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1. Safety Precautions and Warnings

To prevent personal injury or damage to vehicles and/or the TPMS tool, read this instruction manual first and observe the following safety precautions at a minimum whenever working on a vehicle:

- Always perform diagnose or service in a safe environment. Wear safety eye protection that meets ANSI standards.
- Keep clothing, hair, hands, tools, test equipments, etc. away from all moving or hot engine parts.
- Operate the vehicle in a well ventilated work area. Exhaust gases are poisonous.
- Put blocks in front of the drive wheels and never leave the vehicle unattended while testing or repairing.
- Use extreme caution when working around the ignition coil, distributor cap, ignition wires and spark plugs. These components create hazardous voltages when the engine is running.
- Keep a fire extinguisher suitable for gasoline/ chemical/ electrical fires nearby.
- Put the transmission in PARK (for automatic transmission) or NEUTRAL (for manual transmission) and make sure the parking brake is engaged.
- Refer to the user's manual for the vehicle being serviced and adhere to all diagnostic procedures and precautions. Otherwise personal injury or unneeded repairs may result.
- Keep the TPMS tool dry, clean, free from oil/ water or grease. Use a mild detergent on a clean cloth to clean the outside of the TPMS tool when necessary.

2. Tool Information

2.1 Tool Description

①**RUBBER BOOT --** Protect the TPMS tool from drop, abrasion and etc.

②**LCD DISPLAY** -- Indicate test results. Backlit, 128*64 pixel display with contrast adjustment.

③**UP SCROLL BUTTON** -- Move up through menu and submenu items in menu mode. When more than one set of data are retrieved, use this button to move down to next screens for additional data.

④**DOWN SCROLL BUTTON** -- Move down through menu and submenu items in menu mode. When more than one set of data are retrieved, use this button to move down to next screens for additional data.

⑤**Y BUTTON** -- Confirm a selection (or action) from a menu or return to previous menu.

⑥**N BUTTON** -- Cancel a selection (or action) from a menu or return to previous menu.

⑦**POWER BUTTON** -- Turn on/off the tool.

⑧**POWER PORT** -- Connect the TPMS tool to the mains with the charger supplied for battery charging.
⑨**USB PORT** -- Connect the TPMS tool to computer with the USB cable supplied to update the device.

2.2 Specifications

1) Display: Backlit,128*64 pixel display with contrast adjustment
2) Operating Temperature: 0 to 50°C (32 to 122 °F)
3) Storage Temperature: -20 to 70°C (-4 to 158 °F)
4) Power: 3.7v Li-polymer Battery
5) Dimensions:

Length	Width	Thickness
195.5 mm (7.7")	104 mm (4.09")	37.5 mm (1.48")

6) NW: 0.38kg (0.84lb), GW: 1.945 kg(4.29lb)

2.3 Accessories

1) Molded plastic case
2) USB cable
3) Magnet (For early model TPM sensors)
4) Charger
5) User's manual
6) CD software

2.4 Navigation Characters

Characters used to help navigate the TPMS tool are:
1) **"►"** -- Indicate current selection.
2) **"**x/x**"** -- Indicate total items in a menu and their sequence.
3) **"✉"** -- Indicate there is data stored in the tool.
4) **" ▯▯ "** -- Indicate battery volume.
5) **"•⟷"** -- Indicate USB communication with the computer is established.

6) "≥■≤" -- Indicate magnet is required when activating TPM sensor.
7) "P↓"-- Indicate tire deflation is required when activating TPM sensor.

2.5 Battery Charging

The tool has a 3.7v built-in lithium-ion polymer rechargeable battery. When battery is low, the "Battery low! Test results may be inaccurate. Please charge." message shows prompting you to charge the battery in time. There are two means of battery charging:

✓ To charge battery by adapter
1) Locate the power port of the device.
2) Connect the device to the mains with the charger to start charging.

✓ To charge battery by USB cable
1) Locate the USB port of the device.
2) Connect the device to computer with the charger to start charging.

