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1 Safety Precautions and Warnings

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

- Always perform diagnosis or service in a safe environment. Wear safety eye protection that meets ANSI standards.
- Wear safety eye protection that meets ANSI standards.
- Keep clothing, hair, hands, tools, test equipment, 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 running tests.
- 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 scan tool dry, clean, free from oil/water or grease. Use a mild detergent on a clean cloth to clean the outside of the scan tool, when necessary.
- Keep the TPMS tool dry, clean, free from oil, water and grease. Use a mild detergent on a clean cloth to clean the outside of the TPMS tool when necessary.

2 General Information

2.1 TPMS system review

A tire pressure monitoring system (**TPMS**) is an electronic system designed to monitor the air pressure inside the pneumatic tires on various types of vehicles. TPMS report real-time tire-pressure information to the driver of the vehicle, either via a gauge, a pictogram display, or a simple low-pressure warning light. TPMS can be divided into two different types - direct (dTPMS) and indirect (iTPMS). TPMS are provided both at an OEM (factory) level as well as an aftermarket solution.

2.2 TPMS Legislation

In the United States, the United States Department of Transportation (NHTSA) released the FMVSS No. 138, which requires an installation of a Tire Pressure Monitoring System to all new passenger cars, multipurpose passenger vehicles, trucks, and buses that have a gross vehicle weight rating (GVWR) of 4,536 kg (10,000 lbs.) or less, except those vehicles with dual wheels on an axle, as of 2007. In the European Union, starting November 1, 2012, all new models of passenger cars must be equipped with a TPMS, with even tighter specifications that will be defined by the UNECE Vehicle Regulations (Regulation No. 64). From November 1, 2014, all new passenger cars sold in the European Union must be equipped with TPMS. On July 13, 2010, the South Korean Ministry of Land, Transport and Maritime Affairs announced a pending partial-revision to the Korea Motor Vehicle Safety Standards (KMVSS), specifying that "TPMS shall be installed to passenger vehicles and vehicles of GVW 3.5 tons or less, ... [effective] on January 1, 2013 for new models and on June 30, 2014 for existing models". Japan is expected to adopt European Union legislation approximately one year after European Union implementation. Further countries to make TPMS mandatory include Russia, Indonesia, the Philippines, Israel, Malaysia and Turkey.

2.3 TPMS tell-tale light

When diagnosing TPMS systems, you should understand what the TPMS tell-tale light means.

When turning the ignition OFF to ON, the TPMS tell-tale display and then go off, indicating the system is working fine. If the light stays on, the tire pressure may be too low or too high. If the TPMS light flashes, an error exist within the system. Such an error can be caused by a faulty sensors or by the IDs of the sensors installed on the tires not matching the registered IDs within the vehicle ECU.

2.4 Benefits of TPMS

The significant advantages of TPMS are summarized as follows:

- Fuel saving.
- Extended tire life.
- Decreased downtime and maintenance.
- Improved safety.
- Environmental efficiency.

3 Tool Information

3.1 Tool Description

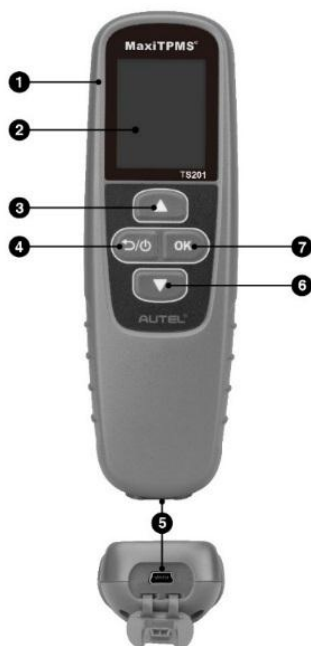






Figure 3.1

- 1) **PROTECTIVE BOOT** -- Protects the TPMS tool from damage caused by a fall or by abrasions.
- 2) **LCD DISPLAY** -- Indicates test results. 1.77 inch LCD display with 128*160 resolution.

- 3)  **UP ARROW BUTTON** -- Moves 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)  **RETURN AND POWER BUTTON** -- Cancels a selection (or action) from a menu or return to previous menu or turns on/off the tool.
- 5) **USB PORT** -- Connects the TPMS tool to computer with the supplied USB cable to update the device or for charging.
- 6)  **DOWN ARROW BUTTON** -- Moves 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.
- 7)  **OK BUTTON** -- Confirms a selection (or action) from a menu.

