

 **HYUNDAI AMERICA TECHNICAL CENTER, INC.**

A Subsidiary of  
Hyundai Motor Company (Korea)

5075 Venture Drive  
Ann Arbor, MI 48108

DEFECT INVESTIGATION  
2005 APR 20 A 10:31  
RECEIVED  
8-215  
Tel: (734) 747-6600  
Fax: (734) 747-6699

April 19, 2005

Mr. Ronald Medford  
Acting Associate Administrator for Enforcement  
National Highway Traffic Safety Administration  
400 Seventh Street, S.W.  
Washington, D.C. 20590

RE: Recall Number 05V-119 Defect Information Report (additional information)  
(Hyundai Campaign 068)

Dear Mr. Medford:

Hyundai Motor Company previously submitted a Defect Information Report to NHTSA regarding a recall campaign of approximately 30,558 model year 2005 Hyundai Tucson vehicles produced beginning July 30, 2004 through February 27, 2005 (NHTSA Recall Number 05V-119) pursuant to Part 573 of Title 49 of the Code of Federal Regulations. Dealers will reprogram the Electronic Stability Program (ESP) Hydraulic Electronic Control Unit (HECU). Dealers were initially notified regarding this recall on March 24, 2005. The owner notification for this recall occurred and was completed in one mailing on April 13, 2005.

Enclosed for NHTSA's files are final copies of the Technical Service Bulletin, owner notification letter and dealer notification letters.

Sincerely,



Robert Babcock  
Manager, Corporate Affairs

Attachments: 4

**March 25, 2005**

**TO: ALL HYUNDAI DEALER PRINCIPALS/GENERAL MANAGERS:  
ALL HYUNDAI SALES MANAGERS:  
ALL HYUNDAI DEALERSHIP SERVICE MANAGERS:  
ALL HYUNDAI DEALERSHIP PARTS MANAGERS:**

**Subject: Campaign 068 – 2005 MY Tucson - Electronic Stability Program (ESP) Hydraulic Electronic Control Unit (HECU) Reprogramming Procedure**

Hyundai Motor America is conducting a Customer Notification Electronic Stability Program (ESP) Hydraulic Electronic Control Unit (HECU) Reprogramming Campaign on 2005 MY Tucson vehicles produced through February 27, 2005.

All 2005 MY Tucson vehicles are equipped with an Electronic Stability Program (ESP). The ESP System contains a yaw rate sensor, which detects if the vehicle is over-steering or under-steering. The yaw rate sensor output is used by the ESP to decide if it should apply a brake or reduce engine power to help the driver control the vehicle. The ESP system may become too sensitive and activate under conditions where ESP Control may not be needed. This campaign provides a procedure to reprogram the ESP Hydraulic Electronic Control Unit (HECU) software by using the HI-Scan Pro to update the yaw rate sensor calibration.

In order to identify only those vehicles affected by Campaign 068, it will be necessary to access Hyundai Motor America's "Warranty Vehicle Information" screen via DCS Interactive or DCS On-line before reprogramming is started. The "Warranty Vehicle Information" screen will identify affected vehicles with an open Campaign 068. **All in-stock vehicles must have Campaign 068 completed prior to retailing.**

PLEASE NOTE: On March 25, 2005, programming software will be available to dealers who use the Hi-Scan software exchange service and also available for download on Hyundai's Service Web Site. Campaign 068 is a reprogramming only campaign. Dealerships should not order any parts.

Enclosed with the Service Manager's letter are materials which were developed for your use: Dealer Letter, five (5) copies of the Technical Service Bulletin (TSB#05-01-003) containing instructions on performing the service and submitting the campaign claim, and a VIN listing of both your dealer stock and your retail customers affected by this campaign. TSB #05-01-003 will be available on Hyundai's Website on March 25, 2005.

Customer notification letters will be mailed to all affected customers in mid April 2005.

It is IMPORTANT TO SUBMIT A CAMPAIGN CLAIM FOR EACH VEHICLE SERVICED so your dealership can be compensated for your work and Hyundai can maintain accurate records of campaign completions.

LEGAL LIABILITY NOTICE: You are required to keep confidential any and all information and documents provided to you by Hyundai Motor America in the conduct of carrying out work for this service campaign. Hyundai Motor America dealers may use owner information provided for the campaign only for the purpose of conducting and performing this service campaign, and for no other purpose.