• **Important: Charge battery in time, otherwise the test results may be incorrect.**
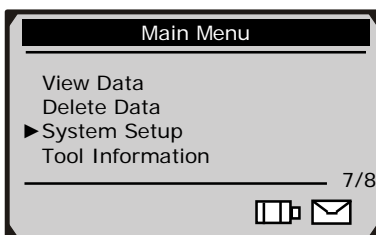
2.6 Product Setup

The TPMS tool allows you to make the following adjustments and settings:
1) **Language:** Select the language of menu and test results. It supports English by default.
2) **Contrast:** Adjust the contrast of the LCD display.
• **The settings of the device will remain until changes to the existing settings are made.**
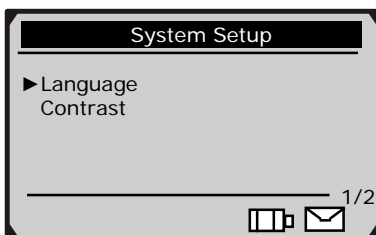
To enter the setup menu

Use **UP/DOWN** scroll button to select **System Setup** from **Main Menu**, and press **Y** button.

```
┌─────────────────────────┐
│       Main Menu         │
├─────────────────────────┤
│  View Data              │
│  Delete Data            │
│ ►System Setup           │
│  Tool Information        │
│ ──────────────── 7/8    │
│                  ▯▯▯ ✉  │
└─────────────────────────┘
```

Language

1) Use **UP/DOWN** scroll button to select **Language** from **System Setup** menu, and press **Y** button

```
┌─────────────────────────┐
│      System Setup       │
├─────────────────────────┤
│ ►Language               │
│  Contrast               │
│                         │
│                         │
│ ──────────────── 1/2    │
│                  ▯▯▯ ✉  │
└─────────────────────────┘
```

2) Use **UP/DOWN** scroll button to select the desired language and press **Y** button to save your selection and return to previous menu.

```
┌─────────────────────────┐
│        Language         │
├─────────────────────────┤
│  Deutsch                │
│ ►English                │
│  Français               │
│  Nederlands             │
│ ──────────────── 2/4    │
│                  ▯▯▯ ✉  │
└─────────────────────────┘
```
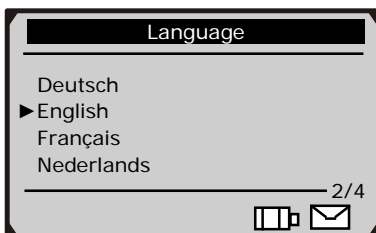
Contrast

1) From **System Setup** menu, use **UP/DOWN** scroll button to select **Contrast**, and press **Y** button.

```
┌─────────────────────────────┐
│      System Setup           │
│                             │
│   Language                  │
│ ►Contrast                   │
│                             │
│                      2/2    │
│                   ▭▭▷ ✉     │
└─────────────────────────────┘
```
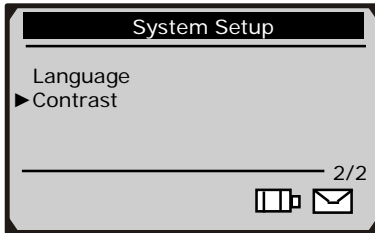
2) Use **UP/DOWN** scroll button to adjust contrast.

```
┌─────────────────────────────┐
│        Contrast             │
│                             │
│  Contrast （21%）           │
│                             │
│  ████▭▭▭▭▭▭▭▭▭▭▭▭           │
│                             │
│  Use ↑ or ↓ to change       │
│                             │
│  Yes                  No    │
└─────────────────────────────┘
```

3) Press **Y** button to save your settings and return to previous menu.

2.7 Tool Information

The **Tool Information** allows viewing of some important information such as serial number and software version number of the TPMS tool.

