Trademarks

OTOFIX is a trademark of Autel Intelligent Technology Corp., Ltd., registered in China, the United States and other countries. All other marks are trademarks or registered trademarks of their respective holders.

Copyright Information

No part of this manual may be reproduced, stored in a retrieval system or transmitted, in any form or by any means, electronic, mechanical, photocopying, recording, or otherwise without the prior written permission of Autel Intelligent Technology Corp., Ltd.

Disclaimer of Warranties and Limitation of Liabilities

All information, specifications and illustrations in this manual are based on the latest information available at the time of printing.

Autel Intelligent Technology Corp., Ltd. reserves the right to make changes at any time without notice. While information of this manual has been carefully checked for accuracy, no guarantee is given for the completeness and correctness of the contents, including but not limited to the product specifications, functions, and illustrations.

Autel Intelligent Technology Corp., Ltd. will not be liable for any direct, special, incidental, indirect damages or any economic consequential damages (including lost profits).

---

❶ IMPORTANT

Before operating or maintaining this unit, please read this manual carefully, paying extra attention to the safety warnings and precautions.

For Services and Support:

🌐 www.otofixtech.com

☎ (833) 686-1349 (OTO-1FIX) (North America)
0086-755-86147779 (China)

✉ support@otofixtech.com

For technical assistance in all other markets, please contact your local selling agent.

Safety Information

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

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.

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

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

Safety Instructions

The safety messages herein cover situations the company is aware of. Autel Intelligent Technology Corp., Ltd. 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.

⚠️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.

⚠️It is not advised to use headphones at a high volume

Listening at high volumes for long periods of time may result in loss of hearing.

⚠️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, etc., away from all moving or hot engine parts.

- Operate the vehicle in a well-ventilated work area.

- 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, and free from oil, water and 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.

CONTENTS

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.

1.1 Conventions

The following conventions are used.

1.1.1 Bold Text

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

Example:

- Tap **OK**.

1.1.2 Notes and Important Messages

Notes

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

Example:

⊘ **NOTE**

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

Important

IMPORTANT indicates a situation that if not avoided may result in damage to the tablet or vehicle.

Example:

❶ **IMPORTANT**

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

1.1.3 Hyperlink

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

1.1.4 Illustrations

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

1.1.5 Procedures

An arrow icon indicates a procedure.

Example:

➢ **To use the camera:**
1.   Tap the **Camera** button. The camera screen opens.
2.   Focus the image to be captured in the viewfinder.
3.   Tap the camera icon on the right side of the screen. The viewfinder now shows the captured picture and auto-saves the taken photo.
4.   Tap the thumbnail image on the top right corner of the screen to view the stored image.
5.   Tap the **Back** or **Home** button to exit the camera application.

2. General Introduction

OTOFIX D1/D1 Lite is built to take your diagnostic experience to a whole new level, supporting smart diagnosis for all available vehicle systems and featuring up to 26 service functions. As an advanced intelligent automotive diagnostic analyzer, the OTOFIX D1/D1 Lite offers exceptional OE-level diagnosis and DTC analysis. Combined with the OTOFIX cloud service, it provides you with one-stop solutions from diagnosis to fix.

There are two main components to the OTOFIX diagnostic system:

- OTOFIX D1/D1 Lite Tablet — the central processor and monitor for the system
- V1 — Vehicle Communication Interface (VCI)

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

2.1 OTOFIX D1/D1 Lite Tablet

2.1.1 Functional Description
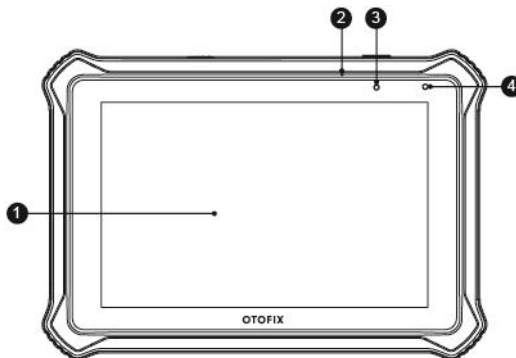
Figure 2-1 *Tablet Front View*

1. 7-inch LCD Capacitive Touchscreen
2. Built-in Microphone
3. Power LED — refer to Table 2–1 Power LED Description for details
4. Ambient Light Sensor — detects ambient light brightness

Table 2–1 *Power LED Description*

LED	Color	Description
Power	Green	Flashes green when the tablet is charging.
	Green	Lights green when the tablet is fully charged.
	Red	Flashes red when the tablet encounters a problem.
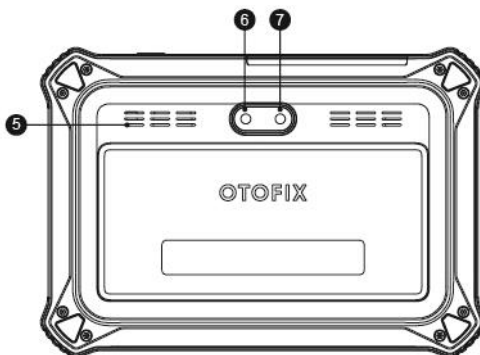
Figure 2-2 *Tablet Back View*

5. Speaker
6. Camera
7. Camera Flash
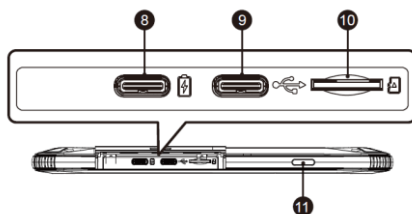
Figure 2-3 *Tablet Top Side*

8. Charging Port/USB OTG Port
9. USB Port — this port cannot be used for charging
10. Micro SD Card Slot
11. Lock/Power Button — long press to power the tablet on and off, or short press to lock the screen

2.1.2 Power Sources

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

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

---

❶ IMPORTANT

Do not charge the battery when the temperature is lower than 0°C (32°F) or higher than 45°C (113°F).

Internal Battery Pack

The tablet can be powered with the internal rechargeable battery, which if fully charged can provide sufficient power for about 8 hours of continuous operation.

AC/DC Power Supply — using power adapter

The tablet can be powered from an electrical outlet using the AC/DC power adapter. The AC/DC power supply also charges the internal battery pack.

Vehicle Utility Power Port

The tablet can be powered from any utility power port on the test vehicle through a direct cable connection. The vehicle power cable connects to the DC power supply port on the top side of the tablet.

2.1.3 Technical Specifications

Table 2–2 *Tablet Specifications*

Item	Description
Recommended Use	Indoor
Operating System	Android 9
Processor	4x ARM Cortex-A35 processor (1.5 GHz)
Memory	2 GB RAM & 64 GB ROM
Display	7-inch LCD Capacitive Touchscreen with 1280 x 800 Resolution
Connectivity	- Wi-Fi - BT - USB TYPE C *2 - TF Card (Support up to 32 GB)
Camera	Rear: 8 Megapixel

Item	Description
Sensors	Light Sensor for Brightness Auto Changing
Audio Input / Output	● Input: Microphone ● Output: Speaker
Power and Battery	● 5800 mAh 3.85 V lithium-polymer battery ● Charging via 5 V DC power supply
Input Voltage	5 V/2 A
Power Consumption	700 mA (LCD on with default brightness, Wi-Fi on) @3.85 V
Operating Temp.	0 to 50°C (32 to 122°F)
Storage Temp.	-10 to 60°C (14 to 140°F)
Operating Humidity	5% - 95% non-condensing
Dimensions (WxHxD)	207 mm (8.15") x 144 mm (5.67") x 14.8 mm (0.58")
Weight	463 g (1.02 lb.)
Protocols	DoIP, PLC J2497, ISO-15765, SAE-J1939, ISO-14229 UDS, SAE-J2411 Single Wire Can (GMLAN), ISO-11898-2, ISO-11898-3, SAE-J2819 (TP20), TP16, ISO-9141, ISO-14230, SAE-J2610 (Chrysler SCI), UART Echo Byte, SAE-J2809 (Honda Diag-H), SAE-J2740 (GM ALDL), SAE-J1567 (CCD BUS), Ford UBP, Nissan DDL UART with Clock, BMW DS2, BMW DS1, SAE J2819 (VAG KW81), KW82, SAE J1708, SAE-J1850 PWM (Ford SCP), SAE-J1850 VPW (GM Class2)

2.2 V1 — Vehicle Communication Interface

The OTOFIX V1 is a small vehicle communication interface (VCI) used to connect to a vehicle's data link connector (DLC) and connect with the tablet via Bluetooth or USB cable for vehicle data transmission.

2.2.1 Functional Description
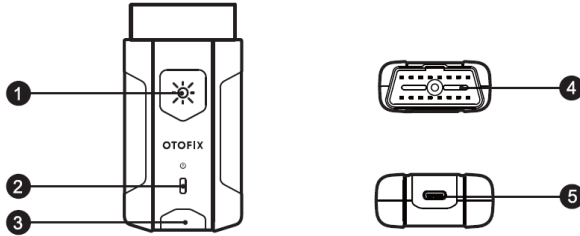
Figure 2-4 *VCI Device*

1. Lighting Push Button
2. Power LED — refer to Table 2–3 Power LED Description for details
3. Vehicle/Connection LED — refer to Table 2–4 Vehicle LED Description for details
4. Vehicle Data Connector (16-pin)
5. USB Port

Table 2–3 *Power LED Description*

LED	Color	Description
Power	Yellow	Lights solid yellow when the VCI is powered on and performing self-check.
	Green	Lights solid green when the VCI is ready for use.
	Red	Flashes red when the firmware is upgrading.

Table 2–4 *Vehicle LED Description*

LED	Color	Description
Vehicle / Connection	Green	• Lights solid green when VCI is connected via USB cable. • Flashes green when VCI is communicating via USB cable.
	Blue	• Lights solid blue when VCI is connected via Bluetooth. • Flashes blue when VCI is communicating via Bluetooth.

2.2.2 Power Sources

The VCI device can receive power from the following sources:

- Vehicle Power
- AC/DC Power Supply

Vehicle Power

The VCI device operates on 12/24 Volt vehicle power, which receives power via the vehicle data connection port. The device powers on whenever it is connected to an OBDII/EOBD compliant Data Link Connector (DLC).

AC/DC Power Supply

The VCI device can be powered from a wall socket using the AC/DC power adapter.

2.2.3 Technical Specifications

Table 2–5 *VCI Specifications*

| Item	Description
Communications	- BLE + EDR - USB 2.0
Wireless Frequency	2.4 GHz
Input Voltage Range	6-36 VDC
Supply Current	150 mA @ 12 VDC
Operating Temp.	-10°C to 50°C (14 to 122°F)
Storage Temp.	-40°C to 80°C (-40 to 176°F)
Dimensions (L x W x H)	89.89 mm (3.53") x 46.78 mm (1.84") x 21 mm (0.82")
Weight	70.7 g (0.156 lb.)
Built-in Battery	3.7V Lithium Battery
Light	White LED

2.3 Other Accessories

USB Type C Cable (for charging)

AC/DC External Power Adapter

Together with the USB type C cable, connects the tablet to the external DC power port for power supply.
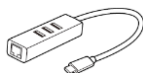
USB to Ethernet Adapter

One of the necessary accessories that is used to connect the Autel diagnostic tool and wired network to support the remote expert function of the technician side.

3. Getting Started

Make sure the tablet has sufficient power or is connected to the external power supply (see *Power Sources*).

NOTE

The images and illustrations depicted in this manual may differ slightly from the actual ones.

3.1 Power Up

Long press the Lock/Power button on the top right side of the tablet to power on the unit. The system boots up and displays the OTOFIX Job Menu or slide to the right to unlock:

Figure 3-1 *Sample OTOFIX Job Menu*

1. Application Buttons
2. Navigation Menu
3. Status Icons

NOTE

It is recommended to lock the screen when not in use to protect private information in the system and conserve power.

Almost all operations on the tablet are controlled through the touchscreen. The touchscreen navigation is menu driven allowing for quick access to test procedures, and data, through a series of questions and options. Detailed descriptions of the menu structures are found in the chapters for each application.

3.1.1 Application Buttons

The table below briefly describes each of the applications in the OTOFIX system.

Table 3–1 *Applications*

Name	Button	Description
Diagnostics		Accesses diagnostics functions. See *Diagnostics*.
Service		Accesses the Special Functions menu. See *Service*.
Data Manager		Accesses saved workshop, consumer, and vehicle data including detailed vehicle diagnostics and test records. See *Data Manager*.
Settings		Accesses the System Settings menu. See *Settings*.
Update		Accesses system software update menu. See *Update.*
VCI Manager	VCI	Accesses VCI connection menu. See *VCI Manager.*
Support		Synchronizes Autel's online service database with the diagnostic tablet. See *Support.*
Remote Desktop		Configures your unit to receive remote support using the TeamViewer application. See *Remote Desktop.*
Quick Link		Provides associated website bookmarks to allow quick access to product update, service, support and other information. See *Quick Link.*
Battery Test		Accesses Battery Test menu with four functions including in-vehicle test, out-vehicle test, battery change and battery reset. See *Battery Test*.
MaxiViewer		Provides a quick search for supported functions and/or vehicles. See *MaxiViewer.*

3.1.2 Locator and Navigation Buttons

Operations of the Navigation buttons at the bottom of the screen are described in the table below:

Table 3–2 *Locator and Navigation Buttons*

Name	Button	Description
Locator		Indicates the location of the screen. Swipe screen left or right to view previous or next screen.
Back		Returns to the previous screen.
Android Home		Returns to Android System's Home screen.
Recent Apps		Displays a list of currently running applications. Tap an app icon to launch. Remove an app by swiping it to the right.
Browser		Launches the Chrome Internet browser.
Camera		Tap icon to open camera viewfinder. Press and hold icon to capture screenshots of display screen. Saved files are auto-stored in the Data Manager application for later review. See *Data Manager*.
Display & Sound		Adjusts the brightness of the screen and the volume of the audio output.
VCI		Opens the VCI Manager application. A green icon at the bottom bar indicates the VCI device is connected, a red cross X icon will display if connection fails.
BAS		Opens the VCI Manager application. A green icon at the bottom bar indicates the Smart Battery Tester is connected, a red cross X icon will display if connection fails.
Diagnostics Shortcut		Returns to the Diagnostics screen.
Service		Returns to the Service screen.

➢ **To use the camera**

1. Tap the **Camera** button. The camera screen opens.

2. Focus the image to be captured in the view finder.

3. Tap the camera icon on the right side of the screen. The view finder now shows the captured picture and auto-saves the taken photo.

4. Tap the thumbnail image on the top right corner of the screen to view the stored image.

5. Tap the **Back** or **Home** button to exit the camera application.

✎ NOTE

After swiping the camera screen from left to right, the camera mode and video mode can be toggled by tapping the blue camera icon or video icon.

Refer to Android documentation for additional information.

3.1.3 System Status Icons

Your diagnostic tablet is a fully functional Android tablet with the standard Android operating system status icons. Refer to Android documentation for additional information.

3.2 Power Down

All vehicle communications should be terminated before shutting down the tablet. A warning message displays if a shutdown is attempted while the tablet is communicating with the vehicle. Forcing a shut down while the tablet is communicating with the vehicle may lead to ECU errors on some vehicles. Please exit the Diagnostics application before shutting off the tablet.

