

# Safety Information

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For your own safety and the safety of others, and to prevent damage to the device and vehicles upon which it is used, it is important that the safety instructions presented throughout this manual be read and understood by all persons operating or coming into contact with the device.

There are various procedures, techniques, tools, and parts for servicing vehicles, as well as in the skill of the person doing the work. Because of the vast number of test applications and variations in the products that can be tested with this equipment, we cannot possibly anticipate or provide advice or safety messages to cover every circumstance. It is the automotive technician's responsibility to be knowledgeable of the system being tested. It is crucial to use proper service methods and test procedures. It is essential to perform tests in an appropriate and acceptable manner that does not endanger your safety, the safety of others in the work area, the device being used, or the vehicle being tested.

Before using the device, always refer to and follow the safety messages and applicable test procedures provided by the manufacturer of the vehicle or equipment being tested. Use the device only as described in this manual. Read, understand, and follow all safety messages and instructions in this manual.

## Safety Messages

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Safety messages are provided to help prevent personal injury and equipment damage. All safety messages are introduced by a signal word indicating the hazard level.

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### **DANGER**

Indicates an imminently hazardous situation that, if not avoided, will result in death or serious injury to the operator or to bystanders.

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### **WARNING**

Indicates a potentially hazardous situation that, if not avoided, could result in death or serious injury to the operator or to bystanders.

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# Safety Instructions

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The safety messages herein cover situations Autel is aware of. Autel cannot know, evaluate or advise you as to all of the possible hazards. You must be certain that any condition or service procedure encountered does not jeopardize your personal safety.

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## 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.

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## SAFETY WARNINGS

- Always perform automotive testing in a safe environment.
- Wear safety eye protection that meets ANSI standards.
- Keep clothing, hair, hands, tools, test equipment away from all moving or hot engine parts.
- Operate the vehicle in a well-ventilated work area, as exhaust gases are poisonous.
- Put the transmission in PARK (for automatic transmission) or NEUTRAL (for manual transmission) and make sure the parking brake is engaged.
- Put blocks in front of the drive wheels and never leave the vehicle unattended while testing.
- Be extra cautious 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, and electrical fires nearby.
- Do not connect or disconnect any test equipment while the ignition is on or the engine is running.
- Keep the test equipment dry, clean, free from oil, water or grease. Use a mild detergent on a clean cloth to clean the outside of the equipment as necessary.
- Do not drive the vehicle and operate the test equipment at the same time. Any distraction may cause an accident.

- Refer to the service manual for the vehicle being serviced and adhere to all diagnostic procedures and precautions. Failure to do so may result in personal injury or damage to the test equipment.
- To avoid damaging the test equipment or generating 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 test equipment on the distributor of the vehicle. Strong electro-magnetic interference can damage the equipment.

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# 1 Using This Manual

This manual contains device usage instructions.

Some illustrations shown in this manual may contain modules and optional equipment that are not included in your system. Contact your sales representative for availability of other modules and optional tools or accessories.

## Conventions

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The following conventions are used.

### Bold Text

Bold text is used to highlight selectable items such as buttons and menu options.

- Tap **OK**.

### Notes and Important Messages

#### *Notes*

A **NOTE** provides helpful information such as additional explanations, tips, and comments.

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#### **NOTE**

New batteries reach full capacity after approximately 3 to 5 charging and discharging cycles.

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#### *Important*

**IMPORTANT** indicates a situation that, if not avoided, may result in damage to the test equipment or vehicle.

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**!** **IMPORTANT**

Keep the cable away from heat, oil, sharp edges and moving parts. Replace damaged cables immediately.

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## **Hyperlink**

Hyperlinks or links that take you to other related articles, procedures, and illustrations are active in electronic documents. Blue italic text indicates a selectable hyperlink and blue underlined text indicates a website link or an email address link.

## **Illustrations**

Illustrations used in this manual are samples; the actual testing screen may vary for each vehicle being tested. Observe the menu titles and on-screen instructions to make the correct option selection.



# 2 General Introduction

When it comes to ultra-portability, MaxiTPMS ITS600 (hereinafter referred to as ITS600) is your perfect companion. ITS600 offers maximum convenience and swift diagnosis. The intuitive user interface makes using the device effortlessly through a 5.5-inch LCD touch screen that displays at 1280 x 720 quality. Together with the ability to quickly read and clear Original Equipment Manufacturers (OEM) enhanced codes for TPMS module of the majority of the makes and models on the market, ITS600 provides you with superior special functions for TPMS services with ease.

There are two main components of the ITS600 system:

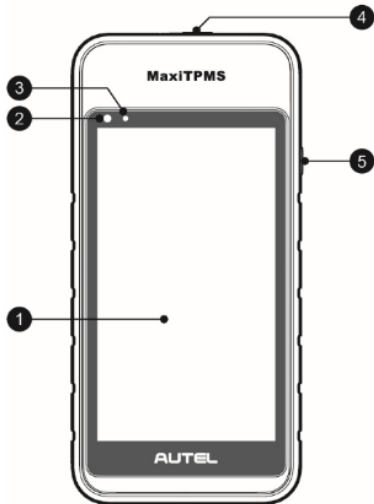
- ITS600 Display Tablet – the central processor and monitor for the system.
- MaxiVCI V200 (Vehicle Communication Interface) – the device for accessing vehicle data.

This manual describes the construction and operation of both the devices and how they work together to deliver diagnostic solutions.

# MaxiTPMS ITS600 Display Tablet

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## Functional Description



**Figure 2-1 Display Tablet Front View**

1. 5.5" LCD Capacitive Touchscreen
2. Ambient Light Sensor – detects ambient brightness.
3. Power LED – indicates battery level & charging or system status.
4. TPMS Service Symbol – indicates the position of the embedded TPMS antenna.
5. Lock/Power Button – long press the button to turn on the tablet.

The power LED displays green, yellow or red depending on power level and operating state:

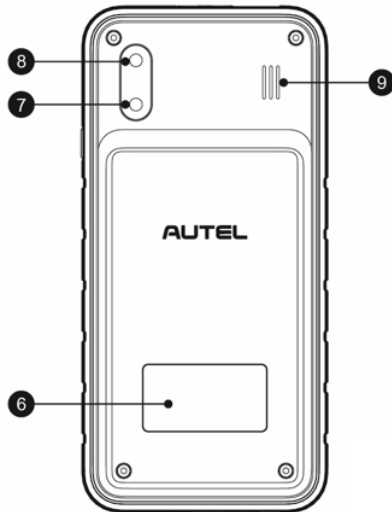
A. Green

- Flashes green when the Display Tablet is charging; lights green when the Display Tablet is fully charged.

B. Red

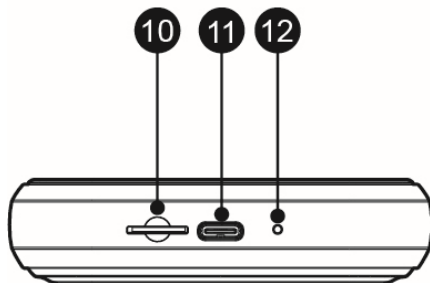
- Illuminates red when the Display Tablet is powered on and when a

problem is detected.



**Figure 2-2 Display Tablet Back View**

- 6. Sticker
- 7. Rear Camera
- 8. Camera Flash
- 9. Speaker



**Figure 2-3 Display Tablet Top View**

- 10. Micro SD Card Slot
- 11. Type-C USB OTG Port

## 12. Microphone

### Power Sources

The tablet can receive power from any of the following sources:

- Internal Battery Pack
- AC/DC Power Supply
- Vehicle Power Supply

#### *Internal Battery Pack*

The tablet can be powered with the internal rechargeable battery, which if fully charged can provide sufficient power for about 7 hours of continuous video watching and 5 hours of operations.

#### *AC/DC Power Supply*

The tablet can be powered from a wall socket using the AC/DC power adapter that connects to the Type-C USB. The AC/DC power supply also charges the internal battery pack.

#### *Vehicle Power*

The tablet can be powered from the cigarette lighter or other suitable power port on the test vehicle through a direct cable connection. The vehicle power cable connects to the USB Type-C port at the bottom of the tablet for charging.

### Technical Specifications

**Table 2-1 Specifications**

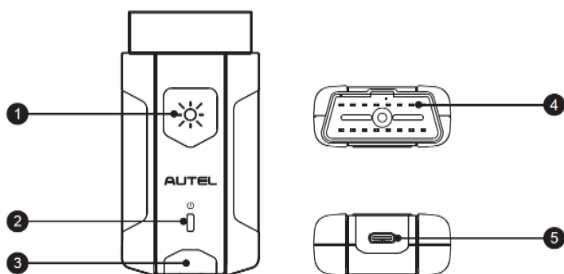
<b>Item</b>	<b>Description</b>
<b>Recommended Use</b>	Indoor
<b>Operating System</b>	Android™ 9.0
<b>Processor</b>	Quad-core processor (1.5 GHz)
<b>Memory</b>	1GB RAM DDR4 & 64GB ROM

Item	Description
<b>Display</b>	5.5-inch LCD capacitive touchscreen with 1280x720 resolution
<b>Connectivity</b>	<ul style="list-style-type: none"> <li>● Wi-Fi</li> <li>● USB 2.0, Type C</li> <li>● BT</li> </ul>
<b>Sensors</b>	Light sensor for brightness auto adjust.
<b>Audio input/output</b>	Input: N/A Output: Beep
<b>Power and Battery</b>	<ul style="list-style-type: none"> <li>● 3.8 V/5000 mAh lithium-polymer battery</li> <li>● Charges via 5 V AC/DC power supply</li> </ul>
<b>Battery Charging Input</b>	5 V/2 A
<b>Power Consumption</b>	600 mA (LCD on with default brightness, Wi-Fi on) @3.8 V
<b>Operating Temp.</b>	-10 to 45°C (14 to 113°F)
<b>Storage Temp.</b>	-20 to 60°C (-4 to 140°F)
<b>Dimensions (W x H x D)</b>	183.0 mm (7.2") x 89.0 mm (3.5") x 22.0 mm (0.87")
<b>Net Weight</b>	368 g (0.8 lb.)
<b>Protocols</b>	ISO9141-2, ISO14230-2, ISO15765, K/L-Line, Flashing Code, SAE-J1850 VPW, SAE-J1850PWM, ISO11898 (Highspeed, Middlespeed, Lowspeed and Singlewire CAN, fault-tolerant CAN), SAE J2610, GM

Item	Description
	UART,UART Echo Byte Protocol, Honda Diag-H Protocol, TP2.0, TP1.6

## VCI – Vehicle Communication Interface

The wireless diagnostic interface MaxiVCI V200 is a small vehicle communication interface (VCI) used to connect to a vehicle's DLC and connect wirelessly with the tablet for vehicle data transmission.



**Figure 2-4 MaxiVCI V200 Views**

### Functional Description

1. Lighting Push Button
2. Power LED
3. Vehicle/Connection LED
4. Vehicle Data Connector (16-Pin) – connects the MaxiVCI V200 to the vehicle's 16-pin DLC directly.
5. USB Port – provides the easiest connection between the device and the display tablet via a USB cable.

**Table 2-2 Power LED on the Front Panel**

LED	Color	Description
Power	Yellow	Lights yellow at power up when VCI is self-testing.
	Green	Lights solid green when powered on.
	Red	Blinks red when VCI is upgrading. <i>Note: The power LED briefly lights yellow each time the device powers on and then lights green when the device is ready.</i>

**Table 2-3 Connection LED on the Front Panel**

LED	Color	Description
Connection	Green	<ul style="list-style-type: none"> <li>● Blinks green when communicating.</li> <li>● Lights green when connected via USB cable.</li> </ul>
	Blue	<ul style="list-style-type: none"> <li>● Blinks Blue when communicating.</li> <li>● Lights Blue connected via USB cable.</li> </ul>

## Technical Specifications

**Table 2-4 Specifications**

Item	Description
<b>Communications</b>	<ul style="list-style-type: none"> <li>● BLE + EDR</li> <li>● USB 2.0</li> </ul>
<b>Wireless Frequency</b>	2.4 GHz
<b>Input Voltage Range</b>	8 V-30V DC
<b>Supply Current</b>	150 mA @ 12 V DC
<b>Operating Temp.</b>	-10°C to 45°C (14°F to 113°F)
<b>Storage Temp.</b>	-20°C to 60°C (-4°F to 140°F)

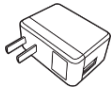


Item	Description
<b>Dimensions</b> (L x W x H)	89.89 mm (3.53") x 46.78 mm (1.84") x 21 mm (0.82")
<b>Weight</b>	70.7g (0.156 lb.)
<b>Built-in Battery</b>	3.7V Lithium Battery
<b>Light</b>	White LED

**NOTE**

The 3.7V Lithium Battery is used for LED lighting only.

## Other Accessories

**Table 2-5 Accessories**

	<p><b>Power Adapter</b></p> <p>Used with USB cable to charge ITS600 via DC electrical outlet.</p>
	<p><b>USB Cable</b></p> <p>Connect to power adapter and ITS600 for charging.</p>
	<p><b>Hex Key</b></p> <p>Used to install and uninstall the sensor.</p>



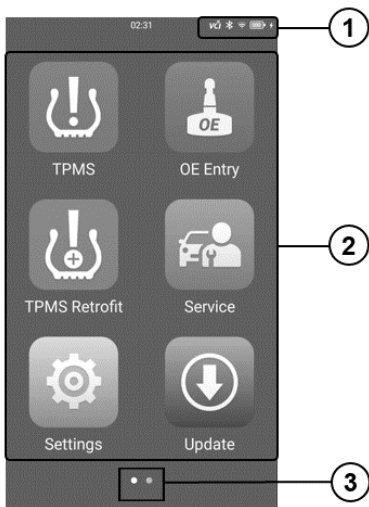
# 3 Getting Started

Ensure the tablet is sufficiently charged or is connected to a power outlet (see [Power Sources](#) on page 6).

## Powering Up

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Long press the Lock/Power button on the right side of the tablet to switch the unit on. The system boots up and displays the MaxiTPMS Job Menu.



**Figure 3-1 Sample MaxiTPMS ITS600 Job Menu**

1. System Status Icons
2. Application Buttons
3. Locator

Almost all operations on the tablet are controlled through the touchscreen. The touchscreen navigation is menu driven allowing for quick access to test procedure, or data that you need, through a series of questions and options.

Detailed descriptions of the menu structures are found in the chapters for each application.

## System Status Icons

Slide downward the screen to display Shortcuts Panel and have access to a variety of features. The table below shows each icon and its corresponding feature:











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### NOTE

The shortcuts buttons will be highlighted when enabled, and dimmed when disabled.

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**Table 3-1 System Status Icons**




Button	Name	Description
	<b>System Settings</b>	Launches the Android System Settings interface when pressed.
	<b>Bluetooth</b>	Enables/disables BT when pressed.
	<b>WLAN</b>	Enables/disables Wi-Fi when pressed.
	<b>Flashlight</b>	Turns on/off flashlight when pressed.
	<b>Screenshot</b>	Takes a screenshot of the display.
	<b>Automatic brightness</b>	Adjusts the screen brightness to your surroundings.
	<b>Logger</b>	Posts log collection.
	<b>Restart App</b>	Restarts applications when pressed.
	<b>Camera</b>	Enables photo-taking and recording.
	<b>VCI Manager</b>	Opens the VCI Manager application for VCI connection and upgrade. Refer to <a href="#">VCI Manager</a> on page 103 for more details.

## Application Buttons

Descriptions of the tool applications are displayed in the table below.

**Table 3-2 Applications**

Button	Name	Description
	<b>TPMS</b>	Accesses the TPMS service program. See <a href="#">TPMS</a> on page 16 for details.
	<b>Diagnostics</b>	Accesses diagnostic functions menu. (the diagnostics function is available with an additional purchase ) See <a href="#">Diagnostics</a> on page 66 for details.
	<b>OE Entry</b>	Accesses OEM menu. See <a href="#">OE Entry</a> on page 60 for details.
	<b>Service</b>	Accesses special functions menu. See <a href="#">Service</a> on page 87 for details.
	<b>TPMS Retrofit</b>	Allows TPMS to be installed on vehicles. See <a href="#">TPMS Retrofit</a> on page 58 for details.
	<b>Settings</b>	Accesses MaxiTPMS system settings menu and general tablet menu. See <a href="#">Settings</a> on page 102 for details.
	<b>Update</b>	Accesses system software update menu. See <a href="#">Update</a> on page 110 for details.
	<b>Data Manager</b>	Accesses the organization system for saved data files. See <a href="#">Data Manager</a> on page 113 for details.
	<b>Academy</b>	Accesses technical tutorials and training articles about the device or vehicle diagnostic techniques. See <a href="#">Academy</a> on page 122 for details.

Button	Name	Description
	<b>ToolKit</b>	Accesses auxiliary functions menu for TPMS service. See <a href="#">ToolKit</a> on page 109 for details.
	<b>Remote Desktop</b>	Configures your unit to receive remote support using the TeamViewer application. See <a href="#">Remote Desktop</a> on page 123 for details.
	<b>Activate Pro function</b>	Accesses all system diagnostics and service function. See <a href="#">Activate Pro function</a> on page 126 for details.

## Locator

The locator icon displays at the bottom of the MaxiTPMS Jobs screen. Swipe the screen left or right to view the previous or next screen.

## Powering Down

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All vehicle communications must be terminated before powering off the tablet. A warning message will display if the unit attempts to power off while still connected with the vehicle. Forcing the tablet to power off while the unit is still communicating with the vehicle may lead to ECM problems on some vehicles. Exit diagnostics applications before powering off.