1) Use **UP/DOWN** scroll button to select **Tool Information** from **Main Menu**, and press **Y** button.
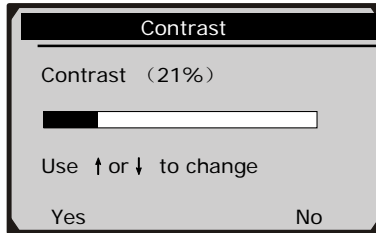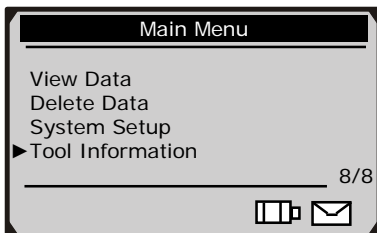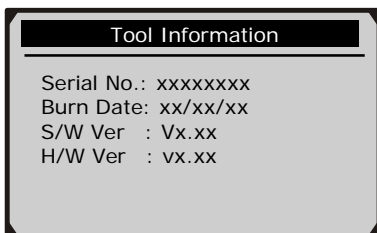
```
┌─────────────────────────────┐
│      Main Menu              │
│                            │
│  View Data                 │
│  Delete Data               │
│  System Setup              │
│ ▶ Tool Information          │
│ ─────────────────── 8/8    │
│              ▯▯▯▷ ✉       │
└─────────────────────────────┘
```

2) View tool information on unit screen, and press **N** button to return.

```
┌─────────────────────────────┐
│     Tool Information        │
│ ─────────────────────────── │
│  Serial No.: xxxxxxxx       │
│  Burn Date: xx/xx/xx        │
│  S/W Ver  : Vx.xx           │
│  H/W Ver  : vx.xx           │
│                            │
│                            │
└─────────────────────────────┘
```

3. Diagnostics

The MaxiTPMS® TS401 is a hand held tool used to activate wheel sensors used on vehicle tire pressure monitoring systems.

All software screens shown in this manual are examples. Actual test screens vary for each vehicle being tested.

3.1 Activating

The sensor activation function allows activating of TPM (Tire Pressure Monitoring) sensor to view sensor data such as sensor ID, frequency. It also sends the sensor data to vehicle ECU to let the ECU learn the positions of sensors whenever tires and wheels are rotated or sensors are replaced.

There are four means of activating a TPM sensor:
- **A. Vehicle Make Scan**--To activate the sensor by selecting vehicle manufacturer, model and year.
- **B. Latest scan**--The TPMS tool automatically records the latest activated sensor and it activates the sensor by using the wave signal of the latest trigger event. So **Latest Scan** is very useful for technicians to wake up sensors of the same vehicle.
- **C. Sensor Make Scan**--To activate the sensor by selecting sensor manufacturer.
- **D. Auto Scan**--To activate the TPM sensor by detecting all available sensors automatically. Please note that it may take several minutes to detect the correct sensor.

A. Vehicle Make Scan

1) Use **UP/DOWN** scroll button to select **Vehicle Make Scan** from **Main Menu**, and press **Y** button to confirm.
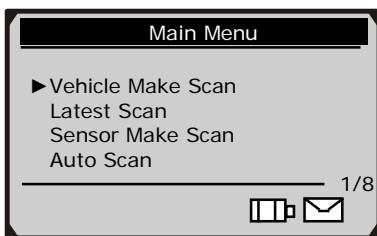
2) Observe the menu title and use **UP/DOWN** button to select by make, model then year to identify the vehicle being tested, place the device alongside the valve stem and press **Y** button.
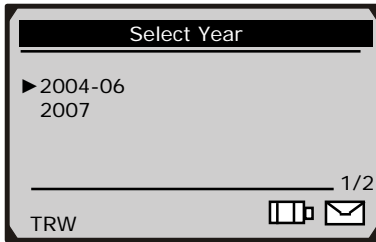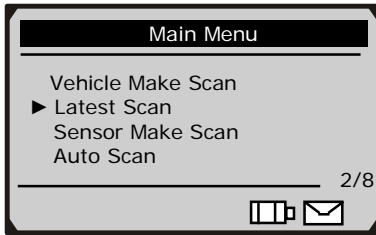
```
                Select Year

        ▶2004-06
          2007


                                1/2
        TRW                   ▭ ✉
```

3) Wait a few seconds till the tool makes an audible alarm, and the device automatically records retrieved data in html format.