➢ **To power down the OTOFIX D1/D1 Lite tablet**

1. Long press (press and hold) the **Lock/Power** Button.

2. Tap **Power Off**.

3. Tap **OK**. The tablet will turn off in a few seconds.

3.2.1 Reboot System

In case of a system crash, long press the Lock/Power button and tap **Restart** to reboot the system.

4. Diagnostics

The Diagnostics application can access the electronic control module of multiple vehicle control systems, including but not limited to the engine, transmission, antilock brake system (ABS) and airbag system (SRS).

4.1 Establish Vehicle Communication and Selection

4.1.1 Establish Vehicle Communication

The Diagnostics operations require connecting the Diagnostic tablet to the test vehicle through the OTOFIX V1. To establish proper vehicle communication to the tablet, you need to perform the following steps:

1. Connect the OTOFIX V1 to the vehicle's DLC for both communication and power source.
2. Connect the OTOFIX V1 to the tablet via BT pairing.
3. A green icon will display atop the VCI navigation button at the bottom bar on the screen. If communication has been established, the OTOFIX tablet is ready to start vehicle diagnosis.

4.1.1.1   Vehicle Connection

The tablet communicates with the vehicle via the BT connection provided by the OTOFIX V1:

To connect the V1 to the test vehicle, simply insert the Vehicle Data Connector on the V1 into the vehicle's DLC, which is generally located under the vehicle dashboard and the V1 will be automatically powered on.

⊘ NOTE
The vehicle's DLC is not always located under the dashboard; refer to the user manual of the test vehicle for additional connection information.

4.1.1.2   VCI Connection

After the V1 is properly connected to the vehicle, the Power LED on the VCI device lights solid green, and is ready to establish communication with the OTOFIX D1/D1 Lite tablet.

BT Connection

BT pairing is recommended as the first choice for the communication between the tablet and the VCI device OTOFIX V1. In open areas, the working range for BT communication is about 33 feet (about 10 m), enabling remote vehicle diagnostics.

To expedite multi-vehicle diagnostics, more than one VCI can be used in busy repair shops enabling technicians to quickly pair via BT their diagnostic tablets to each VCI separately and therefore eliminating the need to unplug the VCI from one vehicle and then connect it to another each time a new vehicle comes in for repairs.

Refer to *VCI BT Pairing* for additional information.

USB Cable Connection

The USB cable connection is a simple and stable way to establish communication between the tablet and the VCI device. After properly connecting the USB cable from the tablet to the V1 device, the VCI navigation button at the bottom bar of the screen displays a green mark and the vehicle/connection LED on the V1 device lights solid green, indicating the connection between the devices is successful.

The diagnostic platform is now ready to perform vehicle diagnosis.

⊘ **NOTE**
The supplied USB cable is used for charging, not for vehicle communication. Please purchase a USB-C to USB-C cable separately if needed.

4.1.1.3 No Communication Message

A. If the tablet is unable to connect to the VCI, an "Error" message displays. An "Error" message indicates the tablet is not communicating with the VCI device, Troubleshoot the error by performing the following steps:

● Ensure the VCI device is powered on.

● When using the wireless connection, ensure the network is configured correctly and the proper device has been connected.

● If the tablet loses communication abruptly during diagnostics, ensure no objects are causing signal interruption.

● Ensure the VCI device is properly positioned with the VCI front side up.

● Move the tablet closer to the VCI device. If using the wired connection, ensure the cable is securely attached to the VCI.

● Ensure the VCI communication mode is lit for the selected communication type, BT, or USB.

B. If the VCI device is unable to establish a communication link, a message will display troubleshooting instructions. Possible causes for the communication error include:

● The VCI device is unable to establish a communication link with the vehicle.

● A vehicle system has been selected for diagnoses that is not supported by the

vehicle.

- There is a loose connection.
- There is a blown vehicle fuse.
- The vehicle or the data case has a wiring fault.
- There is a circuit fault in the data cable or adapter.
- The vehicle identification is incorrectly entered.

4.1.2 Getting Started

Prior to first use of the Diagnostics application, ensure the VCI device is properly connected to and is communicating with the tablet.

4.1.2.1   Vehicle Menu Layout

When the VCI device OTOFIX V1 is properly connected to the vehicle, and paired to the tablet, the platform is ready to start vehicle diagnosis. Tap on the Diagnostics application button on the OTOFIX Job Menu, and the Vehicle Menu displays on the screen.
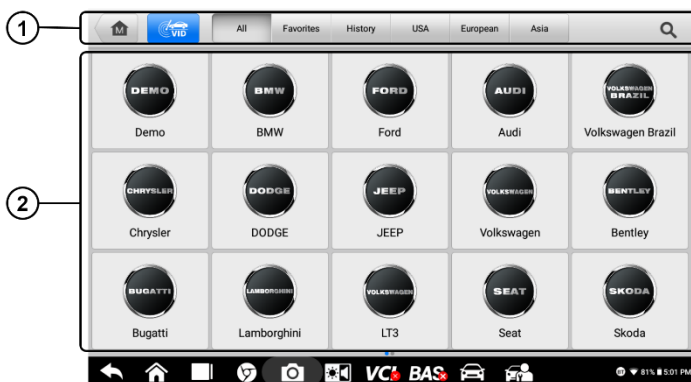
Figure 4-1 *Sample Vehicle Menu Screen*
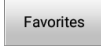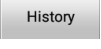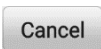
1. Top Toolbar Buttons
2. Manufacturer Buttons

Top Toolbar Buttons

The operations of the Toolbar buttons at the top of the screen are listed and described in the table below:

Table 4–1 *Top Toolbar Buttons*

Name	Button	Description
Home		Returns to the OTOFIX Job Menu.

Name	Button	Description
VID Scan		Tap this button to open a dropdown list; tap **Auto detect** for auto VIN detection; tap **Manual Input** to enter VIN code/license numbers manually. Tap **Scan VIN/License** to scan the barcode/VIN code/license plate numbers by camera.
All	All	Displays all the vehicle makes in the vehicle menu.
Favorites	Favorites	Displays user-selected favorite vehicle makes.
History	History	Displays the stored test vehicle history records. This option provides direct access to the previously tested vehicle recorded during previous test. See *Vehicle History*.
USA	USA	Displays the USA vehicle menu.
European	European	Displays the European vehicle menu.
Asia	Asia	Displays the Asian vehicle menu.
Search	Q Search	Tap inside the search field to display the virtual keyboard and input the vehicle manufacturer to test.
Cancel	Cancel	Tap this button to exit the search screen or to cancel an operation.

Vehicle Manufacturer Buttons

The Manufacturer buttons display the various vehicle brand names. Select the manufacturer button after the VCI device is properly connected to the test vehicle to start a diagnostic session.

4.1.3 Vehicle Identification

The OTOFIX diagnostic system supports five methods of Vehicle Identification.

1.   Auto VIN Scan
2.   Manual Input
3.   Scan VIN/License
4.   Manual Vehicle Selection
5.   OBDII Direct Entry

4.1.3.1 Auto VIN Scan

The OTOFIX diagnostic system features the latest VIN-based Auto VIN Scan function to identify CAN vehicles with just one tap, enabling the technician to quickly identify the exact vehicle and scan its available systems for fault codes.

➢ **To perform Auto VIN Scan**

1. Tap the **Diagnostics** application button from the OTOFIX Job Menu. The Vehicle Menu displays.
2. Tap the **VID Scan** button on the top toolbar.
3. Select **Auto Detect**. The tablet starts VIN scanning on the vehicle's ECU. Once the test vehicle is successfully identified, the system will guide you to the Vehicle Diagnostics screen.
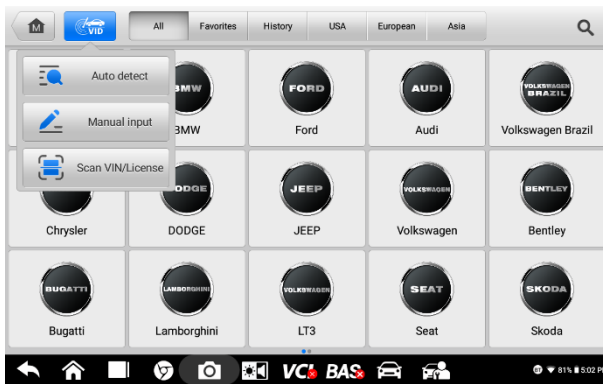
Figure 4-2 *Sample Auto Detect Screen*

Depending on the vehicle, the Auto VIN function is still available after a vehicle brand is selected. Select **Automatic Selection** and the system will acquire VIN information automatically or allow users to input the VIN manually.
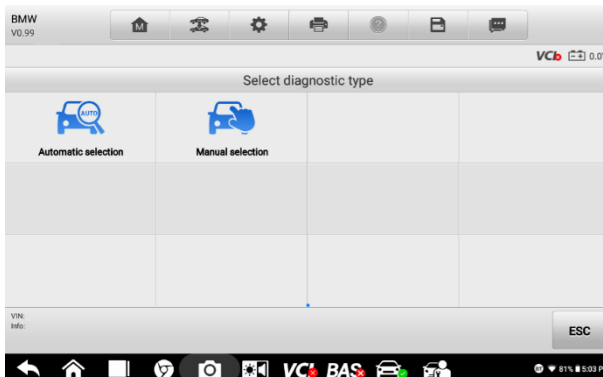
Figure 4-3 *Sample Vehicle Selection Screen*

4.1.3.2 Manual Input

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

➢ **To perform Manual Input**

1. Tap the **Diagnostics** application button from the OTOFIX Job Menu. The Vehicle Menu displays.

2. Tap the **VID Scan** button on the top toolbar.

3. Select **Manual input**.

4. Tap the input box and enter the correct VIN code or license numbers.
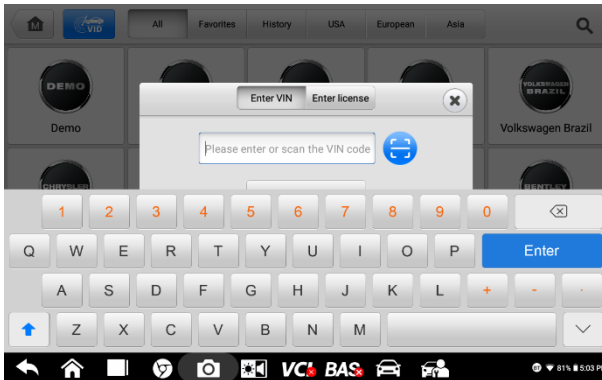
Figure 4-4 *Sample Manual VIN Input*

5. Tap **OK**. The vehicle will be identified and matched to the vehicle database and the Vehicle Diagnostics screen will display.

6. Tap the cross icon on the top-right corner to exit Manual Input.

4.1.3.3 Scan VIN

Tap **Scan VIN** in the dropdown list (*Figure 4-2*), the camera will be opened. On the right side of the screen, from top to bottom, three options are available: **Scan Bar Code**, **Scan VIN**, and **Scan License**.

⌀ **Note**

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

Select one of three options and position the tablet to align the VIN or license numbers within the scanning window, the result displays in the Recognition Result dialog box after scanned. Tap **OK** to confirm the result, and then the vehicle information confirmation

screen will display on the tablet. If all the vehicle information is correct, tap the icon in the middle of the screen to confirm the VIN of the vehicle being tested, tap **OK** to continue.
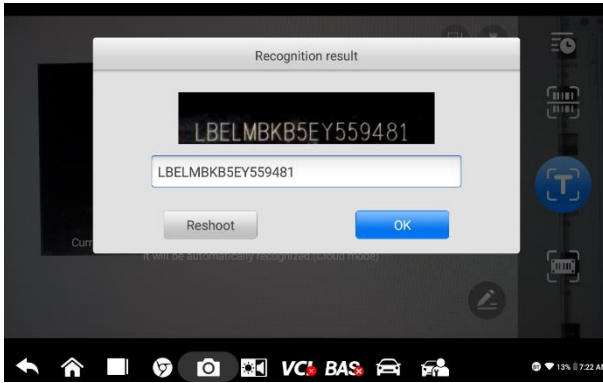
Figure 4-5 *Sample Scan VIN Code 1*

If the VIN/License numbers can't be scanned, please manually input the VIN/License numbers after tapping the pen-shaped ✎ icon. Tap **OK** to continue. Manually input the license numbers and select a vehicle brand in the vehicle information confirmation screen. Tap the **Diagnostics** icon in the middle of the screen to confirm the VIN of the vehicle being tested, tap **OK** to continue.
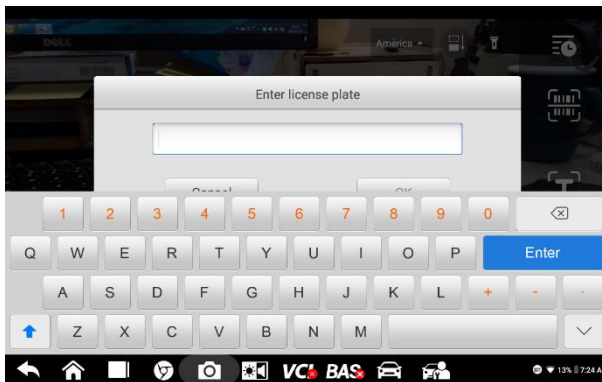
Figure 4-6 *Sample Scan VIN Code 2*

4.1.3.4 Manual Vehicle Selection

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

Step-by-step Vehicle Selection

This mode of vehicle selection is menu driven. Select **Manufacturer** icon on the Vehicle Menu screen and the 'Select diagnostic type' screen displays, then tap **Manual Selection** button. Select the vehicle information (e.g., brand, model, capacity, engine type, and model year). Each selection advances you to the next screen. The **Esc** button will bring you back to the previous screen.
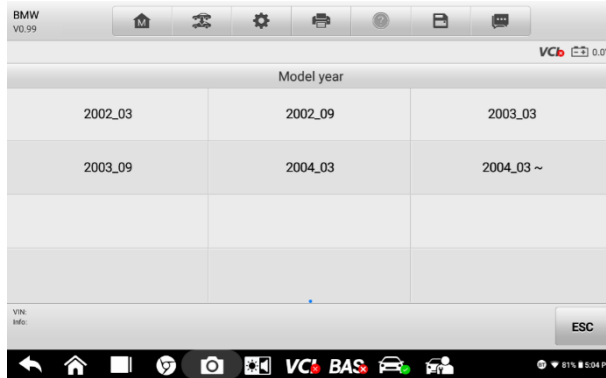
Figure 4-7 *Sample Manual Vehicle Selection Screen*

4.1.3.5   Alternative Vehicle Identification

Occasionally, the tablet may not be able to identify a vehicle. For these vehicles, the user may perform a generic OBDII or EOBD diagnostic. See *Generic OBDII Operations* for additional information.

4.2 Diagnostics Screen Layout

After the vehicle information is selected. Tap the **Yes** button at the bottom right corner of the screen (See Figure 4-8) to open the Diagnostic menu page. This section consists of various functions commonly used, including Auto Scan, Control Unit, and more. The available functions displayed vary by vehicle.