### ➤ To power down the display tablet

1. Long press the Lock/Power Button.
2. Tap **Power off** option.
3. Tap **OK**, the tablet will turn off in a few seconds.

## Reboot System

In case of system crash, long press the Lock/Power button and select the **Restart** option to initiate a restart of the system.

➤ **To reboot the display tablet**

1. Long press the Lock/Power Button.
2. Select the **Restart** option.
3. Tap **OK**, the tablet will reboot.

# 4 TPMS

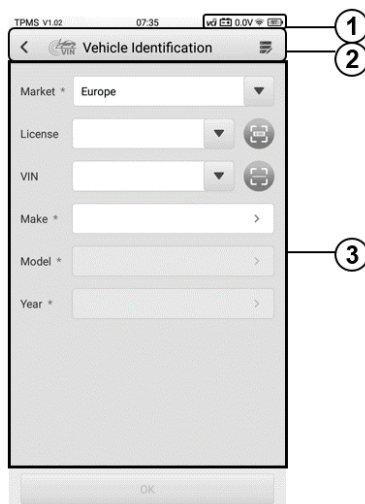
ITS600 provides an extensive series of TPMS-related services and functions. Quickly identifies vehicle information and easy to operate, ITS600 is an ideal choice for technicians to complete TPMS work.

## Getting Started

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### TPMS Service Menu Layout

Tap **TPMS** on the MaxiTPMS Job Menu to access the Vehicle Identification Menu.



**Figure 4-1 Sample Vehicle Identification**





1. System Status Icons
2. Top Toolbar Buttons – refer to [Table 4-1 Top Toolbar Buttons on Vehicle Menu](#) on page 17 for details.

### 3. TPMS Service Access Methods

#### *Top toolbar buttons*

The operations of the toolbar buttons at the top of the screen are described in the table below:

**Table 4-1 Top Toolbar Buttons on Vehicle Menu**

Button	Name	Description
	<b>Exit</b>	Returns to the MaxiTPMS Job Menu.
	<b>Auto VIN Detect</b>	Automatically acquire VIN information vehicle make, model and year by retrieving Vehicle Identification Number (VIN) from the test vehicle. See <a href="#">Auto VIN Detect</a> on page 18 for details.
	<b>Data Logging</b>	Use this function when encountering an error when testing or diagnosing a vehicle. This function will record the communication data and ECU information of the test vehicle and send it to Autel's technical staff to review and provide solution. See <a href="#">Data Logging</a> on page 120.
	<b>VCI</b>	After pairing the MaxiVCI V200 with tablet, a VCI icon with check mark will appear at the upper right corner of the screen. An X icon will display if connection fails.


#### *TPMS Service Access Methods*

There are six options available on the screen when accessing the Vehicle Identification page to select the vehicle tested.


#### **Market**

Select the market where the user resided, featuring the Europe, North America, Korea, Japan, and Australia market.

## License

Select License, tap  to scan license plate number or manually input the plate number.

## VIN

Tap  to perform the VIN Scan method or manually input VIN code to identify your vehicle make/model/year.

## Make

Tap the blank bar to the right, the screen displays a list of vehicle manufacturers in alphabetic order. Select the auto manufacturer of your tested vehicle.

## Model

Select the specific vehicle model of your vehicle from a list of models displayed.

## Year

Select the model year you want to search for the vehicle.

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### NOTE

The red asterisk icons on the top right corner of the optional headings indicate mandatory vehicle information to be acquired.

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## Vehicle Identification

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There are four methods available for acquiring VIN information: Auto VIN Detect, Scan License, Scan VIN, and Manual Input.


### *Auto VIN Detect*

Auto VIN Detect function is used to quickly identify the test vehicle. Before operating, make sure a communication link is established between the test vehicle and the tablet via the MaxiVCI V200. Refer to [Establish Vehicle Communication](#) on page 28 for details.

Or, manually on the TPMS Service Menu and follow the onscreen instructions to select the vehicle make, model and year. This function is compatible with 1998 and newer vehicles.



## Scan License

Tap  on the right side of the screen, the camera will be opened. Place the tablet to align the license numbers within the scanning window, the result displays in the Recognition result dialog box after scanned. Tap **OK** to confirm the result. Once the license number is successfully detected, the screen will automatically jump to the Vehicle Identification page with the license plate scanned displays.

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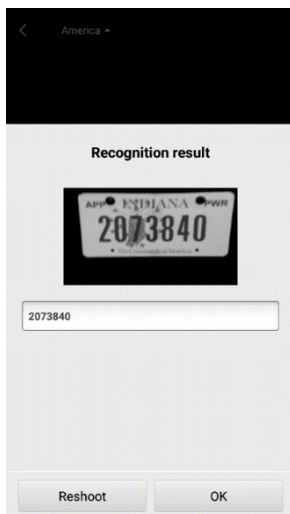
### NOTE

The method of Scan License is supported in some countries and areas. Please manual input the license numbers if it is not available.

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**Figure 4-2 Sample Scan License 1**



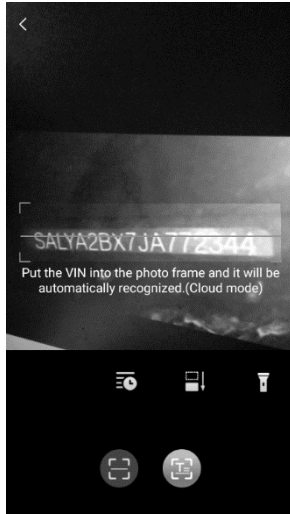
**Figure 4-3 Sample Scan License 2**

### *Scan VIN*

Tap  to perform the Scan VIN method, the camera will be opened.

At the bottom of the screen, from left to right, two options are available, **Barcode/QR code Scan** and **Scan VIN**.

Select one of two options and position the tablet to align the VIN code within the scanning window, the result displays in the Recognition result dialog box after scanned. Tap **OK** to confirm the result. Once the VIN code is successfully detected, the screen will automatically jump to the Vehicle Identification page with the VIN code acquired displays.



**Figure 4-4 Sample Scan VIN**

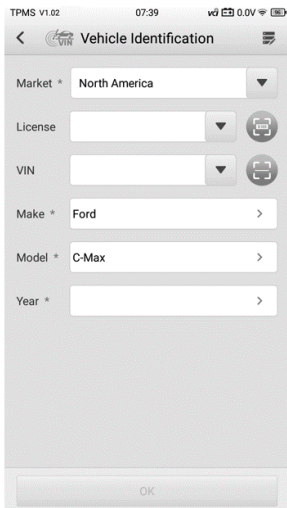
### *Manual Input*

For vehicles that do not support scanning function, the MaxiTPMS system allows you to enter the vehicle VIN or license numbers manually, or simply take a photo of the VIN sticker or license plate for quick vehicle identification.

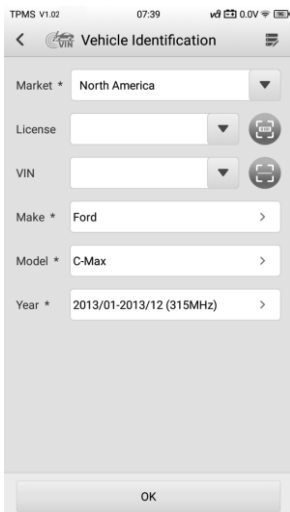
#### ➤ **To perform Manual Input**

1. Tap the **TPMS** application button from the MaxiTPMS Job Menu. The Vehicle Identification Menu displays.
2. Select **License** or **VIN**, and tap the corresponding input box on the screen to open the keyboard.
3. Enter the correct license number or VIN code.

If no license plate number or VIN code is available to identify the vehicle automatically, you can also choose the vehicle make, model, and year directly on the Vehicle Identification Menu.

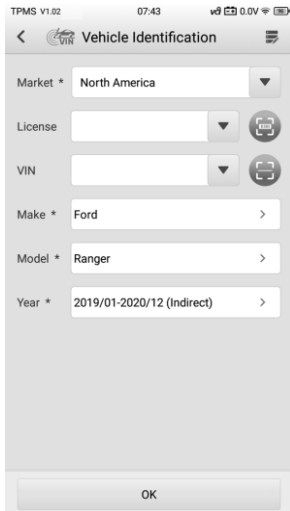


**Figure 4-5 Sample Vehicle Model Selection 1**



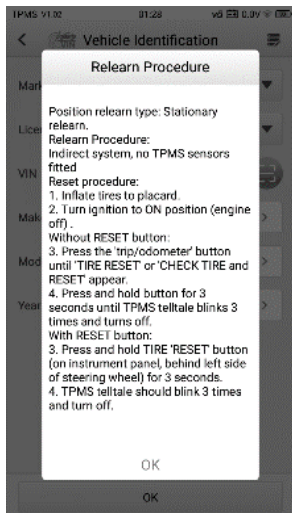
**Figure 4-6 Sample Vehicle Year Selection 2**

The following screen may display for vehicles using Indirect TPMS.



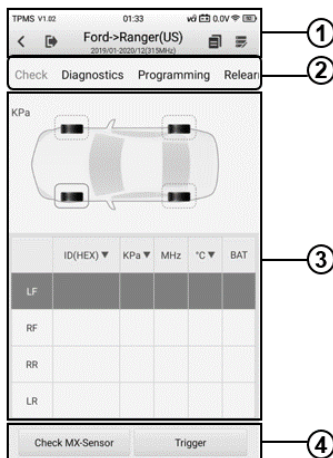
**Figure 4-7 Sample Indirect TPMS Selection Screen**

For **Indirect TPMS** vehicle, only the **Relearn** function is supported. Not all vehicle lines provide Indirect TPMS mode. Tap the **Year** option bar to open a dropdown list of model year. Find the model year that denotes with indirect TPMS system on the screen, for example in the case of the above screen – 2019/01-2020/12 (indirect), a vehicle year model confirmation message displays, click **OK** to confirm and display the Relearn Procedure, and follow the instructions to complete the operation.



**Figure 4-8 Sample Relearn Procedure for Indirect TPMS**





For vehicles using **Direct TPMS**, select the correct vehicle. The TPMS service menu will display next.



**Figure 4-9 Sample TPMS Screen**

1. Top Toolbar Buttons – refer to [Table 4-2 Top Toolbar Buttons on Service Menu](#) on page 25 for details.
2. Navigation Tab
3. Main Section
4. Function Buttons

**Table 4-2 Top Toolbar Buttons on Service Menu**

Button	Name	Description
	<b>Back</b>	Returns to the previous screen.
	<b>Exit</b>	Returns to the MaxiTPMS Job Menu.
	<b>Data Logging</b>	Records the communication data and ECU information of the test vehicle. See <a href="#">Data Logging</a> on page 120 for details.
	<b>Report</b>	Displays the TPMS test report page. See <a href="#">TPMS TEST REPORT</a> on page 115 for details.

### *Navigation Tab*

The navigation tab at the top of the Main Section screen contains the following items:

1. Check Tab – triggers sensors and displays sensor data.
2. Diagnosis Tab – Communicates with the test vehicle to perform diagnostics function, and displays diagnostics results including live data, DTCs, and etc.
3. Programming Tab – Program the MX-sensors, displays the new programmed sensor IDs and sensor PSNs (Product Serial Number).
4. Relearn Tab – displays the OE sensor information & Relearn procedure. Follow the instructions to perform relearn function.
5. Retrofit Tab – Performs retrofit related functions of the selected vehicle model.

6. Wear detection Tab – Measures tire tread depth & brake disc wear and displays results graphically.

---

 **NOTE**

Not all vehicles support **Diagnosis** function. If the selected vehicle model does not support Diagnosis, this tab will not display.

---

### *Main Section*

The data including sensor ID and battery status, tire pressure and temperature plus vehicle specific relearn procedures display depending on operation.

### *Function Buttons*

Specific Function buttons will display depending on operation. These buttons or icons can be used to trigger the TPMS sensor, create sensor IDs, program MX-Sensors and return to the previous screen or exit, etc.

---


## **TPMS Check**

---

The **Check** function allows user to activate TPMS sensor to view sensor data - sensor ID, tire pressure, tire temperature, battery condition and sensor position.

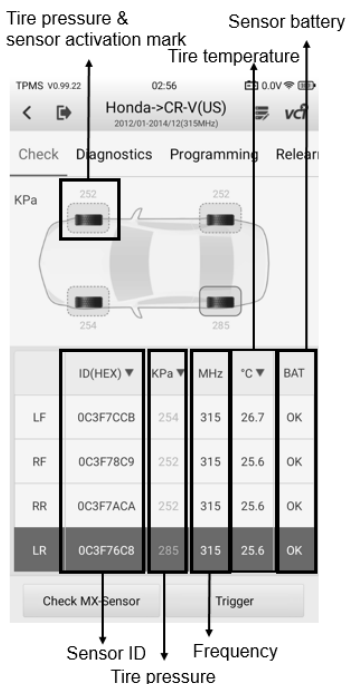
### **To check the sensors**

1. Follow the steps in [Vehicle](#) on page 18 to select the test vehicle.
2. Hold the front side of the tablet close to the sensor mounted on the wheel. The trigger antenna is embedded in the tool's top middle area.
3. On the tablet, select the wheel you wish to trigger by either selecting the image of the wheel on the pictured vehicle or by selecting the corresponding wheel notation (LF, RF, RR, LR). Tap **Trigger** button to activate this sensor.
4. Once the sensor is successfully triggered, the information of the sensor will display.

If the battery level of a sensor is low, a red low battery icon  will display beside the wheel on the screen.






Once triggered, the wheel icons will display green or red indicating sensor status. Refer to [Table 4-3 Possible Results for Triggering](#) on page 28 for details.



**Figure 4-10 Sample Check Screen**

The sensor position, sensor ID, tire pressure, tire temperature, sensor frequency and sensor battery information of the triggered sensor will display on the table.

**Table 4-3 Possible Results for Triggering**

Icon	Results	Description
 (Green)	Successful Sensor Read	TPMS sensor is successfully activated and decoded. The table displays the sensor information.
 (Green)	Successful Sensor Read & Low Battery	TPMS sensor is successfully activated and decoded and the battery level of the sensor is low.
 (Red)	Failed Sensor Read	<p>If the search period expires and no sensor is activated or decoded, the sensor may be mounted incorrectly or does not function. The table displays "Failed".</p> <p>If the tire pressure is not in the normal range, the icon will turn red.</p> <p>If a sensor with a duplicate ID has been read, the screen displays a message "Sensor ID duplicated".</p> <p>Repeat the test procedure.</p>

## TPMS Diagnosis

The **Diagnostics** function is used to check the status of the TPMS system. This function requires connection with the test vehicle.

### Establish Vehicle Communication

The ITS600 connects to the test vehicle using the MaxiVCI V200.

## Vehicle Connection

The tablet communicates with the vehicle via the BT connection provided by the MaxiVCI V200.

To connect the MaxiVCI V200 to the test vehicle, insert the Vehicle Data Connector on the MaxiVCI V200 into the vehicle's DLC which is generally located under the vehicle dash and the MaxiVCI V200 will be automatically powered on.



### NOTE

The vehicle's DLC is not always located under the dash; refer to the vehicle's user manual for DLC location.

---

## VCI Connection

The MaxiVCI V200 Power LED will light solid green when properly connected to vehicle and ready to establish communication with the tablet.

The wireless diagnostic interface MaxiVCI V200 supports two communication methods with the tablet, wireless BT and wired USB.

### BT Connection

BT pairing is the recommended communication between the tablet and the MaxiVCI V200. The working range for BT communication is about 49 feet (about 15 m) enabling remote vehicle diagnostics.

If you use more than one MaxiVCI V200 to connect to the vehicles tested, you can perform vehicle diagnosis on various vehicles conveniently by pairing the tablet separately to each of the MaxiVCI V200 devices connected to the different test vehicles via wireless BT. Without the need to repeat the plugging and unplugging procedure which is unavoidable through traditional wired connection, BT connection saves you more time and provides higher efficiency.


Refer to [BT Connection](#) on page 104 for details.

### USB Cable Connection

Use the provided USB cable to connect the tablet and the MaxiVCI V200. A green check will display atop the VCI navigation button at the bottom of the

screen and the MaxiVCI Connection LED will light solid green when connection between the devices is successful.

---

 **NOTE**

The USB communication method will take priority over BT communication if both are enabled.

---

### *No Communication Message*

- An “Error” message will display if the MaxiVCI V200 is not connected correctly. To resolve this issue, please do the following.
  - Check if the MaxiVCI V200 is powered on.
  - Check if the MaxiVCI V200 is properly positioned.
  - Check if the Connection LED on the MaxiVCI V200 is illuminated for BT or USB.
  - In case of BT connection, check if the network is configured correctly, or if the right MaxiVCI V200 has been paired up with the tablet.
    - ◇ If communication is lost during diagnosis, ensure there is no nearby object that might cause signal interruption.
    - ◇ Stand closer to the MaxiVCI V200 to obtain a stronger signal, and a faster communication speed.
  - When using USB connection, check the cable connection between the tablet and the MaxiVCI V200.
  - Check the Power LED on the MaxiVCI V200. A blinking red light indicates there is a hardware problem with the MaxiVCI V200. Contact technical support for assistance.
- A message will display if the MaxiVCI V200 is unable to establish a communication link. The followings are the possible causes:
  - The MaxiVCI V200 is unable to establish a communication link with the vehicle.
  - The system selected for testing is not equipped on the vehicle.
  - There is a loose connection.
  - There is a blown vehicle fuse.
  - There is a wiring fault of the vehicle or the adapter.
  - There is a circuit fault in the adapter.