4) View retrieved data on screen.

```
        ID: 0x216843
        Freq: 315MHz
        Mode: ASK
```
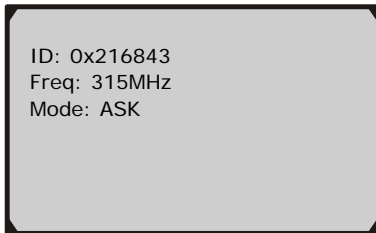
- If the sensor can not be detected, a "**No sensor detected!**" message shows on the screen.

5) Press **N** button to return to previous menu.

B. Latest Scan

1) Use **UP/DOWN** scroll button to select **Latest Scan** from **Main Menu**, place the device alongside the valve stem and press **Y** button to confirm.

```
┌─────────────────────────────┐
│        Main Menu            │
│ ─────────────────────────── │
│   Vehicle Make Scan         │
│ ► Latest Scan               │
│   Sensor Make Scan          │
│   Auto Scan                 │
│ ─────────────────────── 2/8 │
│                    ⎕⎕▷ ✉    │
└─────────────────────────────┘
```

2) Wait a few seconds till the tool makes an audible alarm, and the device automatically records retrieved data in html format.
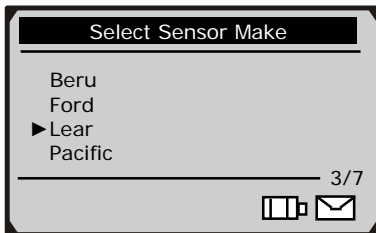
3) View retrieved data on screen.

```
┌─────────────────────────────┐
│                             │
│  ID: 0x216843               │
│  Frequency: 315MHz          │
│  Mode: ASK                  │
│                             │
│                             │
│                             │
└─────────────────────────────┘
```

- If the sensor can not be detected, a "**No sensor detected!**" message shows on the screen.

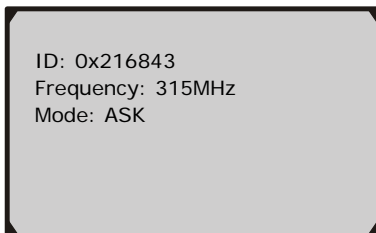4) Press **N** button to return to previous menu.

C. Sensor Make Scan

1) Use **UP/DOWN** scroll button to select **Sensor Make Scan** from **Main Menu**, place the device alongside the valve stem, and press **Y** button to confirm.

```
          Main Menu

   Vehicle Make Scan
   Latest Scan
 ▶ Sensor Make Scan
   Auto Scan
                          3/8
                      ▭ ✉
```

2) Use **UP/DOWN** scroll button to select sensor make.

```
        Select Sensor Make

   Beru
   Ford
 ▶ Lear
   Pacific
                          3/7
                      ▭ ✉
```
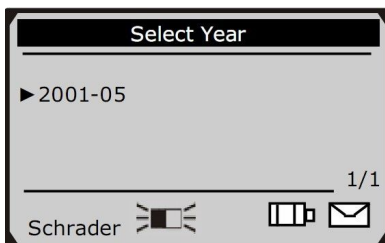
3) Wait a few seconds till the tool makes an audible alarm, and the device automatically records retrieved data in html format.
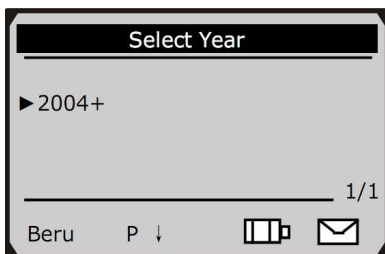4) View retrieved data on screen.

```
 ID: 0x216843
 Frequency: 315MHz
 Mode: ASK
```
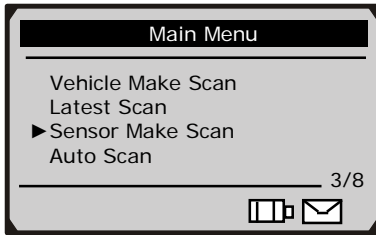
● If the sensor can not be detected, a "**No sensor detected!**" message shows on the screen.
5) Press N button to return to previous menu.