Hyundai appreciates your cooperation and support. Questions may be directed to your District Parts and Service Manager.

HYUNDAI MOTOR AMERICA

//ALL           HMABST??     3/24/05    3/25/05     3/28/05  
TO:            All Hyundai Dealership General Managers, Sales Managers,  
               Service Managers, Parts Managers, and Warranty  
               Administrators  
FROM:           Hyundai Motor America  
SUBJECT:        Campaign 068 - 2005 MY Tucson - Electronic Stability  
               Program (ESP) Hydraulic Electronic Control Unit (HECU)  
               Reprogramming Procedure

Hyundai Motor America is conducting a Customer Notification Electronic Stability Program (ESP) Hydraulic Electronic Control Unit (HECU) Reprogramming Campaign on 2005 MY Tucson vehicles produced through February 27, 2005.

All 2005 MY Tucson vehicles are equipped with an Electronic Stability Program (ESP). The ESP System contains a yaw rate sensor, which detects if the vehicle is over-steering or under-steering. The yaw rate sensor output is used by the ESP to decide if it should apply a brake or reduce engine power to help the driver control the vehicle. The ESP system may become too sensitive and activate under conditions where ESP Control may not be needed. This campaign provides a procedure to reprogram the ESP Hydraulic Electronic Control Unit (HECU) software by using the Hi-Scan Pro to update the yaw rate sensor calibration.

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Hyundai appreciates your cooperation and support. Questions may be directed to your District Parts and Service Manager.

//END



# HYUNDAI Technical Service Bulletin

Group	CAMPAIGN
Number	05-01-003
Date	MARCH, 2005
Model	2005 TUCSON

Subject  
**ESP HYDRAULIC ELECTRONIC CONTROL UNIT (HECU)  
 REPROGRAMMING PROCEDURE -  
 CAMPAIGN 068**

<b>CIRCULATE TO:</b>	<input checked="" type="checkbox"/> GENERAL MANAGER	<input checked="" type="checkbox"/> PARTS MANAGER	<input checked="" type="checkbox"/> TECHNICIAN
<input checked="" type="checkbox"/> SERVICE ADVISOR	<input checked="" type="checkbox"/> SERVICE MANAGER	<input checked="" type="checkbox"/> WARRANTY MGR	<input checked="" type="checkbox"/> SALES MANAGER

**IMPORTANT: 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.**

**IMPORTANT: WHEN A VEHICLE ARRIVES AT THE SERVICE DEPARTMENT, ACCESS HYUNDAI MOTOR AMERICA'S "WARRANTY VEHICLE INFORMATION" SCREEN VIA DCS INTERACTIVE OR DCS ON-LINE TO IDENTIFY OPEN CAMPAIGNS.**

**DESCRIPTION:**

All 2005 MY Tucson vehicles are equipped with an Electronic Stability Program (ESP). The ESP system contains a yaw rate sensor, which detects if the vehicle is oversteering or understeering. The yaw rate sensor output is used by the ESP to decide if it should apply a brake or reduce engine power to help the driver control the vehicle. The ESP system may become too sensitive and activate under conditions where ESP control may not be needed.

This bulletin provides a procedure to reprogram the ESP Hydraulic Electronic Control Unit (HECU) software by using the Hi-Scan Pro to update the yaw rate sensor calibration to correct this condition.

**VEHICLES AFFECTED:**

- Model: All 2005 TUCSON vehicles (2WD and 4WD) equipped with ESP
- Affected vehicle production date range: Produced through February 27, 2005

**ESP HECU SPECIFICATION TABLE:**

MODEL	SYSTEM	HECU P/N	HECU ID	
			PREVIOUS	NEW
2005 TUCSON	ESP (2WD)	58920-2E300	342GAJ2P19	342GAK2Q19
			342GAI2O18	
	ESP (4WD)	58920-2E350	344GAN2S19	344GAO2T19
			344GAM2S19	
			344GAL2R18	
			344GAK2Q18	
			344GAJ2P18	

**CAUTIONS BEFORE REPROGRAMMING:**

1. Conduct reprogramming with the ignition key in the “**ON**” position.
2. Be careful not to disconnect any cables connected to the vehicle or Hi-Scan Pro during reprogramming.