Figure 4-8 *Sample Vehicle Information Confirmation Screen*
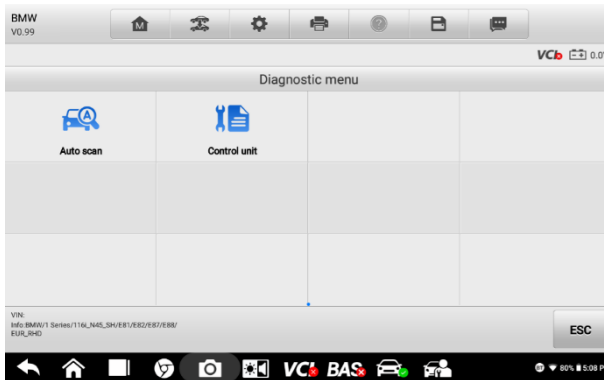
Figure 4-9 *Sample Diagnostic Menu Screen*

4.3 Auto Scan

The Auto Scan function performs a comprehensive scanning of all the systems in the vehicle ECU to locate faults and retrieve DTCs.

➢ **To perform an Auto Scan**

1. Tap the **Diagnostics** application button on the OTOFIX Job Menu. Choose the corresponding vehicle information and enter the vehicle diagnostic page.

2. Select **Auto Scan** on the Main menu to enter the diagnostic interface.

3. The vehicle system modules will be automatically scanned.
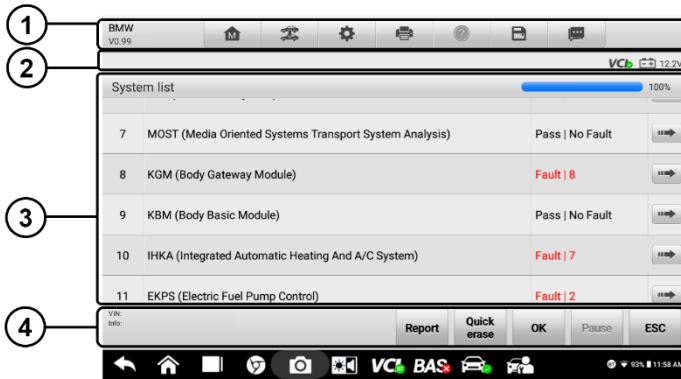
Figure 4-10 *Sample Auto Scan Operation Screen*

1. Diagnostics Toolbar

2. Status Information Bar

3. Main Section

4. Functional Buttons

Diagnostics Toolbar

The Diagnostics Toolbar contains buttons that allow you to print or save the displayed data and perform other operations. The table below provides a brief description for the operations of the Diagnostics toolbar buttons:

Table 4–2 *Diagnostics Toolbar Buttons*

Name	Button	Description
Home		Returns to the OTOFIX Job Menu.
Vehicle Swap		Exits the diagnostic session and returns to the vehicle menu screen to select another vehicle for testing.
Settings		Opens the Settings screen. See *Settings*.
Print		Saves and prints a copy of the displayed data. See *Print Settings*.
Help		Provides instructions or tips for operations of various diagnostic functions.

23

Name	Button	Description
Save	🖫	Provides two ways to save data: • Tap **Save This Page** to take a screenshot image • Tap **Save All Data** to save a PDF file (used this save option when data displays on multiple screens) These files are stored in Data Manager application for later reviews. See *Data Manager*.
Data Logging	💬	Use this function when encountering an error while testing or diagnosing a vehicle. This function will record communication data and ECU information of the test vehicle and send it to Autel technical staff to review and provide a solution. Go to the **Support** application to follow up the processing progress. See *Data Logging*.

➢ **To print data in Diagnostics**

1. Tap the **Diagnostics** application button on the OTOFIX Job Menu. The **Print** button on the diagnostic toolbar is available throughout the Diagnostics operations.

2. Tap **Print** and a drop-down menu displays.

   a) **Print This Page** — prints a screenshot copy of the current screen.

   b) **Print All Data** — prints a PDF copy of all displayed data.

3. A temporary file will be created and sent via the computer to the printer.

4. When the file is sent, a confirmation message displays.

✎ NOTE

Make sure the tablet and the printer are connected successfully before printing.

➢ **To submit Data Logging reports in Diagnostics**

1. Tap the **Diagnostics** application button from the OTOFIX Job Menu. The **Data Logging** button on the diagnostic toolbar is available throughout the whole Diagnostics operations.

2. Tap the **Data Logging** button to display the error options. Select a specific error, and a submission form will display to let you fill in the report information.

3. Tap the **Send** button in the upper right corner of the screen to submit the report form via the Internet, and a confirmation message displays when sent successfully.

Status Information Bar

The Status Information Bar at the top of the Main Section displays the following items:

1. **VCI Icon** — indicates the communication status between the tablet and the VCI device.
2. **Battery Icon** — indicates the battery status of the vehicle*.*

Main Section

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

Column 1 — displays the system numbers.

Column 2 — displays the scanned systems.

Column 3 — displays the scan results.

- ◇ **-!-**: 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 access it.
- ◇ **Fault | #**: Indicates there is/are detected fault code(s) present; "#" indicates the quantity of detected faults.
- ◇ **Pass | No Fault**: Indicates the system was scanned and no faults were detected.
- ◇ **Not Scanned**: Indicates the system has not been scanned.
- ◇ **No Response**: Indicates the system has not received a response.

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

Functional Buttons

The table below provides a brief description of the Functional Buttons' operations:

Table 4–3 *Functional Buttons in Diagnostics Screen*

Name	Description
Report	Displays the diagnostic data in the report form.
Quick erase	Deletes codes. A warning message screen will display to inform you of possible data loss when this function is selected.

Name	Description
OK	Confirms the test result. Continues to the system diagnosis after required system is selected by tapping the item in the Main Section.
Pause	Temporarily pauses scanning process.
ESC	Returns to the previous screen or exits Auto Scan.

4.4 Control Unit

This option allows you to manually locate a required control system for testing through a series of choices. Simply follow the menu driven procedure, and make proper selection each time; the application will guide you to the diagnostic function menu after a few choices you've made.
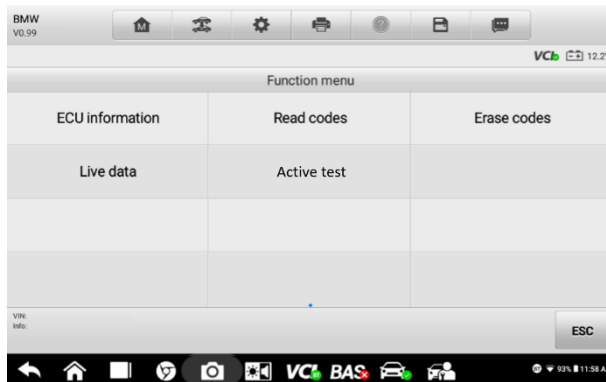
Figure 4-11 *Sample Function Menu Screen*

Available functions may vary slightly by vehicle. The function menu may include:

- **ECU Information** — displays detailed ECU information.

- **Read Codes** — displays detailed DTC information retrieved from vehicle control module.

- **Erase Codes** — erases DTC records and other data from vehicle's ECU

- **Live Data** — retrieves and displays live data and parameters from vehicle's ECU.

- **Active Test** — provides specific subsystem and component tests. This selection may appear as *Actuators*, *Actuator Test* or *Function Tests*. Available tests vary by vehicle.

4.4.1 Screen Messages

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

● **Confirmation Messages**

These usually display as an "Information" screen, when you are about to perform an action that cannot be reversed or when an action has been initiated and your confirmation is needed to continue.

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

● **Warning Messages**

These display when completing the selected action may result in an irreversible change or loss of data. An example of this message is the "Erase Codes" message.

● **Error Messages**

These display when a systemic or procedural error has occurred. Possible errors include cable disconnection and communication interruption.

4.4.2 Making Selections

The Diagnostics application is a menu-driven program that presents a series of options one at a time. As you select from a menu, the next menu in the series displays. Each selection narrows the focus and leads to the desired test. Use your fingertip to make menu selections.

4.5 ECU Information

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

Figure 4-12 *Sample ECU Information Screen*

1. Diagnostics Toolbar Buttons — see *Table 4–2 Diagnostics Toolbar Buttons* for detailed descriptions of the operations of each button.

2. Status Information Bar

3. Main Section — the left column displays the item names; the right column displays the specifications or descriptions.

4. Functional Button — in this case, only an **ESC** button is available; tap it to exit after viewing.

4.6 Read Codes

This function retrieves and displays the DTCs from the vehicle control system. The Read Codes screen varies for each vehicle being tested. For some vehicles, freeze frame data can also be retrieved for viewing. A sample Read Codes screen displays as below:
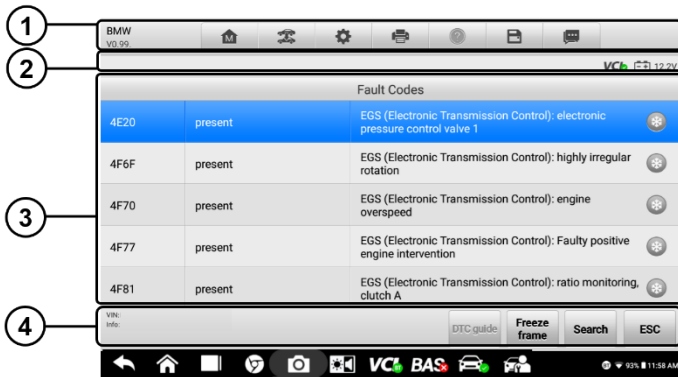
Figure 4-13 *Sample Read Codes Screen*

1. Diagnostics Toolbar – see *Table 4–2 Diagnostics Toolbar Buttons* for details.

2. Status Information Bar

3. Main Section

   ● Column 1 — displays the retrieved codes from the vehicle.

   ● Column 2 — indicates the status of the retrieved codes.

   ● Column 3 — provides detailed descriptions for the retrieved codes.

   ● Column 4 — only displays when Freeze Frame data is available for viewing. Selecting this icon will display a data screen, which looks and behaves similar to the Read Codes screen.

4. Functional Buttons

- **DTC Guide** — tap to view fault code information, including fault description, condition for fault identification and driver information.

- **Freeze Frame** — icon displays when freeze frame data is available for viewing. Tap icon to display data screen. The Freeze Frame interface is similar to that of the Read Codes interface and shares similar operations.

- **Search** — tap to search the selected DTC for additional information on the Internet.

- **ESC** — tap it to return to the previous screen or exit the function.

4.7 Erase Codes

After reading the retrieved codes from the vehicle and certain repairs have been made, you can erase the codes from the vehicle using this function. 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** in the Function Menu.
2. A warning message displays to inform you of data loss when this function is applied.
   a) Tap **Yes** to continue. A confirming screen displays when the operation is successfully done.
   b) Tap **No** to exit.
3. Tap **ESC** on the confirming screen to exit Erase Codes.
4. Check the Read Codes function again to ensure the operation is successful.

4.8 Live Data

When this function is selected, the screen displays the data list for the selected module. The parameters display in the order that they are transmitted by the ECU, so expect variation among vehicles.

Gesture scrolling allows you to quickly move through the data list. Touch the screen and drag your finger up or down to reposition the parameters being displayed if the data occupies more than one screen. The figure below displays a typical Live Data screen:
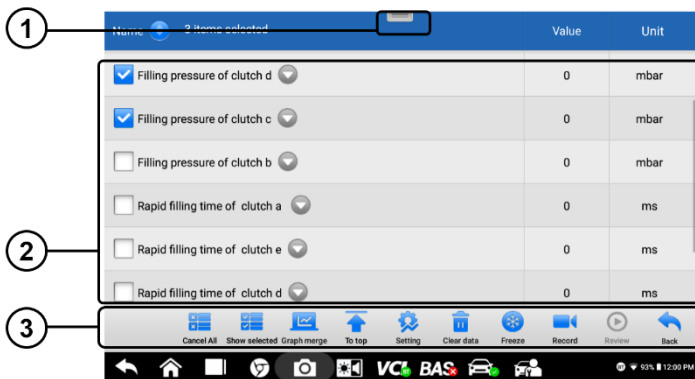
Figure 4-14 *Sample Live Data Screen*

1. **Diagnostics Toolbar Buttons** — Tap the parallel icon at the top of the screen to display diagnostics toolbar buttons. See *Table 4–2 Diagnostics Toolbar Buttons* for detailed descriptions of the operations for each button.

2. **Main Section**

● Name Column — displays the parameters.

   a) Check Box — tap the check box to the left of a parameter to select the item. Tap the check box again to deselect it.

   b) Drop-down Button — tap the drop-down button on the right side of the parameter to open a submenu, which provides optional modes that display the data.

● Value Column — displays the values of the parameters.

● Unit Column — displays the unit for the parameter values.

   ➢ To change the Unit mode, tap the **Setting** button in the top toolbar and select a required mode. See *Unit.*

Display Mode

There are four types of display modes available for data viewing, allowing you to view various types of parameters in the mode best suited to represent the data.

Tap the drop-down button on the right side of the parameter name to open a submenu. A total of 7 buttons will be displayed: The 4 buttons to the left represent different data display modes, plus one **Information** button, active when additional information is available, and one **Unit Change** button, for switching the unit of displayed data, and one **Trigger** button, tap to open the "Trigger Setting" window.

30
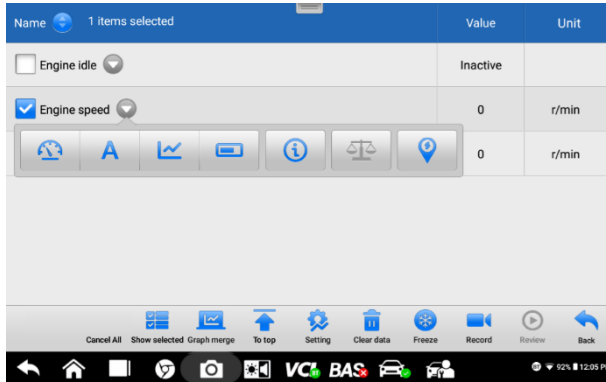
Figure 4-15 *Sample Display Mode Screen*

Each parameter item displays the selected mode independently.

✧ **Analog Gauge Mode** — displays the parameters in gauge charts.

✧ **Text Mode** — the default mode that displays the parameters as a text list.

📝 **NOTE**

Status parameters, such as a switch reading like ON, OFF, TRUE, and FALSE can only be displayed in Text Mode. Value parameters, such as a sensor reading, can be displayed in both text and graph mode.

✧ **Waveform Graph Mode** — displays the parameters in waveform graphs.

In this mode, five control buttons will display on the right side of the parameter item, allowing you to manipulate the display status.
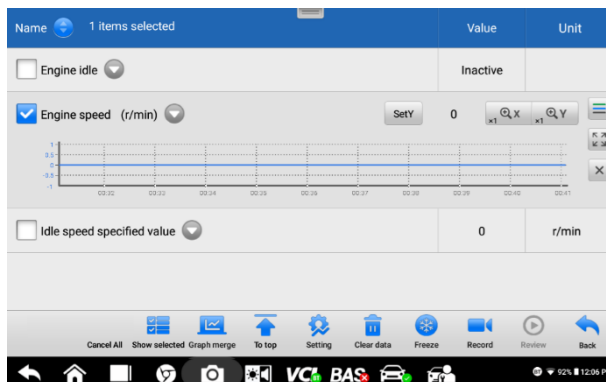
Figure 4-16 *Sample Waveform Graph Mode Screen*

1. Settings Button (SetY) — Sets the minimum and maximum value of the Y axis.

31

2. Scale Button — changes the scale values.

There are two scale buttons, displayed above the waveform graph to the right side, which can be used to change the scale values of the X axis and Y axis of the graph. There are four scales available for the X axis: x1, x2, x4 and x8. There are three scales available for the Y axis: x1, x2, and x4.

