Tire Pressure Monitor (TPM)
System Tester
Quick Start Guide

English | Spanish | French

IMPORTANT NOTICES

SAFETY DEFINITIONS

All **Danger**, **Warning**, **Important**, and **Note** messages must be followed for your safety. These safety messages are in the following formats:

DANGER: Means you may risk possible loss of life.

WARNING: Means you may risk possible bodily harm.

CAUTION: Means you risk damage to the vehicle or the tool.

NOTE: *Provide clarity and helpful tips.*

These safety messages cover situations SPX is aware of. SPX cannot know, evaluate and advise you as to all of the possible hazards. You must be certain that any conditions or service procedures encountered do not jeopardize your personal safety.

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DISCLAIMER

All information, illustrations, and specifications contained in this technical instruction manual are based on the latest information available at the time of publication.
The right is reserved to make changes at any time without obligation to notify any person or organization of such revisions or changes. Further, SPX shall not be liable for errors contained herein or for incidental or consequential damages (including lost profits) in connection with the furnishing, performance or use of this material.

FCC COMPLIANCE

OTC Tire Pressure Monitor Tester **Model: TPM 3833-1**

FCC ID: RP3-3833
IC: 4811A-3833

This device complies with part 15 of the FCC Rules and with RSS-210 of Industry Canada. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

The term “IC:” before the radio certification number only signifies that Industry Canada technical specifications were met.

CONTENTS

Tester Specifications

ARE THERE ANY TO INCLUDE HERE??
DIMENSIONS
WEIGHT
OPERATING TEMP
STORAGE TEMP
WAVEFORM TYPE
AMPLITUDE
POWER SOURCE
SIGNAL OUTPUT
ETC, ETC, ETC

Safety Precautions

DANGER: When an engine is operating, keep the service area WELL VENTILATED or attach a building exhaust removal system to the engine exhaust system. Engines produce carbon monoxide, an odorless, poisonous gas that causes slower reaction time and can lead to serious personal injury or loss of life.

WARNINGS:

- **When working with hydraulic or fuel lines, liquids under pressure may escape and create a dangerous condition. Use adequate ventilation and make sure there are no sparks or possibility of sparks present that may ignite any vapor.**

- **Wear an American National Standards Institute (ANSI) approved eye shield when testing or repairing vehicles. Objects propelled by whirling engine components or pressurized liquids escaping may cause personal injury.**

- **Set the parking brake and block the wheels before testing or repairing a vehicle. It is especially important to block the wheels on front-wheel drive vehicles because the parking brake does not hold the drive wheels.**

- **Do not drive the vehicle and operate the tester at the same time. Any distractions may cause an accident. Have one person operate the tester as another person drives the vehicle.**

- **Maintain adequate clearance around moving components or belts during testing. Moving components and belts can catch loose clothing, body parts, or test equipment and cause serious damage or personal injury.**

- **Automotive batteries contain sulfuric acid and produce explosive gases that can result in serious injury. To prevent ignition of gases, keep lit cigarettes, sparks, flames, and other ignition sources away from the battery at all times.**

- **Refer to the service manual for the vehicle being serviced and adhere to all diagnostic procedures and precautions. Failure to do so could result in personal injury or otherwise unneeded repairs.**

CAUTIONS:

- **When installing transmitting devices (Citizen Band radio, telephone, etc.) on ABS-equipped vehicles, do not locate the antenna near the ABS control unit or any other control unit.**
- **Never disconnect or reconnect any electrical connector with the ignition on. Control unit damage may result.**
- **To avoid damage to the tester or generation of false data, make sure the vehicle battery is fully charged and the connection to the vehicle DLC is clean and secure.**
- **Do not place the tester on the distributor of a vehicle. Strong electro-magnetic interference can damage the tester.**
- **Use the recommended anti-corrosion coating on speed sensor components: Do not contaminate with grease.**
- **When speed sensor components have been removed, be sure to check the sensor-to-ring gap, when applicable.**
- **Do not mix tire sizes. Increasing the width slightly is acceptable but rolling diameter must be identical for all tires. Some manufacturers recommend tires of the same brand, style, and type. Failure to follow this precaution may cause inaccurate wheel speed readings.**

How the TPM Tester Works

The Tire Pressure Monitor (TPM) tester is a portable, hand-held diagnostic tool used to diagnose problems and program the vehicle electronic control unit (ECU) for tire pressure monitor systems.