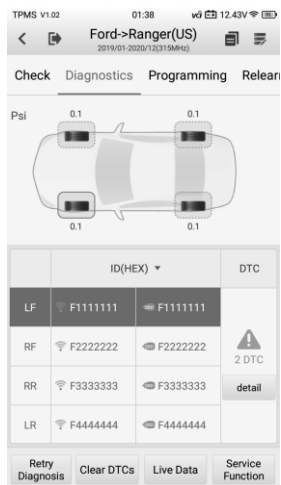
- Incorrect vehicle identification was entered.

## Diagnosis Operations

Tap **Diagnostics**, the tablet will automatically communicate with the vehicle.







**Figure 4-11 Sample Communication Screen**



**Figure 4-12 Sample Diagnostics Screen 1**

If the OBD function is supported by the test vehicle, the sensor ID saved in the TPMS ECU will be retrieved and displayed on the screen with an OBD icon adjacent to it.

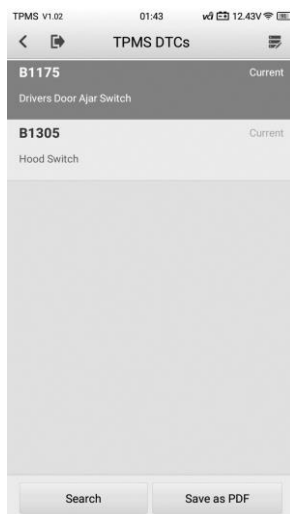
If the sensor ID retrieved from sensor activation is the same as the ID saved in the ECU, the trigger mark (  ) and OBD mark (  ) will display green.

If the IDs are different, the marks will display red (  and  ). In this case, the vehicle ECU cannot recognize the sensor installed on the vehicle.

If the OBD function is not supported by the test vehicle, the sensor ID saved in the TPMS ECU cannot be retrieved and only the sensor ID retrieved from sensor activation will display on the screen with a signal icon.

## Details

If Diagnostic Trouble Codes (DTCs) are presented in the TPMS ECU, a yellow hazard icon will show up in the DTC column with the number of faults displayed below, and the **details** button is available.

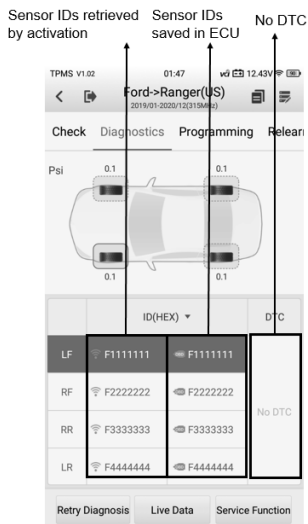


**Figure 4-13 Sample TPMS DTCs Screen**

Tap **details** in the DTC column to view the detailed information of the DTCs.

In this screen, the detailed fault definition will display. Select one of the DTC and tap **Search**, the tablet will automatically connect to the Internet and additional information will display.

If no DTCs present in the TPMS ECU, a green “No DTC” message will display on the DTC screen.



**Figure 4-14 Sample No DTC Screen**

### *Retry Diagnosis*

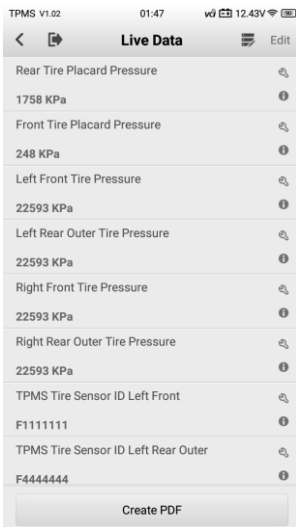
Tap **Retry Diagnosis**, to establish communication with ECU again and retrieve sensor IDs and the DTCs present in the ECU.

### *Clear DTCs*

Tap **Clear DTCs**, to clear the DTCs from the ECU. It is recommended that DTCs are read and needed repairs are performed before erasing codes.



### *Live Data*

Tap **Live Data** to view the data stream of the sensor information.

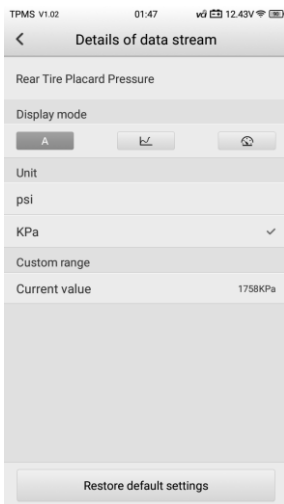


**Figure 4-15 Sample Live Data Screen**

The Live Data screen displays all real time data.

Tap  on the right of screen to view details of the data stream. Tap  to open the dialogue box on the screen for additional information.








**Figure 4-16 Sample Details of Data Stream Screen**


There are three types of display modes available for data viewing, enabling you to view parameters in the mode that best suited to present data, and one Unit section, for switching the unit according to your preference.

➤ **To set the display mode**

1. Select the live data item of which parameters you want to view. Tap  to open the data stream details page.
2. Select one of the three display modes from the Display mode section.
3. The corresponding display mode will show on the screen.

**Table 4-1 Display Mode Table**

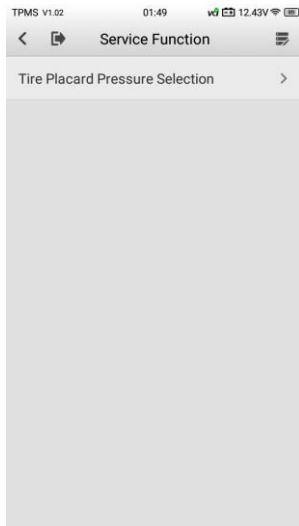
Mode	Icon	Description
<b>Digital Mode</b>		The default mode that displays the parameters in text.
<b>Waveform Mode</b>		Displays the parameters in waveform.

Mode	Icon	Description
<b>Analog Gauge Mode</b>		Displays the parameters in an analog gauge mode.

On the **details of data stream** screen, custom range is adjustable if under the waveform and analog gauge mode. Tap the **Restore default settings** button at the bottom of the screen to reset settings, or tap the **Return** icon on the top left corner of the screen to go back to the previous screen, the adjusted parameters will automatically display.

### *Service Function*

Tap this button to display a menu of available service functions.



**Figure 4-17 Sample Service Function Screen**

Tap the function displayed to initiate the desired service.

# Sensor Programming

The **Programming** function allows users to program the sensor data to the MX-Sensor to replace existing sensors with low battery life and ones that are no longer functioning.

This device offers four programming methods when programming MX-Sensor: **Copy by Activation**, **Copy by OBD**, **Copy by Input** and **Auto Create**.

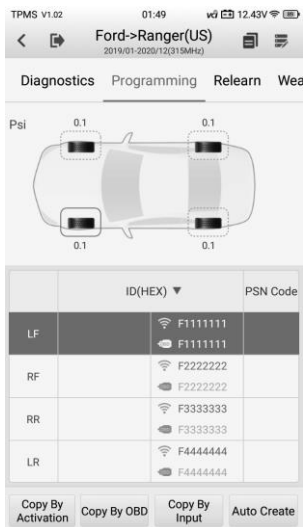
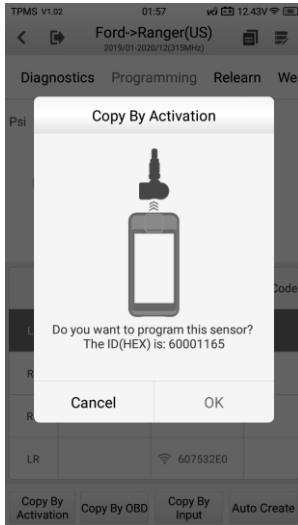


Figure 4-18 Sample Programming Screen 1

## Copy by Activation

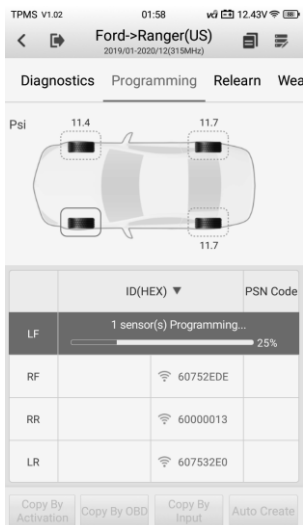
Once the sensors mounted on the vehicle have been triggered and the sensor and tire information displayed on the tool, you can apply **Copy by Activation** to program a new MX-Sensor.

Select a wheel location on the display screen and place a MX-Sensor in front of the tablet. Tap **Copy by Activation** to program a new MX-Sensor.

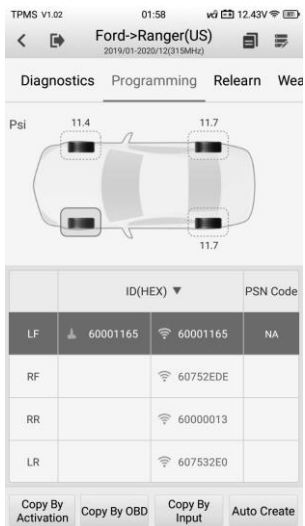


**Figure 4-19 Sample Copy by Activation Confirmation Screen**

A window will display for your confirmation. Tap **OK** to program, or tap **Cancel** to quit the operation.



**Figure 4-20 Sample Copy by Activation Screen**



**Figure 4-21 Sample Copy by Activation Complete Screen**

When the programming is complete, the programmed ID will display in the column to the left of the wheel designation. In the pictured example, the new ID is displayed to the right of the LF column.

By using **Copy by Activation**, the sensor ID that is retrieved from activated sensor is programmed to the new MX-Sensor.

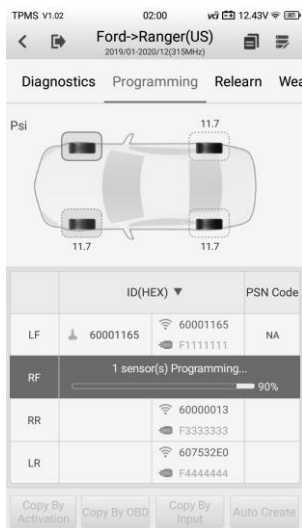
Normally, because the IDs of the original sensor and the new MX-Sensor are the same and the ID is already recognized by the vehicle's ECU, there is no need to perform the **Relearn** function when the new programmed sensor has been attached to the same wheel.

## Copy by OBD

If the IDs retrieved from sensor activation and those registered to the TPMS ECU are different, use **Copy by OBD** to program the IDs saved in the ECU to the new MX-Sensor.

By using this function, the tablet will program the sensor IDs retrieved from the ECU of the test vehicle to the new MX-Sensors.

After the sensor ID is retrieved by performing diagnostics function. Select a wheel location on the display and place a MX-Sensor in front of the tablet. Tap **Copy by OBD** to program the new MX-Sensor.



**Figure 4-22 Sample Copy by OBD Screen**

When the programming is complete, the programmed ID will display in the column to the left of the wheel designation. In the pictured example, the new ID is displayed to the right of the LF column.

By using **Copy by OBD**, the sensor ID that is retrieved from TPMS ECU is programmed to the new MX-Sensor.

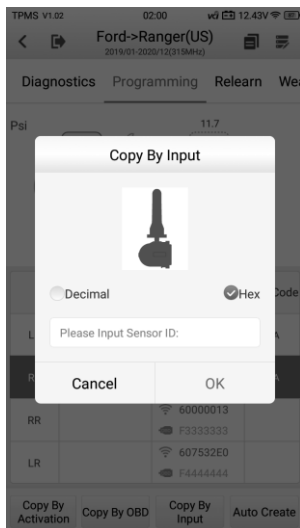
Normally, there is no need to perform the **Relearn** function to write the ID into the ECU when the new programmed sensor has been put in the same position.

The **Copy by OBD** programming method, if available, is recommended to program new MX-Sensors as there is no need for Relearn.

## Copy by Input

The **Copy by Input** allows users to manually enter the Sensor ID and program a new MX-Sensor with the ID of an original TPMS sensor.

Select a wheel location on the display and place a MX-Sensor in front of the tablet and then tap **Copy by Input** to program the new MX-Sensor.



**Figure 4-23 Sample Copy by Input Screen**

Tap **Copy by Input**. When the input box displays, enter the ID of the original sensor. Tap inside the input box to display a soft keyboard. Once displayed, input the ID.

Sensors either have a hexadecimal format or a decimal format. A warning message will display if too many characters are entered.

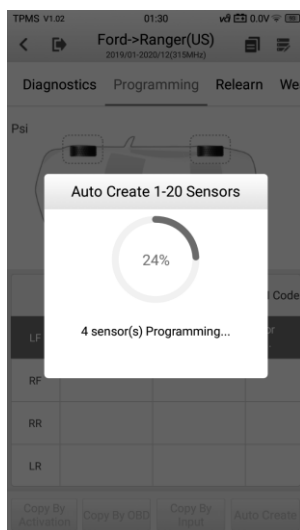
The **Copy by Input** programming method uses the ID of the original sensor that is already stored within the TPMS ECU and therefore normally does not require the sensor be relearned if the new programmed sensor has been put in the same position.

## Auto Create

The **Auto Create** function is used to automatically create new sensor IDs to program new MX-Sensors. Make sure the sensors to be auto created are placed within 0.33 feet (10 cm) of the tablet, and avoid possible programming errors by putting the other sensors at least 3.94 feet (1.2 m) away from the tablet. Up to 20 MX-Sensors can be programmed at the same time.

Select the vehicle model, select a wheel location on the display and place MX-Sensors in front of the tablet. Tap **Auto Create** to program new MX-Sensors.

New IDs will be created for the MX-Sensors. These new IDs differ from the IDs stored in the TPMS ECU, therefore the sensors will have to be relearned to the TPMS ECU.



**Figure 4-24 Sample Auto Create Screen**

---

### **NOTE**

Maximum of 20 MX-Sensors can be programmed at once and without unboxing, it is suggested to place the ITS600 tablet in front of the longer side of the packaging box for best programming result. See **Figure 4-25** above for more information.

---



➤ **To program 20 MX-Sensors without unboxing**

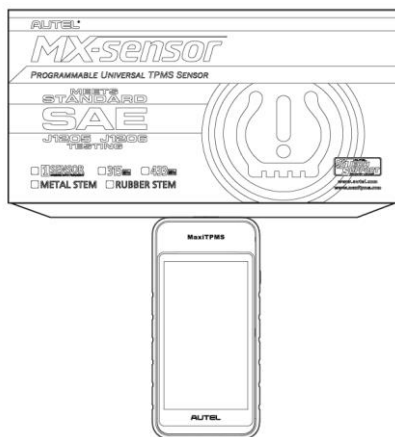
1. Tap Auto Create.
2. The tablet will create and display the new IDs.
3. Place the new MX-Sensors in front of the ITS600.
4. Tap **OK** to program the sensors with the new IDs.

---

**NOTE**

Because the new IDs were created, relearn is necessary.

---



**Figure 4-25 Sample Auto Create Diagram**

## **TPMS Relearn**

---

This function is used to transfer new sensor IDs into the vehicle ECU for sensor recognition. Step-by-step relearn instructions are provided for all supported vehicles.

Relearn is needed when the new sensor IDs are different from the original sensor IDs stored within TPMS ECU.

Three major methods are available for relearn process. According to the actual situation, perform the most suitable TPMS relearn method.

- OBD Relearn
- Automatic Relearn
- Stationary Relearn

## OBD Relearn

### *OBD Relearn*

The OBD Relearn function allows the ITS600 tablet to directly write the TPMS sensor IDs to the TPMS module.

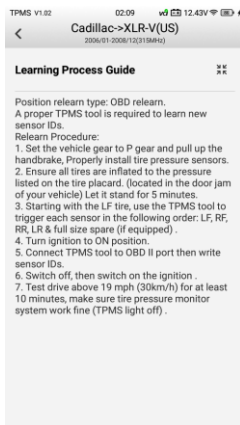
#### **NOTE**

A few vehicle lines do not support OBD Relearn for original design. If the function is supported by the selected vehicle, the OBD Relearn button will display on the bottom of the screen. Regarding some vehicles, if OBD Relearn is not provided by the tool, then the OBD Relearn button will not display.

To perform the Relearn function, activate all four sensors.



**Figure 4-26 Sample OBD Relearn Screen 1**



**Figure 4-27 Sample OBD Relearn Screen 2**

### *OBD-Assisted Relearn*

The ITS600 can also perform an OBD-Assisted Relearn session directly. Some vehicles relearn procedure require that a tool be always connected to the vehicle while another tool be used to trigger the sensor at the wheel.

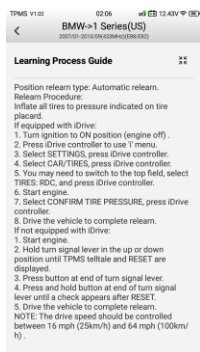
Since the ITS600 tablet wirelessly communicates with vehicles, it can be used to trigger wheel-mounted sensors while still being connected with the vehicle eliminating the need for a second tool. The sensor IDs are then relearned to the vehicle.

### **Automatic Relearn**

For some vehicles, the Relearn function can be completed by driving. Refer to the on-screen Relearn Procedure for the exact details of the process.



**Figure 4-28 Sample Automatic Relearn Screen 1**



**Figure 4-29 Sample Automatic Relearn Screen 2**

## Stationary Relearn

Stationary Relearn requires the vehicle be placed in the “Relearn Mode”.

Tap **Relearn** to access the relearn menu.