**WARNING: If reprogramming is interrupted, the manual update procedure must be used.**

3. Do not start the engine during reprogramming.
4. Do not turn the ignition key **OFF** during reprogramming.
5. When the reprogramming is completed, turn the ignition key **OFF** for 20 seconds before starting the engine.



# HYUNDAI Technical Service Bulletin

Group	CAMPAIGN
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## ESP HECU REPROGRAMMING PROCEDURE:

**NOTE:** Verify that the vehicle is affected by identifying the vehicle production date range (through February 27, 2005).

## AUTOMATIC UPDATE PROCEDURE:

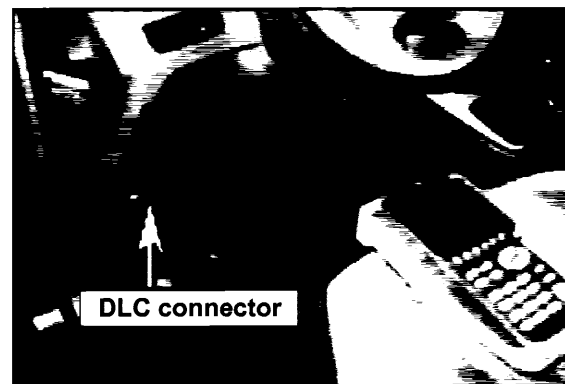
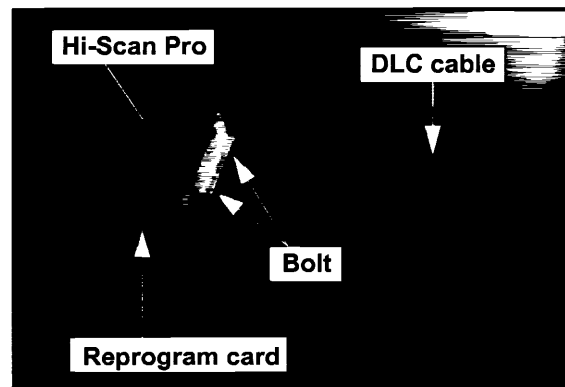
**NOTE:** Leave the ignition key in the "OFF" position before beginning the following procedure.

1. Attach the Data Link Connector (DLC) cable to the Hi-Scan Pro main body and securely tighten the two bolts.
2. Remove the system software card from the Hi-Scan Pro and insert the reprogramming software card into the Hi-Scan Pro top slot.

**NOTE:** The new software is available for downloading from the Hi-Scan update link at [HMAService.com](http://HMAService.com).

3. Plug the DLC cable from the Hi-Scan Pro into the 16 pin data link connector.

4. Turn the ignition switch to the "ON" position (**do not start the engine**).
5. Turn the Hi-Scan Pro **ON** and press **ENTER**.



6. Select option “**60. TUCSON ESP LOGIC IMPROVEMENT**” and press **ENTER**.

CAMPAIGN SELECTION
<b>60. TUCSON ESP LOGIC IMPROVEMENT</b>
<b>SOFTWARE DOWNLOAD</b>

7. Select option “**01. TUCSON ESP LOGIC IMPROVEMENT [AUTO]**” and press **ENTER**.

RE-PROGRAMMING
<b>01. TUCSON ESP LOGIC IMPROVEMENT [AUTO]</b>
<b>02. TUCSON ESP LOGIC IMPROVEMENT [ERROR]</b>

8. Enter “**1229**” as the password for the automatic update mode and press **ENTER**.

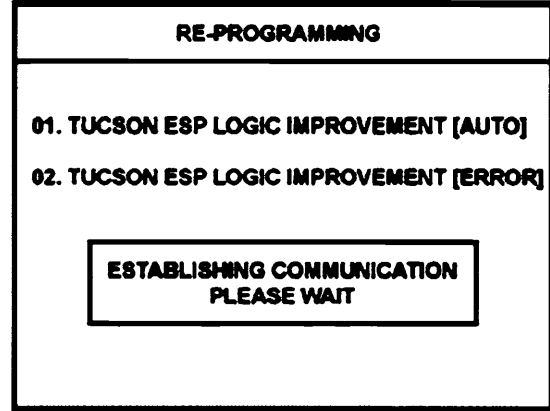
RE-PROGRAMMING
<b>01. TUCSON ESP LOGIC IMPROVEMENT [AUTO]</b>
<b>02. TUCSON ESP LOGIC IMPROVEMENT [ERROR]</b>
<b>ENTER YOUR PASSWORD: 1229</b>