The TPM tester activates tire sensors so you can read sensor ID numbers, locations, and pressures. It also activates tire sensors and sends signals to the ECU for programming tire sensor information into the ECU for the TPM system.

To read tire sensor information, you hold the TPM tester next to a tire sensor and press a button to activate the sensor and read the sensor information. To program sensor information into a vehicle ECU when necessary, such as after tire replacement or rotation or TPM system part replacements, you place the ECU into learn mode (this is a separate procedure and varies by vehicle) and then use the TPM tester to activate the sensors. The sensors then send the sensor ID, location, and pressure information to the ECU.

Figure 1: TPM Tester Sensor Activation

When you turn the TPM tester on, the Main Menu screen appears for you to select an option of: Reset Procedure, Diagnostics, or Update Tool.

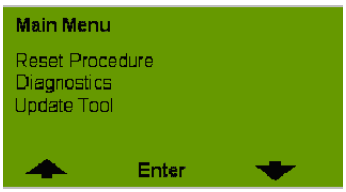


Figure 2: TPM Tester Main Menu Screen

This Quick Start Guide provides an overview of the TPM tester and menu options. Use the tester along with this *Quick Start Guide* and the companion *Tire Pressure Monitor System Reference Guides, Volumes 1 to 3* to test vehicle TPM systems. For more information about the Reference Guides, refer to "**Access the Reference Guide**" on page 9.

NOTES:

Component Identification

The TPM tester components include the following:

- Carrying Case
- Quick Start Guide
- PC Software CD (NEED ACTUAL NAME ON IT??)
- Sensor Activation Magnet
- Batteries
- RS232 Serial Cable (optional)
- TPM Tester

Carrying Case

The carrying case is provided to help protect the components and to keep them clean. When not in use, store the components in the carrying case.

Quick Start Guide

Read this Quick Start Guide carefully before using the TPM tester.

PC Software CD (NEED ACTUAL NAME ON IT??)

The Software CD includes tool update software and the TPM Reference Guide that you install on a PC. Refer to "**Install the PC Software**" on page 8.

Sensor Activation Magnet

Some vehicles require the sensor activation magnet for activating the sensors in order to read the sensor signals (see *Figure 3* on page 4). For detailed instructions, refer to the *TPM System Reference Guide, Volumes 1 to 3* or the vehicle manufacturer's repair manual.

Batteries (purchased separately)

The tester operates with three (3) size C batteries. They can be alkaline or nickel metal hydride (NiMH) rechargeable batteries. Refer to "**Install the Tester Batteries**" on page 7.

RS232 Serial Cable (purchased separately)

An RS232 serial cable is required for future updates to the TPM tester software.

TPM Tester

The tester is the main system component. It is battery operated and generates **low frequency signals ???** The tester features and functions are described below and on the next page.

Tester Physical Features

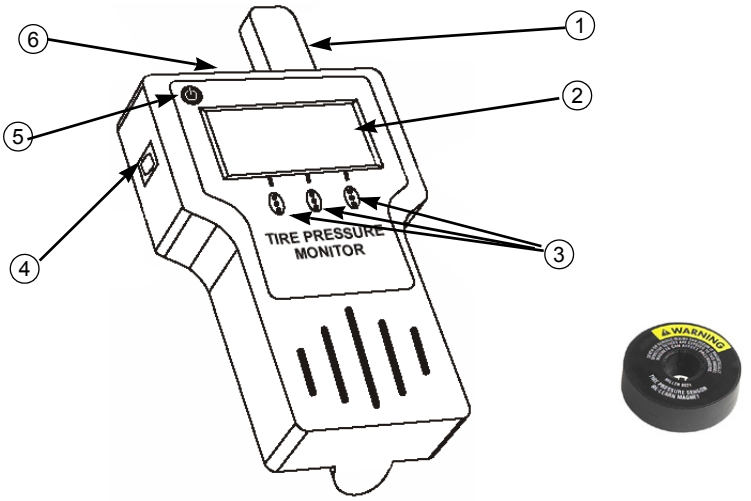


Figure 3: TPM Tester and Sensor Activation Magnet

1 **Activation Antenna —** sends signals to tire sensor to activate sensor.

2 **Display Screen —** displays the menus and test screens.