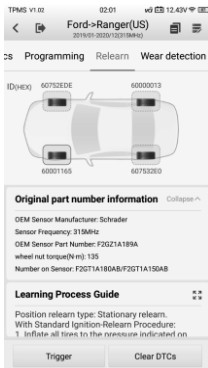


Figure 4-30 Sample Stationary Relearn Screen 1

Then follow the **Relearn Procedure** to perform Stationary Relearn.

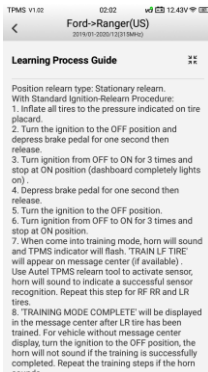


Figure 4-31 Sample Stationary Relearn Screen 2

## Retrofit

Refer to [TPMS Retrofit](#) on page 58 for details.

## Wear Detection

The wear detection is for detecting wear status of tire tread and/or brake disc, which contains four types of checks, including **All tread check**, **Quick check**, **Single check**, and **Brake disc check** operations, and allows for adding tire

tread depth & brake disc wear measurement data into TPMS test report for comprehensive analysis.

The wear detection function is designed to be performed by using the TBE200 device (hereafter referred to as TBE device). Once paired, you can initiate check sessions through the TBE device, which will take full control to perform measurements with the data detected automatically transferred to the paired tablet.

There are two ways of switching to a different check mode via the TBE device:

- A. All tread check/Single check – On the TBE device, tap the **Tire Tread** icon on the Main Job screen, a prompt will display, notifying the current check mode. Tap **Cancel** to stay in the current mode, or tap **Switch** to perform the other check mode. You can also switch between All tread check and Single check in the **Check Settings**.
- B. Quick check/Brake disc check – On the TBE device, simply tap the **Quick Check** or **Brake Disc** icon on the Main Job screen to execute the checking procedure.



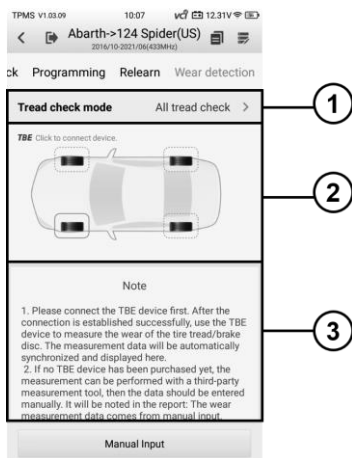
**Figure 4-32 Sample TBE Manager Screen**

Prior to measuring, also make sure to adjust settings on the **Wear detection** screen via the tablet or through **Check settings** on the TBE device.

## Function Operations

To use this function, the TBE device must be connected to the tablet. Follow the instructions in the Note section to perform the wear detection function.

Note that if a TBE device is not available for connection, tap the **Manual Input** button at the bottom of the Wear detection screen to manually input the tire tread & brake disc data measured by a third party device.



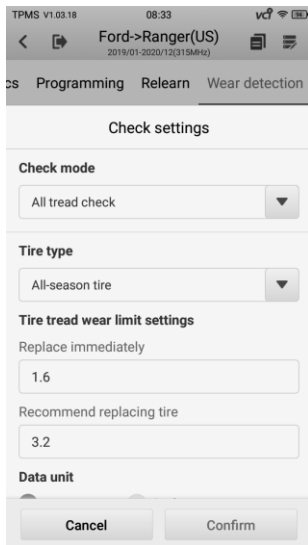
**Figure 4-33 Sample Wear Detection Screen**

### 1. Check Settings

- Tread check mode – Four modes are available, including All tread check, Quick check, Single check, and Brake disc check.
- Tire type – displays three tire types, including Summer, Winter, and All-season tires.
- Tire tread or brake disc wear limit settings – shows the default settings of tire tread & brake disc wear parameters.
- Data unit – adjusts the measurement unit.

### 2. Main Section – shows the vehicle TBE connection icon.

### 3. Note Section – displays instructions of TBE device pairing.



**Figure 4-34 Sample Check Settings Screen**

### *Check Settings*

Check settings contains a series of settings that allow you to perform check operations as you desired, such as the check mode, tire type, limit settings, and data unit.

### *Main Section*

The Main section in the center of the screen displays the TBE icon as well as the vehicle model tested graphically.

### *Note Section*

The Note section provides instructions on how to perform the wear detection function by using a compatible TBE device or a third party tool.



## Check mode

There are four check modes provided. Below are the detailed descriptions.

### All tread check

The All tread check function assists to examine your tire wear in three separate areas: outer, center, and inner for a comprehensive analysis.

### Single check

The single check function allows for measuring tread depth on each tire of the test vehicle. Unlike All tread check, single check only measures one location on each tire for results.

### Quick check

The function combines measuring tread depth together with brake disc wear to make it easy for technicians.

### Brake disc check

The brake disc check function checks for brake disc wear and provides wear analysis. Similar to single check that targets tire depth, this check mode focus on brake disc measurements only.

#### ➤ To pair the tablet with the TBE device via Wi-Fi direct mode

1. On the TBE device, go to **Settings > Network connection > Wi-Fi direct**, and swipe the Wi-Fi direct toggle to turn it on.
2. On the ITS600 tablet, go to **Settings > TBE Manager** to open the **TBE Manager** screen.
3. Or, open the TPMS application, on the **Wear detection** screen, click the TBE icon to access the **TBE Manager** screen for connection.
4. Tap **Scan** at the upper right corner of the tablet's screen. The tablet will automatically search for available TBE devices.
5. The name of the device will appear. Select the device for connection, and tap the device name to establish a communication link.
6. After the connection is established, open the **Tire Tread** application on the TBE device and start measuring. (Note that a prompt will display when tap open the **Tire Tread** function, notifying the current check mode and if want to switch to another one. You can also switch between All tread check and Single check in the **Check Settings** via the TBE device.)

7. The measurement data on the TBE device will automatically transfer to and display on the paired tablet.
8. To switch to **Brake disc** or **Quick check**, take Quick check for example, simply open the **Quick check** application on the TBE device to perform measurements.

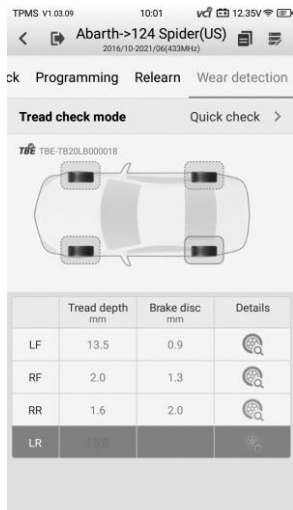
The **Data Query** function on the TBE device stores data of the previous measurement session, which will display on the tablet screen automatically. Once a new measuring session starts, the previous data will naturally be replaced by the newly tested one.

**NOTE**

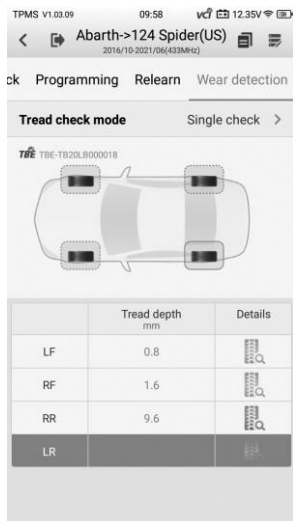
Once paired, tire & brake disc wear condition, DOT, and other tire-related information will be automatically transferred from TBE device to the paired tablet.

	OUTER mm	MIDDLE mm	INNER mm	Details
LF	0.8	0.8	0.8	📊🔍
RF	1.6	18.9	5.5	📊🔍
RR	8.0	8.0	8.0	📊🔍
LR				📊🔍

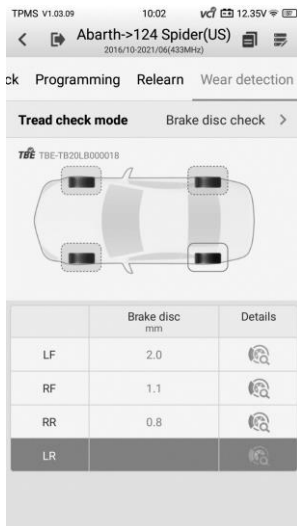
**Figure 4-35 Sample All Tread Check Screen**



**Figure 4-36 Sample Quick Check Screen**



**Figure 4-37 Sample Single Check Screen**



**Figure 4-38 Sample Brake Disc Check Screen**

## Details

The **Details** screen shows a wide variety of tire and brake disc information. After measurements are shown on the Wear detection screen, select a wheel location, tap the corresponding tire or brake disc icon under the Details column to enter the next screen. Different check mode varies in terms of displaying sections. Below are the main sections featured on the **Details** screen:

- 1) Graphic measurements – shows the measurements data graphically with various colors indicating different tire and/or brake disc wear conditions,
  - All tread check & Single check – presents only the tire tread wear conditions graphically while the All tread check mode displays

measurements of the inner, center, and outer areas of the tire, while for the single check mode.

- Quick check – displays both the tire tread & brake disc wear conditions graphically.
- Brake disc check – displays only the brake disc wear.

2) Braking distance – displays the stopping distance for the test vehicle graphically with the corresponding tire tread depth. The braking distance varies with the type of tires changed accordingly. This section also followed by wear analysis and maintenance suggestions.

- Quick check – specially contains analysis of brake disc wear.
- Brake disc check – Braking distance is available for all check modes, except for Brake disc mode.


The following three tire-related sections are provided in all the check modes except for the Brake disc one:

3) Tire condition – presents with nine tire status, including normal, worn, bulge, etc.

4) Tire DOT – scans the tire DOT serial number located on the sidewall to acquire basic characteristics such as tire age, recall status, and warning. Refer to [Tire DOT](#) on page 125 for additional information.

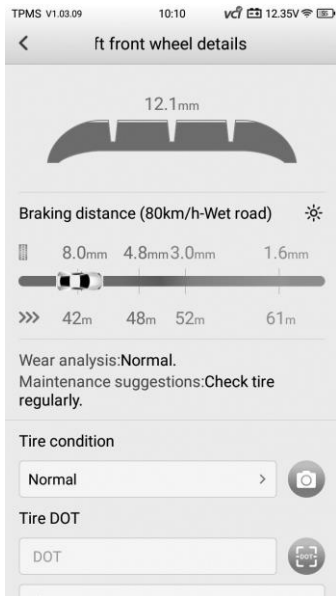
5) Tire specification – presents a series of options regarding tire characteristics, including Make, Tire width, Type code, and etc.

---

 **NOTE**


On the **Details** screen, the measurements are shown graphically and changes colors with the **Tire condition** manually selected to provide a more comprehensive analysis.

---



**Figure 4-39 Sample Details Screen**

On the Wear detection screen, measurements and the tire/brake disc icon will display green, yellow or red indicating wear status. Refer to [Table 4-2 Possible Results for Measurements](#) on page 56 for details.













Tap the  icon on the top right corner of the screen to access the TPMS test report generated.

**NOTE**

The TPMS test report supports third party measurements as well. Refer to [TPMS TEST Report](#) on page 115 for more details.

Tire and brake disc icons are highlighted with colors that described in the table below:

**Table 4-2 Possible Results for Measurements**

Tire Tread	Quick Check	Brake Disc Check	Results	Description
 (Gray)			Untested	The tire/brake disc is untested.
 (Green)			Good	The tire/brake disc is in good condition.
 (Yellow) 			A replacement is recommended	It is suggested to replace the tire/brake disc.
 (Red) 			Immediate replacement is recommended	It is suggested to replace the tire/brake disc immediately.

# 5 TPMS Retrofit

Retrofit is needed to be performed if your vehicle is not installed with TPMS system by default. Tap on the **TPMS Retrofit** application button on the MaxiTPMS Job Menu to access the function.

## Retrofit

---

This function is used to install TPMS system in vehicles. Tapping the **TPMS Retrofit** application icon opens the vehicle identification screen. See [Vehicle Identification](#) on page 18 for additional information.

Prior to use the function, ensure the ignition light is in **ON** position with the V200 device successfully connected to the vehicle and the tablet.

### ➤ To perform retrofit function

1. Tap the **TPMS Retrofit** icon.
2. Select the manufacturer button of the test vehicle, followed by the vehicle model and year.
3. Tap **OK** at the bottom of the screen to confirm information of the tested vehicle. The Retrofit screen opens.
4. Simply follow the operations guide displayed on the screen, which will guide you to choose the corresponding buttons during each procedure, including the **Back-up**, **Retrofit**, and **Restore** button.

The Retrofit function screen has the same lay out with that of the TPMS screen. After the retrofit function is finished, tap on the other tabs to perform optional functions.





**Figure 5-1 Sample TPMS Retrofit Screen**

**NOTE**

Accesses the TPMS retrofit function either by tapping **TPMS** on the MaxiTPMS Job Menu or directly tap **TPMS Retrofit** to access. The **TPMS Retrofit** lists vehicles available for retrofit only. The **TPMS** application covers all vehicles, with which available for retrofit will display retrofit tab on the screen.

# 6 OE Entry

## TPMS by OEM Part No.

---

If the sensor's OEM part No. is known, this function is an efficient method to activate all known TPMS sensors and program specifically the MX-Sensors.

Selecting the OEM part No. opens the functional page for performing sensor activation and programming. Tap the Support tab, choose the vehicle model of your preference, and then tap **Enter Vehicle** button at the bottom of the screen to access the corresponding TPMS Service Menu and perform TPMS service function.

### Application Scenarios

The following are two typical scenarios in which this method is ideal.

#### *In the workshop*

If the mounted sensor is faulty and the part number is known to the technician, the technician can use this method to check the original sensor, and then write the information that was retrieved into a new MX-Sensor via **Programming**. The newly programmed MX-Sensor is ready to replace the original sensor and be installed on the vehicle.

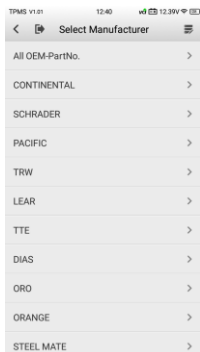
#### *In the tire shop*

If a customer needs to replace one or more tires and sensors, or purchase a large amount of sensors for one vehicle model and the OEM part No. of this model is known, this function can be used to program up to 20 sensors at the same time.

### Function Operations

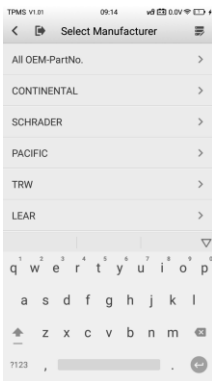
1. Tap **OE Entry** on the MaxiTPMS Job Menu. A list of sensor OEM sensor manufacturers will display. Swipe up or down the screen to find the manufacturer of the sensor on the test vehicle, and tap the manufacturer

name to enter the next screen and then select the specific OEM sensor No.



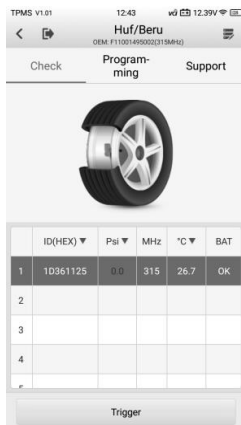
**Figure 6-1 Sample OEM Sensor Manufacturer Screen**

2. Or, tap All OEM-Part No., to the search box on the top of the screen to enter the OEM part No. A soft keyboard will display as below. Enter the OEM Part No. in the search box to complete the operation. Tap **?123** to change the keys to numbers, tap **ABC** to change the keys to letters.



**Figure 6-2 Sample OEM Part No. Search Screen**

3. When a specific OEM part No. is selected, the screen will display as pictured below.



**Figure 6-3 Sample OEM Part No. Service Menu**

**NOTE**

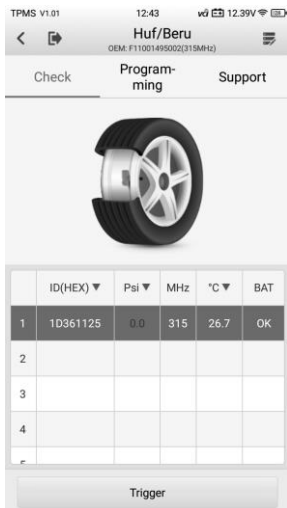
Only sensor **Check** and **Programming** functions are available. The **Diagnosis** and **Relearn** functions can only be accessed by selecting a vehicle on the TPMS service menu.

*Check*

The **Check** tab is the default selection on this menu. Tap **Trigger** on the bottom left of the screen to activate the original sensors and retrieve the sensor information. The original sensor ID, tire pressure, tire temperature, sensor battery, and sensor frequency will populate the displayed table.

**NOTE**

You can change the unit on the table header according to your preference.

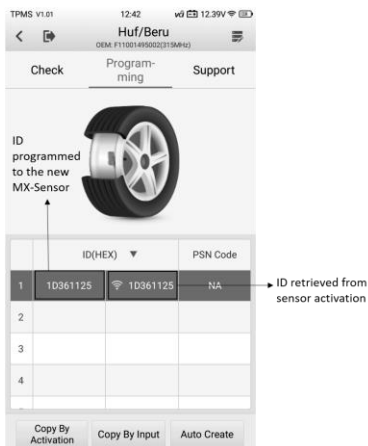


**Figure 6-4 Sample Check Screen via OEM Part No.**

### *Programming*

The programming function is used to program the sensor data to the MX-Sensor and replace the faulty sensor.

There are three options available when programming MX-Sensor using the OEM Part No. function: **Copy by Activation**, **Copy by Input**, and **Auto Create**. Refer to [Sensor Programming](#) on page 37.



