HYUNDAI Technical Service Bulletin

Group	AUTOMATIC TRANSAXLE
Number	09-AT-002
Date	FEBRUARY, 2009
Model	ALL

Subject

AUTOMATIC TRANSAXLE CONTROL MODULE - RESET AND RELEARN ADAPTIVE VALUES

This bulletin supersedes TSB 08-AT-007 to include Genesis V8 and Coupe.

CAUTION: Before replacing a transaxle to improve a shift quality condition, follow this procedure to reset and relearn the adaptive learning.

DESCRIPTION:

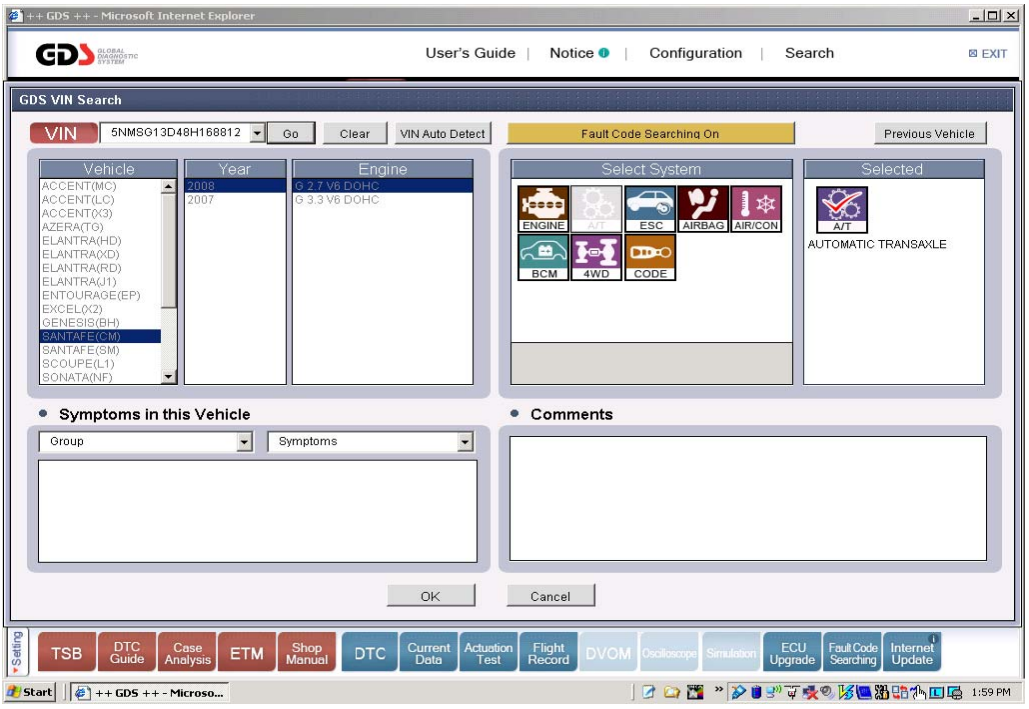
The PCM or TCM contains logic to adjust solenoid duty and line pressure as needed to compensate for normal clutch wear over the life of the transaxle. This bulletin provides the procedures necessary to reset (erase) and “relearn” the PCM/TCM adaptive values.

After the following repairs have been completed, the PCM/TCM adaptive values must be reset in order to provide optimum shift quality:

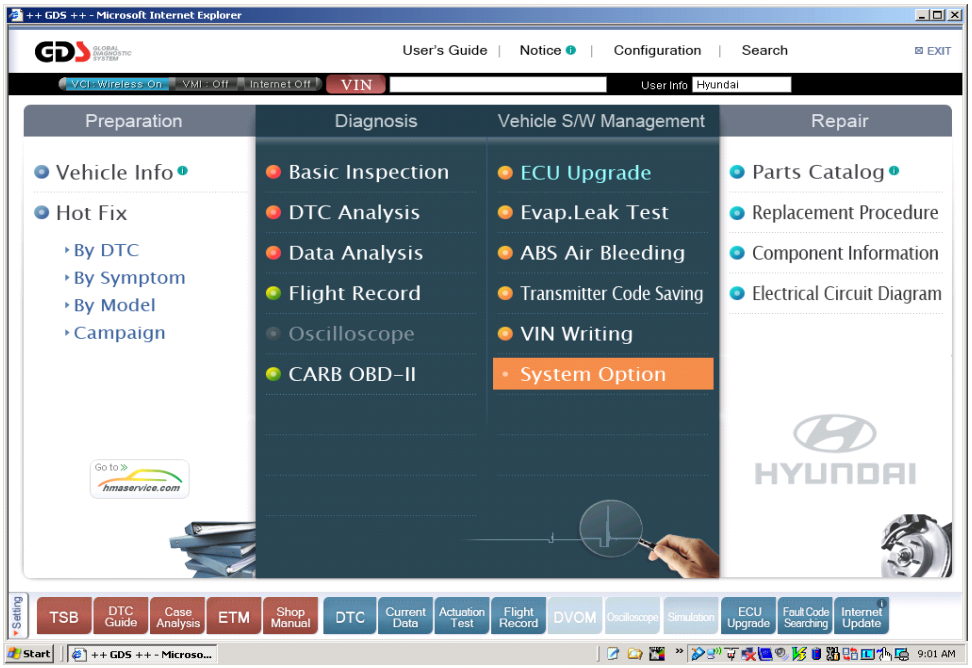
- Automatic transaxle replacement
- Reprogram or exchange a PCM/TCM from another vehicle

I. <u>RESET PCM/TCM ADAPTIVE VALUES WITH GDS</u>:

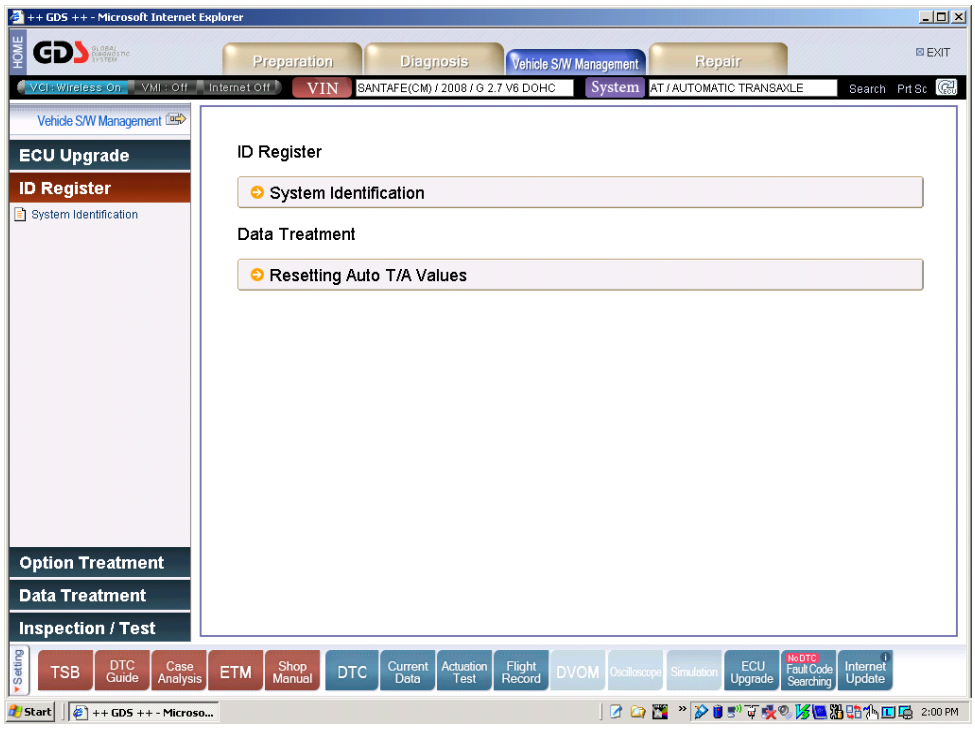
1. Attach a GDS and select VIN and **A/T**.



2. From the main screen, select “System Option”



3. Select “Resetting Auto T/A values” and follow the screen prompts.



NOTE: GDS must be used to reset the adaptive learning for the vehicles listed below.