3 **Variable Selection Buttons —** three buttons that correspond with "buttons" on screens for executing commands as follows:

- **Up and Down Arrows:** press to select (highlight) menu options.
- **Enter:** press to accept a selected menu option and move to the next screen.
- **Menu:** press to return to the Main Menu screen.
- **Start, Activate, Next:** press to perform the indicated function and move to the next screen.
- **Yes, No, OK, Redo, Stop:** press to answer an on-screen question or redo or stop a function.
- **Reuse, New:** press to choose or enter information for the test vehicle.

4 **RS 232 Serial Port —** connects the RS232 serial cable for future updates.

5 **On / Off Button —** turns the tester on and off. To preserve battery life, the tester turns off automatically after 3 minutes of inactivity.

6 **Battery Compartment and Cover (not visible) —** on back, top side of tester; holds three (3) size C batteries.

Tester Software Functions

The tester software functions include the following:

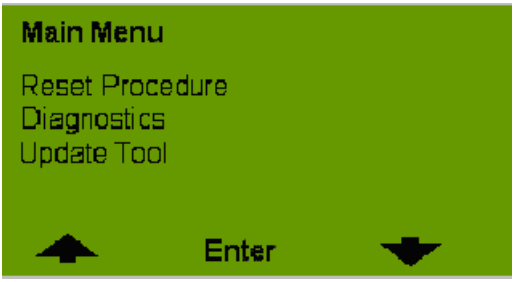


Figure 4: TPM Tester Main Menu Screen

Reset Procedure — lets you program tire sensor information into a vehicle ECU after changing or rotating tires, replacing TPM system parts (sensors, antennas, receivers, control modules), or when otherwise instructed by the vehicle manufacturer's repair manual. For instructions, refer to "**Reset Procedure**" on page 11.

Diagnostics — lets you check sensor locations, ID's, and tire pressures for diagnostic purposes. Also, lets you check for sensor function; if the tester does receive a signal from a sensor, the sensor may be faulty. For instructions, refer to "**Diagnostics" on page 15**.

Update Tool — is for future use for updating the TPM tester software. DO NOT select this option. If you do, remove the tester batteries and restart the tester. To obtain updates, contact your local distributor. Update kits will include complete instructions.

NOTES:

Setup

Setup includes installing the tester batteries, installing the PC update software and Reference Guide, and registering for access to the Reference Guide.

Install the Tester Batteries

The size C batteries can be either alkaline or rechargeable nickel metal hydride (NiMH) batteries. Insert the batteries into the battery compartment on the back side of the tester. Insert the batteries negative side first, as shown below.

NOTE: *If the batteries are low, the tester displays a message informing you of this.*

Figure 5: Battery Installation WANT TO SHOW COMPARTMENT WITH BATTERIES

WARNING: Never recharge alkaline batteries; an explosion may result.

CAUTION:

- **Use only high-quality batteries.**
- **During long periods of storage, remove the batteries to prevent damage from battery leakage.**
- **Properly dispose of batteries according to current federal, state, and local regulations.**
- **If using rechargeable batteries, carefully read and follow all instructions provided with the batteries and battery charger.**

Install the PC Software

The xxxx CD installs the update software and *TPM Reference Guides* on a personal computer (PC).

PC Requirements

The PC should have the following minimum requirements:

- Microprocessor: 233 MHz Pentium, minimum
- RAM: 128 MB, minimum (256 MB recommended)
- Hard Disk (C drive): 20 MB free space, minimum
- Display (Monitor): Color, set at 800 x 600 pixel, minimum
- Operating System: Microsoft® Windows® 98SE, Windows ME, Windows 2000, Windows XP®, or Windows NT® (updated with current service packs; NT with service pack 6.0 only)
- Internet Browser: Microsoft Internet Explorer 5.0 or newer

Software Installation

Use the following steps to install the software.

1 Insert the CD in the PC's CD drive and follow the on-screen instructions. Be aware of the following:
   - The install software uses Windows auto-play technology. If the instructions do not appear automatically, click the Windows Start button and click Run. This displays a Run dialog box. Click the Browse button and then find and select your CD drive. After this, select the Setup.exe file and click the Open button (or OK). Then click the OK button in the Run box.
   - The installation places a ????e icon on the Windows desktop and places the ???? option on the Windows Start, Programs menu. You can use either one of these to start the software application. Refer to ???.
   - The installation places a *User Guide* icon on the Windows desktop. You use this icon to open the User Guide. Refer to "**Access the Reference Guide**" on the next page.