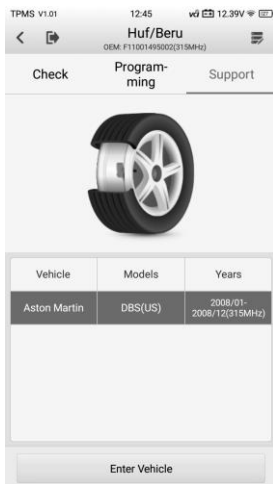
**Figure 6-5 Sample Programming Screen via OEM Part No.**

The **PSN Code** (Part Serial Number), which is printed on the MX-Sensor, acts as a reference to identify the corresponding sensor ID. This can be especially useful when programming multiple MX-Sensors.

### *Support*

**Support** will display the correct vehicle types for the selected OEM part No.

To conduct additional procedures such as Diagnosis and Relearn, select the correct test vehicle model and then tap **Enter Vehicle** at the bottom of the screen. Refer to [TPMS Diagnosis](#) on page 28 and [TPMS Relearn](#) on page 43 for more details about the comprehensive TPMS functions menu.



**Figure 6-6 Sample Support Screen**

# 7 Diagnostics

The Diagnostics application, via the MaxiVCI V200, can access the electronic control module (ECM) for various vehicle control systems, such as engine, transmission, antilock brake system (ABS), airbag system (SRS), view live data parameters. The all system diagnostics function is available with update purchase. See [Activate Pro function](#) on page 126 for details.

## Getting Started

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Ensure a communication link is established between the test vehicle and the tablet via the MaxiVCI V200. Please refer to [Establish Vehicle Communication](#) on page 28 for details.

### Vehicle Menu Layout

When the tablet is properly connected to the vehicle, the platform is ready to start vehicle diagnosis. Tap on the **Diagnostics** application button on the MaxiTPMS Job Menu to access the Vehicle menu.



**Figure 7-1 Sample Vehicle Menu Screen**

1. Top Toolbar Buttons – see [Table 4-1 Top Toolbar Buttons on Vehicle Menu](#) on page 17 for details.
2. Manufacturer Buttons

To begin, select the manufacturer button of the test vehicle, followed by the vehicle model and year.



# Vehicle Identification

The MaxiTPMS diagnostic system supports four methods of Vehicle Identification.

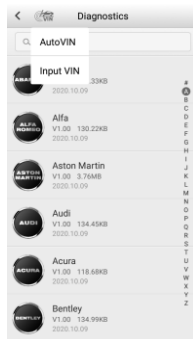
1. Auto VIN Scan
2. Manual VIN Input
3. Automatic Selection
4. Manual Selection

## Auto VIN Scan

The MaxiTPMS diagnostic system features the VIN-based Auto VIN Scan function to identify vehicles and scan all diagnosable ECUs and run diagnostics on the selected system. This function is compatible with vehicles manufactured from 1996 onwards to 2020.

### ➤ To perform Auto VIN Scan

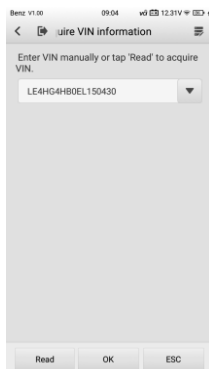
1. Tap the **Diagnostics** application button on the MaxiTPMS Job Menu. The Vehicle Menu displays.
2. Tap the **VIN Scan** button on the top toolbar to open the dropdown list.



**Figure 7-2 Sample Auto VIN Screen**

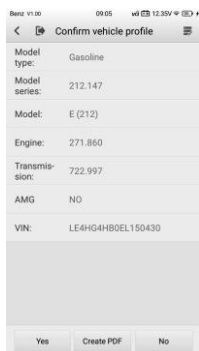
3. Select **Auto VIN**. Once the test vehicle is identified, the screen will display the vehicle identification number (VIN). Tap **OK** at the bottom right to confirm the VIN. If the VIN does not match with the test

vehicle's VIN, enter VIN manually or tap **Read** to acquire VIN again.



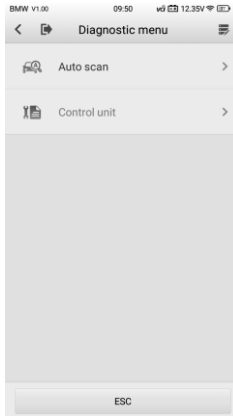
**Figure 7-3 Sample VIN Information Screen**

4. Review the information. Tap **YES** to confirm the vehicle profile or **NO** to cancel.



**Figure 7-4 Sample Vehicle Profile Screen**

5. The tool establishes communication with the vehicle and opens the Main menu. Tap **Diagnosis** and select **Auto scan** to scan all the test vehicle available systems or tap **Control unit** to access a specific system to diagnose.



**Figure 7-5 Sample Vehicle Profile Screen**

## Manual VIN Input

For vehicles not supporting the Auto VIN Scan function, manually enter the vehicle VIN.

- **To perform Manual VIN Input**
  4. Tap the **Diagnostics** application button on the MaxiTPMS Job Menu. The Vehicle Menu displays.
  5. Tap the **VIN Scan** button on the top toolbar to open the dropdown list.
  6. Select **Input VIN**.
  7. Tap the input box and enter the correct VIN.



**Figure 7-6 Sample Manual VIN Input**

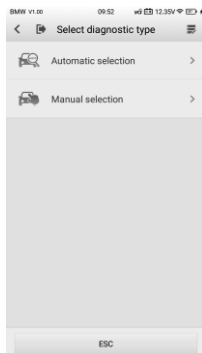
8. Tap **OK**. Once the vehicle is identified, the Vehicle Diagnostics screen displays.
9. Tap **Cancel** to exit Input VIN.

## Automatic Selection

The Auto Selection can be selected after selecting the test vehicle manufacturer.

### ➤ To perform Automatic Selection

1. Tap the **Diagnostics** application button on the MaxiTPMS Job Menu. The Vehicle Menu displays.
2. Tap the manufacturer menu of the test vehicle and then **Automatic Selection**.
3. Once the vehicle information is confirmed, the VIN information is automatically acquired. Follow the on-screen instructions to display the diagnostic screen.



**Figure 7-7 Sample Automatic Selection Screen**

## Manual Selection

When the vehicle's VIN is not automatically retrievable through the vehicle's ECU, or the specific VIN is unknown, the vehicle can be manually selected.

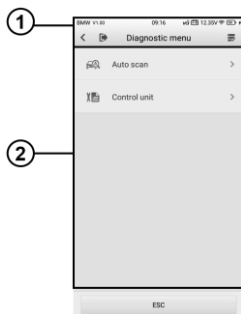
This mode of vehicle identification is menu driven, repeat the first two steps from the automatic selection operation and tap **Manual Selection**. Through a series of on-screen prompts and selections the test vehicle is chosen. Confirm vehicle profile before starting diagnostics.

## Navigation

---

Navigating the Diagnostics interface and selecting tests is discussed in this section.

## Diagnostics Screen Layout



**Figure 7-8 Sample Diagnostics Screen**

The diagnostic screens typically include two sections.

1. Diagnostics Toolbar
2. Main Section

### *Diagnostics Toolbar*

The Diagnostics Toolbar contains a number of buttons such as Home and Data Logging. Refer to [Table 4-2 Top Toolbar Buttons on Service Menu](#) on page 25 for details.

### *Main Section*

The Main Section of the screen varies depending on the stage of operations. The Main Section can display vehicle identification selections, the main menu, test data, messages, instructions and other diagnostic information.

## Screen Messages

Screen messages appear when additional input is needed before proceeding. There are mainly three main types of on-screen messages: Confirmation, Warning, and Error.

## *Confirmation Messages*

This type of messages usually displays as an “Information” screen, to inform the user that a selected action cannot be reversed or when an action has been initiated and confirmation is needed to continue.

When a user-response is not required to continue, the message displays briefly.

## *Warning Messages*

This type of messages displays a warning that a selected action may result in an irreversible change or loss of data. An example of this type of message is the “Erase Codes” message.

## *Error Messages*

Error messages display when a system or procedural error has occurred. Examples of possible errors include a disconnection or communication interruption.

## **Making Selections**

The Diagnostics application is a menu driven program that presents a series of choices. As a selection is made, the next menu in the series displays. Each selection narrows the focus and leads to the desired test. Tap the screen to make menu selections.

## **Diagnosis**

---

The Diagnostics application enables a data link to the electronic control system of the test vehicle for vehicle diagnosis or service. The application performs functional tests, retrieves vehicle diagnostic information such as trouble and event codes and live data from various vehicle control systems such as engine, transmission, ABS, and more.

There are two options available when accessing the Diagnosis section:

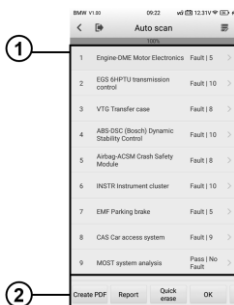
1. Auto Scan – starts auto scanning for all the available systems on the test vehicle.

- Control Units – displays a selection menu of all available control units on the test vehicle.

After a section is made and the tablet establishes communication with the vehicle, the corresponding function menu or selection menu displays.

## Auto Scan

The Auto Scan function performs a comprehensive scanning of all the systems on the vehicle's ECU to locate systems faults and retrieve DTCs. An example of the Auto Scan interface is pictured below.



**Figure 7-9 Sample Auto Scan Operation Screen**

- Main Section
- Functional Buttons

### Main Section

Column 1 – displays the system numbers.

Column 2 – displays the scanned systems.

Column 3 – displays the diagnostic indicators describing test results. These indicators are defined as follows:

- ❖ **!-:** Indicates that the scanned system may not support the code reading function, or there is a communication error between the tester and the control system.
- ❖ **-?:** Indicates that the vehicle control system has been detected, but the tester cannot accurately locate it.
- ❖ **Fault | #:** Indicates there is/are detected fault code(s) present; “#”



indicates the number of the detected faults.

- ✧ **Pass | No Fault:** Indicates the system has passed the scanning process and no fault has been detected.

Column 4 – to perform further diagnosis or testing on a specific system item, tap on the > to the right of that item. A Function Menu screen will display.

### *Functional Buttons*

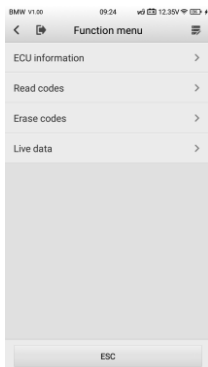
A brief description of the operations of the Auto Scan's Functional Buttons' operations are displayed in the table below.

**Table 5-1 Functional Buttons in Auto Scan**

<b>Name</b>	<b>Description</b>
<b>Create PDF</b>	Creates PDFs for data viewing.
<b>Report</b>	Displays the diagnostic data in the report form.
<b>Quick Erase</b>	Deletes codes. A warning message screen will display to inform you of possible data loss when this function is selected.
<b>OK</b>	Confirms the test result. Continues to the system diagnosis after required system is selected by tapping the item in the Main Section.
<b>Pause</b>	Suspends scanning and changes to show the <b>Continue</b> button.
<b>ESC</b>	Returns to the previous screen or exit Auto Scan.

## **Control Units**

Manually locate a required control system for testing through a series of selection choices. Follow the menu driven procedure and make proper selections; the application guides the user to the proper diagnostic function menu based on selections.



**Figure 7-10 Sample Function Menu Screen**

The Function Menu options vary slightly for different vehicles. The function menu may include:

- ECU Information – provides the retrieved ECU information in detail. An information screen opens upon selection.
- Read Codes – displays detailed information of DTCs retrieved from the vehicle control module.
- Erase Codes – erases DTCs and other data from the ECU.
- Live Data – retrieves and displays live data and parameters from the vehicle's ECU.

---

**NOTE**

Toolbar functions such as saving and printing of test results can be performed throughout diagnostic testing. Data logging and access to help information is also available.

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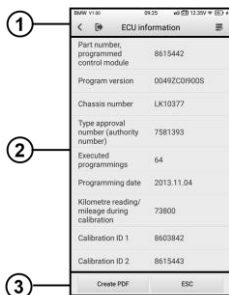
➤ **To perform a diagnostic function**

1. Establish communication with the test vehicle.
2. Identify the test vehicle by selecting from the menu options.
3. Select the **Diagnosis** section.
4. Locate the required system for testing by **Auto Scan** or through menu driven selections in **Control Units**.
5. Select the desired diagnostic function from the **Function Menu**.

## ECU Information

This function retrieves and displays the specific information for the tested control unit, including unit type, version numbers and other specifications.

The sample ECU Information screen displays as below:



The screenshot shows a diagnostic tool interface. At the top, there is a status bar with 'Auto' and '12.05' on the left, and '12:00 12.05' on the right. Below this is a title bar with a back arrow, a refresh icon, and the text 'ECU information'. The main content area is a table with two columns: item names on the left and specifications on the right. At the bottom, there are two buttons: 'Create PDF' and 'ESC'. Three callout circles are present: circle 1 points to the top toolbar, circle 2 points to the main table, and circle 3 points to the bottom buttons.

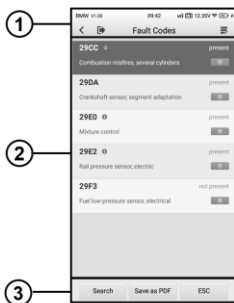
Item Name	Specification
Part number, programmed control module	8615442
Program version	0049ZC09005
Chassis number	LK10377
Type approval number (authority number)	7581393
Executed programmings	64
Programming date	2013.11.04
Kilometre reading/mileage during calibration	73800
Calibration ID 1	8603842
Calibration ID 2	8615443
Create PDF	ESC

**Figure 7-11 Sample ECU Information Screen**

1. Diagnostics Toolbar Buttons – see [Table 4-2 Top Toolbar Buttons on Service Menu](#) on page 25 for details.
2. Main Section – the left column displays the item names; the right column shows the specifications or descriptions.
3. Functional Buttons – **Create PDF** and **ESC** (or sometimes a **Back**) buttons are available.

## Read Codes

This function retrieves and displays the DTCs from the vehicle's control system. The Read Codes screen varies for each vehicle being tested. On some vehicles, freeze frame data can also be retrieved for viewing. The sample Read Codes screen displays as below:



**Figure 7-12 Sample Read Codes Screen**

1. Diagnostics Toolbar Buttons – see [Table 4-2 Top Toolbar Buttons on Service Menu](#) on page 25 for details.
2. Main Section
  - Code Display area – displays the retrieved codes from the vehicle.
  - Description – detailed descriptions of the retrieved codes.
  - Status – indicates the status of the retrieved codes.
  - Information icon – tap to view fault code information, including fault description, condition for fault identification, driver information.
  - Snowflake Icon – displays when freeze frame data is available for viewing; Selecting this icon will display a data screen.
3. Functional Buttons
  - Search – tap search for related fault code information on Google.
  - Save as PDF – tap to save the data in PDF format.
  - ESC – tap to return to the previous screen or exit the function.

### *Erase Codes*

After reading the retrieved codes and making appropriate vehicle repairs, use this function to erase vehicle codes.

Before performing this function, make sure the vehicle's ignition key is in the ON (RUN) position with the engine off.

#### ➤ **To erase codes**

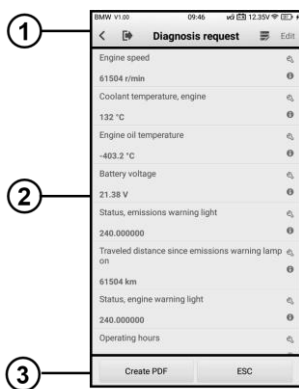
1. Tap **Erase Codes** from the Function Menu.

2. A warning message displays to advice of data loss if this function is completed.
  - a) Tap **Yes** to continue. A confirming screen displays when the operation is successfully done.
  - b) Tap **No** to go back to the Function menu.
3. Tap **ESC** on the function menu to exit Erase Codes.
4. Perform the Read Codes function again to check if the code have been erased successfully.

### Live Data

When this function is selected, the screen displays the data list for the selected module. The items available for any control module vary depending on vehicle. The parameters display in the order that they are transmitted by the ECM, so expect variation between vehicles.

Gesture scrolling allows for quick movement through data list. Using one or two fingers, simply swipe the screen up or down to locate the data you want. The figure below shows a typical Live Data screen:



**Figure 7-13 Sample Live Data Screen**

1. Diagnostics Toolbar Buttons – see [Table 4-2 Top Toolbar Buttons on Service Menu](#) on page 25 for details.
2. Main Section
  - Name Display area – displays the names and current values of the

parameter items.

- a) **Settings icon** – tap the settings icon at the right side of the parameter name to select a data display mode and set the value range.
- b) **Information icon** – tap the information icon at the right side of the parameter name to view more information.

### *Display Mode*

There are three types of display modes available for data viewing. Select the proper mode for diagnostic purpose.

Tapping the **settings icon** on the right side of the parameter name to access the details of data stream page. There are three buttons to configure the data display mode, and a **restore default settings** button to return to default settings.

Each parameter item displays the selected mode independently.

**Analog Gauge Mode** – displays the parameters in the form of an analog meter graph.

**Text Mode** – this is the default mode that displays the parameters in texts, displaying in list format.

---

### **NOTE**

Status parameters, such as a switch reading, can primarily be viewed in test form such as ON, OFF, ACTIVE, and ABORT. Whereas, value parameters, such as a sensor reading, can be displayed in text mode and additional graph modes.

---

**Waveform Graph Mode** – displays the parameters in waveform graphs.

### 3. Functional Buttons

The operations of available functional buttons on Live Data screen are described below:

**Create PDF** – Creates a printable live data PDF file.

**ESC** – returns to the Function menu.



Figure 7-14 *Sample Details of Data Stream Screen*

## Generic OBDII Operations

---

This option presents a quick way to check for DTCs, isolate the cause of an illuminated malfunction indicator lamp (MIL), check monitor status prior to emissions certification testing, verify repairs, and perform a number of other services that are emissions-related. The OBD direct access option is also used for testing OBDII/EOBD compliant vehicles that are not included in the Diagnostics database.