3. Edit Button — edits the waveform color and the line thickness.

4. Zoom-in Button — tap once to display the selected data graph in full screen.

5. Exit Button — tap to exit the waveform graph mode.

Full Screen Display — this option is only available in the waveform graph mode, and mostly used in Graph Merge status for data comparison. There are four control buttons available on the top right side of the screen under this mode.

● Scale Button — tap to change the scale values below the waveform graph. There are four scales available for the X axis: x1, x2, x4 and x8. There are three scales available for the Y axis: x1, x2, and x4.

● Edit Button — tap to open an edit window, in which you can set the waveform color and the line thickness displayed for the selected parameter item.

● Zoom-out Button — tap to exit full screen display.

● Exit Button — tap to exit the waveform graph mode.

➢ **To edit the waveform color and line thickness in a data graph**

1. Select parameter items to display in Waveform Graph mode.
2. Tap the **Edit Button**, and an edit window displays.
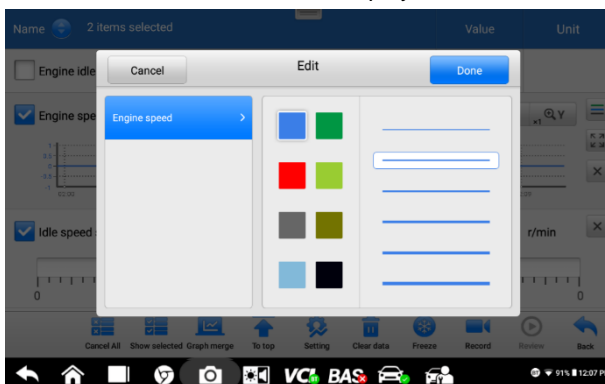
Figure 4-17 *Sample Waveform Edit Screen*

3. The parameter item is selected automatically in the left column.

4. Select a color from the second column.

32

5. Select a line thickness from the right column.

6. Tap **Done** to save the setting and exit, or tap **Cancel** to exit without saving.

⊘ **NOTE**

In full screen display, please edit the waveform color and line thickness by tapping the **Edit Button** on the top right side of the screen.

✧ **Digital Gauge Mode** — displays the parameters in the form of a digital gauge graph.

Trigger Settings

On the trigger setting screen, you can set a standard range by filling in a Minimum value and a Maximum value. When exceeding this range, the trigger function will be executed and the device will automatically record and save the generated data. You can check the saved live data by tapping the "Review" button at the bottom of the screen.

Tap the drop-down button on the right side of the parameter name to open a submenu. The **Trigger** button is the last one in the submenu. Tap to display the trigger setting window.
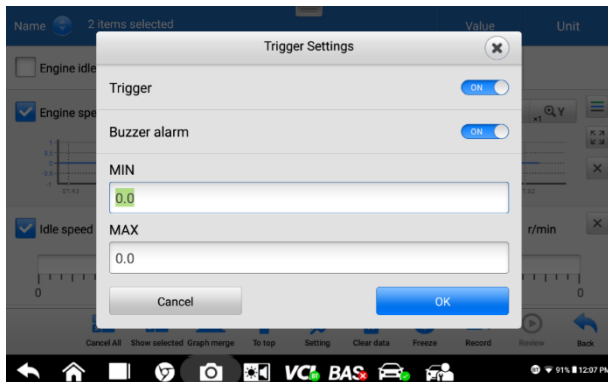
Figure 4-18 *Sample Trigger Setting Screen*

Two buttons and two input boxes are available in the Trigger Setting window.

a) Trigger On — switches the trigger on and off. The trigger is ON by default.

b) Buzzer Alarm — switches the alarm on and off. The alarm function makes a beep sound as an alert when the data reading reaches the preset minimum or maximum point. The buzzer alarm will only sound at the first trigger.

c) MIN — tap this input box to display a virtual keyboard to enter the required lower limit value.

d) MAX — tap this input box to display a virtual keyboard to enter the required upper limit value.

> **To set a trigger**

  1. Tap the drop-down button on the right side of the parameter name to open a submenu.

  2. Tap the **Trigger** button on the right side of the submenu to open the trigger settings window.

  3. Tap the **MIN** input box, and enter the required minimum value.

  4. Tap the **MAX** input box, and enter the required maximum value.

  5. Tap **OK** to save the setting and return to the Live Data screen; or tap **Cancel** to exit without saving.

When the trigger is successfully set, a trigger mark displays in front of the parameter name. The mark is gray when it is not triggered, and displays orange when triggered. Moreover, two horizontal lines display on each of the data graphs (when Waveform Graph Mode is applied) to indicate the alarm point. The limit lines are shown in different colors to differentiate them from the parameter waveforms.

3. **Functional Buttons**

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

◇ **Cancel All** — Tap this button to cancel all selected parameter items. Up to 50 parameters can be selected at one time**.**

◇ **Show Selected/Show All** — tap this button to switch between the two options. One displays the selected parameter items, the other displays all the available items.

◇ **Graph Merge** — tap this button to merge selected data graphs (for Waveform Graph Mode only). This function is very useful when comparing different parameters.

✏**NOTE**
This mode supports Graph Merge of 2 to 5 parameters that can be represented digitally. Non-digital parameters are not supported.

> **To merge selected data graphs**

  1) Select parameter items to be merged.

  2) Tap the **Graph Merge** button at the bottom of the Live Data screen.

      a) This mode only supports parameters that can be represented digitally. If non-digital parameters are selected, a message will display advising the user that the selected parameters are not supported in this mode and to select 2 to 5 digital parameters. Tap the **Got It** button to return to the previous screen and select supported parameters.

b) If parameters are selected that are not supported in this mode, a message will display advising the user to selected only parameters that are supported. A message will also display if more than 5 parameters have been selected. Please select 2 to 5 of the supported parameters and tap the **OK** button to merge.

3) Tap the **Cancel Merging** button at the bottom of the Live Data screen to cancel merging.

✧ **To Top** — moves a selected data item to the top of the list.

✧ **Setting** — tap to set recording duration: From 5 seconds to 60 minutes.

➢ **To set live data record duration**

1. Tap **Settings** button at the bottom of the Live Data screen.

2. Tap the > button to the right of **Recording time after trigger** bar and select a time length.

3. Tap **OK** to save the setting and return to the Live Data Settings screen; or tap the X button at the upper right corner to exit without saving.

4. Tap **Done** at the upper right corner of the Live Data Settings screen to confirm and save the setting, and return to the Live Data screen; or tap **Cancel** to exit without saving.

✧ **Clear Data** — tap to clear all cached live data.

✧ **Freeze** — displays the retrieved data in freeze mode.

● Resume — tap to exit the freeze data mode and return to normal data display.

● Previous Frame — moves to the previous frame of frozen data.

● Play/Pause — tap to play/pause the frozen data.

● Next Frame — moves to the next frame of frozen data.

✧ **Record** — starts recording the live data of the selected data items. Tap the **Record** button at the bottom of the Live Data screen. A message will display prompting user to select parameters to record. Tap the **Got It** button to confirm. Scroll down and select data to record. Tap the **Record** button to start recording. Tap the **Resume** button to stop recording. The recorded live data can be viewed in the **Review** section at the bottom of the Live Data screen. The recorded data can also be reviewed in the Data Manager application.

● Resume — Tap to stop data recording and to return to normal data display.

● Flag — displays when the Record function is applied. Tap to set flags to note points of interest when recording data. Notes can be added during playback in Review or *Data Manager*. Select the preset flag to open a popup window and

display virtual keyboard to input notes.

◇ **Review** — reviews recorded data. Tap to display a recording list, and select one item to review.

<hr>

⊘ NOTE

Only the data recorded during the current operation can be reviewed on the Live Data screen. All the historical recorded data can be reviewed in "Review Data" in the Data Manager application.

<hr>

- Graph Merge — merges selected data graphs.

- Show Selected — displays the selected parameter items.

- Previous Frame — switches to the previous frame of recorded data.

- Play/Pause — tap to play/pause recorded data.

- Next Frame — switches to the next frame of recorded data.

- Back — exits the Review Screen, and returns to the Live Data screen.

◇ **Back** — returns to the previous screen or exits the function.

4.9 Active Test

The Active Test function is used to access vehicle-specific subsystem and component tests. Available tests vary by vehicle.

During an active test, the tablet sends commands to the ECU to activate the actuators. This test determines the integrity of the system or part by reading ECU data, or by monitoring the operation of the actuators. Such tests may include switching a solenoid, relay, or switch, between two operating states.

Selecting Active Test displays a menu of test options. Available tests vary by vehicle. Select test from menu option. Follow the instructions displayed on screen to complete test. Procedures and instructions vary by vehicle.
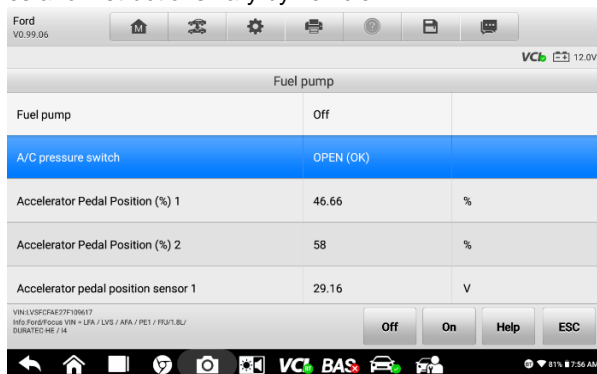
Figure 4-19 *Sample Active Test Screen 2*

36

The functional buttons in the lower right corner of the Active Test screen manipulate the test signals. The operational instructions are displayed in the main section of the test screen. Follow the on-screen instructions and make appropriate selections to complete the tests.

Tap the **ESC** functional button to exit the test when finished.

4.10 Special Function

These functions perform various component adaptations, including the recalibration or configuration of certain components after repairs or replacements have been completed.
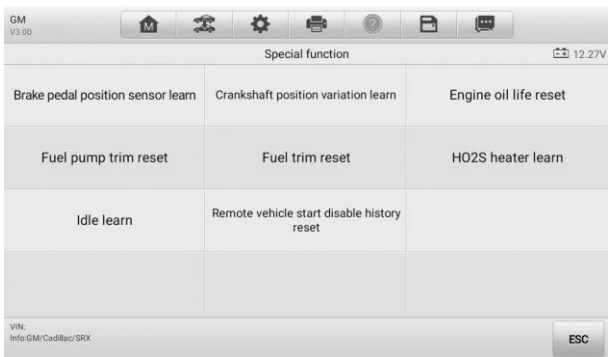
Figure 4-20 Sample Special Function Screen 1

Select a function to display detailed information and the execution screen.
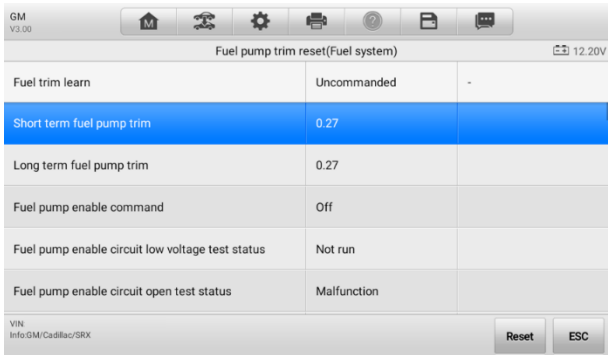
Figure 4-21 Sample Special Function Screen 2

List Tab Page:

- Column 1 — displays the description of the function being performed or the live data corresponding to the special function.
- Column 2 — displays the execution status such as Completed or Activated or the corresponding live data values.
- Column 3 — displays the measurement units of the live data.

Tap a function button to perform the selected function or exit the function.

4.11 Coding

Selecting the Coding function opens a menu of operation options that varies by vehicle make and model. Follow all on-screen instructions while performing the coding operations.

⊘NOTE
The Coding function is available for OTOFIX D1 only.

The main section of the Coding screen displays a list of vehicle components and coding information that mainly consists of two parts:

1. All available systems for coding are displayed on the left side, and the coding data or value on the right side.
2. The bottom of the main section displays the function buttons that enable you to manipulate the operation.

Check the vehicle condition and coding information carefully. Use the function button to edit the codes for corresponding components. Tap **Send** when you finish editing all items. When the operation is completed, an execution status message such as "Completed", "Finished" or "Successful" may appear.

Tap the **ESC** button to exit the function

4.12 Generic OBDII Operations

The OBDII/EOBD vehicle diagnosis offers a quick way to check for DTCs, isolate the cause of a dashboard illuminated malfunction indicator lamp (MIL), check monitor status prior to emissions certification testing, verify repairs, and perform other emissions-related services. The OBDII direct access option is also used for testing OBDII/EOBD-compliant vehicles that are not included in the Diagnostics database. Diagnostics toolbar buttons at the top of the screen are available for specific vehicle diagnostics. See *Table 4–2 Diagnostics Toolbar Buttons* for details.

4.12.1 General Procedure

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

1. Tap the **Diagnostics** application button in the OTOFIX Job Menu. The Vehicle Menu displays.

2. Tap the **EOBD** button. There are two options to establish communication with the vehicle.

   ● Auto Scan — select to establish communication using each protocol in order to determine which one the vehicle is using.

   ● Protocol —select to open a submenu of 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 if the **Protocol** option is selected. Wait for the OBDII Diagnostic Menu to appear.
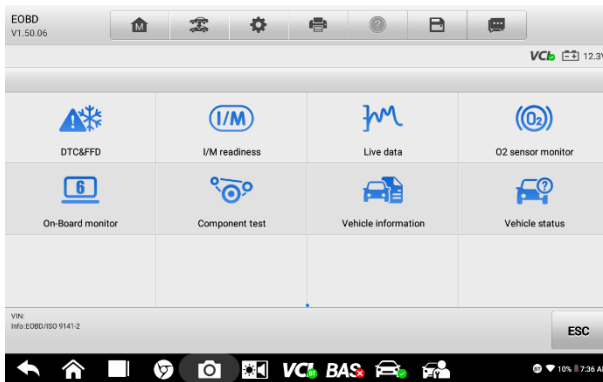
Figure 4-22 *Sample OBDII Diagnostic Menu*

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
Supported functions may vary by vehicle.

4.12.2 Function Descriptions

This section describes the various functions of each diagnostic option:

4.12.2.1 DTC & FFD

When this function is selected, the screen displays a list of Stored Codes and Pending Codes. When the Freeze Frame data of certain DTCs are available for viewing, a snowflake button will display on the right side of the DTC item. The Erase Codes function can be applied by tapping the functional button at the bottom of the screen.
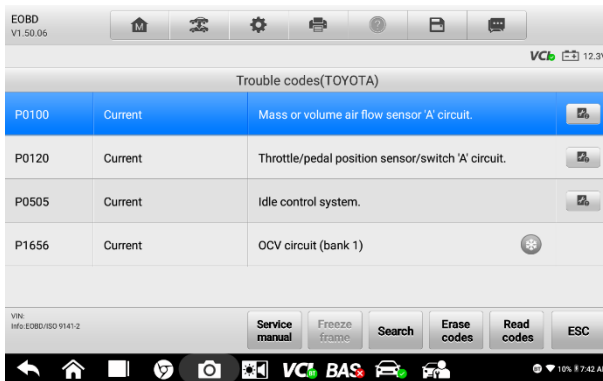
Figure 4-23 *Sample DTC & FFD Screen*

- **Current Codes**

  Current codes are emission-related DTCs from the ECU of the vehicle. OBDII/EOBD Codes have a priority according to their emission severity, with higher-priority codes overwriting lower-priority ones. The priority of the code determines the illumination of the Malfunction Indicator Light (MIL) and the codes erase procedure. Manufacturers rank codes differently so expect display to vary by vehicle.