Note: Magnet and tire deflation may be necessary when activating.

- When the ≥■■≤ icon appears on the screen, place the magnet over the stem and then place the tool alongside the stem.
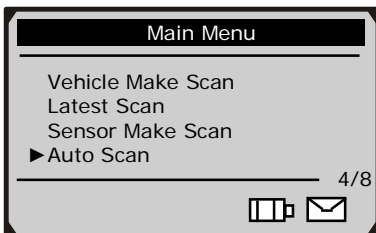
```
┌─────────────────────────────────┐
│         Select Year             │
│ ─────────────────────────────── │
│                                 │
│ ►2001-05                        │
│                                 │
│                                 │
│ ─────────────────────────── 1/1 │
│ Schrader  ≥■■≤      □□▷ ☒       │
└─────────────────────────────────┘
```

- When the P↓ icon appears on the screen, deflate the tire and then place the tool alongside the stem.

```
┌─────────────────────────────────┐
│         Select Year             │
│ ─────────────────────────────── │
│                                 │
│ ►2004+                          │
│                                 │
│                                 │
│ ─────────────────────────── 1/1 │
│ Beru      P↓        □□▷ ☒       │
└─────────────────────────────────┘
```
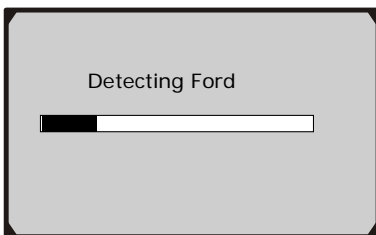
D. Auto Scan

1) Use **UP/DOWN** scroll button to select **Auto Scan** from **Main Menu**, place the device alongside the valve stem and press **Y** button to confirm.

```
                Main Menu
     ─────────────────────────────
        Vehicle Make Scan
        Latest Scan
        Sensor Make Scan
      ► Auto Scan
     ─────────────────────────── 4/8
                          ▢▢▷ ✉
```

- If you are testing FORD TPM sensor, hold the tool 180 degrees away from the valve stem.
- If the TPM sensor requires a magnet, place the magnet over the stem and then place the tool alongside the stem and then press **Y** button.
- If the TPM sensor requires tire deflation (of the order of 10PSI), deflate the tire, place the tool alongside the stem and press **Y** button.

2) The tool starts to detect the sensor automatically.

```
        ┌────────────────────────────┐
        │                            │
        │     Detecting Ford         │
        │   ▬▬▬▭▭▭▭▭▭▭▭▭▭▭▭▭▭         │
        │                            │
        │                            │
        └────────────────────────────┘
```

3) Wait a few seconds till the tool makes an audible alarm, and the device automatically records retrieved data in html format.
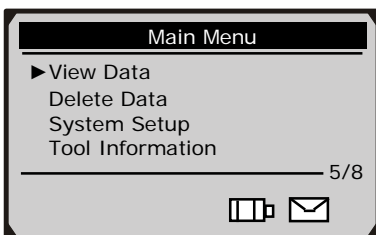4) View the retrieved data on the screen.
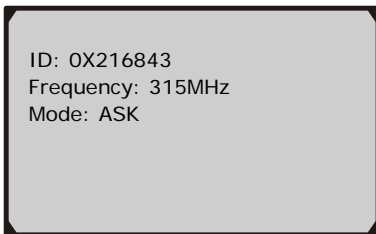
```
ID: 0X216843
Frequency: 315MHz
Mode: ASK
```

- If the sensor can not be detected, a "**No sensor detected!**" message shows on the screen.
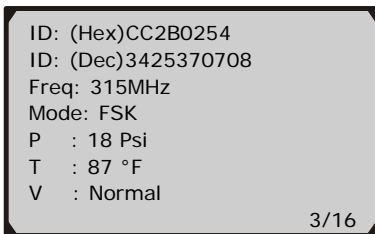
5) Press **N** button to return to previous menu.