2 When the installation is finished, remove the CD from the PC's CD drive.

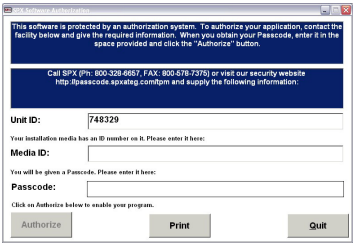
Access the Reference Guide

The *TPM Reference Guide* provides detailed TPM system descriptions, diagnostic procedures, part replacement instructions, and reset procedures for many vehicles with TPM systems. The *Guide* is provided as a portable document format (pdf) file that installs on the PC during the CD installation (see the previous page).

NOTE: *The TPM Reference Guides, Volumes 1 to 3, are also available as printed manuals (p/n 533843). For details, contact your local distributor.*

To open the *Reference Guide*, you double-click the Windows desktop icon. This opens the *Reference Guide* in an Adobe® Acrobat Reader® window.

NOTE: *The first time you open the Reference Guide, an SPX Software Authorization window appears (shown below) requiring you to obtain an authorization passcode by telephone, fax, or internet. After you obtain and enter the passcode, the Reference Guide opens in the Acrobat Reader window.*



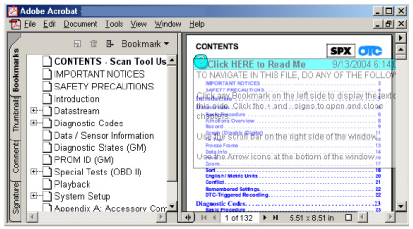


Figure 6: User Guide Authorization and User Guide Windows NEED TO MAKE NEW?

The left side of the *Reference Guide* window contains a Table of Contents. You click a topic to display its contents. The right side of the window displays the contents; you can right-click inside the contents to display a navigation menu. You can also print the *Reference Guide*. For help using the file, open Acrobat Reader from the Windows Start, Programs menu and then select Help, Reader Help from the main menu. IS THE ACROBAT APP ON THE CD??

NOTE: *To view the Reference Guide, the Adobe Acrobat Reader software application must be installed on the PC. When you open the Reference Guide, if an Open With box appears, click the Cancel button and visit the following web site to install Acrobat Reader: http://www.adobe.com/products/acrobat/reader_archive.html#Win*

Disclaimer: Acrobat Reader is licensed and copyrighted by Adobe Systems Incorporated. It is provided as a courtesy, not a license for use. If you install it, you must accept and abide by the terms of it's license agreement, which display the first time you start the application.

NOTES:

Reset Procedure

Use the Reset Procedure function to program the sensor locations, IDs, and tire pressures into the vehicle's ECU after changing or rotating tires, replacing TPM system parts or components (sensors, antennas, receiver, or control module), or when otherwise instructed by the vehicle manufacturer's repair manual.

To use the Reset Procedure function, follow these steps:

NOTE: *Before using the Reset Procedure function, refer to the TPMS Reference Guide or the vehicle manufacturer's repair manual for specific instructions for enabling the ECU sensor learn mode.*

1 Make sure the TPM tester batteries are fully charged.

2 Press and release the On/Off button to turn the tester on.

3 Wait for the Main Menu screen to appear (this may take a few seconds).

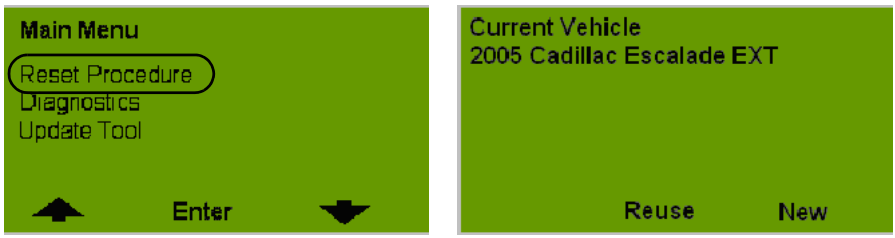


Figure 7: Main Menu Screen and Current Vehicle Screen

4 With the Reset Procedure menu option selected (highlighted), press the **Enter** button. This displays the Current Vehicle screen, shown above.

5 Do one of the following:

- If the current vehicle description is correct for the vehicle being tested, press the **Reuse** button.
- If the current vehicle description is not correct for the vehicle being tested, press the **New** button to display the first vehicle identification screen in a series of screens.