- **Pending Codes**

  These are codes whose storing conditions have been met during the last drive cycle, but need to be met on two or more consecutive drive cycles before the DTC is stored. The purpose of displaying pending codes is to assist the service technician after a vehicle repair when diagnostic information is cleared, by reporting test results after

40

a single driving cycle.

a) If a test fails during the driving cycle, the DTC associated 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 do not necessarily indicate a faulty component or system. If test results indicate another failure after additional driving, a DTC is stored to indicate a faulty component or system.

● **Freeze Frame**

In most cases the stored frame is the last DTC reported. Certain DTCs, those that have a greater impact on vehicle emission, have a higher priority. In these cases, DTC of the highest priority 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 stored.

● **Erase Codes**

This option is used to clear all emission-related diagnostic data including DTCs, freeze frame data and specific manufacturer-enhanced data from the vehicle ECU. This option resets 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.

4.12.2.2   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 compliance to a state emissions compliance. Selecting I/M Readiness opens a submenu with two choices:

● Since DTCs Cleared — displays the status of monitors since the last time the DTCs were erased.

● This Driving Cycle — displays the status of monitors since the beginning of the current drive cycle.

4.12.2.3   Live Data

This function enables the display of real-time PID data from the ECU. Displayed data includes analog and digital input and output, and system status information broadcast in the vehicle data stream.

Live data can be displayed in various modes, see *Live Data* for detailed information.

4.12.2.4　O2 Sensor Monitor

This function allows retrieval and review of recent O2 sensor monitor test results stored on 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*.

4.12.2.5　On-Board Monitor

This function allows you to view the results of On-Board Monitor tests. The tests are useful after the service when a vehicle's control module memory is already erased.

4.12.2.6　Component Test

This function enables dual-directional control of the ECU so that the diagnostic tool can transmit control commands to operate the vehicle systems. This function is useful in determining how well the ECU responds to a command.

4.12.2.7　Vehicle Information

This function enables the display of the vehicle identification number (VIN), calibration identification number, Calibration Verification Number (CVN), and other test vehicle information.

4.12.2.8　Vehicle Status

This function checks the current condition of the vehicle, such as the communication protocols of OBDII modules, number of fault codes, and status of the Malfunction Indicator Light (MIL).

4.13 Diagnostic Report

4.13.1 Diagnostic Report PDF

The diagnostic report can be reviewed, saved, and printed in multiple applications of the OTOFIX diagnostic platform.

a)　Via the **History** function:

● 　Enter the Diagnosis main page, and tap **History** in the Top Toolbar.
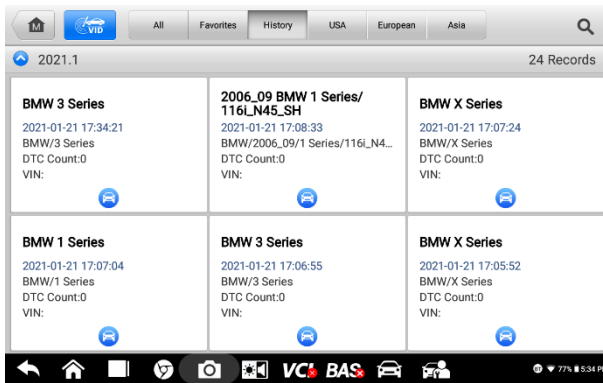
Figure 4-24 *Sample History Screen*

- Select a history record and tap the ellipsis ●●● button in the upper right corner to view the PDF document, print, email or delete the historical test.
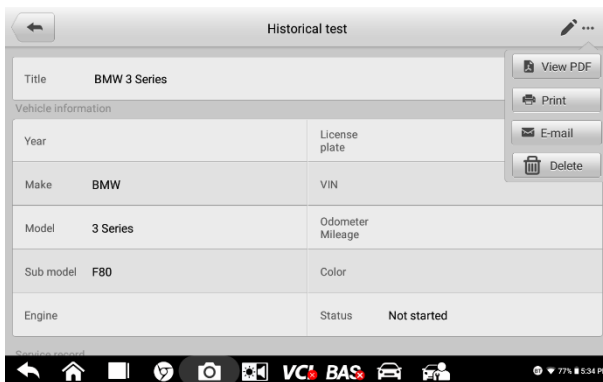
Figure 4-25 *Sample Historical Test Screen*

b) Via the Auto Scan function:

- Tap **Auto Scan** at the Diagnostic Menu screen to automatically scan the vehicle systems.
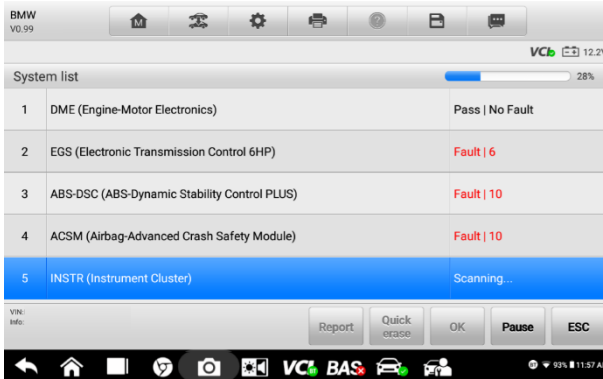
Figure 4-26 *Sample Auto Scan Screen 1*

● When the system scan is completed, tap **Report** at the bottom of the screen.
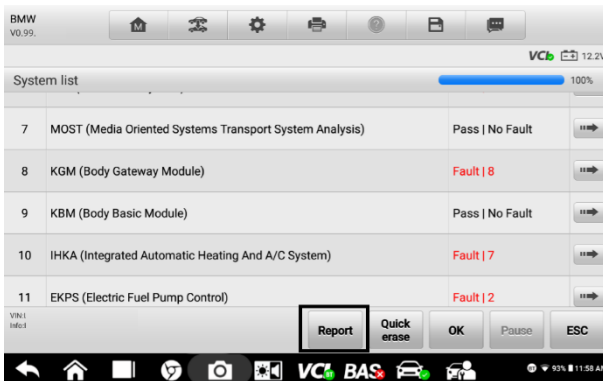
Figure 4-27 *Sample Auto Scan Screen 2*

● Tap the button in the Diagnostics Toolbar, and select **Save all data** to save the PDF document or select **Save this page** to save the screenshot of the current page.
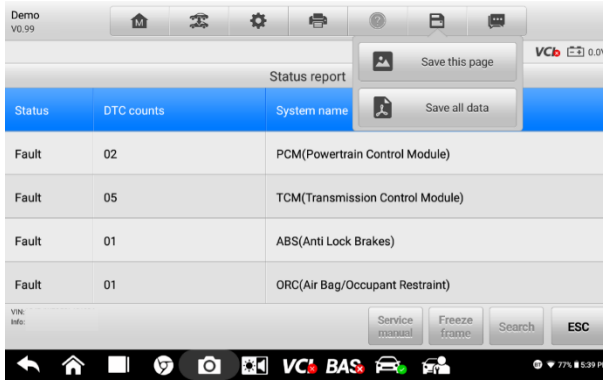
Figure 4-28 *Sample Auto Scan Screen 3*

c) Via the buttons on the Navigation Bar:

● The diagnostic report can also be viewed from the Auto Scan, Read Codes, Live Data, and Active Test Screens. Tap the ⊟ button in the Diagnostics Toolbar, and select **Save all data** to save a PDF document or select **Save this page** to save a screenshot of the current page.
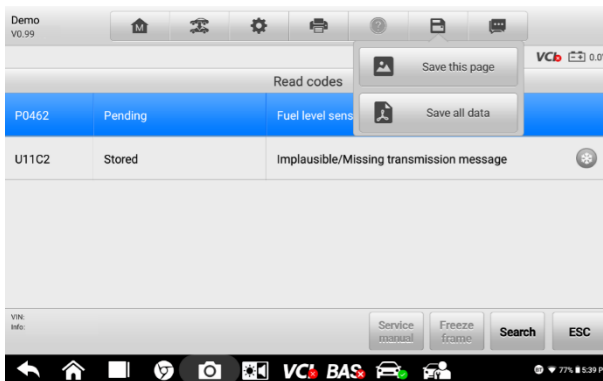
Figure 4-29 *Sample Read Codes Screen*

4.14 Exit Diagnostics

The Diagnostics application operates while communication with the vehicle is still active. It is important to properly exit from 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. Ensure all forms of communication links such as data cable, USB cable, and wireless or wired network, are properly connected throughout the test. Exit all interfaces before disconnecting the test cable and power supply.

➢ **To exit the Diagnostics application**

1. On an active diagnostic screen, tap the **Back** or **ESC** functional button to exit a diagnostic session;

   Or

2. Tap the **Vehicle Swap** button in the diagnostics toolbar to return to the Vehicle Menu screen.

3. On the Vehicle Menu screen, tap the **Home** button in 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 return to the OTOFIX Job Menu.

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

5. 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.
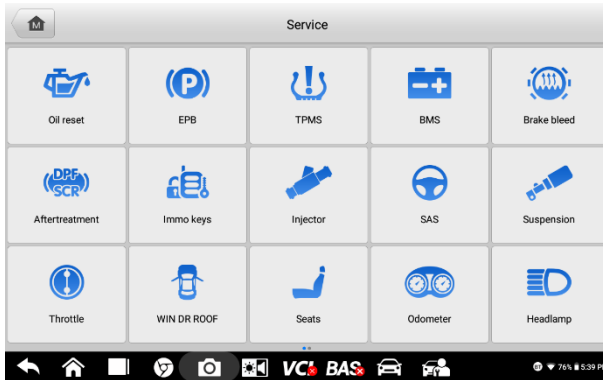
Figure 5-1 *Sample Service Menu*

In this chapter, we will discuss several of the most commonly used services.

5.1 Oil Reset Service

This function performs a reset of the Engine Oil Life system, which calculates the 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.

✐ **NOTE**
1. Always reset the engine oil life to 100% after every oil change.
2. 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.
3. For some vehicles, the scan tool can reset additional service lights such as the 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.

5.2 Electric Parking Brake (EPB) Service

This function has a multitude of ways 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.

5.2.1 EPB Safety

It can be dangerous to perform 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 EPB system.

5.3 Tire Pressure Monitoring System (TPMS) Service

This function allows you to quickly look up the tire sensor IDs from the vehicle's ECU, as well as to perform TPMS replacement and reset procedures after tire sensors are replaced.

5.4 Battery Management System (BMS) Service

The BMS allows the 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.
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 Absorbed Glass Mat (AGM) 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.

5.5 Diesel Particle Filter (DPF) Service

The DPF function manages DPF regeneration, DPF component replacement teach-in and DPF teach-in after replacing the engine control unit.

The ECM monitors driving style and selects a suitable time to employ regeneration. Cars driven a lot at idling speed and low load will attempt to regenerate earlier than cars driven more with higher load and speed. In order for regeneration to take place, a prolonged high exhaust temperature must be obtained.

In the event of the car being driven in such a way that regeneration is not possible, i.e., frequent short journeys, a DTC will eventually be registered in addition to the DPF light and "Check Engine" indicators displaying. A service regeneration can be requested in the workshop using the diagnostic tool.

Before performing a forced DPF regeneration using the tool, check the following items:

- The fuel light is not on.
- No DPF-relevant faults are stored in system.
- The vehicle has the specified engine oil.
- The oil for diesel is not contaminated.

🛈 **IMPORTANT**

Before diagnosing a problem vehicle and attempting to perform an emergency regeneration, it is important to obtain a full diagnostic log and read out relevant measured value blocks.

✎ **NOTE**

1. The DPF will not regenerate if the engine management light is on, or there is a faulty EGR valve.

2. The ECU must be re-adapted when replacing the DPF and when topping up the fuel additive Eolys.

3. If the vehicle needs to be driven in order to perform a DPF service, a second person is needed for the function. One person should drive the vehicle while the other person observes the screen on the Tool. Do not attempt to drive and observe the

scan tool at the same time. This is dangerous and puts your life and the lives of other motors and pedestrians at risk.

5.6 Immobilizer (IMMO) Service

An immobilizer is an anti-theft mechanism that prevents an automobile's engine from starting unless the correct ignition key or other device is present. This device prevents thieves from starting the car by a method known as hot wiring. Most new vehicles have an immobilizer as standard equipment. An important advantage of this system is that it doesn't require the car owner to activate it; it operates automatically. An immobilizer is considered as providing much more effective anti-theft protection than an audible alarm alone; many auto insurance companies offer lower rates for vehicles that are equipped with an immobilizer.

As an anti-theft device, an immobilizer disables one of the systems needed to start a car's engine, usually the fuel supply or the ignition. This is accomplished by radio frequency identification between a transponder in the ignition key and a radio frequency reader in the steering column. When the key is placed in the ignition, the transponder sends a signal with a unique identification code to the reader, which relays it to a receiver in the vehicle's computer control module. If the code is correct, the computer allows the fuel supply and ignition systems to operate and start the engine. If the code is incorrect or absent, the computer disables the system, and the engine will be unable to start until the correct key is placed in the ignition.

The IMMO service can disable a lost vehicle key and program the replacement key fob. One or more replacement key fobs can be programmed.

5.7 Steering Angle Sensor (SAS) Service

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

Calibration must always be carried out after the following operations:

- Steering wheel replacement
- SAS replacement
- Any maintenance that involves opening the connector hub from the SAS 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 SAS, SAS 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, and 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 any procedure, make sure the vehicle has an ESC button. Look for button on dash.

6. Data Manager

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

Selecting the Data Manager opens the file system menu. There are nine main functions available.
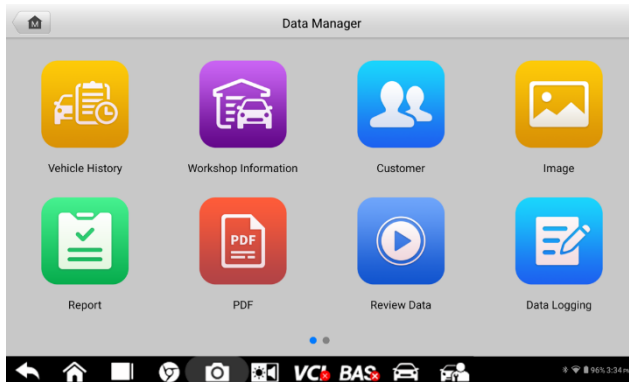
Figure 6-1 *Sample Data Manager Main Screen*

The table below briefly describes each of the function buttons in the Data Manager.

Table 6–1 *Buttons in Data Manager*

Name	Button	Description
Vehicle History		Tap to review the diagnostic history.
Workshop Information		Tap to edit the workshop profile information.
Customer		Tap to create a new customer account file.
Image		Tap to review saved screenshots
Report		Tap to view and share saved reports.
PDF		Tap to review diagnostic reports.