# HYUNDAI Technical Service Bulletin

Group	CAMPAIGN
Number	05-01-003

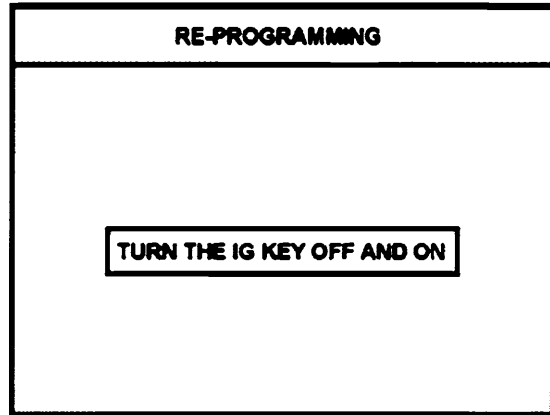
9. The Hi-Scan Pro will establish communication, check the HECU ID, and reprogram the HECU automatically. Wait until the reprogramming is complete.



10. Turn the IG (ignition) key OFF and ON.

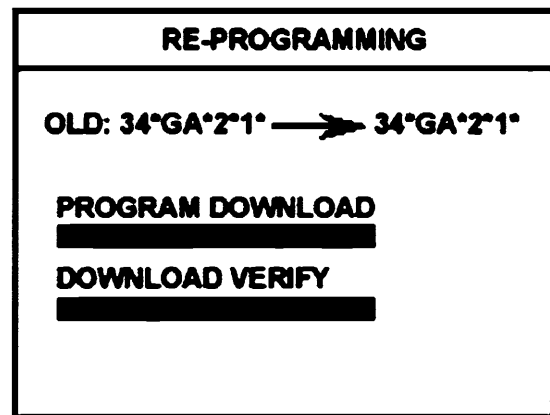
**NOTES:**

- The Hi-Scan Pro detects the current HECU ID, assigns the new HECU ID and displays them on the Hi-Scan Pro screen.
- Check the HECU IDs displayed on the Hi-Scan Pro screen to verify that the correct HECU software is being downloaded.
- Refer to the “ESP HECU SPECIFICATION TABLE” on page 2 of this bulletin to check the HECU ID.
- If the Hi-Scan Pro does not download the program, use the Manual Update Procedure following this section (page 7).



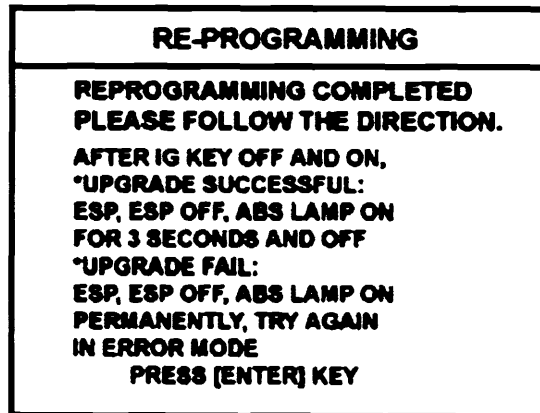
**WARNINGS:**

- Do not interrupt the reprogramming at any time.
- The HECU will be rendered inoperative if the program does not download completely.

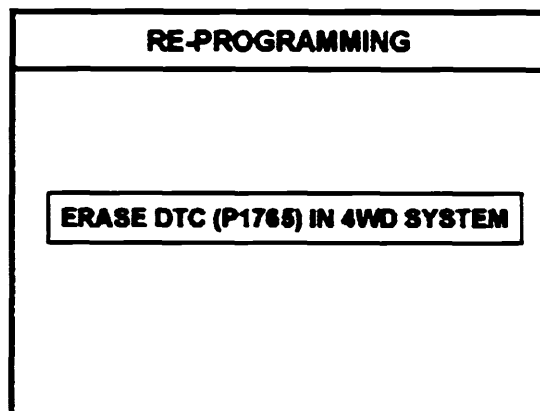




11. When the “**REPROGRAMMING COMPLETED**” message is displayed, turn the Hi-Scan Pro off and the software loading process is complete.