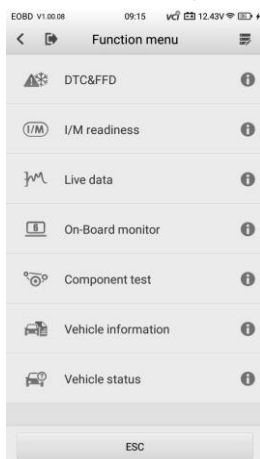
The diagnostics toolbar buttons at the top of the screen function the same as those available for specific vehicle diagnostics. See [Table 4-2 Top Toolbar Buttons on Service Menu](#) on page 25 for details.

### General Procedure

➤ **To access the OBDII/EOBD diagnostics functions**

1. Tap the **Diagnostics** application button on the MaxiTPMS Job Menu. The Vehicle Menu displays.
2. Tap the **EOBD** button. There are two options to establish communication with the vehicle.

- Auto Scan – when this option is selected, the diagnostic tool attempts to establish communication using each protocol in order to determine the one from which the vehicle is broadcasting.
  - Protocols – when this option is selected, the screen displays a sub menu listing various protocols. A communication protocol is a standardized way of data communication between an ECM and a diagnostic tool. Global OBD may use several different communication protocols.
3. Select a specific protocol under the **Protocol** option. Wait for the OBDII Diagnostic Menu to display.



**Figure 7-15 Sample OBDII Diagnostic Menu**

**NOTE**

Tap the **i** button beside the function name to an information bubble with additional function information.

4. Select a function option to continue.
- DTC & FFD
  - I/M Readiness
  - Live Data
  - O2 Sensor Monitor



- On-Board Monitor
- Component Test
- Vehicle Information
- Vehicle Status

## NOTE

Not all functions are supported by all vehicles.

## Function Descriptions

This section describes the various functions of each diagnostic option:

### DTC & FFD

When this function is selected, the screen displays a list of Stored and Pending Codes. A snowflake button will display on the right side of the DTC item if the Freeze Frame data is available for viewing. Tap **Clear DTC** to erase codes.



Figure 7-16 Sample DTC & FFD Screen

- **Stored Codes**

Stored codes are the current emission-related DTCs from the ECM of the vehicle. OBDII/EOBD Codes have a priority according to their emission severity, with higher priority codes overwriting lower priority codes. The

priority of the code determines the illumination of the MIL and the codes erase procedure. Manufacturers rank codes differently, so expect to see differences between makes.

- **Pending Codes**

These are codes that were generated during the last drive cycle, but before the DTC actually sets two or more consecutive drive cycles are needed. The intended use of this service is to assist the service technician after a vehicle repair and after clearing diagnostic information by reporting test results after a driving cycle.

- a) If a test failed during the drive cycle, the DTC associated with that test is reported. If the pending fault does not occur again within 40 to 80 warm-up cycles, the fault is automatically cleared from memory.
- b) Test results reported by this service do not necessarily indicate a faulty component or system. If test results indicate another failure after additional driving, then a DTC is set to indicate a faulty component or system and the MIL is illuminated.

- **Freeze Frame**

Typically, the stored frame is the last DTC that occurred. Certain DTCs, that have a greater impact on vehicle emission, have a higher priority. In these cases, the top prioritized DTC is the one for which the freeze frame records are retained. Freeze frame data includes a “snapshot” of critical parameter values at the time the DTC is set.

- **Erase Codes**

This option is used to clear all emission related diagnostic data such as DTCs, freeze frame data and manufacturer-specific enhanced data from the vehicle's ECM, and reset the I/M Readiness Monitor Status for all vehicle monitors to Not Ready or Not Complete status.

A confirmation screen displays when the clear codes option is selected to prevent accidental loss of data. Select **Yes** on the confirmation screen to continue or **No** to exit.

### *I/M Readiness*

This function is used to check the readiness of the monitoring system. It is an excellent function to use prior to having a vehicle inspected for state emissions compliance. Select I/M Readiness to display a sub menu with two choices:

- Since DTCs Cleared – displays the status of monitors since the last time the DTCs are erased.
- This Driving Cycle – displays the status of monitors since the beginning of the current drive cycle.

### *Live Data*

This function displays the real time PID data from ECU. Displayed data includes analog inputs and outputs, digital inputs and outputs, and system status information broadcast on the vehicle data stream.

Live data can be displayed in various modes, see [Live Data](#) on page 79 for detailed information.

### *O2 Sensor Monitor*

This option allows retrieval and viewing of O2 sensor monitor test results for the most recently performed tests from the vehicle's on-board computer.

The O2 Sensor Monitor test function is not supported by vehicles that communicate using a controller area network (CAN). For O2 Sensor Monitor tests results of CAN-equipped vehicles, refer to [On-Board Monitor](#).

### *On-Board Monitor*

Use this option to view the results of On-Board Monitor tests. The tests are useful after servicing or after erasing a vehicle's control module memory.

### *Component Test*

This service enables bi-directional control of the ECM so that the diagnostic tool is able to transmit control commands to operate the vehicle systems. This function is useful in determining whether the ECM responds to a command.

### *Vehicle Information*

The option displays the VIN, the calibration identification, and the calibration verification number (CVN), and other information of the test vehicle.

## Vehicle Status

This option is used to check the current condition of the vehicle, including communication protocols of OBDII modules, retrieved codes amount, status of the Malfunction Indicator Light (MIL), and other additional information.

## Exiting Diagnostics

---

The Diagnostics application remains open as long as there is an active communication with the vehicle. Exit the diagnostics operation interface to stop all communications with the vehicle before closing the Diagnostics application.

---

### NOTE

Damage to the vehicle electronic control module (ECM) may occur if communication is disrupted. Make sure all connections, such as USB cable and wireless connection, are properly connected at all times during testing. Exit all tests before disconnecting the test connection or powering down the tool.

---

#### ➤ **To exit the Diagnostics application**

1. From an active diagnostic screen, tap the **Back** or **ESC** functional button to exit a diagnostic session; Or
2. Tap the **Vehicle Swap** button on the diagnostics toolbar to return to the Vehicle Menu screen.
3. From the Vehicle Menu screen, tap the **Home** button on the top toolbar; or tap the **Back** button on the navigation bar at the bottom of the screen. Or
4. Tap the **Home** button on the diagnostics toolbar to exit the application directly and go back to the MaxiTPMS Job Menu.

Now, the Diagnostics application is no longer communicating with the vehicle and it is safe to open other MaxiTPMS applications, or exit the MaxiTPMS Diagnostic System and return to the Android System's Home screen.

# 8 Service

The **Service** section is specially designed to provide quick access to the vehicle systems for various scheduled service and maintenance tasks. The typical service operation screen is a series of menu driven executive commands. Follow on-screen instructions to select appropriate execution options, enter correct values or data, and perform necessary actions. The application will display detailed instructions to complete selected service operations.

Currently, the following service functions are available:

- Oil Reset Service
- EPB Service
- BMS Service
- SAS Calibration Service
- Other functions are available with update purchase

## Oil Reset Service

---

Perform reset for the Engine Oil Life system, which calculates an optimal oil life change interval depending on the vehicle driving conditions and climate. The Oil Life Reminder must be reset each time the oil is changed, so the system can calculate when the next oil change is required.

---

### **IMPORTANT**

Always reset the engine oil life to 100% after every oil change.

---

### **NOTE**

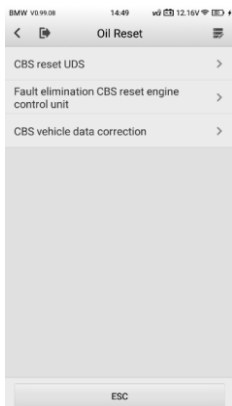
1. All required work must be carried out before the service indicators are reset. Failure to do so may result in incorrect service values and cause DTCs to be stored by the relevant control module.
2. For some vehicles, the scan tool can reset additional service lights such as maintenance cycle and service interval. On BMW vehicles for example, service resets include engine oil, spark plugs, front/rear brakes,

coolant, particle filter, brake fluid, micro filter, vehicle inspection, exhaust emission inspection and vehicle checks.

---

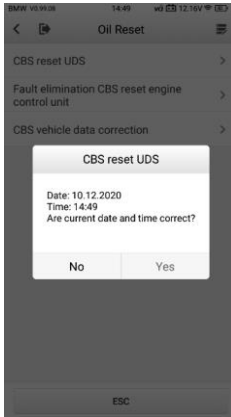
➤ **To perform oil reset functions**

1. Tap the **Service** application button on the MaxiTPMS Job Menu.
2. Tap **Oil Reset** button. The vehicle manufacturer screen displays. Tap **VIN Scan** or the vehicle make to acquire vehicle VIN information and tap **Yes** to confirm vehicle profile. See [Vehicle Identification](#) on page 67 for details.
3. After the vehicle is identified, select **Hot functions** on the screen.
4. Tap the desired function in the Oil Reset function list. The list may vary by test vehicle.



**Figure 8-1 Sample Oil Reset Function List**

5. Follow the step-by-step on-screen instruction to complete the service. Using CBS Reset KWP as an example.
6. Tap **CBS Reset KWP** on the Oil Reset function list to start the operation. The screen will display the date and time and ask for confirmation. If the displayed date and time are correct, tap **Yes** to confirm. If no, tap **No** and go to the Settings menu to set the correct date and time.



**Figure 8-2 Sample Oil Reset Service Screen 1**

7. The available items will display in a table of three columns: CBS value, availability, and service counter.

The screenshot shows a mobile application interface for an oil reset service. At the top, the title is "CBS reset UDS". Below the title, there is a table with three columns: "CBS value", "availability", and "service counter". The table contains the following data:

CBS value	availability	service counter
Engine oil	7 %	18
Front Brake	0 %	0
Rear Brake	0 %	0
Brake fluid	88 %	3
Vehicle check	81 %	8
Exhaust emission inspection	12 / 2062	-
Vehicle inspection	deactivated	-

At the bottom of the screen, there are three buttons: "Reset", "Create PDF", and "ESC".

**Figure 8-3 Sample Oil Reset Service Screen 2**

8. Tap on the value to reset and then tap the **Reset** button on the bottom left of the screen.

CBS value	availability	service counter
Engine oil	100 %	5
Front Brake	100 %	2
Rear Brake	100 %	2
Brake fluid	100 %	3
Vehicle check	99 %	3
Exhaust emission inspection	10 / 2018	-
Vehicle inspection	10 / 2018	-

Buttons: Reset, Create PDF, ESC

**Figure 8-4 Sample Oil Reset Service Screen 3**

9. When the reset is done, the availability will display as 100%. Tap **ESC** to exit.

## Electric Parking Brake (EPB) Service

---

This function has a multitude of usages to maintain the electronic braking system safely and effectively. The applications include deactivating and activating the brake control system, assisting with brake fluid control, opening and closing brake pads, and setting brakes after disc or pad replacement.

### EPB Safety

It can be dangerous to perform Electric Parking Brake (EPB) system maintenance, so before you begin the service work, please keep these rules in mind.

- ✓ Ensure that you are fully familiar with the braking system and its operation before commencing any work.
- ✓ The EPB control system may be required to be deactivated before carrying out any maintenance/diagnostic work on the brake system. This can be done from the tool menu.
- ✓ Only perform maintenance work when the vehicle is stationary and on level ground.
- ✓ Ensure that the EPB control system is reactivated after the maintenance work has been completed.



---

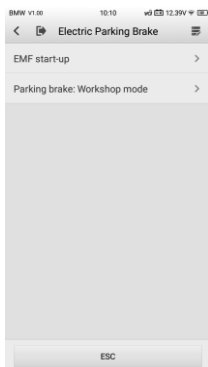
**NOTE**

Autel accepts no responsibility for any accident or injury arising from the maintenance of the Electric Parking Brake system.

---

➤ **To perform EPB functions**

1. Tap the **Service** application button on the MaxiTPMS Job Menu.
2. Tap **EPB** button. The vehicle manufacturer selection screen will display. Tap **VIN Scan** or the vehicle manufacturer to acquire vehicle VIN information and tap **Yes** to confirm vehicle profile. See [Vehicle Identification](#) on page 67 for details.
3. Tap the desired service in the EPB function list. The list may vary for different vehicles being tested.



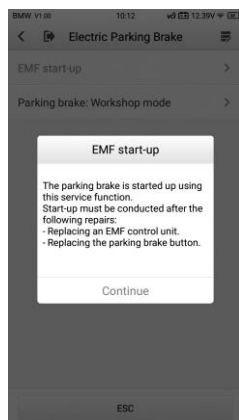
**Figure 8-5 Sample EPB Function List**

4. Follow the step-by-step on-screen instruction to complete the service.
5. Press **OK** button to exit.

## **EMF Start-up**

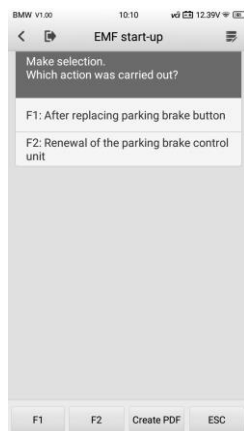
This service function would start the parking brake. It must be conducted after the following repairs:

- Replacing an EMF control unit.
- Replacing the parking brake button.



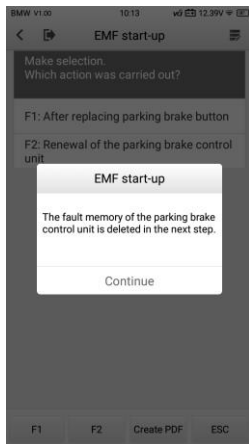
**Figure 8-6 Sample EMF Star-up Screen 1**

- 1) Tap **Continue** to proceed with this service function or tap **Back** at the bottom left to exit.
- 2) Tap on the completed action to continue.



**Figure 8-7 Sample EMF Star-up Screen 2**

- 3) The following screen will display a message to advise that the fault memory of the parking brake control unit will be deleted, press **Continue** to proceed or **Back** to exit.



**Figure 8-8 Sample EMF Star-up Screen 3**

- 4) Follow the on-screen instructions to pull the parking brake button. Wait for appropriately three seconds until the parking brake is set. When the operation is successfully completed, a “Completed successfully” message will display on the screen, press **OK** to exit.

## **Parking Brake: Workshop Mode**

This service is used to activate and deactivate the installation position for the Automatic Hold brake. In this mode the parking brake is moved into the opened position and temporarily deactivated (personal protection).

The installation position must be activated for the following repairs:

- Replacement of brake pads.
- Replacement of a brake caliper.
- Replacement of an actuator.

Select **Parking Brake: Workshop Mode** and follow the on-screen instructions to perform a series of operations to initiate the brake pad after replacement.

When the operation is successfully completed, a “Completed successfully” message will appear on the screen. Press **ESC** to exit.

# Battery Management System (BMS) Service

---

The Battery Management System (BMS) allows the scan tool to evaluate the battery charge state, monitor the close-circuit current, register the battery replacement, activate the rest state of the vehicle, and charge the battery via the diagnostic socket.

---

## NOTE

1. This function is not supported by all vehicles. The screens shown in this section are examples.
2. The sub functions and actual test screens of the BMS may vary by vehicle, please follow the on-screen instructions to make correct option selection.

---

The vehicle may use either a sealed lead-acid battery or an AGM (Absorbed Glass Mat) battery. Lead acid battery contains liquid sulphuric acid and can spill when overturned. AGM battery (known as VRLA battery, valve regulated lead acid) also contains sulphuric acid, but the acid is contained in glass mats between terminal plates.

It is recommended that the replacement aftermarket battery has the same specifications, such as capacity and type, as the exiting battery. If the original battery is replaced with a different type of battery (e.g. a lead-acid battery is replaced with an AGM battery) or a battery with a different capacity (mAh), the vehicle may require reprogramming of the new battery type, in addition to, performing the battery reset. Consult the vehicle manual for additional vehicle-specific information.

## Register Battery Replacement

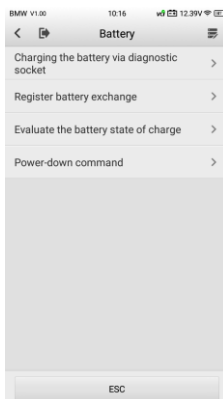
This option displays the mileage reading of last battery was replaced, registers the battery replacement after replacing a new battery and informs the power management system that a new battery has been installed.

If the battery change is not registered, the power management system will not function properly, which may not provide the battery with enough charging power to operate the car or limit the functionality of vehicle's electrical systems.

Take **BMW** as an example.

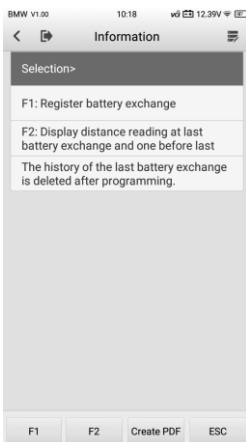
- **To display the battery history**

1. Tap the **Service** application button on the MaxiTPMS Job Menu.
2. Tap **BMS** button. The vehicle manufacturer selection screen displays. Tap **VIN Scan** or the vehicle manufacturer to acquire vehicle VIN information and tap **Yes** to confirm. See [Vehicle Identification](#) on page 67 for details.
3. Tap **Register Battery Exchange** in the BMS function list, the list may vary by test vehicle.