Name	Button	Description
Review Data	⏵	Tap to review recorded data.
Uninstall Apps	🔲	Tap to uninstall applications.
Data Logging	📝	Tap to review communications data and ECU information for the test vehicle. The saved data can be sent to the technical center via the Internet for review and for possible resolution.

6.1 Vehicle History

This function stores vehicle test records, including vehicle information and the retrieved DTCs from previous diagnostic sessions. Test information is summarized and displayed in an easy-to-read table listing. The Vehicle History also provides direct access to the previously tested vehicle and allows you to directly restart a diagnostic session without needing to perform auto or manual vehicle selection.
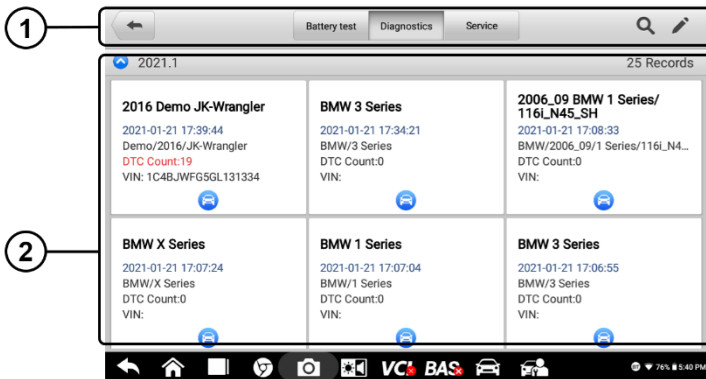
Figure 6-2 *Sample Vehicle History Screen*

1. Top Toolbar Buttons — navigation and application controls.
2. Main Section — displays all the vehicle test records.

➢ **To activate a test session for a recorded vehicle**

1. Tap **Data Manager** on the OTOFIX Job Menu.

2. Select **Vehicle History** to open the screen. Tap **Diagnostics** or **Service** to select diagnostic test records or service test records.

3. Tap **Diagnostics** icon at the bottom of the thumbnail of a vehicle record item.

4. The Diagnostics screen of the vehicle displays and a new diagnostic session is activated. See *Diagnostics* for detailed instructions on vehicle diagnostic operations.

Or,

5. Select a vehicle thumbnail to select a record. A Historical Test record sheet displays. Review the recorded information of the test vehicle, and tap the **Diagnostics** button on the upper right corner to continue diagnostics.

✎ NOTE

The OTOFIX tablet must establish a connection to the VCI device to restart test sessions on the previously tested vehicles.

6.1.1   Historical Test Records

The Historical Test is a detailed data form of the tested vehicle, which includes general vehicle information, service record, customer information, and the diagnostic trouble codes retrieved from the previous test sessions. Technician Notes will also display if present.

Figure 6-3 *Sample Historical Test Record Sheet*

➢ **To edit the Historical Test Record**

1. Tap **Data Manager** on the OTOFIX Job Menu.
2. Select **Vehicle History**.
3. Select the specific vehicle history record thumbnail from the main section. The Historical Test record will display.
4. Tap **Edit** (a pen icon) to start editing.
5. Tap each item to input information or attach files or images.

✎ NOTE

The vehicle VIN, license number and customer account information are correlated by default. Vehicle records will automatically be correlated using this vehicle and customer identification.

6. Tap **Add to Customer** to correlate the Historical Test record sheet to an existing

customer account, or add a new associated account to be correlated with the test vehicle record. See *Customer* for more information.

7. Tap **Done** to save the updated record, or tap **Cancel** to exit without saving.

6.2 Workshop Information

The Workshop Information form allows you to input, edit, and save the detailed workshop profile information, such as shop name, address, phone number, and other remarks, which, when printing vehicle diagnostic reports and other associated test files, will display as the header of the printed documents.
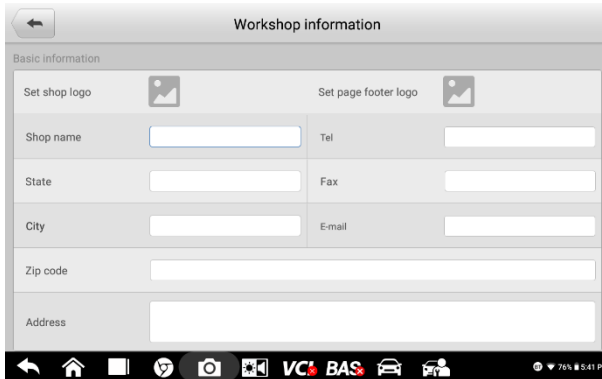
Figure 6-4 *Sample Workshop Information Sheet*

➢ **To edit the Workshop Information sheet**

1. Tap the **Data Manager** application on the OTOFIX Job Menu.
2. Select **Workshop Information**.
3. Tap on each field to input the appropriate information.
4. Tap **Done** to save the updated workshop information record, or tap **Cancel** to exit without saving.

6.3 Customer

The Customer function allows you to create and edit customer accounts. It helps you to save and organize all customer information accounts that are correlated with the associated test vehicle history records.

➢ **To create a customer account**

1. Tap the **Data Manager** application on the OTOFIX Job Menu.
2. Select **Customer**.
3. Tap the **Add a customer** button. An empty information form displays, tap each field to input the appropriate information.

4. Some customers may have more than one vehicle for service; you can always add new vehicle information to the account. Tap **Add new vehicle information**, and then fill in the vehicle information. Tap the ⊗ button to cancel.

5. Tap **Complete** to save the account, or tap **Cancel** to exit without saving.

➢ **To edit a customer account**

1. Tap **Data Manager** on the OTOFIX Job Menu.

2. Select **Customer**.

3. Select a customer account by tapping the corresponding name card. A Customer Information record displays.

4. Tap **Edit** on the top toolbar to start editing.

5. Tap on the input field to edit or amend information, and enter updated information.

6. Tap **Complete** to save the updated information, or tap **Cancel** to exit without saving.

➢ **To delete a customer account**

1. Tap **Data Manager** on the OTOFIX Job Menu.

2. Select **Customer**.

3. Select a customer account by tapping the corresponding name card. A Customer Information record displays.

4. Tap **Edit** on the top toolbar to start editing.

5. Tap **Delete** button on the top of the screen. A reminder message displays.

6. Tap **OK** to confirm the command, and the account is deleted. Tap **Cancel** to cancel the request.

6.4 Image

The Image section is a database containing all captured screenshots in PNG file format.
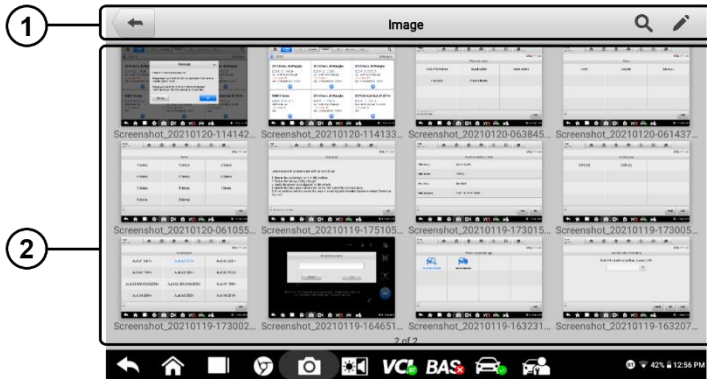
Figure 6-5 *Sample Image Database Screen*

1. Toolbar Buttons — used to edit, print or delete the image files. See *Table 6–2 Toolbar Buttons in Image Database* for detailed information.
2. Main Section — displays the stored images.

Table 6–2 *Toolbar Buttons in Image Database*

Name	Button	Description
Back	←	Return to the previous screen.
Enter Search	Q	Enter the search page.
Enter Edit	✎	Display the editing toolbar to select, delete, print, or email the image(s).
Cancel	Cancel	Close the editing toolbar or cancel file search.
Search	Q Search	Quickly searches the image by entering the time of the screenshot.
Print	🖶	Print the selected image.
Delete	🗑	Delete the selected image.
Email	✉	Send the selected image via email.

➢ **To edit/delete image(s)**

1. Select **Data Manager** from the OTOFIX Job Menu.
2. Select **Image** to access the PNG database.
3. Tap **Edit** on the top right corner of the window. The editing screen displays.
4. Select the image(s) you want to edit by tapping the check box at the bottom right corner of the image.

57

5. Tap **Delete** icon to delete the selected images or delete all images. Tap **Print** icon to print the selected image(s). Tap **Email** icon to send the selected image(s) to an email.

6.5 Report

This section stores and displays all diagnostic reports. The reports stored in the report will be uploaded automatically when you set **ON** to the Report upload to Cloud on Scan Report. Tap one of the reports to view it. Tap the **Share** icon to share the report via QR code, email, or SMS.

6.6 PDF Files

The PDF section stores and displays all PDF files of saved data. After entering the PDF database, select a file to view.

This section uses the standard Adobe Acrobat Reader application for file viewing and editing. Please refer to the associated Adobe Acrobat Reader manual for more detailed instructions.

6.7 Review Data

The Review Data section allows you to play back the recorded data frames from live data streams.

On the Review Data main screen, select a record file to play back.
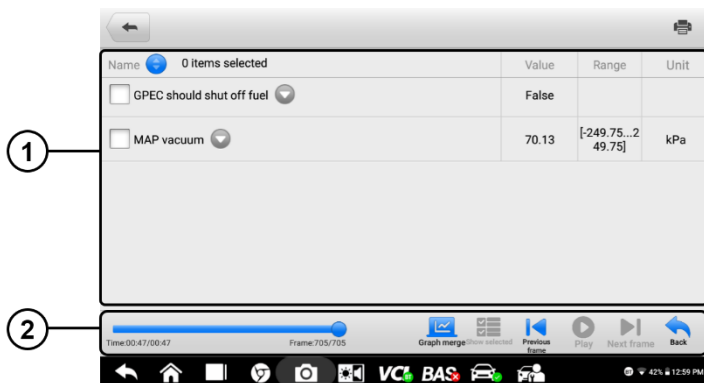
Figure 6-6 *Sample Data Playback Screen*

1. Main Section — displays the recorded data frames.
2. Navigation Toolbar — allows you to manipulate data playback.

Use the Navigation Toolbar buttons to play back the record data from frame to frame.

Tap **Back** to exit data playback.

6.8 Uninstall Apps

This section allows you to manage the software applications installed on the OTOFIX Diagnostics System. Selecting this section opens a management screen, on which you can check all the available vehicle diagnostics applications.

Select the vehicle software you want to delete by tapping on the vehicle brand icon, after which the selected item will display a blue check mark at the upper-right corner. Tap the **Delete** button on the top bar to delete the software from the system database.

6.9 Data Logging

The Data Logging section allows you to launch the Support platform to view records of all sent or unsent (saved) data loggings on the diagnostics system. For more details, please refer to *Data Logging*.

7. **Settings**

Access the Settings menu to adjust default settings and view information about the OTOFIX diagnostics system. The following options are available for the OTOFIX diagnostics system settings:

- Unit
- Language
- Printing settings
- Report settings
- Push notifications
- Notification center
- Auto update
- Vehicle list
- System settings
- About

7.1 Operations

This section describes the operation procedures for the settings.

7.1.1 Unit

This option allows you to change the units of measurement for the diagnostics system.

➢ **To adjust the unit setting**

1. Tap the **Settings** application on the OTOFIX Job Menu.
2. Tap the **Unit** option on the left column.
3. Select the appropriate units of measurement. A check mark will display to the right of the selected unit.
4. Tap the **Home** button on the top-left corner to return to the OTOFIX Job Menu, or select another settings option for further system setup.

7.1.2 Language

This option allows you to adjust the display language of the OTOFIX system.

➢ **To adjust the language setting**
   1. Tap the **Settings** application on the OTOFIX Job Menu.
   2. Tap the **Language** option on the left column.
   3. Select the appropriate language. A check mark will display to the right of the selected language.
   4. Tap the **Home** button on the top left corner to return to the OTOFIX Job Menu, or select another setting option for further system setup.

7.1.3 Print Settings

This option allows you to print from the tablet to a network printer via a computer.

➢ **To setup a printer connection**
   1. Tap **Settings** on the OTOFIX Job Menu.
   2. Tap **Printing Settings** on the left column.
   3. Tap **Print via network** to activate the printing function, which enables the device to send files to the printer through the PC via Wi-Fi connection.
   4. Tap **Home** on the top-left corner to return to the OTOFIX Job Menu, or select another setting option for further system setup.

Printing Operations

➢ **To install the MaxiSys Printer driver**
   1. Download **Maxi PC Suite** from *www.otofixtech.com* > *Support Center* > *Downloads* > *Diagnostic Tool tab* > *OTOFIX Update Tools*, and install to your Windows-based PC.
   2. Double-click on **Setup.exe**.
   3. Select an installation language to launch the installation wizard.
   4. Follow the instructions on the screen and click on **Next** to continue.
   5. Click **Install** and the printer driver will be installed on to the computer.
   6. Click **Finish** to complete the installation.

This section describes how to receive files from the tablet and perform printing through the computer:

➢ **To print from a computer**
   1. Make sure the tablet is connected to the computer network via Wi-Fi or LAN before printing.
   2. Run the **MaxiSys Printer** program on the computer.
   3. Click **Test Print** to check whether the printer works properly.
   4. Tap the **Print** button on the toolbar of the tablet. A test document will be sent to the computer.

- If the **Auto Print** option in the MaxiSys Printer is selected, the MaxiSys printer will automatically print the received document.

- If the **Auto Print** option in the MaxiSys Printer is not selected, click the **Open PDF File** button to view files. Select the file(s) to be printed and click **Print**.

⊘**NOTE**

Make sure the computer with the Printing Services program installed is connected to a printer.

7.1.4 Report Settings

This option automatically synchronizes the diagnostics information of the vehicle to the vehicle history and forms a diagnostics report for the user to upload. Tap the **ON/OFF** button to enable/disable the **Report Upload to Cloud** function. The buttons appear blue if the function is enabled and gray if the function is disabled.

7.1.5 Push Notifications

This option allows you to manage notifications. The Notification Preference is turned on by default and cannot be turned off by users so that certain system notifications such as system security warnings will not be blocked. Internet access is required for receiving on-line messages.

➢ **To manage other notifications**

1. Tap the **Settings** application on the OTOFIX Job Menu.

2. Tap the **Push Notifications** option on the left column.

3. Tap the ⌄ button on the right to open a drop-down list.

4. There are four options: Enable all notifications, Limit to 3 notifications or less per week, Limit to 1 notification per week, and Disable all notifications. Select an option you want.

5. Tap the **Home** button on the top-left corner to return to the OTOFIX Job Menu. Or select another settings option for the system setup.

When the new messages are received by the OTOFIX device, a notification message displays on the OTOFIX Job Menu. Press on the message bar and drag it down, and the received messages are shown in the list. Slide the list up or down to view all if the message list covers more than one screen. Tapping a specific message launches the corresponding application.

7.1.6 Notification Center

This option allows you to turn the Notification Center function on or off. The Notification Center function configures the OTOFIX tablet to receive regular online messages from the server for system update notifications or other service information via the Internet. It is highly recommended that the Notification setting be on at all times so as not to miss news of updates or important service messages. Internet access is required for receiving online messages.