12. Turn the ignition key to the “**OFF**” position for 20 seconds and then start the engine to check for proper operation.
13. For 4WD vehicles only, the diagnostic code information “**ERASE DTC (P1765) in 4WD SYSTEM**” is displayed when the reprogramming has been completed. This does not indicate a problem, and the DTC P1765 diagnostic code may be cleared by following the procedure on page 10 of this TSB.





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## MANUAL UPDATE PROCEDURE:

### NOTES:

- In the event that “01. TUCSON ESP LOGIC IMPROVEMENT [AUTO]” fails to download to the new ESP HECU program, option “02. TUCSON ESP LOGIC IMPROVEMENT [ERROR]” must be used.
- Confirm all connections are established as shown in the previous “AUTOMATIC UPDATE PROCEDURE” section before continuing.

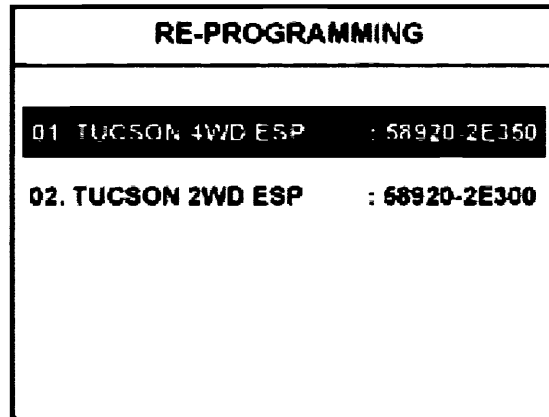
1. Turn the ignition switch to the “ON” position.
2. Turn the Hi-Scan Pro ON and press **ENTER**.
3. Select option “60. TUCSON ESP LOGIC IMPROVEMENT” and press **ENTER**.
4. Select option “02. TUCSON ESP LOGIC IMPROVEMENT [ERROR]” and press **ENTER**.

CAMPAIGN SELECTION
<b>60. TUCSON ESP LOGIC IMPROVEMENT</b>
<b>SOFTWARE DOWNLOAD</b>

RE-PROGRAMMING
01. TUCSON ESP LOGIC IMPROVEMENT [AUTO]
<b>02. TUCSON ESP LOGIC IMPROVEMENT [ERROR]</b>

5. Choose the vehicle type that is correct for the vehicle you are reprogramming and press **ENTER**.

**NOTE:** If necessary, refer to the “ESP HECU SPECIFICATION TABLE” shown on page 2 of this bulletin.

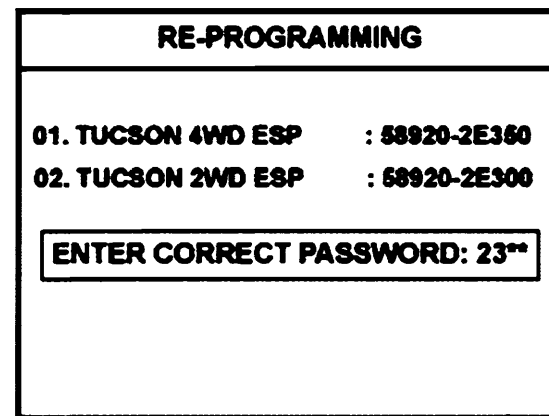


6. Enter the correct password by referring to the chart below and press **ENTER**.

**WARNINGS:**

- Be sure to input the correct password.
- If an incorrect password is selected, the ESP HECU software will not be downloaded.

MENU	PASSWORD
01. TUCSON 4WD ESP: 58920-2E350	2350
02. TUCSON 2WD ESP: 58920-2E300	2300

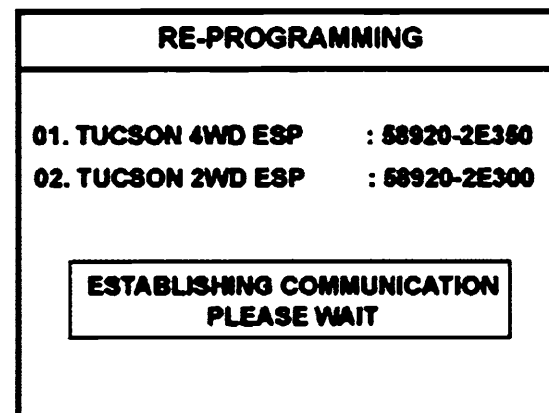


7. Turn the IG (ignition) key OFF and ON.

8. Wait until the reprogramming is completed.

**WARNINGS:**

- Do not interrupt the reprogramming at any time.
- The ESP HECU will be rendered inoperative if the program does not download completely.