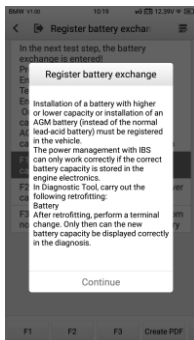
**Figure 8-9 Sample BMS Function List**

4. Tap on the desired service. In this example, choose the function **Register battery exchange**. A procedure screen displays.



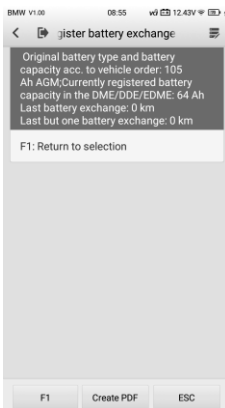
**Figure 8-10 Sample BMS Screen 1**

5. Read carefully the complete information and follow the steps.



**Figure 8-11 Sample BMS Screen 2**

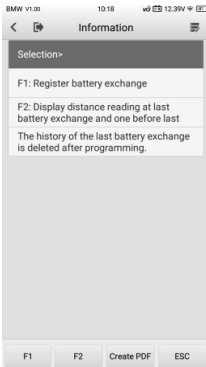
6. Check the battery capacity and the battery replacement information on the screen.
7. Tap function 1 (F1) to return to the selection screen.



**Figure 8-12 Sample BMS Screen 3**

➤ **To register the battery replacement**

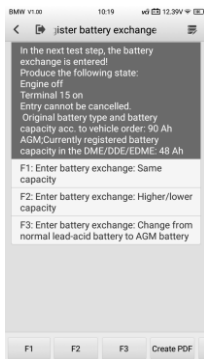
1. Tap on the appropriate step to complete. In our example, tap function 1 (F1) **Register battery replacement**.



**Figure 8-13 Sample BMS Screen 4**

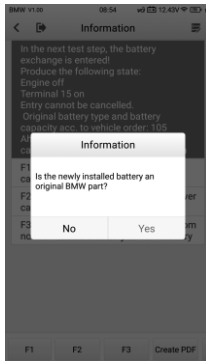
2. Read carefully the information on the screen. Scroll through lists to view all the functions.

There are three functions. Select function 1 (F1) for example.



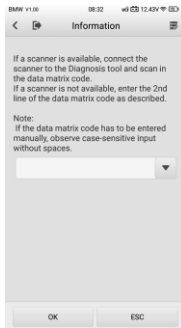
**Figure 8-14 Sample BMS Screen 5**

- 1) Enter battery replacement: same capacity
- 2) Enter battery replacement: different capacity
- 3) Enter battery replacement: Changing from the normal lead-acid battery (white housing) to AGM battery (black housing)



**Figure 8-15 Sample BMS Screen 6**

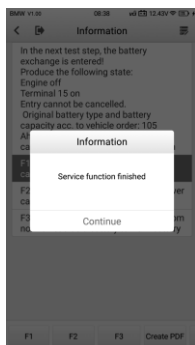
3. Read carefully the information on the screen and tap **Yes** to continue.
4. Follow the on-screen instructions to input the data matrix code of the newly installed battery that should be on the label of the battery. Tap **OK** to continue.



**Figure 8-16 Sample BMS Screen 7**

5. When the battery exchange is successfully entered, tap **Continue** to exit.





**Figure 8-17 Sample BMS Screen 8**

## Steering Angle Sensor (SAS) Service


---

Steering Angle Sensor Calibration permanently stores the current steering wheel position as the straight-ahead position in the steering angle sensor EEPROM. Therefore, the front wheels and the steering wheel must be set exactly to the straight-ahead position before calibration. In addition, the vehicle identification number (VIN) is also read from the instrument cluster and stored permanently in the steering angle sensor EEPROM. On successful completion of calibration, the steering angle sensor fault memory is automatically cleared.

Calibration must always be carried out after the following operations:

- Steering wheel replacement
- Steering angle sensor replacement
- Any maintenance that involves opening the connector hub from the steering angle sensor to the column
- Any maintenance or repair work on the steering linkage, steering gear or other related mechanism
- Wheel alignment or wheel track adjustment
- Accident repairs where damage to the steering angle sensor or assembly, or any part of the steering system may have occurred

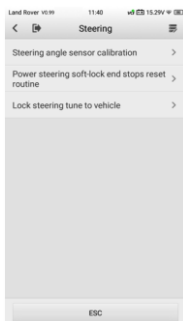
---

 **NOTE**

1. Autel accepts no responsibility for any accident or injury arising from servicing the SAS system. When interpreting DTCs retrieved from the vehicle, always follow the manufacturer's recommendation for repair.
  2. All software screens shown in this manual are examples, actual test screens may vary by test vehicle. Pay attention to the menu titles and onscreen instructions to make correct option selections.
  3. Before starting procedure, make sure vehicle has ESC. Look for button on dash.
- 

Using a **Land Rover** as an example.

1. Tap the **Service** application button on the MaxiTPMS Job Menu.
2. Tap **SAS** button. The vehicle manufacturer selection screen displays. Tap **VIN Scan** or the vehicle manufacturer to acquire vehicle VIN information and tap **Yes** to confirm. See [Vehicle Identification](#) on page 67 for details.
3. Tap the desired service in the SAS function list, the list may vary by test vehicle.



**Figure 8-18 Sample SAS Function Menu**

## **Steering Angle Sensor Calibration**

This function allows users to perform steering angle sensor calibration, clear records and clear counter. The function options vary by vehicle.

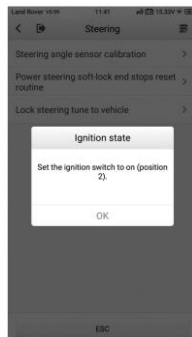
- 1) Tap **Steering Angle Sensor Calibration** from the SAS function menu to enter the function screen.

- 2) Follow the on-screen instructions to set the ignition on/off as guided. The vehicle battery voltage signal should be in the range 12.5 – 13.5 volts to proceed with this service, otherwise the scan tablet will display a warning message.
- 3) Ensure the steering wheel is in the central position and the front wheels are in the straight position. Then tap **OK** to proceed.



**Figure 8-19 Sample SAS Function Screen 1**

- 4) When the operation is finished, the scan tool will display a confirmation message. An error message will display if the procedure cannot be completed. Exit the diagnosis program, and solve the error before attempting SAS calibration again.



**Figure 8-20 Sample SAS Function Screen 2**

# 9 Settings

Tap the Settings button to adjust the default settings and view information about the MaxiTPMS system:

- TPMS Market
- TPS Prog. Setting
- TBE Manager
- VCI Manager
- System Settings
- Printer Manager
- Unit
- About

This section describes the procedures to adjust the device's system settings.

## TPMS Market

---

This option allows you to select the area of work, Europe, North America, Korea, Japan, or Australia.

## TPS Prog. Setting

---

The TPS Prog. (Tire pressure sensor programming) Setting option allows you to change the tire pressure limit for sensor programming. To reduce sensor program error, ITS600 sets the sensor pressure limit to below 69Kpa by default.

## TBE Manager


---

**TBE Manager** is for connecting the ITS600 tablet with a TBE device via Wi-Fi direct mode. Make sure to turn on

➤ **To connect the TBE device with the tablet via Wi-Fi direct mode**

1. On the TBE device, go to *Settings > Network connection*. Connect to Wi-Fi first and swipe the Wi-Fi direct toggle to turn the Wi-Fi direct mode on.
2. On the ITS600 tablet, go to *Settings > TBE Manager* to open the TBE Manager screen.
3. Tap **Scan** at the upper right corner of the tablet's screen. The tablet will automatically search for available TBE devices.
4. The name of the device will appear, select the device for connection. Tap the device name to establish a communication link.
5. A message showing "Connect Successfully" displays after the connection is established.
6. To disconnect the device, tap the connected device listing again.
7. Tap < on the top left to return to the Settings Menu.

---

 **NOTE**

To ensure quick connection, please perform this operation when the ITS600 tablet is connected to a steady network.

---

## VCI Manager

---

This application pairs the tablet with the MaxiVCI V200, checks the communication status and updates the VCI firmware.



**Figure 9-1 Sample VCI Manager Screen**

1. Connection Mode – there are two connection modes available for selection. The connection state displays.
  - Bluetooth Connection – when paired to a wireless device, the connection state displays as Paired; otherwise it displays as Unpaired.
  - Firmware upgrade - updates the V200 with the latest version of firmware via Internet.
2. BT Listing

The list section displays the serial numbers for all the V200 devices available for pairing. Tap a VCI device to start pairing. The BT status icon displayed on the middle of the screen indicating the received signal strength.

## BT Connection


The MaxiVCI V200 needs to be connected to the vehicle, so that it is powered during the synchronization procedure. Turn the vehicle's ignition to the ON position. Ensure the tablet has sufficient battery life or is connected to an external power supply.

### ➤ To pair the MaxiVCI V200 with the Display Tablet

1. Power on the tablet.
2. Insert the 16-pin vehicle data connector of the MaxiVCI V200 to the vehicle data link connector (DLC).
3. Tap the **Settings** application on the MaxiTPMS Job Menu of the tablet, select **VCI Manager**.
4. Tap **Scan** at the upper right corner of the tablet's screen. The device will automatically search for available V200 units.
5. The device name may display as Maxi suffixed with a serial number. Select the appropriate device for pairing.
6. When paired successfully, the connection status displays the device name with the message **Paired**.
7. Once paired, the VCI button on the upper right corner of the screen will display a green check and the Connection LED on the MaxiVCI V200 illuminates solid green. This signifies that the tablet is connected to the MaxiVCI V200, and is ready to perform vehicle diagnosis.

8. Tap the paired device again to unpair it.
9. Tap the **Home** icon on the top left to return to the MaxiTPMS Job Menu.

---

 **NOTE**

A MaxiVCI V200 can be paired to only one tablet at a time, and once it's paired, the device will not be discoverable to other devices.

---

## Update via USB

When the V200 is connected with the tool using a Type C to Type C USB cable, tap **Firmware Upgrade > Detect Firmware** to check if an update is available.

## Update via Bluetooth

Please refer to [Update via Bluetooth](#) on page 112 for additional information.

---

## System Settings

This function provides you with direct access to the Android system settings interface, where you can adjust various system settings for the Android system platform, including wireless and networks settings, various device settings such as sound and display, language settings, and check related information about the Android system. Refer to Android documentation for additional information.

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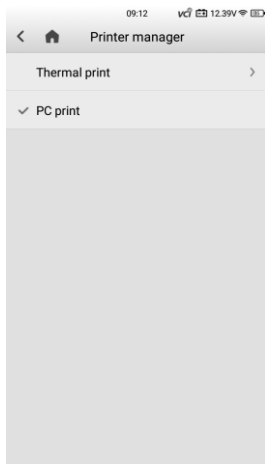
## Printer Manager

Printer Manager helps to locate nearby thermal printers that are available for test report printing.

➤ **To search for available thermal printer**

1. Tap the **Settings** application on the MaxiTPMS Job Menu.
2. Select **Printer Manager**.
3. Tap > to enter the next page, where the tablet automatically scans for available printers.
4. After scanning is complete, the printer name will display on the

screen.



**Figure 9-2 Sample Printer Manager Screen**

---

**NOTE**

If no printer is found, this may indicate that the printer is not switched on for it to be detected. Switch on the printer, and then tap **Scan** at the upper right corner of the screen to initiate auto scan.

---

## Unit

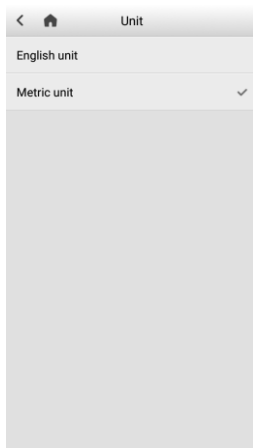
---

This option allows you to adjust the measurement unit for the diagnostic system.

➤ **To adjust the unit setting**

1. Tap the **Settings** application on the MaxiTPMS Job Menu.
2. Tap the **Unit**.
3. Select the desired measurement unit, Metric or English. A tick will display to the right of the selected unit.
4. Tap the **Home** button on the top left corner to return to the MaxiTPMS Job Menu.





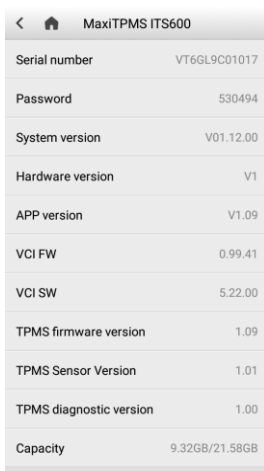
**Figure 9-3 Sample Unit Setting Screen**

## About

---

About displays information regarding the ITS600 tablet, including the password, system version, hardware version, and the device's serial number.

- **To check the MaxiTPMS product information in About**
  1. Tap the **Settings** application on the MaxiTPMS Job Menu.
  2. Tap **About** to open the product information screen.
  3. Tap **Home** on the top left corner to return to the MaxiTPMS Job Menu.



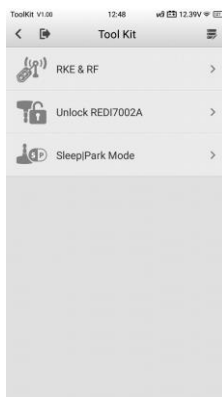
The image shows a mobile application interface for 'MaxiTPMS ITS600'. The screen displays a list of system parameters and their corresponding values. The parameters include Serial number, Password, System version, Hardware version, APP version, VCI FW, VCI SW, TPMS firmware version, TPMS Sensor Version, TPMS diagnostic version, and Capacity. The values are: Serial number (VT6GL9C01017), Password (530494), System version (V01.12.00), Hardware version (V1), APP version (V1.09), VCI FW (0.99.41), VCI SW (5.22.00), TPMS firmware version (1.09), TPMS Sensor Version (1.01), TPMS diagnostic version (1.00), and Capacity (9.32GB/21.58GB).

Parameter	Value
Serial number	VT6GL9C01017
Password	530494
System version	V01.12.00
Hardware version	V1
APP version	V1.09
VCI FW	0.99.41
VCI SW	5.22.00
TPMS firmware version	1.09
TPMS Sensor Version	1.01
TPMS diagnostic version	1.00
Capacity	9.32GB/21.58GB

**Figure 9-4 Sample About Screen**

# 10 ToolKit

This chapter describes auxiliary functions for TPMS service and vehicle diagnosis.



**Figure 10-1 Sample ToolKit Screen**

1. RKE & RF

This function is used to check the signal strength of 315 and 433 MHz frequencies of remote keyless entry Fobs

2. Unlock REDi7002A

This function is used to unlock the specified Redi-sensor: 7002A.

3. Sleep | Park Mode

For those OEM sensors that are delivered in Sleep Mode, this function is used to wake and set them to Park Mode.

# 11 Update

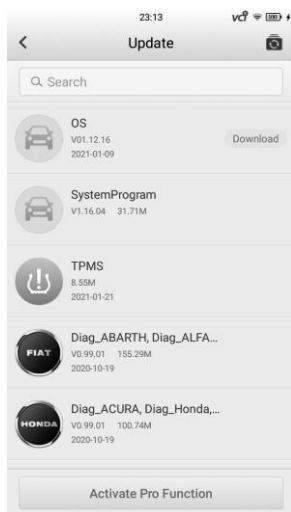
This chapter describes the update operation for the ITS600 tablet. The software updates can be completed on the tablet via the Internet.

## Display Tablet Update

---

The internal programming of the MaxiTPMS System, known as the firmware, can be updated using the Update application. Firmware updates increase the MaxiTPMS applications' capabilities, typically by adding new vehicle models, TPMS service functions, etc.



The display device automatically searches for available updates for all of the MaxiTPMS components when it is connected to the Internet. Any updates that are found can be downloaded and installed on the device. This section describes installing an update to the MaxiTPMS System firmware. Tap **Activate Pro function** button at the bottom of the screen for all systems diagnostics and service function with an additional in-app purchase.



## Figure 11-1 *Sample Update Screen*

1. Navigation and Controls
  - Return Button – returns to the MaxiTPMS Job Menu.
  - Update All – downloads all available updates.
  - Search Bar – searches specific update item by inputting the file name. Example: enter a vehicle manufacturer.
2. Main Section
  - Left Column – displays TPMS button and manufacturer buttons.  
TPMS Button – downloads the TPMS service software for all available vehicles.  
Manufacturer Buttons – downloads the manufacturer specific service software.
  - Middle Column – displays update software version and a brief introduction about the new changes to the software operation or capabilities. Tap the vehicle brand of your selection to open an information screen to view more details.
  - Right Column – displays update button, which also works as an update progress bar indicating the completion status in percentage when downloading the software selected.

### ➤ **To update the TPMS service software and diagnostic software**

1. Ensure the tablet is connected to a power source and has a stable connection with the Internet.
2. Tap the **Update** application button from the MaxiTPMS Job Menu; the Update screen displays. Tap  button on the upper right corner to have all the downloadable items in updating status. This will also update all the items at once if not second tap  button to suspend or resume the updating process.
3. If you only want to update one or some of the item(s), tap the **Download** button on the right column of the specific item(s).
4. Second tap the **Download** button to suspend or resume the updating process.
5. When the updating process is complete, the software will be installed automatically. The previous version will be replaced.

There is NO separate download button for the tablet's firmware. The firmware is downloaded with the software package.

## MaxiVCI V200 Update

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### Update via Bluetooth

Before updating the V200 software, ensure the tablet's network connection to the Internet is stable. The V200 supports Bluetooth (BT) and USB communications.