➢ **To enable the Notification Center function**
1. Tap **Settings** on the OTOFIX Job Menu.
2. Tap **Notification center** on the left column.
3. Tap **ON/OFF** to enable or disable the Notifications function. If the function is enabled, the button displays blue; if disabled, the button displays gray.
4. Tap **Home** on the top left corner to return to the OTOFIX Job Menu, or select another setting option for further system setup

When the Notification Center function is turned on and new messages are received by the OTOFIX device, a notification message displays on the OTOFIX Job Menu. Press on the message bar and drag it down to display a list of received messages. Slide the list up or down to view additional messages if present.

Tap a specific message to launch the corresponding application. For example, if you tap on an Update notification message, the Update application will be launched.

7.1.7 Auto Update

This option allows you to set the specific time for updating software automatically. There are three update options: OS Update, OTOFIX Update and Vehicle Update.

Tap **ON/OFF** to enable Auto Update. The button displays blue if Auto Update is enabled and displays gray if the Auto Update is disabled. Set the time of the day for updating. If a specific time is set, the selected software will be automatically updated at that specific time.

7.1.8 Vehicle List

This option allows you to sort the vehicles either by alphabetic order or by frequency of use.

➢ **To adjust the vehicle list setting**
1. Tap the **Settings** application on the OTOFIX Job Menu.
2. Tap **Vehicle list** on the left column.
3. Select the required sort order. A check mark will display to the right of the selected language.

4. Tap the **Home** button in the top-left corner to return to the OTOFIX Job Menu, or select another settings option for further system setup.

7.1.9 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 operating system, regarding wireless and networks settings, various device settings such as sound and display, as well as system security settings, and check related information about the Android system. Refer to your Android documentation for additional information.

7.1.10 About

The About function provides information about the OTOFIX diagnostics device including the product name, version, hardware, and serial number.

➢ **To check the product information in About**

1. Tap the **Settings** application on the OTOFIX Job Menu.
2. Tap the **About** option on the left column. The product information screen displays on the right.
3. Tap the **Home** button in the top-left corner to return to the OTOFIX Job Menu, or select another settings option for further system setup.

8. Update

The internal programming of the OTOFIX Diagnostics System, known as the software, can be updated using the Update application. Software updates increase the OTOFIX applications' capabilities, typically by adding new tests, expanded vehicle coverage, or enhanced applications.

The device automatically searches for available updates for all of the OTOFIX 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 OTOFIX Diagnostics System software. A notification message displays if an update is available when the Notifications function is enabled in the Settings application.

Figure 8-1 *Sample Update Screen*

1. Navigation and Controls

    ● Home Button — returns to the OTOFIX Job Menu.

    ● Renew — renews the subscription.

    ● Refresh — refreshes the interface.

    ● Search — searches specific update item by entering the file name, for example: a vehicle make.

2. Status Bar

    ● Left Side — displays the OTOFIX device model information and serial number.

    ● Right Side — displays an update progress bar indicating the completion status.

3. Function Button

    ● Name (A–Z) — tap to change the sort order of available updates. There are 5 ways to view updates: Date (Old to New), Date (New to Old), Frequency, Name

(A–Z), and Name (Z–A).

- Bulk Update — updates all available updates.

4. Main Section

- Left Column — displays vehicle logos and update software version information.
- Middle Column — displays a brief introduction about the new changes to the software operation or capabilities. Tap the 💬 button to view more details, and tap the dim area outside the information box to close the window.
- Right Column — depending on the operation status of each software item, the button displays differently:
    a) Tap **Get** to update the selected item.
    b) Tap **Pause** to suspend the updating procedure.
    c) Tap **Continue** to continue updating a paused update.

➢ **To update the software**

1. Power up the tablet and ensure that it is connected to a power source and has a steady Internet connection.
2. Tap the **Update** application button from the OTOFIX Job Menu; or tap the update notification message when received. The Update application screen displays.
3. Check all available updates.
    - If you decide to update all items, tap the **Bulk Update** button.
    - If you only want to update some items, tap the **Get** icon on the right column of the specific item.
4. Tap the **Pause** button to suspend the updating process. Tap **Continue** to resume the update and the process will continue from the pause point.
5. When the updating process is completed, the software will be installed automatically. The new version will replace the older version.

9. VCI Manager

The VCI Manager is an application for connecting the OTOFIX tablet with a VCI device and checking the communication status.

The OTOFIX diagnostics system supports battery test function with the OTOFIX BT1 Lite Smart Battery Tester (purchased separately).
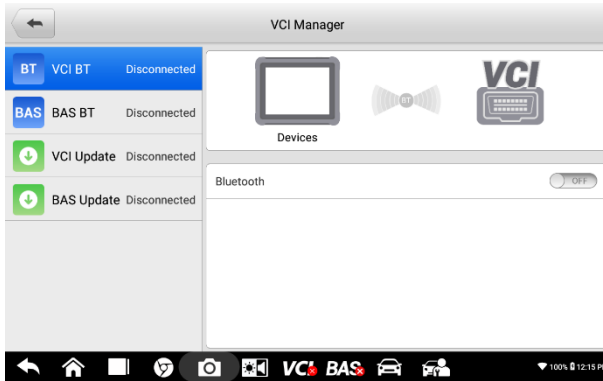
Figure 9-1 *Sample VCI Manager Screen*

1. **Connection Mode** — four connection modes are available. The connection status appears adjacent to each mode.

   1) VCI BT Pairing — when the VCI is paired to a wireless device, the connection state reads "Connected". Otherwise it reads "Disconnected".

   2) BAS BT Pairing — when the battery tester is paired successfully via Bluetooth, the connection state reads "Connected". Otherwise it reads "Disconnected".

   3) VCI Update — updates VCI software via Internet through the diagnostic tablet networking via Bluetooth pairing.

   4) BAS Update — updates the battery tester software

      ➢ Select a connection mode to manage and set up a connection.

2. **Settings** — this section allows you to manage wireless connectivity.

   ● BT Setting — searches and displays the type and partial serial number of devices available for Bluetooth pairing. Tap a device to start pairing. The BT status icon displays the received signal strength for the device.

9.1 VCI BT Pairing

Bluetooth (BT) Paring provides a simple wireless connection. The VCI device needs to be either connected to a vehicle or to an available power source, so that it is powered up during the synchronization procedure. Make sure the tablet has a fully charged battery or is connected to an AC/DC power supply.
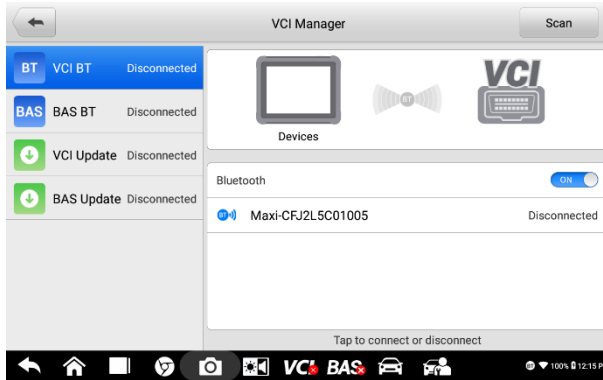
Figure 9-2 *Sample VCI BT Pairing Screen*

➢ **To pair the VCI device with the tablet via Bluetooth**

1. Power on the tablet.

2. Insert the 16-pin vehicle data connector of the OTOFIX V1 to the vehicle data link connector (DLC).

3. Tap **VCI Manager** on the OTOFIX Job Menu of the tablet.

4. Select **VCI BT** from the connection mode list.

5. Swipe the Bluetooth toggle button to **ON**. Tap **Scan** at the top-right corner. The device will start to search for available pairing units.

6. Depending on the type of VCI you use, the device name may display as "Maxi" suffixed with a serial number. Select the appropriate device for pairing.

7. When paired successfully, the connection status reads "Connected".

8. Wait a few seconds, and the VCI button on the system Navigation bar at the bottom of the screen will display a green BT mark, indicating the tablet is connected to the VCI device.

9. To disconnect the device, tap the connected device listing again.

10. Tap **Back** on the top left to return to the OTOFIX Job Menu.

✐NOTE

A VCI device can be paired to only one tablet at a time, and once it's been paired, the device will not be discoverable for any other unit.

9.2 BAS BT Pairing

Ensure that the BT1 Lite Smart Battery Tester is sufficiently charged or is connected to the external power supply before use.

➢ **To pair the BT1 Lite Smart Battery Tester with the tablet**

1. Power on the diagnostics tablet and the smart battery tester.
2. Connect the red clamp to the positive (**+**) battery terminal and the black clamp to the negative (**–**) battery terminal.
3. Tap **VCI Manager** on the OTOFIX Job Menu of the tablet.
4. Select **BAS BT** from the connection mode list.
5. Swipe the Bluetooth toggle button to **ON**. Tap **Scan** at the top-right corner. The device will start to search for available pairing units.
6. Depending on the type of battery tester, the device name may display as "Maxi" suffixed with a serial number. Select the appropriate device for pairing.
7. When paired successfully, the connection status reads "Connected"**.**
8. Wait a few seconds and the BAS button on the system Navigation bar at the bottom of the screen will display a green BT mark, indicating the tablet is connected to the battery tester.
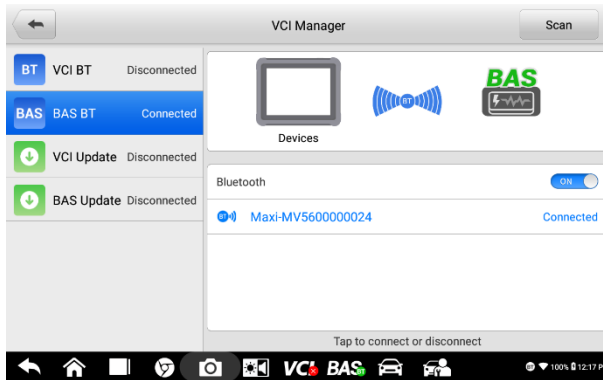
Figure 9-3 *Sample BAS BT Pairing Screen*

9.3 VCI Update

The Update module provides the latest update for the OTOFIX VCI. Before updating the VCI, please ensure your network connection is stable.
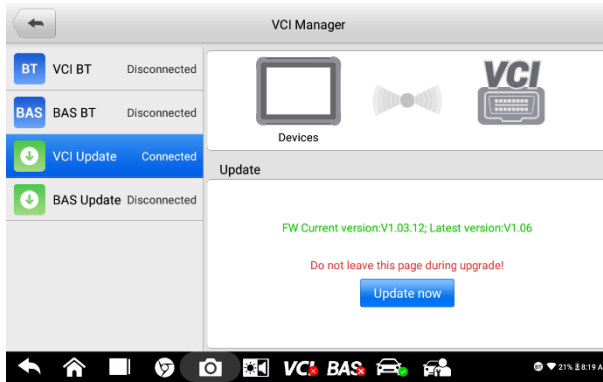
Figure 9-4 *Sample VCI Update Screen*

➢ **To update the VCI device**

1. Power on the tablet. Insert the OTOFIX V1 to the vehicle's DLC.
2. Connect the V1 to the tablet via USB cable.

⊘**NOTE**

The USB-C to USB-C cable should be purchased separately.

3. Tap **VCI Manager** on the OTOFIX Job Menu of the tablet.
4. Select **VCI Update** from the connection mode list.
5. The current version and the latest version of the device will be displayed. Tap **Update Now** to update the VCI.

9.4 BAS Update

Before updating the BT1 Lite Smart Battery Tester, please ensure your network connection is stable.

➢ **To update the battery tester**

1. Power on the battery tester and the tablet.
2. Connect the battery tester to the tablet via Bluetooth or USB cable.

⊘**NOTE**

The USB-C to USB-C cable should be purchased separately.

3. Tap **VCI Manager** on the OTOFIX Job Menu of the tablet.
4. Select **BAS Update** from the connection mode list.
5. The current version and the latest version display on the page. Tap **Update Now** to update the battery tester.
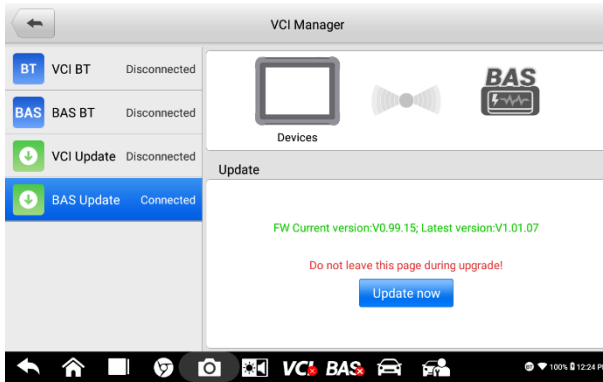
Figure 9-5 *Sample BAS Update Screen*

10. Support

This application launches the Support platform which synchronizes Autel's online support service with the OTOFIX tablet. In order to synchronize the device to your online account, you need to register the product through the Internet when you use it for the first time. The Support application is connected to Autel's service channel and online communities that provides the quickest way to find solutions to common problems, allowing you to submit questions complaints and help requests to obtain direct service and support from the online community.

10.1 Product Registration

In order to get access to the Support platform and obtain update and other services from Autel, you are required to register the OTOFIX Diagnostic Device the first time you use it.

➢ **To register the diagnostic device**

1. Visit the website: http://pro.otofixtech.com
2. If you have an Autel account, sign in with your account ID and password.
3. If you are a new member to Autel, click on the **Create Autel ID** button on the left side to create an ID.
4. Enter the required information in the input fields, and click the **Get Verification Code** button to get the verification code for email validation.
5. The online system will automatically send a verification code to the registered email address. Input the code in the Verification Code field and fill in the other input fields, read through Autel's Terms and Conditions and click on **Agree**, and then click **Create Autel ID** at the bottom. A product registration screen will display.
6. The device's serial number and password is located in the *About* section of the Settings application on the tablet.
7. Select your product model, enter the product serial number and password on the Product Registration screen, and tap **Submit** to complete the registration procedure.

10.2 Support Screen Layout

The Support application interface is navigated by the Home Button on the top navigation bar:

- Home Button — returns to the OTOFIX Job Menu
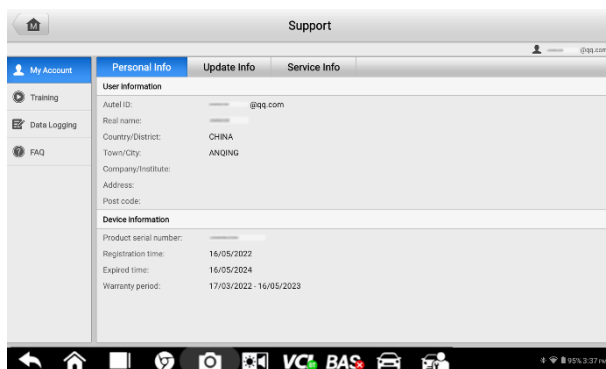
Figure 10-1 *Sample Support Application Screen*

The main section of the Support screen is divided into two sections. The narrow column on the left is the main menu; selecting one subject from the main menu displays the corresponding functional interface on the right

10.3 My Account

The My Account screen displays the comprehensive information of the user and the product, which is synchronized with the online registered account, including Personal Info, Update Info and Service Info.

10.3.1 Personal Info

The User Info and Device Info are both included under the Personal Info section.

- User Info — displays detailed information of your registered online Autel account, such as your Autel ID, Name, Address and other contact information.
- Device Info — displays the registered product information, including the Serial Number, Registration Date, Expire Date, and Warranty Period.

