TPMS EXCITER

OPERATION MANUAL

CAUTION : Any changes or modifications in construction of this device which is not expressly approved by the party Responsible for compliance could void the user's authority to operate the equipment.

NOTE : This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC Rules. The limits are designed to provide reasonable protection against harmful interference when the equipment is operated in commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

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SAFETY

Safety Precautions

This equipment described in this manual is intended for use only by qualified personnel. Safe and effective use of this equipment is dependent upon the operator following normally accepted safety practices and procedures in conjunction with the special requirements detailed in this manual. Specific warning and cautionary statements will be found, where applicable, throughout this manual.
Where necessary, the WARNING statements and ICON will be described in this guide.

WARNING identifies conditions or actions which may damage TPMS EXCIER or the vehicle.

IMPORTANT WARNING MESSAGES FOR SAFETY ARE AS FOLLOWS:

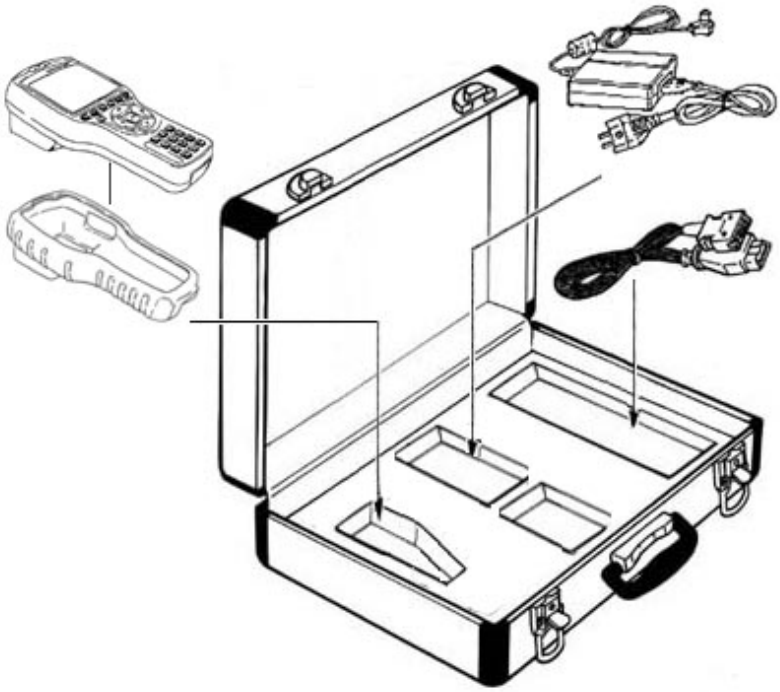
DO NOT DROP TPMS EXCITER MAIN BODY. AND TPMS EXCITER MUST ALWAYS BE COVERED BY THE SHROUD

DO NOT PLACE TPMS EXCITER UPON DISTRIBUTOR OF VEHICLE.
STRONG ELECTRO-MAGNETIC INTERFERENCE CAN DAMAGE TPMS EXCITER.

A STRONG SURGE OR ELECTRONIC SHOCK IN THE POWER SUPPLY LINE CAN DAMAGE TPMS EXCITER POWER SUPPLY. DO NOT USE TPMS EXCITER UNDER THESE HARSH ENVIRONMENT.

UNPACKING

The TPMS EXCITER kit comprises the following standard along with the option kit where ordered. The kit contents should be checked upon receipt and damage or shortages reported to the supplier immediately.



[Figure 0.1 : TPMS EXCITER KIT]

1. STANDARD KIT

	PART NO.	PART NAME
1	09900-33000	TPMS EXCITER MAIN BODY
2	09900-33030	DLC CABLE 16
3	09900-33080	CARRYING CASE
4	09900-33040	USB CABLE
5	09900-33060	OPERATION MANUAL
6	09900-33010	RUBBER SHROUD
7	09900-33070	S/W DOWNLOAD CD
8	09900-33050	AD/DC ADAPTOR
9	09900-33020	RECHAGERABLE BATTERY

ICON

OPERATION LEVEL ICON

: LEVEL 1 OPERATION(INIT LEVEL)

: LEVEL 1 OPERATION(MENU LEVEL)

: LEVEL 1 OPERATION(MODE LEVEL)

MESSAGE RELATED ICON

: PROCESS / RESULT MESSAGE

: ERROR MESSAGE

: WARNING MESSAGE

APPLICATION HELP ICON

: SCREEN EXPLANATION

: OPERATION GUIDE

: HELP / TIPS

: NOTE

I. GENERAL INFORMATION

1. GENERAL FEATURES.....I-2

2. SPECIFICATION.....1-3

3. PARTS DESCRIPTION.....I-4

1. General Features

TPMS EXCITER offers the following functionality:

On board diagnostic communication
Special vehicle test emulation

TMPS EXCITER feature include:

Diagnostic TPMS communication with HYUNDAI vehicle

Diagnostic TPMS communication with KIA vehicles

High resolution LCD display
Soft touch key

Shock protecting rubber shroud

PC communication facility
PC software download with USB

2. SPECIFICATION

CASING	Dark gray color High strength ABS material
LCD SPEC.	320 by 240 resolution LED Backlight type Standard character output :40 columns 12 Lines
KEYPAD	Power ON /OFF Key, Soft Function 6 Keys, Arrow 4 Keys, Fixed Functional 4 Keys NUBER 0~9 KEY(10), Enter,ESC,YES/NO Key. Type : Soft Touch Keypad
MEMORY CAPACITY	Internal Memory : 16 Mbytes Built-in memory
OPERATION VOLTAGE	7 – 36 VDC INPUT
OPERATING TEMPERATURE	0°C -50°C
DLC COMMUNI-CATION LINE	TPMS K-Line CAN SAE-J1850
DIMENSION	Width : 125mm Length : 223mm Depth : 68/43mm (neck part)
BATTERY	SMART LI-ION BATTERY, 7 HOUR LIFE
FREQUENCY	125KHZ, 315MHZ(AM/FM)
POWER CONSUMPTION	3.6 Watts

3. TPMS EXCITER Parts Description

(1) TPMS EXCITER MAIN BODY

(Part No: 09900-33000)

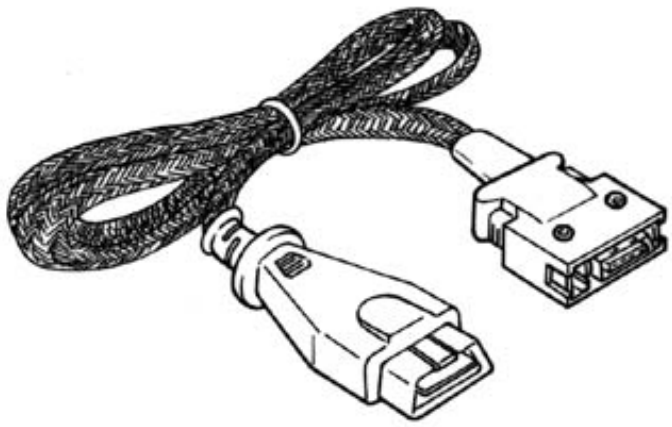
The TPMS EXCITER main body is illustrated in figure I.1.

[Figure I.1: TPMS EXCITER MAIN BODY]

(2) DLC CABLE 16

(Part no: 09900-33030)

The cable is illustrated in figure I.2 and is used to connect the main body to the diagnosis terminal of vehicles with 16 pin connector vehicles.

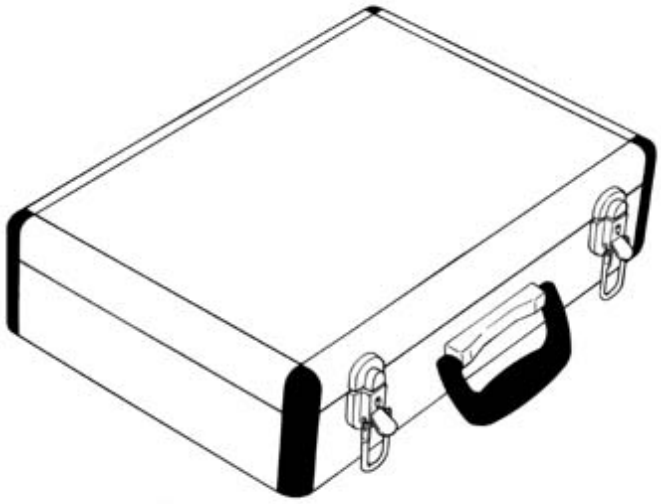


[Figure I.2: DLC CABLE 16]

(3) CARRYING CASE

(Part no: 09900-33080)

The carrying case illustrated in figure I.3 provides for easy transportation of TPMS EXCITER and protection for the unit when not in use.

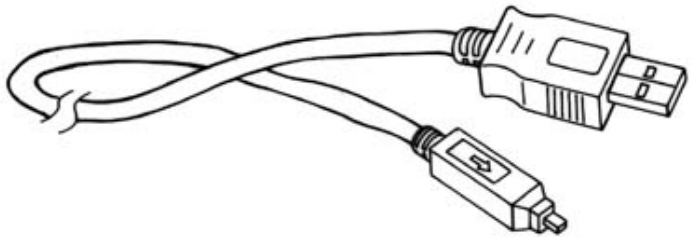


[Figure I.3: CARRYING CASE]

(4) USB CABLE

(Part no: 09900-33040)

The cable is illustrated in figure 1.4 and interfaces between the TPMS EXCITER main body and PC when S/W download.

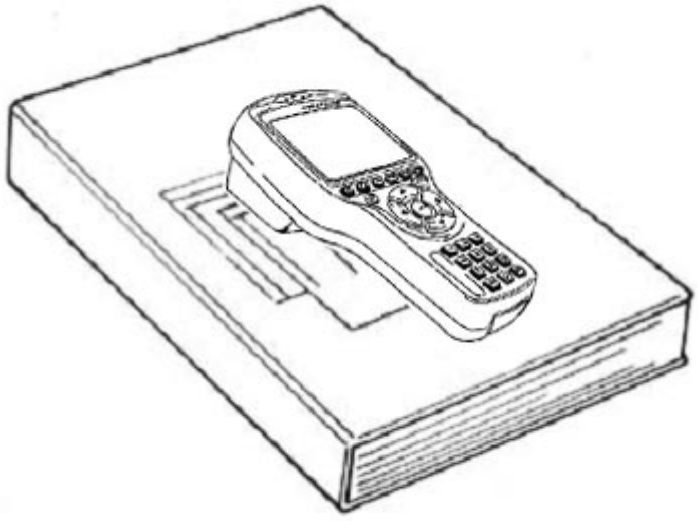


[Figure I.4: USB CABLE]

(5) OPERATION MANUAL

(Part no: 09900-33060)

The guide, illustrated in figure 1.6 provides TPMS EXCITER user Instruction.