3.2 View Data

The **View Data** function allows viewing of previously recorded sensor data. The tool is able to keep a maximum of 16 sets of sensor data. When more than 16 records are retrieved, it overwrites the oldest one automatically.

1) Use **UP/DOWN** scroll button to select **View Data** from **Main Menu**, and press **Y** button to confirm.

```
         Main Menu
   ►View Data
    Delete Data
    System Setup
    Tool Information
   ─────────────── 5/8
              ⊓⊓▷ ✉
```

2) View stored data on screen.

14

```
ID: (Hex)CC2B0254
ID: (Dec)3425370708
Freq: 315MHz
Mode: FSK
P   : 18 Psi
T   : 87 °F
V   : Normal
                          3/16
```
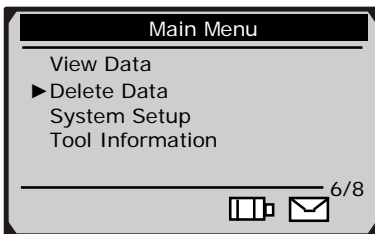
- ● If no record is stored by the tool, a "**No record!**" message shows on the screen.

3) If there is more than one set of data were recorded by the tool, use **UP/DOWN** scroll button to view more data.
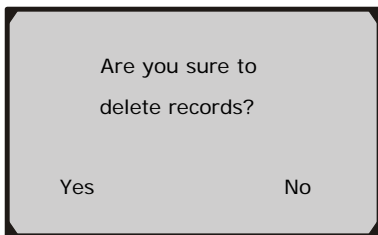
4) Press **N** button to return.

3.3 Delete Data

The **Delete Data** function allows deleting of all previously recorded sensor data.

1) Use **UP/DOWN** scroll button to select **Delete Data** from **Main Menu**, and press **Y** button to confirm.

```
          Main Menu
    View Data
   ►Delete Data
    System Setup
    Tool Information
 _____6/8
                    ▭◻ ✉
```

2) A prompt comes up asking your confirmation.

```
Are you sure to

delete records?


Yes                    No
```

- If no record is stored by the tool, a "**No record!**"
  message shows on the screen.

3) If you wish to delete records, press **Y** button to delete, and
   a message "**Deleted!**" comes up on the screen.

4) If you do not wish to delete records, press **N** button to
   return.

4. Printing and Updating

The TS401 allows user to update software and print out
recorded sensor data. It works on computers running Windows
systems (XP/2000/Vista).

To update software and print retrieved data, you will need the
followings:

- ✓ MaxiTPMS® TS401
- ✓ CD with update tool
- ✓ PC or laptop with USB ports and internet explorer
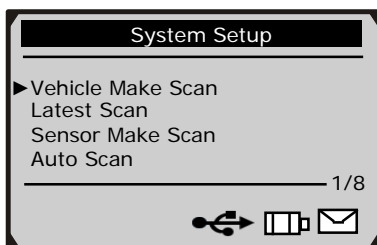- ✓ USB cable

4.1 Data Auditing and Printing

The MaxiTPMS® TS401 can be used as a plug and play USB memory stick to view and print recorded reports. It generates a separate HTML file for each activation event.

Once the device is connected to the computer, its keypad is disabled to maintain the integrity of existing data.

If it is the first time the device is connected to your computer, follow guides below to install the USB driver and other necessary applications.

1) Place the CD into CD-ROM driver of your computer, or download Maxi-Link from our website www.auteltech.com or www.maxitpms.com

2) Follow onscreen instructions on your computer to install the update tool Maxi-Link.

3) Connect the TPMS tool to computer with the USB cable. The USB indicator ⟷ appears on the screen.

```
┌─────────────────────────────┐
│        System Setup         │
│─────────────────────────────│
│ ► Vehicle Make Scan         │
│   Latest Scan               │
│   Sensor Make Scan          │
│   Auto Scan                 │
│ ──────────────────── 1/8    │
│              ⟷ ▯▯▯ ✉        │
└─────────────────────────────┘
```

4) The computer detects the device automatically. Follow prompts on computer screen to install the USB driver.