MODEL	ENGINE	USE GDS, TURN IGNITION KEY OFF FOR 10 SECONDS	COMMENT
ACCENT	1.6L	2006 MY~	
ELANTRA ELANTRA TOURING	2.0L 2.0L	12/01/2002~ 2009~	
TIBURON	2.0L	2005 MY~	
	2.7L	2005 MY~	
TUCSON	2.7L	2005 MY~	
	2.0L	2005 MY~	
2001~06 SANTA FE	2.4L	2005 MY~	
	2.7L	2005 MY~	
	3.5L	2005 MY~	
2007~ SANTA FE	2.4L	ALL	
	3.3L	ALL	
XG300	3.0L	~	
XG350	3.5L	2005 MY~	
1999~2005 SONATA	2.4L	2005 MY~	
	2.7L	2005 MY~	
2006~ SONATA	2.4L	ALL	
	3.3L	ALL	
AZERA	3.8L	ALL	
ENTOURAGE	3.8L	ALL	
VERACRUZ	3.8L	ALL	
GENESIS SEDAN	3.8L	ALL	
	4.6L	ALL	* See NOTE
GENESIS COUPE	2.0L Turbo	ALL	Reset TCU Sub-ROM if ATM replaced
	3.8L	ALL	* See NOTE

NOTE: * Clear CAN Learnable Status only if Mechatronics (valve body) is exchanged from another vehicle (Genesis 4.6L and Genesis Coupe 3.8L with ZF transmission)

II. RELEARN ADAPTIVE VALUES:

NOTE: After the adaptive values have been reset (erased), an "adaptive learning" procedure must be completed as shown below.

4. Attach a GDS and select VIN and **A/T**.

5. Select Current Data and "Throttle Position" (TPS).

6. Drive the vehicle until the ATF temperature is within the range shown on Page 5.

7. Request an assistant to monitor the GDS. Accelerate from a stop at the specified TPS specification while the transmission shifts through all (1-2-3-4-5-6) gears and decelerate slowly to a stop. Stop for 5 seconds. Repeat 5 times or until normal gear transitions occur.

NOTE: Hold the accelerator pedal steady during the upshifts.

CAUTION: Do not exceed legal speed limits

If additional adaptation is needed, perform the following additional procedures:

8. Perform several sequential downshifts (5-4, 4-3, 3-2 and 2-1) at small to moderate throttle openings.

9. Perform several skip shifts (6-4, 5-3, 5-2, 3-1, etc.) at moderate to large throttle openings.

10. With the vehicle stopped, move the shift lever from P to N to D and back, stopping 3~5 seconds in each gear. Repeat 5 times.

NOTE: Adaptive learning does not occur below the ATF temperature ranges shown below:

MODEL	ENGINE	TPS	ATF TEMPERATURE FOR LEARNING		
			122~194°F (50~90°C)	50~122°F (10~50°C)	165~230°F (65~110°C)
ACCENT	1.6L	25~35%	ALL		~
ELANTRA SEDAN ELANTRA TOURING	2.0L 2.0L	25~35% 25~35%	~11/21/2001	11/21/2001~ 2009~	~
TIBURON	2.0L	25~35%	1997~2001 MY	2003 MY~	~
	2.7L	25~35%	1997~2001 MY	2003 MY~	~
TUCSON	2.7L	25~35%	~	2005 MY~	~
	2.0L	25~35%	~	2005 MY~	~
SANTA FE	2.4L	25~35%	2001~02 MY	2003 MY~	~
	2.7L	25~35%	~01/17/2002	01/17/2002~	~
	3.5L	25~35%	~	2003 MY~	~
XG300	3.0L	25~35%	2001 MY	~	~
XG350	3.5L	25~35%	~	2002 MY~	~
1999~2005 SONATA	2.4L	25~35%	~11/30/2001	11/30/2001~	~
	2.7L	25~35%	~11/30/2001	11/30/2001~	~
2006~ SONATA	2.4L	25~35%	~	2006 MY~	~
	3.3L	25~35%	~	2006 MY~	~
AZERA	3.8L	25~35%	~	ALL	~
ENTOURAGE	3.8L	25~35%	~	ALL	~
VERACRUZ	3.8L	25~35%	~	~	ALL
GENESIS SEDAN V6	3.8L	25~35%	Above 122°F (50°C)		
GENESIS SEDAN V8	4.6L	13~17%	Above 122°F (50°C)		
GENESIS COUPE I4	2.0L	10~13%	Above 68°F (20°C)		
GENESIS COUPE V6	3.8L	15~20%	Above 122°F (50°C)		

WARRANTY INFORMATION:

Normal warranty applies.