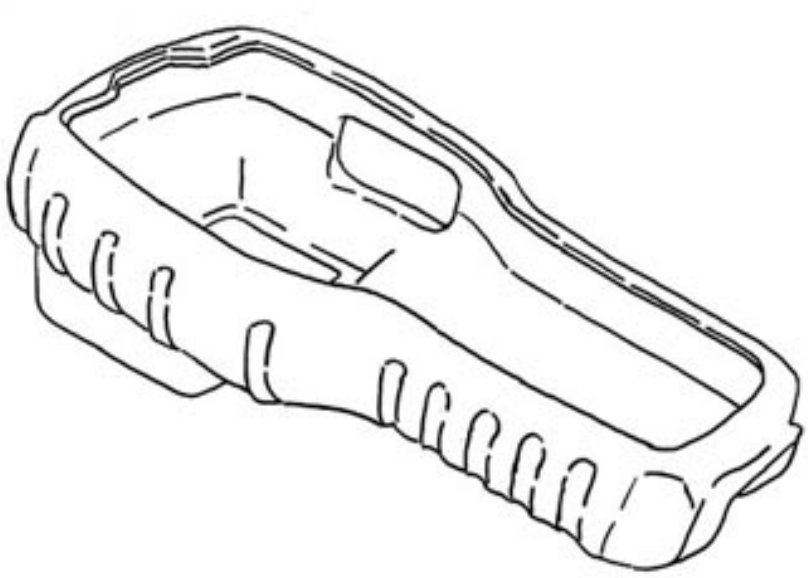


[Figure I.5: OPERATION MANUAL]

(6) RUBBER SHROUD

(Part no: 09900-33010)

The rubber shroud is used to protect the main body from damage when in use.



[Figure I.6: RUBBER SHROUD]

(7) S/W DOWNLOAD CD

(Part no: 09900-33070)

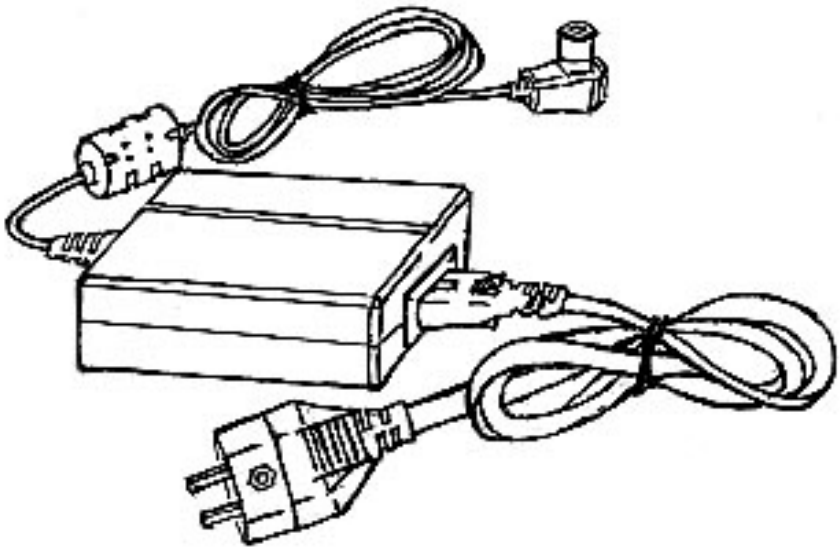
The S/W DOWNLOAD CD is used to install the S/W DOWNLOAD program.

[Figure I.7 : S/W DOWNLOAD CD]

(8) AC/DC ADAPTOR(12V 3A)

(Part no : 09900-33050)

The AC/DC ADAPTOR provides power to the TPMS EXCITER when updating the software with the S/W DOWNLOAD ADAPTOR.



II. TPMS DIAGNOSIS

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3.DIAGNOSTIC TROUBLE CODES……..……II-5

4.CURRENT DATA……..……II-7

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9.DUAL DISPLAY……..……..……..II-25

1. CONNECTION METHOD

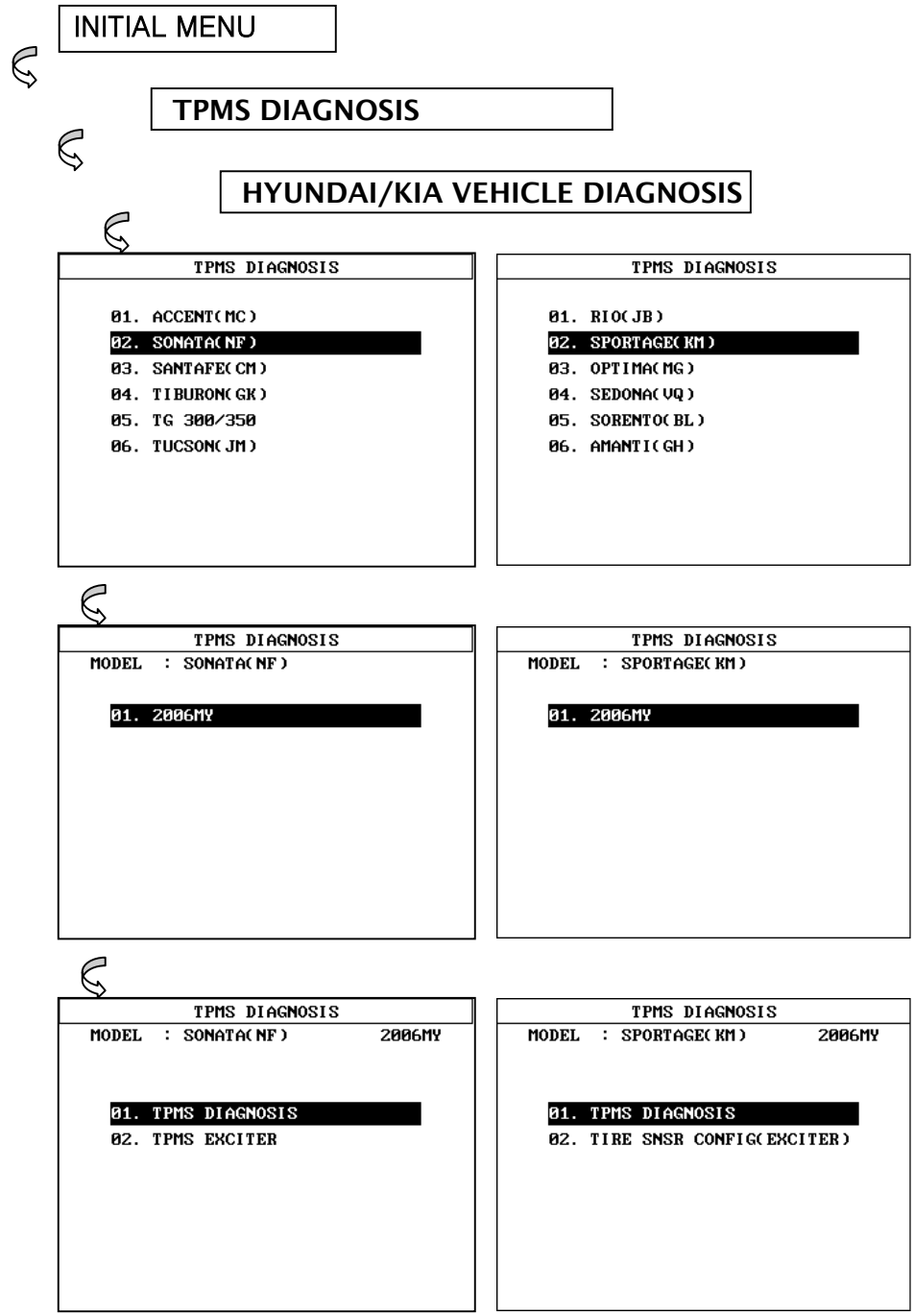
For vehicles with DLC 16 pin Data Link Connector, power is supplied from the DLC terminal through the DLC CABLE without the need for an additional power supply.

For these vehicles connection of the DLC CABLE 16 to the TPMS EXCITER and the vehicle data link terminals is all that is required.

Once the power supply has been connected, the DLC CABLE 16 should be connected to TPMS EXCITER data link terminal and the DLC CABLE ADAPTER connected to the vehicle data link terminal and the DLC CABLE 16.

2. VEHICLES AND SYSTEM SELECTION

2-1. OPERATION FLOW



[FLOW II.1: VEHICLE AND SYSTEM SELECTION SUB-MENU IN/OUT]

2-2. BASIC APPLICATION

Having connected and turned on TPMS EXCITER, the vehicle and systems 1 and 2 selections must be made from the [1.0 VEHICLE DIAGNOSIS] screen.

The support functions differ from vehicle to vehicle and therefore the correct selection must be made. Selection can be made by scrolling up or down the screen and pressing ENTER.

Selection is made in the order of VEHICLE, SYSTEM 1, and SYSTEM 2.

3. DIAGNOSTIC TROUBLE CODES

3-1. OPERATION FLOW

01. INITIAL SCREEN

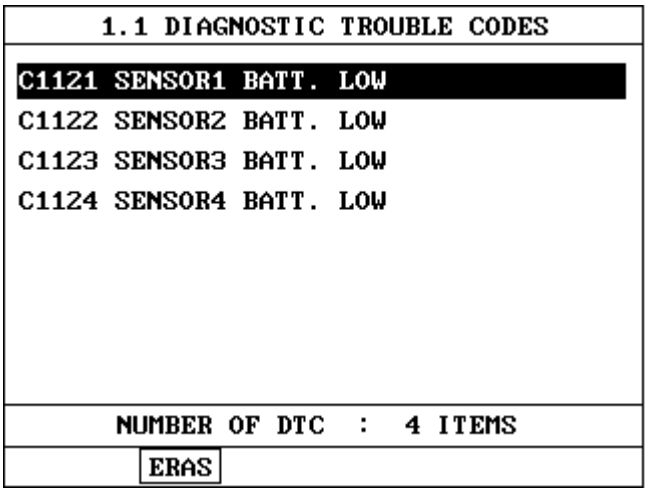
↓

VEHICLE AND SYSTEM SELECTION

↓ Refer to “Selecting Vehicle Mode”

0.X DIAGNOSTIC TROUBLE CODES

↓



ERAS ↓ 1.2.2 ERASE FAULT CODE

[FLOW II.2: DIAGNOSTIC TROUBLE CODES IN/OUT FLOW]

3-2. MODE APPLICATION

At this level, diagnostic trouble codes (DTC) are displayed for the selected ECM

Whenever the screen is opened or refreshed, the cursor moves to the beginning of the display and an audible warning will be given along with the number and description of the component from which the code has been generated.