5) When installation finished, browse the device to view available records.

6) Select and audit the HTML files by double clicking the left mouse key.

MaxiTPMS SERVICE TOOL V2.00

Test Performed by: [   ]

TPM Type	Reads	ID Hex	ID Dec	Battery State	Pressure	Temperature
	255				4 Psi	32768° F
Schrader Manchester encode 315 MHz ASK	2	216843	2189379	N\A	0 Psi	N\A
Schrader Manchester encode 315 MHz ASK	1	602061B3	1612734899	N\A	0 Psi	73° F
TRW DiffManchester encode 315 MHz ASK	1	882DCD85	2284703109	Normal	18 Psi	78° F

- ● If the ✉ icon does not appears on the screen, it indicates no data are stored in the device. Make sure the tool has data available before using the auditing mode.

7) Enter the name or ID of technician or tire fitter by left clicking the text box next to "Test Performed by".

Test Performed by: [Janson Young]

TPM Type	Reads	ID Hex	ID Dec	Battery State	Pressure	Temperature
	255				4 Psi	32768° F
Schrader Manchester encode 315 MHz ASK	2	216843	2189379	N\A	0 Psi	N\A
Schrader Manchester encode 315 MHz ASK	1	602061B3	1612734899	N\A	0 Psi	73° F
TRW DiffManchester encode 315 MHz ASK	1	882DCD85	2284703109	Normal	18 Psi	78° F

8) Print the data through printer connected to your computer when necessary.

9) Simply disconnect the MaxiTPMS$^®$ TS401 from the computer to leave the audit mode and enable the device again.

4.2 Updating

CAUTION: DO NOT try to update the tool when battery low. Data will be lost if the device is out of power while updating.

1) Download the latest update file from our website: www.maxitpms.com, and save it in your computer disk.
2) Launch Maxi-Link, and start the application by selecting TPMS Diagnostic and Service Tools-TS401.
3) Hold **Y** button, connect the device to the computer and wait till "**Program Mode**" message shows on the screen.

Program Mode
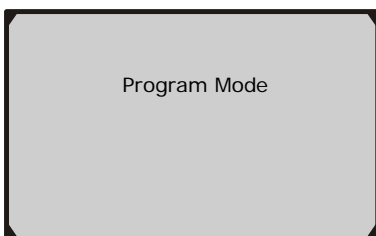
NOTE: Make sure you hold **Y** button before connecting the device to the computer when doing updates, otherwise the device will enter the view data mode automatically.

4) Click **Select File** button to locate the latest update file you have recently downloaded.
5) Click **Update** to start updating.

5. Warranty and Service

5.1 Limited One Year Warranty

TPMS tools are warranted against defects in materials and workmanship for a period of ONE (1) YEAR from the date of original purchase. If a defect exists, at its option Autel will repair or replace the product at no charge with the Proof of Purchase. The warranty obligations are limited to the terms set forth below:

1). Not apply to damages caused by improper use, accident, flood, lightning, or if the product was altered or repaired by anyone other than the Manufacturer's Service Center.

2). Not be liable for any incidental or consequential damages arising from the use, misuse, or mounting of the TPMS tool. Some states do not allow limitations on how long an implied warranty lasts, so the above limitations may not apply to you.

3). All information in this manual is based on the latest information available at the time of publication and no warranty can be made for its accuracy or completeness. Autel reserves the right to make changes at any time without notice.

4). The sole responsibility of Autel under the Warranty is limited to either the repair or, at the option of Autel, replacement of the TPMS tool at no charge with Proof of Purchase. The sales receipt may be used for this purpose.

5.2 Service Procedures

- If you have any questions, please contact your local store, dis
  tributor or visit our website at www.auteltech.com.
- If it becomes necessary to return the TPMS tool for repair, contact your local distributor for more information.