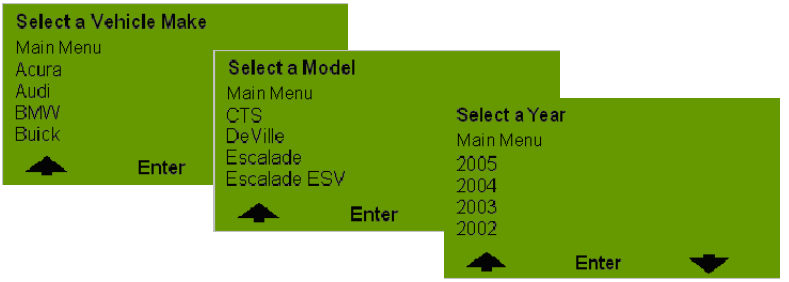


Figure 8: Vehicle Identification Screens - Series of Screens

6 Do one of the following:

- If you pressed the **Reuse** button, skip this step.
- If you pressed the **New** button, on each vehicle identification screen that appears, select the option that applies to the vehicle being tested and then press the **Enter** button to display the next screen. Do this until the Reset Procedure screen appears.

  Note: *To return to the Main Menu screen, select the Main Menu option.*

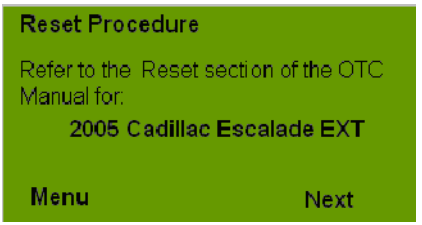


Figure 9: Reset Procedure Screen

7 Refer to the *TPMS Reference Guide* for the reset procedure and then do one of the following:

- If the screen does not have a Next button in the bottom, right corner, press the **Menu** button and perform a manual or scan tool reset procedure as described in the *TPM System Reference Guide* or the vehicle manufacturer's repair manual.
- If the screen has a Next button in the bottom, right corner, press the **Next** button and continue with the next step.

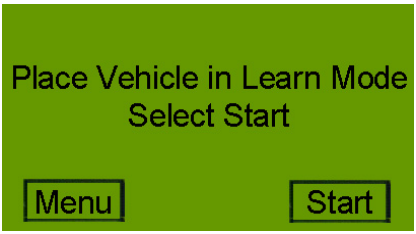
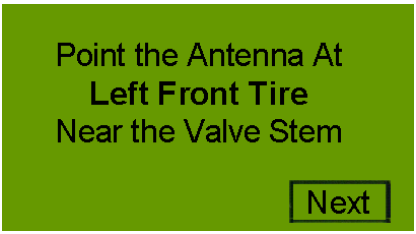


Figure 10: Learn Mode Message Screen

8 Refer to the *TPMS Reference Guide* or the vehicle manufacturer's repair manual for specific instructions and enable the ECU sensor learn mode.

9 Press the **Start** button to begin the reset. This displays the first reset instruction screen.



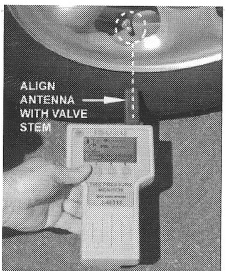


Figure 11: Reset Instruction Screen and TPM Tester Position

10 Follow the instructions on the screen for positioning the TPM Tester.

11 Hold the tester about 1/2 inch away from the valve stem and press and release the **Next** button. This displays the reset test screen.

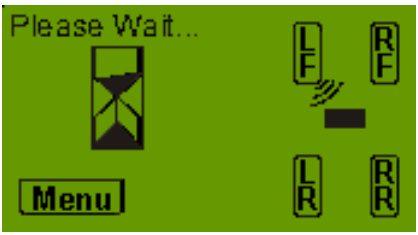


Figure 12: Reset Test Screen

NOTE: *The right side of the reset test screen shows symbols that represent the vehicle tires (LF, RF, LR, RR). Notice the blinking lines indicating the tire sensor being reset (LF).*

12 Hold the tester in place and wait for the verification screen to appear.

Note: *The question on this screen varies for each vehicle. It may ask if the horn sounded or if the sensor registered on the scan tool.*

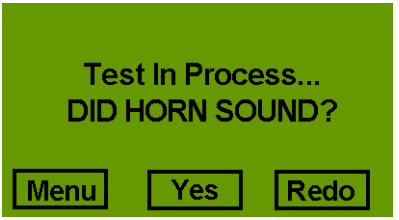


Figure 13: Verification Screen

13 Do one of the following:

- If the answer to the question is No, press the **Redo** button and return to Step 10 to reset the same sensor.
- If the answer to the question is Yes, press the **Yes** button to continue to testing the next sensor. The reset instruction screen appears again stating to position the tester next to the next tire sensor.