By using the UP / DOWN key, the display may be scrolled.

EARS	**This soft function key will clear the DTC currently held in the memory of the selected ECM. If this option is selected, a message requesting confirmation of the ERAS request will be displayed. The ENTER or ESC key should be used to confirm or cancel the request to clear the current DTC.**

4. CURRENT DATA

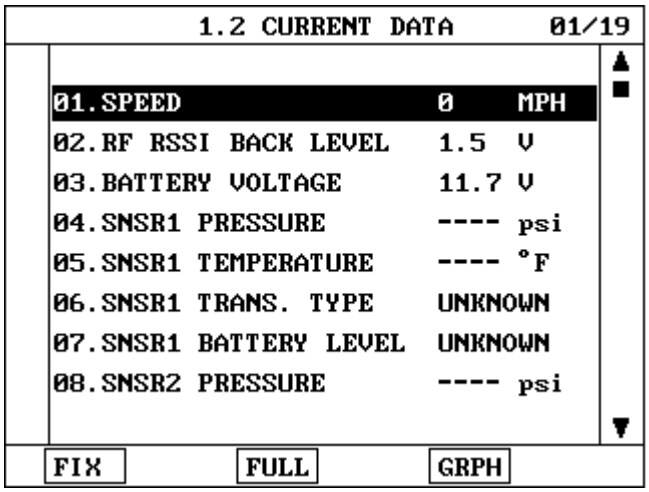
4-1. OPERATION FLOW

01. INTIAL SCREEN

VEHICLE AND SYSTEM SELECTION

Refer to “Selecting Vehicle Mode”

0.2 CURRENT DATA



FIX	1.2.1 FIX ITEM
FULL	1.2.2 DISPLAY ALL ITEMS
GRPH	1.2.3 GRAPHICAL DISPLAY

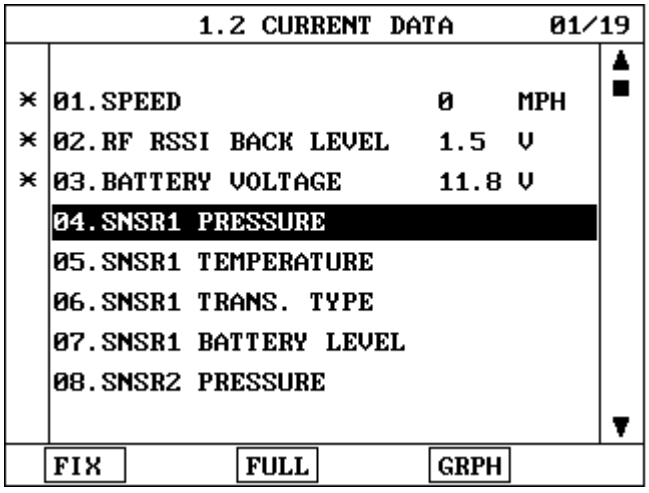
[FLOW II.3: CURRENT DATA MODE IN/OUT FLOW]

4-2. MODE APPLICATION

The sensor values and the ON/OFF state of the system switches of the selected ECM are displayed.

Scrolling up and down the data is possible by means of the UP / DOWN keys and more detailed data is available by Using the soft function keys as follows:

FIX — Executing the [FIX ITEM] function that moves the item in inverted text to the top of the display. This item is held and does not move when the cursor keys are used to page through the display and therefore allows specific items to be compared directly to one another.

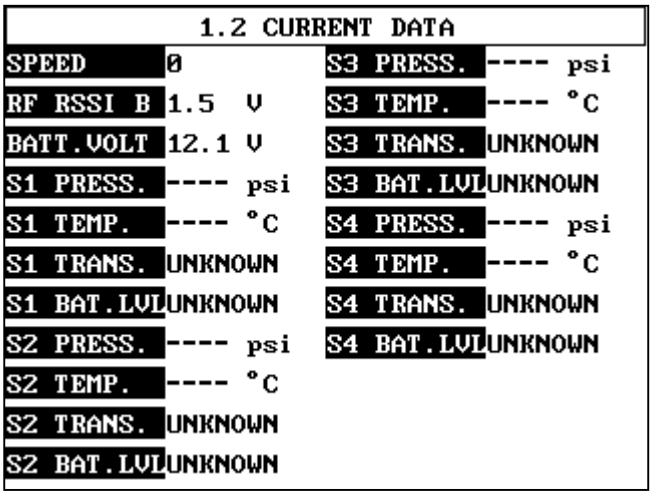


[Figure II.1: FIX ITEM]

A fixed item may be released by depressing the FIX key again.

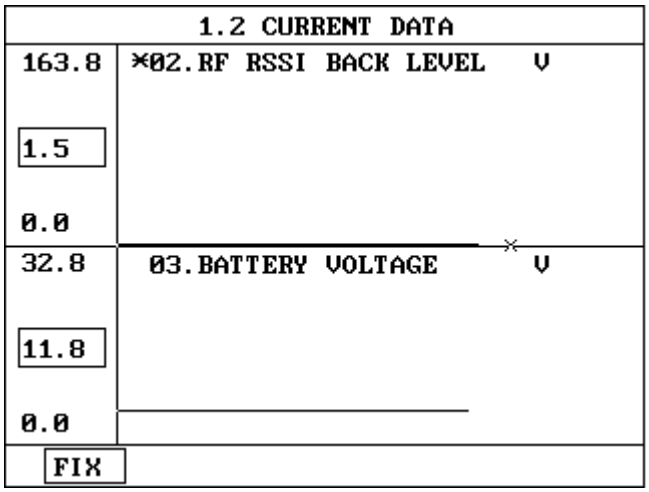
In the example, illustrated by [figure II.1], is fixed as denoted by the asterisk to the left of the item number.

FULL Use of this key will cause maximum 22 data value to be displayed on the screen as illustrated in [figure II.2] The component description displayed will be abbreviated when this mode is used. The date may be scrolled by use of the UP / DOWN key.



[Figure II.2: DISPLAY ALL ITEMS]

GRPH Where more 2 'active' data items have been selected using the FIX key, pressing the GRPH key will cause the data for those items to be displayed in the form of a graph as illustrated in [figure II.3].



[Figure II.3: CURRENT DATA (GRPH)]

FIX Holding one item of two. When the UP / DOWN keys are used to scroll up and down the display, the item selected by FIX key does not move.

5. WARNING STATE

5-1. OPERATION FLOW

0.1 INITIAL SCREEN

↓

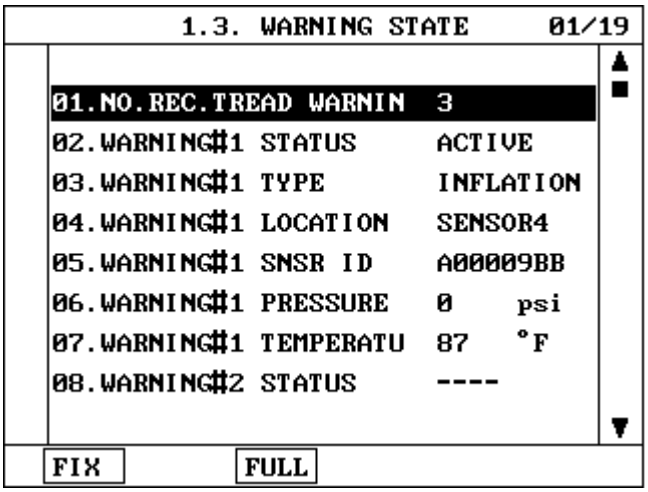
VEHICLE AND SYSTEM SELECTION

Refer to “Selecting Vehicle Mode”

↓

0X. WARNING STATE

↓



FIX → 1.2.1 FIX ITEM

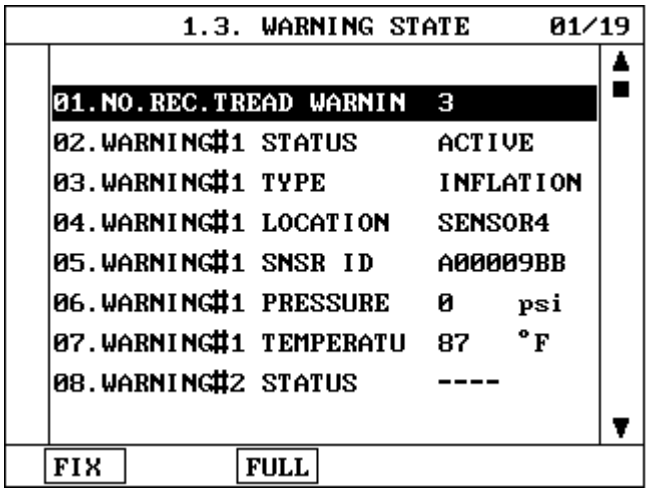
FULL → 1.2.2 DISPLAY ALL ITEMS

[FLOW II.4 : WARNING STATE MODE IN/OUT FLOW]

5-2. MODE APPLICATION

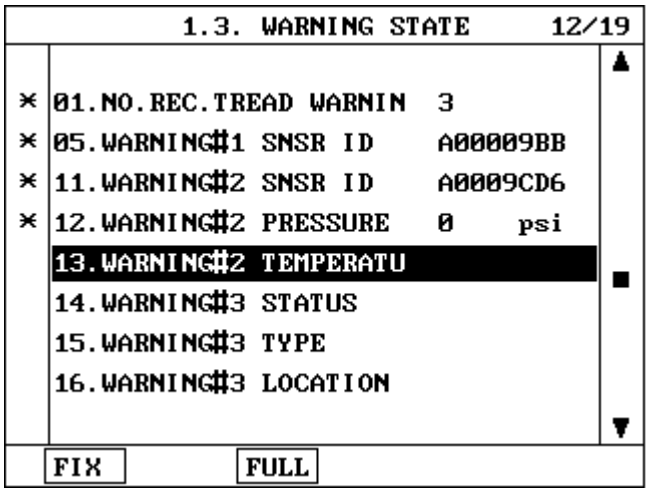
The WARNING STATE displays the data values stored in the ECM at the point when the first DTC is detected.

A typical screen display is illustrated at [figure II.4].



[Figure II.4:WARNING STATE DATA]

FIX Executing the [FIX ITEM] function that moves the item in inverted text to the top of the display. This item is held and does not move when the cursor keys are used to page through the display and therefore allows specific items to be compared directly to one another.

