table for Manual Mode passwords.

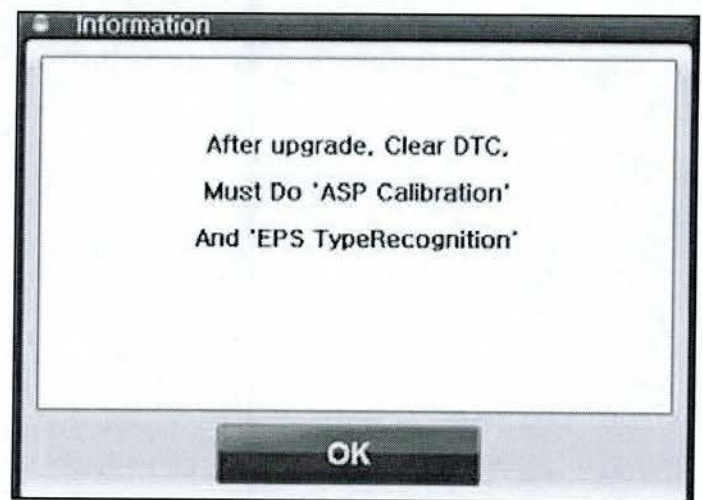
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MANUAL MODE ECM UPGRADE PASSWORDS:

174.TD EPS C1290 DTC LOGIC IMPROVEMENT

Menu	Password
TD EPS : 56310-1M000~920 [4TDA ~ 4TDI]	1920
TD EPS : 56310-1M000~920 [4TDJ ~ 4TDN]	1921

1. When the GDS tool reports that the ECM upgrade has been successfully completed, click OK, turn OFF the ignition key, and wait at least 10 seconds before attempting to start the engine.
2. After upgrade, clear any DTCs that are present, and then perform "ASP Calibration & EPS Type Recognition."



3. Start the engine to confirm proper operation of the vehicle.

ASP Calibration Procedure

1. With the 16-pin DLC cable from the GDS still connected to the OBD-II connector. Select "Vehicle S/W Management" and then "ASP Calibration," then click OK.



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- When the message box appears (text below), turn the steering wheel until message is changed.

[ASP Calibration]

This function is used for initiating ASP Calibration.

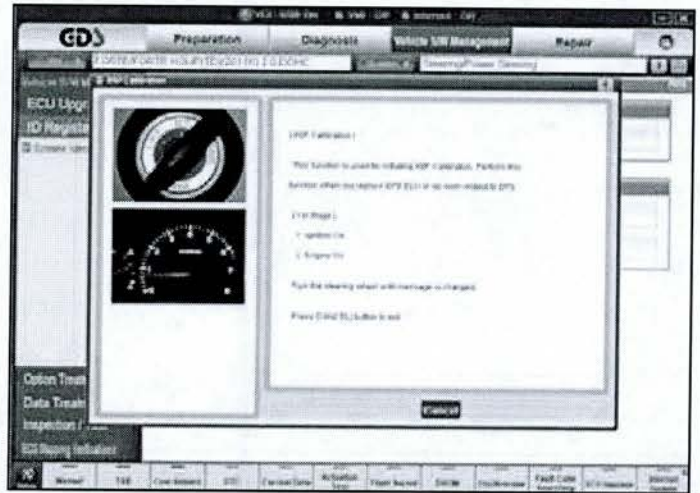
Perform this function when you replace EPS ECU or do work related to EPS.

[1st Stage]

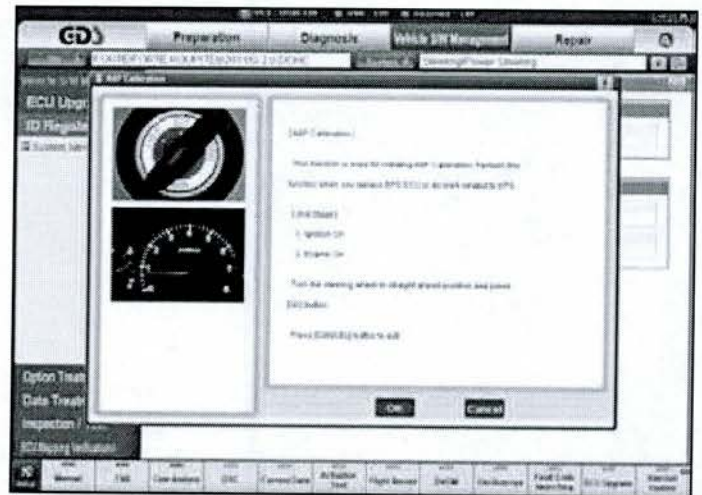
- Ignition On
- Engine On

Turn steering wheel until message is changed.

Press [CANCEL] button to exit.



- Turn the steering wheel to straight ahead position, and then click OK.



- When the calibration is completed, "initializing completion" message will be displayed on the screen.



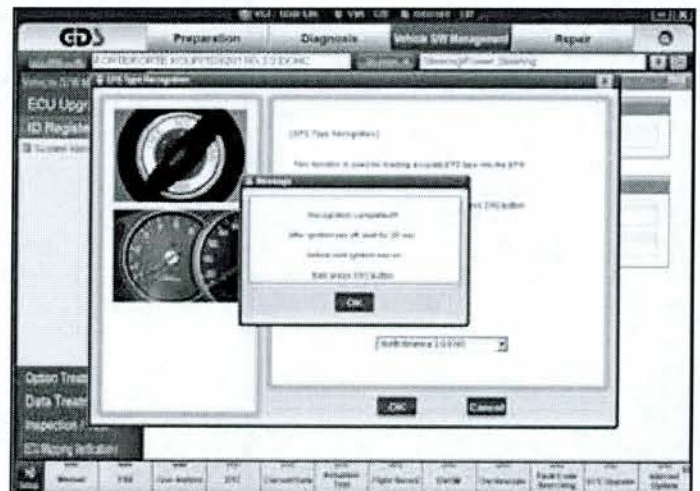
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EPS Type Recognition Procedure:

1. With the 16-pin DLC cable from the GDS still connected to the OBD-II connector.
 Select "Vehicle S/W Management," and then "EPS Type Recognition."
 Confirm vehicle type, and then click OK.



2. When the EPS Type Recognition is completed, a message box will be displayed, and then click OK.



AFFECTED VEHICLE PRODUCTION RANGE:

Model	Production Date Range
Forte (TD) (w/ECO)	Vehicles produced before June 1, 2011

WARRANTY CLAIM INFORMATION:

Claim Type	Causal P/N	Qty.	N Code	C Code	Repair Description	Labor Op Code	Time	Related Parts	Qty.
W	56500 2H200	0	N69	C40	(CHA 036) EPS ECM Upgrade	56300F06	0.3 M/H	N/A	0