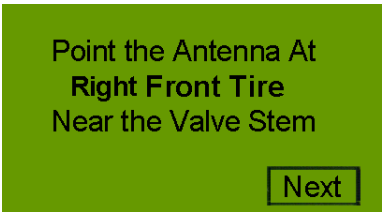


Figure 14: Reset Instruction Screen

14 Repeat steps 10 through 13 until all the tire sensors are reset and the Reset Procedure Complete message screen appears.

Figure 15: Reset Procedure Complete Message Screen

15 Press the **Menu** button to return to the Main Menu screen.

16 Follow the instructions in the *TPMS Reference Guide* or the vehicle manufacturer's repair manual for disabling the ECU sensor learn mode and verifying the sensor reset procedure.

Diagnostics

Use the Diagnostics function to check sensor locations, IDs, and tire pressures. Depending on the manufacturer's repair instructions, you can diagnose the vehicle TPM system by comparing the TPM tester results with the live readings from a scan tool connected to the vehicle ECU's TPM control module.

In addition, use the Diagnostics function to check that each tire sensor is sending a signal. If the tester does not receive a signal from a sensor, suspect a malfunctioning sensor.

To use the Diagnostics function, follow these steps:

NOTE: *Before using the Diagnostics function, refer to the TPMS Reference Guide or the vehicle manufacturer's repair manual for specific diagnostic instructions.*

1 Make sure the TPM tester batteries are fully charged.

2 Press and release the On/Off button to turn the tester on.

3 Wait for the Main Menu screen to appear (this may take a few seconds).

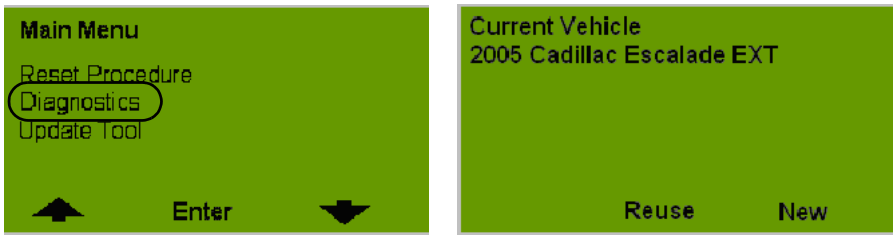


Figure 16: Main Menu Screen and Current Vehicle Screen

4 Press the Down Arrow button to select (highlight) the **Diagnostics** option and then press the **Enter** button. This displays the Current Vehicle screen, shown above.

5 Do one of the following:

- If the current vehicle description is correct for the vehicle being tested, press the **Reuse** button.
- If the current vehicle description is not correct for the vehicle being tested, press the **New** button to display the first vehicle identification screen in a series of screens.

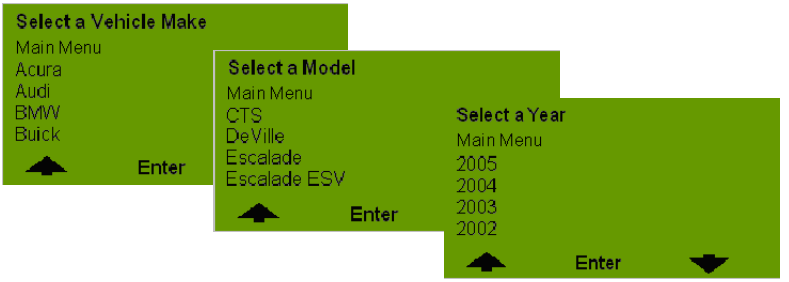


Figure 17: Vehicle Identification Screens - Series of Screens

6 Do one of the following:

- If you pressed the **Reuse** button, skip this step.
- If you pressed the **New** button, on each vehicle identification screen that appears, select the option that applies to the vehicle being tested and then press the **Enter** button to display the next screen. Do this until the diagnostics test screen appears.