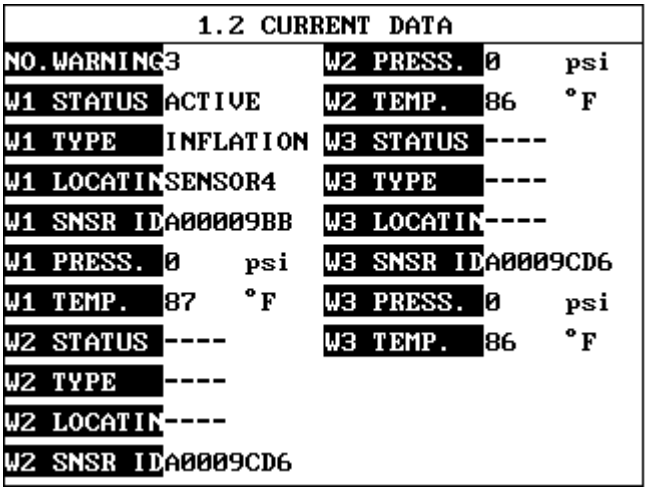


[Figure II.5: FIX ITEM]

A fixed item may be released by depressing the FIX key again.

In the example, illustrated by [figure II.5], is fixed as denoted by the asterisk to the left of the item number.

FULL Use of this key will cause maximum 22 data value to be displayed on the screen as illustrated in [figure II.6]. The component description displayed will be abbreviated when this mode is used. The date may be scrolled by use of the UP / DOWN key.



1.2 CURRENT DATA			
NO.WARNING	3	W2 PRESS.	0 psi
W1 STATUS	ACTIVE	W2 TEMP.	86 °F
W1 TYPE	INFLATION	W3 STATUS	----
W1 LOCATIN	SENSOR4	W3 TYPE	----
W1 SNSR ID	A00009BB	W3 LOCATIN	----
W1 PRESS.	0 psi	W3 SNSR ID	A0009CD6
W1 TEMP.	87 °F	W3 PRESS.	0 psi
W2 STATUS	----	W3 TEMP.	86 °F
W2 TYPE	----		
W2 LOCATIN	----		
W2 SNSR ID	A0009CD6		

[Figure II.6: DISPLAY ALL ITEMS]

6. ACTUATION TEST

6-1 OPERATION FLOW

0.1 INITIAL SCREEN

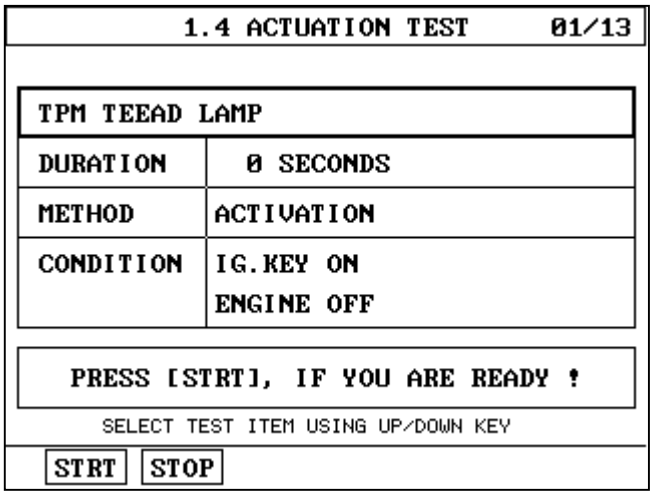
↓

VEHICLE AND SYSTEM SELECTION

↓ Refer to “Selecting Vehicle Mode”

0X. ACTUATION TEST

↓



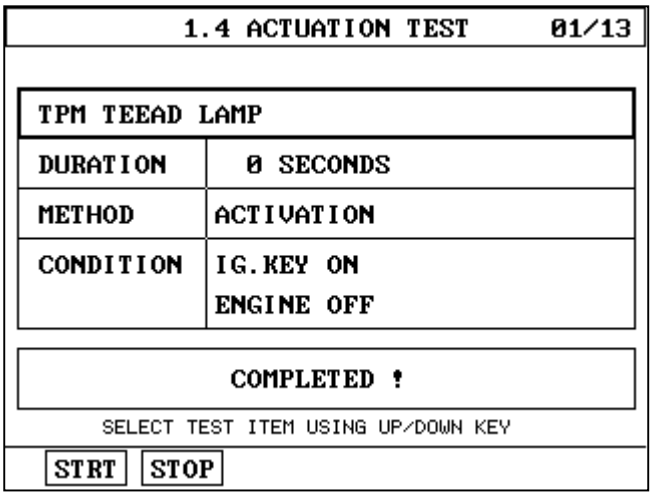
START ↓ START ACTIVATING

[FLOW II.5: ACTUATION TEST MODE IN/OUT FLOW]

6-2 MODE APPLICATION

The ACTUATION TEST mode allows certain actuators to be forcibly driven by TPMS EXCITER but this mode can only be supported according to the selected vehicle. The illustration of a typical screen is shown in [figure II.7].

The actuator to be driven can be changed by using the UP / DOWN key to scroll through the list.



[Figure II.7: ACTUATOR DRIVING]

The test must be performed with the vehicle in the state indicated by the CONDITION statement on the screen. In this illustration given, for example, the ignition key must be turned “on”, and the engine must be running.

The duration of the test will either be fixed by TPMS EXCITER and indicated on the screen or the duration dialogue will be indicated.

UNTIL STOP KEY

To begin an actuator test, the STRT key should be pressed. For fixed duration test, the message

COMPLETED!

will be display after an acknowledged code has been received from the vehicle. For tests of no fixed duration, the message

NOW ACTIVATING

will be displayed once an acknowledged code has been received from the vehicle and until the STOP key is pressed. In both types of test, the message

TEST FAILURE!

will be displayed if no acknowledge code is received from the Vehicle. The messages will be displayed for 0.5 seconds and then disappear.

7. ECU INFORMATION

7-1. OPERATION FLOW

01.INITIAL SCREEN

↓

VEHICLE AND SYSTEM SELECTION

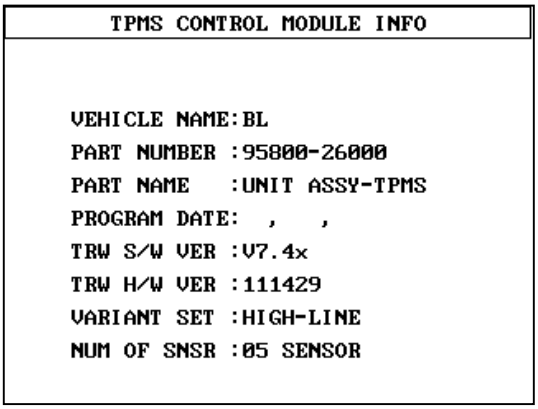
↓

Refer to “Selecting Vehicle Mode”

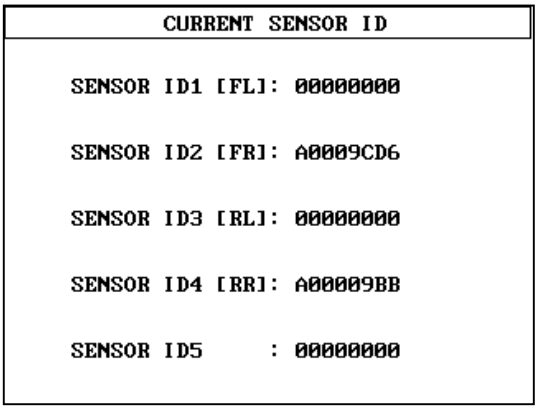
0X. ECU INFORMATION

↓

01. TPMS CONTROL MODULE INFO



02.CURRENT SENSOR ID



[FLOW II.6: ECU INFOR. MODE IN/OUT FLOW]

8-2 MODE APPLICATION

1) TPMS CONTROL MODULE INFO

This mode can check the a different kind of TPMS CONTROL MODULE through by VEHICLE NAME, PART NUMBER, PART NAME, PROGRAM DATE, S/W VER, H/W VER. VARIANT SET, NUM OF SNSOR, SENSOR ID.

2) CURRENT SENSOR ID

This mode can show the sensor ID which is registered in TPMS Receiver.

8. SPECIFIC DATA WRITING

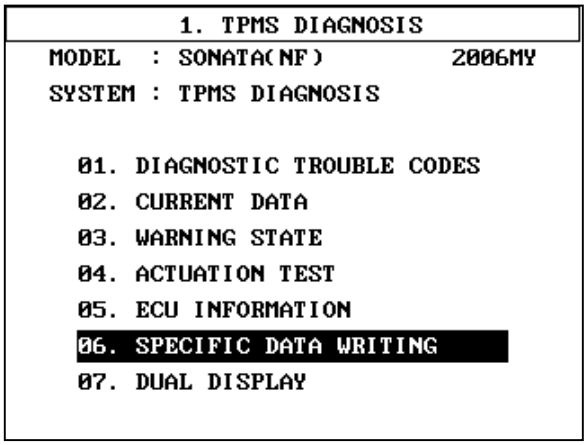
8-1. OPERATION FLOW

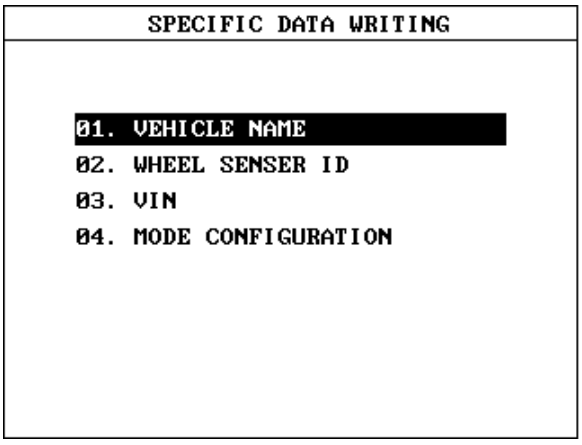
0.1 INITIAL SCREEN

VEHICLE AND SYSTEM SELECTION

Refer to “Selecting Vehicle Mode”

0X. ECU INFORMATION

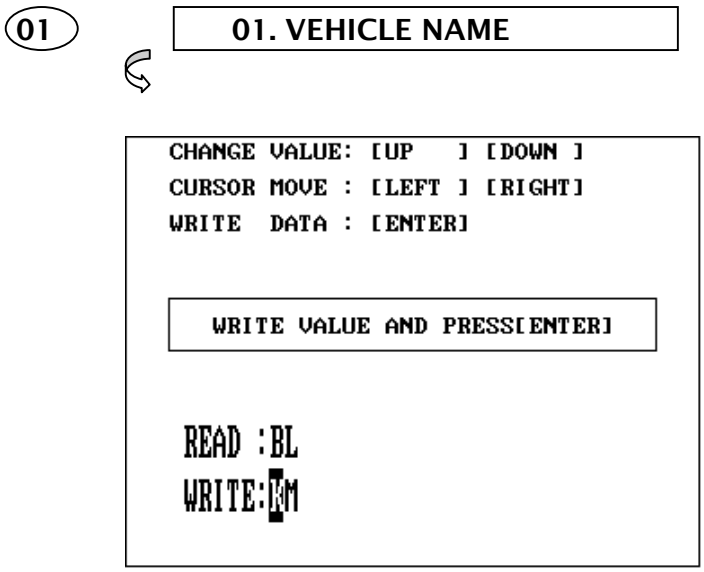




[FLOW II.7: SPECIFIC DATA WRITING MODE IN/OUT FLOW]

8-2 MODE APPLICATION

This mode can register the sensor ID when be changed the TPMS Receiver or sensors.