3.2 Specifications




- 1) Display: 1.77 inch LCD display with 128*160 resolution
- 2) Power: Rechargeable 3.7V Li-polymer battery
- 3) Operating Temperature: 0 to 50°C (32 to 122 °F)
- 4) Storage Temperature: -10 to 60°C (14 to 140 °F)
- 5) Dimensions:
Length: 155mm (6.10")
Width: 49mm (1.93")
Height: 33mm (1.29")
- 6) Weight: 134.5g (0.29lb.)

3.3 Accessories Included

- 1) **User's Manual** -- Instructions on tool operations.
- 2) **Quick Guide** -- Tool function and software update instructions.

- 3) **USB Cable** -- Allows easy update through PC via internet connection and charge battery.

3.4 Icons

- 1)  Indicates battery volume.
- 2)  Indicates USB communication with the computer is established.
- 3)  Indicates the TPMS tool is sending signals to the tire sensor for activation and test.

3.5 Keyboard

No solvents such as alcohol are allowed to clean the keypad or display. Use a mild nonabrasive detergent and a soft cotton cloth. Do not soak the keypad as the keypad is not waterproof.

3.6 Battery Charging

The tool has a 3.7v built-in lithium-ion polymer rechargeable battery.

To charge battery by USB cable

- Locate the USB port of the device.
- Connect the device and the computer with the USB cable.

For optimum performance, always keep your tool sufficiently charged. It is recommended that you charge the tool for at least 2 hours before the first use.

NOTE

Only use the USB cable that is included in our pack to charge this tool. The use of un-approved power supplies may damage your tool and void the tool warranty.

4 Auto Scan

The MaxiTPMS® TS201 can automatically trigger the original sensor to display sensor and tire data by selecting the manufacturer name of the original sensor. OEM sensors the TS201 can trigger include Schrader, VDO, TRW, Pacific, Huf/Beru, BAOLONG, etc.

To enter the Auto Scan menu

Turn on the tool. Use the **UP or DOWN** Arrow button to select **Auto Scan** from **Main Menu**, and press the **OK** button.



Figure 4.1

There are three options for activating the original sensor: LF (Low Frequency) Scan, Deflation Scan and Magnet Scan.

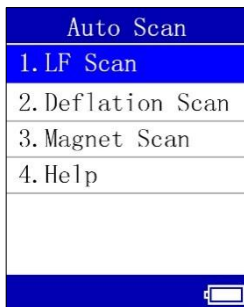


Figure 4.2

4.1 LF Scan

In this function, the tool will send out low frequency (LF) signal to active the TPMS sensors.

4.1.1 Select sensor's manufacturer

From the **Auto Scan** screen, select the manufacturer name or brand of the original sensor by using the **UP** and **DOWN** Arrow buttons. The name of vehicle manufacturers using these sensors are listed within parenthesis. For example, GM, Ford, Chrysler and Mercedes often use Schrader (SCH) sensors.



Figure 4.3

4.1.2 Trigger Process

To trigger or activate the sensor, hold the tool no more than 2 inches from the sensor or from the tire sidewall (Figure 4.4) and press **OK** button.

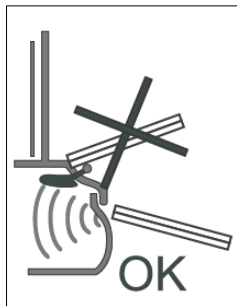


Figure 4.4

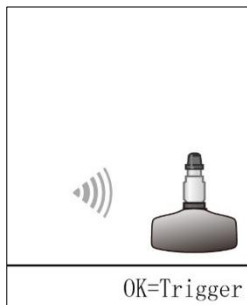



Figure 4.5

The tool is receiving data from the sensor.



Figure 4.6

If the sensor is triggered successfully, the screen will display the ID and battery condition of the original sensor and the associated tire's pressure and temperature. Press **OK** button to re-trigger the sensor or press  button to exit.

ID (H)	7831AD52
Pres.	3 KPa
Temp.	24 °C
Bat.	OK
	
OK=Trigger	

Figure 4.7

“Activation Failed” display when the sensor fails to activate. Press the **OK** button to try again. Please contact Autel Support if the tool fails to activate a sensor you know to be functional.