# HYUNDAI Technical Service Bulletin

Group	CAMPAIGN
Number	05-01-003

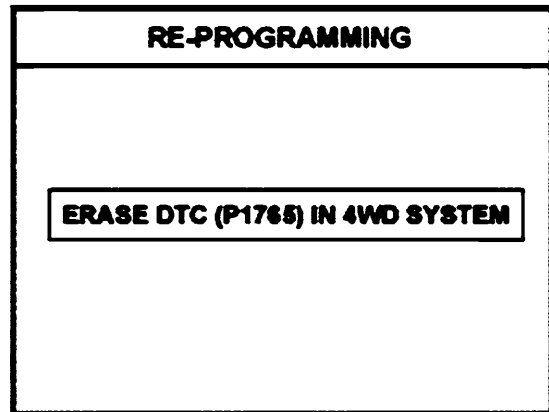
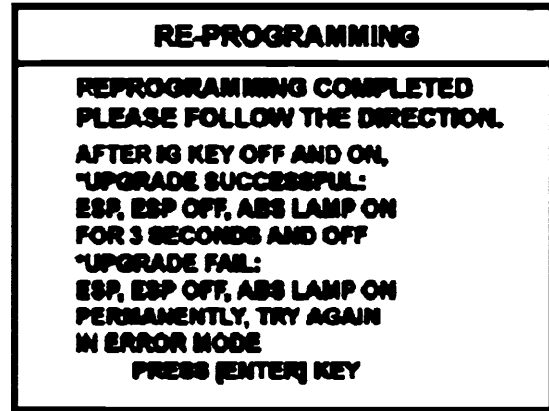
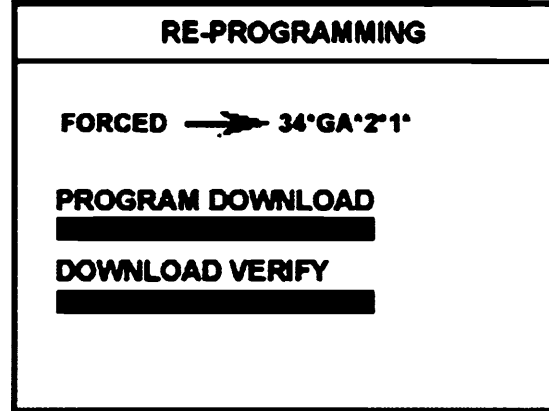
**NOTES:**

- The Hi-Scan Pro displays the new ESP HECU ID on the Hi-Scan Pro screen.
- Check the ESP HECU ID displayed on the Hi-Scan Pro screen to verify that the correct ESP HECU software is being downloaded, as shown in the “ESP HECU SPECIFICATION TABLE” on page 2 of this TSB.

9. When the “**REPROGRAMMING COMPLETED**” message is displayed, turn the Hi-Scan Pro off and the software loading process is complete.

10. Turn the ignition key to the “**OFF**” position for 20 seconds and then start the engine to check for proper operation.

11. For 4WD vehicles only, the diagnostic code information “**ERASE DTC (P1765) IN 4WD SYSTEM**” is displayed when the reprogramming has been completed. This does not indicate a problem, and the DTC P1765 diagnostic code may be cleared by following the procedure on page 10 of this TSB.



**DTC (P1765) CLEARING PROCEDURE:**

1. To clear DTC P1765 using the Hi-Scan Pro, select option “01. HYUNDAI VEHICLE DIAGNOSIS”.

**HYUNDAI VEHICLE DIAGNOSIS”.**

0. INITIAL SCREEN	
<b>01. HYUNDAI VEHICLE DIAGNOSIS</b>	
02. TOOL BOX(DUOM/SCOPE)	
03. CARB OBD-II DIAGNOSIS	
04. FLIGHT RECORD REVIEW	
05. SYSTEM SETUP	
06. DATA DOWN LOAD	

2. Select option “09. TUCSON ALL” and press ENTER.

1. HYUNDAI VEHICLE DIAGNOSIS ▲	
02. ELANTRA	ALL
03. SONATA	ALL
04. SANTAFE	ALL
05. TIBURON	ALL
06. XG 300/350	ALL
07. EXCEL	ALL
08. SCOUPE	ALL
<b>09. TUCSON</b>	<b>ALL</b>