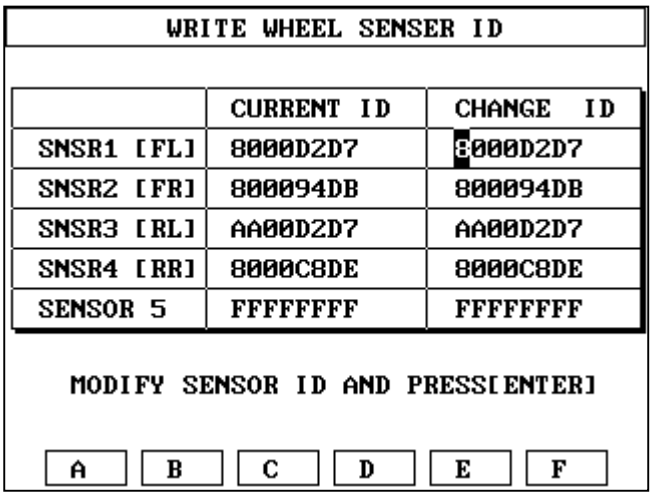


[Figure II.8 : VEHICLE NAME]

This function is to input vehicle name chapter to TPMS CONTROL MODULE. You must input vehicle name correctly otherwise TPMS system may not operate normally.

1. **Change value : [UP] , [DOWN] key**
2. **Cursor move : [LEFT] , [RIGHT] key**
3. **Write data : [ENTER] key**

02 → 02. WHEEL SENSOR ID



[Figure II.9 : SENSOR ID DATA]

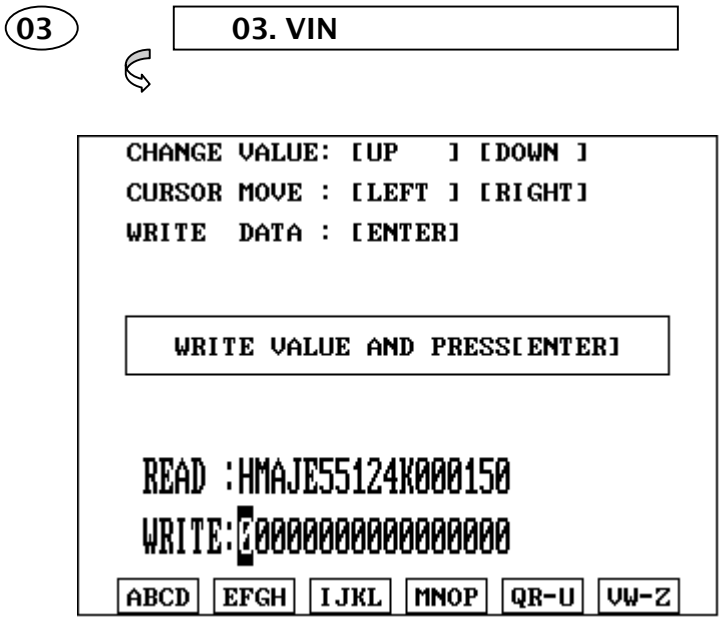
This function is to input sensor ID to TPMS CONTROL MODULE, Which is used to operate the TPMS system properly the data is composed of 8 characters in ARABIC number and ALPHABET.

[CURRENT ID] is current setting sensor ID
[CHANGE ID] is new writing sensor ID

1. Change value : [UP], [DOWN] key
   ALPHABET value : [F1] ~ [F6] key
   ARABIC NUMBER : [0] ~ [9] key

2. Cursor move to left : [LEFT] key
   Cursor move to right : [RIGHT] key
   Cursor move to up : [LEFT] + [UP] KEY
   Cursor move to down : [LEFT] + [DOWN] KEY

3. Write the value : [ENTER]

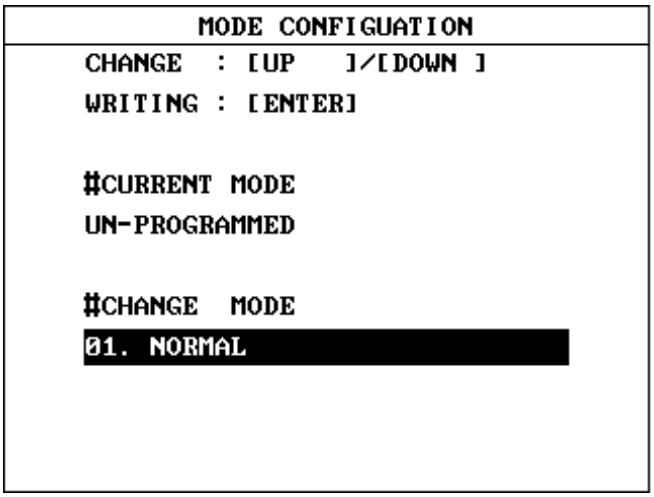


[Figure II.10 : VIN]

This function is to change the TPMS CONTROL MODULE'S MODE.
Can read the vehicle VIN number and can write the vehicle VIN number.

1. Change value : [UP], [DOWN] KEY
2. Cursor move : [LEFT], [RIGHT] KEY
3. Write data : [ENTER] KEY

04 → 04. MODE CONFIGURATION



[Figure II.11 : VEHICLE NAME]

This function is to change the TPMS CONTROL MODULE'S MODE.
Write the sensor IDs, vehicle name and finally change the normal mode.

1. Change : [UP], [DOWN] key
2. Writing : [ENTER] key

9. DUAL DISPLAY

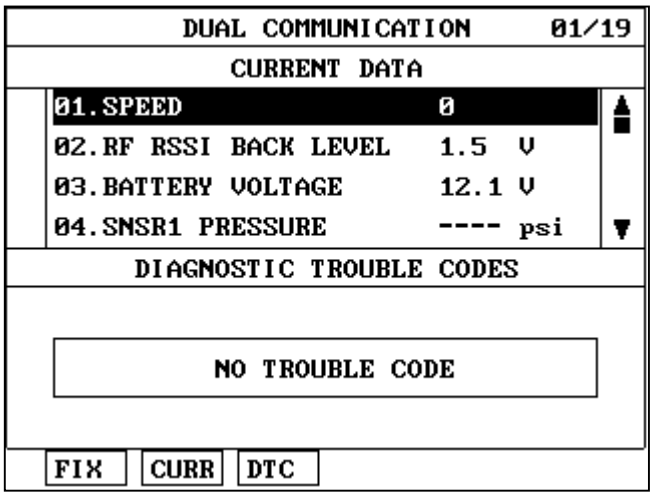
9-1. OPERATION FLOW

0.2 INITIAL SCREEN

VEHICLE AND SYSTEM SELECTION

Refer to “Selecting Vehicle Mode”

0X. DUAL DISPALYS



FIX	FIX ITEM
CURR	CURRENT DATA
DTC	DIAG. TROUBLE CODES

[FLOW I1.8 : DUAL DISPLAY MODE IN/OUT FOLW]

9.2 MODE APPLICATION

This facility allows for the display of the following simultaneously:

- **Current data items**
- **Available DTC**
- **Available freeze frame data items**

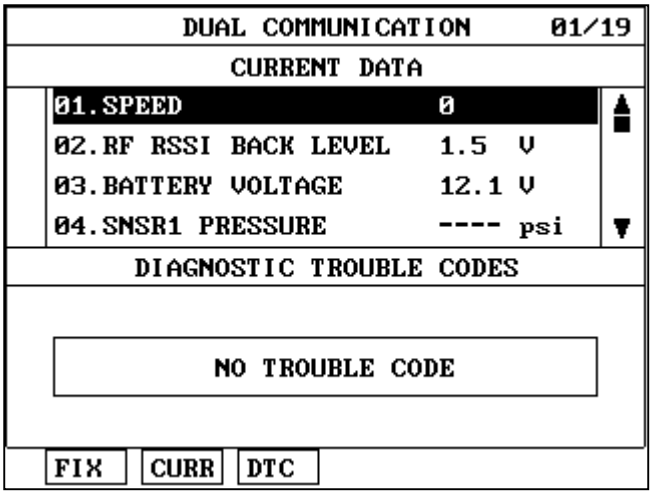
The default screen is CURRENT DATA and DIAGNOSTIC TROUBLE CODES (DTC).

The (UP) / (DOWN) key may be used to scroll the data contained in the same window as the cursor.

Where a soft function key related to the current window is used, the cursor will move to the selected area.

Where a soft function key related to the current window is used, the window, which does not contain the cursor, will be replaced with the soft function key related information.

A typical COMBINATION DISPLAY screen is illustrated at figure IV.14.



[Figure IV.14 : COMBINATION DISPLAY]

The (UP) / (DOWN) key is used to scroll through the display.

FIX Holding one item of two. When the UP / DOWN keys are used to scroll up and down the display, the item selected by FIX key does not move.

CURR Taking the cursor to the CURRENT DATA AREA. If the CURRENT DATA is being displayed, the CURR key will Move the cursor to that window. If the CURRENT DATA is not Being displayed, the window not containing the cursor will Be replaced with the CURRENT DATA display.

DTC DIAGNOSTIC TROUBLE CODES Work in a similar manner to CURR except that the screen replaced is that selected by the soft function key description.

III. TPMS EXCITER

1.CONNECTION METHOD……III-2

2.TPMS EXCITER……..……...III-3

1. CONNECTION METHOD

For vehicles with DLC 16 pin Data Link Connector, power is supplied from the DLC terminal through the DLC CABLE without the need for an additional power supply.

For these vehicles connection of the DLC CABLE 16 to the TPMS EXCITER and the vehicle data link terminals is all that is required.

Once the power supply has been connected, the DLC CABLE 16 should be connected to TPMS EXCITER data link terminal and the DLC CABLE ADAPTER connected to the vehicle data link terminal and the DLC CABLE 16.