Figure 4.8

If the activation process is cancelled by the user, the screen displays “User Aborted”.



Figure 4.9

TIPS

TS201 may display multiple Make, Mode, Year (MMY) menu options on the screen after auto scan. The sensor information will be displayed directly after selecting the specific make, model and year of the vehicle.

4.2 Deflation Scan

For some special vehicles, you may need to use the “Deflation Scan” method to activate the TPMS sensors. Rapidly deflate (See **P↓** on tool screen) during the entire activation process.

From **Auto Scan** screen, use the **UP** or **DOWN** Arrow button to select **Deflation Scan**, and press the **OK** button. For the detail operation process, please reference the “**Scan By MMY**” section on page 14.



Figure 4.10

4.3 Magnet Scan

Sometimes a magnet is needed when the original sensor is triggered. The TS201 offers the third method “Magnet Scan” to activate the sensor.

To activate the sensor, put the magnet onto the valve stem and hold the TS201 no more than 2 inches from the tire sidewall.



Figure 4.11

From **Auto Scan** screen, use the **UP** or **DOWN** Arrow button to select **Magnet Scan**, and press the **OK** button. For the detail operation process, please reference the “**Scan By MMY**” section on Page 14.

4.4 Help

This function allows the user to view the explanation about the three methods for further understanding.

From **Auto Scan** screen, use the **UP** or **DOWN** Arrow button to select **Help**, and press the **OK** button. Wait for the **Help** screen to display.



Figure 4.12

5 Scan By MMY

The MaxiTPMS® TS201 is a handheld tool used to activate TPMS sensors to view sensor ID, tire pressure, tire temperature and sensor life.

To enter the Scan By MMY menu

Use the **UP** or **DOWN** Arrow buttons to select **Scan By MMY** from **Main Menu** (Figure 4.1), and press the **OK** button.

5.1 Identify the vehicle

Use the **UP** or **DOWN** Arrow button to select by make, model and year. Place the tool alongside the valve stem and press the **OK** button.

Select by Make



Figure 5.1

Select by Model



Figure 5.2

Select by Year



Figure 5.3

5.2 Testing results

Activate the sensors in the following order as the tool displays, LF (Left Front), RF (Right Front), RR (Right Rear), LR (Left Rear) and SPARE (if equipped). Use the **UP or DOWN** Arrow button to move to the desired wheel for testing.

Hold the tool about two inches from the tire sidewall (Figure 4.3) and press **OK** button.

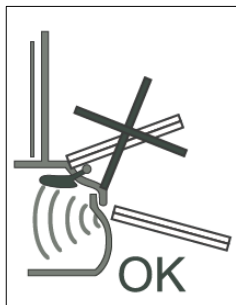


Figure 4.3

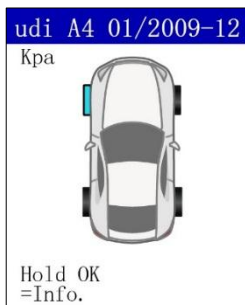



Figure 5.4

If sensors have been previously activated and there is data saved in the tool, a Clear Data message displays. Press  button to display the sensor activation menu. Press **OK** button to clear the previous data.

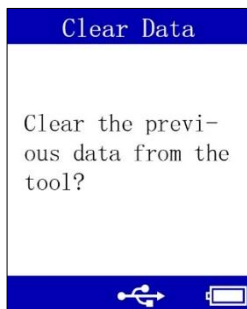


Figure 5.5

Once the sensor is successfully activated, the tool will display the “√” icon and tire pressure with an audible beep. If the tire pressure is low, the pressure

value displays in red. The pressure will display in black if the pressure is at the recommended level.

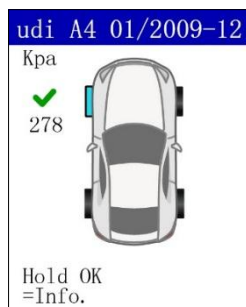



Figure 5.6

Use the **UP or DOWN** Arrow button to select the tested wheel after the sensor is successfully activated. Press and hold the **OK** button to display all sensor data, including the position, sensor ID, tire pressure, temperature and battery condition. Press the **UP or DOWN** Arrow button to select sensor on remaining wheels. Press and hold the **OK** button to display data or press the  button to return to the previous menu.