3. Select option “06. 4WD CONTROL” and press ENTER.

1. HYUNDAI VEHICLE DIAGNOSIS ▼	
MODEL : TUCSON	ALL
01. ENGINE L4	
02. ENGINE V6	
03. AUTOMATIC TRANSAXLE	
04. ABS/TCS/ESP	
05. SRS-AIRBAG	
<b>06. 4WD CONTROL</b>	
07. FULL AUTO AIR/CON.	
08. ETACS	



# HYUNDAI Technical Service Bulletin

Group	CAMPAIGN
Number	05-01-003

4. Select option "01. DIAGNOSTIC TROUBLE CODES" and press ENTER.

<b>1. HYUNDAI VEHICLE DIAGNOSIS</b>	
MODEL : TUCSON	ALL
SYSTEM : 4WD CONTROL	
<div style="border: 1px solid black; padding: 2px; display: inline-block;">01. DIAGNOSTIC TROUBLE CODES</div>	
02. IDENTIFICATION CHECK	

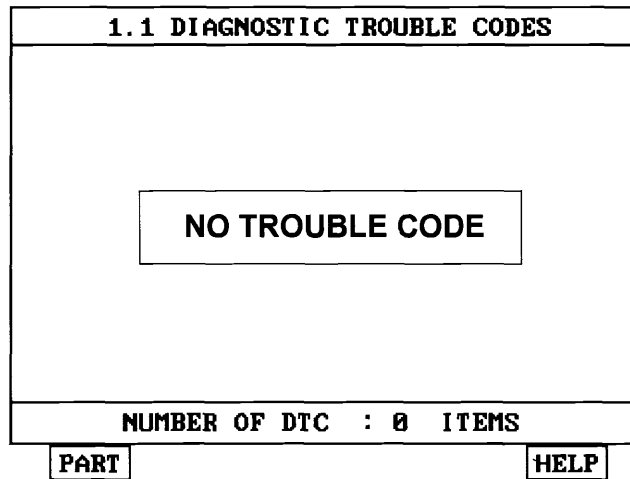
5. "P1765 TCS-ITM CAN COMM. LINE" will be detected. Press F2 to clear this code.

<b>1.1 DIAGNOSTIC TROUBLE CODES</b>	
<div style="border: 1px solid black; padding: 5px; margin: 10px auto; width: 80%;">P1765 TCS-ITM CAN COMM.LINE</div>	
NUMBER OF DTC : 0 ITEMS	
<b>PART</b>	<b>HELP</b>

6. Press YES to clear "DTC P1765".

<b>1.1 DIAGNOSTIC TROUBLE CODES</b>	
<div style="border: 1px solid black; padding: 10px; margin: 10px auto; width: 80%;"> <p style="text-align: center;">ARE YOU SURE ? [Y/N]</p> <p style="text-align: center;">( CONDITION : KEY ON, ENGINE OFF )</p> </div>	
NUMBER OF DTC : 0 ITEMS	
<b>PART</b>	<b>ERAS</b>
<b>HELP</b>	

7. **“NO TROUBLE CODE”** will be displayed when the DTC code clearing procedure has been completed.



8. Turn the ignition key to the **“OFF”** position for 20 seconds and then start the engine to check for proper operation.

**EXPLANATION OF ERROR MESSAGE:**

1. **“INVALID PASSWORD”**: Please enter the correct password again.
2. **“REPROGRAMMING ERROR, PLEASE WAIT FOR RETRY”**: An error occurred during reprogramming, the Hi-Scan Pro will retry the reprogramming automatically.
3. **“ALREADY REPROGRAMMED”** or **“INCORRECT TARGET ID”**: This reprogramming already has been performed on this vehicle or the HECU is not subject to this program.
4. **“REPROGRAM ERROR, PLEASE CHECK THE SYSTEM”**: In this case, the Manual Update Procedure must be used by selecting menu option **“02. TUCSON ESP LOGIC IMPROVEMENT [ERROR]”**.

**CAMPAIGN CLAIM INFORMATION:**

OP CODE	OPERATION	OP TIME
51B003R0	ESP HECU Reprogramming	0.3 M/H

**Submit claim using Campaign Claim Screen.**