2. TPMS EXCITER

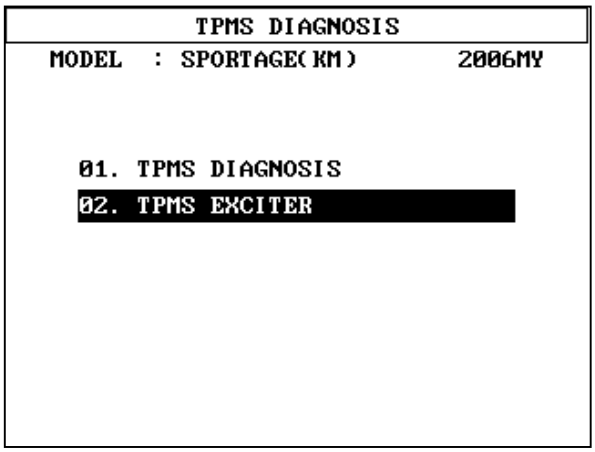
2-1. OPERATION FLOW

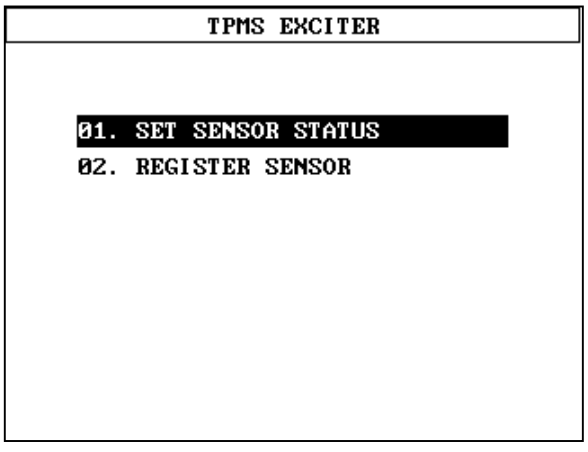
0.1 INITIAL SCREEN

VEHICLE AND SYSTEM SELECTION

Refer to “Selecting Vehicle Mode”

02. TPMS EXCITER

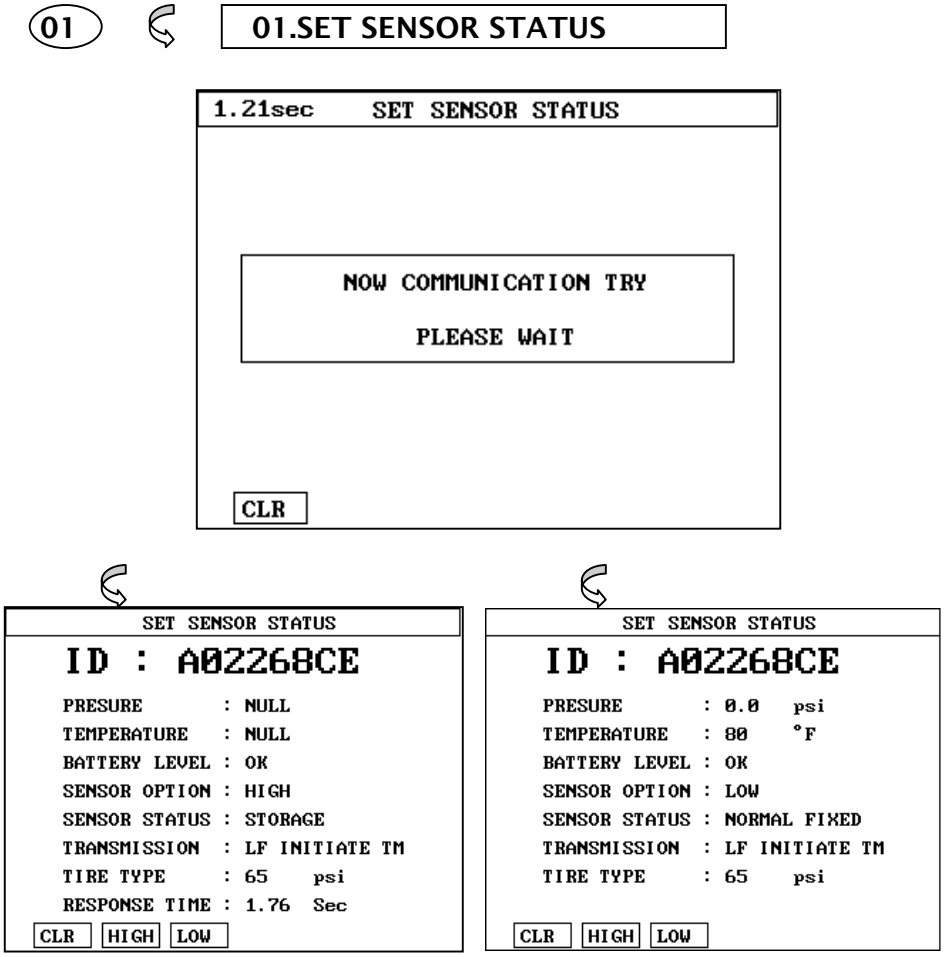




[FLOW III.1 : TPMS EXCITER MODE IN/OUT FLOW]

1-2 MODE APPLICATION

This mode can read the sensor IDs by RF communication and then can change sensor status, register the sensor to the TPMS CONTROL MODULE.



[Figure III.1: SET SENSOR STATUS]

PRESSURE : Display the NULL or real pressure of tire.
This values will be changed by sensor option.

TEMPERATURE : Display the NULL or real temperature of tire.
This values will be changed by sensor option.

BETTERY LEVEL : Display the OK or NG.
This values means the sensor battery status.

SENSOR OPTION : Display the HIGH or LOW.
This values can changed according to vehicle.

SENSOR STATUS : Display the NORMAL, STORAGE(SLEEP), ALERT or OVER TEMP. WARNING.

TRANSMISSION : Display the LF INITIATE TM or NORMAL TIMED TM.
If the sensor was communicated by TPMS EXCITER, LF INITIATE TM will be display in the screen.

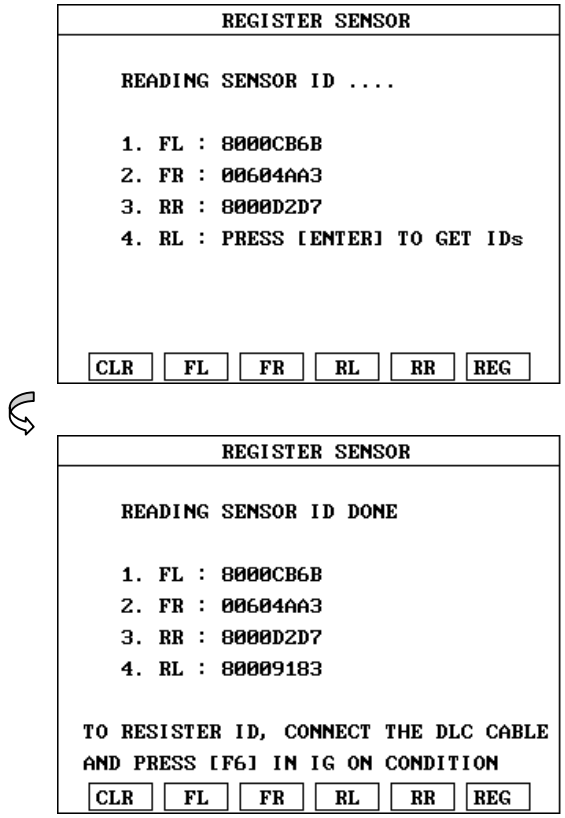
TIRE TYPE : Display the maximum measurement pressure range of sensor.

CLR or ENTER : Reload the sensor status.

HIGH : Can change the sensor option, LOW to HIGH.

LOW : Can change the sensor option, HIGH to LOW.

02 **02.REGISTER SENSOR**



[Figure III.2: REGISTER SENSOR]

This mode can resister the sensor Ids to TPMS CONTROL MODULE after reading the sensor IDs of the each tires.

CLR : Clear the screen.

REG : can resister the sensor Ids to TPMS CONTROL MODULE with DLC cable.

FL : Can reload the FL sensor ID.

FR : Can reload the FR sensor ID.

RL : Can reload the RL sensor ID.

RR : Can reload the RR sensor ID.

IV. SYSTEM SETUP

1. CONNECTION METHOD.....IV-2

2. SYSTEM CONFIGURATION IV-3

3. DATA SETUP.....IV-5

4. KEY PAD TEST.....IV-7

5. CONTRAST ADJUST SCREEN.....IV-8

1. CONNECTION METHOD

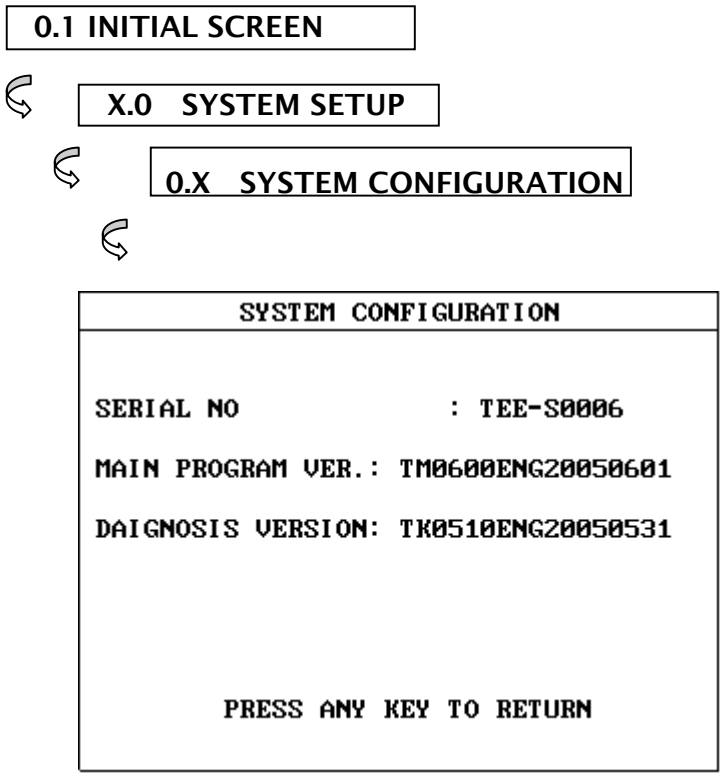
The following two kinds of power supply methods can be used.

(1) DLC cable

(2) AC/DC adapter

2. SYSTEM CONFIGURATION

2-1. OPERATION FLOW



[FLOW IV.1 : SYSTEM CONFIGURATION MODE IN/OUT FLOW]

2-2. MODE APPLICATION

This mode displays data for the following items.