Pos	LF
ID (H)	AA4638FF
Pres.	278 Kpa
Temp.	24° C
Bat.	OK
↩=EXIT	

Figure 5.7

After a sensor is activated, a test result icon, “√”, “x”, “W”, “Dup”, will display alongside the wheel, indicating the wheel test is completed.

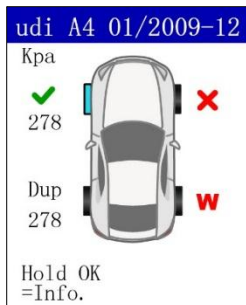


Figure 5.8

TABLE 5-1 POSSIBLE RESULTS FOR TESTING

Icon	Test Results	Description
✓	Successful Sensor Read	TPMS sensor is successfully activated and decoded. The tool displays the sensor information.
X	Failed Sensor Read	If the search period expires and no sensor activation or decode, it may be wrong sensor fitting or non-functioning sensor. In this case, repeat test to confirm the TPMS failure.
W	Wrong Sensor Type	A TPMS sensor is activated and decoded, but does not match the protocol for the Make, Model or Year of the vehicle. Verify the Make, Model or Year and the sensor part number.
Dup	Duplicate ID	A sensor with a duplicate ID has been read. Clear data and re-read again.

6 My Tool

This function allows users to update software, change tool settings and display tool properties.

To enter the My Tool menu

Use the **UP or DOWN** Arrow button to select **My Tool** from **Main Menu** (Figure 4.1), and press the **OK** button to enter the **My Tool** screen.

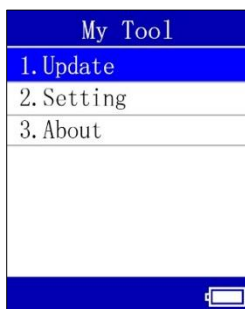


Figure 6.1

6.1 Update

This function allows you to update the software on this TPMS tool via your computer by installing the **Maxi PC Suite** and attaching the tool to the computer with the supplied USB cord. Follow the Update the Software instructions below.

➤ To register the tool

1. Visit the website: <http://pro.auteltech.com>.
2. On the Sign in page, if you already have an Autel User ID, input the

account ID and follow the directions displayed.

3. If you do not have an ID, click the **Create Autel ID** button on the left side.
4. Enter the required information in the input fields, read through Autel's Terms and Conditions and check **Agree**, click **Create Autel ID** at the bottom to continue.
5. The online system will automatically send a confirmation email to the registered email address. Validate your account by clicking the link provided through the mail. A product registration screen will display.
6. The TS201's serial number and password are located on the **About** screen of the **My Tool** menu.
7. Enter the serial number and password on the Product Registration screen, and click Submit to complete the registration.

➤ **To update the software**

1. Ensure download the Maxi PC Suite from www.maxitpms.com > Product > MaxiTPMS TS201 > Downloads, and install it onto your Windows-based computer. Connect the tool to the computer.
2. Run the **Maxi PC Suite** on the computer.
3. From the **My Tool** screen, use the **UP or DOWN** Arrow button to select **Update**. Press the **OK** button to enter **PROGRAM MODE**.

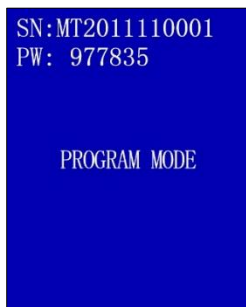


Figure 6.2

4. The Maxi PC Suite will automatically detect the connected tool's serial number and display the Update menu.

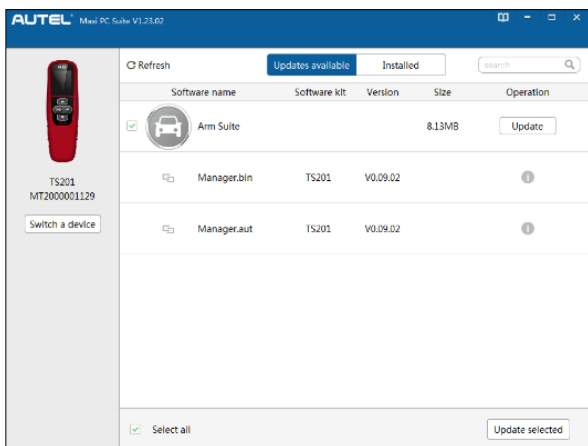


Figure 6.3

5. On the **Updates Available** page, click the **Update** button to continue.
6. When the update is completed, a Program Update End screen will display on the TPMS tool.