10.3.2 Update Info

The Update Info section displays a detailed list of the product's software update history, including the product serial number, software version or name, and the update time.

10.3.3 Service Info

The Service Info section displays a detailed record list of the device's service history information. Every time the device has been sent back to Autel for repair, the device's serial number and the detailed repair information, such as the fault type, changed

components, or system reinstallation will be recorded and updated to the associated online product account that will be synchronized to the Service Info section.

10.4 Data Logging

The Data Logging section keeps a record of tickets (with and without feedback from Autel Tech Support) and a **History** (the latest 20) data logs on the diagnostics system. Autel support personnel will receive and process these submitted reports through the Support platform. The solution will be sent back within 48 hours. You may continue to correspond with Autel Tech Support until the issue is resolved.
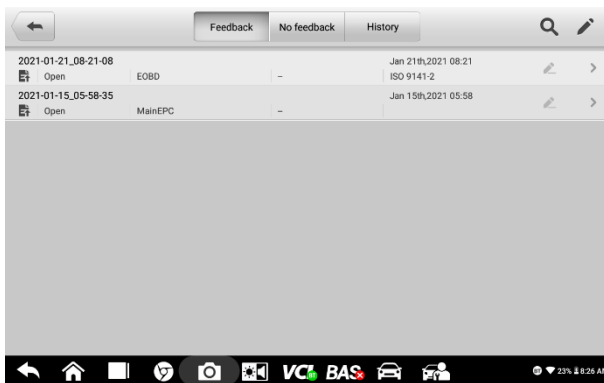
Figure 10-2 *Sample Data Logging Screen*

➢ **To issue a reply in a Data Logging section**

1. Tap on the **Feedback** tag to view the list of submitted data logs.
2. Select the latest message from Autel Tech Support.
3. Tap on the input field on the bottom of the screen and enter your reply. Additionally, you may tap the Audio button to record a voice message or tap the camera button to take a screenshot.
4. Tap **Send** to deliver your message to Support.

10.5 Training

The Training section provides quick links to Autel's online video library. Select a video channel by language to see all available Autel online tutorial videos on such topics as product usage techniques and vehicle diagnostics practices.

10.6 FAQ

The FAQ section provides comprehensive references for all questions frequently asked and answered about the use of Autel's online member account and shopping and payment procedures.

● Account — displays questions and answers about the use of Autel's online user account.
● Shopping & Payment — displays questions and answers about online product purchases and payment methods or procedures.

11. Remote Desktop

The Remote Desktop application launches the TeamViewer Quick Support program — a simple, fast, and secure remote-control interface. You can use the application to receive ad-hoc remote support from Autel's support center, colleagues, or friends by allowing them to control your OTOFIX tablet on their PC via the TeamViewer software.

11.1 Operations

If you think of a TeamViewer connection as a phone call, the TeamViewer ID would be the phone number under which all TeamViewer Clients can be reached separately. Computers and mobile devices that run TeamViewer are identified by a unique global ID. The first time the Remote Desktop application is started, this ID is generated automatically based on the hardware characteristics and will not change.

Make sure the tablet is connected to the Internet before launching the Remote Desktop application, so that the tablet is able to receive remote support from the third party.
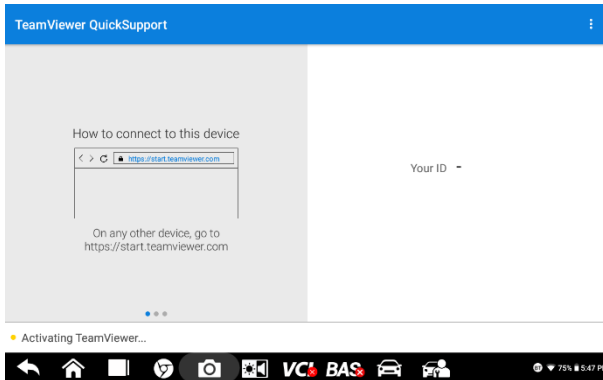
Figure 11-1 *Sample Remote Desktop Screen*

➢ **To receive remote support from a partner**

1. Power on the tablet.

2. Tap the **Remote Desktop** application on the OTOFIX Job Menu. The TeamViewer interface appears and the device ID is generated and displayed.

3. Your partner must install the Remote Control software to their computer by downloading the TeamViewer program (full version) online (http://www.teamviewer.com). Start the software on their computer at the same time in order to provide support and take control of the tablet remotely.

4. Provide your ID to the partner, and wait for them to send you a remote control request.
5. A message displays to ask for your confirmation to allow remote control on your device.
6. Tap **Allow** to accept, or tap **Deny** to reject.
7. Refer to the associated TeamViewer documents for additional information.

12. Quick Link

The Quick Link application provides you with convenient access to OTOFIX's official website and many other well-known sites in the automotive service industry to provide technical help, knowledge bases, forums, training and expert consultations.
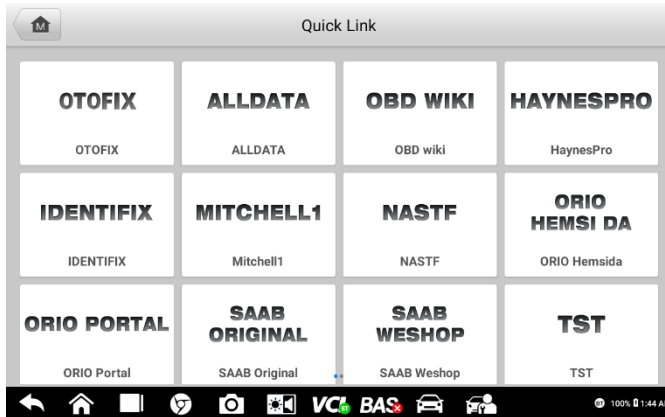
Figure 12-1 *Sample Quick Link Screen*

➢ **To open a quick link**

1. Tap **Quick Link** on the OTOFIX Job Menu. The Quick Link application screen appears.
2. Select a website thumbnail from the main section. The Chrome browser is launched and the selected website is opened.
3. Now you can start exploring the website.

13. Battery Test

The OTOFIX BT1 Lite Smart Battery Tester is a battery and electrical system analysis tool that uses Adaptive Conductance, an advanced battery analysis method that produces more accurate examination of the battery's cold cranking ability and reserve capacity, vital to determining a battery's true health. The BT1 Lite enables technicians to view the health status of the vehicle's battery and electrical system.

⊘**NOTE**

The OTOFIX BT1 Lite Smart Battery Tester should be purchased separately.

The Battery Test application is accessible when the BT1 Lite Smart Battery Tester is used in combination with the OTOFIX diagnostic tablet. It provides four functions including in-vehicle test, out-vehicle test, battery change and battery reset to perform battery diagnosis.

Please refer to the latest user manual of OTOFIX BT1 Lite Smart Battery Tester from the official website www.otofixtech.com for detailed operation.

14. MaxiViewer

The MaxiViewer allows you to search the functions supported by our tools and the version information. There are two ways of searching, either by searching the tool and the vehicle or searching the functions.

➢ **To search by the vehicle**

1. Tap the **MaxiViewer** application on the OTOFIX Job Menu. The MaxiViewer application screen appears.

2. Tap the tool name from the dropdown list in the upper-left corner and select the one you want to search.

3. Tap the vehicle brand, model, and year you want to search.

4. All the functions supported by the selected tool for the selected vehicle are displayed within three columns: function, sub function, and version.

➢ **To search by the functions**

1. Tap the **MaxiViewer** application on the OTOFIX Job Menu. The MaxiViewer application screen displays.

2. Tap the tool name on the top left to dropdown the tool list, tap the one you want to search.

3. Enter the function you want to search in the top right search box. The screen will display all vehicles that support this function, along with information such as the vehicles' year, system, capacity, type, function, sub-function, and version.

⌀**NOTE**

Partial search is supported: type in any part of the function-related keywords to find all available information.

15. **Maintenance and Service**

To ensure that the tablet and the combined VCI unit perform at their optimum level, we advise that the product maintenance instructions covered in this section are strictly followed.

15.1 Maintenance Instructions

The following includes instructions on how to maintain your devices, together with precautions to take.

- Use a soft cloth and alcohol or a mild window cleaner to clean the touchscreen of the tablet.
- Do not use any abrasive cleansers, detergent, or automotive chemicals to the tablet.
- Keep the devices in dry conditions and within specified operating temperatures.
- Dry your hands before using the tablet. The touch screen of the tablet may not work if the touch screen is moist, or if you tap the touch screen with wet hands.
- Do not store the devices in humid, dusty or dirty areas.
- Check the housing, wiring, and connectors for dirt and damage before and after each use.
- Check the housing, wiring, and connectors for dirt and damage before and after each use.
- Do not attempt to disassemble your tablet or the VCI unit.
- Do not drop or cause severe impact to the devices.
- 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 use the tablet beside microwave ovens, cordless phones and some medical or scientific instruments to prevent signal interference.

15.2 Troubleshooting Checklist

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 if is not in use.

C. When you cannot turn on the tablet:

- Make sure the tablet is connected to a power source or the battery is charged.

D. When you are 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. Charge the device in a cooler or warmer area.
- Your device may have not been connected to the charger properly. Check the connector.

⊘ NOTE
If the problems persist, please contact Autel's technical support personnel or your local selling agent.

15.3 About Battery Usage

Your tablet is powered by a built-in lithium-ion polymer battery, which enables you to recharge your battery when there is electricity left.

⚠ DANGER
The built-in Lithium-ion Polymer battery is factory replaceable only; incorrect replacement or tampering with the battery pack may cause an explosion.

- Do not use a damaged battery charger.
- Do not disassemble, open, crush, bend, deform, puncture, or shred the battery.
- Do not modify, remanufacture or attempt to insert foreign objects into the battery, or expose the battery to fire, explosion, or other hazards.
- Only use the specified charger and USB cables. Use of non-Autel-authorized charger or USB cables may lead to device malfunction or failure.
- Use of an unqualified battery or charger may present a risk of fire, explosion, leakage, or other hazards.
- Avoid dropping the tablet. If the tablet is dropped, especially on a hard surface, and you suspect damage, take the tablet to a service center for inspection.
- Try to keep closer to your wireless router to reduce battery usage.
- The time needed to recharge the battery varies depending on the remaining battery capacity.
- Battery life inevitably shortens over time.

- Unplug the charger once the tablet is fully charged since overcharging may shorten battery life.
- Keep the battery in temperate environments. Do not place it inside a car when it is too hot or too cold, which may reduce the capacity and life of the battery.

15.4 Service Procedures

This section provides information on technical support, repair service, and application for replacement or optional parts.

15.4.1 Technical Support

If you have any question or problem on the operation of the product, please contact us.

NORTH AMERICA

- **Phone**: (833) 686-1349 (OTO-1FIX) Monday-Friday 9am-6pm EST
- **Website:** www.otofixtech.com
- **Email**: ussupport@otofixtech.com
- **Address**: 36 Harbor Park Drive, Port Washington, New York, USA 11050

CHINA HEADQUARTERS

- **Phone**: 0086-755-2267-2493
- **Website**: www.otofix.cn
- **Email**: support@otofixtech.com
- **Address**: 7-8th, 10th Floor, Building B1, Zhiyuan, Xueyuan Road, Xili, Nanshan, Shenzhen, 518055, China

EUROPE

- **Phone**: +49 895 40299621 (Monday-Friday, 9:00AM-6:00PM Berlin Time)
- **Email**: support.eu@otofixtech.com
- **Address**: Landsberger Str. 408, 4. OG, 81241 München, Germany

LATIN AMERICA

- **Email**: latsupport@otofixtech.com
- **Address**: Avenida Americas 1905, 6B, Colonia Aldrete, Guadalajara, Jalisco, Mexico

APAC

- **Phone**: +045 5948465
- **Email**: apacsupport@otofixtech.com

● **Address**: 719, Nissou Building, 3-7-18, Shinyokohama, Kouhoku, Yokohama, Kanagawa, Japan 222-0033

IMEA DMCC

● Phone: +971 585 002709

● Email: imeasupport@otofixtech.com

● Address: Office 1006-1010, Cluster C, Fortune Tower, Jumeirah Lakes Tower (JLT), Dubai, U.A.E

For technical assistance in other markets, please contact your local selling agent.

15.4.2 Repair Service

If it becomes necessary to return your device for repair, please download the repair service form from www.otofixtech.com, and fill in the form. The following information must be included:

● Contact name

● Return address

● Telephone number

● Product name

● Complete description of the problem

● Proof-of-purchase for warranty repairs

● Preferred method of payment for non-warranty repairs

⊘ NOTE

For non-warranty repairs, payment can be made with Visa, Master Card, or with approved credit terms.

Send the device to your local agent, or to the address below:

7-8th, 10th Floor, Building B1, Zhiyuan, Xueyuan Road, Xili, Nanshan, Shenzhen, 518055, China

15.4.3 Other Services

You can purchase the optional accessories directly from Autel's authorized tool suppliers, and/or your local distributor or agent.

Your purchase order should include the following information:

● Contact information

● Product or part name

● Item description

- Purchase quantity

16. Compliance Information

FCC Compliance   **FCC ID: WQ8MAXIBASBT609**

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

● Reorient or relocate the receiving antenna.

● Increase the separation between the equipment and receiver.

● Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.

● Consult the dealer or an experienced radio/TV technician for help.

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions:

(1) This device may not cause harmful interference, and

(2) This device must accept any interference received, including interference that may cause undesired operation.

Any Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 20cm between the radiator & your body.

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. End user must follow the specific operating instructions for satisfying RF exposure compliance.

The device is designed to meet the requirements for exposure to radio waves established by the Federal Communications Commission (USA). These requirements set a SAR limit

of 1.6 W/kg averaged over one gram of tissue. The highest SAR value reported under this standard during product certification for use when properly worn on the body is 2.019 W/kg.

17. Warranty

17.1 12-Month Limited Warranty

Autel Intelligent Technology Corp., Ltd. (the Company) warrants to the original retail purchaser of this Diagnostic tablet that should this product or any part thereof during normal usage and under normal conditions be proven defective in material or workmanship that results in product failure within twelve (12) months period from the date of purchase, such defect(s) will be repaired, or replaced (with new or rebuilt parts) with Proof of Purchase, at the Company's option, without charge for parts or labor directly related to the defect(s).

⊘ NOTE
If the warranty period is inconsistent with local laws and regulations, please comply with the relevant local laws and regulations.

The Company shall not be liable for any incidental or consequential damages arising from the use, misuse, or mounting of the device. Some states do not allow limitation on how long an implied warranty lasts, so the above limitations may not apply to you.

This warranty does not apply to:

a) Products subjected to abnormal use or conditions, accident, mishandling, neglect, unauthorized alteration, misuse, improper installation or repair or improper storage;

b) Products whose mechanical serial number or electronic serial number has been removed, altered or defaced;

c) Damage from exposure to excessive temperatures or extreme environmental conditions;

d) Damage resulting from connection to, or use of any accessory or other product not approved or authorized by the Company;

e) Defects in appearance, cosmetic, decorative or structural items such as framing and non-operative parts.

f) Products damaged from external causes such as fire, dirt, sand, battery leakage, blown fuse, theft or improper usage of any electrical source.

❶ IMPORTANT
All contents of the product may be deleted during the process of repair. You should create a back-up copy of any contents of your product before delivering the product for warranty service.