1) SERIAL NUMBER

: displays product serial number of your TPMS EXCITER

2) MAIN PROGRAM VERSION

: displays software version of MAIN PROGRAM

3) DAIGNOSIS PROGRAM VERSION

: displays software version of DAIGNOSIS PROGRAM

3. DATA SETUP

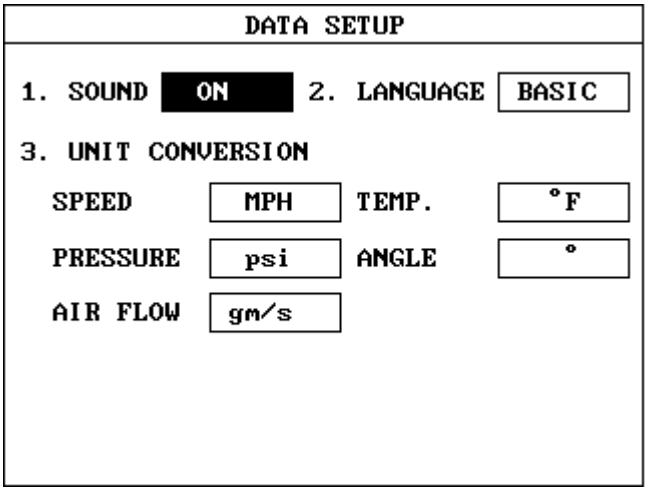
3-1. OPERATION FLOW

0.1 INITIAL SCREEN

↳ X.0 SYSTEM SETUP

↳ 0.X DATA SETUP

↳



LEFT	↳	LEFT ITEM SELECTION
RIGHT	↳	RIGHT ITEM SELECTION
UP	↳	ITEM VALUE CHANGE +
DOWN	↳	ITEM VALUE CHANGE-
ENTER	↳	CONFIRM ITEM SELECTION

[FLOW IV.2 : DATA SETUP MODE IN/OUT FOLW]

3.2 MODE APPLICATION

The operating parameters of the TPMS EXCITER may be set prior to vehicle testing. The following list details items which are user configurable.

1) SOUND : Determines whether or not the internal beep sounds at each key depression.

2) LANGUAGE : Determines whether or not a local language is used.

3) UNIT CONVERSION : The units of measurement used by HI SCAN LITE may be selected from either of the following :

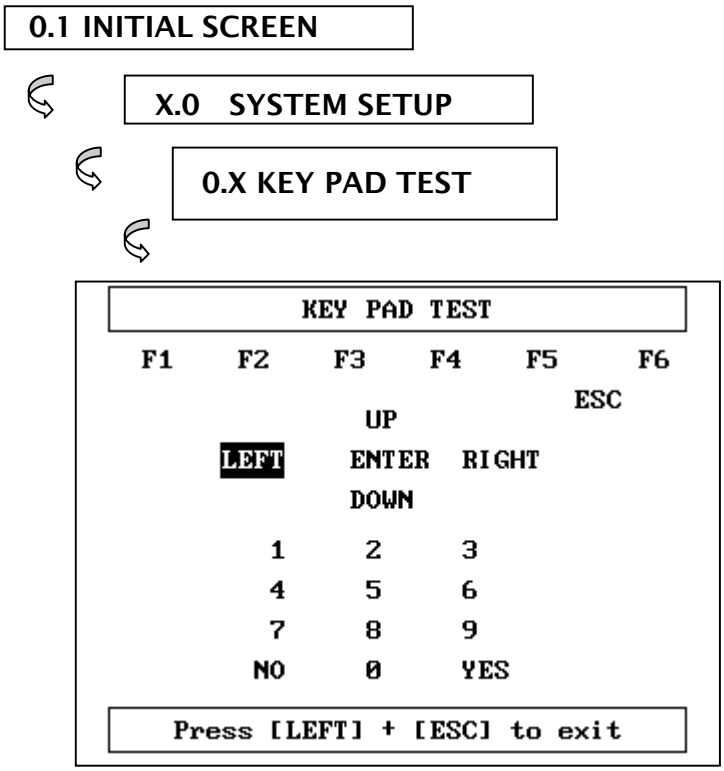
Speed	Km/h, MPH
Temperature	Fahrenheit, Centigrade
Pressure	kPa, mmHg, inHg, psi, mbar
Angle	degree, percent
Airflow Volume	gm/s , lb/m

Items are selected by using the LEFT / RIGHT key, and values may be changed using the UP / DOWN key.

When editing by the Dealership, the cursor is moved by using the LEFT / RIGHT key, and the selected value is changed using the UP / DOWN key to move to the next or previous character in the character set (1, 2, 3 …, 9, 0, -, blank).

4. KEY PAD TEST

4-1. OPERATION FLOW



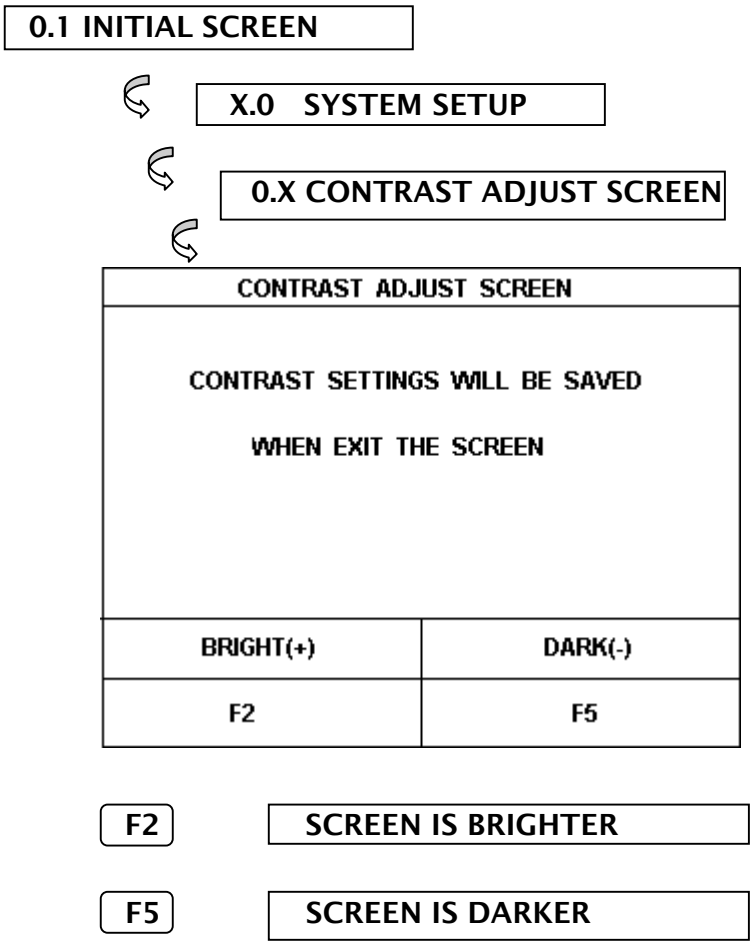
[FLOW IV.3 : KEY PAD TEST MODE IN/OUT FLOW]

4-2. MODE APPLICATION

User can perform TPMS EXCITER self-test.

5. CONTRAST ADJUST SCREEN

5-1. OPERATION FLOW



[FLOW IV.4 : CONTRAST ADJUST SCREEN]

5-2. MODE APPLICATION

This mode is for contrast adjustment because LCD' bright-ness will change according to the temperature.

Contrast settings will be saved when exiting the screen.

V. SCREEN CAPTURE VIEW

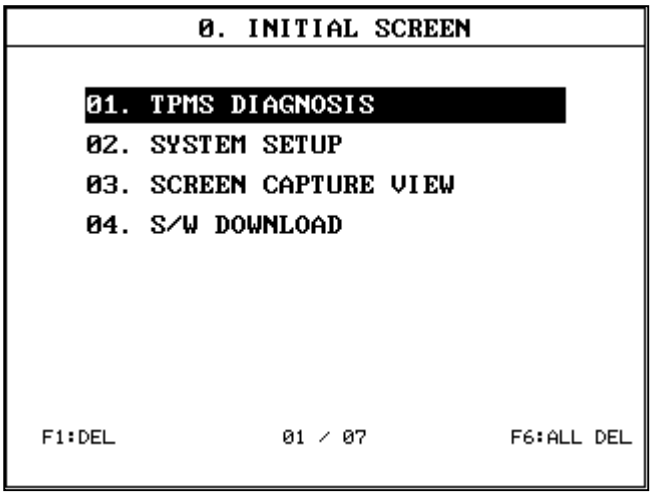
1. OPERATION FLOW……..……... V-2
2. MODE APPLICATION……..……....V-3
3. HOW TO USE THE SCREEN CAPTURE……..V-5
4. HOW TO USE THE DOWNLOAD FOR PC…….……..….V-6

1. OPERATION FLOW

0.1 INITIAL SCREEN

0X. SCREEN CAPTURE VIEW

ENTER '

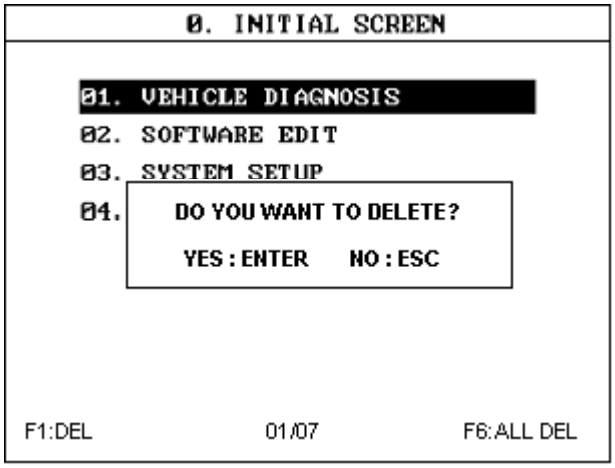


[FLOW V.1 : SCREEN CAPTURE IN FLOW]

2. MODE APPLICATION

TPMS EXCITER screen capture function can store 7-paged screen inside internal flash memory of TPMS EXCITER.
In addition, when you see the relevant function, you can confirm through the SCREEN CAPTURE VIEW MENU of TPMS EXCITER initial screen or TPMS EXCITER download for PC.