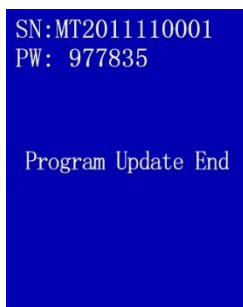


Figure 6.4

6.2 Settings

The System Setup function allows you to adjust default settings.

To enter the Setting menu

From **MY Tool** screen, use the **UP or DOWN** Arrow button to select **Setting**, and press the **OK** button.

Market

TIPS

The default market is dependent on the region in which the tool is sold.

- 1) From **System Setup** screen, use the **UP or DOWN** Arrow button to select **Market**, and press the **OK** button.

System Setup	
1. Market	America
2. Language	EN
3. ID Format	Dec
4. Pres.	Psi
5. Temp.	°C
6. Beep Set	Off
	

Figure 6.5

- 2) From **Market** screen, use the **UP or DOWN** Arrow button to select the desired market or tool operating region. Press the **OK** button to save your selection and return to the previous screen.

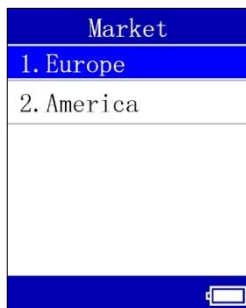


Figure 6.6

TIPS

America market is priority to select for customers who are not in European and American areas.

Language

TIPS

English is the default language.

- 1) From **System Setup** screen, use the **UP or DOWN** Arrow button to select **Language**, and press the **OK** button.

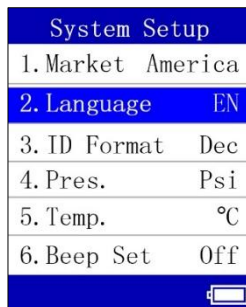


Figure 6.7

- 2) From **Language** screen, use the **UP or DOWN** Arrow button to select the desired language and press the **OK** button to save your selection

and return to the previous screen. Currently, four language options are available.



Figure 6.8

ID Format

- 1) From **System Setup** screen, use the **UP or DOWN** Arrow button to select **ID Format**, and press the **OK** button.

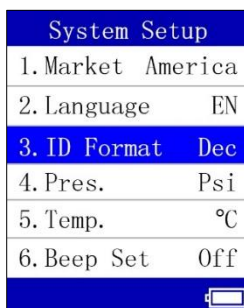


Figure 6.9

- 2) From **ID Format** screen, use the **UP or DOWN** Arrow button to select the desired format of ID.

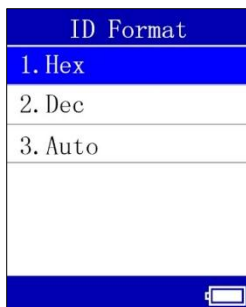



Figure 6.10

- 3) Press the **OK** button to save your settings and return to previous menu, or press the  button to exit without change.

Pressure Unit

- 1) From **System Setup** screen, use the **UP** or **DOWN** Arrow button to select **Pressure Unit**, and press the **OK** button.

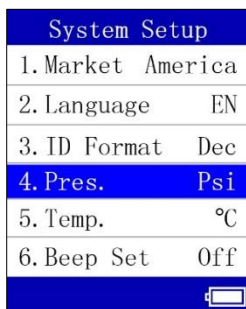


Figure 6.11

- 2) From **Pressure Unit** screen, use the **UP or DOWN** Arrow button to select the desired unit: Kpa, Psi or Bar.

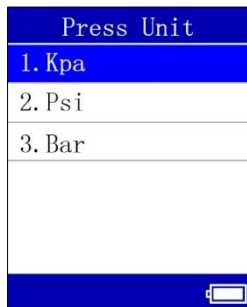



Figure 6.12

- 3) Press the **OK** button to save your settings and return to previous menu, or press the  button to exit without change.

Temperature Unit

- 1) From **System Setup** screen, use the **UP or DOWN** Arrow button to select **Temperature Unit**, and press the **OK** button.