➤ **To update the MaxiVCI V200 firmware via Bluetooth(BT)**

1. Connect the V200 to the vehicle or charge it with an adapter before pairing it with the tablet via BT.
2. On the MaxiTPMS Job Menu, tap **Settings > VCI Manager**, and select the **Bluetooth Connection** button on the top right corner of the screen. Pair the tablet with V200 by tapping the device serial number on the screen.
3. When pairing is successful, the connection status displays as connected.
4. Tap **Firmware upgrade > Detect Firmware** to check if an update for the V200 is available.

### Update via USB

1. When the V200 is connected with the tool using a USB- Type C to Type C USB cable (not included),
2. Tap **Firmware upgrade > Detect Firmware**, the latest version of the VCI firmware will display on the screen.
3. Complete the update if one is available.

# 12 Data Manager






The **Data Manager** application allows you to store, print, and review saved files, manage workshop information and keep test vehicle history records.

Selecting the Data Manager application opens the menu page which contains six main functions:

- Test records
- Workshop information
- Image
- PDF
- Uninstall apps
- Data logging

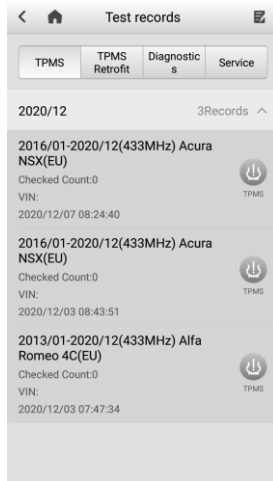
The table below briefly describes the toolbar buttons used to perform these functions:

**Table 12-1 Top Toolbar Buttons in Data Manager**

Button	Name	Description
	<b>Back</b>	Returns to the previous screen.
	<b>Home</b>	Returns to the Main Jobs screen.
	<b>Edit</b>	Tap this button to edit information for the displayed file.
	<b>Delete</b>	Tap this button to delete the selected vehicle record.
	<b>Search</b>	Enter the vehicle name or test path to retrieve vehicle record.
Cancel	<b>Cancel</b>	Tap this button to cancel editing or file search.

# Test Records

This function stores test vehicle history records, in terms of TPMS, TPMS retrofit, Service, and Diagnostics-related information from previous diagnostics and TPMS sessions. All information is displayed in summarized details. Tap on a record to resume a diagnostic or TPMS session on a "stored vehicle".



**Figure 12-1 Sample Test Records Screen**





- **To activate a test session for the recorded vehicle**
1. Tap the **Data Manager** application on the MaxiTPMS Job Menu.
  2. Select **Test records**, and choose a functional tab to display a list of thumbnails.
  3. Tap the function icon on the right side of a thumbnail of a vehicle record item to view the related test record, see [Table 12-2 Function Buttons in Test Records](#) on page 115 for detailed information.
  4. Or, directly tap the vehicle record thumbnail to view TPMS test report.
  5. A TPMS test report displays, tap on each item to input the corresponding information or add relevant files or images.
  6. The updated test report will be automatically saved.
  7. Print the selected TPMS test report or send it via email.



**NOTE**

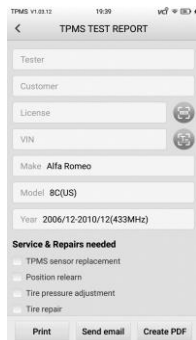
The vehicle VIN number, or license and the customer information account are correlated by default.

**Table 12-2 Function Buttons in Test Records**

Button	Name	Description
	<b>Diagnostics</b>	Displays the previous diagnostics session.
	<b>TPMS</b>	Displays the previous TPMS session.
	<b>TPMS retrofit</b>	Displays the previous TPMS retrofit session.
	<b>Service</b>	Displays the previous service session, including oil reset, BMS, and other services.

## TPMS TEST REPORT

The TPMS test report is a detailed data form that includes general vehicle information such as vehicle year, make and model. The form also includes information on TPMS-related DTCs, workshop, and all information manually inputted by the technician.



The screenshot shows a mobile application interface for a TPMS test report. At the top, it displays 'TPMS v1.08.10' and '19:39'. Below the title 'TPMS TEST REPORT', there are input fields for 'Tester', 'Customer', 'License', and 'VIN'. The 'Make' is set to 'Alfa Romeo' and the 'Model' is 'BC(US)'. The 'Year' is '2006/12-2010/12(453MHz)'. Under the heading 'Service & Repairs needed', there are four checkboxes: 'TPMS sensor replacement', 'Position relearn', 'Tire pressure adjustment', and 'Tire repair'. At the bottom, there are three buttons: 'Print', 'Send email', and 'Create PDF'.

## Figure 12-2 Sample TPMS TEST REPORT Screen

A TPMS report can be printed in two ways, via PC or via a mini Thermal Printer.

### Printing via PC

You can use your PC to print the data on the tablet. Follow the instructions below to perform printing.

- **To install the printer driver program to a computer**
  1. Download the **Maxi PC Suite** from *site* or > *Support* > *Downloads* > *Autel Update Tools*, and install to your windows-based computer.
  2. Double click on **Setup.exe** item.
  3. Select the installation language and the wizard will load momentarily.
  4. Follow the instructions on the screen and click **Next** to continue.
  5. Click on **Install** and the printer driver program will be installed onto the computer.
  6. Click on **Finish** to complete the installation.

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#### **NOTE**

The MaxiSys Printer runs automatically after the installation. The computer, printer and the tablet must be connected to the same network.

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- **To print a TPMS report**
  1. On the TPMS test report screen, tap the **Print** button at the bottom of the screen. Meanwhile, the PC, printer, and the tablet must be connected to the same network with Maxi PC Suite installed on the PC.
  2. Select **PC print** or **Thermal print**.
  3. Tap **Preview** to preview the report in PDF format, or tap **Confirm** to have the tablet automatically search for available printer for printing.

### Printing via Mini Thermal Printer

Print reports to a mini thermal printer (purchased separately).

# Workshop Information

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Use the Workshop Information form to edit, input and save the detailed workshop information, such as header image, store picture, shop name, address, phone number and other remarks, which when printing vehicle diagnostic reports and other associated test file, will display as the header of the printed documents.



**Figure 12-3 Sample Workshop Information Sheet**

- **To edit the Workshop Information sheet**
1. Tap the **Data Manager** application on the MaxiTPMS Job Menu.
  2. Select **Workshop Information**.
  3. Tap on each field to input the appropriate information.
  4. Tap **Complete** to save the updated workshop information sheet, or tap the **Back** icon on the upper left corner to exit without saving.

# Image

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The Image section contains all captured screenshot images and images taken by the high resolution camera of 8 megapixel.





**Figure 12-4 Sample Image Screen**

1. **Toolbar Buttons** – used to delete the image files and go back to the previous screen. See the following table for detailed information.
2. **Main Section** – displays the stored images.

**Table 12-3 Toolbar Buttons in Image Screen**

Button	Name	Description
	<b>Back</b>	Returns to the previous screen.
	<b>Edit</b>	Tap this button to display the editing options. Select, delete, or view image information.
Cancel	<b>Cancel</b>	Tap this button to close the editing toolbar or cancel file search.
	<b>Search</b>	Quickly locates the image file by entering the vehicle name, test path, file name or file info.
	<b>Delete</b>	Tap this button to delete the selected image.
	<b>Details</b>	Tap this button to display image details.
	<b>Send email</b>	Tap this button to send the selected image via email.

	<b>Print</b>	Tap this button to print the selected image.
	<b>Rename</b>	Tap this button to rename the screenshot selected.

➤ **To delete selected images**

1. Select **Data Manager** on the MaxiTPMS Job Menu.
2. Select **Image** to access the image database.
3. Tap the **Edit icon** on the upper right corner.
4. Select the images that need to be deleted by tapping the blank check boxes of the thumbnail images, the selected thumbnail displays a green checkmark at the bottom right corner.
5. Tap the **Delete** button, and then click **OK**. The selected images will be deleted.
6. Or, simply select an image to display in full screen, and select the **Delete** button at the bottom to delete this specific image.

➤ **To print selected images**

Please refer to [Printing via PC](#) on page 116 for details.

## PDF

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The PDF section stores and displays all PDF files of the saved data. Select a PDF from the database to display.

The standard Adobe Reader application is used for file viewing and editing, please refer to the associated Adobe Reader manual for detailed instructions.

## Uninstall Apps

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This function manage the firmware applications installed on the MaxiTPMS Diagnostics System. Select this to open a management screen, on which all the available vehicle diagnostic applications can be reviewed.

Tap on the vehicle manufacturer icon that you wish to delete. The selected icon will display a blue check mark at the upper right corner. Tap the **Delete** button on the top bar to delete the firmware from the system database.

## Data Logging

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The Data Logging section keeps records of all **Feedback** (submitted), **Not Feedback** (but saved) or **History** (up to the latest 20 test records) data loggings on the diagnostic system. The support personnel will receive and process the submitted reports through the Support platform. The solution will be sent back within 48 hours. You may continue to correspond with Support until the issue is resolved.

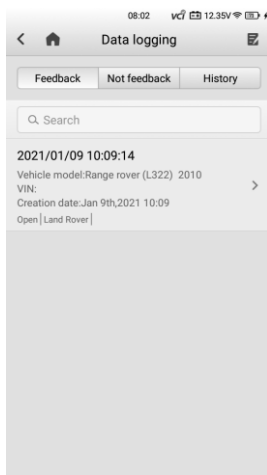
Data Logging can be performed during or after a testing or diagnostic session is done, and specifically, data logging is available in terms of TPMS, TPMS Retrofit, Diagnostics, and Service functions.

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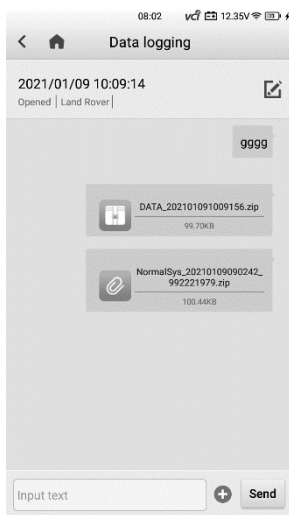
### NOTE

If uploading data logs after a session is done, go to **Data Manager > Data logging > History**, find the vehicle record of your preference and send data logs for technical support.

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**Figure 12-5 Sample Data Logging Screen 1**



**Figure 12-6 Sample Data Logging Screen 2**

➤ **To send message to the Technical center**

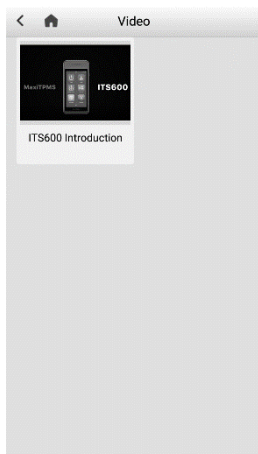
1. Take Data logging of the TPMS function as an example, on the main TPMS screen, after the TPMS session is done, tap  on the upper right corner to make a selection of error types.
2. Tap **OK** to open the Details screen.
3. Describe problems in details in the **Reason for Sending** section.
4. Confirm vehicle information, tap  to upload data logs, or tap  on the upper right corner to correct vehicle info before uploading.

➤ **To reply in a Data Logging session**

1. Tap on the **Feedback** tag to view a list of submitted data logs.
2. Select a specific item to track progress of data log review.
3. Tap the pencil icon on the upper right corner to correct vehicle information, or directly input text into the blank bar and press **Send** to send your message to the technical center.

# 13 Academy

The Academy provides access to various onboard instructional videos and manuals produced by top-notch technicians and product experts, covering information on main functions such as TPMS Relearn and Rewrite functions. Please access the videos or articles saved on the tablet by tapping the images with hyperlinks displayed under this application.



**Figure 13-1 Sample Academy Screen**



# 14 Remote Desktop

The **Remote Desktop** application launches the TeamViewer Quick Support program, a simple, fast and secure remote control interface. Use this application to receive ad-hoc remote support from Autel's support technicians by allowing them to control your MaxiTPMS tablet on their PC via the TeamViewer software.

# 15 MaxiTools

The MaxiTools application provides you with a quick entrance to access the following functions, including system tools, quick link, email, and tire DOT.

## System Tools

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The System Tools application allows you to perform **Log** and **Factory data reset** functions when there are errors related to system program issues.

➤ **To post a log collection**

1. Tap **MaxiTools > System tools > Log**, the Log collection screen displays.
2. Choose an option from the **collection options** section, and tap the **Start** button at bottom left of the screen to initiate log collection.
3. Tap **Stop** to end collection, or tap **Upload** to send the logs collected to the technical center.

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 **NOTE**

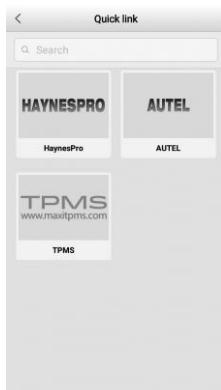
For easy access, directly enter the **Log** screen via Shortcuts Panel.

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## Quick Link

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The Quick Link application provides access to Autel's official websites and to other popular automotive service websites. These sites are an invaluable resource of automotive information and repair data and include forums, video training and expert consultation.



**Figure 15-1 Sample Quick Link Screen**

➤ **To open a quick link**

1. Tap the **Quick Link** application on the MaxiTPMS Job Menu. The Quick Link application screen displays.
2. Select a website thumbnail on the main section. The Chrome browser is launched and the selected website is opened.

## Email

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The email application enables sending and receiving emails after account registration. Simply input your email account and password to start.

## Tire DOT

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The Tire DOT application contains two parts - DOT Recall and DOT Scan functions. DOT Recall is a convenient instrument that detects tire status of the test vehicle. When the DOT number on a tire is scanned, the information of tire age, warning, and recall status will display on the screen for you to view.

Similar to Tire DOT, the DOT Scan option enables checking of tire age and provides warning regarding tire as well.

 **NOTE**

The Recall status is only supported in North American region.

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# 16 Activate Pro function

Activate Pro function provides a quick access to upgrade the basic version of ITS600 with an additional purchase. After the advanced version of ITS600 is downloaded, you can perform diagnosis and service functions for all vehicle brands and systems.

# 17 Maintenance and Service

## Maintenance Instructions

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The following shows how to maintain your devices, together with precautions to take.

- Use a soft cloth and alcohol or a mild window cleaner to clean the tablet's touchscreen.
- Do not use any abrasive cleansers, detergent, or automotive chemicals on the tablet.
- Only use the device in dry conditions within normal operating temperatures.
- Dry your hands before using the tablet. The touchscreen may not work if the touchscreen is moist, or if you tap the touchscreen with wet hands.
- Do not store the devices in humid, dusty or dirty areas.
- Before and after use, check the housing, wiring, and connectors for dirt and damage.
- At the end of each work day, wipe the device housing, wiring, and connectors clean with a damp cloth.
- Do not attempt to disassemble your tablet or VCI unit.
- Take care not to drop the device or allow anything heavy to drop on the device.
- Use only authorized battery chargers and accessories. Any malfunction or damage caused by the use of unauthorized battery charger and accessories will void the limited product warranty.
- Ensure that the battery charger does not come in contact with conductive objects.
- Do not operate the tablet next to anything such as a microwave oven, cordless phone and some medical or scientific instruments that might interfere with or prevent signal interference.

## Troubleshooting Checklist

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- A. When the tablet does not work properly:
- Make sure the tablet has been registered online.
  - Make sure the system software and diagnostic application software are properly updated.
  - Make sure the tablet is connected to the Internet.
  - Check all cables, connections, and indicators to see if the signal is being received.
- B. When battery life is shorter than usual:
- This may happen when you are in an area with low signal strength.
  - Turn off your device when not in use.
- C. When unable to power on the tablet:
- Make sure the tablet is connected to a power source or the battery is charged.
- D. When unable to charge the tablet:
- Your charger maybe out of order. Contact your nearest dealer.
  - You may be attempting to use the device in an overly hot/cold temperature. Use the tablet in an environment within normal operating temperatures.
  - Your device may have not been properly connected to the charger. Check the connector.



### NOTE

If your problems persist, please contact Autel's technical support or your local distributor.

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## About Battery Usage

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Your tablet is powered by a built-in Lithium-ion Polymer battery. The Lithium-ion Polymer battery can recharge while some charge remains without reducing your tablet's autonomy due to the "battery memory effect" inherent in this type of battery technology.



### DANGER

1. The built-in Lithium-ion Polymer battery is factory replaceable only;

incorrect replacement or tampering with the battery pack may cause an explosion.

2. Do not use a damaged battery charger.

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- Do not disassemble or open crush, bend or deform, puncture or shred.
- Do not modify or remanufacture, attempt to insert foreign objects into the battery, expose to fire, explosion or other hazard.
- Make sure to only use the supplied charger and USB cables. Using an unapproved charger or unapproved USB cable might not working correctly or might damage the tablet or VCI.
- Only use the supplied charging device that has been qualified for use with the device. Use of an unqualified battery or charger may present a risk of fire, explosion, leakage or other hazard.
- Avoid dropping the tablet. If the tablet is dropped, especially on a hard surface, and the user suspects damage, take it to a service center for inspection.
- Working closer to the WiFi router improves the working battery life of the tablet as less battery power is consumed to make connection.
- The battery recharging time varies depending on the remaining battery capacity.
- Battery life inevitably shortens over time.
- Since overcharging may shorten battery life, unplug tablet and charger from power outlet when tool is sufficiently charged.
- Leaving the tablet in hot or cold places, especially inside a vehicle in summer or winter, may reduce the battery's capacity and longevity. Always keep the battery within normal temperatures.