DEL **This mode can delete the current screen. Press the F1 key If you want to delete the screen. A message will display to delete on the screen. The example screen is as follows:**

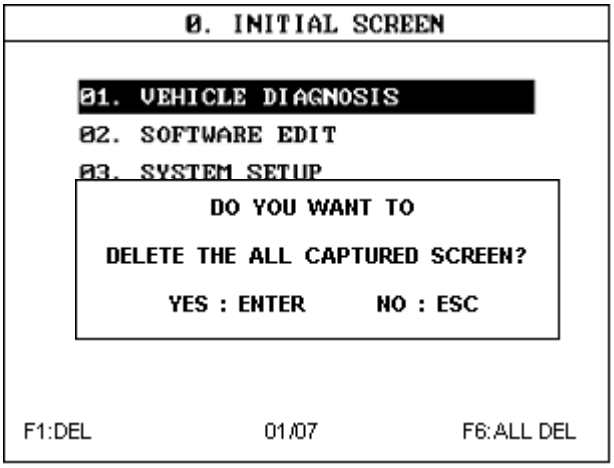


[Figure V.2 : Screen DELETE]

The current screen will be erased if you press ENTER.

01/07 **The "01 " is the current page number.**
The "07" is the saved total pages number.

ALL DEL This mode can delete the all captured screens. Press the F6 key If you want to delete the all screens. A message will display to delete on the screen. The example screen is as follows:



[Figure V.3 : All screens DELETE]

The all captured screens will be erased if you press ENTER.

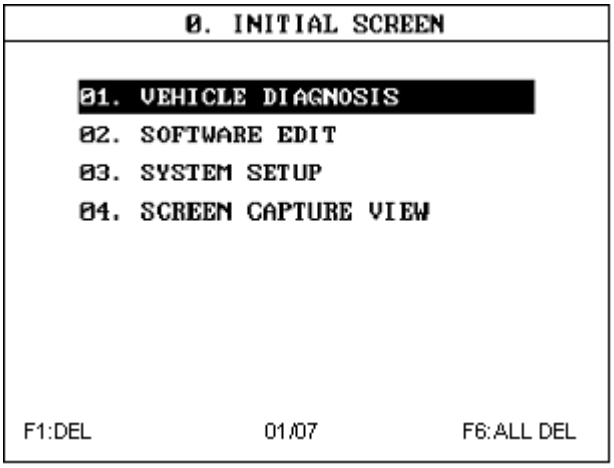
If disconnected the battery pack to TPMS EXCITER, The all captured screens will be erased in the memory.

3. HOW TO USE THE SCREEN CAPTURE

1) At the screen which you want to save, press [LEFT+ENTER] key of TPMS EXCITER.

2) If the screen is saved, the screen will be numbered following the number of screen stored last.
If all seven screens are stored, 8th screen will overwrite and replace the first screen and 8th will be the first.

3) You can check saved contents through SCREEN CAPTURE VIEW Function of TPMS EXCITER MAIN CONTROL as SCRREEN-1
However, it will take time to load the saved screen.

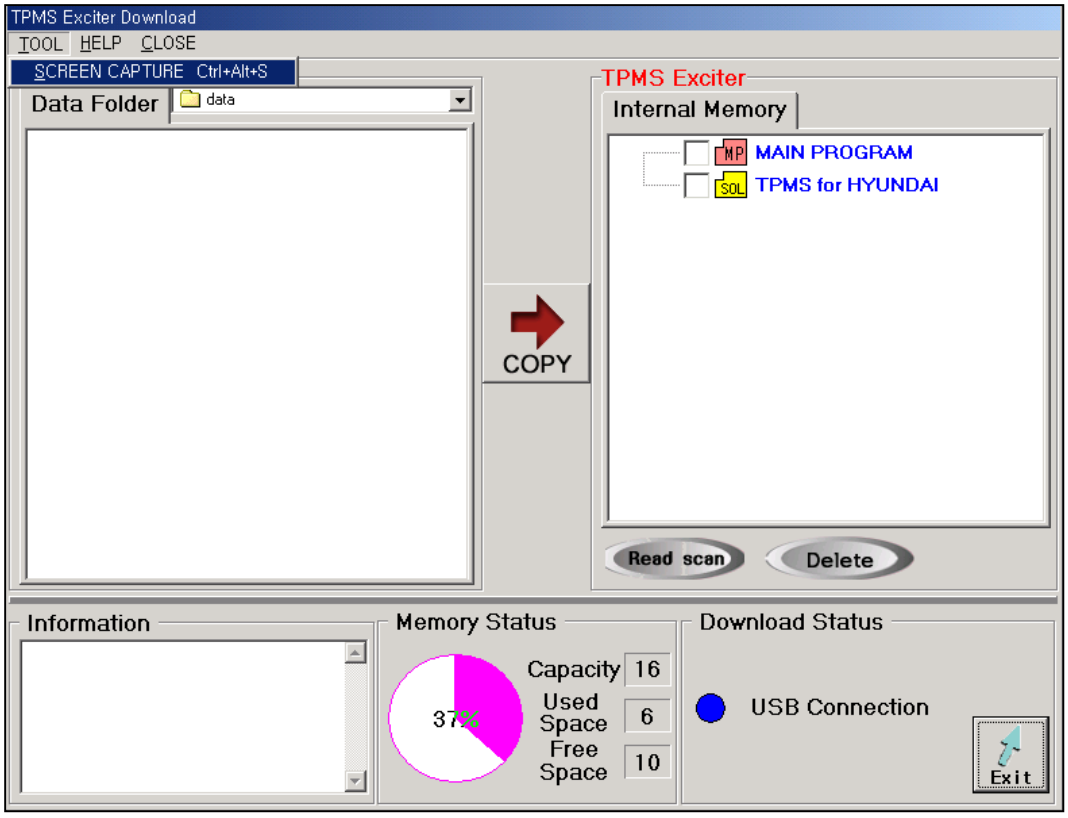


[Figure V.4 :How to use the screen capture]

4. HOW TO USE THE DOWNLOAD FOR PC

1) Connect TPMS EXCITER and PC program through USB

2) As on [Figure V.4], press [TOOL] on the menu bar and select [SCREEN CAPTURE (CTRL+ALT+S)]



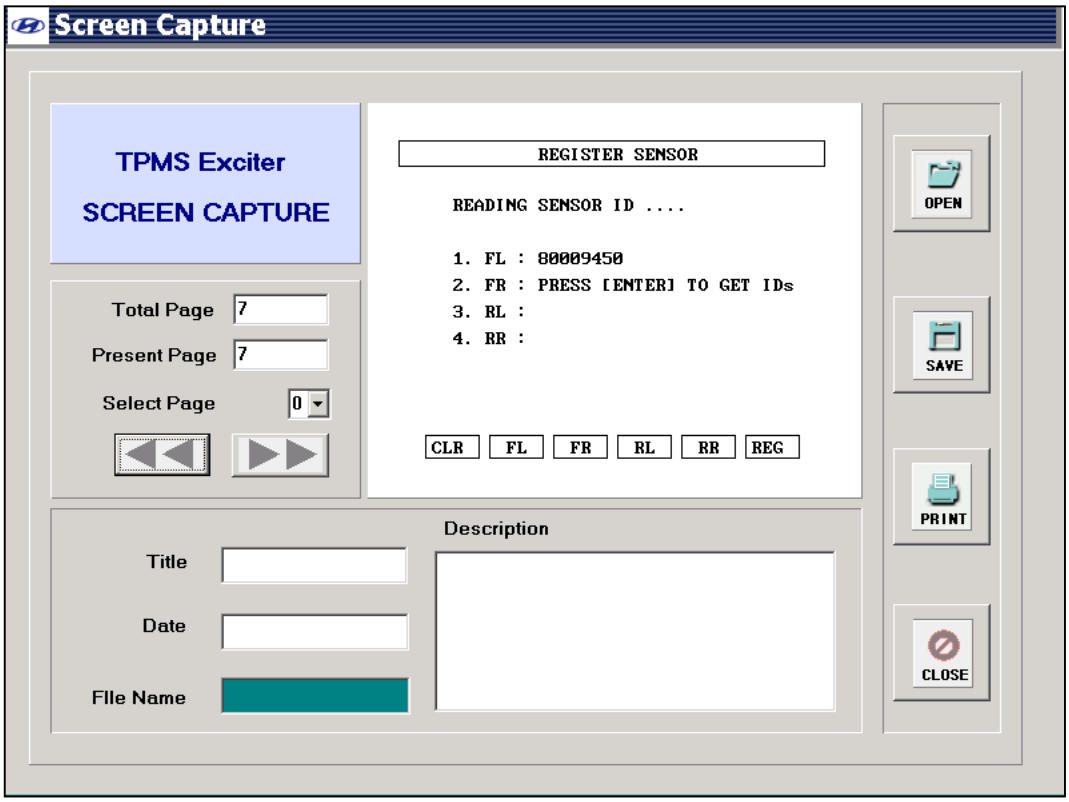
[Figure V.5 :How to use the download for pc]

3) You will see the screen as the below [Figure V.5].

3.1) It will display the first screen of the initial TPMS EXCITER internal memory.

3.2) You can change the picture clicking "Select Page" or [Left/right] button.

3.3) After completion, press [Close] button.



[Figure V.6 : How to use the download for pc**]**

APPENDIX

IMPORTANT MESSAGE DESCRIPTION

ABNORMAL VEHICLE POWER
CHECK AND PRESS [ENTER]

This message occurs when the external power supply is not connected or is lower than 9.0V. The user must supply sufficient external power.

AUTO POWER OFF

The TPMS EXCITER system will be powered off automatically because a TPMS EXCITER system error has occurred.

BATTERY VOLTAGE LOW!
RECHARGE BATTERY

The voltage of the TPMS EXCITER rechargeable BATTERY is lower than the normal voltage. The user must recharge the battery with an external power supply or change the battery.

CAN'T COMMUNICATION
PLEASE CHECK THE SYSTEM

The TPMS EXCITER cannot perform the communication because the system status is abnormal. The user must inspect the system.

COMMUNICATION ERROR
CHECK THE SYSTEM, PRESS [ENTER]

A communication error occurs when the TPMS EXCITER displays data which is received via communication. After checking the system, press the ENTER key.

DIFFERENT SYSTEM
PLEASE CHECK THE SYSTEM

This message occurs after opening the communication, when the system is different from the system selected by the user. After checking the system, the user should select the correct system again.

NO TROUBLE CODE TO ERASE

This message occurs when the user press the ERAS key with no DTC to erase in DIAGNOSTIC TROUBLE CODE mode.

SELECT ITEM WITH [FIX]

This message occurs when the GRPH key is pressed without any item selected in the CURRENT DATA mode, or RCRD key is pressed without any item selected in the FLIGHT RECORD mode. In these cases, you must select an item with the FIX key.

SYSTEM ROM ERROR!

This message occurs when an error occurs in the ROM(Read Only Memory) of the TPMS EXCITER. If you are

having a problem with the TPMS EXCITER, please try the procedures in appendix B.