  Note: *To return to the Main Menu screen, select the Main Menu option.*

  Note: *If the tester does not support testing the vehicle or if the sensor is not detected, a message appears. If this happens, press the Menu button to end the test.*

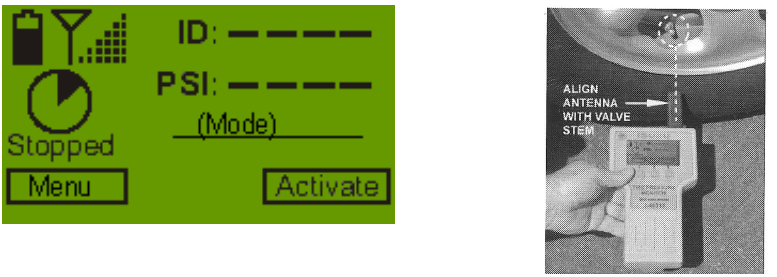


Figure 18: Diagnostics Test Screen and TPM Tester Position

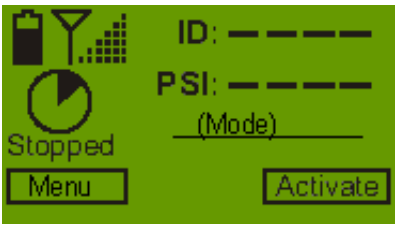
Note: *If the TPMS Reference Guide diagnostic procedures indicate the sensor activation magnet is required, use the magnet as indicated.*

7 Notice the following about the Diagnostics test screen:

- The symbol in the top, left corner represents the current tester battery level.
- The triangle symbols to right of the battery indicator represent if the signal is being received from the tire sensor or not.
- The pie-shaped symbol below the battery indicator indicate that the tester is sending signals to the tire sensor (after you press the Activate button).
- The right side of the screen will display the tire sensor information after you press the Activate button. The area below the PSI will display the sensor status (mode), if applicable.

8 Position the tester about 1/2 inch away from the valve stem of the tire sensor to activate and press and release the **Activate** button.

9 Wait for the sensor information to display on the screen.



NEED TO SHOW RESULTS ON THIS SCREEN

Figure 19: Diagnostics Test Screen with Tire Sensor Activation Results

Note: *If the tester does not receive a signal from a sensor, suspect a malfunctioning sensor.*

10 Press the **Menu** button to return to the Main Menu screen.

NOTES:

SPX Corporation Limited Warranty

THIS WARRANTY IS EXPRESSLY LIMITED TO ORIGINAL RETAIL BUYERS OF SPX ELECTRONIC DIAGNOSTIC TOOLS ("UNITS").

SPX Units are warranted against defects in materials and workmanship for three years (36 months) from date of delivery. This warranty does not cover any Unit that has been abused, altered, used for a purpose other than that for which it was intended, or used in a manner inconsistent with instructions regarding use. The sole and exclusive remedy for any Unit found to be defective is repair or replacement, at the option of SPX. In no event shall SPX be liable for any direct, indirect, special, incidental or consequential damages (including lost profit) whether based on warranty, contract, tort or any other legal theory. The existence of a defect shall be determined by SPX in accordance with procedures established by SPX. This warranty does not cover the AA batteries included in the kit. No one is authorized to make any statement or representation altering the terms of this warranty.

DISCLAIMER

THE ABOVE WARRANTY IS IN LIEU OF ANY OTHER WARRANTY, EXPRESS OR IMPLIED, INCLUDING ANY WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE.

SOFTWARE

Unit software is proprietary, confidential information protected under copyright law. Users have no right in or title to Unit software other than a limited right of use revocable by SPX. Unit software may not be transferred or disclosed without the written consent of SPX. Unit software may not be copied except in ordinary backup procedures.

ORDER INFORMATION

Order replacement and optional parts directly from your SPX authorized tool supplier. Include the quantity, part number, and item description.

Technical Service

If you have any questions about the operation of the product, call (800) 533-6127.

Repair Service

When sending your SPX electronic product in for repair, include the following: contact name, telephone number, description of the problem, proof-of-purchase for warranty repairs, preferred method of payment for non-warranty repairs.

For non-warranty repairs, you can make payment with Visa, Master Card, or with approved credit terms. To receive a credit application, fax your request to the Credit Department at 800-962-8734.

Send the unit to:
SPX Service Solutions
RGA: Service Repair
2300 Park Drive
Owatonna, MN 55060-0994

1-800-533-6127
www.nemisysotc.com

Service Solutions, A UNIT OF SPX CORPORATION

655 Eisenhower Drive, Owatonna, MN 55060-0095
Phone: 507-455-7000, International Sales: 507-455-7223

12/14/05 Part Number **533842-ENG**

English