Figure 6.13

- 2) From **Temperature Unit** screen, use the **UP or DOWN** Arrow button to select the desired temperature unit in degree Celsius or Fahrenheit.

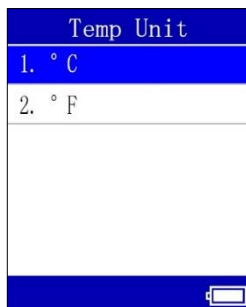



Figure 6.14

- 3) Press the **OK** button to save your settings and return to previous menu, or press the  button to exit without change.

Beep Set

This function allows you to turn on/off the build-in speaker for key pressing.

- 1) From **System Setup** screen, use the **UP** or **DOWN** Arrow button to select **Beep Set**, and press the **OK** button.

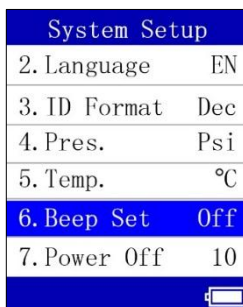


Figure 6.15

- 2) From **Beep Set** menu, use the **UP** or **DOWN** Arrow button to select **OFF** or **ON** to turn the beep sound off or on.

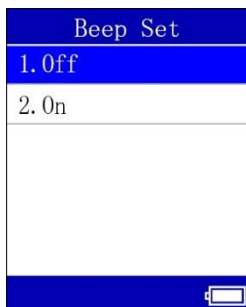



Figure 6.16

- 3) Press the **OK** button to save your settings and return to previous menu, or press the  button to exit without change.

Power Off

- 1) From **System Setup** screen, use the **UP** or **DOWN** Arrow button to select **Power Off**, and press the **OK** button.

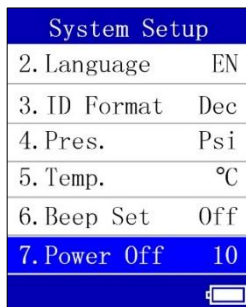



Figure 6.17

- 2) From **Power Off** screen, use the **UP or DOWN** Arrow button to increase or decrease the amount of time of inactivity before the tool automatically powers off. Press the **OK** button to confirm your change or the  button to cancel and return to the previous menu.

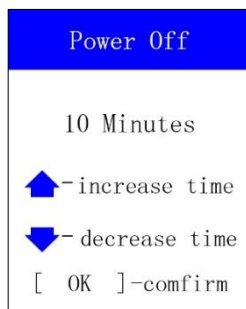


Figure 6.18

NOTE

Before the tool powers off automatically, it will save all the TPMS test data. This data will be available when the tool is next turned on.

When using external power, the tool stays on until you turn it off. When using internal battery power, the tool turns off automatically after a set time of inactivity.

6.3 About

This function allows user to view some important information about the tool, such as its serial number, password, software version and hardware version.

1. From **MY Tool** screen, use the **UP or DOWN** Arrow button to select **About**, and press the **OK** button. Wait for the **About** screen to display.

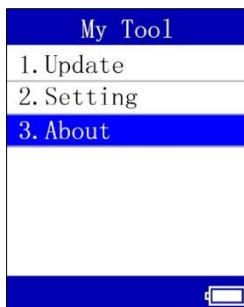


Figure 6.19


2. View tool information on screen. Press **OK** or  button to exit without saving.



Figure 6.20

7 Compliance Information

FCC STATEMENT:

This device complies with Part 15 of the FCC Rules. 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.

WARNING

Changes or modifications 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 B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation.

This equipment generates uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

8 Warranty and Service

8.1 Limited One Year Warranty

Autel warrants to its customers that this product will be free from all defects in materials and workmanship for a period of one (1) year from the date of the original purchase, subject to the following terms and conditions:

- 1) 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.
- 2) This warranty does not apply to damage due directly or indirectly, to misuse, abuse, negligence or accidents, repairs or alterations outside our Service Center or facilities, criminal activity, improper installation, normal wear and tear, or to lack of maintenance.
- 3) Autel shall 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.
- 4) 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.

8.2 Service

If you have any questions, please contact your local distributor or visit our website at www.autel.com, www.maxitpms.com, or mail to supporttpms@auteltech.com ask for some help.

If it becomes necessary to return the tool for repair, contact your local distributor for more information.